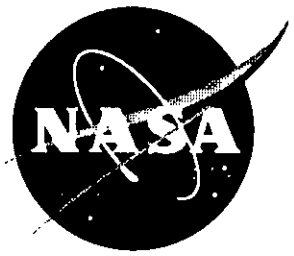


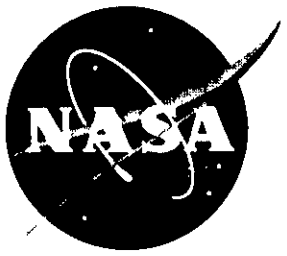
NASA Technical Memorandum 108468

Dynamics Explorer 1, Retarding Ion Mass Spectrometer Summary Spectrograms—82/001 to 82/109 Spin-Time Spectrograms for H^+, He^+, O^+, N^+, O^{++}, M/Z = 2, and Molecular Ions

DE 1/RIMS Investigators

October 1994

NASA Technical Memorandum 108468



Dynamics Explorer 1, Retarding Ion Mass Spectrometer Summary Spectrograms—82/001 to 82/109 Spin-Time Spectrograms for H^+, He^+, O^+, N^+, O^{++}, M/Z = 2, and Molecular Ions

DE 1/RIMS Investigators
Marshall Space Flight Center • MSFC, Alabama

National Aeronautics and Space Administration
Marshall Space Flight Center • MSFC, Alabama 35812

October 1994

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NASA TECHNICAL MEMORANDUM

DYNAMICS EXPLORER 1, RETARDING ION MASS SPECTROMETER SUMMARY SPECTROGRAMS

82/001 TO 82/109 SPIN-TIME SPECTROGRAMS FOR H^+, HE^+, O^+, N^+, O^{++}, M/Z=2, AND MOLECULAR IONS

I. INTRODUCTION TO THE DE MISSION AND THE RIMS INSTRUMENT

The introductory material is taken, in part, from the following sources:

Chappell, C. R., S. A. Fields, C. R. Baugher, J. H. Hoffman, W. B. Hanson, W. W. Wright, H. D. Hammack, G. R. Carignan, and A. F. Nagy, The Retarding Ion Mass Spectrometer on Dynamics Explorer-A, *Space Sci. Instrum.*, *5*, 477, 1981

Fields, S. A., C. R. Baugher, C. R. Chappell, D. L. Reasoner, H. D. Hammack, W. W. Wright, and J. H. Hoffman, Instrument manual for the retarding ion mass spectrometer on Dynamics Explorer-1, NASA Technical Memorandum, NASA TM-82484, 1982

Hoffman, R. A., C. D. Hogan, and R. C. Maehl, Dynamics Explorer spacecraft and ground operations systems, *Space Sci. Instrum.*, *5*, 349-367, 1981.

Hoffman, R. A., The magnetosphere, ionosphere, and atmosphere as a system: Dynamics Explorer 5 years later, *Rev. Geophys.*, *26*, 209, 1988

Olsen, R. C., R. H. Comfort, M. O. Chandler, T. E. Moore, J. H. Waite, Jr., D. L. Reasoner, and A. P. Biddle, DE 1 RIMS operational characteristics, NASA Technical Memorandum, NASA TM-86527, 1985

A. DESCRIPTION OF SPACECRAFT

On August 3, 1981, a Delta rocket launched from Vandenberg Air Force Base successfully placed the two Dynamics Explorer (DE) spacecraft into coplanar polar orbits. The purpose of the mission was to acquire data relevant to processes coupling the magnetosphere, ionosphere, and upper atmosphere. The two spacecraft were manufactured by the Government System Division of RCA, and the instruments were provided by various principal investigators. A complete description of the mission, spacecraft, instruments, and ground data systems appears in an issue of *Space Science Instruments* (Volume 5, pp. 345-573, 1981), edited by R. A. Hoffman. The high-altitude satellite, DE 1, carried an auroral imager and detectors designed primarily for field and particle measurements. The low-altitude satellite carried more aeronomic-type instruments. The orbits of the two satellites remained very nearly coplanar during their joint lifetimes, providing the unique opportunity to acquire data at two altitudes along common magnetic flux tubes. DE 2, operating at ionospheric altitudes, re-entered the atmosphere in February 1983. DE 1 ceased data collection operations in March 1991.

Both spacecraft were power limited and considerable effort was expended in selecting portions of orbits for maximum science return. DE 1 had a duty cycle of nearly 90% during the early portion of the mission, but in general varied between 16-55%. DE 2 had a duty cycle between 16 and 36%. Times of magnetic conjunction between the spacecraft, or between one spacecraft and a collaborating ground observatory, were given high priority. Also, data acquisition during passages through geophysical regions like the dayside cusp and plasmapause WAS emphasized.

B. ORBIT INFORMATION

The DE 1 satellite, carrying the RIMS experiment, was launched into an elliptical polar orbit on August 3, 1981. The ~7.5 hour orbit has perigee of 675 km altitude and apogee of 24,875 km altitude. The orbit plane drifts westward at a rate of ~1 hour MLT every 15.4 days (24 hours in 12 months); the orbit line of apsides drifts about 0.328° geographic latitude each day (moving from one pole to the other in 18 months). Thus, the orbit which started in the dawn-dusk plane with apogee over the north pole precessed to noon-midnight, with apogee over the midnight equator by the spring of 1982. The apogee continued to sweep around in latitude, bringing its position over the south pole during the summer of 1983, the noon sector equator during the spring of 1984, and returned to approximately its original position during the winter of 1984.

Note that while the DE 1 orbit provides coverage for most all local times and latitudes out to the apogee at 4.65 R_E, the 3 to 1 ratio between the drift of the line of apsides and the westward drift of the orbital plane results in uneven coverage in local time for a given altitude. In particular, in the 12-18 hour magnetic local time sector, the higher altitudes in the auroral latitude region were not fully sampled.

The spacecraft spins in a reverse cartwheel mode, at 10 rpm with its spin axis perpendicular to the orbit plane. The spacecraft orbital-plane is roughly coincident with the magnetic field meridian plane so that the radial head (mounted perpendicular to the spin axis) responds to ion fluxes for nearly the full range of magnetic pitch angles (-180° to +180°).

C. DESCRIPTION OF THE INSTRUMENT

The Retarding Ion Mass Spectrometer (RIMS) experiment onboard the DE 1 satellite was designed to perform energy and mass-per-charge analysis on low-energy ions (<50 eV) with mass/charge ranging from 1 to 40 amu/Z. The instrument is fully described by Chappell et al. (The Retarding Ion Mass Spectrometer on Dynamics Explorer-A, *Space Sci. Instrum.*, *4*, 477, 1981). RIMS has significantly improved capabilities over previous retarding potential analyzer instruments (RPA) by providing ion mass/charge separation so that RPA and spin curves are obtained separately for each programmed species. These enhanced instrument

capabilities, combined with the DE 1 orbit, produced a unique opportunity to investigate the variable dynamics and composition of the low-energy ion population in the near-Earth space environment.

DE 1 RIMS consists of four instrument assemblies interconnected to form one experiment. Three of the assemblies are sensor heads and one is the central electronics assembly. The three heads are labeled according to the mounting axis on the DE 1 spacecraft: Radial, +Z, and -Z. The radial sensor views perpendicular to the spacecraft spin axis, while the ±Z sensors on the ends of the spacecraft view parallel and anti-parallel to the spin axis. The central electronics assembly (CEA) provides the spacecraft interface, all data processing, command decoding, and complete timing control of the entire RIMS experiment.

Each sensor head consists of an RPA followed by a magnetic mass analyzer with two separate exit slits corresponding to two mass/charge ranges in the ratio 1:4. The total mass/charge range covered is 1 to 40 amu/Z. Surrounding and attached to the entrance of the sensor head is a 20-cm circular aperture plate. The plate is connected to a relay which can, on command, connect to either spacecraft chassis ground or to the aperture potential power supply output. The aperture potential power supply can be set by spacecraft minor mode A command to 0, -2, -4, or -8 V to partially compensate for a non-zero positive spacecraft potential.

The retarding grid of the RPA is connected to the retarding potential power supply through a shielded conductor. The retarding potential may be set to any one of 1024 linearly spaced steps from 0 to +51.125 V with a resolution of 0.05 V. The RPA collector plate is connected through a co-axial cable to a 5-decade logarithmic amplifier. The reference voltage for the front end of the log amp is the output of the aperture potential power supply. The output of the log amp is converted, by command from the CEA, to a 10-bit digital word using an analog/digital (A/D) converter. The digital word is held in a holding register until the CEA is ready to read and process the data.

Those ions passing into the Ion Mass Spectrometer (IMS) are sorted according to their mass to charge ratio. The proper combination of ion accelerating voltage, applied magnetic field strength, and ion beam gyro radius in the applied magnetic field determines the mass/charge of the ion focused on each collector slit. Varying the ion accelerating voltage varies the ion mass/charge detected. Ions of mass/charge 1 to 8 amu/Z and 4 to 32 amu/Z can be focused on the low and high mass slits, respectively. Ions exiting the collector slits are counted by channel electron multiplier (CEM) detectors. The ion mass/charge range is also programmable by a minor mode command. Any 32 of 4096 voltage steps may be selected. All 32 steps may be the same, in which case the mass/charge analyzer will be locked onto a given pair of mass/charge peaks having the ratio 1:4. The two-channel IMS uses CEMs as detectors. The two CEMs in each sensor head are powered by a single multiplier high-voltage power supply which can be set, by spacecraft minor mode A command, to any one of four voltages, -1200, -2100, -2400, and -2800 V. The IMS accelerating voltage comes from a swept high voltage power supply that can be addressed to any one of 4096 linearly spaced steps between 0 and -2250 V.

The output of each detector is connected to a charge sensitive pulse amplifier whose output is sent to a level detector. The discrimination level is set by spacecraft minor mode A command. Pulses from the discriminator are coupled to an 18-stage binary counter. Four bits of the counter are located in each head, and the other 14 bits of each accumulator are located in the CEA. The CEA contains the circuitry for compressing each accumulator output into a 10-bit base 2-floating point number (6-bit mantissa and 4-bit exponent) for output into the telemetry buffer.

The DE spacecraft utilizes a pulse code modulation data system with 128, 8-bit words at a main frame rate of 16 frames per second. Note that the RIMS instrument is assigned 26 of these 8-bit telemetry words. One 8-bit word is reserved for status information, five groups of 5 8-bit telemetry words each are used for measurements – where each group is considered a telemetry channel by the processor. With this convention, each telemetry channel can contain 4 each 10-bit instrument words. Each data sample represents a period of 1/4 minor frame (1/64th of a second, or 15.625 msec.) Each RIMS sensor head has three data outputs, the RPA and high and low mass IMS channels, and therefore outputs 9 measurements each 1/4 frame for a total of 36, 10-bit instrument words per telemetry minor frame. Since the 40-bit telemetry channel can contain only 4, 10-bit instrument words, only 20 of the 36 instrument words may be loaded into the telemetry channels each telemetry frame (4 instrument words x 5 telemetry channels). The telemetry channel assignments, number of words assigned to each, and their content are as follows:

A	1	Housekeeping and status
B	5	Radial IMS low-mass channel accumulation
C	5	Radial IMS high-mass channel accumulation
D	5	Alternates each 1/4 frame between +Z IMS low & high-mass accumulation
E	5	Alternates each 1/4 frame between -Z IMS low & high-mass accumulation
F	5	Alternates each 1/4 frame between radial, +Z, and -Z RPA (electrometer) accumulation

The instrument cycle is 32 data samples from each data source. The RIMS completes one instrument cycle each 0.5 sec. Each data sample represents a period of 15.625 msec. This interval consists of a measurement interval and a data processing interval. During the measurement interval, the IMS accumulators are active for a period of 12 msec. The 3.625 msec data processing interval is used to process the data accumulated during the measurement interval and to establish the mass/charge voltage and retarding voltage for the next integration period.

The RIMS instrument continued to return usable data until the end of the DE mission in March 1991. The radial head RPA failed on 81/329 19:50:18. It worked again between 82/045 23:30 and 82-046 06:15 before failing again. Sometime before 82/046 the -Z head

aperture bias mechanism failed. At launch the -Z head was found to be biased -2 V with respect to the other two heads. The anomaly disappeared on day 73 or 74 of 1982. The Z heads show spin variation primarily at low altitudes in cold, dense plasmas at high spacecraft velocities. For a more detailed and complete account of RIMS performance characteristics, see Olsen et al., DE-1 RIMS Operational Characteristics, NASA TM-86527, 1985.

The RIMS instrument data was provided by GSFC to ES53/MSFC on 1600 BPI magnetic tapes. The RIMS data was extracted and combined with orbit/attitude and magnetic field data to produce mission analysis files (MAF) and summary spectrograms. There is usually one MAF file per pass (RIMS instrument on/off time). Each MAF file data record consists of 8 seconds of RIMS data (512 samples per channel, each sample 1/64 sec measurement), in time order. One MAF record is 5624 bytes in size. The first 100 locations (16-bit words) of this record contain timing, orbit/attitude, B-field, and instrument mode information. Since the instrument mode takes some logic to decode, subroutines are available that perform the decoding of the instrument flags, determination of RPA/IMS settings for any sample through the 512, and decommutation of the D and E channels (Z-head data).

Data quality is, in general, excellent. Data are not always recorded at altitudes down to the DE 1 perigee of 675 km. At the lower altitudes, the plasma density can be quite high and the RIMS instrument is generally shut off to protect the particle detecting CEMs from excessive counting rates. However, on occasion, saturation of the detecting CEMs may be seen in the radial head data during low altitude-high density passes.

Detection of very low-energy ions is made difficult by the presence of floating spacecraft potentials. Analysis of RIMS data by Olsen [1989] established a density-potential relationship, such that the satellite accumulates positive charge on entering density regions below 1000 cm^{-3}, rising slowly to about +1 V at 100 cm^{-3}, and about +5 V at 10 cm^{-3}. By preventing measurement of the coldest plasma components, this potential can mask out an isotropic background plasma or, when the potential is sufficiently high, can give the appearance that no cold plasma exists in a region. This effect is known to be a concern in the plasmapause and trough region, where densities are of the order 7 to 70 cm^{-3} and the spacecraft may reach potentials of +2 to +5 V [Olsen, 1989]. At altitudes above the ionosphere in the polar regions, densities again can be sufficiently low that observation of ions of classical polar wind speed is possible only during negative aperture bias instrument modes [Nagai et al., 1984].

The DE 1/RIMS team has attempted to compensate for the spacecraft charging by the addition of a voltage bias plate at the entrance aperture of the instrument. The diameter of the external aperture plane is 20 cm, which may be compared to the spacecraft dimension of one meter in height and 1/4 meter in diameter. The instrument retarding voltages are referenced to this aperture plane, so that to the RIMS detector the effect of the bias is similar to a change in spacecraft potential, though sheath effects can complicate the interpretation of the resulting data.

D. REFERENCES TO AID IN THE USE AND UNDERSTANDING OF THE RIMS DATA SET

Instrument Description Papers

Chappell, C. R., S. A. Fields, C. R. Baugher, J. H. Hoffman, W. B. Hanson, W. W. Wright, H. D. Hammack, G. R. Carignan, and A. F. Nagy, The Retarding Ion Mass Spectrometer on Dynamics Explorer-A, *Space Sci. Instrum.*, *5*, 477, 1981.

Fields, S. A., C. R. Baugher, C. R. Chappell, D. L. Reasoner, H. D. Hammack, W. W. Wright, and J. H. Hoffman, Instrument manual for the retarding ion mass spectrometer on Dynamics Explorer-1, NASA TM-82484, 1982.

Olsen, R. C., R. H. Comfort, M. O. Chandler, T. E. Moore, J. H. Waite, Jr., D. L. Reasoner, and A. P. Biddle, DE 1 RIMS operational characteristics, NASA TM-86527, 1985.

Analysis Technique Papers

Biddle, A. P., T. E. Moore, and C. R. Chappell, Evidence for ion heat flux in the light ion polar wind, *J. Geophys. Res.*, *90*, 8552, 1985.

Chandler, M. O., and C. R. Chappell, Observations of the flow of the H^+ and He^+ along magnetic field lines in the plasmasphere, *J. Geophys. Res.*, *91*, 8847, 1986.

Comfort, R. H., C. R. Baugher, and C. R. Chappell, Use of the thin sheath approximation for obtaining ion temperatures from the ISEE-1 limited aperture RPA, *J. Geophys. Res.*, *87*, 5709, 1982.

Comfort, R. H., J. H. Waite, Jr., and C. R. Chappell, Thermal ion temperature from the retarding ion mass spectrometer on DE-1, *J. Geophys. Res.*, *90*, 3475, 1985.

Comfort, R. H. and M. O. Chandler, Semi-empirical analytical model for the spin modulation of RPA fluxes, *J. Spacecraft Roc.*, *27*, 577, 1990.

Giles, B. L., Inner magnetosphere circulation of thermal ions inferred from observed pitch angle distributions, Ph.D. thesis, University of Alabama in Huntsville, 1993.

Pollock, C. J., M. O. Chandler, T. E. Moore, J. H. Waite, Jr., C. R. Chappell, and D. A. Gurnett, A survey of upwelling ion event characteristics, *J. Geophys. Res.*, *95*, 18,969-18,980, 1990.

Waite, J. H., Jr., D. L. Gallagher, M. O. Chandler, R. C. Olsen, R. H. Comfort, J. F. E. Johnson, C. R. Chappell, W. K. Peterson, D. Weimer, S. D. Shawhan, and E. G. Shelley, Plasma and wave observations of a Pc5 wave event, *J. Geophys. Res.*, *91*, 11,147, 1986.

Additional Science References

Boardsen, S. A., D. L. Gallagher, D. A. Gurnett, W. K. Peterson, and J. L. Green, Funnel-shaped, low-frequency equatorial waves, *J. Geophys. Res.*, *97*, 14,967, 1992.

Brace, L. H., C. R. Chappell, M. O. Chandler, R. H. Comfort, J. L. Horwitz, and W. R. Hoegy, F-region electron temperature signatures of the plasmapause based on Dynamics Explorer 1 and 2 measurements, *J. Geophys. Res.*, *93*, 1896, 1988.

Carpenter, D. L., A. J. Smith, B. L. Giles, C. R. Chappell, and P. M. E. Décréau, A case study of plasma structure in the dusk sector associated with enhanced magnetospheric convection, *J. Geophys. Res.*, *97*, 1157-1166, 1992.

Carpenter, D. L., B. L. Giles, C. R. Chappell, P. M. E. Décréau, R. R. Anderson, A. M. Persoon, A. J. Smith, Y. Corcuff, and P. Canu, Plasmasphere dynamics in the duskside bulge region: a new look at an old topic, *J. Geophys. Res.*, *98*, 19,243-19,271, 1993.

Chandler, M. O., J. U. Kozyra, J. L. Horwitz, R. H. Comfort, W. K. Peterson, and L. H. Brace, Modeling of the thermal plasma in the outer plasmasphere: A magnetospheric heat source, in *Modeling Magnetospheric Plasma Processes, Geophys. Mono. Series #62*, G. R. Wilson (ed.), Am. Geophys. Union, Washington, DC, pp. 101-105, 1991.

Chandler, M. O., J. H. Waite, Jr., T. E. Moore, Observations of polar ion outflows, *J. Geophys. Res.*, *96*, 1421, 1991.

Chappell, C. R., Initial observations of thermal plasma composition and energetics from Dynamics Explorer-1, *Geophys. Res. Lett.*, *9*, 929-932, 1982.

Chappell, C. R., The terrestrial plasma source: A new perspective in solar-terrestrial processes from Dynamics Explorer, *Rev. Geophys.*, *26*, 229, 1988.

Chappell, C. R., J. L. Green, J. F. E. Johnson, and J. H. Waite, Jr., Pitch angle variations in magnetospheric thermal plasma – initial observations from Dynamics Explorer-1, *Geophys. Res. Lett.*, *9*, 933-936, 1982.

Chappell, C. R., R. C. Olsen, J. L. Green, J. F. E. Johnson, and J. H. Waite, Jr., The discovery of nitrogen ions in the earth's magnetosphere, *Geophys. Res. Lett., 9*, 937- 940, 1982.

Chappell, C. R., T. E. Moore, and J. H. Waite, Jr., The ionosphere as a fully adequate source of plasma for the earth's magnetosphere, *J. Geophys. Res., 77*, 6104, 1987.

Comfort, R. H., Plasmasphere thermal structure as measured by ISEE-2 and DE-1, *Adv. Space Res., 6*, 31-40, 1986.

Comfort, R. H., I. T. Newberry, and C. R. Chappell, Preliminary statistical survey of plasmaspheric ion properties from observations by DE-1/RIMS, in *Modeling Magnetospheric Plasma Processes, Geophys. Mono. Series #62*, G. R. Wilson (ed.), Am. Geophys. Union, Washington, DC, pp. 107-114, 1991.

Craven, P. D., R. C. Olsen, C. R. Chappell, and L. Kakani, Observations of molecular ions in the earth's magnetosphere, *J. Geophys. Res., 90*, 7599-7605, 1985.

Craven, P. D., R. H. Comfort, D. L. Gallagher, and R. West, A study of the statistical behavior of ion temperatures from DE1/RIMS, in *Modeling Magnetospheric Plasma Processes, Geophys. Mono. Series #62*, G. R. Wilson (ed.), Am. Geophys. Union, Washington, DC, pp. 173, 1991.

Decreau, P. M. E., D. Carpenter, C. R. Chappell, R. H. Comfort, J. L. Green, R. C. Olsen, and J. H. Waite, Jr., Latitudinal plasma distribution in the dusk plasmaspheric bulge: Refilling phase and quasi-equilibrium state, *J. Geophys. Res., 91*, 6929-6943, 1986.

Delcourt, D. C., B. L. Giles, C. R. Chappell, and T. E. Moore, Low-energy bouncing ions in the magnetosphere: A three-dimensional numerical study of Dynamics Explorer 1 data, *J. Geophys. Res., 93*, 1859, 1988.

Engebretson, M. J., L. J. Cahill, Jr., J. H. Waite, Jr., D. L. Gallagher, M. O. Chandler, M. Sugiura, and D. R. Weimer, Wave and plasma observations during a compressional Pc5 wave event, August 10, 1982, *J. Geophys. Res., 91*, 6884, 1986.

Farthing, W. H., M. Sugiura, B. G. Ledley and L. J. Cahill, Jr., Magnetic field observations on DE-A, *Space Sci. Instrum., 5*, 551, 1981.

Gallagher, D. L., J. D. Menietti, A. K. Persoon, J. H. Waite, Jr., and C. R. Chappell, Evidence of high densities and ion outflows in the polar cap during recovery phase, *J. Geophys. Res., 91*, 3321, 1986.

Gallagher, D. L., and. P. D. Craven, Initial development of a new empirical model of the Earth's inner magnetosphere for density, temperature, and composition, *Modeling Magnetospheric Plasma*, Geophys. Mono. Series #44, T. E. Moore and J. H. Waite Jr., eds., pp. 61-65, 1988.

Gallagher, D L., P. D. Craven, and R. H. Comfort, An empirical model of the Earth's plasmasphere, *Adv. Space Res., 8*, 15, 1988.

Giles, B. L., C. R. Chappell, J. H. Waite, Jr., T. E. Moore, and J. L. Horwitz, Dynamic evolution of low-energy ions in the terrestrial magnetosphere, in *Modeling Magnetospheric Plasma, Geophys. Mono. Series #44*, T. E. Moore and J. H. Waite, Jr. (eds.), Am. Geophys. Union, Washington, DC, p. 177, 1988.

Giles, B. L., C. R. Chappell, T. E. Moore, R. H. Comfort, and J. H. Waite, Jr., A statistical survey of pitch angle distributions in core (0-50 eV) ions from Dynamics Explorer 1, *J. Geophys. Res.*, in press, 1994.

Green, J. L., J. H. Waite, Jr., C. R. Chappell, M. O. Chandler, J. R. Doupnik, P. G. Richards, R. Heelis, S. D. Shawhan, and L. H. Brace, Observations of ionospheric-magnetospheric coupling: DE and Chatanika coincidences, *J. Geophys. Res., 91*, 5803, 1986.

Horwitz, J. L. Core plasma in the magnetosphere, *Rev. Geophys., 25*, 579, 1987.

Horwitz, J. L., R. H. Comfort, and C. R. Chappell, Thermal ion composition measurements of the formation of the new outer plasmasphere and double plasmapause during storm recovery phase, *Geophys. Res., Lett., 11*, 701-704, 1984.

Horwitz, J. L., J. H. Waite, Jr., and T. E. Moore, Supersonic ion outflows in the polar magnetosphere via the geomagnetic spectrometer, *Geophys. Res., Lett. 12*, 757, 1985.

Horwitz, J. L., S. Menteer, J. Turnley, J. L. Burch, J. D. Winningham, C. R. Chappell, J. D. Craven, L. A. Frank, and D. W. Slater, Plasma boundaries in the inner magnetosphere, *J. Geophys. Res., 91*, 8861, 1986.

Horwitz, J. L., L. H. Brace, R. H. Comfort, and C. R. Chappell, Dual spacecraft measurements of plasmasphere and ionosphere structure, *J. Geophys. Res., 91*, 11,203-11,216, 1986.

Horwitz, J. L., R. H. Comfort, and C. R. Chappell, Plasmasphere and plasmapause characteristics as measured by DE-1, *Adv. Space Res., 6*, 21-29, 1986.

Horwitz, J. L., R. H. Comfort, and C. R. Chappell, A statistical characterization of plasmasphere structure and boundary locations, *J. Geophys. Res., 95*, 7937, 1990.

Horwitz, J. L., R. H. Comfort, P. G. Richards, M. O. Chandler, C. R. Chappell, P. Anderson, W. B. Hanson, and L. H. Brace, Plasmasphere-ionosphere coupling, 2, Ion composition measurements at plasmaspheric and ionospheric altitudes and comparison with modeling results, *J. Geophys. Res., 95*, 7949, 1990.

Horwitz, J. L., T. E. Moore, B. L. Giles, G. R. Wilson, C. W. Ho, J. Lin, and K. Swinney, Kinetic features of core plasmas in the magnetosphere: A new generation of observations and simulations, *J. Geomag. Geoelect., 43*, 275, 1991.

Horwitz, J. L., C. J. Pollock. T. E. Moore, J. L. Burch, J. D. Winningham, J. D. Craven, L. A. Frank, and A. Persoon, The polar cap environment of outflow O^+, *J. Geophys. Res., 97*, 8361, 1992.

Kozyra, J. U., E. G. Shelley, R. H. Comfort, L. H. Brace, T. E. Cravens, and A. F. Nagy, The role of ring current O^+ in the formation of stable auroral red arcs, *J. Geophys. Res., 92*, 7487-7502, 1987.

Kozyra, J. U., T. E. Cravens, A. F. Nagy, D. A. Gurnett, R. L. Huff, R. H. Comfort, J. H. Waite, Jr., L. H. Brace, R. A. Hoffman, J. D. Winningham, J. L. Burch, and W. K. Peterson, Satellite observations of new particle and field signatures associated with SAR arc field lines at magnetospheric heights, *Adv. Space Res., 7*, (8)3-(8)6, 1987.

Kozyra, J. U., M. O. Chandler, D. C. Hamilton, W. K. Peterson, D. M. Klumpar, D. W. Slater, M. J. Buonsanto, and H. C. Carlson, The role of ring current nose events in producing stable auroral red arc intensification during the main phase: Observations during the September 19-24, 1984, equinox transition study. *J. Geophys. Res., 98*, 9267, 1993.

Lin, N., M. J. Engebretson, L. A. Reinleitner, J. V. Olsen, D. L. Gallagher, L. J. Cahill, Jr., J. A. Slavin, and A. M. Persoon, Field and thermal observations of ULF pulsations during a magnetically disturbed interval, *Geophys. Res., Lett., 97*, 14,859, 1992.

Lockwood, M., J. H. Waite, Jr., T. E. Moore, J. F. E. Johnson, and C. R. Chappell, A new source of suprathermal O^+ ions near the dayside polar cap boundary, *J. Geophys. Res., 90*, 4099-4116, 1985.

Lockwood, M., M. O. Chandler, J. L. Horwitz, J. H. Waite, Jr., T. E. Moore, and C. R. Chappell, The cleft ion fountain, *J. Geophys. Res., 90*, 9736, 1985.

Lockwood, M., T. E. Moore, J. H. Waite, Jr., C. R. Chappell, J. L. Horwitz, and R. A. Heelis, The geomagnetic mass spectrometer - mass and energy dispersions of ionospheric ion flows into the magnetosphere, *Nature, 316*, 612, 1985.

Menietti, J. D., J. L. Burch, R. L. Williams, D. L. Gallagher, and J. H. Waite, Jr., Statistical study of enhanced ion fluxes in the outer plasmasphere, in *Ion Acceleration in the Magnetosphere and Ionosphere, Geophys. Mono. Series #38*, Tom Chang (ed.), Am. Geophys. Union, Washington, DC, p.172, 1985.

Menietti, J. D., D. L. Gallagher, and J. L. Burch, Statistical study of ion flows in the dayside and nightside plasmasphere, *Planet. Space Sci., 36*, 693, 1988.

Moore, T. E., Origins of magnetospheric plasma, U.S. National Report to International Union of Geodesy and Geophysics 1987-1990, *Rev. Geophys., 1039*-1048, 1991.

Moore, T. E., C. R. Chappell, M. Lockwood, and J. H. Waite, Jr., Superthermal ion signatures of auroral acceleration processes, *J. Geophys. Res., 90*, 1611, 1985.

Moore, T. E., M. Lockwood, M. O. Chandler, J. H. Waite, Jr., C. R. Chappell, A. Persoon, and M. Sugiura, Upwelling O^+ ion source characteristics, *J. Geophys. Res., 91*, 7019, 1986.

Moore, T. E., D. L. Gallagher, J. L. Horwitz, and R. H. Comfort, MHD wave breaking in the outer plasmasphere, *Geophys. Res. Lett., 14*, 1007, 1987.

Moore, T. E., M. O. Chandler, C. R. Chappell, C. J. Pollock, J. H. Waite, Jr., J. L. Horwitz, and C. R. Wilson, Features of terrestrial plasma transport, *Phil. Trans. R. Soc. Lond., A328*, 235-254, 1989.

Nagai, T., J. H. Waite, Jr., J. L. Green, C. R. Chappell, R. C. Olsen, and R. H. Comfort, First measurements of supersonic polar wind in the polar magnetosphere, *Geophys. Res. Lett., 11*, 669-672, 1984.

Newberry, I. T., R. H. Comfort, P. G. Richards, and. C. R. Chappell, Thermal He^+ in the plasmasphere: Comparison of observations with numerical calculations, *J. Geophys. Res., 94*, 265, 1989.

Olsen, R. C., D. L. Gallagher, C. R. Chappell, J. L. Green, and S. D. Shawhan, A potential control method for thermal plasma measurements on the DE-1 spacecraft, in *Proceedings of the 17th ESLAB symposium on spacecraft/plasma interactions*, A. Pedersen, D. Guyenne, and J. Hunt (eds), ESA Scientific & Technical Publications Branch, ESTEC: Noordwijk, ESA SP-198, p. 177, 1983.

Olsen, R. C., C. R. Chappell, D. L. Gallagher, J. L. Green, and D. A. Gurnett, The hidden ion population: Revisited, *J. Geophys. Res., 90*, 12,121, 1985.

Olsen, R. C., Charging characteristics of Dynamics Explorer 1 Retarding Ion Mass Spectrometer and the consequence for core plasma measurements, Technical Report, NPS-61-89-014, Naval Postgraduate School, Monterey, California, 1989

Olsen, R. C., C. R. Chappell, J. L. Burch, Aperture plane potential control for thermal ion measurements, *J. Geophys. Res.*, *91*, 3117-3129, 1986

Olsen, R. C., S. D. Shawhan, D. L. Gallagher, J. L. Green, C. R. Chappell, and R. R. Anderson, Plasma observations at the Earth's magnetic equator, *J. Geophys. Res.*, *92*, 2385-2407, 1987

Pollock, C. J., C. R. Chappell, J. L. Horwitz, and J. D. Winningham, Two-spacecraft charged particle observations interpreted in terms of electrostatic potential drops along polar cap field lines, in *Modeling Magnetospheric Plasma Processes, Geophys. Mono. Series #62*, G. R. Wilson (ed.), Am. Geophys. Union, Washington, DC, p. 111, 1991

Roberts, W. T., Jr., J. L. Horwitz, R. H. Comfort, J. H. Waite, Jr., J. L. Green, and C. R. Chappell, Heavy ion enhancements in the outer plasmasphere, *J. Geophys. Res.*, *92*, 13,499-13,512, 1987

Samir, U., R. H. Comfort, C. R. Chappell, and N. H. Stone, Observations of low energy ions in the wake of a magnetospheric satellite, *J. Geophys. Res.*, *91*, 5725-5736, 1986

Singh, N., and J. L. Horwitz, Plasmasphere refilling: Recent observations and modeling, *J. Geophys. Res.*, *97*, 1049, 1992

Waite, J. H., Jr., T. Nagai, J. F. E. Johnson, C. R. Chappell, J. L. Burch, T. L. Killeen, P. B. Hays, G. R. Carignan, W. K. Peterson and E. G. Shelley, Escape of suprathermal O^+ ions in the polar cap, *J. Geophys. Res.*, *90*, 1619, 1985

Waite, J. H., Jr., M. Lockwood, T. E. Moore, M. O. Chandler, J. L. Horwitz, and C. R. Chappell, Solar wind control of the geomagnetic mass spectrometer, in *Solar Wind-Magnetosphere Coupling*, edited by Y. Kamide and J. A. Slavin, 707-716, 1986.

Zhang, X., R. H. Comfort, Z. E. Musielak, T. E. Moore, D. L. Gallagher, and J. L. Green, Propagation characteristics of Pc3 compressional waves generated at the dayside magnetopause, *J. Geophys. Res.*, *98*, 15,403, 1993

II. Description of the RIMS Summary Spectrograms

The summary spectrograms included in this volume consist of seven spin-angle versus time panels; one panel for each of the seven mass/charge settings, H^+, He^+, O^+, N^+, M/Z=2, O^{++}, and molecular ions. Noted at the top of each spectrogram is the date and time interval covered by the spectrogram, the instrument head, and indications of the RPA and aperture bias sort used. In this set, data were included regardless of RPA or aperture bias setting. Orbit parameters – geocentric altitude, McIlwain L-shell, magnetic local time, magnetic latitude, and invariant latitude – are given at 40-min intervals at the bottom of the page.

The panels are labeled with mass designations (i.e., L/H^+ for low mass channel, ionized hydrogen). Please note, however, that the data plotted represent the response of that RIMS channel to a specific range of mass/charge settings.

The satellite ram direction is defined to be along the center of each panel, meaning the point at which the radial detector was viewing into the direction of motion of the spacecraft. The maximum (180°) and minimum (0°) magnetic pitch angles are indicated by the black dashed and dotted lines (nearly horizontal, for the most part), respectively, corresponding to closest aperture approach to the parallel and anti-parallel directions of the Earth's magnetic field.

The data arrays used to construct each panel consist of 120 time divisions and 32 spin angle divisions. Since each spectrogram covers an 8-hour period, including a single 7.5-hour spacecraft orbital period, each angle/time bin represents a data average over 11.25° in spin angle and 4 minutes of accumulation time. That is, the counts-per-accumulation periods (12 milliseconds), for all RPA and aperture bias settings, are averaged over the 4-min time resolution period for each 11.25° spin angle bin.

The counts-per-sample for a given spin angle-time bin is coded by vertical lines; one solid vertical line representing low counts (0 to 1 count/sample) and many closely-spaced vertical lines (approaching solid black) representing higher count rates (>5000 counts/sample). A dotted vertical line represents an angle/time bin for which sampling occurred, but no counts were registered. No vertical lines at all indicates that sampling for that ion was not performed. The squares arranged vertically to the left of the spin angle-time panels show this scale.

The counts-per-sample is proportional to the integral directional ion flux for the energy range 0 to 50 eV with approximate conversion ratios of counts to integral flux of 3.1×10^4 (particles/cm^2 s·ster)/(counts/sample) for H^+, 1.9×10^4 (particles/cm^2 s·ster)/(counts/sample) for He^+, and 4.4×10^4 (particles/cm^2 s·ster)/(counts/sample) for O^+. These factors, which reflect the mass-dependent angular response, are based on pre-flight and in-flight calibration; the ratios are time-dependent due to on-orbit CEM degradation and are offered here only as a general approximation.

III. DE 1/RIMS 1982 Data Catalog

Each line in the listing that follows represents one RIMS operation cycle and lists operation cycle number, instrument on/off time (UT), and quality information. An explanation of each field follows.

Operation Cycle Number: Begins with first science mode cycle. An operation cycle begins with an instrument "on" command and ends with an instrument "off" command. More than one operation cycle may be executed during a single spacecraft orbit.

Date: The year and day of year is represented as (YEAR-1900) * 1000 + DAYNUMBER.

Time Interval: The start/stop time (UT) of the operation cycle (HHMM).

Archive Flag: Used by RIMS team to flag which data have been archived to optical disk. The numerical entry is the disk number on which the data reside. "nd" or "no" = no data or too little data to archive. Used also when the electrometer was operated with the channeltrons off. In this latter case, the "nd" entry is followed by a notation of "Electrometer only." "oo" means data were not received from GSFC.

Quality Information: Text to summarize data anomalies, data gaps, and data processing problems.

"Sunpulse" means that a response of the radial head detector to solar UV can be seen in spectrograms of the data.

DNA: followed by a universal time (UT), means that data were not available for the time listed. This entry

usually indicates data were collected on the spacecraft but did not survive to the telemetry end product.

LMCD: Low mass channel degraded. Recognizable as H^+ counts that are lower than the He^+ counts in the high mass channel. Usually occurs when the spacecraft is in the plasmasphere.

BMD: Bad memory dump. When this is noted, the telemetry was in error or bits were incorrect in the RIMS memory. In either case, no data are obtained.

BEGIN LISTING

406B82001 0313-0730 01A
407 82001 0929-1205 01A
408 82001 1420-1518 01A Conics, Ram
409 82001 1618-2130 oo
410 82002 0100-0240 01A
411 82002 0632-1200 01A
412 82002 1517-1846 01A
413 82002 1942-2235 oo
414 82003 0309-0726 01A
415 82003 0925-1201 01A
416 82003 1416-1514 01A
417 82003 1614-2126 oo
418 82004 0056-0236 01A
419 82004 0628-1156 01A
420 82004 1513-1842 01A
421 82004 1938-2231 oo
422 82005 0304-0559 01A
423 82005 0740-0818 01A
424 82005 1035-1352 01A
425 82005 1500-1611 01A
426 82005 1725-2305 01A Change of mode 2139. BMD
427 82006 0232-0450 01A
428 82006 0610-1145 01A mode change near 0733 & 1049.
429 82006 1446-2229 01A
430 82007 0300-0555 01A DNA: 0537-0555.
431 82007 0736-0814 oo
432 82007 1031-1348 01A
433 82007 1456-1607 01A
434 82007 1721-2301 oo
435 82008 0228-0446 01A
436 82008 0606-1141 01A Sunpulse
437 82008 1442-2225 01A Sunpulse
438 82009 0054-0127 01A
439 82009 0255-0809 oo
440 82009 1045-1508 01A
441 82009 1730-2200 01A Sunpulse
442 82010 0029-0445 01A Sunpulse
443 82010 0653-0850 01A
444 82010 1336-1745 01A
445 82010 1908-0000 01A
446 82011 0050-0123 01A
447 82011 0251-0805 01A
448 82011 1041 1504 01A
449 82011 1726-2156 01A Sunpulse
450 82012 0025-0441 01A Sunpulse
451 82012 0649-0846 01A
452 82012 1332-1741 01A Sunpulse
453 82012 1904-2356 01A
454 82013 0302-0753 01A Sunpulse
455 82013 1054-1445 01A
456 82013 1608-2302 01A
457 82014 0115-0420 01A
458 82014 0721-1111 01A
459 82014 1330-1932 oo
460 82014 2230-0059 01A Sunpulse
461 82015 0416-0600 nd DNA:0422-0600
462 82015 0810-1510 01A Sunpulse
463 82015 1902-2138 01A
464 82016 0118-0417 01A Sunpulse
465 82016 0725-1055 01A
466 82016 1545-2245 01A
466a82017 0016-0055 01A
466b82017 0414-0556 01A
467 82017 0806-1506 01A Sunpulse
468 82017 1858-2134 01A Sunpulse
468a82018 0114-0413 01A Sunpulse
468b82018 0721-1051 01A Sunpulse
469 82018 1541-2241 01A Sunpulse
470 82019 0002-0050 01A Sunpulse
471 82019 0159-0738 01A
472 82019 0906-1557 01A
473 82019 2008-2129 01A Sunpulse
474 82020 0113-0410 01A Sunpulse
475 82020 0720-1050 01A
476 82020 1402-1953 01A
477 82020 2302-0043 01A sunpulse
478 82021 0404-0729 01A sunpulse
479 82021 0902-1553 01A
480 82021 1805-2126 01A
481 82022 0111-0406 01A
482 82022 0717-1049 01A Sunpulse
483 82022 1258-1949 01A Sunpulse
484 82022 2324-0041 01A Sunpulse
485 82023 0404-0726 01A
486 82023 0904-1555 01A
487 82023 1840-2119 01A
488 82024 0105-0402 01A Sunpulse
489 82024 0604-1255 01A Sunpulse, dropout 12-13 UT
490 82024 1750-2225 01A
491 82024 2320-0037 01A Sunpulse
492 82025 0400-0722 01A
493 82025 0900-1551 01A Sunpulse
494 82025 1836-2115 01A
495 82026 0101-0358 01A Sunpulse
496 82026 0600-1251 01A Sunpulse, dropout 12-13 UT
497 82026 1746-2221 01A Data problem 2015-2051 UT
498 82026 2321-0024 01A Sunpulse
499 82027 0205-0709 01A
500 82027 0856-1547 01A Sunpulse
501 82027 1735-2111 01A
502 82027 2338-0342 01A Sunpulse
503 82028 0529-0954 01A Sunpulse
504 82028 1220-1911 01A
505 82028 2317-0020 01A Sunpulse
506 82029 0201-0705 01A
507 82029 0852-1543 01A
508 82029 1731-2107 01A
509 82029 2334-0338 01A Sunpulse
510 82030 0525-0950 01A Sunpulse
511 82030 1216-1907 01A
512 82030 2153-0008 01A Sunpulse
513 82031 0208-0859 oo
514 82031 1100-1350 nd DNA:1100-1350 Recorder off
515 82031 1838-2052 01A
516 82031 2331-0331 01A
517 82032 0709-1400 01A
518 82032 1600-1711 01A DNA:1600-1613
519 82032 1824-0002 01A Noisy data after 2141
520 82033 0202-0853 01A sunpulse
521 82033 1054-1344 01A
522 82033 1832-2046 01A
523 82033 2325-0325 01A
524 82034 0703-1354 01A data unavailable 0703-0715
525 82034 1554-1705 01A
526 82034 1818-2356 01A
527 82035 0153-0702 01A Sunpulse
528 82035 1050-1321 01A Sunpulse
529 82035 1455-2146 01A
530 82036 0135-0335 01A Sunpulse
531 82036 0535-0953 01A
532 82036 1038-1729 01A
533 82036 2156-2236 01A Sunpulse
534 82037 0000-0651 01A Sunpulse
535 82037 1047-1343 01A Sunpulse
536 82037 1844-2037 01A Sunpulse
537 82038 0132-0332 01A Sunpulse
538 82038 0532-0950 01A
539 82038 1032-1723 oo
540 82038 2153-2233 01A Sunpulse
541 82039 0012-0703 01A sunpulse
542 82039 1044-1340 01A Sunpulse
543 82039 1823-2016 01A Sunpulse
544 82040 0045-0324 01A Sunpulse. Bad B:0045-0111
545 82040 0507-0810 01A Sunpulse
546 82040 1016-1707 01A Sunpulse
547 82040 1806-2206 01A
548 82041 0340-0646 01A Sunpulse
549 82041 0810-1501 01A
550 82041 1836-2023 01A Sunpulse
551 82042 0039-0318 01A Sunpulse, DNA:0217-0234
552 82042 0501-0804 01A Sunpulse
553 82042 1010-1701 01A Sunpulse
554 82042 1820-2220 01A Sunpulse
555 82042 2335-0035 oo
556 82043 0250-0858 01A Sunpulse
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560 82044 1430-1659 01A Sunpulse
561 82044 1757-1905 01A
562 82044 2330-0030 01A Sunpulse
563 82045 0245-0853 01A
564 82045 1155-1545 01A Sunpulse
565 82045 1635-2033 01A mode change at @1836

566 H2045 2153-0444 01A
567 H2046 0514-0902 01A
568 H2046 1141-1605 01A
569 H2046 1853-2356 01A Sunpulse
570 H2047 0141-0745 01A perigee
571 H2047 0940-1247 01A Sunpulse
572 H2047 1529-2017 01A
573 H2047 2148-0439 01A Sunpulse, Bad B:2[illegible]-0458
574 H2048 0509-0757 01A
575 H2048 1136-1555 01A
576 H2048 1848-2351 01A
577 H2049 0136-0735 01A Sunpulse
578 H2049 0835-1242 ∞
579 H2049 1524-2012 01A
580 H2049 2141-0302 01A Sunpulse
581 H2050 0432-0940 01A Sunpulse
582 H2050 1120-1159 01A
583 H2050 1204-1556 01A
584 H2050 1744-2144 01A
585 H2050 2353-0035 01A
586 H2051 0132-0300 nd DNA:0132-0155
587 H2051 0340-0641 ∞
588 H2051 0823-1350 01A Sunpulse
589 H2051 1514-1800 01A
590 H2051 1824-2028 01A
591 H2051 2138-0257 01A DNA:2223-2257, Bad B:0135-0230
592 H2052 0427-0935 01A
593 H2052 1115 1154 01A memory dump bad 1132 1140
594 H2052 1159-1551 01A
595 H2052 1739-2139 01A
596 H2052 2348-0236 01A
597 H2053 0127-0255 01A
598 H2053 0315-0645 01A Sunpulse
599 H2053 1509-1755 01A
600 H2053 1819-2023 ∞
601 H2053 2154-0110 01A
602 H2054 1129 1417 01A Data problem 1129 1200 UT
603 H2054 1425-1659 01A
604 H2054 1829-2025 01A
605 H2054 2155-2337 01A
606 H2055 0807-1150 01A Sunpulse
607 H2055 1500-1630 01A
608 H2055 1705-2025 01A
609 H2055 2149-0305 01A
610 H2056 1124-1412 01A
611 H2056 1420-1654 01A
612 H2056 1824-2015 01A
613 H2056 2150-2332 01A
614 H2057 0112-0627 01A
615 H2057 0802-1145 01A
616 H2057 1455-1625 01A
617 H2057 1700-2015 01A
618 H2057 2147-2320 01A
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620 H2058 1129-1649 01A LMCD
621 H2058 1820-2132 01A LMCD
622 H2059 0802-1136 01A LMCD
623 H2059 1450-1847 01A LMCD,DNA:1502-1533,1809-1817
624 H2059 2144-2314 01A LMCD
625 H2060 0914-1300 01A LMCD
626 H2060 1538-2043 01A LMCD
627 H2060 2311-0234 01A L.M.C.D. DNA: 0139-0234
628 H2061 0359-0714 01A L.M.C.D. Perc. off:0547-0714
629 H2061 1000 1313 nd DNA:1000-1313
630 H2061 1447-1617 01A LMCD
631 H2061 1700-1907 01A LMCD
632 H2061 2138-2308 01A LMCD
633 H2062 0045-0736 01A LMCD
634 H2062 1534-2038 01A
635 H2062 2120-2240 01A
636 H2063 0050-0229 nd DNA:0050-0229 Recorder off
637 H2063 0356-0709 ∞
638 H2063 0751-0921 01A
639 H2063 0955-1308 01A
640 H2063 1442-1612 01A
641 H2063 1655-1800 01A
642 H2063 2020-2303 01A LMCD
643 H2064 0050-0334 01A LMCD
644 H2064 0424-0556 01A LMCD
645 H2064 0747-0944 01A LMCD
646 H2064 1115-1253 01A LMCD
647 H2064 1305-1632 01A LMCD
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649 H2064 1956-2117 01A LMCD
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652 H2065 0750-0920 01A LMCD
653 H2065 0932-1302 01A LMCD
654 H2065 1444-1614 01A LMCD
655 H2065 1700-1905 01A Few counts any mass
656 H2065 2125-2305 01A LMCD
657 H2066 0045-0329 01A
658 H2066 0416-0551 01A LMCD
659 H2066 0742-0959 01A LMCD
660 H2066 1111-1248 01A LMCD
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662 H2066 1659-1939 01A LMCD
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667 H2067 0927-1257 01A LMCD
668 H2067 1439-1659 01A LMCD
669 H2067 1655-1917 01A
670 H2067 2120-2350 01A LMCD
671 H2068 2355-0234 01A LMCD
672 H2068 0429-0547 01A LMCD
673 H2068 0546-0926 01A LMCD, BMD
674 H2068 1051-1235 01A LMCD
675 H2068 1449-1659 01A LMCD
676 H2068 1707-1914 01A LMCD
677 H2068 1950-2130 01A
678 H2069 0000-0220 01A LMCD
679 H2069 0500-0900 01A LMCD
680 H2069 0920-1253 01A
681 H2069 1431-1541 01A LMCD
682 H2069 1607-1800 01A Low counts all masses, BMD
683 H2069 2126-2240 01A LMCD
684 H2070 0041-0320 01A LMCD
685 H2070 0459-0530 01A LMCD
686 H2070 0751-0907 01A
687 H2070 1030-1217 01A LMCD
688 H2070 1252-1617 ∞
689 H2070 1740-1910 01A LMCD (recovering)
690 H2070 1931-2302 ∞
691 H2071 0041-0159 01A LMCD
692 H2071 0241-0540 01A LMCD
693 H2071 0741-0850 01A LMCD
694 H2071 1039-1540 01A LMCD
695 H2071 1721-2230 01A
696 H2071 2300-0225 01A LMCD
697 H2072 0332-0510 01A LMCD
698 H2072 0540-0910 01A
699 H2072 1053-1341 01A LMCD
700 H2072 1657-2135 01A LMCD
701 H2073 0038-0400 01A LMCD
702 H2073 0731-1020 01A LMCD
703 H2073 1220-1911 01A LMCD
704 H2073 2100-2300 01A LMCD
705 H2074 0201-0852 01A LMCD
706 H2074 1030-1530 01A LMCD
707 H2074 1650-2120 01A LMCD
708 H2075 0047-0356 01A
709 H2075 0534-0639 ∞
710 H2075 0740-1431 01A LMCD
711 H2075 1505-1929 01A LMCD
712 H2075 2052-0214 01A LMCD
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714 H2076 1011-1702 01A LMCD
715 H2076 1650-2247 01A
716 H2077 0038-0542 01A
717 H2077 0644-1248 01A LMCD
718 H2077 1333-2024 01A LMCD
719 H2077 2027-0205 01A LMCD
720 H2078 0035-0903 01A LMCD DNA:0035-0414;0740-0903
721 H2078 1000-1657 01A
722 H2078 1800-2242 01A LMCD
723 H2079 0033-0537 01A
724 H2079 0639-1243 01A DNA:0722-0900
725 H2079 1328-2024 01A
726 H2079 2050-0206 01A
727 H2080 0335-1026 01A
728 H2080 1105-1348 01A
729 H2080 1400-1600 01A
730 H2080 1638-2244 01A
731 H2081 0029-0551 01A
732 H2081 0641-1332 01A
733 H2081 1400-1920 01A
734 H2081 2051-0203 01A
735 H2082 0330-1021 01A
736 H2082 1055-1343 ∞
737 H2082 1344-1555 ∞
738 H2083 1044-2239 01A
739 H2083 0018-0526 01A
740 H2083 0636-1327 01A
741 H2083 1355-1935 01A
742 H2084 0344-0850 01A DNA: 0354-0448, 0747-0757
743 H2084 1647-2336 01A LMCD
744 H2085 0020-0524 01A LMCD
745 H2085 0550-1229 01A LMCD
746 H2085 1320-2011 01A
747 H2086 2044-0255 01A LMCD, Slightly Degraded
748 H2086 0320-0645 01A DNA:0059-0828, LMCD
749 H2086 1100-1545 01A LMCD

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750 82086 1642-2333 01A
751 82087 0015-0519 oo
752 82087 0545-1224 oo
753 82087 1315-2006 01A LMCD. DNA:1639-1657
754 82087 2036-0244 01A LMCD. DNA:0045-0244
755 82088 0340-0844 oo
756 82088 1014-1538 01A LMCD
757 82088 1609-2300 01A DNA:1938-2129
758 82089 0002-0514 01A
759 82089 0620-1311 01A m1333 no H+/He+
760 82089 1341-1859 01A LMCD
761 82089 2031-0239 01A
762 82090 0335-0839 01A LMCD
763 82090 1009-1533 01A
764 82090 1604-2255 01A
765 82091 0057-0509 01A
766 82091 0615-1306 01A DNA:0644-0732;1132-1306
767 82091 2025-0231 01A
768 82092 0301-0907 01A
769 82092 0937-1628 01A
770 82092 1705-2250 01A
771 82092 2320-0505 nd  DNA:2320-0505
772 82093 0535-1059 01A DNA:0641-0644, 0928-1059
773 82093 1127-1818 01A
774 82093 2020-0226 01A
775 82094 0256-0902 01A
776 82094 0932-1623 oo
777 82094 1700-2245 01A M0832 mode no toggle
778 82094 2315-0500 01A
779 82095 1122-1813 oo
780 82095 1843-0113 01A M0832 mode no toggle
781 82096 0143-0823 01A M0832 mode no toggle
782 82096 1649-2311 01A M0832 no toggle
783 82096 2341-0632 01A DNA:0310-0451
784 82097 1220-1808 01A M0832 no toggle
785 82097 1838-0108 01A
786 82098 0138-0818 01A
787 82099 2047-2049 nd  DNA:2047-2049
788 82099 2134-0212 nd  DNA:2134-0212
789 82102 2325-0442 01B
790 82103 0615-1205 01B
791 82103 1235-1926 01B
792 82104 0240-0810 01B
793 82104 0840-1529 01B
794 82104 1559-2250 01B DNA:1941-2104
795 82104 2320-0438 01B
796 82105 0610-1136 01B
797 82105 1200-1824 01B
798 82106 0235-0805 01B change of mode ~0555
799 82106 0835-1524 01B
800 82106 1554-2245 01B
801 82106 2315-0433 nd  DNA:2315-0433
802 82107 0605-1131 01B
803 82107 1155-1819 01B Mode change about 1227
804 82107 1918-0209 01B
805 82108 0410-0900 01B
806 82108 1110-1800 01B DNA:1619-1800
807 82108 2130-0420 01B
808 82109 0540-1123 01B
809 82109 1156-1847 01B
810 82109 2200-0048 01B

END OF LISTING
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IV. DE1/RIMS 1982 INSTRUMENT MODES

The RIMS instrument, being programmable by spacecraft major and minor mode commands, operated in a variety of survey modes during the experiment lifetime. The operating sequence is controlled by an internal memory in the CEA which is programmed by ground command. The RIMS commonly performed two basic operational functions during the mission: (1) The RPA voltage is swept over a selected range for a given mass/charge and, (2) the RPA voltage is set to zero and a sweep is made over a selected mass/charge range. There are several variations of these modes, several specialized modes, and several combinations of sweeps, aperture biasing, and cycling patterns.

Users of the RIMS MAF data sets must be aware of the instrument mode setting for the segment of data being analyzed. The documentation data set, a listing of which accompanies this set of summary spectrograms, lists the RIMS minor mode B commands employed during the mission, keyed to the data's universal time. Brief information on the meaning of the mode mnemonics is given with that listing.

The following is a summary of the RIMS nominal operating modes:

IMSON, RPAON, APPON: "Turn-on" and initiation commands.

STOPIT: "Turn-off" command.

HIXXZ: A family of modes in which the instrument is measuring only one mass/charge pair and concentrating on either high mass/charge or angular resolution. The two unspecified locations in the mnemonic denoted by X will specify the heavier of the pair while the location denoted by Z refers to an RPA program.

XVXXZ: A family of survey modes in which the instrument splits its observing pattern between the H^+/He^+ mass/charge pair and one other mass/charge pair. The definition of the unspecified location is the same as in the previous case. The total cycle time is 16 sec.

SXYYZ: The alternate memory is used to observed the H^+/He^+ pair and the normal memory to observe another mass/charge pair. The XX denotes the heavier of the mass/charge pair under normal memory control. Each mass/charge pair is sampled for 8 sec. Total cycle time is 16 sec.

TXYYZ: A survey mode which is similar to the previous survey mode with the exception of the sequencing pattern. In this case, the H^+/He^+ setting is maintained for 8 sec with an RPA cycle each 0.25 sec. In the subsequent 8-sec half of the cycle time, the instrument toggles between the alternate mass/charge pairs each 0.25 sec. The total cycle time is 16 sec.

MXXYY: A mass/charge sweep mode starting at mass/charge XX and ending at mass/charge YY. The specified mass/charge numbers are those of the heavy mass channel. The lower mass channel is operating and measuring mass/charge species of 1/4 the high mass values. Note: The sweep may not be continuous within the specified range if prior instrument experience has indicated that certain mass/charge numbers are unpopulated. The cycle time is 0.5 sec.

CXXYY: A mass/charge sweep mode with interspersed RPA analysis of the H^+/He^+ pair. The cycle time is 16 sec.

SHXXY: A special mode for high latitude studies. The three ions O^+, H^+, and He^+ are measured with RPA scans for each. The cycle time is 1/2 sec.

SSZZZ: Special science modes designed after launch. Contact RIMS science team.

PLPHN: Plasma mode used to investigate spacecraft/plasma interactions. Geophysical

data may be available, but will require special interpretation. N is the program number.

INSTR: Instrument check out, test, and calibration modes.

Note that the instrument may be operating with an additional potential applied to the entrance aperture. The start-up command APPON normally indicates the start of an aperture bias sequence although exceptions do exist within the data set. The following commands identify the applied bias voltage:

NAMMAP2X	-2 volts
NAMMAP4X	-4 volts
NAMMAP8X	-8 volts
PH20AAAA	-2 volts
PH20ADTD	-2 volts
PH40AAAA	-4 volts
PH40ADTD	-4 volts
PH80AAAA	-8 volts
PH80ADAA	-8 volts
PH80ADTD	-8 volts
PL80ADAA	-8 volts
HI04A02X	-2 volts
HI04A03X	-4 volts
HI04A04X	-8 volts
SH16M02X	-8 volts
SSNV801X	-8 volts
SSN8V01X	-8 volts
T816Q03X	-2 volts
T816Q04X	-4 volts
T816205X	-8 volts
SS04P01	-8 volts

The convention of naming modes as given above was generally but not rigorously followed, i.e., there may be times in which a mass/charge scan mode MXXYY alternated with measurement of H^+/He^+. Studies of the RIMS data set should be conducted only with a thorough understanding of the RIMS operational modes and the instrument response to these modes.

In the listing that follows, the year and daynumber is coded as (YEAR-1980) * 1000 + DAYNUMBER. The universal time of day is coded as HHMMSS.

```
BEGIN LISTING
 2001 031300 IMSON    2005 081800 STOPIT    2009 025500 T816E03   2013 074300 T816E03   2018 043300 STOPIT
 2001 031316 T816E03  2005 103500 IMSON     2009 035900 SH16M01   2013 075500 STOPIT    2018 072100 IMSON
 2001 073600 STOPIT   2005 103516 T816E03   2009 073500 T816E03   2013 105400 IMSON     2018 072116 T816E03
 2001 092900 IMSON    2005 135900 STOPIT    2009 080900 STOPIT    2013 105416 T816E03   2018 105300 STOPIT
 2001 092916 T816E03  2005 150000 IMSON     2009 104400 IMSON     2013 110700 SH16M01   2018 154100 IMSON
 2001 120500 STOPIT   2005 150016 T816E03   2009 104516 T816E03   2013 144500 STOPIT    2018 154116 T816E03
 2001 142000 IMSON    2005 161100 STOPIT    2009 150600 STOPIT    2013 160800 IMSON     2018 224100 STOPIT
 2001 142016 T816E03  2005 172500 IMSON     2009 173000 IMSON     2013 160816 T816E03   2019 000200 IMSON
 2001 151800 STOPIT   2005 172516 SH16M01   2009 173016 T816E03   2013 230200 STOPIT    2019 000216 T816E03
 2001 161800 T816E03  2005 214700 T816E03   2009 220600 STOPIT    2014 011500 IMSON     2019 005000 STOPIT
 2001 163300 SH16M01  2005 230500 STOPIT    2010 000900 IMSON     2014 011516 T816E03   2019 015900 IMSON
 2001 213000 STOPIT   2006 003200 IMSON     2010 005900 SH16M01   2014 042000 STOPIT    2019 015916 HI04N03
 2002 010000 IMSON    2006 023216 T816E03   2010 035000 T816E03   2014 072301 IMSON     2019 020000 HI04N02
 2002 010016 T816E03  2006 045000 STOPIT    2010 044500 STOPIT    2014 072317 T816E03   2019 020300 HI04N01
 2002 024000 STOPIT   2006 060100 IMSON     2010 045900 IMSON     2014 111100 STOPIT    2019 020400 HI04N02
 2002 063200 IMSON    2006 060116 T816E03   2010 045916 T816E03   2014 133000 IMSON     2019 020500 HI04N01
 2002 063216 T816E03  2006 073900 SH16M01   2010 064500 STOPIT    2014 133016 MBR400    2019 020600 HI04N02
 2002 120000 STOPIT   2006 104500 T816E03   2011 133600 IMSON     2014 193000 STOPIT    2019 020700 HI04N01
 2002 151700 IMSON    2006 114500 STOPIT    2010 133616 SH16M01   2014 223000 IMSON     2019 020800 HI04N02
 2002 151716 SH16M01  2006 144000 IMSON     2010 174900 STOPIT    2014 223016 T816E03   2019 020900 HI04N01
 2002 161000 T816E03  2006 164916 MBR400    2011 001600 IMSON     2015 000500 STOPIT    2019 021000 HI04N02
 2002 184500 STOPIT   2006 202900 STOPIT    2011 021600 T816E03   2015 041000 IMSON     2019 021100 HI04N01
 2002 194200 T816E03  2006 225100 IMSON     2011 022500 STOPIT    2015 041016 SH16M01   2019 073800 STOPIT
 2002 223500 STOPIT   2007 005100 T816E03   2011 035500 IMSON     2015 060500 STOPIT    2019 090000 IMSON
 2003 030000 IMSON    2007 050000 STOPIT    2011 055516 T816E03   2015 081000 IMSON     2019 090016 T816E03
 2003 030016 T816E03  2007 073600 IMSON     2011 062900 STOPIT    2015 081016 T816E03   2019 105700 STOPIT
 2003 072600 STOPIT   2007 073616 T816E03   2011 084500 IMSON     2015 151500 STOPIT    2019 200000 IMSON
 2003 073400 IMSON    2007 094800 STOPIT    2011 085516 T816E03   2015 151600 IMSON     2019 200016 HI04N01
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 2003 141400 IMSON    2007 134800 STOPIT    2011 161600 STOPIT    2016 013800 IMSON     2020 013316 SH16M01
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 2003 151400 STOPIT   2007 145916 T816E03   2011 174016 T816E03   2016 042900 STOPIT    2020 072000 IMSON
 2003 161400 T816E03  2007 160000 STOPIT    2011 194400 STOPIT    2016 072900 IMSON     2020 072016 T816E03
 2003 162700 SH16M01  2007 175100 IMSON     2011 221400 IMSON     2016 073500 T816E03   2020 105800 STOPIT
 2003 213400 STOPIT   2007 193100 SH16M01   2011 221416 T816E03   2016 105900 STOPIT    2020 130200 IMSON
 2004 005600 IMSON    2007 214100 T816E03   2011 235900 STOPIT    2016 154900 IMSON     2020 130216 T816E03
 2004 005616 T816E03  2007 235100 STOPIT    2012 002400 IMSON     2016 154916 T816E03   2020 195300 STOPIT
 2004 023600 STOPIT   2008 002400 IMSON     2012 002416 SH16M01   2016 224900 STOPIT    2020 230200 IMSON
 2004 062800 IMSON    2008 022816 T816E03   2012 041800 T816E03   2017 001600 IMSON     2020 230216 SH16M01
 2004 062816 T816E03  2008 044400 STOPIT    2012 044100 STOPIT    2017 001616 T816E03   2021 004500 STOPIT
 2004 115600 STOPIT   2008 064500 IMSON     2012 064900 IMSON     2017 015500 STOPIT    2021 040400 IMSON
 2004 151300 IMSON    2008 064516 T816E03   2012 064916 T816E03   2017 041400 IMSON     2021 040416 T816E03
 2004 151316 SH16M01  2008 073500 SH16M01   2012 084400 STOPIT    2017 041416 SH16M01   2021 072900 STOPIT
 2004 182600 T816E03  2008 104100 T816E03   2012 133200 IMSON     2017 055600 STOPIT    2021 090200 IMSON
 2004 184000 STOPIT   2008 124100 STOPIT    2012 133216 SH16M01   2017 081000 IMSON     2021 090216 MBR400
 2004 193800 T816E03  2008 144200 IMSON     2012 174100 STOPIT    2017 081016 MBR400    2021 155300 STOPIT
 2004 223100 STOPIT   2008 144216 T816E03   2013 191400 IMSON     2017 150000 STOPIT    2021 180000 IMSON
 2005 030400 IMSON    2008 202900 STOPIT    2013 191416 T816E03   2017 180800 IMSON     2021 180016 SH16M01
 2005 030416 T816E03  2009 000400 IMSON     2013 231600 STOPIT    2017 180816 HI04N01   2021 212000 STOPIT
 2005 055900 STOPIT   2009 020416 T816E03   2013 233400 IMSON     2017 213400 STOPIT    2022 011100 IMSON
 2005 074000 IMSON    2009 022900 STOPIT    2014 011300 IMSON     2018 011400 IMSON     2022 011116 T816E03
 2005 074016 T816E03  2009 042900 IMSON     2014 042000 HI04N01   2018 011416 SH16M01   2022 045000 STOPIT
```

2022	071700	IMSON	2031	000800	STOPIT	2038	215300	IMSON	2045	215800	T816Q02X	2045	233000	T816Q02X
2022	071716	HI04N01	2031	020800	IMSON	2038	215316	SH16M01	2045	215900	T816Q05X	2045	233100	T816Q03X
2022	104900	STOPIT	2031	020816	T816Q01	2038	223300	STOPIT	2045	220000	T816Q02X	2045	233200	T816Q02X
2022	125800	IMSON	2031	085900	STOPIT	2039	001200	IMSON	2045	220100	T816Q03X	2045	233300	T816Q04X
2022	125816	T816E03	2031	110000	IMSON	2039	001216	T816Q01	2045	220200	T816Q02X	2045	233400	T816Q02X
2022	194900	STOPIT	2031	110016	SH16M01	2039	070300	STOPIT	2045	220300	T816Q04X	2045	233500	T816Q05X
2022	232400	IMSON	2031	135000	STOPIT	2039	104400	IMSON	2045	220400	T816Q02X	2045	233600	T816Q02X
2022	232416	SH16M01	2031	183800	IMSON	2039	104416	HI04N02	2045	220500	T816Q05X	2045	233700	T816Q03X
2023	004100	STOPIT	2031	183816	HI04N01	2039	134000	STOPIT	2045	220600	T816Q02X	2045	233800	T816Q02X
2023	040400	IMSON	2031	205200	STOPIT	2039	182300	IMSON	2045	220700	T816Q03X	2045	233900	T816Q04X
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2023	072600	STOPIT	2031	233116	SS04P01	2039	201600	STOPIT	2045	220900	T816Q04X	2045	234100	T816Q05X
2023	090400	IMSON	2032	033100	STOPIT	2040	004500	IMSON	2045	221000	T816Q02X	2045	234200	T816Q02X
2023	090416	T816E03	2032	070900	IMSON	2040	004516	HI04N02	2045	221100	T816Q05X	2045	234300	T816Q03X
2023	155500	STOPIT	2032	070916	T816Q01	2040	032400	STOPIT	2045	221200	T816Q02X	2045	234400	T816Q02X
2023	184000	IMSON	2032	140000	STOPIT	2040	050700	IMSON	2045	221300	T816Q03X	2045	234500	T816Q04X
2023	184016	HI04N01	2032	160000	IMSON	2040	050716	T816Q01	2045	221400	T816Q02X	2045	234600	T816Q02X
2023	211900	STOPIT	2032	160016	SH16M01	2040	065700	HI04N02	2045	221500	T816Q04X	2045	234700	T816Q05X
2024	010500	IMSON	2032	171100	STOPIT	2040	081000	STOPIT	2045	221600	T816Q02X	2045	234800	T816Q02X
2024	010516	SH16M01	2032	182400	IMSON	2040	101600	IMSON	2045	221700	T816Q05X	2045	234900	T816Q03X
2024	040200	STOPIT	2032	182416	T816Q01	2040	101616	T816Q01	2045	221800	T816Q02X	2045	235000	T816Q02X
2024	060400	IMSON	2033	000200	STOPIT	2040	170700	STOPIT	2045	221900	T816Q03X	2045	235100	T816Q04X
2024	060416	M283401	2033	020200	IMSON	2040	180600	IMSON	2045	222000	T816Q02X	2045	235200	T816Q02X
2024	125500	STOPIT	2033	020216	T816Q01	2040	180616	T816Q01	2045	222100	T816Q04X	2045	235300	T816Q05X
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2024	175016	T816E03	2033	105400	IMSON	2041	034000	IMSON	2045	222300	T816Q05X	2045	235500	T816Q03X
2024	222500	STOPIT	2033	105416	SH16M01	2041	034016	SH16M01	2045	222400	T816Q02X	2045	235600	T816Q02X
2024	232000	IMSON	2033	134400	STOPIT	2041	064600	STOPIT	2045	222500	T816Q03X	2045	235700	T816Q04X
2024	232016	SH16M01	2033	183200	IMSON	2041	081000	IMSON	2045	222600	T816Q02X	2045	235800	T816Q02X
2025	003700	STOPIT	2033	183216	HI04N01	2041	081016	M083201	2045	222700	T816Q04X	2045	235900	T816Q05X
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2025	072200	STOPIT	2033	232516	SS04P01	2041	183616	SH16M01	2045	223000	T816Q02X	2046	000200	T816Q02X
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2025	090016	T816E03	2034	070300	IMSON	2042	003900	IMSON	2045	223200	T816Q02X	2046	000400	T816Q02X
2025	155100	STOPIT	2034	070316	T816Q01	2042	003916	HI04N02	2045	223300	T816Q04X	2046	000500	T816Q05X
2025	183600	IMSON	2034	135400	STOPIT	2042	031800	STOPIT	2045	223400	T816Q02X	2046	000600	T816Q02X
2025	183616	HI04N01	2034	155400	IMSON	2042	050100	IMSON	2045	223500	T816Q05X	2046	000700	T816Q03X
2025	211500	STOPIT	2034	155416	SH16M01	2042	050116	T816Q01	2045	223600	T816Q02X	2046	000800	T816Q02X
2026	010100	IMSON	2034	170500	STOPIT	2042	065100	HI04N02	2045	223700	T816Q03X	2046	000900	T816Q04X
2026	010116	SH16M01	2034	181800	IMSON	2042	080400	STOPIT	2045	223800	T816Q02X	2046	001000	T816Q02X
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2026	060016	M283401	2035	015300	IMSON	2042	170100	STOPIT	2045	224100	T816Q05X	2046	001300	T816Q03X
2026	125100	STOPIT	2035	015316	HI04N01	2042	182000	IMSON	2045	224200	T816Q02X	2046	001400	T816Q02X
2026	174600	IMSON	2035	015600	HI04N02	2042	182016	T816Q01	2045	224300	T816Q03X	2046	001500	T816Q04X
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2026	222100	STOPIT	2035	015800	HI04N02	2042	233500	IMSON	2045	224500	T816Q04X	2046	001700	T816Q05X
2026	232100	IMSON	2035	015900	HI04N01	2042	233516	T816Q02	2045	224600	T816Q02X	2046	001800	T816Q02X
2026	232116	HI04N01	2035	020000	HI04N02	2043	003500	STOPIT	2045	224700	T816Q05X	2046	001900	T816Q03X
2027	002400	STOPIT	2035	020100	HI04N01	2043	025000	IMSON	2045	224800	T816Q02X	2046	002000	T816Q02X
2027	020500	IMSON	2035	020200	HI04N02	2043	025016	T816Q02	2045	224900	T816Q03X	2046	002100	T816Q04X
2027	020516	SH16M01	2035	020300	HI04N01	2043	085800	STOPIT	2045	225000	T816Q02X	2046	002200	T816Q02X
2027	070900	STOPIT	2035	020400	HI04N02	2043	120000	IMSON	2045	225100	T816Q04X	2046	002300	T816Q05X
2027	085600	IMSON	2035	020500	HI04N01	2043	120016	HI04N01	2045	225200	T816Q02X	2046	002400	T816Q02X
2027	085616	T816E03	2035	070200	STOPIT	2043	134700	T816Q02	2045	225300	T816Q05X	2046	002500	T816Q03X
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2027	173500	IMSON	2035	105016	HI04N01	2043	164000	IMSON	2045	225500	T816Q03X	2046	002700	T816Q04X
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2027	211100	STOPIT	2035	145500	IMSON	2043	184100	SH16M01	2045	225700	T816Q04X	2046	002900	T816Q05X
2027	233800	IMSON	2035	145516	M283401	2043	203800	STOPIT	2045	225800	T816Q02X	2046	003000	T816Q02X
2027	233816	SH16M01	2035	214600	STOPIT	2043	231000	IMSON	2045	225900	T816Q05X	2046	003100	T816Q03X
2028	034200	STOPIT	2036	013500	IMSON	2043	231016	HI04N01	2045	230000	T816Q02X	2046	003200	T816Q02X
2028	052900	IMSON	2036	013516	HI04N01	2044	031700	T816Q02	2045	230100	T816Q03X	2046	003300	T816Q04X
2028	052916	HI04N01	2036	033500	STOPIT	2044	033000	STOPIT	2045	230200	T816Q02X	2046	003400	T816Q02X
2028	095400	STOPIT	2036	053500	IMSON	2044	143000	IMSON	2045	230300	T816Q04X	2046	003500	T816Q05X
2028	122000	IMSON	2036	053516	SS04P01	2044	143016	T816Q02	2045	230400	T816Q02X	2046	003600	T816Q02X
2028	122016	M083201	2036	095300	STOPIT	2044	150500	SH16M01	2045	230500	T816Q05X	2046	003700	T816Q03X
2028	191100	STOPIT	2036	103800	IMSON	2044	165900	STOPIT	2045	230600	T816Q02X	2046	003800	T816Q02X
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2029	020100	IMSON	2036	215616	SH16M01	2044	233000	IMSON	2045	231000	T816Q02X	2046	004300	T816Q02X
2029	020116	SH16M01	2036	223600	STOPIT	2044	233016	T816Q02	2045	231100	T816Q05X	2046	004400	T816Q03X
2029	070500	STOPIT	2037	000000	IMSON	2045	003000	STOPIT	2045	231200	T816Q02X	2046	004500	T816Q02X
2029	085200	IMSON	2037	000016	T816Q01	2045	024500	IMSON	2045	231300	T816Q03X	2046	004600	T816Q04X
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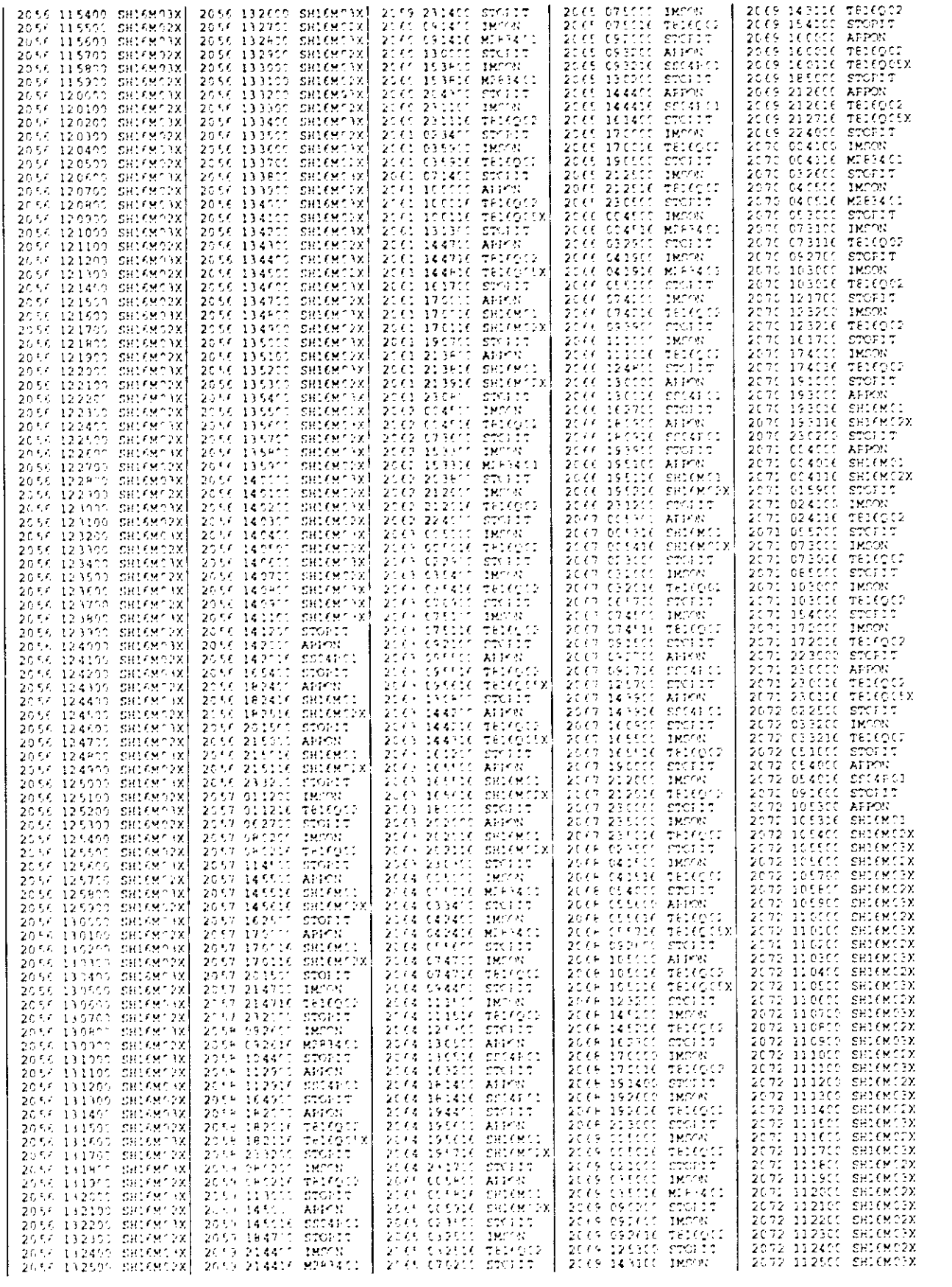

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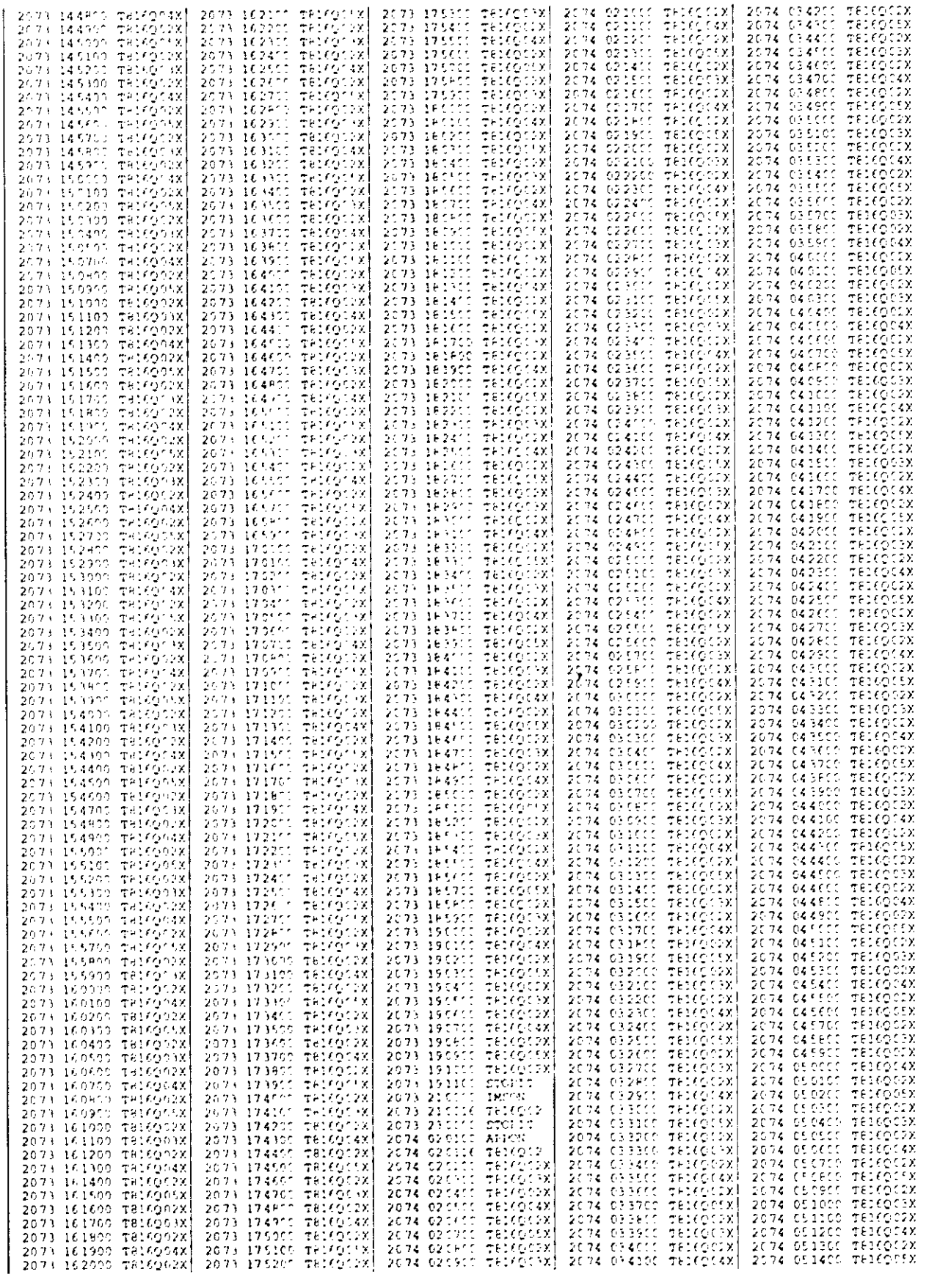

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2082	114000	SH16M02X
2082	114100	SH16M03X
2082	114200	SH16M02X
2082	114300	SH16M03X
2082	114400	SH16M02X
2082	114500	SH16M03X
2082	114600	SH16M02X
2082	114700	SH16M03X
2082	114800	SH16M02X
2082	114900	SH16M03X
2082	115000	SH16M02X
2082	115100	SH16M03X
2082	115200	SH16M02X
2082	115300	SH16M03X
2082	115400	SH16M02X
2082	115500	SH16M03X
2082	115600	SH16M02X
2082	115700	SH16M03X
2082	115800	SH16M02X
2082	115900	SH16M03X
2082	120000	SH16M02X
2082	120100	SH16M03X
2082	120200	SH16M02X
2082	120300	SH16M03X
2082	120400	SH16M02X
2082	120500	SH16M03X
2082	120600	SH16M02X
2082	120700	SH16M03X
2082	120800	SH16M02X
2082	120900	SH16M03X
2082	121000	SH16M02X
2082	121100	SH16M03X
2082	121200	SH16M02X
2082	121300	SH16M03X
2082	121400	SH16M02X
2082	121500	SH16M03X
2082	121600	SH16M02X
2082	121700	SH16M03X
2082	121800	SH16M02X
2082	121900	SH16M03X
2082	122000	SH16M02X
2082	122100	SH16M03X
2082	122200	SH16M02X
2082	122300	SH16M03X
2082	122400	SH16M02X
2082	122500	SH16M03X
2082	122600	SH16M02X
2082	122700	SH16M03X
2082	122800	SH16M02X
2082	122900	SH16M03X
2082	123000	SH16M02X
2082	123100	SH16M03X
2082	123200	SH16M02X
2082	123300	SH16M03X
2082	123400	SH16M02X
2082	123500	SH16M03X
2082	123600	SH16M02X
2082	123700	SH16M03X
2082	123800	SH16M02X
2082	123900	SH16M03X
2082	124000	SH16M02X
2082	124100	SH16M03X
2082	124200	SH16M02X
2082	124300	SH16M03X
2082	124400	SH16M02X
2082	124500	SH16M03X
2082	124600	SH16M02X
2082	124700	SH16M03X
2082	124800	SH16M02X
2082	124900	SH16M03X
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2082	125700	SH16M03X
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2082	130400	SH16M02X
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2082	131100	SH16M03X
2082	131200	SH16M02X
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2082	132300	SH16M03X
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2082	132700	SH16M03X
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2082	133100	SH16M03X
2082	133200	SH16M02X
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2082	133800	SH16M02X
2082	133900	SH16M03X
2082	134000	SH16M03X
2082	134200	SH16M03X
2082	134300	STOPIT
2082	135500	APPON
2082	135516	T816Q02
2082	135616	T816Q05X
2082	155500	STOPIT
2082	163300	APPON
2082	163316	T816Q02
2082	163416	T816Q05X
2082	223900	STOPIT
2083	001800	APPON
2083	001816	SH16M01
2083	001916	SH16M02X
2083	052600	STOPIT
2083	063600	IMSON
2083	063616	M283401
2083	132700	STOPIT
2083	135500	APPON
2083	135516	SS04P01
2083	191500	STOPIT
2084	033500	APPON
2084	033516	SH16M01
2084	033616	SH16M02X
2084	085000	STOPIT
2084	164700	IMSON
2084	164716	T816Q02
2084	233800	STOPIT
2085	002000	APPON
2085	002016	SS04P01
2085	052400	STOPIT
2085	055500	IMSON
2085	055516	T816Q02
2085	122900	STOPIT
2085	132000	IMSON
2085	132016	M283401
2085	201100	STOPIT
2085	204600	IMSON
2085	204616	T816Q02
2086	025500	STOPIT
2086	033000	APPON
2086	033016	SH16M01
2086	033116	SH16M02X
2086	084000	STOPIT
2086	110000	APPON
2086	110016	T816Q02
2086	110116	T816Q05X
2086	154800	STOPIT
2086	164200	IMSON
2086	164216	T816Q02
2086	233300	STOPIT
2087	003500	APPON
2087	003516	SS04P01
2087	051900	STOPIT
2087	054000	IMSON
2087	054016	T816Q02
2087	122400	STOPIT
2087	131500	IMSON
2087	131516	M283401
2087	200600	STOPIT
2087	204000	IMSON
2087	204016	T816Q02
2088	024400	STOPIT
2088	034000	APPON
2088	034016	SH16M01
2088	034116	SH16M02X
2088	084400	STOPIT
2088	113400	IMSON
2088	113416	T816Q02
2088	[illegible]	STOPIT
2088	[illegible]	IMSON
2088	[illegible]	T816Q02
2088	[illegible]	STOPIT
2089	[illegible]	IMSON
2089	[illegible]	M283401
2089	[illegible]	STOPIT
2089	[illegible]	IMSON
2089	[illegible]	M283401
2089	[illegible]	STOPIT
2089	[illegible]	IMSON
2089	[illegible]	M283401
2089	[illegible]	STOPIT
2089	[illegible]	IMSON
2089	[illegible]	M283401
[illegible]	[illegible]	STOPIT
2090	033500	IMSON
2090	033516	MC83201
2090	063900	STOPIT
2090	100900	IMSON
2090	100916	MC83201
2090	153300	STOPIT
2090	160400	IMSON
2090	160416	MC83201
2090	225500	STOPIT
2091	005700	IMSON
2091	005716	MC83201
2091	050900	STOPIT
2091	061500	IMSON
2091	061516	MC83201
2091	130600	STOPIT
2091	202500	IMSON
2091	202516	HI04N01
2091	202600	HI04N01X
2091	202700	HI04N03X
2091	202800	HI04N01X
2091	202900	HI04N03X
2091	203000	HI04N01X
2091	203100	HI04N03X
2091	203200	HI04N01X
2091	203300	HI04N03X
2091	203400	HI04N01X
2091	203500	HI04N03X
2091	204500	MC83201
2092	023100	STOPIT
2092	030100	IMSON
2092	030116	MC83201
2092	090700	STOPIT
2092	093700	IMSON
2092	093716	MC83201
2092	162600	STOPIT
2092	170500	IMSON
2092	170516	MC83201
2092	225500	STOPIT
2092	232000	IMSON
2092	232016	MC83201
2093	050500	STOPIT
2093	053500	IMSON
2093	053516	MC83201
2093	105900	STOPIT
2093	112700	IMSON
2093	112716	MC83201
2093	161600	STOPIT
2093	202000	IMSON
2093	202016	HI04N01
2093	202100	HI04N01X
2093	202200	HI04N03X
2093	202300	HI04N01X
2093	202400	HI04N03X
2093	202500	HI04N01X
2093	202600	HI04N03X
2093	202700	HI04N01X
2093	202800	HI04N03X
2093	202900	HI04N01X
2093	203000	HI04N03X
2093	204000	MC83201
2094	022600	STOPIT
2094	025600	IMSON
2094	025616	MC83201
2094	[illegible]	STOPIT
2094	[illegible]	IMSON
2094	[illegible]	MC83201
2094	161800	STOPIT
2094	170000	IMSON
2094	170016	MC83201
2094	214800	STOPIT
2094	221000	IMSON
2094	221016	MC83201
2095	[illegible]	STOPIT
2095	[illegible]	IMSON
2095	[illegible]	MC83201
2095	161300	STOPIT
2095	164500	IMSON
2095	164516	MC83201
2096	011300	STOPIT
2096	014500	IMSON
2096	014516	MC83201
2096	[illegible]	STOPIT
2096	164500	IMSON
2096	164516	MC83201
2096	[illegible]	STOPIT
2096	234100	IMSON
2096	234116	MC83201
2097	[illegible]	STOPIT
2097	122000	IMSON
2097	122016	MC83201
2097	[illegible]	STOPIT
2097	[illegible]	IMSON
2097	183816	MC83201
2098	010800	STOPIT
2098	013800	IMSON
2098	013816	MC83201
2098	081800	STOPIT
2099	204700	APPON
2099	204716	T816Q02
2099	204816	T816Q05X
2099	204956	STOPIT
2099	213400	IMSON
2099	213416	MC83201
2100	021200	STOPIT
2102	232500	APPON
2102	232516	T816Q02
2102	232616	T816Q05X
2103	044200	STOPIT
2103	061500	IMSON
2103	061516	SS28M01
2103	120500	STOPIT
2103	123500	IMSON
2103	123516	T816Q02
2103	192000	STOPIT
2104	024000	APPON
2104	024016	SH16M01
2104	024116	SH16M02X
2104	060000	SS28M01
2104	081000	STOPIT
2104	084000	IMSON
2104	084016	SS28M01
2104	152900	STOPIT
2104	155900	IMSON
2104	155916	T816Q02
2104	225000	STOPIT
2104	232000	APPON
2104	232016	T816Q02
2104	232116	T816Q05X
2105	043800	STOPIT
2105	061000	IMSON
2105	061016	SS28M01
2105	113000	STOPIT
2105	120000	IMSON
2105	120016	T816Q02
2105	123100	CS04L01
2105	182400	STOPIT
2106	023500	APPON
2106	023516	SH16M01
2106	023616	SH16M02X
2106	055500	SS28M01
2106	065500	STOPIT
2106	083500	IMSON
2106	083516	SS28M01
2106	152400	STOPIT
2106	155400	IMSON
2106	155416	T816Q02
2106	224500	STOPIT
2106	231500	APPON
2106	231516	T816Q02
2106	231616	T816Q05X
2107	043300	STOPIT
2107	065500	IMSON
2107	065516	SS28M01
2107	113100	STOPIT
2107	115500	IMSON
2107	115516	T816Q02
2107	122600	CS04L01
2107	181900	STOPIT
2107	191600	IMSON
2107	191616	T816Q02
2108	021900	STOPIT
2108	041000	IMSON
2108	041016	SS28M01
2108	090000	STOPIT
2108	111000	IMSON
2108	111016	SS28M01
2108	180000	STOPIT
2108	213000	IMSON
2108	213016	T816Q02
2109	042000	STOPIT
2109	054000	IMSON
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2109	112300	STOPIT
2109	115600	IMSON
2109	115616	SS28M01
2109	184700	STOPIT
2109	220000	APPON
2109	220016	SH16M01
2109	220100	SH16M02X
2109	220200	SH16M03X
2109	220300	SH16M02X
2109	220400	SH16M03X
2109	220500	SH16M02X
2109	220600	SH16M03X

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2109 220700 SH16M02X
2109 220800 SH16M03X
2109 220900 SH16M02X
2109 221000 SH16M03X
2109 221100 SH16M02X
2109 221200 SH16M03X
2109 221300 SH16M02X
2109 221400 SH16M03X
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2109 221900 SH16M02X
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2109 222200 SH16M03X
2109 222300 SH16M02X
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2109 222800 SH16M03X
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2109 223600 SH16M03X
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2109 223900 SH16M02X
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2109 230500 SH16M02X
2109 230600 SH16M03X
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2109 230900 SH16M02X
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2109 231100 SH16M02X
2109 231200 SH16M03X
2109 231300 SH16M02X
2109 231400 SH16M03X
2109 231500 SH16M02X
2109 231600 SH16M03X
2109 231700 SH16M02X
2109 231800 SH16M03X
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2109 232200 SH16M03X
2109 232300 SH16M02X
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2109 232700 SH16M02X
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2109 232900 SH16M02X
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2109 233600 SH16M03X
2109 233700 SH16M02X
2109 233800 SH16M03X
2109 233900 SH16M02X
2109 234000 SH16M03X
2109 234100 SH16M02X
2109 234200 SH16M03X
2109 234300 SH16M02X
2109 234400 SH16M03X
2109 234500 SH16M02X
2109 234600 SH16M03X
2109 234700 SH16M02X
2109 234800 SH16M03X
2109 234900 SH16M02X
2109 235000 SH16M03X
2109 235100 SH16M02X
2109 235200 SH16M03X
2109 235300 SH16M02X
2109 235400 SH16M03X
2109 235500 SH16M02X
2109 235600 SH16M03X
2109 235700 SH16M02X
2109 235800 SH16M03X
2109 235900 SH16M02X
2110 000000 SH16M03X
2110 000100 SH16M02X
2110 000200 SH16M03X
2110 000300 SH16M02X
2110 000400 SH16M03X
2110 000500 SH16M02X
2110 000600 SH16M03X
2110 000700 SH16M02X
2110 000800 SH16M03X
2110 000900 SH16M02X
2110 001000 SH16M03X
2110 001100 SH16M02X
2110 001200 SH16M03X
2110 001300 SH16M02X
2110 001400 SH16M03X
2110 001500 SH16M02X
2110 001600 SH16M03X
2110 001700 SH16M02X
2110 001800 SH16M03X
2110 001900 SH16M02X
2110 002000 SH16M03X
2110 002100 SH16M02X
2110 002200 SH16M03X
2110 002300 SH16M02X
2110 002400 SH16M03X
2110 002500 SH16M02X
2110 002600 SH16M03X
2110 002700 SH16M02X
2110 002800 SH16M03X
2110 002900 SH16M02X
2110 003000 SH16M03X
2110 003100 SH16M02X
2110 003200 SH16M03X
2110 003300 SH16M02X
2110 003400 SH16M03X
2110 003500 SH16M02X
2110 003600 SH16M03X
2110 003700 SH16M02X
2110 003800 SH16M03X
2110 003900 SH16M02X
2110 004000 SH16M03X
2110 004100 SH16M02X
2110 004200 SH16M03X
2110 004300 SH16M02X
2110 004400 SH16M03X
2110 004500 SH16M03X
2110 004700  SH16M03X
2110 004800  STOPIT
END LISTING
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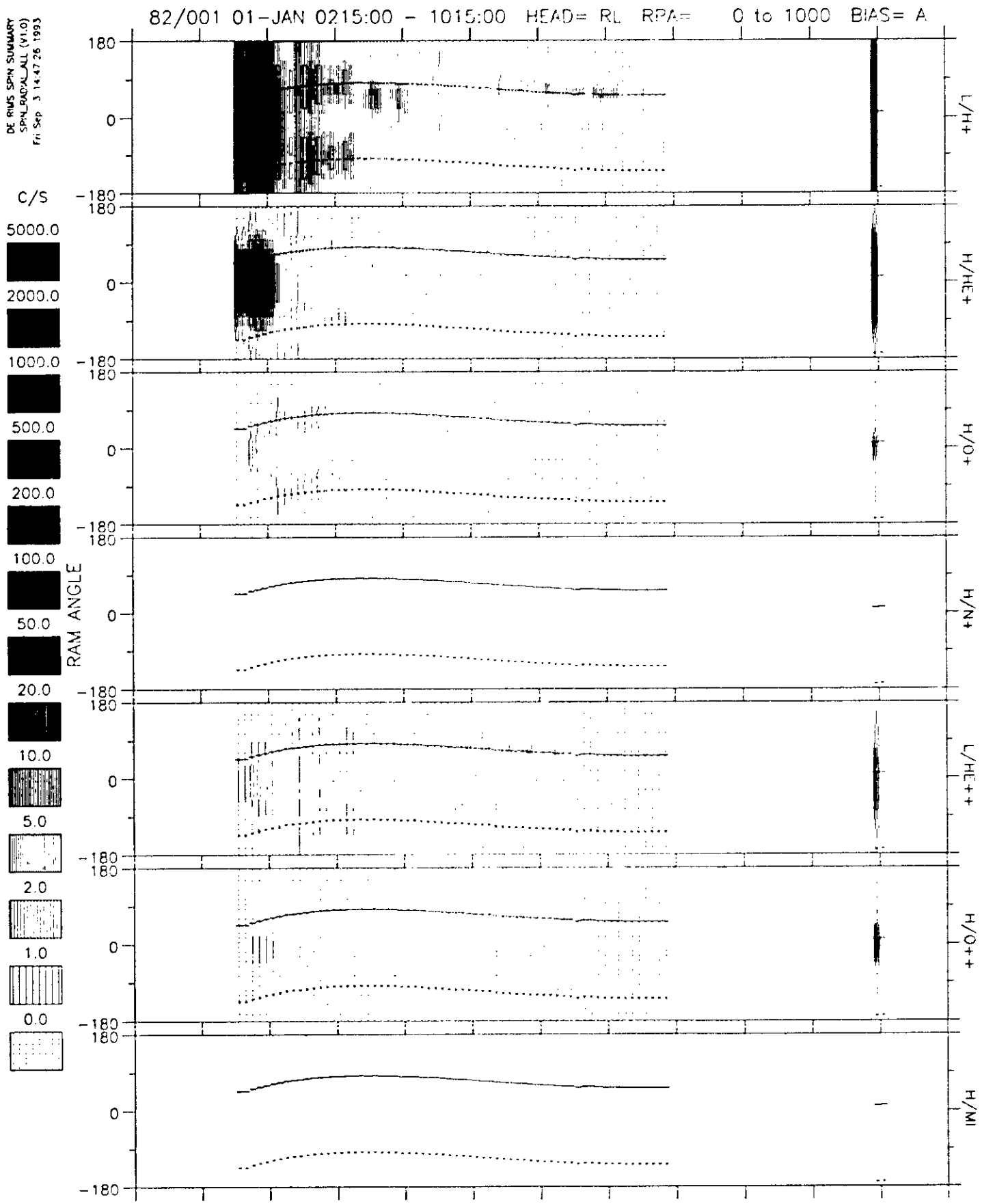
V. DE1/RIMS 1982 Summary Spectrograms

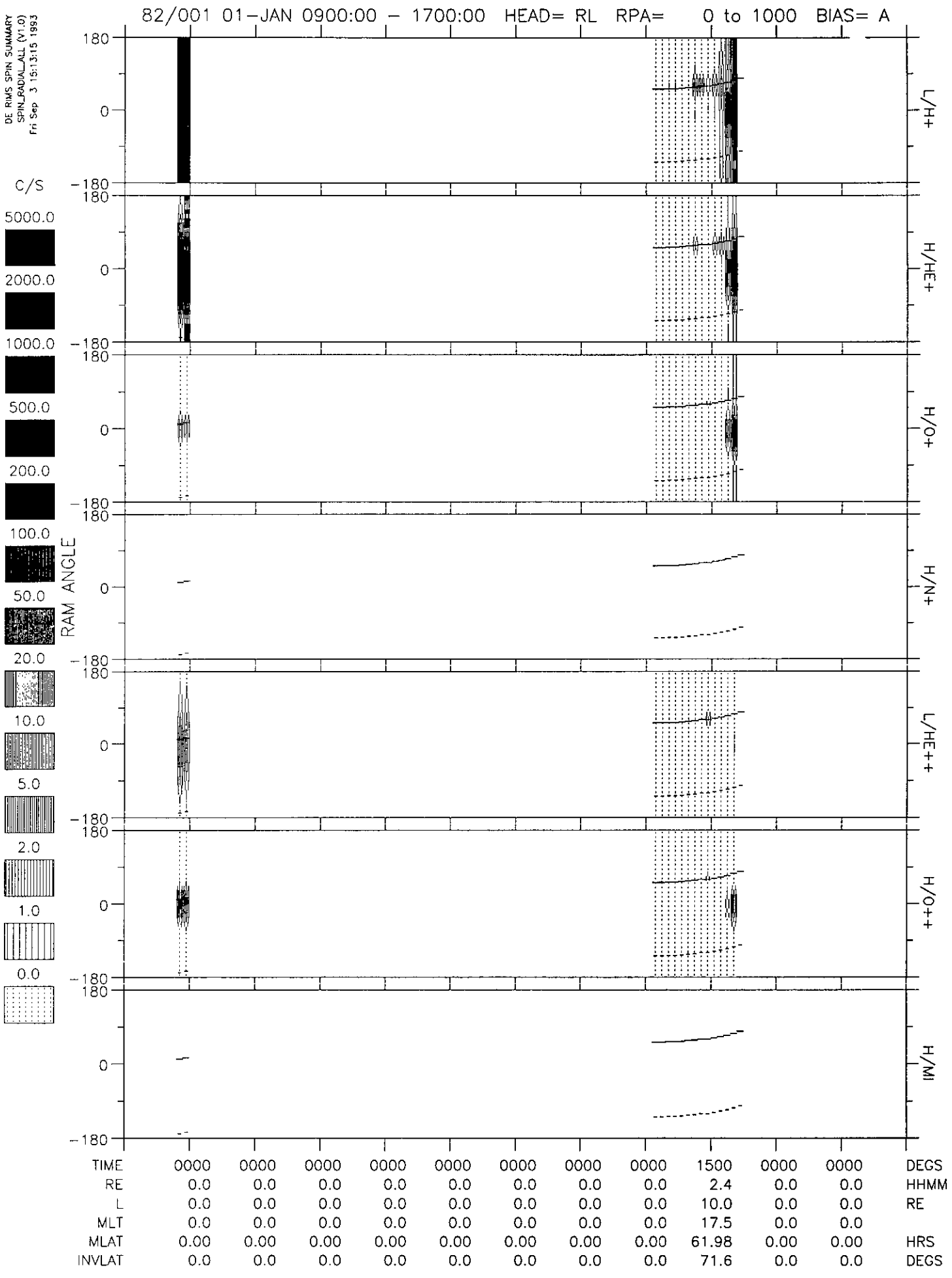
Errata

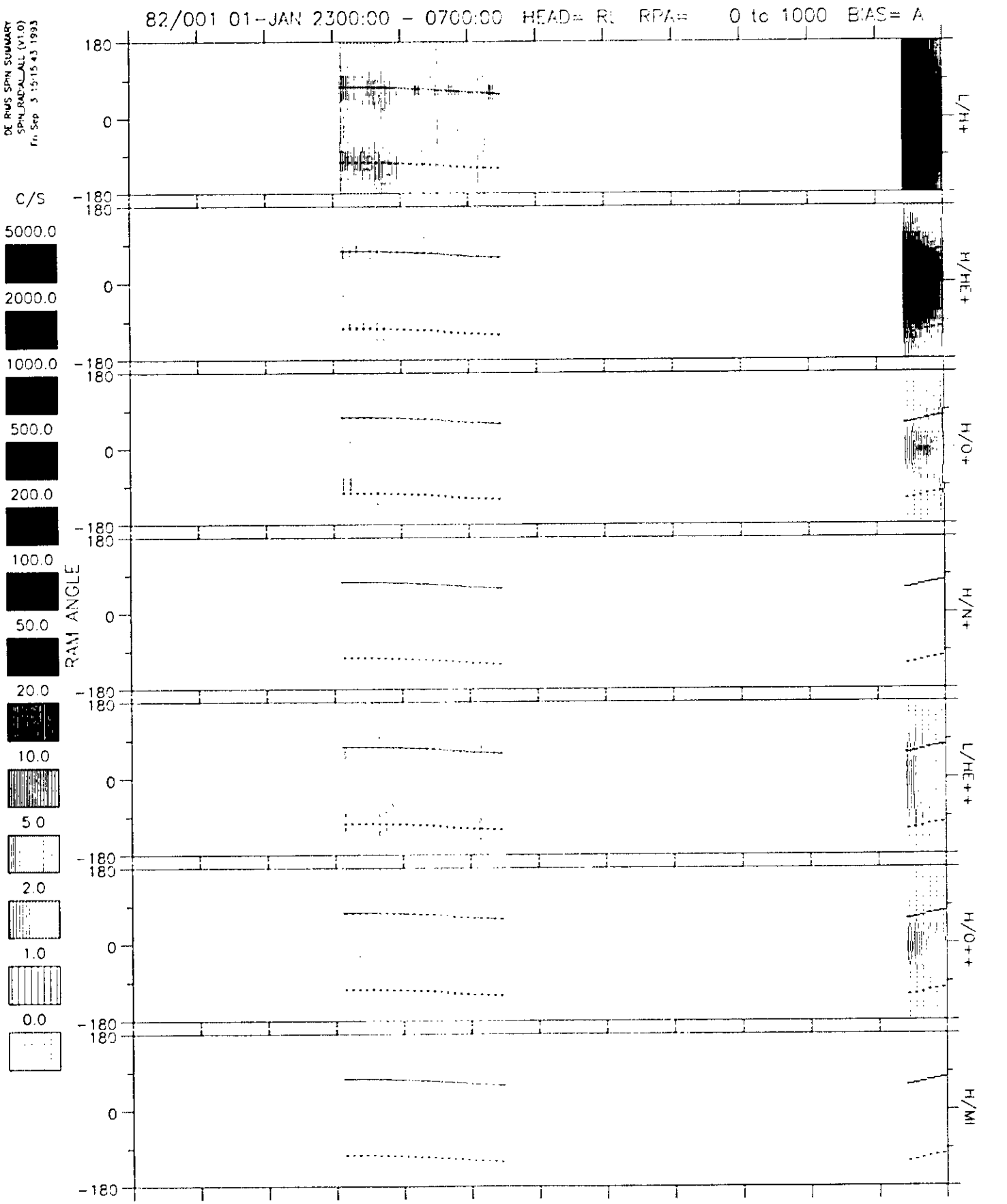
Units listed for the various orbit parameters shown at the bottom of each plot should be as follows:

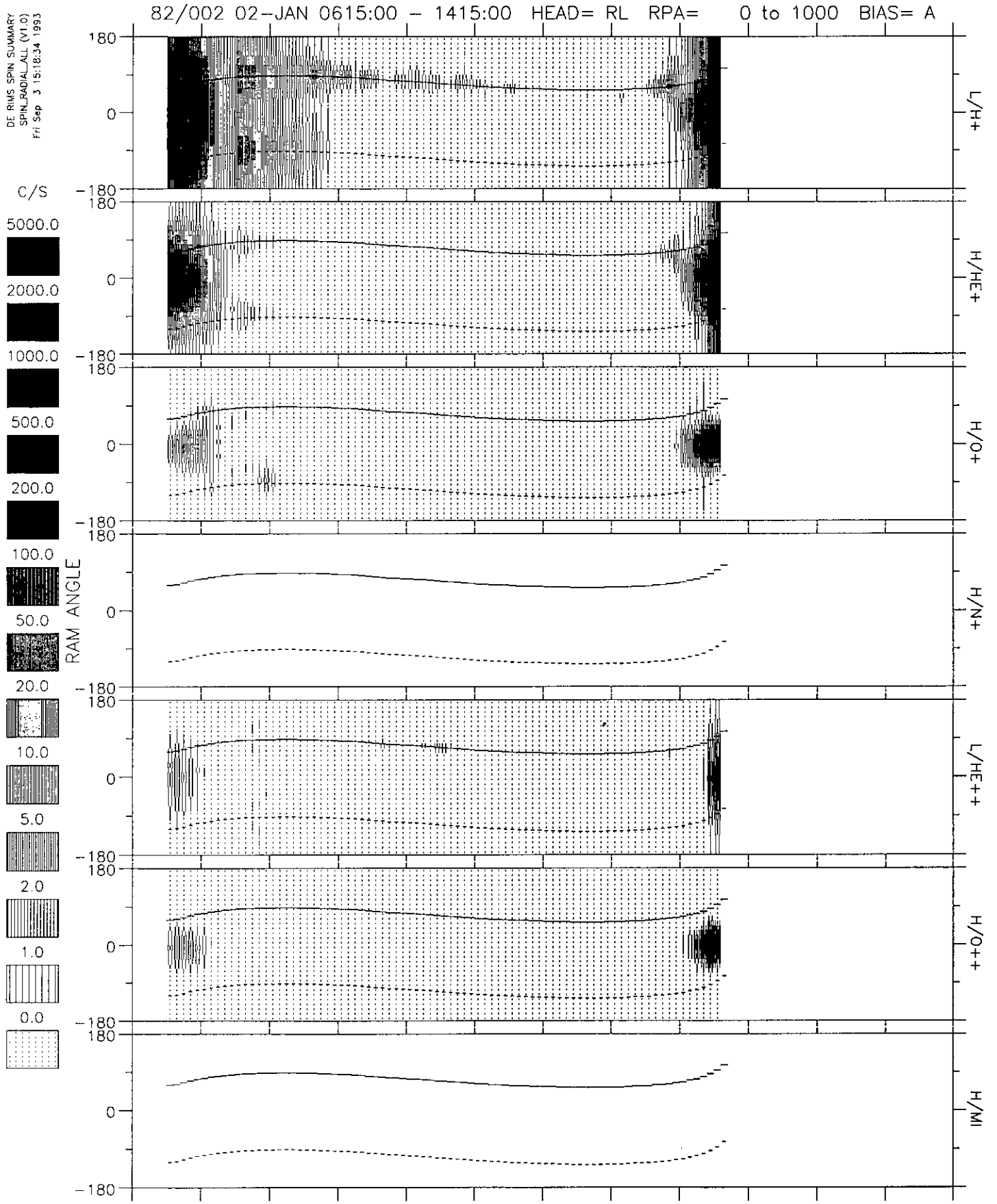
TIME	HHMM
RE	RE
L	
MLT	HRS
MLAT	DEGS
INVLAT	DEGS

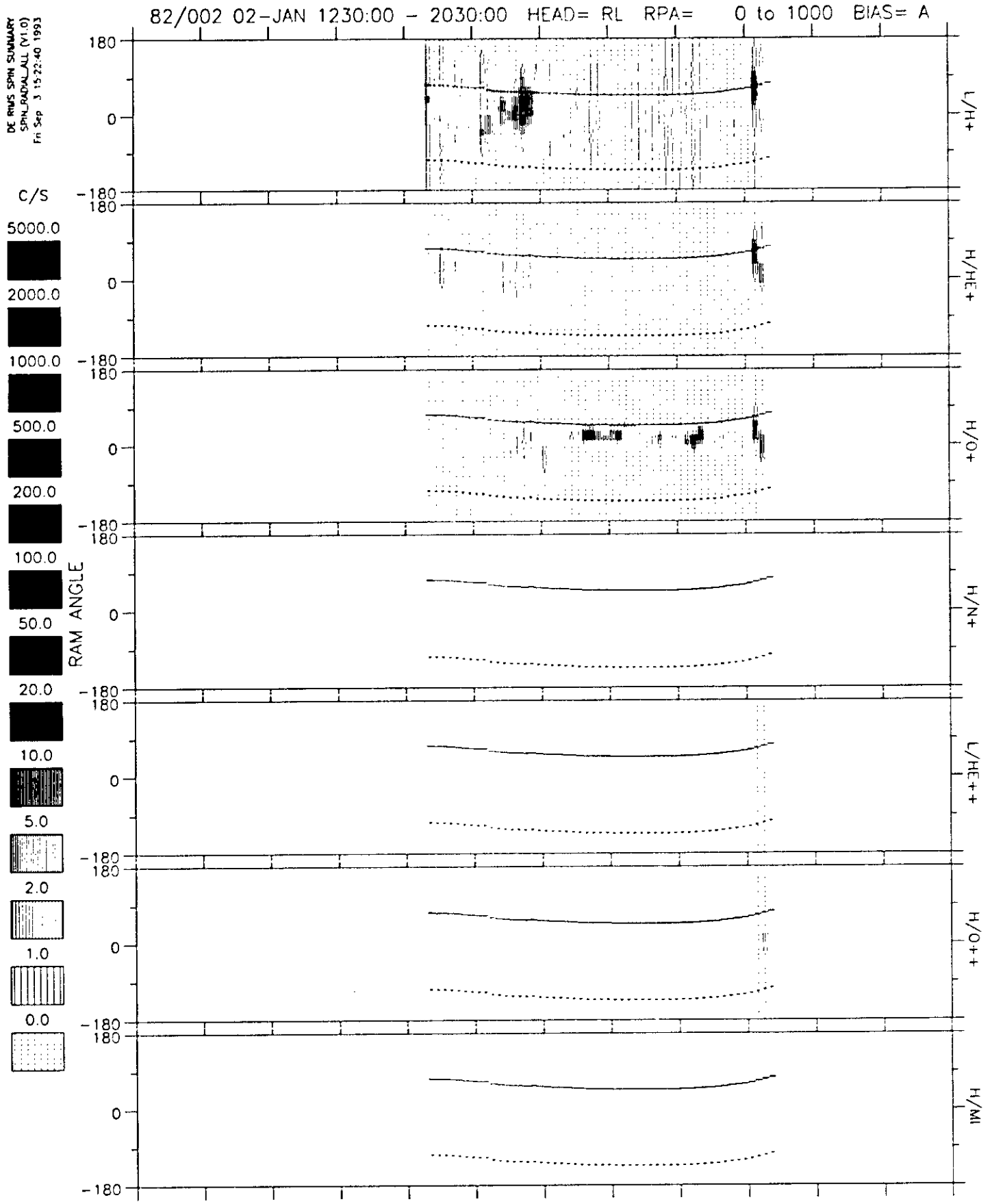
The panel labeled L/He^{++} refers to the response of the RIMS low-mass channel to the M/Z=2 mass/charge settings.

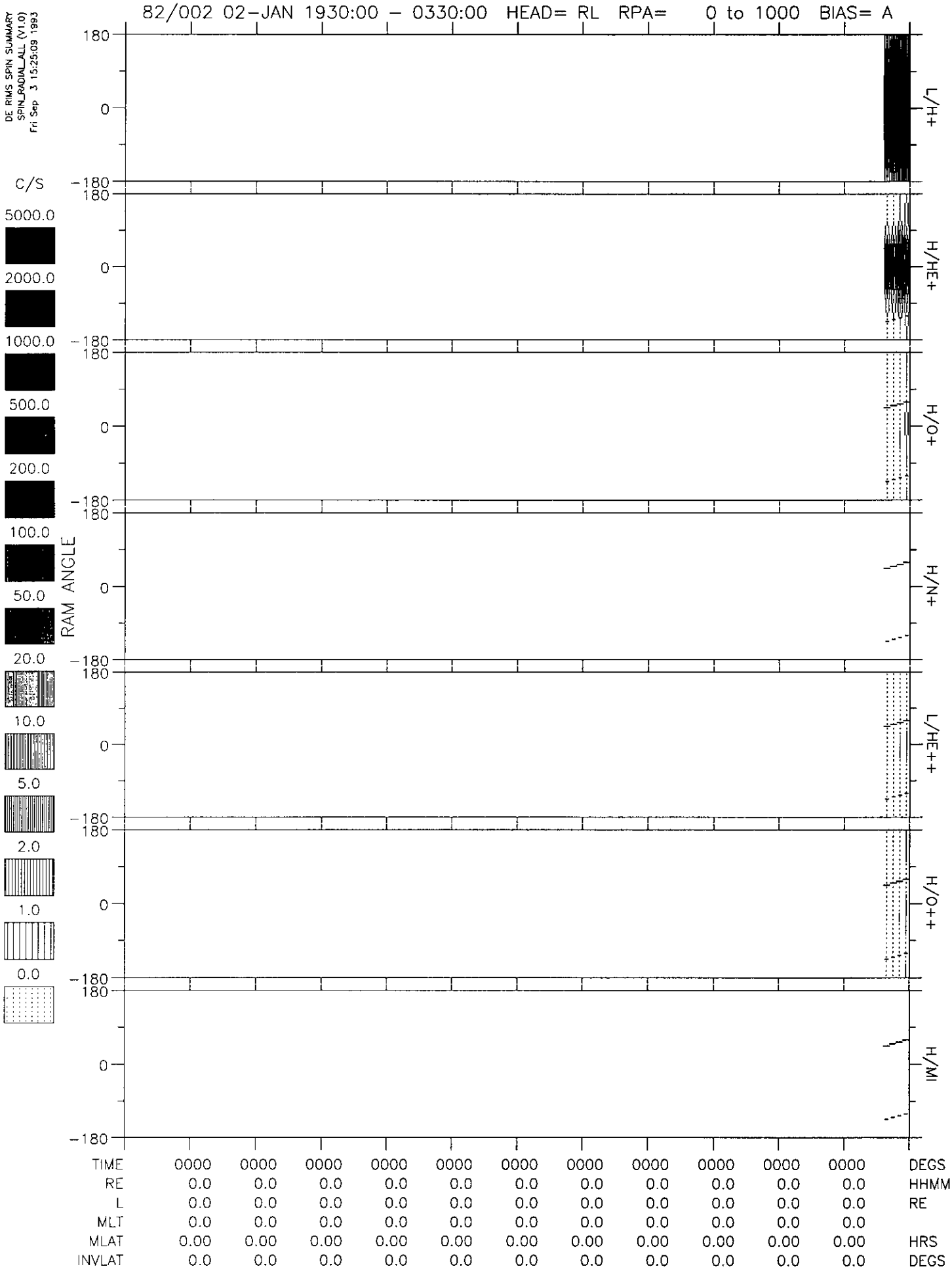

82/001 01-JAN 0215:00 - 1015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 14:47:26 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0335 0415 0455 0535 0615 0655 0000 0000 0000 0935 DEGS
RE 0.0 3.6 4.2 4.6 4.7 4.5 4.1 0.0 0.0 0.0 2.2 HHMM
L 0.0 3.9 6.1 9.7 17.7 42.2 100.0 0.0 0.0 0.0 2.2 RE
MLT 0.0 4.1 4.4 4.7 5.0 5.6 8.1 0.0 0.0 0.0 4.3
MLAT 0.00 19.05 35.47 48.30 60.54 72.32 84.14 0.00 0.00 0.00 -9.52 HRS
INVLAT 0.0 59.7 66.2 71.3 76.2 81.2 86.6 0.0 0.0 0.0 48.2 DEGS

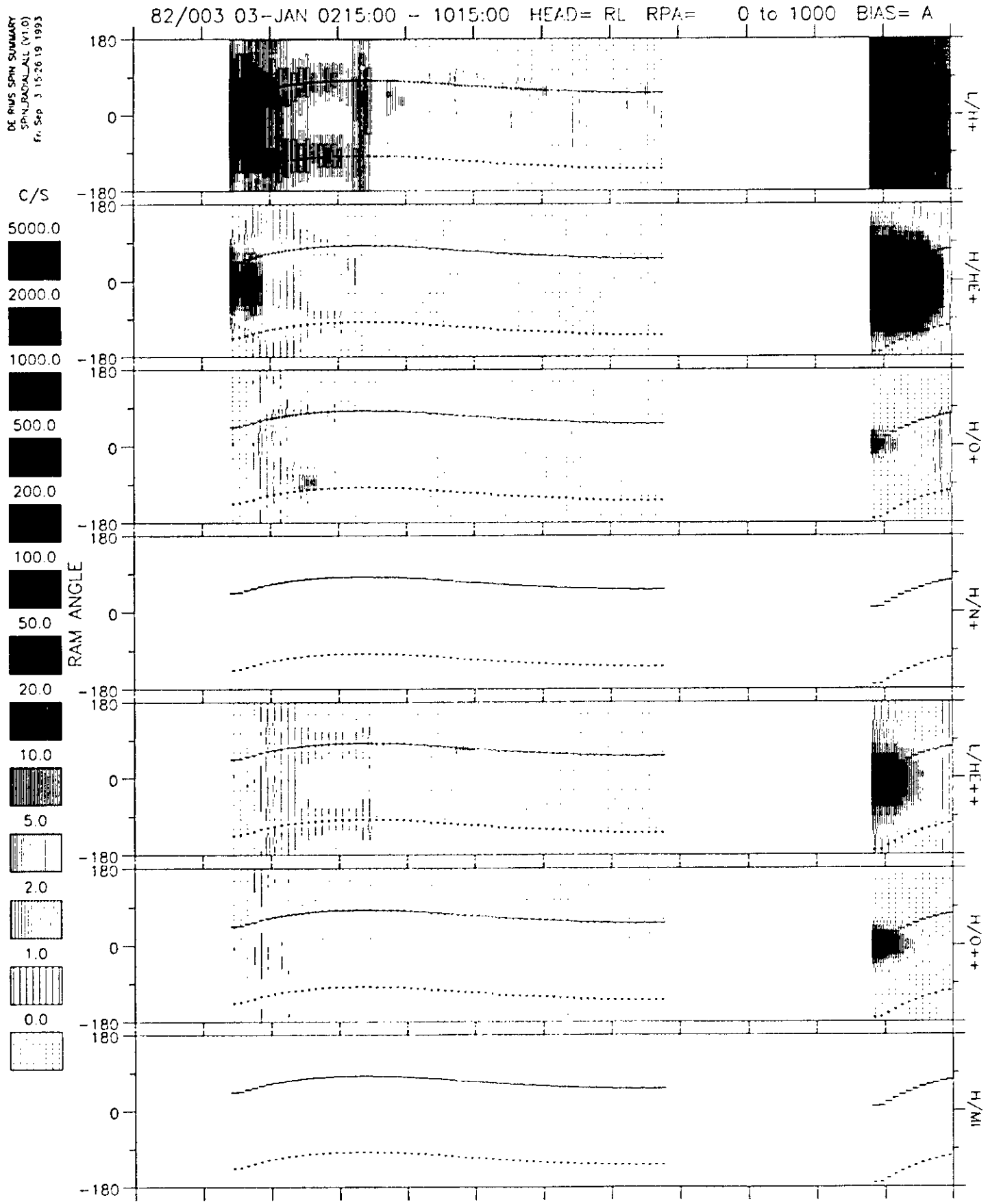

82/001 01-JAN 0900:00 - 1700:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 15:13:15 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 1500 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.4 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 10.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 17.5 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 61.98 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 71.6 0.0 0.0 DEGS

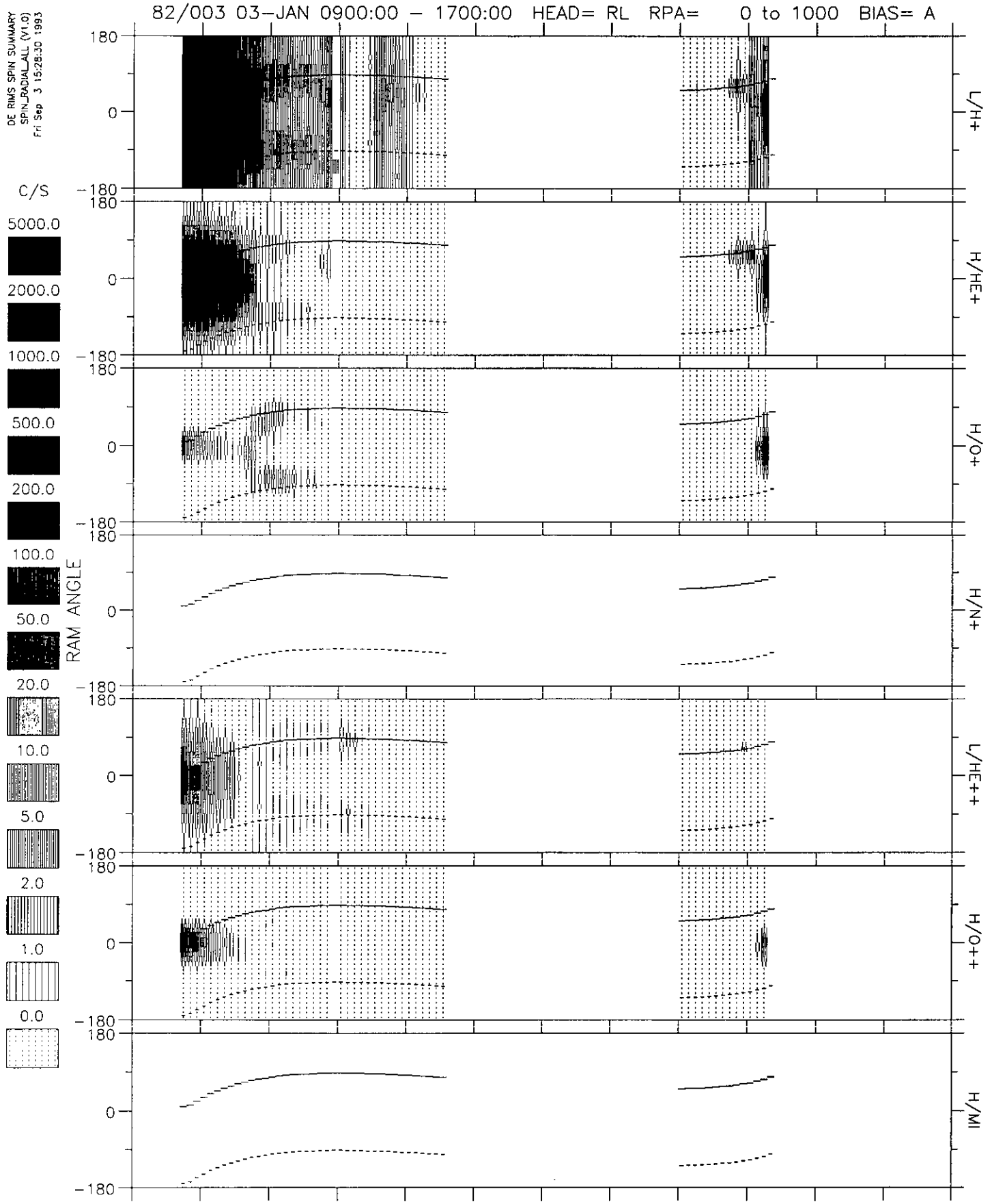

DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 15:15:43 1993
82/001 01-JAN 2300:00 - 0700:00 HEAD= R RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N1
TIME 0000 0000 0000 0140 0220 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.6 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 8.3 13.2 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 4.3 4.8 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 42.37 54.19 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 69.8 74.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS


82/002 02-JAN 0615:00 - 1415:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 15:18:34 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0655 0735 0815 0855 0935 1015 1055 1135 0000 0000 0000 DEGS
RE 3.5 4.2 4.6 4.7 4.5 4.1 3.4 2.3 0.0 0.0 0.0 HHMM
L 4.3 7.2 12.4 22.9 54.6 100.0 94.6 6.4 0.0 0.0 0.0 RE
MLT 4.3 4.3 4.3 4.1 3.5 1.0 18.4 16.9 0.0 0.0 0.0
MLAT 25.05 40.99 53.14 63.67 73.70 83.27 77.73 51.80 0.00 0.00 0.00 HRS
INVLAT 61.1 68.2 73.5 77.9 82.2 86.8 84.1 66.7 0.0 0.0 0.0 DEGS

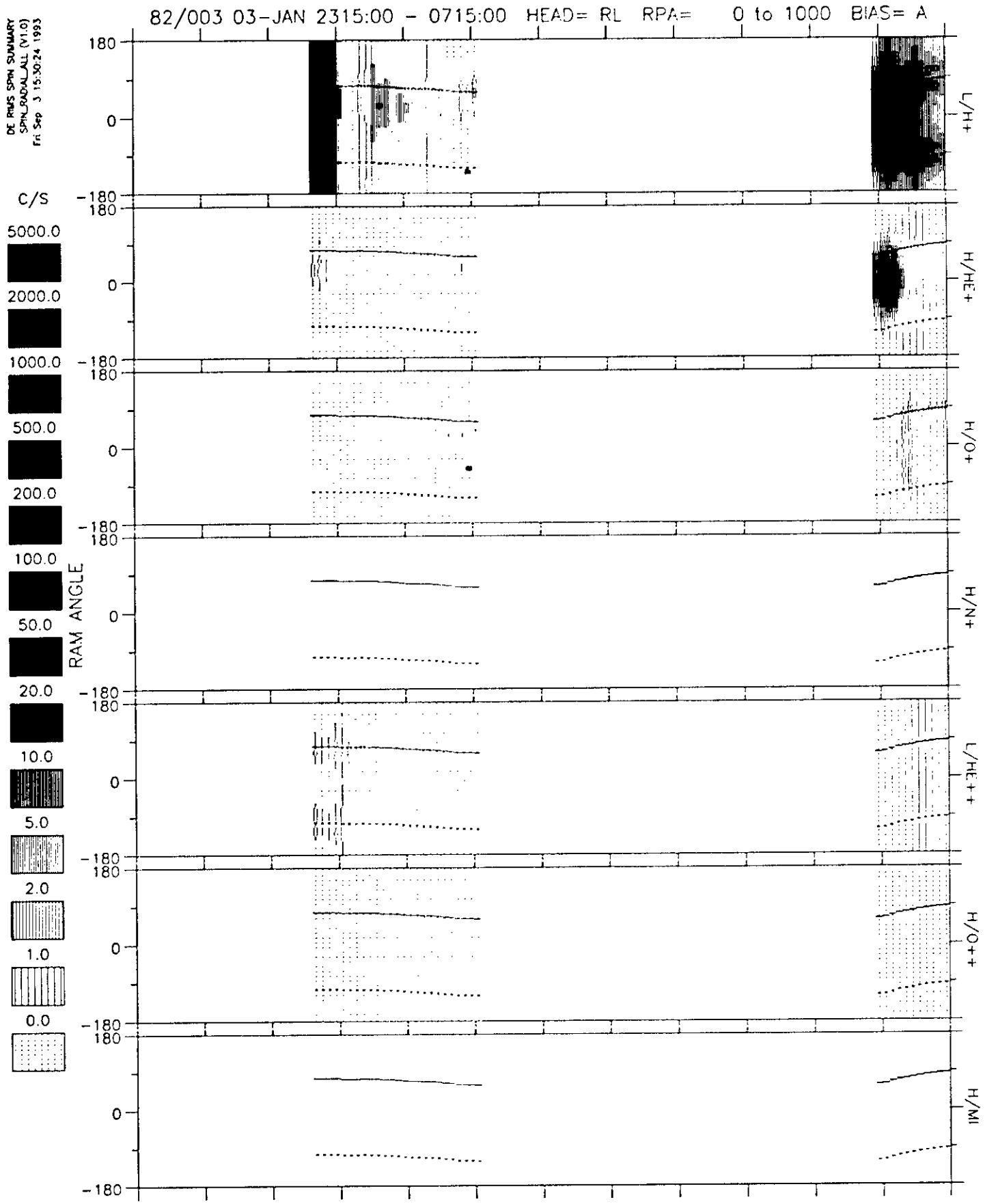

82/002 02-JAN 1230:00 - 2030:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 15:22:40 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 0000 0000 0000 1550 1630 1710 1750 1830 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.7 4.5 4.0 3.3 2.3 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 10.6 15.6 30.0 100.0 15.4 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 3.1 2.8 2.4 0.4 16.8 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 48.25 56.95 67.32 80.74 69.51 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 72.1 75.3 79.5 85.5 75.2 0.0 0.0 DEGS

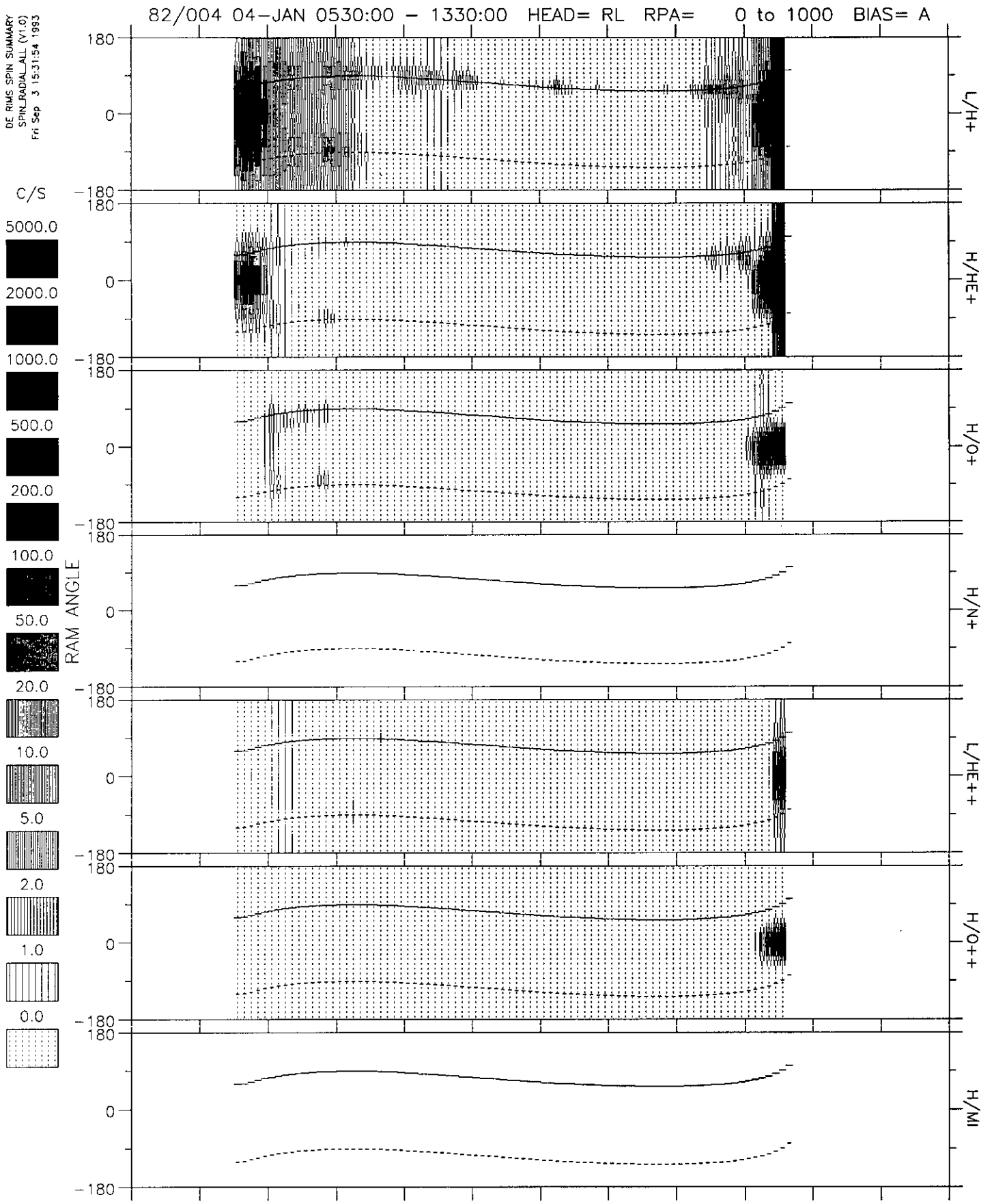

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 15:25:09 1993
82/002 02-JAN 1930:00 - 0330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 15:26:19 1993
82/003 03-JAN 0215:00 - 1015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0335 0415 0455 0535 0615 0655 0000 0000 0000 0935 DEGS
RE 0.0 3.7 4.3 4.6 4.7 4.5 4.0 0.0 0.0 0.0 2.4 HHMM
L 0.0 4.1 6.3 10.2 17.8 45.0 100.0 0.0 0.0 0.0 2.4 RE
MLT 0.0 4.0 4.3 4.6 4.9 5.4 8.5 0.0 0.0 0.0 4.2
MLAT 0.00 20.60 36.51 49.45 60.00 73.14 84.93 0.00 0.00 0.00 -3.52 HRS
INVLAT 0.0 60.4 66.6 71.8 76.3 81.5 87.0 0.0 0.0 0.0 49.8 DEGS

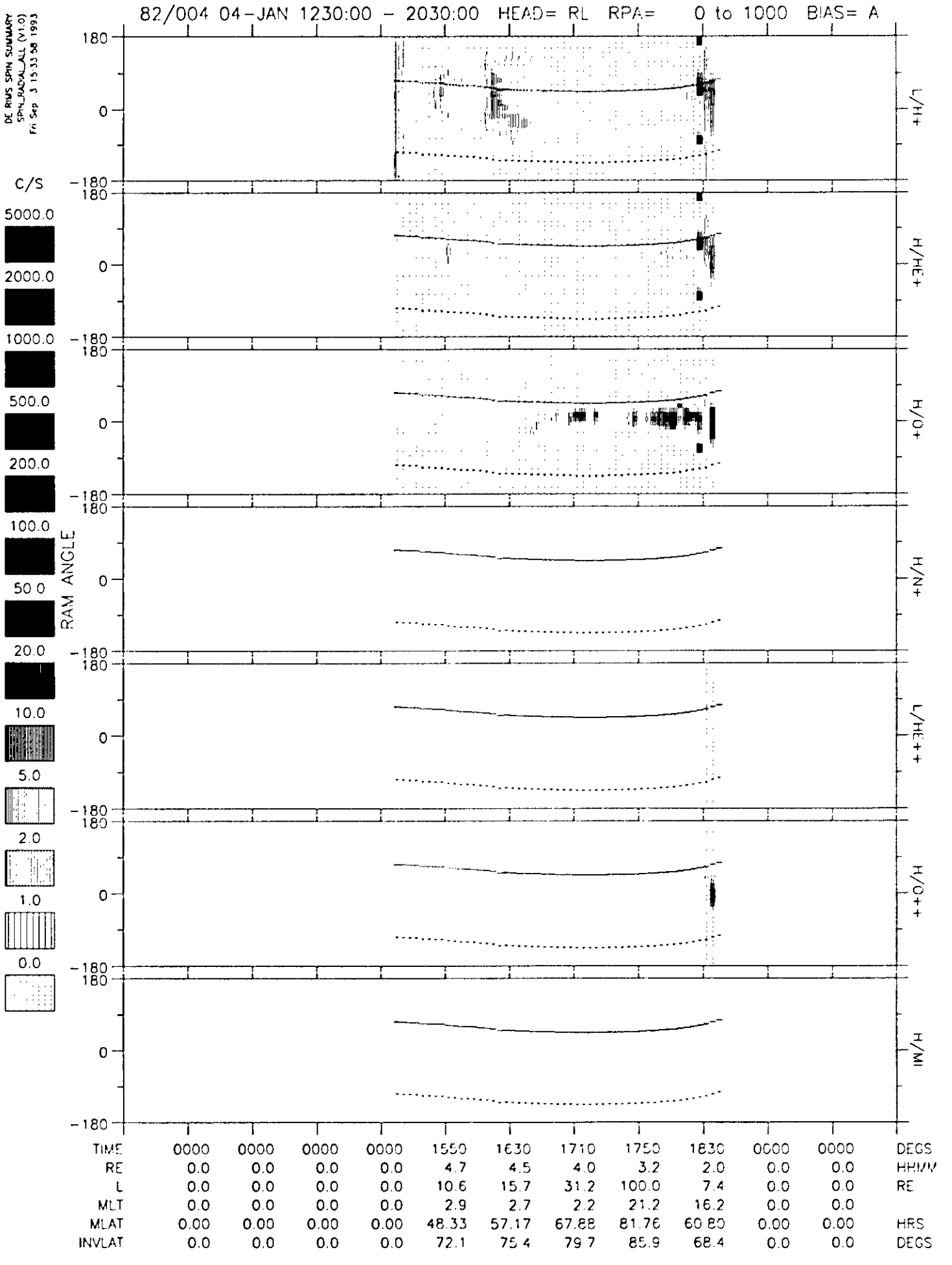


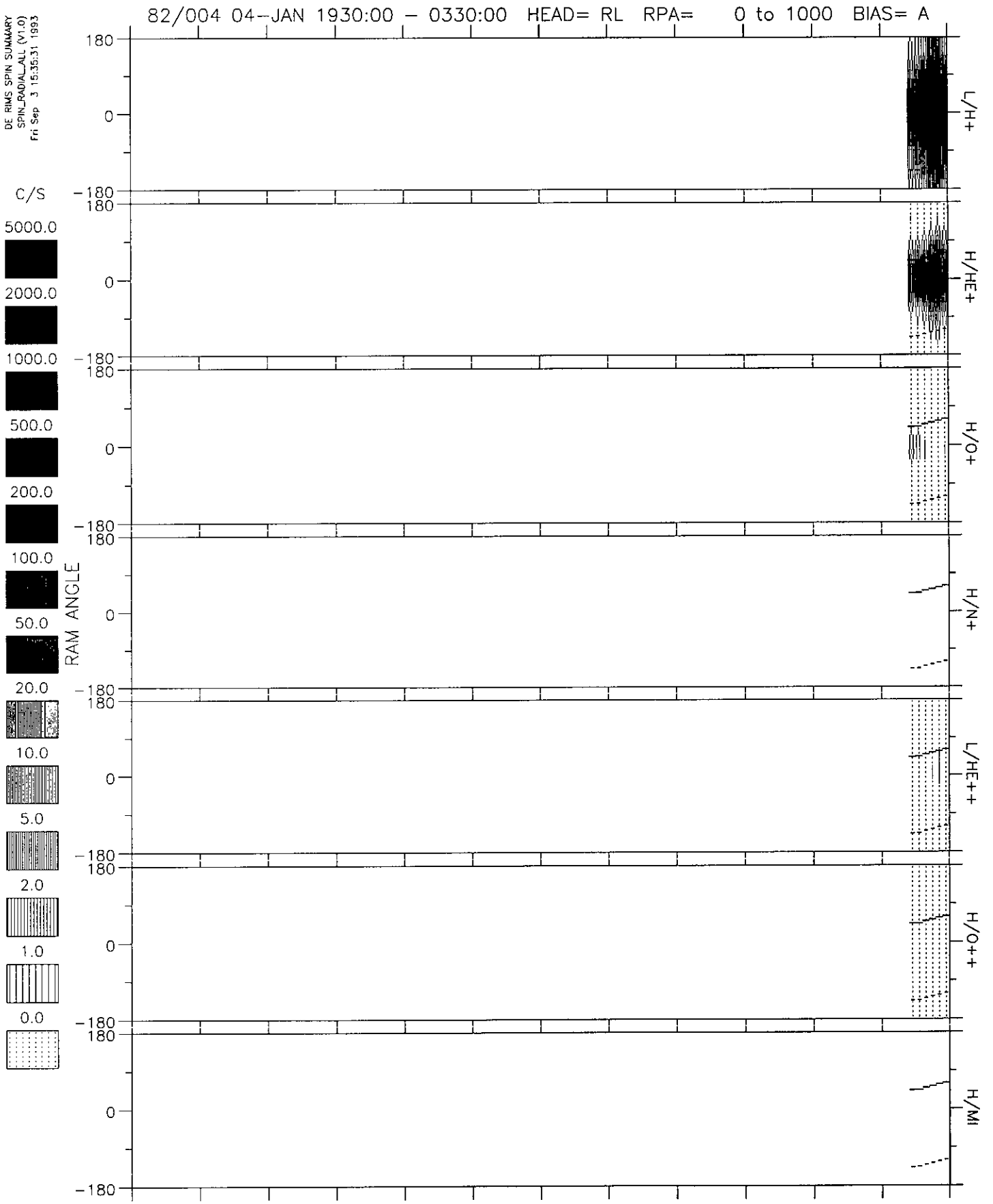
TIME	0940	1020	1100	1140	0000	0000	0000	1420	1500	0000	0000	DEGS
RE	2.5	3.5	4.2	4.6	0.0	0.0	0.0	3.4	2.2	0.0	0.0	HHMM
L	2.6	4.4	6.9	10.5	0.0	0.0	0.0	100.0	7.7	0.0	0.0	RE
MLT	4.2	4.0	3.8	3.5	0.0	0.0	0.0	21.4	17.2	0.0	0.0	
MLAT	1.20	25.14	38.86	48.82	0.00	0.00	0.00	78.48	58.87	0.00	0.00	HRS
INVLAT	51.3	61.4	67.7	72.0	0.0	0.0	0.0	84.4	68.9	0.0	0.0	DEGS

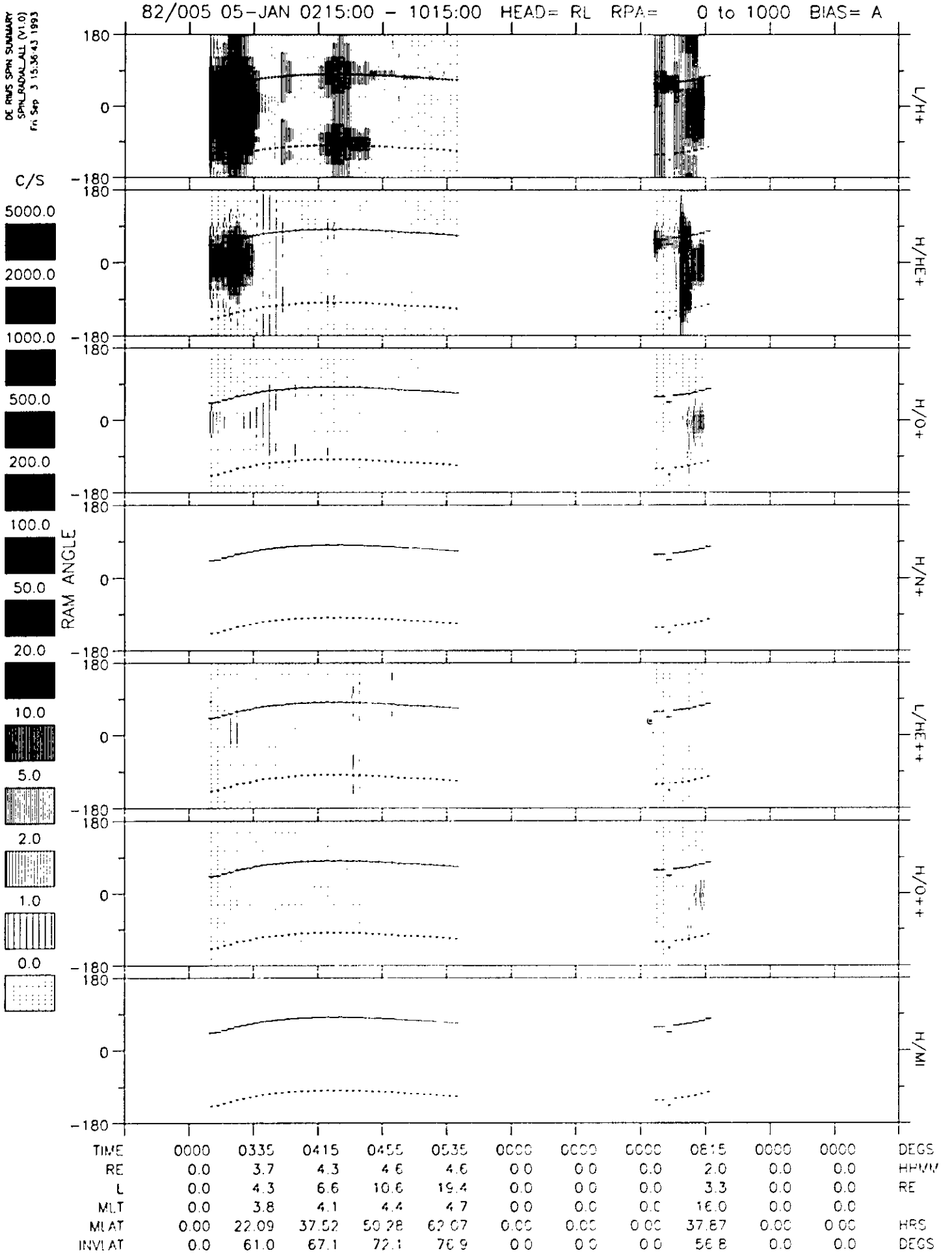

82/003 03-JAN 2315:00 - 0715:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 15:30:24 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0115 0155 0235 0000 0000 0000 0000 0000 0635 DEGS
RE 0.0 0.0 4.5 4.7 4.6 0.0 0.0 0.0 0.0 0.0 3.1 HHMM
L 0.0 0.0 6.8 10.0 16.1 0.0 0.0 0.0 0.0 0.0 3.4 RE
MLT 0.0 0.0 4.0 4.4 4.9 0.0 0.0 0.0 0.0 0.0 4.0
MLAT 0.00 0.00 35.55 47.64 58.51 0.00 0.00 0.00 0.00 0.00 16.09 HRS
INVLAT 0.0 0.0 67.4 71.6 75.6 0.0 0.0 0.0 0.0 0.0 57.4 DEGS

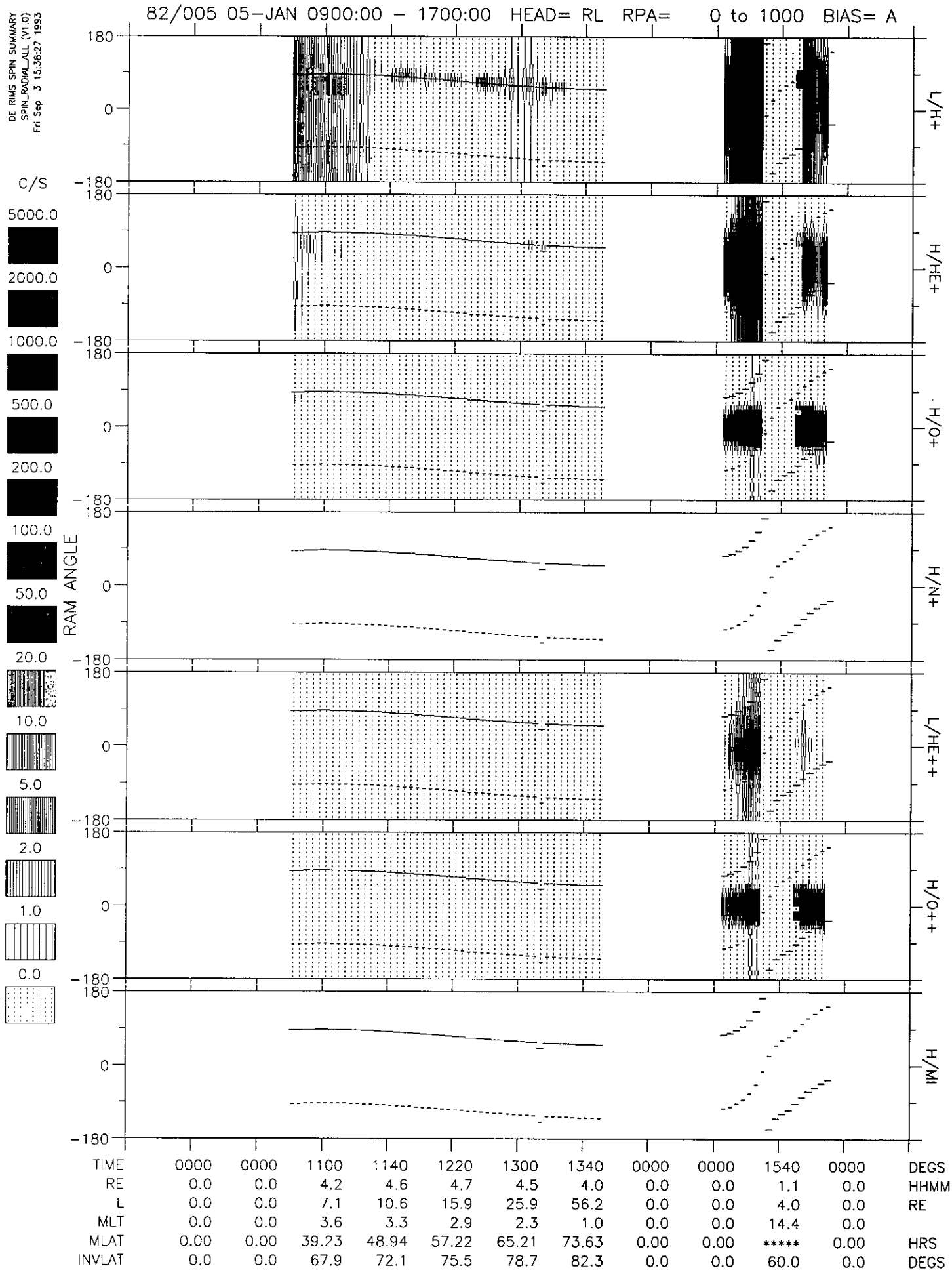


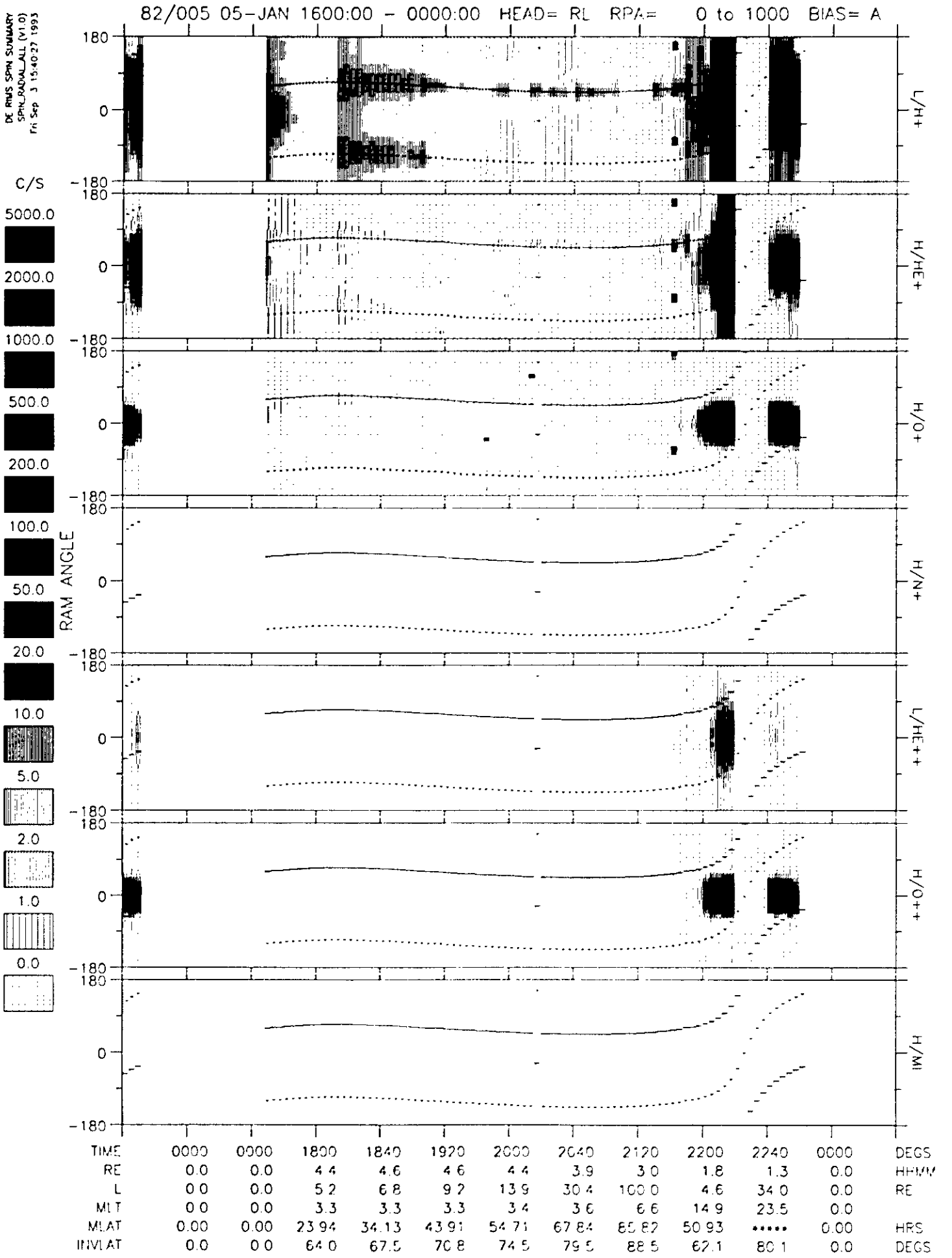
TIME	0000	0650	0730	0810	0850	0930	1010	1050	1130	0000	0000	DEGS
RE	0.0	3.5	4.2	4.5	4.7	4.5	4.1	3.4	2.3	0.0	0.0	HHMM
L	0.0	4.2	7.0	11.9	21.6	49.3	100.0	100.0	6.9	0.0	0.0	RE
MLT	0.0	4.1	4.2	4.1	3.9	3.4	1.2	18.5	16.8	0.0	0.0	
MLAT	0.00	24.08	40.10	52.26	62.77	72.76	82.46	78.61	53.37	0.00	0.00	HRS
INVLAT	0.0	60.8	67.9	73.2	77.6	81.8	86.3	84.6	67.7	0.0	0.0	DEGS

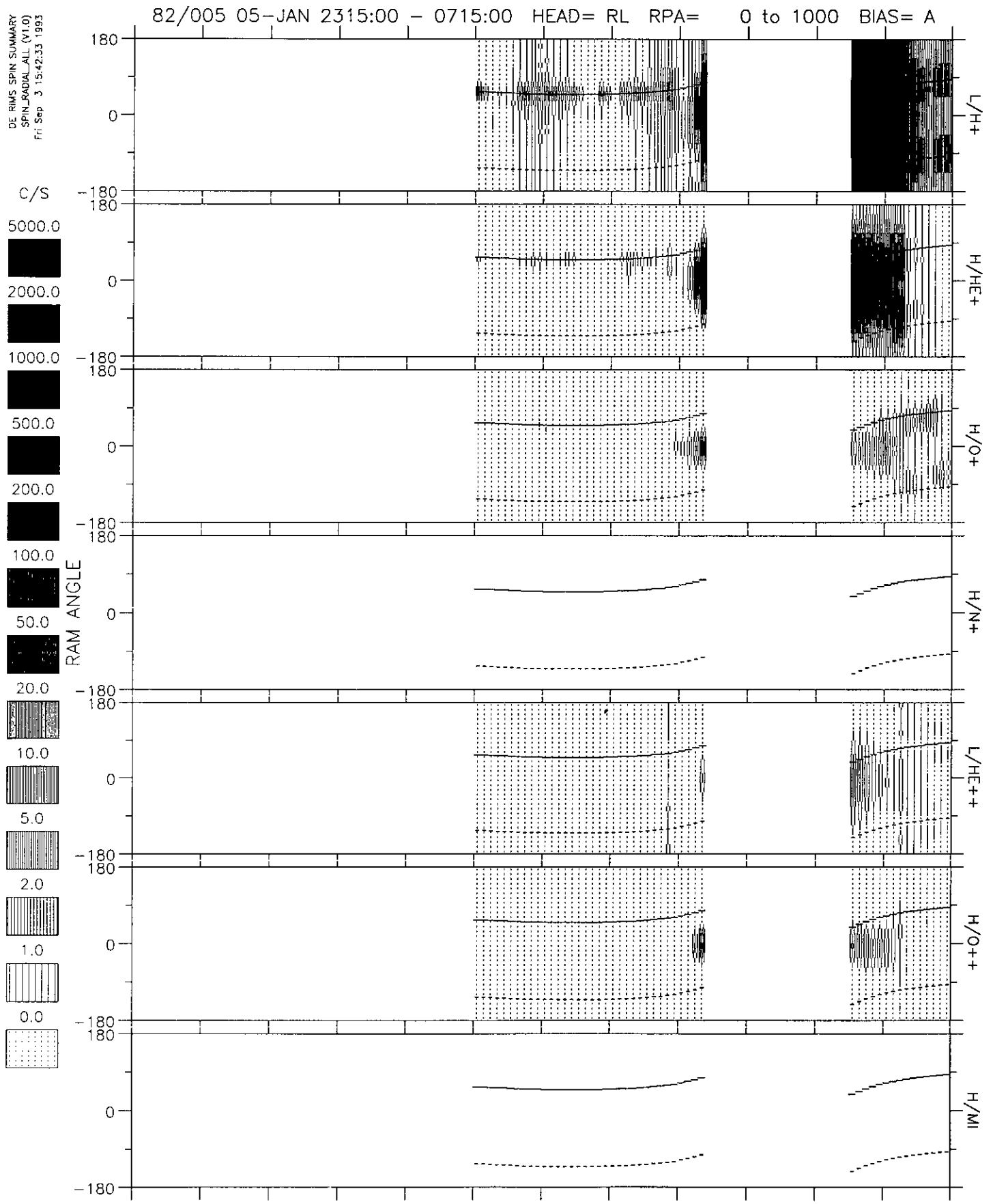

82/004 04-JAN 1230:00 - 2030:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 15:33:58 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 1550 1630 1710 1750 1830 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.7 4.5 4.0 3.2 2.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 10.6 15.7 31.2 100.0 7.4 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 2.9 2.7 2.2 21.2 16.2 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 48.33 57.17 67.88 81.76 60.80 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 72.1 75.4 79.7 85.9 68.4 0.0 0.0 DEGS

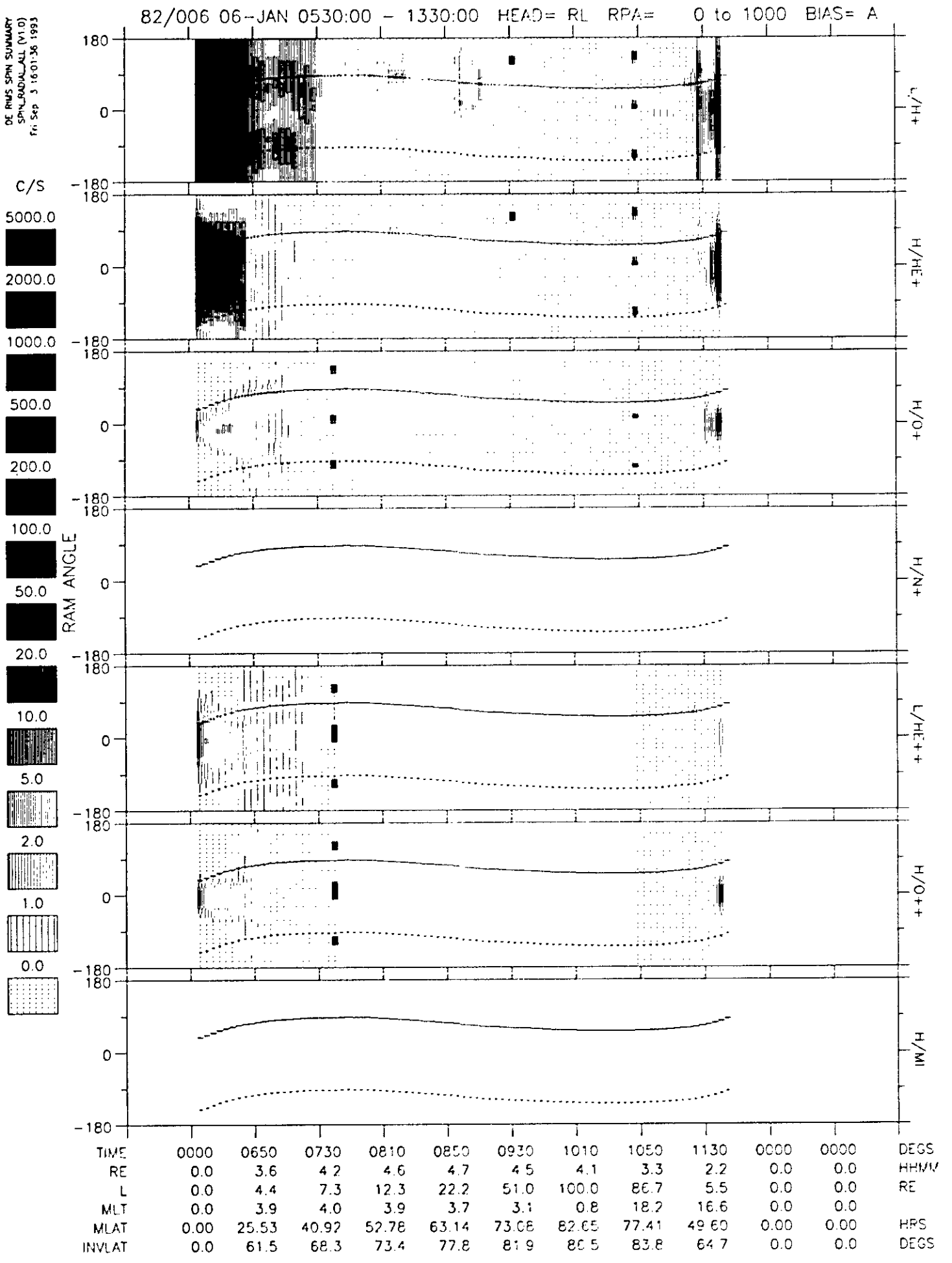

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 15:35:31 1993
82/004 04-JAN 1930:00 - 0330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

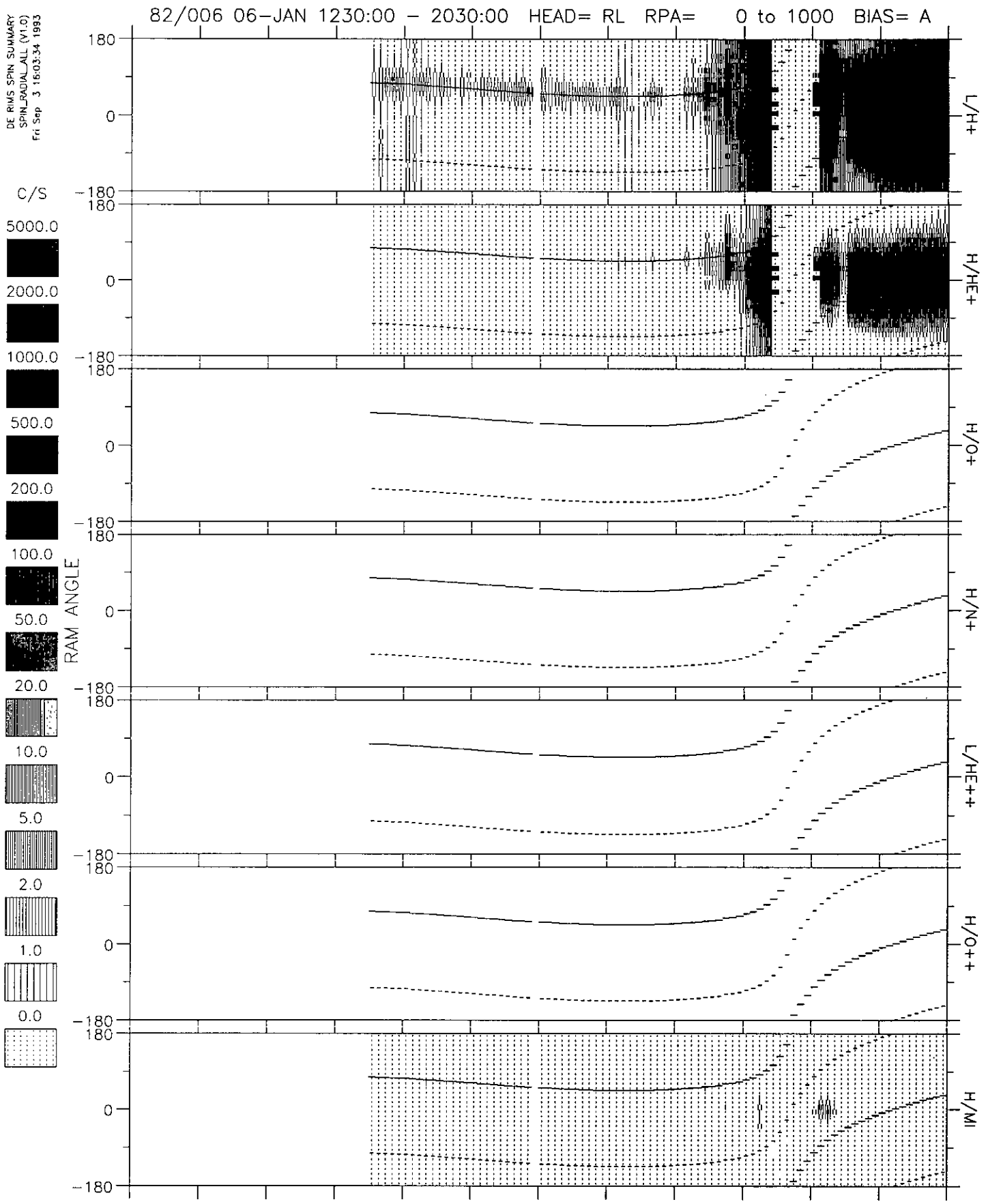

82/005 05-JAN 0215:00 - 1015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 15:36:43 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0335 0415 0455 0535 0000 0000 0000 0815 0000 0000 DEGS
RE 0.0 3.7 4.3 4.6 4.6 0.0 0.0 0.0 2.0 0.0 0.0 HHMM
L 0.0 4.3 6.6 10.6 19.4 0.0 0.0 0.0 3.3 0.0 0.0 RE
MLT 0.0 3.8 4.1 4.4 4.7 0.0 0.0 0.0 16.0 0.0 0.0
MLAT 0.00 22.09 37.52 50.28 62.07 0.00 0.00 0.00 37.87 0.00 0.00 HRS
INVLAT 0.0 61.0 67.1 72.1 76.9 0.0 0.0 0.0 56.8 0.0 0.0 DEGS


82/005 05-JAN 0900:00 - 1700:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 15:38:27 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 1100 1140 1220 1300 1340 0000 0000 1540 0000 DEGS
RE 0.0 0.0 4.2 4.6 4.7 4.5 4.0 0.0 0.0 1.1 0.0 HHMM
L 0.0 0.0 7.1 10.6 15.9 25.9 56.2 0.0 0.0 4.0 0.0 RE
MLT 0.0 0.0 3.6 3.3 2.9 2.3 1.0 0.0 0.0 14.4 0.0
MLAT 0.00 0.00 39.23 48.94 57.22 65.21 73.63 0.00 0.00 ***** 0.00 HRS
INVLAT 0.0 0.0 67.9 72.1 75.5 78.7 82.3 0.0 0.0 60.0 0.0 DEGS

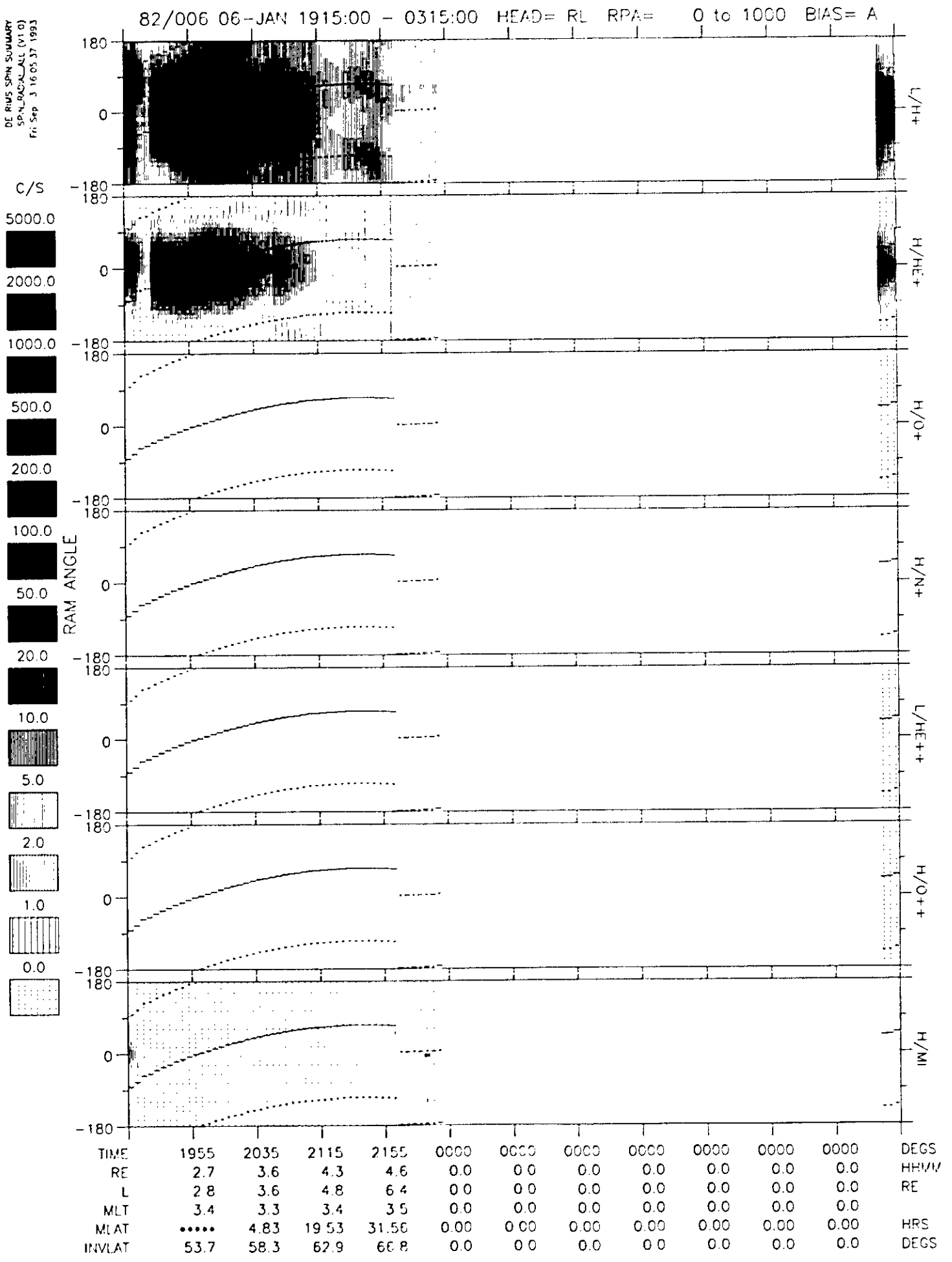

DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 15:40:27 1993
82/005 05-JAN 1600:00 - 0000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 0000 1800 1840 1920 2000 2040 2120 2200 2240 0000 DEGS
RE 0.0 0.0 4.4 4.6 4.6 4.4 3.9 3.0 1.8 1.3 0.0 HHMM
L 0.0 0.0 5.2 6.8 9.2 13.9 30.4 100.0 4.6 34.0 0.0 RE
MLT 0.0 0.0 3.3 3.3 3.3 3.4 3.6 6.6 14.9 23.5 0.0
MLAT 0.00 0.00 23.94 34.13 43.91 54.71 67.84 85.82 50.93 ***** 0.00 HRS
INVLAT 0.0 0.0 64.0 67.5 70.8 74.5 79.5 88.5 62.1 80.1 0.0 DEGS

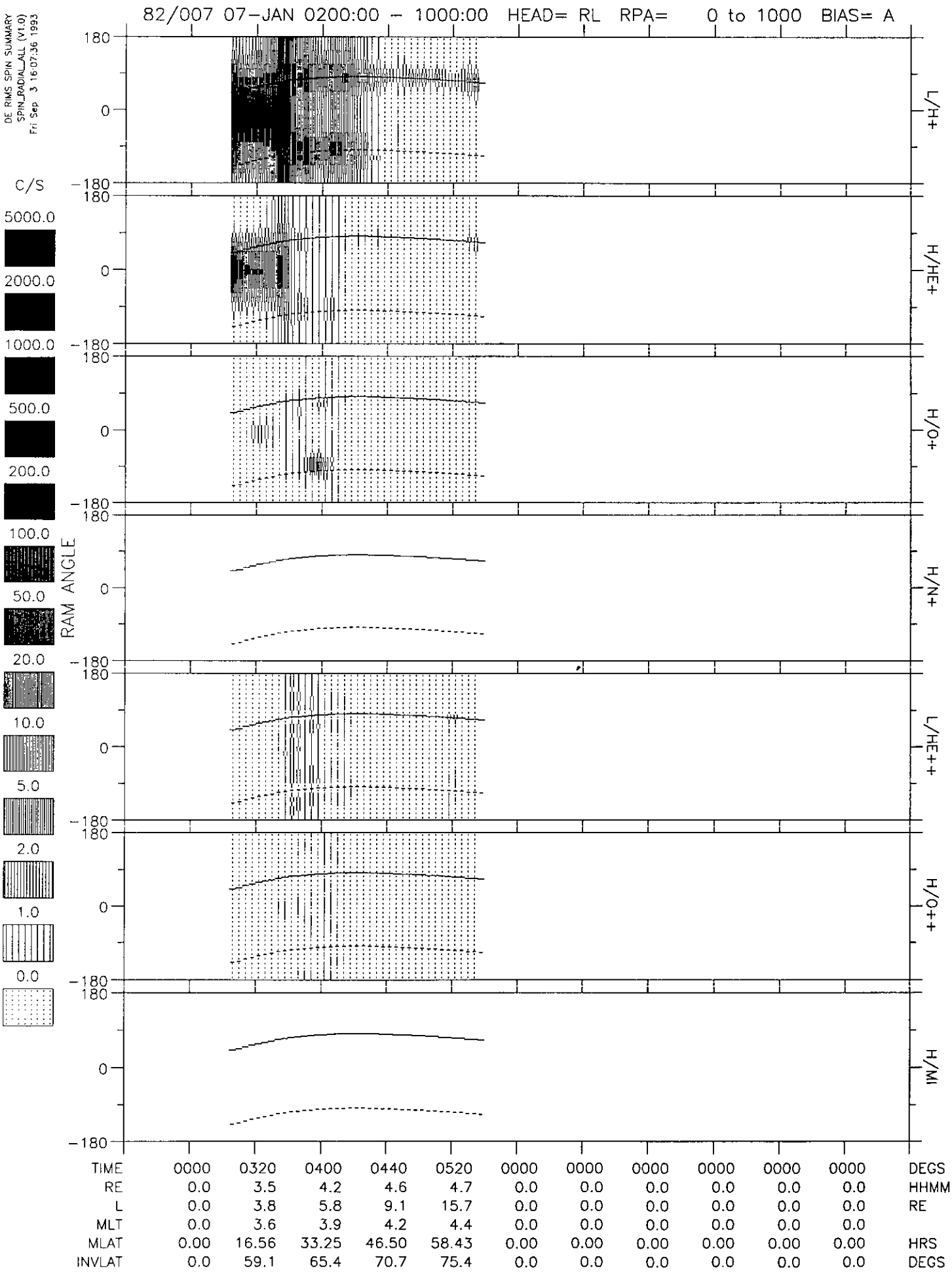

82/005 05-JAN 2315:00 - 0715:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 15:42:33 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0235 0315 0355 0435 0000 0000 0635 DEGS
RE 0.0 0.0 0.0 0.0 4.5 4.1 3.4 2.3 0.0 0.0 3.2 HHMM
L 0.0 0.0 0.0 0.0 17.6 43.4 100.0 7.4 0.0 0.0 3.6 RE
MLT 0.0 0.0 0.0 0.0 4.8 6.1 11.0 14.6 0.0 0.0 3.9
MLAT 0.00 0.00 0.00 0.00 60.26 72.48 78.73 54.97 0.00 0.00 17.91 HRS
INVLAT 0.0 0.0 0.0 0.0 76.2 81.3 84.7 68.4 0.0 0.0 58.3 DEGS

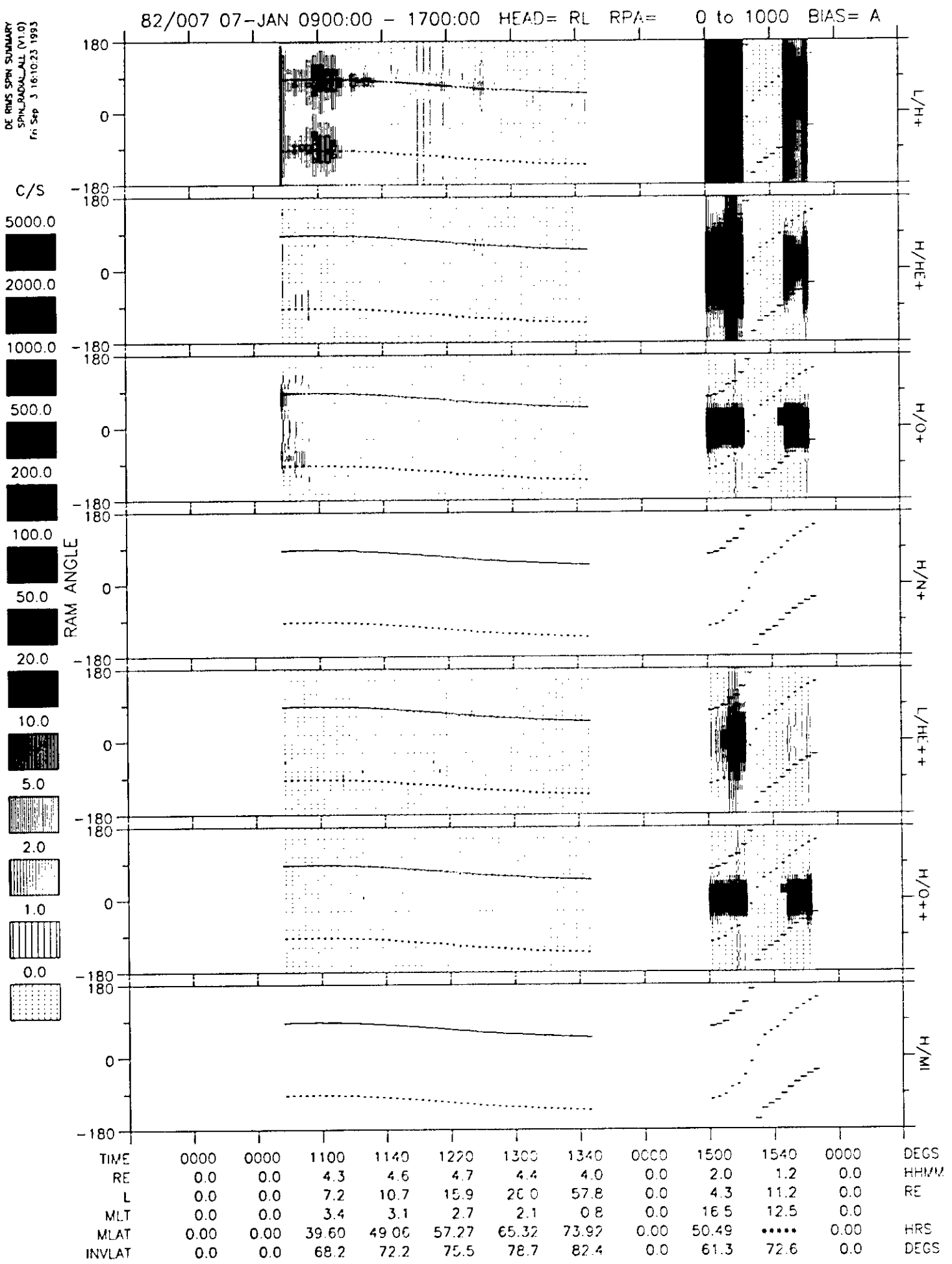

82/006 06-JAN 0530:00 - 1330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 16:01:36 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0650 0730 0810 0850 0930 1010 1050 1130 0000 0000 DEGS
RE 0.0 3.6 4.2 4.6 4.7 4.5 4.1 3.3 2.2 0.0 0.0 HHMM
L 0.0 4.4 7.3 12.3 22.2 51.0 100.0 86.7 5.5 0.0 0.0 RE
MLT 0.0 3.9 4.0 3.9 3.7 3.1 0.8 18.2 16.6 0.0 0.0
MLAT 0.00 25.53 40.92 52.78 63.14 73.08 82.65 77.41 49.60 0.00 0.00 HRS
INVLAT 0.0 61.5 68.3 73.4 77.8 81.9 86.5 83.8 64.7 0.0 0.0 DEGS

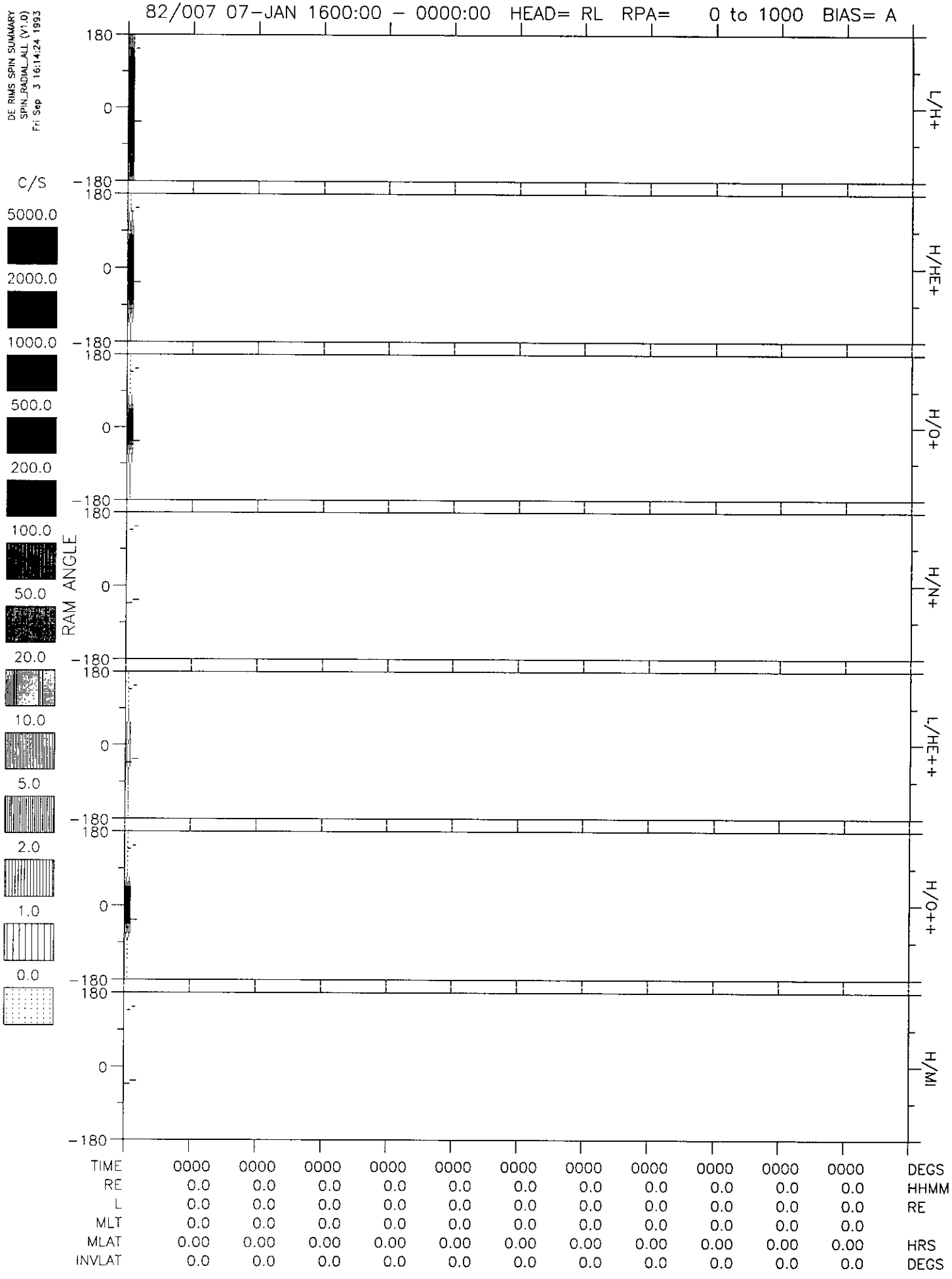


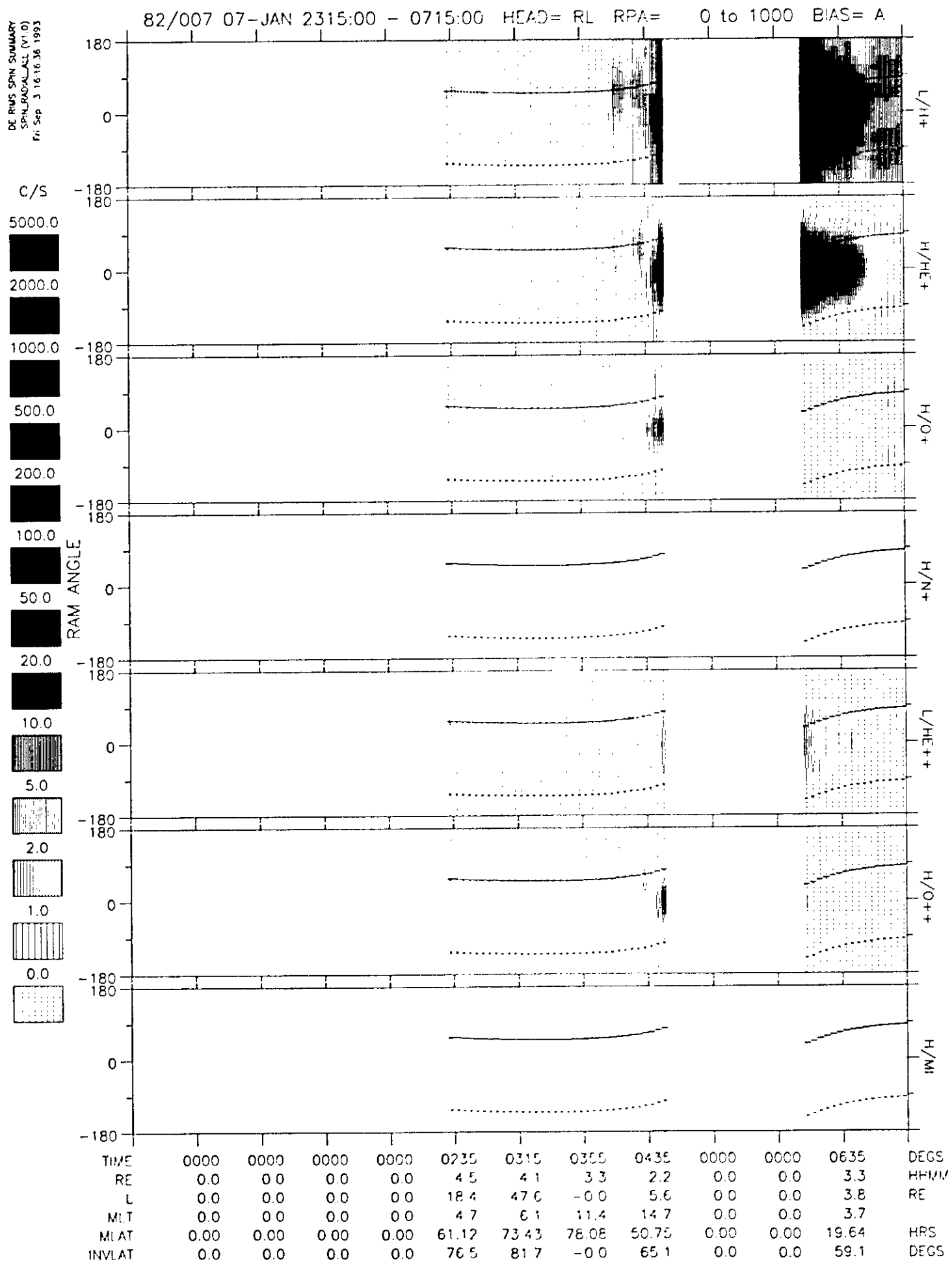
TIME	0000	0000	0000	1510	1550	1630	1710	1750	1830	1910	1950	DEGS
RE	0.0	0.0	0.0	4.6	4.6	4.4	3.9	3.1	1.9	1.2	2.5	HHMM
L	0.0	0.0	0.0	7.8	10.7	15.9	32.6	100.0	5.2	34.7	2.8	RE
MLT	0.0	0.0	0.0	3.0	2.8	2.5	2.1	23.1	15.9	13.8	3.4	
MLAT	0.00	0.00	0.00	40.08	48.45	57.45	68.53	82.75	55.34	*****	*****	HRS
INVLAT	0.0	0.0	0.0	69.1	72.2	75.5	79.9	86.2	64.0	80.1	53.6	DEGS

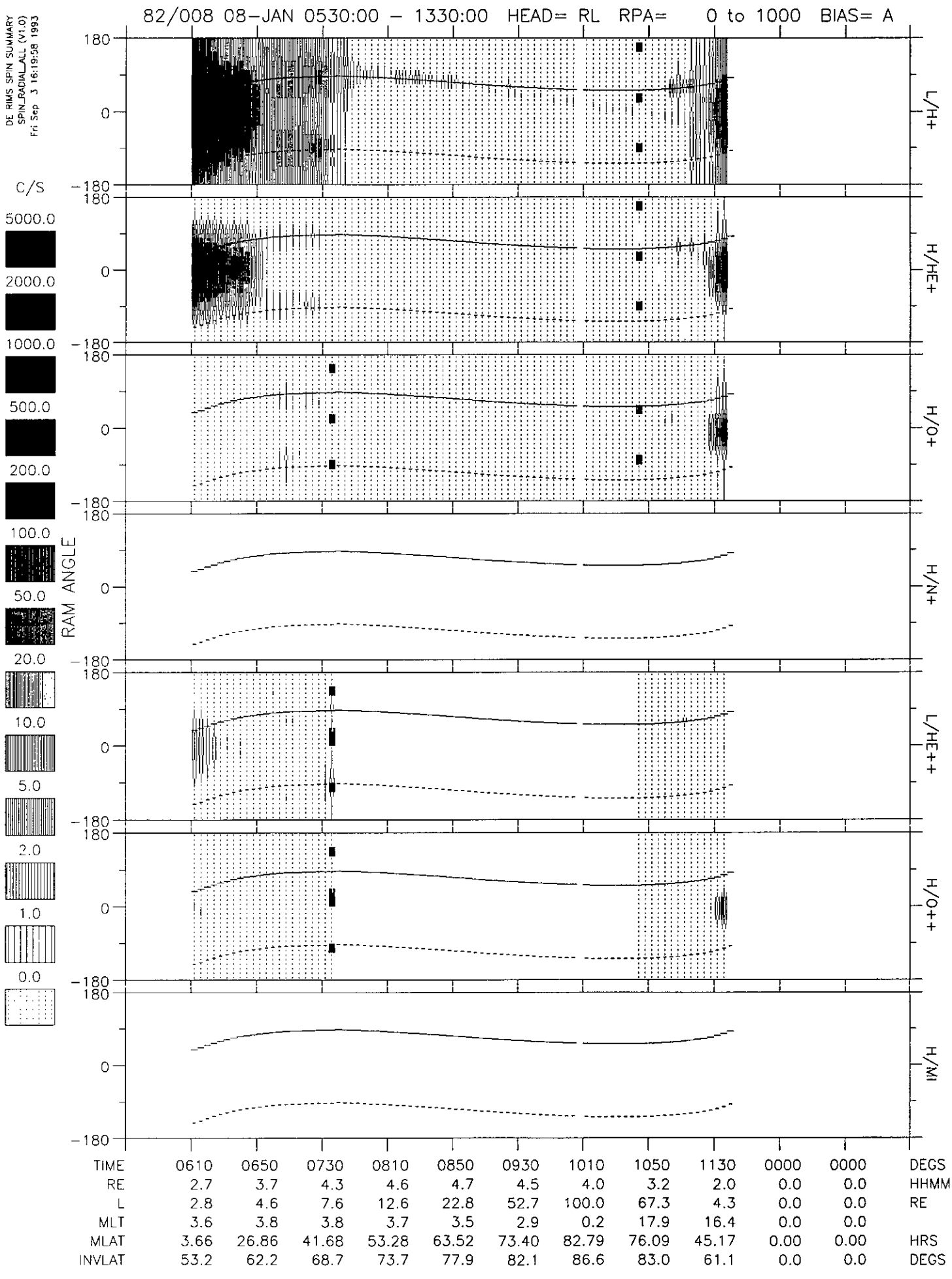

82/006 06-JAN 1915:00 - 0315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIUS SPIN SUMMARY
SPIN_RADIAL_ALL (V1 0)
Fri Sep 3 16 05 37 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1955 2035 2115 2155 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 2.7 3.6 4.3 4.6 0.0 0 0 0.0 0.0 0.0 0.0 0.0 HHMM
L 2 8 3.6 4.8 6 4 0 0 0 0 0.0 0.0 0.0 0.0 RE
MLT 3.4 3.3 3.4 3 5 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT ••••• 4.83 19 53 31.56 0.00 0 00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 53.7 58.3 62.9 66 8 0.0 0 0 0.0 0 0 0.0 0.0 0.0 DEGS

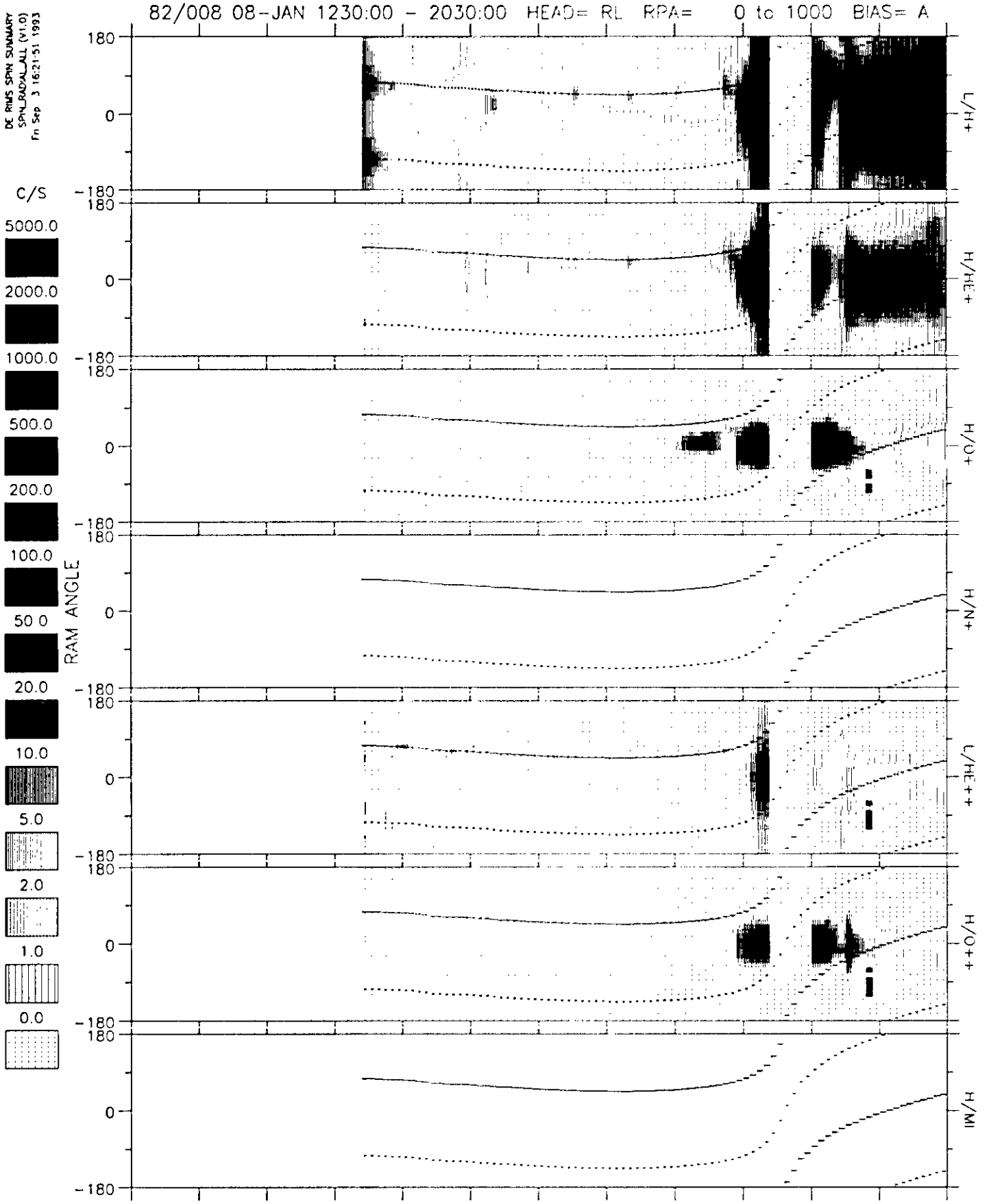

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 16:07:36 1993
82/007 07-JAN 0200:00 - 1000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0320 0400 0440 0520 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 3.5 4.2 4.6 4.7 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 3.8 5.8 9.1 15.7 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 3.6 3.9 4.2 4.4 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 16.56 33.25 46.50 58.43 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 59.1 65.4 70.7 75.4 0.0 0.0 0.0 0.0 0.0 0.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 16:10:23 1993
82/007 07-JAN 0900:00 - 1700:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 1100 1140 1220 1300 1340 0000 1500 1540 0000 DEGS
RE 0.0 0.0 4.3 4.6 4.7 4.4 4.0 0.0 2.0 1.2 0.0 HHMM
L 0.0 0.0 7.2 10.7 15.9 20.0 57.8 0.0 4.3 11.2 0.0 RE
MLT 0.0 0.0 3.4 3.1 2.7 2.1 0.8 0.0 16.5 12.5 0.0
MLAT 0.00 0.00 39.60 49.06 57.27 65.32 73.92 0.00 50.49 ***** 0.00 HRS
INVLAT 0.0 0.0 68.2 72.2 75.5 78.7 82.4 0.0 61.3 72.6 0.0 DEGS

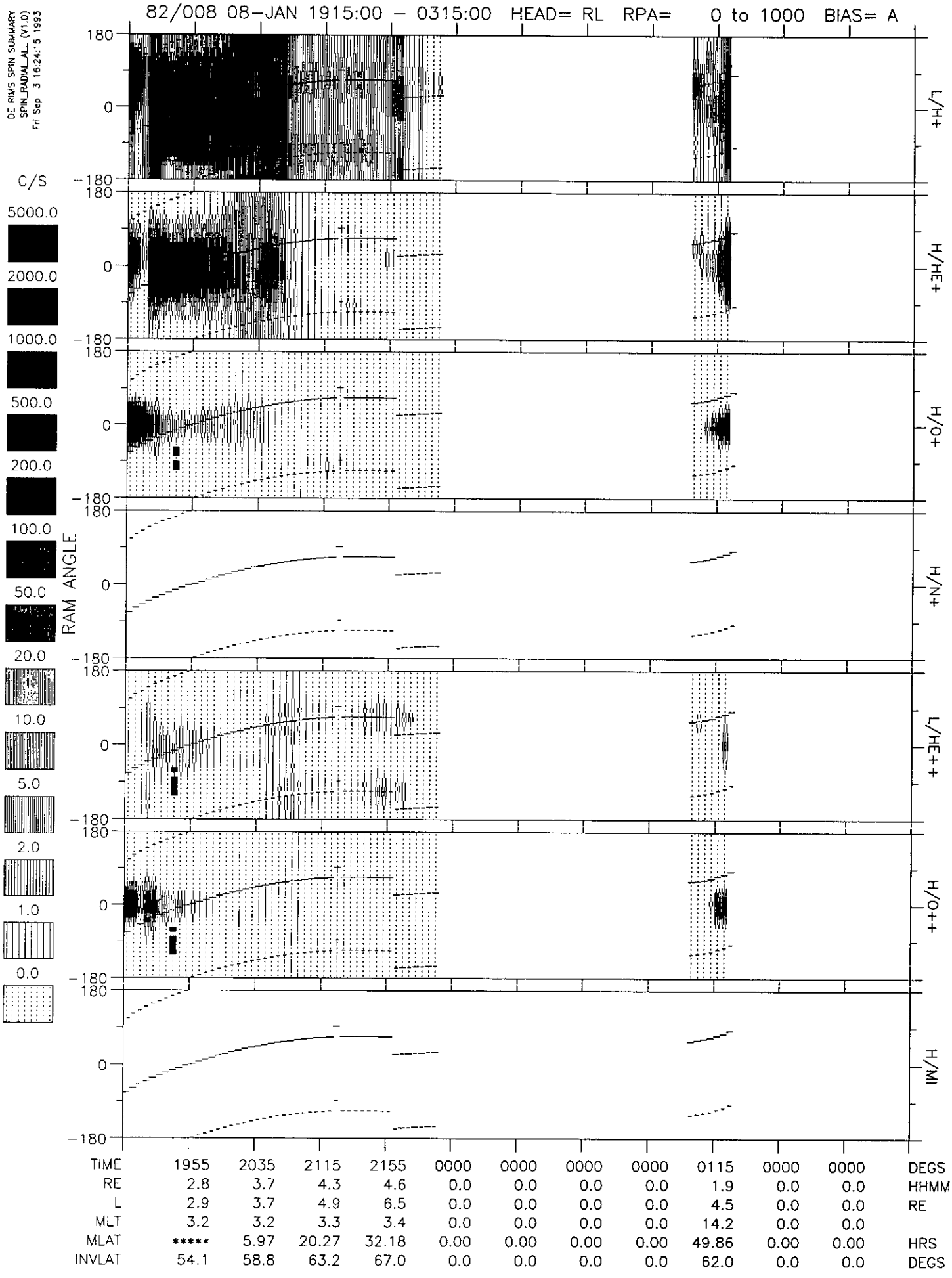

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 16:14:24 1993
82/007 07-JAN 1600:00 - 0000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

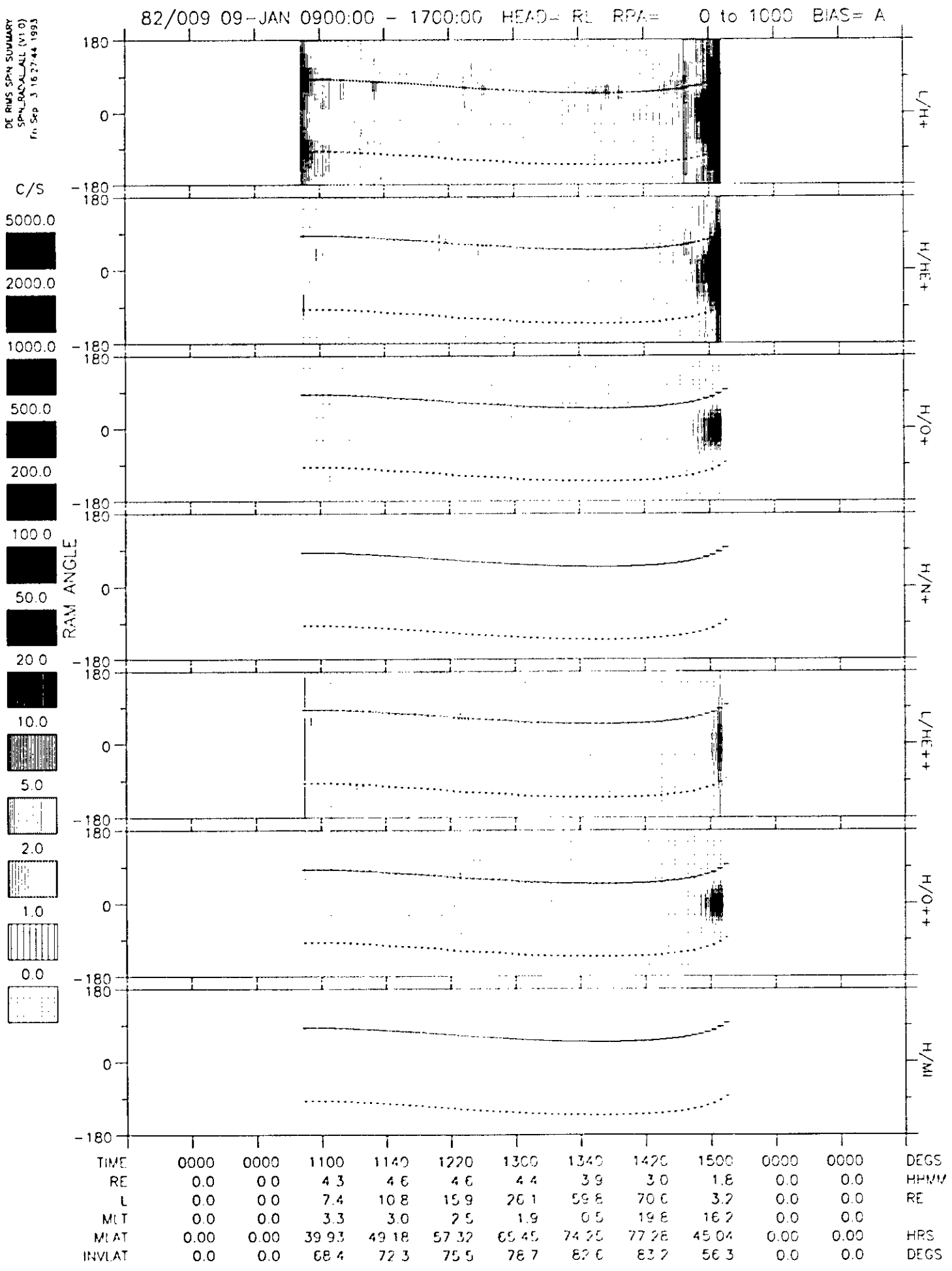

DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 16:16:36 1993
82/007 07-JAN 2315:00 - 0715:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0235 0315 0355 0435 0000 0000 0635 DEGS
RE 0.0 0.0 0.0 0.0 4.5 4.1 3.3 2.2 0.0 0.0 3.3 HHMM
L 0.0 0.0 0.0 0.0 18.4 47.6 -0.0 5.6 0.0 0.0 3.8 RE
MLT 0.0 0.0 0.0 0.0 4.7 6.1 11.4 14.7 0.0 0.0 3.7
MLAT 0.00 0.00 0.00 0.00 61.12 73.43 78.08 50.75 0.00 0.00 19.64 HRS
INVLAT 0.0 0.0 0.0 0.0 76.5 81.7 -0.0 65.1 0.0 0.0 59.1 DEGS

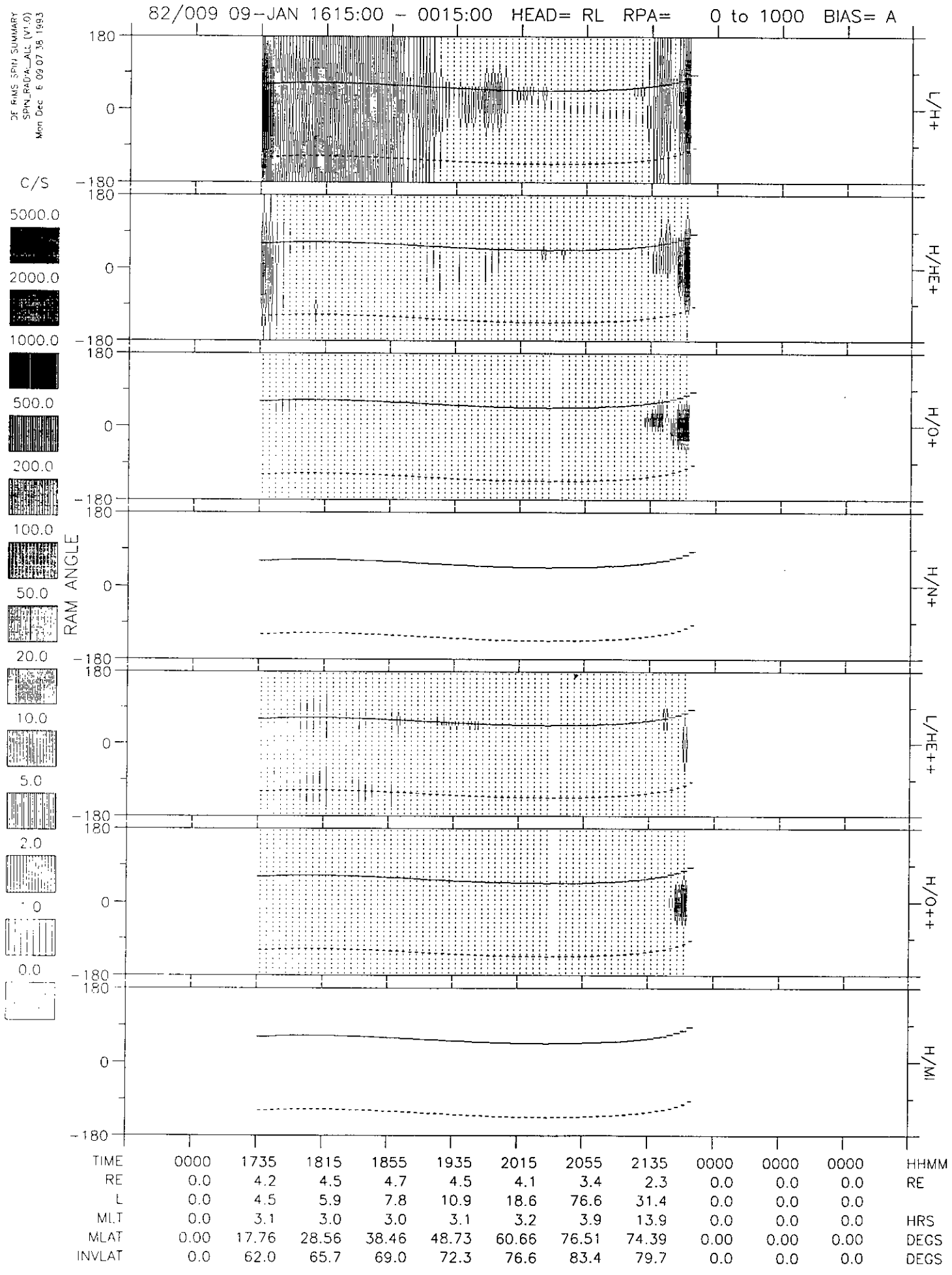

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 16:19:58 1993
82/008 08-JAN 0530:00 - 1330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0610 0650 0730 0810 0850 0930 1010 1050 1130 0000 0000 DEGS
RE 2.7 3.7 4.3 4.6 4.7 4.5 4.0 3.2 2.0 0.0 0.0 HHMM
L 2.8 4.6 7.6 12.6 22.8 52.7 100.0 67.3 4.3 0.0 0.0 RE
MLT 3.6 3.8 3.8 3.7 3.5 2.9 0.2 17.9 16.4 0.0 0.0
MLAT 3.66 26.86 41.68 53.28 63.52 73.40 82.79 76.09 45.17 0.00 0.00 HRS
INVLAT 53.2 62.2 68.7 73.7 77.9 82.1 86.6 83.0 61.1 0.0 0.0 DEGS

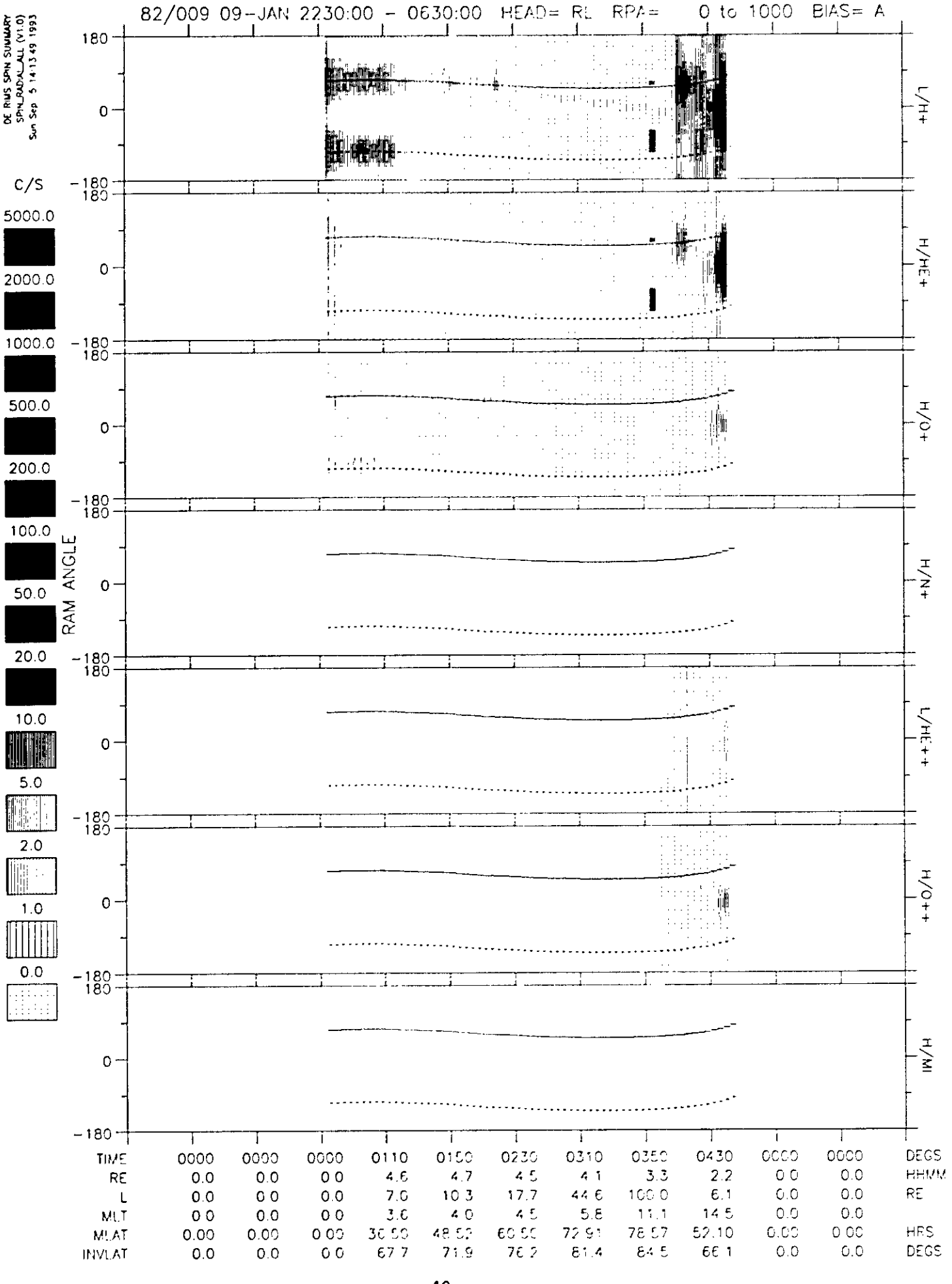


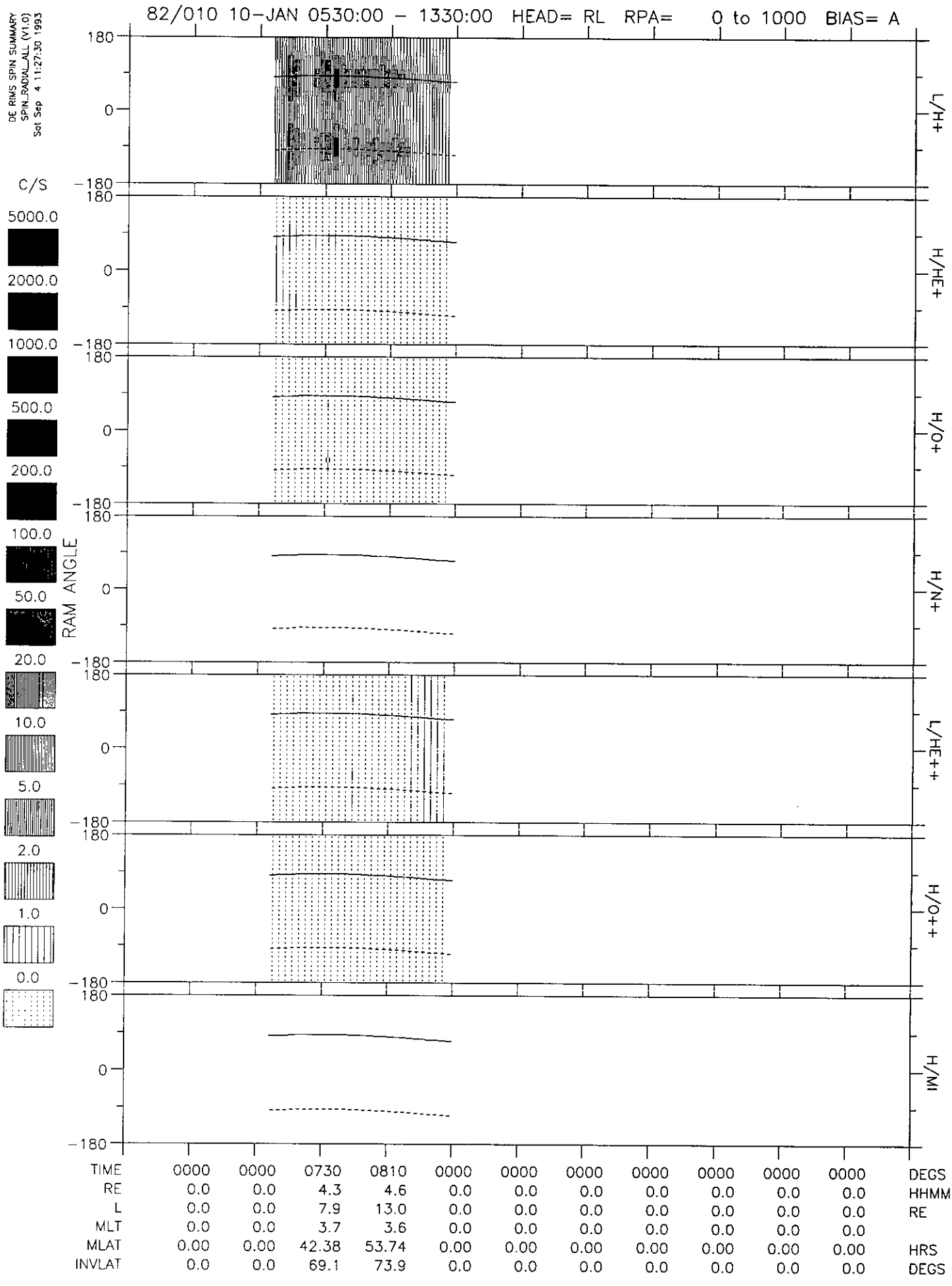
TIME	0000	0000	0000	1510	1550	1630	1710	1750	1830	1910	1950	DEGS
RE	0.0	0.0	0.0	4.6	4.6	4.4	3.8	3.0	1.7	1.3	2.7	HPMM
L	0.0	0.0	0.0	7.9	10.7	16.1	34.5	100.0	3.7	-0.0	2.9	RE
MLT	0.0	0.0	0.0	2.9	2.7	2.4	1.9	22.1	15.6	4.5	3.2	
MLAT	0.00	0.00	0.00	40.18	48.59	57.77	69.20	83.55	48.73	*****	*****	HRS
INVLAT	0.0	0.0	0.0	69.1	72.2	75.5	80.2	86.3	58.5	-0.0	53.8	DEGS

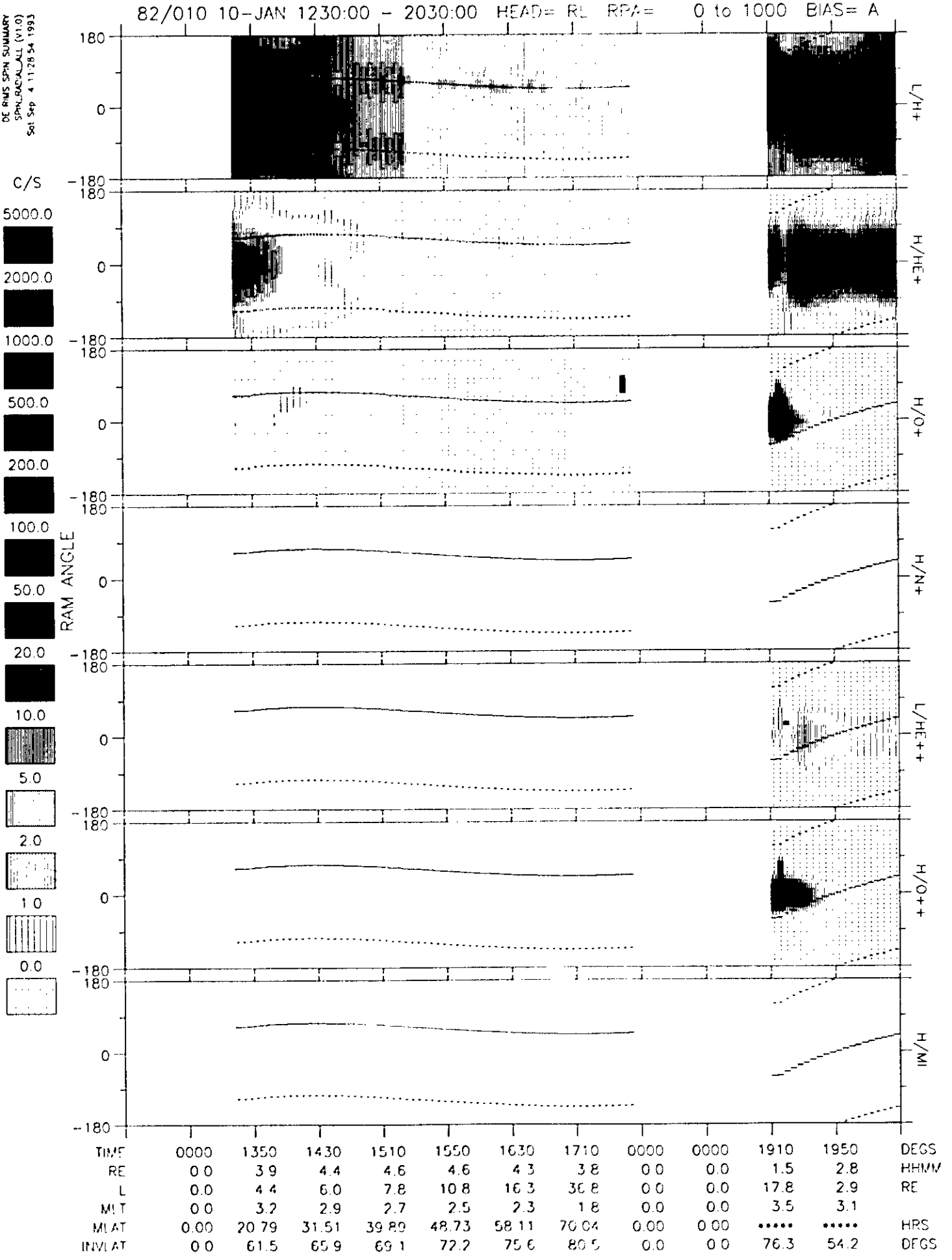

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 3 16:24:15 1993
82/008 08-JAN 1915:00 - 0315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1955 2035 2115 2155 0000 0000 0000 0000 0115 0000 0000 DEGS
RE 2.8 3.7 4.3 4.6 0.0 0.0 0.0 0.0 1.9 0.0 0.0 HHMM
L 2.9 3.7 4.9 6.5 0.0 0.0 0.0 0.0 4.5 0.0 0.0 RE
MLT 3.2 3.2 3.3 3.4 0.0 0.0 0.0 0.0 14.2 0.0 0.0
MLAT ***** 5.97 20.27 32.18 0.00 0.00 0.00 0.00 49.86 0.00 0.00 HRS
INVLAT 54.1 58.8 63.2 67.0 0.0 0.0 0.0 0.0 62.0 0.0 0.0 DEGS

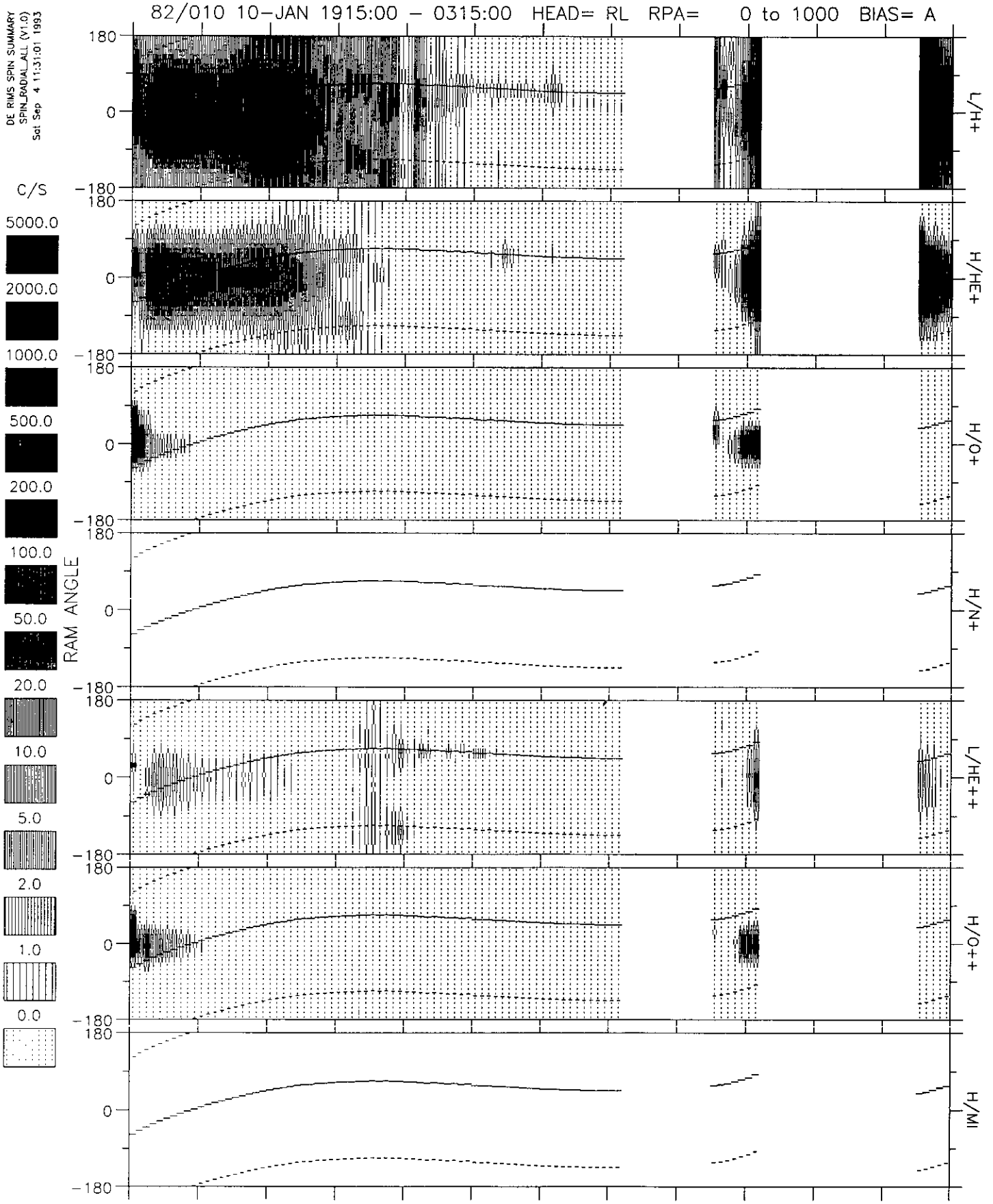

82/009 09-JAN 0900:00 - 1700:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RACAL_ALL (V1.0)
Fri Sep 3 16:27:44 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 0000 1100 1140 1220 1300 1340 1420 1500 0000 0000 DEGS
RE 0.0 0.0 4.3 4.6 4.6 4.4 3.9 3.0 1.8 0.0 0.0 HHMM
L 0.0 0.0 7.4 10.8 15.9 26.1 59.8 70.6 3.2 0.0 0.0 RE
MLT 0.0 0.0 3.3 3.0 2.5 1.9 0.5 19.8 16.2 0.0 0.0
MLAT 0.00 0.00 39.93 49.18 57.32 65.45 74.25 77.26 45.04 0.00 0.00 HRS
INVLAT 0.0 0.0 68.4 72.3 75.5 78.7 82.6 83.2 56.3 0.0 0.0 DEGS

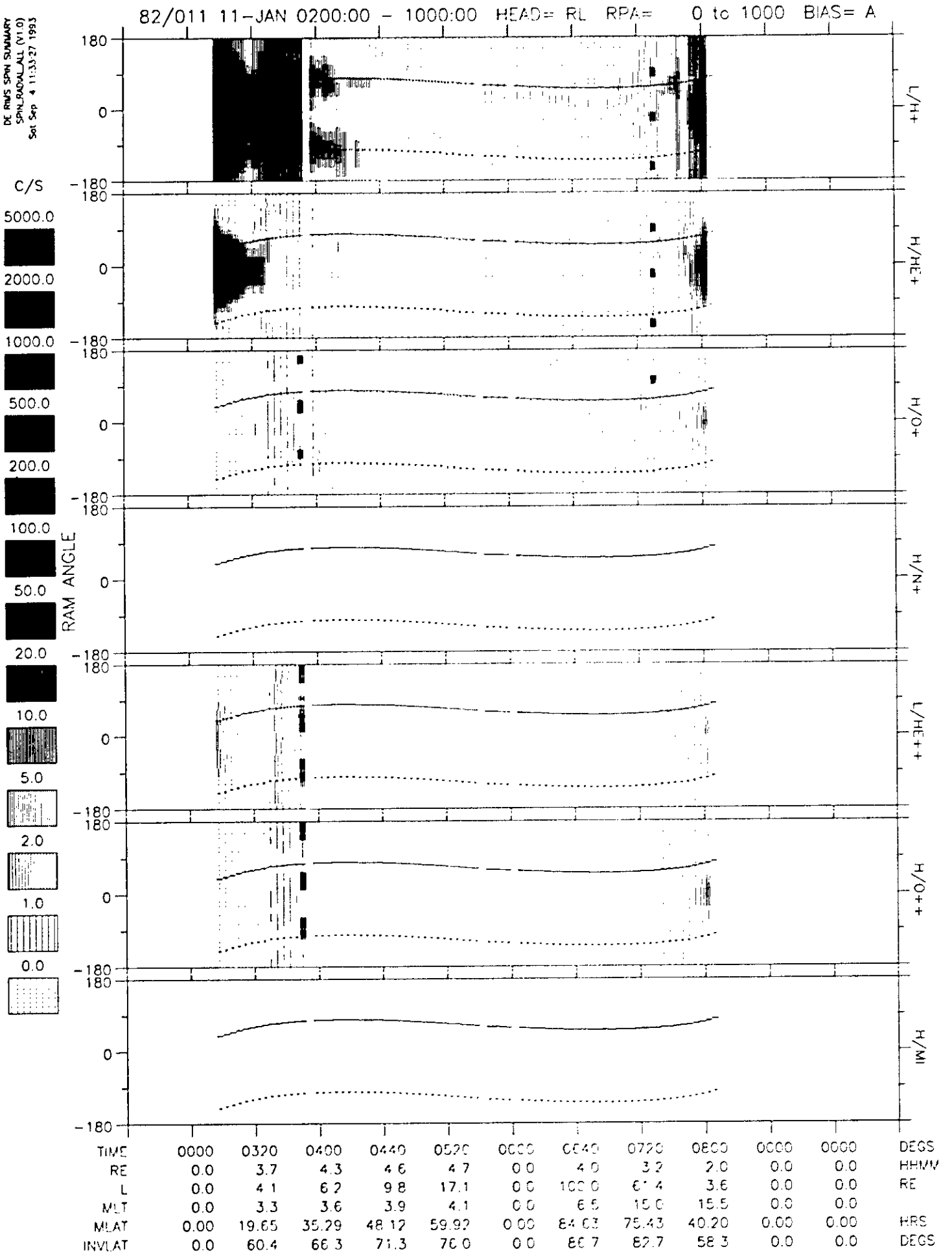

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Dec 6 09:07:38 1993
82/009 09-JAN 1615:00 - 0015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 1735 1815 1855 1935 2015 2055 2135 0000 0000 0000 HHMM
RE 0.0 4.2 4.5 4.7 4.5 4.1 3.4 2.3 0.0 0.0 0.0 RE
L 0.0 4.5 5.9 7.8 10.9 18.6 76.6 31.4 0.0 0.0 0.0
MLT 0.0 3.1 3.0 3.0 3.1 3.2 3.9 13.9 0.0 0.0 0.0 HRS
MLAT 0.00 17.76 28.56 38.46 48.73 60.66 76.51 74.39 0.00 0.00 0.00 DEGS
INVLAT 0.0 62.0 65.7 69.0 72.3 76.6 83.4 79.7 0.0 0.0 0.0 DEGS

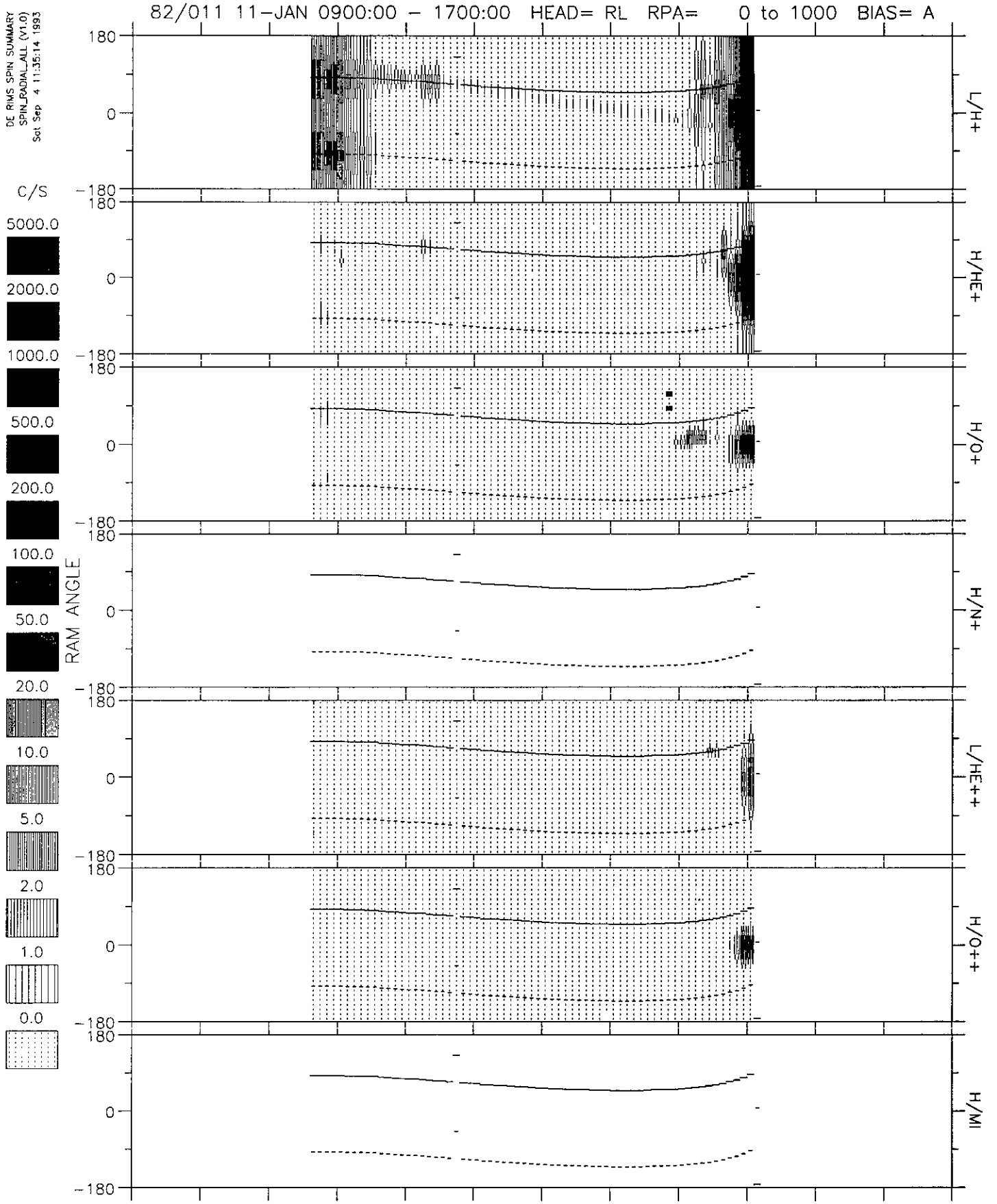

82/009 09-JAN 2230:00 - 0630:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 5 14:13:49 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0110 0150 0230 0310 0350 0430 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.7 4.5 4.1 3.3 2.2 0.0 0.0 HHMM
L 0.0 0.0 0.0 7.0 10.3 17.7 44.6 100.0 6.1 0.0 0.0 RE
MLT 0.0 0.0 0.0 3.6 4.0 4.5 5.8 11.1 14.5 0.0 0.0
MLAT 0.00 0.00 0.00 36.50 48.52 60.50 72.91 78.57 52.10 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 67.7 71.9 76.2 81.4 84.5 66.1 0.0 0.0 DEGS


82/010 10-JAN 0530:00 - 1330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 11:27:30 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0730 0810 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 4.3 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 7.9 13.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 3.7 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 42.38 53.74 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 69.1 73.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

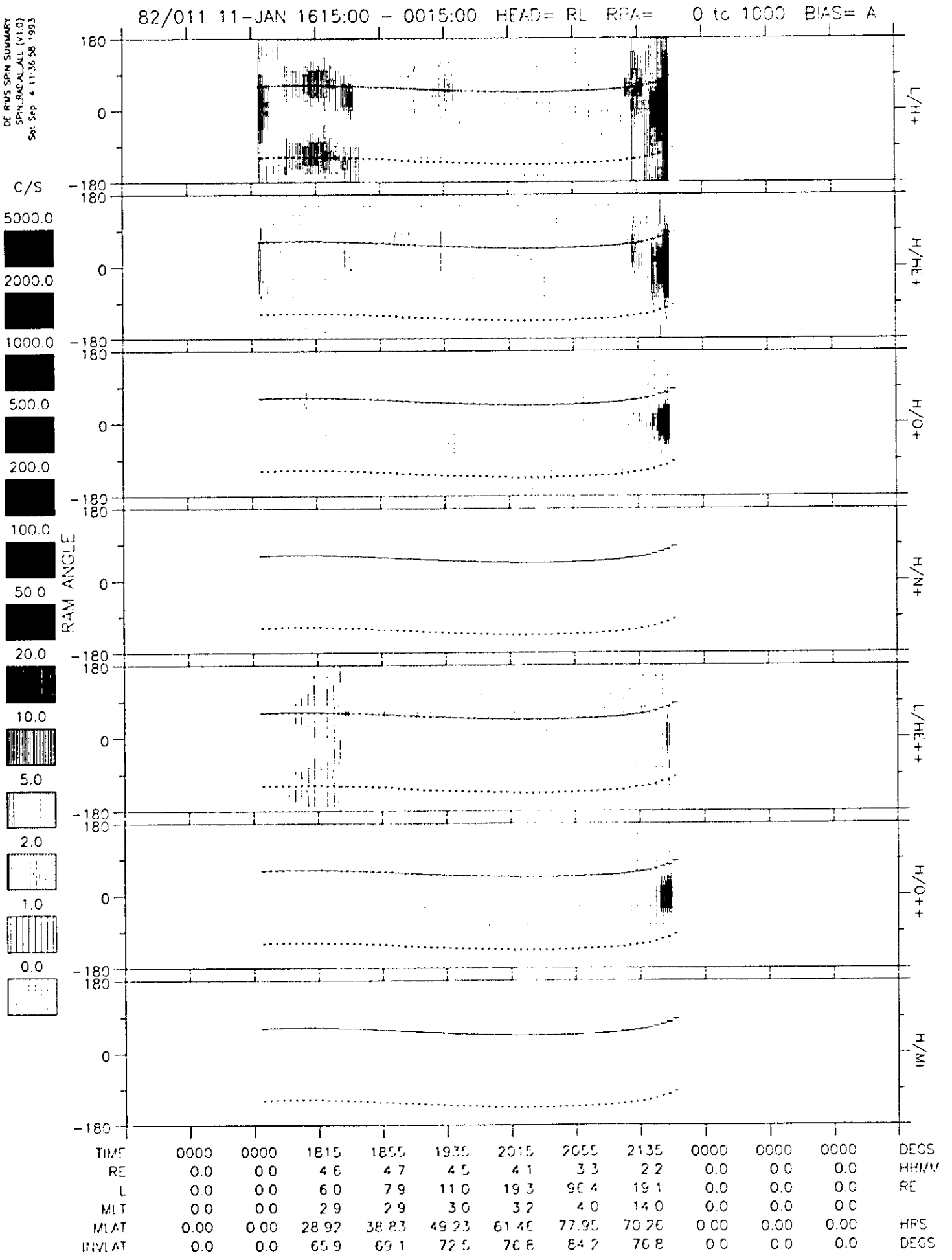

82/010 10-JAN 1230:00 - 2030:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RNS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 11:28:54 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 1350 1430 1510 1550 1630 1710 0000 0000 1910 1950 DEGS
RE 0.0 3.9 4.4 4.6 4.6 4.3 3.8 0.0 0.0 1.5 2.8 HHMM
L 0.0 4.4 6.0 7.8 10.8 16.3 36.8 0.0 0.0 17.8 2.9 RE
MLT 0.0 3.2 2.9 2.7 2.5 2.3 1.8 0.0 0.0 3.5 3.1
MLAT 0.00 20.79 31.51 39.89 48.73 58.11 70.04 0.00 0.00 ***** ***** HRS
INVLAT 0.0 61.5 65.9 69.1 72.2 75.6 80.5 0.0 0.0 76.3 54.2 DEGS

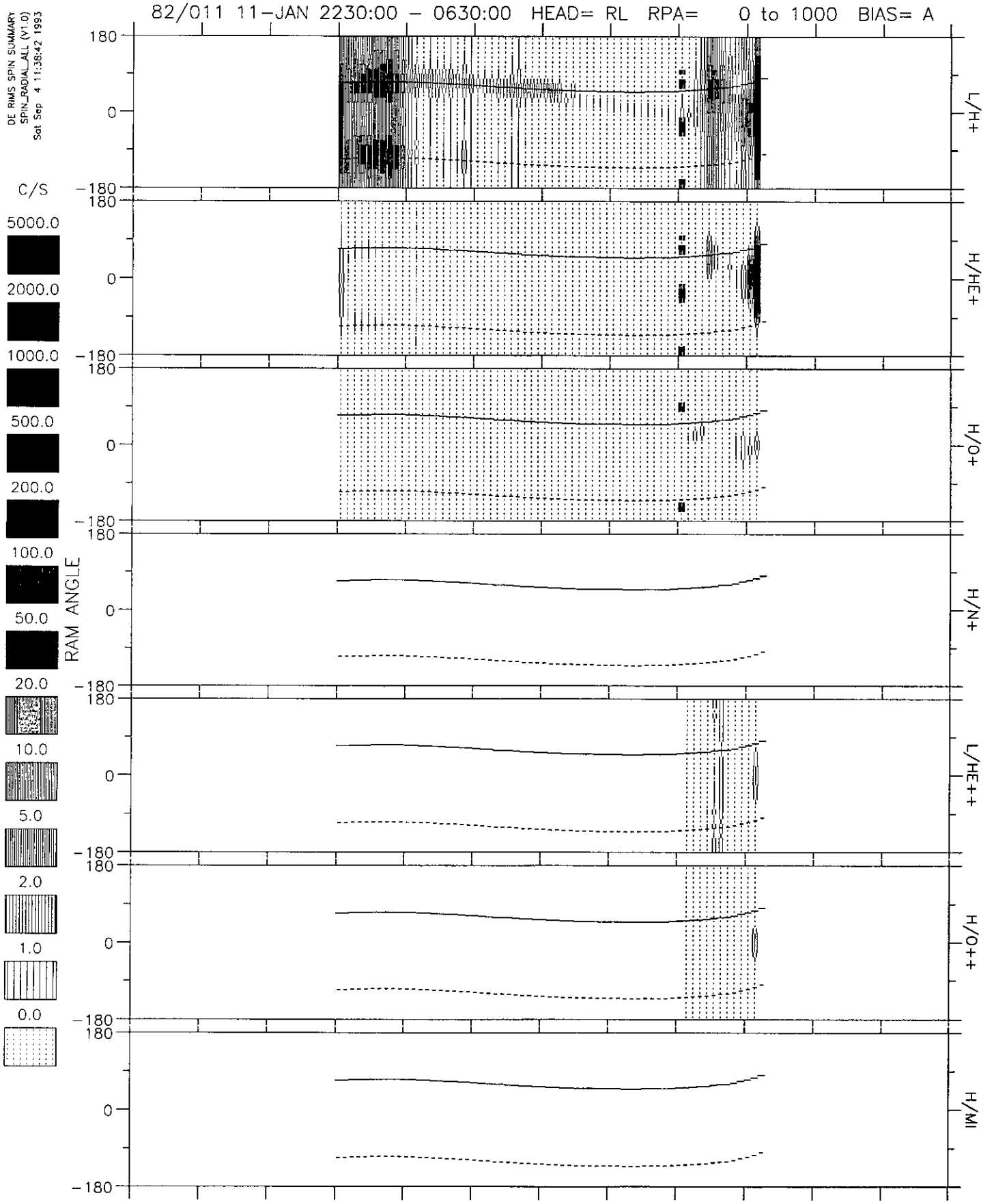

82/010 10-JAN 1915:00 - 0315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 11:31:01 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1955 2035 2115 2155 2235 2315 2355 0000 0115 0000 0000 DEGS
RE 2.9 3.8 4.4 4.6 4.6 4.4 3.9 0.0 1.8 0.0 0.0 HHMM
L 3.0 3.8 5.0 6.7 9.2 14.4 33.1 0.0 3.3 0.0 0.0 RE
MLT 3.1 3.1 3.1 3.3 3.5 3.9 4.8 0.0 14.2 0.0 0.0
MLAT ***** 7.09 21.02 32.82 44.10 55.93 69.30 0.00 43.30 0.00 0.00 HRS
INVLAT 54.6 59.2 63.5 67.2 70.8 74.8 80.0 0.0 56.4 0.0 0.0 DEGS

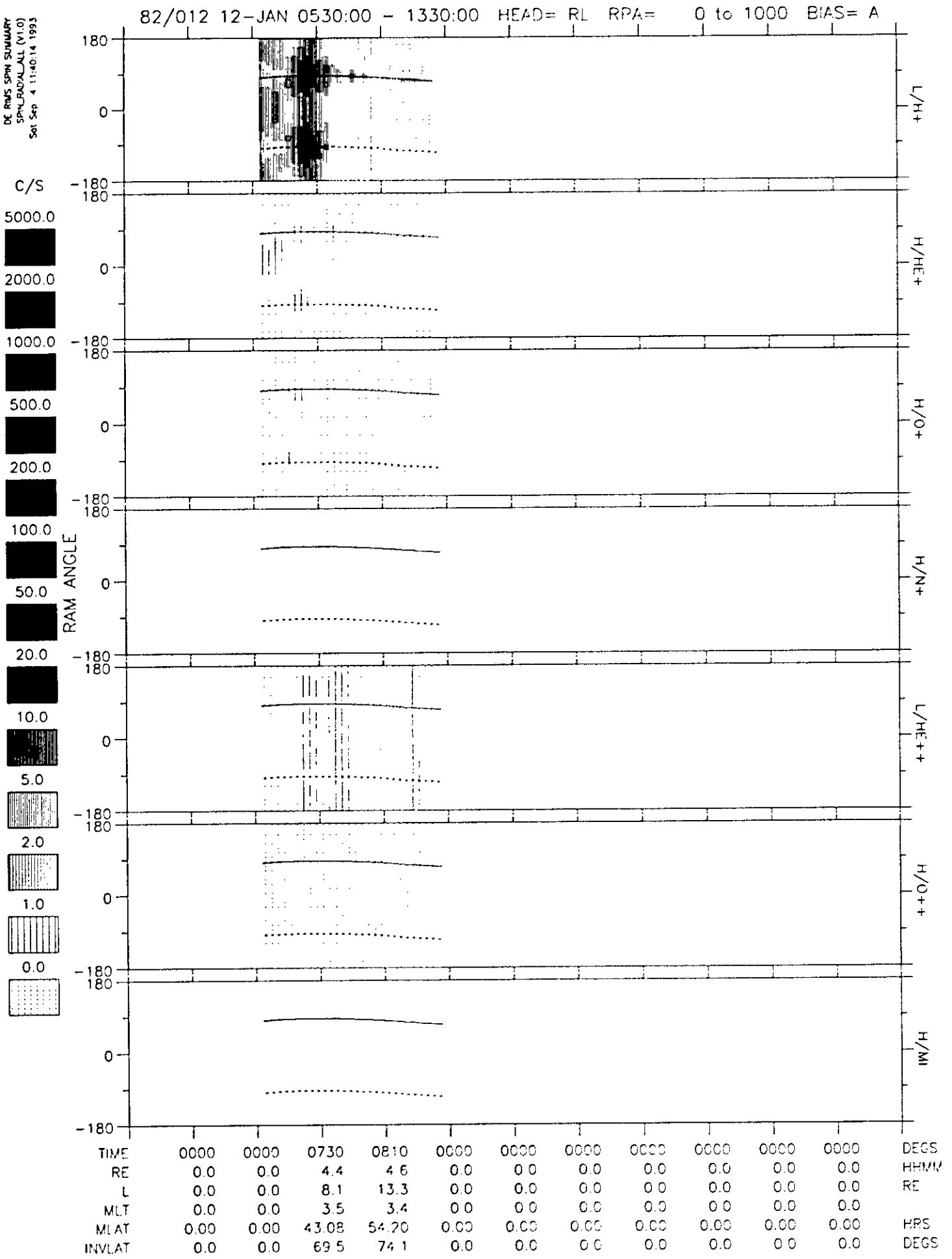

82/011 11-JAN 0200:00 - 1000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RNS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 11:33:27 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0320 0400 0440 0520 0600 0640 0720 0800 0000 0000 DEGS
RE 0.0 3.7 4.3 4.6 4.7 0.0 4.0 3.2 2.0 0.0 0.0 HHMM
L 0.0 4.1 6.2 9.8 17.1 0.0 100.0 61.4 3.6 0.0 0.0 RE
MLT 0.0 3.3 3.6 3.9 4.1 0.0 6.5 15.0 15.5 0.0 0.0
MLAT 0.00 19.65 35.29 48.12 59.92 0.00 84.03 75.43 40.20 0.00 0.00 HRS
INVLAT 0.0 60.4 66.3 71.3 76.0 0.0 86.7 82.7 58.3 0.0 0.0 DEGS

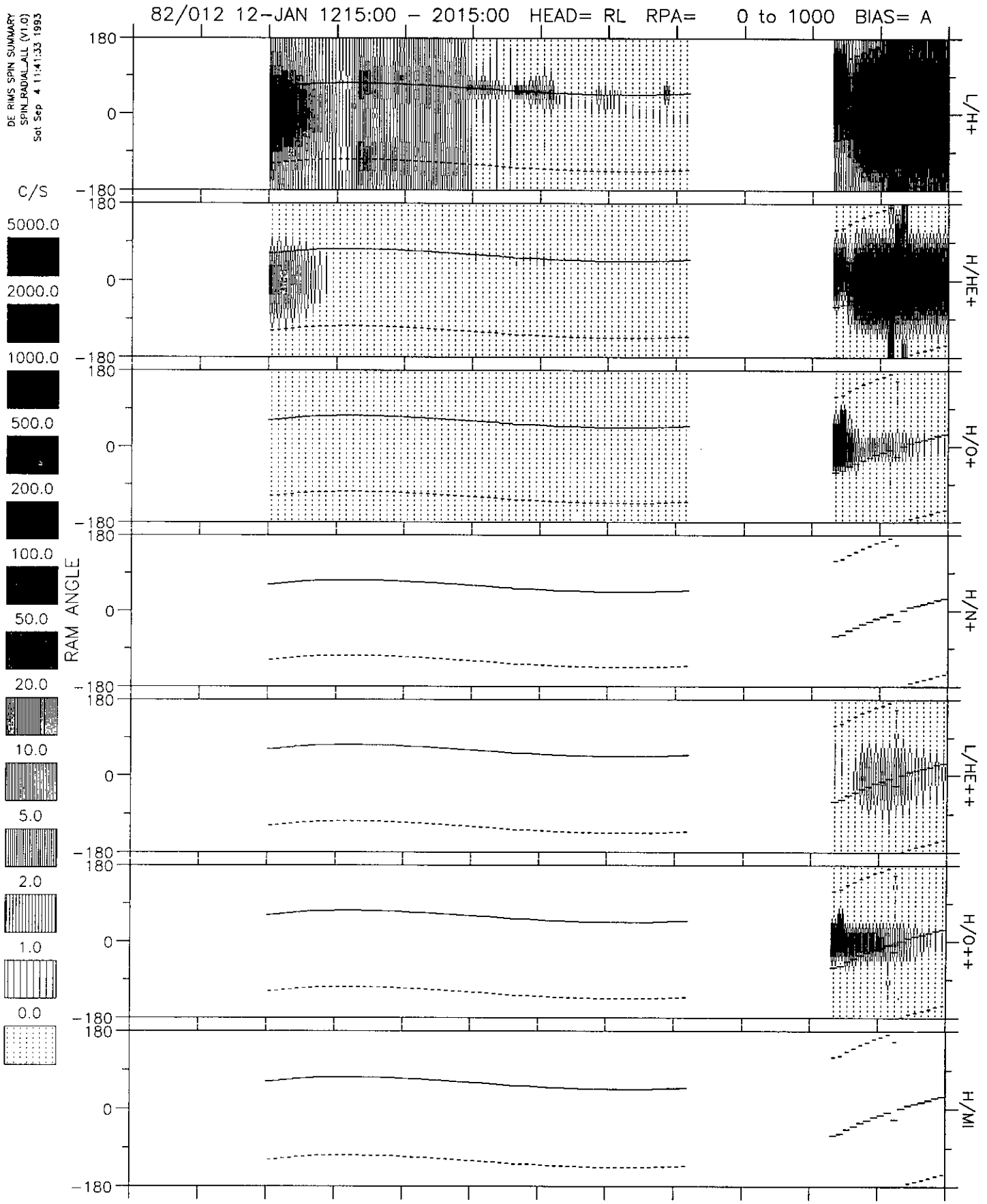


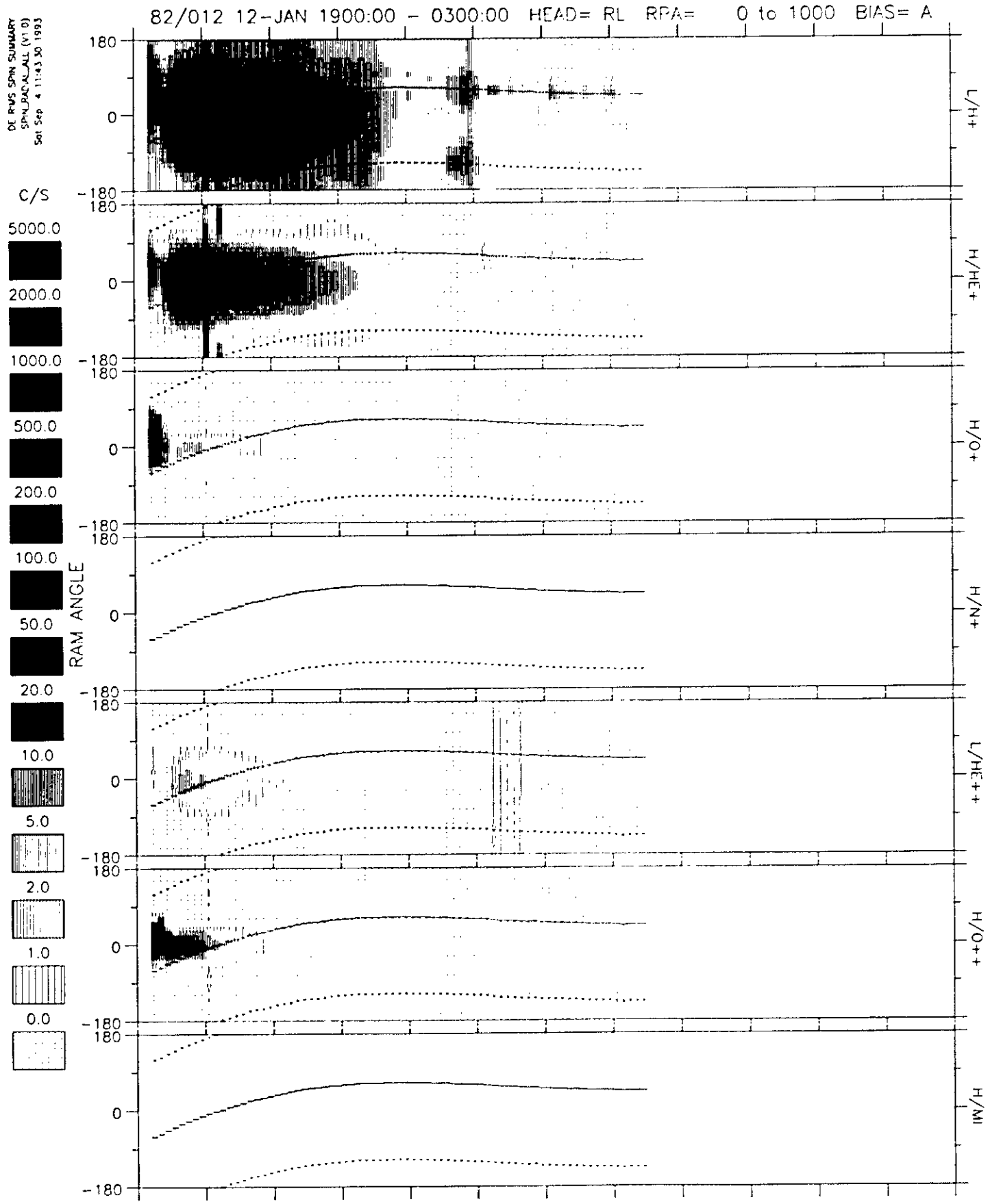
TIME	0000	0000	1100	1140	1220	1300	1340	1420	1500	0000	0000	DEGS
RE	0.0	0.0	4.4	4.6	4.6	4.4	3.8	2.9	1.7	0.0	0.0	HHMM
L	0.0	0.0	7.5	10.8	15.5	26.1	62.2	57.6	2.4	0.0	0.0	RE
MLT	0.0	0.0	3.1	2.8	2.4	1.7	0.3	19.2	15.9	0.0	0.0	
MLAT	0.00	0.00	40.23	49.25	56.86	65.59	74.61	76.48	38.26	0.00	0.00	HRS
INVLAT	0.0	0.0	68.6	72.3	75.3	78.7	82.7	82.4	49.9	0.0	0.0	DEGS

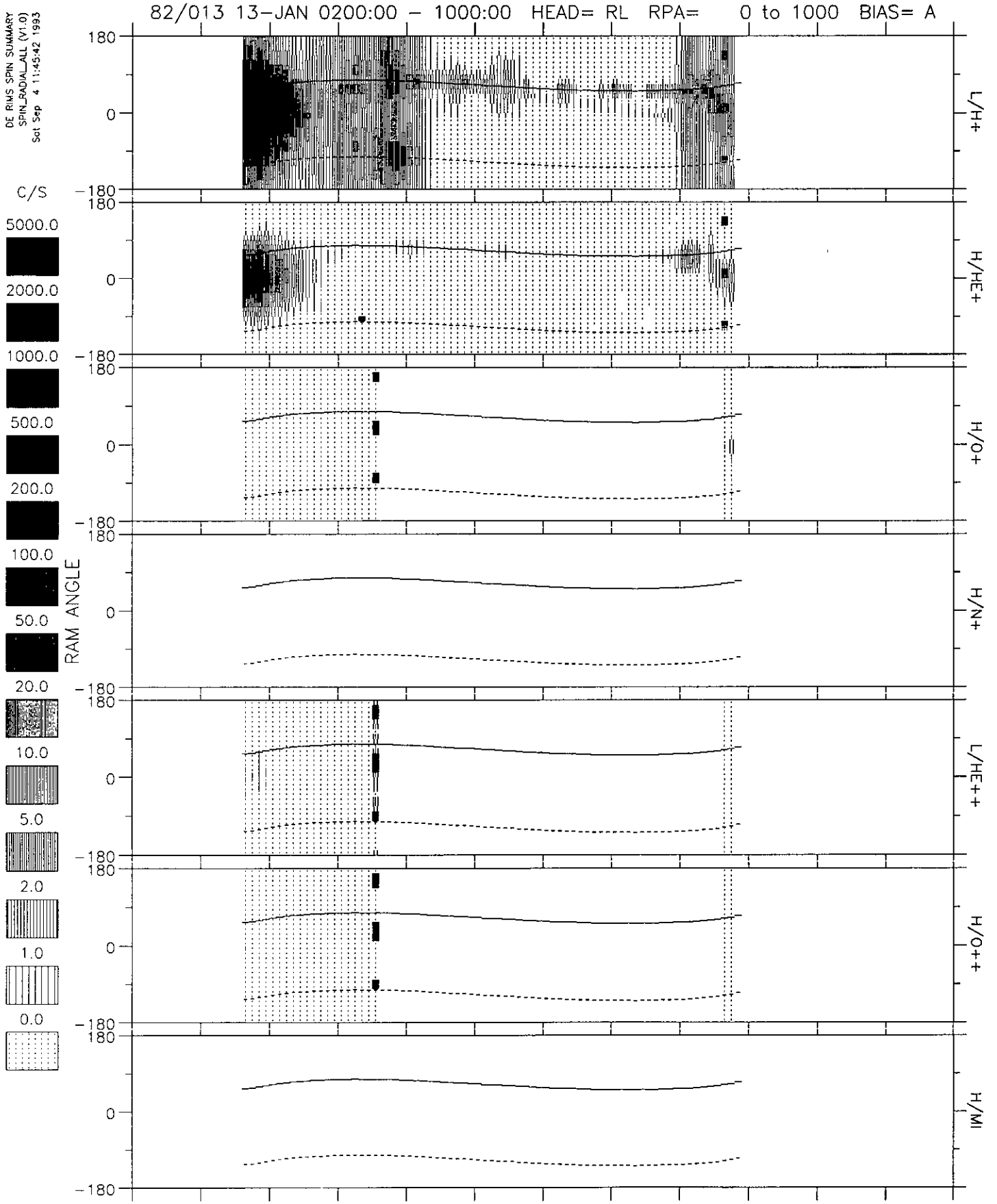

82/011 11-JAN 1615:00 - 0015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RMS SPIN SUMMARY
SPIN_RAD_ALL (V1.0)
Sat Sep 4 11:36:58 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 0000 1815 1855 1935 2015 2055 2135 0000 0000 0000 DEGS
RE 0.0 0.0 4.6 4.7 4.5 4.1 3.3 2.2 0.0 0.0 0.0 HHMM
L 0.0 0.0 6.0 7.9 11.0 19.3 96.4 19.1 0.0 0.0 0.0 RE
MLT 0.0 0.0 2.9 2.9 3.0 3.2 4.0 14.0 0.0 0.0 0.0
MLAT 0.00 0.00 28.92 38.83 49.23 61.46 77.95 70.26 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 65.9 69.1 72.5 76.8 84.2 76.8 0.0 0.0 0.0 DEGS

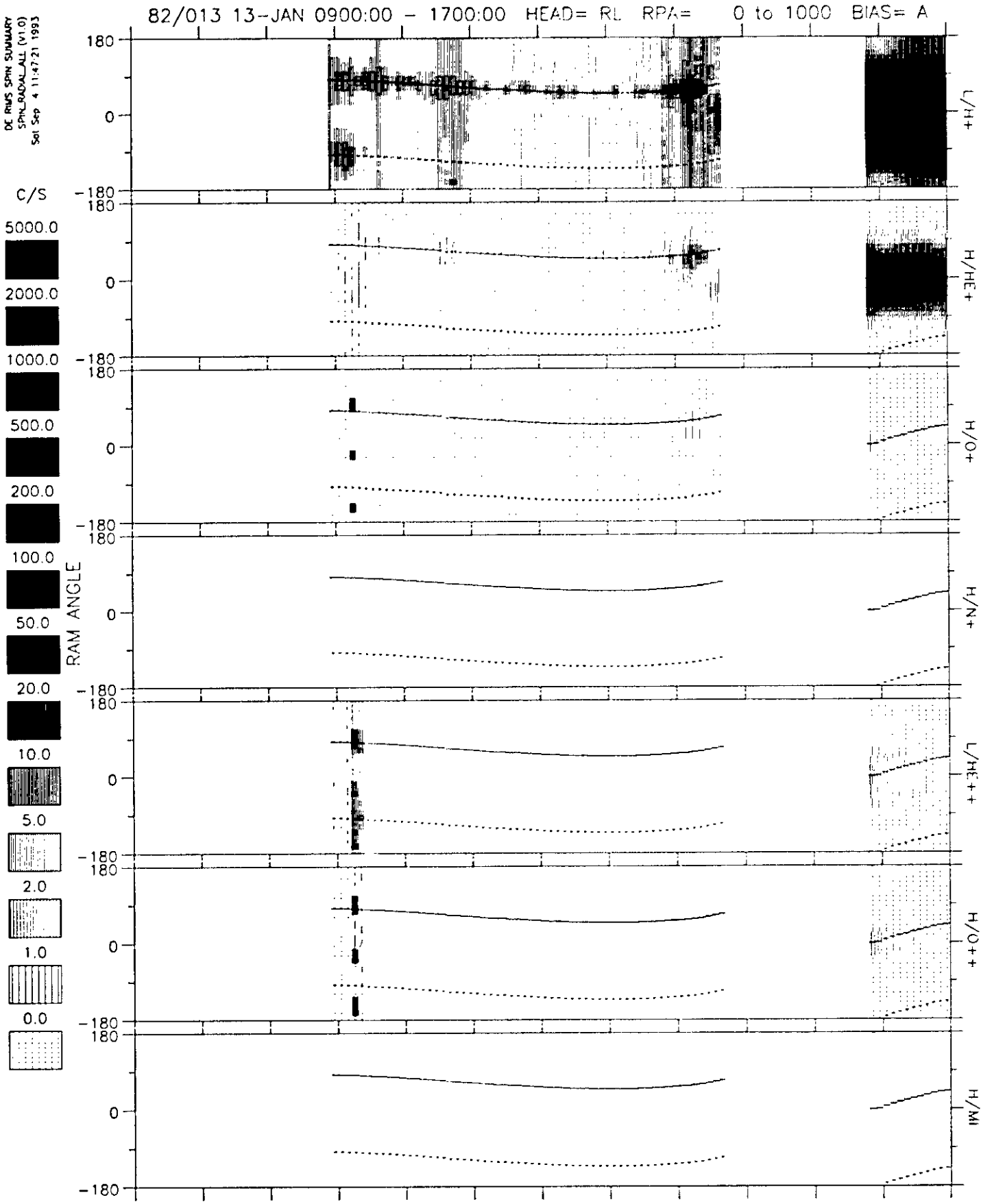

82/011 11-JAN 2230:00 - 0630:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 11:38:42 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0030 0110 0150 0230 0310 0350 0430 0000 0000 DEGS
RE 0.0 0.0 4.3 4.6 4.7 4.5 4.0 3.2 2.1 0.0 0.0 HHMM
L 0.0 0.0 5.1 7.1 10.6 18.5 49.1 94.3 4.6 0.0 0.0 RE
MLT 0.0 0.0 3.2 3.5 3.8 4.4 5.8 11.4 14.5 0.0 0.0
MLAT 0.00 0.00 24.38 37.35 49.35 61.37 73.88 77.90 47.29 0.00 0.00 HRS
INVLAT 0.0 0.0 63.7 68.0 72.1 76.5 81.8 84.1 62.2 0.0 0.0 DEGS

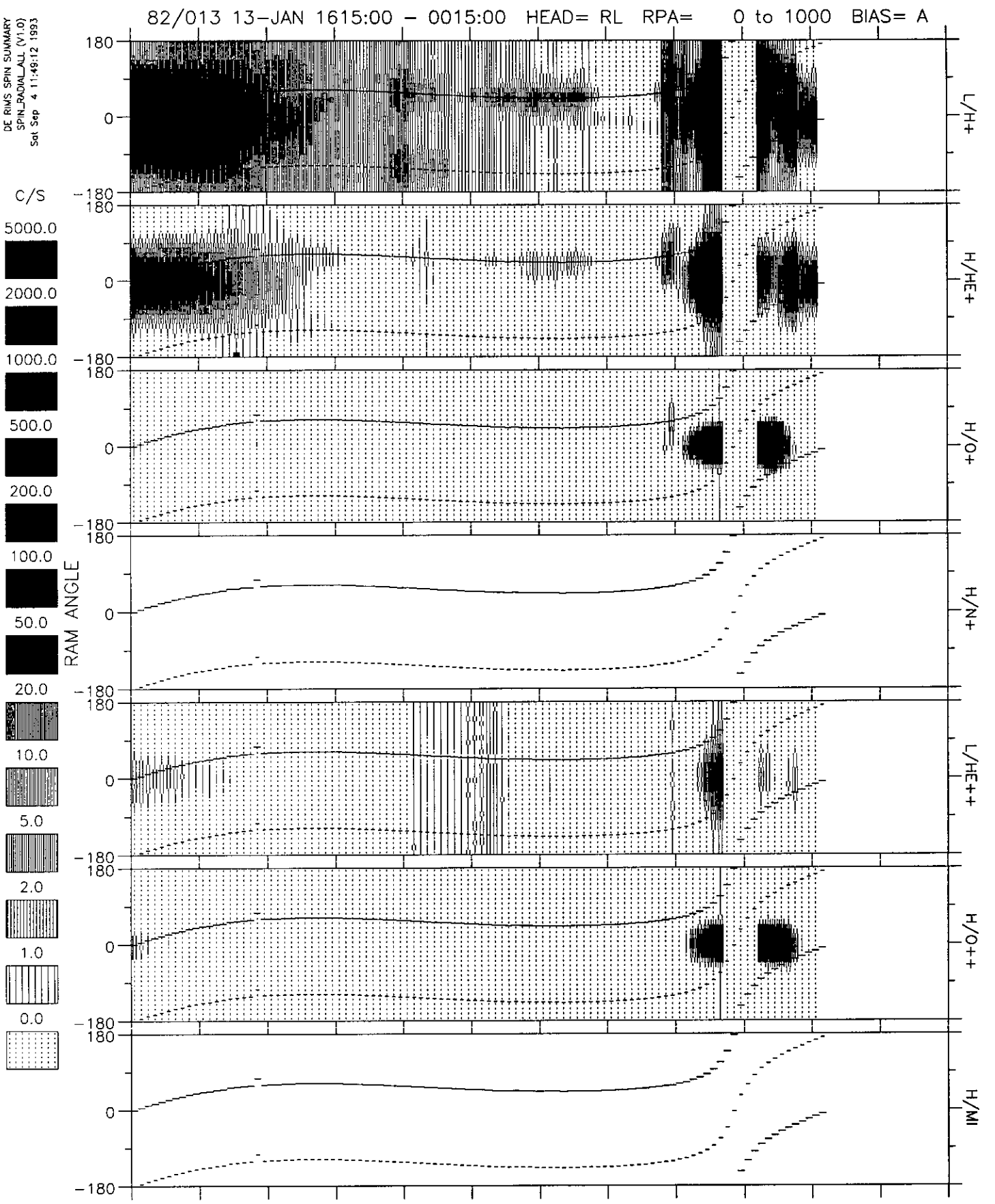

82/012 12-JAN 0530:00 - 1330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RAD/AL_ALL (V1.0)
Sat Sep 4 11:40:14 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0730 0810 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 4.4 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 8.1 13.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 3.5 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 43.08 54.20 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 69.5 74.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS


82/012 12-JAN 1215:00 - 2015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 11:41:33 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1335 1415 1455 1535 1615 1655 1735 0000 0000 1935 DEGS
RE 0.0 3.7 4.3 4.6 4.7 4.4 3.9 3.1 0.0 0.0 2.5 HHMM
L 0.0 4.0 5.4 7.2 9.6 13.7 25.6 100.0 0.0 0.0 2.9 RE
MLT 0.0 3.1 2.9 2.7 2.5 2.2 1.9 0.1 0.0 0.0 3.0
MLAT 0.00 16.41 28.11 37.22 45.64 54.66 65.73 81.03 0.00 0.00 ***** HRS
INVLAT 0.0 59.9 64.6 68.1 71.1 74.3 78.6 85.6 0.0 0.0 54.3 DEGS

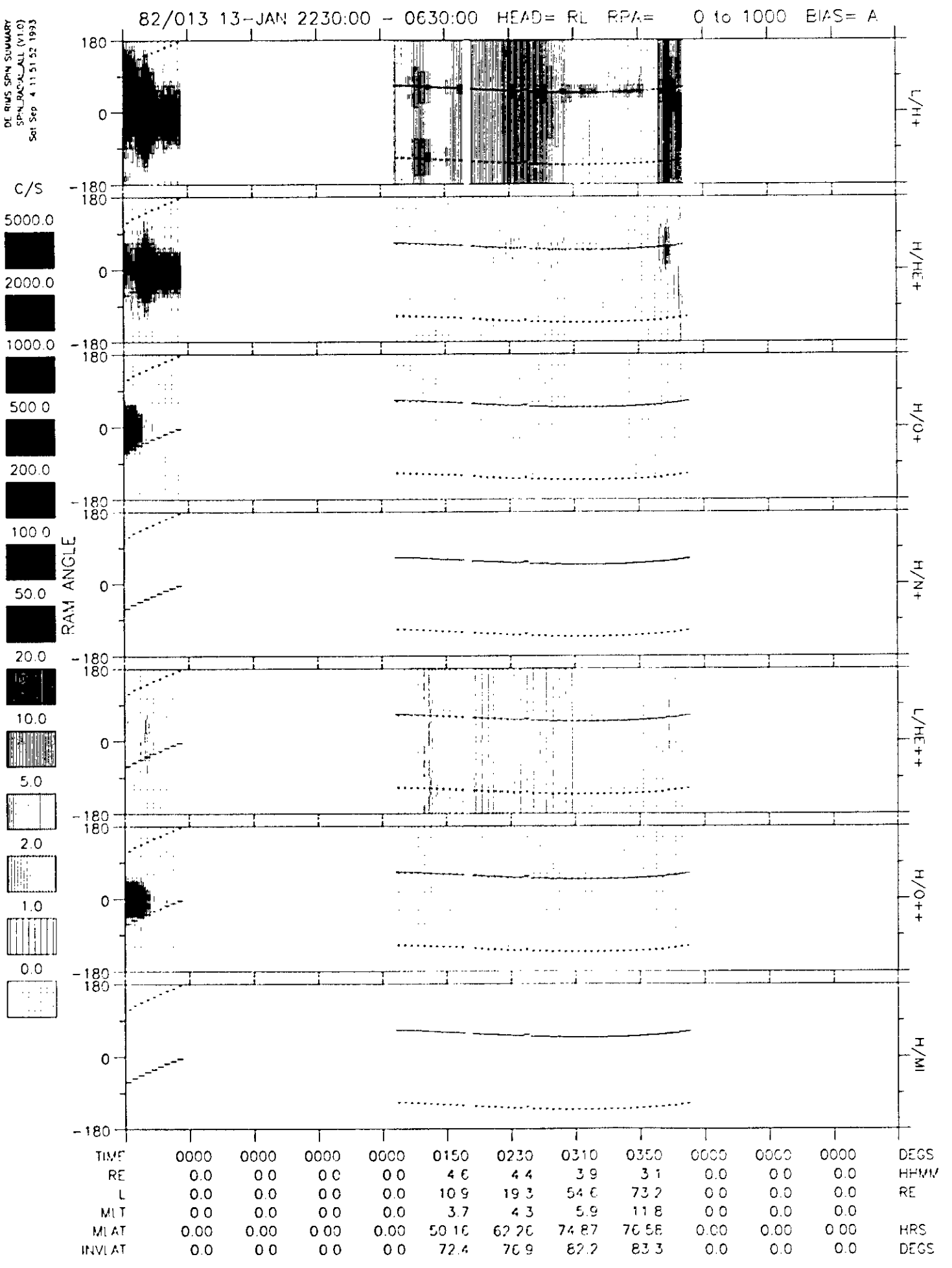

82/012 12-JAN 1900:00 - 0300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Sat Sep 4 11:43:30 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1940 2020 2100 2140 2220 2300 2340 0000 0000 0000 0000 DEGS
RE 2.6 3.6 4.2 4.6 4.7 4.5 4.0 0.0 0.0 0.0 0.0 HHMM
L 2.9 3.5 4.6 6.1 8.2 12.2 23.7 0.0 0.0 0.0 0.0 RE
MLT 3.0 2.9 3.0 3.1 3.3 3.6 4.3 0.0 0.0 0.0 0.0
MLAT ***** 1.94 10.97 29.16 40.49 52.10 65.01 0.00 0.00 0.00 0.00 HRS
INVLAT 54.2 57.9 62.3 66.1 69.6 73.4 78.2 0.0 0.0 0.0 0.0 DEGS

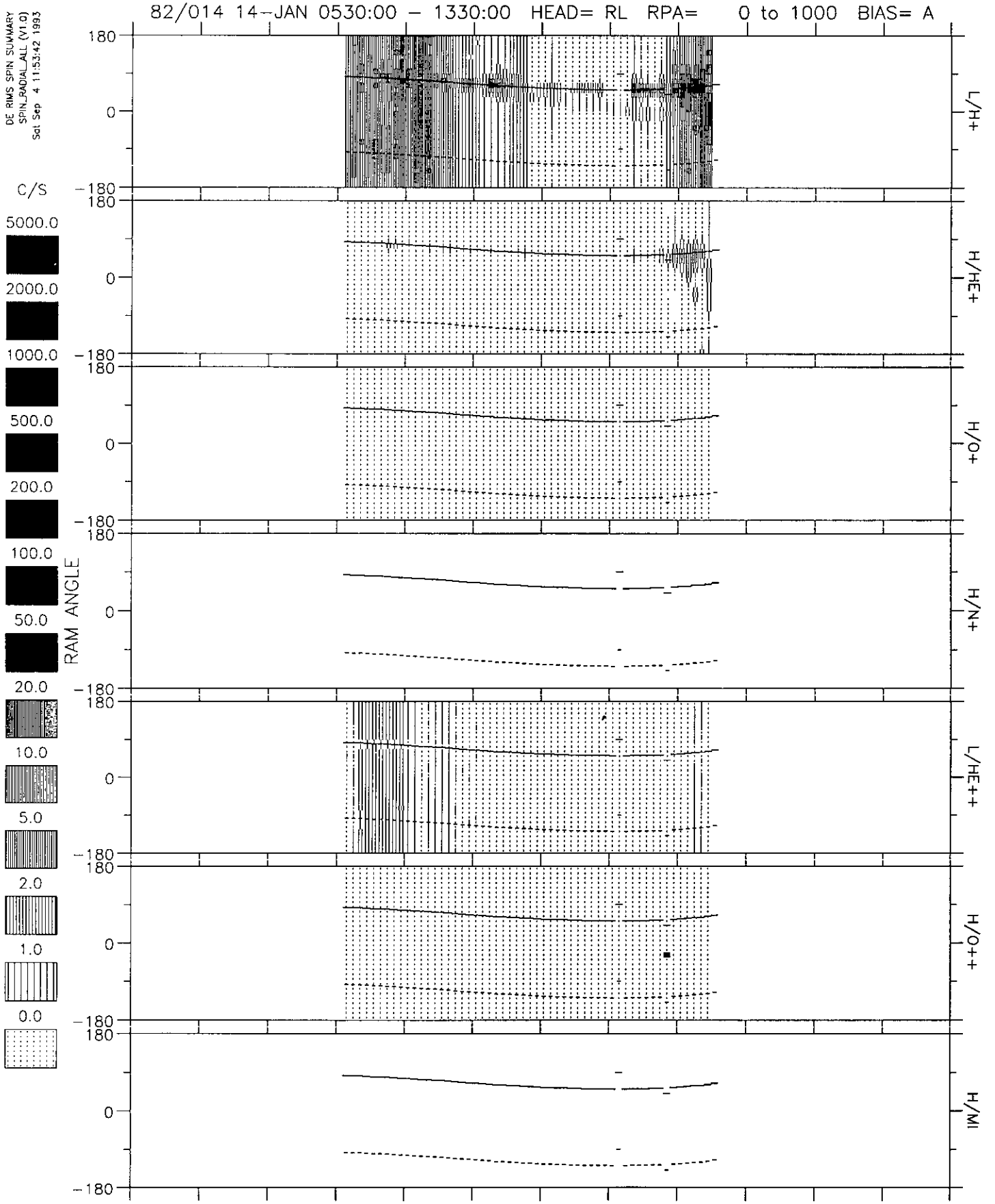

82/013 13-JAN 0200:00 – 1000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 11:45:42 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0320 0400 0440 0520 0600 0640 0720 0000 0000 0000 DEGS
RE 0.0 3.8 4.3 4.6 4.6 4.4 3.9 3.1 0.0 0.0 0.0 HHMM
L 0.0 4.3 6.4 10.1 17.8 42.8 100.0 46.2 0.0 0.0 0.0 RE
MLT 0.0 3.2 3.5 3.7 4.0 4.3 6.8 15.0 0.0 0.0 0.0
MLAT 0.00 21.06 36.27 48.92 60.69 72.64 85.60 73.58 0.00 0.00 0.00 HRS
INVLAT 0.0 61.0 66.8 71.7 76.3 81.2 87.1 81.5 0.0 0.0 0.0 DEGS

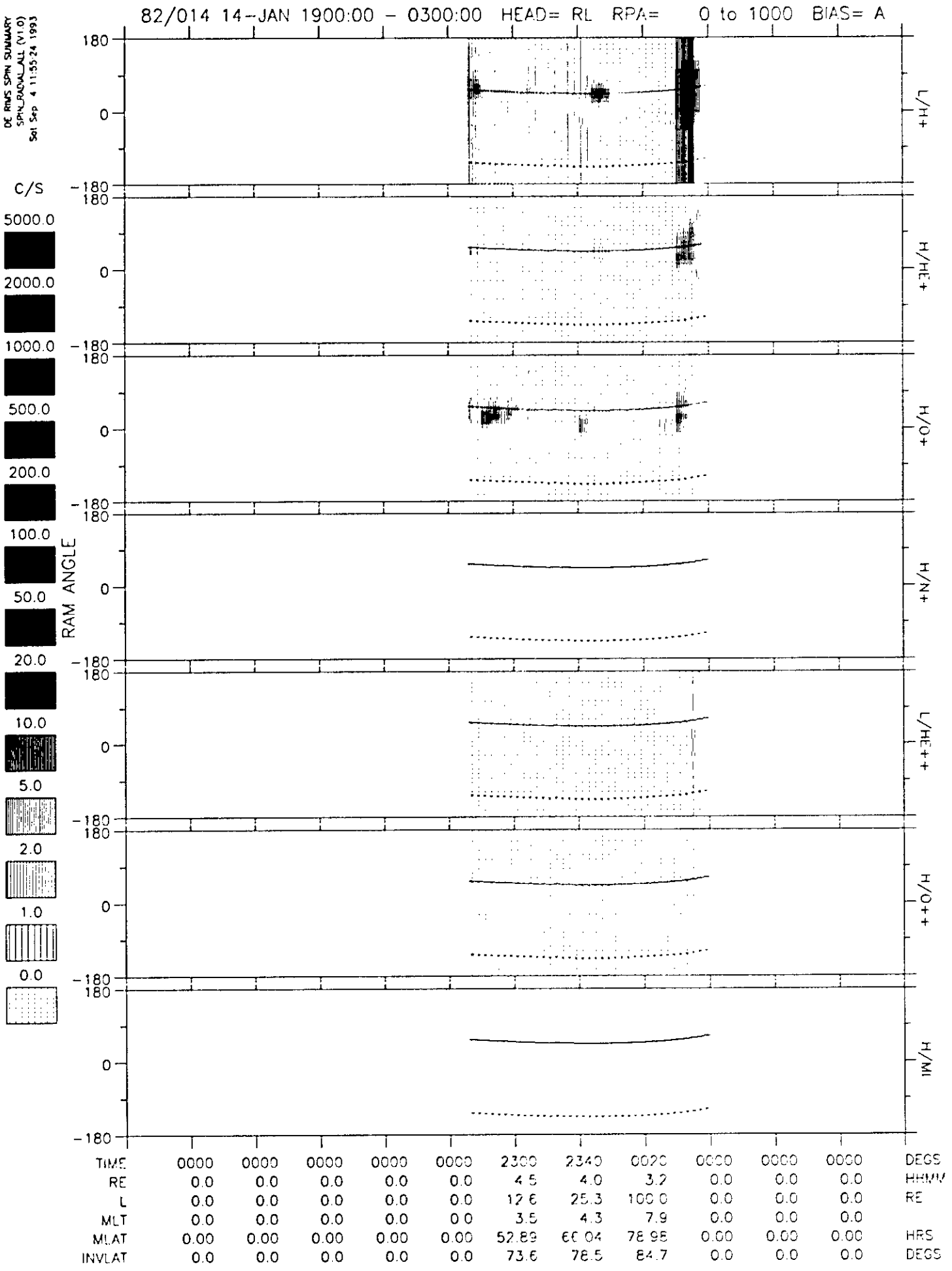

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 11:47:21 1993
82/013 13-JAN 0900:00 - 1700:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 1100 1140 1220 1300 1340 1420 0000 0000 1620 DEGS
RE 0.0 0.0 4.4 4.6 4.6 4.3 3.7 2.8 0.0 0.0 2.8 HHMM
L 0.0 0.0 7.6 10.9 15.9 26.3 65.2 45.3 0.0 0.0 2.9 RE
MLT 0.0 0.0 2.9 2.6 2.2 1.5 22.6 18.6 0.0 0.0 3.2
MLAT 0.00 0.00 40.49 49.37 57.45 65.78 75.02 75.38 0.00 0.00 ***** HRS
INVLAT 0.0 0.0 68.8 72.4 75.5 78.8 82.9 81.4 0.0 0.0 54.1 DEGS

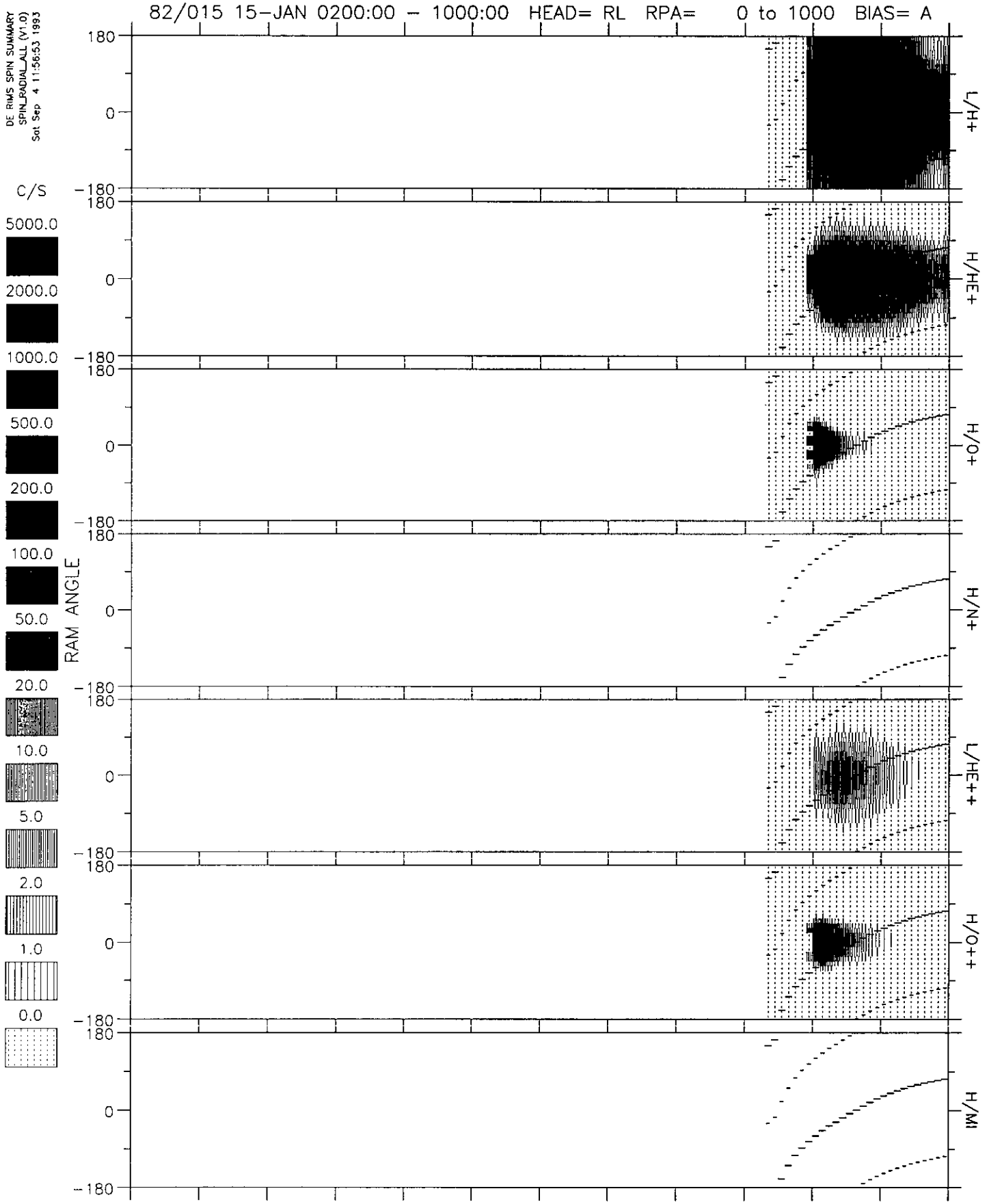


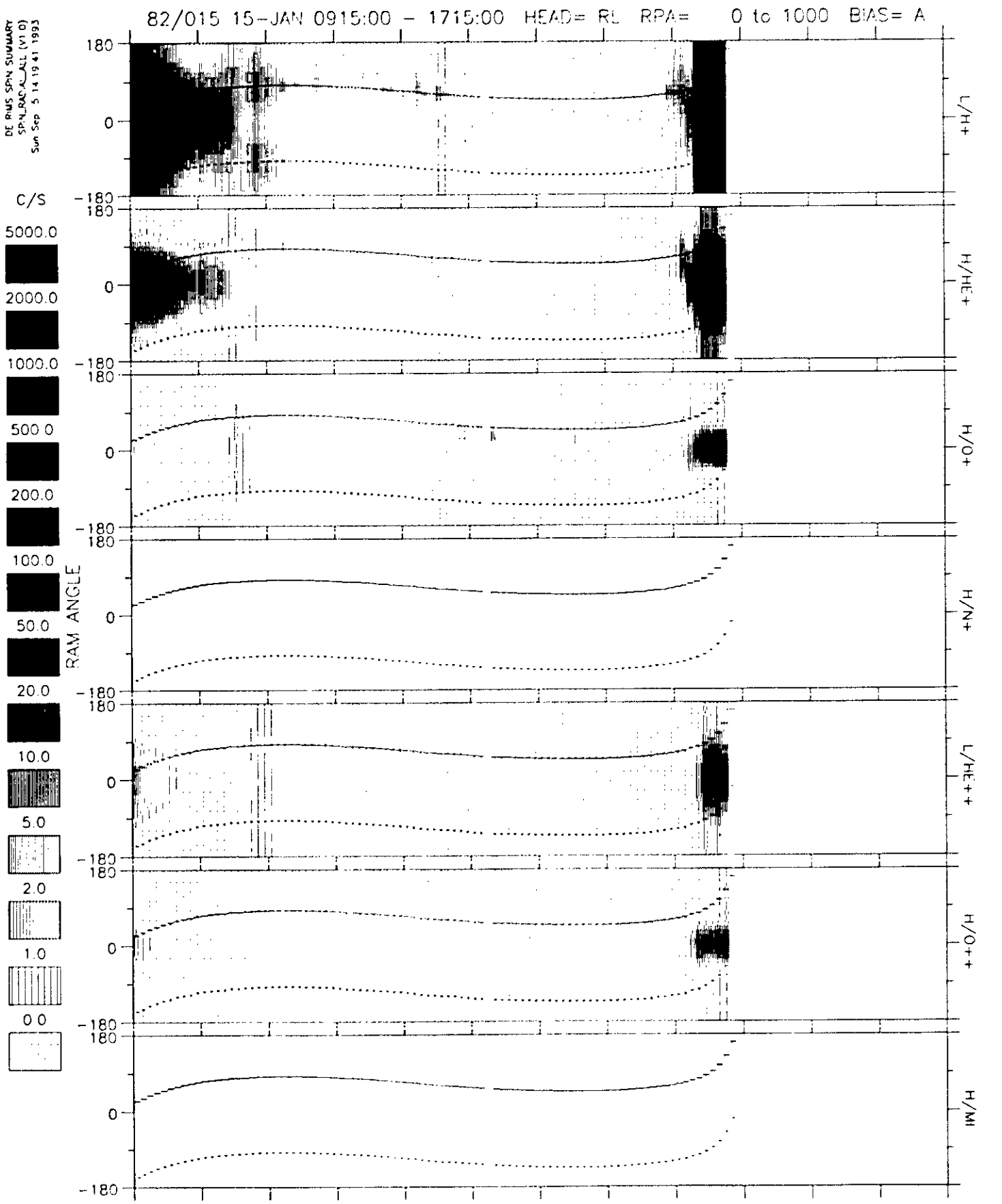
TIME	1655	1735	1815	1855	1935	2015	2055	2135	2215	2255	0000	DEGS
RE	3.6	4.3	4.6	4.7	4.5	4.0	3.2	2.1	1.1	2.4	0.0	HHMM
L	3.6	4.7	6.1	7.9	11.2	20.2	100.0	11.9	3.9	2.9	0.0	RE
MLT	3.0	2.8	2.8	2.8	2.9	3.1	4.1	14.0	15.6	2.5	0.0	
MLAT	5.71	18.77	29.29	39.21	49.76	62.32	79.50	65.43	*****	*****	0.00	HRS
INVLAT	58.3	62.6	66.1	69.2	72.6	77.1	85.5	73.2	59.4	54.1	0.0	DEGS

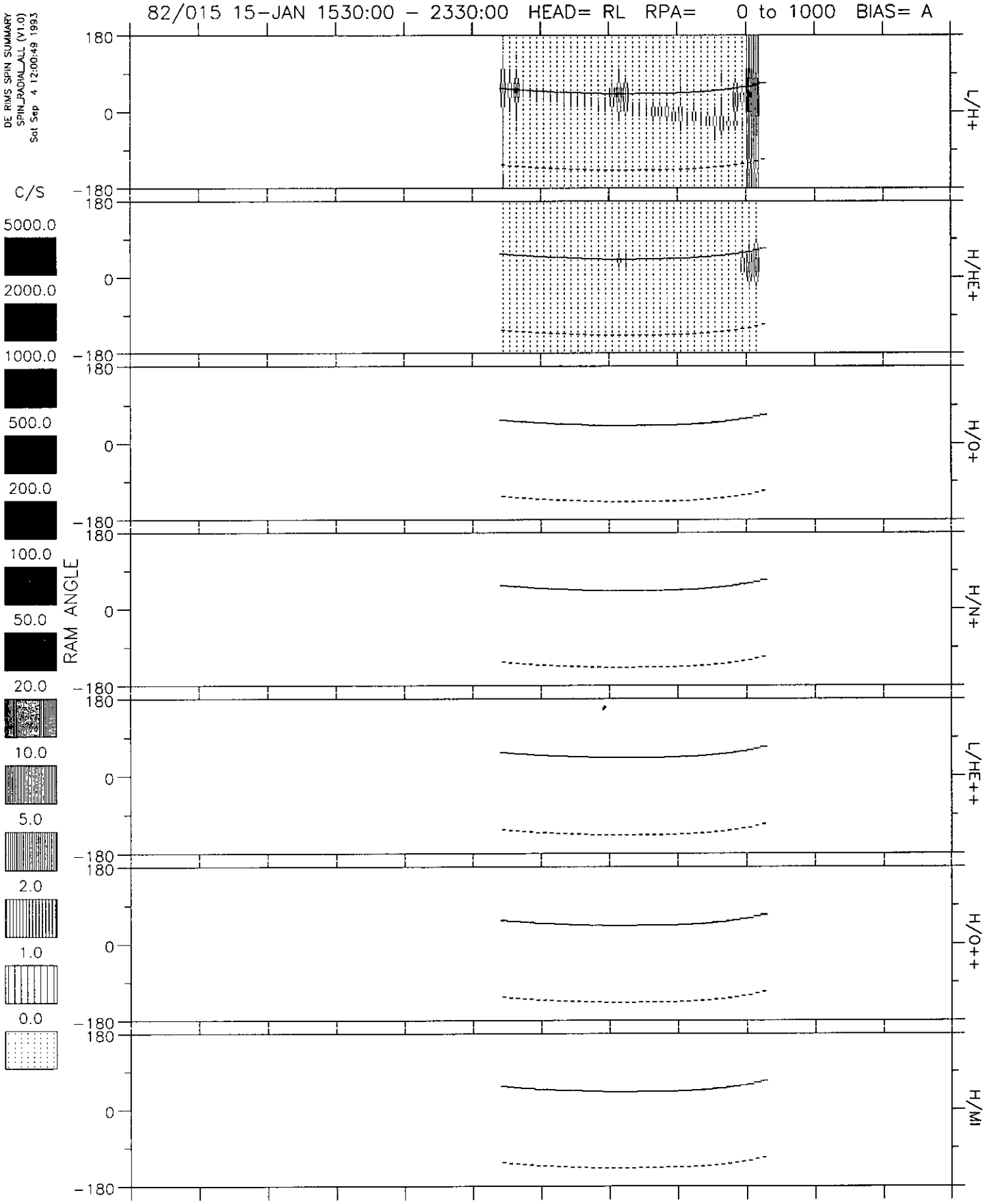

82/013 13-JAN 2230:00 - 0630:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 11:51:52 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0150 0230 0310 0350 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.6 4.4 3.9 3.1 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 10.9 19.3 54.6 73.2 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 3.7 4.3 5.9 11.8 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 50.16 62.26 74.87 76.58 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 72.4 76.9 82.2 83.3 0.0 0.0 0.0 DEGS

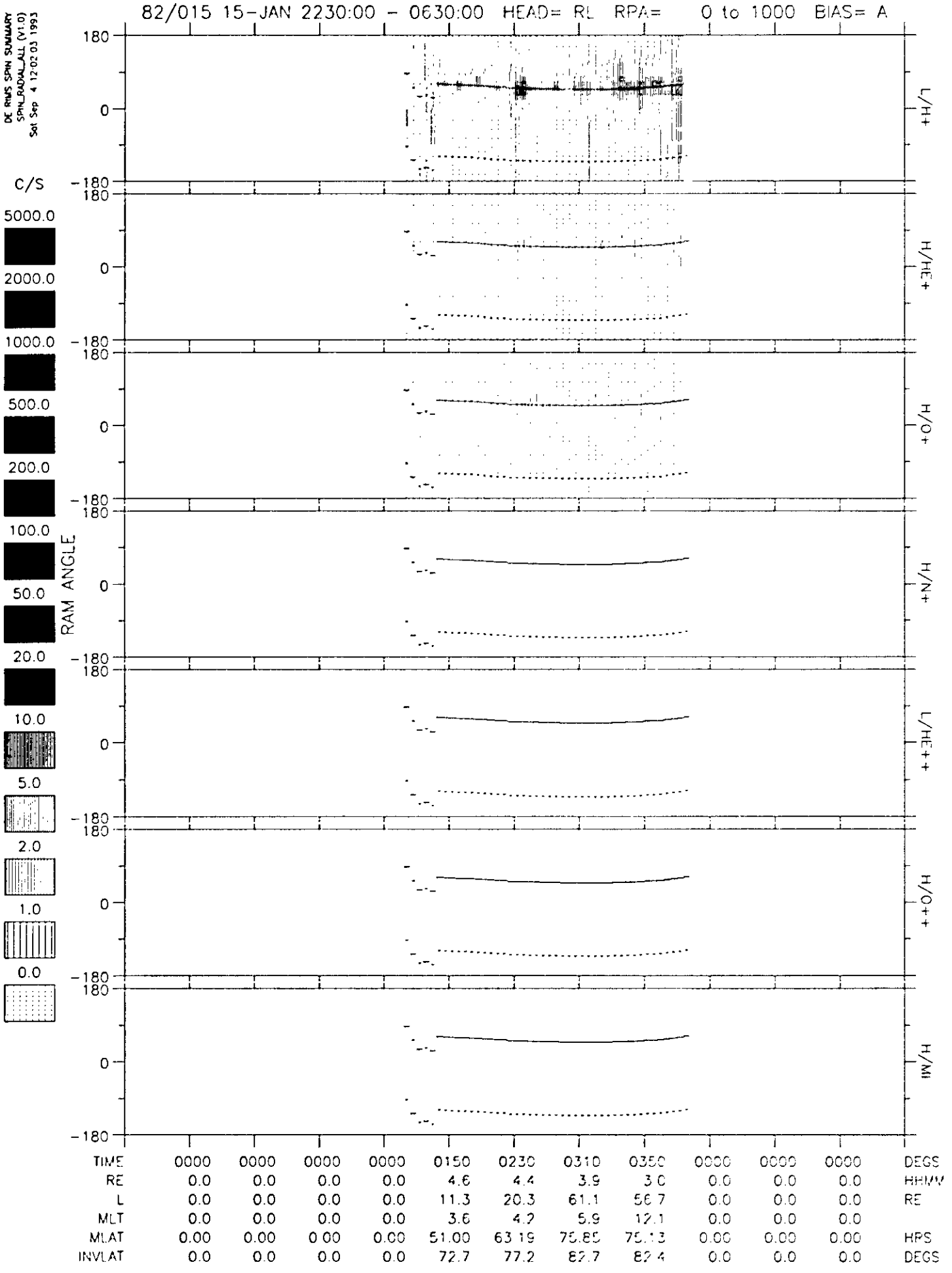

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 11:53:42 1993
82/014 14-JAN 0530:00 – 1330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0810 0850 0930 1010 1050 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.6 4.3 3.8 2.9 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 13.7 24.4 58.5 100.0 -0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 3.2 2.9 2.1 22.8 17.1 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 54.61 64.52 74.35 82.85 71.32 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 74.3 78.3 82.5 86.7 -0.0 0.0 0.0 0.0 DEGS

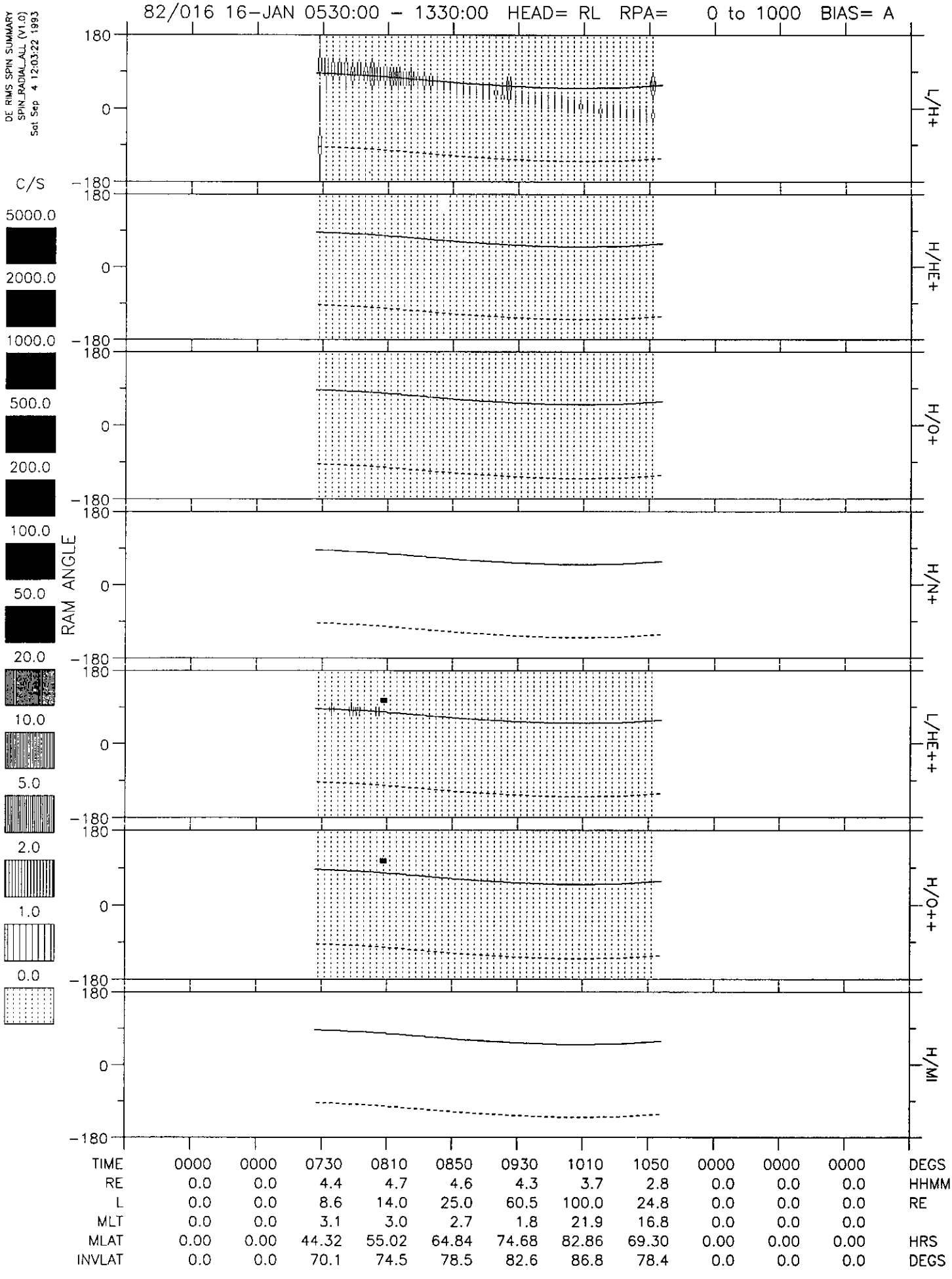

82/014 14-JAN 1900:00 - 0300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Sat Sep 4 11:55:24 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0000 2300 2340 0020 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.5 4.0 3.2 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 12.6 25.3 100.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 3.5 4.3 7.9 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 52.89 66.04 78.98 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 73.6 78.5 84.7 0.0 0.0 0.0 DEGS

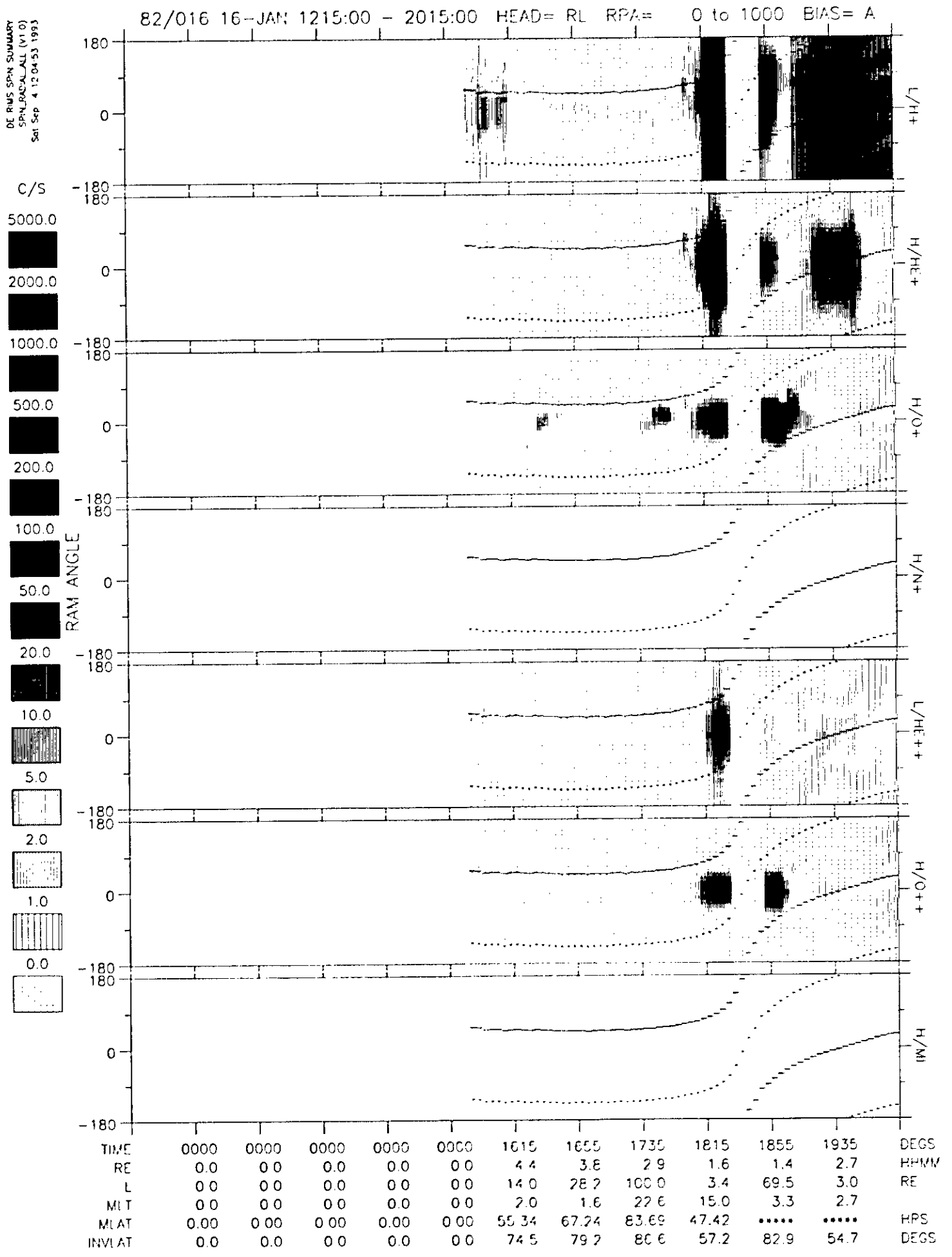

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 11:56:53 1993
82/015 15-JAN 0200:00 - 1000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0840 0920 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 2.7 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.4 2.7 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.6 3.3
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ***** 1.51 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 61.7 52.7 DEGS

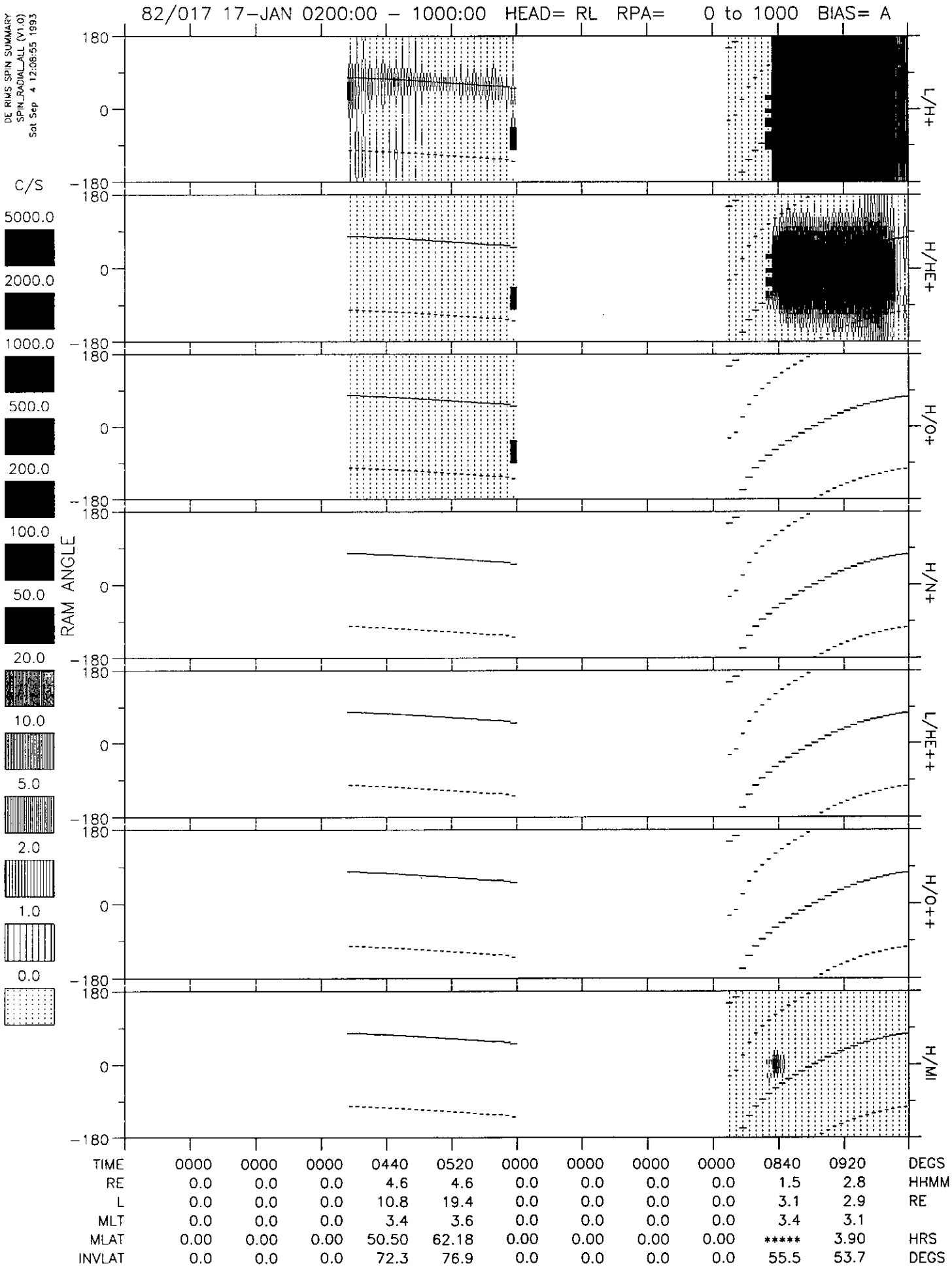

82/015 15-JAN 0915:00 - 1715:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RAD_ALL (V1 0)
Sun Sep 5 14 19 41 1993
C/S
5000.0
2000.0
1000.0
500 0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0 0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0955 1035 1115 1155 1235 1315 1355 1435 0000 0000 0000 DEGS
RE 3 6 4 2 4 6 4 7 4 5 4 1 3 3 2.2 0.0 0.0 0.0 HHMM
L 4 1 6 2 8 8 12.5 18 8 35 1 -0 0 9 7 0 0 0.0 0.0 RE
MLT 3.1 2.9 2 6 2.3 1.8 1.0 22 1 16 5 0 0 0.0 0.0
MLAT 20.89 34 35 44 16 52.48 60 56 69 43 78 27 62 95 0 00 0.00 0.00 HRS
INVLAT 60.4 66 3 70 4 73 6 76 7 80 3 -0.0 71.2 0 0 0 0 0 0 DEGS

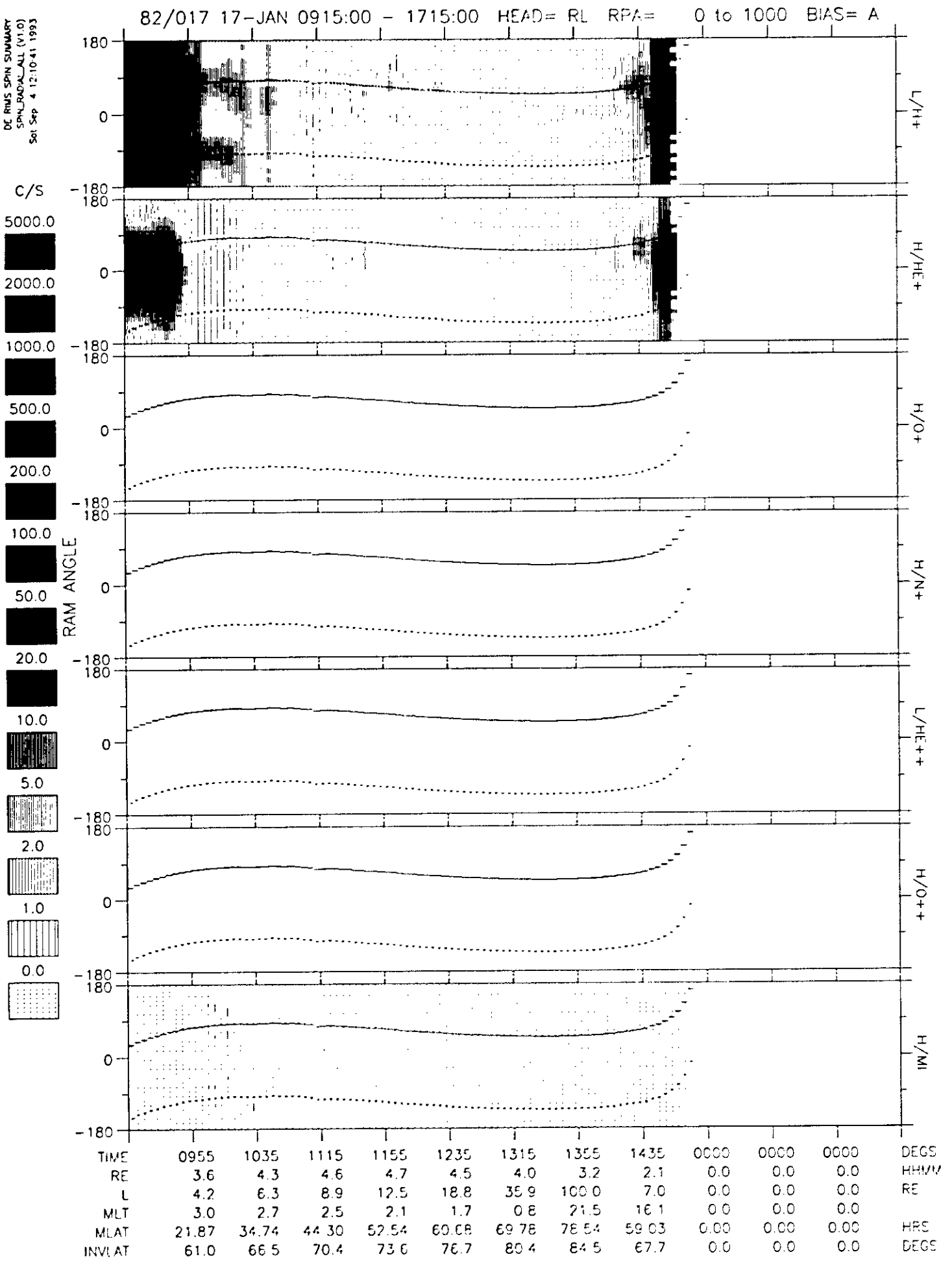

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 12:00:49 1993
82/015 15-JAN 1530:00 - 2330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1930 2010 2050 2130 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.5 4.0 3.2 2.1 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 10.8 19.0 99.8 13.6 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 2.7 3.0 3.9 13.8 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 48.89 61.42 78.49 66.94 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 72.3 76.7 84.4 74.2 0.0 0.0 DEGS

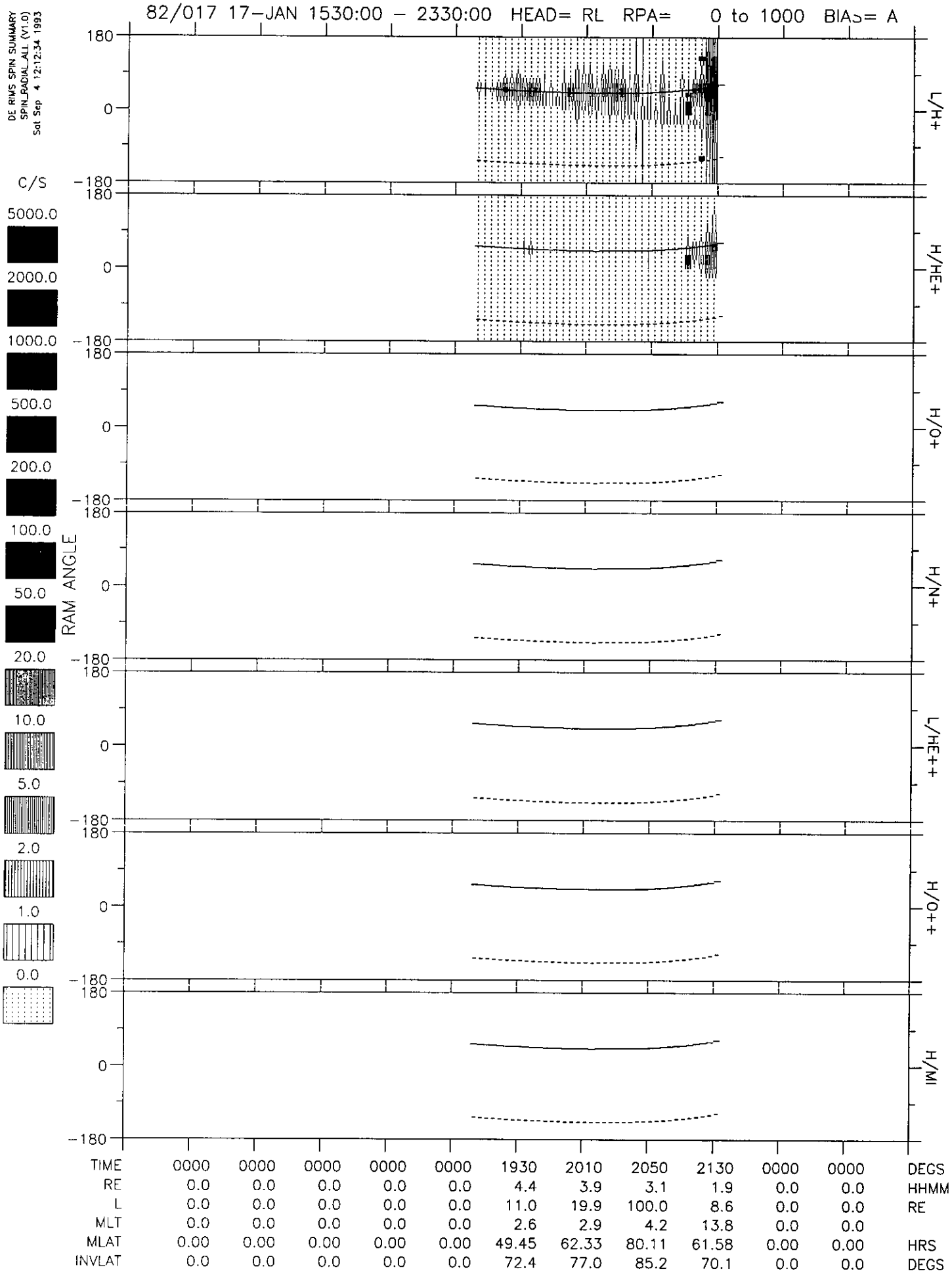

82/015 15-JAN 2230:00 - 0630:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 12:02:03 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0150 0230 0310 0350 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.6 4.4 3.9 3.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 11.3 20.3 61.1 56.7 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 3.6 4.2 5.9 12.1 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 51.00 63.19 75.85 75.13 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 72.7 77.2 82.7 82.4 0.0 0.0 0.0 DEGS

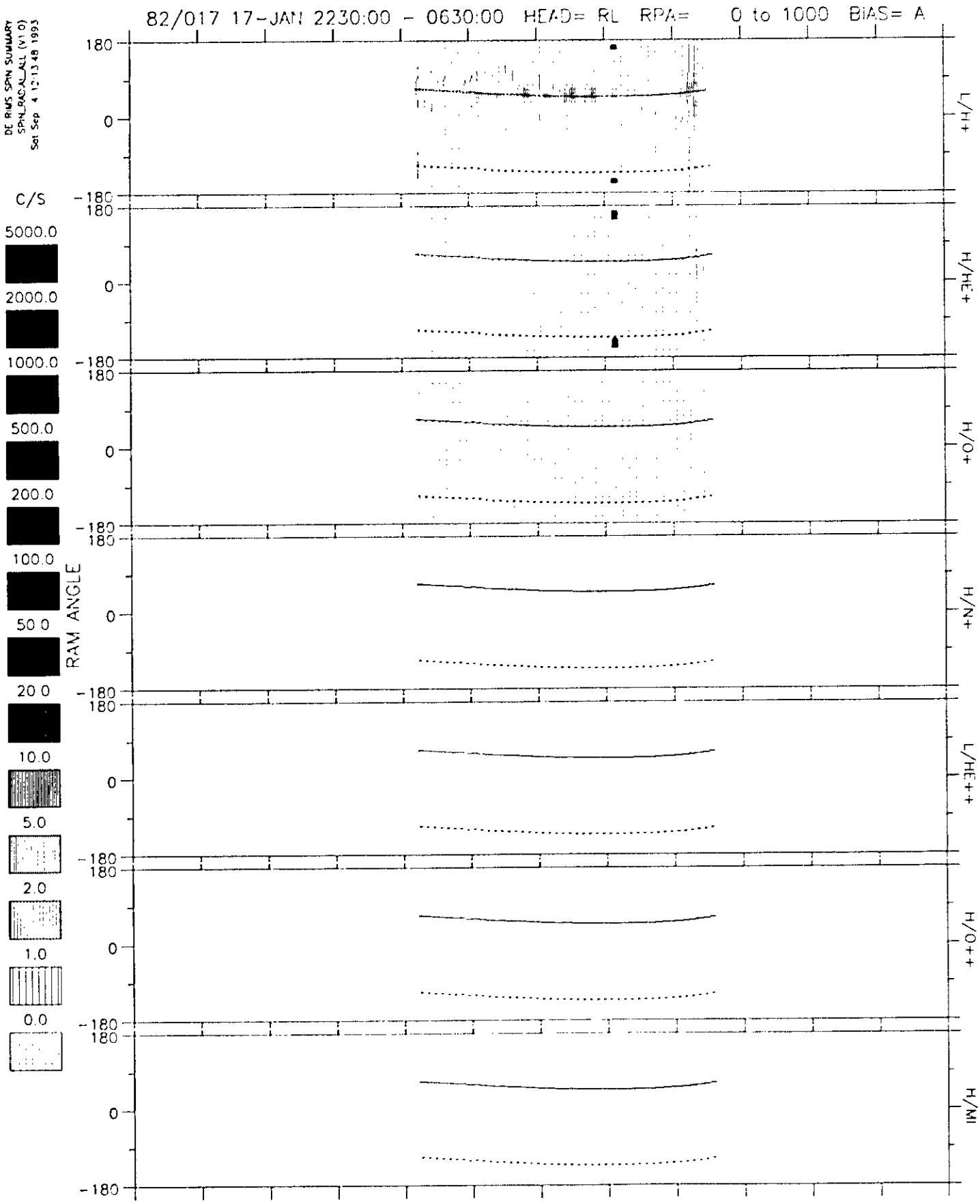

82/016 16-JAN 0530:00 - 1330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 12:03:22 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0730 0810 0850 0930 1010 1050 0000 0000 0000 DEGS
RE 0.0 0.0 4.4 4.7 4.6 4.3 3.7 2.8 0.0 0.0 0.0 HHMM
L 0.0 0.0 8.6 14.0 25.0 60.5 100.0 24.8 0.0 0.0 0.0 RE
MLT 0.0 0.0 3.1 3.0 2.7 1.8 21.9 16.8 0.0 0.0 0.0
MLAT 0.00 0.00 44.32 55.02 64.84 74.68 82.86 69.30 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 70.1 74.5 78.5 82.6 86.8 78.4 0.0 0.0 0.0 DEGS


82/016 16-JAN 1215:00 - 2015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 12:04:53 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1615 1655 1735 1815 1855 1935 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.4 3.8 2.9 1.6 1.4 2.7 HHMM
L 0.0 0.0 0.0 0.0 0.0 14.0 28.2 100.0 3.4 69.5 3.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 2.0 1.6 22.6 15.0 3.3 2.7
MLAT 0.00 0.00 0.00 0.00 0.00 55.34 67.24 83.69 47.42 ***** ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 74.5 79.2 80.6 57.2 82.9 54.7 DEGS

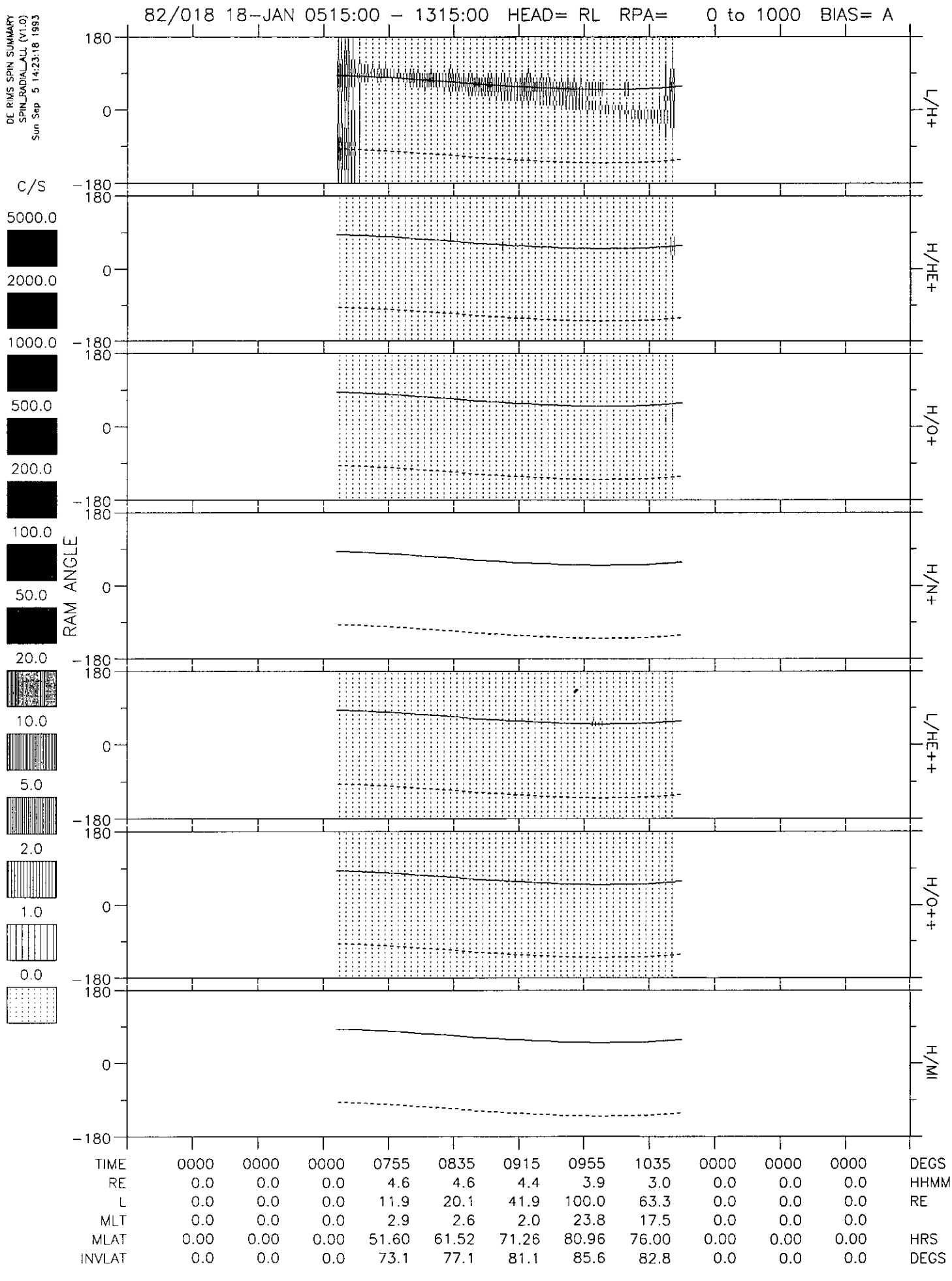

82/017 17-JAN 0200:00 – 1000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 12:06:55 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0440 0520 0000 0000 0000 0000 0840 0920 DEGS
RE 0.0 0.0 0.0 4.6 4.6 0.0 0.0 0.0 0.0 1.5 2.8 HHMM
L 0.0 0.0 0.0 10.8 19.4 0.0 0.0 0.0 0.0 3.1 2.9 RE
MLT 0.0 0.0 0.0 3.4 3.6 0.0 0.0 0.0 0.0 3.4 3.1
MLAT 0.00 0.00 0.00 50.50 62.18 0.00 0.00 0.00 0.00 ***** 3.90 HRS
INVLAT 0.0 0.0 0.0 72.3 76.9 0.0 0.0 0.0 0.0 55.5 53.7 DEGS

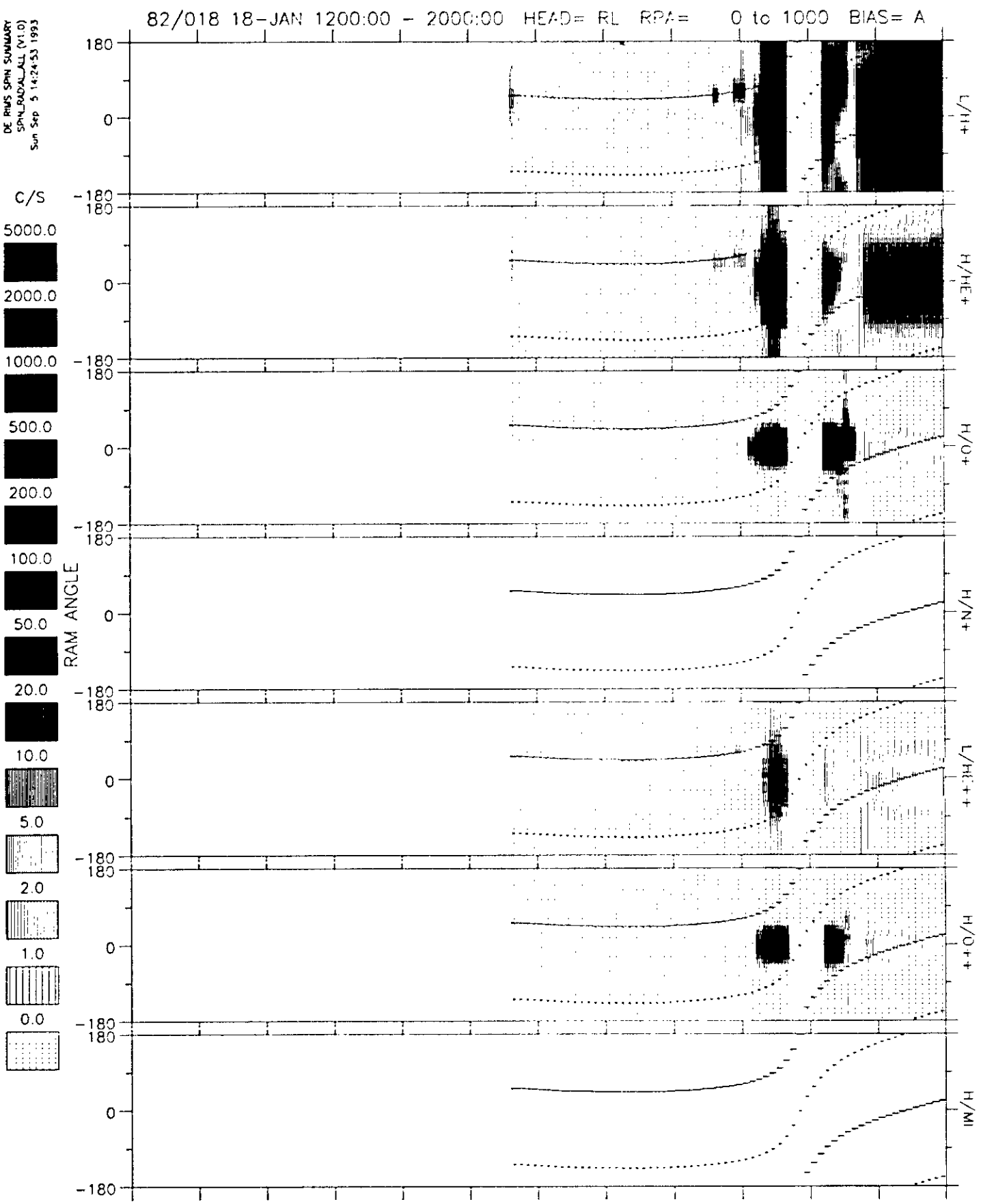

82/017 17-JAN 0915:00 - 1715:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 12:10:41 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/HI+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0955 1035 1115 1155 1235 1315 1355 1435 0000 0000 0000 DEGS
RE 3.6 4.3 4.6 4.7 4.5 4.0 3.2 2.1 0.0 0.0 0.0 HHMM
L 4.2 6.3 8.9 12.5 18.8 35.9 100.0 7.0 0.0 0.0 0.0 RE
MLT 3.0 2.7 2.5 2.1 1.7 0.8 21.5 16.1 0.0 0.0 0.0
MLAT 21.87 34.74 44.30 52.54 60.08 69.78 78.54 59.03 0.00 0.00 0.00 HRS
INVLAT 61.0 66.5 70.4 73.6 76.7 80.4 84.5 67.7 0.0 0.0 0.0 DEGS

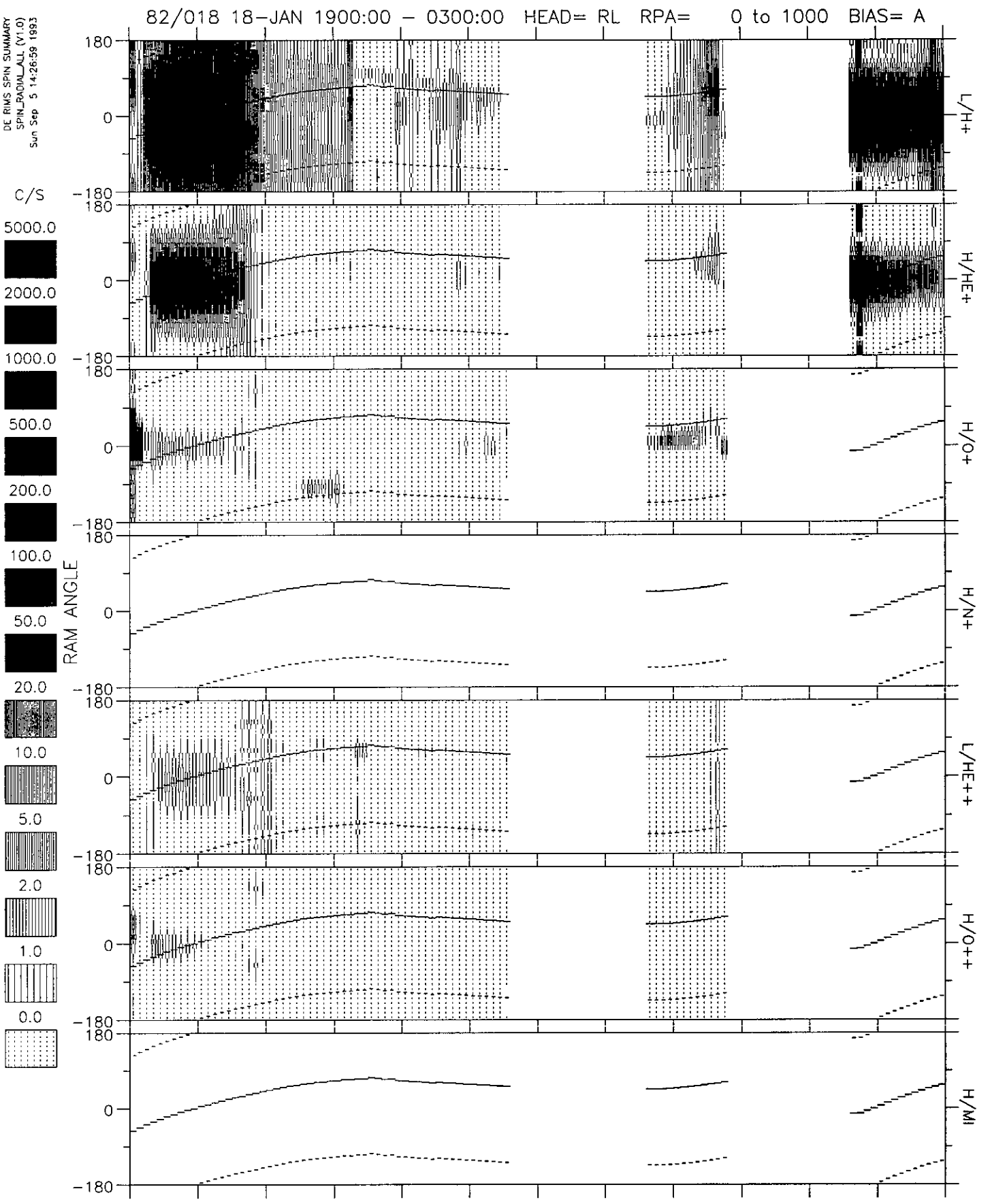

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 4 12:12:34 1993
82/017 17-JAN 1530:00 - 2330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1930 2010 2050 2130 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.4 3.9 3.1 1.9 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 11.0 19.9 100.0 8.6 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 2.6 2.9 4.2 13.8 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 49.45 62.33 80.11 61.58 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 72.4 77.0 85.2 70.1 0.0 0.0 DEGS

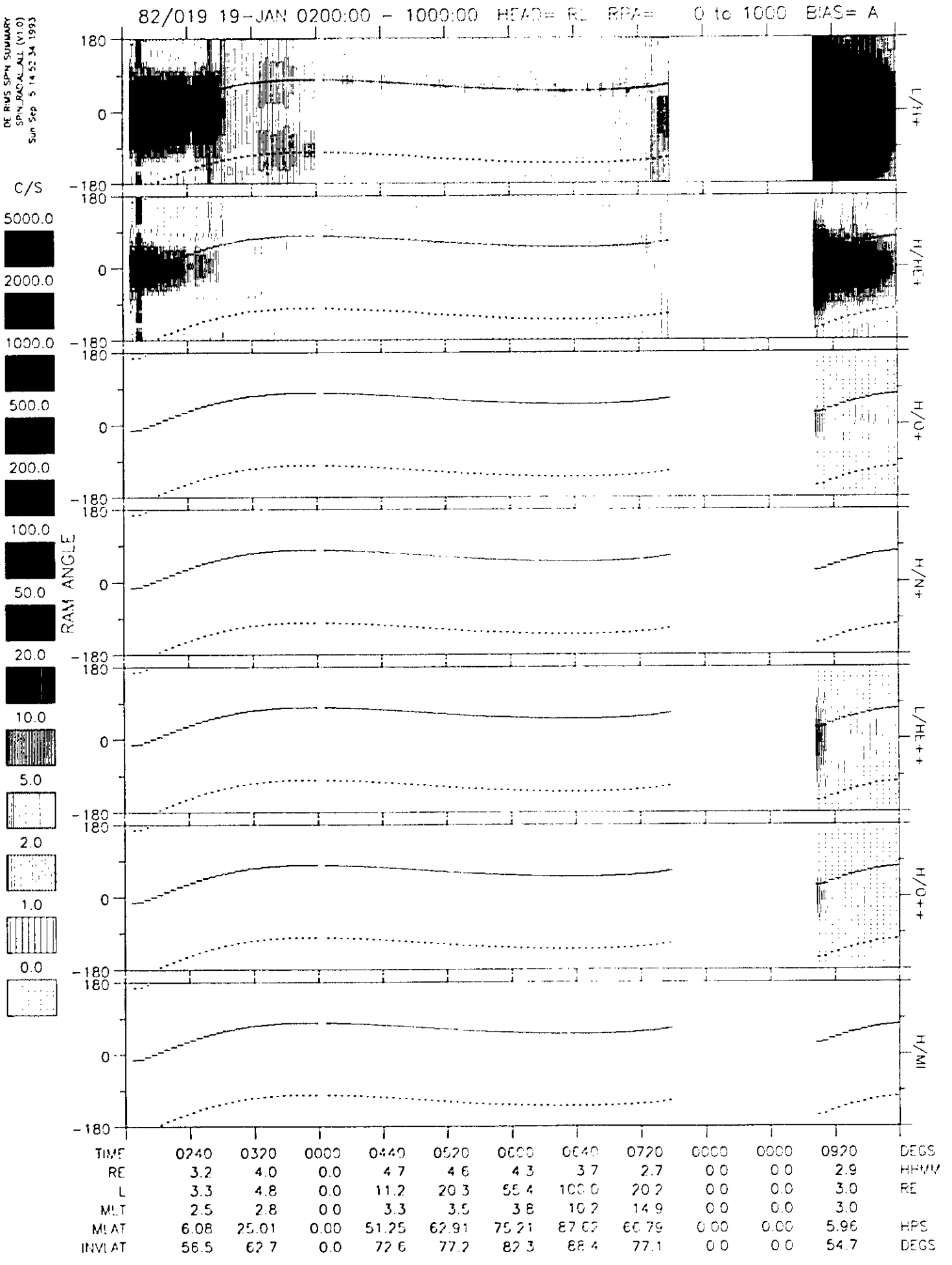


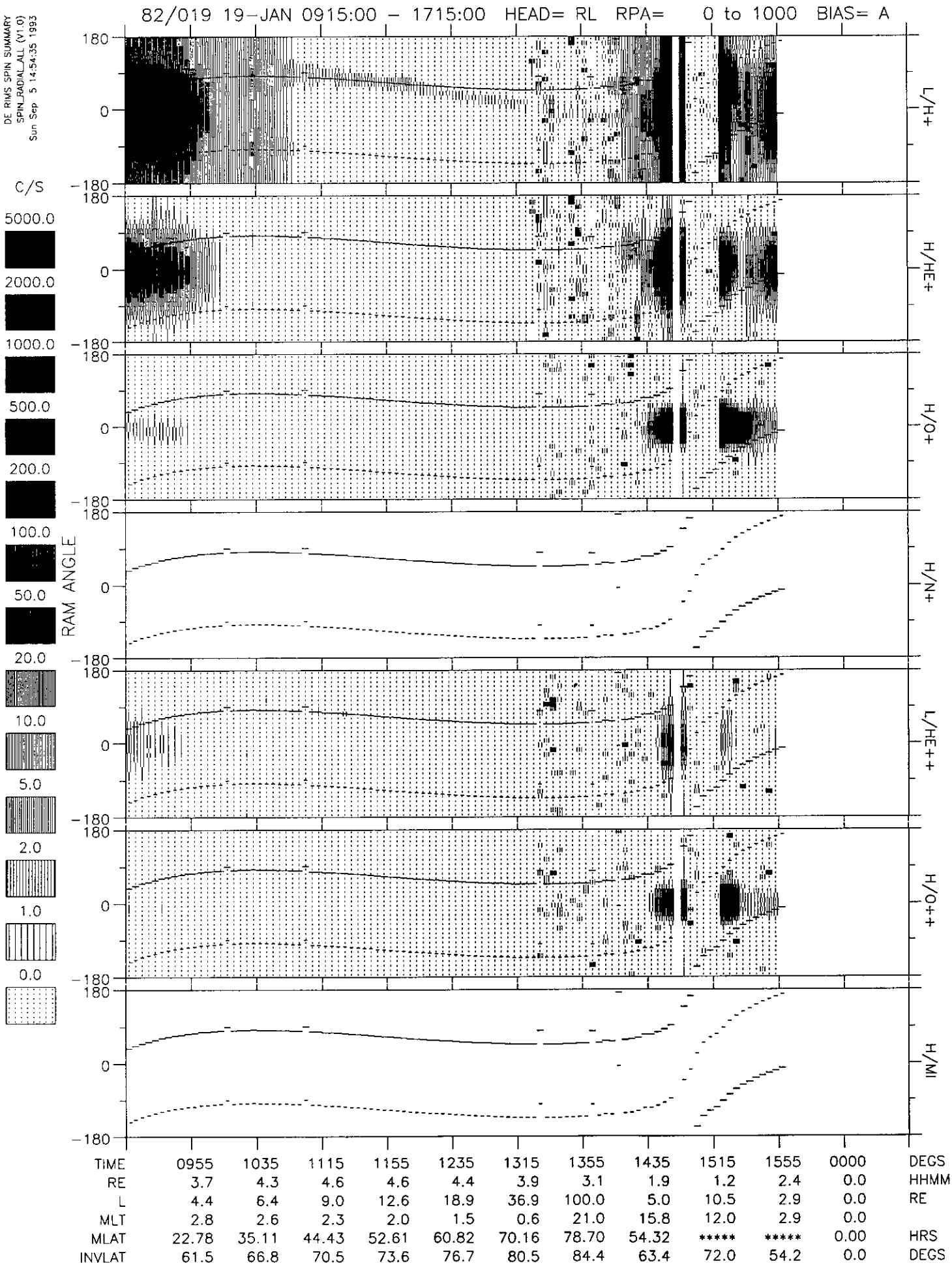
TIME	0000	0000	0000	0000	0150	0230	0310	0350	0000	0000	0000	DEGS
RE	0.0	0.0	0.0	0.0	4.6	4.3	3.8	2.9	0.0	0.0	0.0	HHMM
L	0.0	0.0	0.0	0.0	11.6	21.4	69.5	42.3	0.0	0.0	0.0	RE
MLT	0.0	0.0	0.0	0.0	3.5	4.1	6.1	12.4	0.0	0.0	0.0	
MLAT	0.00	0.00	0.00	0.00	51.82	64.12	76.85	73.26	0.00	0.00	0.00	HRS
INVLAT	0.0	0.0	0.0	0.0	72.9	77.5	83.1	81.2	0.0	0.0	0.0	DEGS

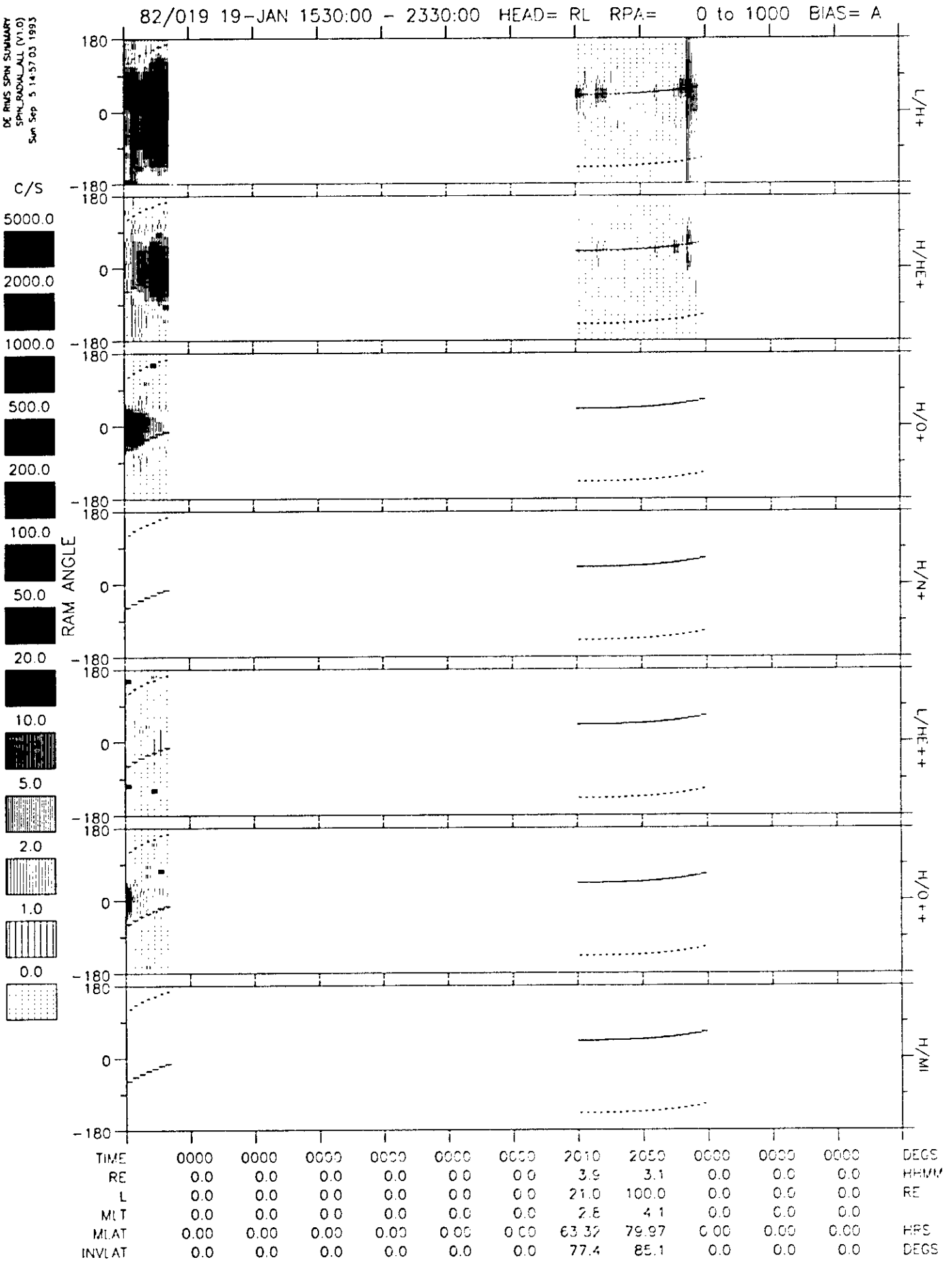

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 5 14:23:18 1993
82/018 18-JAN 0515:00 - 1315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0755 0835 0915 0955 1035 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.6 4.4 3.9 3.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 11.9 20.1 41.9 100.0 63.3 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 2.9 2.6 2.0 23.8 17.5 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 51.60 61.52 71.26 80.96 76.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 73.1 77.1 81.1 85.6 82.8 0.0 0.0 0.0 DEGS

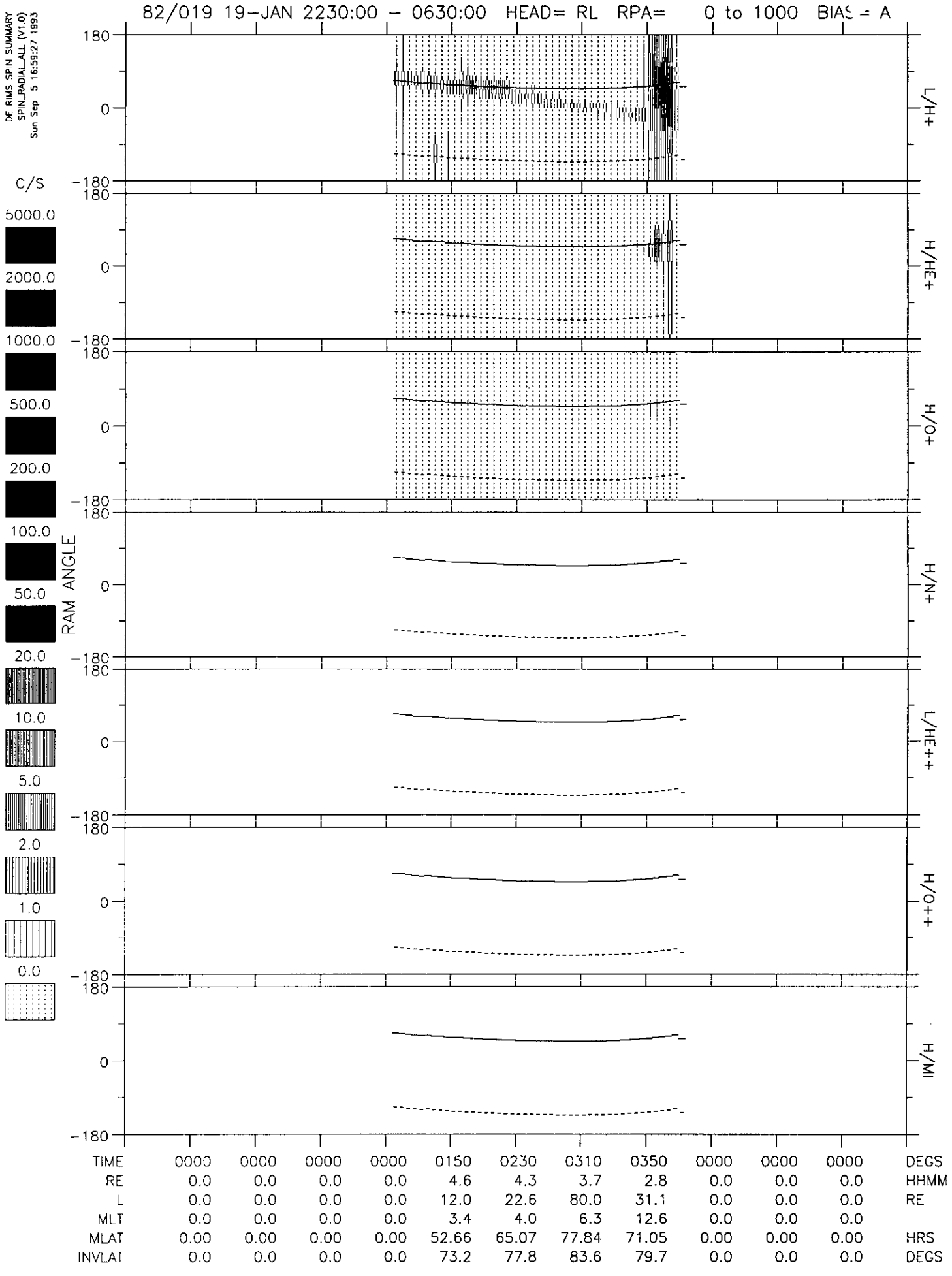

82/018 18-JAN 1200:00 - 2000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 5 14:24:53 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1600 1640 1720 1800 1840 1920 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.5 4.0 3.2 2.0 1.1 2.4 HHMM
L 0.0 0.0 0.0 0.0 0.0 12.0 20.8 100.0 10.5 4.1 3.1 RE
MLT 0.0 0.0 0.0 0.0 0.0 1.9 1.7 0.6 15.2 14.3 2.6
MLAT 0.00 0.00 0.00 0.00 0.00 51.90 62.96 78.60 66.03 ***** ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 73.2 77.3 84.6 72.0 60.3 55.3 DEGS

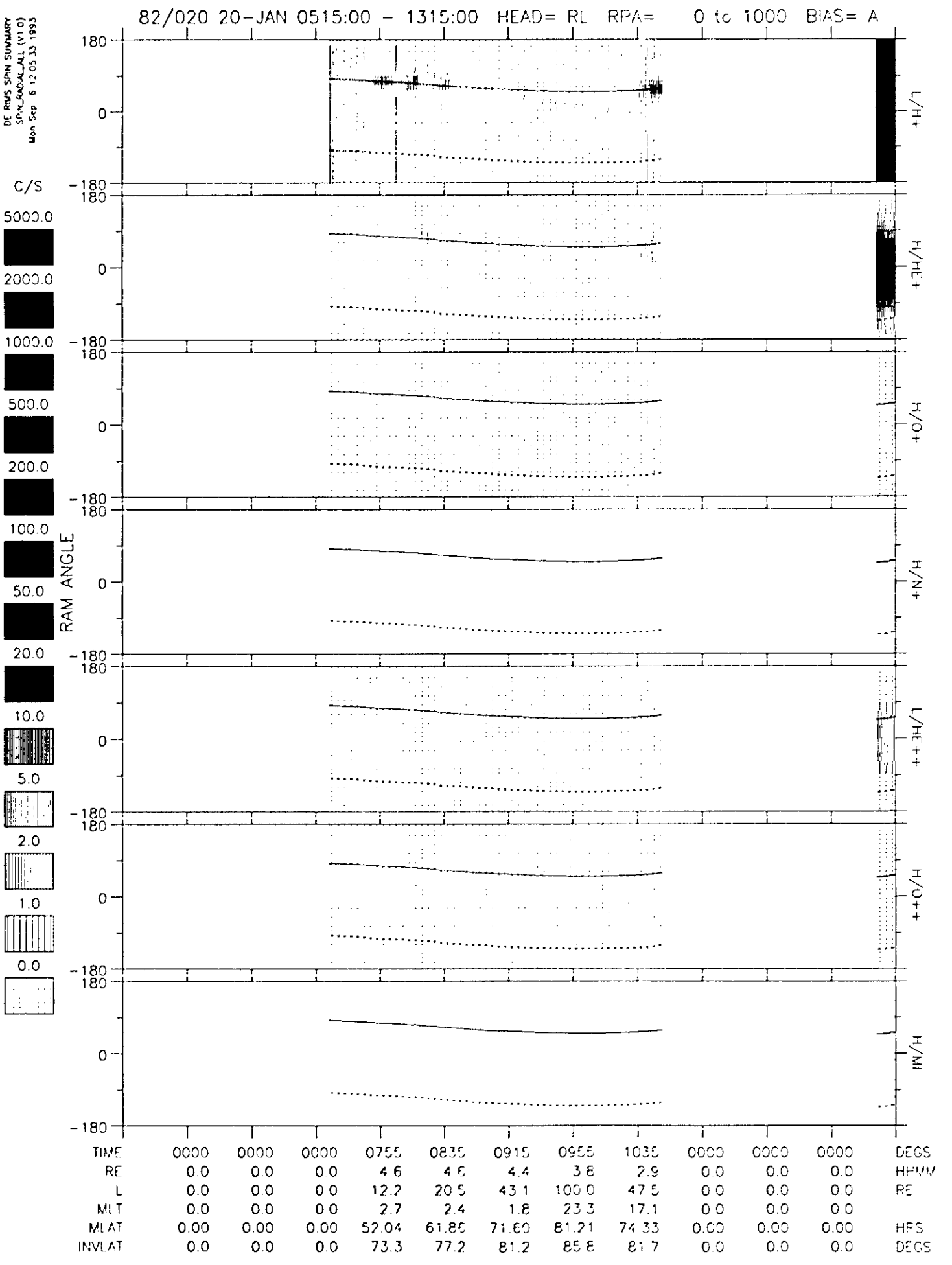

82/018 18-JAN 1900:00 - 0300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 5 14:26:59 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N
TIME 1940 2020 2100 2140 2220 0000 0000 0020 0000 0000 0220 DEGS
RE 3.0 3.8 4.4 4.6 4.6 0.0 0.0 3.0 0.0 0.0 2.7 HHMM
L 3.1 3.8 4.9 6.4 8.7 0.0 0.0 100.0 0.0 0.0 2.8 RE
MLT 2.5 2.5 2.6 2.7 3.0 0.0 0.0 9.2 0.0 0.0 2.3
MLAT ***** 5.49 19.33 31.15 42.53 0.00 0.00 78.81 0.00 0.00 -7.76 HRS
INVLAT 55.2 59.3 63.3 66.8 70.2 0.0 0.0 84.4 0.0 0.0 53.6 DEGS

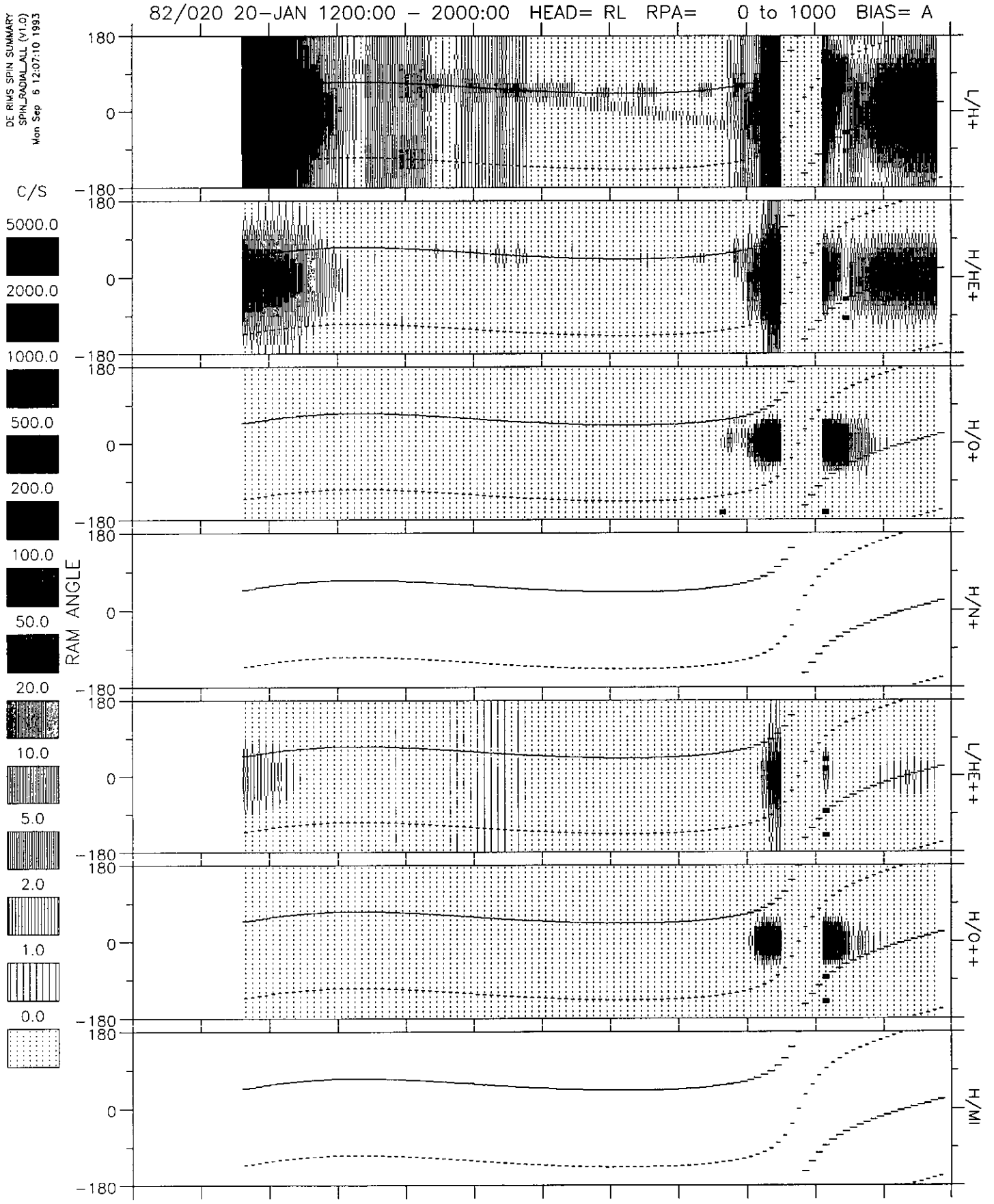

82/019 19-JAN 0200:00 - 1000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RACAL_ALL (V1.0)
Sun Sep 5 14:52:34 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0240 0320 0000 0440 0520 0600 0640 0720 0000 0000 0920 DEGS
RE 3.2 4.0 0.0 4.7 4.6 4.3 3.7 2.7 0.0 0.0 2.9 HHWM
L 3.3 4.8 0.0 11.2 20.3 55.4 100.0 20.2 0.0 0.0 3.0 RE
MLT 2.5 2.8 0.0 3.3 3.5 3.8 10.2 14.9 0.0 0.0 3.0
MLAT 6.08 25.01 0.00 51.25 62.91 75.21 87.09 66.79 0.00 0.00 5.96 HPS
INVLAT 56.5 62.7 0.0 72.6 77.2 82.3 88.4 77.1 0.0 0.0 54.7 DEGS

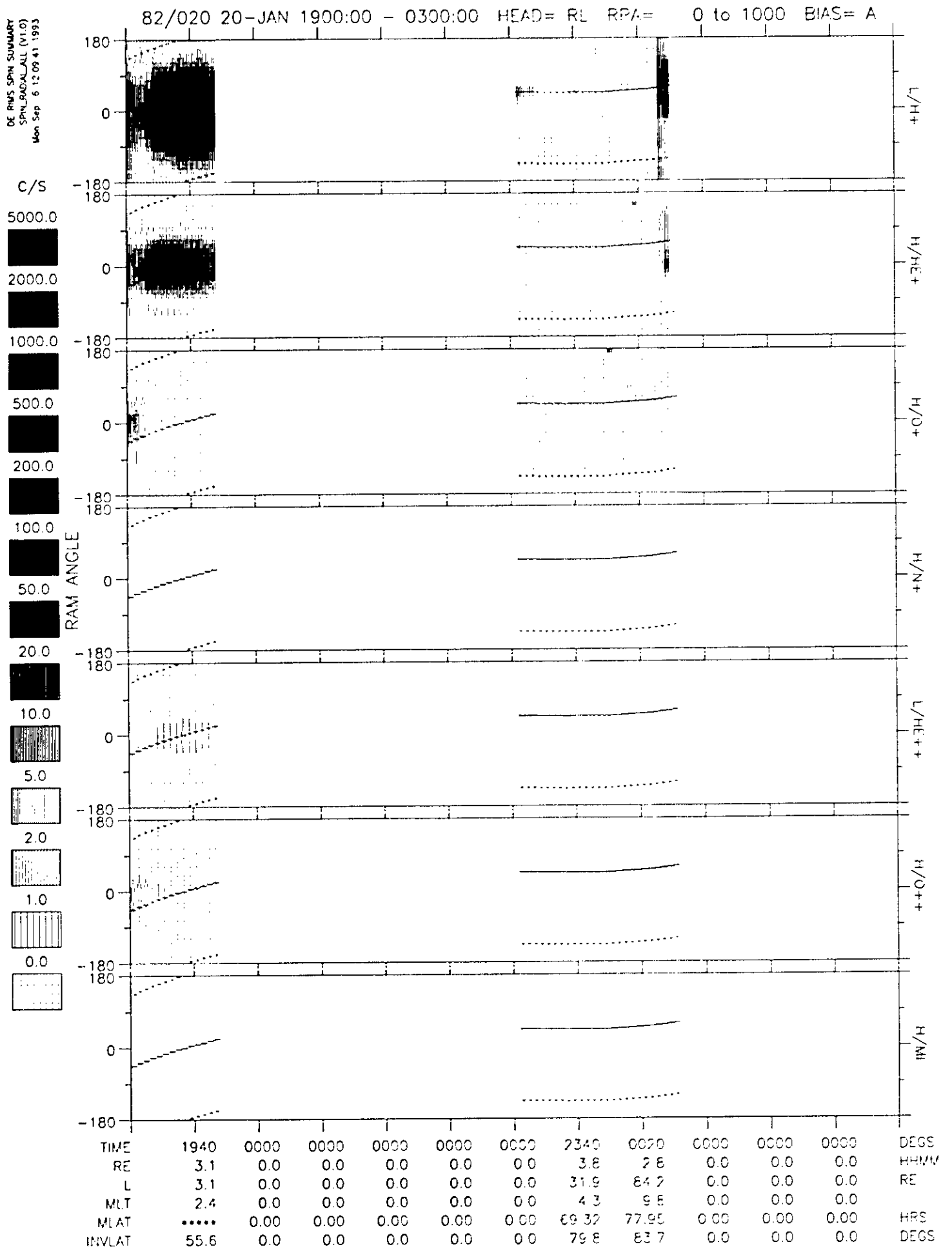

82/019 19-JAN 0915:00 - 1715:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 5 14:54:35 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H+N
L/HE++
H/O++
H/MI
TIME 0955 1035 1115 1155 1235 1315 1355 1435 1515 1555 0000 DEGS
RE 3.7 4.3 4.6 4.6 4.4 3.9 3.1 1.9 1.2 2.4 0.0 HHMM
L 4.4 6.4 9.0 12.6 18.9 36.9 100.0 5.0 10.5 2.9 0.0 RE
MLT 2.8 2.6 2.3 2.0 1.5 0.6 21.0 15.8 12.0 2.9 0.0
MLAT 22.78 35.11 44.43 52.61 60.82 70.16 78.70 54.32 ***** ***** 0.00 HRS
INVLAT 61.5 66.8 70.5 73.6 76.7 80.5 84.4 63.4 72.0 54.2 0.0 DEGS

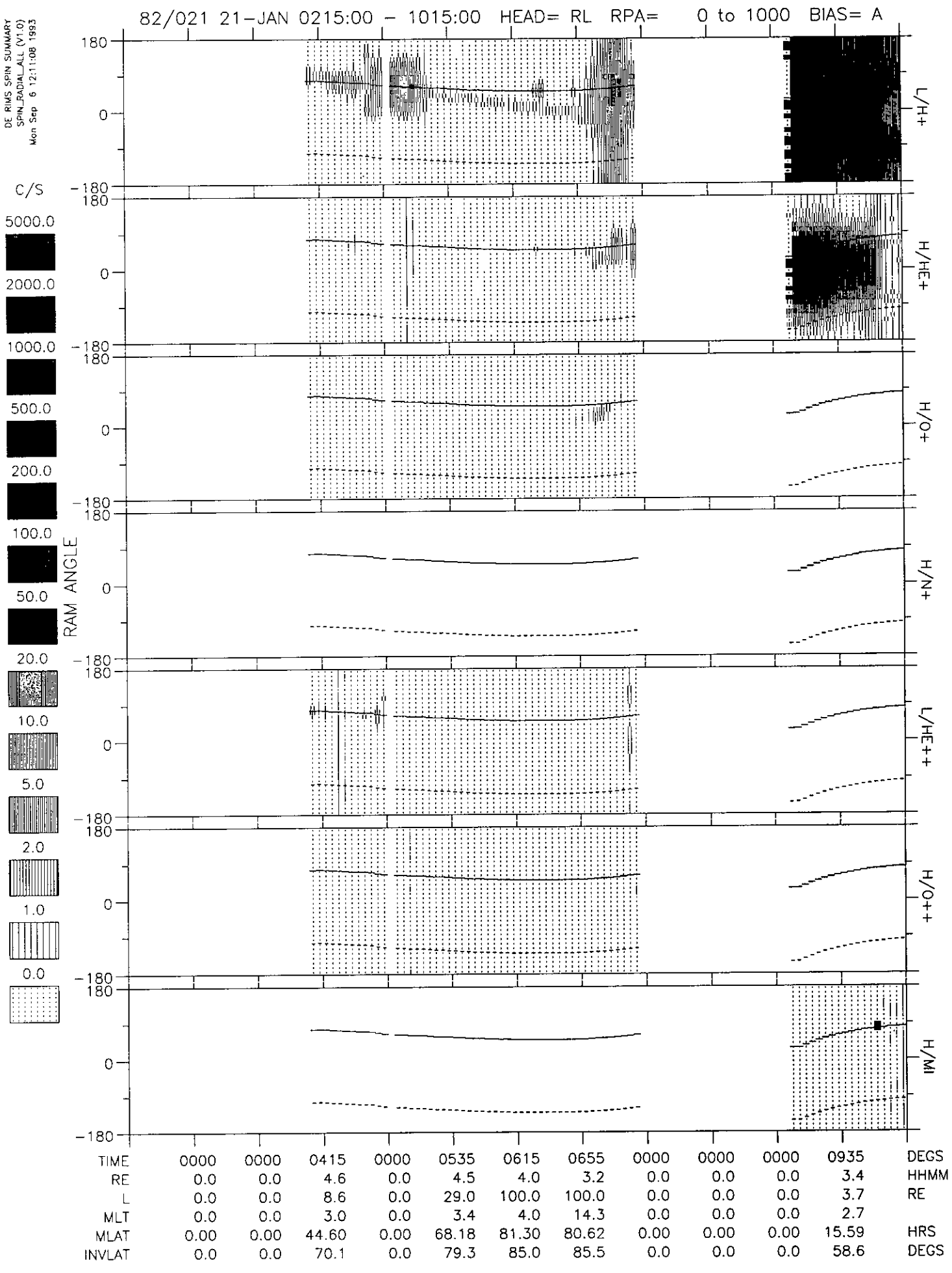

82/019 19-JAN 1530:00 - 2330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 5 14:57:03 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0000 0000 0000 0000 0000 0000 2010 2050 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 3.9 3.1 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 21.0 100.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 2.8 4.1 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 63.32 79.97 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 77.4 85.1 0.0 0.0 0.0 DEGS

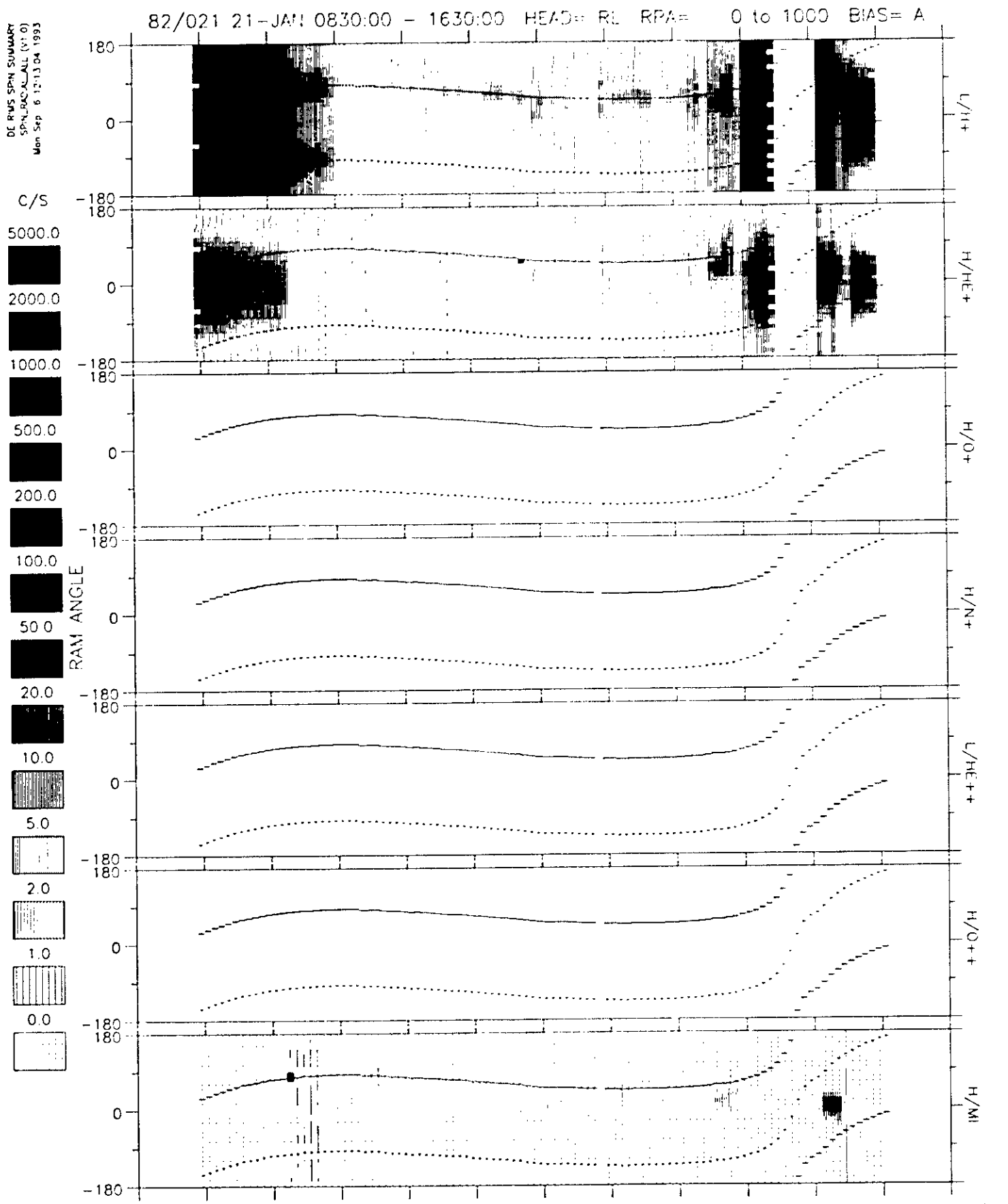

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 5 16:59:27 1993
82/019 19-JAN 2230:00 - 0630:00 HEAD= RL RPA= 0 to 1000 BIAS = A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0000 0000 0000 0000 0150 0230 0310 0350 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.6 4.3 3.7 2.8 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 12.0 22.6 80.0 31.1 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 3.4 4.0 6.3 12.6 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 52.66 65.07 77.84 71.05 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 73.2 77.8 83.6 79.7 0.0 0.0 0.0 DEGS

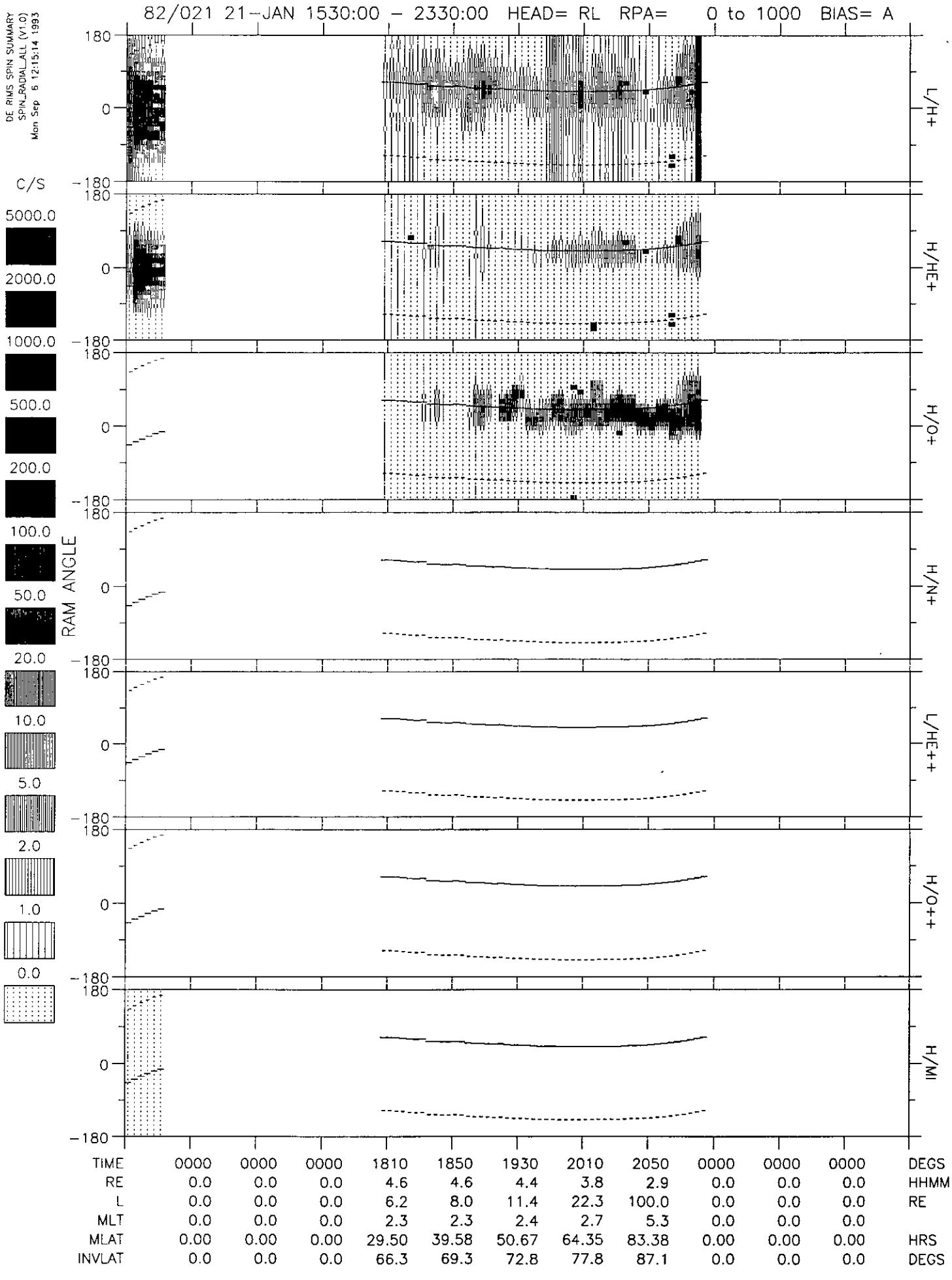

82/020 20-JAN 0515:00 - 1315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:05:33 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0755 0835 0915 0955 1035 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.6 4.4 3.8 2.9 0.0 0.0 0.0 HRMM
L 0.0 0.0 0.0 12.2 20.5 43.1 100.0 47.5 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 2.7 2.4 1.8 23.3 17.1 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 52.04 61.86 71.60 81.21 74.33 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 73.3 77.2 81.2 85.8 81.7 0.0 0.0 0.0 DEGS

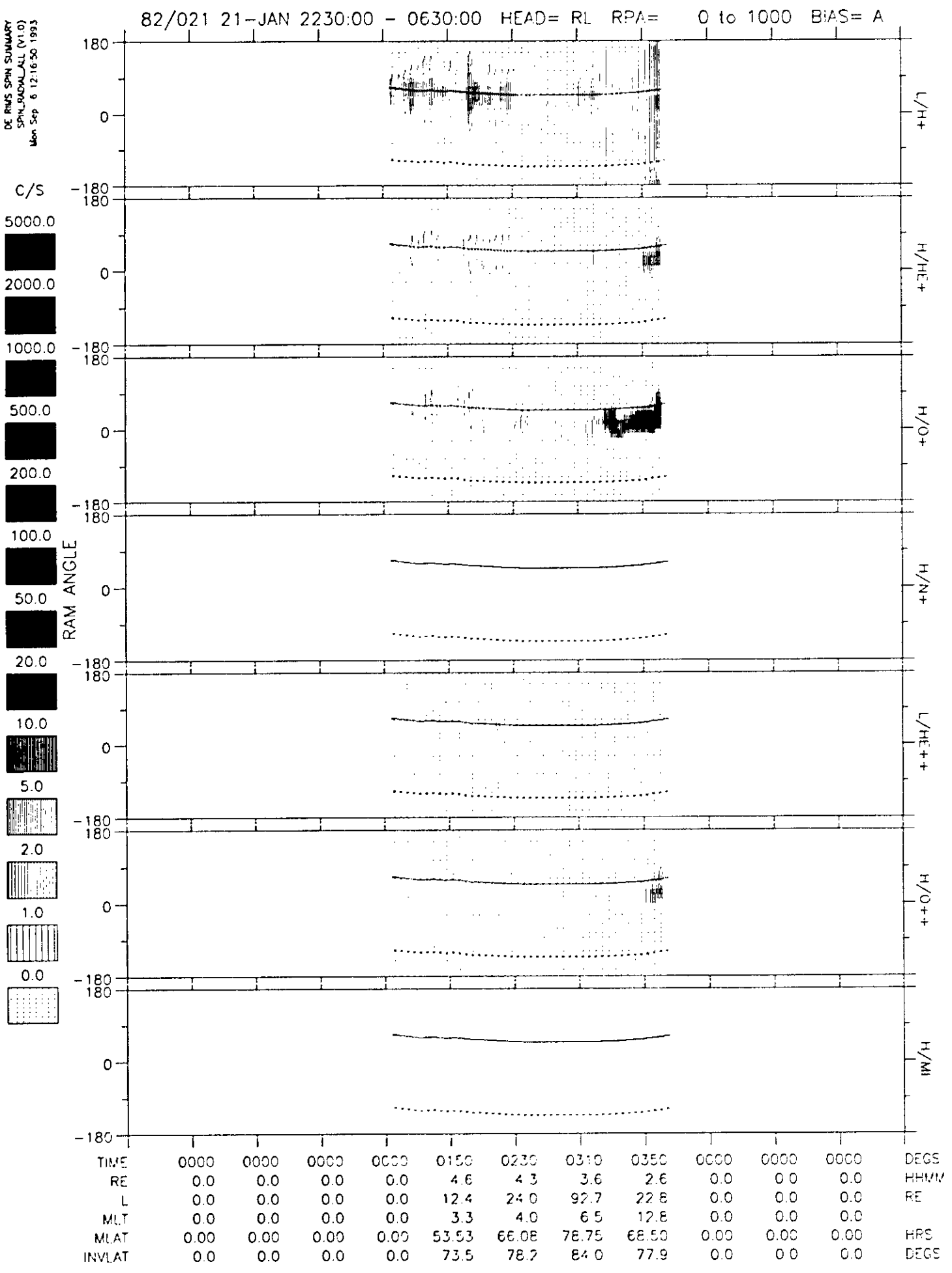

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:07:10 1993
82/020 20-JAN 1200:00 - 2000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1320 1400 1440 1520 1600 1640 1720 1800 1840 1920 DEGS
RE 0.0 3.8 4.3 4.6 4.6 4.4 3.9 3.1 1.9 1.2 2.5 HHMM
L 0.0 3.9 5.2 6.7 8.7 12.1 21.6 100.0 6.9 18.7 3.1 RE
MLT 0.0 2.6 2.3 2.2 2.0 1.8 1.5 0.3 14.9 13.9 2.4
MLAT 0.00 13.91 25.39 34.48 43.00 52.20 63.64 80.11 60.51 ***** ***** HRS
INVLAT 0.0 59.7 64.0 67.3 70.2 73.3 77.6 85.2 67.6 76.5 55.1 DEGS

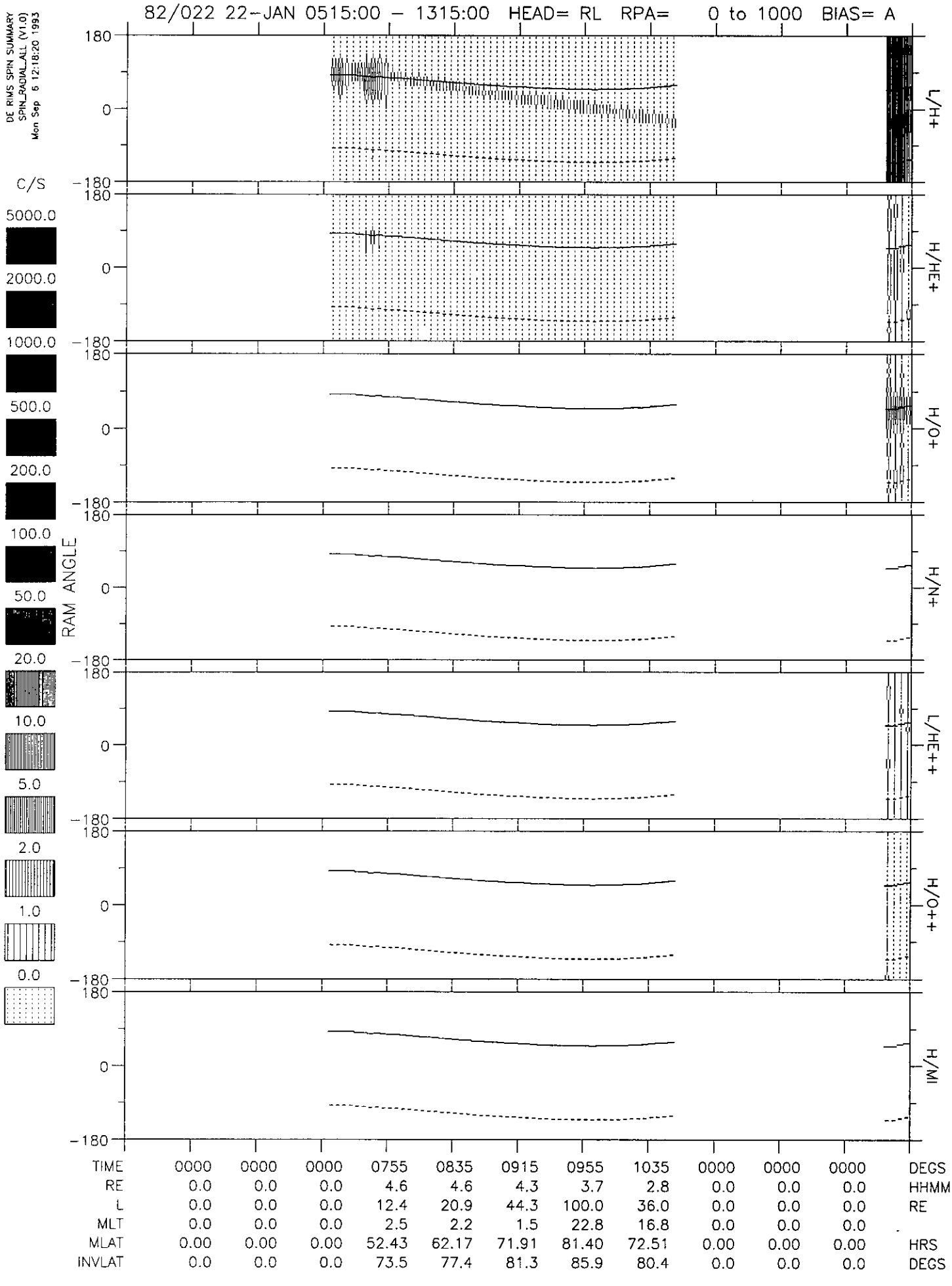

82/020 20-JAN 1900:00 - 0300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:09:41 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 1940 0000 0000 0000 0000 0000 2340 0020 0000 0000 0000 DEGS
RE 3.1 0.0 0.0 0.0 0.0 0.0 3.8 2.8 0.0 0.0 0.0 HHMM
L 3.1 0.0 0.0 0.0 0.0 0.0 31.9 84.2 0.0 0.0 0.0 RE
MLT 2.4 0.0 0.0 0.0 0.0 0.0 4.3 9.8 0.0 0.0 0.0
MLAT ***** 0.00 0.00 0.00 0.00 0.00 69.32 77.95 0.00 0.00 0.00 HRS
INVLAT 55.6 0.0 0.0 0.0 0.0 0.0 79.8 83.7 0.0 0.0 0.0 DEGS

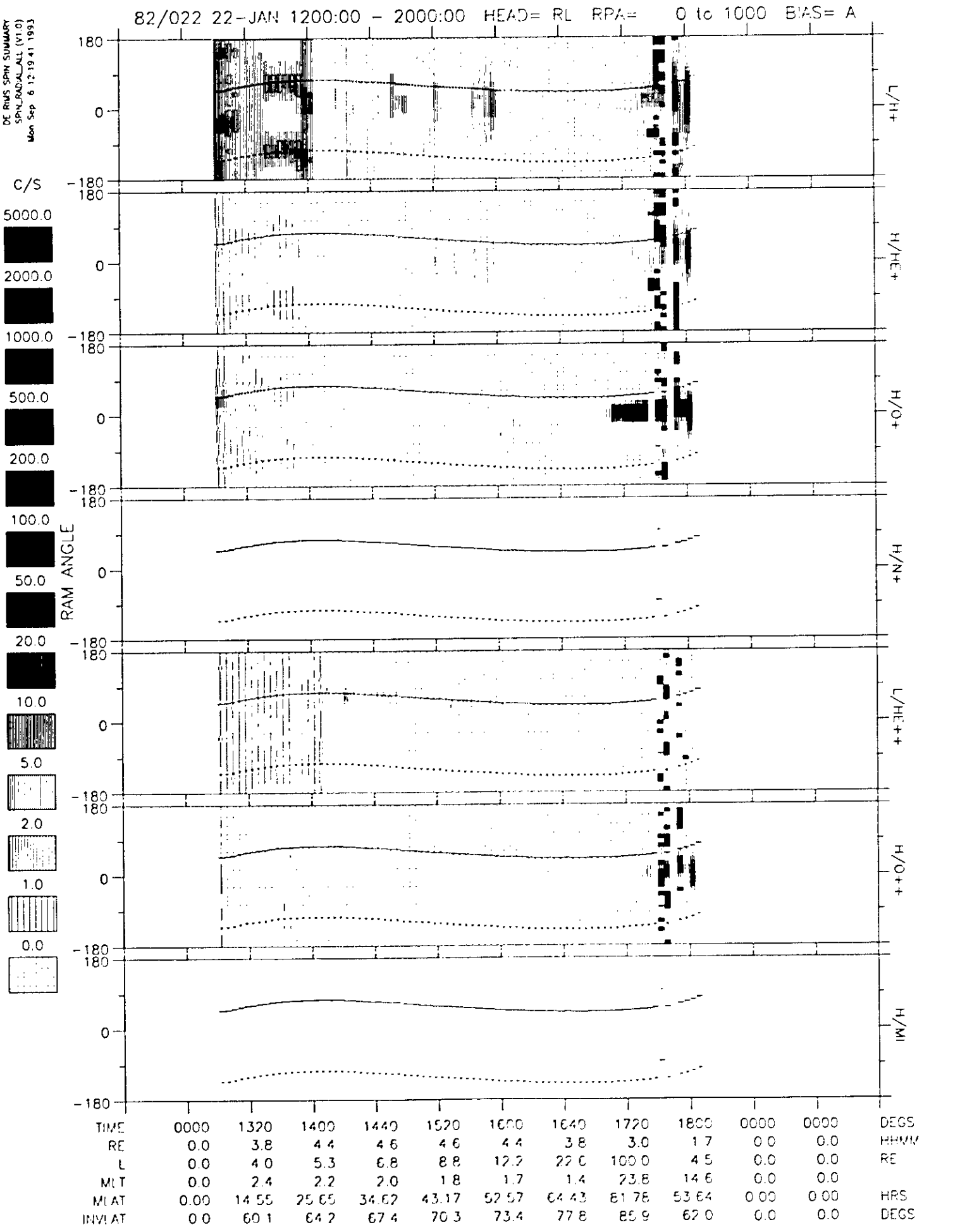

82/021 21-JAN 0215:00 - 1015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:11:08 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0415 0000 0535 0615 0655 0000 0000 0000 0935 DEGS
RE 0.0 0.0 4.6 0.0 4.5 4.0 3.2 0.0 0.0 0.0 3.4 HHMM
L 0.0 0.0 8.6 0.0 29.0 100.0 100.0 0.0 0.0 0.0 3.7 RE
MLT 0.0 0.0 3.0 0.0 3.4 4.0 14.3 0.0 0.0 0.0 2.7
MLAT 0.00 0.00 44.60 0.00 68.18 81.30 80.62 0.00 0.00 0.00 15.59 HRS
INVLAT 0.0 0.0 70.1 0.0 79.3 85.0 85.5 0.0 0.0 0.0 58.6 DEGS

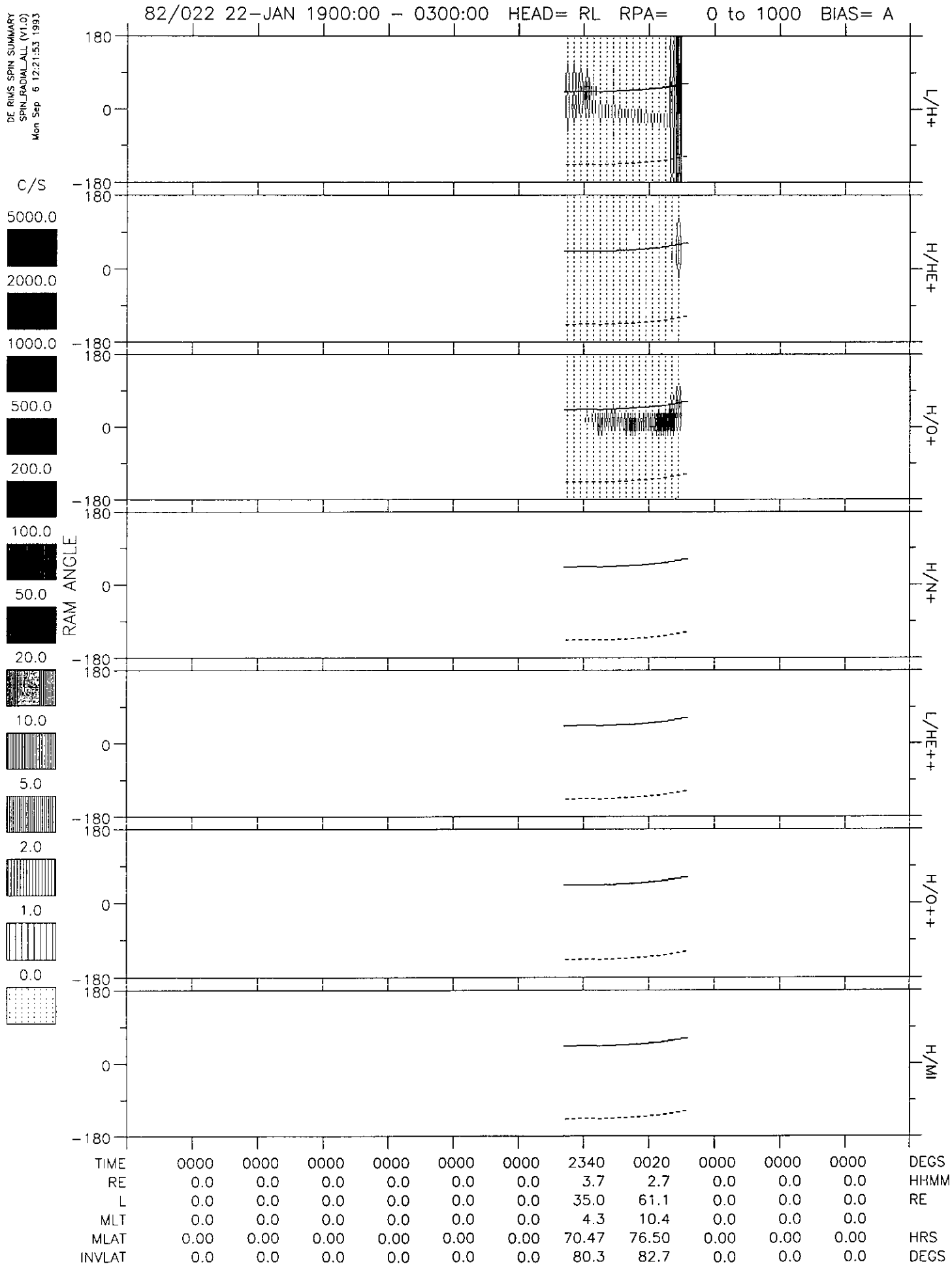

82/021 21-JAN 0830:00 - 1630:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RMS SPIN SUMMARY
SPIN_RACAL_ALL (V1.0)
Mon Sep 6 12:13:04 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0910 0950 1030 1110 1150 1230 1310 1350 1430 1510 1550 DEGS
RE 2.8 3.7 4.3 4.6 4.7 4.4 4.0 3.1 2.0 1.2 2.4 HHMM
L 2.8 4.3 6.3 8.7 12.0 17.8 33.8 100.0 55 8.2 3.0 RE
MLT 2.8 2.7 2.4 2.2 1.9 1.4 0.5 21.2 15.7 12.4 2.8
MLAT 1.44 21.75 34.13 43.48 51.66 59.88 69.98 78.62 56.04 ***** ***** HRS
INVLAT 53.3 61.2 66.4 70.2 73.2 76.3 80.1 84.4 64.8 69.5 54.5 DEGS

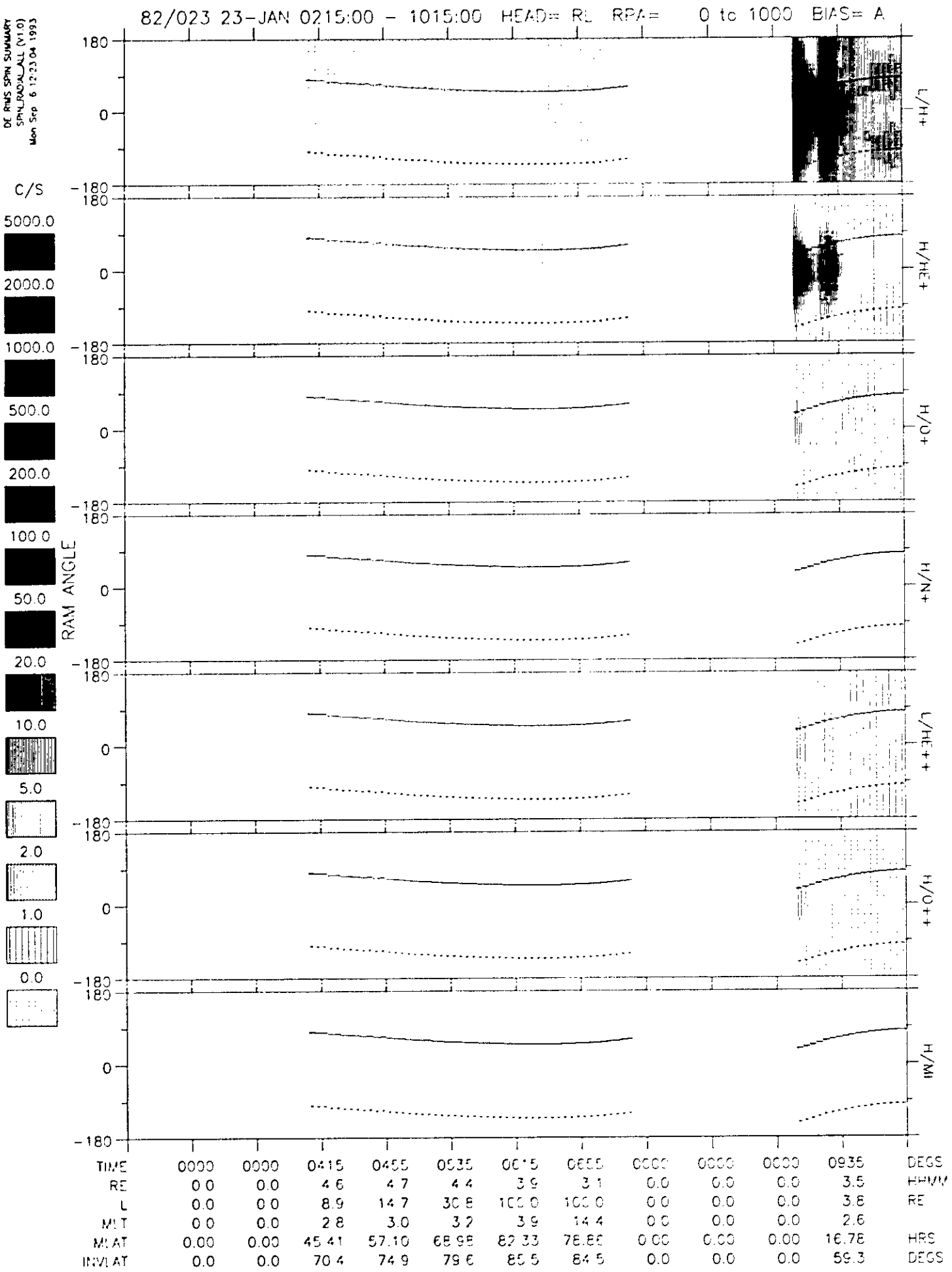

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:15:14 1993
82/021 21-JAN 1530:00 - 2330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 1810 1850 1930 2010 2050 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.6 4.4 3.8 2.9 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 6.2 8.0 11.4 22.3 100.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 2.3 2.3 2.4 2.7 5.3 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 29.50 39.58 50.67 64.35 83.38 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 66.3 69.3 72.8 77.8 87.1 0.0 0.0 0.0 DEGS

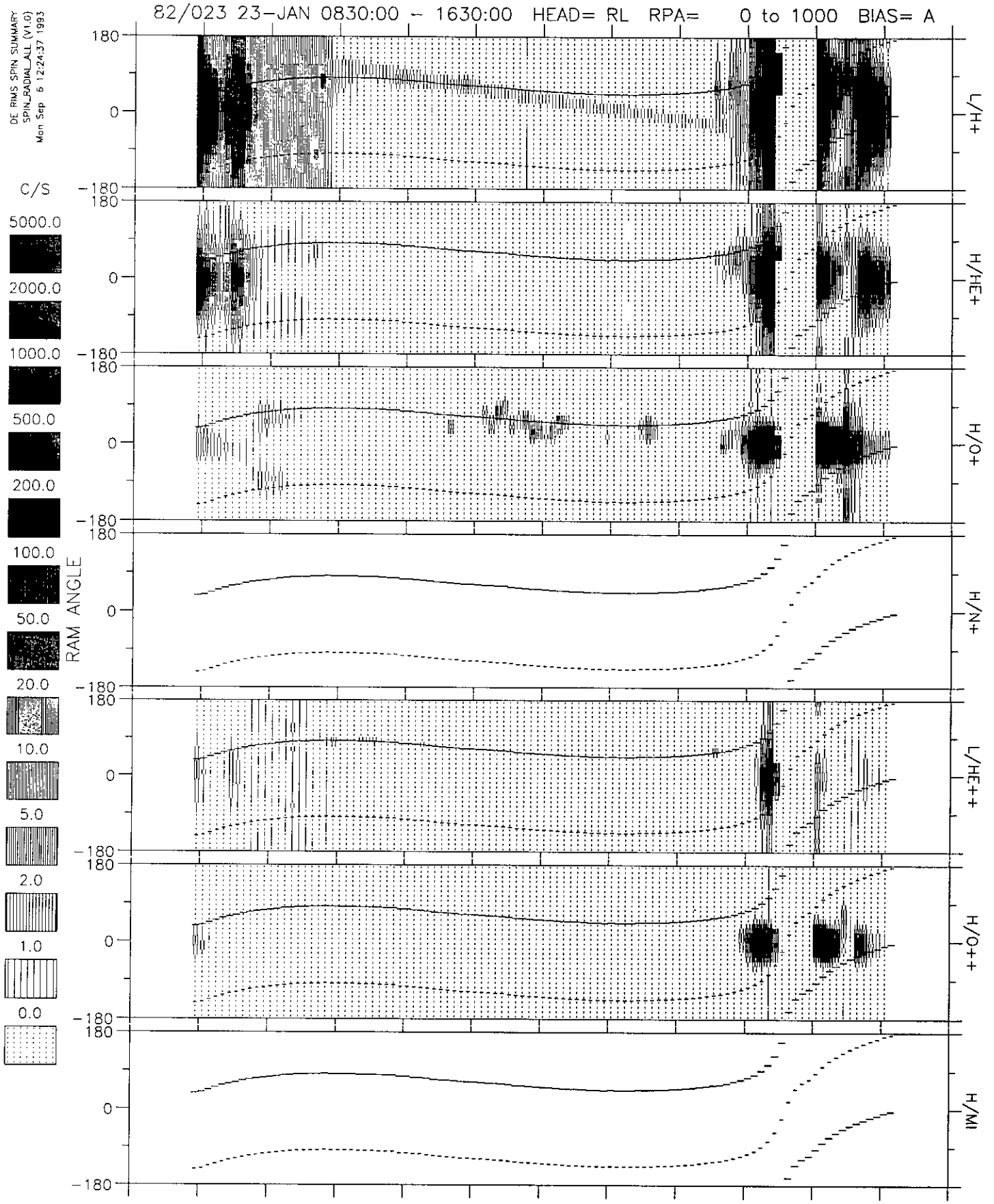

82/021 21-JAN 2230:00 - 0630:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Mon Sep 6 12:16:50 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0000 0000 0000 0000 0150 0230 0310 0350 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.6 4.3 3.6 2.6 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 12.4 24.0 92.7 22.8 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 3.3 4.0 6.5 12.8 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 53.53 66.08 78.75 68.50 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 73.5 78.2 84.0 77.9 0.0 0.0 0.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:18:20 1993
82/022 22-JAN 0515:00 – 1315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0755 0835 0915 0955 1035 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.6 4.3 3.7 2.8 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 12.4 20.9 44.3 100.0 36.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 2.5 2.2 1.5 22.8 16.8 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 52.43 62.17 71.91 81.40 72.51 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 73.5 77.4 81.3 85.9 80.4 0.0 0.0 0.0 DEGS

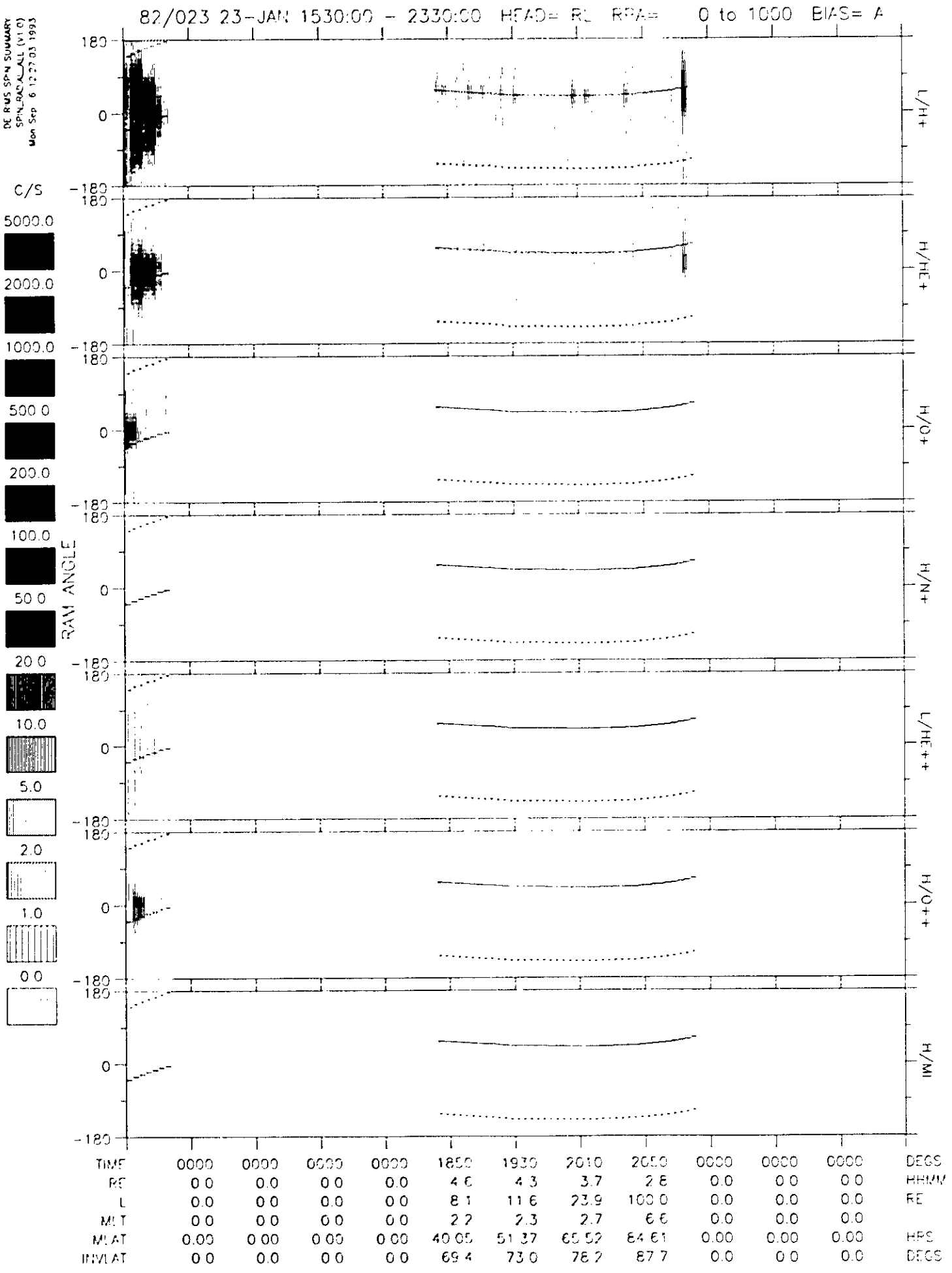

82/022 22-JAN 1200:00 - 2000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:19:41 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1320 1400 1440 1520 1600 1640 1720 1800 0000 0000 DEGS
RE 0.0 3.8 4.4 4.6 4.6 4.4 3.8 3.0 1.7 0.0 0.0 HHWM
L 0.0 4.0 5.3 6.8 8.8 12.2 22.0 100.0 4.5 0.0 0.0 RE
MLT 0.0 2.4 2.2 2.0 1.8 1.7 1.4 23.8 14.6 0.0 0.0
MLAT 0.00 14.55 25.65 34.62 43.17 52.57 64.43 81.78 53.64 0.00 0.00 HRS
INVLAT 0.0 60.1 64.2 67.4 70.3 73.4 77.8 85.9 62.0 0.0 0.0 DEGS

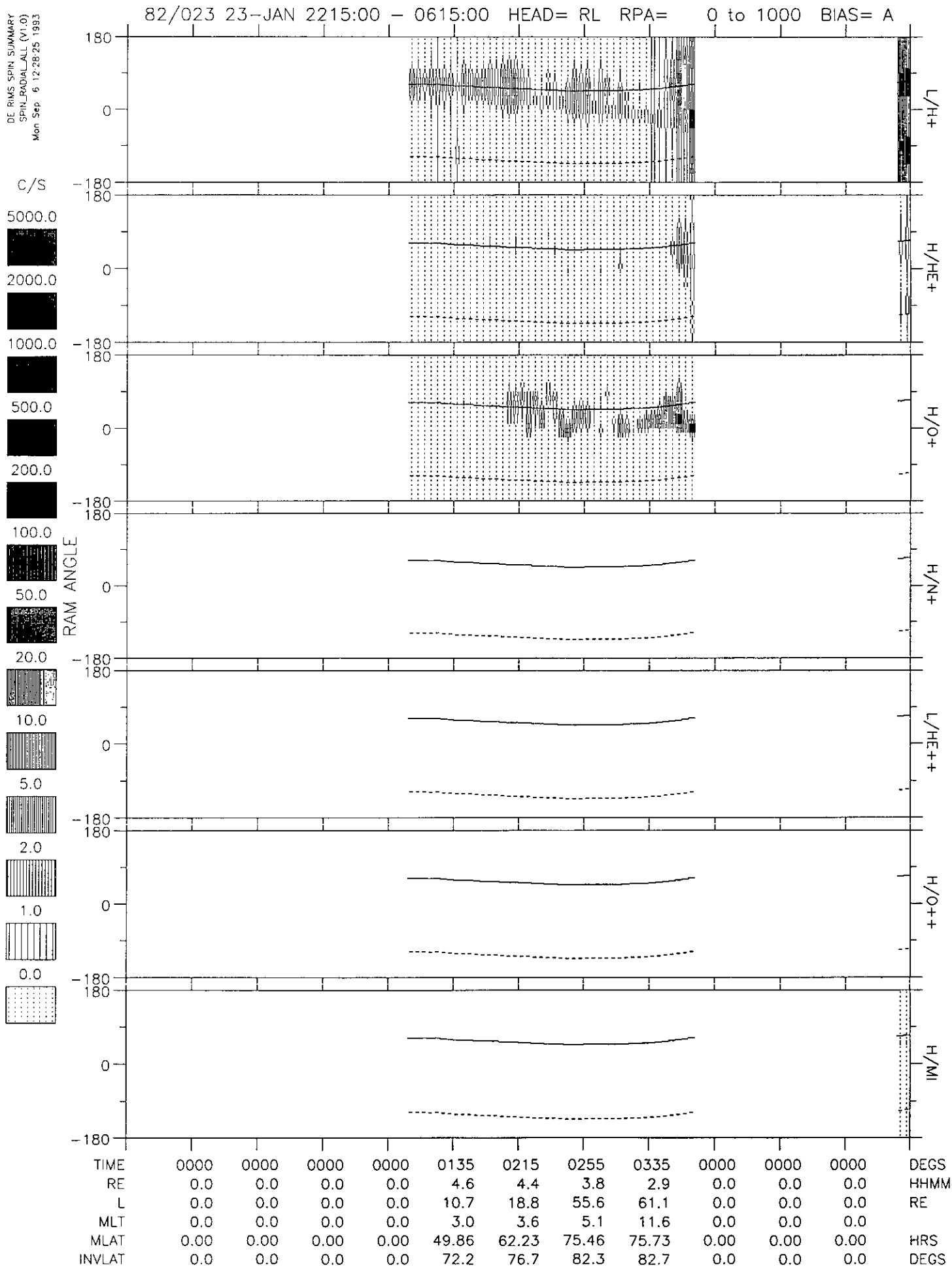

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:21:53 1993
82/022 22-JAN 1900:00 - 0300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 2340 0020 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 3.7 2.7 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 35.0 61.1 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 4.3 10.4 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 70.47 76.50 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 80.3 82.7 0.0 0.0 0.0 DEGS

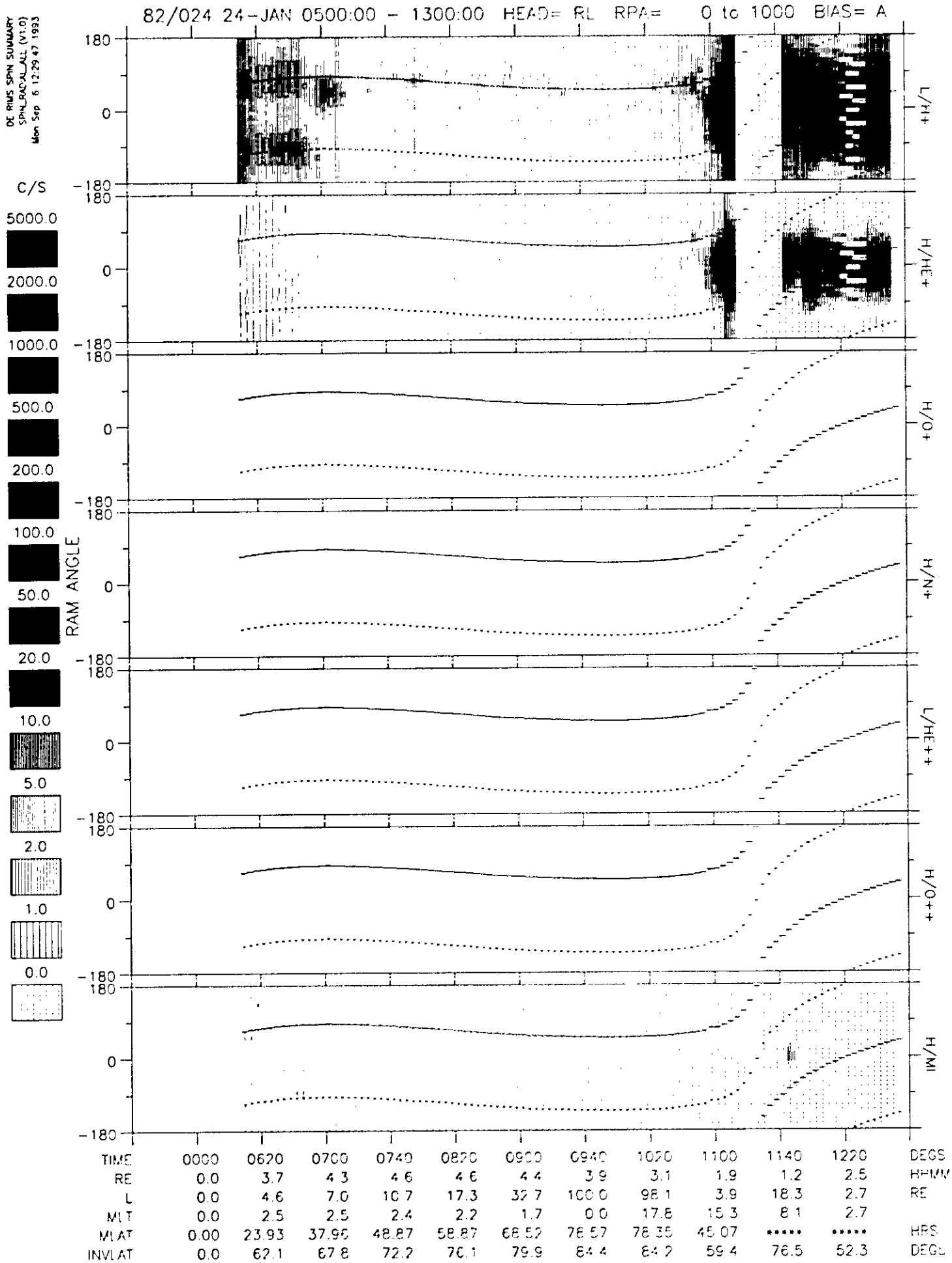

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:23:04 1993
82/023 23-JAN 0215:00 - 1015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0415 0455 0535 0615 0655 0000 0000 0000 0935 DEGS
RE 0.0 0.0 4.6 4.7 4.4 3.9 3.1 0.0 0.0 0.0 3.5 HHMM
L 0.0 0.0 8.9 14.7 30.8 100.0 100.0 0.0 0.0 0.0 3.8 RE
MLT 0.0 0.0 2.8 3.0 3.2 3.9 14.4 0.0 0.0 0.0 2.6
MLAT 0.00 0.00 45.41 57.10 68.98 82.33 78.86 0.00 0.00 0.00 16.78 HRS
INVLAT 0.0 0.0 70.4 74.9 79.6 85.5 84.5 0.0 0.0 0.0 59.3 DEGS

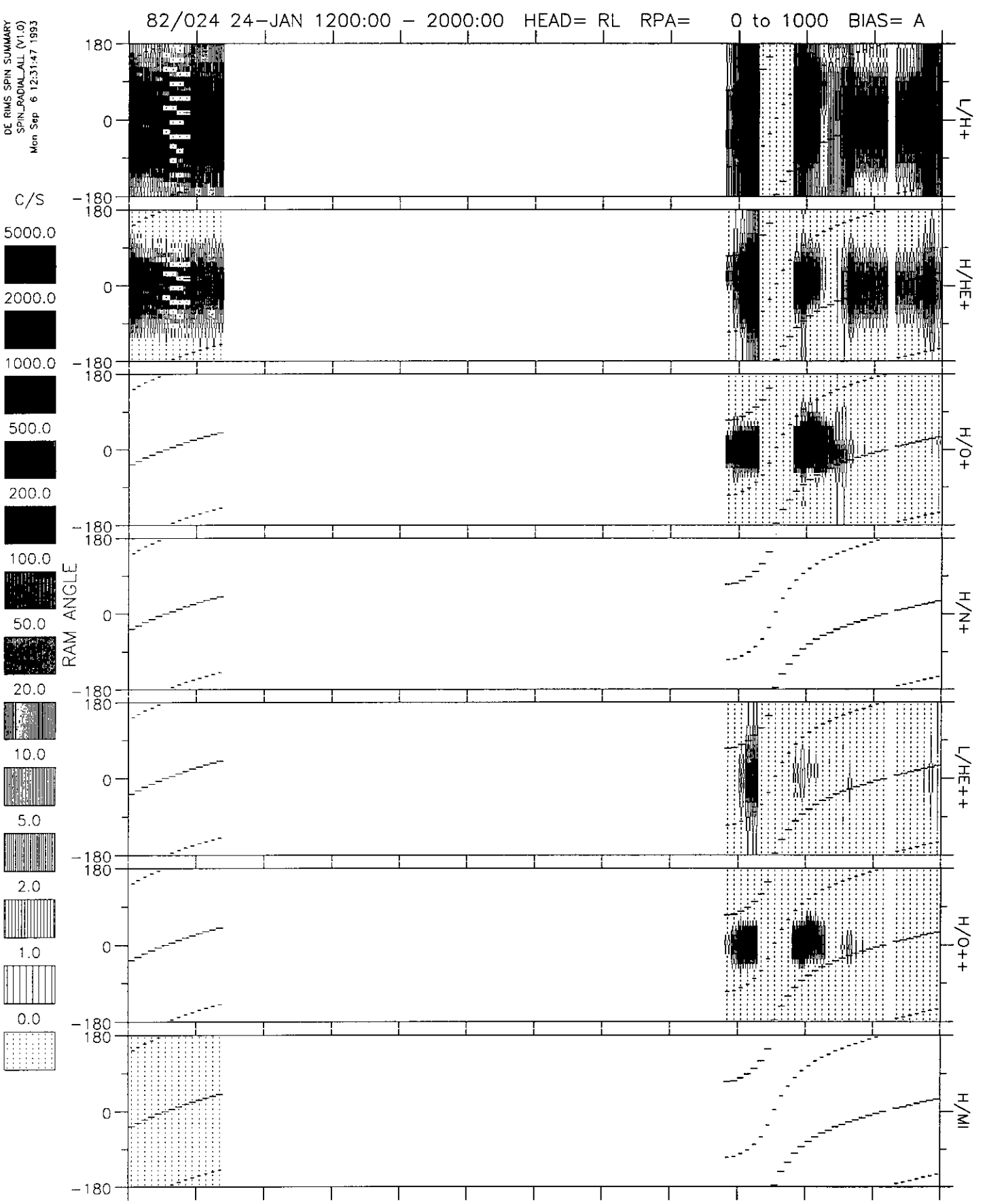


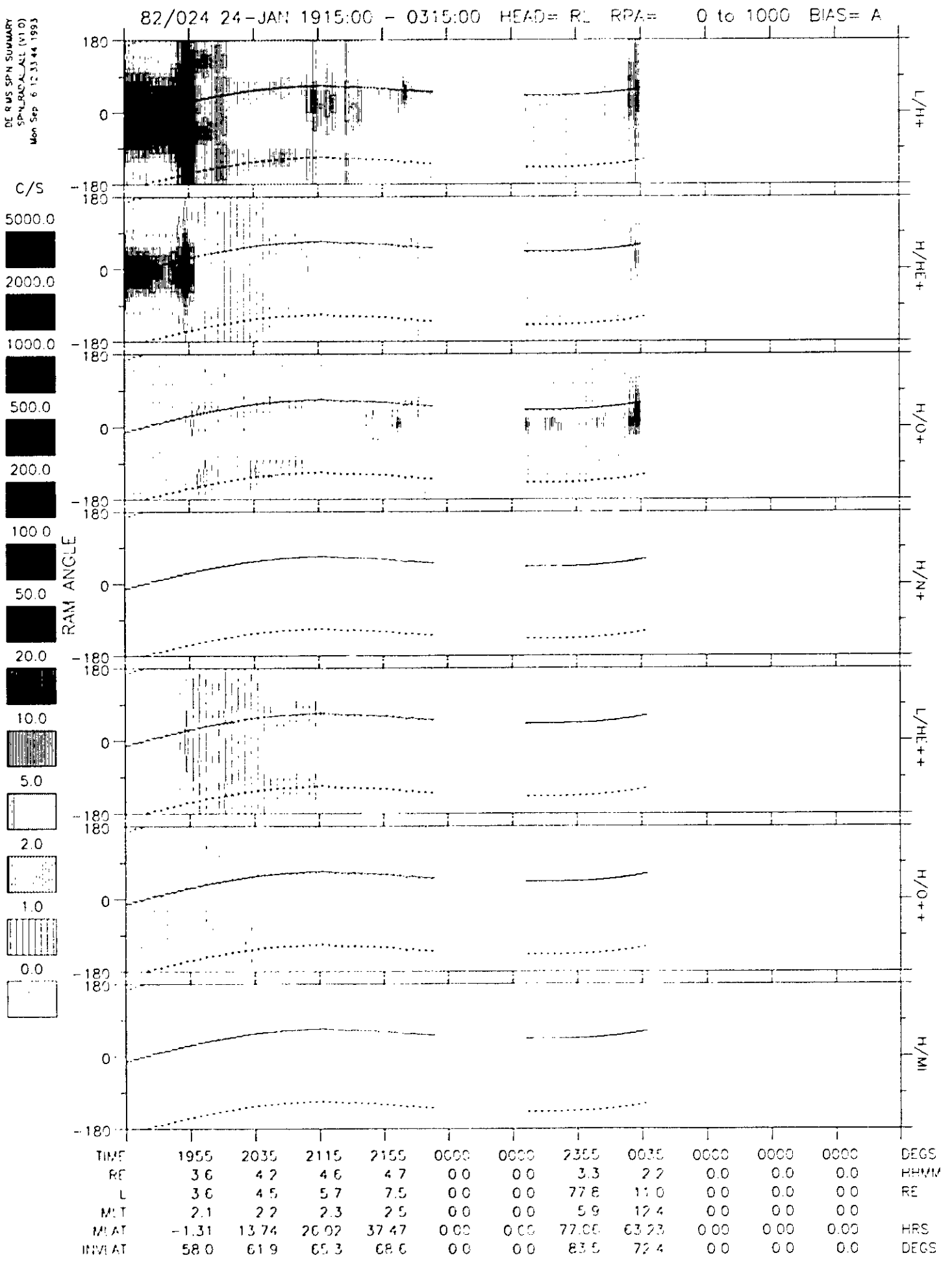
TIME	0910	0950	1030	1110	1150	1230	1310	1350	1430	1510	1550	DEGS
RE	2.9	3.8	4.3	4.6	4.6	4.4	3.9	3.0	1.8	1.3	2.6	HHMM
L	2.9	4.5	6.4	8.8	12.1	17.9	35.0	100.0	3.9	32.5	3.0	RE
MLT	2.7	2.5	2.3	2.0	1.7	1.2	0.3	20.6	15.3	8.2	2.6	
MLAT	3.69	22.60	34.48	43.61	51.74	60.06	69.74	78.78	50.33	*****	*****	HRS
INVLAT	54.3	61.8	66.7	70.3	73.3	76.3	80.3	84.3	59.4	79.9	54.5	DEGS

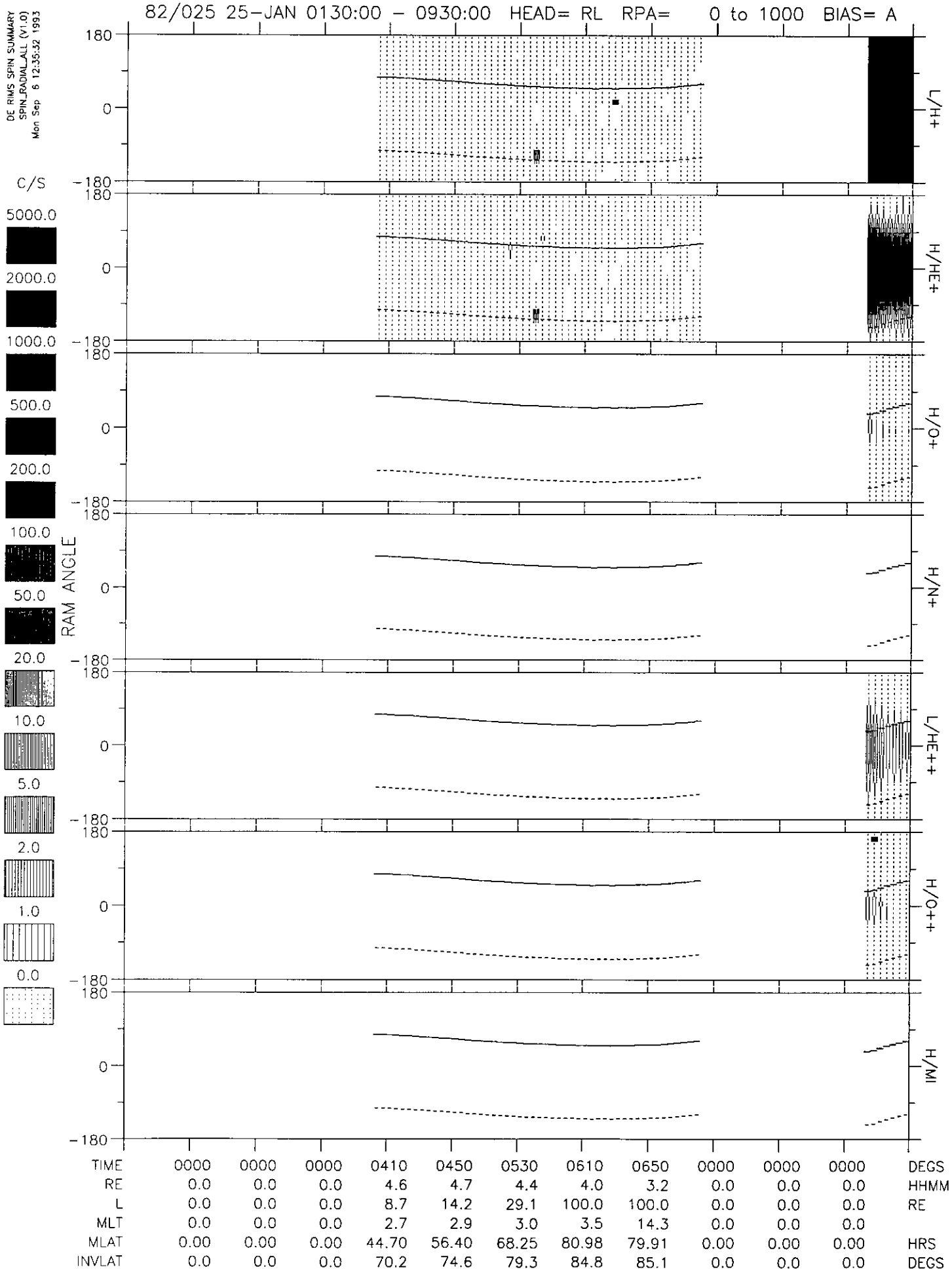

DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:27:03 1993
82/023 23-JAN 1530:00 - 2330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAW ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 1850 1930 2010 2050 0000 0000 0000 DEGS
RS 0.0 0.0 0.0 0.0 4.6 4.3 3.7 2.8 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 8.1 11.6 23.9 100.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 2.2 2.3 2.7 6.6 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 40.05 51.37 65.59 84.61 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 69.4 73.0 78.2 87.7 0.0 0.0 0.0 DEGS

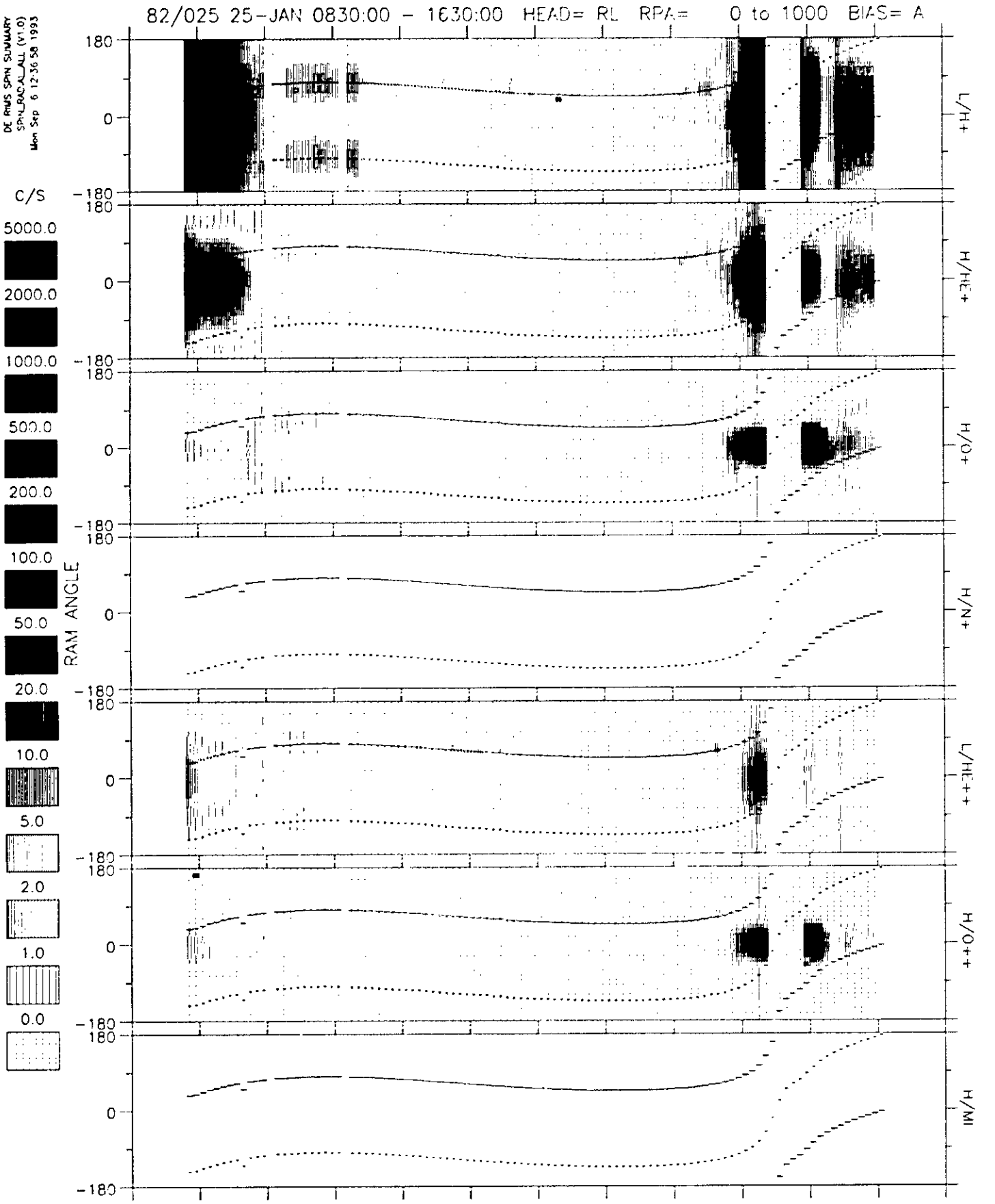

82/023 23-JAN 2215:00 – 0615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:28:25 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0135 0215 0255 0335 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.6 4.4 3.8 2.9 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 10.7 18.8 55.6 61.1 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 3.0 3.6 5.1 11.6 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 49.86 62.23 75.46 75.73 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 72.2 76.7 82.3 82.7 0.0 0.0 0.0 DEGS

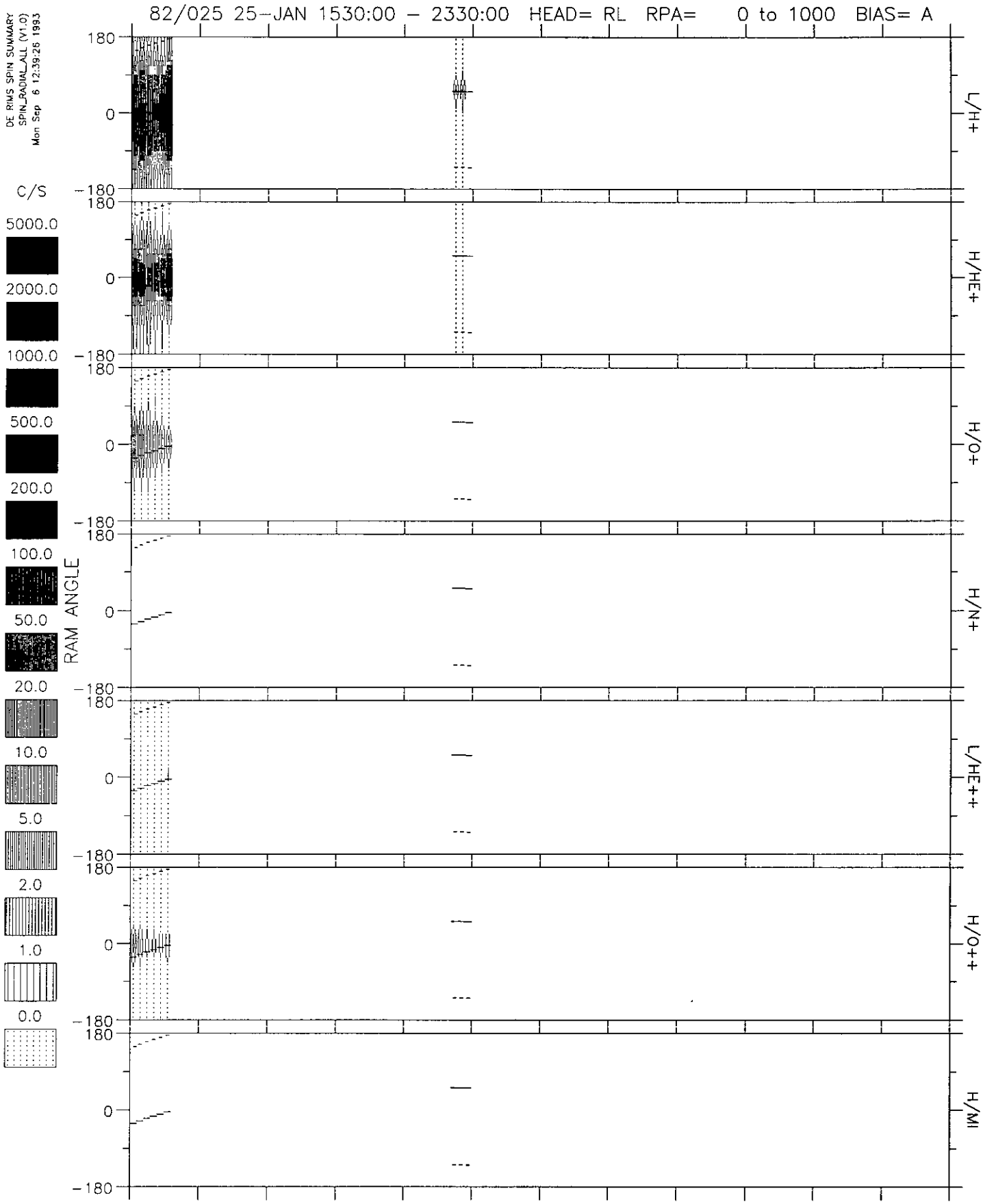

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:29:47 1993
82/024 24-JAN 0500:00 - 1300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0620 0700 0740 0820 0900 0940 1020 1100 1140 1220 DEGS
RE 0.0 3.7 4.3 4.6 4.6 4.4 3.9 3.1 1.9 1.2 2.5 HHMM
L 0.0 4.6 7.0 10.7 17.3 32.7 100.0 98.1 3.9 18.3 2.7 RE
MLT 0.0 2.5 2.5 2.4 2.2 1.7 0.0 17.8 15.3 8.1 2.7
MLAT 0.00 23.93 37.96 48.87 58.87 68.52 78.57 78.35 45.07 ***** ***** HRS
INVLAT 0.0 62.1 67.8 72.2 76.1 79.9 84.4 84.2 59.4 76.5 52.3 DEGS

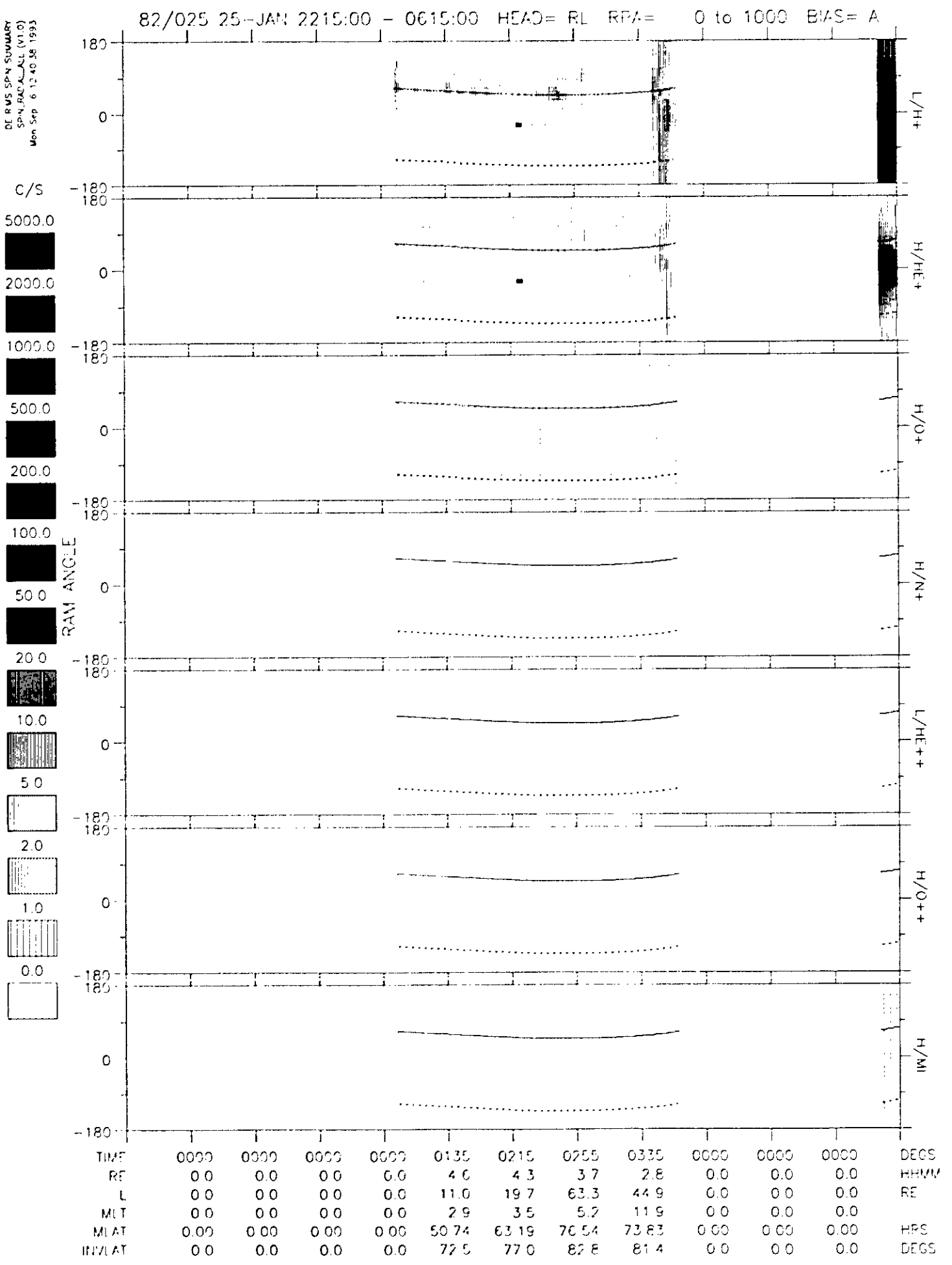

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:31:47 1993
82/024 24-JAN 1200:00 - 2000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1240 0000 0000 0000 0000 0000 0000 0000 1800 1840 1920 DEGS
RE 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.6 1.5 2.8 HHMM
L 3.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.0 30.9 3.1 RE
MLT 2.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 14.4 2.4 2.1
MLAT -1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 45.20 ***** ***** HRS
INVLAT 55.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 55.0 79.6 55.3 DEGS

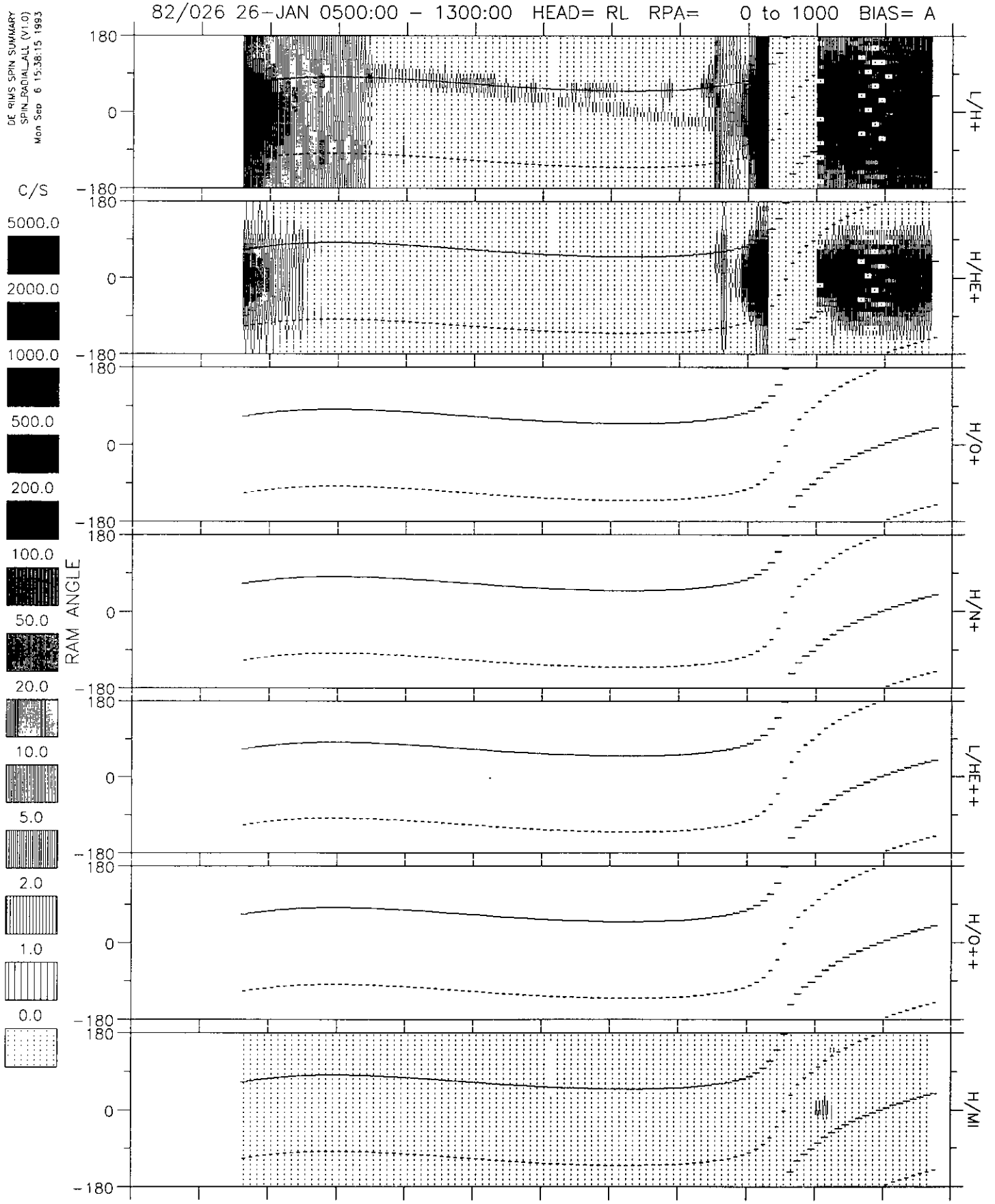

DE R WS SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Mon Sep 6 12:33:44 1993
82/024 24-JAN 1915:00 - 0315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1955 2035 2115 2155 0000 0000 2355 0035 0000 0000 0000 DEGS
RE 3.6 4.2 4.6 4.7 0.0 0.0 3.3 2.2 0.0 0.0 0.0 HHMM
L 3.6 4.5 5.7 7.5 0.0 0.0 77.8 11.0 0.0 0.0 0.0 RE
MLT 2.1 2.2 2.3 2.5 0.0 0.0 5.9 12.4 0.0 0.0 0.0
MLAT -1.31 13.74 20.02 37.47 0.00 0.00 77.09 63.23 0.00 0.00 0.00 HRS
INVLAT 58.0 61.9 65.3 68.6 0.0 0.0 83.5 72.4 0.0 0.0 0.0 DEGS

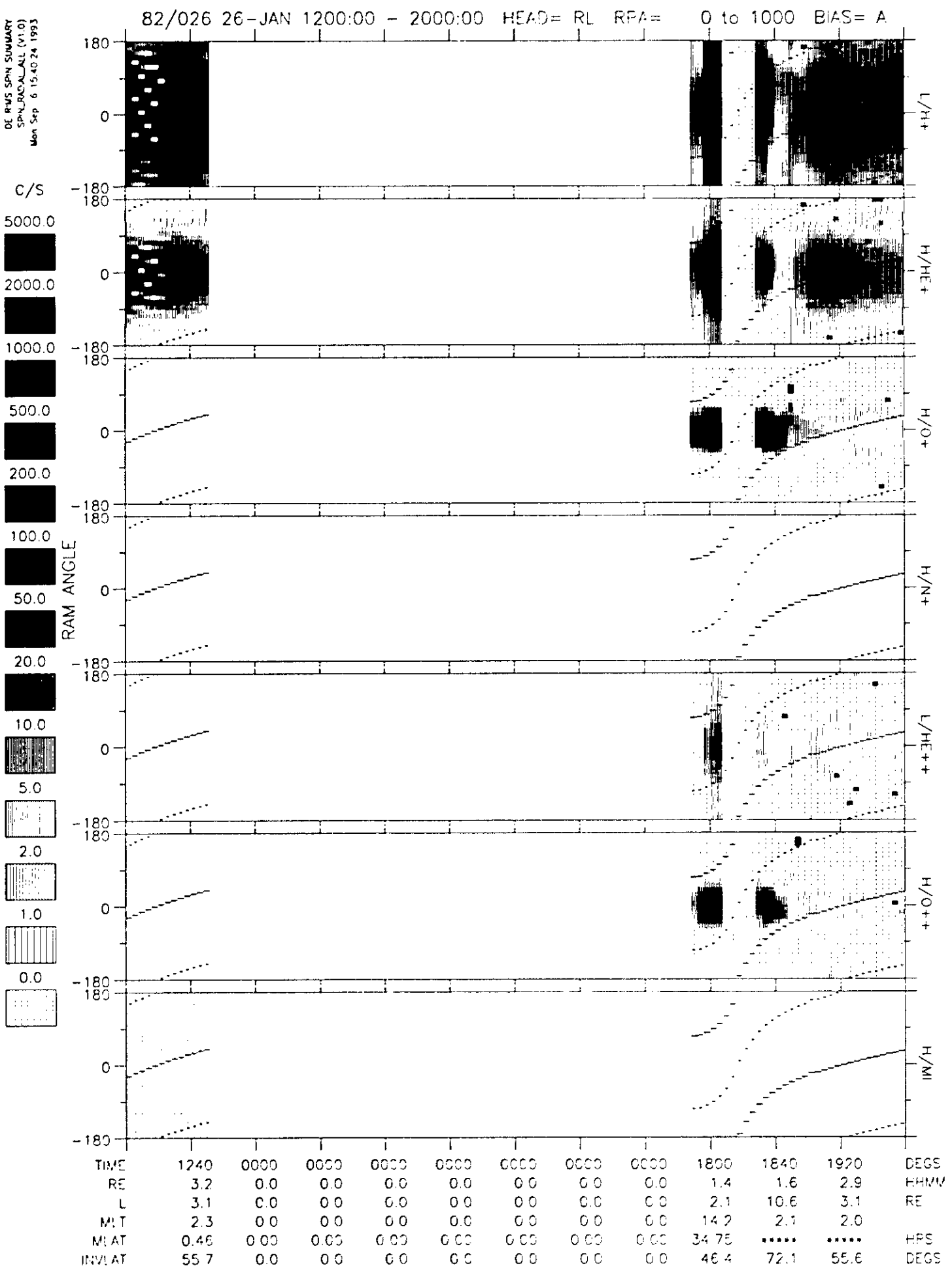

82/025 25-JAN 0130:00 - 0930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:35:32 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0410 0450 0530 0610 0650 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.7 4.4 4.0 3.2 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 8.7 14.2 29.1 100.0 100.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 2.7 2.9 3.0 3.5 14.3 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 44.70 56.40 68.25 80.98 79.91 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 70.2 74.6 79.3 84.8 85.1 0.0 0.0 0.0 DEGS

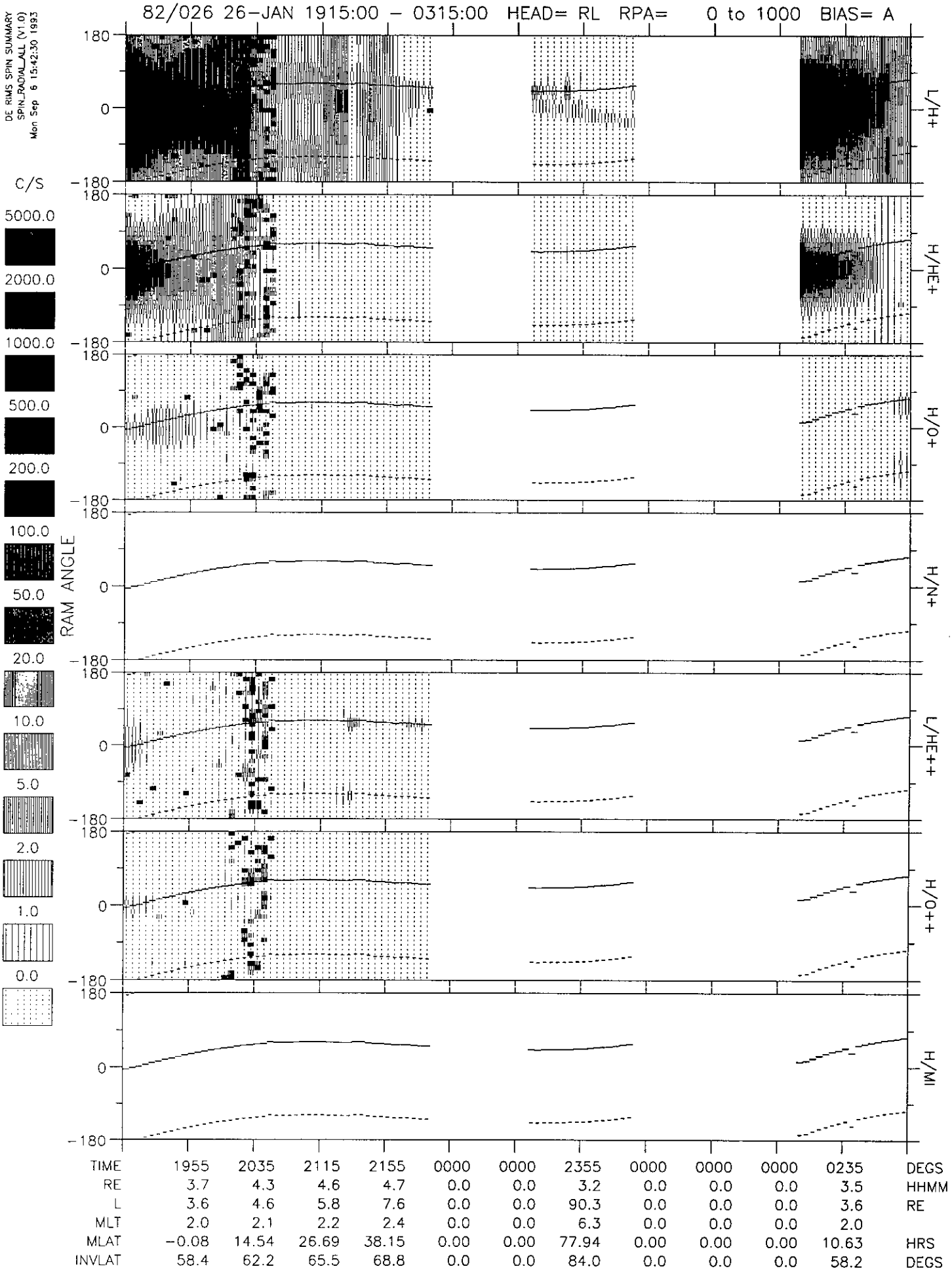

82/025 25-JAN 0830:00 - 1630:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:36:58 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0910 0000 1030 1110 1150 1230 1310 1350 1430 1510 1550 DEGS
RE 3.0 0.0 4.4 4.6 4.6 4.4 3.8 2.9 1.6 1.4 2.6 RE/W
L 3.1 0.0 6.5 8.8 12.1 17.9 36.3 92.7 2.7 23.3 3.0 RE
MLT 2.5 0.0 2.1 1.9 1.5 1.1 0.1 19.9 15.0 4.6 2.5
MLAT 5.67 0.00 34.75 43.01 51.82 60.90 70.25 78.73 43.28 ***** ***** HRS
INVLAT 55.2 0.0 66.9 70.3 73.3 76.3 80.4 84.0 52.7 78.0 54.8 DEGS

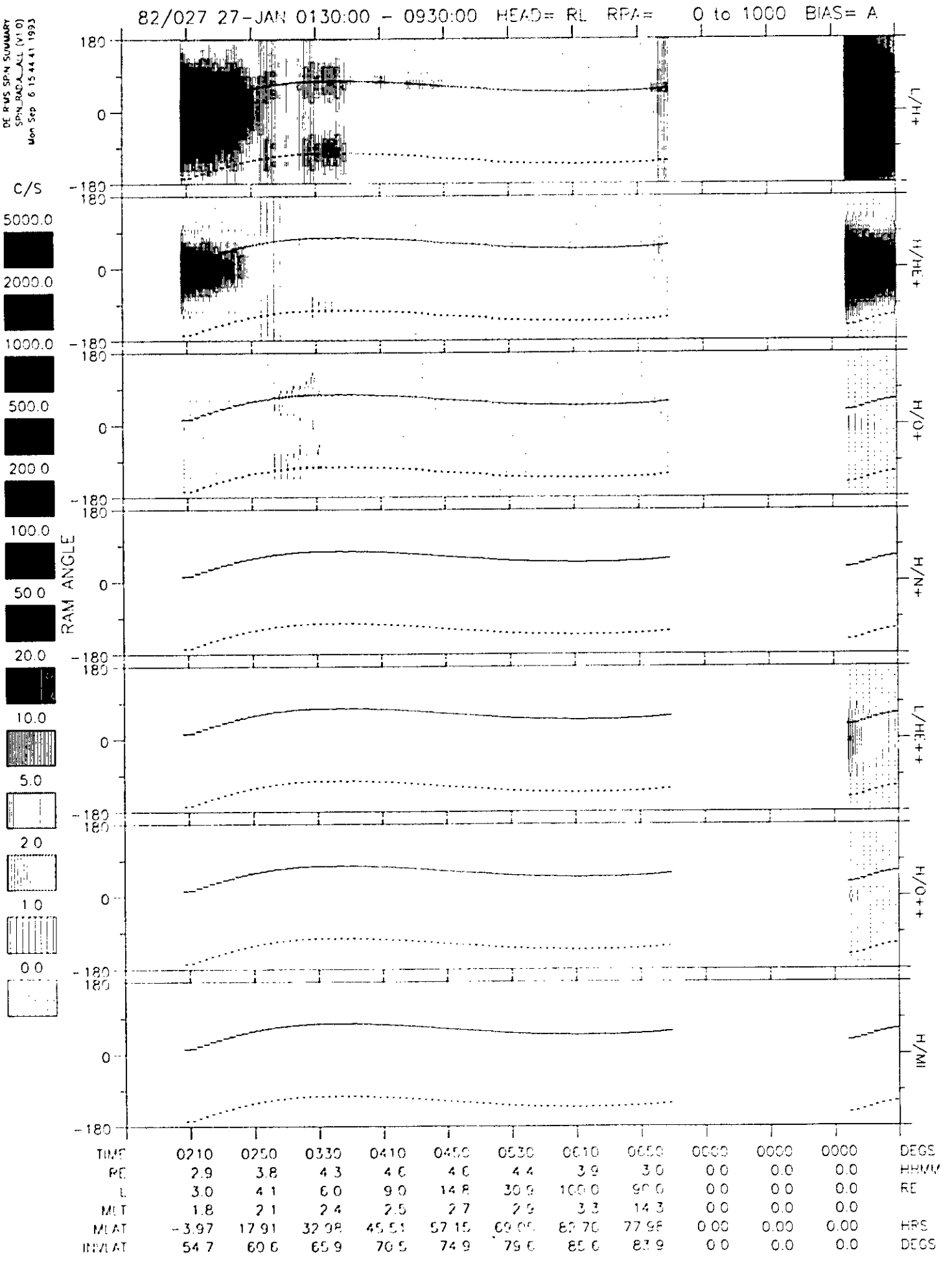

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 12:39:26 1993
82/025 25-JAN 1530:00 – 2330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

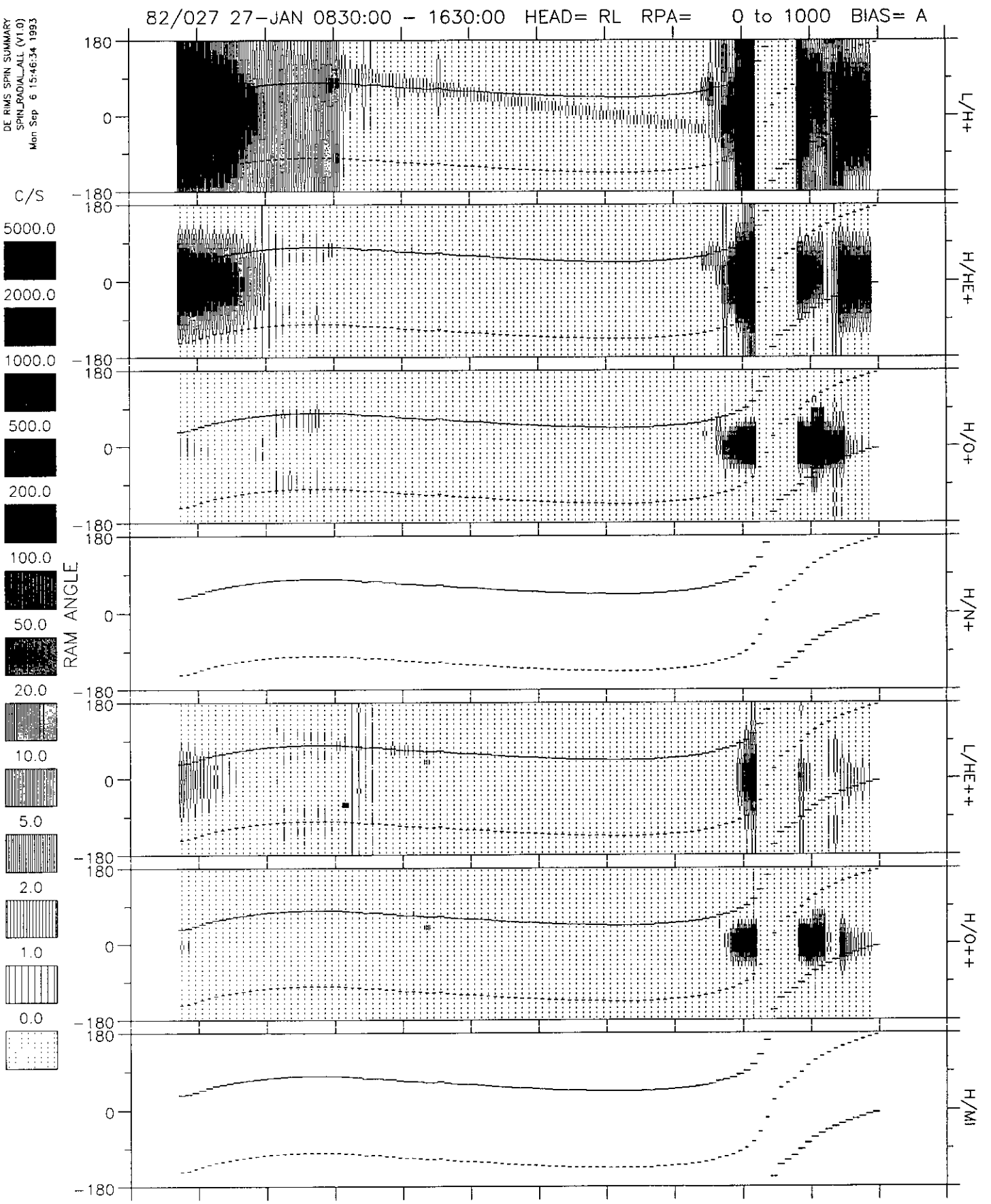

82/025 25-JAN 2215:00 - 0615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R WS SPIN SUMMARY
SPIN_RAD_ALL (V1.0)
Mon Sep 6 12:40:38 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0135 0215 0255 0335 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.6 4.3 3.7 2.8 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 11.0 19.7 63.3 44.9 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 2.9 3.5 5.2 11.9 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 50.74 63.19 76.54 73.83 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 72.5 77.0 82.8 81.4 0.0 0.0 0.0 DEGS

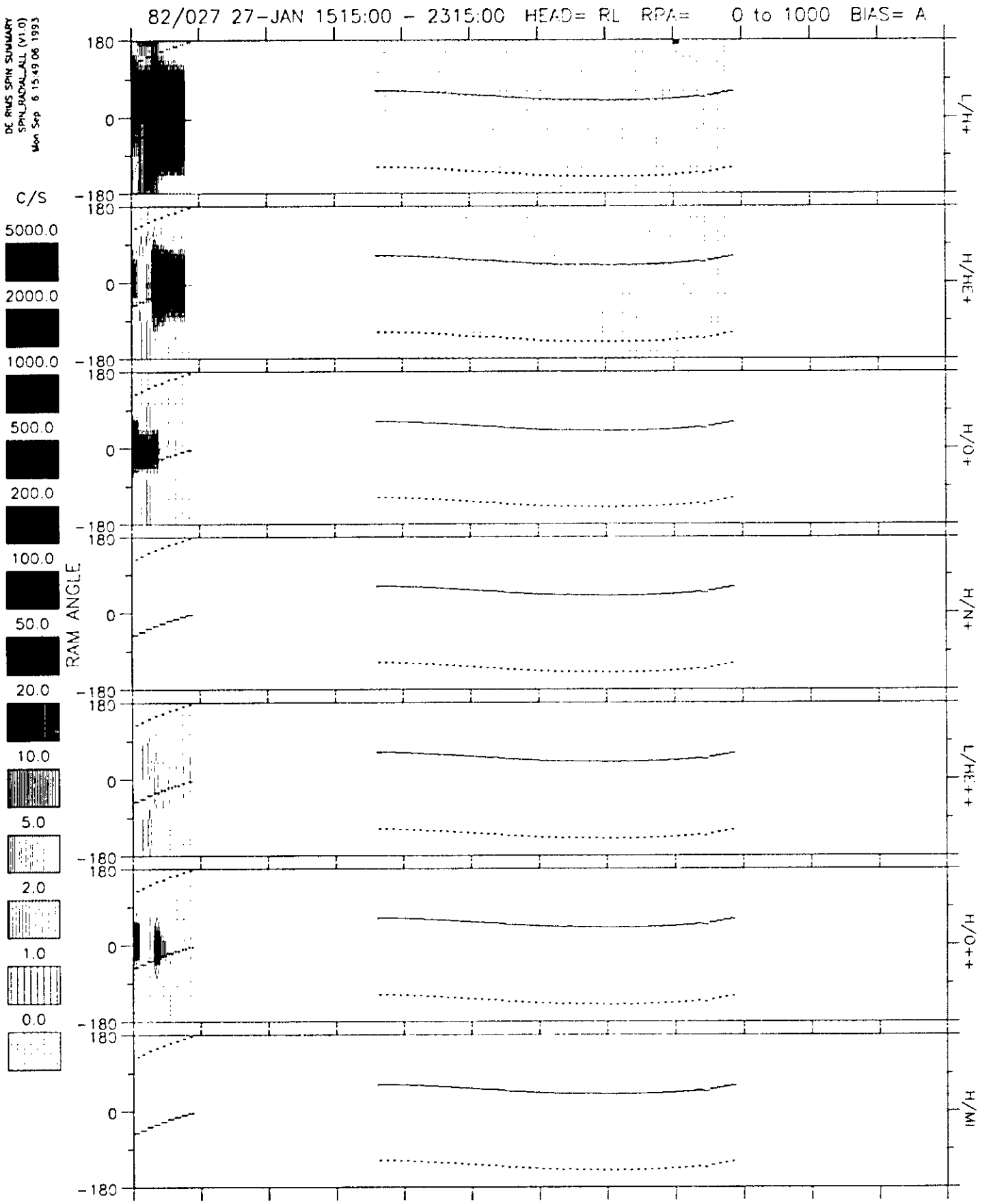

82/026 26-JAN 0500:00 – 1300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 15:38:15 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0620 0700 0740 0820 0900 0940 1020 1100 1140 1220 DEGS
RE 0.0 3.8 4.4 4.6 4.6 4.4 3.8 3.0 1.7 1.3 2.6 HHMM
L 0.0 4.7 7.2 10.9 17.5 33.0 100.0 73.6 2.9 11.3 2.8 RE
MLT 0.0 2.4 2.4 2.2 2.0 1.4 23.7 17.3 15.0 4.7 2.5
MLAT 0.00 25.09 38.61 49.47 59.19 68.74 78.91 77.00 38.60 ***** ***** HRS
INVLAT 0.0 62.6 68.1 72.4 76.2 80.0 84.5 83.3 53.7 72.7 52.9 DEGS

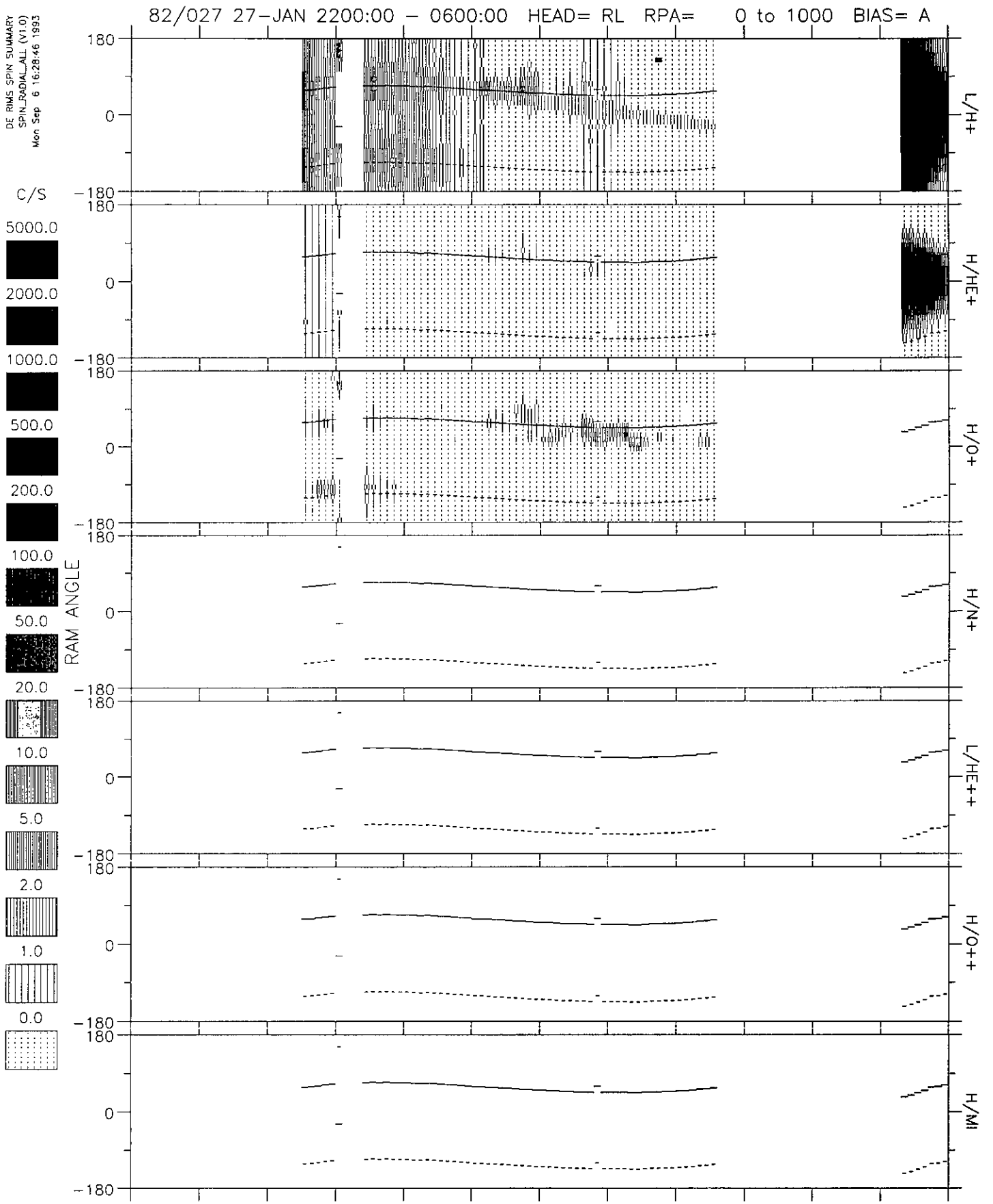

82/026 26-JAN 1200:00 - 2000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 15:40:24 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1240 0000 0000 0000 0000 0000 0000 0000 1800 1840 1920 DEGS
RE 3.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 1.6 2.9 HHMM
L 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.1 10.6 3.1 RE
MLT 2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 14.2 2.1 2.0
MLAT 0.46 0.00 0.00 0.00 0.00 0.00 0.00 0.00 34.75 ***** ***** HRS
INVLAT 55.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 46.4 72.1 55.6 DEGS

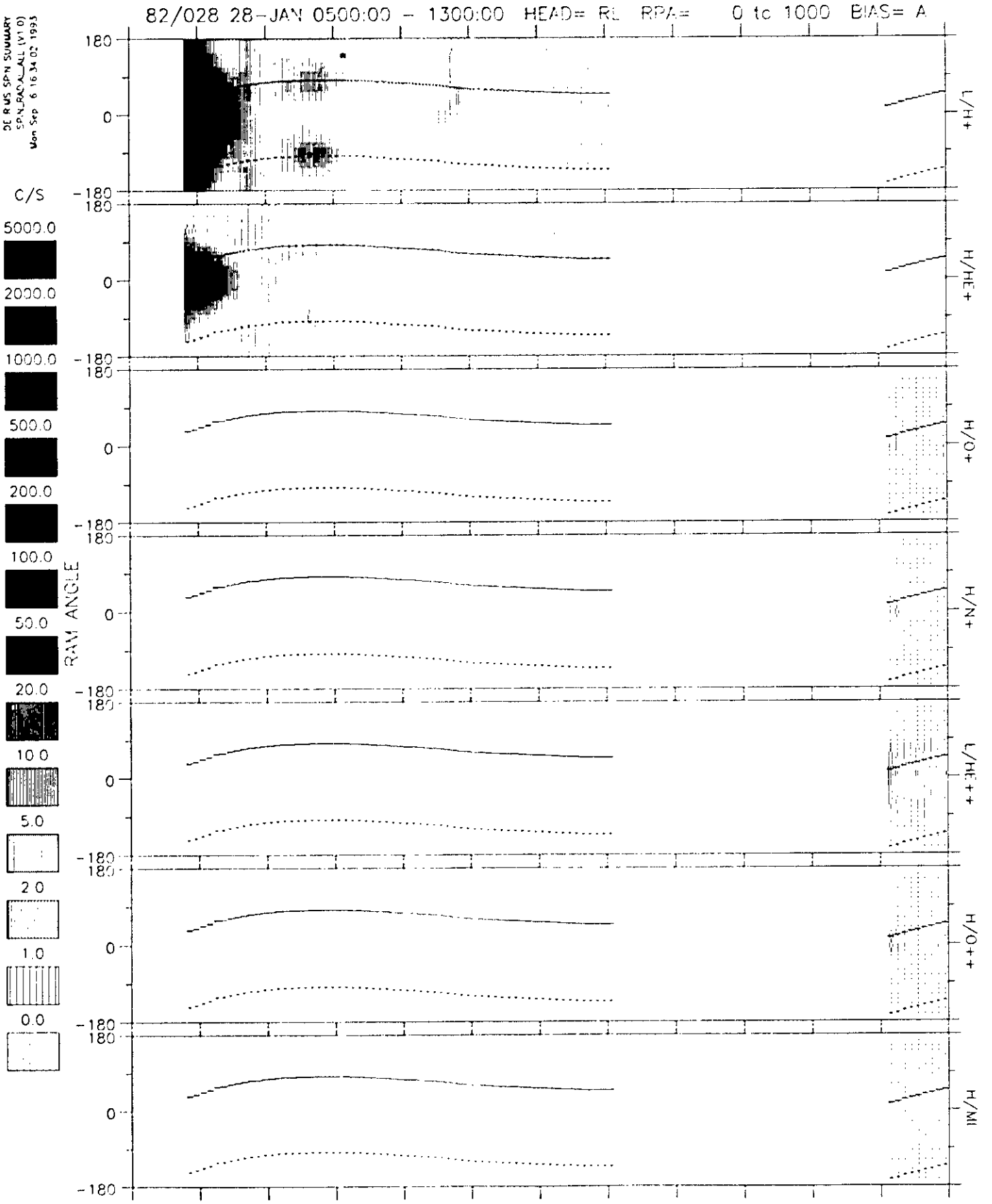

82/026 26-JAN 1915:00 – 0315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 15:42:30 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1955 2035 2115 2155 0000 0000 2355 0000 0000 0000 0235 DEGS
RE 3.7 4.3 4.6 4.7 0.0 0.0 3.2 0.0 0.0 0.0 3.5 HHMM
L 3.6 4.6 5.8 7.6 0.0 0.0 90.3 0.0 0.0 0.0 3.6 RE
MLT 2.0 2.1 2.2 2.4 0.0 0.0 6.3 0.0 0.0 0.0 2.0
MLAT -0.08 14.54 26.69 38.15 0.00 0.00 77.94 0.00 0.00 0.00 10.63 HRS
INVLAT 58.4 62.2 65.5 68.8 0.0 0.0 84.0 0.0 0.0 0.0 58.2 DEGS

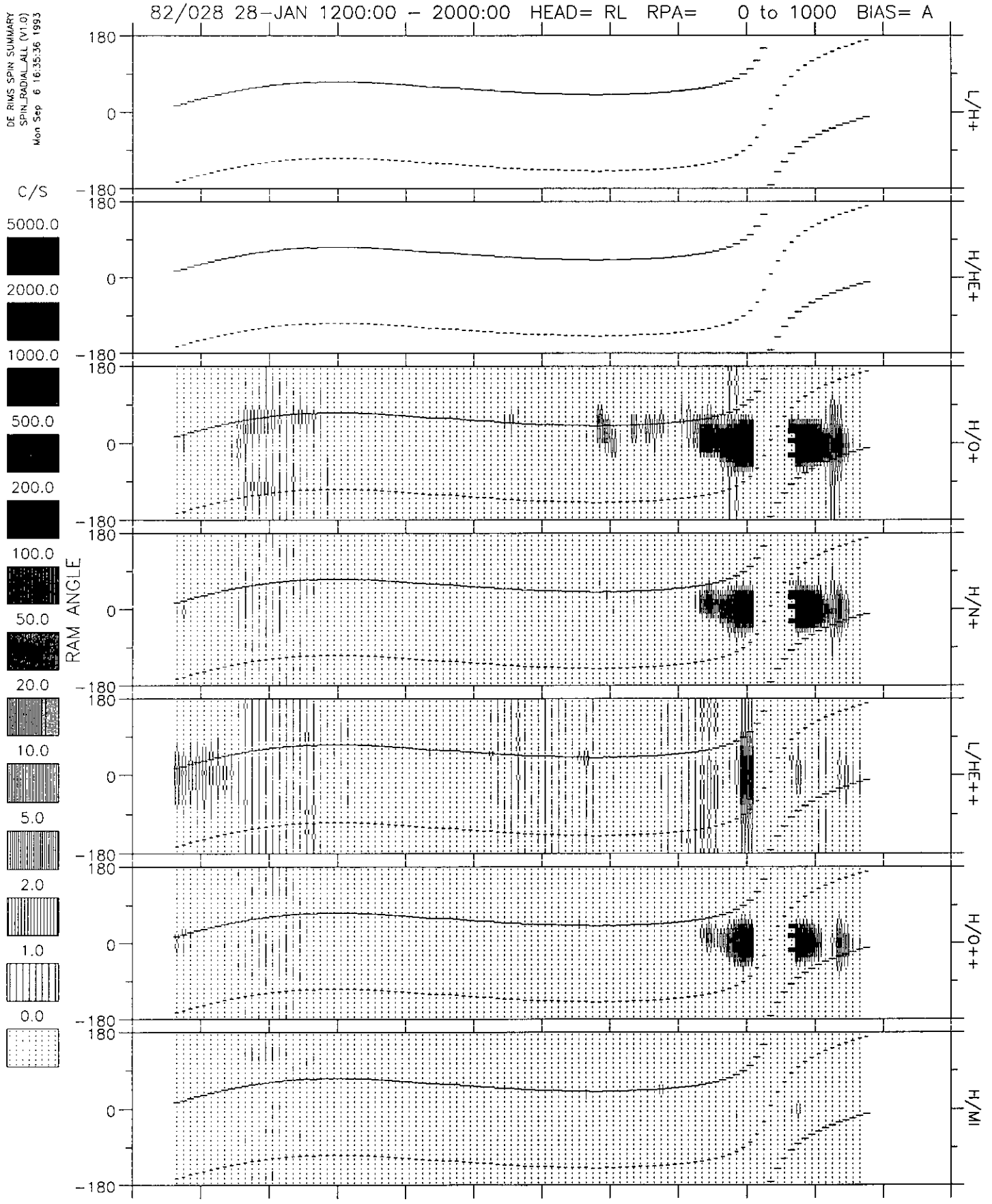

82/027 27-JAN 0130:00 - 0930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RAD_ALL (V1.0)
Mon Sep 6 15:44:41 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0210 0250 0330 0410 0450 0530 0610 0650 0000 0000 0000 DEGS
RE 2.9 3.8 4.3 4.6 4.6 4.4 3.9 3.0 0.0 0.0 0.0 HHMM
L 3.0 4.1 6.0 9.0 14.8 30.9 100.0 90.6 0.0 0.0 0.0 RE
MLT 1.8 2.1 2.4 2.5 2.7 2.9 3.3 14.3 0.0 0.0 0.0
MLAT -3.97 17.91 32.98 45.51 57.15 69.09 82.70 77.98 0.00 0.00 0.00 HRS
INVLAT 54.7 60.6 65.9 70.5 74.9 79.6 85.6 83.9 0.0 0.0 0.0 DEGS


82/027 27-JAN 0830:00 - 1630:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 15:46:34 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0910 0950 1030 1110 1150 1230 1310 1350 1430 1510 0000 DEGS
RE 3.1 3.9 4.4 4.6 4.6 4.3 3.7 2.8 1.5 1.5 0.0 HHMM
L 3.2 4.7 6.6 8.9 12.1 18.0 38.0 77.4 1.9 10.0 0.0 RE
MLT 2.3 2.2 1.9 1.7 1.4 0.9 23.9 19.0 14.6 3.5 0.0
MLAT 7.42 24.03 35.05 43.83 51.91 60.48 70.81 78.33 34.49 ***** 0.00 HRS
INVLAT 56.0 62.6 67.1 70.4 73.3 76.4 80.7 83.5 44.2 71.5 0.0 DEGS

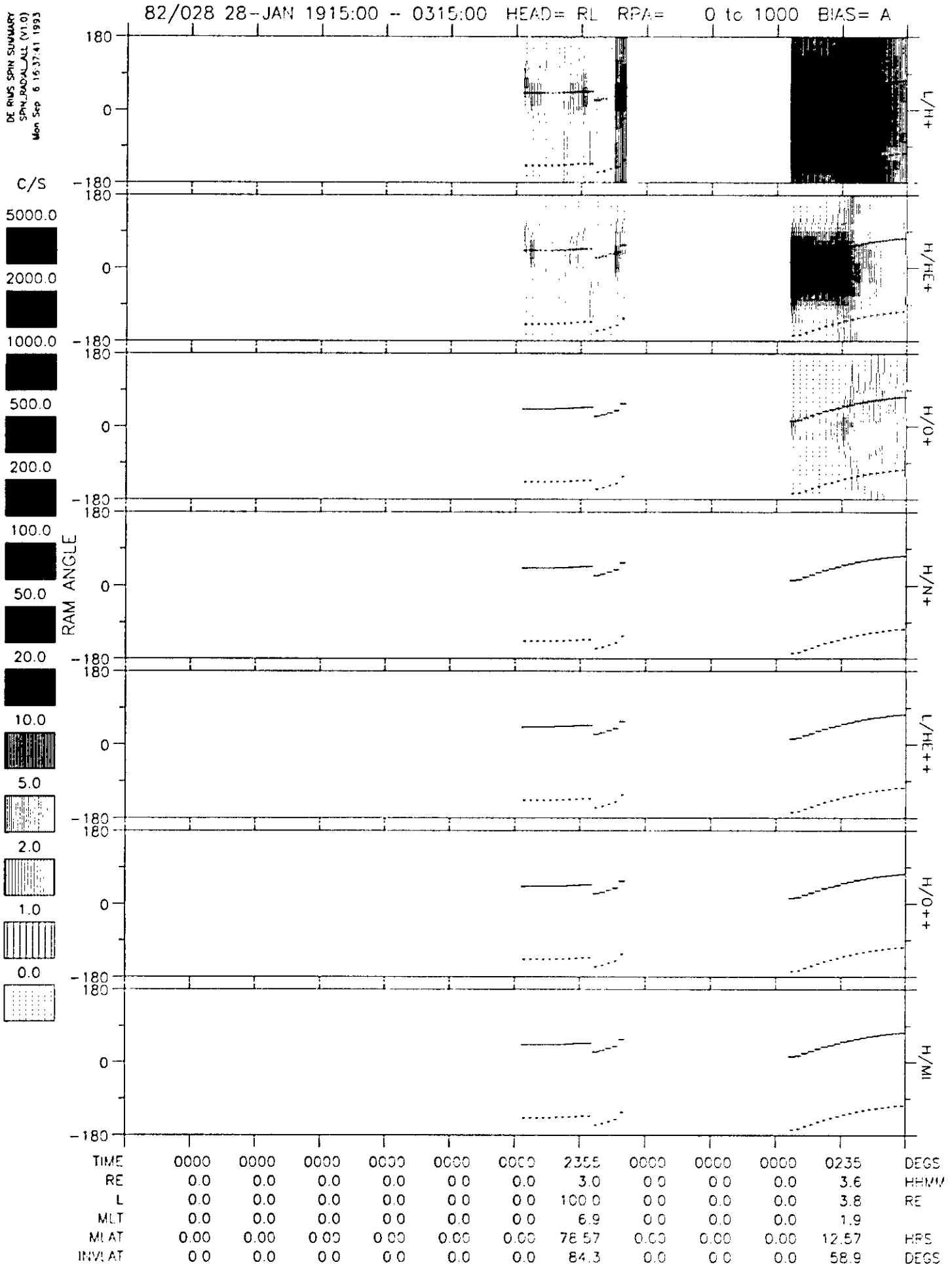

82/027 27-JAN 1515:00 - 2315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 15:49:06 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 0000 0000 1755 1835 1915 1955 2035 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.6 4.4 3.8 3.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 5.9 7.4 10.3 18.5 100.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 1.9 1.9 2.1 2.4 4.1 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 26.93 37.08 48.16 61.71 80.72 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 65.6 68.5 71.8 76.6 85.5 0.0 0.0 0.0 DEGS

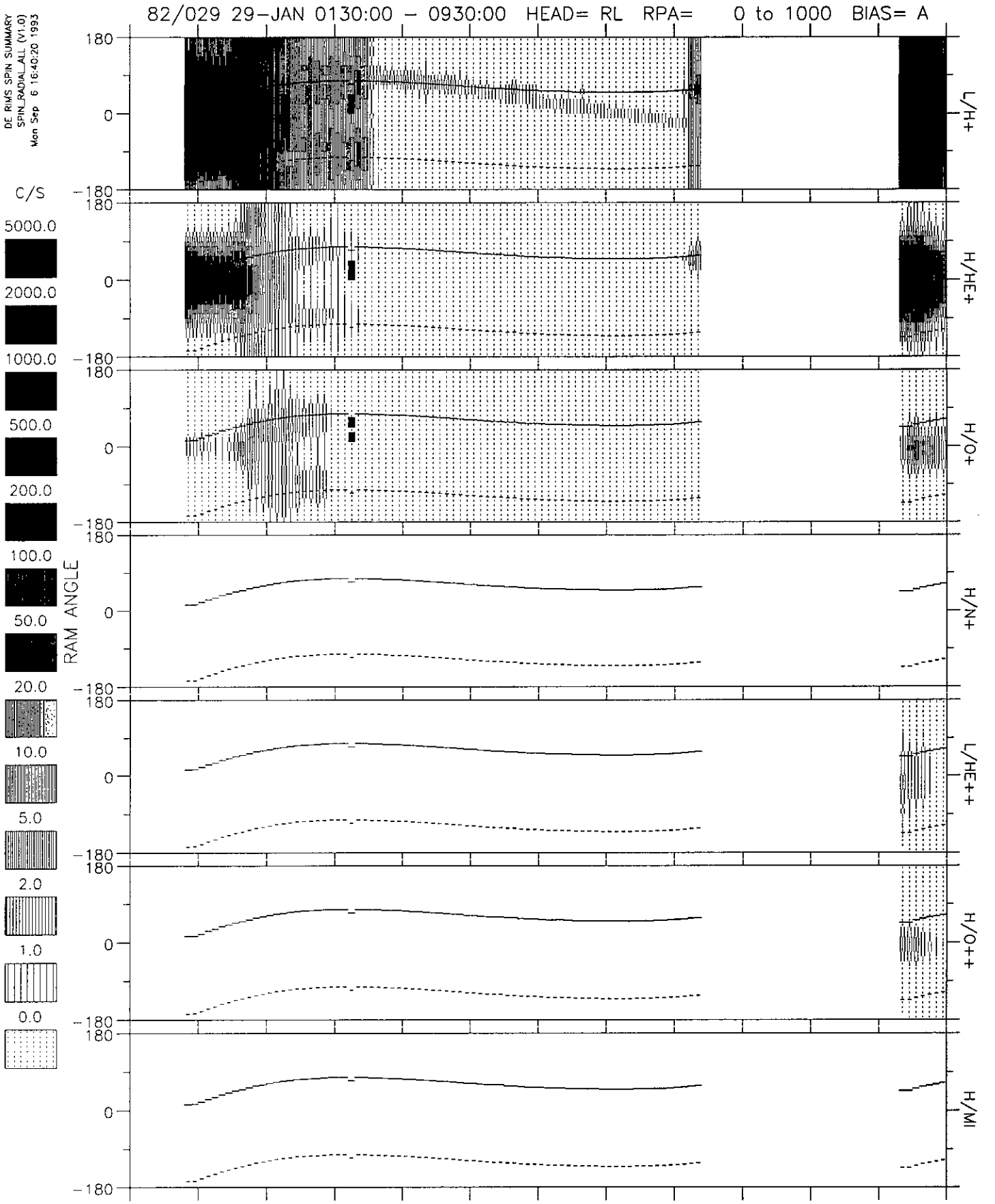

82/027 27-JAN 2200:00 - 0600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 16:28:46 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0040 0120 0200 0240 0320 0000 0000 0000 DEGS
RE 0.0 0.0 4.3 4.6 4.6 4.4 3.9 3.1 0.0 0.0 0.0 HHMM
L 0.0 0.0 4.8 6.7 9.6 15.9 40.1 -0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 2.2 2.3 2.6 3.1 4.2 10.1 0.0 0.0 0.0
MLAT 0.00 0.00 20.77 35.02 47.06 59.33 72.70 79.24 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 63.0 67.3 71.2 75.5 80.9 -0.0 0.0 0.0 0.0 DEGS


82/028 28-JAN 0500:00 - 1300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R WS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 16:34:02 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
+H/+
+H/HE+
+H/O+
+H/N+
+H/HE++
+H/O++
+H/NI
TIME 0540 0620 0700 0740 0820 0900 0940 0000 0000 0000 0000 DEGS
RE 3.1 3.9 4.4 4.6 4.6 4.3 3.8 0.0 0.0 0.0 0.0 HHMM
L 3.2 4.9 7.4 11.1 17.8 34.1 100.0 0.0 0.0 0.0 0.0 RE
MLT 2.1 2.2 2.2 2.1 1.8 1.2 23.4 0.0 0.0 0.0 0.0
MLAT 7.12 26.19 39.24 49.86 59.52 69.20 79.02 0.00 0.00 0.00 0.00 HRS
INVLAT 55.9 63.1 68.4 72.0 76.3 80.1 84.0 0.0 0.0 0.0 0.0 DEGS

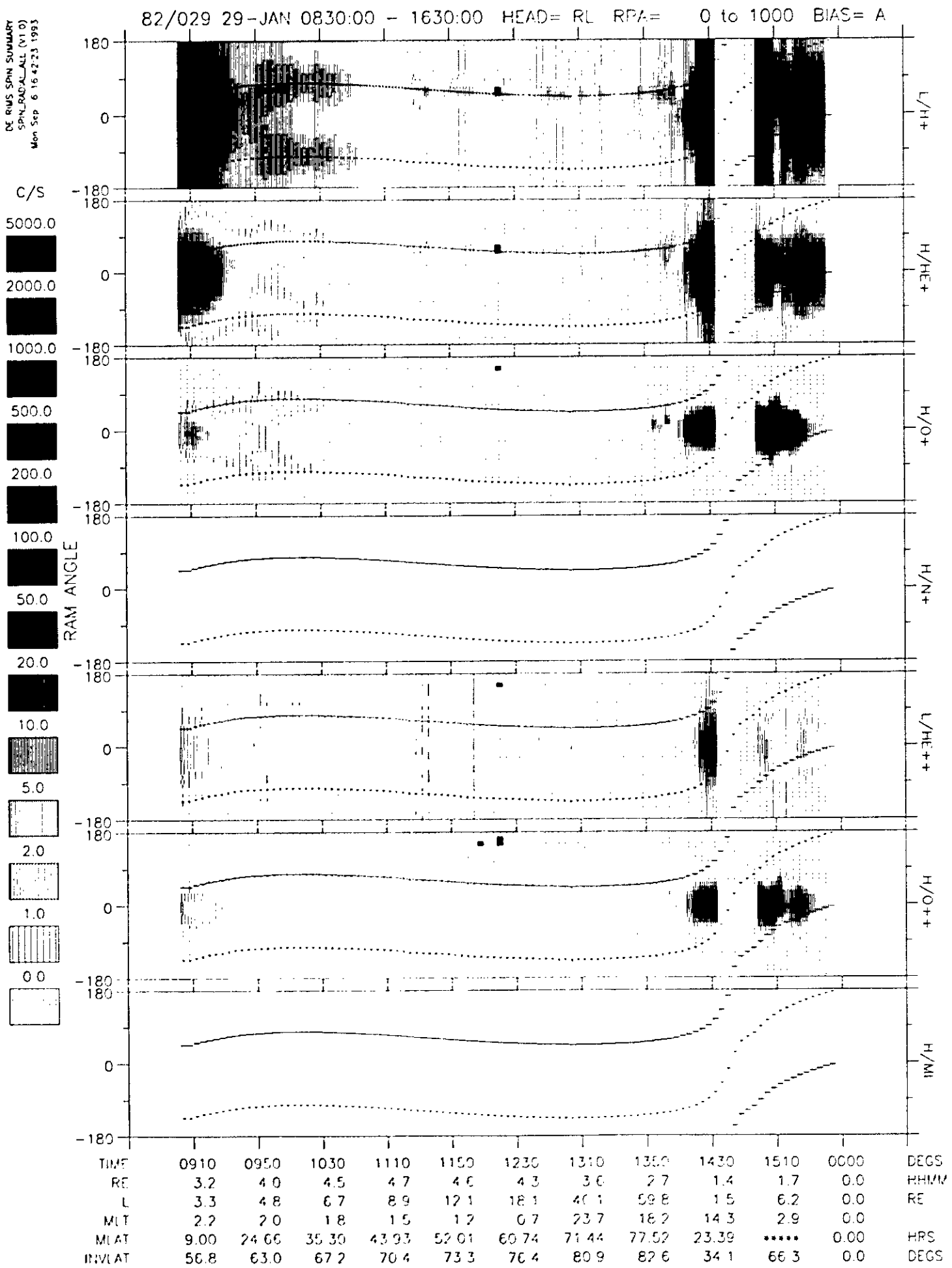


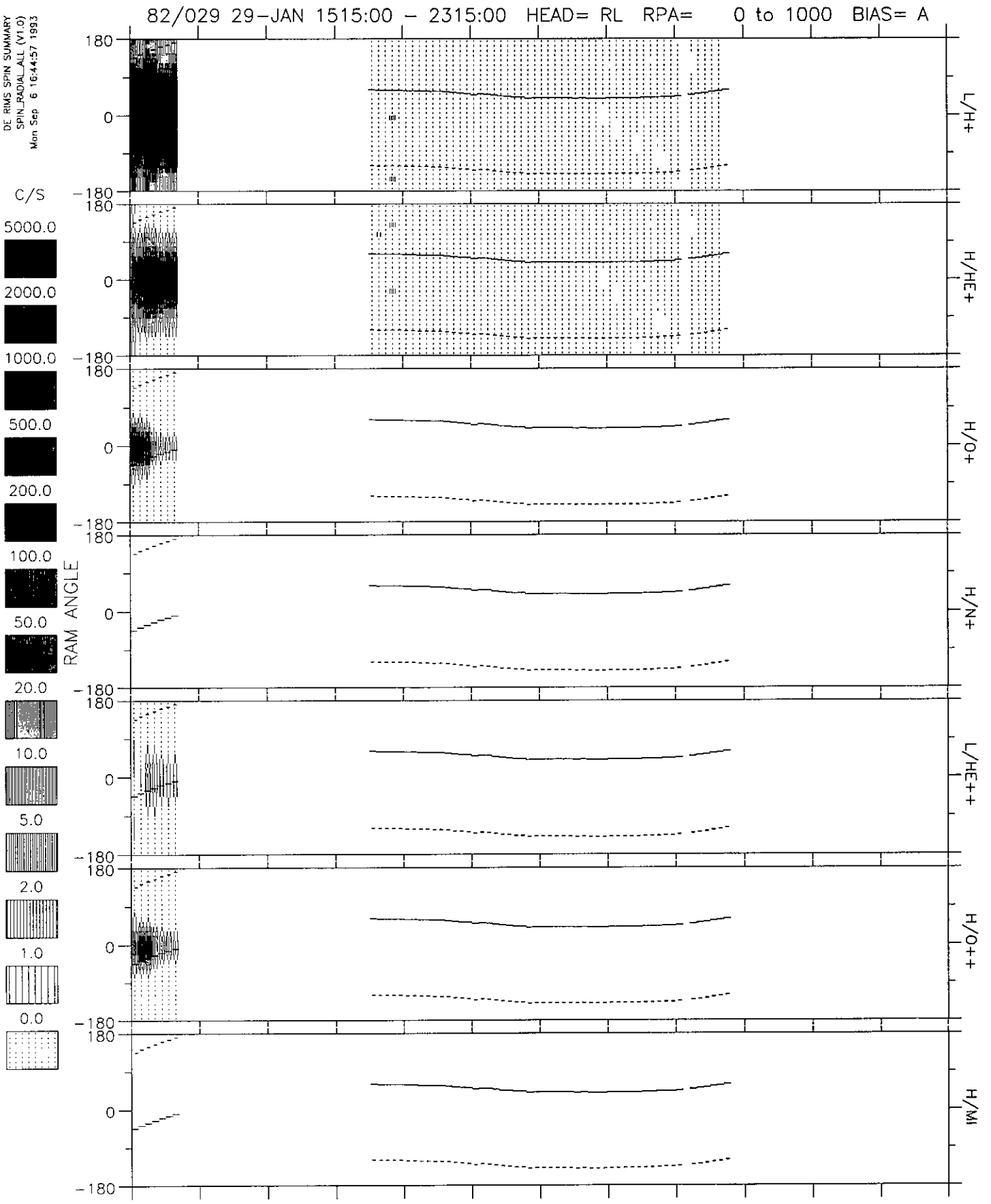
TIME	1240	1320	1400	1440	1520	1600	1640	1720	1800	1840	0000	DEGS
RE	3.3	4.0	4.5	4.7	4.6	4.2	3.6	2.6	1.3	1.8	0.0	HHMM
L	3.2	4.3	5.5	6.9	8.9	12.7	27.1	-0.0	1.5	6.5	0.0	RE
MLT	2.2	1.9	1.8	1.6	1.5	1.3	1.0	19.4	14.0	1.9	0.0	
MLAT	1.71	16.15	26.34	35.07	43.79	53.86	67.30	85.65	21.97	*****	0.00	HRS
INVLAT	56.3	61.2	64.8	67.7	70.4	73.7	78.9	-0.0	36.5	66.8	0.0	DEGS

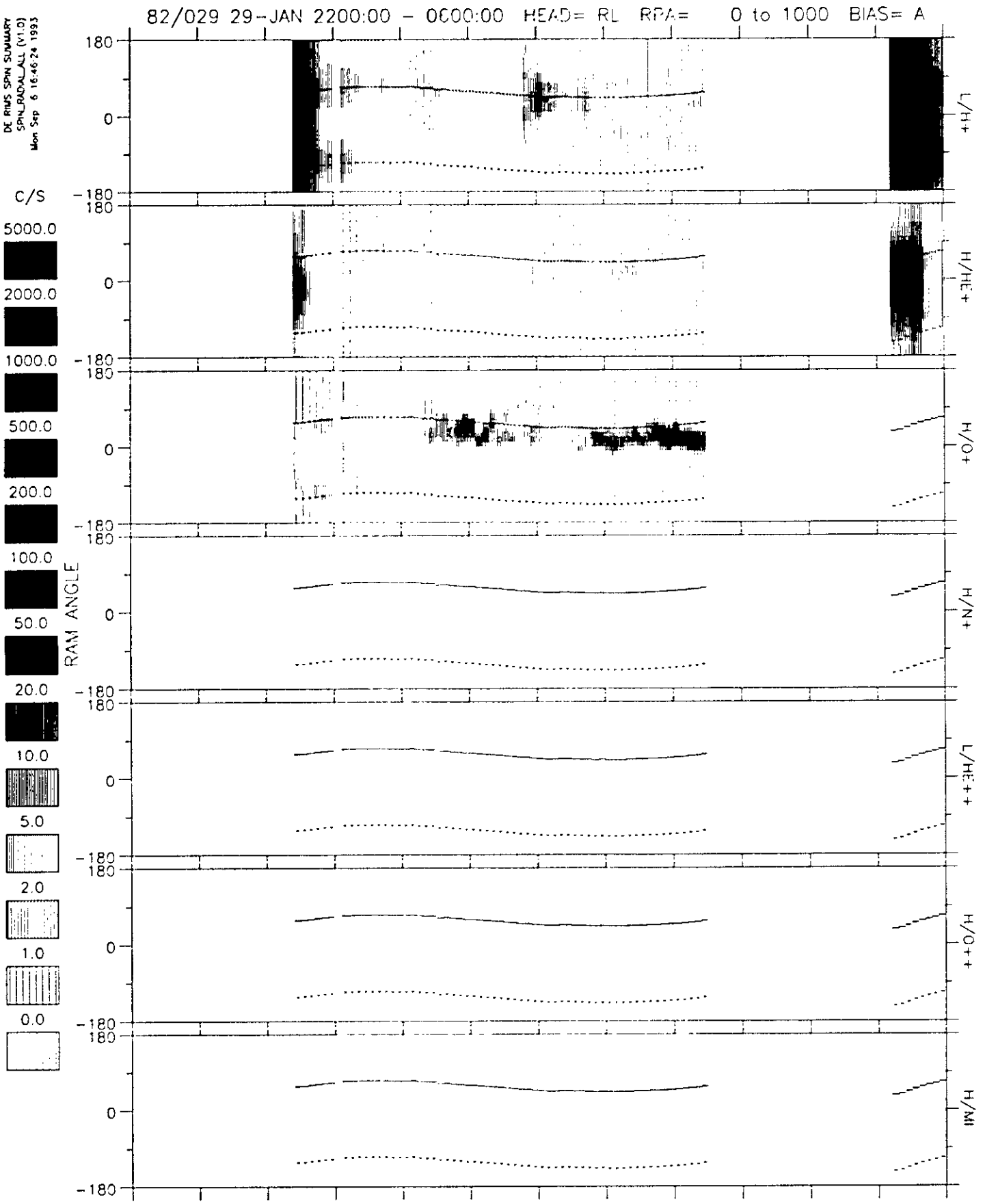

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 16:37:41 1993
82/028 28-JAN 1915:00 -- 0315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H+/O+
H+/N+
L/HE++
H++/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 2355 0000 0000 0000 0235 DEGS
RE 0.0 0.0 0.0 0.0 0 0 0.0 3.0 0 0 0 0 0.0 3.6 HHMM
L 0.0 0.0 0.0 0.0 0 0 0 0 100 0 0 0 0 0 0.0 3.8 RE
MLT 0.0 0.0 0.0 0 0 0.0 0 0 6.9 0 0 0.0 0.0 1.9
MLAT 0.00 0.00 0 00 0 00 0.00 0.00 78 57 0.00 0.00 0.00 12.57 HRS
INVLAT 0 0 0.0 0 0 0 0 0.0 0.0 84.3 0.0 0 0 0.0 58.9 DEGS

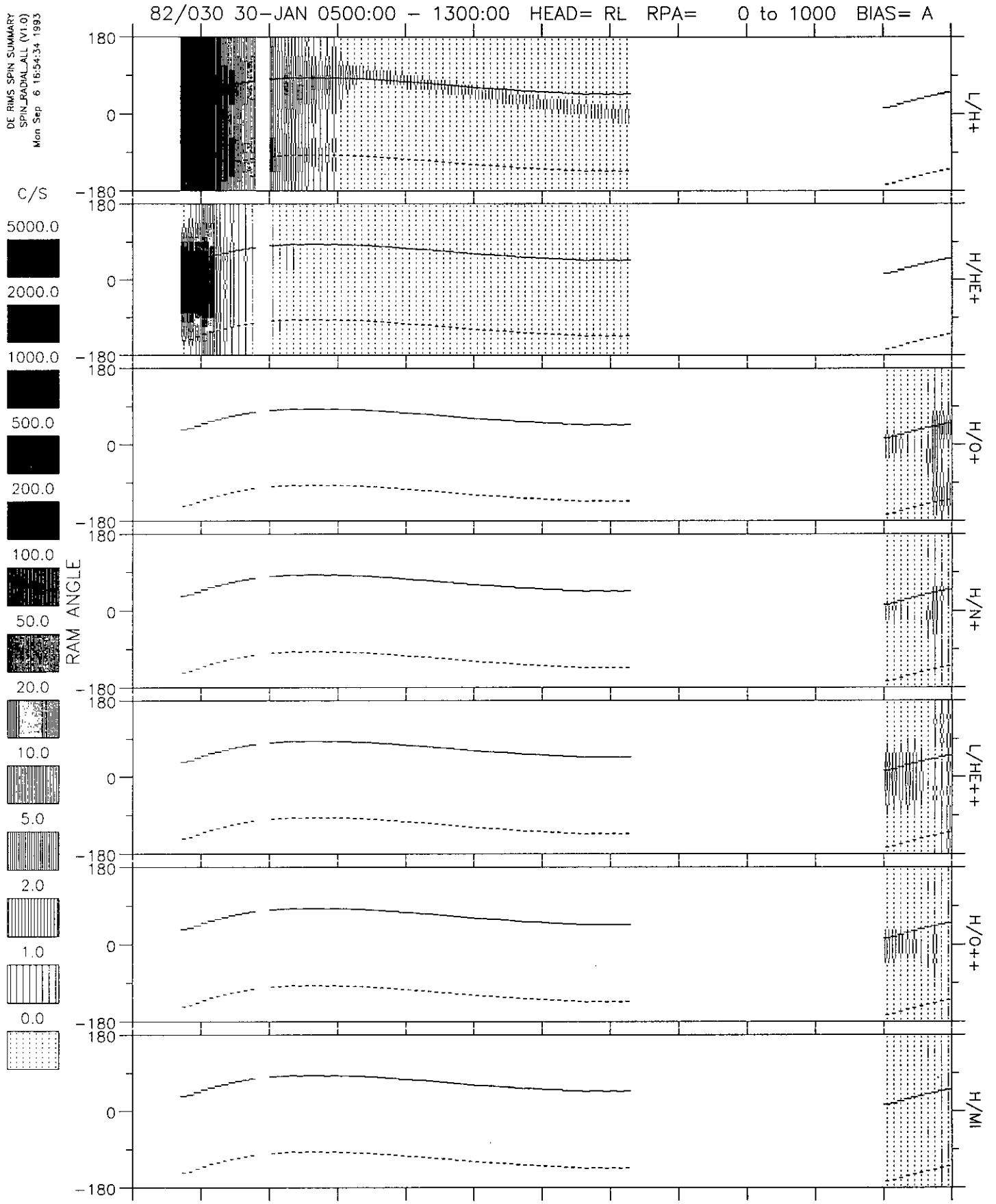


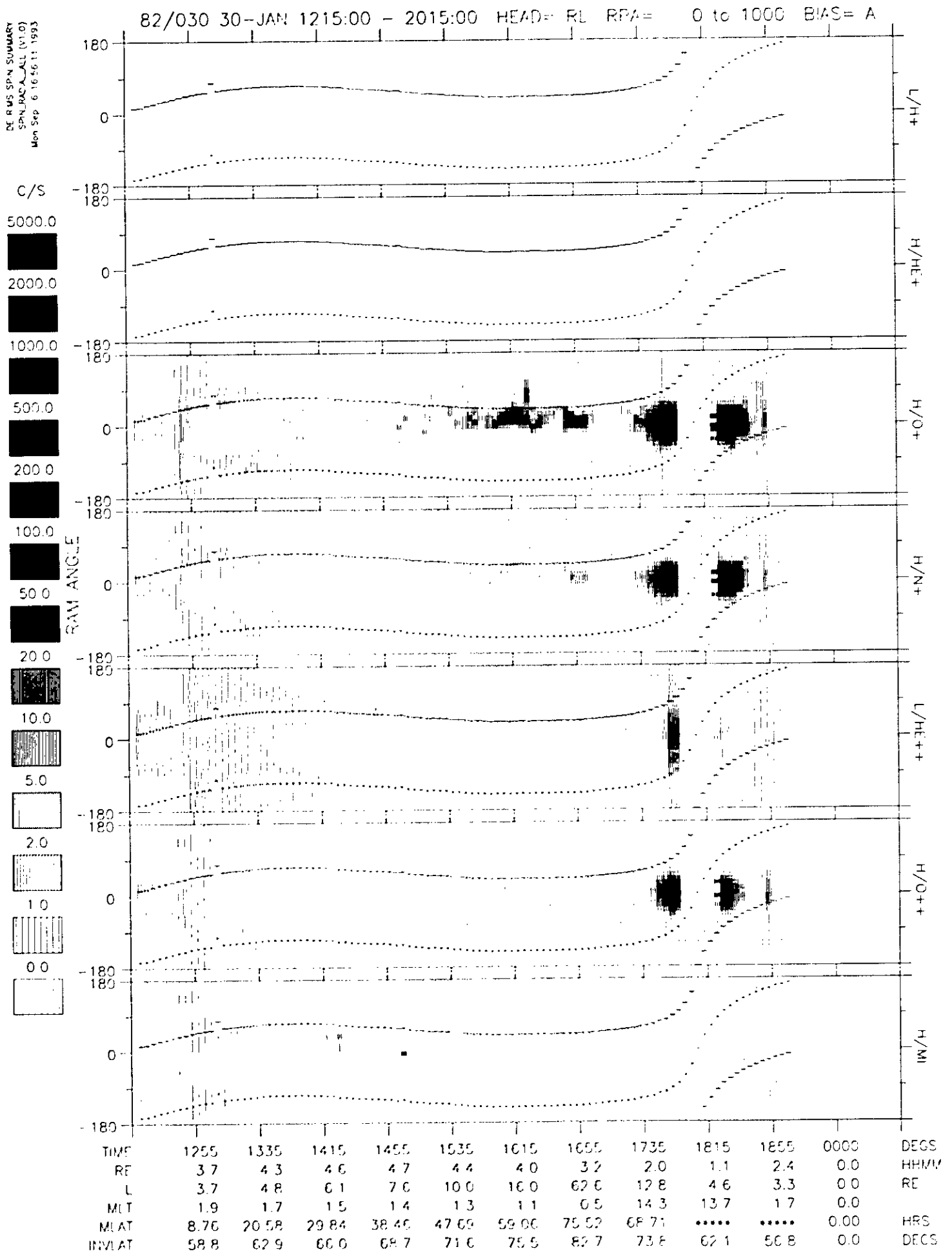
TIME	0210	0250	0330	0410	0450	0530	0610	0650	0000	0000	0000	DEGS
RE	3.0	3.9	4.4	4.6	4.6	4.4	3.8	2.9	0.0	0.0	0.0	HHMM
L	3.1	4.3	6.2	9.3	15.3	32.9	100.0	61.3	0.0	0.0	0.0	RE
MLT	1.7	2.0	2.2	2.4	2.5	2.7	3.2	14.2	0.0	0.0	0.0	
MLAT	-1.34	19.29	33.95	46.28	57.85	69.87	83.85	75.85	0.00	0.00	0.00	HRS
INVLAT	55.3	61.1	66.3	70.8	75.2	80.0	86.2	82.7	0.0	0.0	0.0	DEGS

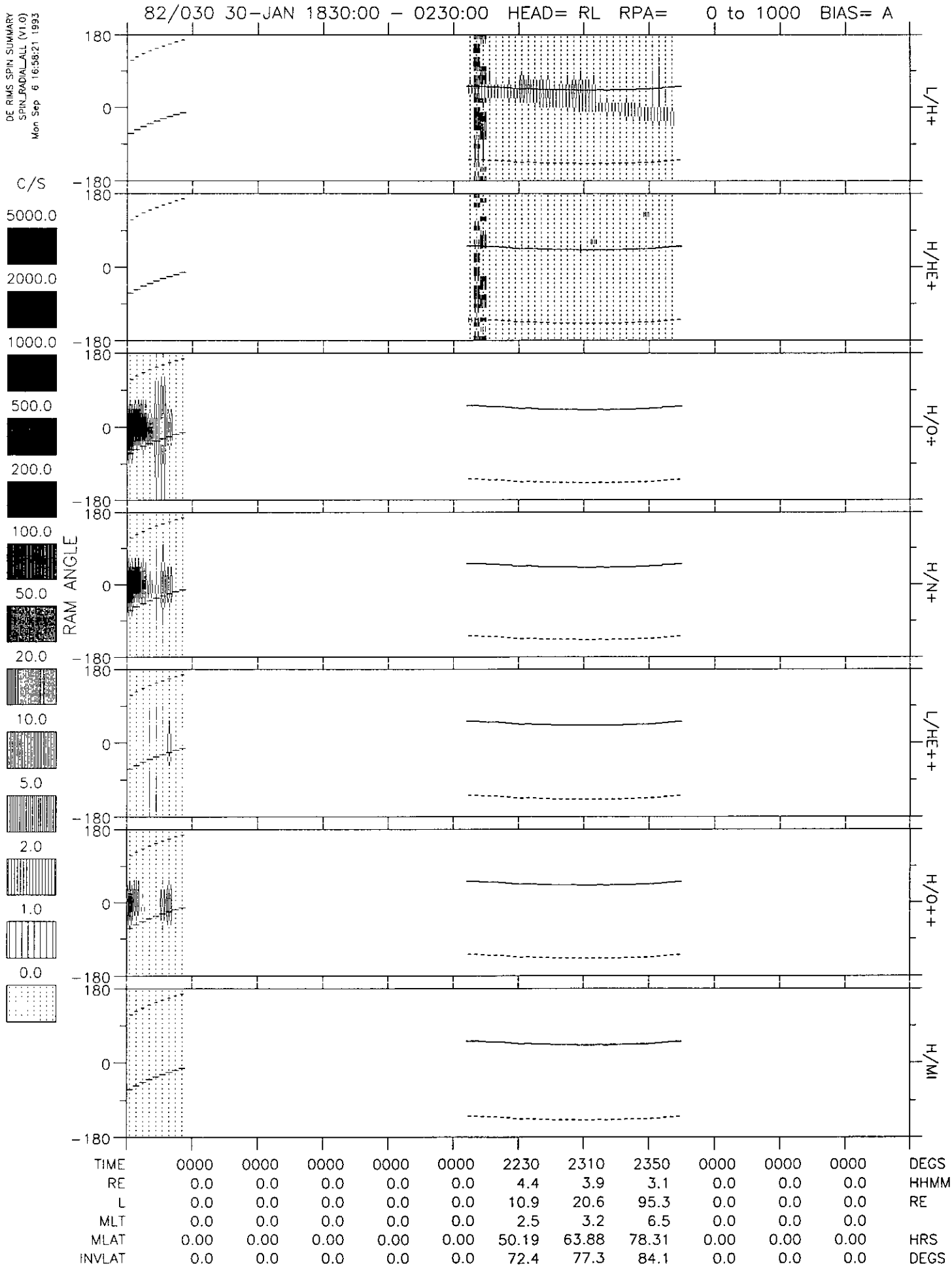

DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 16:42:23 1993
82/029 29-JAN 0830:00 - 1630:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0910 0950 1030 1110 1150 1230 1310 1350 1430 1510 0000 DEGS
RE 3.2 4.0 4.5 4.7 4.6 4.3 3.6 2.7 1.4 1.7 0.0 HHMM
L 3.3 4.8 6.7 8.9 12.1 18.1 40.1 59.8 1.5 6.2 0.0 RE
MLT 2.2 2.0 1.8 1.5 1.2 0.7 23.7 18.2 14.3 2.9 0.0
MLAT 9.00 24.66 35.30 43.93 52.01 60.74 71.44 77.52 23.39 ***** 0.00 HRS
INVLAT 56.8 63.0 67.2 70.4 73.3 76.4 80.9 82.6 34.1 66.3 0.0 DEGS

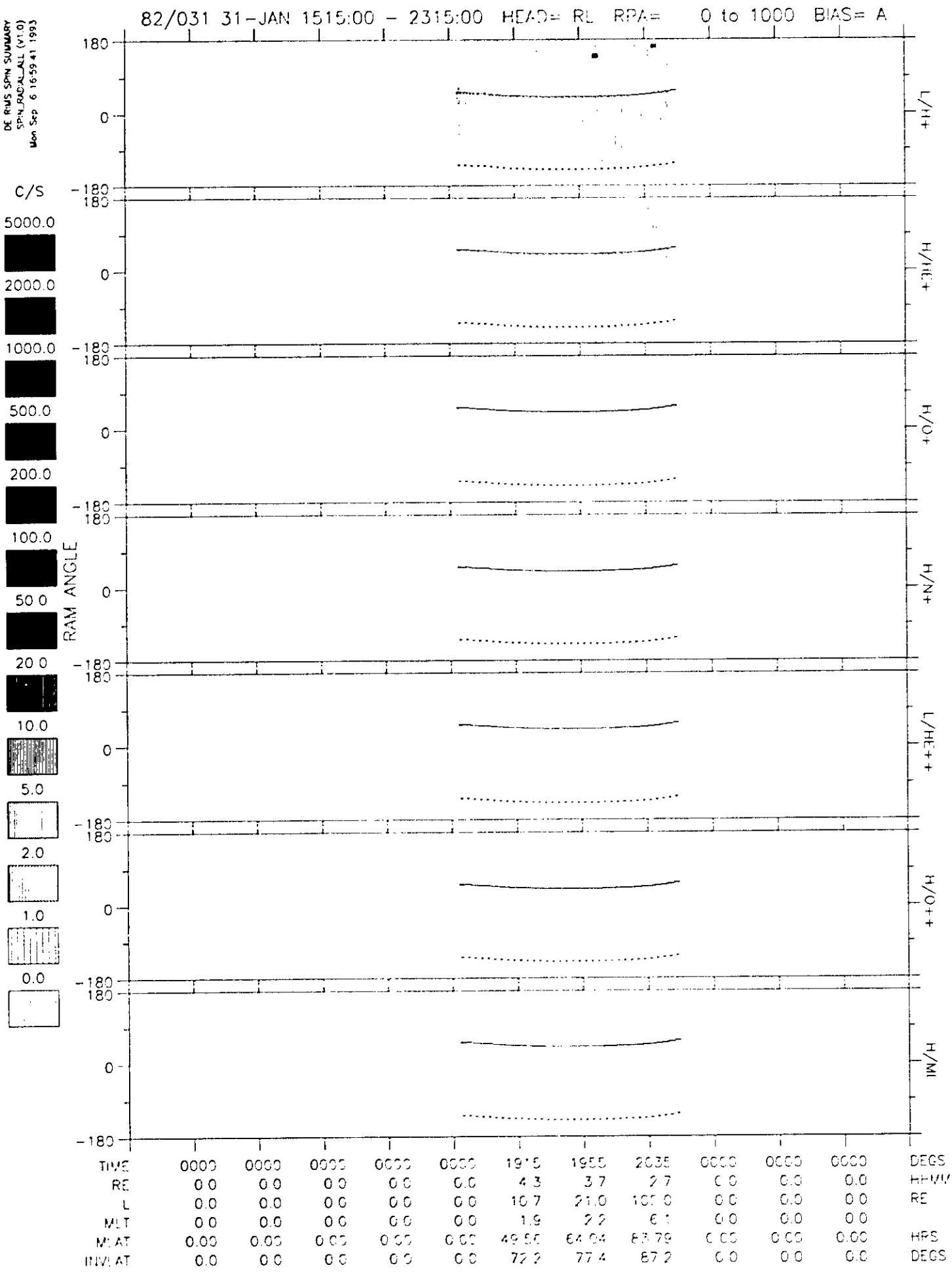

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 16:44:57 1993
82/029 29-JAN 1515:00 - 2315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 1755 1835 1915 1955 2035 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.6 4.3 3.8 2.8 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 5.9 7.5 10.5 19.6 100.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 1.8 1.8 2.0 2.3 4.8 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 27.36 37.58 48.86 62.85 82.35 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 65.8 68.6 72.0 77.0 86.4 0.0 0.0 0.0 DEGS

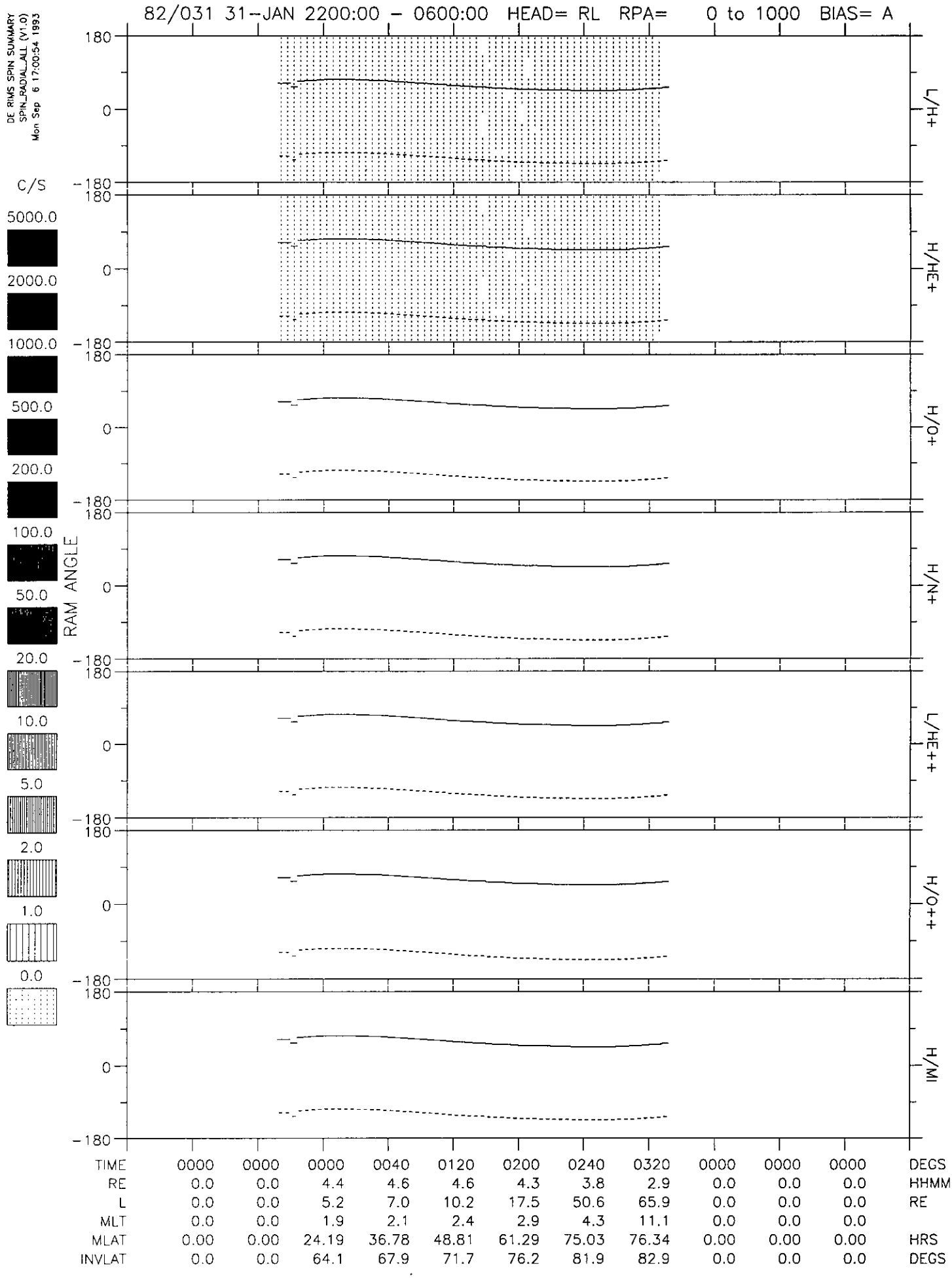

82/029 29-JAN 2200:00 - 0000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 16:46:24 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0000 0000 0000 0040 0120 0200 0240 0320 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.6 4.4 3.9 3.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 6.9 9.9 16.7 44.8 89.8 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 2.2 2.5 3.0 4.2 10.7 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 35.90 47.94 60.31 73.85 77.98 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 67.6 71.5 75.8 81.4 83.9 0.0 0.0 0.0 DEGS

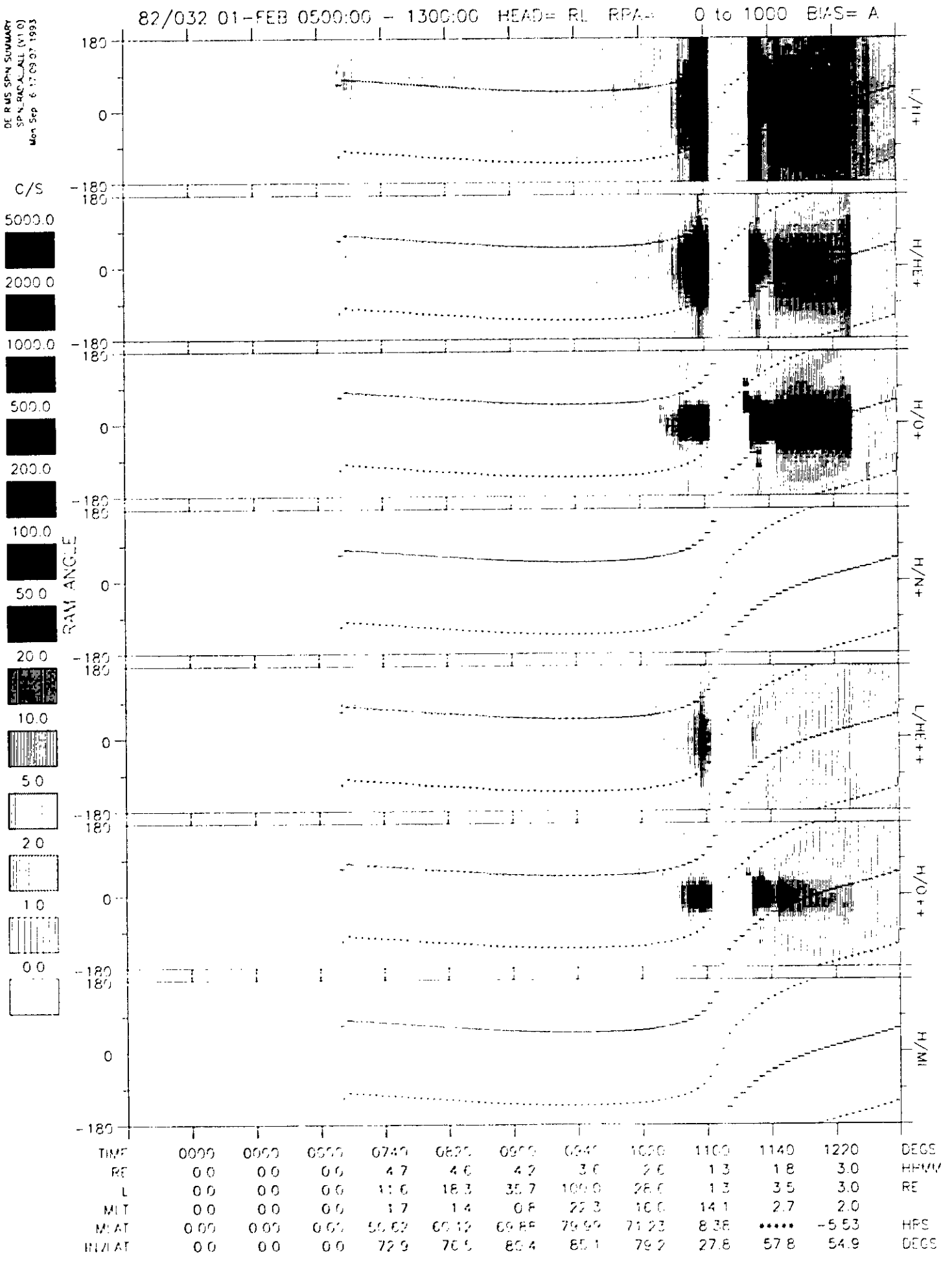

82/030 30-JAN 0500:00 - 1300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 16:54:34 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0540 0620 0700 0740 0820 0900 0940 0000 0000 0000 1220 DEGS
RE 3.2 3.9 4.4 4.7 4.6 4.3 3.7 0.0 0.0 0.0 2.9 HHMM
L 3.3 4.9 7.6 11.4 18.1 34.8 100.0 0.0 0.0 0.0 2.9 RE
MLT 2.0 2.1 2.0 1.9 1.6 1.0 22.8 0.0 0.0 0.0 2.2
MLAT 9.15 26.18 39.83 50.25 59.80 69.51 79.64 0.00 0.00 0.00 -7.30 HRS
INVLAT 56.7 63.2 68.7 72.8 76.4 80.2 84.9 0.0 0.0 0.0 54.2 DEGS

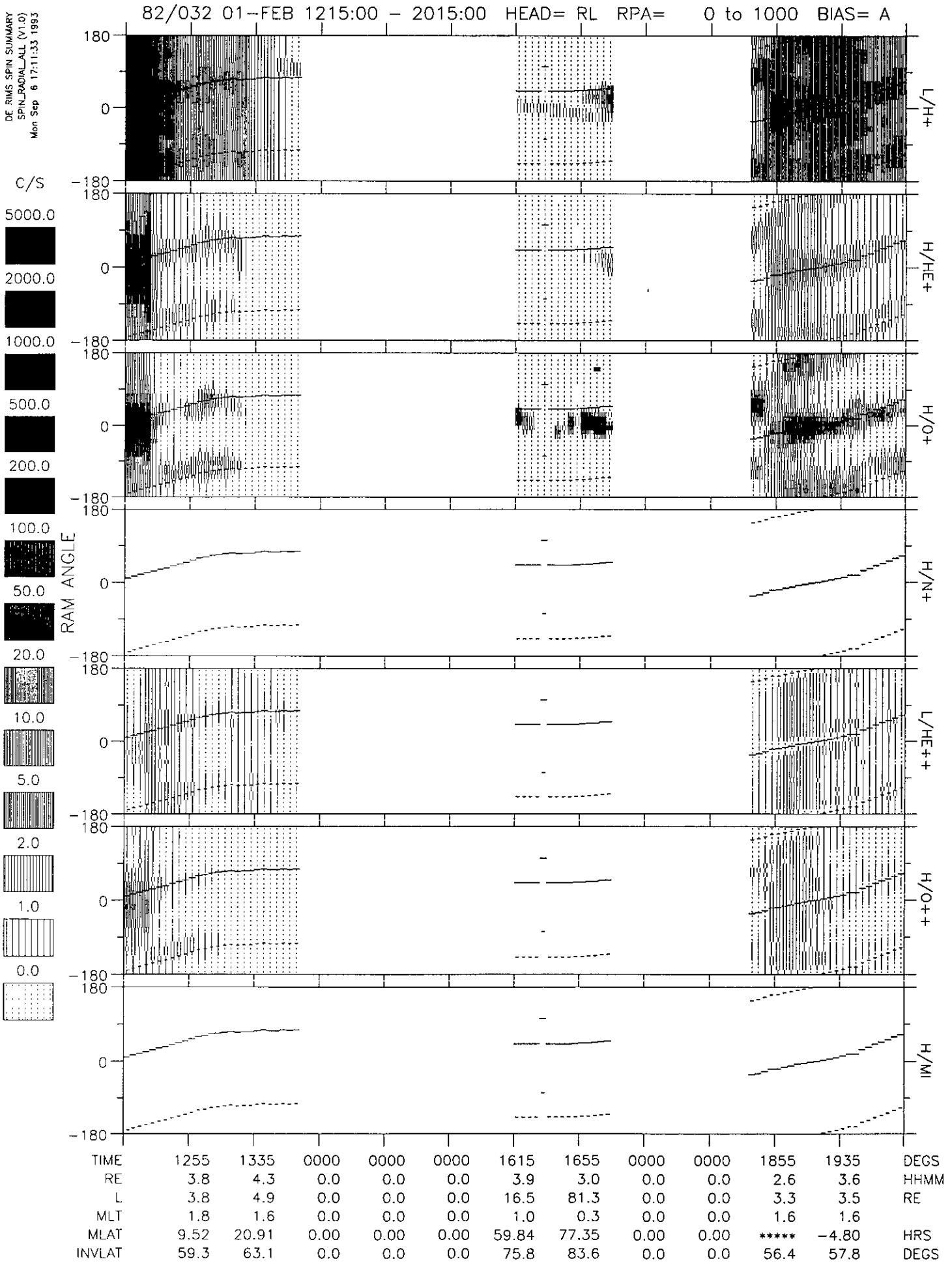

82/030 30-JAN 1215:00 - 2015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R US SPIN SUMMARY
SPIN_RATE_ALL (V1.0)
Mon Sep 6 16:56:11 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1255 1335 1415 1455 1535 1615 1655 1735 1815 1855 0000 DEGS
RE 3.7 4.3 4.6 4.7 4.4 4.0 3.2 2.0 1.1 2.4 0.0 HHMM
L 3.7 4.8 6.1 7.6 10.0 16.0 62.6 12.8 4.6 3.3 0.0 RE
MLT 1.9 1.7 1.5 1.4 1.3 1.1 0.5 14.3 13.7 1.7 0.0
MLAT 8.76 20.58 29.84 38.46 47.69 59.00 75.52 68.71 ***** ***** 0.00 HRS
INVLAT 58.8 62.9 66.0 68.7 71.6 75.5 82.7 73.6 62.1 56.8 0.0 DEGS

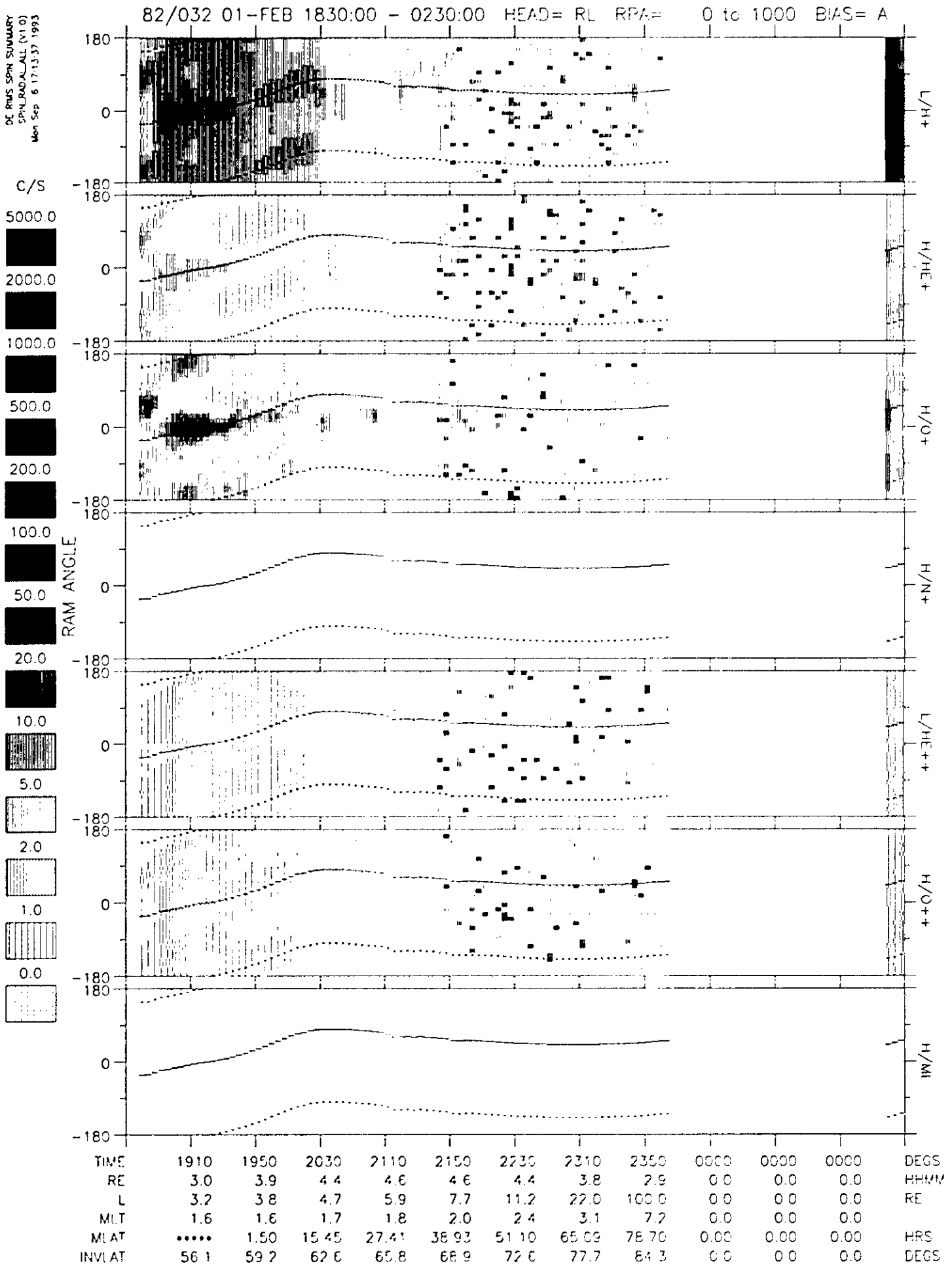

82/030 30-JAN 1830:00 - 0230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 16:58:21 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0000 2230 2310 2350 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.4 3.9 3.1 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 10.9 20.6 95.3 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 2.5 3.2 6.5 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 50.19 63.88 78.31 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 72.4 77.3 84.1 0.0 0.0 0.0 DEGS

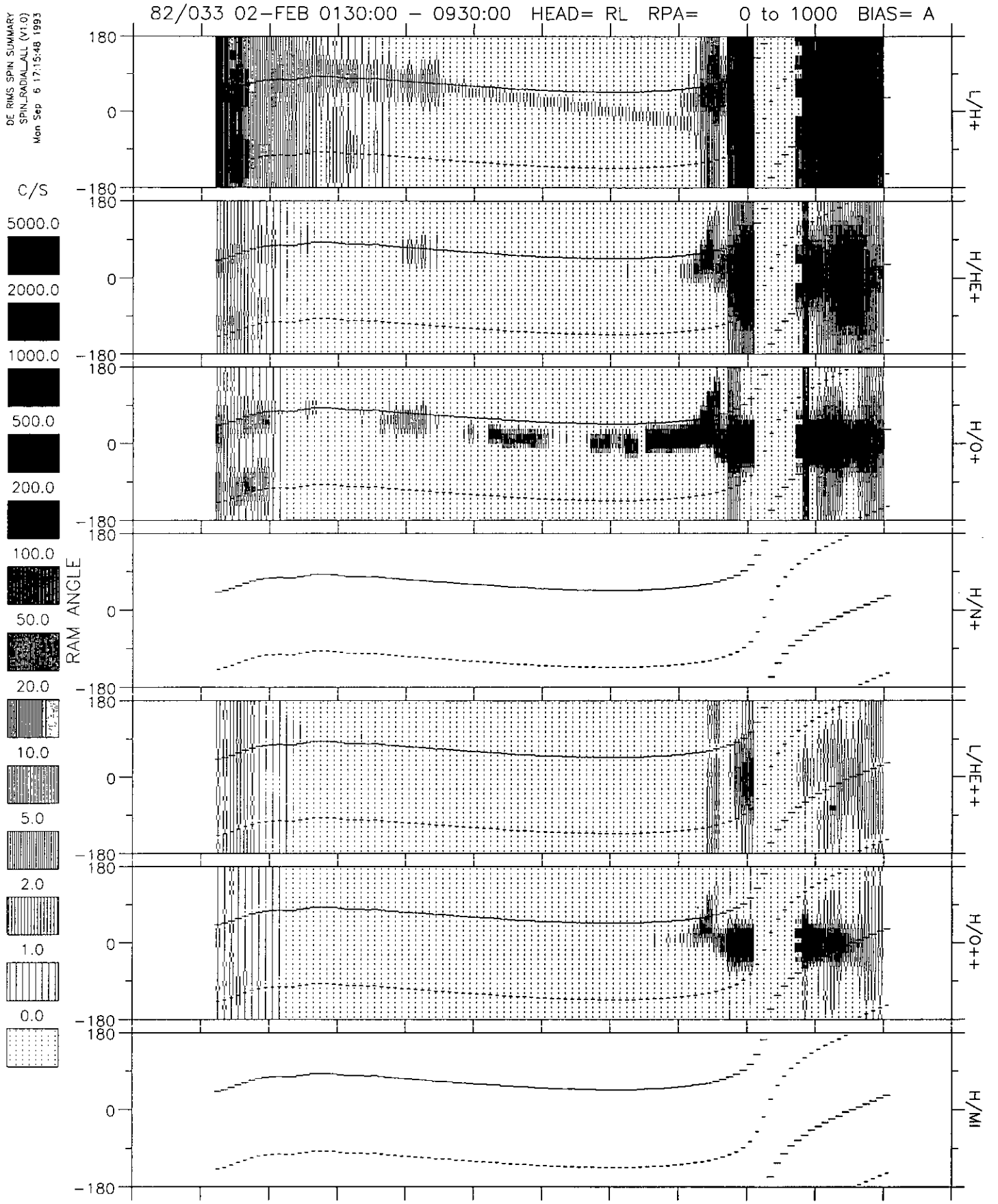

82/031 31-JAN 1515:00 - 2315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIUS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 16:59:41 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 0000 0000 0000 0000 1915 1955 2035 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.3 3.7 2.7 0.0 0.0 0.0 HFWW
L 0.0 0.0 0.0 0.0 0.0 10.7 21.0 100.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 1.9 2.2 6.1 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 49.55 64.04 88.79 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 72.2 77.4 87.2 0.0 0.0 0.0 DEGS

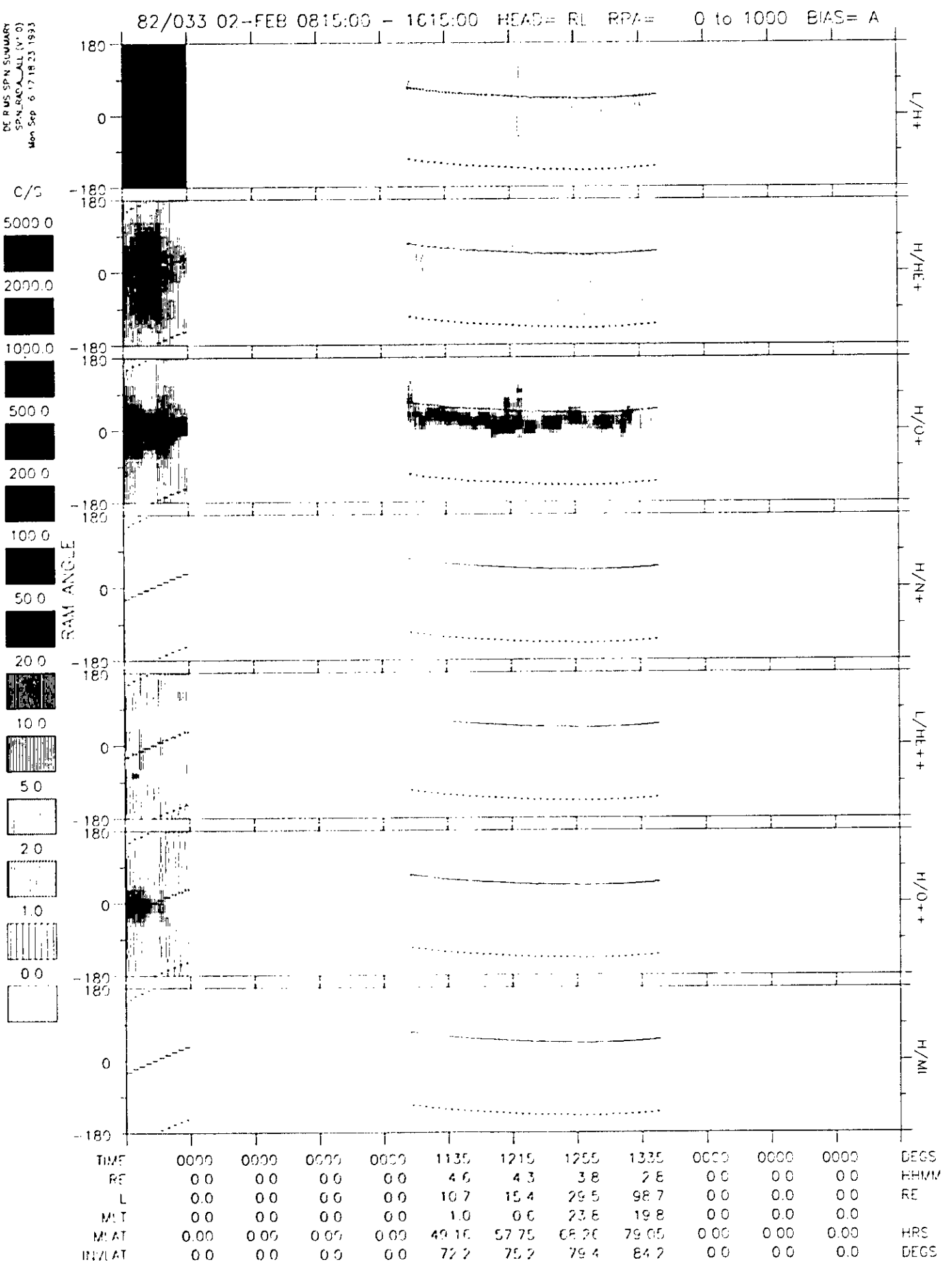

82/031 31-JAN 2200:00 - 0600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 17:00:54 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0040 0120 0200 0240 0320 0000 0000 0000 DEGS
RE 0.0 0.0 4.4 4.6 4.6 4.3 3.8 2.9 0.0 0.0 0.0 HHMM
L 0.0 0.0 5.2 7.0 10.2 17.5 50.6 65.9 0.0 0.0 0.0 RE
MLT 0.0 0.0 1.9 2.1 2.4 2.9 4.3 11.1 0.0 0.0 0.0
MLAT 0.00 0.00 24.19 36.78 48.81 61.29 75.03 76.34 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 64.1 67.9 71.7 76.2 81.9 82.9 0.0 0.0 0.0 DEGS

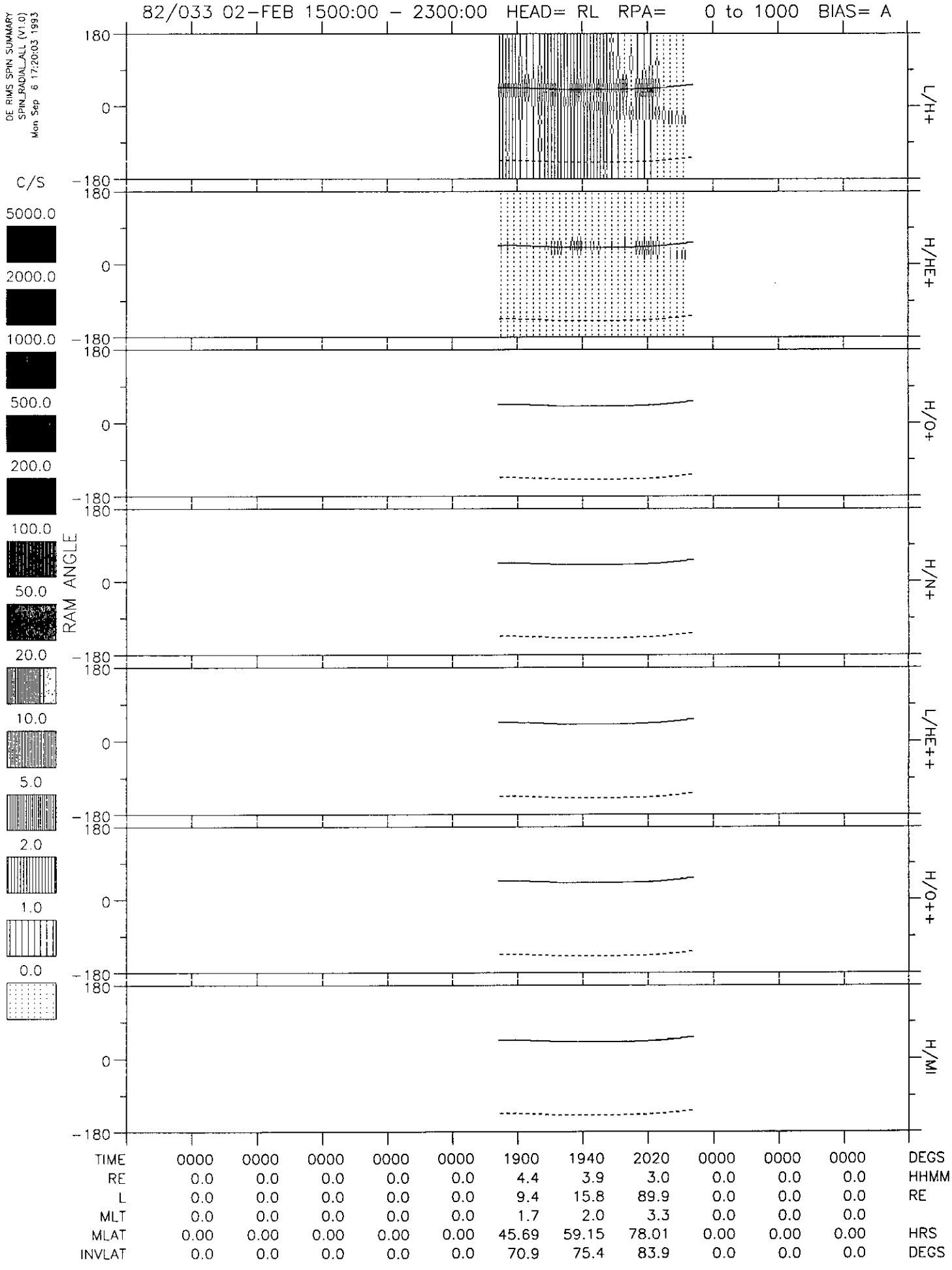

82/032 01-FEB 0500:00 - 1300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RAD_ALL (V1.0)
Mon Sep 6 17:09:07 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 0000 0000 0740 0820 0900 0940 1020 1100 1140 1220 DEGS
RE 0.0 0.0 0.0 4.7 4.6 4.2 3.6 2.6 1.3 1.8 3.0 HRVW
L 0.0 0.0 0.0 11.6 18.3 35.7 100.0 28.6 1.3 3.5 3.0 RE
MLT 0.0 0.0 0.0 1.7 1.4 0.8 22.3 16.0 14.1 2.7 2.0
MLAT 0.00 0.00 0.00 56.62 60.12 69.85 79.99 71.23 8.38 ***** -5.53 HRS
RNLAT 0.0 0.0 0.0 72.9 76.5 85.4 85.1 79.2 27.8 57.8 54.9 DEGS

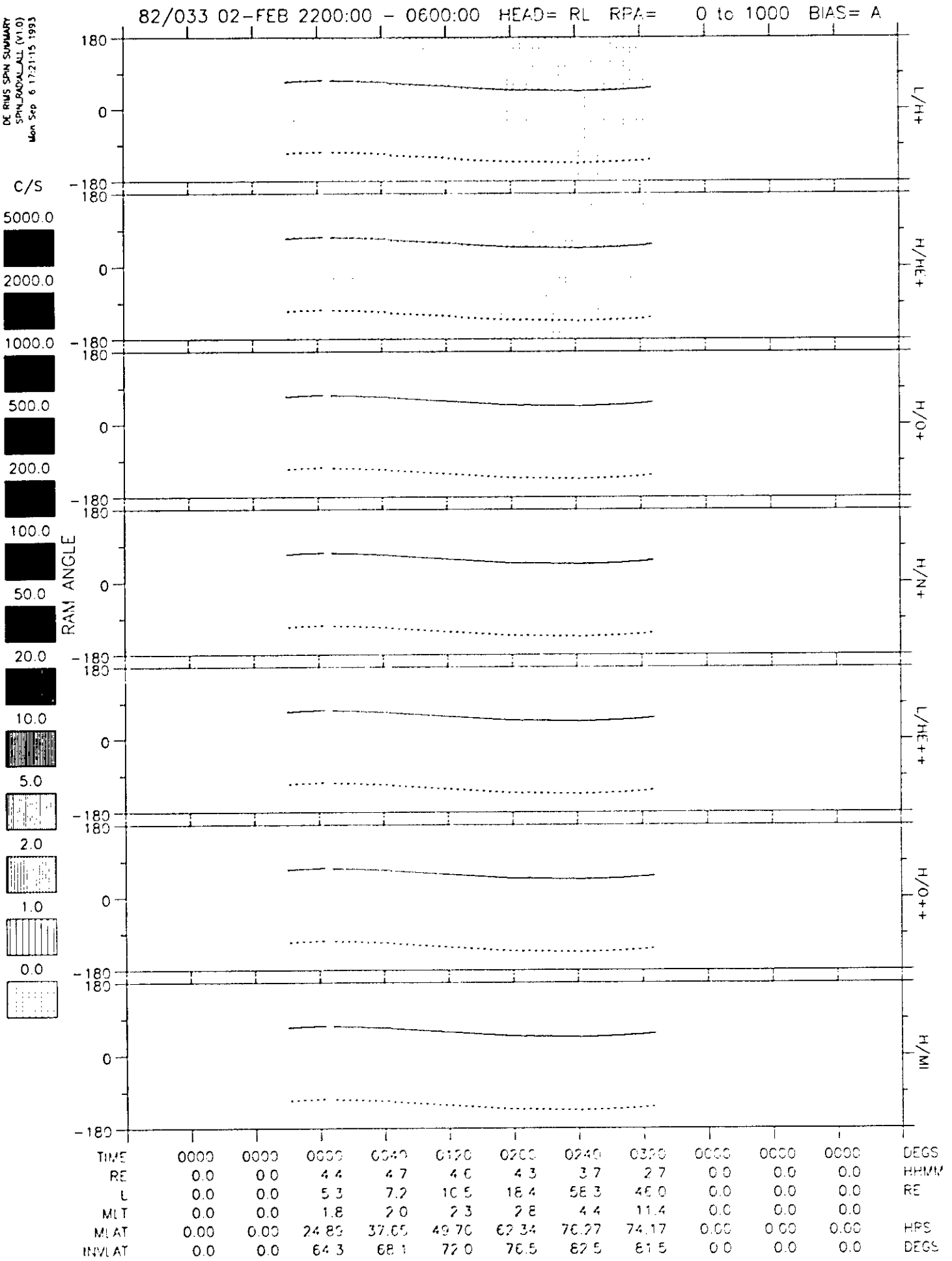

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 17:11:33 1993
82/032 01-FEB 1215:00 - 2015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1255 1335 0000 0000 0000 1615 1655 0000 0000 1855 1935 DEGS
RE 3.8 4.3 0.0 0.0 0.0 3.9 3.0 0.0 0.0 2.6 3.6 HHMM
L 3.8 4.9 0.0 0.0 0.0 16.5 81.3 0.0 0.0 3.3 3.5 RE
MLT 1.8 1.6 0.0 0.0 0.0 1.0 0.3 0.0 0.0 1.6 1.6
MLAT 9.52 20.91 0.00 0.00 0.00 59.84 77.35 0.00 0.00 ***** -4.80 HRS
INVLAT 59.3 63.1 0.0 0.0 0.0 75.8 83.6 0.0 0.0 56.4 57.8 DEGS

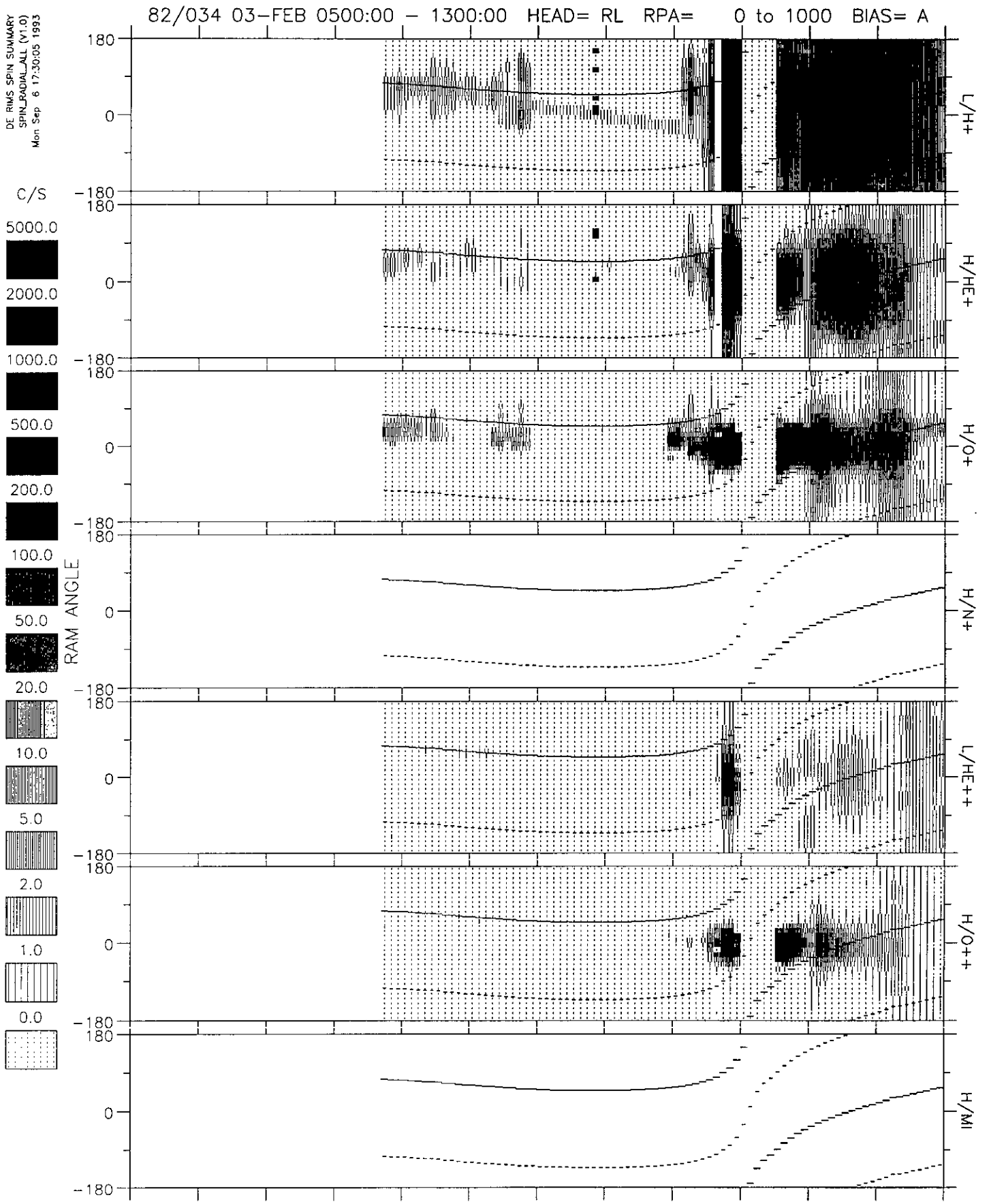

DE RIMS SPIN SUMMARY
SPIN_RAD.ALL (V1.0)
Mon Sep 6 17:13:37 1993
82/032 01-FEB 1830:00 - 0230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1910 1950 2030 2110 2150 2230 2310 2350 0000 0000 0000 DEGS
RE 3.0 3.9 4.4 4.6 4.6 4.4 3.8 2.9 0.0 0.0 0.0 HHMM
L 3.2 3.8 4.7 5.9 7.7 11.2 22.0 100.0 0.0 0.0 0.0 RE
MLT 1.6 1.6 1.7 1.8 2.0 2.4 3.1 7.2 0.0 0.0 0.0
MLAT ***** 1.50 15.45 27.41 38.93 51.10 65.09 78.70 0.00 0.00 0.00 HRS
INVLAT 56.1 59.2 62.6 65.8 68.9 72.6 77.7 84.3 0.0 0.0 0.0 DEGS


82/033 02-FEB 0130:00 - 0930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 17:15:48 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0250 0330 0410 0450 0530 0610 0650 0730 0810 0850 DEGS
RE 0.0 4.0 4.5 4.7 4.6 4.3 3.6 2.7 1.4 1.7 2.9 HHMM
L 0.0 4.6 6.6 9.9 16.5 37.8 100.0 29.9 1.4 3.0 2.9 RE
MLT 0.0 1.8 2.0 2.1 2.2 2.3 2.8 14.1 14.0 2.2 2.0
MLAT 0.00 21.85 35.77 47.81 59.33 71.55 86.31 70.87 9.90 ***** 0.55 HRS
INVLAT 0.0 62.2 67.1 71.4 75.8 80.6 87.3 79.4 30.5 54.4 54.3 DEGS

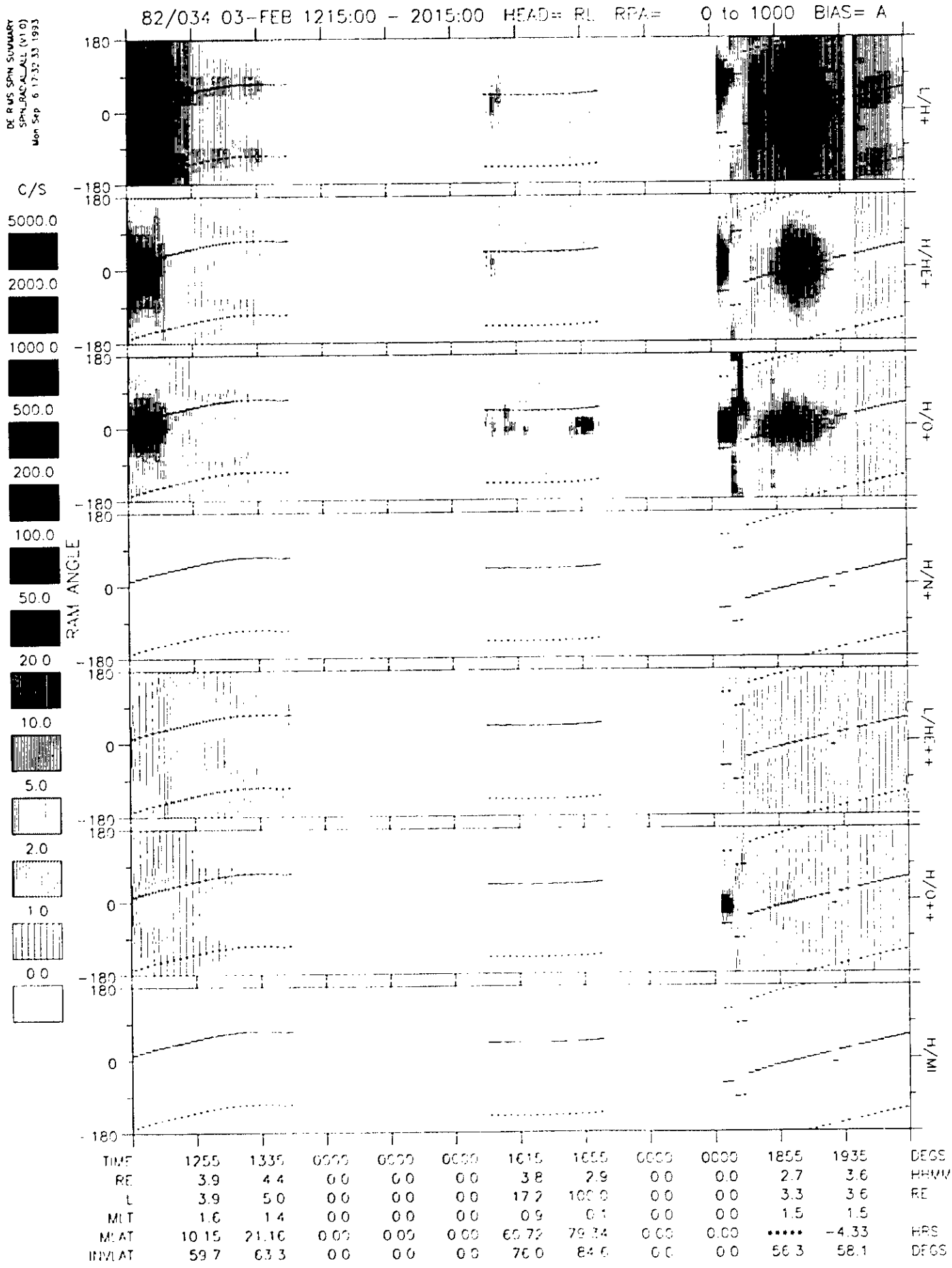

82/033 02-FEB 0815:00 - 1615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R MS SPN SUMMARY
SPIN_RADA_ALL (V1 0)
Mon Sep 6 17 18 23 1993
C/S
5000 0
2000.0
1000.0
500 0
200 0
100 0
50 0
20 0
10 0
5 0
2 0
1.0
0 0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 1135 1215 1255 1335 0000 0000 0000 DEGS
RE 0 0 0 0 0 0 0 0 4 6 4 3 3 8 2 8 0 0 0 0 0 0 HHMM
L 0.0 0 0 0 0 0 0 0 10 7 15 4 29 5 98 7 0 0 0.0 0 0 RE
MLT 0 0 0 0 0 0 0 0 1.0 0 6 23 8 19 8 0 0 0.0 0.0
MLAT 0.00 0 00 0 00 0 00 49 16 57 75 68 20 79 05 0 00 0 00 0.00 HRS
INVLAT 0 0 0 0 0 0 0 0 72 2 75 2 79 4 84 2 0 0 0 0 0.0 DEGS

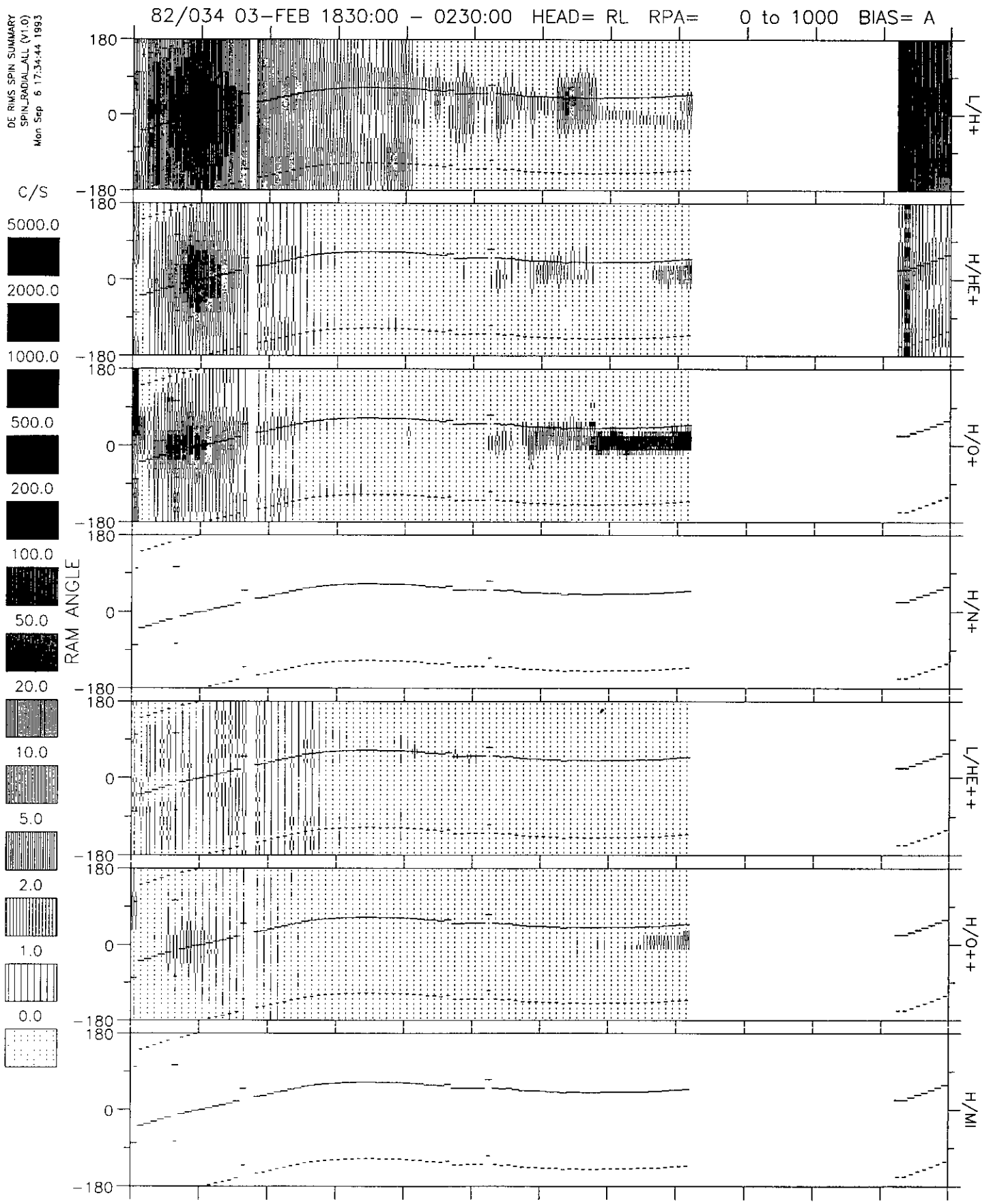

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 17:20:03 1993
82/033 02-FEB 1500:00 - 2300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1900 1940 2020 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.4 3.9 3.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 9.4 15.8 89.9 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 1.7 2.0 3.3 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 45.69 59.15 78.01 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 70.9 75.4 83.9 0.0 0.0 0.0 DEGS

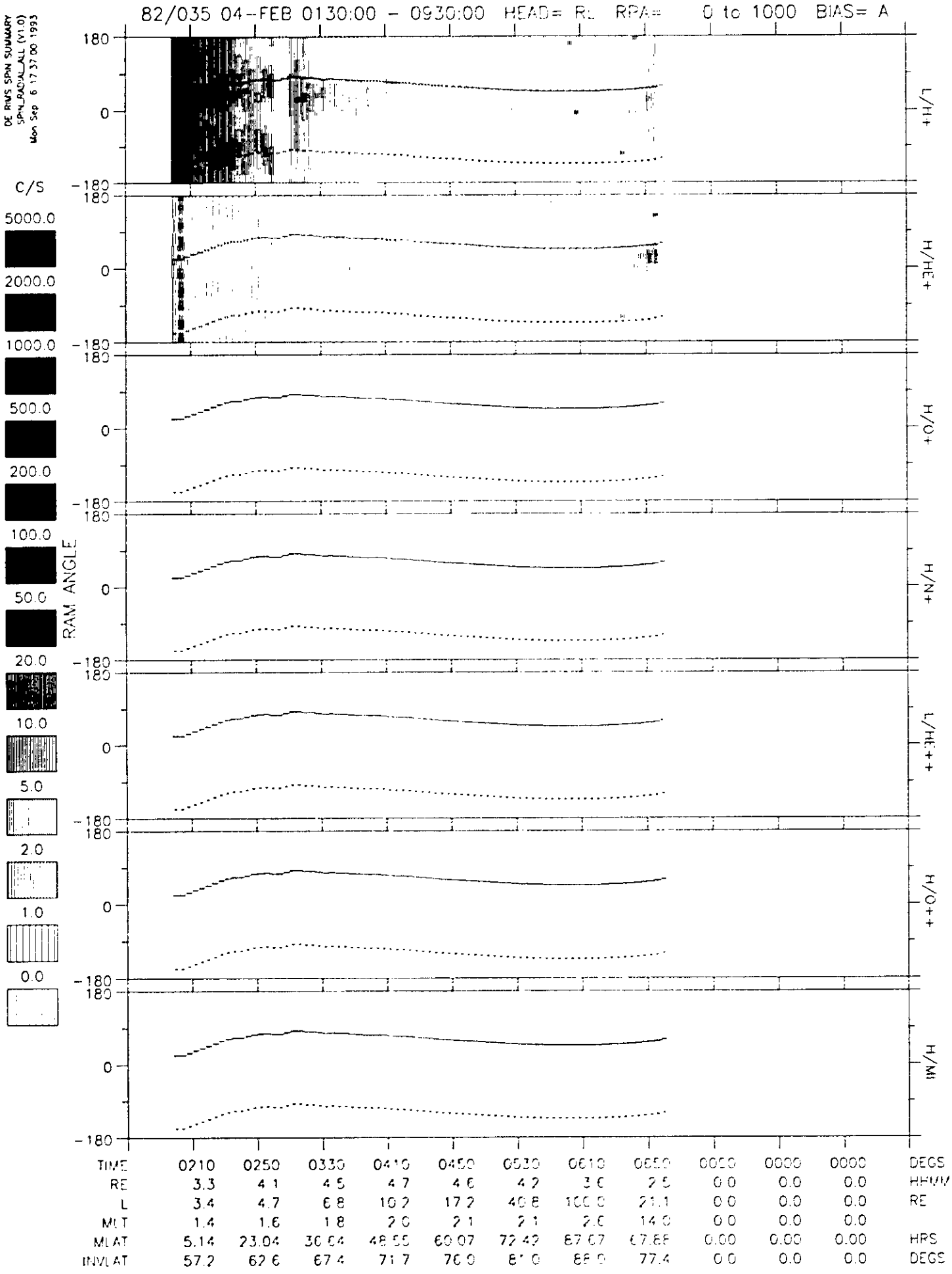

82/033 02-FEB 2200:00 - 0600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Mon Sep 6 17:21:15 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0040 0120 0200 0240 0320 0000 0000 0000 DEGS
RE 0.0 0.0 4.4 4.7 4.6 4.3 3.7 2.7 0.0 0.0 0.0 HHMM
L 0.0 0.0 5.3 7.2 10.5 18.4 58.3 46.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 1.8 2.0 2.3 2.8 4.4 11.4 0.0 0.0 0.0
MLAT 0.00 0.00 24.89 37.05 49.70 62.34 76.27 74.17 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 64.3 68.1 72.0 76.5 82.5 81.5 0.0 0.0 0.0 DEGS

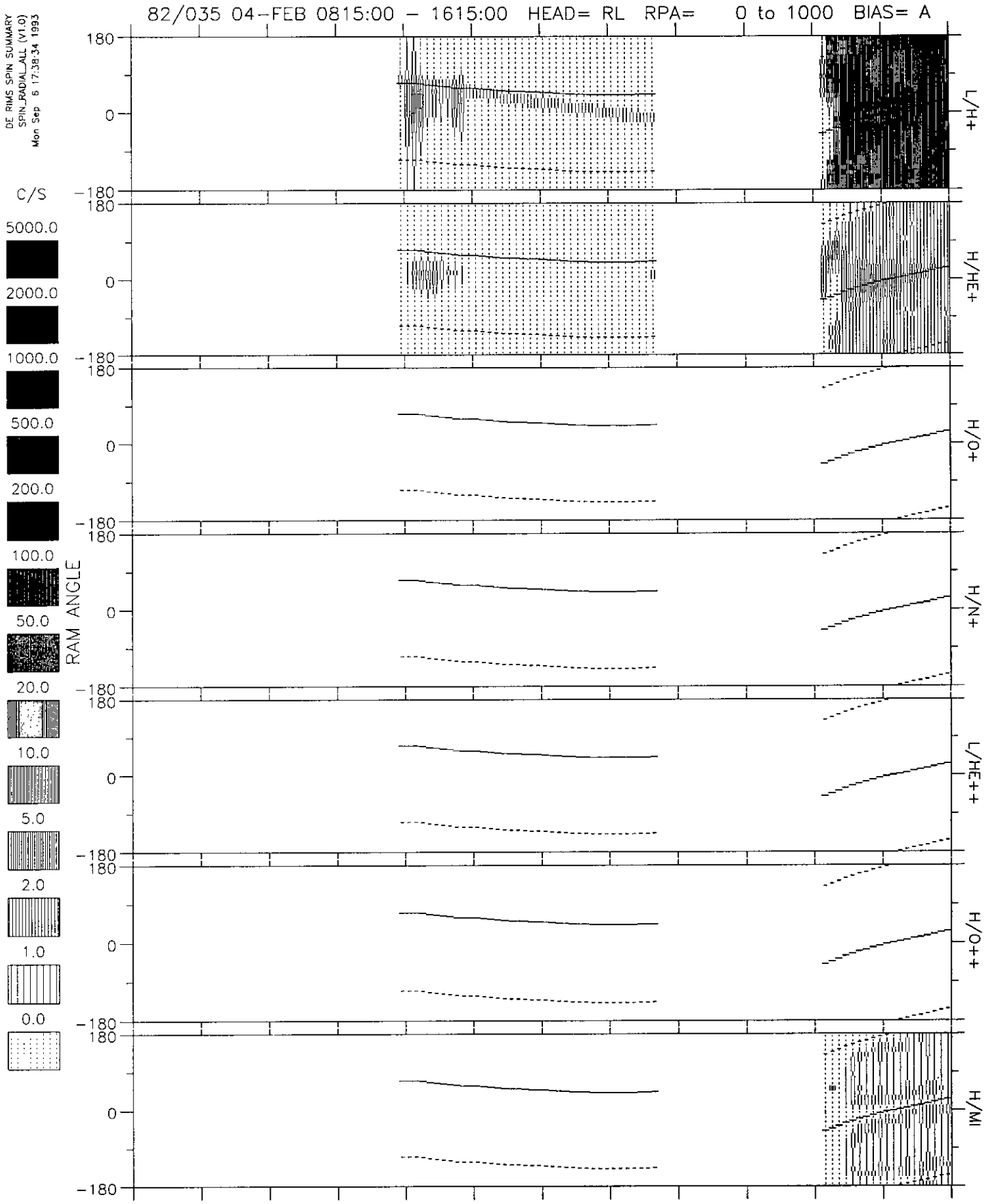


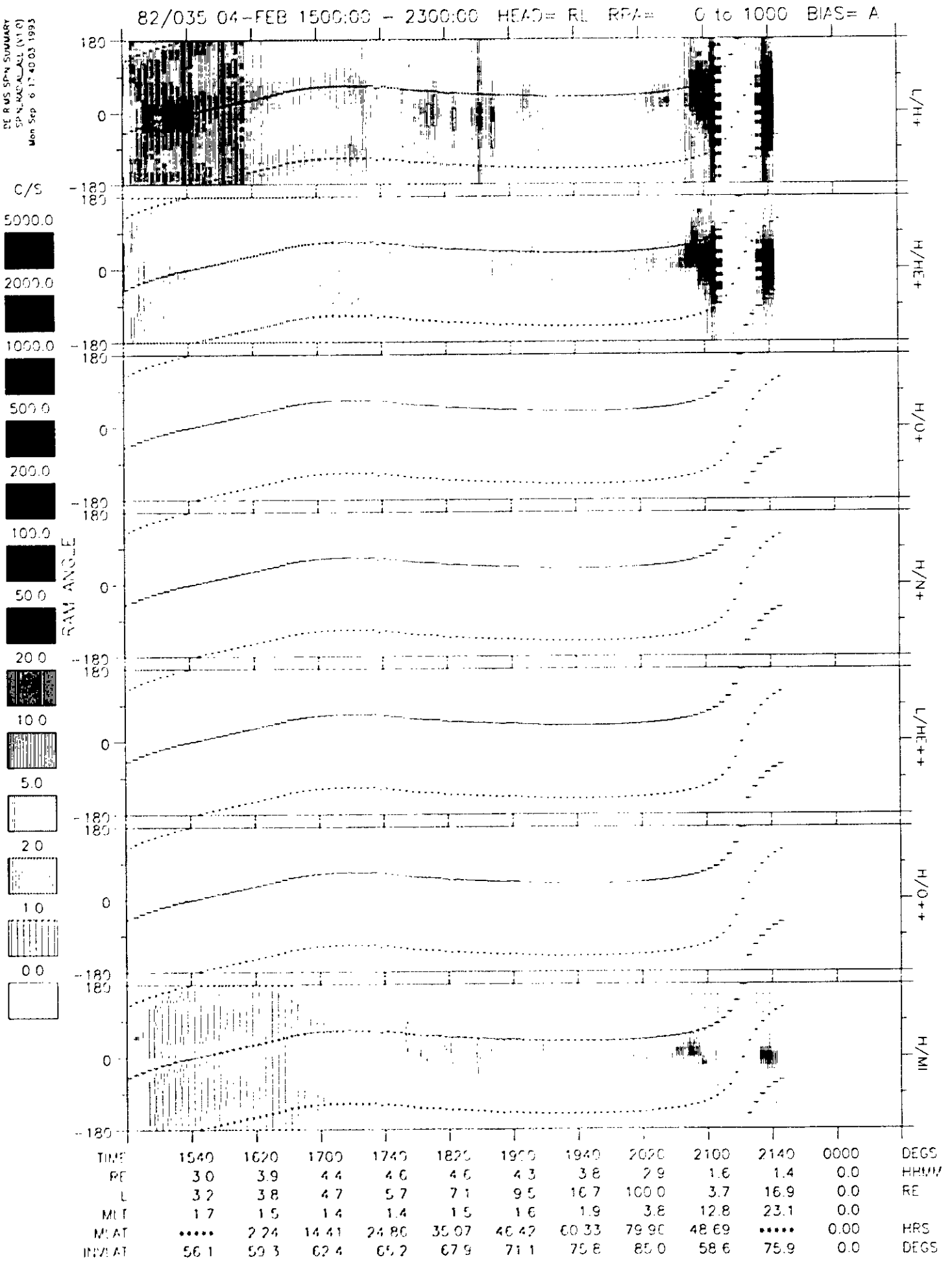
TIME	0000	0000	0000	0740	0820	0900	0940	1020	1100	1140	1220	DEGS
RE	0.0	0.0	0.0	4.7	4.6	4.2	3.5	2.5	1.2	1.9	3.1	HHMM
L	0.0	0.0	0.0	11.8	18.6	36.7	100.0	20.5	1.2	3.2	3.1	RE
MLT	0.0	0.0	0.0	1.5	1.2	0.5	21.8	15.7	13.8	2.4	1.8	
MLAT	0.00	0.00	0.00	50.98	60.42	70.27	80.31	68.58	-7.13	*****	-3.93	HRS
INVLAT	0.0	0.0	0.0	73.0	76.6	80.5	85.3	77.2	24.2	55.8	55.5	DEGS

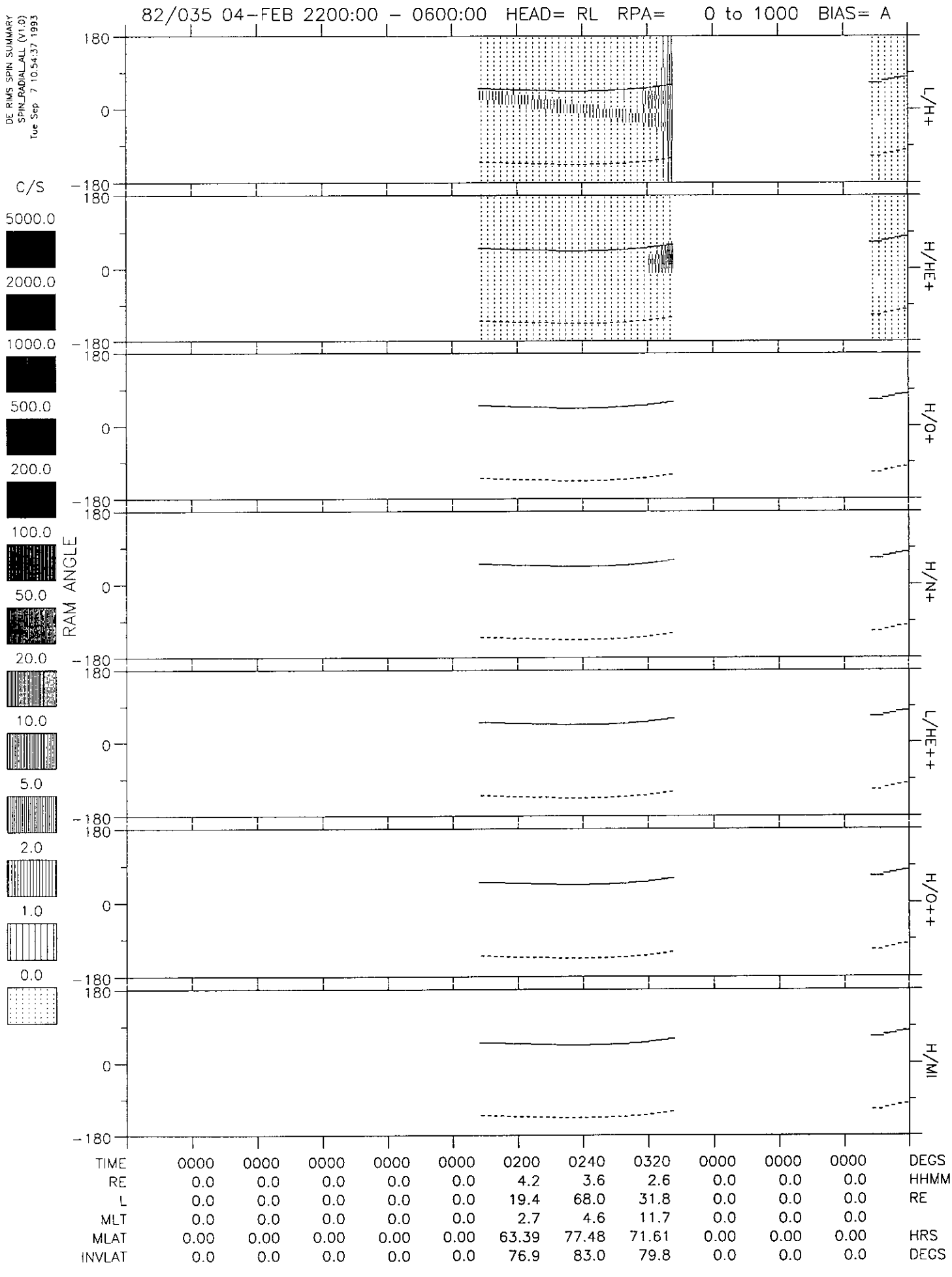

82/034 03-FEB 1215:00 - 2015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R WS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 17:32:33 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1255 1335 0000 0000 0000 1615 1655 0000 0000 1855 1935 DEGS
RE 3.9 4.4 0.0 0.0 0.0 3.8 2.9 0.0 0.0 2.7 3.6 HHMM
L 3.9 5.0 0.0 0.0 0.0 17.2 100.0 0.0 0.0 3.3 3.6 RE
MLT 1.6 1.4 0.0 0.0 0.0 0.9 0.1 0.0 0.0 1.5 1.5
MLAT 10.15 21.16 0.00 0.00 0.00 60.72 79.34 0.00 0.00 ***** -4.33 HRS
INVLAT 59.7 63.3 0.0 0.0 0.0 76.0 84.6 0.0 0.0 56.3 58.1 DEGS

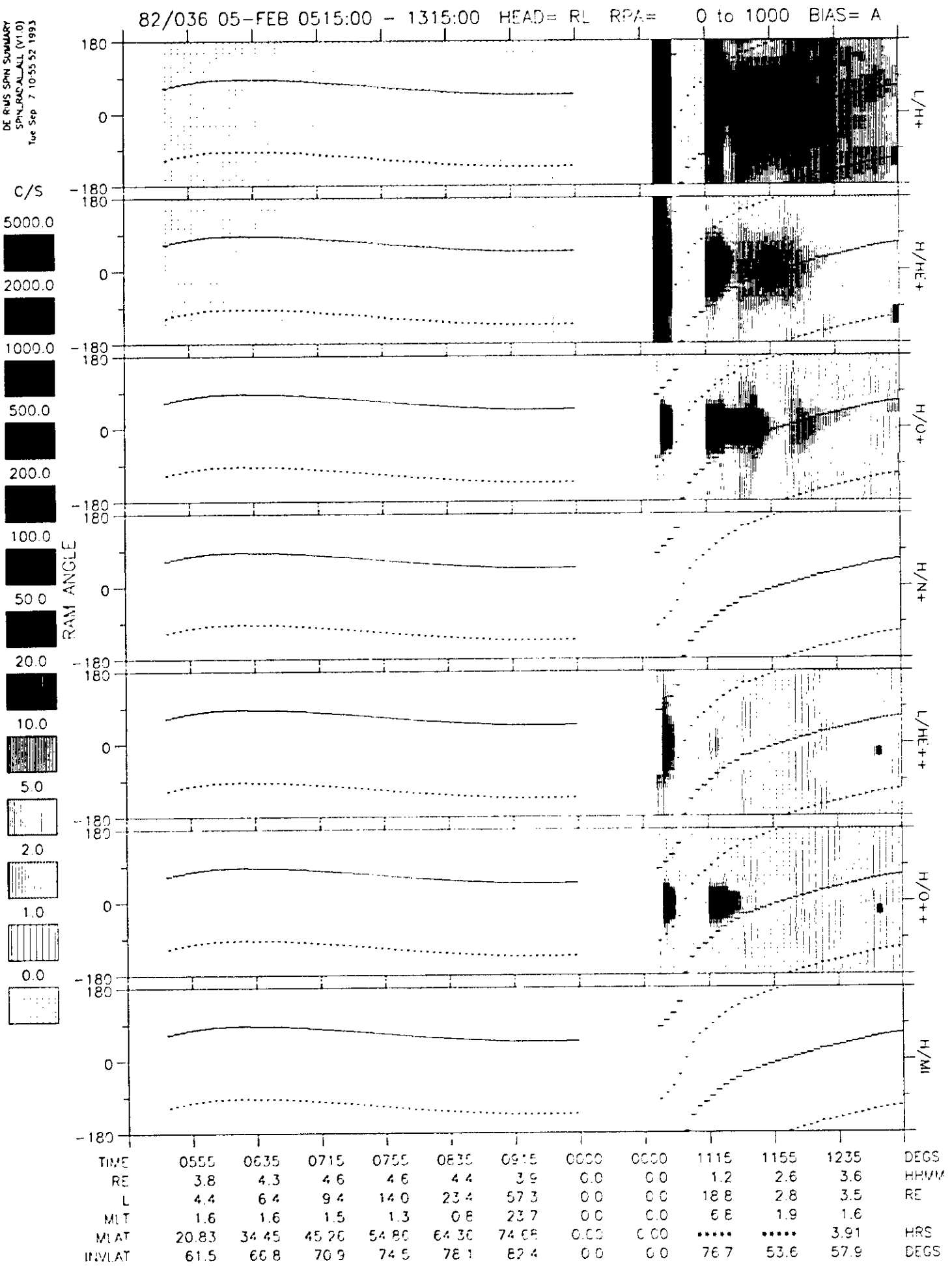

82/034 03-FEB 1830:00 - 0230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 17:34:44 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1910 1950 2030 2110 2150 2230 2310 2350 0000 0000 0000 DEGS
RE 3.1 3.9 4.4 4.6 4.6 4.3 3.7 2.8 0.0 0.0 0.0 HHMM
L 3.3 3.9 4.8 6.0 7.9 11.5 23.8 96.5 0.0 0.0 0.0 RE
MLT 1.5 1.5 1.6 1.7 1.9 2.3 3.1 8.0 0.0 0.0 0.0
MLAT ***** 2.62 16.26 28.13 39.69 52.01 66.33 78.53 0.00 0.00 0.00 HRS
INVLAT 56.4 59.5 62.9 66.0 69.1 72.9 78.2 84.2 0.0 0.0 0.0 DEGS

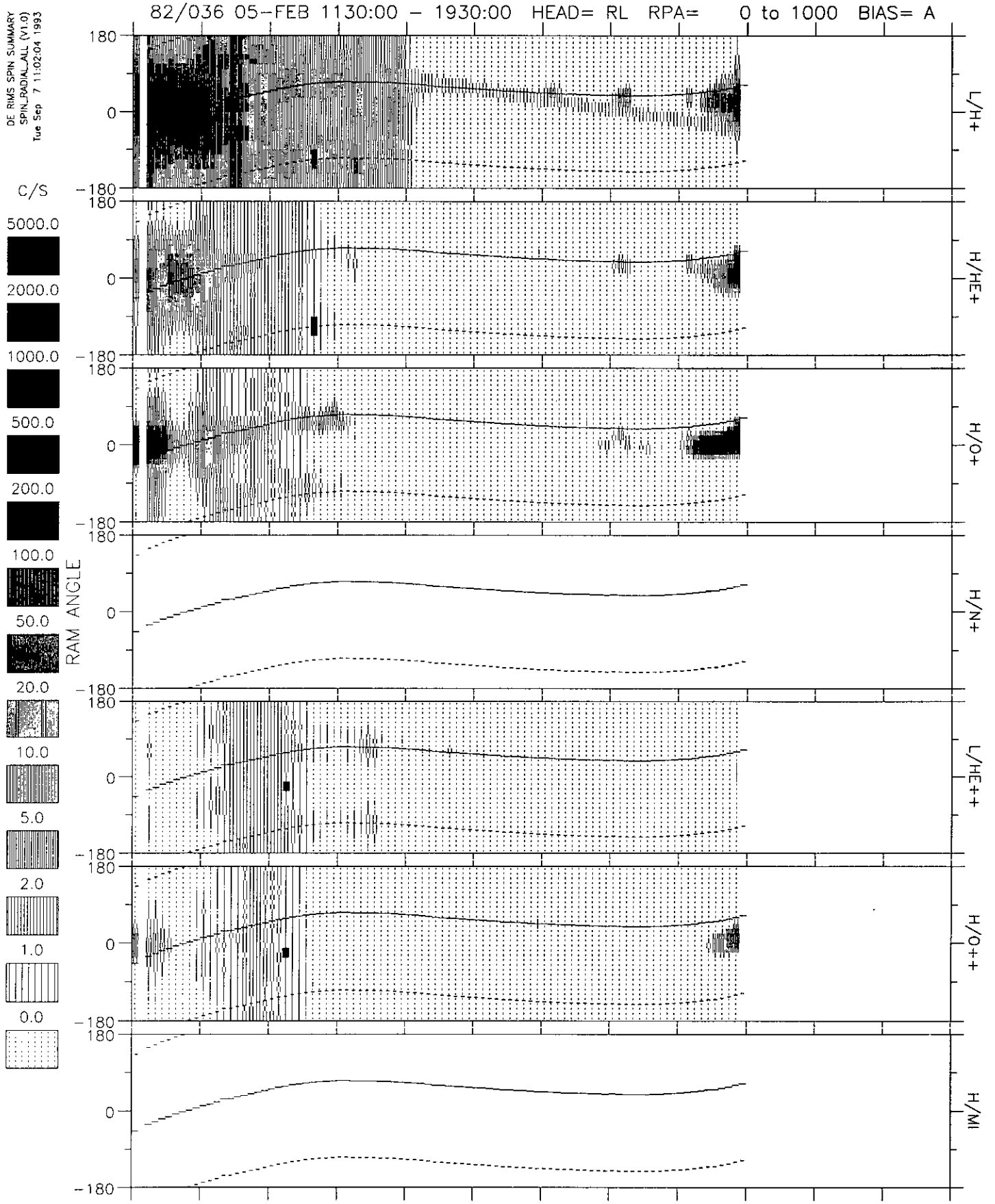

82/035 04-FEB 0130:00 - 0930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RNS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 17:37:00 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0210 0250 0330 0410 0450 0530 0610 0650 0000 0000 0000 DEGS
RE 3.3 4.1 4.5 4.7 4.6 4.2 3.6 2.5 0.0 0.0 0.0 HHMM
L 3.4 4.7 6.8 10.2 17.2 40.8 100.0 21.1 0.0 0.0 0.0 RE
MLT 1.4 1.6 1.8 2.0 2.1 2.1 2.0 14.0 0.0 0.0 0.0
MLAT 5.14 23.04 30.04 48.55 69.07 72.42 87.07 67.88 0.00 0.00 0.00 HRS
INVLAT 57.2 62.6 67.4 71.7 76.0 81.0 88.0 77.4 0.0 0.0 0.0 DEGS

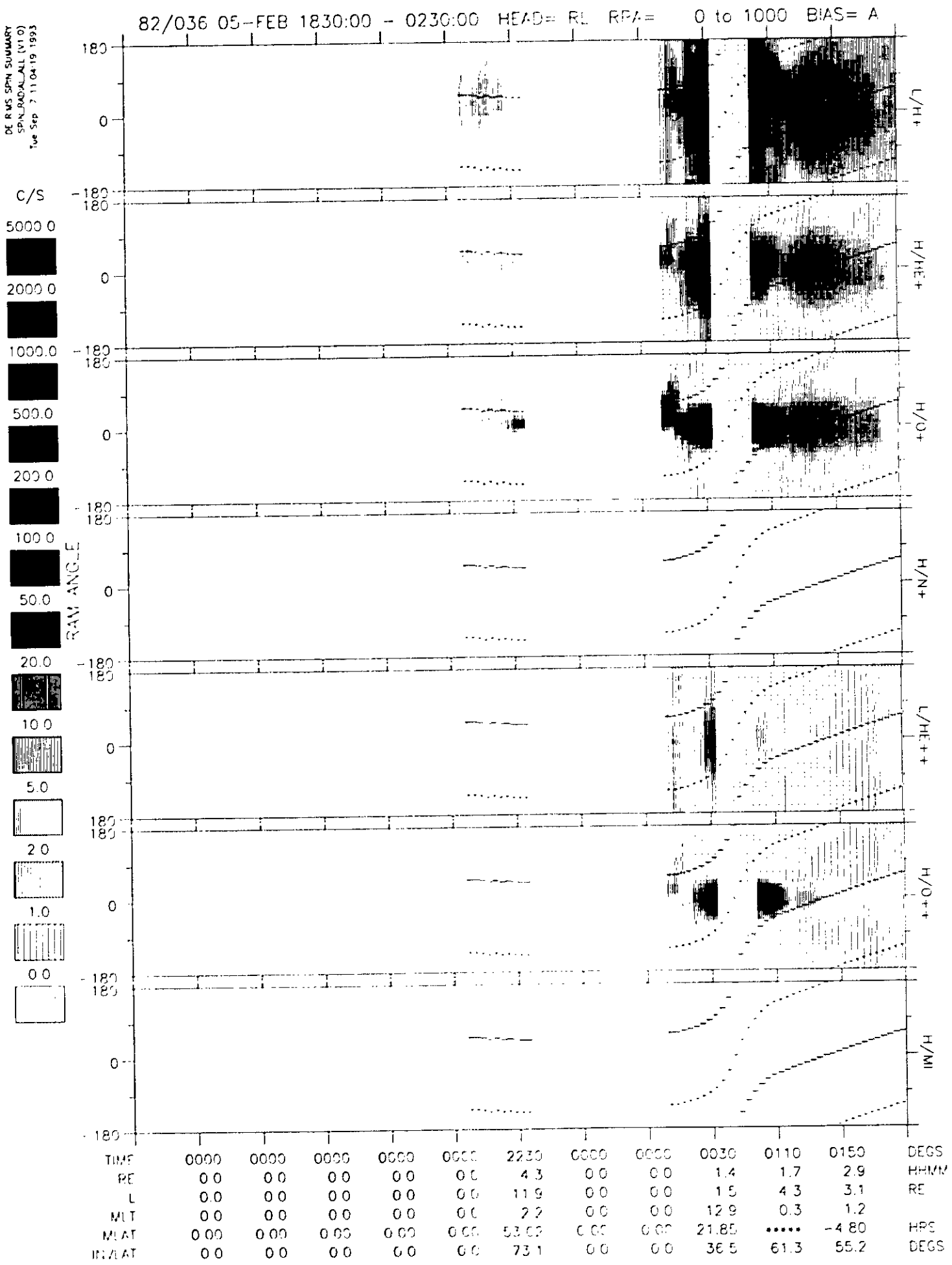

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Sep 6 17:38:34 1993
82/035 04-FEB 0815:00 – 1615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 1055 1135 1215 1255 0000 0000 0000 1535 DEGS
RE 0.0 0.0 0.0 4.7 4.6 4.3 3.7 0.0 0.0 0.0 2.9 HHMM
L 0.0 0.0 0.0 8.1 10.7 15.4 30.8 0.0 0.0 0.0 3.2 RE
MLT 0.0 0.0 0.0 1.2 0.9 0.5 23.6 0.0 0.0 0.0 1.7
MLAT 0.00 0.00 0.00 41.16 49.25 58.00 68.90 0.00 0.00 0.00 ***** HRS
INVLAT 0.0 0.0 0.0 69.5 72.2 75.2 79.6 0.0 0.0 0.0 55.9 DEGS

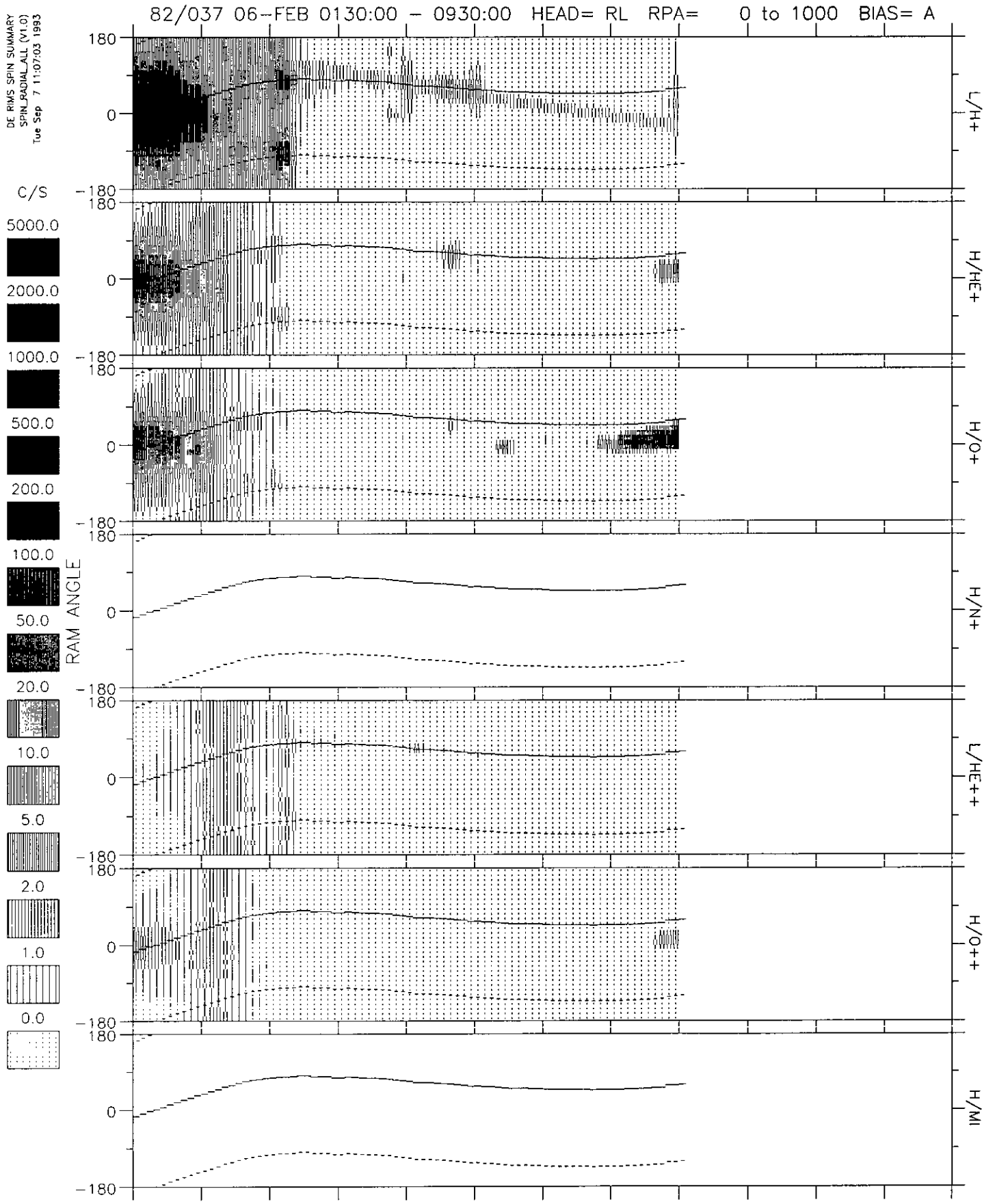

82/035 04-FEB 1500:00 - 2300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R WS SPIN SUMMARY
Mon Sep 6 17:40:03 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAW ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 1540 1620 1700 1740 1820 1900 1940 2020 2100 2140 0000 DEGS
RE 3.0 3.9 4.4 4.6 4.6 4.3 3.8 2.9 1.6 1.4 0.0 HRMM
L 3.2 3.8 4.7 5.7 7.1 9.5 16.7 100.0 3.7 16.9 0.0 RE
MLT 1.7 1.5 1.4 1.4 1.5 1.6 1.9 3.8 12.8 23.1 0.0
MLAT ***** 2.24 14.41 24.80 35.07 46.42 60.33 79.90 48.69 ***** 0.00 HRS
INVLAT 56.1 59.3 62.4 65.2 67.9 71.1 75.8 85.0 58.6 75.9 0.0 DEGS

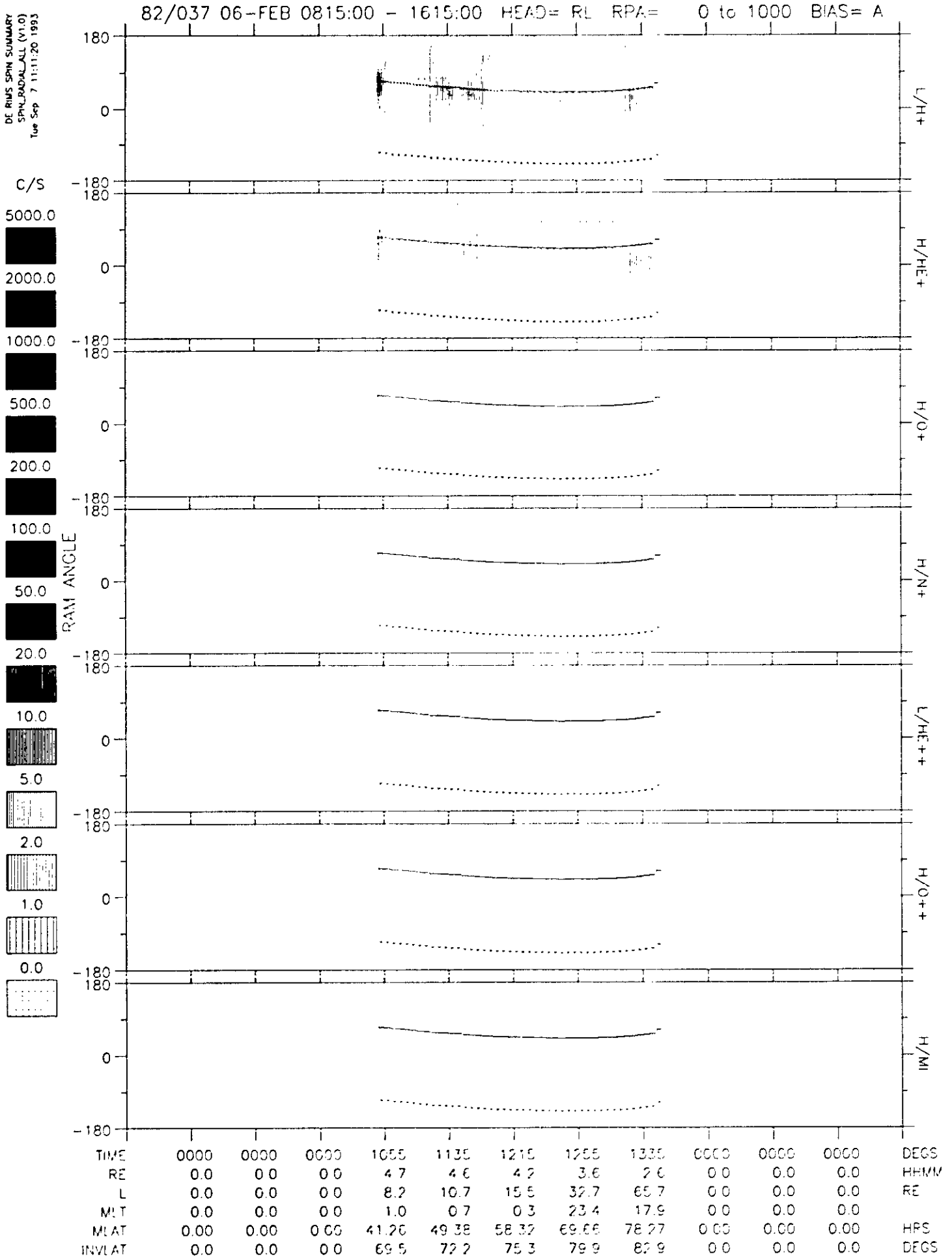

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 7 10:54:37 1993
82/035 04-FEB 2200:00 - 0600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0200 0240 0320 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.2 3.6 2.6 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 19.4 68.0 31.8 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 2.7 4.6 11.7 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 63.39 77.48 71.61 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 76.9 83.0 79.8 0.0 0.0 0.0 DEGS

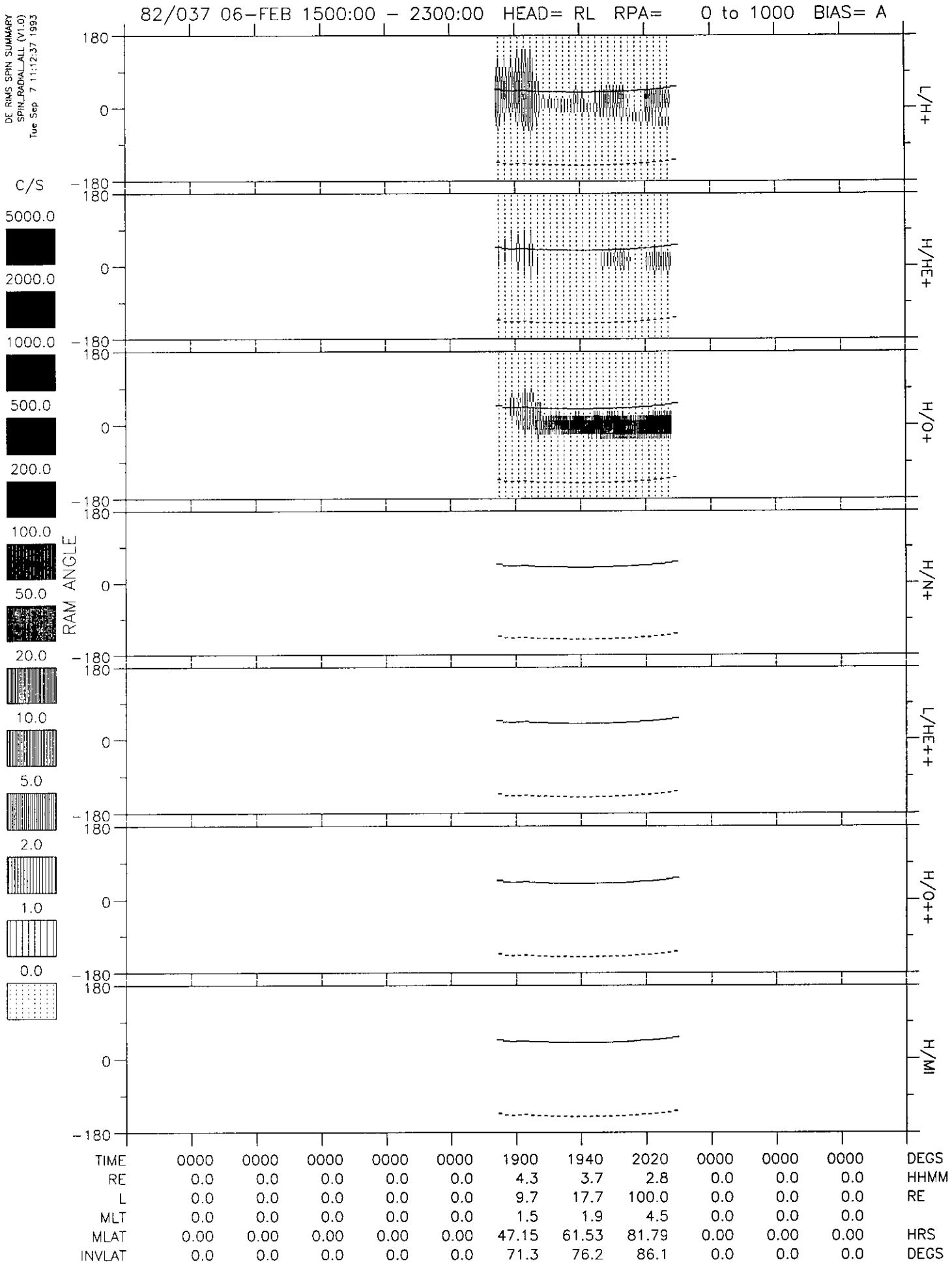

82/036 05-FEB 0515:00 - 1315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RMS SPIN SUMMARY
SPIN_RAD.ALALL (V1.0)
Tue Sep 7 10:55:52 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0555 0635 0715 0755 0835 0915 0000 0000 1115 1155 1235 DEGS
RE 3.8 4.3 4.6 4.6 4.4 3.9 0.0 0.0 1.2 2.6 3.6 HHMM
L 4.4 6.4 9.4 14.0 23.4 57.3 0.0 0.0 18.8 2.8 3.5 RE
MLT 1.6 1.6 1.5 1.3 0.8 23.7 0.0 0.0 6.8 1.9 1.6
MLAT 20.83 34.45 45.26 54.80 64.30 74.09 0.00 0.00 ***** ***** 3.91 HRS
INVLAT 61.5 66.8 70.9 74.5 78.1 82.4 0.0 0.0 76.7 53.6 57.9 DEGS

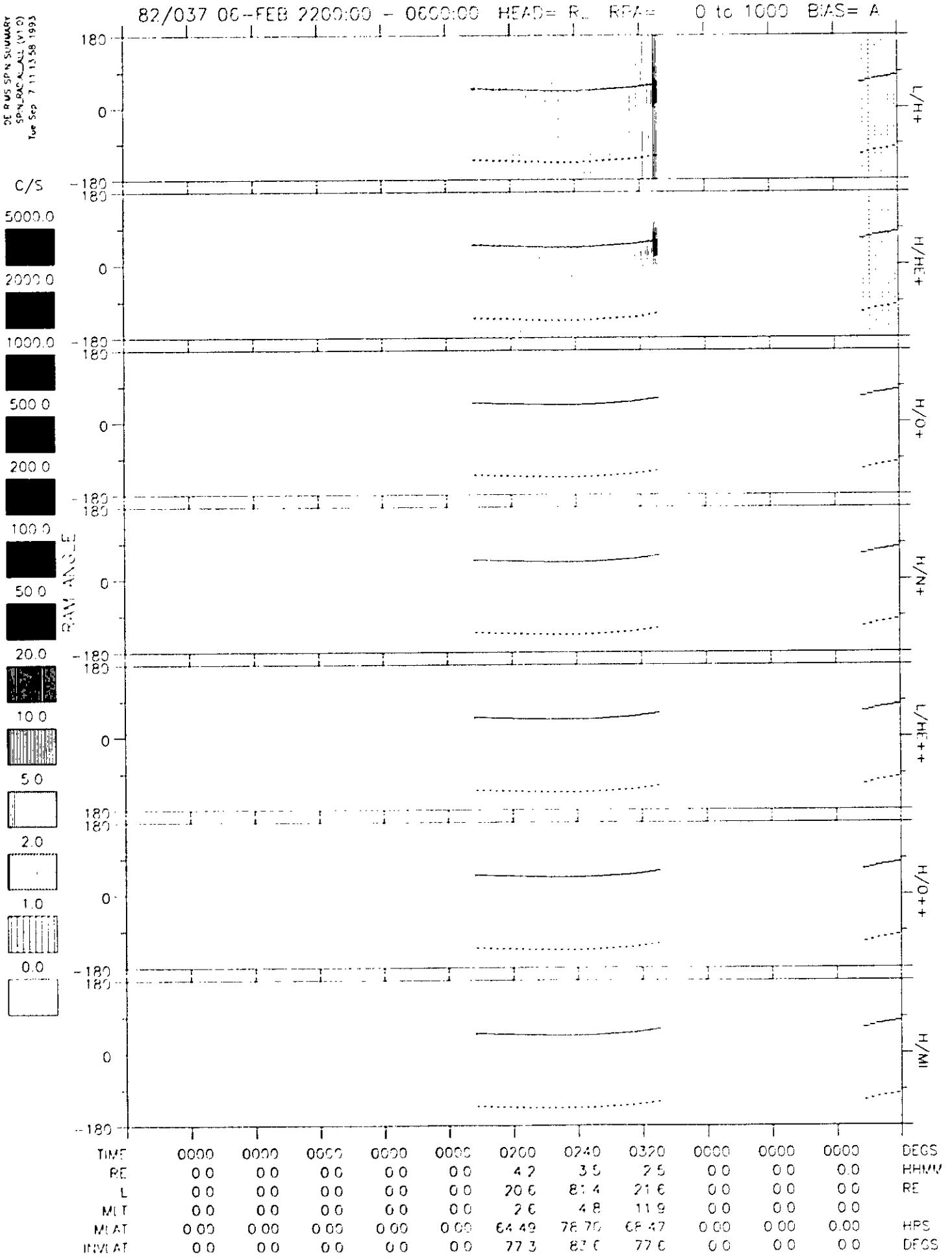

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 7 11:02:04 1993
82/036 05-FEB 1130:00 - 1930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1210 1250 1330 1410 1450 1530 1610 1650 0000 0000 0000 DEGS
RE 3.0 3.9 4.4 4.6 4.6 4.4 3.8 2.9 0.0 0.0 0.0 HHMM
L 3.0 3.9 4.9 6.0 7.5 9.8 16.2 95.2 0.0 0.0 0.0 RE
MLT 1.8 1.5 1.3 1.2 1.0 0.9 0.8 0.1 0.0 0.0 0.0
MLAT -7.76 9.17 20.24 29.28 37.98 47.59 59.79 78.36 0.00 0.00 0.00 HRS
INVLAT 54.9 59.5 63.1 66.0 68.5 71.4 75.6 84.1 0.0 0.0 0.0 DEGS

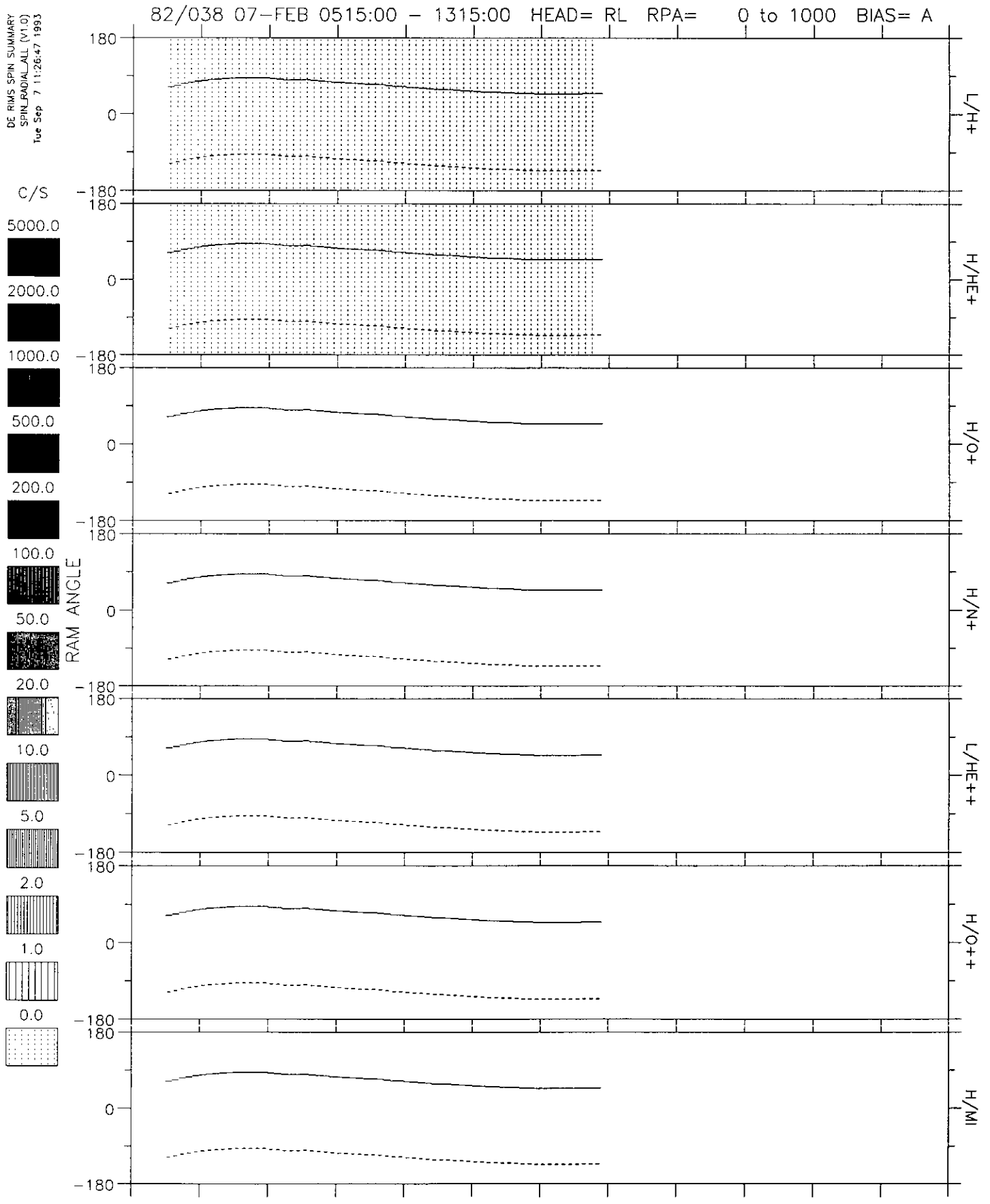

82/036 05-FEB 1830:00 - 0230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 7 11:04:19 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAW ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N
TIME 0000 0000 0000 0000 0000 2230 0000 0000 0030 0110 0150 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.3 0.0 0.0 1.4 1.7 2.9 HHMM
L 0.0 0.0 0.0 0.0 0.0 11.9 0.0 0.0 1.5 4.3 3.1 RE
MLT 0.0 0.0 0.0 0.0 0.0 2.2 0.0 0.0 12.9 0.3 1.2
MLAT 0.00 0.00 0.00 0.00 0.00 53.09 0.00 0.00 21.85 ***** -4.80 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 73.1 0.0 0.0 36.5 61.3 55.2 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 7 11:07:03 1993
82/037 06-FEB 0130:00 - 0930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0210 0250 0330 0410 0450 0530 0610 0650 0000 0000 0000 DEGS
RE 3.4 4.1 4.5 4.7 4.5 4.2 3.5 2.5 0.0 0.0 0.0 HHMM
L 3.5 4.9 7.0 10.5 17.9 44.4 100.0 19.8 0.0 0.0 0.0 RE
MLT 1.3 1.5 1.7 1.8 1.9 1.9 2.0 13.9 0.0 0.0 0.0
MLAT 7.02 24.19 37.50 49.29 60.81 73.33 89.13 67.30 0.00 0.00 0.00 HRS
INVLAT 57.8 63.1 67.8 72.0 76.3 81.4 88.8 77.0 0.0 0.0 0.0 DEGS

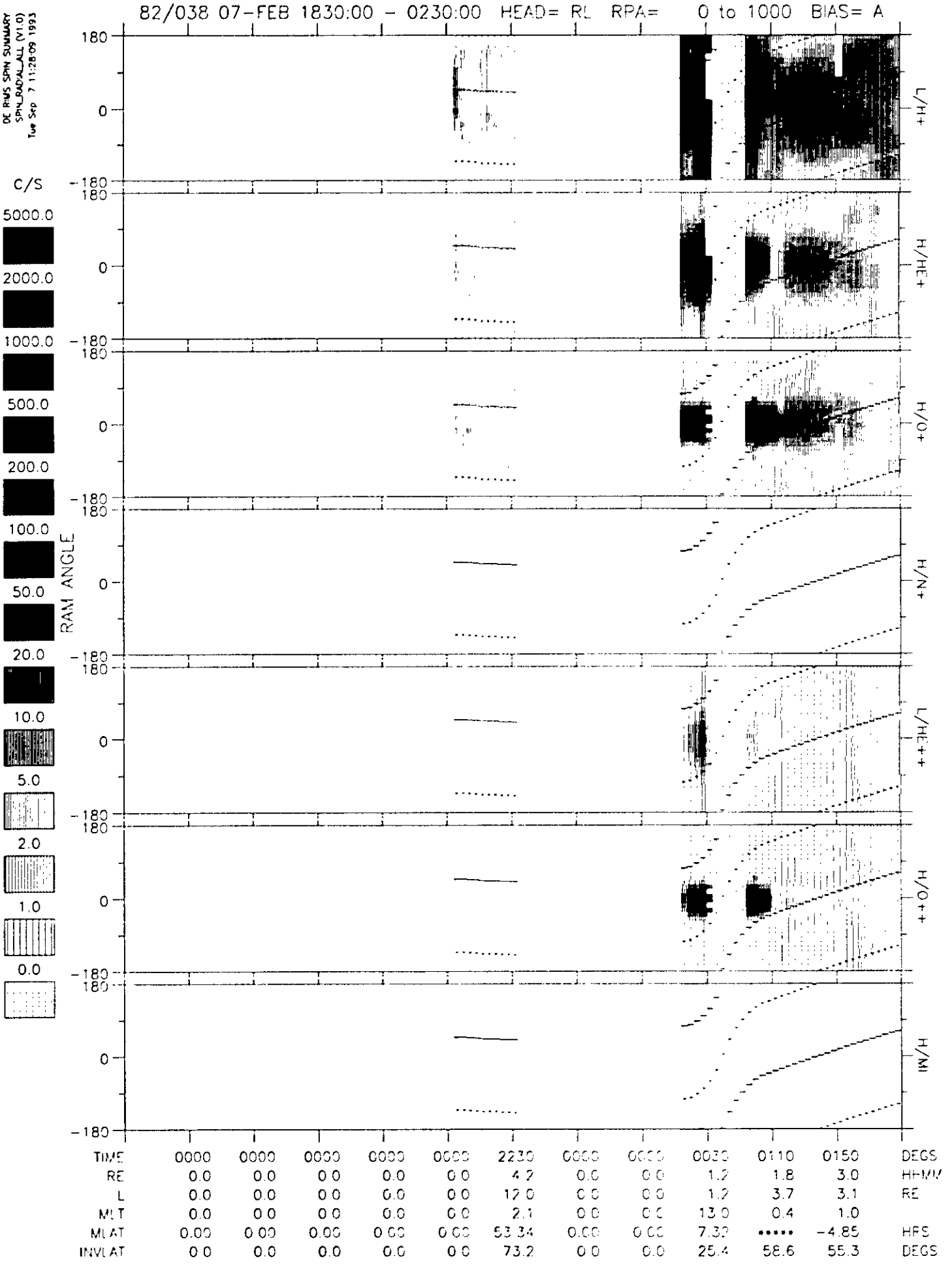

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 7 11:11:20 1993
82/037 06-FEB 0815:00 - 1615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 1055 1135 1215 1255 1335 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.7 4.6 4.2 3.6 2.6 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 8.2 10.7 15.5 32.7 65.7 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 1.0 0.7 0.3 23.4 17.9 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 41.20 49.38 58.32 69.69 78.27 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 69.5 72.2 75.3 79.9 82.9 0.0 0.0 0.0 DEGS

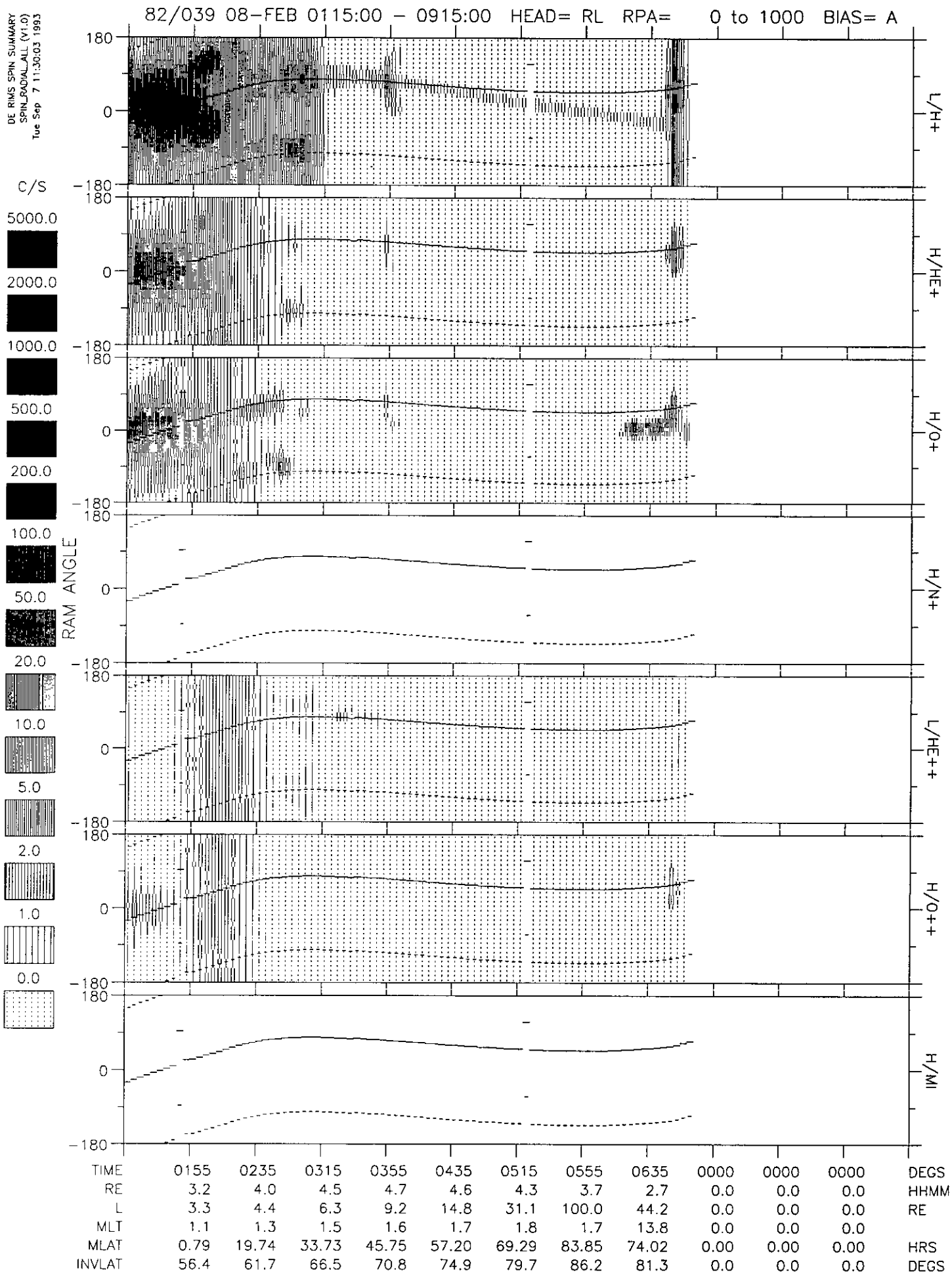

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 7 11:12:37 1993
82/037 06-FEB 1500:00 - 2300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1900 1940 2020 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.3 3.7 2.8 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 9.7 17.7 100.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 1.5 1.9 4.5 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 47.15 61.53 81.79 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 71.3 76.2 86.1 0.0 0.0 0.0 DEGS

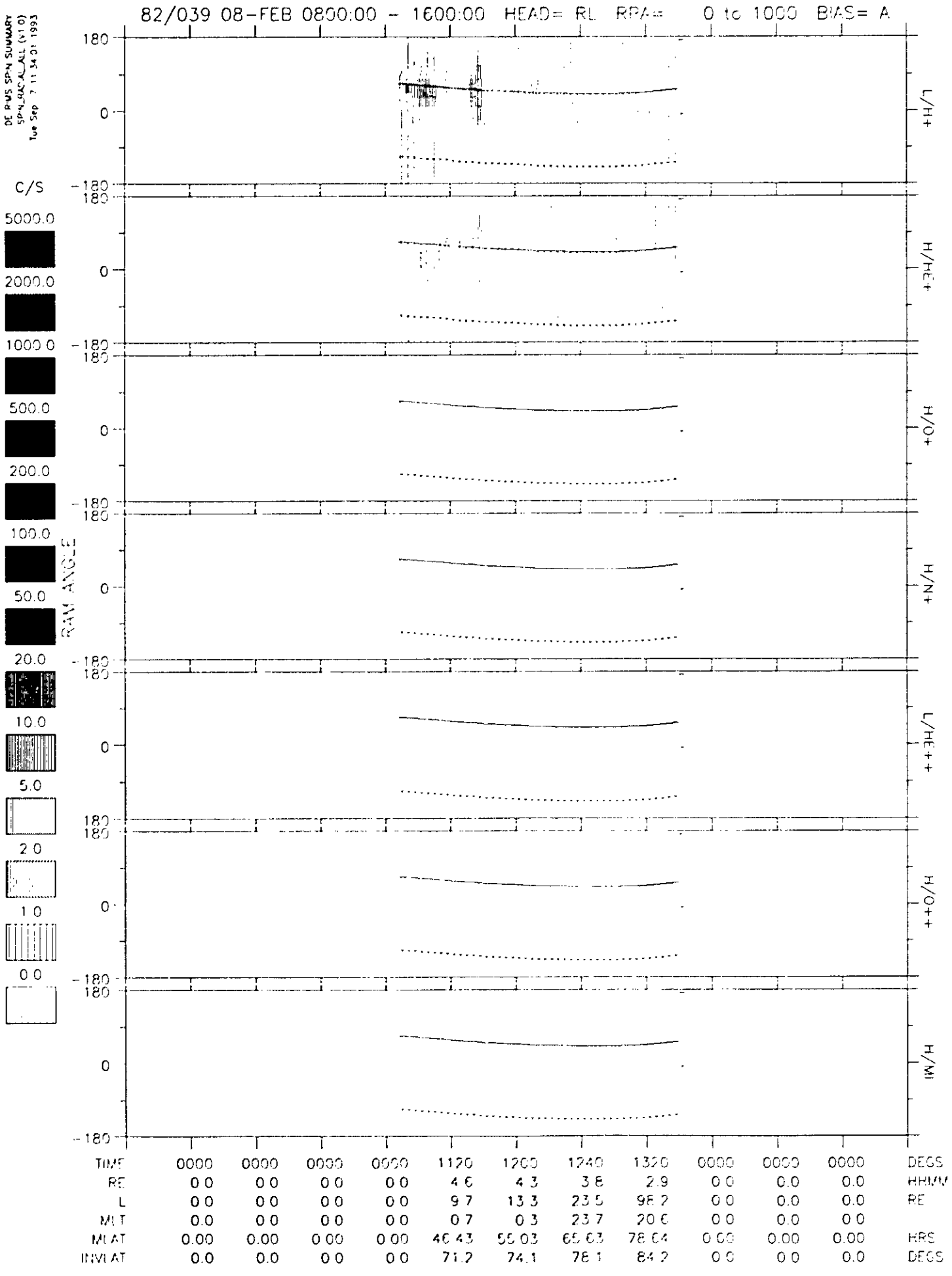

82/037 06-FEB 2200:00 - 0600:00 HEAD= R RPA= 0 to 1000 BIAS= A
SE RMS SPIN SUMMARY
SPIN_RAC_ALL (V1.0)
Tue Sep 7 11:13:58 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAW ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0200 0240 0320 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.2 3.5 2.5 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 20.6 81.4 21.6 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 2.6 4.8 11.9 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 64.49 78.79 68.47 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 77.3 83.6 77.6 0.0 0.0 0.0 DEGS

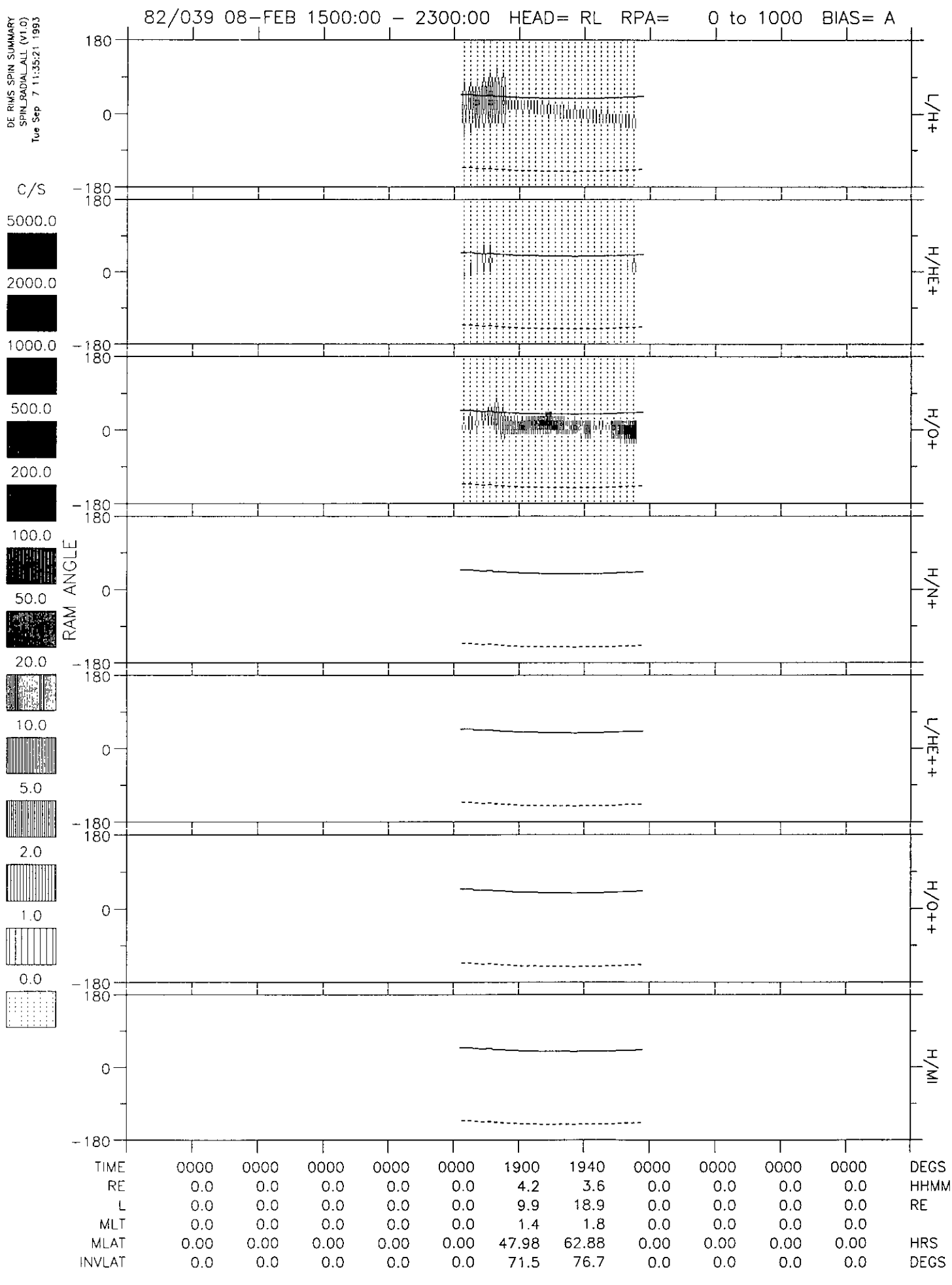


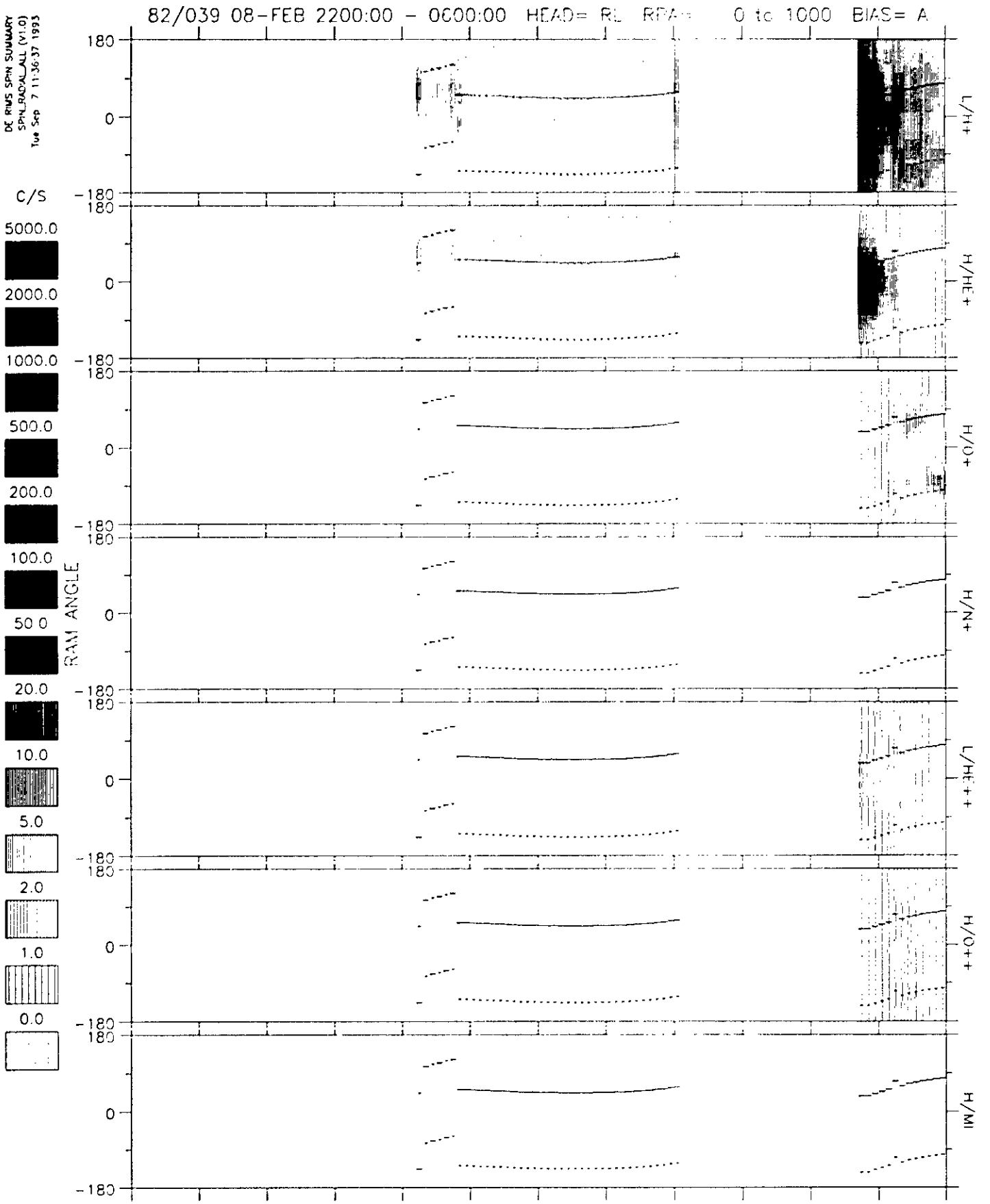
TIME	0555	0635	0715	0755	0835	0915	0000	0000	0000	0000	0000	DEGS
RE	3.9	4.4	4.6	4.6	4.4	3.8	0.0	0.0	0.0	0.0	0.0	HHMM
L	4.5	6.6	9.5	14.1	23.8	60.6	0.0	0.0	0.0	0.0	0.0	RE
MLT	1.5	1.4	1.3	1.1	0.6	23.4	0.0	0.0	0.0	0.0	0.0	
MLAT	21.96	35.10	45.66	55.16	64.69	75.18	0.00	0.00	0.00	0.00	0.00	HRS
INVLAT	62.0	67.1	71.1	74.6	78.2	82.6	0.0	0.0	0.0	0.0	0.0	DEGS

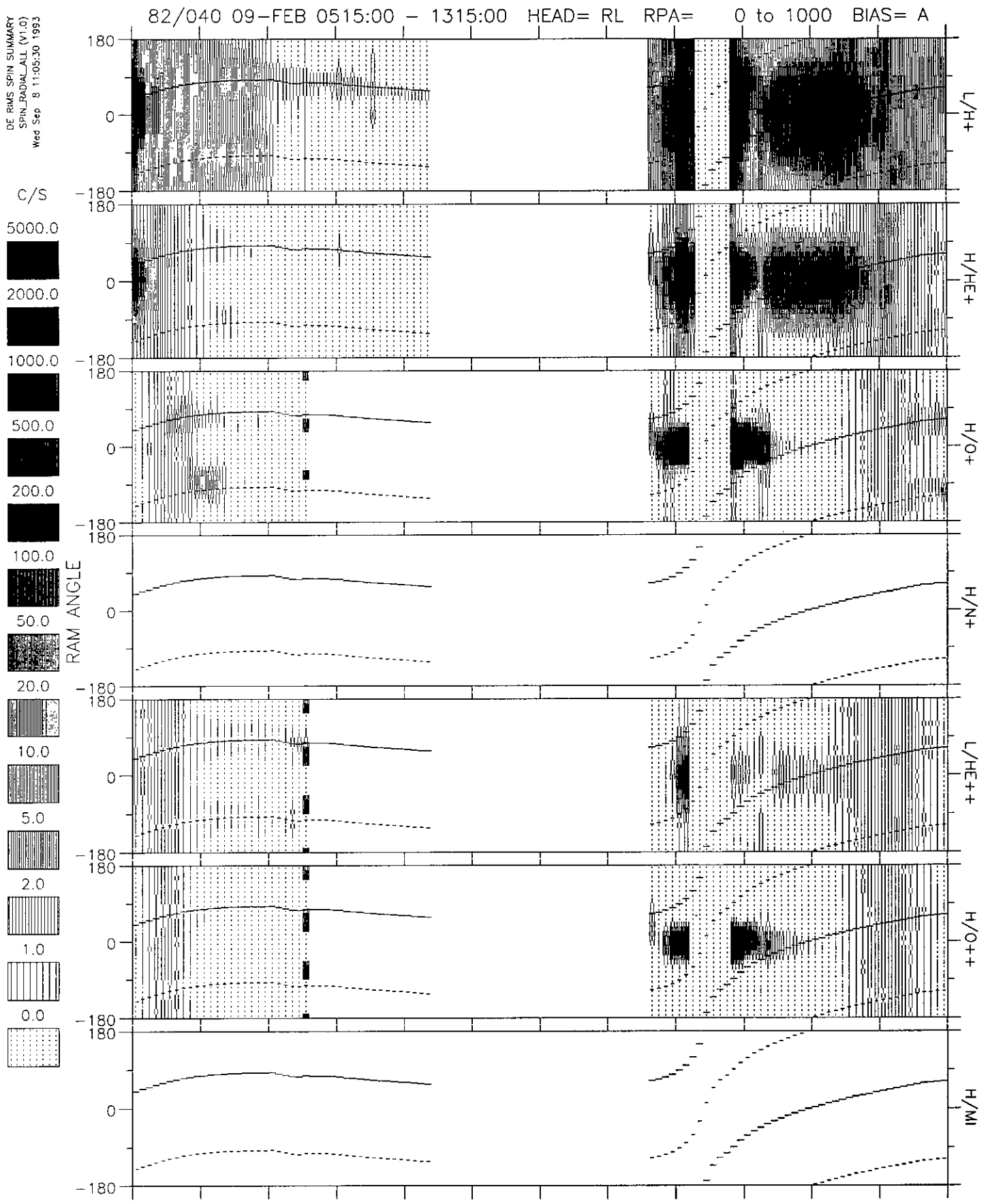

82/038 07-FEB 1830:00 - 0230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 7 11:28:09 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0000 2230 0000 0000 0030 0110 0150 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.2 0.0 0.0 1.2 1.8 3.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 12.0 0.0 0.0 1.2 3.7 3.1 RE
MLT 0.0 0.0 0.0 0.0 0.0 2.1 0.0 0.0 13.0 0.4 1.0
MLAT 0.00 0.00 0.00 0.00 0.00 53.34 0.00 0.00 7.32 ***** -4.85 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 73.2 0.0 0.0 25.4 58.6 55.3 DEGS

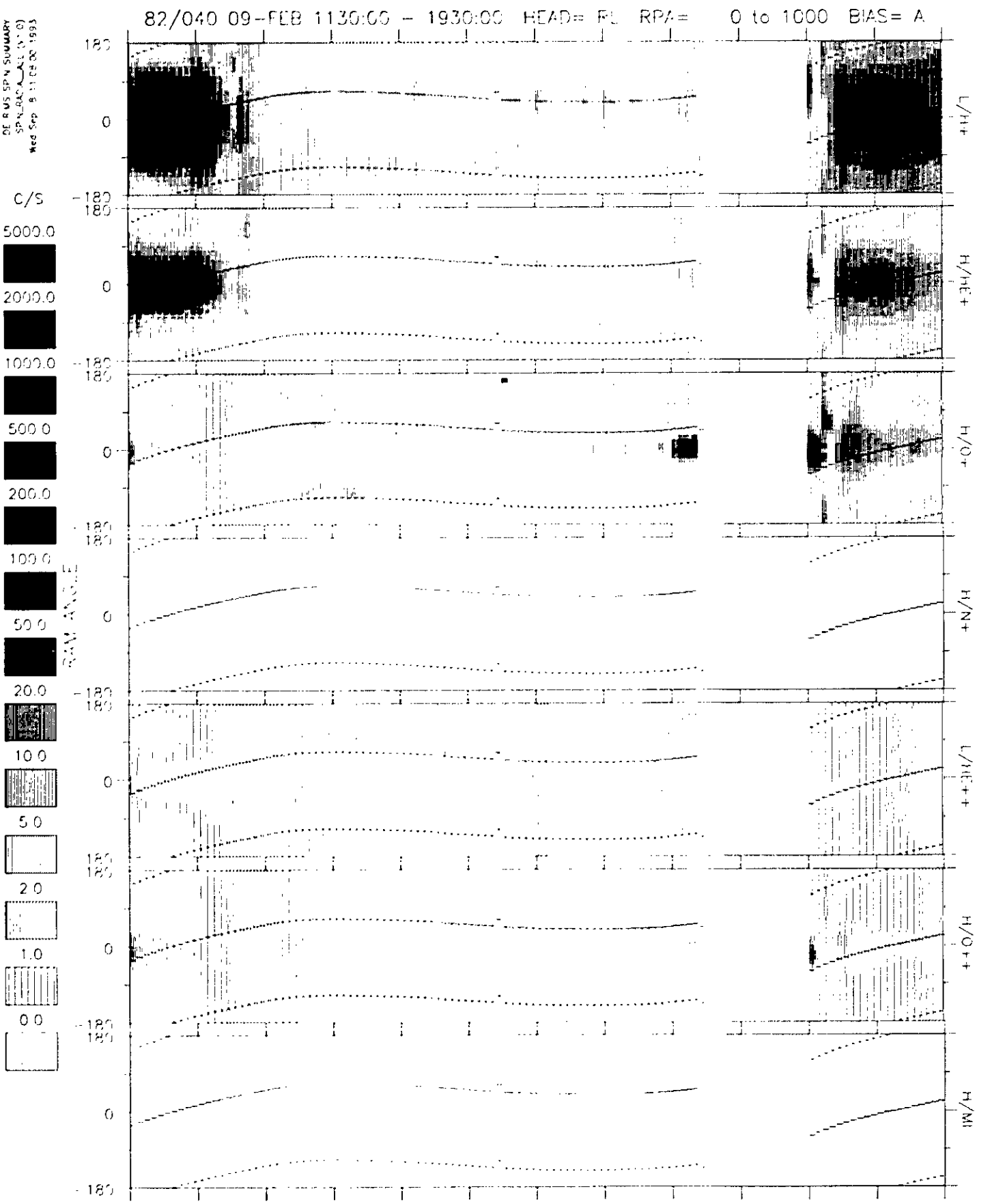

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 7 11:30:03 1993
82/039 08-FEB 0115:00 - 0915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0155 0235 0315 0355 0435 0515 0555 0635 0000 0000 0000 DEGS
RE 3.2 4.0 4.5 4.7 4.6 4.3 3.7 2.7 0.0 0.0 0.0 HHMM
L 3.3 4.4 6.3 9.2 14.8 31.1 100.0 44.2 0.0 0.0 0.0 RE
MLT 1.1 1.3 1.5 1.6 1.7 1.8 1.7 13.8 0.0 0.0 0.0
MLAT 0.79 19.74 33.73 45.75 57.20 69.29 83.85 74.02 0.00 0.00 0.00 HRS
INVLAT 56.4 61.7 66.5 70.8 74.9 79.7 86.2 81.3 0.0 0.0 0.0 DEGS

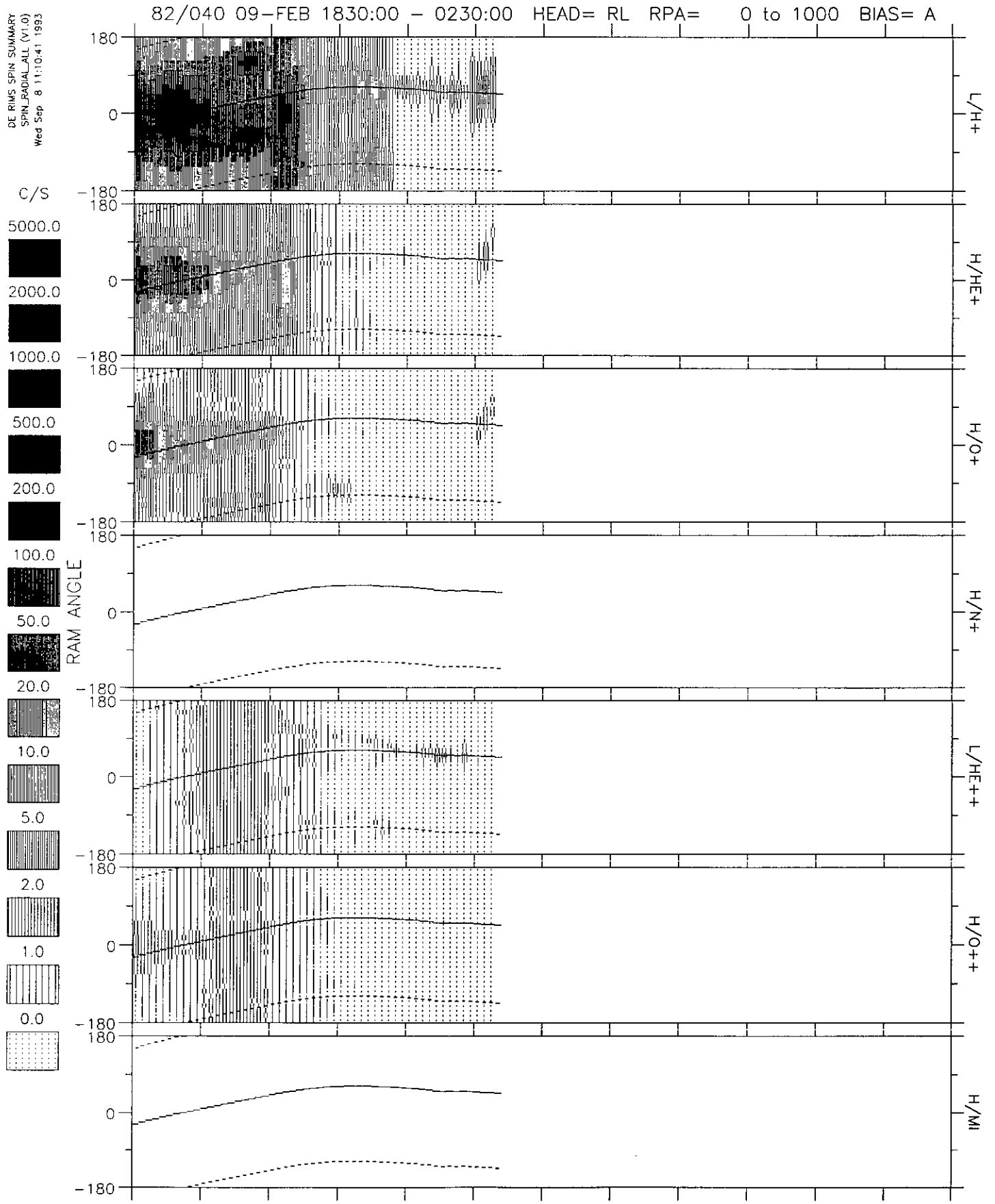

82/039 08-FEB 0800:00 - 1600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE PWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 7 11:34:01 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAW ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 1120 1200 1240 1320 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.6 4.3 3.8 2.9 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 9.7 13.3 23.5 98.2 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.7 0.3 23.7 20.6 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 46.43 56.03 65.63 78.04 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 71.2 74.1 78.1 84.2 0.0 0.0 0.0 DEGS

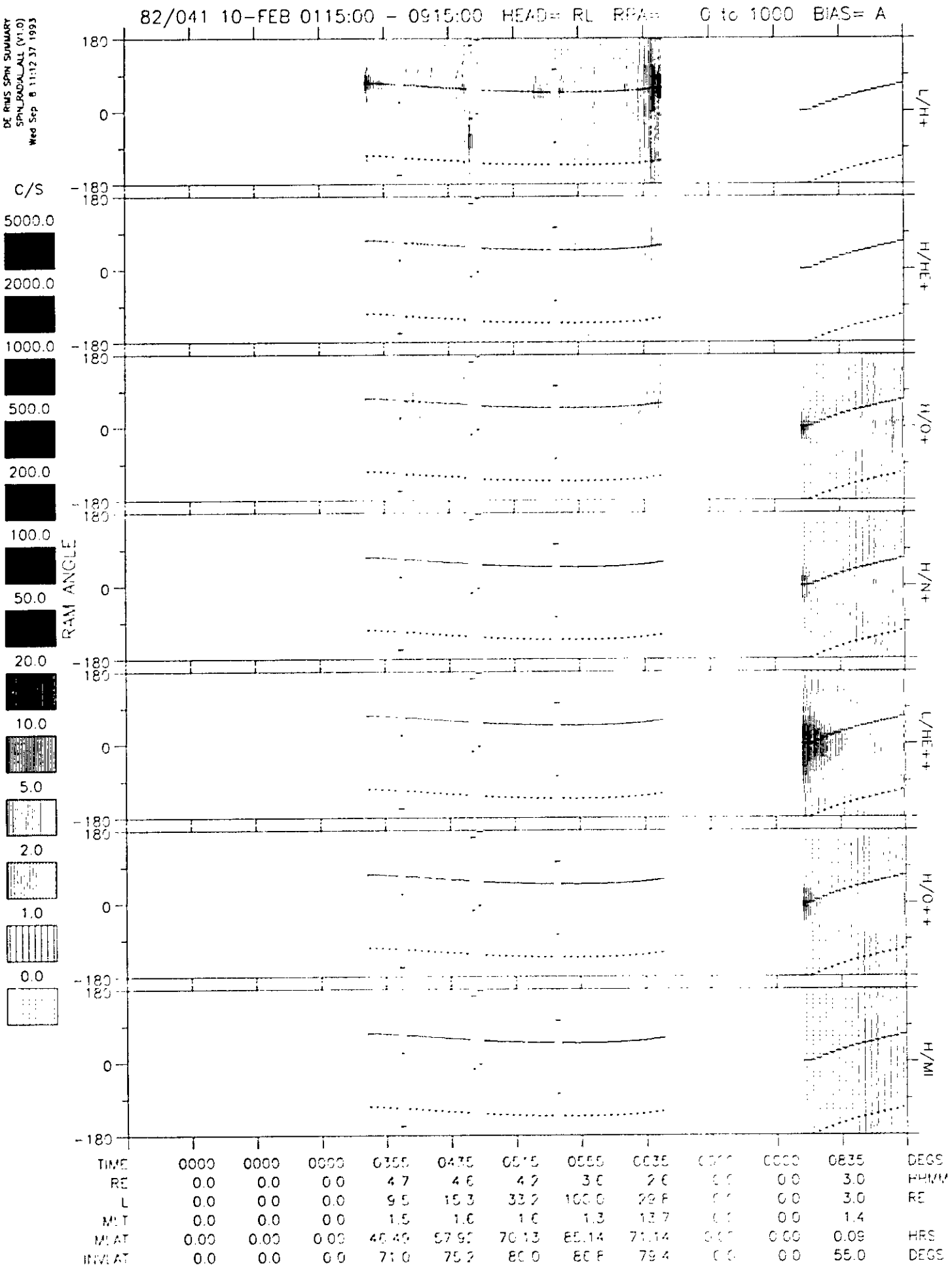

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 7 11:35:21 1993
82/039 08-FEB 1500:00 - 2300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1900 1940 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.2 3.6 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 9.9 18.9 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 1.4 1.8 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 47.98 62.88 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 71.5 76.7 0.0 0.0 0.0 0.0 DEGS


82/039 08-FEB 2200:00 - 0600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 7 11:36:37 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0120 0200 0240 0320 0000 0000 0520 DEGS
RE 0.0 0.0 0.0 0.0 4.5 4.1 3.4 2.3 0.0 0.0 3.2 HP/M
L 0.0 0.0 0.0 0.0 11.5 22.0 99.9 14.9 0.0 0.0 3.4 RE
MLT 0.0 0.0 0.0 0.0 2.0 2.6 5.2 12.0 0.0 0.0 1.3
MLAT 0.00 0.00 0.00 0.00 52.47 65.63 79.90 64.92 0.00 0.00 7.41 HRS
INVLAT 0.0 0.0 0.0 0.0 72.8 77.7 84.3 75.0 0.0 0.0 56.9 DEGS

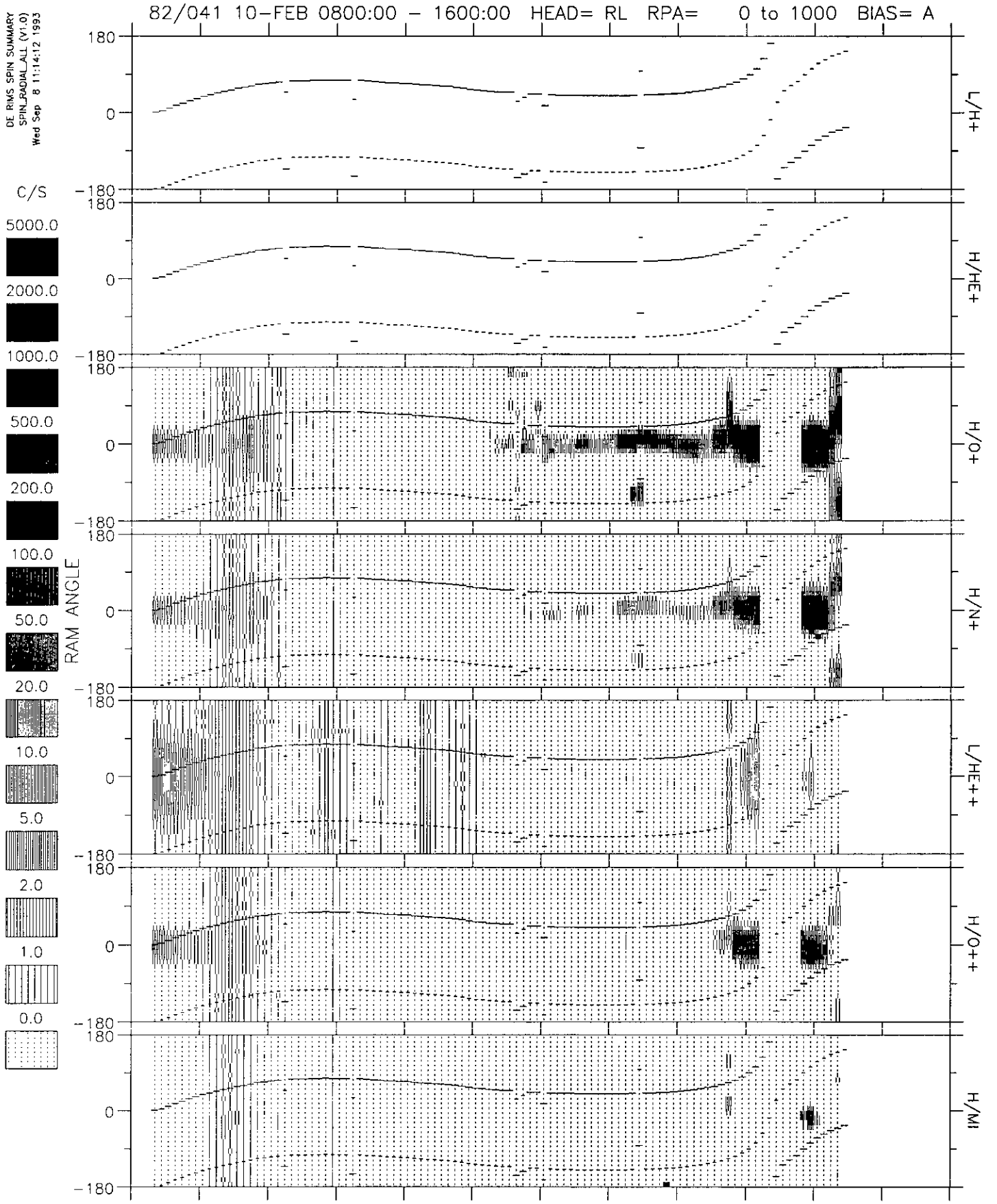

DE RMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 11:05:30 1993
82/040 09-FEB 0515:00 - 1315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0555 0635 0715 0755 0000 0000 0000 1035 1115 1155 1235 DEGS
RE 3.9 4.4 4.6 4.6 0.0 0.0 0.0 1.5 1.5 2.8 3.7 HHMM
L 4.7 6.8 9.7 14.3 0.0 0.0 0.0 2.0 6.6 3.0 3.7 RE
MLT 1.3 1.3 1.2 0.9 0.0 0.0 0.0 13.9 2.8 1.6 1.3
MLAT 23.00 35.72 46.04 55.46 0.00 0.00 0.00 31.16 ***** ***** 5.60 HRS
INVLAT 62.5 67.4 71.2 74.7 0.0 0.0 0.0 45.3 67.0 54.5 58.8 DEGS

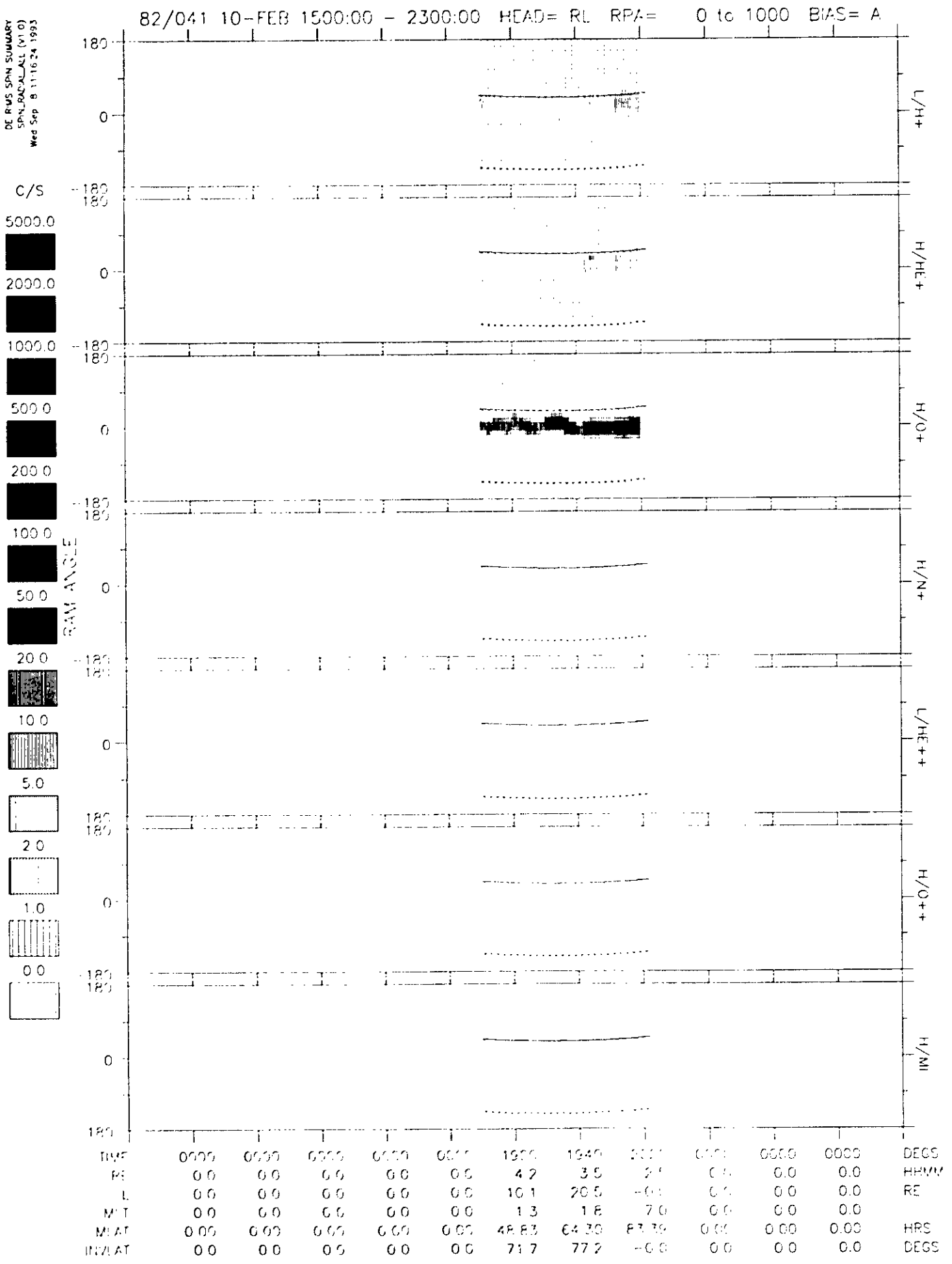

82/040 09-FEB 1130:00 - 1930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
PITCH ANGLE
180
0
-180
L/HE+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1210 1250 1330 1410 1450 1530 1610 1650 0000 1810 1850 DEGS
RE 3.2 4.0 4.5 4.7 4.6 4.3 3.7 2.7 0.0 1.7 2.9 HRMV
L 3.2 4.1 5.0 6.1 7.5 10.1 17.9 100.0 0.0 12.6 3.3 RE
MLT 1.4 1.2 1.0 0.9 0.8 0.7 0.5 23.3 0.0 1.1 1.1
MLAT -4.60 10.39 20.80 29.69 38.52 48.58 61.81 83.04 0.00 ***** ***** DEG
INVLAT 56.1 60.3 63.5 65.2 66.7 71.6 76.3 86.5 0.0 73.6 56.7 DEGS

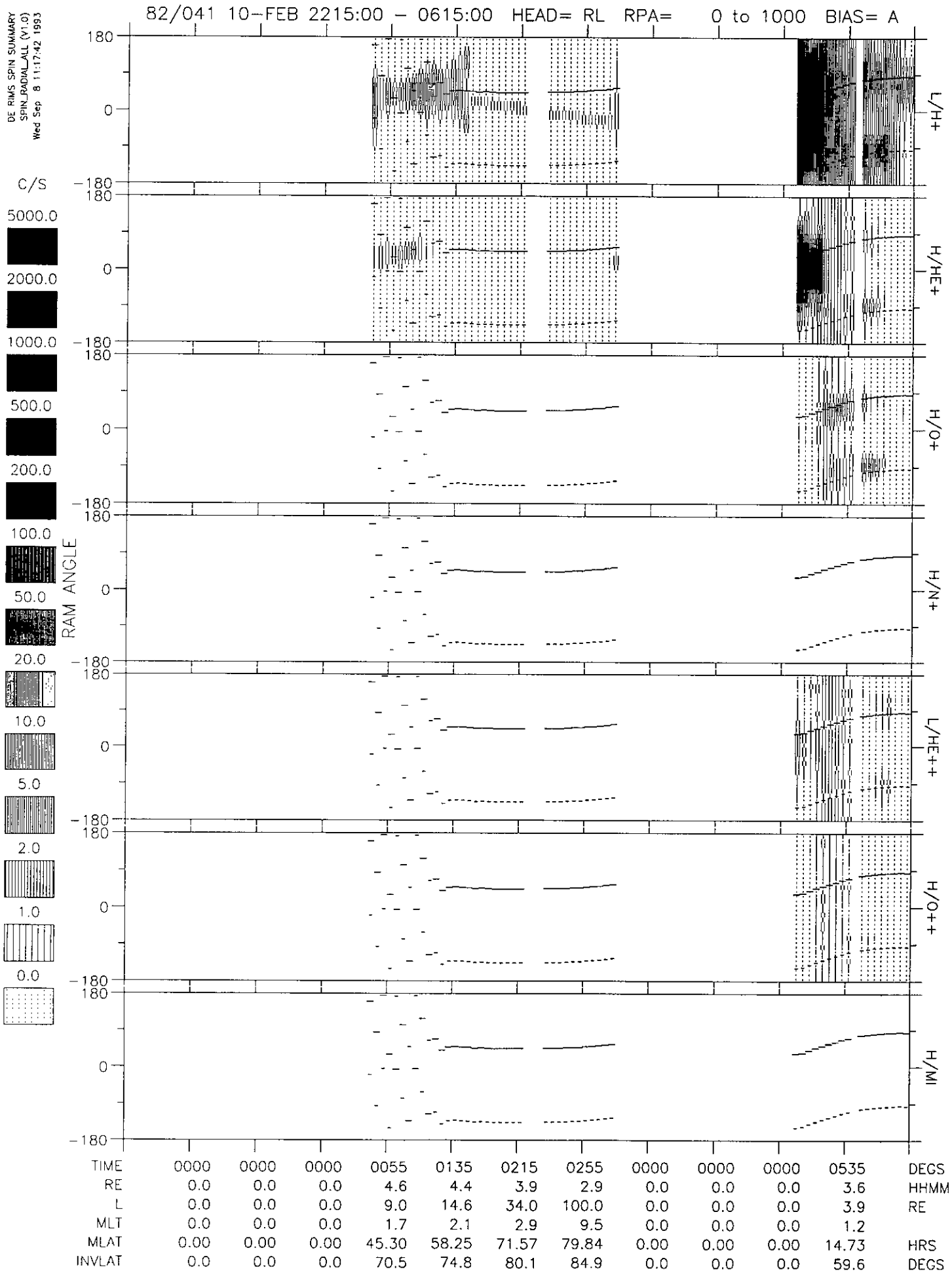

82/040 09-FEB 1830:00 - 0230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 11:10:41 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1910 1950 2030 2110 2150 0000 0000 0000 0000 0000 0000 DEGS
RE 3.4 4.1 4.5 4.7 4.5 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 3.5 4.2 5.1 6.3 8.3 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 1.1 1.2 1.3 1.4 1.6 0.0 0.0 0.0 0.0 0.0 0.0
MLAT ***** 5.83 18.70 30.40 42.16 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 57.5 60.6 63.6 66.5 69.7 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

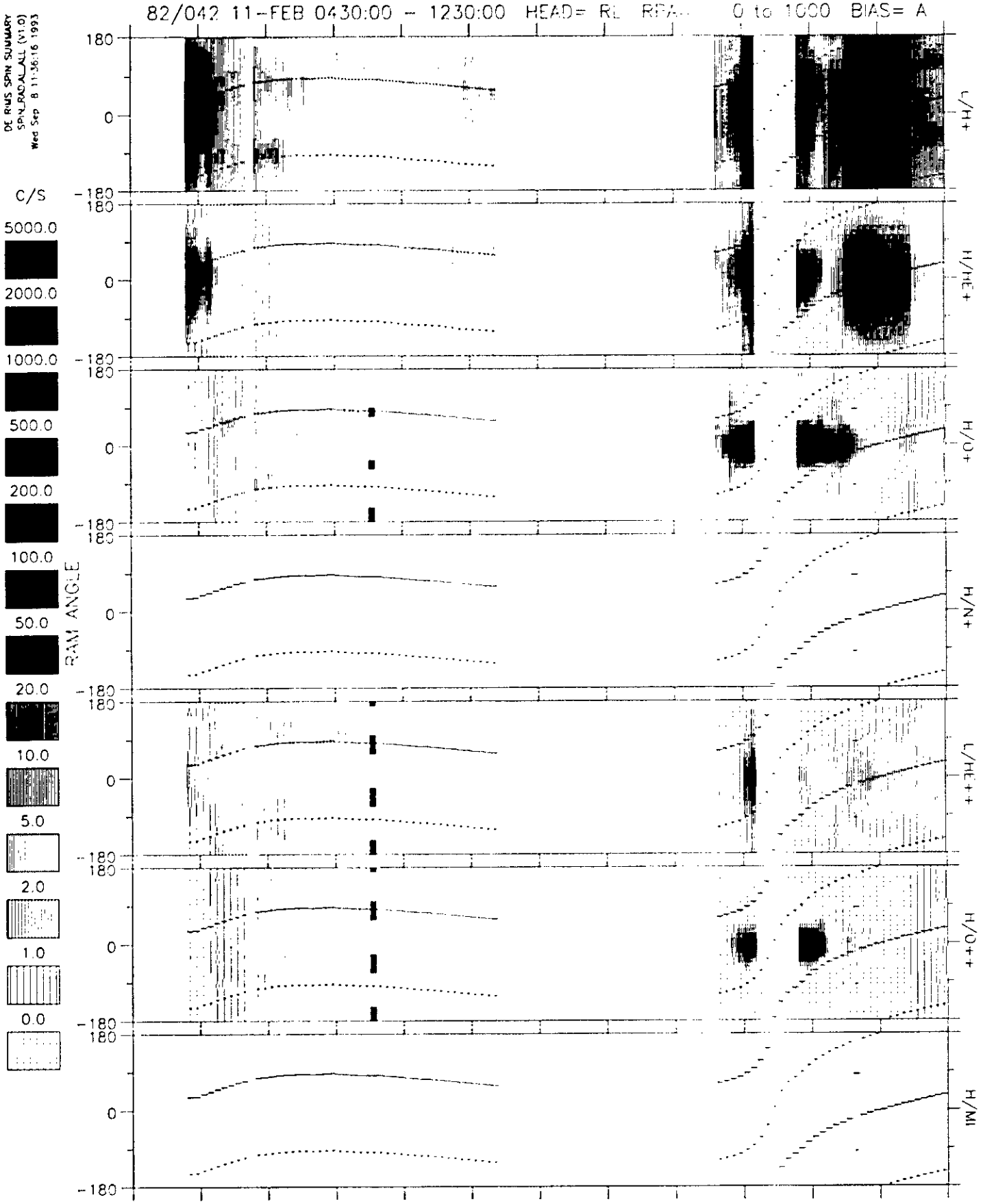


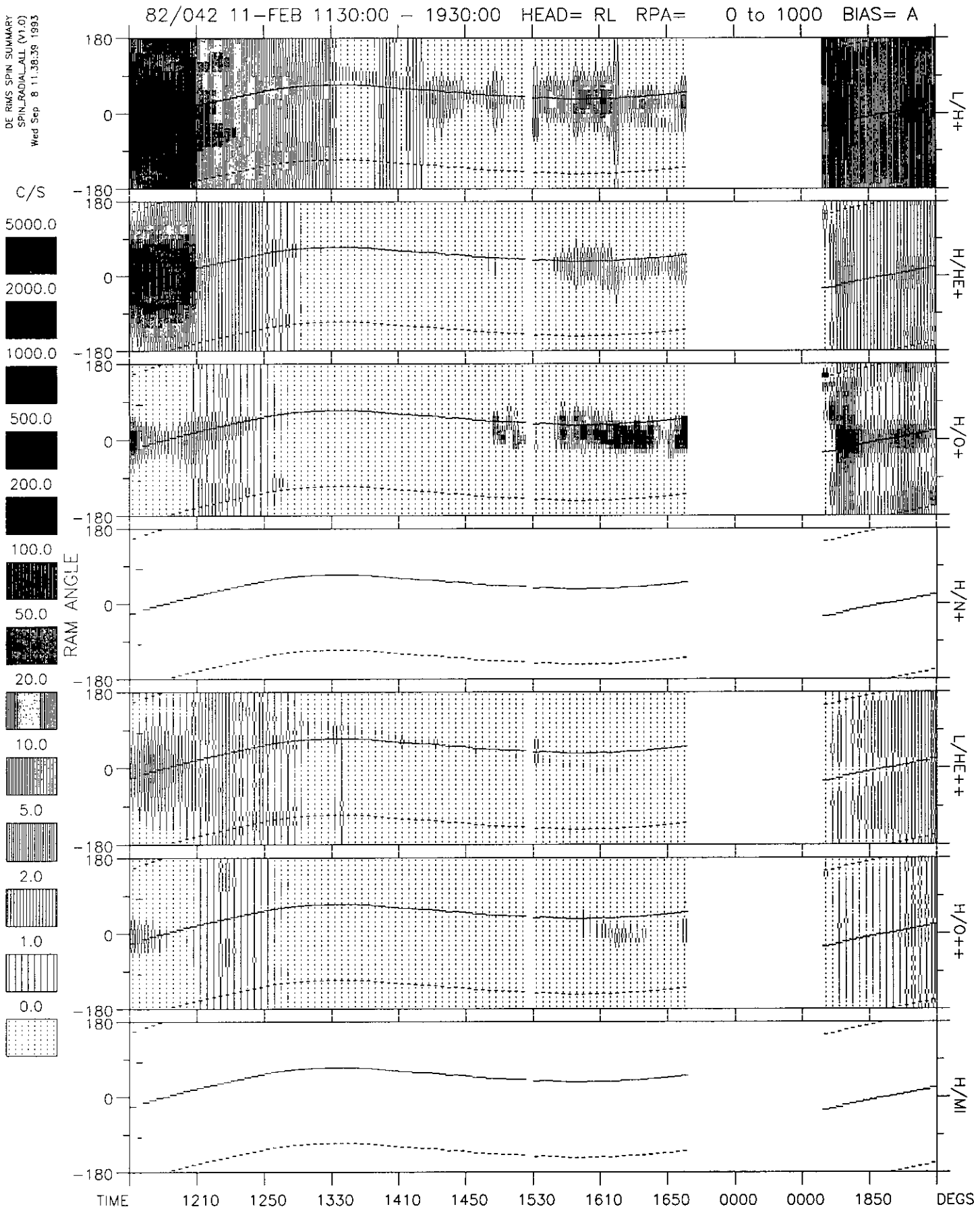
82/041 10-FEB 0115:00 - 0915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 11:12 37 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0355 0435 0515 0555 0635 0000 0000 0835 DEGS
RE 0.0 0.0 0.0 4.7 4.6 4.2 3.6 2.6 0.0 0.0 3.0 HHMM
L 0.0 0.0 0.0 9.5 15.3 33.2 100.0 29.8 0.0 0.0 3.0 RE
MLT 0.0 0.0 0.0 1.5 1.6 1.6 1.3 13.7 0.0 0.0 1.4
MLAT 0.00 0.00 0.00 46.49 57.92 70.13 85.14 71.14 0.00 0.00 0.09 HRS
INVLAT 0.0 0.0 0.0 71.0 75.2 80.0 86.8 79.4 0.0 0.0 55.0 DEGS

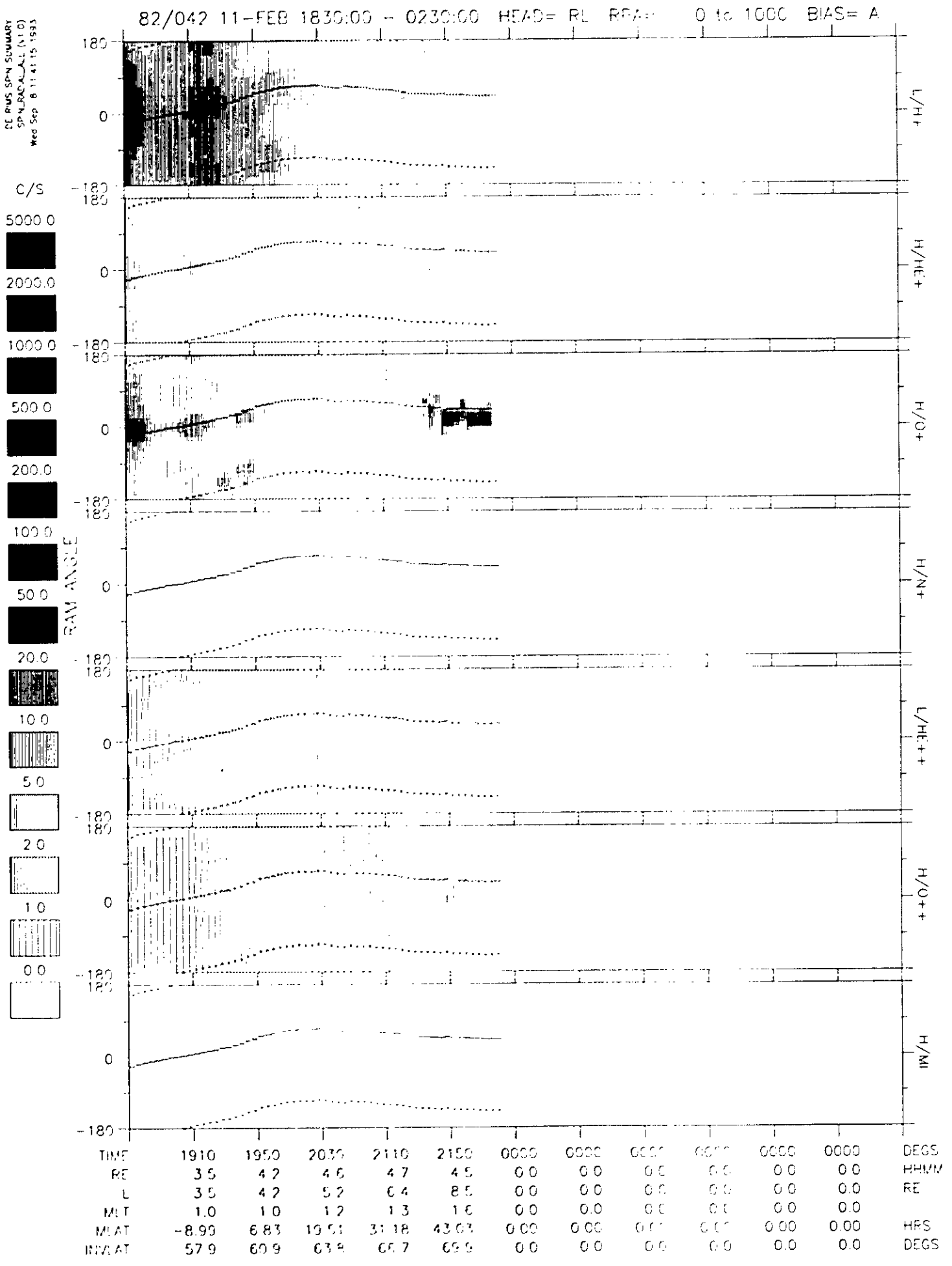

82/041 10-FEB 0800:00 - 1600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 11:14:12 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0840 0920 1000 1040 1120 1200 1240 1320 1400 1440 0000 DEGS
RE 3.2 4.0 4.4 4.7 4.6 4.3 3.7 2.8 1.4 1.6 0.0 HHMM
L 3.2 4.4 5.9 7.5 9.7 13.4 24.6 100.0 2.0 12.8 0.0 RE
MLT 1.4 1.2 1.0 0.8 0.5 0.2 23.5 19.7 13.7 2.6 0.0
MLAT 2.89 19.02 29.80 38.47 46.57 55.35 66.36 79.23 36.83 ***** 0.00 HRS
INVLAT 55.9 61.6 65.6 68.6 71.2 74.1 78.4 84.3 44.6 73.8 0.0 DEGS

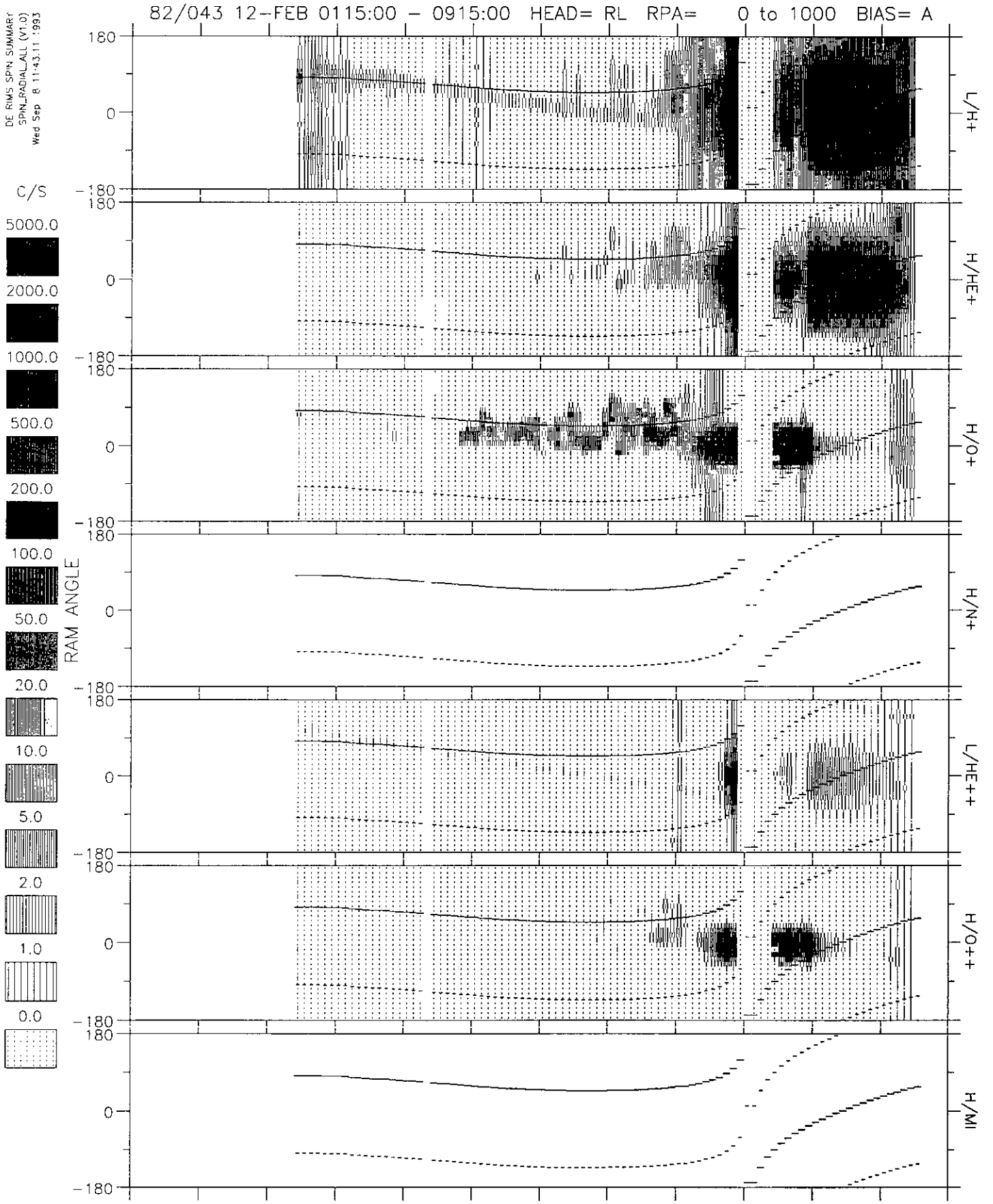

82/041 10-FEB 1500:00 - 2300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 11:16:24 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1900 1940 2000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.2 3.5 2.1 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 10.1 20.5 -0.1 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 1.3 1.8 7.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 48.83 64.30 83.39 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 71.7 77.2 -0.0 0.0 0.0 0.0 DEGS


82/041 10-FEB 2215:00 – 0615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 11:17:42 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0055 0135 0215 0255 0000 0000 0000 0535 DEGS
RE 0.0 0.0 0.0 4.6 4.4 3.9 2.9 0.0 0.0 0.0 3.6 HHMM
L 0.0 0.0 0.0 9.0 14.6 34.0 100.0 0.0 0.0 0.0 3.9 RE
MLT 0.0 0.0 0.0 1.7 2.1 2.9 9.5 0.0 0.0 0.0 1.2
MLAT 0.00 0.00 0.00 45.30 58.25 71.57 79.84 0.00 0.00 0.00 14.73 HRS
INVLAT 0.0 0.0 0.0 70.5 74.8 80.1 84.9 0.0 0.0 0.0 59.6 DEGS

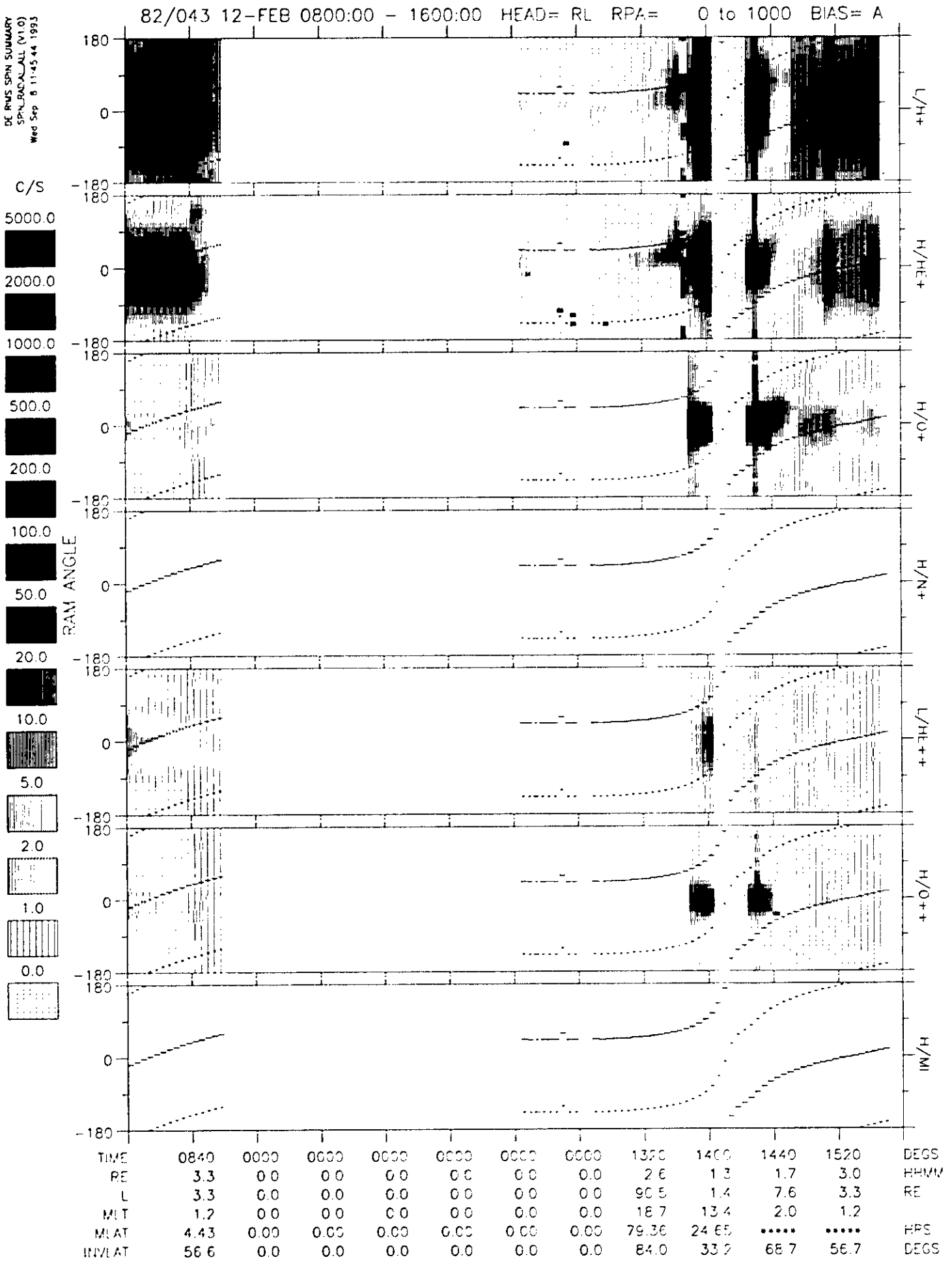

82/042 11-FEB 0430:00 - 1230:00 HEAD= RL RPA... 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIALALL (V1.0)
Wed Sep 8 11:36:16 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0510 0550 0630 0710 0750 0000 0000 0000 1030 1110 1150 DEGS
RE 3.1 3.9 4.4 4.6 4.6 0.0 0.0 0.0 1.5 1.5 2.8 HHMM
L 3.2 4.7 6.6 9.4 13.8 0.0 0.0 0.0 2.1 7.3 3.0 RE
MLT 1.1 1.2 1.1 1.0 0.8 0.0 0.0 0.0 13.8 2.8 1.4
MLAT 3.74 22.20 34.92 45.23 54.62 0.00 0.00 0.00 33.21 ***** ***** HRS
INVLAT 55.9 62.4 67.2 71.0 74.3 0.0 0.0 0.0 46.9 68.3 54.7 DEGS

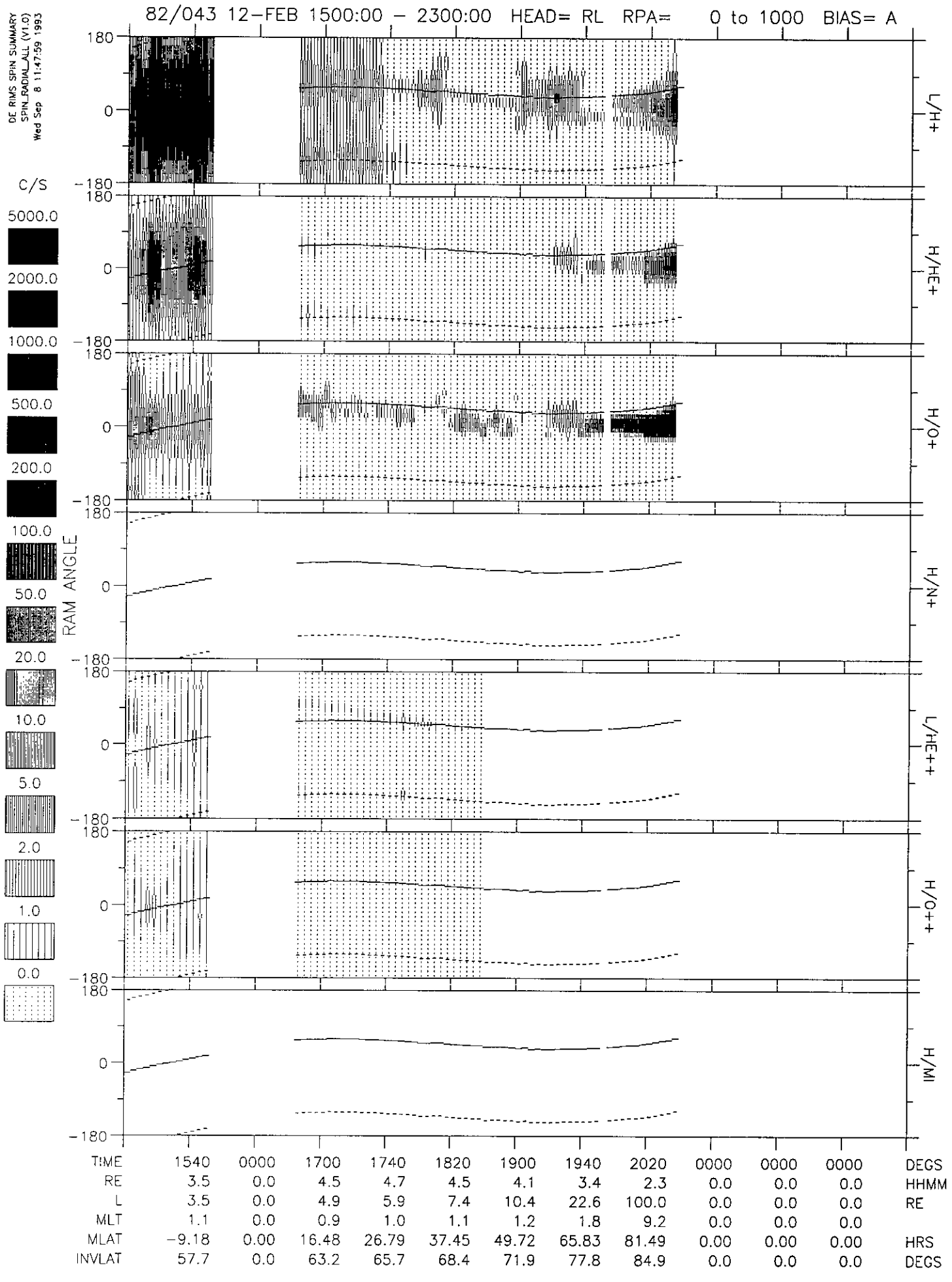

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 11.38.39 1993
82/042 11-FEB 1130:00 - 1930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1210 1250 1330 1410 1450 1530 1610 1650 0000 0000 1850 DEGS
RE 3.3 4.1 4.5 4.7 4.6 4.2 3.6 2.6 0.0 0.0 3.1 HHMM
L 3.3 4.2 5.1 6.2 7.6 10.2 19.0 -0.0 0.0 0.0 3.4 RE
MLT 1.3 1.0 0.9 0.8 0.7 0.6 0.4 22.2 0.0 0.0 0.9
MLAT -3.27 10.92 21.07 29.89 38.82 49.14 62.97 85.61 0.00 0.00 ***** HRS
INVLAT 56.6 60.6 63.7 66.2 68.7 71.7 76.7 -0.0 0.0 0.0 56.9 DEGS

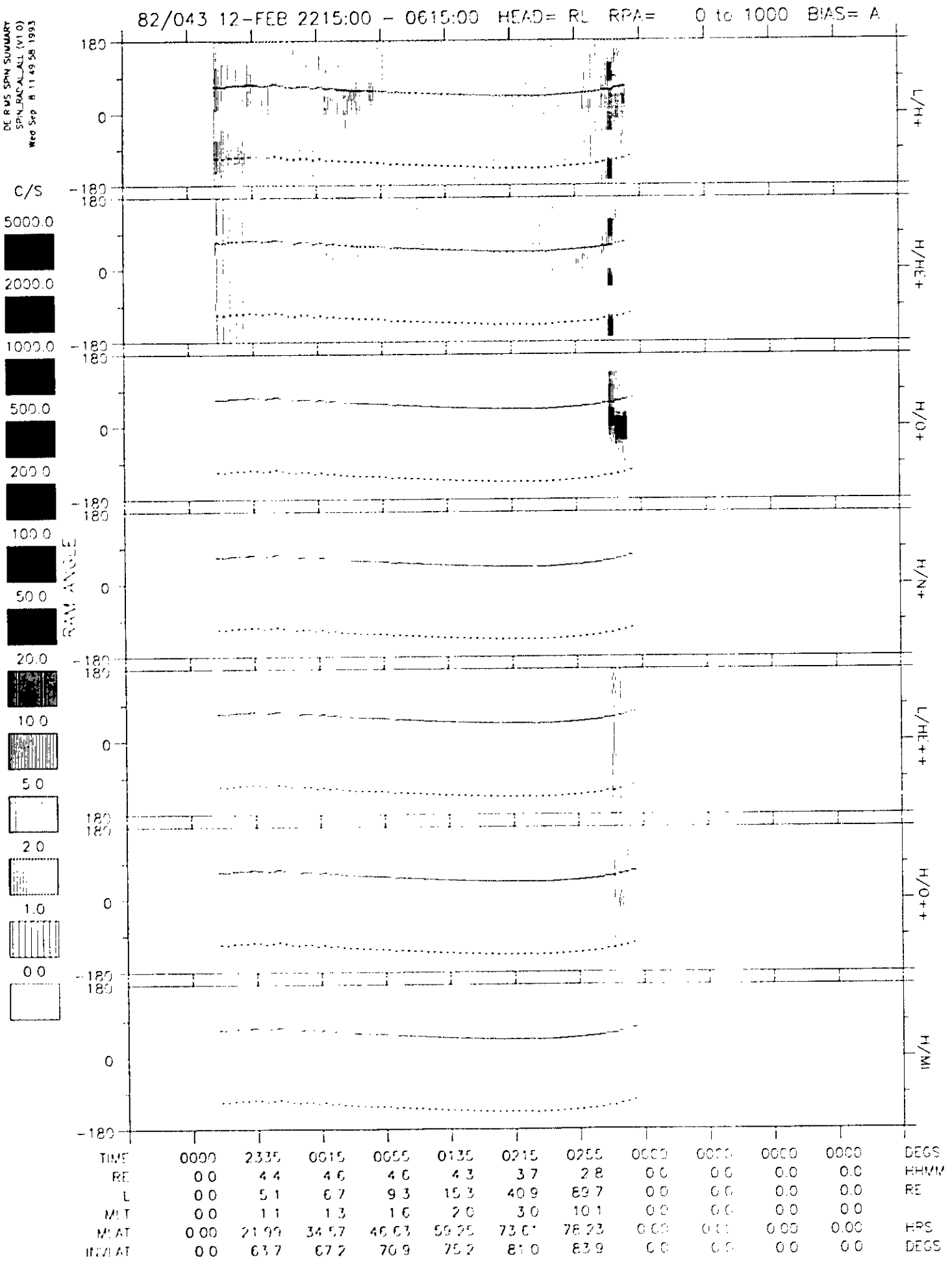

82/042 11-FEB 1830:00 - 0230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE PWS SPIN SUMMARY
SPIN_RADIAL (V1.0)
Wed Sep 8 11:41:15 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
H+
H/HE+
H/O+
H/N+
H/HE++
H/O++
H/M
TIME 1910 1950 2030 2110 2150 0000 0000 0000 0000 0000 0000 DEGS
RE 3.5 4.2 4.6 4.7 4.5 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 3.5 4.2 5.2 6.4 8.5 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 1.0 1.0 1.2 1.3 1.6 0.0 0.0 0.0 0.0 0.0 0.0
MLAT -8.99 6.83 19.51 31.18 43.03 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 57.9 60.9 63.8 66.7 69.9 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

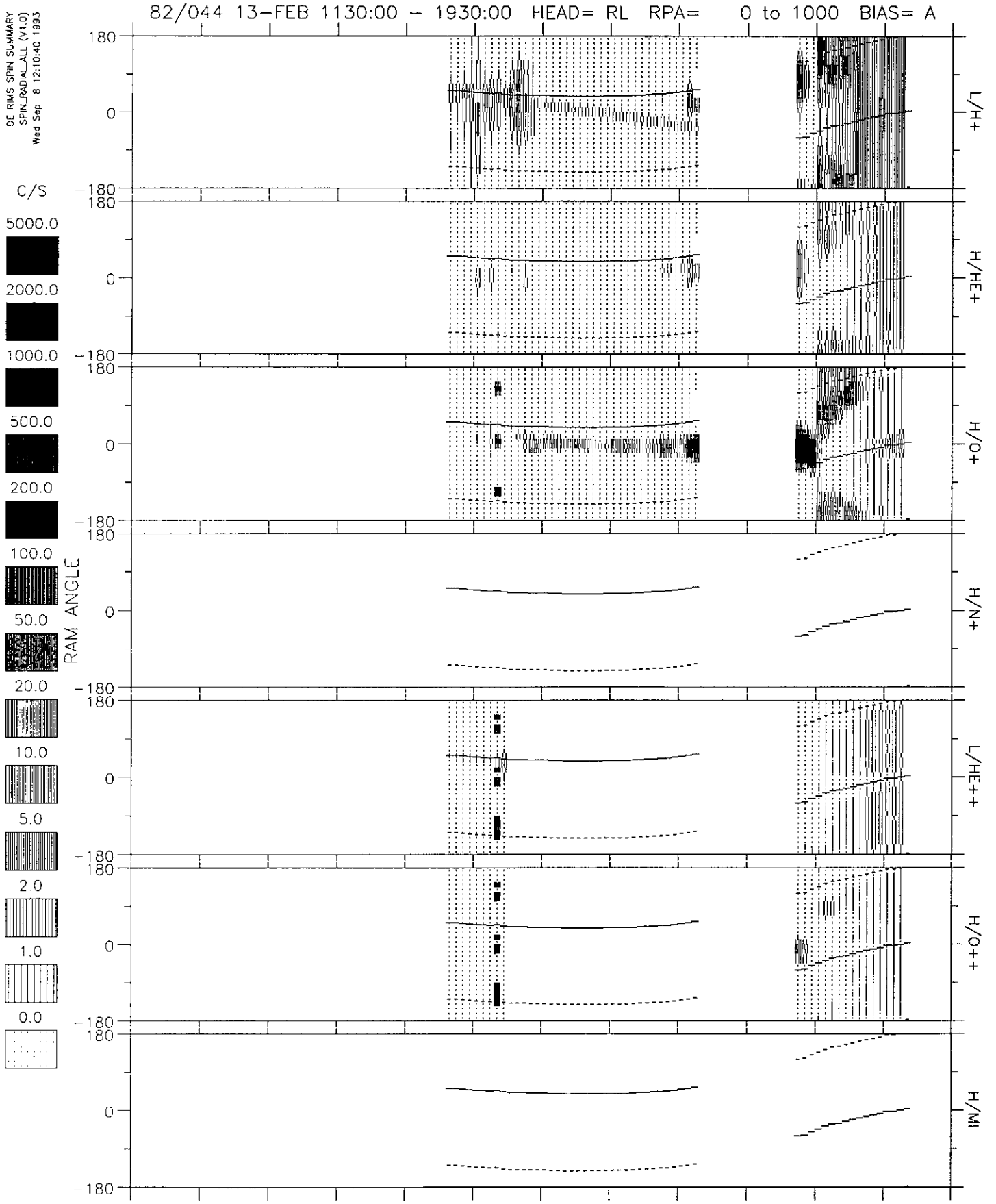


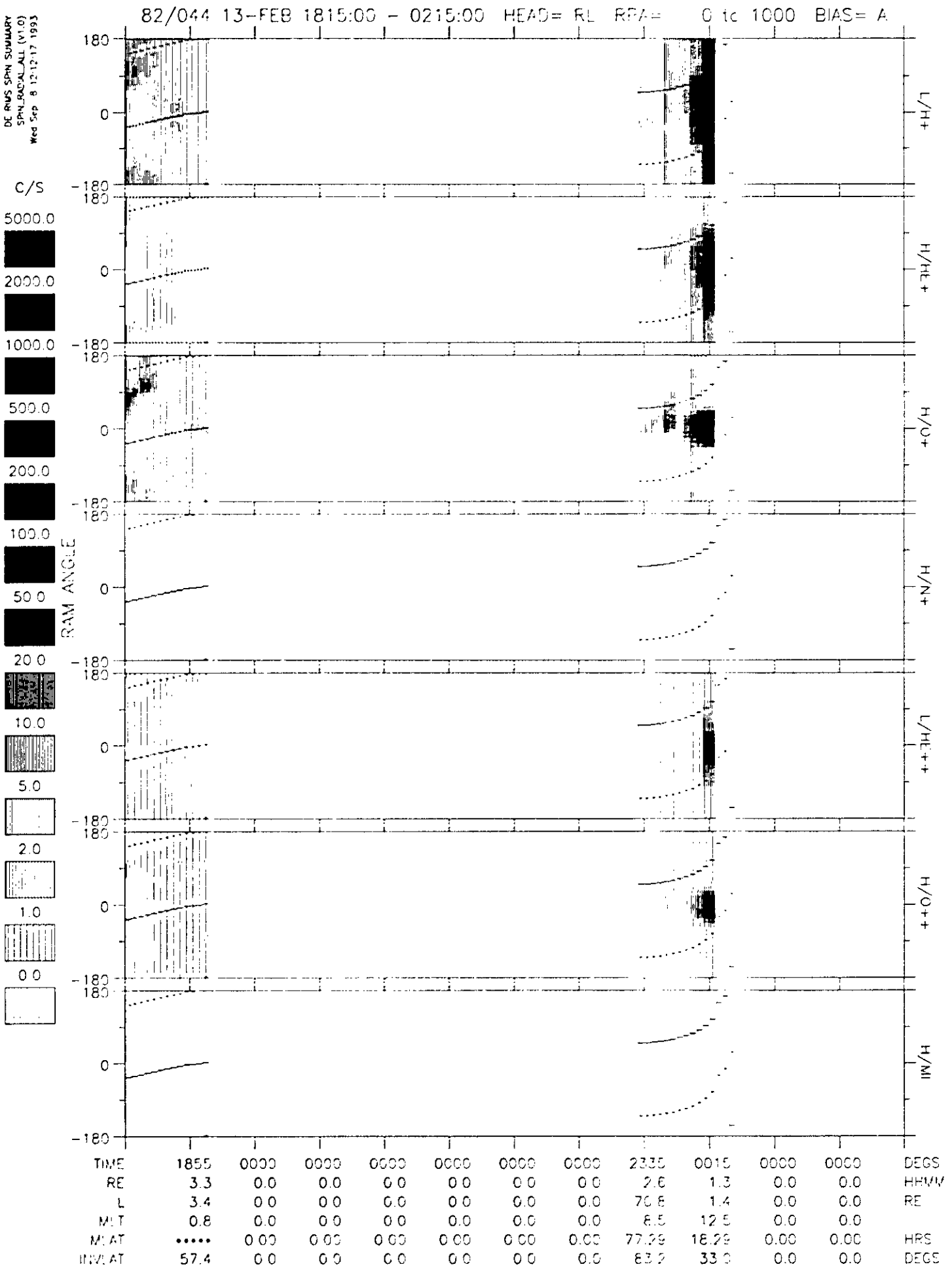
TIME	0000	0000	0315	0355	0435	0515	0555	0635	0715	0755	0835	DEGS
RE	0.0	0.0	4.5	4.7	4.6	4.2	3.5	2.5	1.2	1.9	3.1	HHMM
L	0.0	0.0	6.6	9.7	15.9	35.6	-0.0	20.5	1.1	2.7	3.2	RE
MLT	0.0	0.0	1.2	1.4	1.4	1.4	0.7	13.6	13.1	1.5	1.2	
MLAT	0.00	0.00	35.46	47.21	58.64	71.00	86.48	67.91	*****	*****	1.84	HRS
INVLAT	0.0	0.0	67.2	71.3	75.5	80.3	-0.0	77.2	20.3	52.8	55.8	DEGS

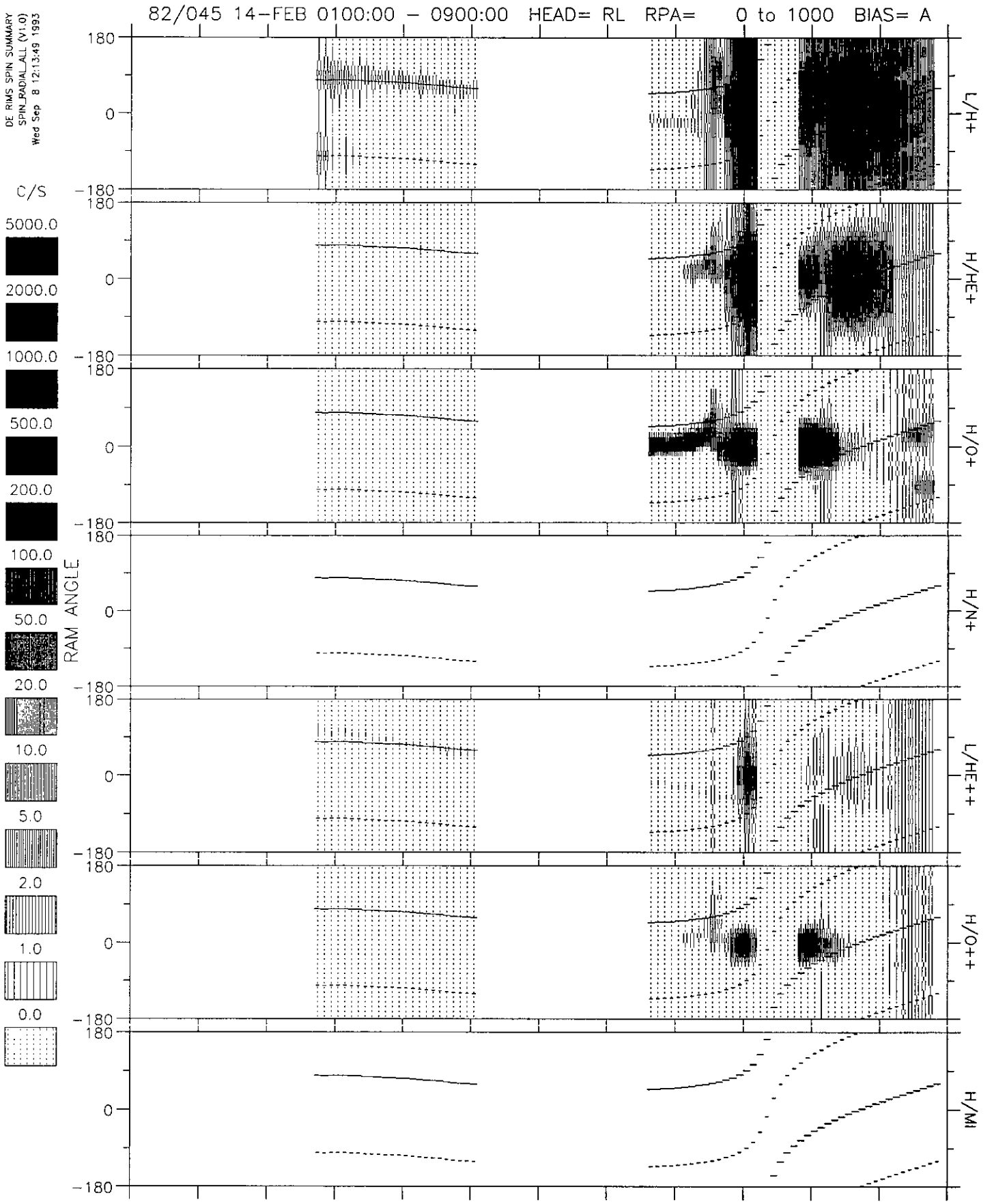

82/043 12-FEB 0800:00 - 1600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Wed Sep 8 11:45:44 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0840 0000 0000 0000 0000 0000 0000 1330 1400 1440 1520 DEGS
RE 3.3 0.0 0.0 0.0 0.0 0.0 0.0 2.6 1.3 1.7 3.0 HHMM
L 3.3 0.0 0.0 0.0 0.0 0.0 0.0 90.5 1.4 7.6 3.3 RE
MLT 1.2 0.0 0.0 0.0 0.0 0.0 0.0 18.7 13.4 2.0 1.2
MLAT 4.43 0.00 0.00 0.00 0.00 0.00 0.00 79.36 24.65 ***** ***** HRS
INVLAT 56.6 0.0 0.0 0.0 0.0 0.0 0.0 84.0 33.9 68.7 56.7 DEGS

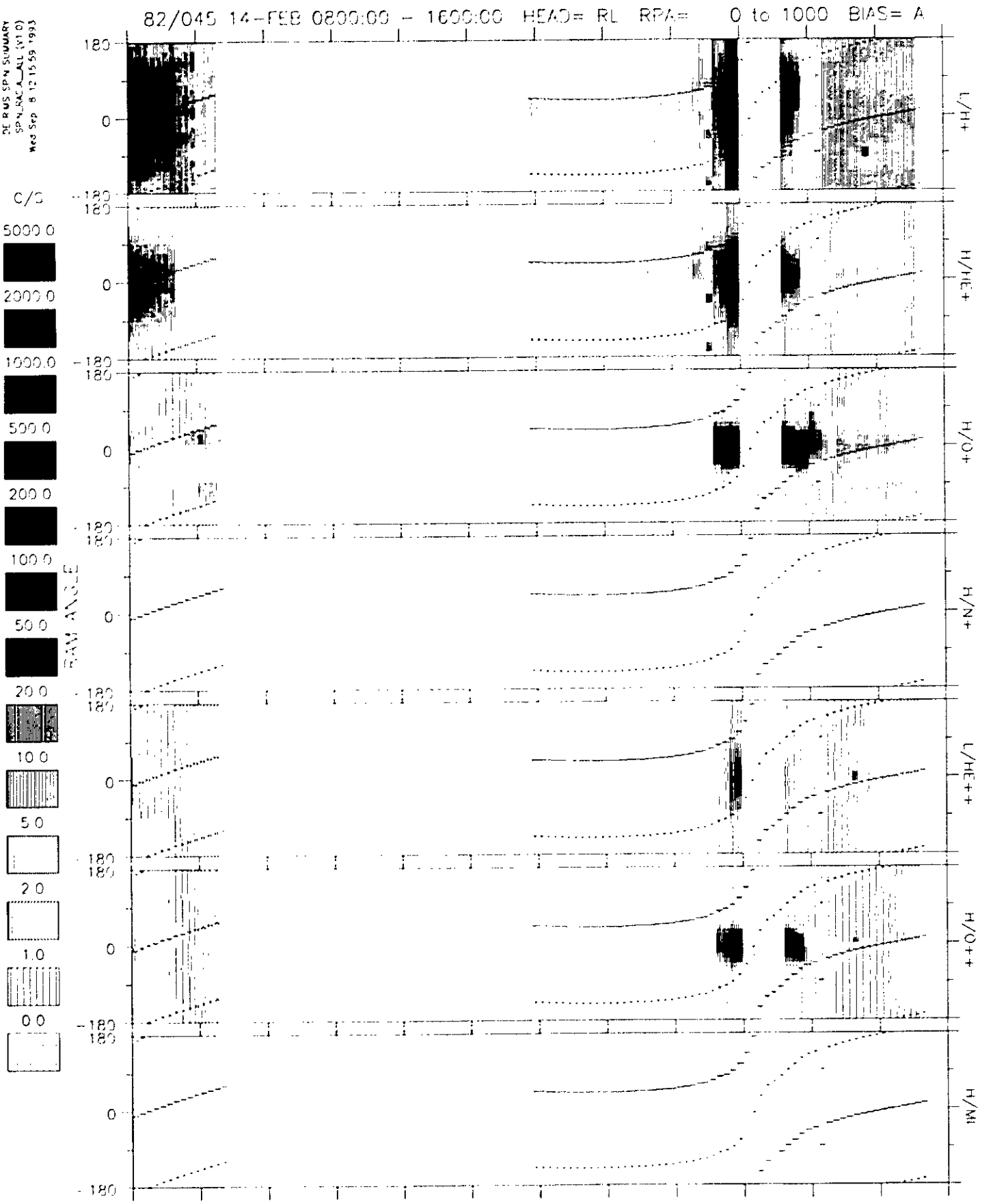

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 11:47:59 1993
82/043 12-FEB 1500:00 - 2300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1540 0000 1700 1740 1820 1900 1940 2020 0000 0000 0000 DEGS
RE 3.5 0.0 4.5 4.7 4.5 4.1 3.4 2.3 0.0 0.0 0.0 HHMM
L 3.5 0.0 4.9 5.9 7.4 10.4 22.6 100.0 0.0 0.0 0.0 RE
MLT 1.1 0.0 0.9 1.0 1.1 1.2 1.8 9.2 0.0 0.0 0.0
MLAT -9.18 0.00 16.48 26.79 37.45 49.72 65.83 81.49 0.00 0.00 0.00 HRS
INVLAT 57.7 0.0 63.2 65.7 68.4 71.9 77.8 84.9 0.0 0.0 0.0 DEGS

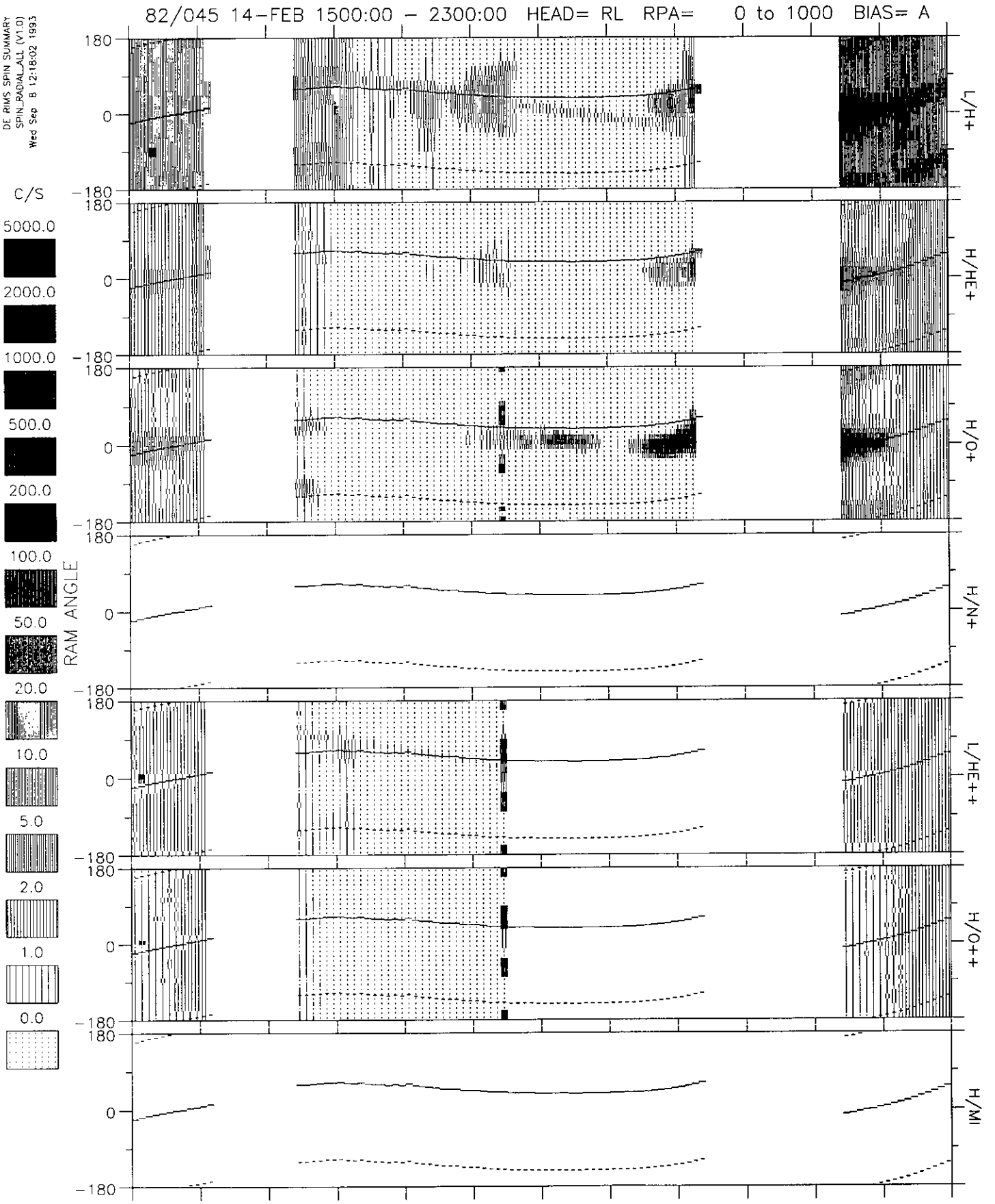

82/043 12-FEB 2215:00 - 0615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R WS SPIN SUMMARY
SPIN_RAD_ALL (V1 0)
Wed Sep 8 11 49 58 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 2335 0015 0055 0135 0215 0255 0000 0000 0000 0000 DEGS
RE 0.0 4.4 4.6 4.6 4.3 3.7 2.8 0.0 0.0 0.0 0.0 RHMM
L 0.0 5.1 6.7 9.3 15.3 40.9 89.7 0.0 0.0 0.0 0.0 RE
MLT 0.0 1.1 1.3 1.6 2.0 3.0 10.1 0.0 0.0 0.0 0.0
MLAT 0.00 21.99 34.57 46.63 59.25 73.01 78.23 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 63.7 67.2 70.9 75.2 81.0 83.9 0.0 0.0 0.0 0.0 DEGS

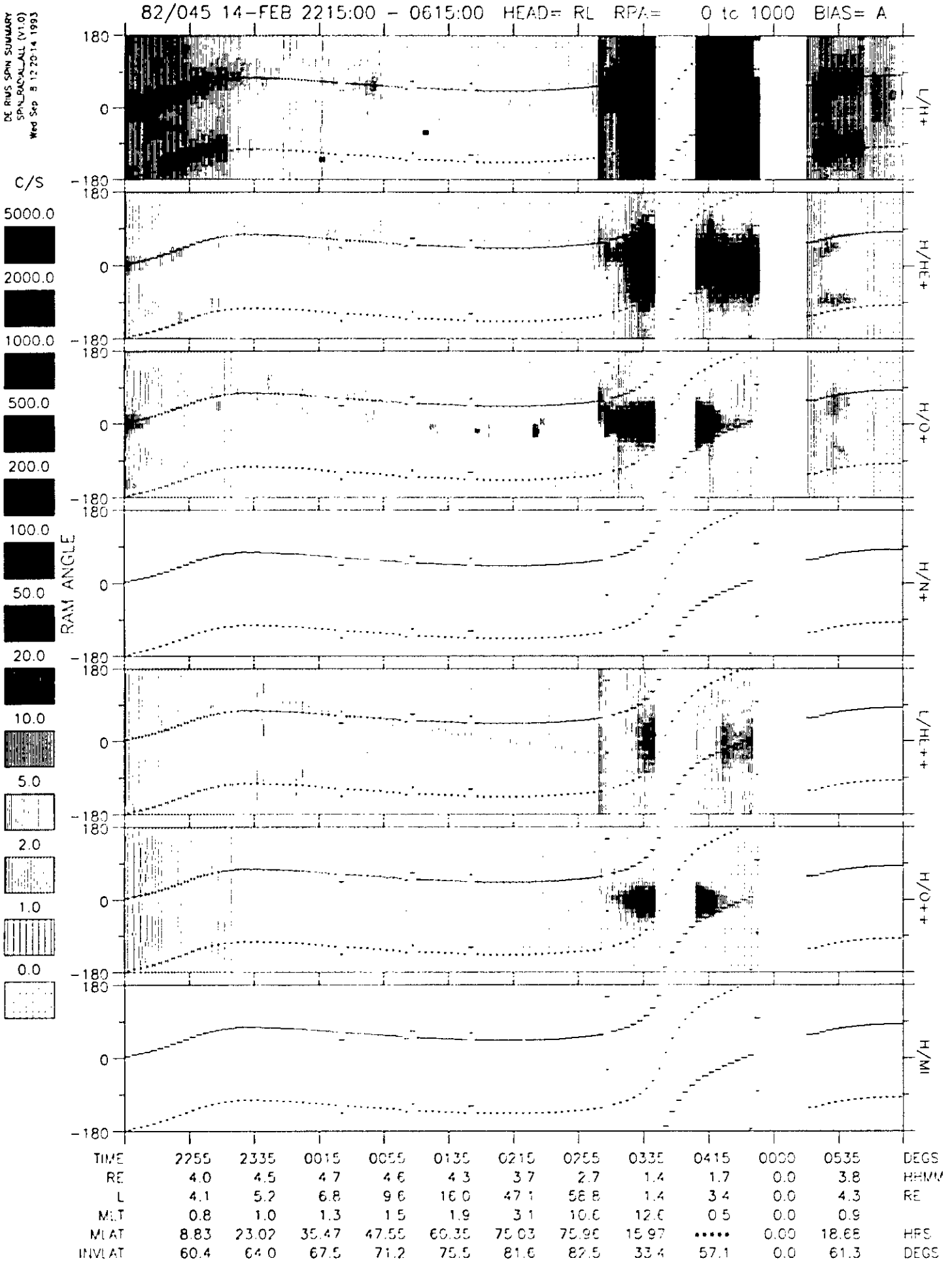

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 12:10:40 1993
82/044 13-FEB 1130:00 -- 1930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 1450 1530 1610 1650 0000 1810 1850 DEGS
RE 0.0 0.0 0.0 0.0 4.5 4.2 3.5 2.4 0.0 2.0 3.2 HHMM
L 0.0 0.0 0.0 0.0 7.6 10.3 20.4 100.0 0.0 5.6 3.4 RE
MLT 0.0 0.0 0.0 0.0 0.5 0.4 0.3 18.8 0.0 0.8 0.8
MLAT 0.00 0.00 0.00 0.00 39.15 49.75 64.26 87.25 0.00 ***** ***** HRS
INVLAT 0.0 0.0 0.0 0.0 68.8 71.9 77.2 87.4 0.0 64.9 57.2 DEGS

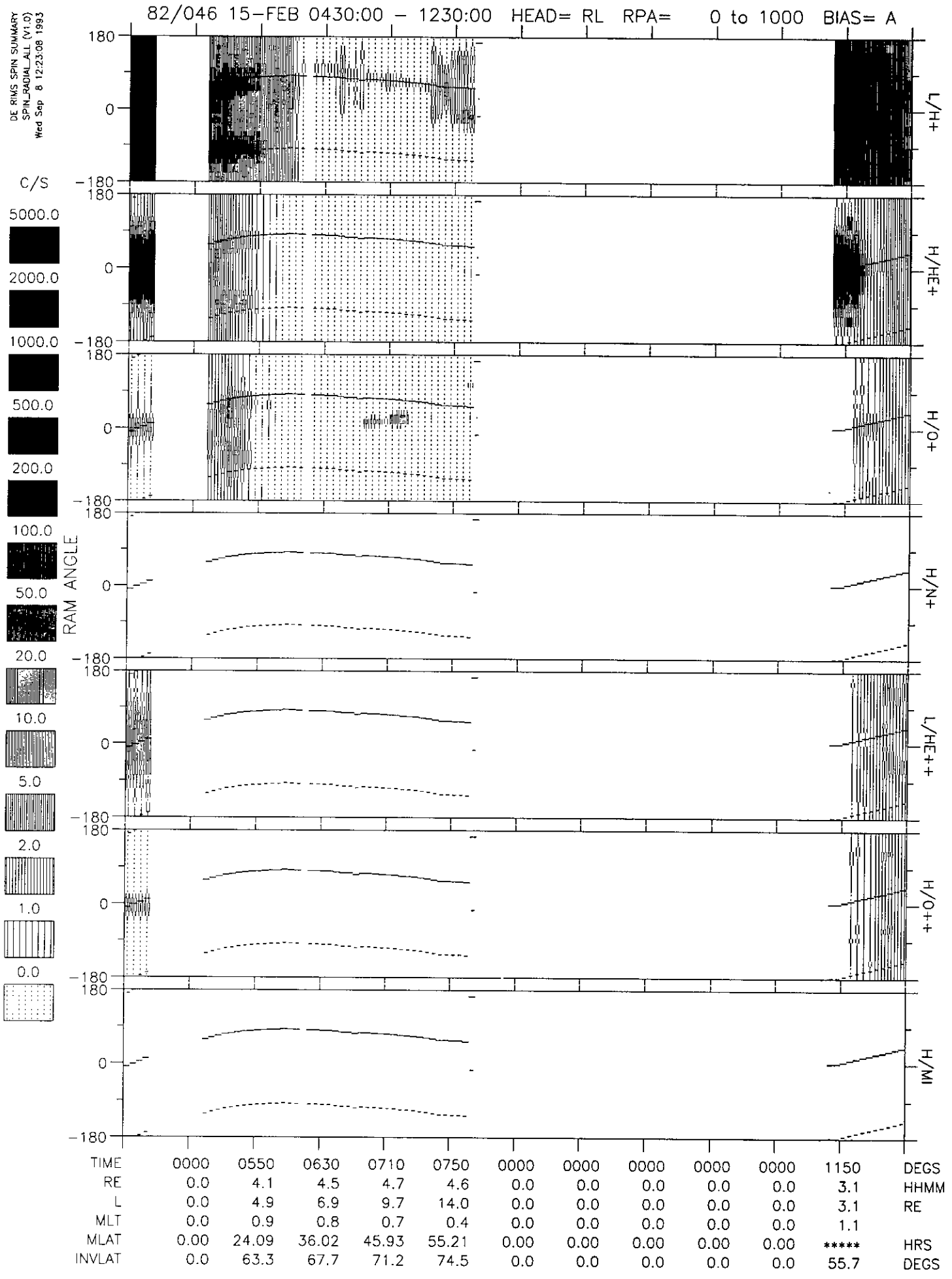

82/044 13-FEB 1815:00 - 0215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 12:12:17 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 1855 0000 0000 0000 0000 0000 0000 2335 0015 0000 0000 DEGS
RE 3.3 0.0 0.0 0.0 0.0 0.0 0.0 2.6 1.3 0.0 0.0 HRVW
L 3.4 0.0 0.0 0.0 0.0 0.0 0.0 70.8 1.4 0.0 0.0 RE
MLT 0.8 0.0 0.0 0.0 0.0 0.0 0.0 6.5 12.5 0.0 0.0
MLAT ***** 0.00 0.00 0.00 0.00 0.00 0.00 77.29 18.29 0.00 0.00 HRS
INVLAT 57.4 0.0 0.0 0.0 0.0 0.0 0.0 83.2 33.0 0.0 0.0 DEGS

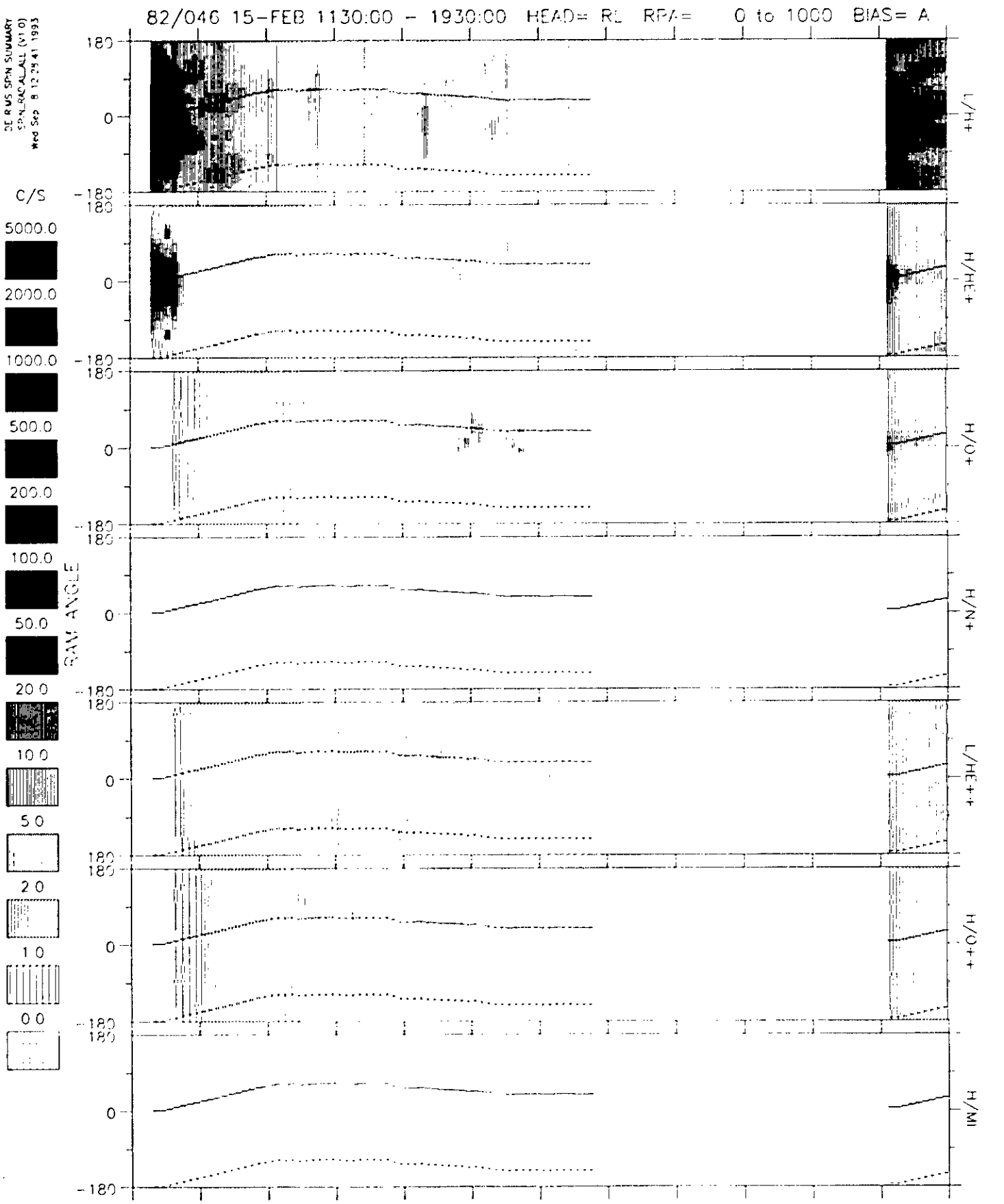

82/045 14-FEB 0100:00 – 0900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 12:13:49 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0300 0340 0420 0000 0000 0620 0700 0740 0820 DEGS
RE 0.0 0.0 4.4 4.7 4.6 0.0 0.0 2.8 1.5 1.6 2.9 HHMM
L 0.0 0.0 6.0 8.6 12.8 0.0 0.0 72.2 1.7 4.0 2.9 RE
MLT 0.0 0.0 1.1 1.2 1.2 0.0 0.0 13.6 13.2 1.6 1.2
MLAT 0.00 0.00 31.67 43.67 53.98 0.00 0.00 77.14 22.57 ***** -5.02 HRS
INVLAT 0.0 0.0 65.9 70.1 73.8 0.0 0.0 83.2 40.3 59.9 54.1 DEGS

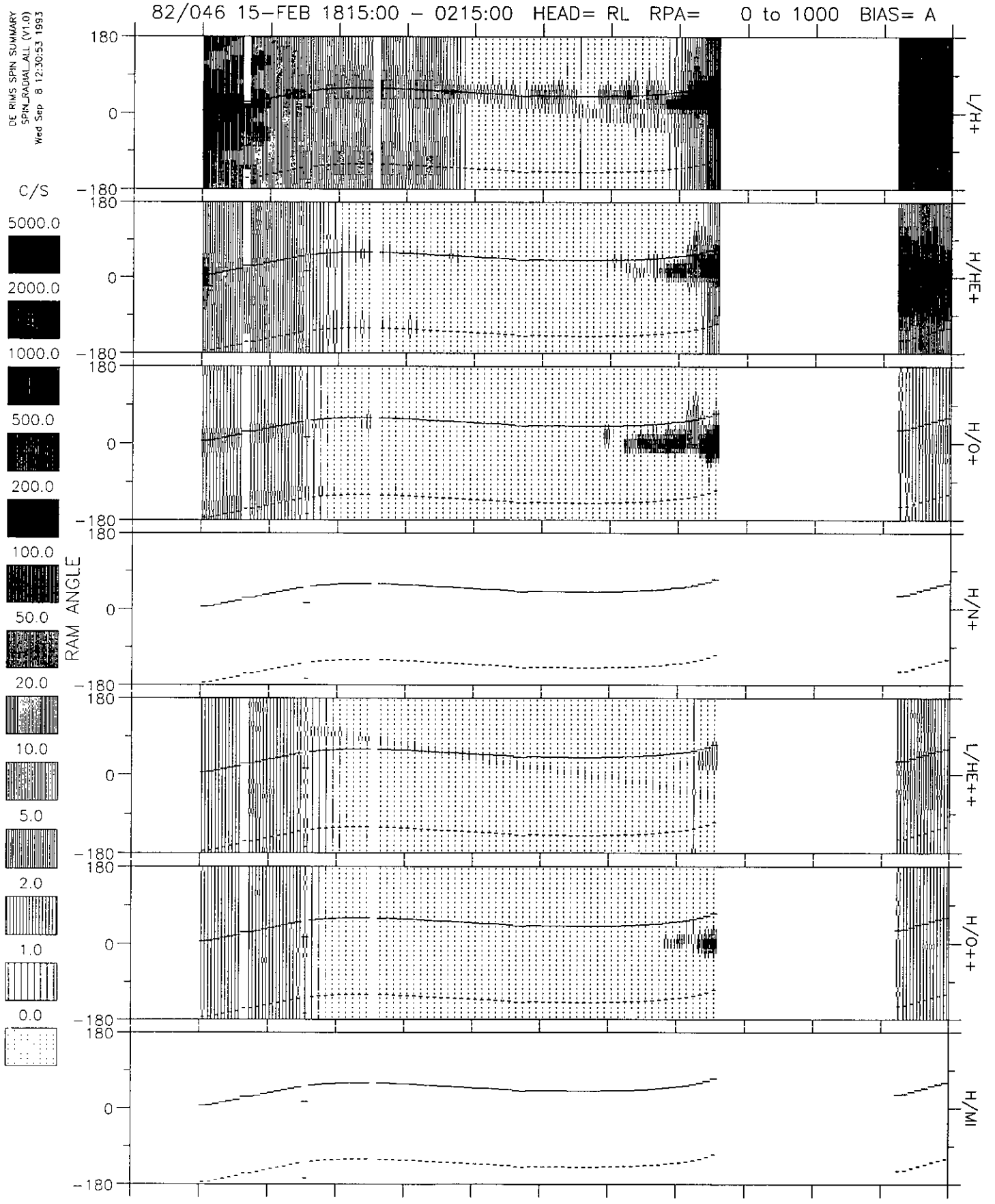

82/045 14-FEB 0800:00 - 1600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RUS SPIN SUMMARY
SPIN_RAC_ALL (V1 0)
Wed Sep 8 12 15 59 1993
C/S
5000 0
2000 0
1000.0
500 0
200 0
100 0
50 0
20 0
10 0
5 0
2 0
1.0
0 0
PAN ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0840 0000 0000 0000 0000 1200 1240 1320 1400 1440 1520 DEGS
RE 3.4 0 0 0 0 0 0 4 2 3 5 2 5 1 2 1 9 3 1 HHMM
L 3 4 0 0 0 0 0 0 13 6 27 4 68 3 1 2 5 6 3 4 RE
MLT 1.1 0 0 0 0 0 0 23 9 23 1 17 6 13 0 1 6 1 0
MLAT 5.81 0 00 0 00 0 00 0 00 56 04 68 03 78 79 9 33 ***** ***** HRS
INVLAT 57 2 0 0 0 0 0 0 74 2 79 0 83 0 24 9 65 0 57.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 12:18:02 1993
82/045 14-FEB 1500:00 - 2300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1540 0000 1700 1740 1820 1900 1940 2020 0000 0000 2220 DEGS
RE 3.6 0.0 4.6 4.7 4.5 4.1 3.3 2.2 0.0 0.0 3.3 HHMM
L 3.6 0.0 5.0 6.0 7.5 10.6 25.3 55.3 0.0 0.0 3.4 RE
MLT 0.9 0.0 0.8 0.8 0.9 1.2 1.8 10.2 0.0 0.0 0.6
MLAT -7.99 0.00 16.97 27.29 38.08 50.67 67.48 78.11 0.00 0.00 -7.21 HRS
INVLAT 58.0 0.0 63.4 65.8 68.5 72.1 78.5 82.3 0.0 0.0 57.3 DEGS

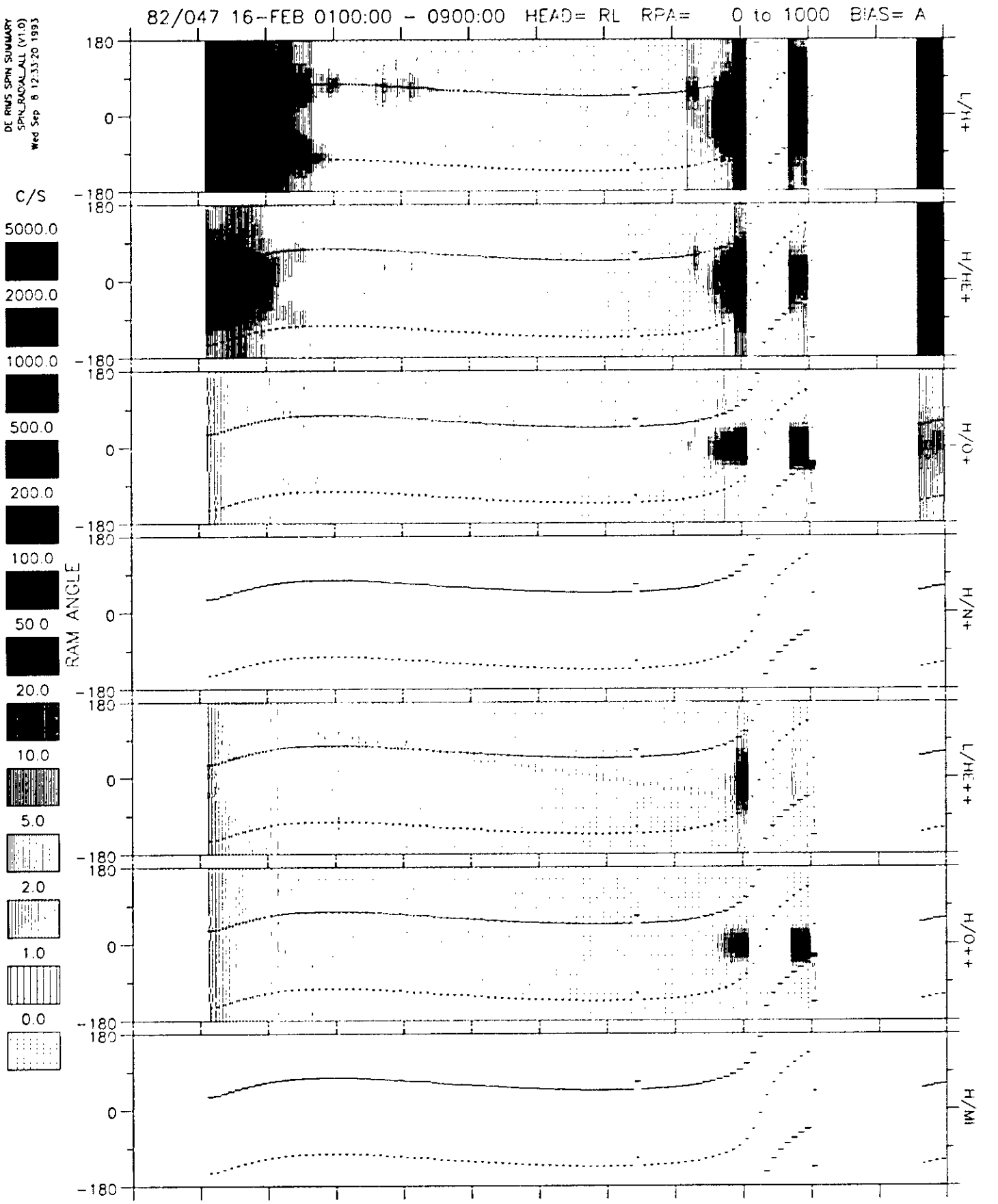

DE RIUS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 12:29:14 1993
82/045 14-FEB 2215:00 - 0615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2255 2335 0015 0055 0135 0215 0255 0335 0415 0000 0535 DEGS
RE 4.0 4.5 4.7 4.6 4.3 3.7 2.7 1.4 1.7 0.0 3.8 RHMV
L 4.1 5.2 6.8 9.6 16.0 47.1 58.8 1.4 3.4 0.0 4.3 RE
MLT 0.8 1.0 1.3 1.5 1.9 3.1 10.6 12.0 0.5 0.0 0.9
MLAT 8.83 23.02 35.47 47.55 60.35 75.03 75.96 15.97 ***** 0.00 18.68 HRS
INVLAT 60.4 64.0 67.5 71.2 75.5 81.6 82.5 33.4 57.1 0.0 61.3 DEGS

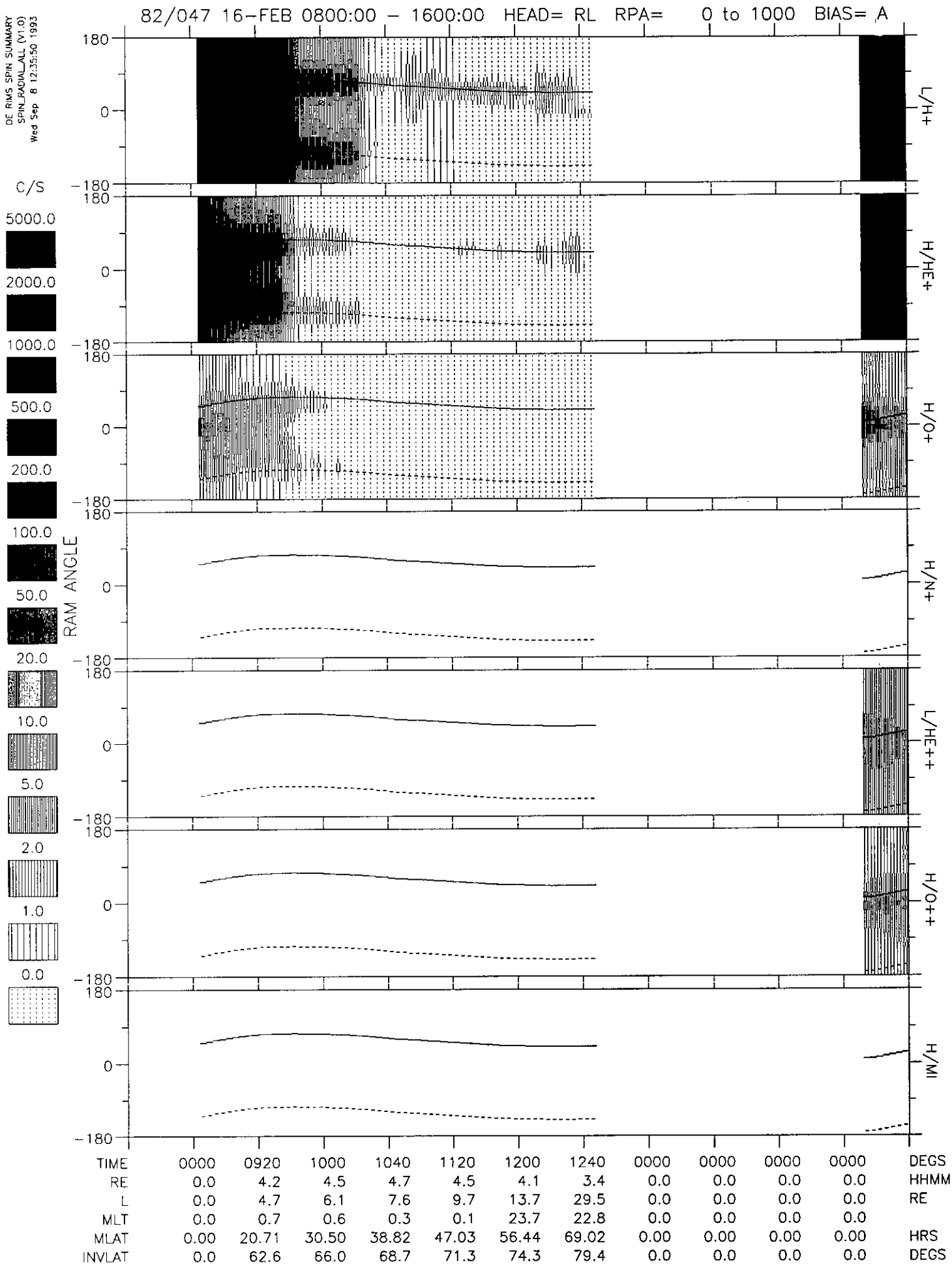

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 12:23:08 1993
82/046 15-FEB 0430:00 - 1230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0550 0630 0710 0750 0000 0000 0000 0000 0000 1150 DEGS
RE 0.0 4.1 4.5 4.7 4.6 0.0 0.0 0.0 0.0 0.0 3.1 HHMM
L 0.0 4.9 6.9 9.7 14.0 0.0 0.0 0.0 0.0 0.0 3.1 RE
MLT 0.0 0.9 0.8 0.7 0.4 0.0 0.0 0.0 0.0 0.0 1.1
MLAT 0.00 24.09 36.02 45.93 55.21 0.00 0.00 0.00 0.00 0.00 ***** HRS
INVLAT 0.0 63.3 67.7 71.2 74.5 0.0 0.0 0.0 0.0 0.0 55.7 DEGS

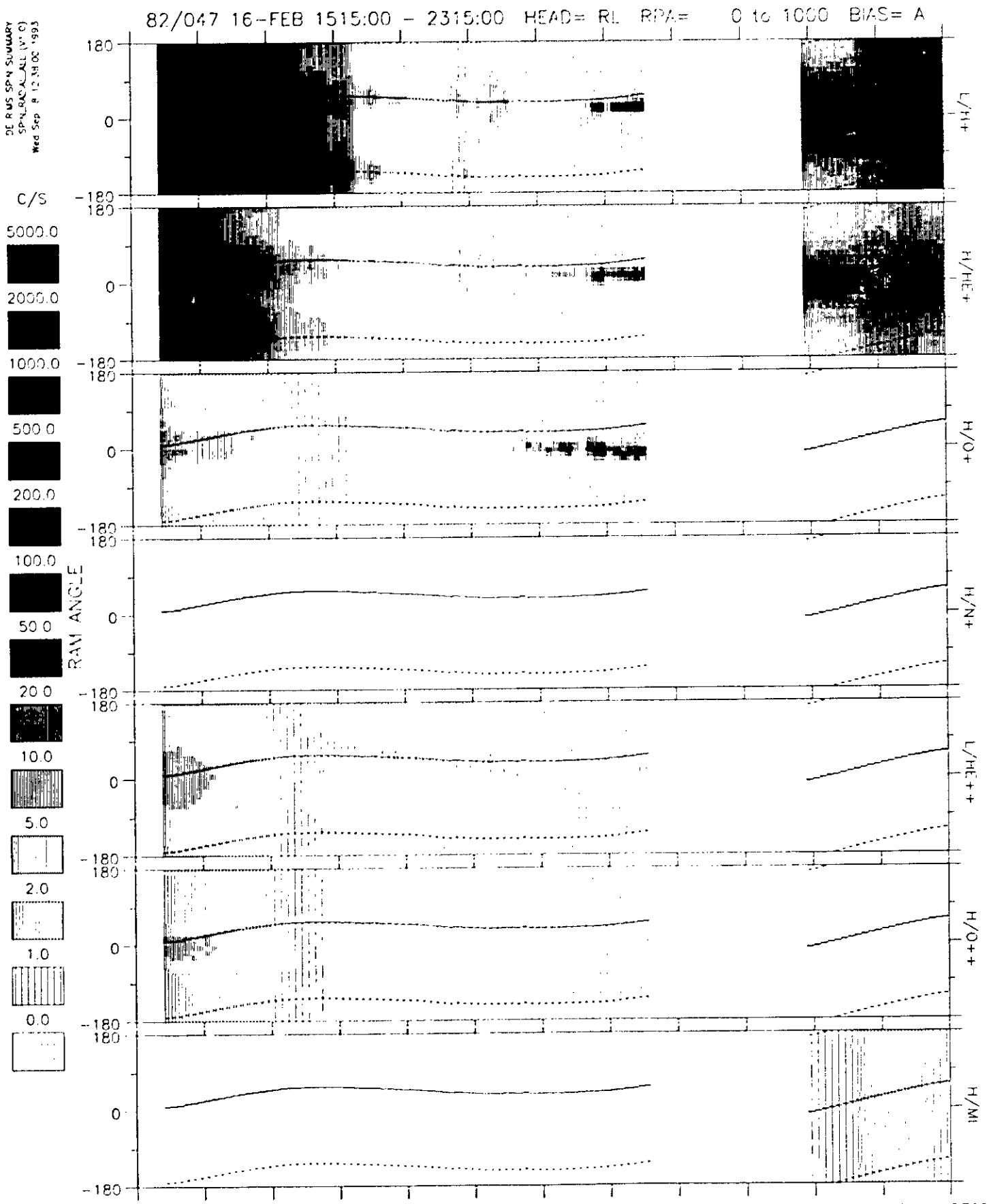

82/046 15-FEB 1130:00 - 1930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
SE RMS SPIN SUMMARY
SPIN_RACAL_ALL (V1.0)
Wed Sep 8 12:29:41 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
H/L+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1210 1250 1330 1410 1450 1530 0000 0000 0000 0000 0000 DEGS
RE 3.5 4.2 4.6 4.7 4.5 4.1 0.0 0.0 0.0 0.0 0.0 RE/MM
L 3.5 4.3 5.2 6.2 7.7 10.5 0.0 0.0 0.0 0.0 0.0 RE
MLT 1.0 0.8 0.6 0.5 0.4 0.3 0.0 0.0 0.0 0.0 0.0
MLAT -1.02 11.85 21.56 30.33 39.49 50.42 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 57.6 61.2 64.5 67.4 69.8 72.0 0.0 0.0 0.0 0.0 0.0 DEGS

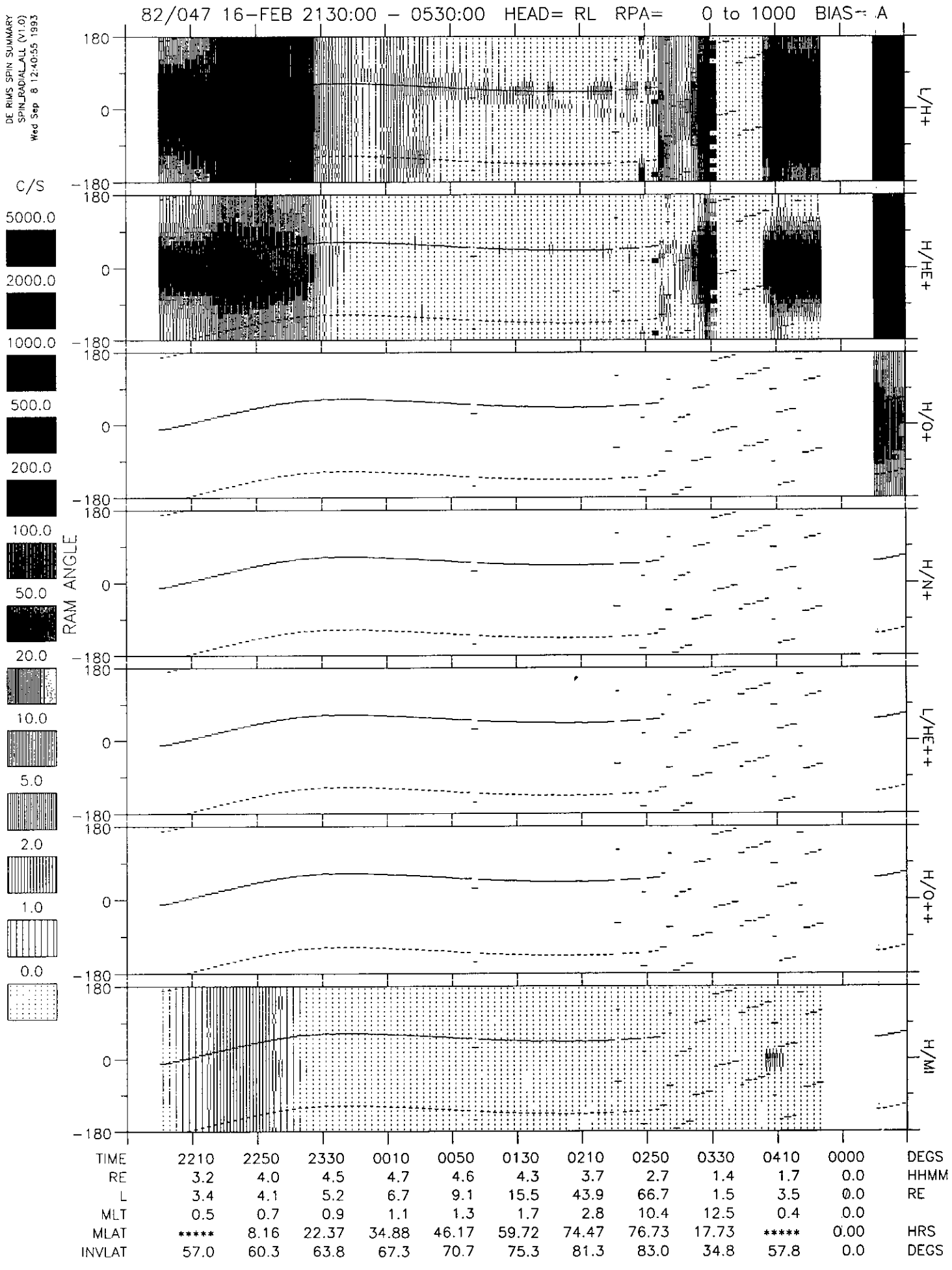


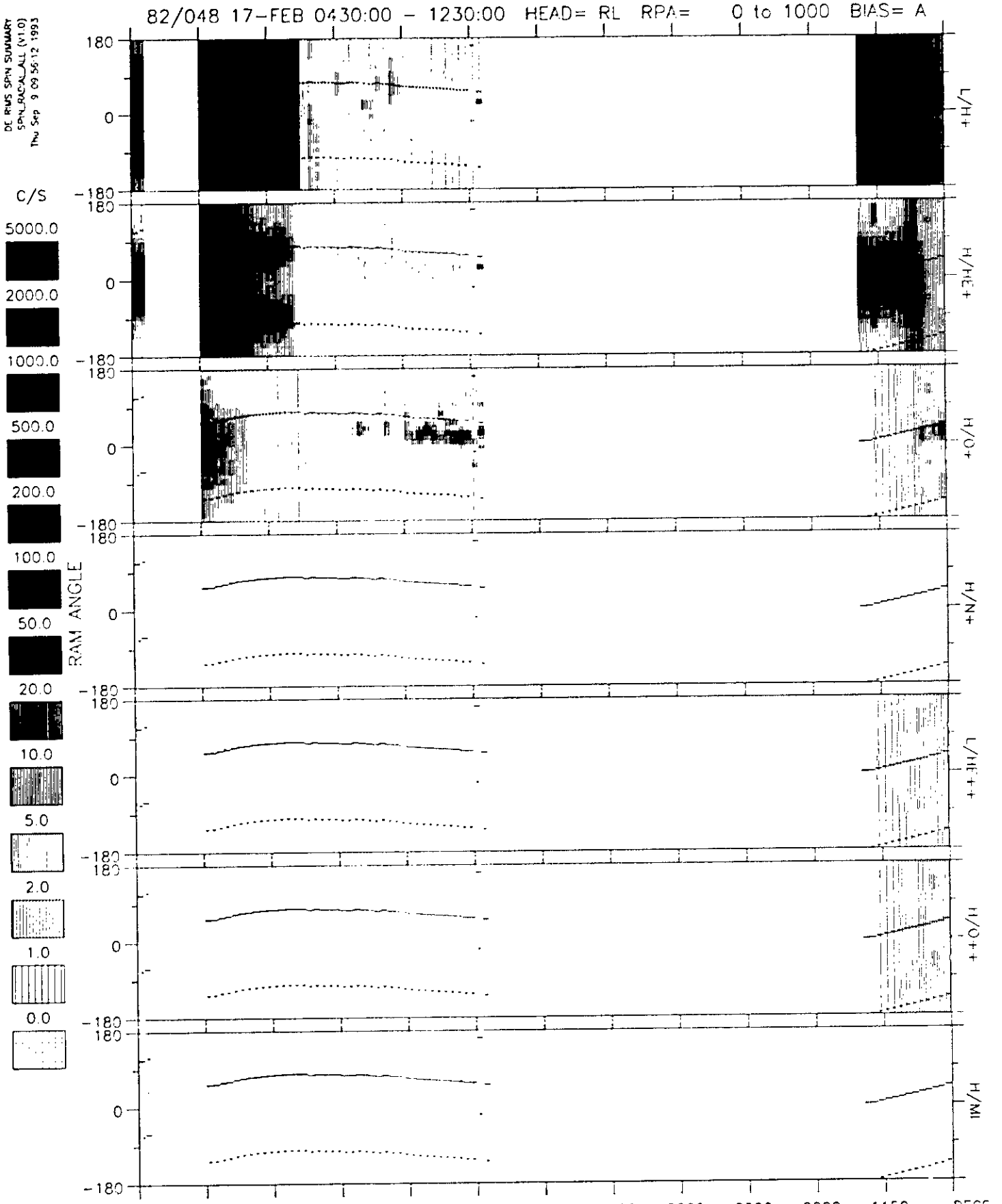
TIME	1855	1935	2015	2055	2135	2215	2255	2335	0000	0000	0000	DEGS
RE	3.4	4.1	4.5	4.7	4.6	4.2	3.5	2.5	0.0	0.0	0.0	HHMM
L	3.5	4.1	4.9	6.1	7.8	11.6	26.8	46.5	0.0	0.0	0.0	RE
MLT	0.7	0.8	0.9	1.0	1.3	1.7	2.7	9.3	0.0	0.0	0.0	
MLAT	*****	3.64	16.64	28.41	40.20	53.13	68.63	75.21	0.00	0.00	0.00	HRS
INVLAT	57.7	60.4	63.2	66.0	69.1	72.9	78.9	81.6	0.0	0.0	0.0	DEGS

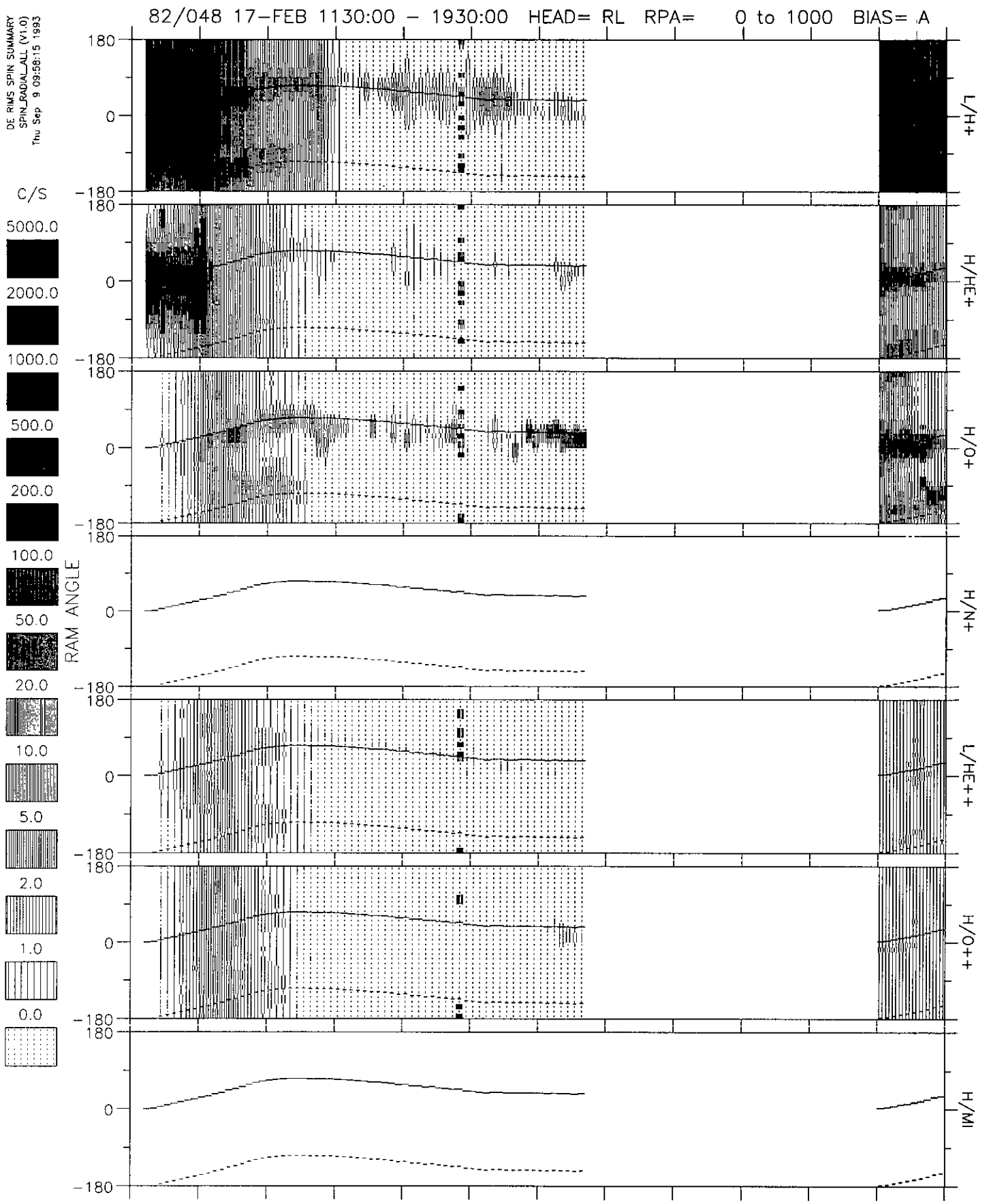

82/047 16-FEB 0100:00 - 0900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 12:33:20 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0220 0300 0340 0420 0500 0540 0620 0700 0740 0000 DEGS
RE 0.0 4.0 4.5 4.7 4.6 4.2 3.6 2.6 1.3 1.6 0.0 HHMM
L 0.0 4.5 6.2 8.8 13.8 27.5 100.0 44.6 1.3 3.9 0.0 RE
MLT 0.0 0.8 0.9 1.0 1.1 1.0 0.6 13.4 13.0 1.5 0.0
MLAT 0.00 18.89 32.58 44.42 55.77 67.83 82.54 74.28 9.69 ***** 0.00 HRS
INVLAT 0.0 61.8 66.3 70.4 74.4 79.0 85.5 81.4 28.4 59.8 0.0 DEGS


82/047 16-FEB 0800:00 - 1600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 12:35:50 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0920 1000 1040 1120 1200 1240 0000 0000 0000 0000 DEGS
RE 0.0 4.2 4.5 4.7 4.5 4.1 3.4 0.0 0.0 0.0 0.0 HHMM
L 0.0 4.7 6.1 7.6 9.7 13.7 29.5 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.7 0.6 0.3 0.1 23.7 22.8 0.0 0.0 0.0 0.0
MLAT 0.00 20.71 30.50 38.82 47.03 56.44 69.02 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 62.6 66.0 68.7 71.3 74.3 79.4 0.0 0.0 0.0 0.0 DEGS

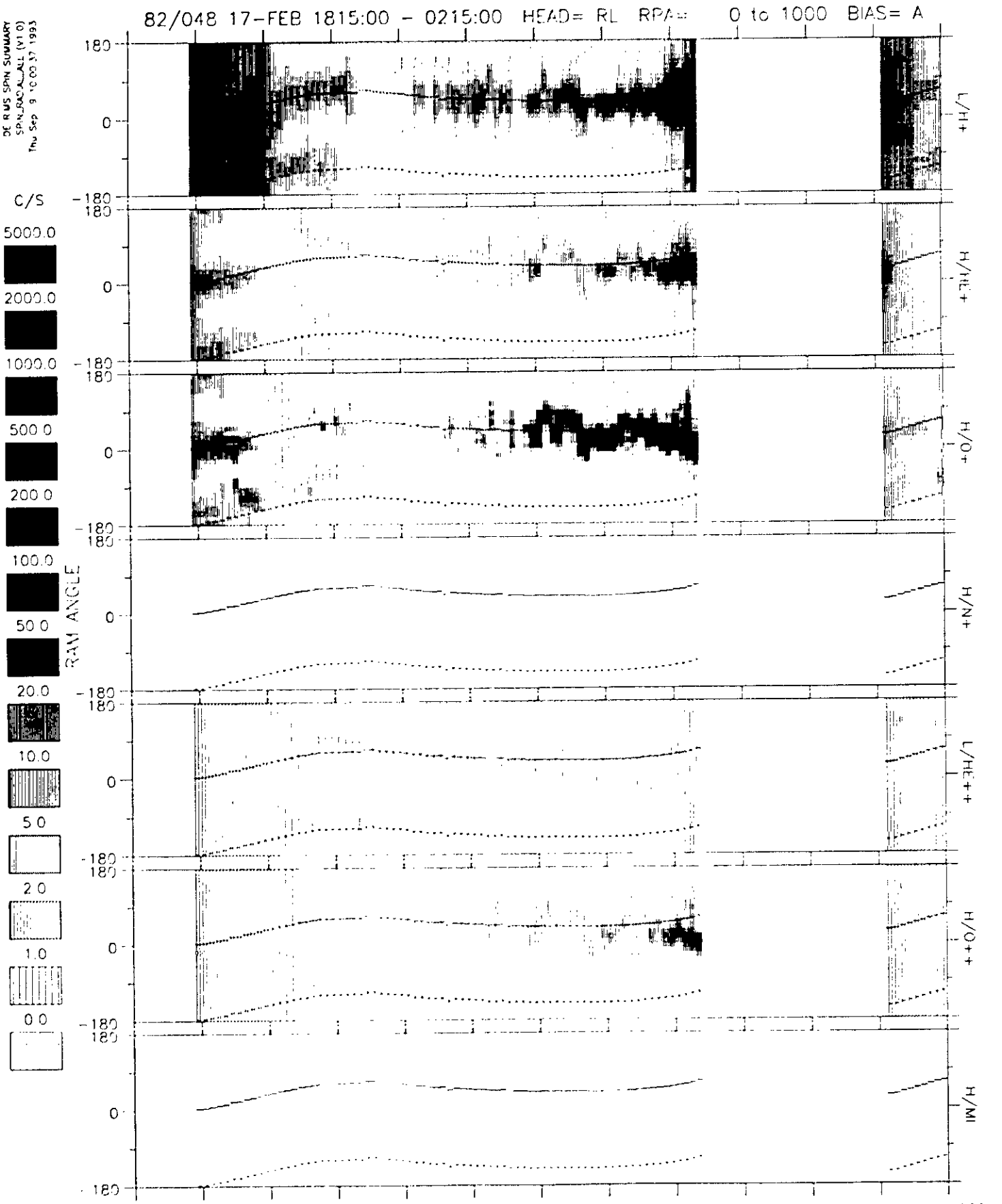

82/047 16-FEB 1515:00 - 2315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RMS SPIN SUMMARY
SPIN_RACAL_ALL (V1 0)
Wed Sep 8 12:39:00 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAW ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1555 1635 1715 1755 1835 1915 1955 0000 0000 2155 2235 DEGS
RE 3.9 4.4 4.7 4.6 4.3 3.7 2.8 0.0 0.0 2.8 3.7 HHMM
L 3.9 4.5 5.4 6.5 8.5 13.9 84.8 0.0 0.0 3.3 3.8 RE
MLT 0.8 0.7 0.7 0.8 0.9 1.2 2.9 0.0 0.0 0.3 0.6
MLAT -1.32 10.83 21.38 31.81 43.31 57.54 77.94 0.00 0.00 ***** 1.93 HRS
INVLAT 59.4 62.0 64.5 66.9 69.9 74.4 83.8 0.0 0.0 56.5 59.0 DEGS

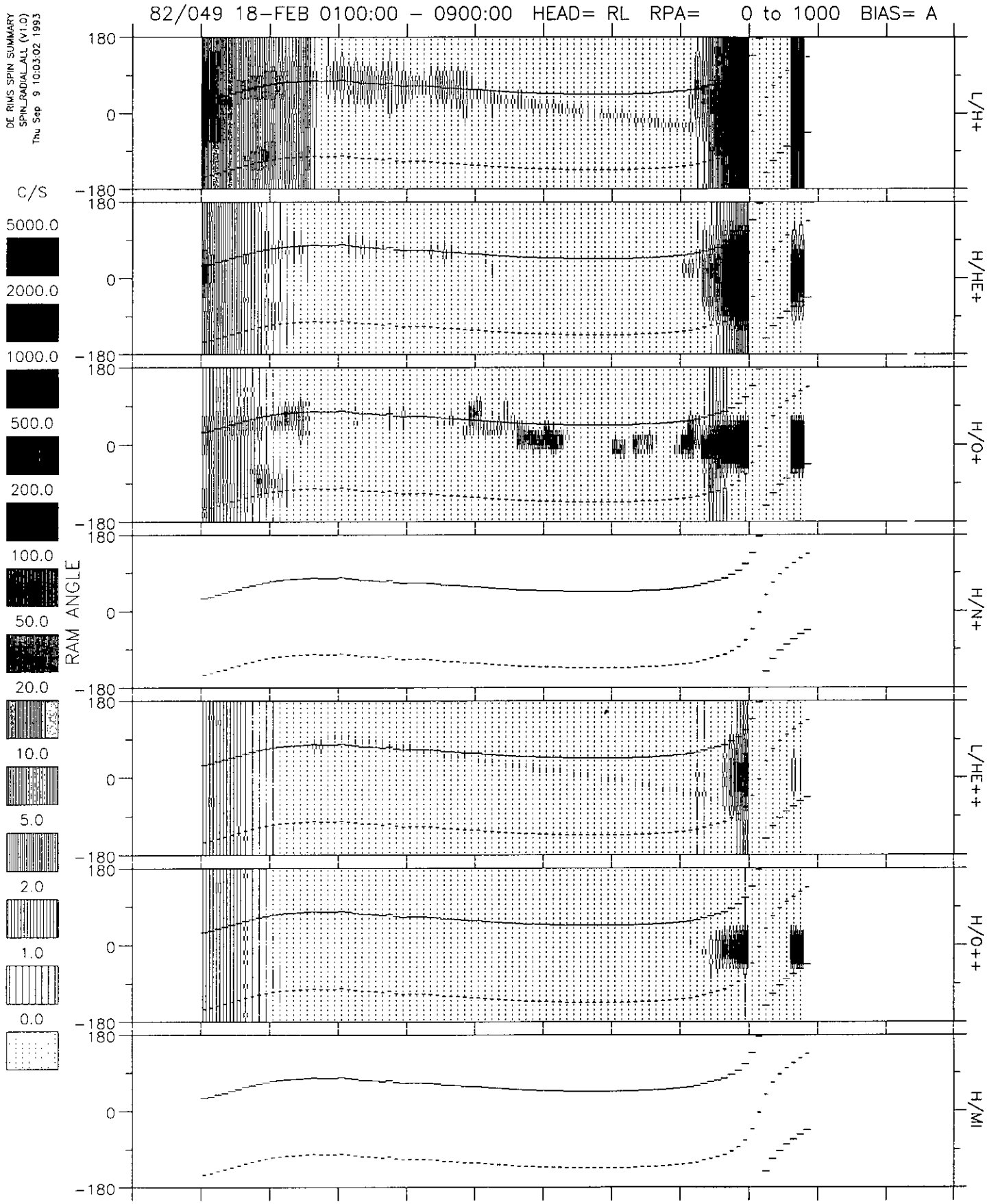

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Sep 8 12:40:55 1993
82/047 16-FEB 2130:00 - 0530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2210 2250 2330 0010 0050 0130 0210 0250 0330 0410 0000 DEGS
RE 3.2 4.0 4.5 4.7 4.6 4.3 3.7 2.7 1.4 1.7 0.0 HHMM
L 3.4 4.1 5.2 6.7 9.1 15.5 43.9 66.7 1.5 3.5 0.0 RE
MLT 0.5 0.7 0.9 1.1 1.3 1.7 2.8 10.4 12.5 0.4 0.0
MLAT ***** 8.16 22.37 34.88 46.17 59.72 74.47 76.73 17.73 ***** 0.00 HRS
INVLAT 57.0 60.3 63.8 67.3 70.7 75.3 81.3 83.0 34.8 57.8 0.0 DEGS

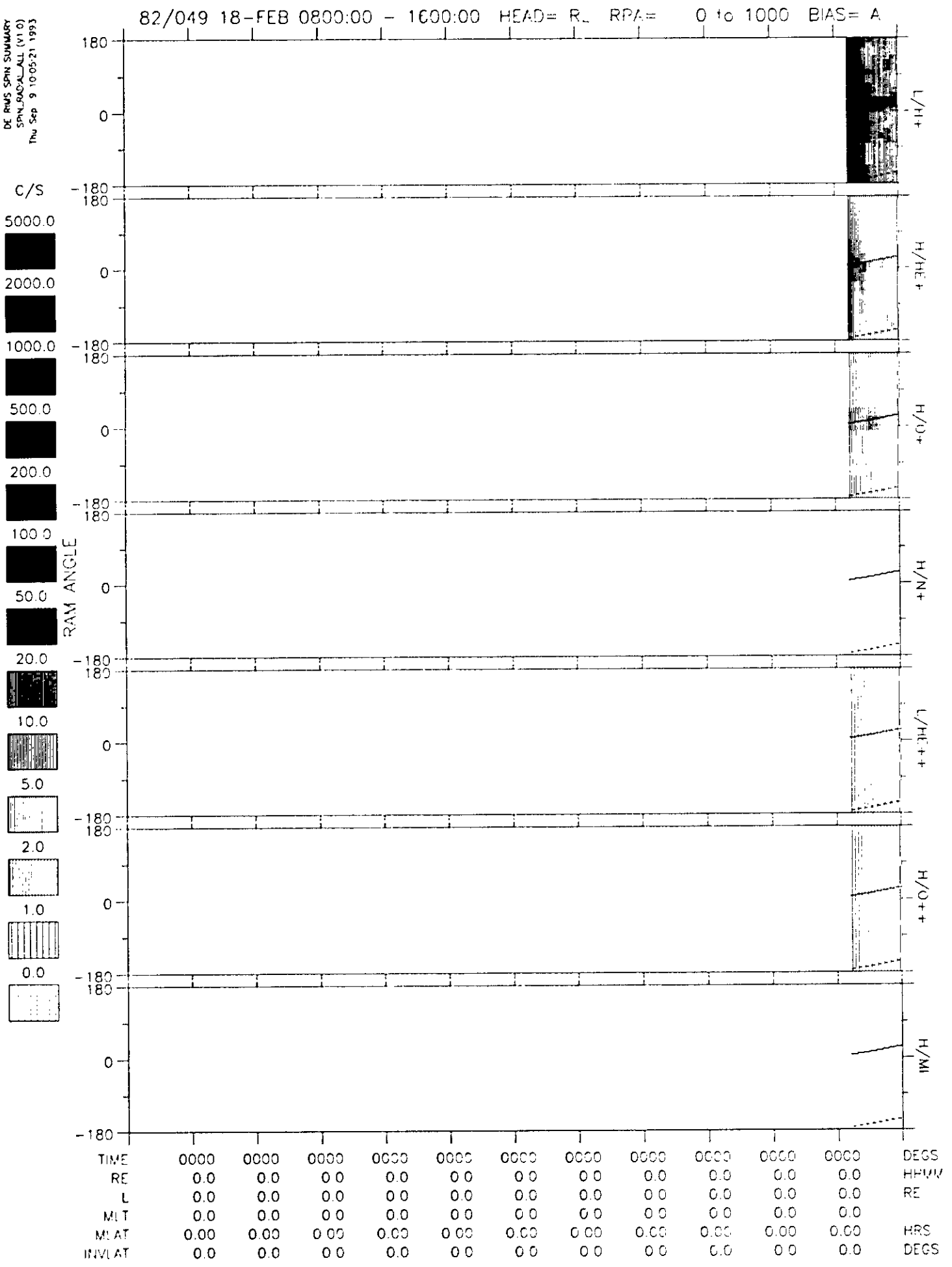

82/048 17-FEB 0430:00 - 1230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RACAL_ALL (V1.0)
Thu Sep 9 09:56:12 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
+N/H
L/HE++
H/O++
IN/H
TIME 0510 0550 0630 0710 0750 0000 0000 0000 0000 0000 1150 DEGS
RE 3.4 4.1 4.5 4.7 4.5 0.0 0.0 0.0 0.0 0.0 3.2 HE/W
L 3.6 5.1 7.1 9.8 14.2 0.0 0.0 0.0 0.0 0.0 3.2 RE
MLT 0.7 0.8 0.7 0.5 0.2 0.0 0.0 0.0 0.0 0.0 0.9
MLAT 9.18 24.97 36.50 46.30 55.52 0.00 0.00 0.00 0.00 0.00 -8.63 HRS
INVLAT 58.1 63.7 67.9 71.4 74.6 0.0 0.0 0.0 0.0 0.0 56.2 DEGS

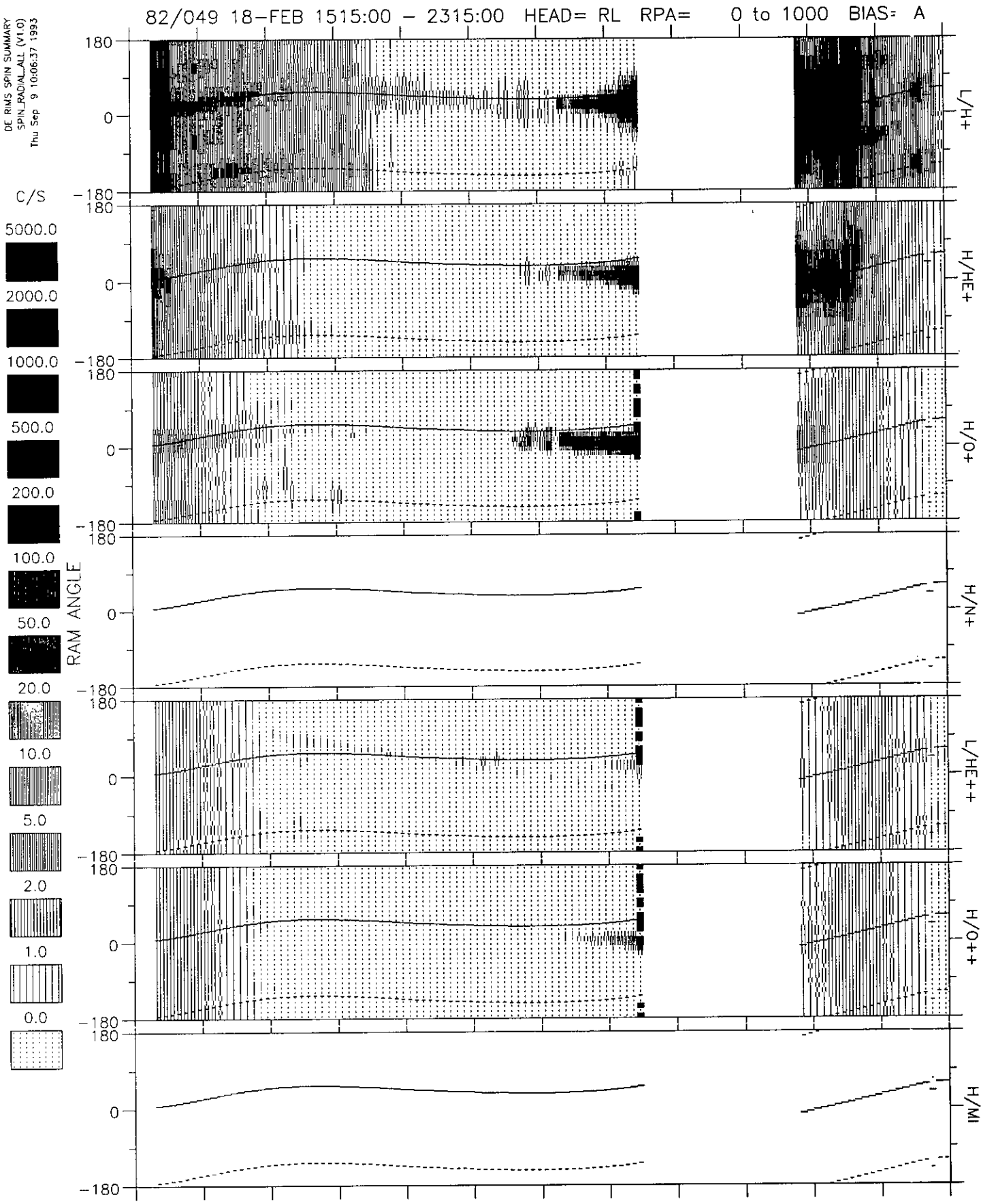


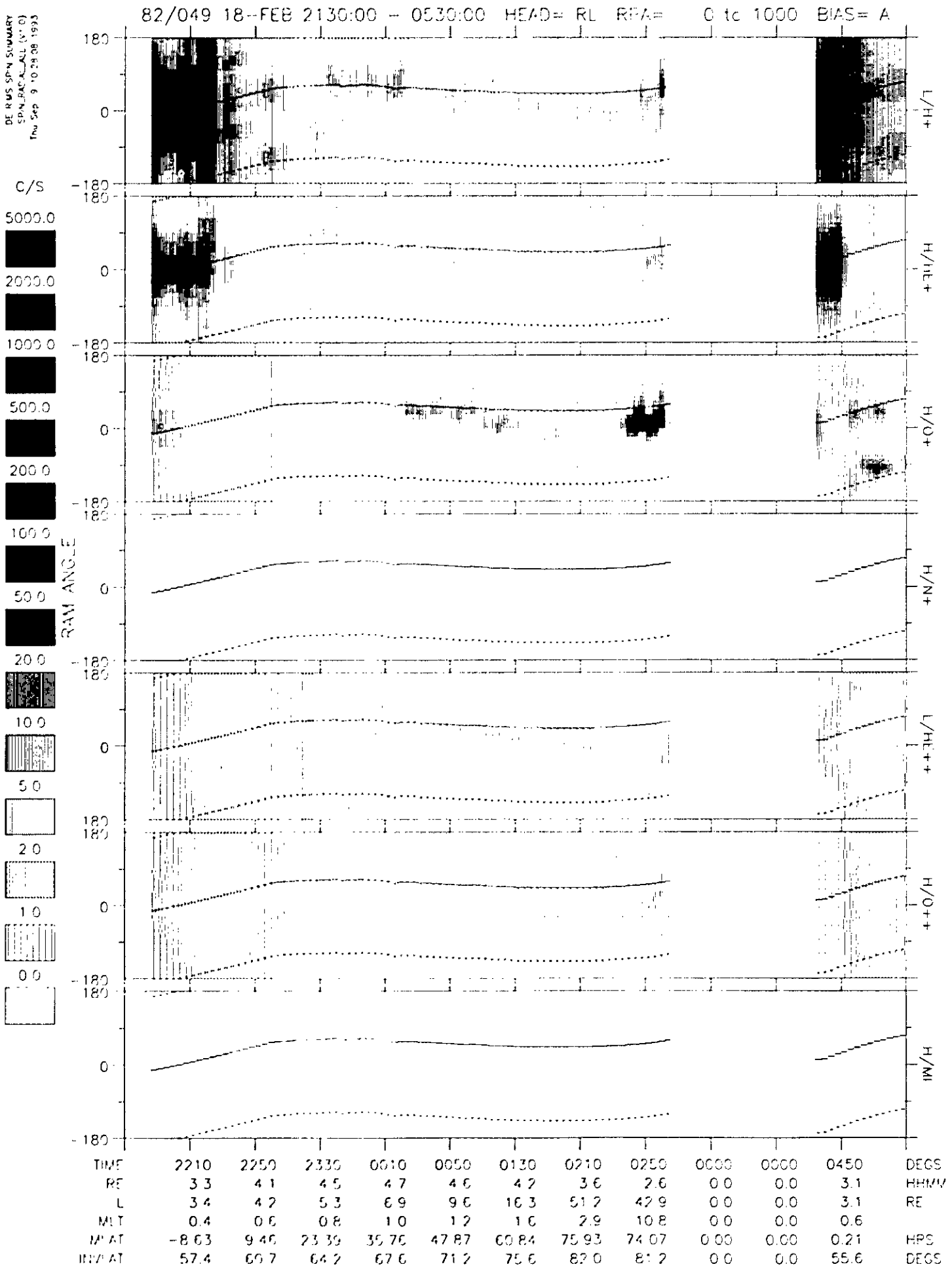
TIME	1210	1250	1330	1410	1450	1530	0000	0000	0000	0000	1850	DEGS
RE	3.6	4.2	4.6	4.7	4.5	4.0	0.0	0.0	0.0	0.0	3.4	HHMM
L	3.6	4.4	5.2	6.3	7.7	10.7	0.0	0.0	0.0	0.0	3.5	RE
MLT	0.8	0.6	0.5	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.6	
MLAT	-0.03	12.29	21.82	30.59	39.90	51.18	0.00	0.00	0.00	0.00	*****	HRS
INVLAT	58.1	61.5	64.1	66.5	68.9	72.2	0.0	0.0	0.0	0.0	57.8	DEGS

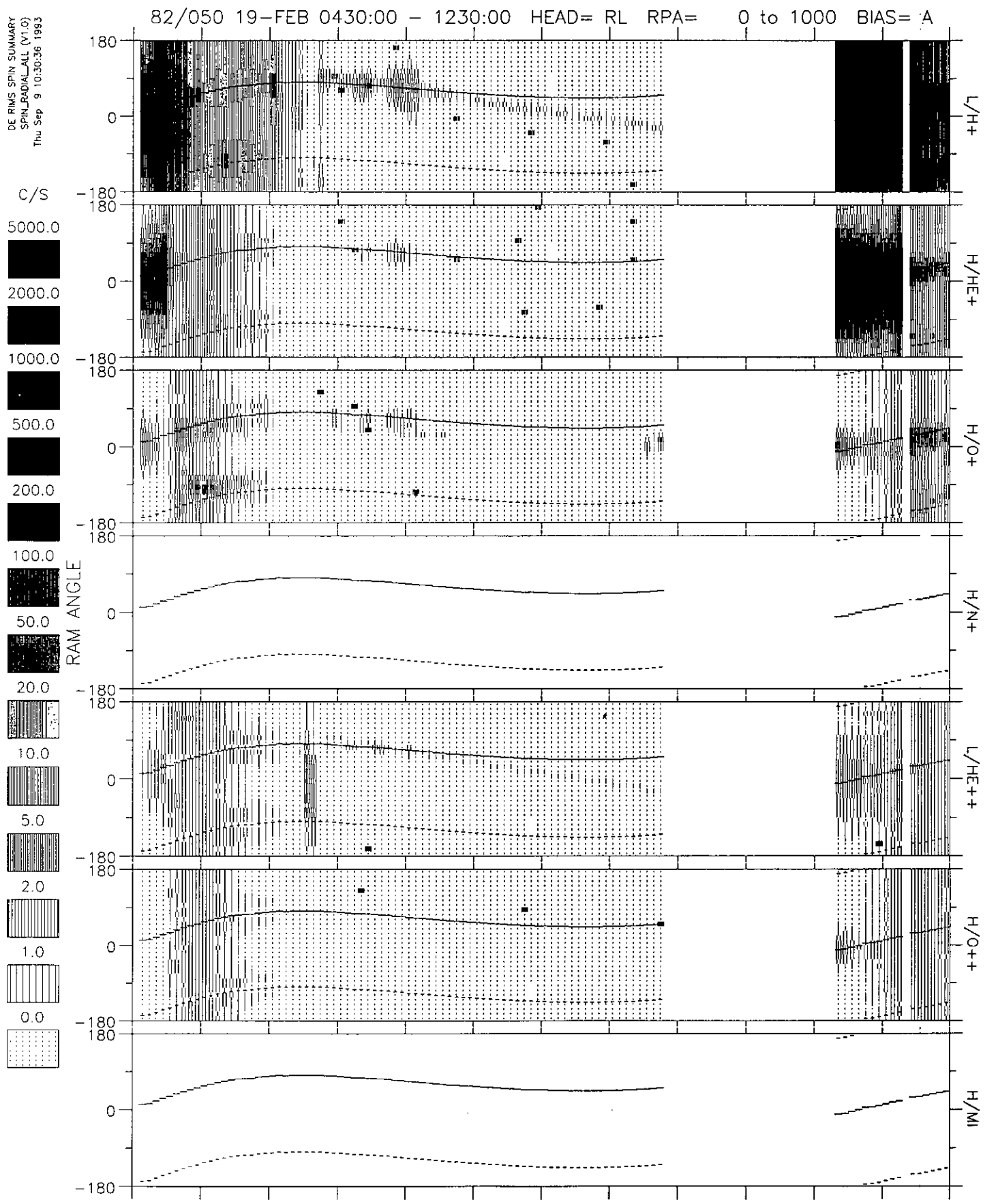

82/048 17-FEB 1815:00 - 0215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R WS SPIN SUMMARY
SPIN_RACAL_ALL (V1.0)
Thu Sep 9 10:00:37 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
H/+
H/TLE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1855 1935 2015 2055 2135 2215 2255 2335 0000 0000 0000 DEGS
RE 3.5 4.2 4.6 4.7 4.5 4.1 3.4 2.3 0.0 0.0 0.0 HHMM
L 3.6 4.2 5.0 6.2 8.0 12.0 30.2 28.7 0.0 0.0 0.0 RE
MLT 0.6 0.7 0.8 0.9 1.2 1.6 2.8 9.9 0.0 0.0 0.0
MLAT ***** 4.66 17.45 29.19 41.07 54.23 70.16 72.23 0.00 0.00 0.00 HRS
INVLAT 58.0 60.7 63.5 66.2 69.3 73.2 79.5 79.2 0.0 0.0 0.0 DEGS


82/049 18-FEB 0100:00 - 0900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 10:03:02 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0140 0220 0300 0340 0420 0500 0540 0620 0700 0000 0000 DEGS
RE 3.4 4.1 4.5 4.7 4.6 4.2 3.5 2.5 1.2 0.0 0.0 HHMM
L 3.4 4.6 6.4 9.1 14.3 29.3 100.0 28.3 1.1 0.0 0.0 RE
MLT 0.5 0.7 0.8 0.9 0.9 0.9 0.2 13.3 12.8 0.0 0.0
MLAT 2.64 20.12 33.47 45.18 56.52 68.73 83.91 70.98 -6.58 0.00 0.00 HRS
INVLAT 57.4 62.3 66.6 70.6 74.7 79.4 86.2 79.2 18.6 0.0 0.0 DEGS

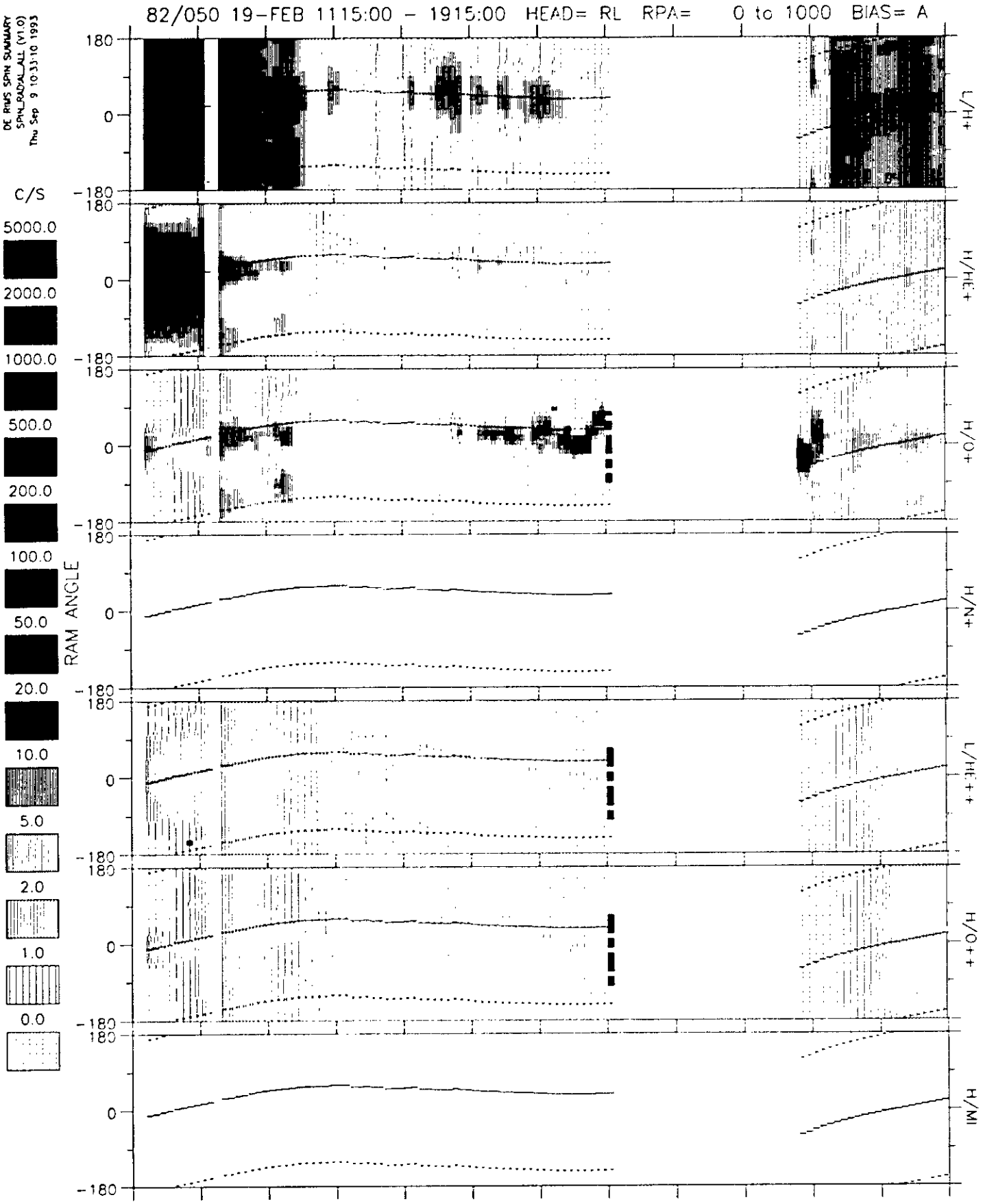

82/049 18-FEB 0800:00 - 1600:00 HEAD= R RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 10:05:21 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

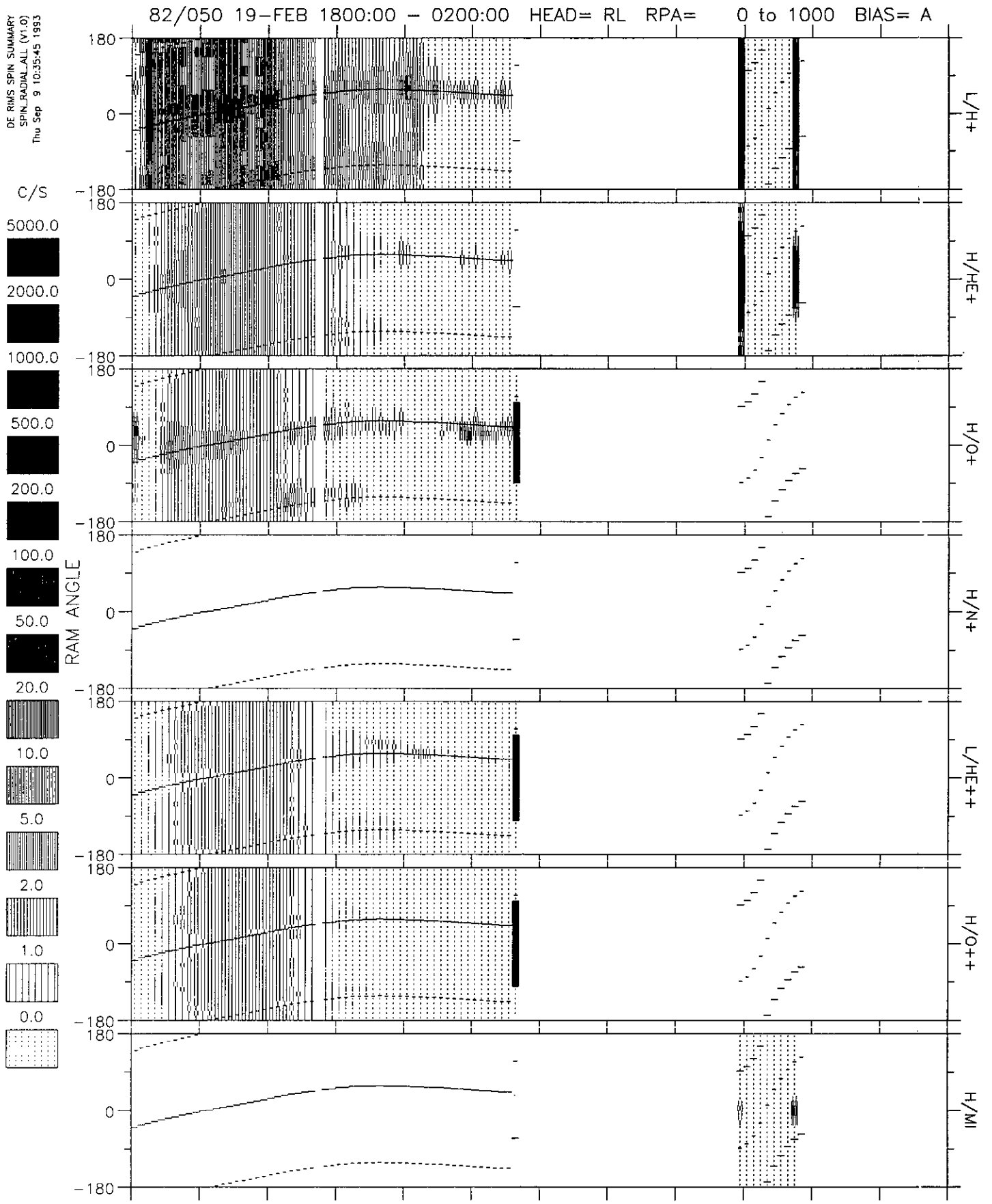

82/049 18-FEB 1515:00 - 2315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 10:06:37 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1555 1635 1715 1755 1835 1915 1955 0000 0000 2155 2235 DEGS
RE 4.0 4.5 4.7 4.6 4.3 3.7 2.7 0.0 0.0 2.9 3.8 HHMM
L 3.9 4.6 5.4 6.6 8.6 14.6 100.0 0.0 0.0 3.3 3.9 RE
MLT 0.6 0.6 0.6 0.7 0.8 1.2 3.5 0.0 0.0 0.3 0.5
MLAT -0.50 11.38 21.87 32.39 44.12 58.86 80.06 0.00 0.00 ***** 3.43 HRS
INVLAT 59.7 62.2 64.6 67.0 70.1 74.8 84.9 0.0 0.0 56.7 59.4 DEGS

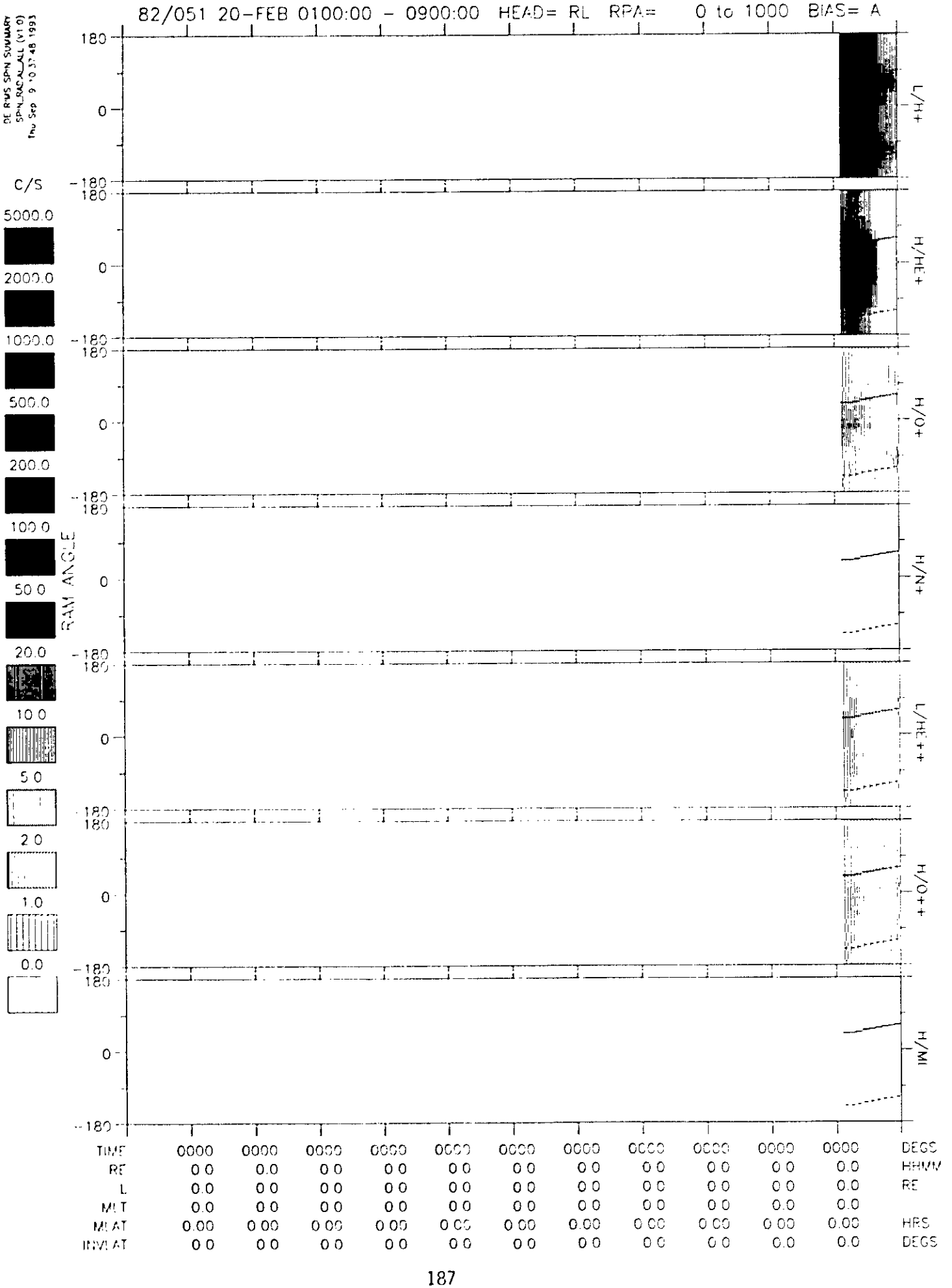

82/049 18--FEB 2130:00 - 0530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RUS SPIN SUMMARY
SPIN_RAD_ALL (V1.0)
Thu Sep 9 10:29:08 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2210 2250 2330 0010 0050 0130 0210 0250 0000 0000 0450 DEGS
RE 3.3 4.1 4.5 4.7 4.6 4.2 3.6 2.6 0.0 0.0 3.1 HHMM
L 3.4 4.2 5.3 6.9 9.6 16.3 51.2 42.9 0.0 0.0 3.1 RE
MLT 0.4 0.6 0.8 1.0 1.2 1.6 2.9 10.8 0.0 0.0 0.6
MLAT -8.63 9.46 23.39 35.76 47.87 60.84 75.93 74.07 0.00 0.00 0.21 HRS
INVLAT 57.4 60.7 64.2 67.6 71.2 75.6 82.0 81.2 0.0 0.0 55.6 DEGS

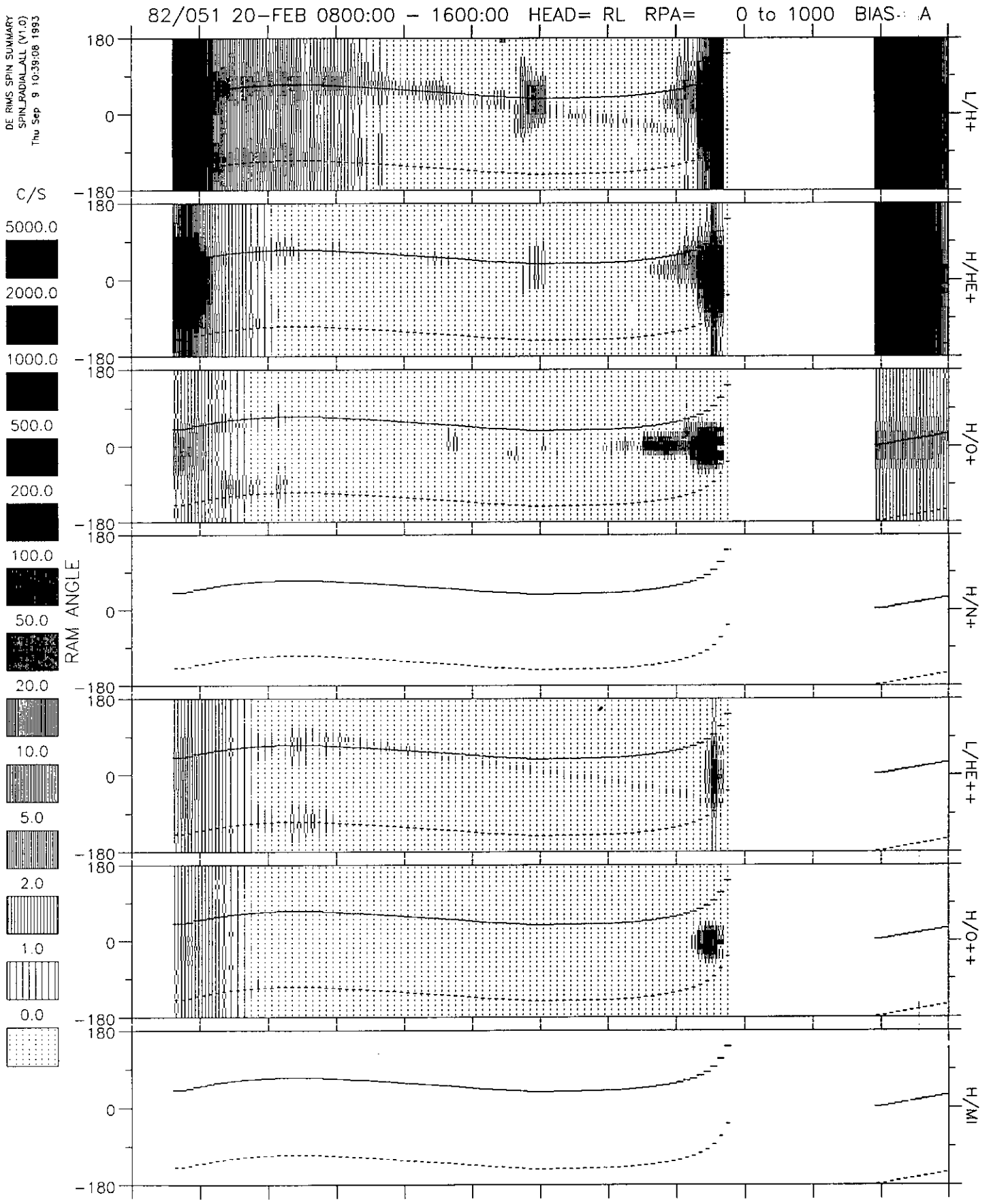


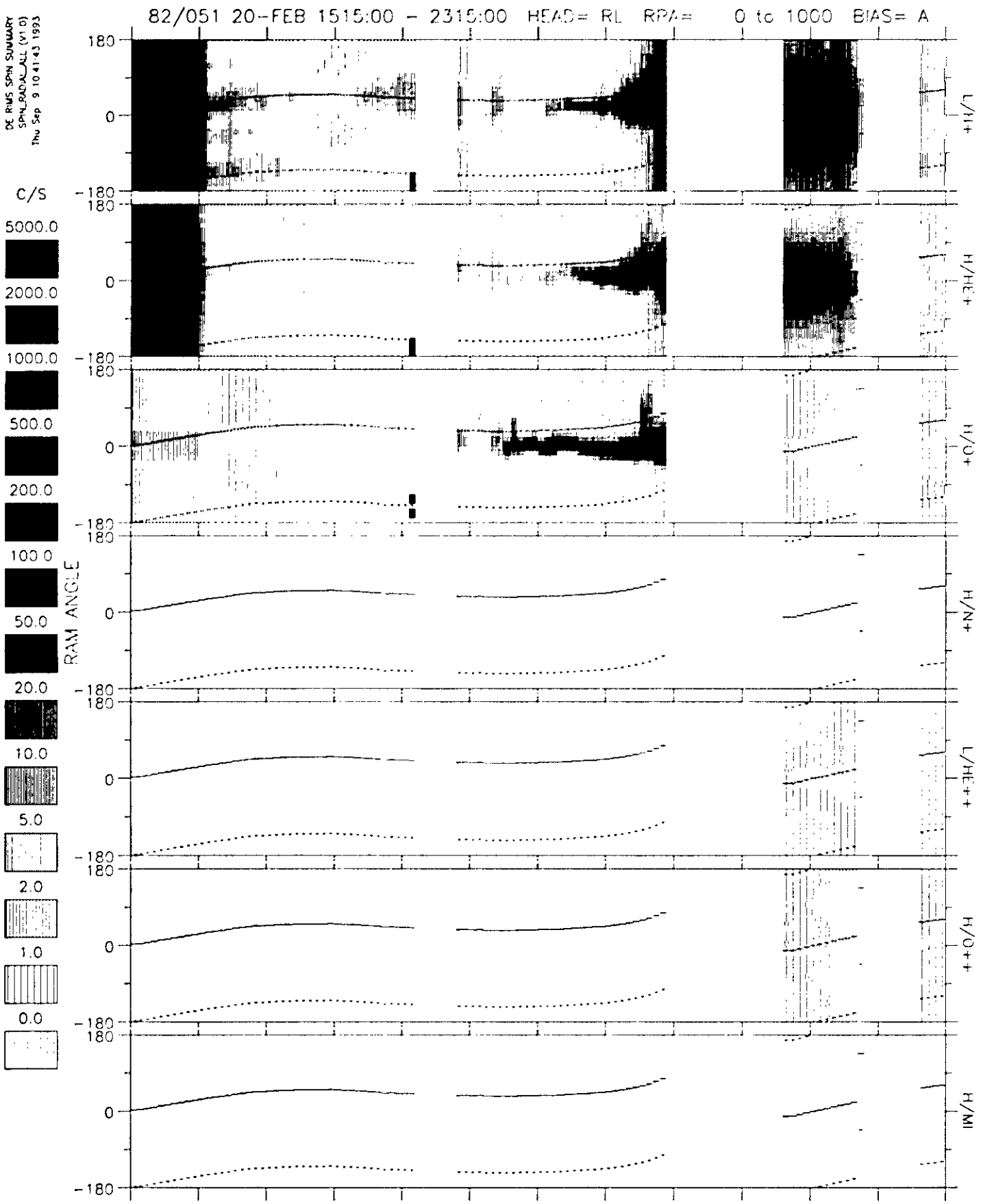
TIME	0510	0550	0630	0710	0750	0830	0910	0000	0000	0000	1150	DEGS
RE	3.5	4.2	4.6	4.7	4.5	4.1	3.4	0.0	0.0	0.0	3.3	HHMM
L	3.7	5.2	7.2	9.9	14.3	24.5	80.1	0.0	0.0	0.0	3.3	RE
MLT	0.6	0.6	0.5	0.4	0.1	23.5	21.5	0.0	0.0	0.0	0.8	
MLAT	10.73	25.76	37.00	46.63	55.86	65.84	77.43	0.00	0.00	0.00	-7.22	HRS
INVLAT	58.8	64.1	68.1	71.5	74.7	78.3	83.6	0.0	0.0	0.0	56.7	DEGS

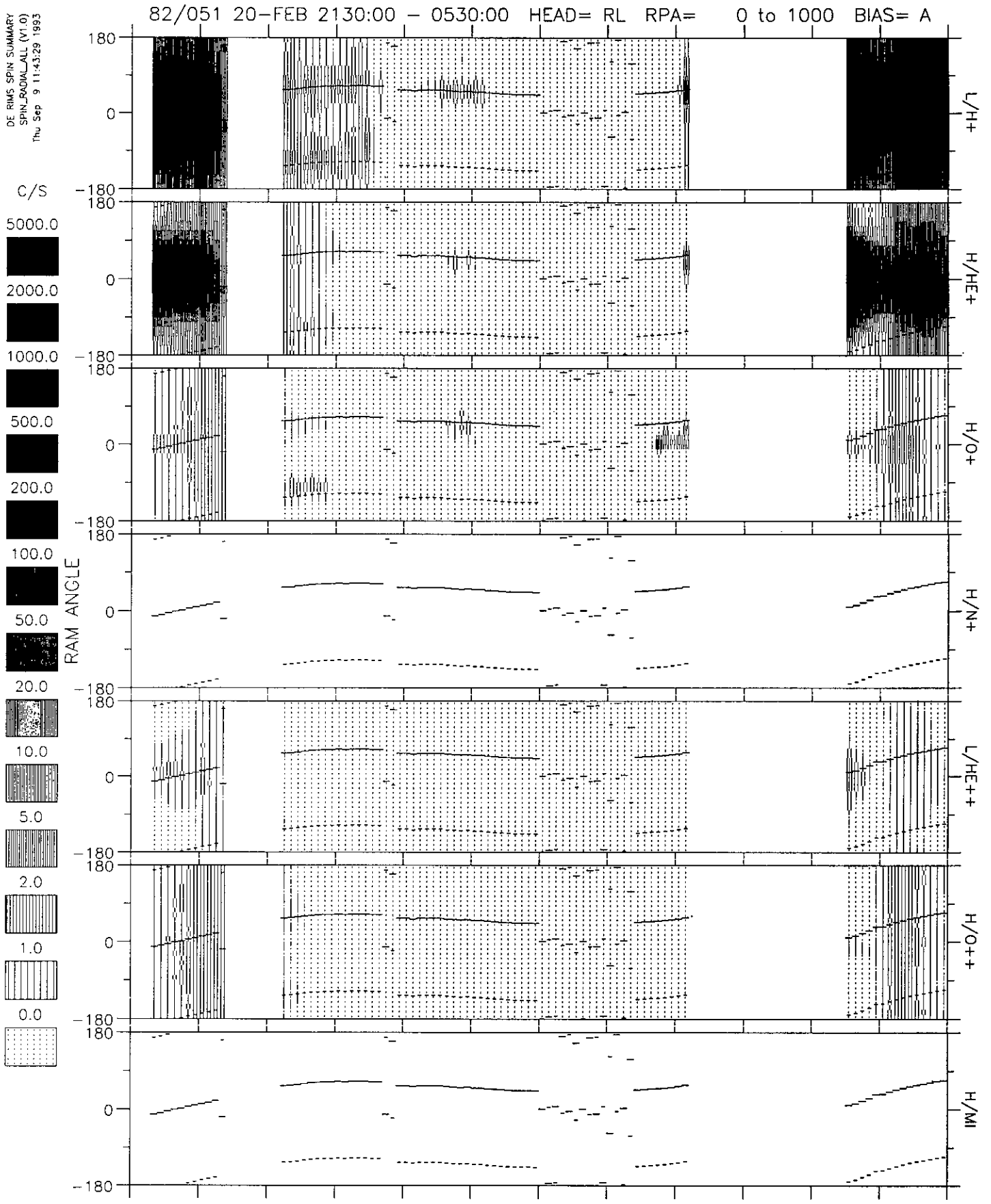

82/050 19-FEB 1115:00 - 1915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 10:33:10 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 1155 1235 1315 1355 1435 1515 1555 0000 0000 1755 1835 DEGS
RE 3.4 4.1 4.5 4.7 4.6 4.2 3.6 0.0 0.0 1.9 3.1 HHMM
L 3.4 4.2 5.0 5.9 7.1 9.3 15.8 0.0 0.0 6.6 3.5 RE
MLT 0.8 0.5 0.4 0.3 0.2 0.1 0.1 0.0 0.0 0.4 0.4
MLAT -5.02 8.66 18.67 27.52 36.60 47.21 60.34 0.00 0.00 ***** ***** HRS
INVLAT 57.1 60.6 63.3 65.7 68.0 70.9 75.4 0.0 0.0 67.1 57.6 DEGS

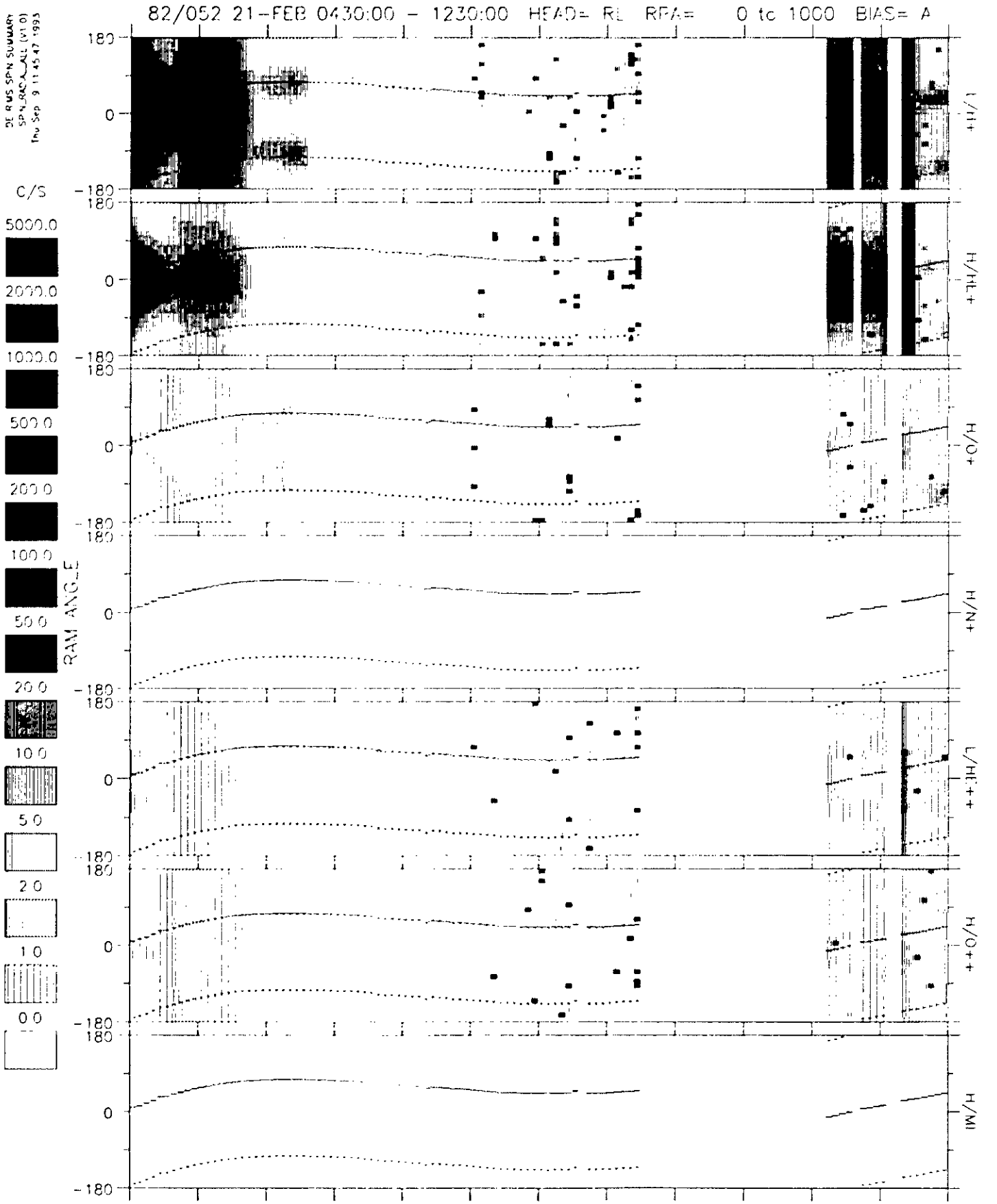

82/050 19-FEB 1800:00 - 0200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 10:35:45 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1840 1920 2000 2040 2120 0000 0000 0000 0000 0000 0000 DEGS
RE 3.3 4.0 4.5 4.7 4.6 0.0 0.0 0.0 1.3 0.0 0.0 HHMM
L 3.5 4.0 4.8 5.8 7.3 0.0 0.0 0.0 1.4 0.0 0.0 RE
MLT 0.4 0.5 0.6 0.8 1.0 0.0 0.0 0.0 12.1 0.0 0.0
MLAT ***** 0.38 13.76 25.65 37.41 0.00 0.00 0.00 19.39 0.00 0.00 HRS
INVLAT 57.7 60.0 62.7 65.4 68.2 0.0 0.0 0.0 33.4 0.0 0.0 DEGS

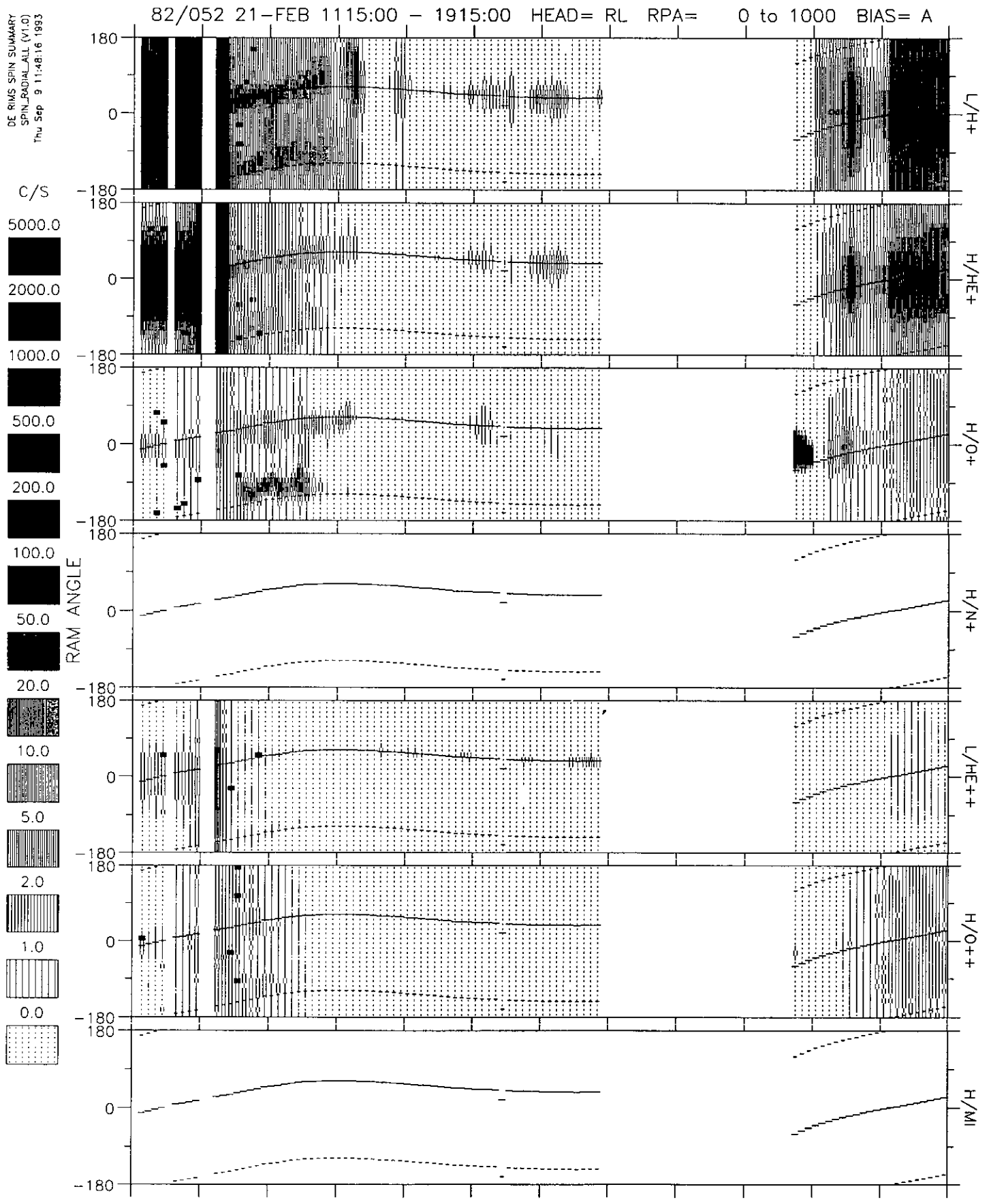

82/051 20-FEB 0100:00 - 0900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RACAL_ALL (V1.0)
Thu Sep 9 10:37:48 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

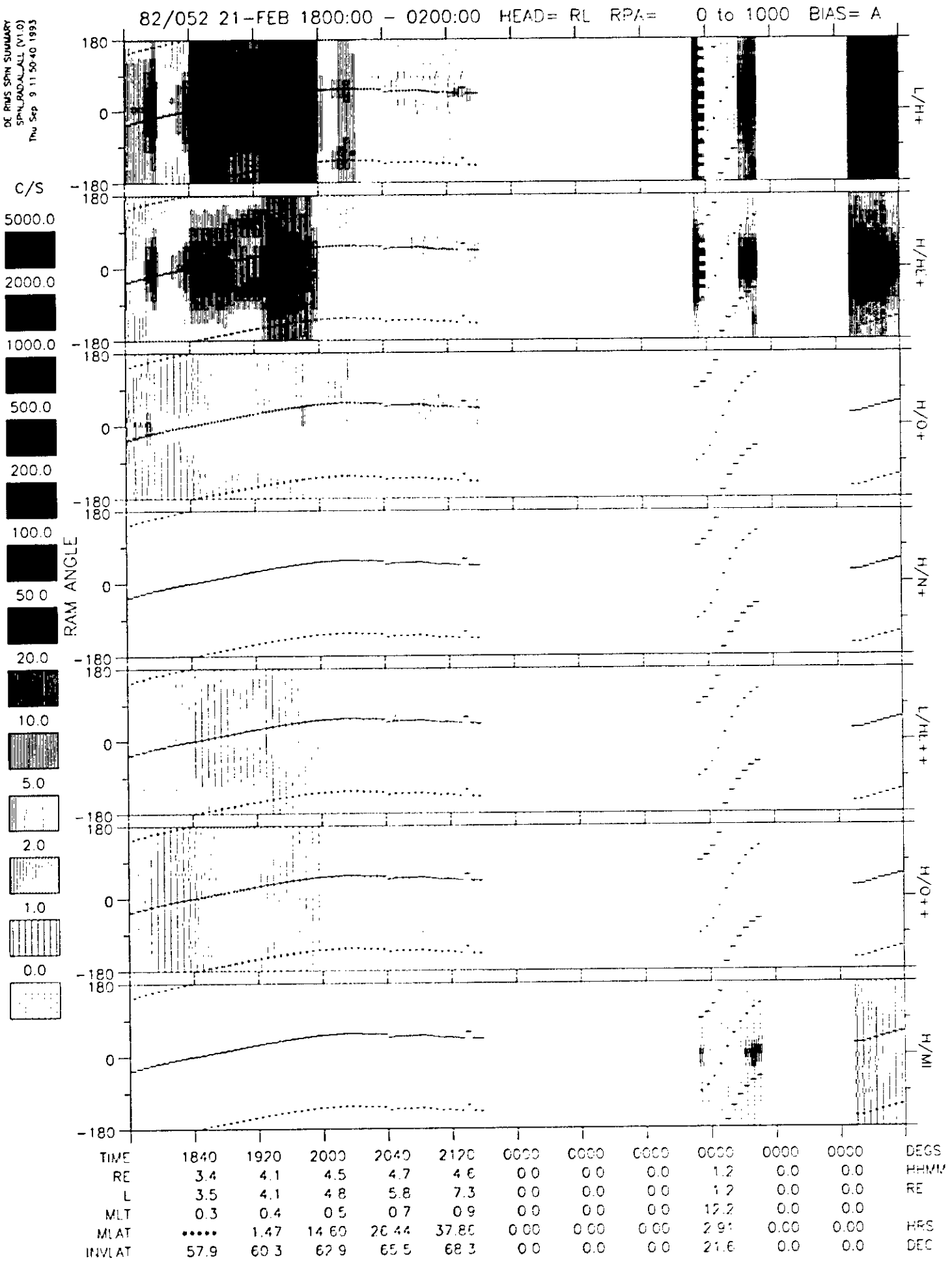

82/051 20-FEB 0800:00 - 1600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 10:39:08 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0840 0920 1000 1040 1120 1200 1240 1320 0000 0000 1520 DEGS
RE 3.7 4.3 4.6 4.7 4.5 4.0 3.2 2.0 0.0 0.0 3.4 HHMM
L 3.8 4.9 6.2 7.6 9.7 14.1 36.0 16.0 0.0 0.0 3.5 RE
MLT 0.6 0.4 0.2 0.0 23.8 23.4 22.3 14.6 0.0 0.0 0.6
MLAT 9.22 21.59 30.88 39.07 47.45 57.43 71.32 70.96 0.00 0.00 ***** HRS
INVLAT 58.9 63.2 66.3 68.8 71.3 74.5 80.4 75.5 0.0 0.0 57.9 DEGS

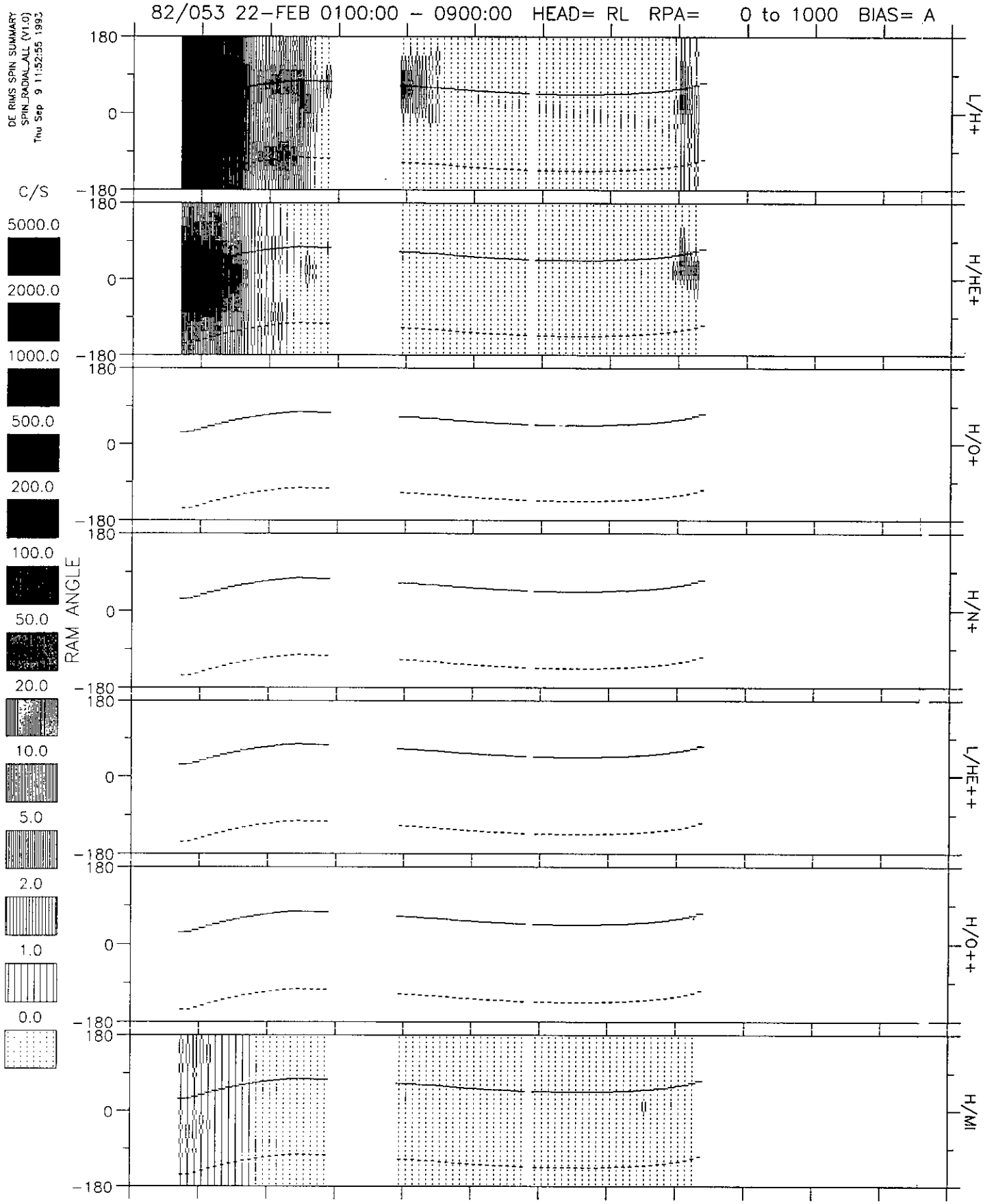

82/051 20-FEB 1515:00 - 2315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 10:41:43 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N
TIME 1555 1635 1715 1755 1835 1915 1955 0000 0000 2155 0000 DEGS
RE 4.1 4.5 4.7 4.6 4.2 3.6 2.6 0.0 0.0 3.1 0.0 HHMM
L 4.0 4.7 5.5 6.6 8.8 15.1 100.0 0.0 0.0 3.4 0.0 RE
MLT 0.5 0.4 0.5 0.6 0.7 1.1 4.6 0.0 0.0 0.2 0.0
MLAT 0.27 11.95 22.41 33.01 44.99 59.68 81.84 0.00 0.00 ***** 0.00 HRS
INVLAT 60.0 62.4 64.7 67.2 70.2 75.1 86.0 0.0 0.0 56.9 0.0 DEGS

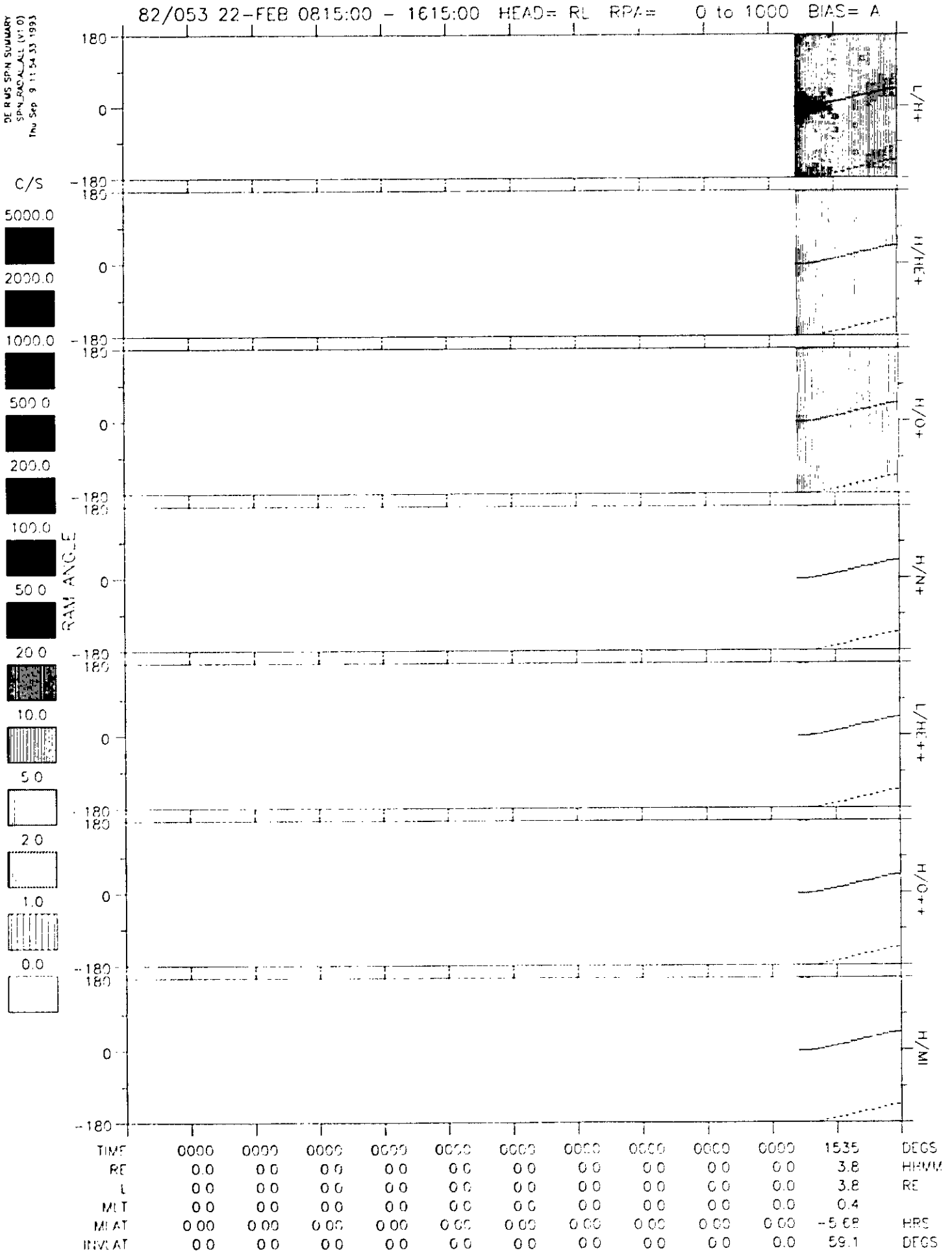

82/051 20-FEB 2130:00 – 0530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 11:43:29 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2210 0000 2330 0010 0050 0130 0210 0250 0000 0000 0450 DEGS
RE 3.4 0.0 4.5 4.7 4.5 4.2 3.5 2.4 0.0 0.0 3.2 HHMM
L 3.5 0.0 5.4 7.0 9.9 17.2 61.5 26.8 0.0 0.0 3.2 RE
MLT 0.3 0.0 0.7 0.9 1.1 1.5 3.1 11.0 0.0 0.0 0.5
MLAT -6.62 0.00 24.40 36.69 48.85 62.01 77.45 70.68 0.00 0.00 2.26 HRS
INVLAT 57.8 0.0 64.4 67.8 71.5 76.0 82.7 78.9 0.0 0.0 56.3 DEGS

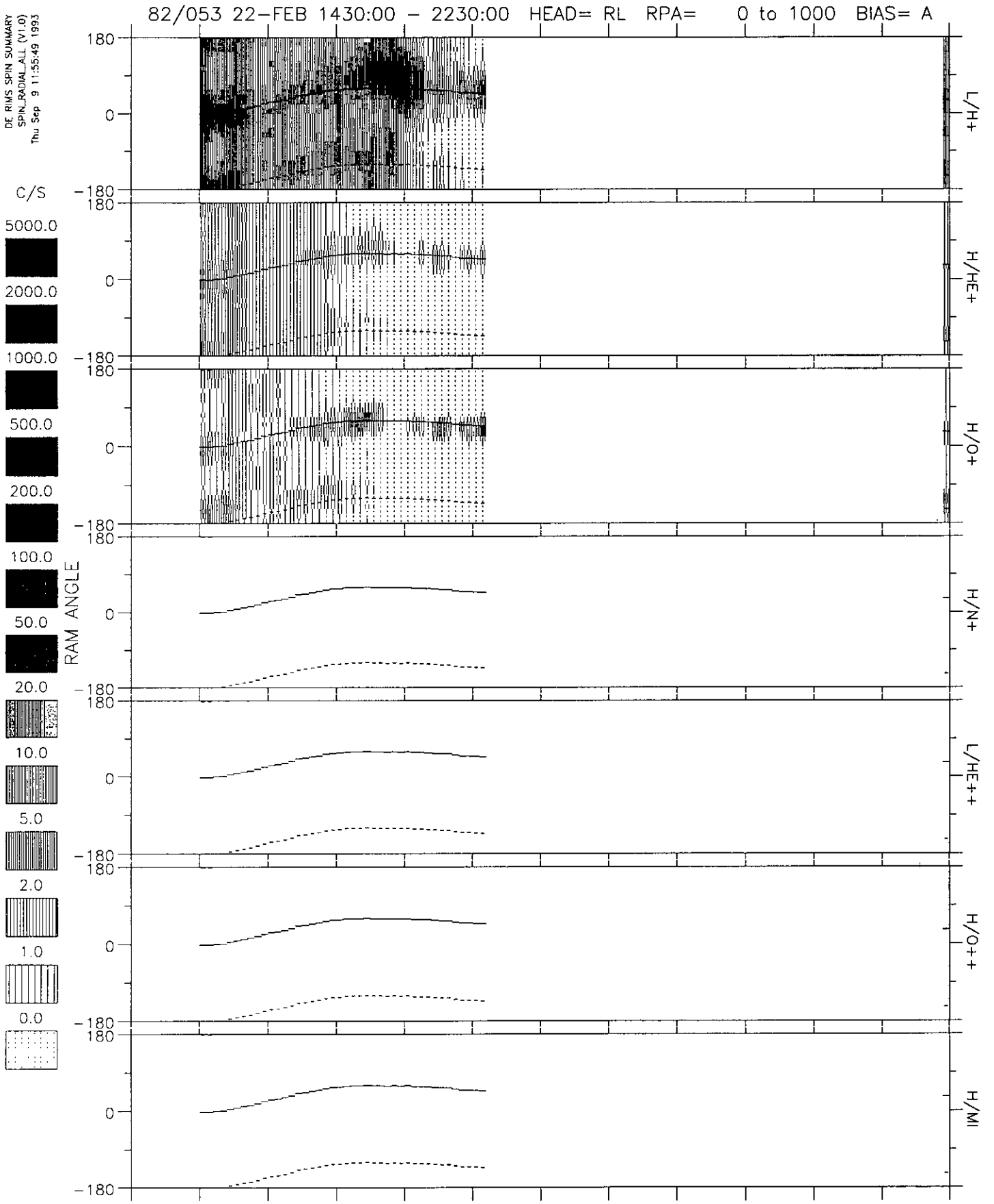

82/052 21-FEB 0430:00 - 1230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RUS SPIN SUMMARY
SPIN_RPCA_ALL (V1.0)
Thu Sep 9 11:45:47 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
H/1+
H/HL+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0510 0550 0630 0710 0750 0830 0910 0000 0000 0000 1150 DEGS
RE 3.6 4.2 4.6 4.7 4.5 4.0 3.3 0.0 0.0 0.0 3.4 HPMV
L 3.8 5.4 7.3 10.0 14.4 25.1 87.7 0.0 0.0 0.0 3.4 RE
MLT 0.5 0.5 0.4 0.2 23.9 23.3 21.0 0.0 0.0 0.0 0.6
MLAT 12.12 26.49 37.44 46.93 56.16 66.31 77.98 0.00 0.00 0.00 -6.05 HRS
INVLAT 59.4 64.4 68.3 71.6 74.7 78.5 83.9 0.0 0.0 0.0 57.1 DEGS

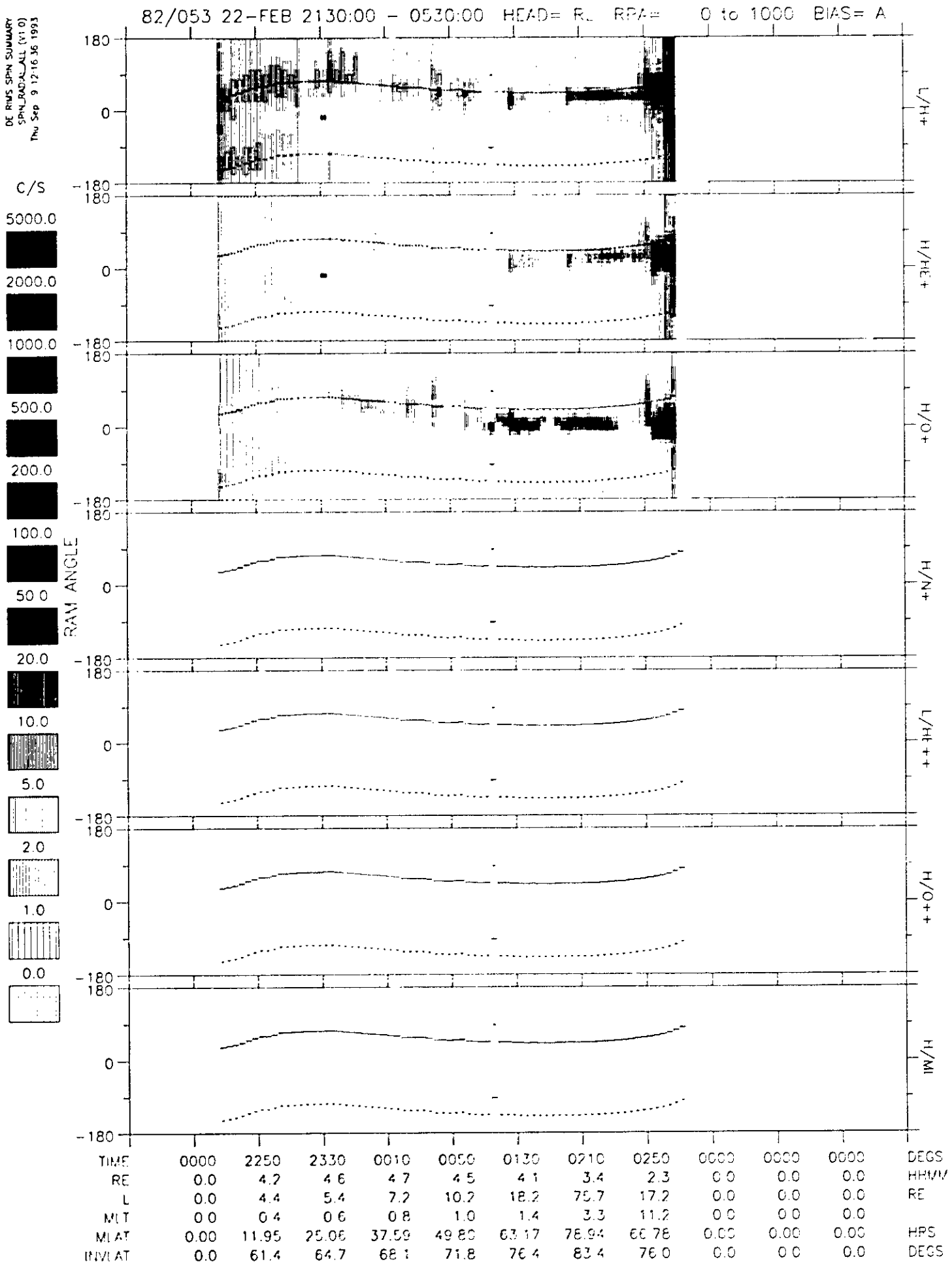

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 11:48:16 1993
82/052 21-FEB 1115:00 - 1915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1235 1315 1355 1435 1515 0000 0000 0000 1755 1835 DEGS
RE 0.0 4.2 4.6 4.7 4.5 4.1 0.0 0.0 0.0 2.1 3.3 HHMM
L 0.0 4.2 5.0 5.9 7.1 9.5 0.0 0.0 0.0 5.3 3.5 RE
MLT 0.0 0.4 0.2 0.1 0.1 0.0 0.0 0.0 0.0 0.2 0.3
MLAT 0.00 9.12 18.92 27.76 36.96 47.87 0.00 0.00 0.00 ***** ***** HRS
INVLAT 0.0 60.9 63.5 65.7 68.0 71.0 0.0 0.0 0.0 64.2 57.8 DEGS

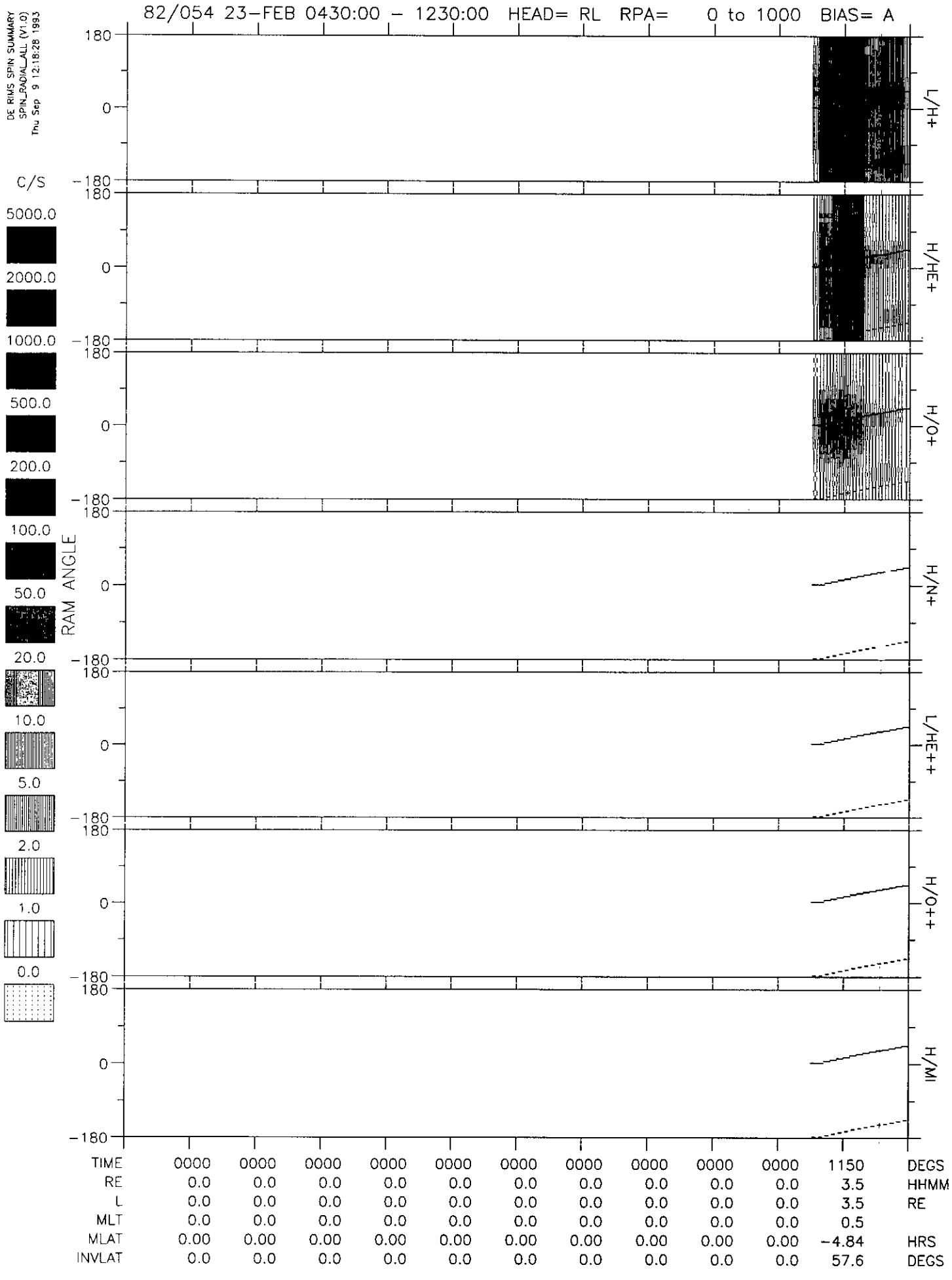

DE RIMS SPIN SUMMARY
SPIN_RAD_ALL (V1.0)
Thu Sep 9 11:50:40 1993
82/052 21-FEB 1800:00 - 0200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1840 1920 2000 2040 2120 0000 0000 0000 0000 0000 0000 DEGS
RE 3.4 4.1 4.5 4.7 4.6 0.0 0.0 0.0 1.2 0.0 0.0 HHMM
L 3.5 4.1 4.8 5.8 7.3 0.0 0.0 0.0 1.2 0.0 0.0 RE
MLT 0.3 0.4 0.5 0.7 0.9 0.0 0.0 0.0 12.2 0.0 0.0
MLAT ***** 1.47 14.60 26.44 37.80 0.00 0.00 0.00 2.91 0.00 0.00 HRS
INVLAT 57.9 60.3 62.9 65.5 68.3 0.0 0.0 0.0 21.6 0.0 0.0 DEG

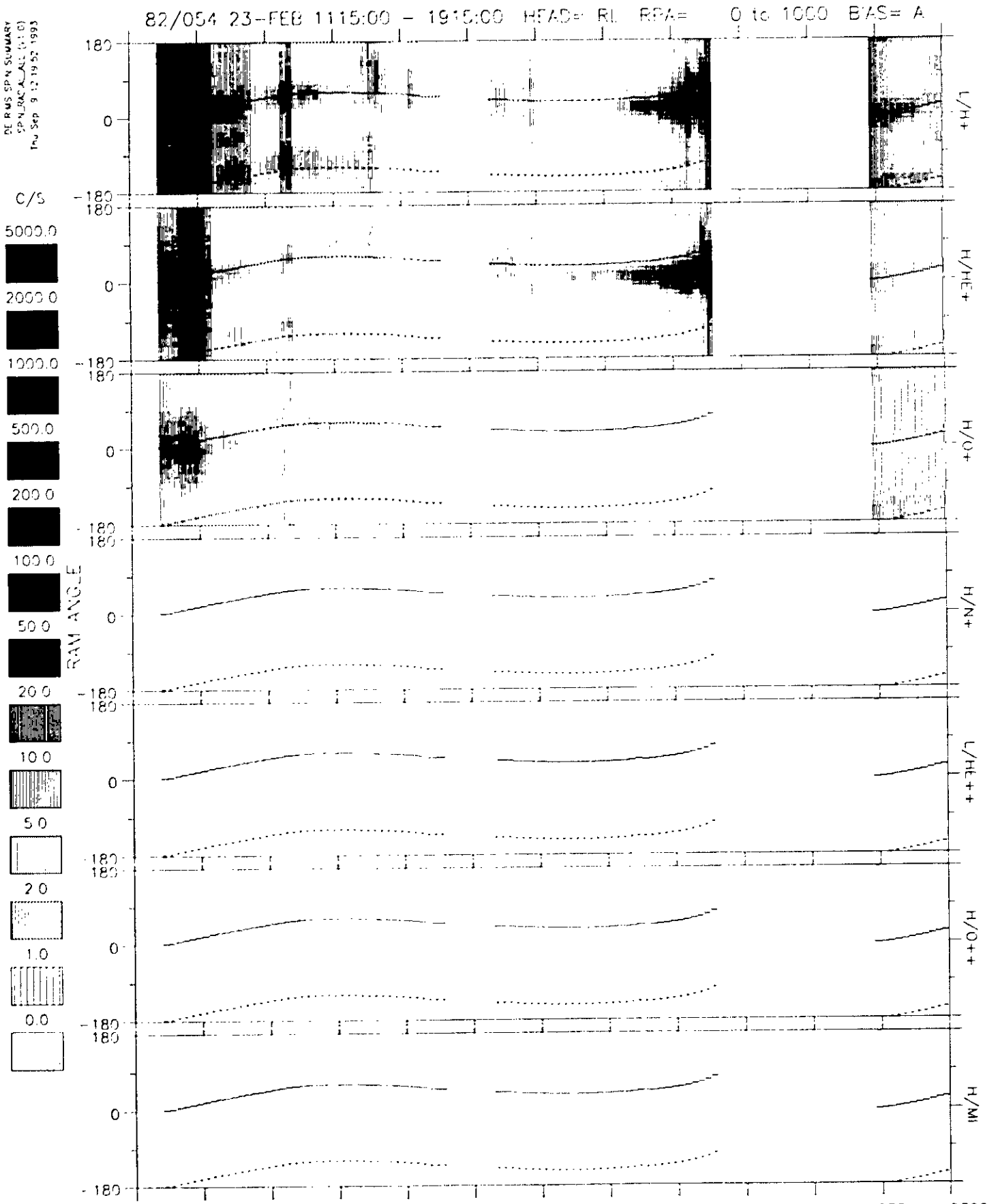

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 11:52:55 1993
82/053 22-FEB 0100:00 - 0900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0140 0220 0000 0340 0420 0500 0540 0620 0000 0000 0000 DEGS
RE 3.6 4.2 0.0 4.7 4.5 4.1 3.3 2.2 0.0 0.0 0.0 HHMM
L 3.7 4.9 0.0 9.6 15.3 33.6 100.0 12.4 0.0 0.0 0.0 RE
MLT 0.3 0.4 0.0 0.6 0.6 0.5 22.5 13.0 0.0 0.0 0.0
MLAT 6.21 22.35 0.00 46.60 57.96 70.52 86.67 63.04 0.00 0.00 0.00 HRS
INVLAT 58.5 63.1 0.0 71.2 75.2 80.1 87.7 73.5 0.0 0.0 0.0 DEGS


DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 11:54:33 1993
82/053 22-FEB 0815:00 - 1615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 1535 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.8 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.8 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 -5.68 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 59.1 DEGS

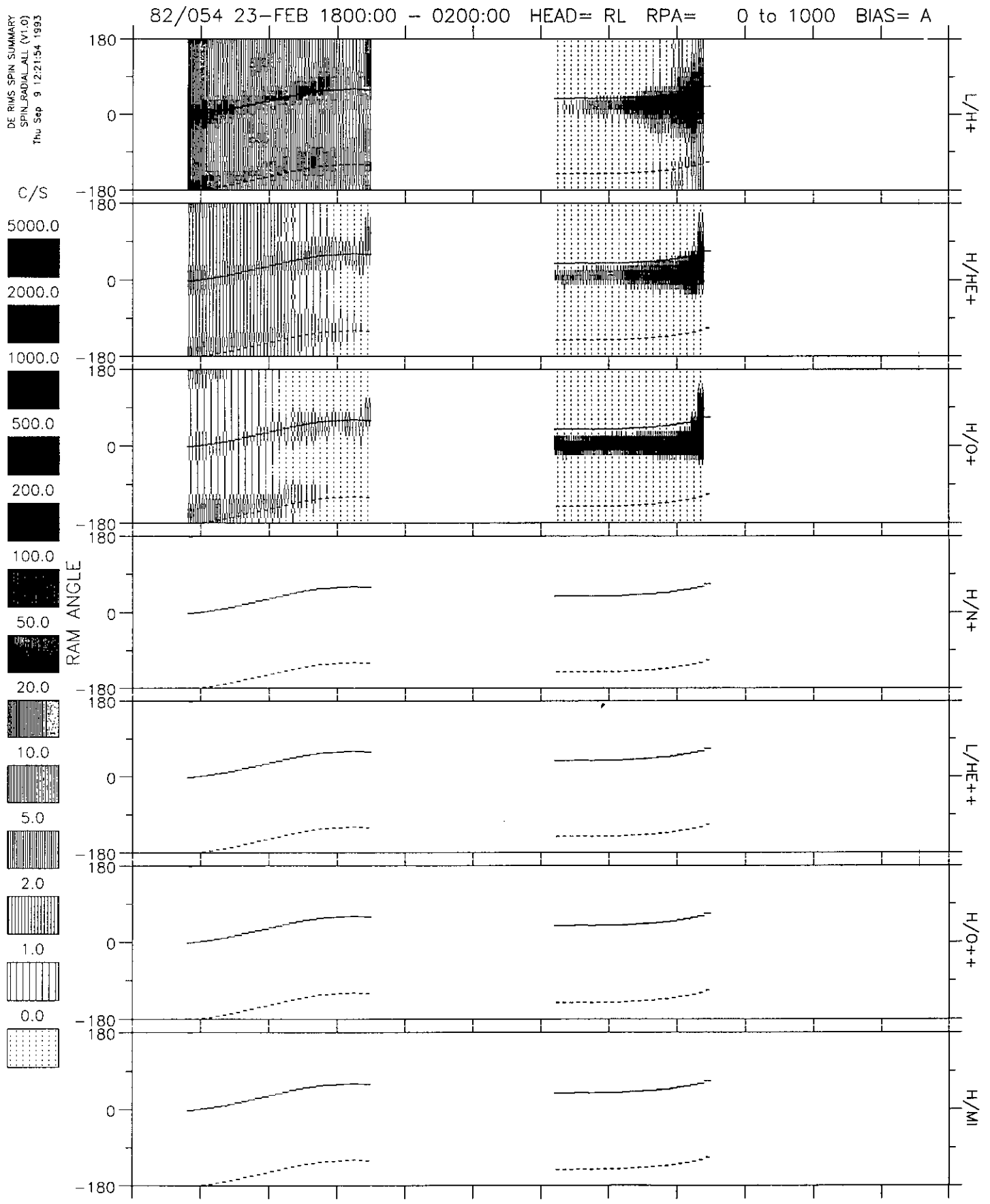

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 11:55:49 1993
82/053 22-FEB 1430:00 - 2230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1510 1550 1630 1710 1750 0000 0000 0000 0000 0000 0000 DEGS
RE 3.3 4.1 4.5 4.7 4.6 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 3.5 4.0 4.6 5.4 6.5 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.5 0.4 0.3 0.4 0.4 0.0 0.0 0.0 0.0 0.0 0.0
MLAT ***** -0.56 11.13 21.63 32.26 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 57.8 60.0 62.3 64.6 66.9 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

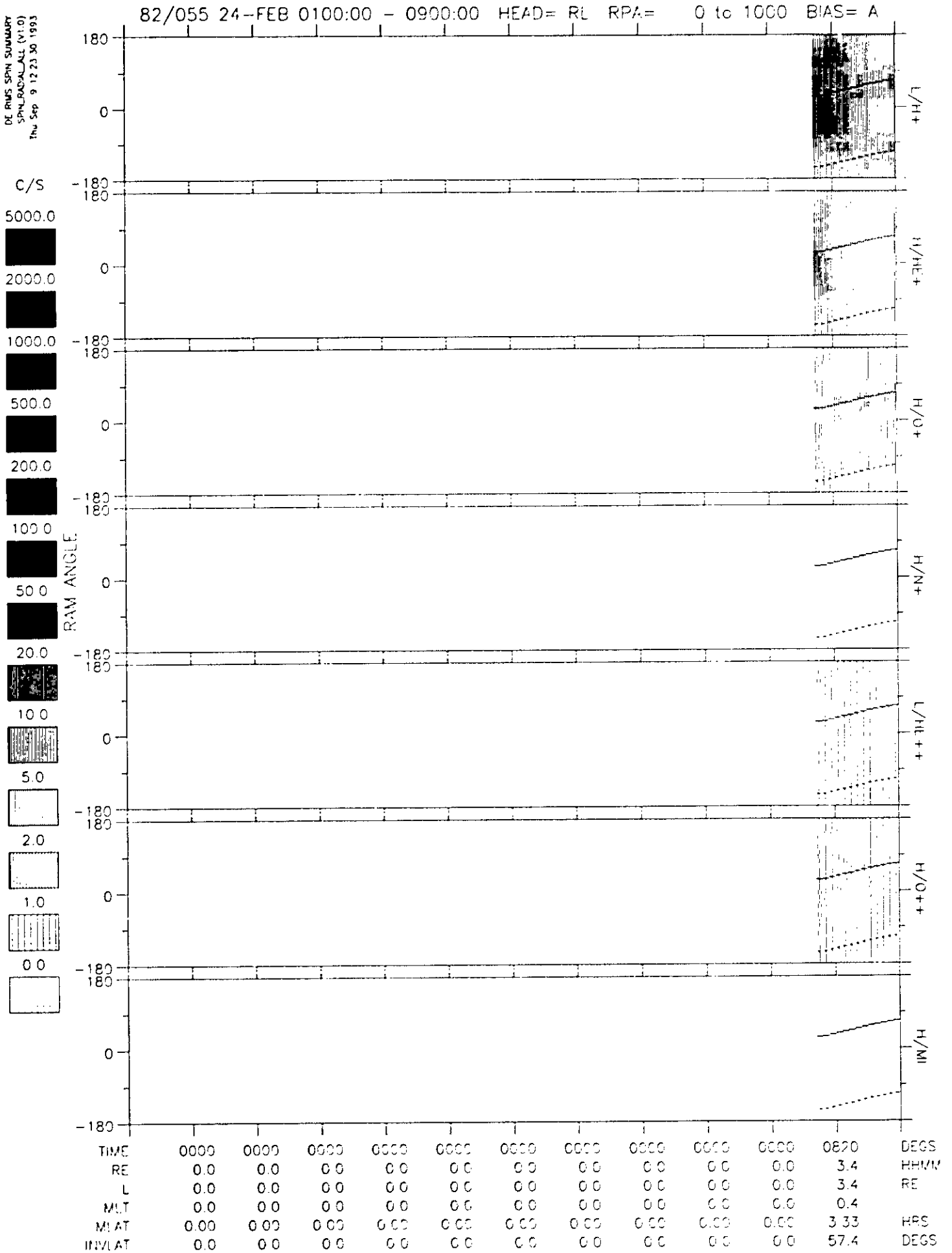

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 12:16:36 1993
82/053 22-FEB 2130:00 - 0530:00 HEAD= R RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
+H/H+
+H/HE+
+O/H+
+N/H+
+++H/L+
+++O/H+
H/MI
TIME 0000 2250 2330 0010 0050 0130 0210 0250 0000 0000 0000 DEGS
RE 0.0 4.2 4.6 4.7 4.5 4.1 3.4 2.3 0.0 0.0 0.0 HHMM
L 0.0 4.4 5.4 7.2 10.2 18.2 75.7 17.2 0.0 0.0 0.0 RE
MLT 0.0 0.4 0.6 0.8 1.0 1.4 3.3 11.2 0.0 0.0 0.0
MLAT 0.00 11.95 25.06 37.59 49.80 63.17 78.94 66.78 0.00 0.00 0.00 HRS
INVLAT 0.0 61.4 64.7 68.1 71.8 76.4 83.4 76.0 0.0 0.0 0.0 DEGS

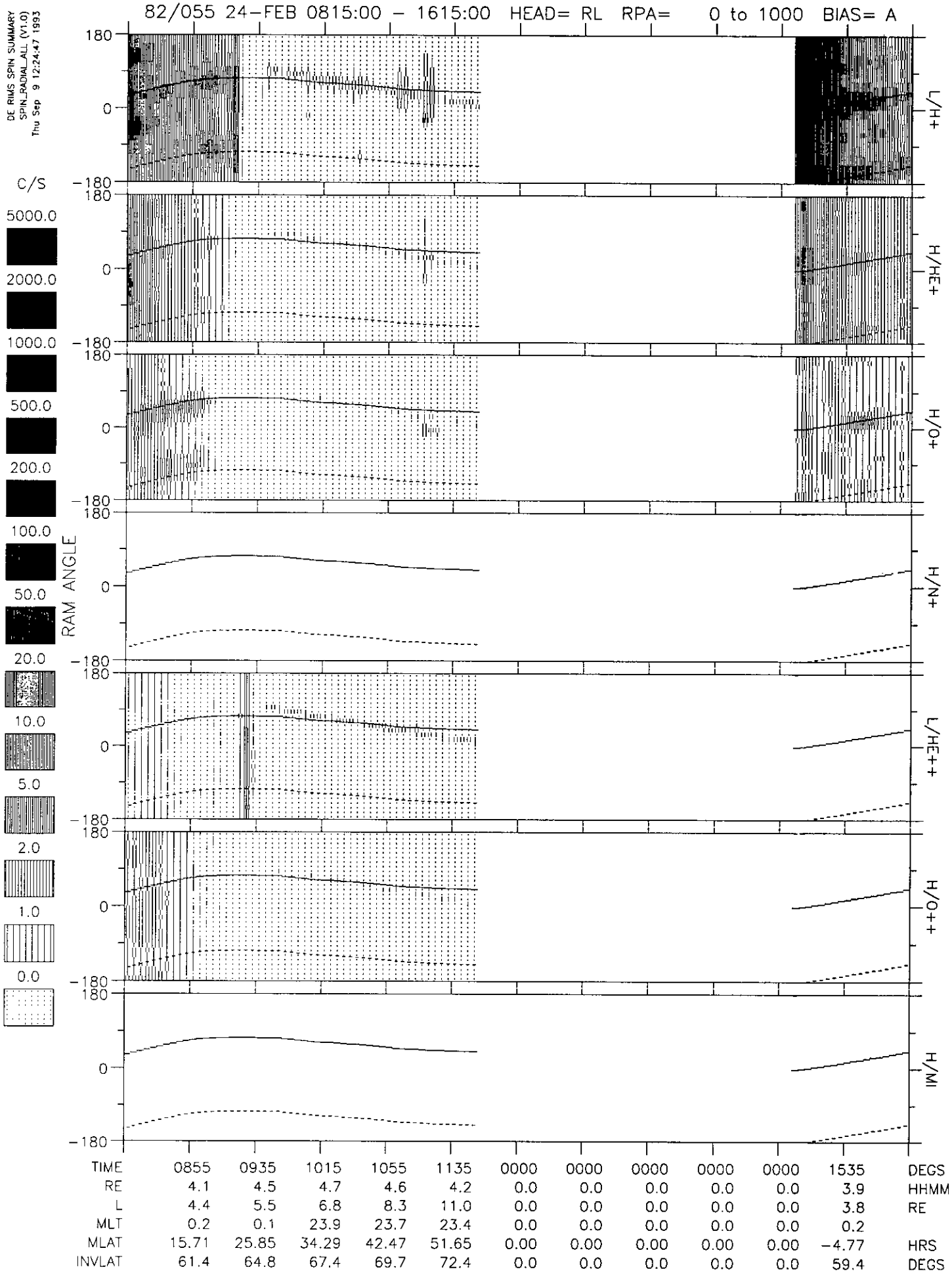

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 12:18:28 1993
82/054 23-FEB 0430:00 - 1230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 1150 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.5 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.5 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.5
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 -4.84 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 57.6 DEGS

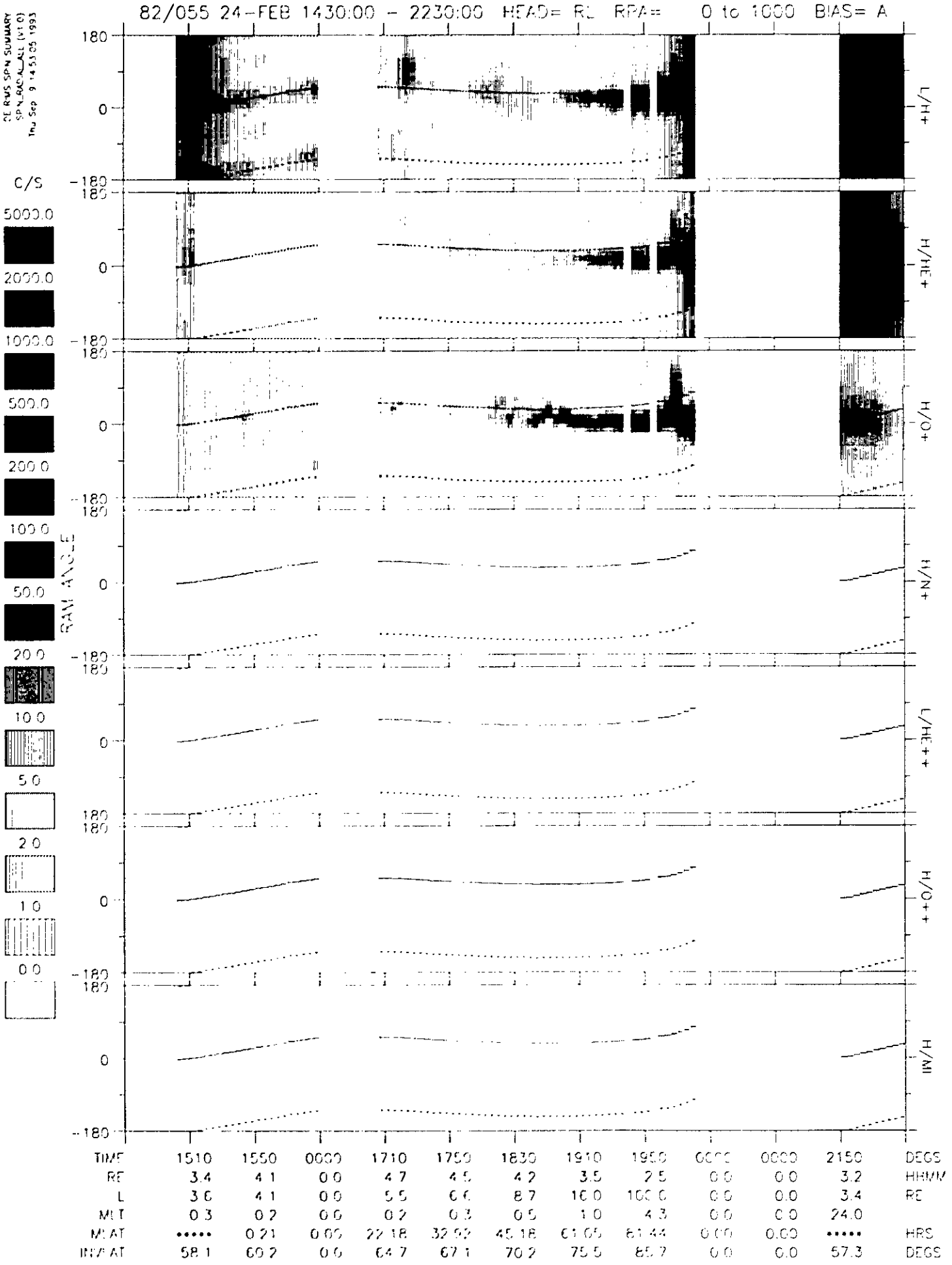


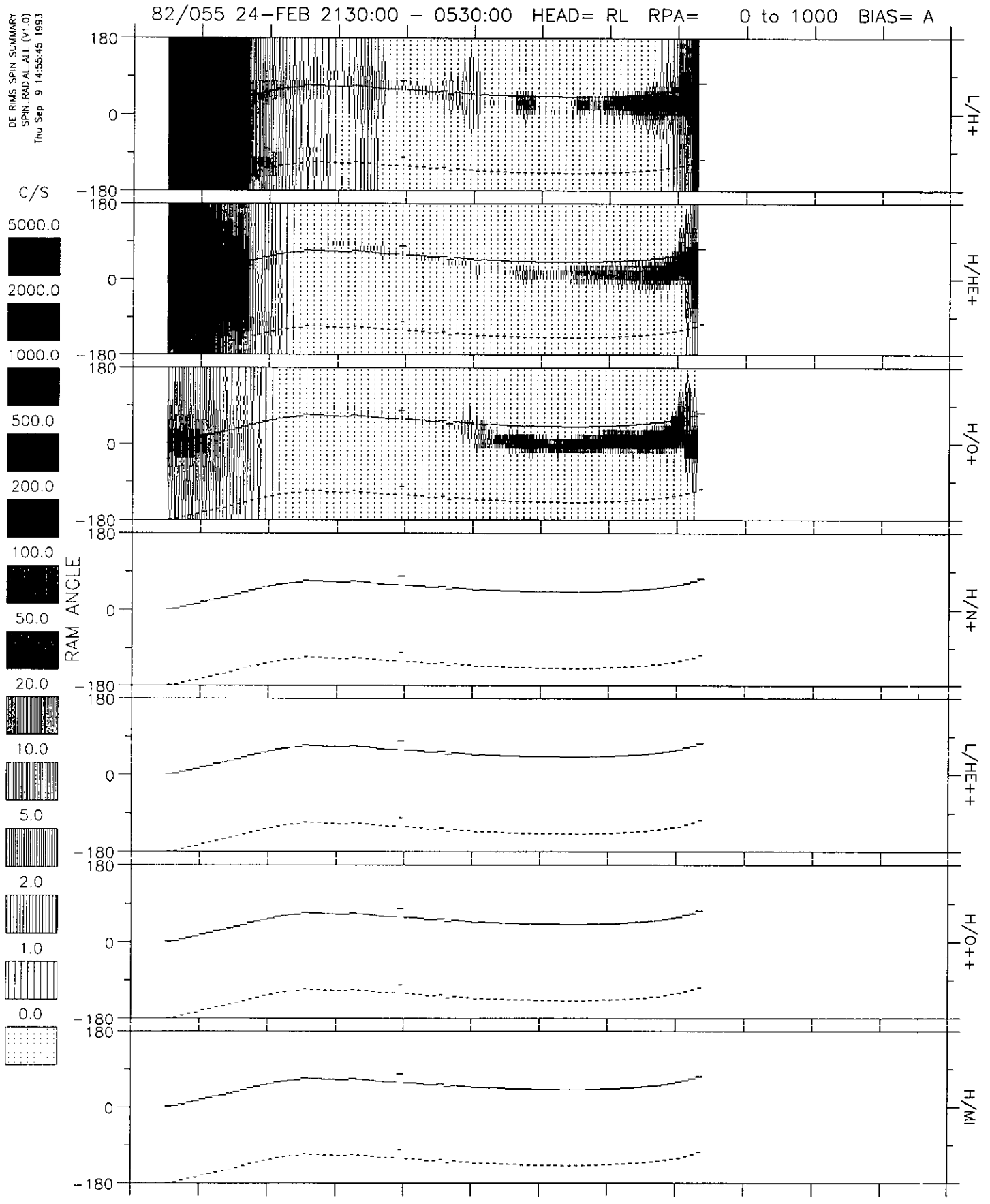
TIME	1155	1235	1315	1355	0000	1515	1555	1635	0000	0000	1835	DEGS
RE	3.6	4.2	4.6	4.7	0.0	4.0	3.3	2.2	0.0	0.0	3.4	HHMM
L	3.6	4.3	5.1	6.0	0.0	9.6	20.0	100.0	0.0	0.0	3.6	RE
MLT	0.4	0.2	0.1	0.0	0.0	23.9	23.8	13.3	0.0	0.0	0.2	
MLAT	-2.90	9.58	19.20	28.04	0.00	48.65	64.63	84.34	0.00	0.00	*****	HPS
INVLAT	58.0	61.1	63.6	65.8	0.0	71.2	77.1	84.8	0.0	0.0	58.0	DEGS


82/054 23-FEB 1800:00 - 0200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Thu Sep 9 12:21:54 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1840 1920 2000 0000 0000 0000 2240 2320 0000 0000 0000 DEGS
RE 3.5 4.2 4.5 0.0 0.0 0.0 3.4 2.3 0.0 0.0 0.0 HHMM
L 3.6 4.1 4.9 0.0 0.0 0.0 25.3 39.1 0.0 0.0 0.0 RE
MLT 0.2 0.3 0.4 0.0 0.0 0.0 2.2 9.1 0.0 0.0 0.0
MLAT ***** 2.53 15.47 0.00 0.00 0.00 68.38 74.28 0.00 0.00 0.00 HRS
INVLAT 58.2 60.5 63.1 0.0 0.0 0.0 78.5 80.8 0.0 0.0 0.0 DEGS

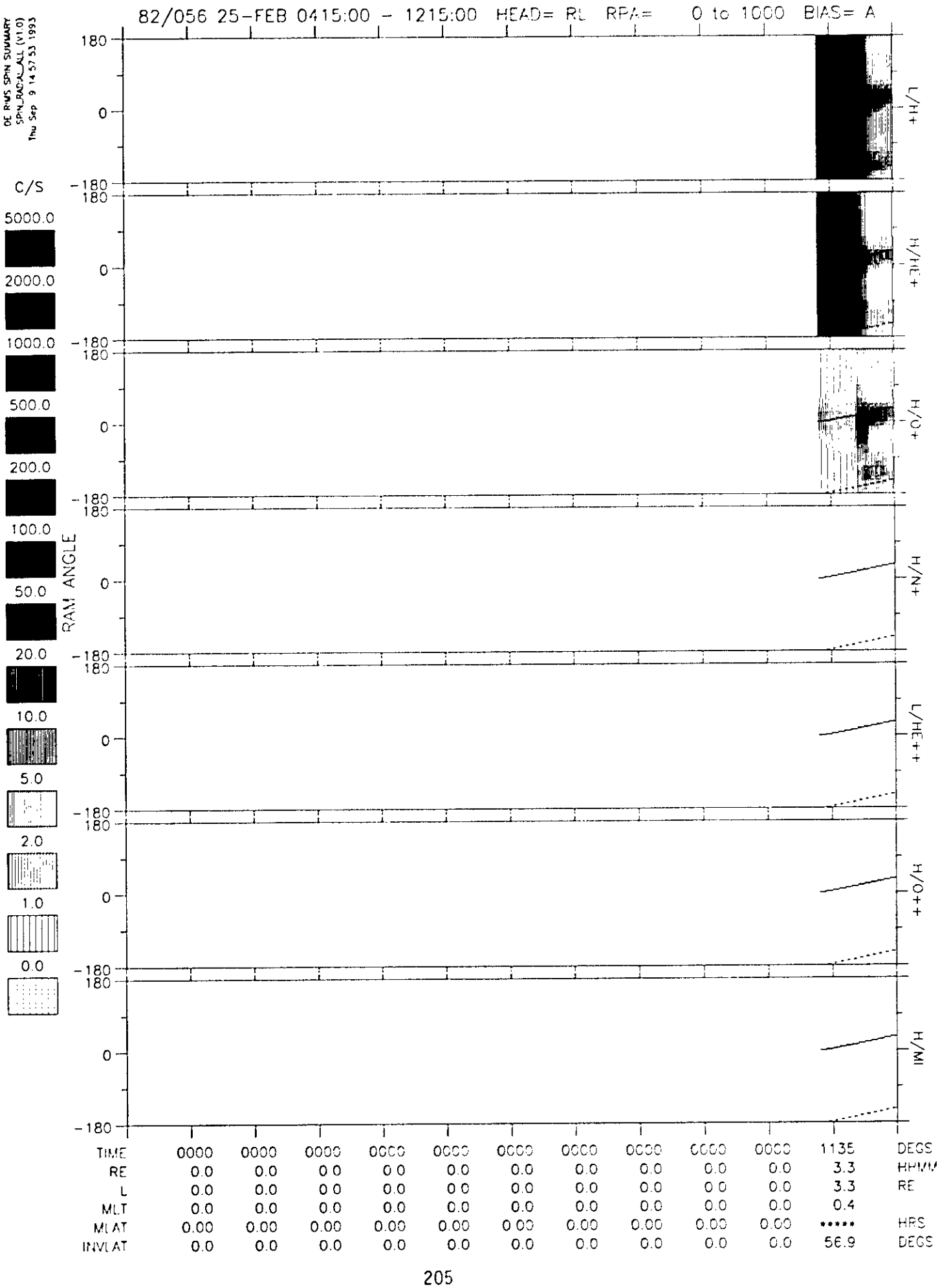

DE RIMS SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Thu Sep 9 12 23 50 1993
82/055 24-FEB 0100:00 - 0900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0890 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 3.33 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 57.4 DEGS

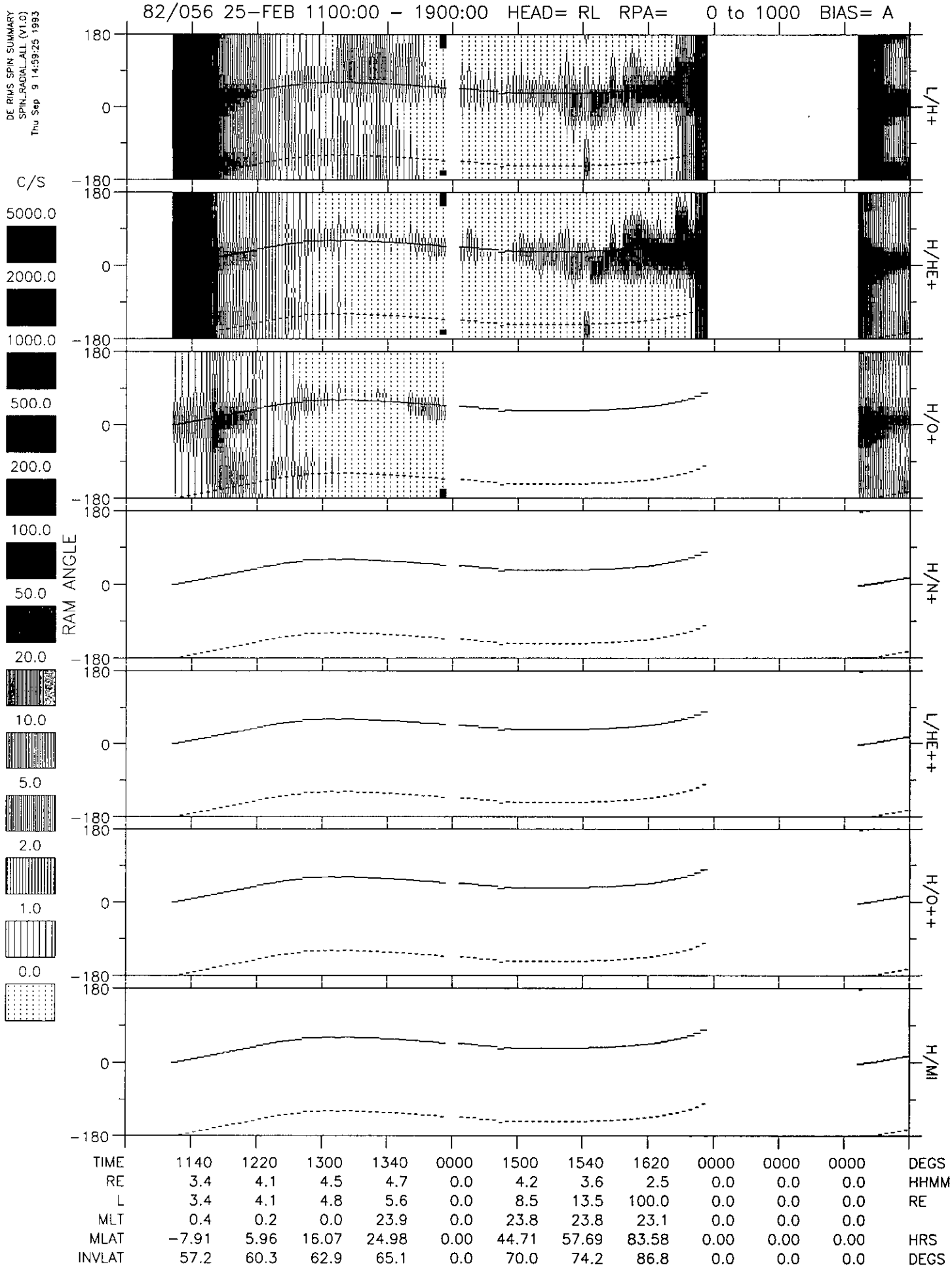

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 12:24:47 1993
82/055 24-FEB 0815:00 - 1615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0855 0935 1015 1055 1135 0000 0000 0000 0000 0000 1535 DEGS
RE 4.1 4.5 4.7 4.6 4.2 0.0 0.0 0.0 0.0 0.0 3.9 HHMM
L 4.4 5.5 6.8 8.3 11.0 0.0 0.0 0.0 0.0 0.0 3.8 RE
MLT 0.2 0.1 23.9 23.7 23.4 0.0 0.0 0.0 0.0 0.0 0.2
MLAT 15.71 25.85 34.29 42.47 51.65 0.00 0.00 0.00 0.00 0.00 -4.77 HRS
INVLAT 61.4 64.8 67.4 69.7 72.4 0.0 0.0 0.0 0.0 0.0 59.4 DEGS

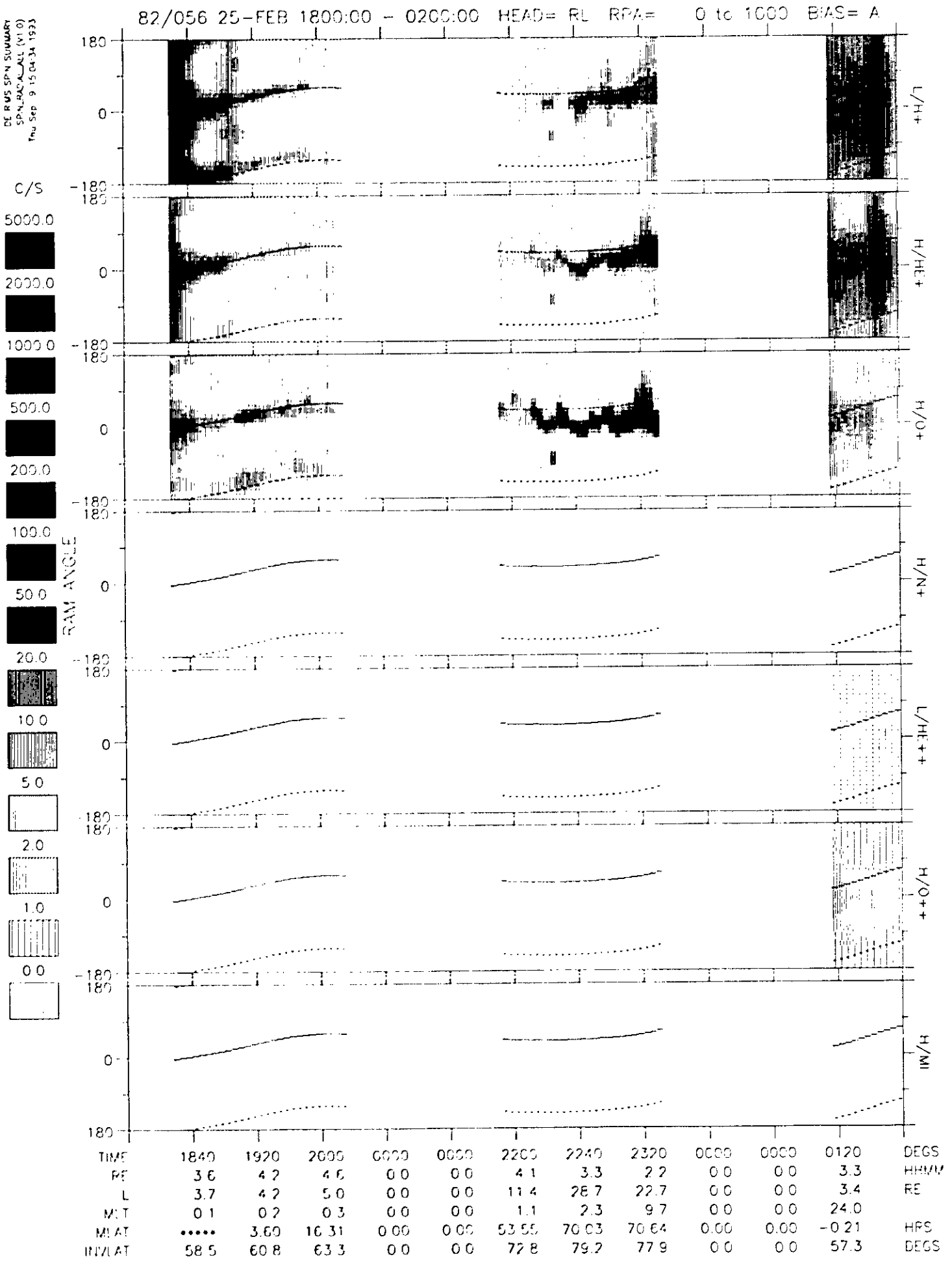

82/055 24-FEB 1430:00 - 2230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
SE RIMS SPIN SUMMARY
SPIN_RAD_ALL (V1.0)
Thu Sep 9 14:53:05 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAW ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1510 1550 0000 1710 1750 1830 1910 1950 0000 0000 2150 DEGS
RE 3.4 4.1 0.0 4.7 4.5 4.2 3.5 2.5 0.0 0.0 3.2 HRMM
L 3.6 4.1 0.0 5.5 6.6 8.7 16.0 100.0 0.0 0.0 3.4 RE
MLT 0.3 0.2 0.0 0.2 0.3 0.5 1.0 4.3 0.0 0.0 24.0
MLAT ***** 0.21 0.00 22.18 32.92 45.18 61.05 61.44 0.00 0.00 ***** HRS
INVLAT 58.1 60.2 0.0 64.7 67.1 70.2 75.5 85.7 0.0 0.0 57.3 DEGS

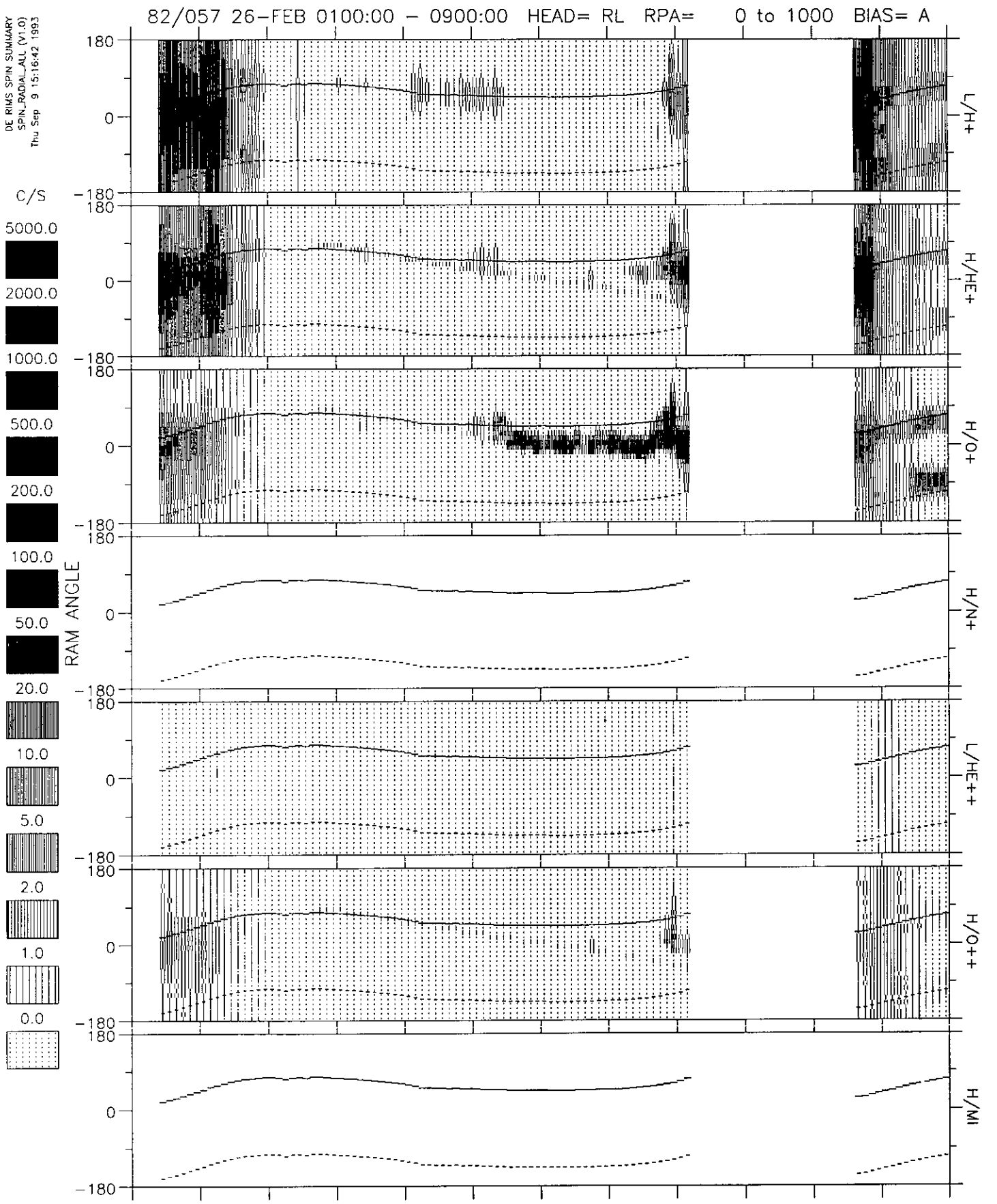


TIME	2210	2250	2330	0010	0050	0130	0210	0250	0000	0000	0000	DEGS
RE	3.6	4.2	4.6	4.7	4.5	4.0	3.3	2.1	0.0	0.0	0.0	HHMM
L	3.7	4.5	5.6	7.3	10.5	19.4	96.6	11.1	0.0	0.0	0.0	RE
MLT	0.1	0.3	0.4	0.6	0.9	1.4	3.7	11.3	0.0	0.0	0.0	
MLAT	-3.06	13.11	26.33	38.50	50.77	64.42	80.41	62.11	0.00	0.00	0.00	HRS
INVLAT	58.5	61.7	65.0	68.3	72.0	76.9	84.2	72.5	0.0	0.0	0.0	DEGS

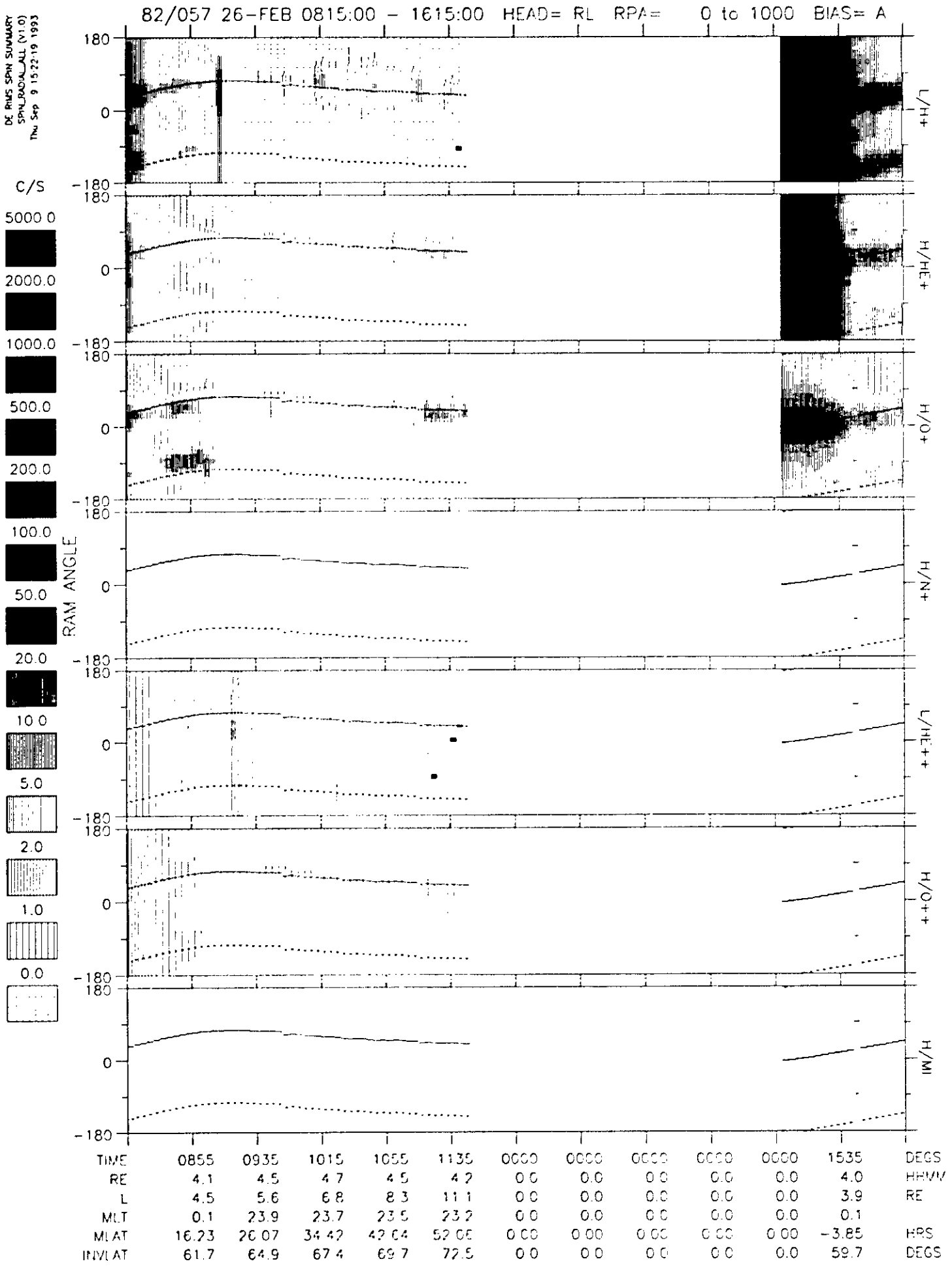

82/056 25-FEB 0415:00 - 1215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 14:57:53 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
+H/+
+H/HE+
+H/O+
+N/+
L/HE++
++O/+
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 1135 DEGS
RE 0.0 0.0 0 0 0 0 0 0 0.0 0.0 0.0 0.0 3.3 HHMM
L 0.0 0.0 0 0 0 0 0 0 0.0 0.0 0.0 0.0 3.3 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4
MLAT 0.00 0.00 0.00 0.00 0.00 0 00 0.00 0.00 0.00 0.00 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 56.9 DEGS

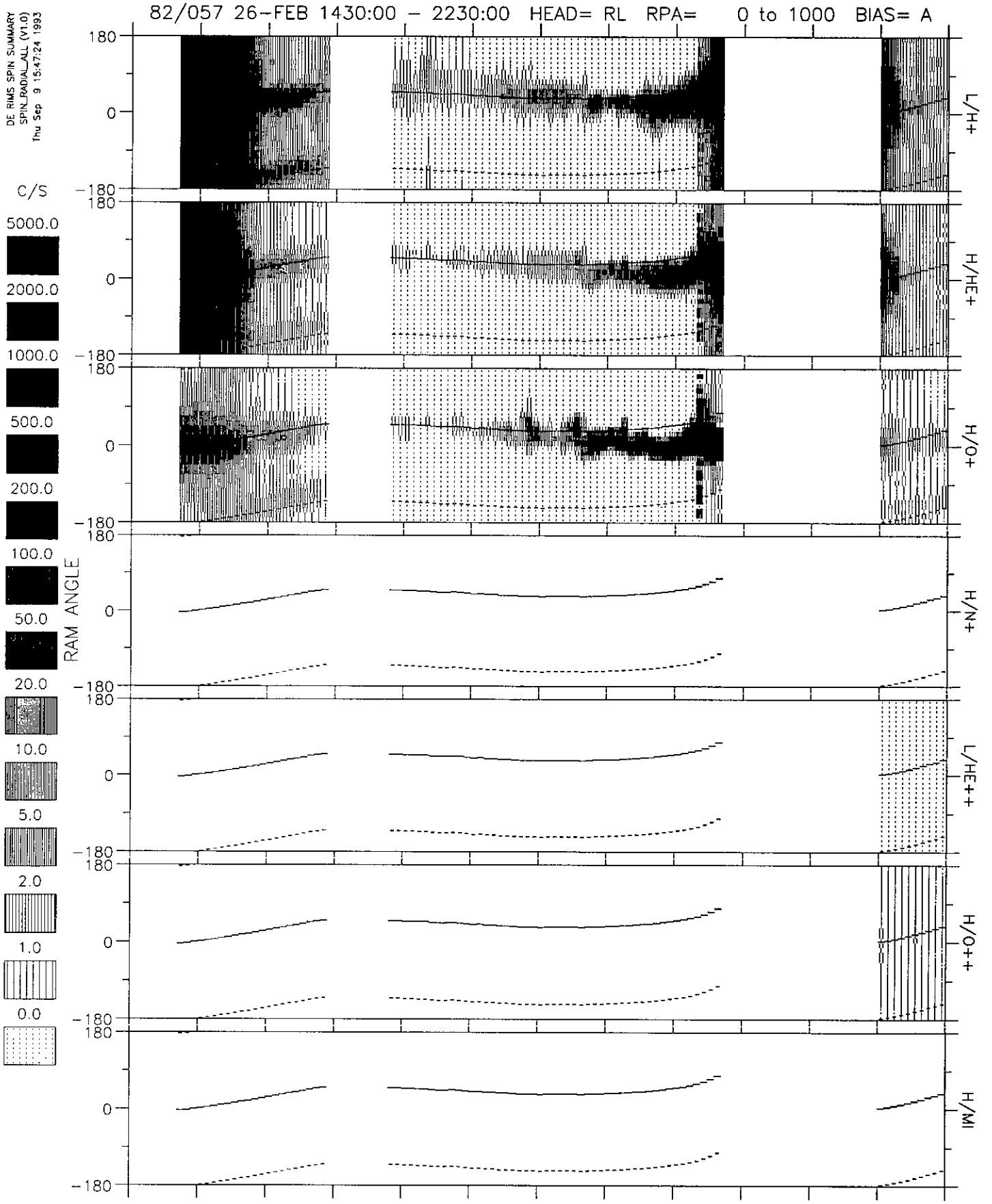

82/056 25-FEB 1100:00 - 1900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 14:59:25 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1140 1220 1300 1340 0000 1500 1540 1620 0000 0000 0000 DEGS
RE 3.4 4.1 4.5 4.7 0.0 4.2 3.6 2.5 0.0 0.0 0.0 HHMM
L 3.4 4.1 4.8 5.6 0.0 8.5 13.5 100.0 0.0 0.0 0.0 RE
MLT 0.4 0.2 0.0 23.9 0.0 23.8 23.8 23.1 0.0 0.0 0.0
MLAT -7.91 5.96 16.07 24.98 0.00 44.71 57.69 83.58 0.00 0.00 0.00 HRS
INVLAT 57.2 60.3 62.9 65.1 0.0 70.0 74.2 86.8 0.0 0.0 0.0 DEGS


82/056 25-FEB 1800:00 - 0200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RUS SPIN SUMMARY
SPIN_RAD_ALL (V1.0)
Thu Sep 9 15:04:34 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1840 1920 2000 0000 0000 2200 2240 2320 0000 0000 0120 DEGS
RE 3.6 4.2 4.6 0.0 0.0 4.1 3.3 2.2 0.0 0.0 3.3 HHMM
L 3.7 4.2 5.0 0.0 0.0 11.4 28.7 22.7 0.0 0.0 3.4 RE
MLT 0.1 0.2 0.3 0.0 0.0 1.1 2.3 9.7 0.0 0.0 24.0
MLAT ***** 3.60 16.31 0.00 0.00 53.55 70.03 70.64 0.00 0.00 -0.21 HRS
INVLAT 58.5 60.8 63.3 0.0 0.0 72.8 79.2 77.9 0.0 0.0 57.3 DEGS

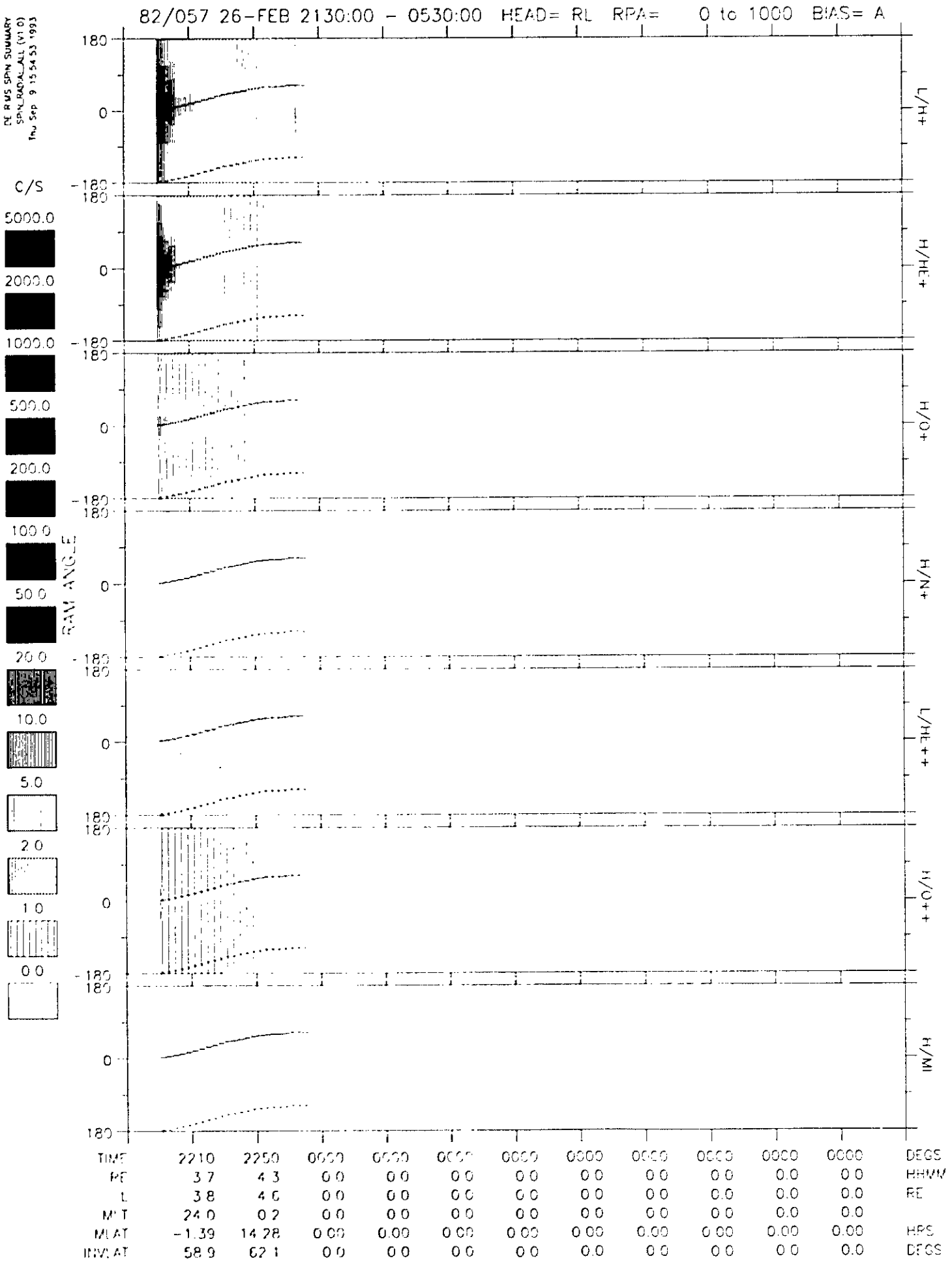


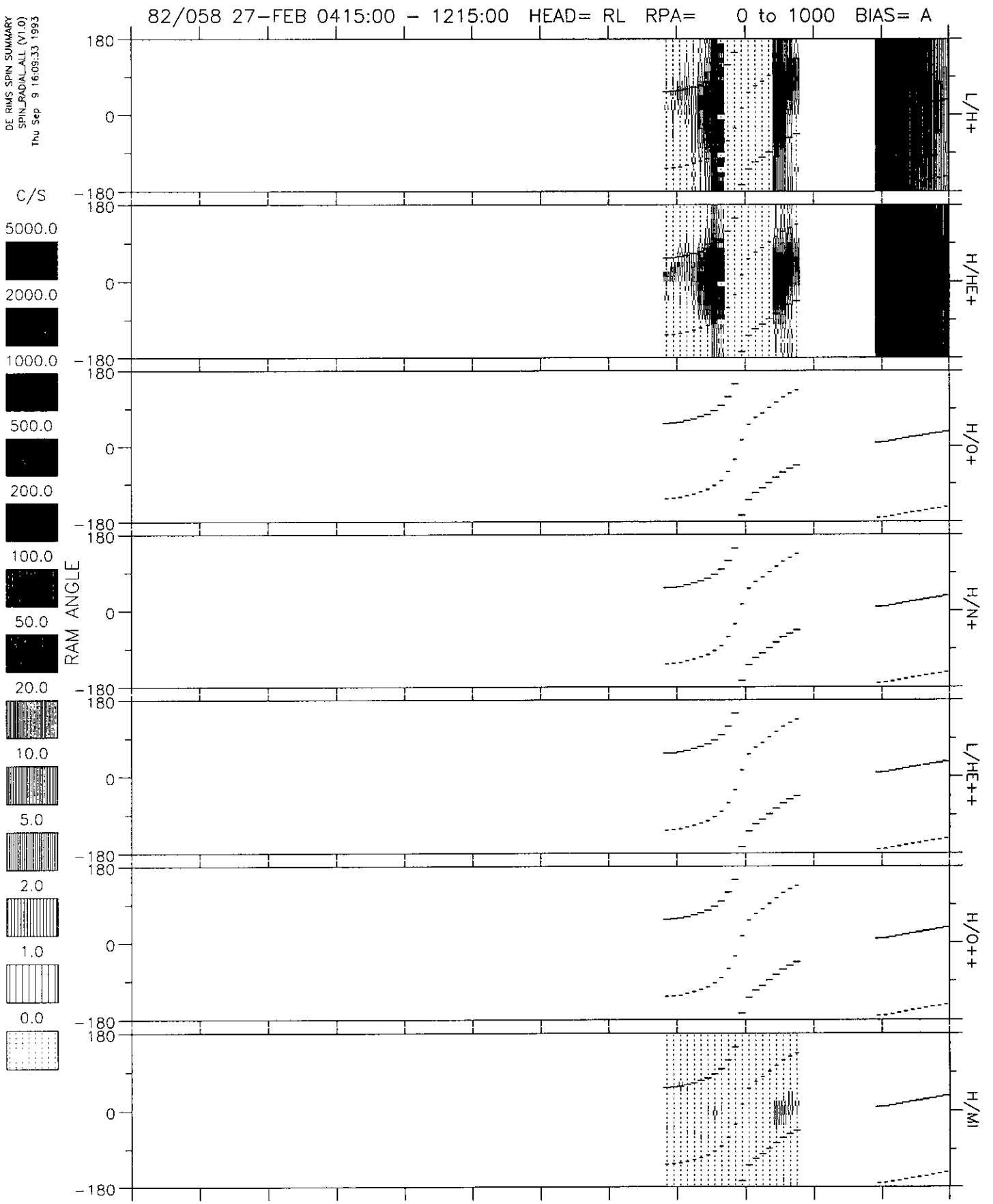
TIME	0140	0220	0300	0340	0420	0500	0540	0620	0000	0000	0820	DEGS
RE	3.8	4.3	4.6	4.7	4.4	3.9	3.1	1.9	0.0	0.0	3.5	HHMM
L	3.9	5.2	7.1	10.1	16.4	39.8	100.0	5.6	0.0	0.0	3.6	RE
MLT	0.1	0.2	0.3	0.3	0.3	0.1	17.1	12.6	0.0	0.0	0.3	
MLAT	9.42	24.45	36.75	48.04	59.48	72.53	87.75	51.95	0.00	0.00	4.54	HRS
INVLAT	59.5	63.9	67.9	71.7	75.7	80.9	89.3	64.9	0.0	0.0	58.0	DEGS

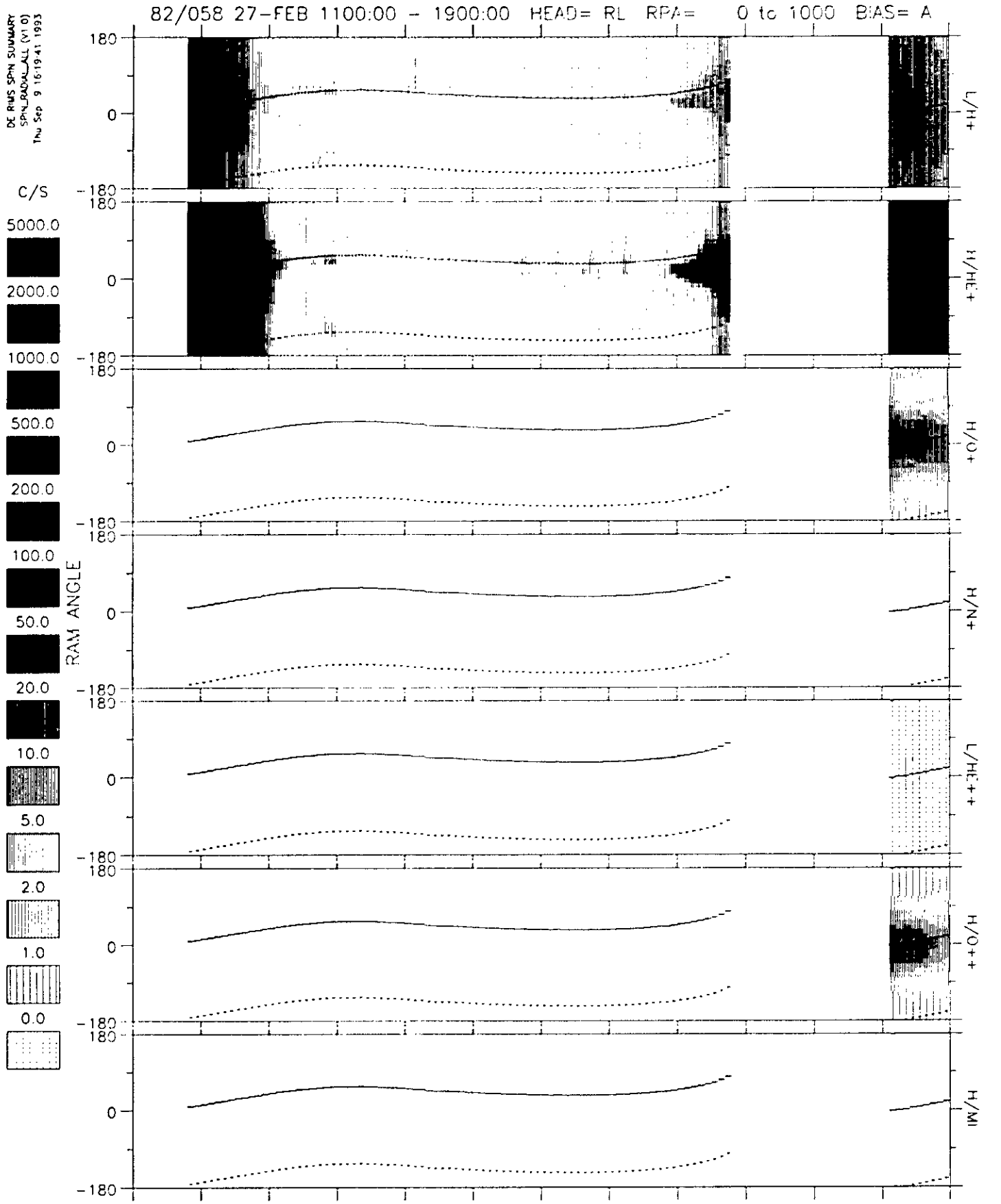

82/057 26-FEB 0815:00 - 1615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 15:22:19 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0855 0935 1015 1055 1135 0000 0000 0000 0000 0000 1535 DEGS
RE 4.1 4.5 4.7 4.5 4.2 0.0 0.0 0.0 0.0 0.0 4.0 HHMM
L 4.5 5.6 6.8 8.3 11.1 0.0 0.0 0.0 0.0 0.0 3.9 RE
MLT 0.1 23.9 23.7 23.5 23.2 0.0 0.0 0.0 0.0 0.0 0.1
MLAT 16.23 26.07 34.42 42.04 52.05 0.00 0.00 0.00 0.00 0.00 -3.85 HRS
INVLAT 61.7 64.9 67.4 69.7 72.5 0.0 0.0 0.0 0.0 0.0 59.7 DEGS

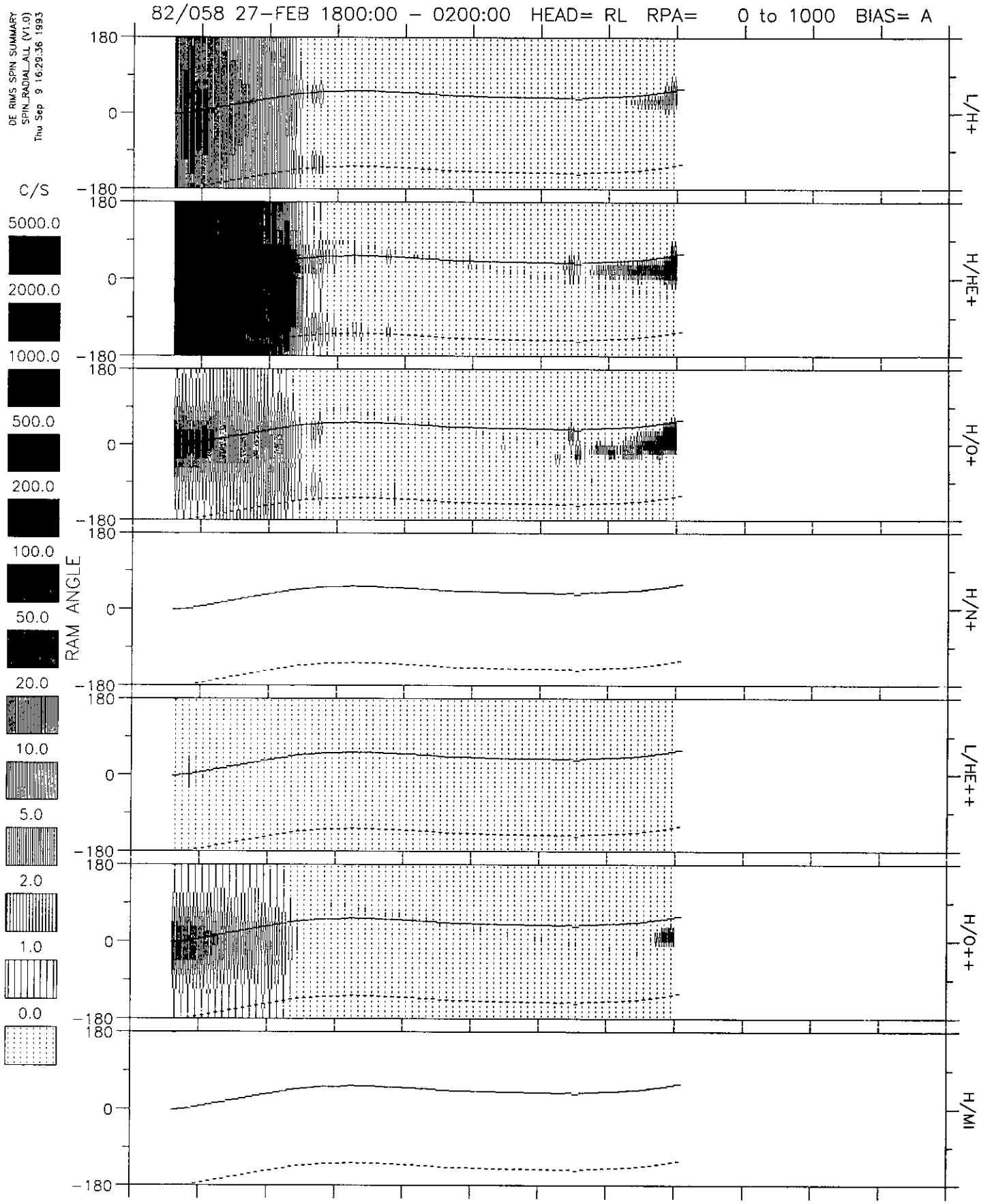


TIME	1510	1550	0000	1710	1750	1830	1910	1950	0000	0000	2150	DEGS
RE	3.5	4.2	0.0	4.7	4.5	4.1	3.4	2.3	0.0	0.0	3.3	HHMM
L	3.6	4.1	0.0	5.5	6.6	8.9	17.4	100.0	0.0	0.0	3.5	RE
MLT	0.2	0.1	0.0	0.1	0.2	0.4	1.0	7.6	0.0	0.0	23.9	
MLAT	*****	0.96	0.00	22.75	33.63	46.16	62.71	81.40	0.00	0.00	*****	HRS
INVLAT	58.4	60.5	0.0	64.8	67.2	70.4	76.1	85.1	0.0	0.0	57.6	DEGS

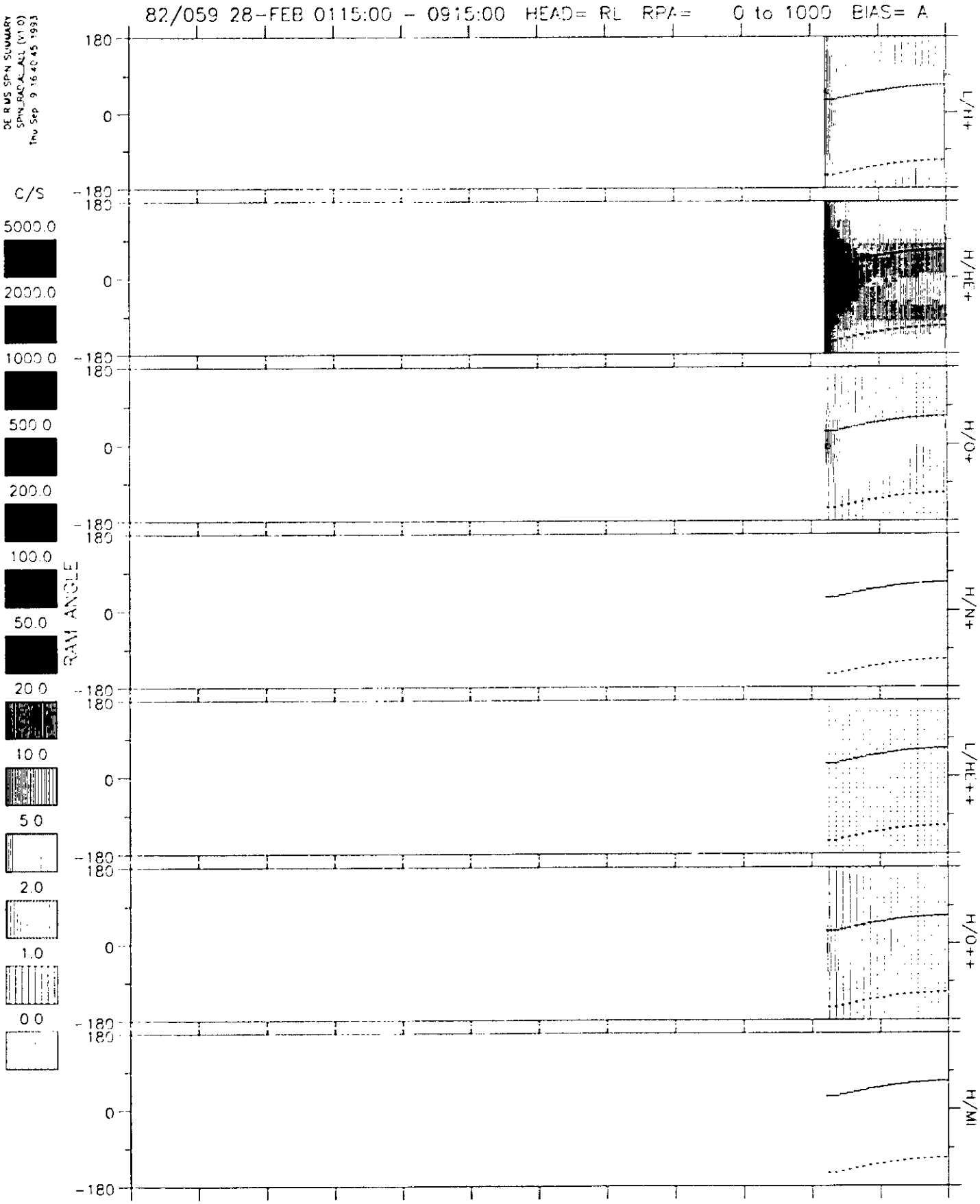

82/057 26-FEB 2130:00 - 0530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 15:54:53 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2210 2250 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 3.7 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 3.8 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 24.0 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT -1.39 14.28 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 58.9 62.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS


82/058 27-FEB 0415:00 - 1215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 16:09:33 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0935 1015 0000 1135 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.2 1.1 0.0 3.4 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 16.5 2.3 0.0 3.4 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 14.1 11.5 0.0 0.3
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 68.03 ***** 0.00 -8.88 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 75.7 49.1 0.0 57.3 DEGS

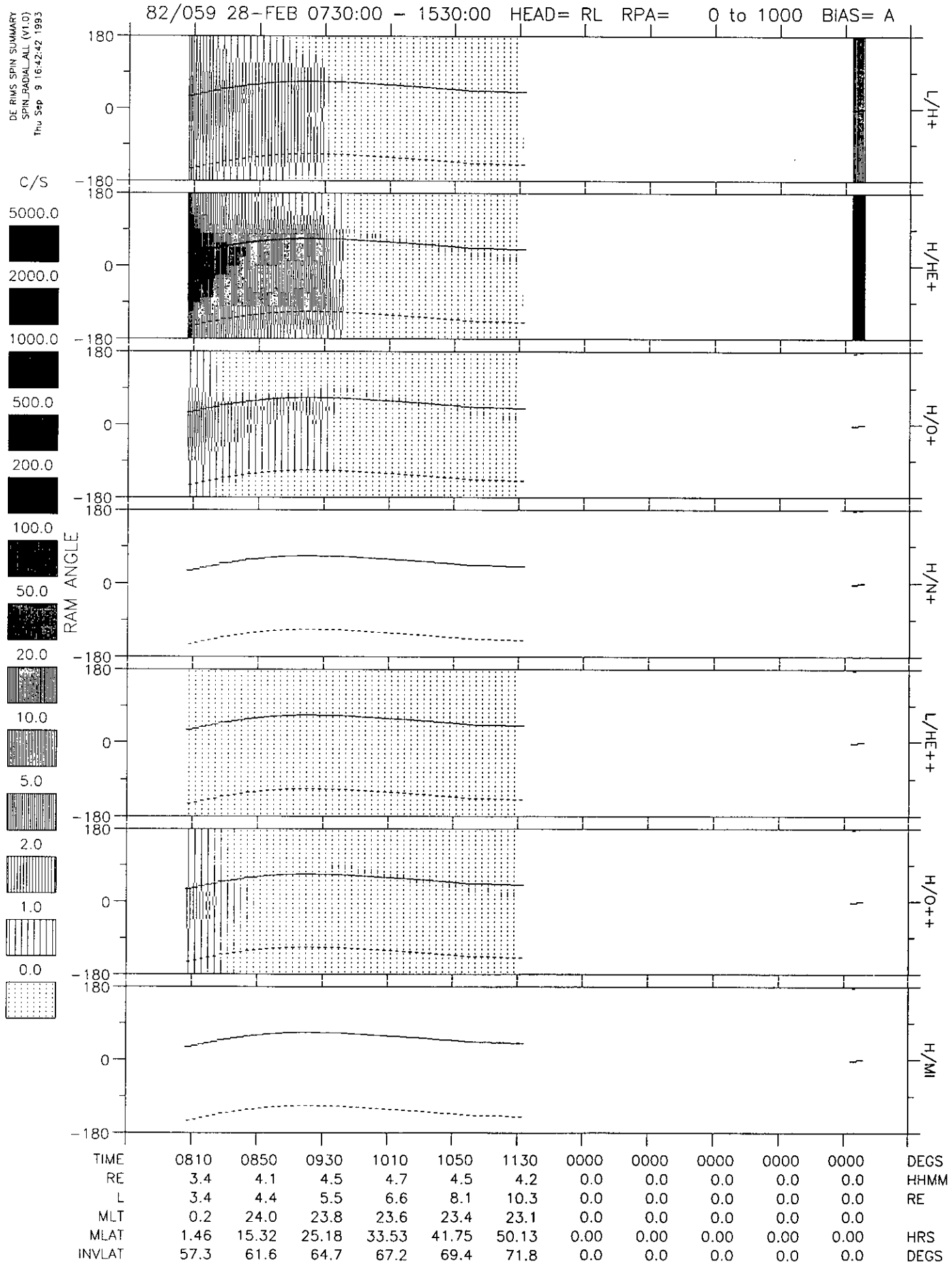

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 16:19:41 1993
82/058 27-FEB 1100:00 - 1900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1140 1220 1300 1340 1420 1500 1540 1620 0000 0000 0000 DEGS
RE 3.5 4.2 4.5 4.7 4.5 4.1 3.4 2.3 0.0 0.0 0.0 HHMM
L 3.5 4.2 4.9 5.7 6.7 8.6 15.3 -0.0 0.0 0.0 0.0 RE
MLT 0.2 0.0 23.9 23.8 23.7 23.7 23.6 22.2 0.0 0.0 0.0
MLAT -6.79 6.43 16.33 25.22 34.45 45.37 60.41 87.14 0.00 0.00 0.00 HRS
INVLAT 57.7 60.6 63.0 65.2 67.3 70.1 75.2 -0.0 0.0 0.0 0.0 DEGS

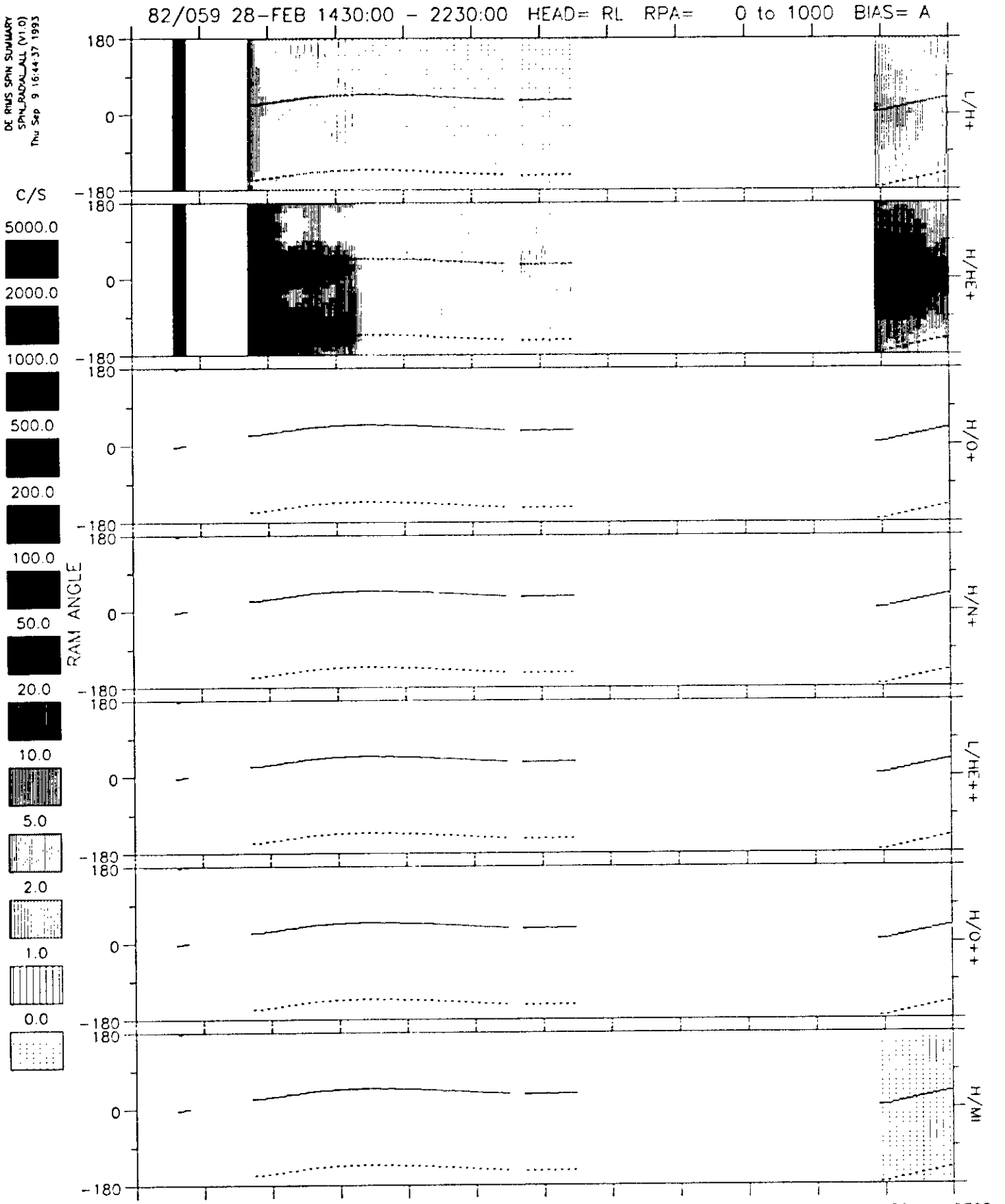


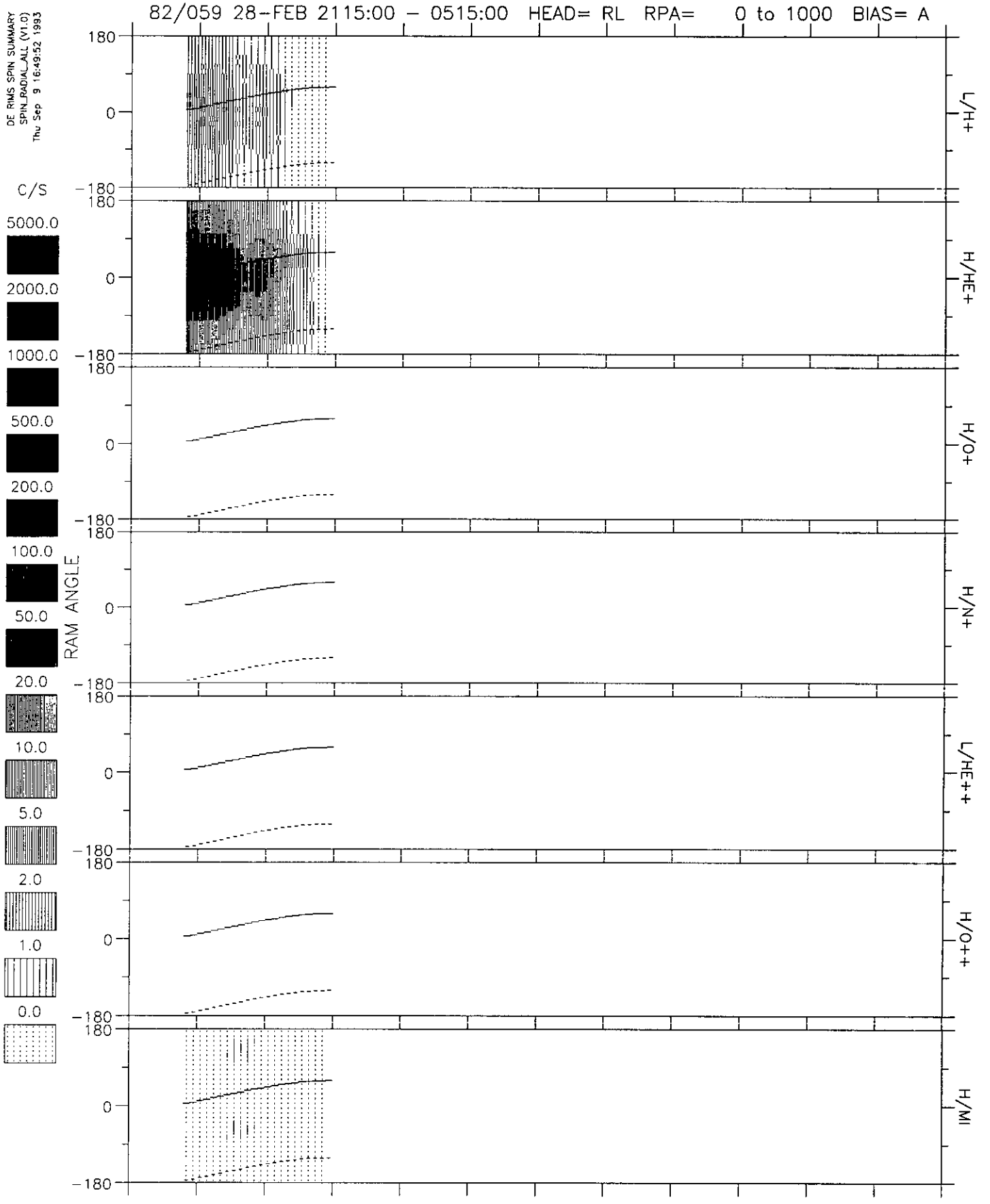
TIME	1840	1920	2000	2040	2120	2200	2240	2320	0000	0000	0000	DEGS
RE	3.7	4.3	4.6	4.7	4.5	4.0	3.2	2.2	0.0	0.0	0.0	HHMM
L	3.7	4.3	5.0	6.1	7.8	11.8	33.2	22.4	0.0	0.0	0.0	RE
MLT	24.0	0.1	0.2	0.4	0.6	1.1	2.5	9.6	0.0	0.0	0.0	
MLAT	*****	4.59	17.14	28.90	41.02	54.73	71.72	70.55	0.00	0.00	0.00	HRS
INVLAT	58.8	61.1	63.5	66.1	69.0	73.1	80.0	77.8	0.0	0.0	0.0	DEGS

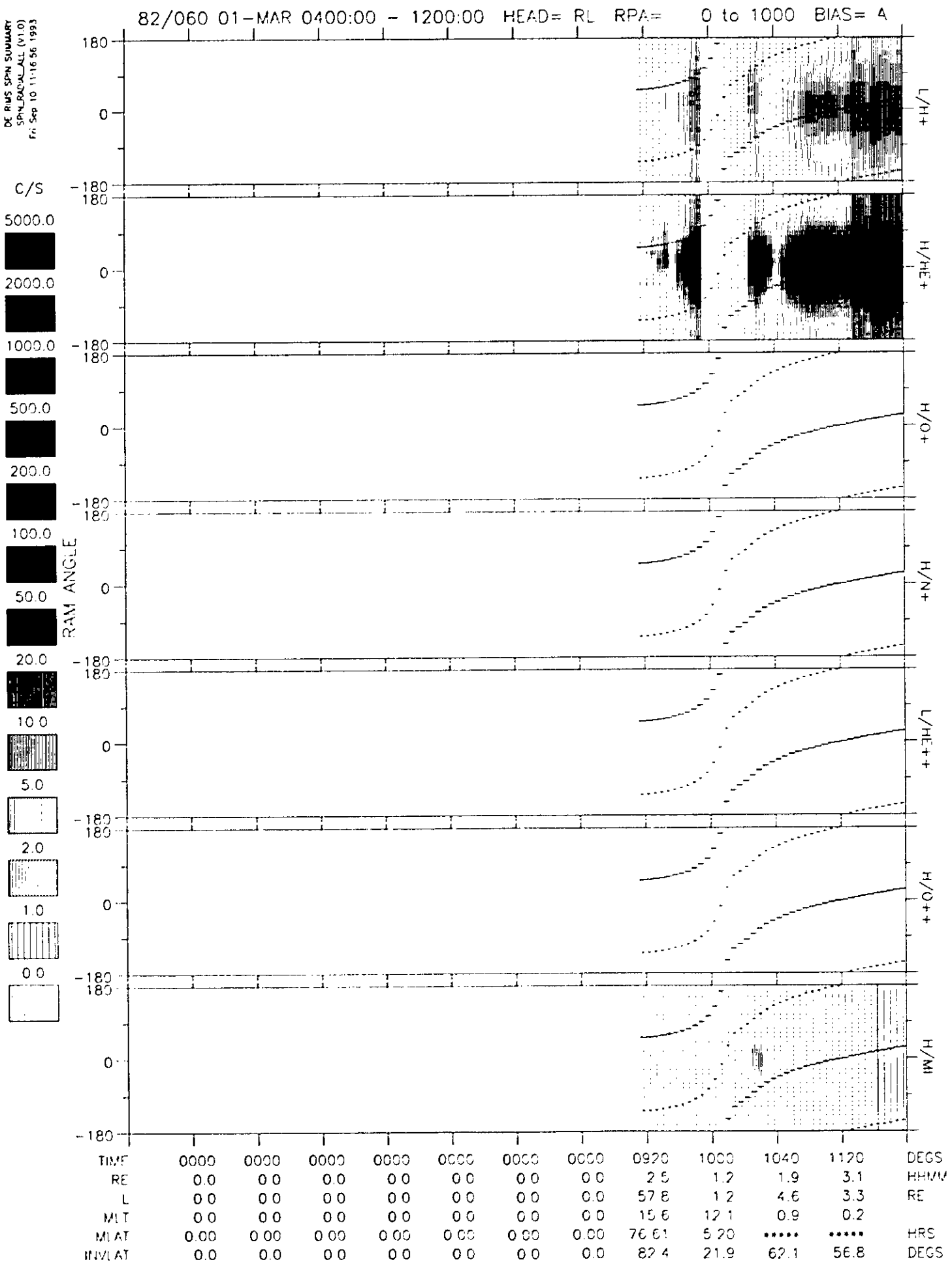


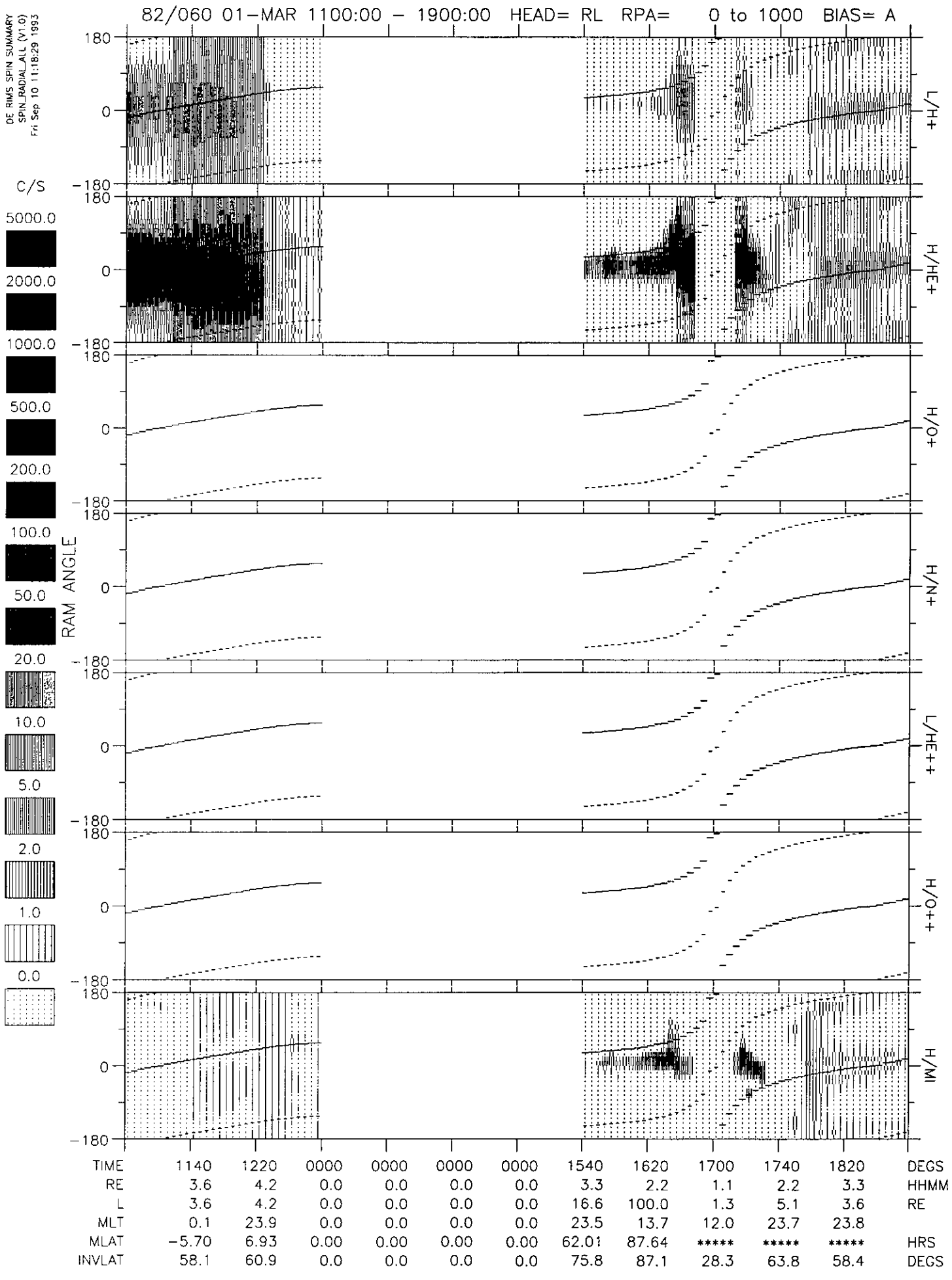
TIME	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0835	DEGS
RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	HHMM
L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	RE
MLT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
MLAT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.83	HRS
INVLAT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.1	DEGS

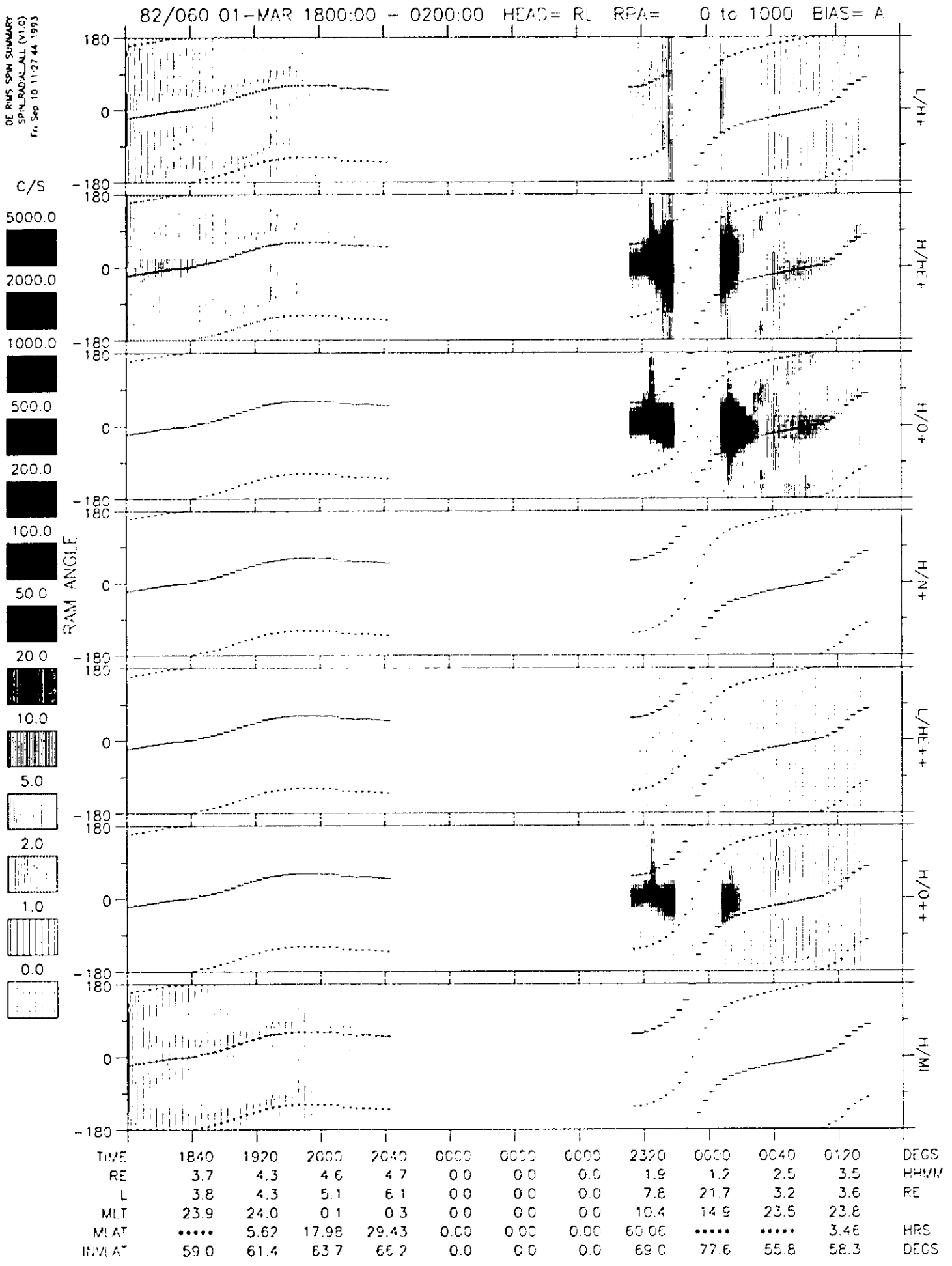

82/059 28-FEB 0730:00 - 1530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 16:42:42 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0810 0850 0930 1010 1050 1130 0000 0000 0000 0000 0000 DEGS
RE 3.4 4.1 4.5 4.7 4.5 4.2 0.0 0.0 0.0 0.0 0.0 HHMM
L 3.4 4.4 5.5 6.6 8.1 10.3 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.2 24.0 23.8 23.6 23.4 23.1 0.0 0.0 0.0 0.0 0.0
MLAT 1.46 15.32 25.18 33.53 41.75 50.13 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 57.3 61.6 64.7 67.2 69.4 71.8 0.0 0.0 0.0 0.0 0.0 DEGS

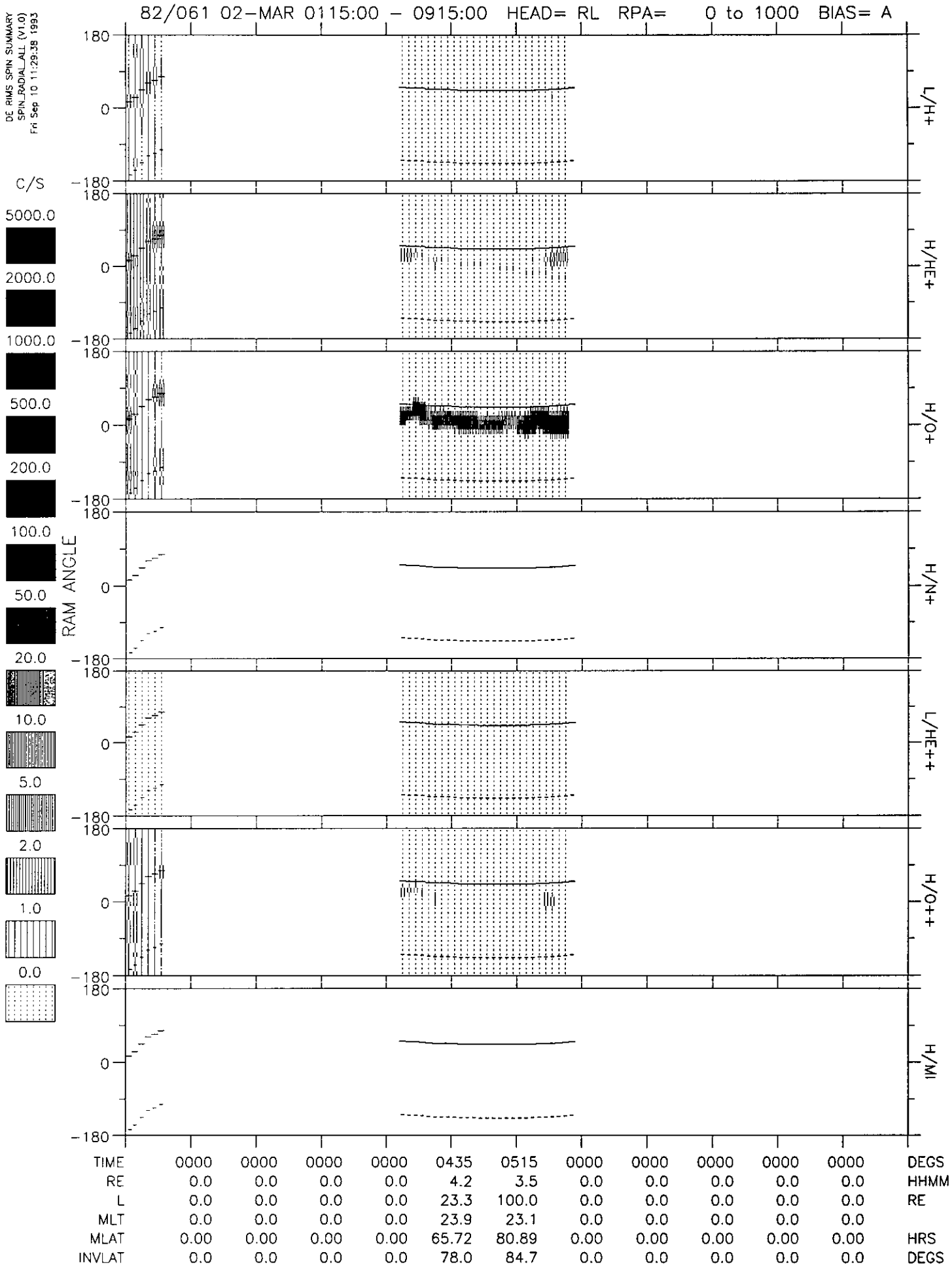

82/059 28-FEB 1430:00 - 2230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 16:44:37 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 1550 1630 1710 1750 1830 0000 0000 0000 0000 2150 DEGS
RE 0.0 4.2 4.6 4.7 4.5 4.0 0.0 0.0 0.0 0.0 3.4 HHMM
L 0.0 4.2 4.8 5.6 6.7 9.1 0.0 0.0 0.0 0.0 3.5 RE
MLT 0.0 24.0 24.0 0.0 0.1 0.4 0.0 0.0 0.0 0.0 23.8
MLAT 0.00 1.69 12.84 23.33 34.34 47.23 0.00 0.00 0.00 0.00 -9.33 HRS
INVLAT 0.0 60.7 62.8 64.9 67.3 70.7 0.0 0.0 0.0 0.0 57.9 DEGS

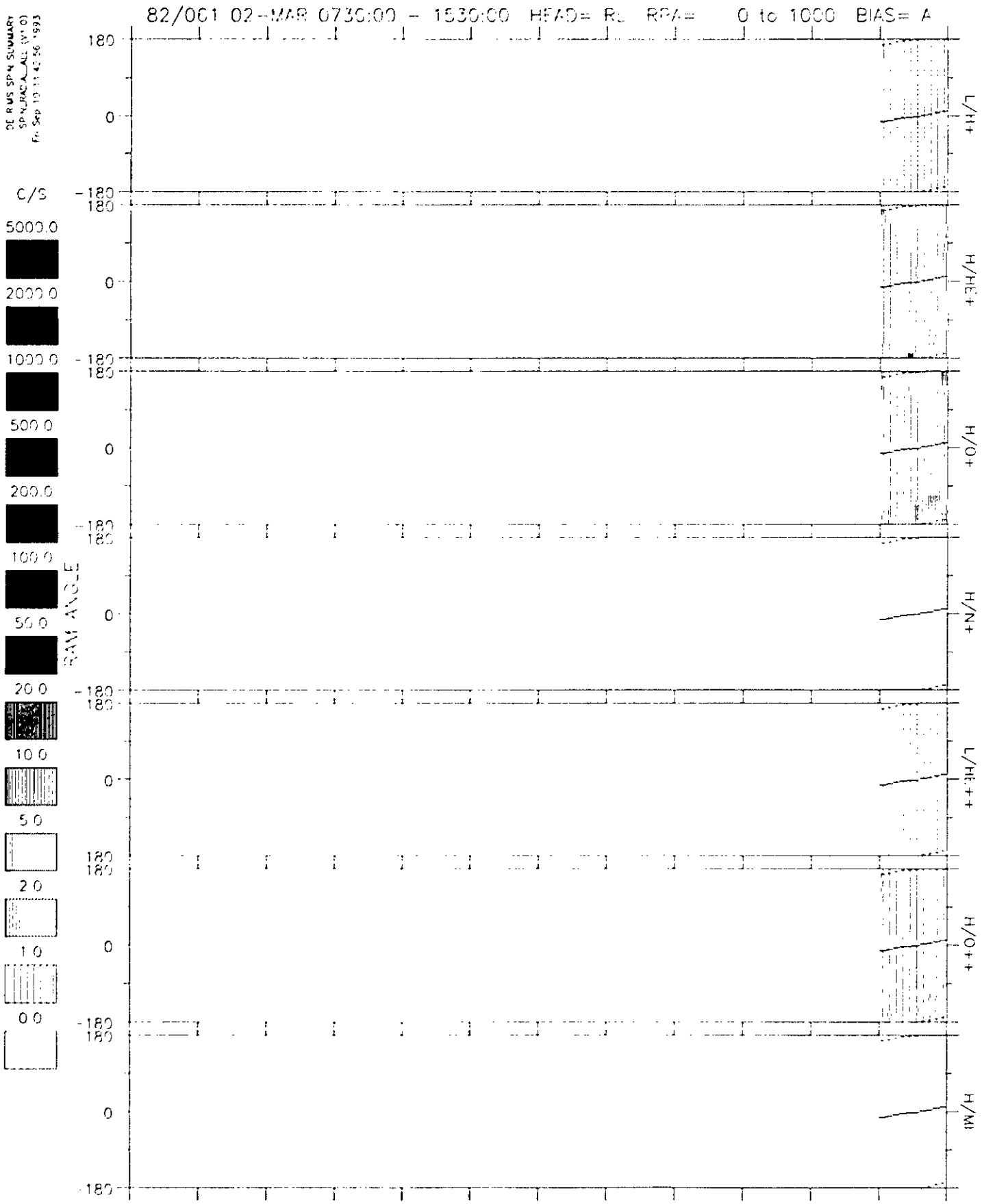

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 9 16:49:52 1993
82/059 28-FEB 2115:00 – 0515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2155 2235 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 3.5 4.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 3.6 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 23.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT -6.80 10.09 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 58.2 61.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

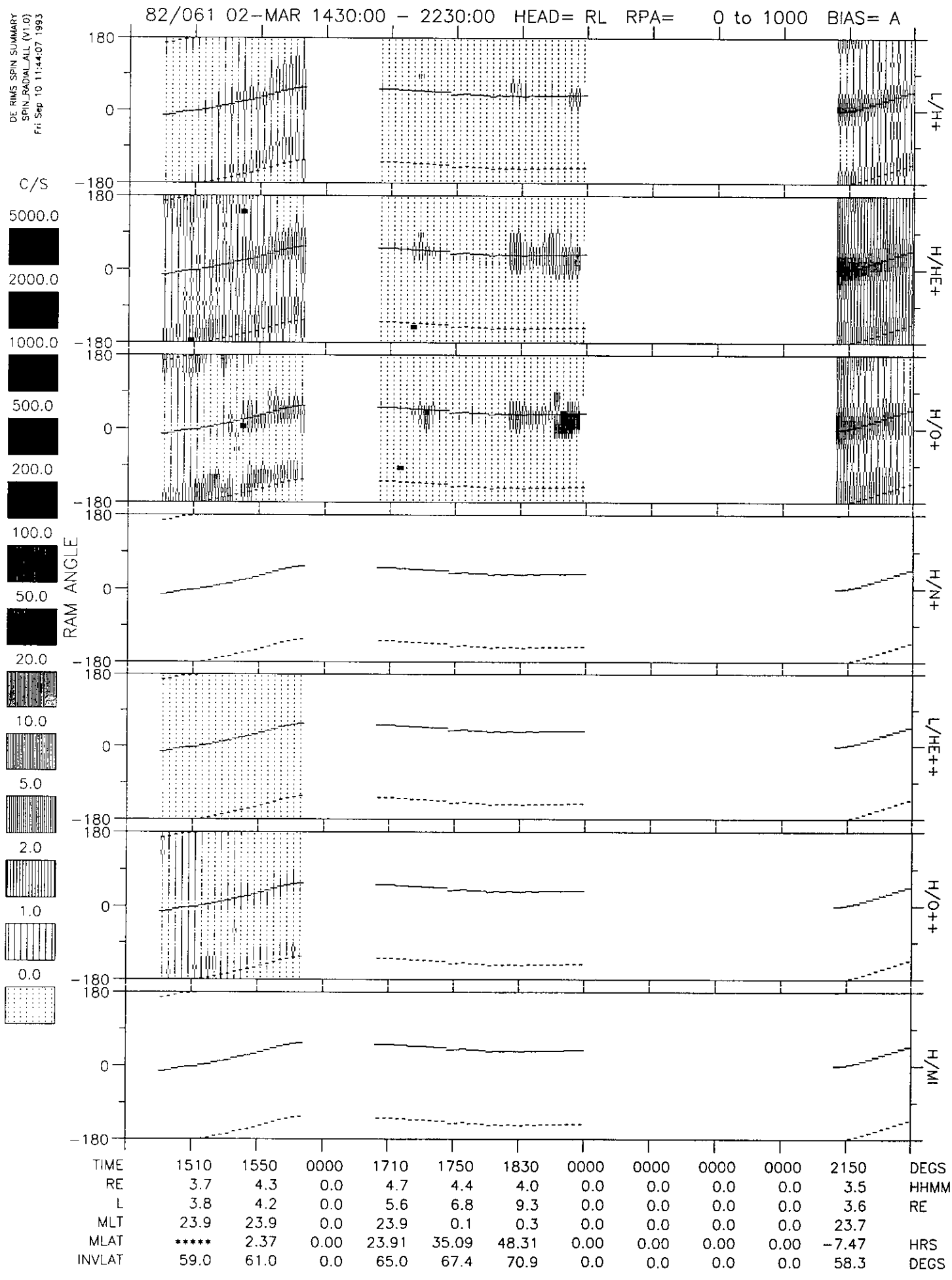

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 11:16:56 1993
82/060 01-MAR 0400:00 - 1200:00 HEAD= RL RPA= 0 to 1000 BIAS= 4
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0000 0000 0000 0920 1000 1040 1120 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.5 1.2 1.9 3.1 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 57.8 1.2 4.6 3.3 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.6 12.1 0.9 0.2
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 76.61 5.20 ***** ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 82.4 21.9 62.1 56.8 DEGS

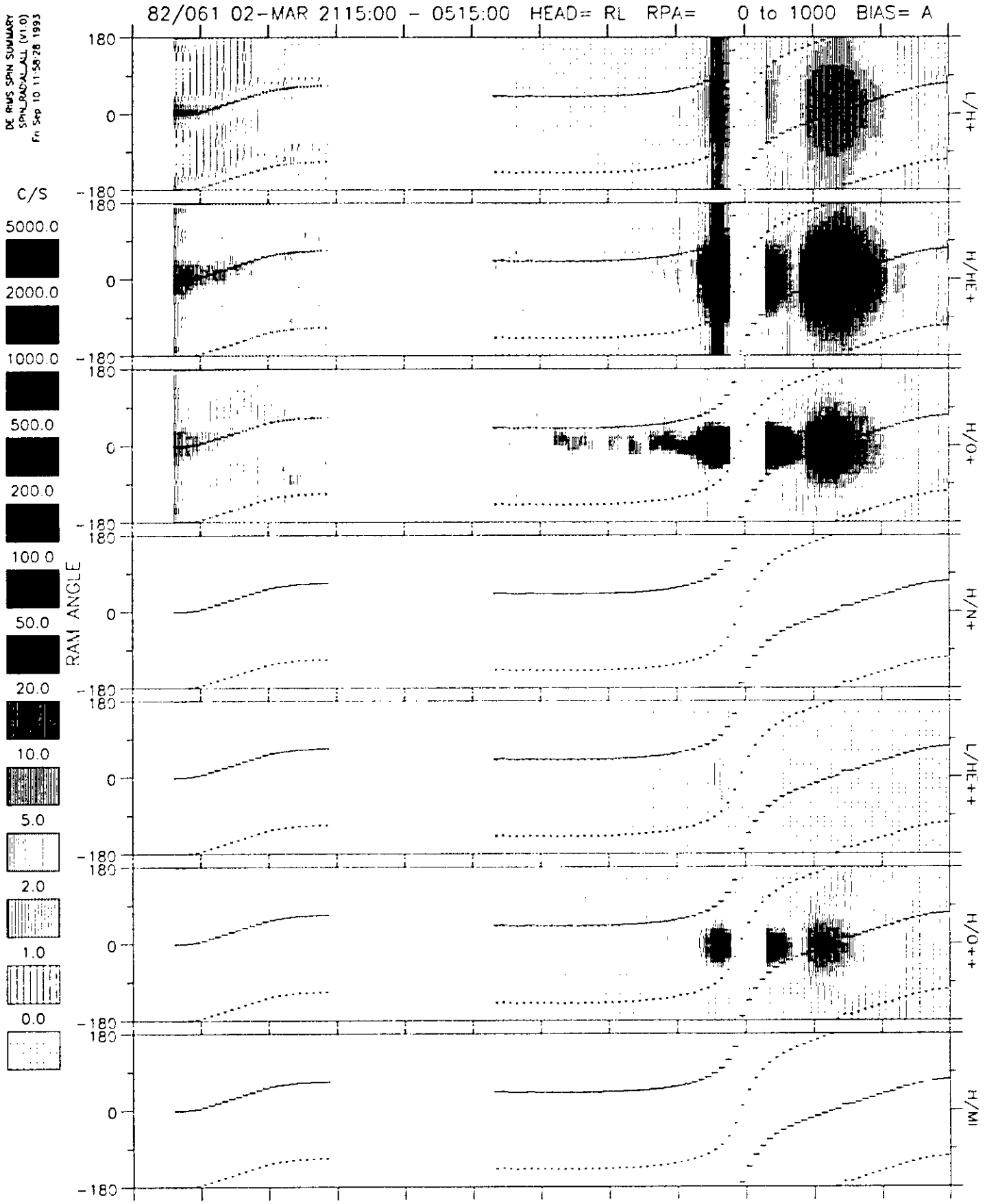

82/060 01-MAR 1100:00 - 1900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 11:18:29 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1140 1220 0000 0000 0000 0000 1540 1620 1700 1740 1820 DEGS
RE 3.6 4.2 0.0 0.0 0.0 0.0 3.3 2.2 1.1 2.2 3.3 HHMM
L 3.6 4.2 0.0 0.0 0.0 0.0 16.6 100.0 1.3 5.1 3.6 RE
MLT 0.1 23.9 0.0 0.0 0.0 0.0 23.5 13.7 12.0 23.7 23.8
MLAT -5.70 6.93 0.00 0.00 0.00 0.00 62.01 87.64 ***** ***** ***** HRS
INVLAT 58.1 60.9 0.0 0.0 0.0 0.0 75.8 87.1 28.3 63.8 58.4 DEGS

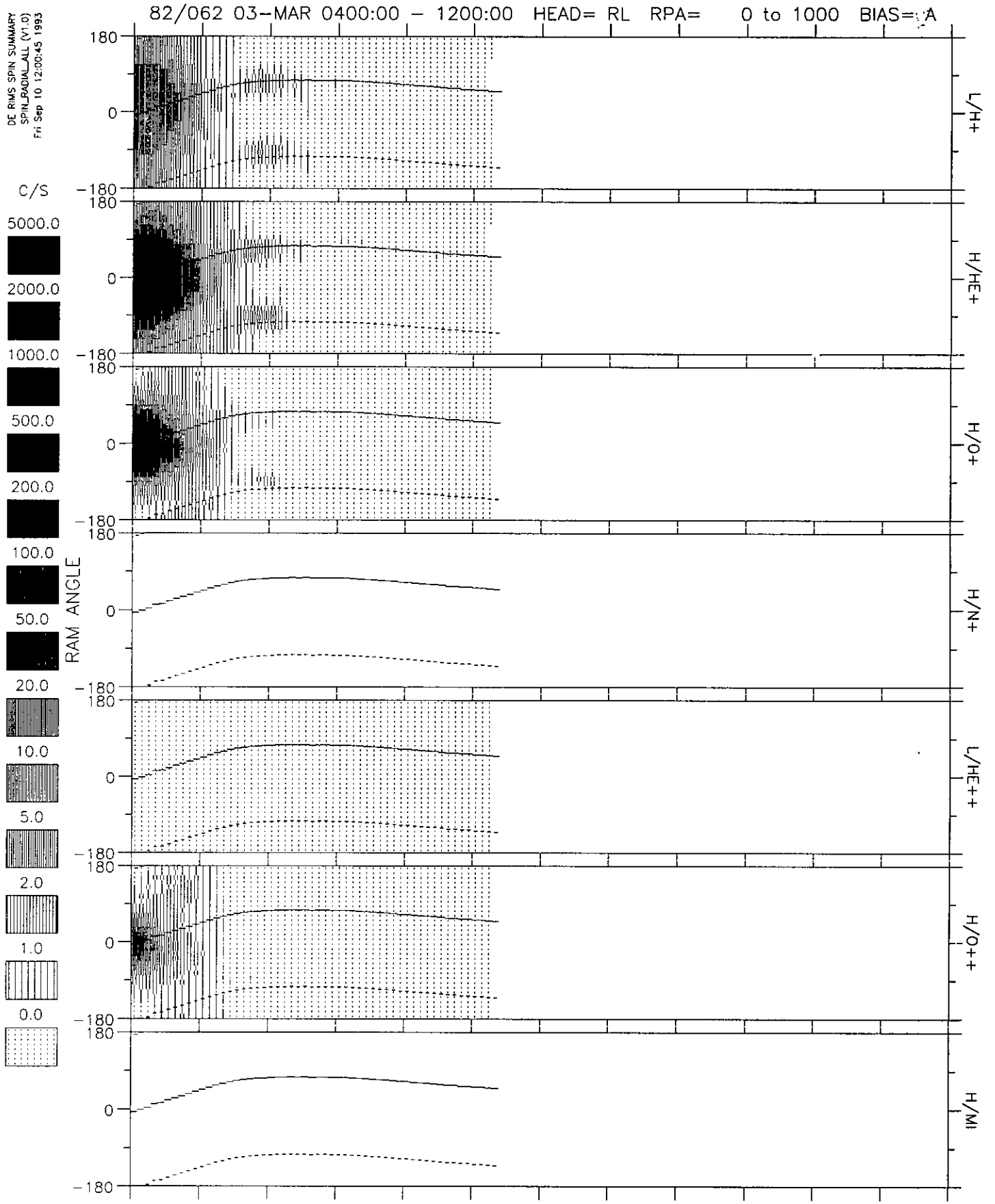

82/060 01-MAR 1800:00 - 0200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 11:27:44 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1840 1920 2000 2040 0000 0000 0000 2320 0000 0040 0120 DEGS
RE 3.7 4.3 4.6 4.7 0.0 0.0 0.0 1.9 1.2 2.5 3.5 HHMM
L 3.8 4.3 5.1 6.1 0.0 0.0 0.0 7.8 21.7 3.2 3.6 RE
MLT 23.9 24.0 0.1 0.3 0.0 0.0 0.0 10.4 14.9 23.5 23.8
MLAT ***** 5.62 17.98 29.43 0.00 0.00 0.00 60.06 ***** ***** 3.46 HRS
INVLAT 59.0 61.4 63.7 66.2 0.0 0.0 0.0 69.0 77.6 55.8 58.3 DEGS

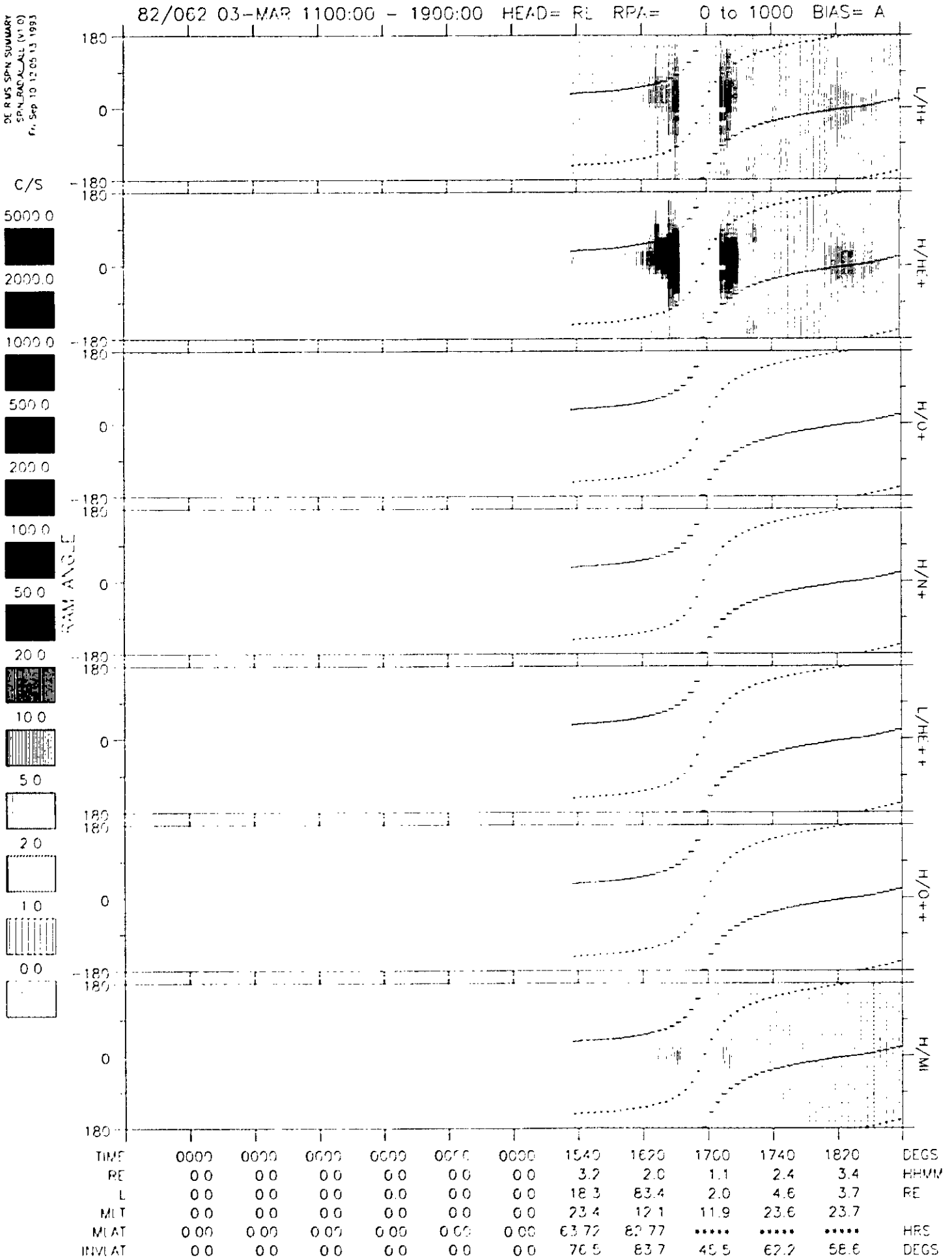

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 11:29:38 1993
82/061 02-MAR 0115:00 - 0915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0435 0515 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.2 3.5 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 23.3 100.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 23.9 23.1 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 65.72 80.89 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 78.0 84.7 0.0 0.0 0.0 0.0 0.0 DEGS

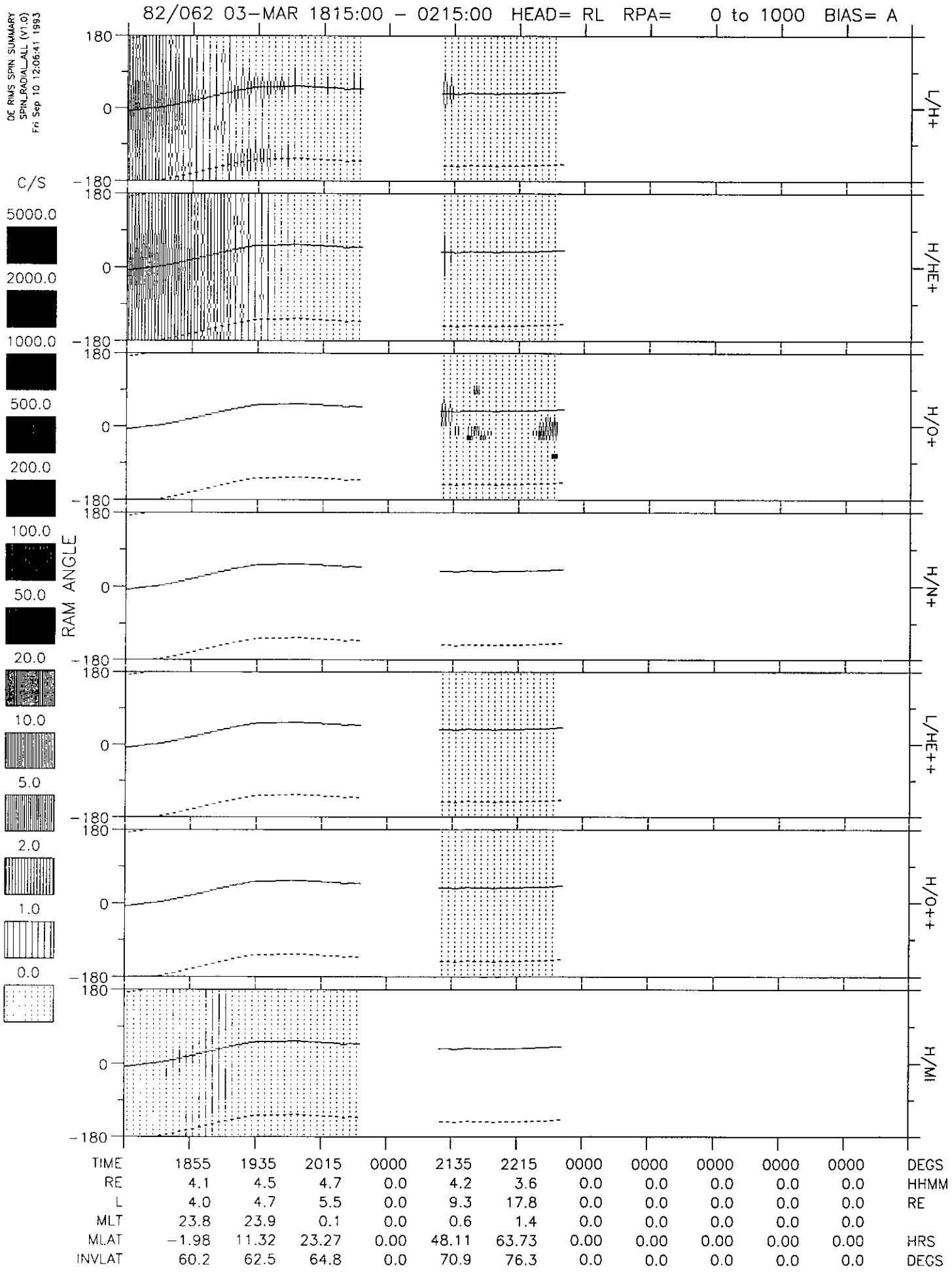

82/001 02-MAR 0730:00 - 1530:00 HEAD= R RPA= 0 to 1000 BIAS= A
DE RUS SPN SUMMARY
SPN_RACE_ALL (V1.0)
Fri Sep 10 11:42:56 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 1450 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.3 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.6 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 24.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 58.4 DEGS

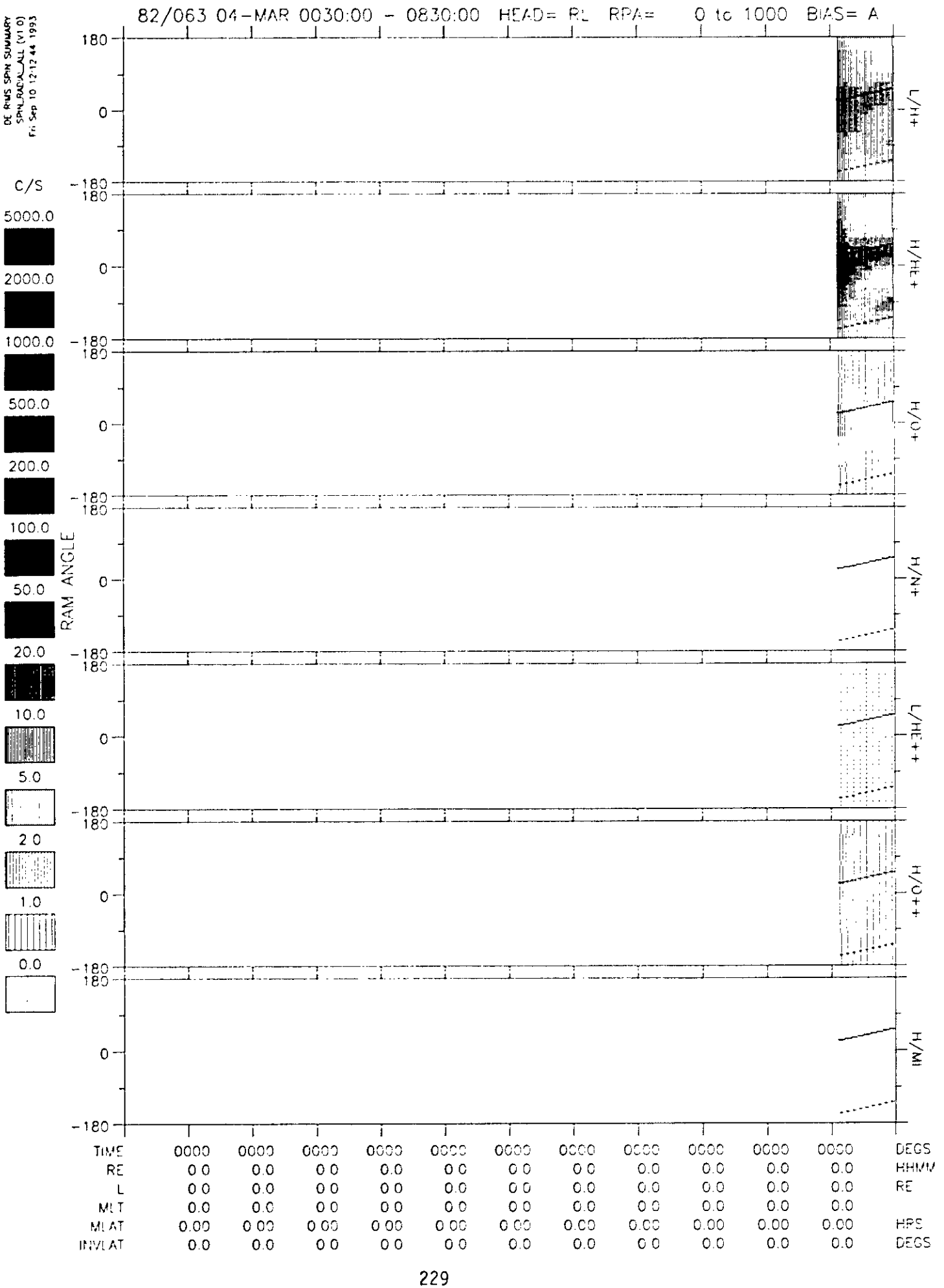

82/061 02-MAR 1430:00 - 2230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 11:44:07 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1510 1550 0000 1710 1750 1830 0000 0000 0000 0000 2150 DEGS
RE 3.7 4.3 0.0 4.7 4.4 4.0 0.0 0.0 0.0 0.0 3.5 HHMM
L 3.8 4.2 0.0 5.6 6.8 9.3 0.0 0.0 0.0 0.0 3.6 RE
MLT 23.9 23.9 0.0 23.9 0.1 0.3 0.0 0.0 0.0 0.0 23.7
MLAT ***** 2.37 0.00 23.91 35.09 48.31 0.00 0.00 0.00 0.00 -7.47 HRS
INVLAT 59.0 61.0 0.0 65.0 67.4 70.9 0.0 0.0 0.0 0.0 58.3 DEGS

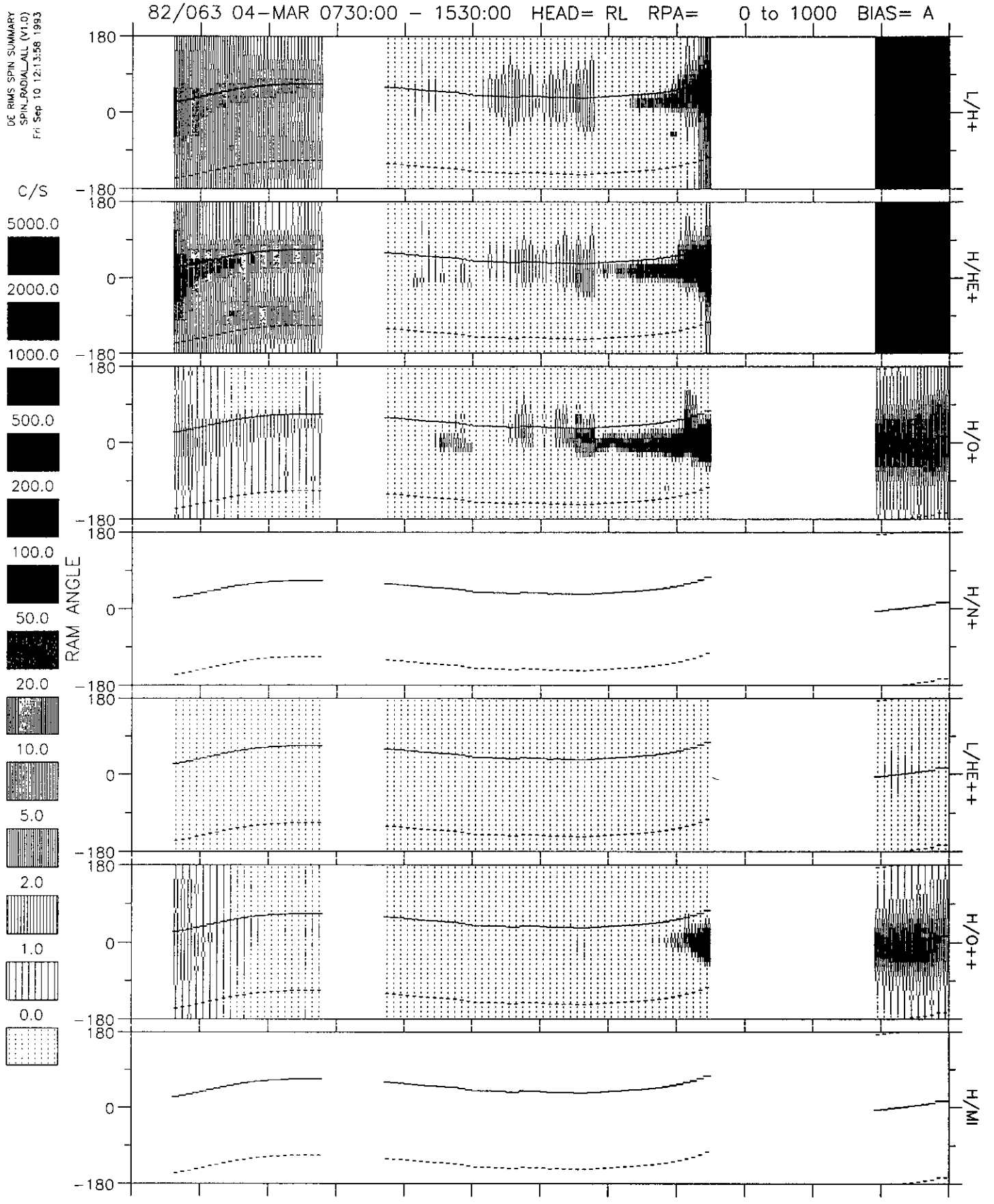

82/061 02-MAR 2115:00 - 0515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 11:58:28 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2155 2235 0000 0000 0000 0115 0155 0235 0315 0355 0435 DEGS
RE 3.6 4.2 0.0 0.0 0.0 4.0 3.3 2.2 1.1 2.3 3.4 HHMM
L 3.7 4.4 0.0 0.0 0.0 17.2 73.9 14.3 2.8 2.8 3.4 RE
MLT 23.7 23.9 0.0 0.0 0.0 0.8 2.6 10.9 12.1 23.7 23.8
MLAT -5.01 11.29 0.00 0.00 0.00 62.56 79.12 65.20 ***** ***** 3.36 HRS
INVLAT 58.6 61.5 0.0 0.0 0.0 76.0 83.3 74.7 53.6 53.5 57.4 DEGS


82/062 03-MAR 0400:00 – 1200:00 HEAD= RL RPA= 0 to 1000 BIAS=: A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 12:00:45 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N
TIME 0440 0520 0600 0640 0720 0000 0000 0000 0000 0000 0000 DEGS
RE 3.5 4.2 4.5 4.7 4.5 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 3.6 4.8 6.4 8.4 11.3 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 23.8 23.8 23.7 23.6 23.3 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 5.80 20.95 32.14 41.64 50.72 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 58.1 63.0 66.7 69.8 72.7 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

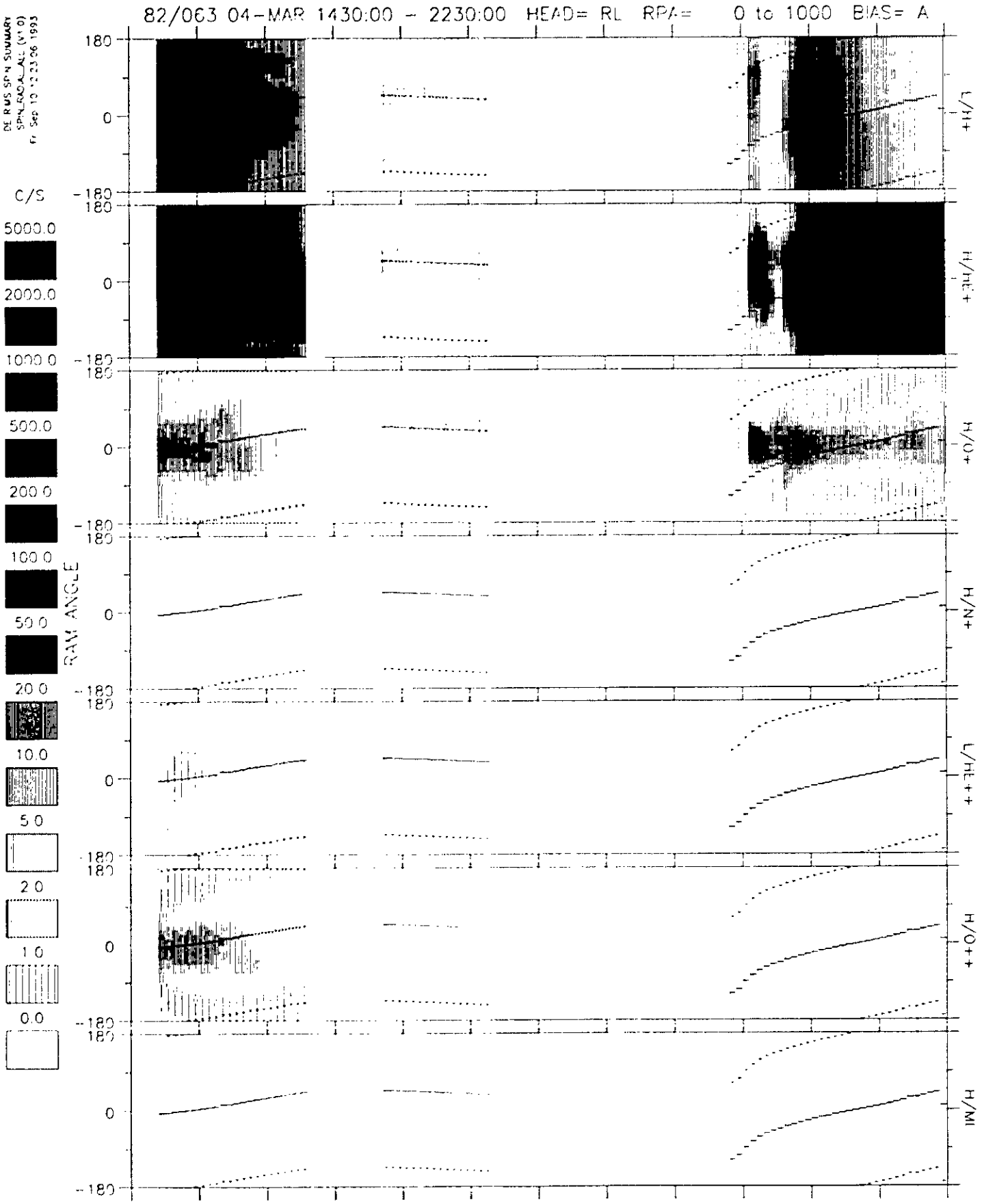

82/062 03-MAR 1100:00 - 1900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R WS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri, Sep 10 12:05:13 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0000 0000 1540 1620 1700 1740 1820 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 3.2 2.0 1.1 2.4 3.4 HRMN
L 0.0 0.0 0.0 0.0 0.0 0.0 18.3 83.4 2.0 4.6 3.7 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 23.4 12.1 11.9 23.6 23.7
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 63.72 82.77 ***** ***** ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 76.5 83.7 49.5 62.2 58.6 DEGS

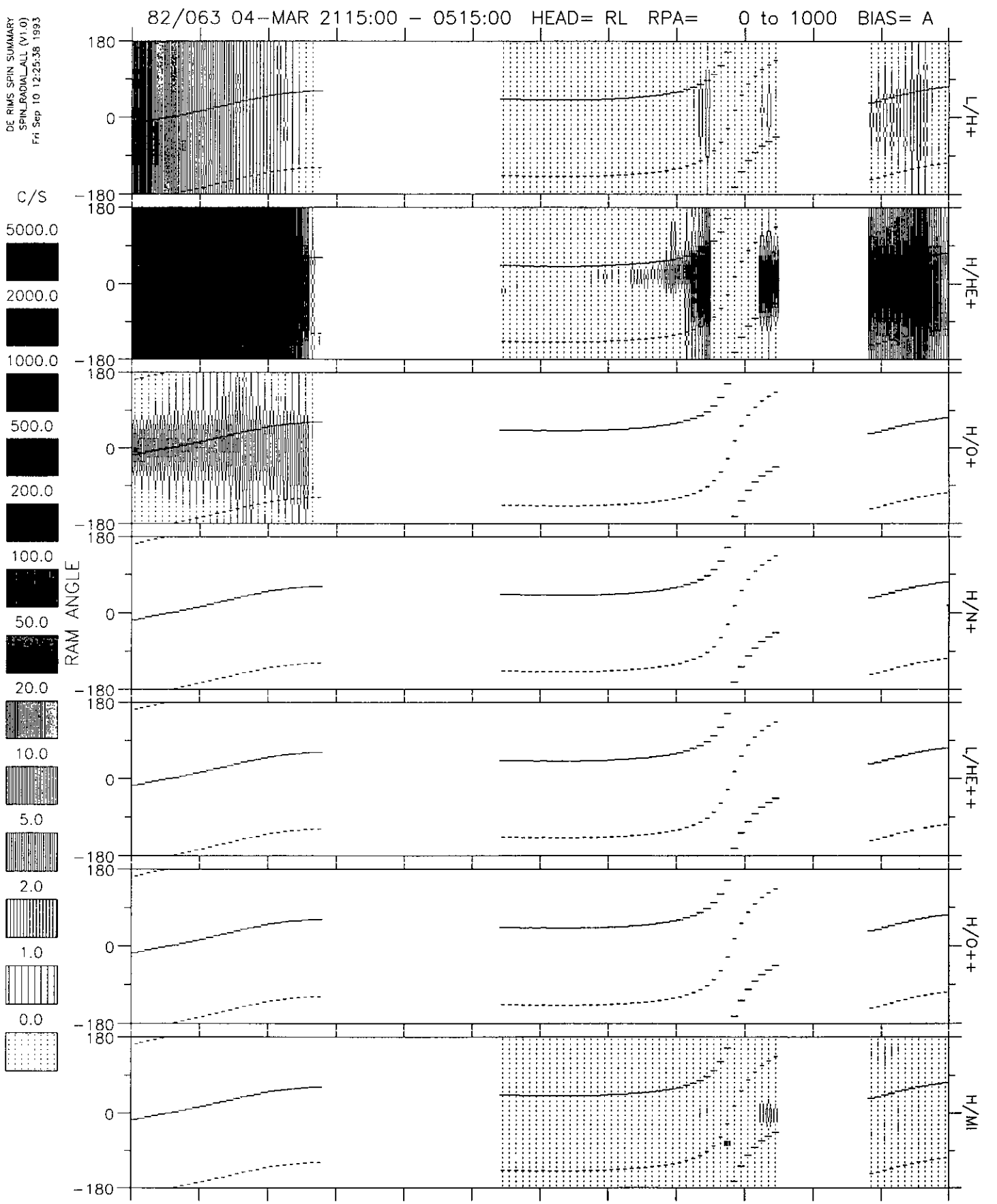

82/062 03-MAR 1815:00 - 0215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 12:06:41 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1855 1935 2015 0000 2135 2215 0000 0000 0000 0000 0000 DEGS
RE 4.1 4.5 4.7 0.0 4.2 3.6 0.0 0.0 0.0 0.0 0.0 HHMM
L 4.0 4.7 5.5 0.0 9.3 17.8 0.0 0.0 0.0 0.0 0.0 RE
MLT 23.8 23.9 0.1 0.0 0.6 1.4 0.0 0.0 0.0 0.0 0.0
MLAT -1.98 11.32 23.27 0.00 48.11 63.73 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 60.2 62.5 64.8 0.0 70.9 76.3 0.0 0.0 0.0 0.0 0.0 DEGS

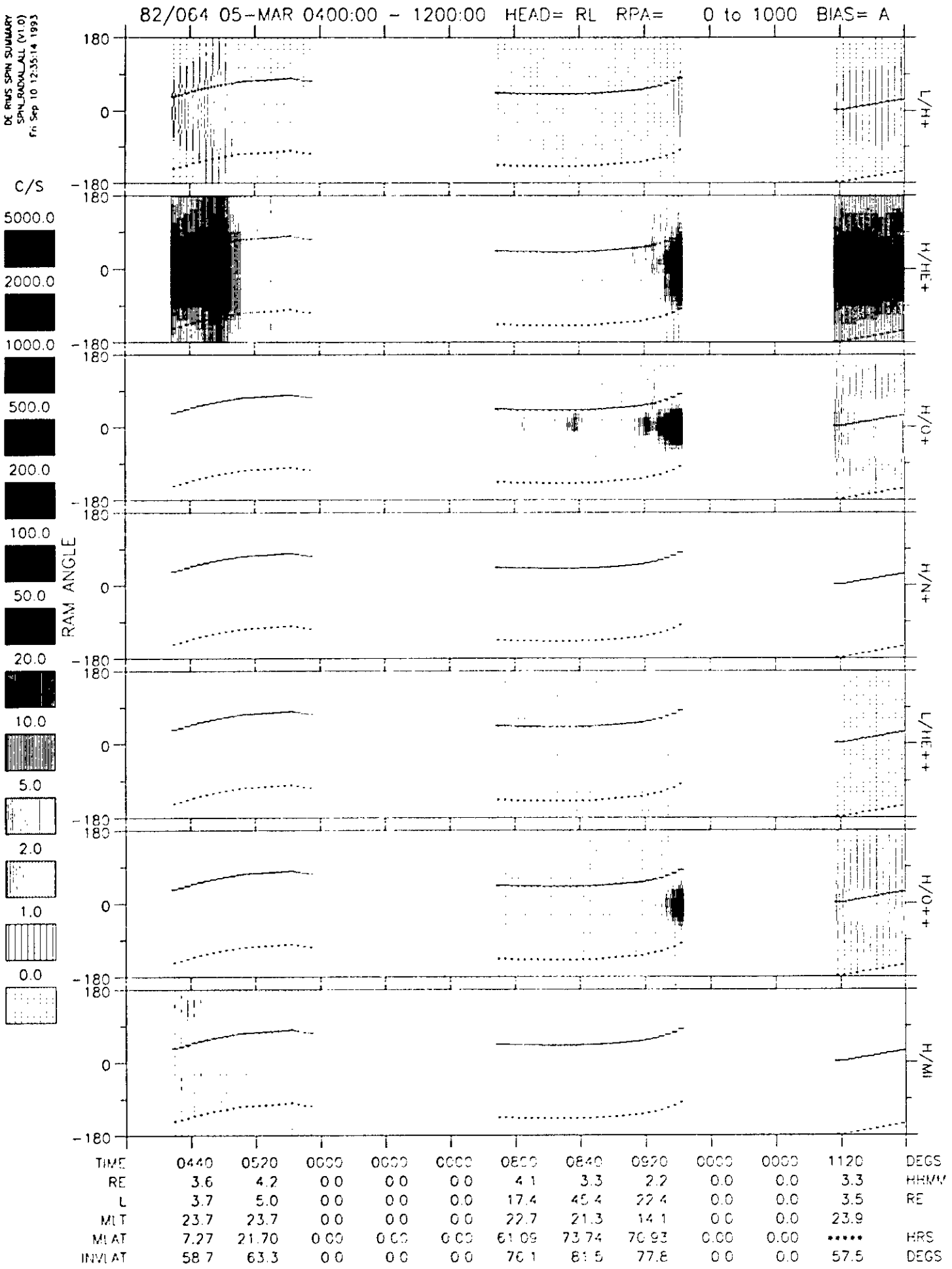

82/063 04-MAR 0030:00 - 0830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1 0)
Fri Sep 10 12:12 44 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2 0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0 0 0.0 0 0 0.0 0 0 0 0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0 0 0.0 0 0 0 0 0.0 0 0 0.0 0 0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0 0 0 0 0 0 0.0 0 0 0.0 0.0 0.0 0.0
MLAT 0.00 0 00 0 00 0 00 0 00 0 00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0 0 0 0 0 0 0.0 0.0 0 0 0.0 0.0 0.0 DEGS

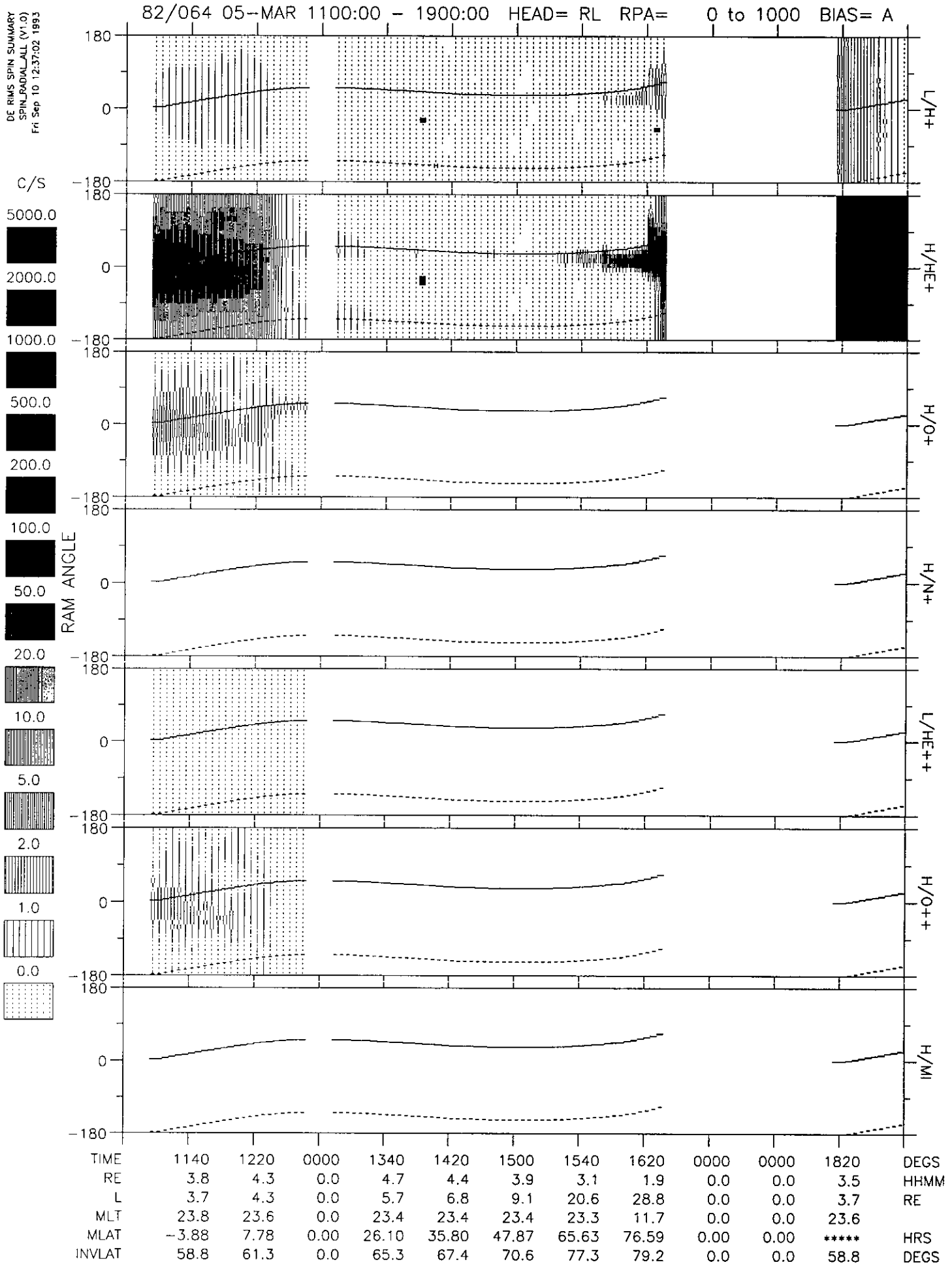


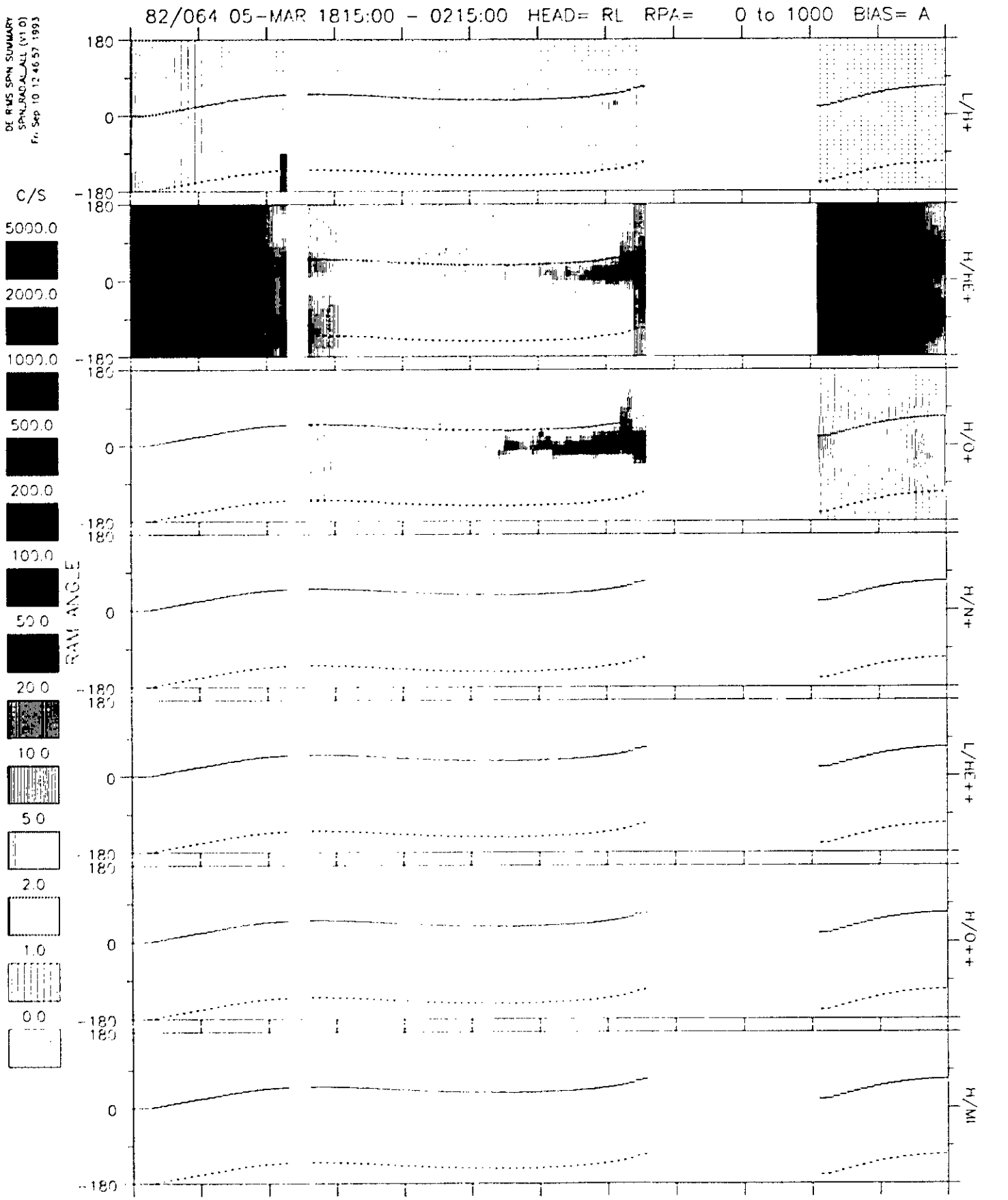
TIME	0810	0850	0000	1010	1050	1130	1210	1250	0000	0000	1450	DEGS
RE	3.6	4.3	0.0	4.7	4.5	4.0	3.3	2.1	0.0	0.0	3.4	HHMM
L	3.6	4.6	0.0	6.7	8.1	10.8	22.2	35.6	0.0	0.0	3.7	RE
MLT	23.9	23.7	0.0	23.3	23.1	22.8	22.1	14.9	0.0	0.0	23.8	
MLAT	3.76	16.28	0.00	33.82	42.22	52.22	66.37	77.13	0.00	0.00	*****	HRS
INVLAT	58.3	62.1	0.0	67.2	69.4	72.3	77.8	80.3	0.0	0.0	58.6	DEGS

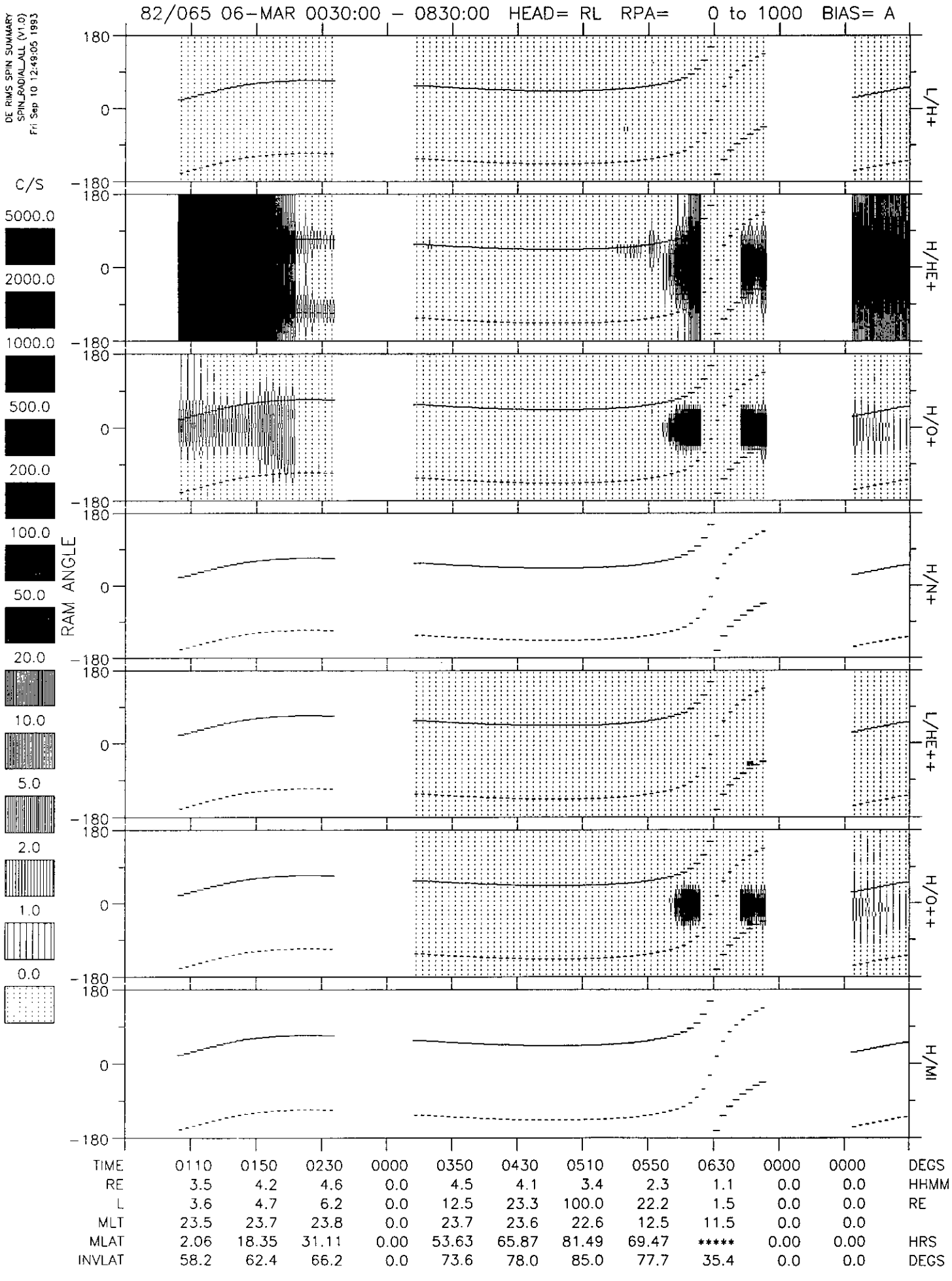

82/063 04-MAR 1430:00 - 2230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R US SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Fr Sep 10 12:23:06 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAW ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1510 1550 0000 1710 1750 0000 0000 0000 2030 2110 2150 DEGS
PE 3.8 4.4 0.0 4.6 4.4 0.0 0.0 0.0 1.3 2.6 3.6 HHMM
L 3.8 4.3 0.0 5.7 6.9 0.0 0.0 0.0 13.9 3.7 3.7 RE
MLT 23.8 23.7 0.0 23.8 23.9 0.0 0.0 0.0 14.4 23.3 23.6
MLAT -9.93 3.02 0.00 24.51 35.87 0.00 0.00 0.00 ***** ***** -5.66 HRS
INVLAT 59.3 61.2 0.0 65.2 67.6 0.0 0.0 0.0 74.4 58.5 58.6 DEGS

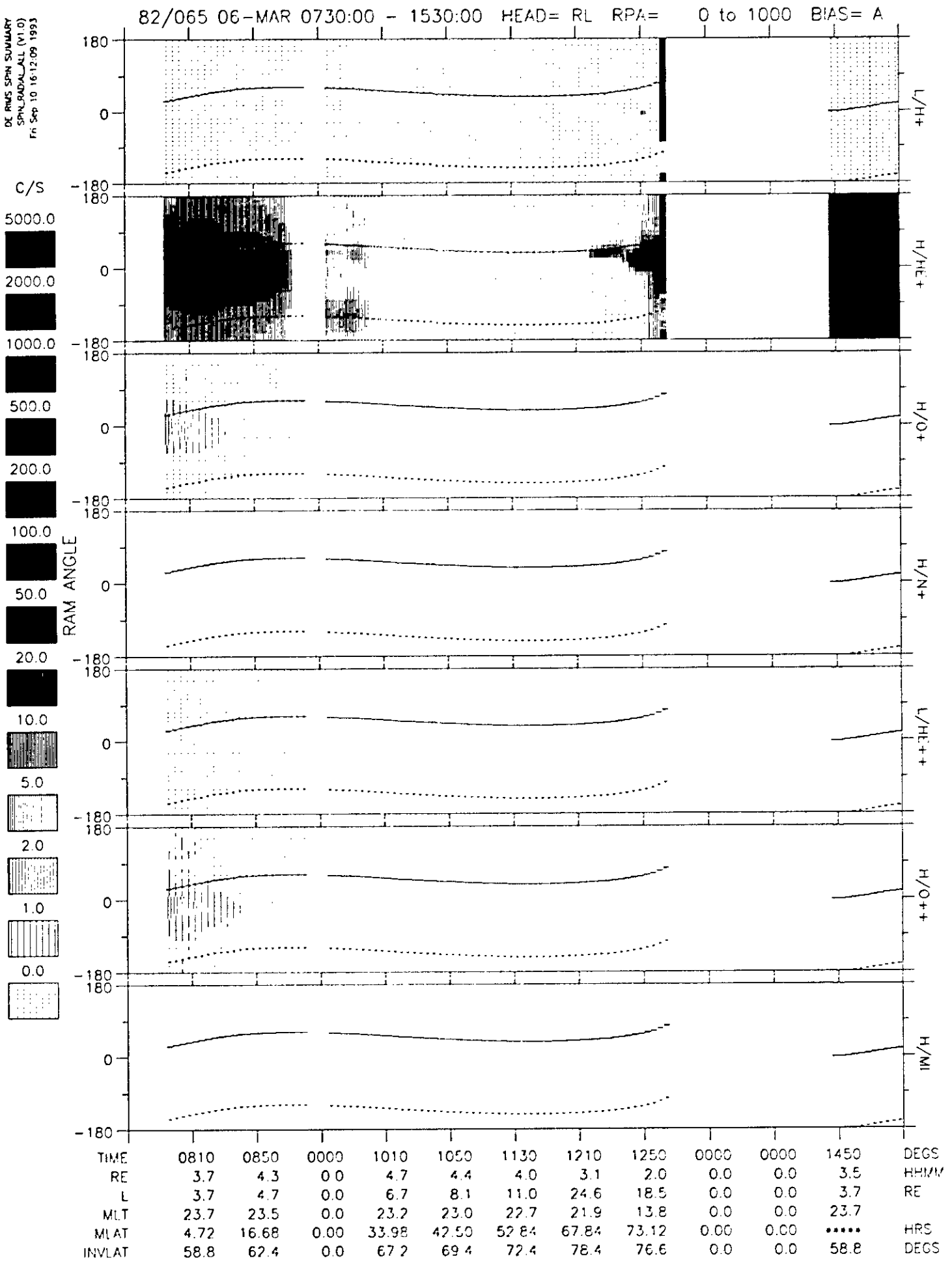

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 12:25:38 1993
82/063 04-MAR 2115:00 - 0515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2155 2235 0000 0000 0000 0115 0155 0235 0315 0000 0435 DEGS
RE 3.7 4.3 0.0 0.0 0.0 4.0 3.2 2.0 1.1 0.0 3.5 HHMM
L 3.8 4.5 0.0 0.0 0.0 18.4 98.3 8.8 19.1 0.0 3.6 RE
MLT 23.6 23.8 0.0 0.0 0.0 0.8 3.0 11.0 12.3 0.0 23.7
MLAT -3.31 12.47 0.00 0.00 0.00 63.85 80.83 59.57 ***** 0.00 4.97 HRS
INVLAT 58.9 61.8 0.0 0.0 0.0 76.5 84.2 70.3 76.8 0.0 58.0 DEGS

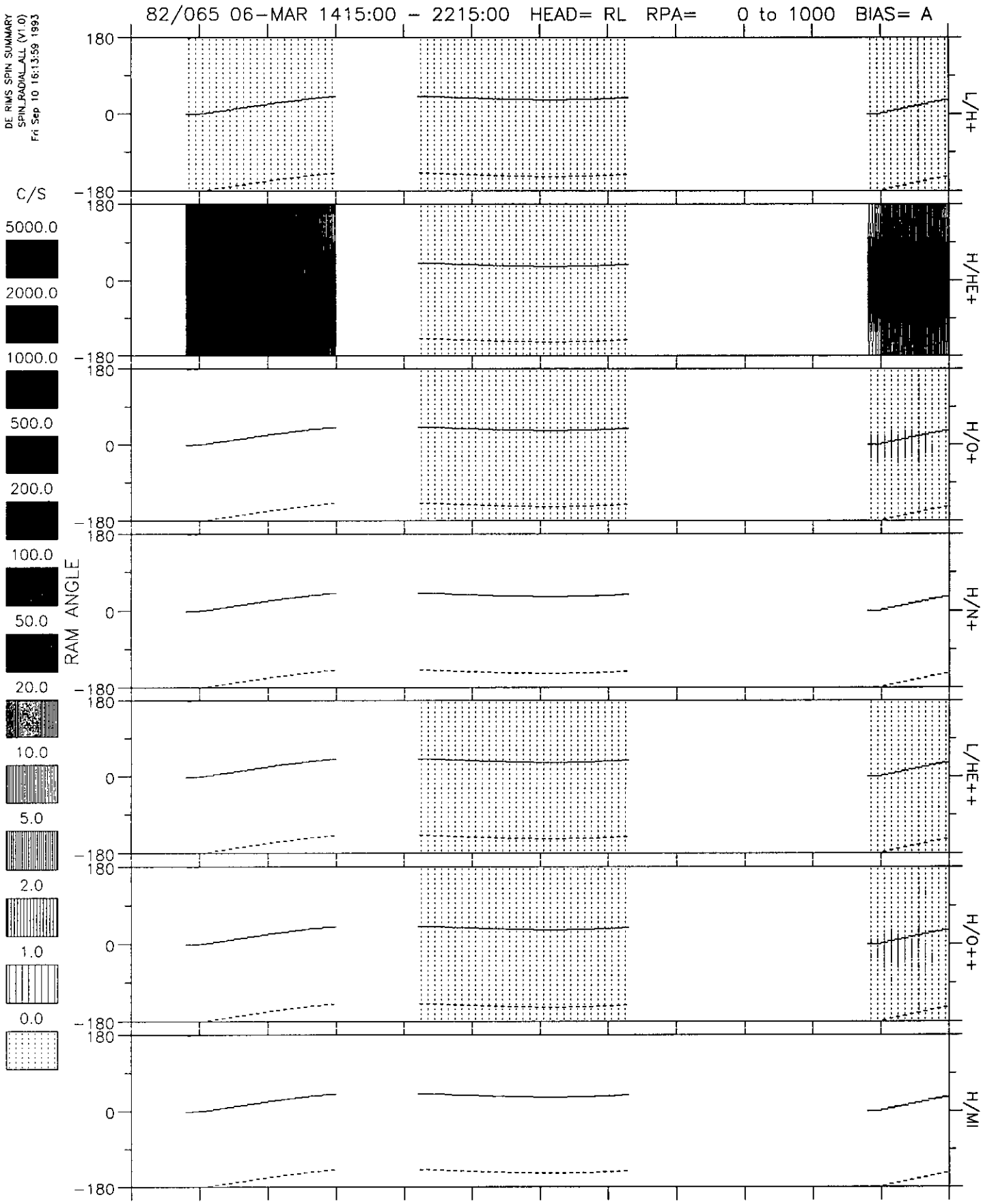

DE RMS SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Fri Sep 10 12:35:14 1993
82/064 05-MAR 0400:00 - 1200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0440 0520 0000 0000 0000 0800 0840 0920 0000 0000 1120 DEGS
RE 3.6 4.2 0 0 0 0 0 0 4 1 3.3 2.2 0.0 0.0 3.3 HHMM
L 3.7 5.0 0 0 0 0 0 0 17.4 45 4 22 4 0.0 0.0 3.5 RE
MLT 23.7 23.7 0 0 0 0 0 0 22.7 21.3 14 1 0 0 0.0 23.9
MLAT 7.27 21.70 0 00 0 00 0 00 61 09 73 74 70 93 0.00 0.00 ***** HRS
INVLAT 58 7 63.3 0 0 0 0 0 0 76 1 81 5 77.8 0 0 0.0 57.5 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 12:37:02 1993
82/064 05-MAR 1100:00 - 1900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1140 1220 0000 1340 1420 1500 1540 1620 0000 0000 1820 DEGS
RE 3.8 4.3 0.0 4.7 4.4 3.9 3.1 1.9 0.0 0.0 3.5 HHMM
L 3.7 4.3 0.0 5.7 6.8 9.1 20.6 28.8 0.0 0.0 3.7 RE
MLT 23.8 23.6 0.0 23.4 23.4 23.4 23.3 11.7 0.0 0.0 23.6
MLAT -3.88 7.78 0.00 26.10 35.80 47.87 65.63 76.59 0.00 0.00 ***** HRS
INVLAT 58.8 61.3 0.0 65.3 67.4 70.6 77.3 79.2 0.0 0.0 58.8 DEGS

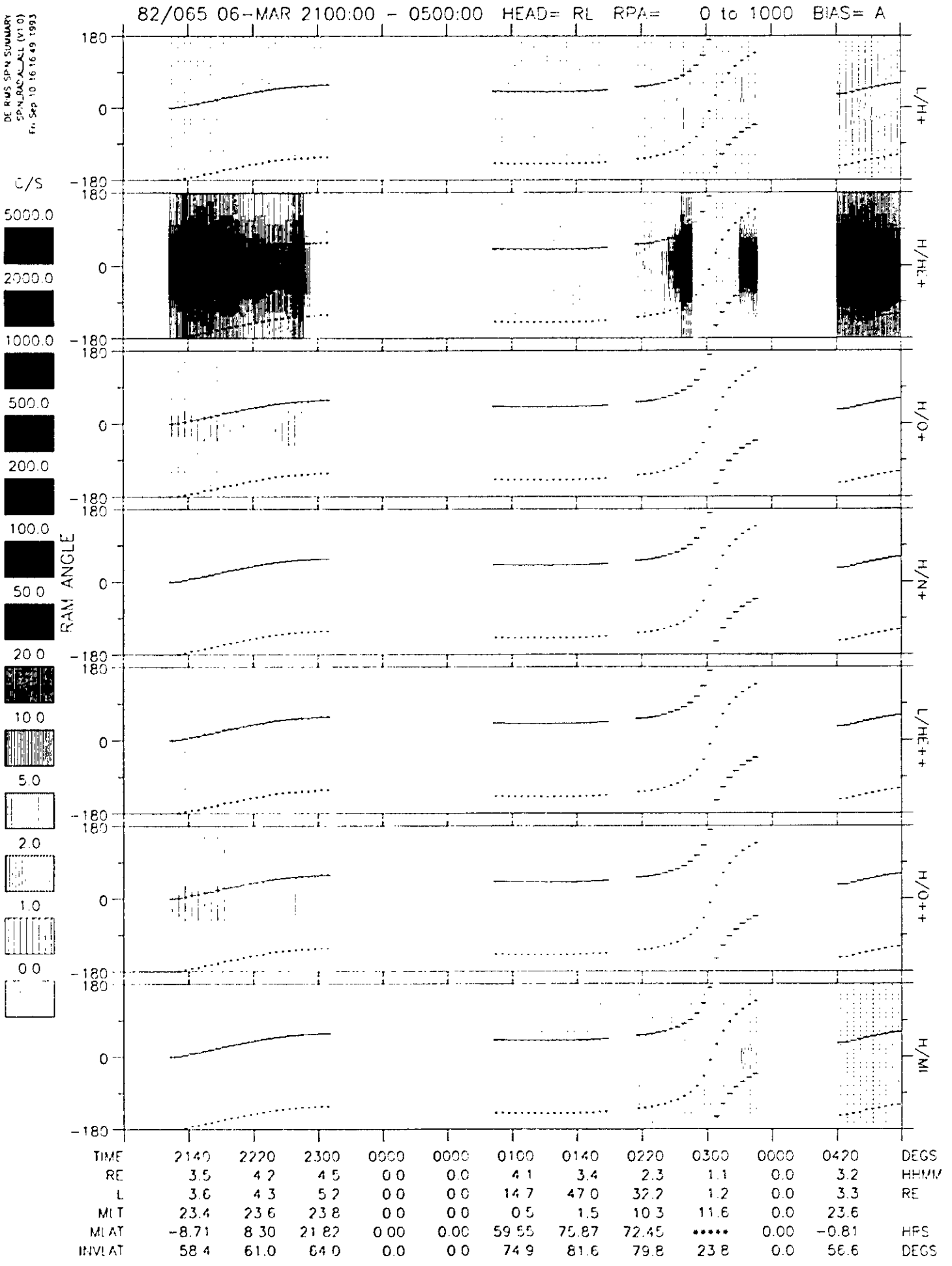

82/064 05-MAR 1815:00 - 0215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RMS SPIN SUMMARY
SPIN_RAD_ALL (V1 0)
Fri Sep 10 12 46 57 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 1855 1935 2015 2055 2135 2215 2255 0000 0000 0000 0135 DEGS
RE 4.1 4.5 4.7 4.5 4.2 3.5 2.4 0.0 0.0 0.0 4.0 HHMM
L 4.1 4.7 5.6 6.9 9.6 19.5 62.8 0.0 0.0 0.0 4.2 RE
MLT 23.7 23.8 24.0 0.2 0.5 1.4 7.6 0.0 0.0 0.0 23.6
MLAT -0.87 12.20 24.11 36.67 49.25 65.38 76.92 0.00 0.00 0.00 12.86 HRS
INVLAT 60.4 62.7 65.6 67.7 71.2 76.9 82.8 0.0 0.0 0.0 60.8 DEGS

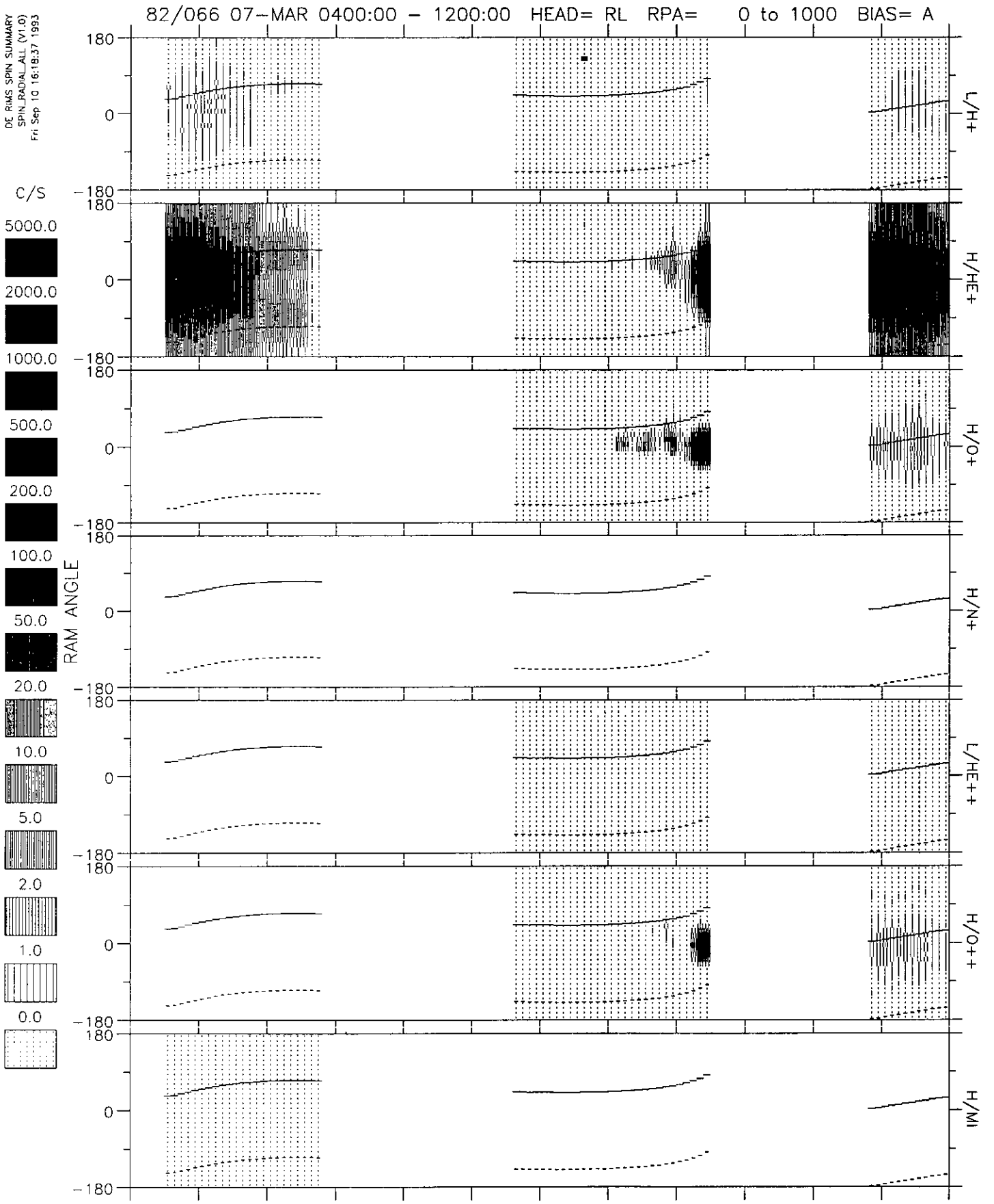

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 12:49:05 1993
82/065 06-MAR 0030:00 - 0830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0110 0150 0230 0000 0350 0430 0510 0550 0630 0000 0000 DEGS
RE 3.5 4.2 4.6 0.0 4.5 4.1 3.4 2.3 1.1 0.0 0.0 HHMM
L 3.6 4.7 6.2 0.0 12.5 23.3 100.0 22.2 1.5 0.0 0.0 RE
MLT 23.5 23.7 23.8 0.0 23.7 23.6 22.6 12.5 11.5 0.0 0.0
MLAT 2.06 18.35 31.11 0.00 53.63 65.87 81.49 69.47 ***** 0.00 0.00 HRS
INVLAT 58.2 62.4 66.2 0.0 73.6 78.0 85.0 77.7 35.4 0.0 0.0 DEGS

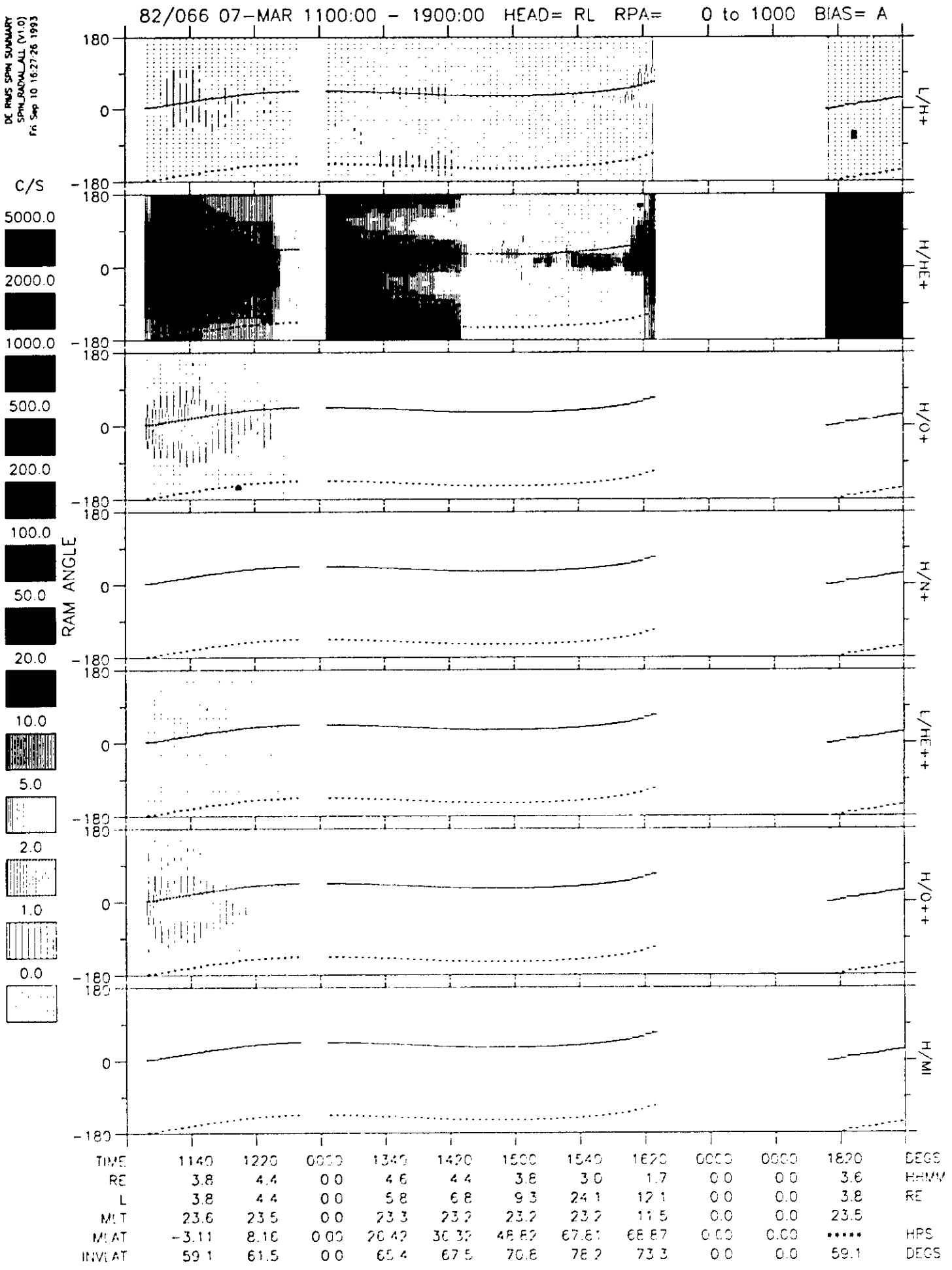

DE RMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 16:12:09 1993
82/065 06-MAR 0730:00 - 1530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0810 0850 0000 1010 1050 1130 1210 1250 0000 0000 1450 DEGS
RE 3.7 4.3 0.0 4.7 4.4 4.0 3.1 2.0 0.0 0.0 3.5 HHMM
L 3.7 4.7 0.0 6.7 8.1 11.0 24.6 18.5 0.0 0.0 3.7 RE
MLT 23.7 23.5 0.0 23.2 23.0 22.7 21.9 13.8 0.0 0.0 23.7
MLAT 4.72 16.68 0.00 33.98 42.50 52.84 67.84 73.12 0.00 0.00 ***** HRS
INVLAT 58.8 62.4 0.0 67.2 69.4 72.4 78.4 76.6 0.0 0.0 58.8 DEGS

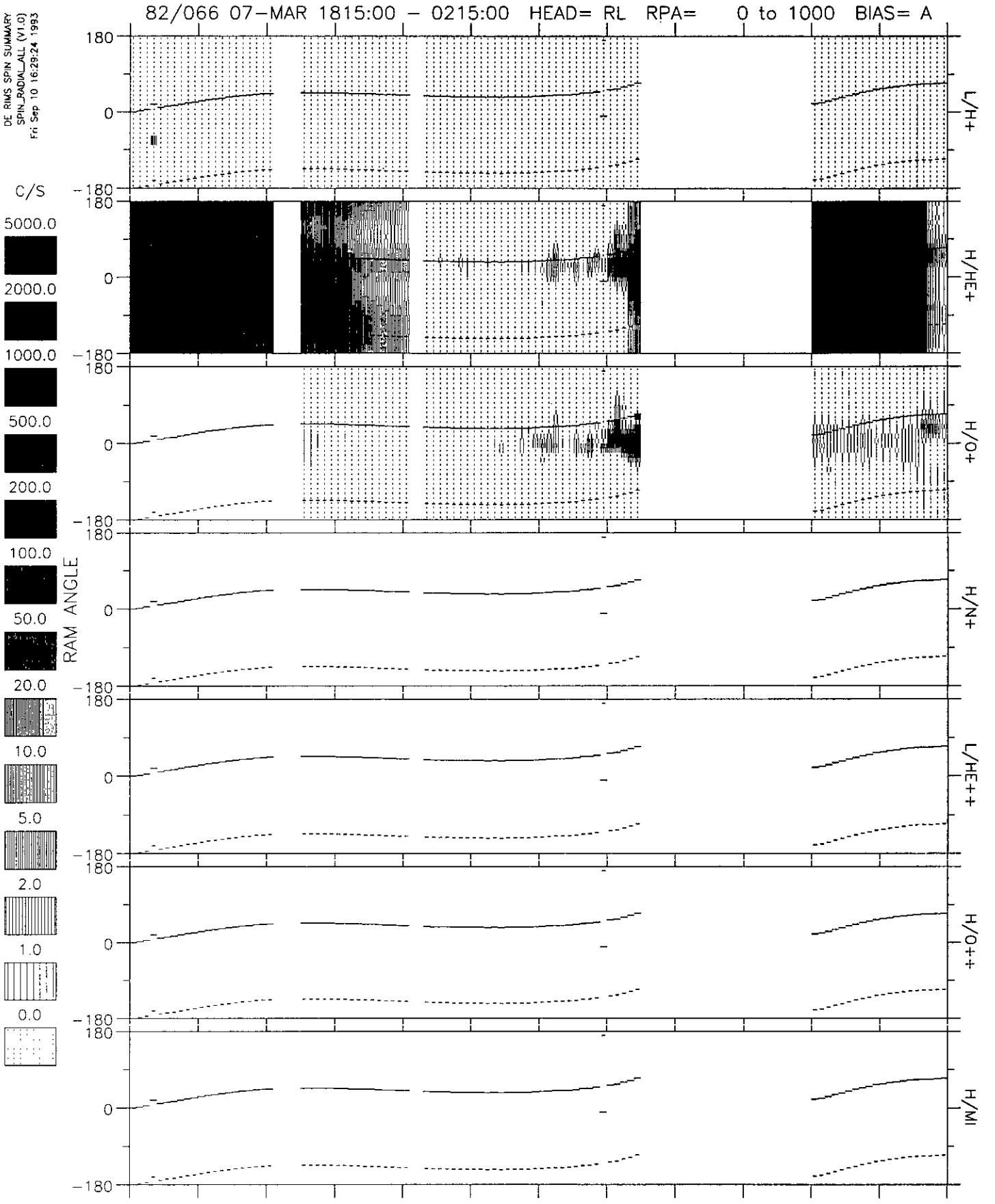


TIME	1455	1535	0000	0000	1735	1815	1855	0000	0000	0000	2135	DEGS
RE	3.6	4.2	0.0	0.0	4.5	4.0	3.3	0.0	0.0	0.0	3.4	HHMM
L	3.8	4.2	0.0	0.0	6.4	8.4	16.4	0.0	0.0	0.0	3.6	RE
MLT	23.7	23.6	0.0	0.0	23.8	0.0	0.6	0.0	0.0	0.0	23.4	
MLAT	*****	-0.68	0.00	0.00	32.19	45.07	62.28	0.00	0.00	0.00	*****	HRS
INVLAT	59.0	60.7	0.0	0.0	66.7	69.8	75.7	0.0	0.0	0.0	58.1	DEGS

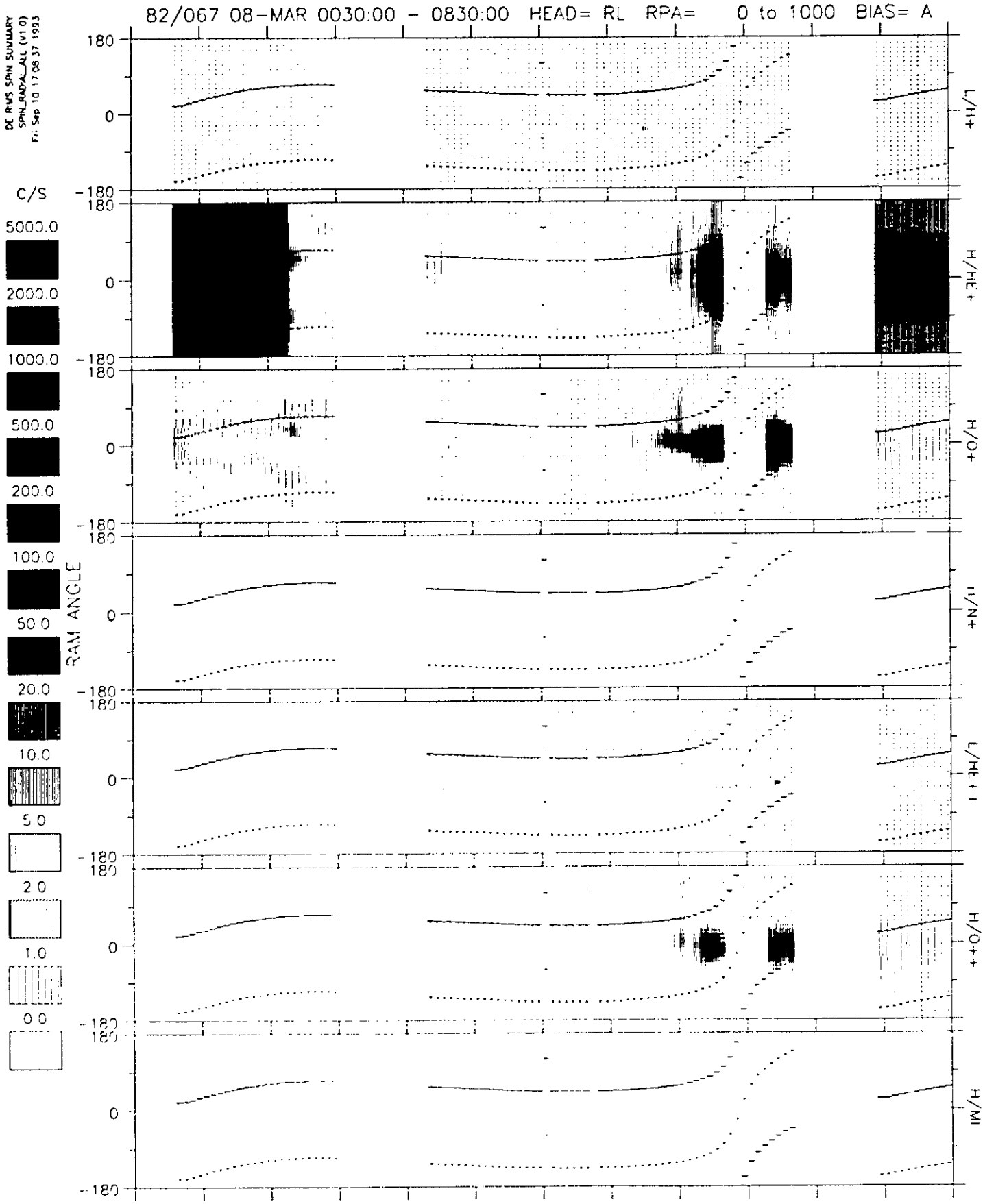

82/065 06-MAR 2100:00 - 0500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RACAL_ALL (V1.0)
Fri Sep 10 16:16:49 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 2140 2220 2300 0000 0000 0100 0140 0220 0300 0000 0420 DEGS
RE 3.5 4.2 4.5 0.0 0.0 4.1 3.4 2.3 1.1 0.0 3.2 HHMM
L 3.6 4.3 5.2 0.0 0.0 14.7 47.0 32.2 1.2 0.0 3.3 RE
MLT 23.4 23.6 23.8 0.0 0.0 0.5 1.5 10.3 11.6 0.0 23.6
MLAT -8.71 8.30 21.82 0.00 0.00 59.55 75.87 72.45 ***** 0.00 -0.81 HRS
INVLAT 58.4 61.0 64.0 0.0 0.0 74.9 81.6 79.8 23.8 0.0 56.6 DEGS

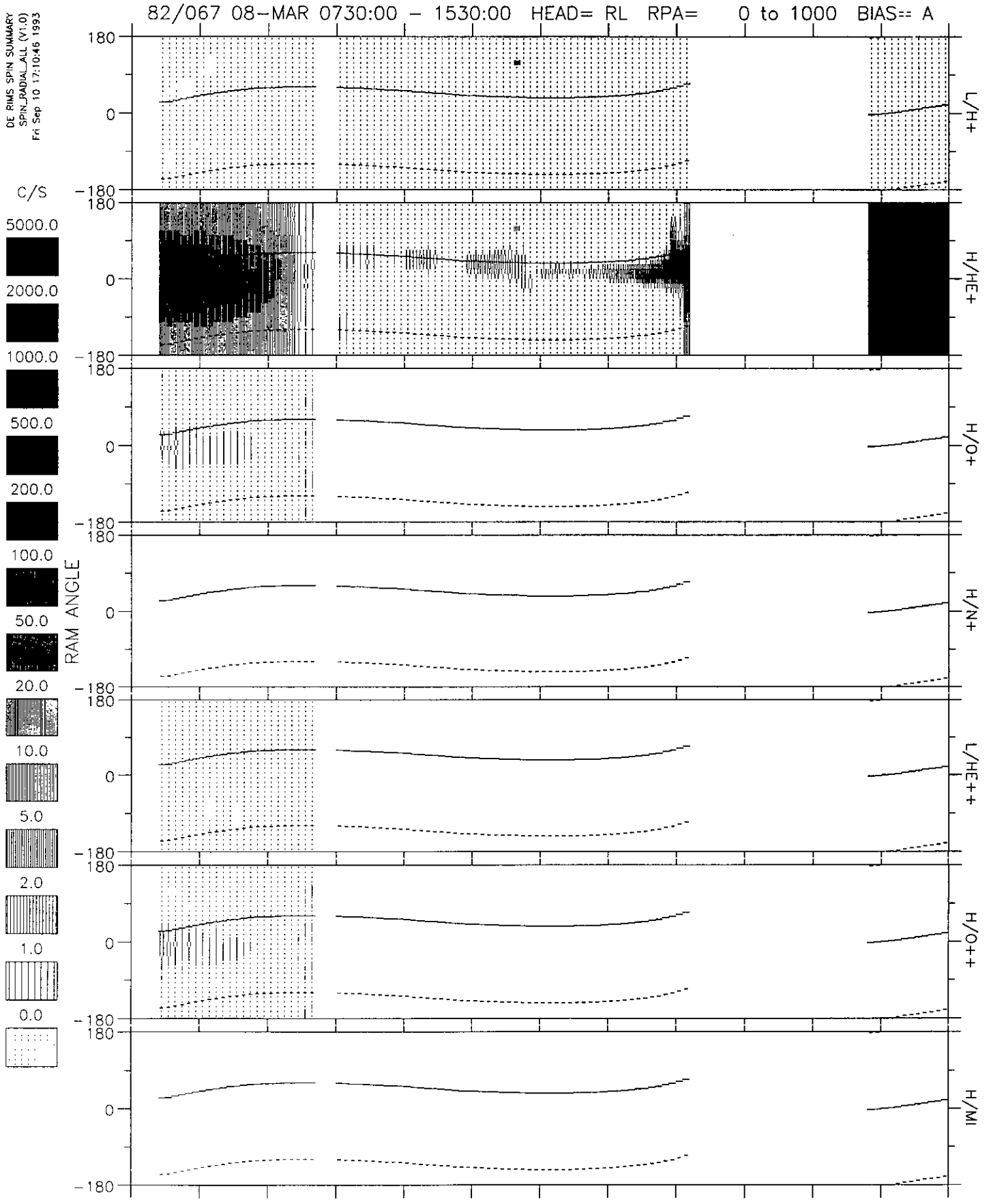

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 16:18:37 1993
82/066 07-MAR 0400:00 - 1200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0440 0520 0000 0000 0000 0800 0840 0920 0000 0000 1120 DEGS
RE 3.7 4.3 0.0 0.0 0.0 4.0 3.2 2.0 0.0 0.0 3.4 HHMM
L 3.8 5.1 0.0 0.0 0.0 17.7 50.6 13.7 0.0 0.0 3.5 RE
MLT 23.6 23.5 0.0 0.0 0.0 22.5 20.9 13.5 0.0 0.0 23.7
MLAT 8.60 22.43 0.00 0.00 0.00 61.62 74.72 66.78 0.00 0.00 ***** HRS
INVLAT 59.2 63.6 0.0 0.0 0.0 76.2 81.9 74.3 0.0 0.0 57.9 DEGS

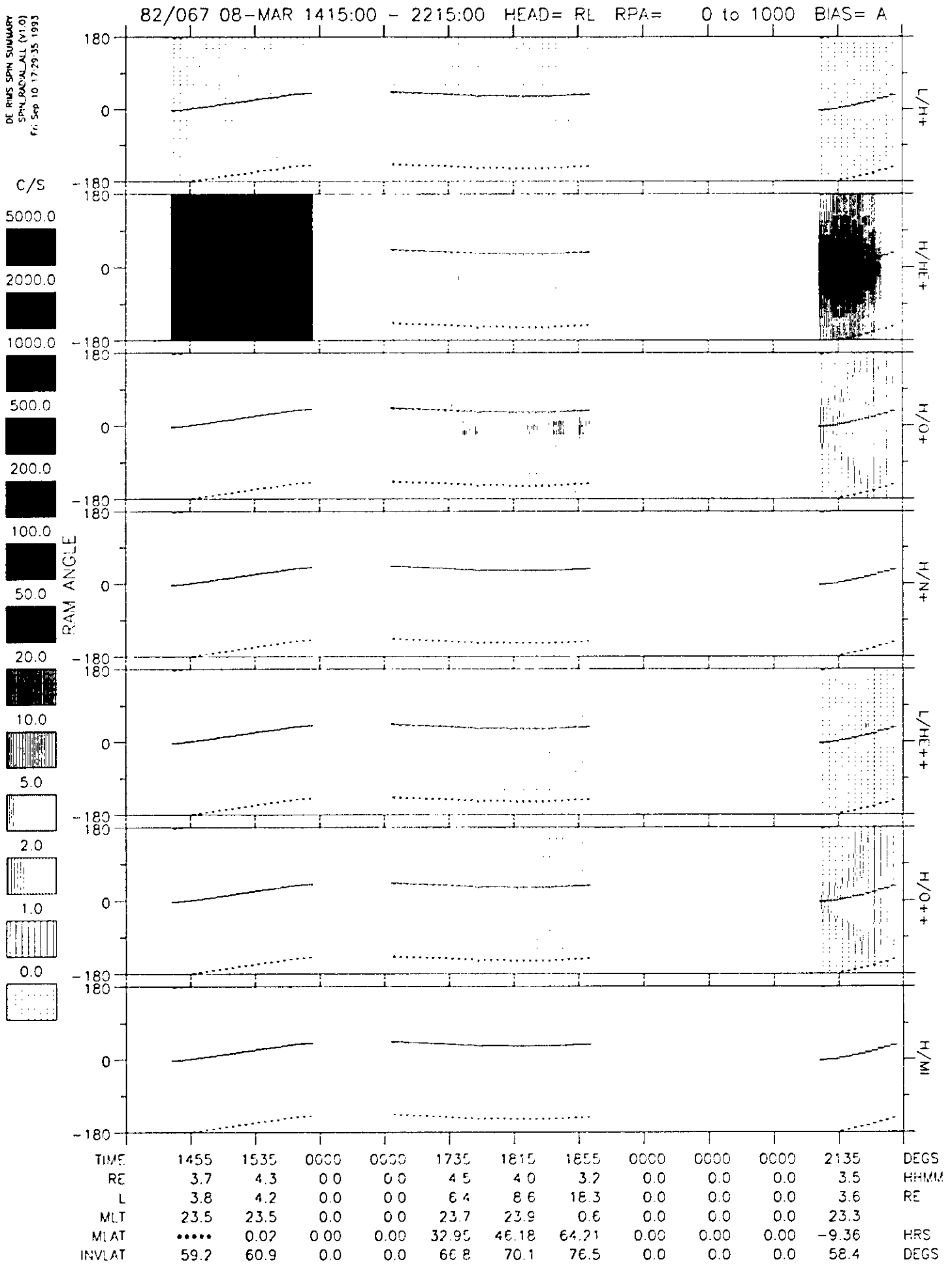

82/066 07-MAR 1100:00 - 1900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 16:27:26 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1140 1220 0000 1340 1420 1500 1540 1620 0000 0000 1820 DEGS
RE 3.8 4.4 0 0 4 6 4 4 3.8 3 0 1.7 0 0 0 0 3.6 HHMM
L 3.8 4 4 0 0 5 8 6 8 9 3 24 1 12 1 0 0 0.0 3.8 RE
MLT 23.6 23 5 0 0 23 3 23 2 23.2 23 2 11 5 0.0 0.0 23.5
MLAT -3.11 8.16 0 00 20 42 30 32 48 82 67.81 68 87 0 00 0.00 ***** HPS
INVLAT 59 1 61.5 0 0 65 4 67 5 70.8 78 2 73 3 0 0 0.0 59.1 DEGS

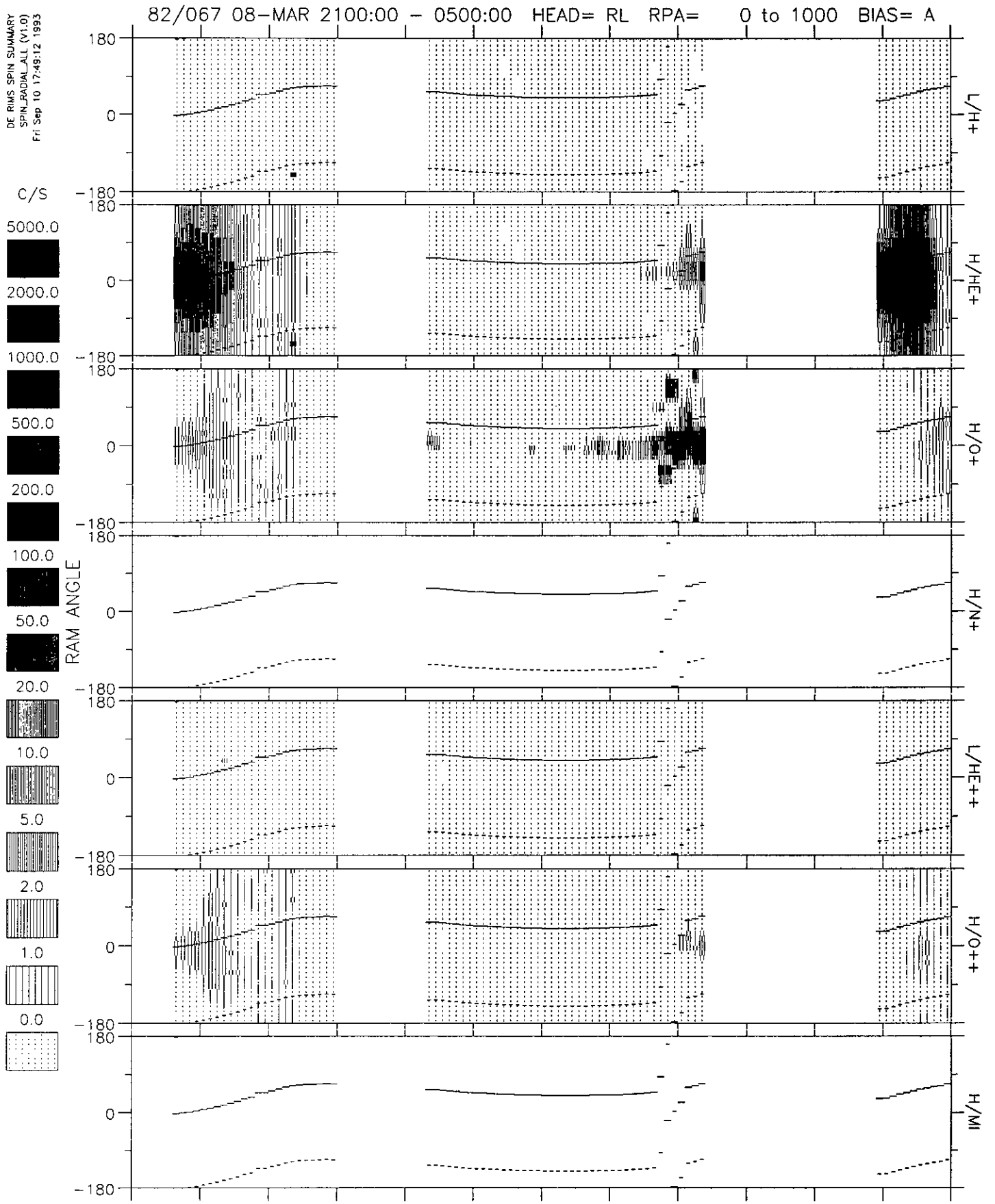


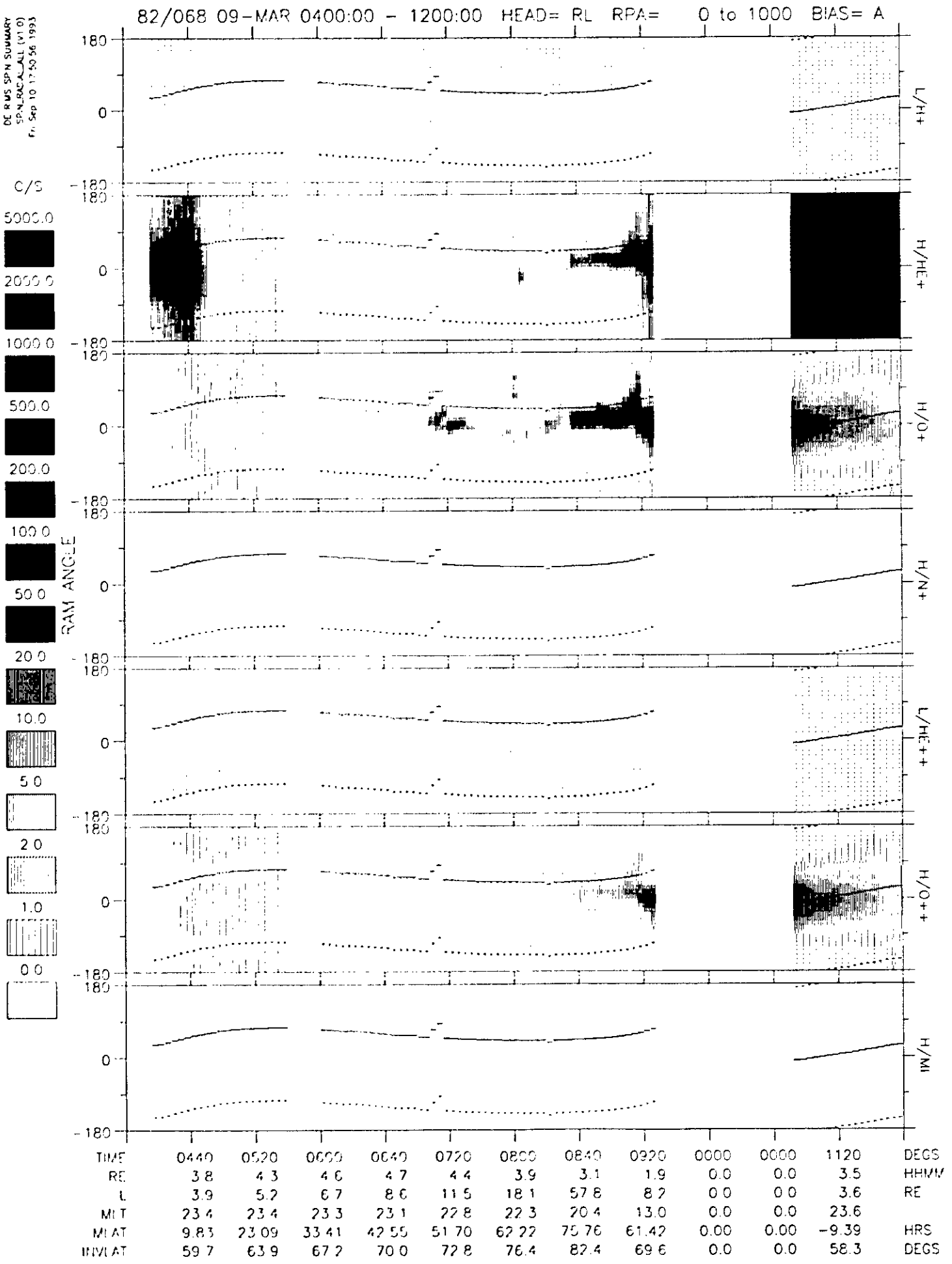
TIME	1855	1935	2015	2055	2135	2215	2255	0000	0000	0055	0135	DEGS
RE	4.2	4.6	4.7	4.5	4.1	3.4	2.2	0.0	0.0	3.3	4.1	HHMM
L	4.2	4.8	5.7	6.9	9.9	21.7	37.5	0.0	0.0	3.4	4.3	RE
MLT	23.6	23.7	23.9	0.1	0.4	1.4	8.5	0.0	0.0	23.4	23.5	
MLAT	0.21	13.05	24.97	36.41	50.46	67.10	74.15	0.00	0.00	-3.78	14.08	HRS
INVLAT	60.7	62.9	65.2	67.7	71.5	77.6	80.6	0.0	0.0	57.3	61.3	DEGS

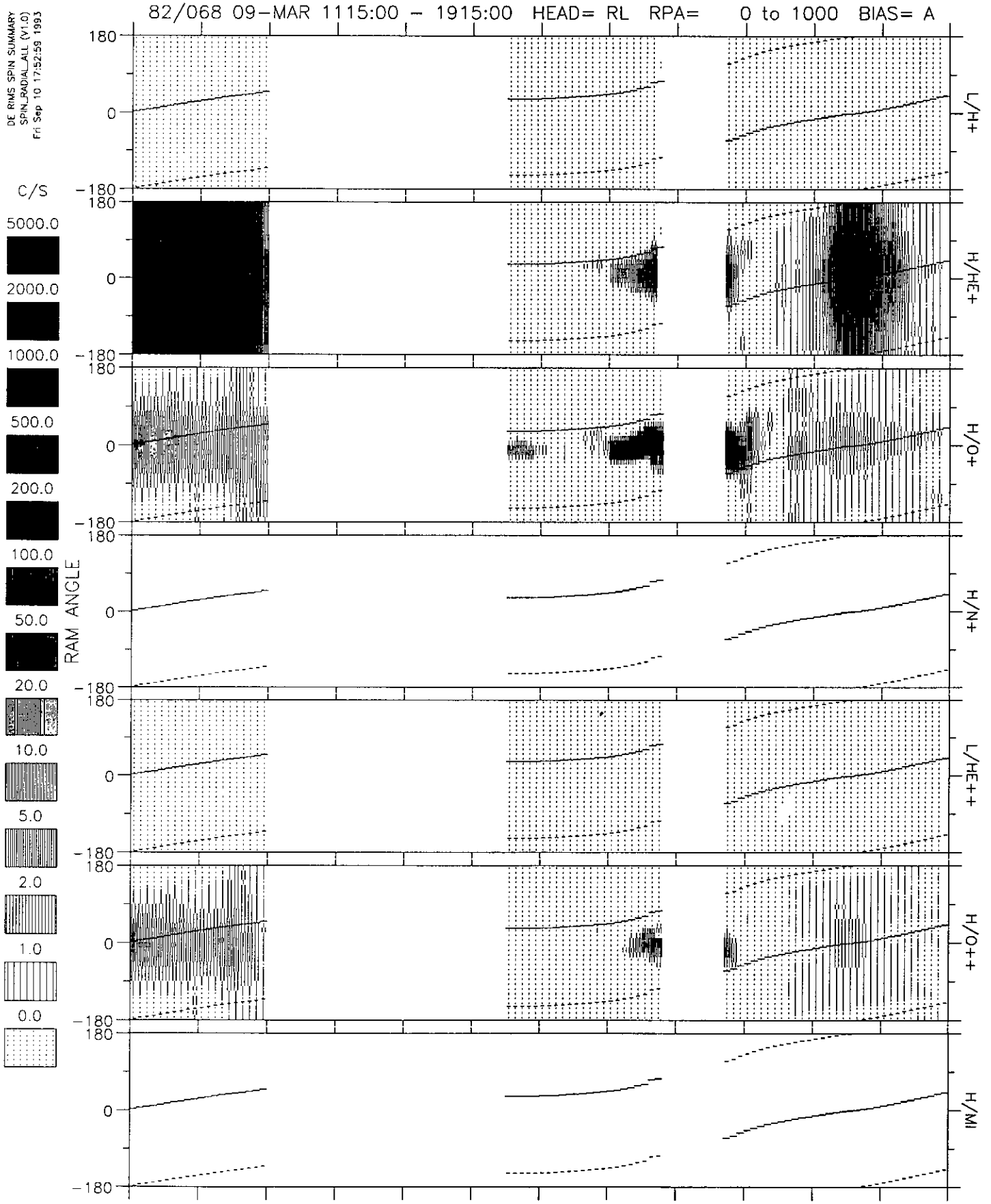

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1 0)
Fri Sep 10 17 08 37 1993
82/067 08-MAR 0030:00 - 0830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0110 0150 0000 0000 0350 0430 0510 0550 0630 0000 0750 DEGS
RE 3.6 4.3 0.0 0.0 4.5 4.0 3.3 2.1 1.1 0.0 3.4 FHWM
L 3.7 4.8 0.0 0.0 12.8 24.6 100.0 13.7 3.3 0.0 3.4 RE
MLT 23.4 23.6 0.0 0.0 23.6 23.4 22.0 19.3 11.0 0.0 23.7
M AT 3.78 19.45 0.00 0.00 54.32 66.77 85.92 64.84 ***** 0.00 -2.14 HRS
INVLAT 58.7 62.8 0.0 0.0 73.6 78.4 85.8 74.3 56.7 0.0 57.2 DEGS


82/067 08-MAR 0730:00 - 1530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 17:10:46 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0810 0850 0930 1010 1050 1130 1210 1250 0000 0000 1450 DEGS
RE 3.8 4.4 4.6 4.6 4.4 3.9 3.0 1.8 0.0 0.0 3.6 HHMM
L 3.8 4.7 5.7 6.7 8.1 11.1 28.0 9.7 0.0 0.0 3.8 RE
MLT 23.6 23.4 23.2 23.0 22.8 22.5 21.6 13.0 0.0 0.0 23.5
MLAT 5.62 17.08 25.99 34.14 42.78 53.51 69.44 67.39 0.00 0.00 ***** HRS
INVLAT 59.2 62.6 65.1 67.3 69.4 72.6 79.1 71.3 0.0 0.0 59.1 DEGS

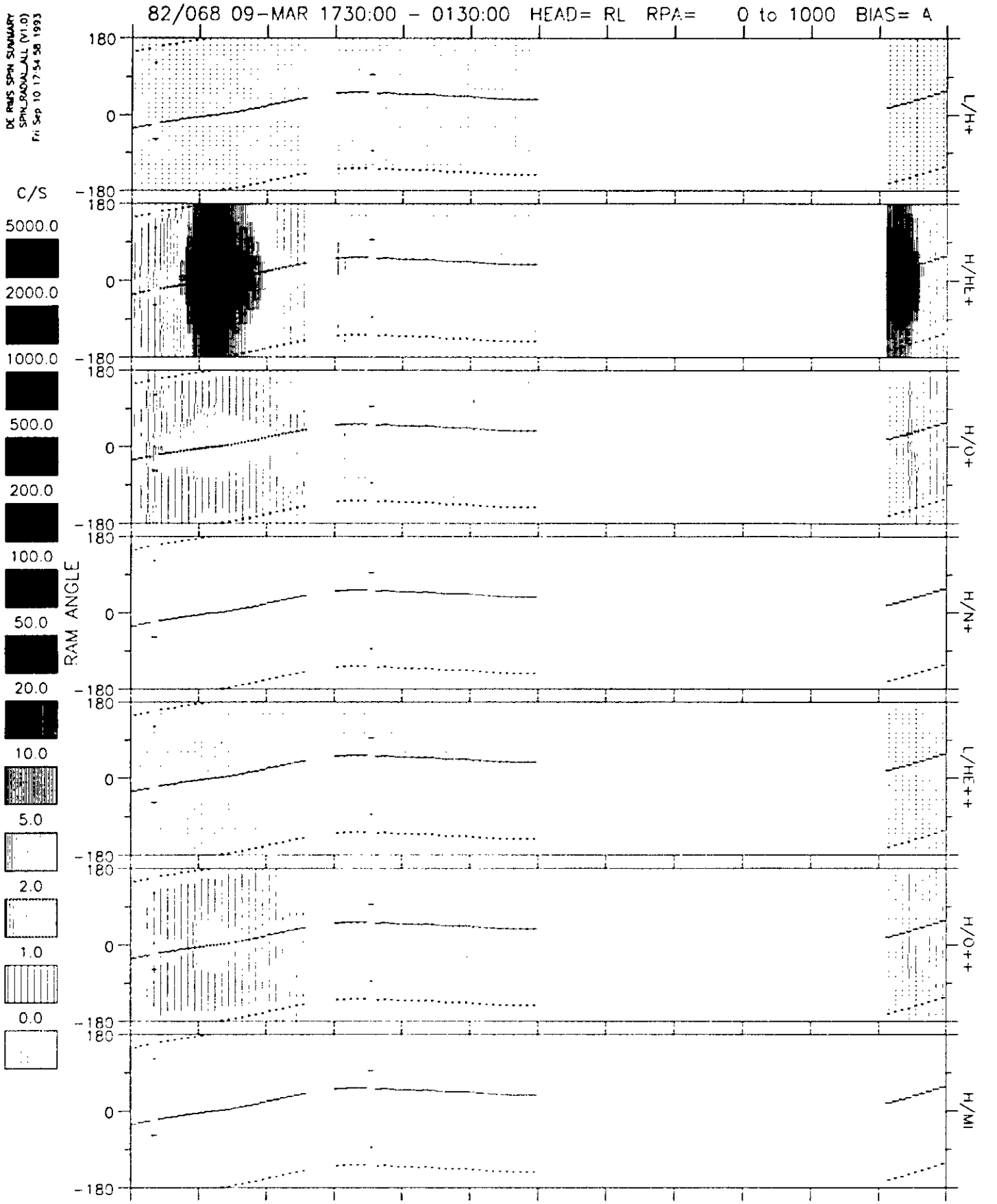

82/067 08-MAR 1415:00 - 2215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 17:29:35 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1455 1535 0000 0000 1735 1815 1855 0000 0000 0000 2135 DEGS
RE 3.7 4.3 0 0 0 0 4 5 4 0 3.2 0.0 0.0 0.0 3.5 HHMM
L 3.8 4.2 0.0 0 0 6 4 8 6 18.3 0.0 0.0 0.0 3.6 RE
MLT 23.5 23.5 0.0 0 0 23.7 23.9 0.6 0.0 0.0 0.0 23.3
MLAT ••••• 0.02 0 00 0.00 32.95 46.18 64.21 0.00 0.00 0.00 -9.36 HRS
INVLAT 59.2 60.9 0.0 0.0 66 8 70.1 76.5 0.0 0.0 0.0 58.4 DEGS

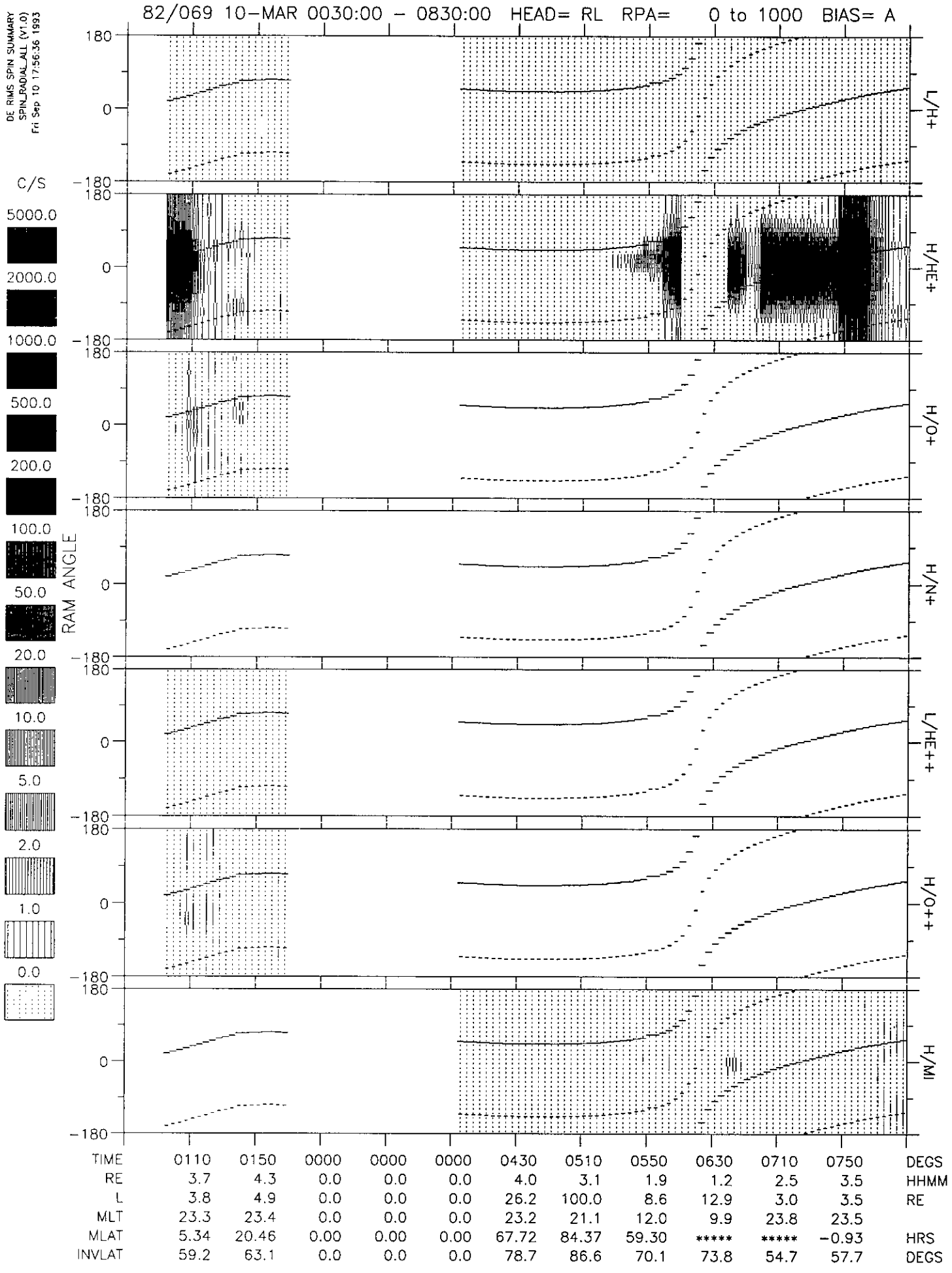

82/067 08-MAR 2100:00 - 0500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 17:49:12 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H+N+
L/HE++
H/O++
H/MI
TIME 2140 2220 0000 0000 0020 0100 0140 0220 0000 0000 0420 DEGS
RE 3.6 4.2 0.0 0.0 4.5 4.1 3.3 2.2 0.0 0.0 3.3 HHMM
L 3.7 4.3 0.0 0.0 9.2 15.5 57.7 18.9 0.0 0.0 3.4 RE
MLT 23.4 23.5 0.0 0.0 0.1 0.4 1.7 10.5 0.0 0.0 23.4
MLAT -6.93 9.48 0.00 0.00 47.20 60.77 77.62 68.08 0.00 0.00 0.98 HRS
INVLAT 58.7 61.3 0.0 0.0 70.8 75.3 82.4 76.7 0.0 0.0 57.2 DEGS

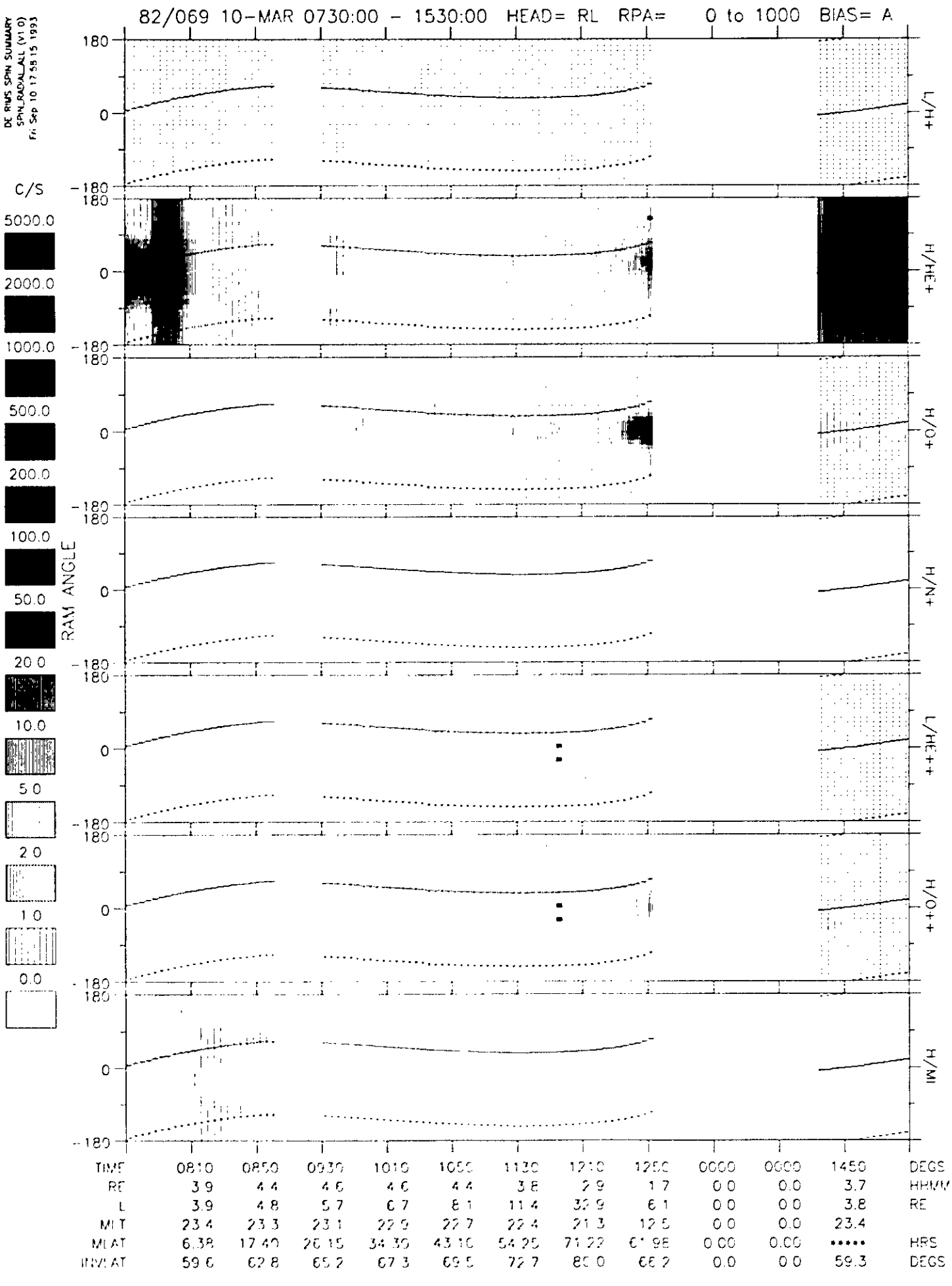

82/068 09-MAR 0400:00 - 1200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R IMS SPIN SUMMARY
SPIN_RACAL.ALL (V1.0)
Fri Sep 10 17:50:56 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0440 0520 0600 0640 0720 0800 0840 0920 0000 0000 1120 DEGS
RE 3.8 4.3 4.6 4.7 4.4 3.9 3.1 1.9 0.0 0.0 3.5 HHMM
L 3.9 5.2 6.7 8.6 11.5 18.1 57.8 8.2 0.0 0.0 3.6 RE
MLT 23.4 23.4 23.3 23.1 22.8 22.3 20.4 13.0 0.0 0.0 23.6
MLAT 9.83 23.09 33.41 42.55 51.70 62.22 75.76 61.42 0.00 0.00 -9.39 HRS
INVLAT 59.7 63.9 67.2 70.0 72.8 76.4 82.4 69.6 0.0 0.0 58.3 DEGS

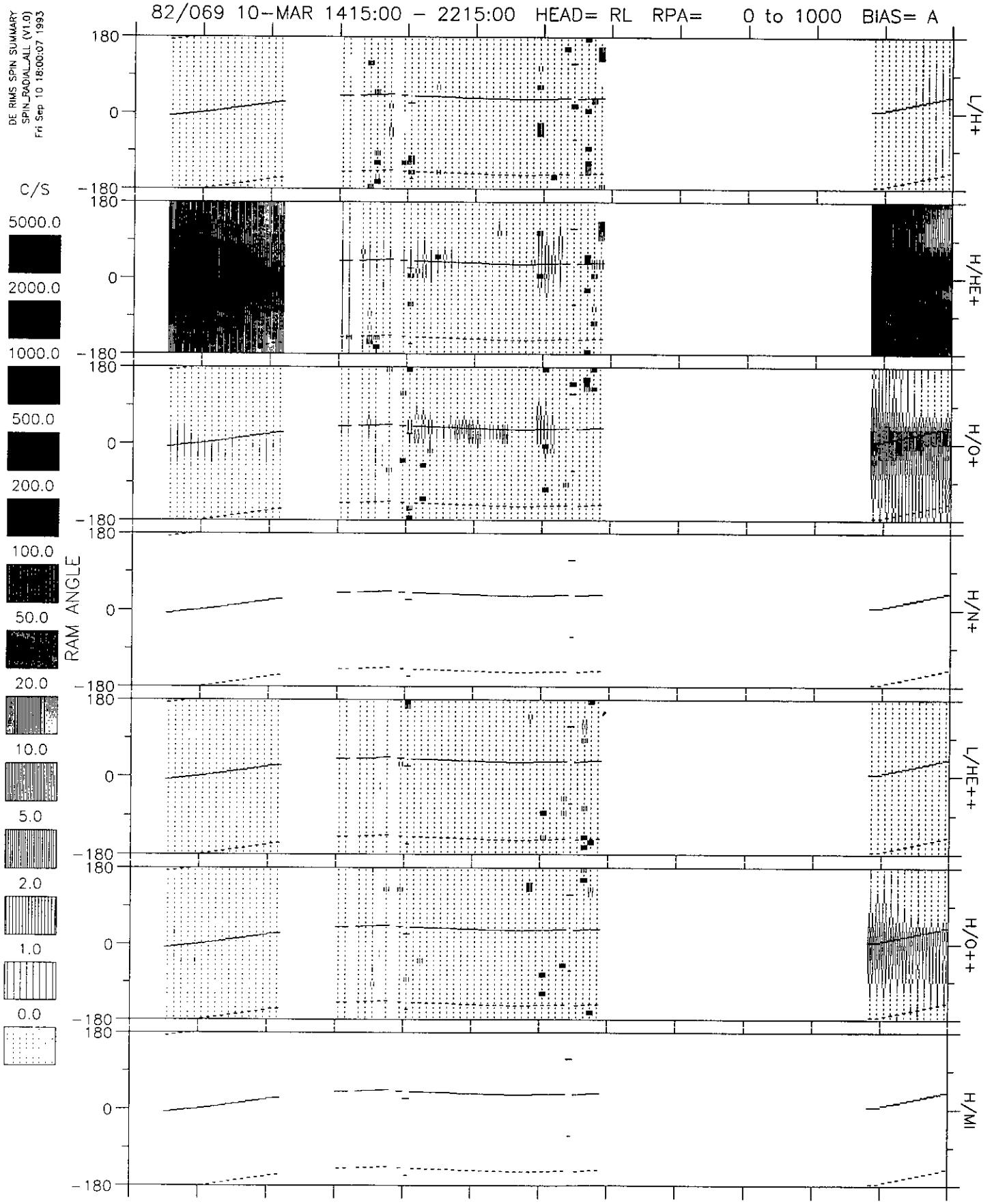


TIME	1155	0000	0000	0000	0000	1515	1555	0000	1715	1755	1835	DEGS
RE	4.1	0.0	0.0	0.0	0.0	3.5	2.4	0.0	2.0	3.2	4.0	HHMM
L	4.1	0.0	0.0	0.0	0.0	12.0	100.0	0.0	7.9	3.8	4.0	RE
MLT	23.4	0.0	0.0	0.0	0.0	23.1	23.1	0.0	23.1	23.3	23.4	
MLAT	2.07	0.00	0.00	0.00	0.00	56.20	82.50	0.00	*****	*****	-5.88	HRS
INVLAT	60.4	0.0	0.0	0.0	0.0	73.2	86.2	0.0	69.2	59.0	59.9	DEGS

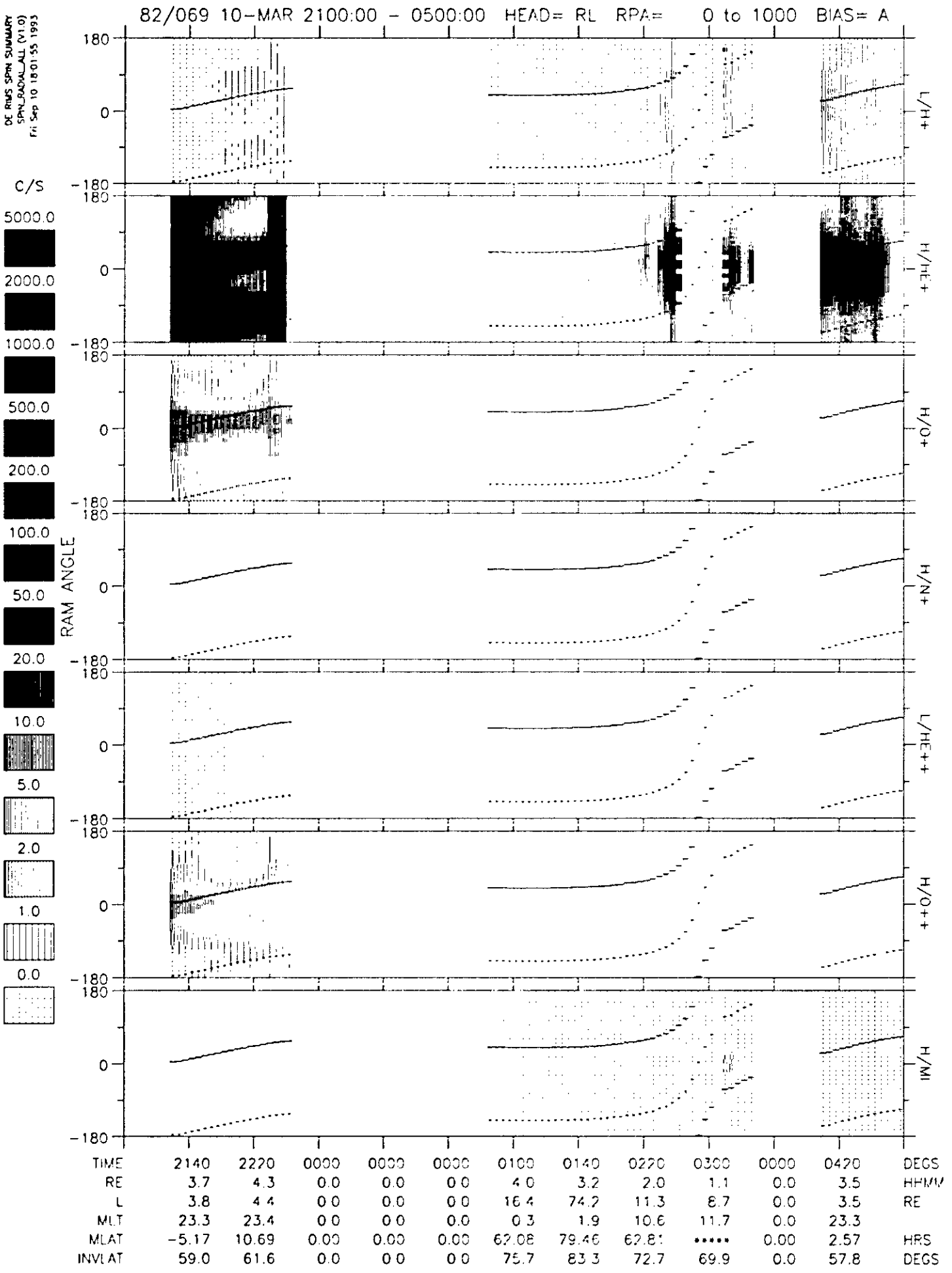

82/068 09-MAR 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 17:54:58 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1810 1850 1930 2010 2050 0000 0000 0000 0000 0000 0000 DEGS
RE 3.5 4.2 4.6 4.7 4.5 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 3.8 4.2 4.8 5.6 6.9 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 23.4 23.5 23.6 23.8 24.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT ***** -0.43 12.49 24.35 36.49 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 59.0 60.7 62.8 65.0 67.7 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

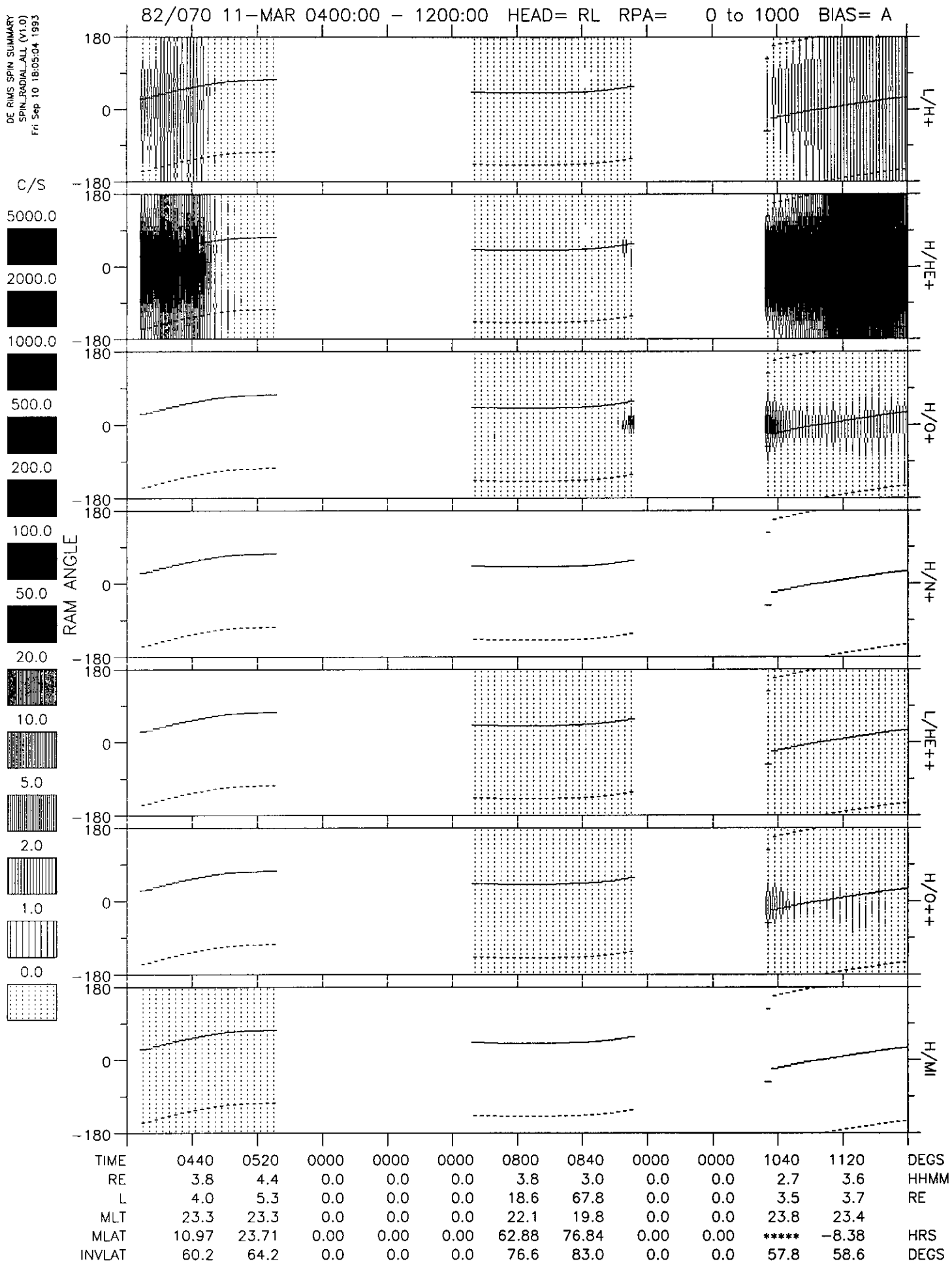

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 17:56:36 1993
82/069 10-MAR 0030:00 - 0830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0110 0150 0000 0000 0000 0430 0510 0550 0630 0710 0750 DEGS
RE 3.7 4.3 0.0 0.0 0.0 4.0 3.1 1.9 1.2 2.5 3.5 HHMM
L 3.8 4.9 0.0 0.0 0.0 26.2 100.0 8.6 12.9 3.0 3.5 RE
MLT 23.3 23.4 0.0 0.0 0.0 23.2 21.1 12.0 9.9 23.8 23.5
MLAT 5.34 20.46 0.00 0.00 0.00 67.72 84.37 59.30 ***** ***** -0.93 HRS
INVLAT 59.2 63.1 0.0 0.0 0.0 78.7 86.6 70.1 73.8 54.7 57.7 DEGS

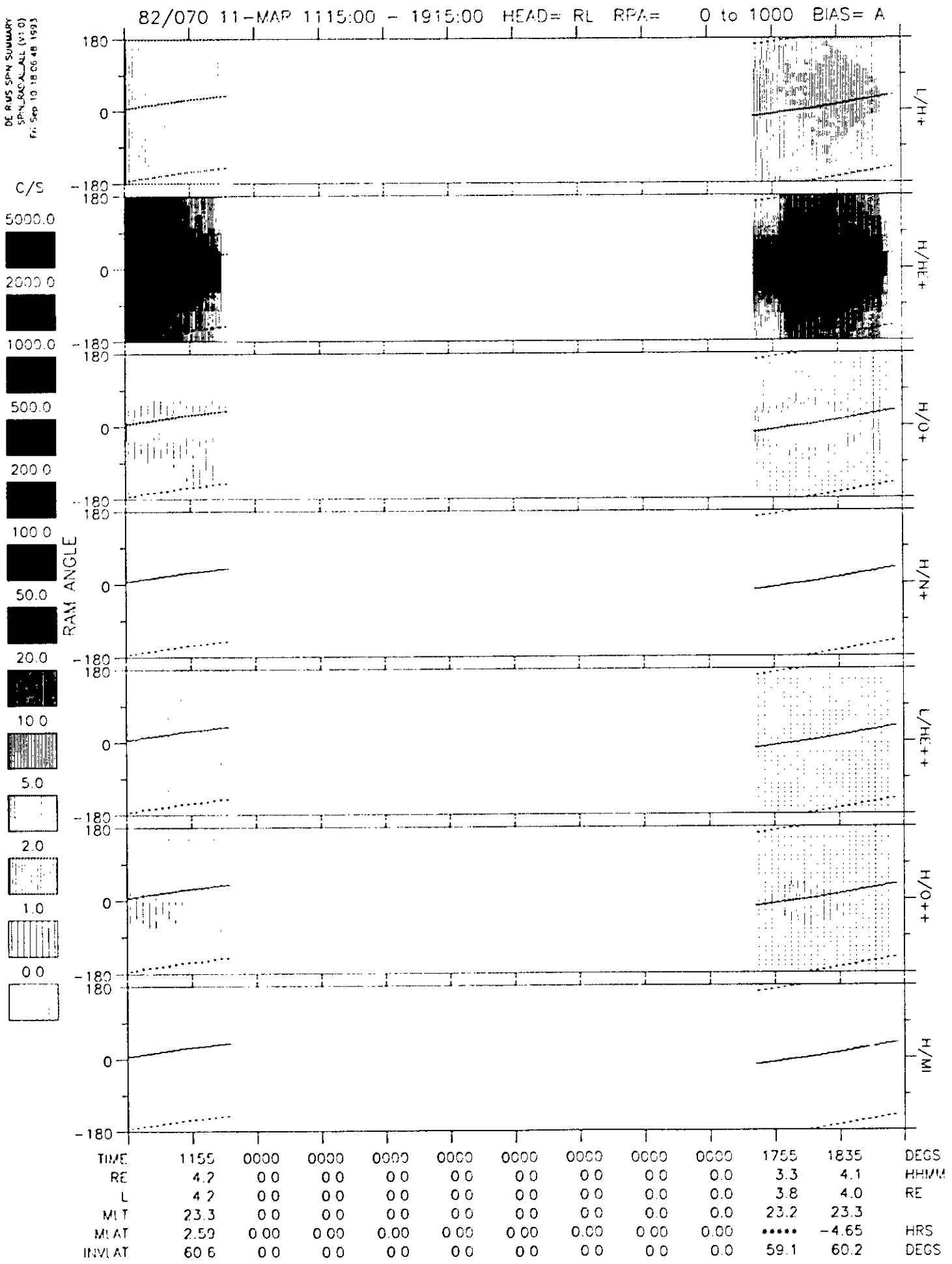

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 17:58:15 1993
82/069 10-MAR 0730:00 - 1530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0810 0850 0930 1010 1050 1130 1210 1250 0000 0000 1450 DEGS
RE 3.9 4.4 4.6 4.6 4.4 3.8 2.9 1.7 0.0 0.0 3.7 HHMM
L 3.9 4.8 5.7 6.7 8.1 11.4 32.9 6.1 0.0 0.0 3.8 RE
MLT 23.4 23.3 23.1 22.9 22.7 22.4 21.3 12.5 0.0 0.0 23.4
MLAT 6.38 17.40 26.15 34.39 43.10 54.25 71.22 61.98 0.00 0.00 ***** HRS
INVLAT 59.6 62.8 65.2 67.3 69.5 72.7 85.0 66.2 0.0 0.0 59.3 DEGS

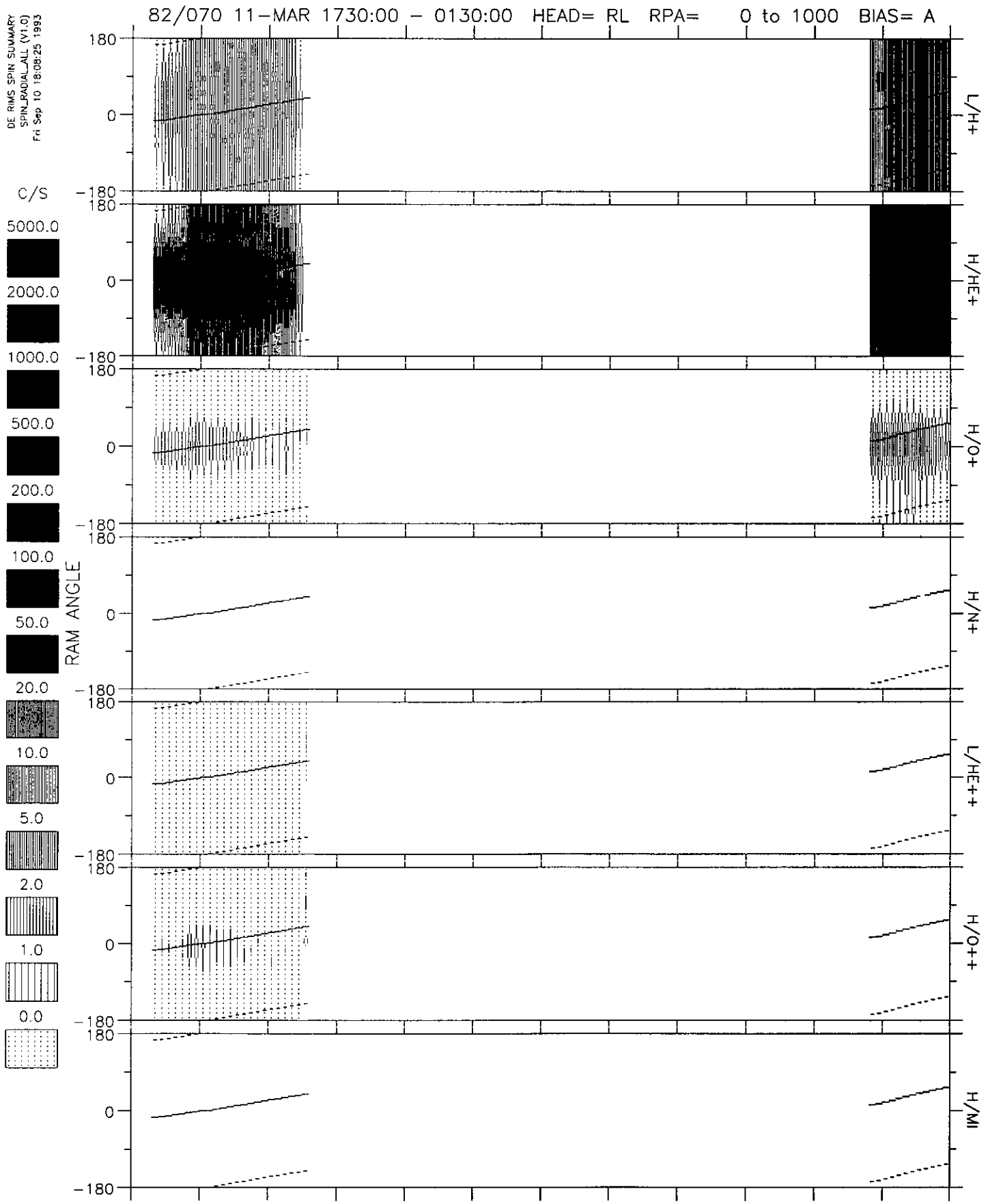


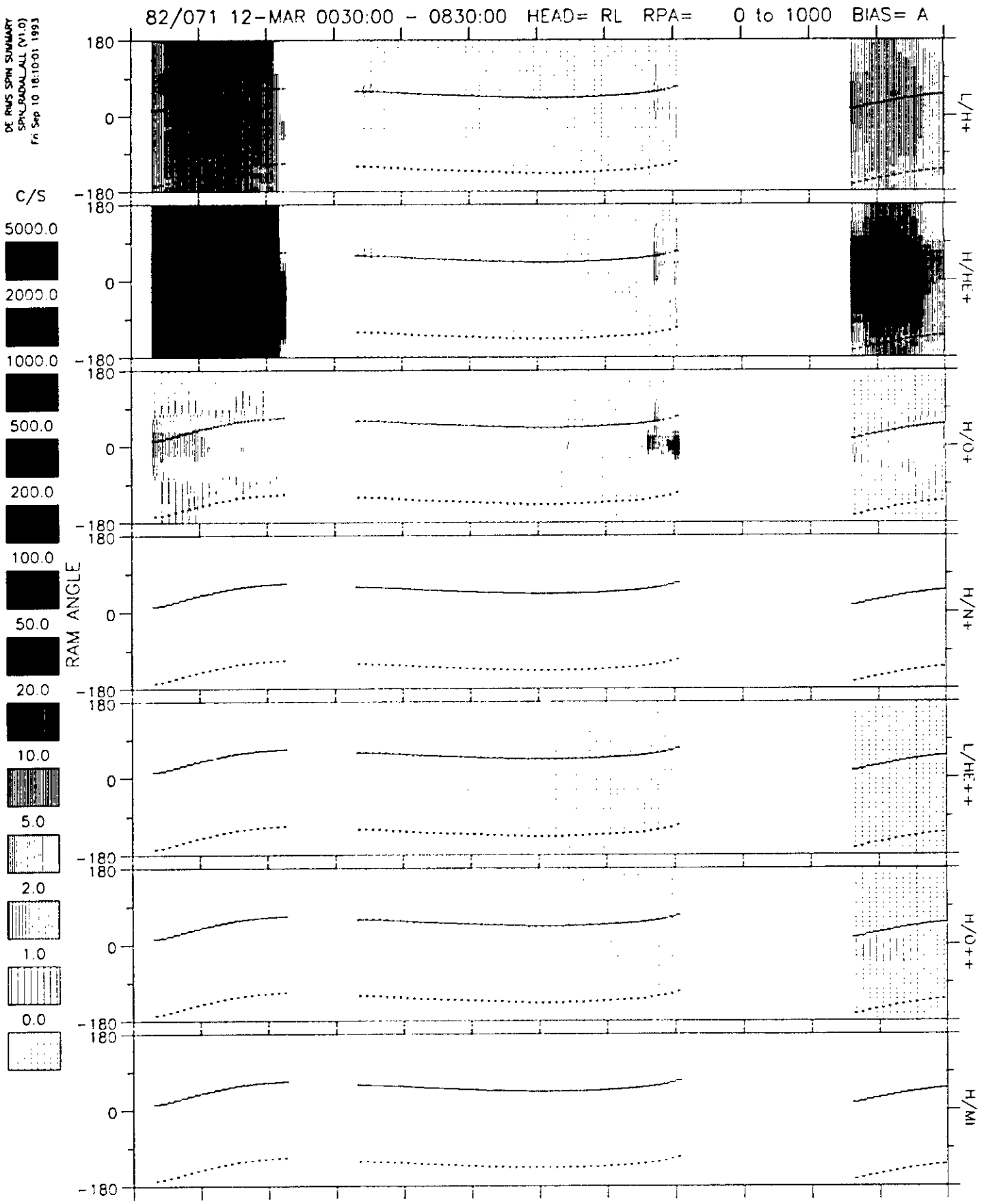
TIME	1455	1535	1615	1655	1735	1815	0000	0000	0000	0000	2135	DEGS
RE	3.8	4.3	4.6	4.6	4.4	3.9	0.0	0.0	0.0	0.0	3.6	HHMM
L	3.9	4.3	4.8	5.5	6.5	8.8	0.0	0.0	0.0	0.0	3.7	RE
MLT	23.4	23.4	23.4	23.4	23.6	23.9	0.0	0.0	0.0	0.0	23.2	
MLAT	*****	0.73	11.76	22.38	33.77	47.40	0.00	0.00	0.00	0.00	-7.56	HRS
INVLAT	59.5	61.1	62.9	64.7	66.9	70.3	0.0	0.0	0.0	0.0	58.7	DEGS

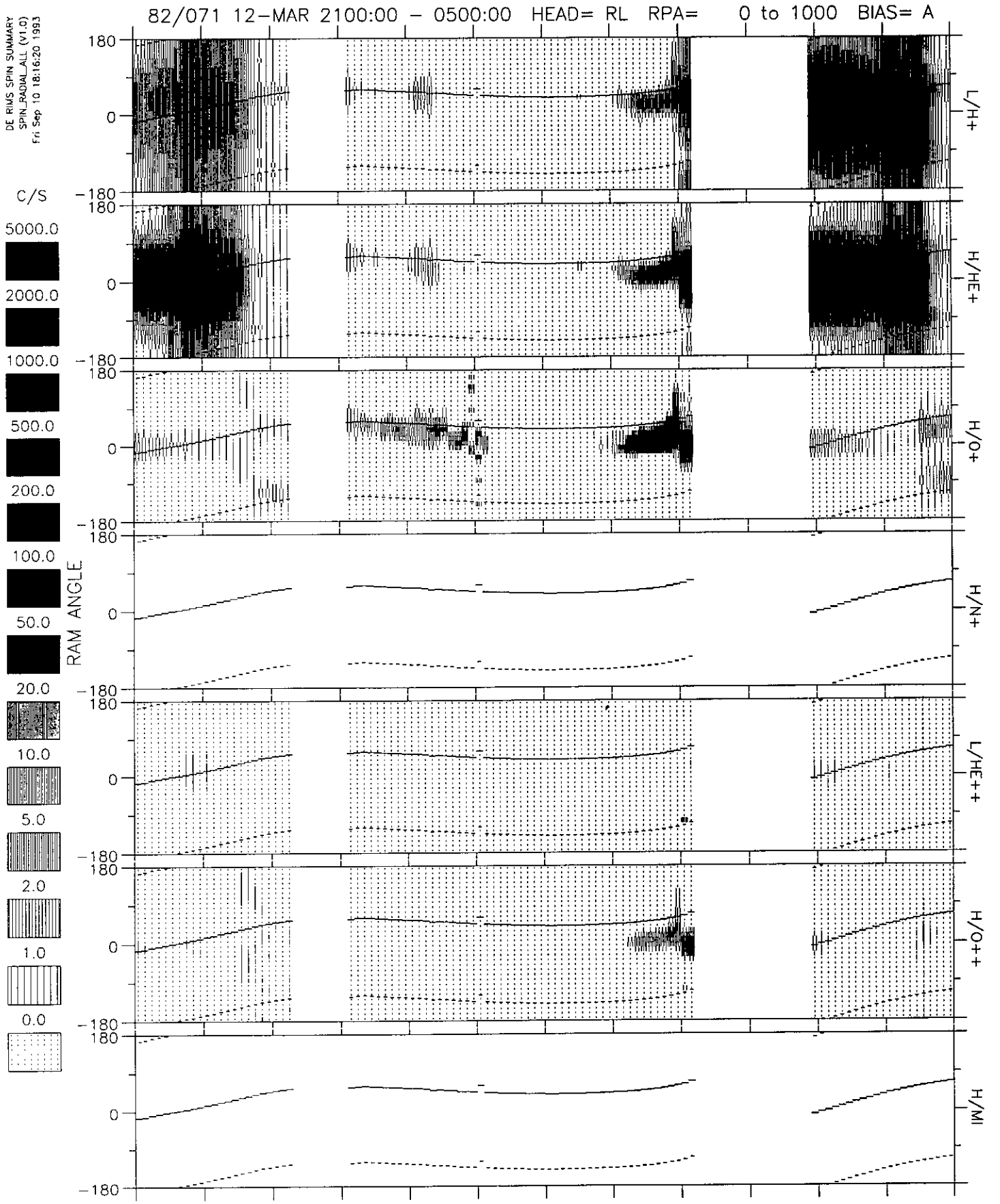

82/069 10-MAR 2100:00 - 0500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 18:01:55 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 2140 2220 0000 0000 0000 0100 0140 0220 0300 0000 0420 DEGS
RE 3.7 4.3 0.0 0.0 0.0 4.0 3.2 2.0 1.1 0.0 3.5 HHMM
L 3.8 4.4 0.0 0.0 0.0 16.4 74.2 11.3 8.7 0.0 3.5 RE
MLT 23.3 23.4 0.0 0.0 0.0 0.3 1.9 10.6 11.7 0.0 23.3
MLAT -5.17 10.69 0.00 0.00 0.00 62.08 79.46 62.81 ***** 0.00 2.57 HRS
INVLAT 59.0 61.6 0.0 0.0 0.0 75.7 83.3 72.7 69.9 0.0 57.8 DEGS

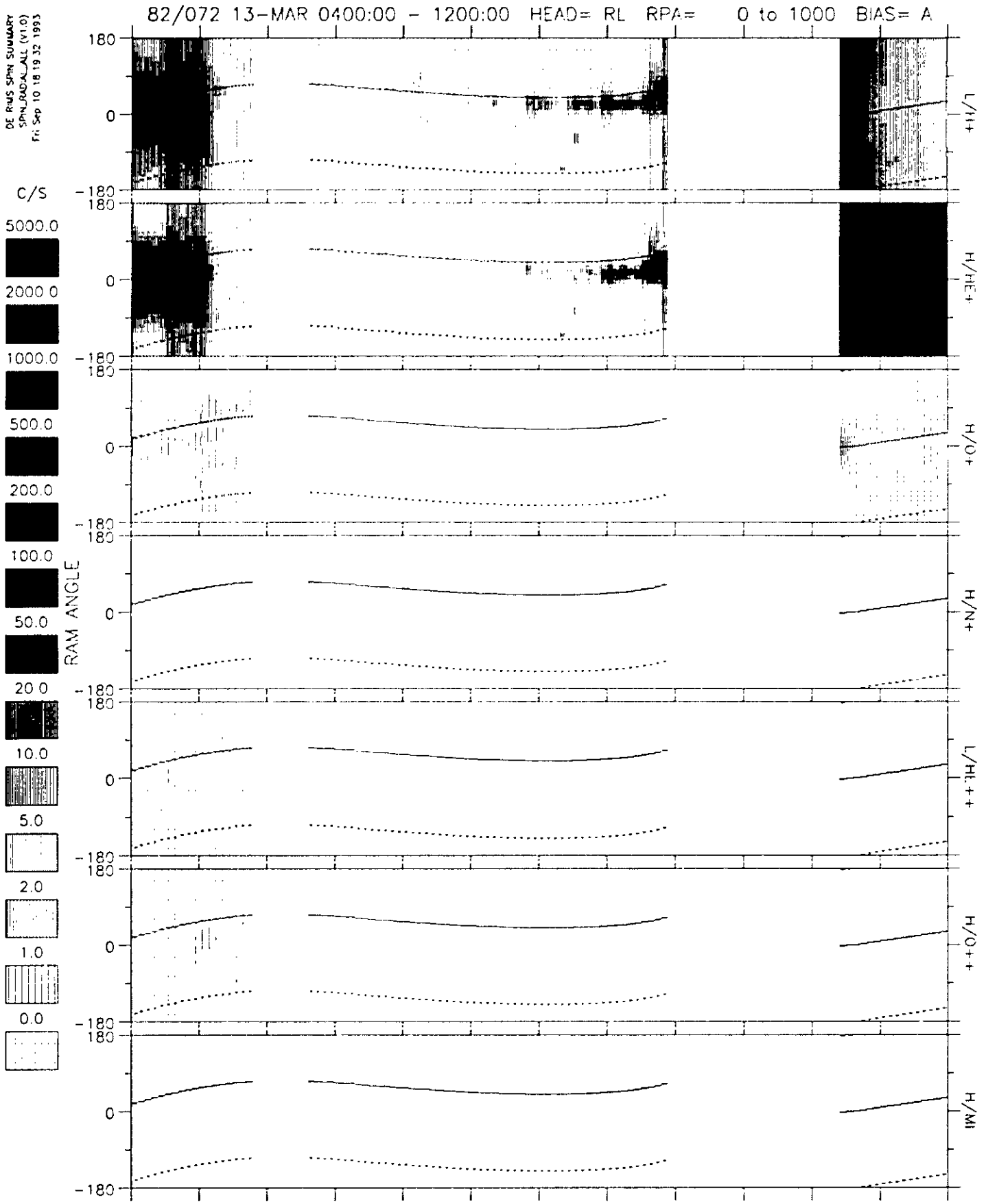

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 18:05:04 1993
82/070 11-MAR 0400:00 - 1200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0440 0520 0000 0000 0000 0800 0840 0000 0000 1040 1120 DEGS
RE 3.8 4.4 0.0 0.0 0.0 3.8 3.0 0.0 0.0 2.7 3.6 HHMM
L 4.0 5.3 0.0 0.0 0.0 18.6 67.8 0.0 0.0 3.5 3.7 RE
MLT 23.3 23.3 0.0 0.0 0.0 22.1 19.8 0.0 0.0 23.8 23.4
MLAT 10.97 23.71 0.00 0.00 0.00 62.88 76.84 0.00 0.00 ***** -8.38 HRS
INVLAT 60.2 64.2 0.0 0.0 0.0 76.6 83.0 0.0 0.0 57.8 58.6 DEGS

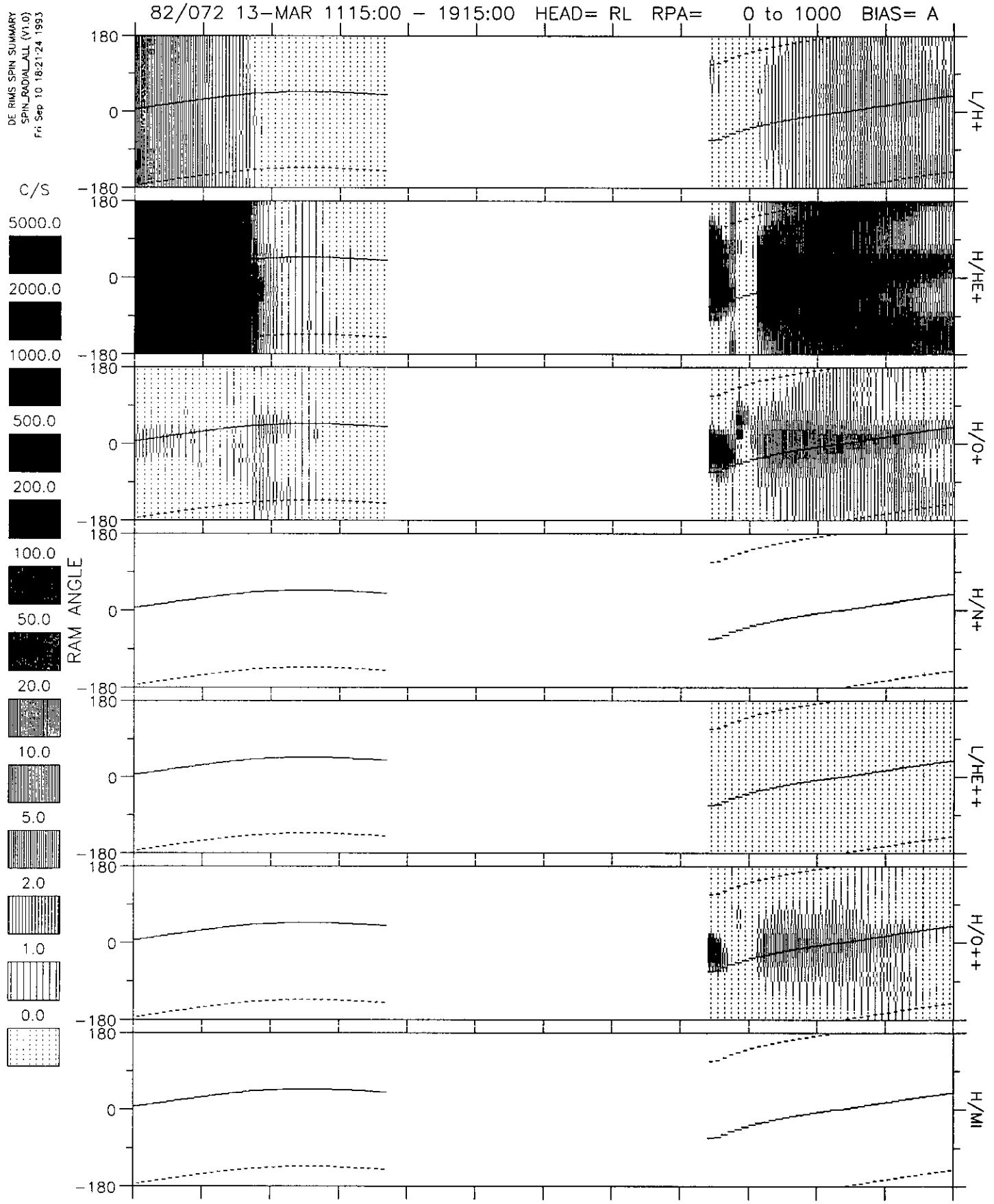

82/070 11-MAR 1115:00 - 1915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RACAL_ALL (V1.0)
Fri Sep 10 18:06:48 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1155 0000 0000 0000 0000 0000 0000 0000 0000 1755 1835 DEGS
RE 4.2 0 0 0 0 0 0 0 0 0 0 0 0 0.0 3.3 4.1 HHMM
L 4.2 0 0 0 0 0 0 0 0 0 0 0 0 0.0 3.8 4.0 RE
MLT 23.3 0 0 0 0 0 0 0 0 0 0 0 0 0.0 23.2 23.3
MLAT 2.59 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ***** -4.65 HRS
INVLAT 60.6 0 0 0 0 0 0 0 0 0 0 0 0 0.0 59.1 60.2 DEGS


82/070 11-MAR 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 18:08:25 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1810 1850 0000 0000 0000 0000 0000 0000 0000 0000 0050 DEGS
RE 3.6 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 HHMM
L 3.8 4.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.5 RE
MLT 23.2 23.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 23.1
MLAT ***** 0.64 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 -2.48 HRS
INVLAT 59.2 60.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 57.7 DEGS

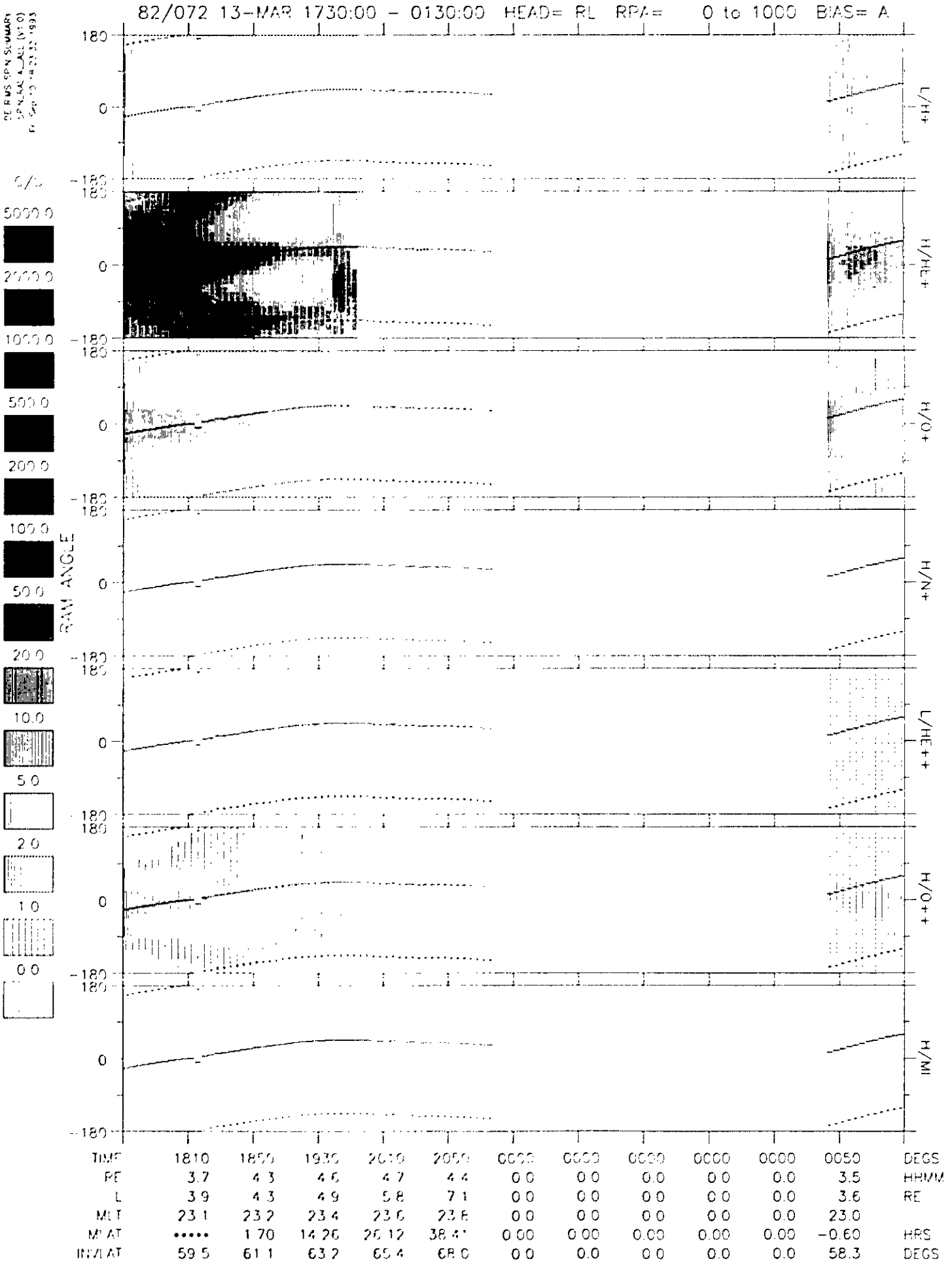

82/071 12-MAR 0030:00 - 0830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 18:10:01 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
+H/L+
+H/HE+
+H/O+
+H/N+
+H/HE++
+H/O++
+H/MI
TIME 0110 0150 0000 0310 0350 0430 0510 0550 0000 0000 0750 DEGS
RE 3.8 4.4 0.0 4.6 4.4 3.9 3.0 1.9 0.0 0.0 3.6 HHMM
L 3.9 5.0 0.0 9.0 13.6 28.1 -0.0 7.4 0.0 0.0 3.6 RE
MLT 23.2 23.3 0.0 23.4 23.3 23.0 19.7 11.9 0.0 0.0 23.4
MLAT 6.82 21.43 0.00 44.54 55.80 68.76 85.69 57.38 0.00 0.00 0.19 HRS
INVLAT 59.6 63.5 0.0 70.5 74.2 79.1 -0.0 68.5 0.0 0.0 58.1 DEGS

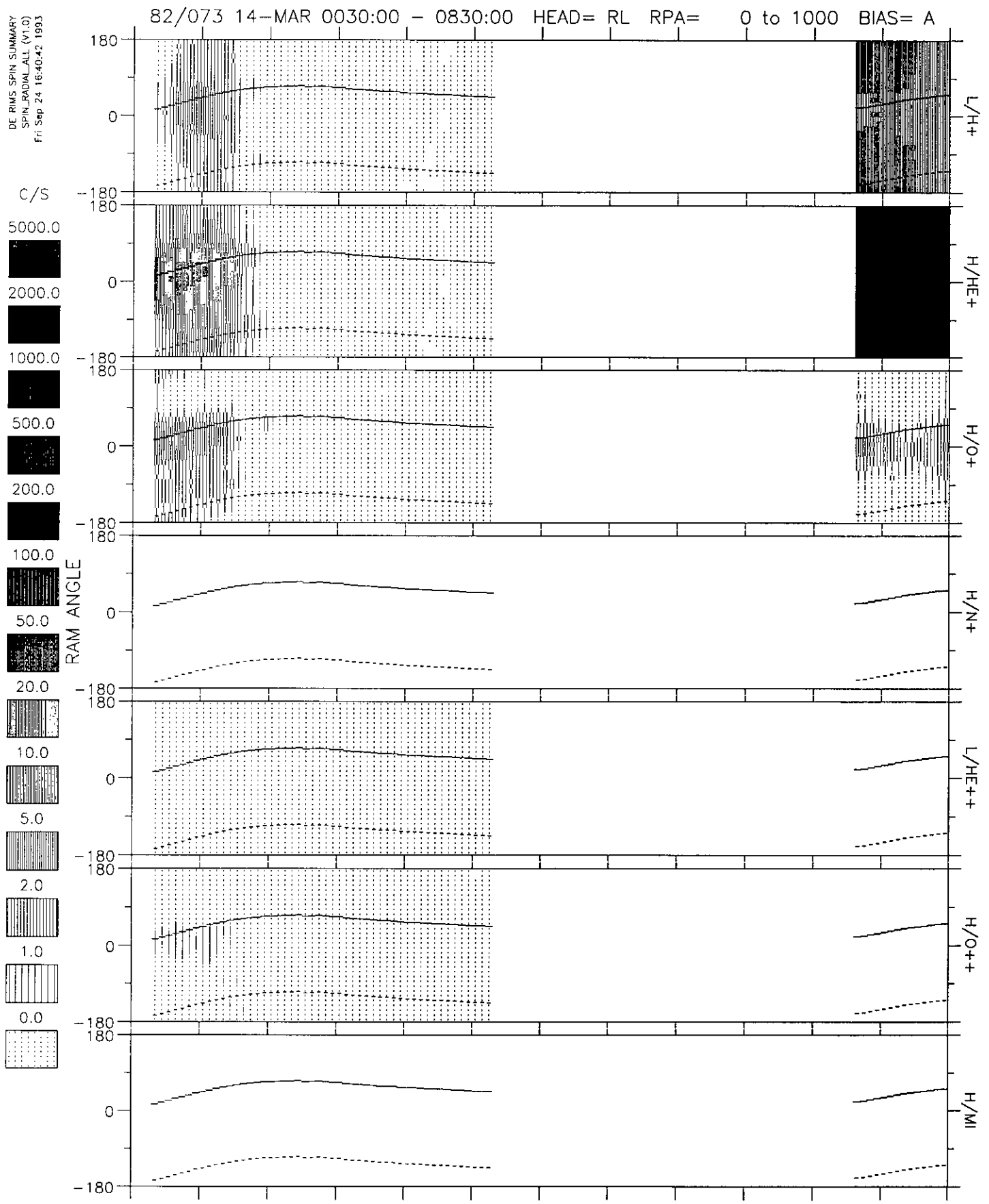

82/071 12-MAR 2100:00 - 0500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 18:16:20 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2140 2220 0000 2340 0020 0100 0140 0220 0000 0340 0420 DEGS
RE 3.8 4.3 0.0 4.7 4.4 3.9 3.1 1.9 0.0 2.5 3.6 HHMM
L 3.8 4.5 0.0 7.0 9.8 17.5 -0.0 6.8 0.0 2.9 3.6 RE
MLT 23.2 23.4 0.0 23.7 23.9 0.2 2.3 10.7 0.0 23.2 23.2
MLAT -3.55 11.83 0.00 36.81 49.22 63.37 81.30 56.36 0.00 ***** 4.06 HRS
INVLAT 59.3 61.9 0.0 67.8 71.3 76.2 -0.0 67.5 0.0 54.2 58.3 DEGS


82/072 13-MAR 0400:00 - 1200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIUS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 10 18:19:32 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0440 0000 0600 0640 0720 0800 0840 0000 0000 0000 1120 DEGS
RE 3.9 0.0 4.7 4.6 4.3 3.8 2.8 0.0 0.0 0.0 3.7 HHMM
L 4.2 0.0 6.8 8.7 11.6 19.1 80.5 0.0 0.0 0.0 3.8 RE
MLT 23.2 0.0 23.0 22.8 22.5 21.9 19.1 0.0 0.0 0.0 23.3
MLAT 11.99 0.00 34.13 43.13 52.45 63.58 77.84 0.00 0.00 0.00 -7.46 HRS
INVLAT 60.6 0.0 67.5 70.2 72.9 76.8 83.6 0.0 0.0 0.0 59.0 DEGS

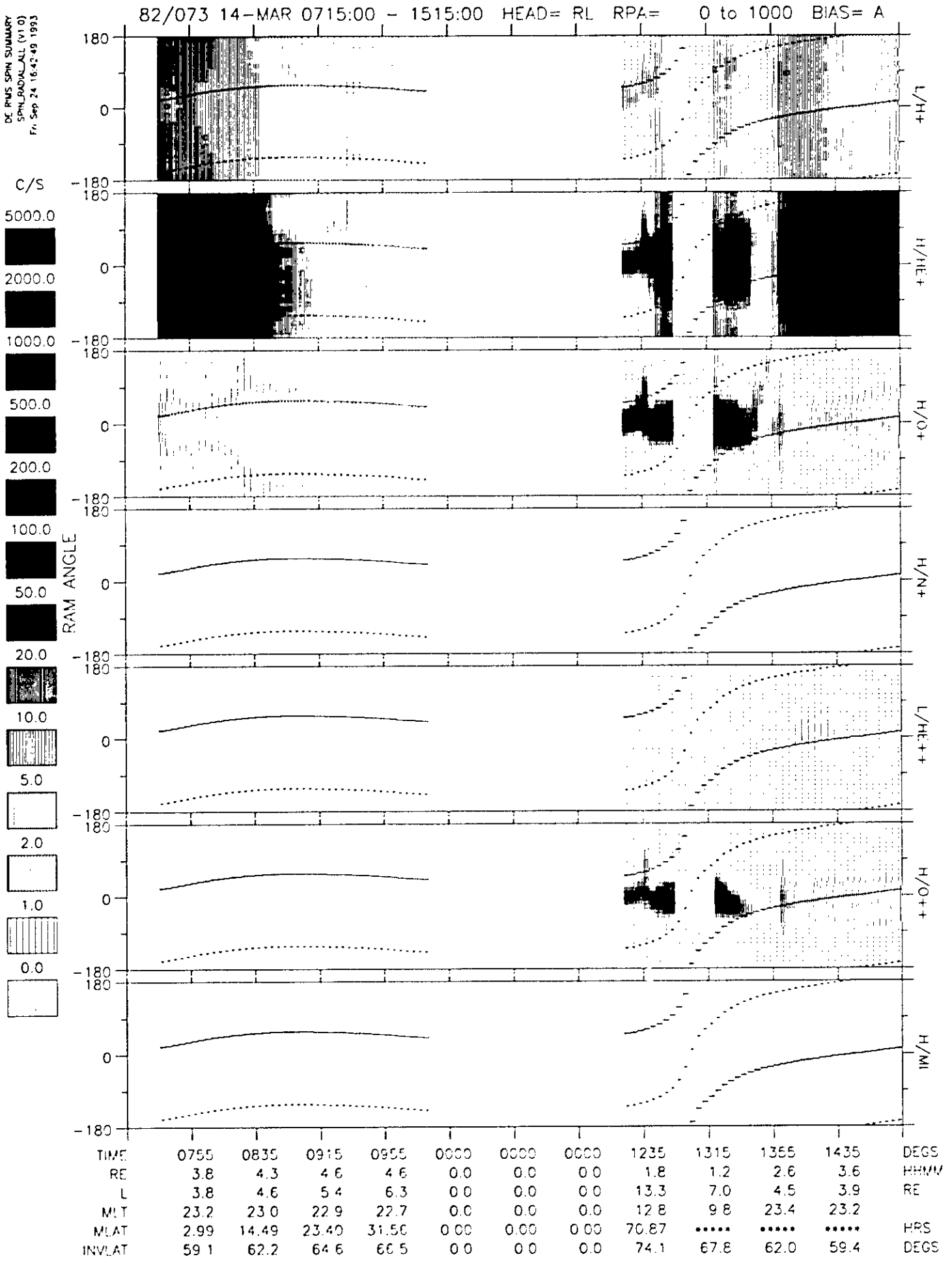


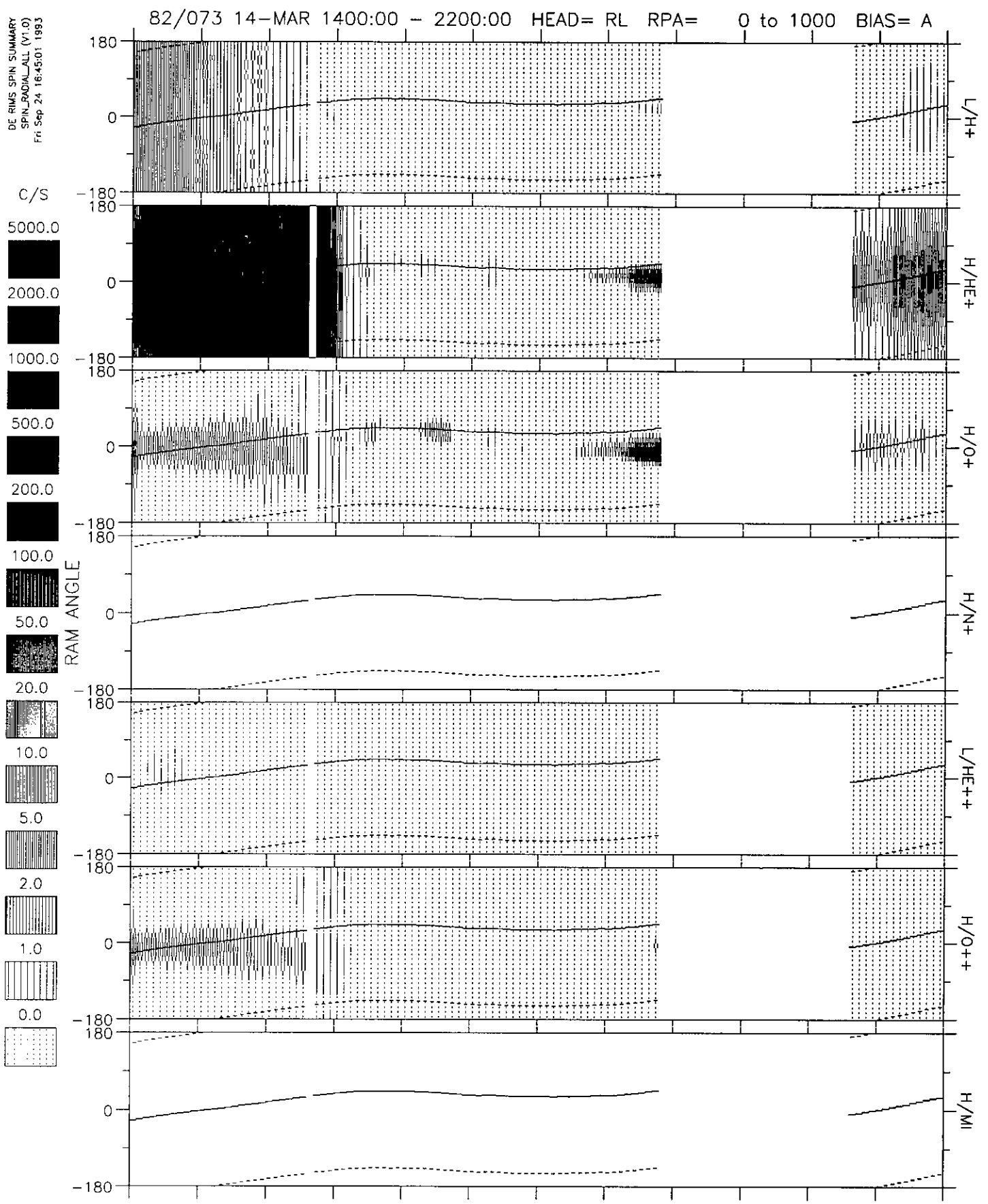
TIME	1155	1235	1315	0000	0000	0000	0000	0000	1715	1755	1835	DEGS
RE	4.3	4.6	4.7	0.0	0.0	0.0	0.0	0.0	2.3	3.4	4.1	HHMM
L	4.2	4.8	5.4	0.0	0.0	0.0	0.0	0.0	5.4	3.8	4.1	RE
MLT	23.1	23.0	22.9	0.0	0.0	0.0	0.0	0.0	22.9	23.1	23.2	
MLAT	3.04	12.70	21.71	0.00	0.00	0.00	0.00	0.00	*****	*****	-3.47	HRS
INVLAT	60.8	62.7	64.4	0.0	0.0	0.0	0.0	0.0	64.4	59.2	60.4	DEGS

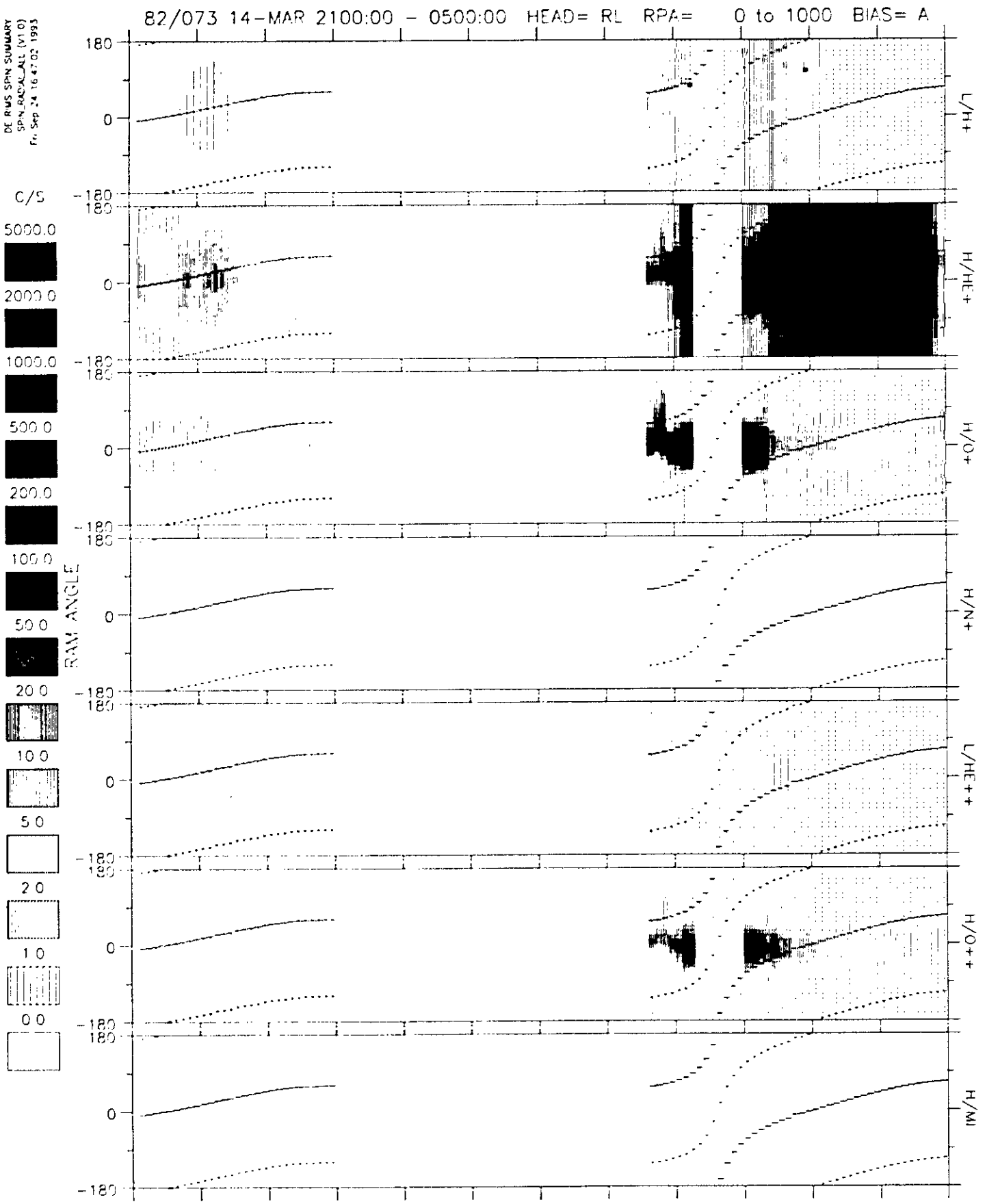

82/072 13-MAR 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1810 1850 1930 2010 2050 0000 0000 0000 0000 0000 0050 DEGS
RE 3.7 4.3 4.6 4.7 4.4 0.0 0.0 0.0 0.0 0.0 3.5 HHMM
L 3.9 4.3 4.9 5.8 7.1 0.0 0.0 0.0 0.0 0.0 3.6 RE
MLT 23.1 23.2 23.4 23.6 23.8 0.0 0.0 0.0 0.0 0.0 23.0
MLAT ***** 1.70 14.26 26.12 38.41 0.00 0.00 0.00 0.00 0.00 -0.60 HRS
INVLAT 59.5 61.1 63.2 65.4 68.0 0.0 0.0 0.0 0.0 0.0 58.3 DEGS

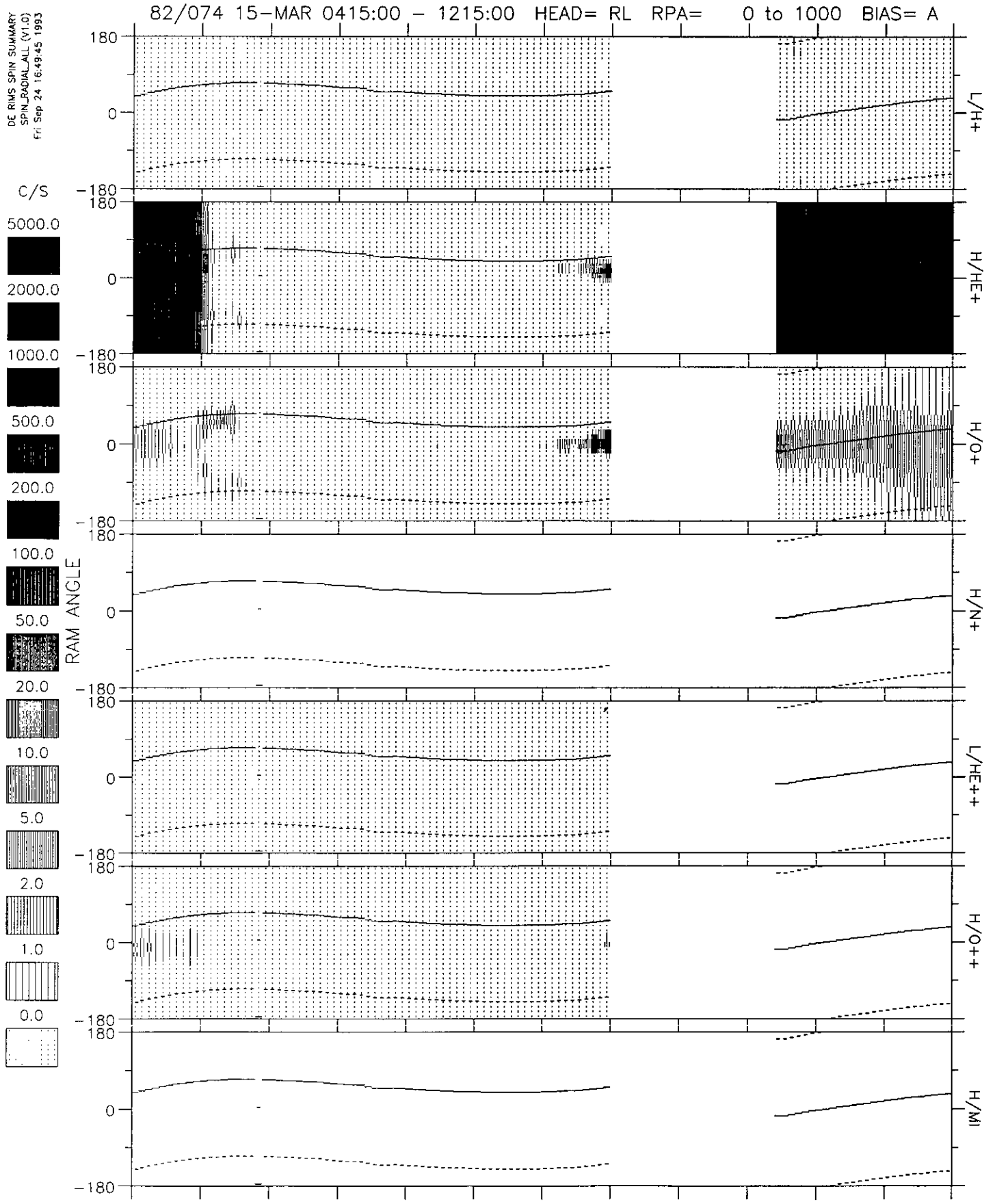


TIME	0110	0150	0230	0310	0350	0000	0000	0000	0000	0000	0750	DEGS
RE	3.9	4.4	4.6	4.6	4.4	0.0	0.0	0.0	0.0	0.0	3.7	HHMM
L	4.0	5.2	6.8	9.2	14.0	0.0	0.0	0.0	0.0	0.0	3.7	RE
MLT	23.1	23.2	23.3	23.2	23.1	0.0	0.0	0.0	0.0	0.0	23.2	
MLAT	8.25	22.40	34.21	45.20	56.53	0.00	0.00	0.00	0.00	0.00	1.19	HRS
INVLAT	60.2	63.9	67.4	70.8	74.5	0.0	0.0	0.0	0.0	0.0	58.6	DEGS

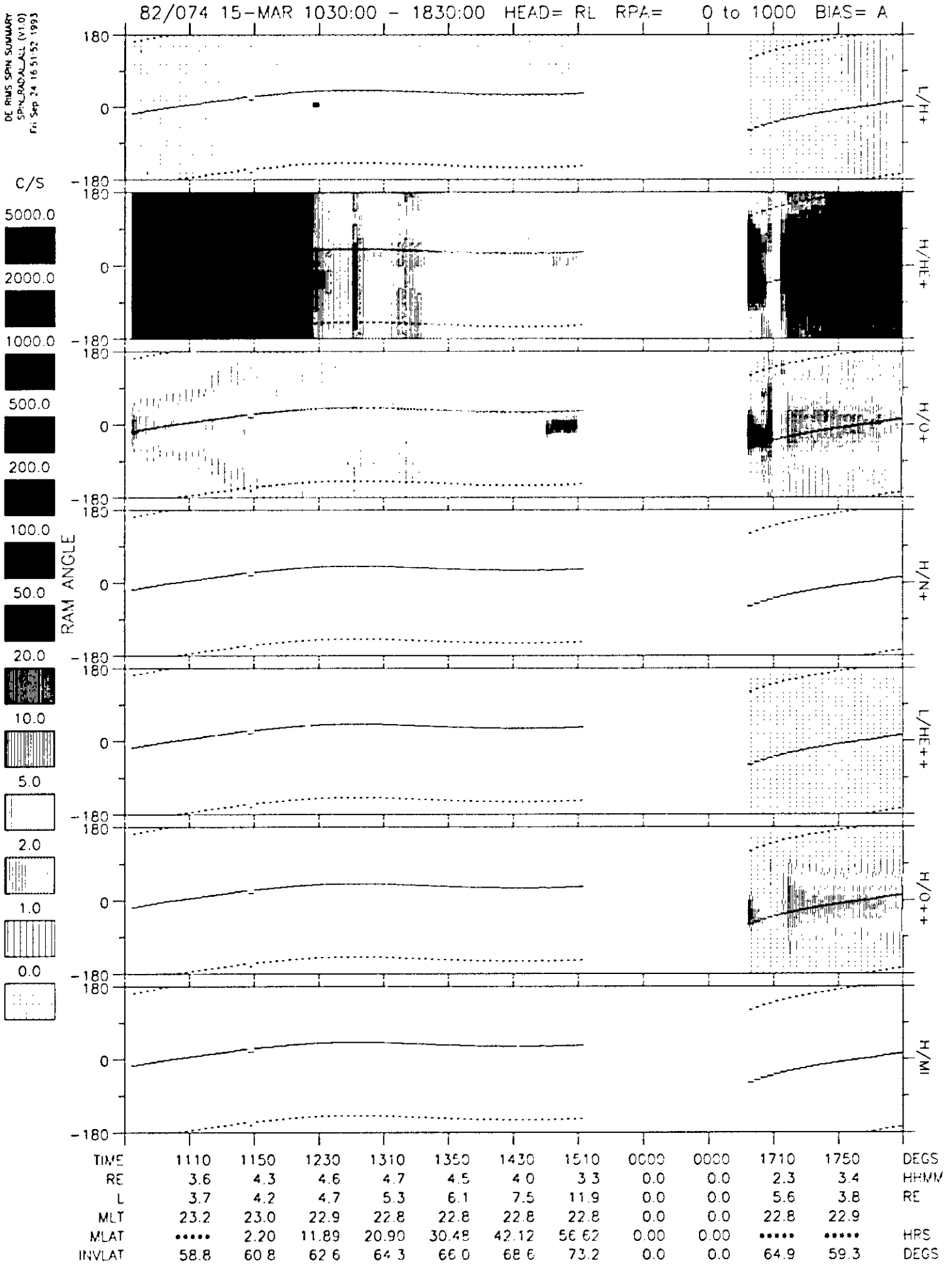

82/073 14-MAR 0715:00 - 1515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RNS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 24 16:42:49 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0755 0835 0915 0955 0000 0000 0000 1235 1315 1355 1435 DEGS
RE 3.8 4.3 4.6 4.6 0.0 0.0 0.0 1.8 1.2 2.6 3.6 HHMM
L 3.8 4.6 5.4 6.3 0.0 0.0 0.0 13.3 7.0 4.5 3.9 RE
MLT 23.2 23.0 22.9 22.7 0.0 0.0 0.0 12.8 9.8 23.4 23.2
MLAT 2.99 14.49 23.40 31.50 0.00 0.00 0.00 70.87 ***** ***** ***** HRS
INVLAT 59.1 62.2 64.6 66.5 0.0 0.0 0.0 74.1 67.8 62.0 59.4 DEGS

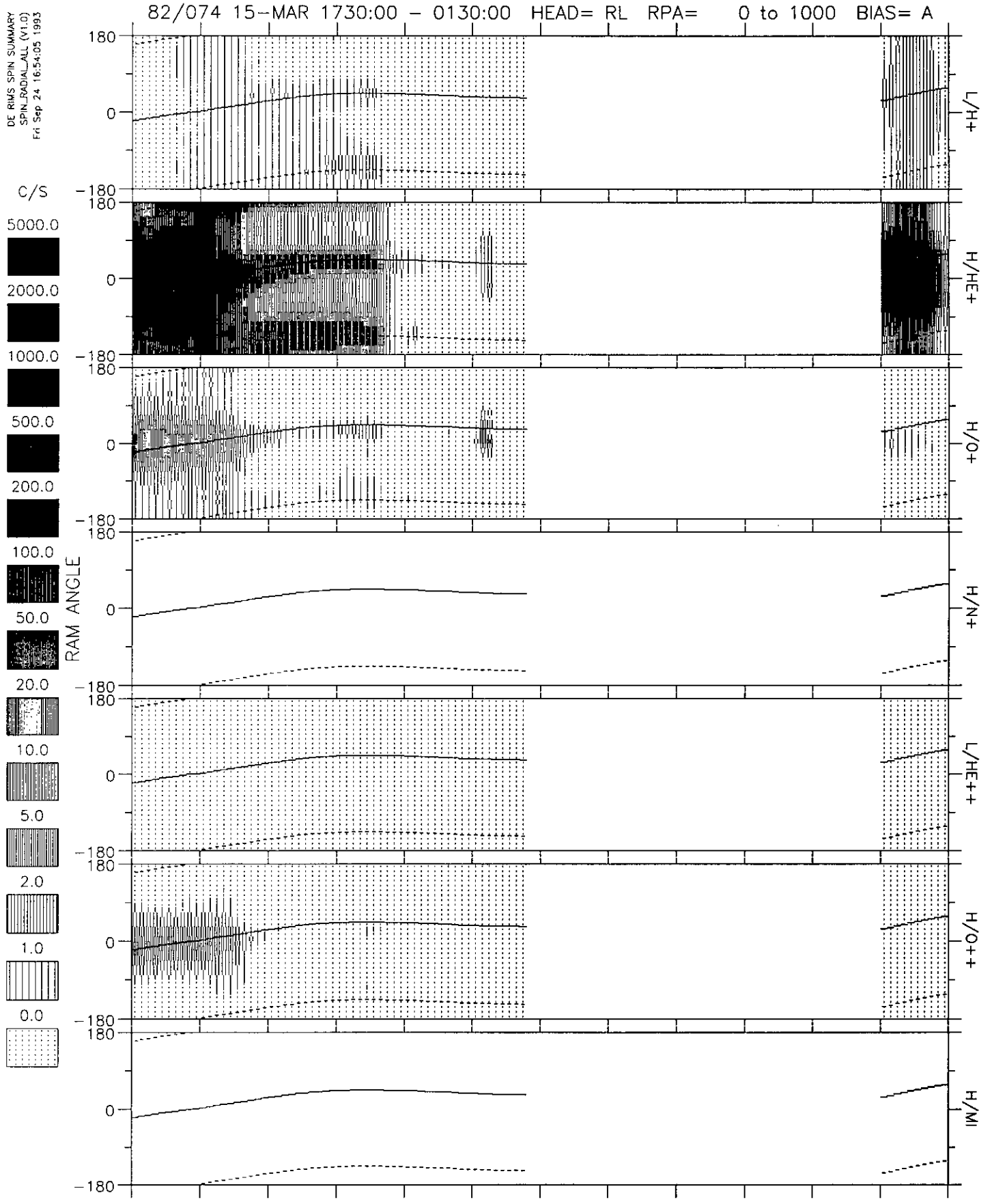

82/073 14-MAR 1400:00 - 2200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 24 16:45:01 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1440 1520 1600 1640 1720 1800 1840 0000 0000 0000 2120 DEGS
RE 3.7 4.3 4.6 4.7 4.5 4.0 3.2 0.0 0.0 0.0 3.5 HHMM
L 3.9 4.2 4.7 5.3 6.2 8.0 15.6 0.0 0.0 0.0 3.7 RE
MLT 23.1 23.1 23.1 23.2 23.3 23.6 0.2 0.0 0.0 0.0 23.0
MLAT ***** -2.26 8.95 19.60 30.85 44.08 62.02 0.00 0.00 0.00 ***** HRS
INVLAT 59.5 60.9 62.5 64.2 66.2 69.3 75.3 0.0 0.0 0.0 58.6 DEGS

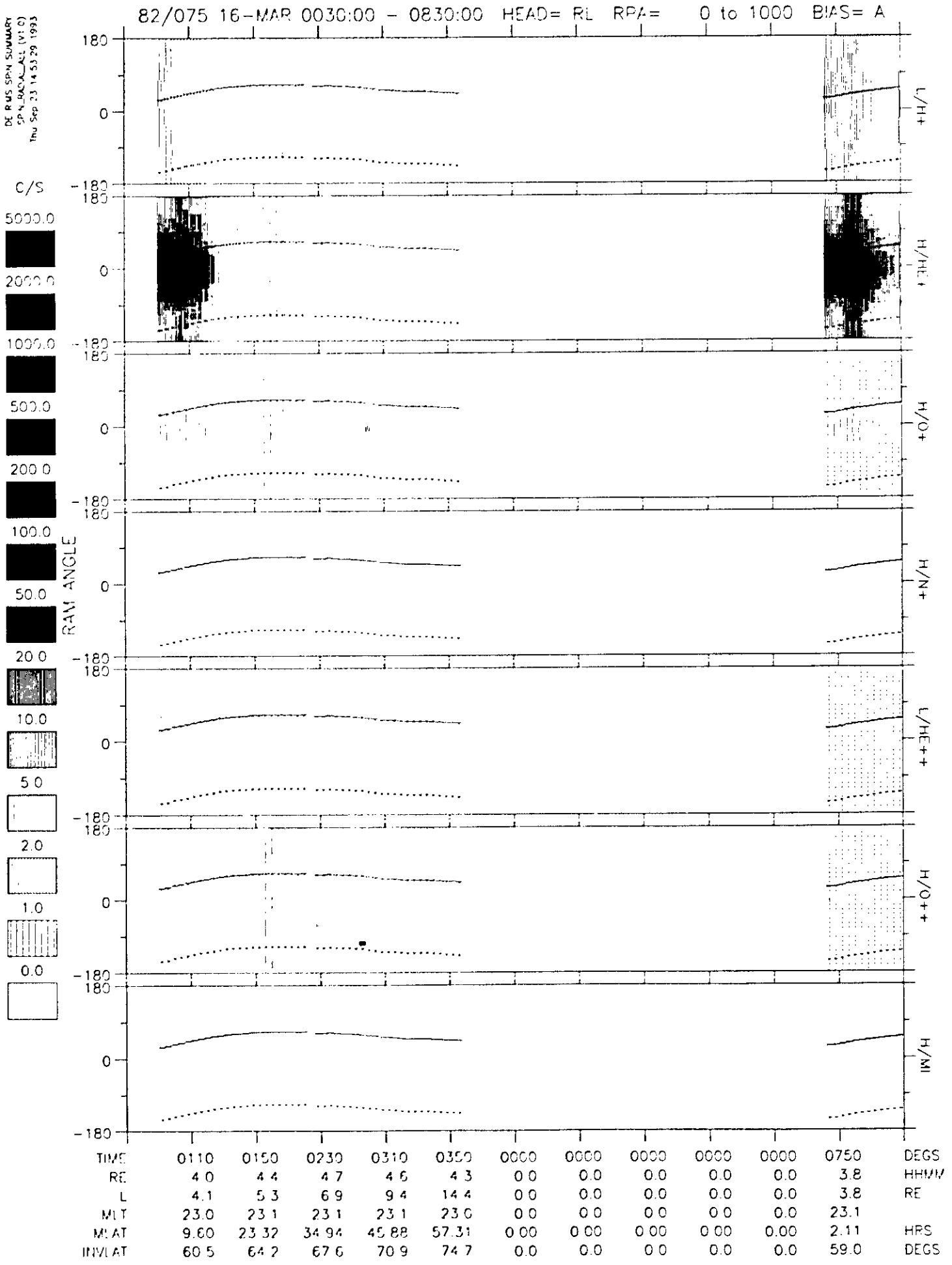

82/073 14-MAR 2100:00 - 0500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIUS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 24 16:47:02 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2140 2220 0000 0000 0000 0000 0000 0220 0300 0340 0420 DEGS
RE 3.8 4.4 0.0 0.0 0.0 0.0 0.0 1.7 1.4 2.7 3.6 HHMM
L 3.9 4.6 0.0 0.0 0.0 0.0 0.0 4.2 21.9 3.0 3.8 RE
MLT 23.1 23.2 0.0 0.0 0.0 0.0 0.0 10.7 22.3 23.1 23.1
MLAT -1.98 12.90 0.00 0.00 0.00 0.00 0.00 48.32 ***** ***** 5.46 HRS
INVLAT 59.6 62.2 0.0 0.0 0.0 0.0 0.0 60.7 77.7 54.6 59.0 DEGS

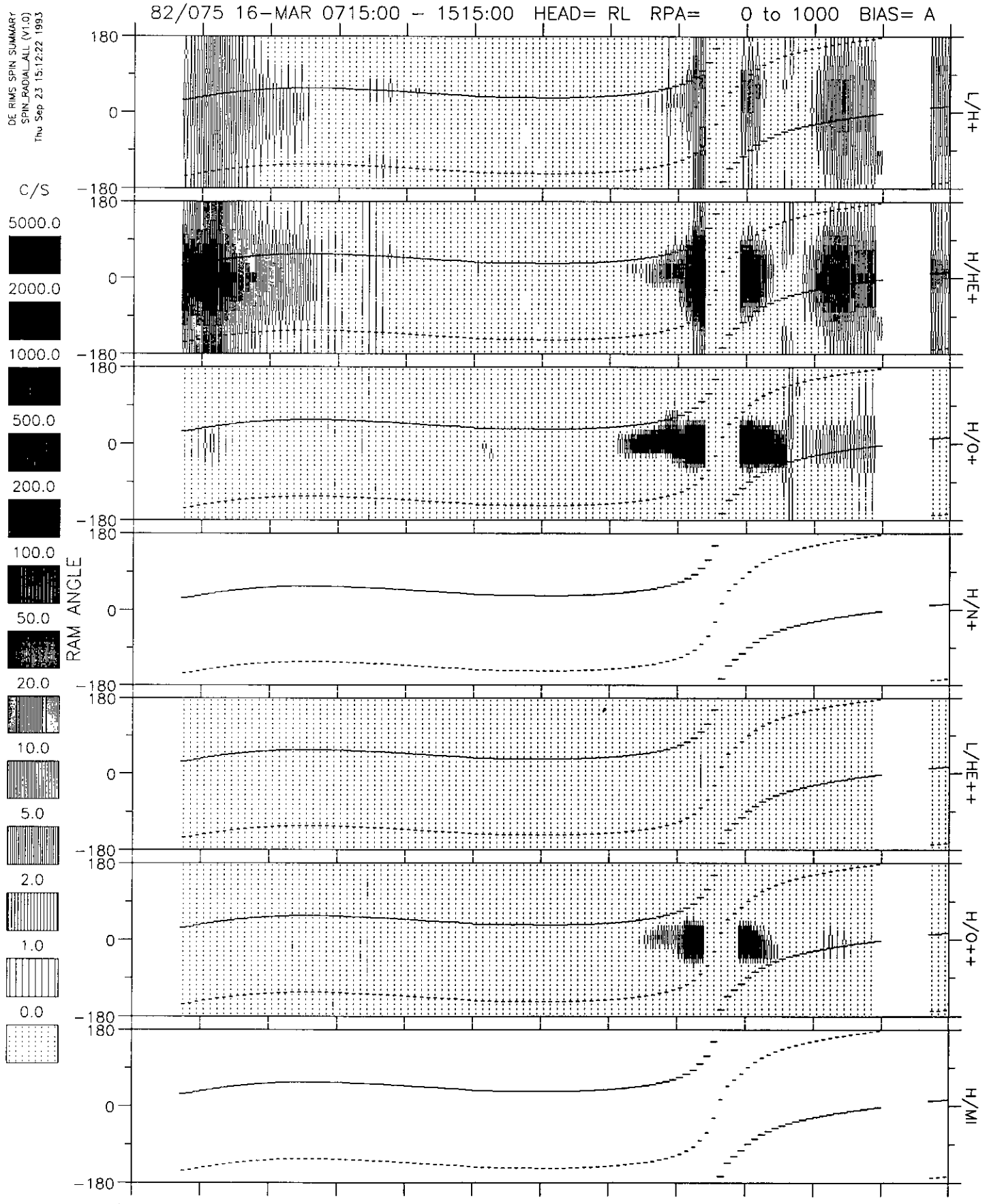


TIME	0455	0535	0615	0655	0735	0815	0000	0000	0000	1055	1135	DEGS
RE	4.2	4.6	4.7	4.5	4.1	3.3	0.0	0.0	0.0	3.3	4.1	HHMM
L	4.7	6.0	7.5	9.7	13.6	28.9	0.0	0.0	0.0	3.6	4.0	RE
MLT	23.0	22.9	22.8	22.6	22.2	21.1	0.0	0.0	0.0	23.3	23.1	
MLAT	17.78	28.60	37.86	46.83	56.79	69.71	0.00	0.00	0.00	*****	-1.96	HRS
INVLAT	62.6	65.9	68.7	71.2	74.3	79.3	0.0	0.0	0.0	58.1	60.0	DEGS

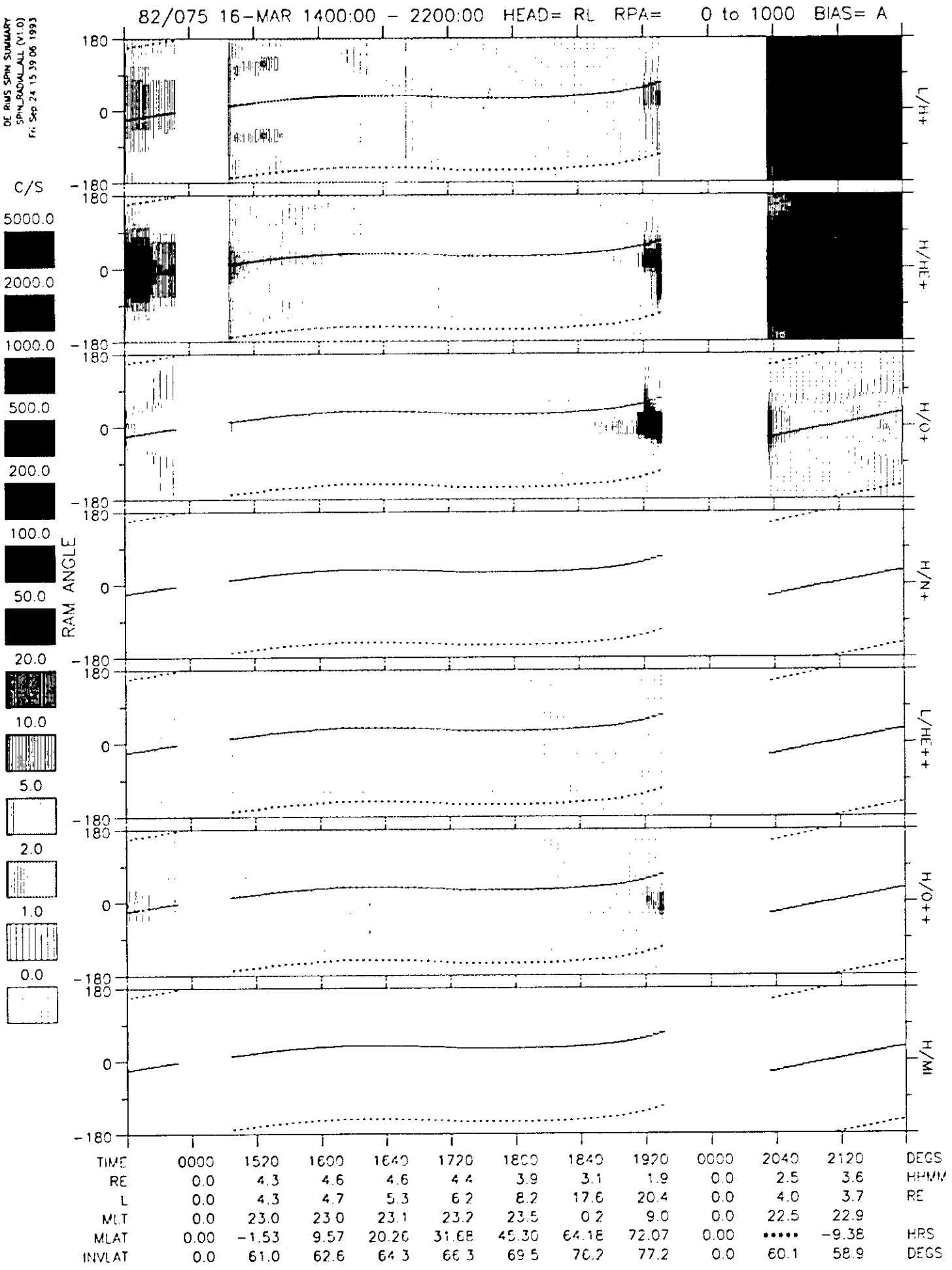

DE RIMS SPIN SUMMARY
SPIN_RADIALALL (V1.0)
Fri Sep 24 16:51:52 1993
82/074 15-MAR 1030:00 - 1830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1110 1150 1230 1310 1350 1430 1510 0000 0000 1710 1750 DEGS
RE 3.6 4.3 4.6 4.7 4.5 4.0 3.3 0.0 0.0 2.3 3.4 HHMM
L 3.7 4.2 4.7 5.3 6.1 7.5 11.9 0.0 0.0 5.6 3.8 RE
MLT 23.2 23.0 22.9 22.8 22.8 22.8 22.8 0.0 0.0 22.8 22.9
MLAT ••••• 2.20 11.89 20.90 30.48 42.12 56.62 0.00 0.00 ••••• ••••• HRS
INVLAT 58.8 60.8 62.6 64.3 66.0 68.6 73.2 0.0 0.0 64.9 59.3 DEGS

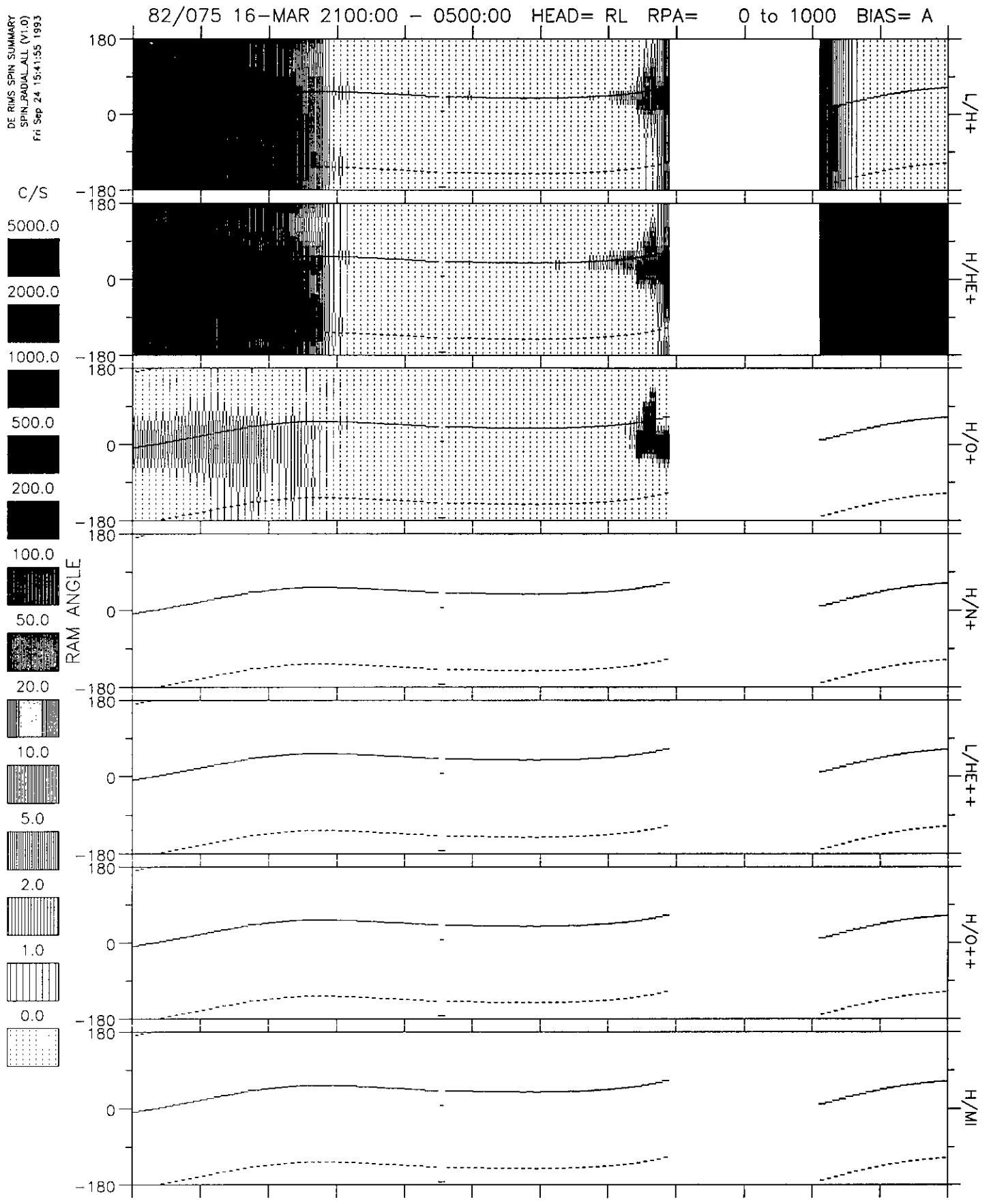

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 24 16:54:05 1993
82/074 15-MAR 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 1810 1850 1930 2010 2050 0000 0000 0000 0000 0000 0050 DEGS
RE 3.8 4.4 4.6 4.6 4.4 0.0 0.0 0.0 0.0 0.0 3.6 HHMM
L 3.9 4.3 5.0 5.8 7.3 0.0 0.0 0.0 0.0 0.0 3.7 RE
MLT 23.0 23.1 23.3 23.5 23.7 0.0 0.0 0.0 0.0 0.0 22.9
MLAT ***** 2.72 15.14 27.01 39.45 0.00 0.00 0.00 0.00 0.00 1.14 HRS
INVLAT 59.7 61.4 63.3 65.5 68.2 0.0 0.0 0.0 0.0 0.0 58.6 DEGS


82/075 16-MAR 0030:00 - 0830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R WIS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Sep 23 14:53:29 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0110 0150 0230 0310 0350 0000 0000 0000 0000 0000 0750 DEGS
RE 4.0 4.4 4.7 4.6 4.3 0.0 0.0 0.0 0.0 0.0 3.8 HHMM
L 4.1 5.3 6.9 9.4 14.4 0.0 0.0 0.0 0.0 0.0 3.8 RE
MLT 23.0 23.1 23.1 23.1 23.0 0.0 0.0 0.0 0.0 0.0 23.1
MLAT 9.60 23.32 34.94 45.88 57.31 0.00 0.00 0.00 0.00 0.00 2.11 HRS
INVLAT 60.5 64.2 67.6 70.9 74.7 0.0 0.0 0.0 0.0 0.0 59.0 DEGS

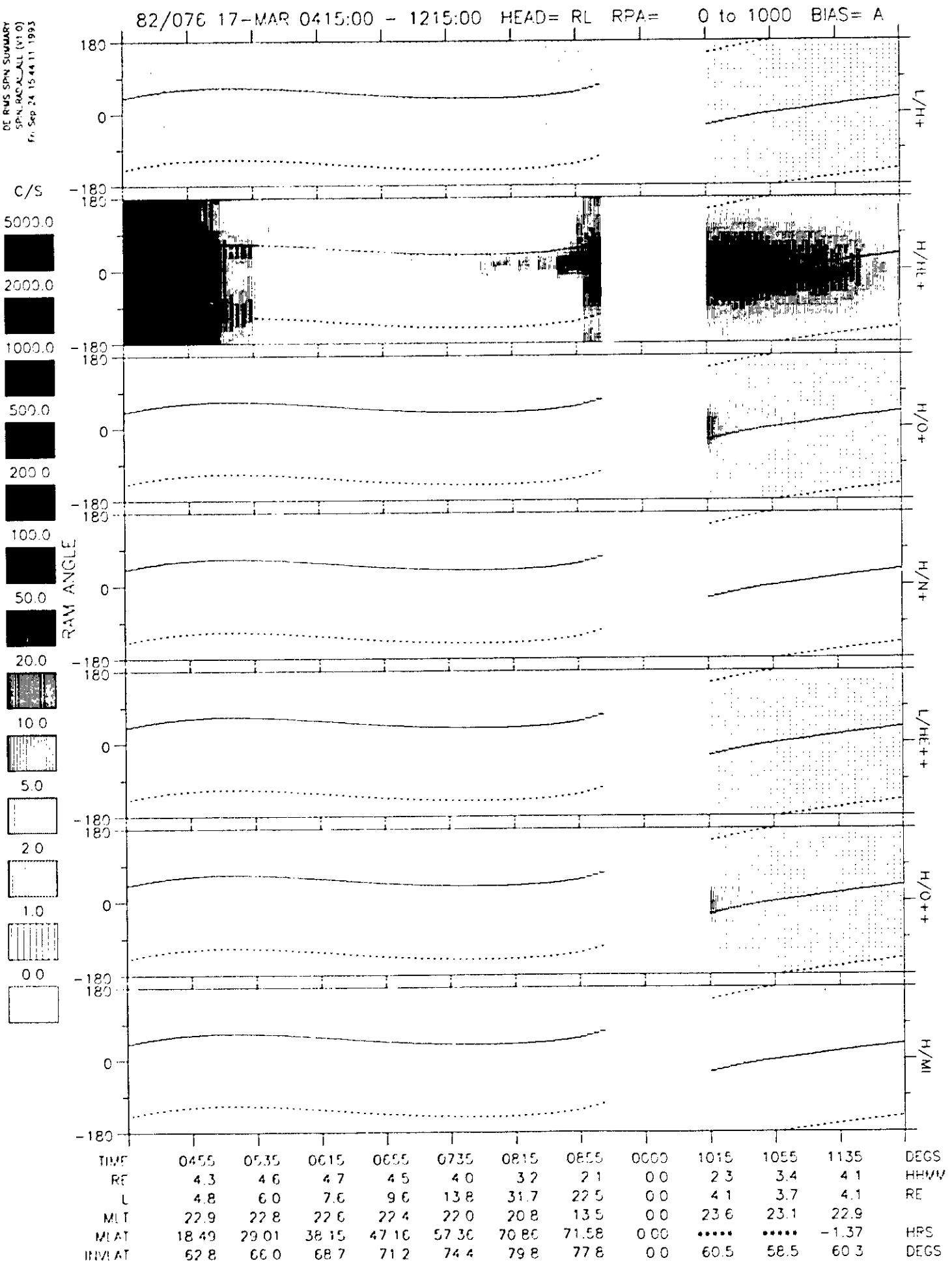


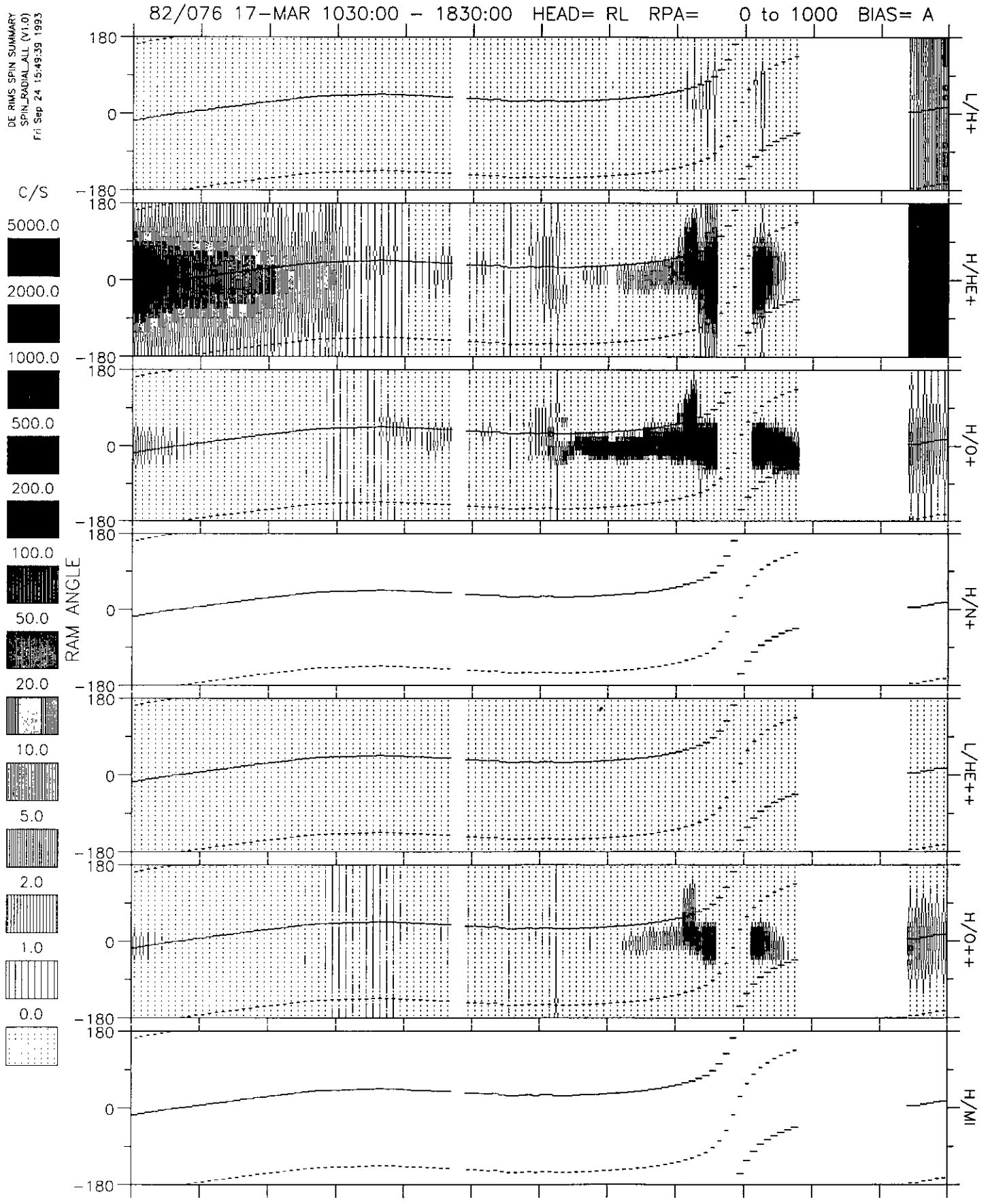
TIME	0755	0835	0915	0955	1035	1115	1155	1235	1315	1355	0000	DEGS
RE	3.9	4.4	4.6	4.6	4.4	3.8	2.9	1.7	1.4	2.7	0.0	HHMM
L	3.9	4.7	5.5	6.3	7.5	10.1	25.6	6.8	33.5	4.4	0.0	RE
MLT	23.1	22.9	22.7	22.6	22.4	22.1	21.3	12.1	7.8	23.2	0.0	
MLAT	3.77	14.81	23.57	31.73	40.54	51.70	68.82	63.77	*****	*****	0.00	HRS
INVLAT	59.4	62.4	64.7	66.6	68.6	71.6	78.6	67.4	80.0	61.4	0.0	DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 24 15:39:06 1993
82/075 16-MAR 1400:00 - 2200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1520 1600 1640 1720 1800 1840 1920 0000 2040 2120 DEGS
RE 0.0 4.3 4.6 4.6 4.4 3.9 3.1 1.9 0.0 2.5 3.6 HHMM
L 0.0 4.3 4.7 5.3 6.2 8.2 17.6 20.4 0.0 4.0 3.7 RE
MLT 0.0 23.0 23.0 23.1 23.2 23.5 0.2 9.0 0.0 22.5 22.9
MLAT 0.00 -1.53 9.57 20.26 31.68 45.30 64.18 72.07 0.00 ***** -9.38 HRS
INVLAT 0.0 61.0 62.6 64.3 66.3 69.5 76.2 77.2 0.0 60.1 58.9 DEGS

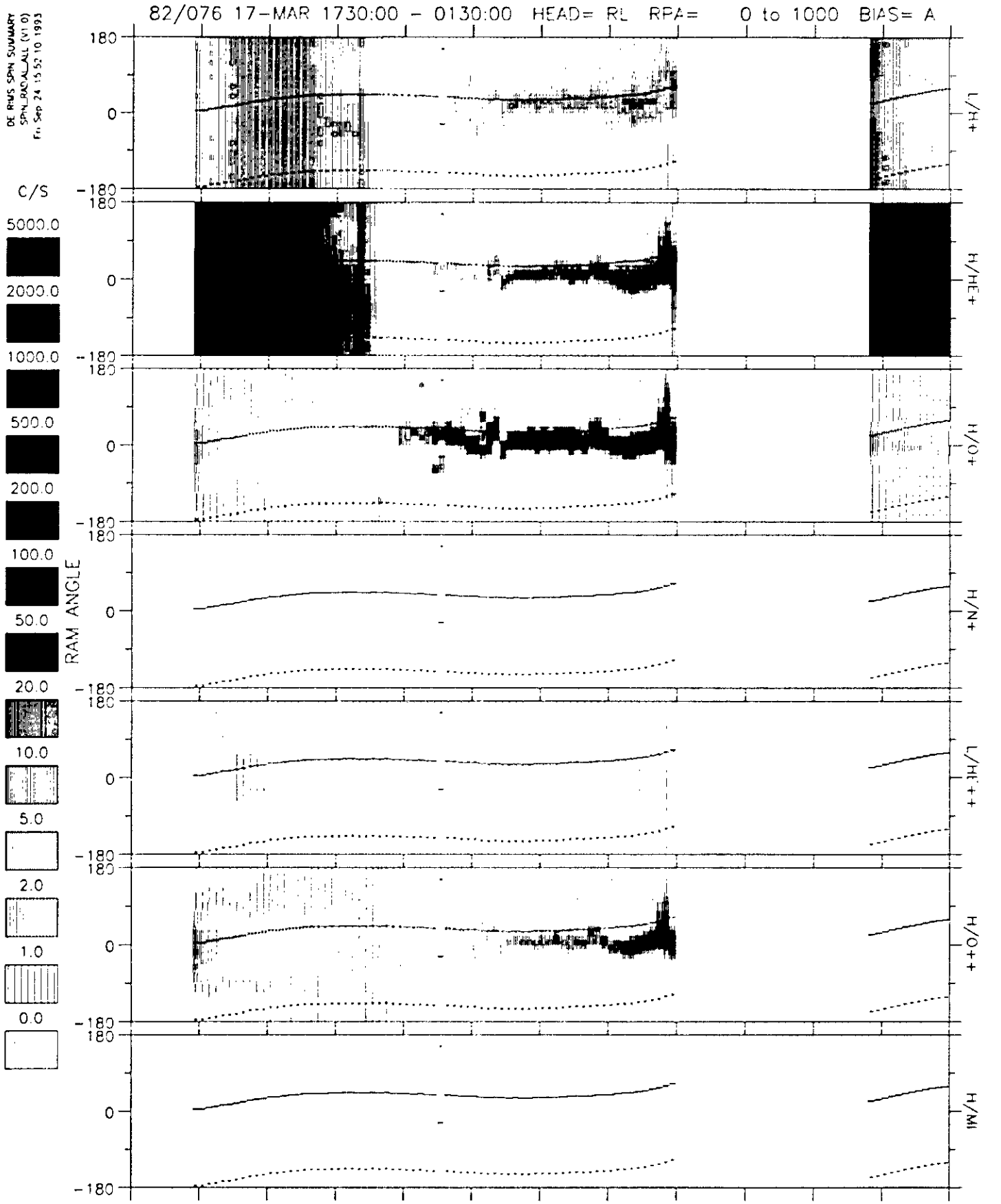


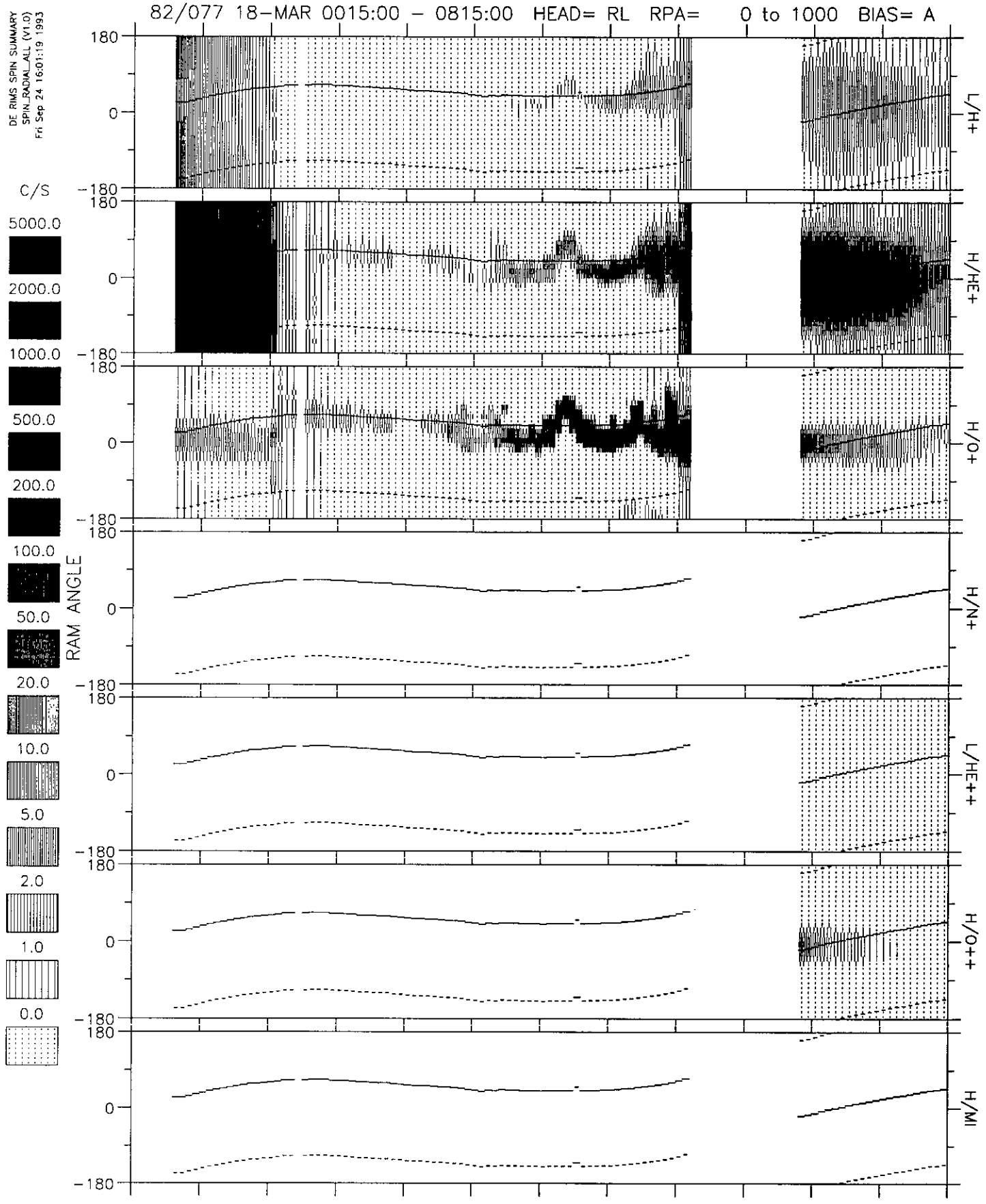
TIME	2140	2220	2300	2340	0020	0100	0140	0000	0000	0000	0420	DEGS
RE	3.9	4.4	4.7	4.6	4.3	3.7	2.8	0.0	0.0	0.0	3.7	HHMM
L	4.0	4.7	5.7	7.3	10.4	20.4	-0.0	0.0	0.0	0.0	3.8	RE
MLT	23.0	23.1	23.3	23.4	23.6	0.0	4.6	0.0	0.0	0.0	23.0	
MLAT	-0.50	14.05	26.62	38.68	51.33	66.23	84.18	0.00	0.00	0.00	6.67	HRS
INVLAT	59.9	62.5	65.2	68.2	71.9	77.2	-0.0	0.0	0.0	0.0	59.3	DEGS


82/076 17-MAR 0415:00 - 1215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RMS SPIN SUMMARY
SPIN RADIAL ALL (V1.0)
Fri Sep 24 15:44:11 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0455 0535 0615 0655 0735 0815 0855 0000 1015 1055 1135 DEGS
RE 4.3 4.6 4.7 4.5 4.0 3.2 2.1 0.0 2.3 3.4 4.1 HHWV
L 4.8 6.0 7.6 9.6 13.8 31.7 22.5 0.0 4.1 3.7 4.1 RE
MLT 22.9 22.8 22.6 22.4 22.0 20.8 13.5 0.0 23.6 23.1 22.9
MLAT 18.49 29.01 38.15 47.10 57.30 70.86 71.58 0.00 ***** ***** -1.37 HRS
INVLAT 62.8 66.0 68.7 71.2 74.4 79.8 77.8 0.0 60.5 58.5 60.3 DEGS

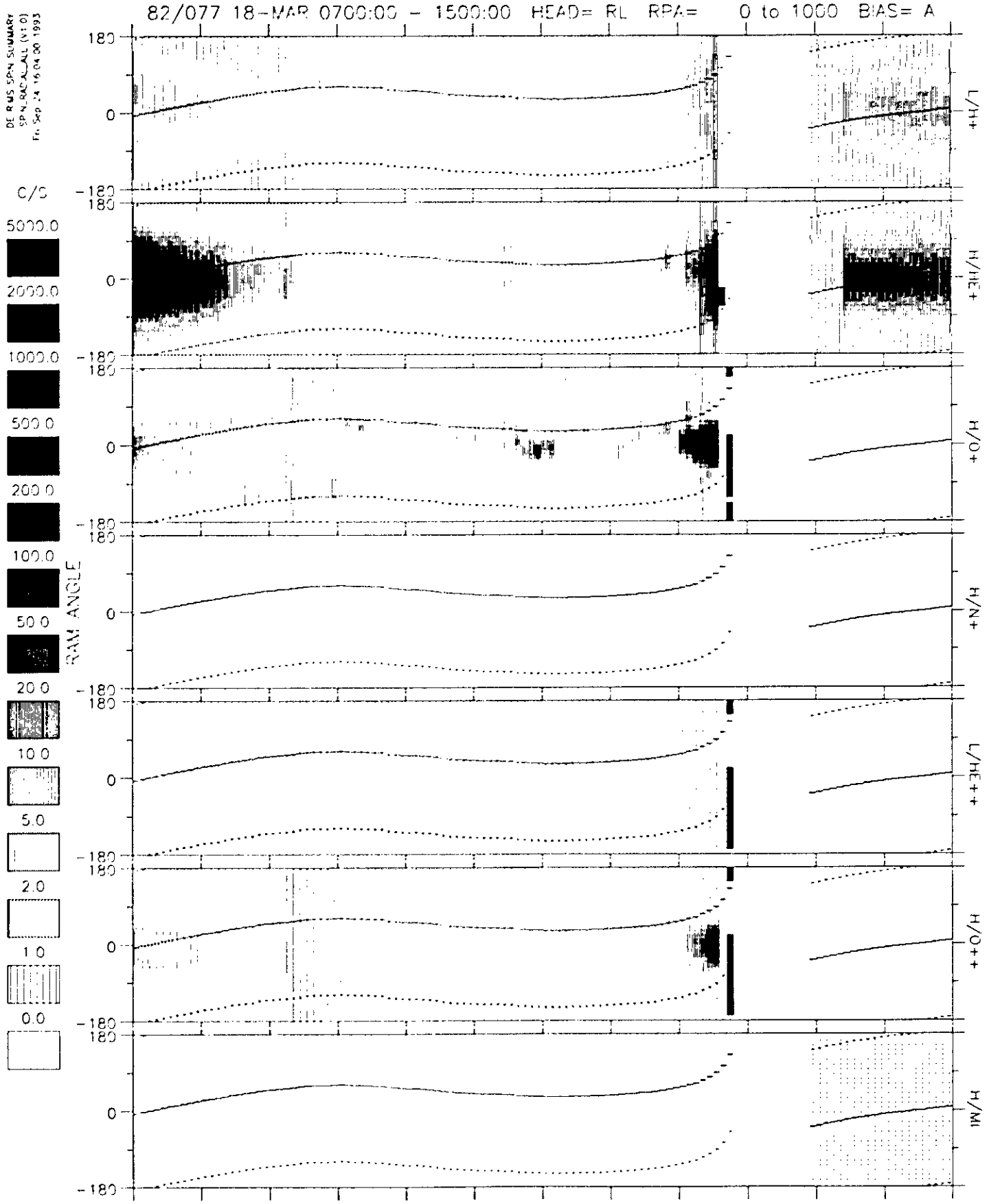


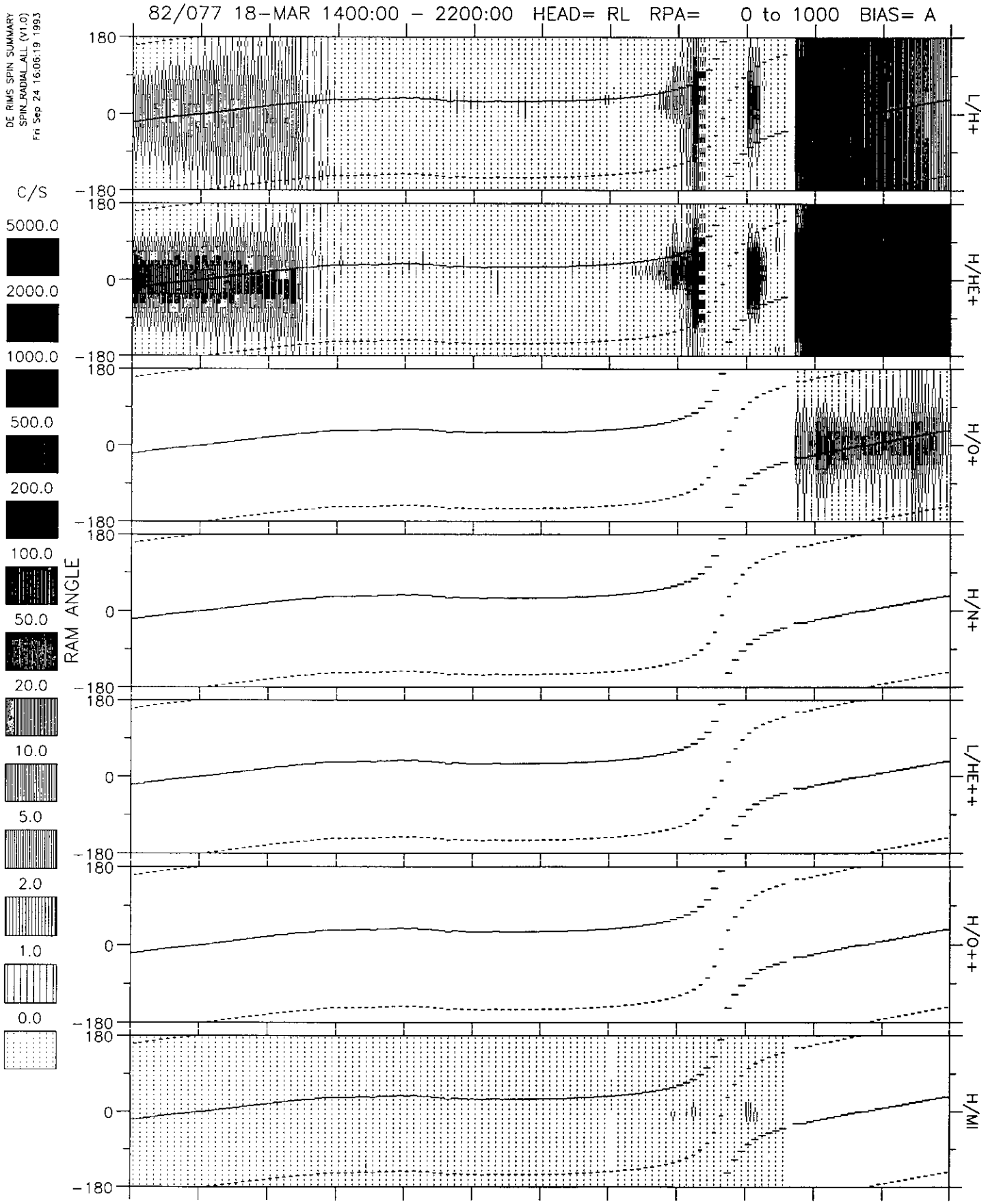
TIME	1110	1150	1230	1310	1350	1430	1510	1550	1630	0000	0000	DEGS
RE	3.7	4.3	4.6	4.7	4.4	3.9	3.2	1.9	1.2	0.0	0.0	HHMM
L	3.8	4.3	4.8	5.3	6.1	7.6	12.9	90.6	3.0	0.0	0.0	RE
MLT	23.0	22.9	22.8	22.7	22.7	22.7	22.8	10.5	11.2	0.0	0.0	
MLAT	-9.24	2.64	12.19	21.22	31.00	43.03	58.54	83.15	*****	0.00	0.00	HRS
INVLAT	59.1	61.0	62.7	64.3	66.1	68.8	73.9	84.0	54.3	0.0	0.0	DEGS

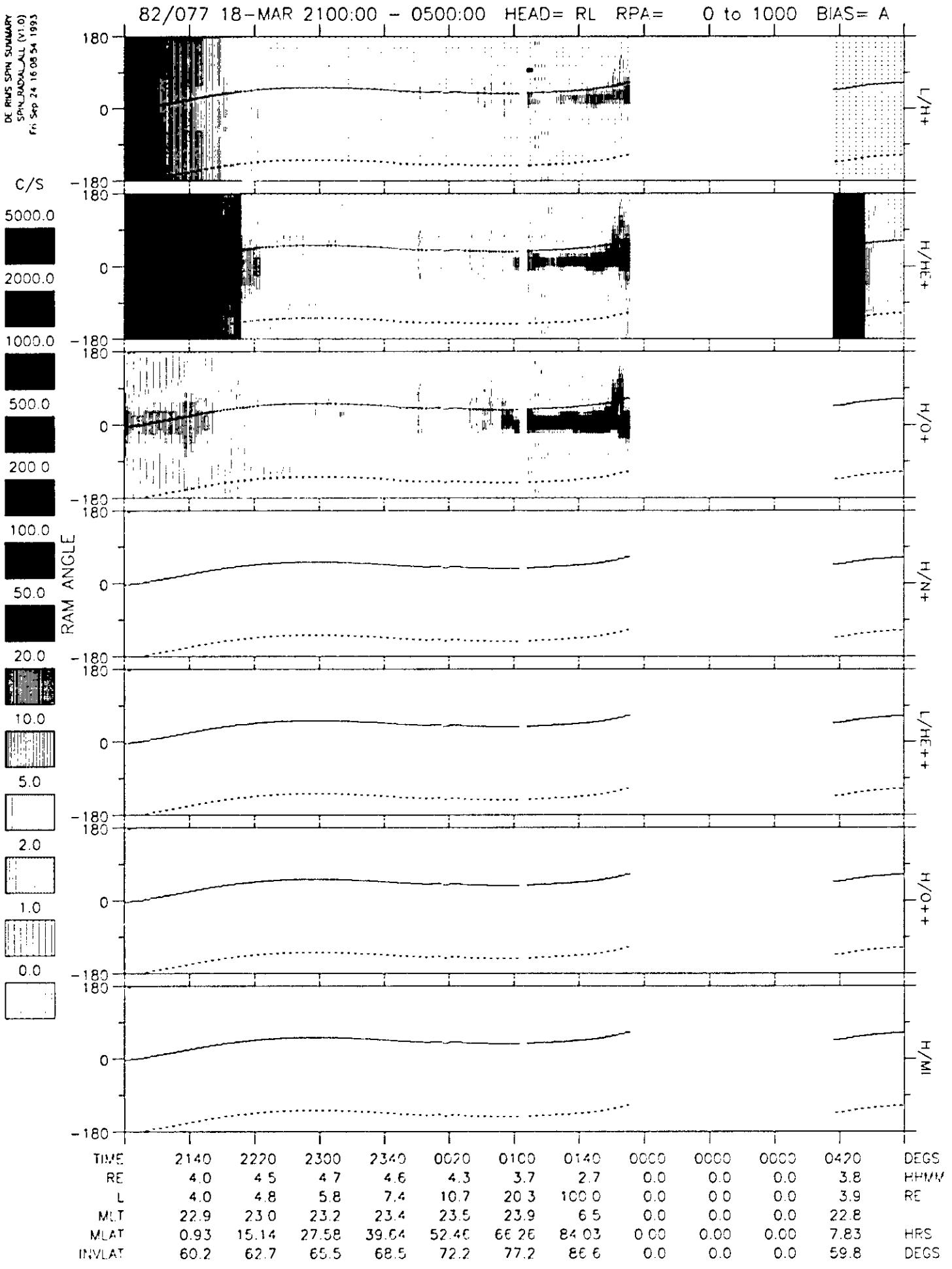

82/076 17-MAR 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 24 15:52:10 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 1810 1850 1930 2010 2050 2130 2210 0000 0000 0000 0050 DEGS
RE 3.9 4.4 4.6 4.6 4.4 3.8 2.9 0.0 0.0 0.0 3.7 HHMV
L 4.0 4.4 5.0 5.9 7.4 11.3 40.2 0.0 0.0 0.0 3.8 RE
MLT 22.9 23.0 23.2 23.4 23.6 0.1 2.0 0.0 0.0 0.0 22.9
MLAT ••••• 3.71 16.02 27.91 40.51 55.27 74.40 0.00 0.00 0.00 2.71 HRS
INVLAT 59.9 61.6 63.5 65.7 68.4 72.7 80.9 0.0 0.0 0.0 59.1 DEGS

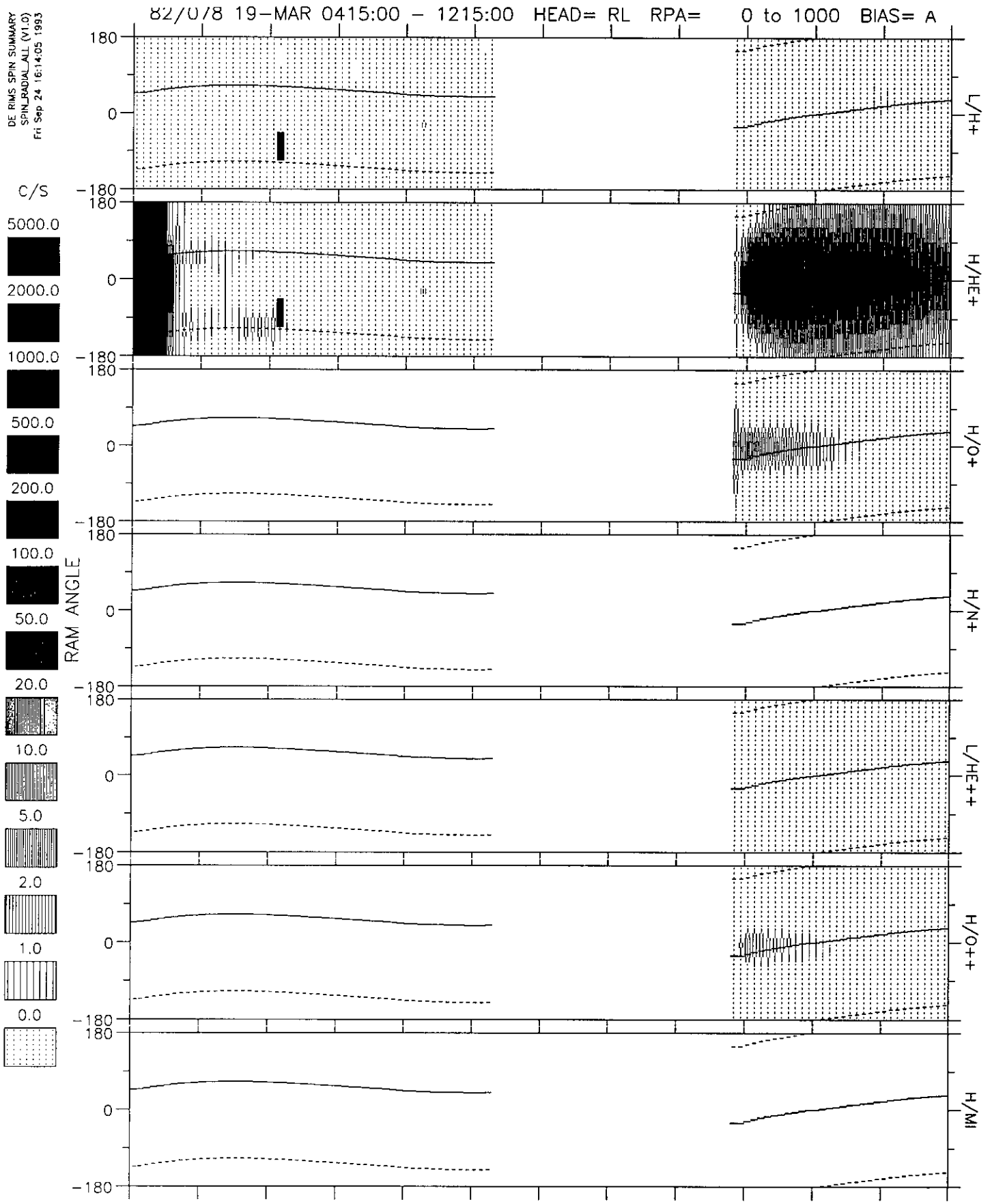


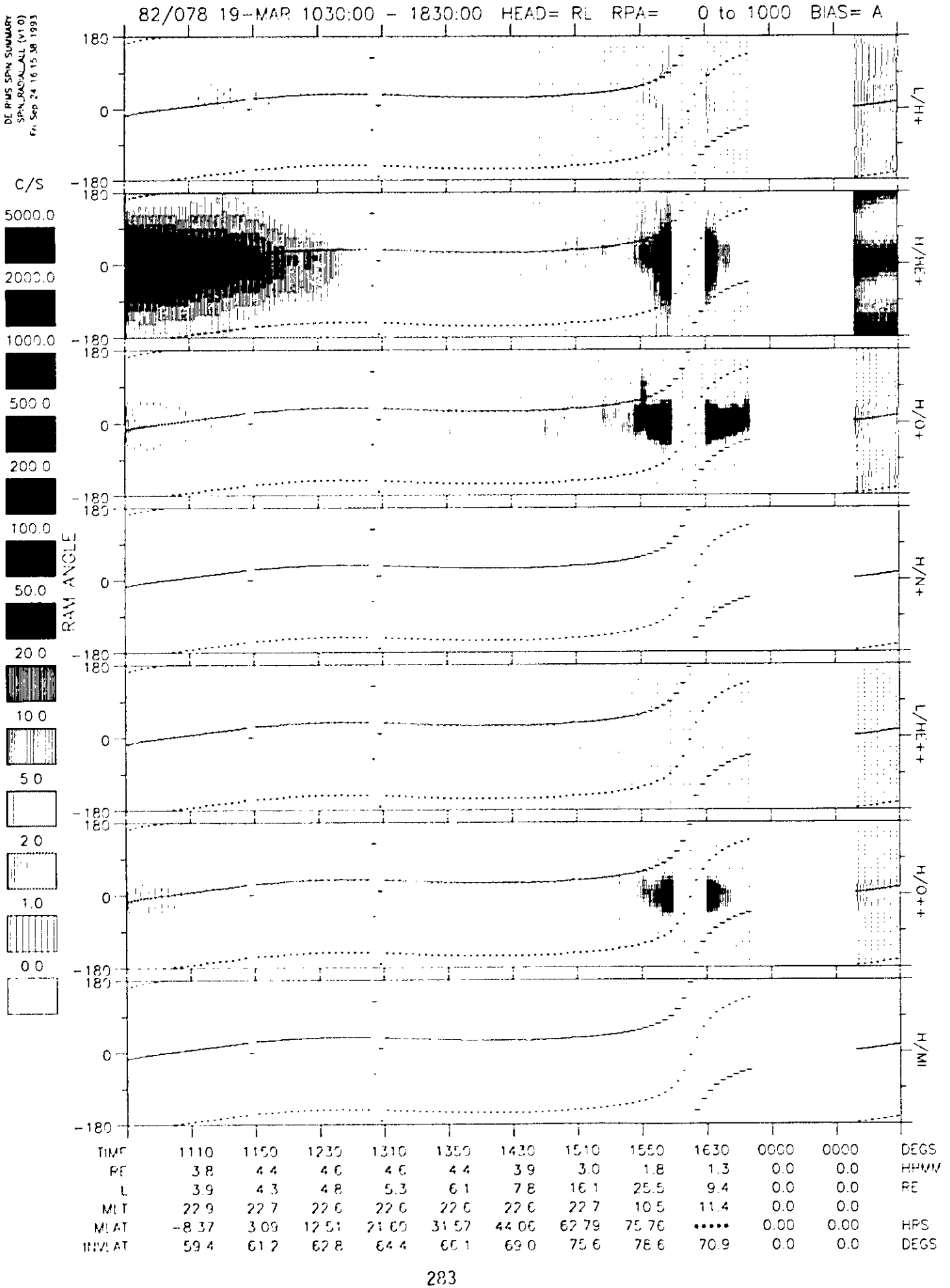
TIME	0055	0135	0215	0255	0335	0415	0455	0535	0000	0655	0735	DEGS
RE	3.8	4.4	4.6	4.6	4.4	3.9	3.0	1.8	0.0	2.6	3.6	HHMM
L	3.9	4.9	6.4	8.5	12.3	23.4	-0.0	-0.0	0.0	3.1	3.6	RE
MLT	22.9	23.0	23.0	23.0	22.9	22.6	20.5	11.5	0.0	23.3	23.0	
MLAT	4.90	19.49	31.47	42.45	53.60	66.37	83.48	55.75	0.00	*****	-2.44	HRS
INVLAT	59.6	63.2	66.7	69.9	73.5	78.1	-0.0	-0.0	0.0	55.5	58.1	DEGS

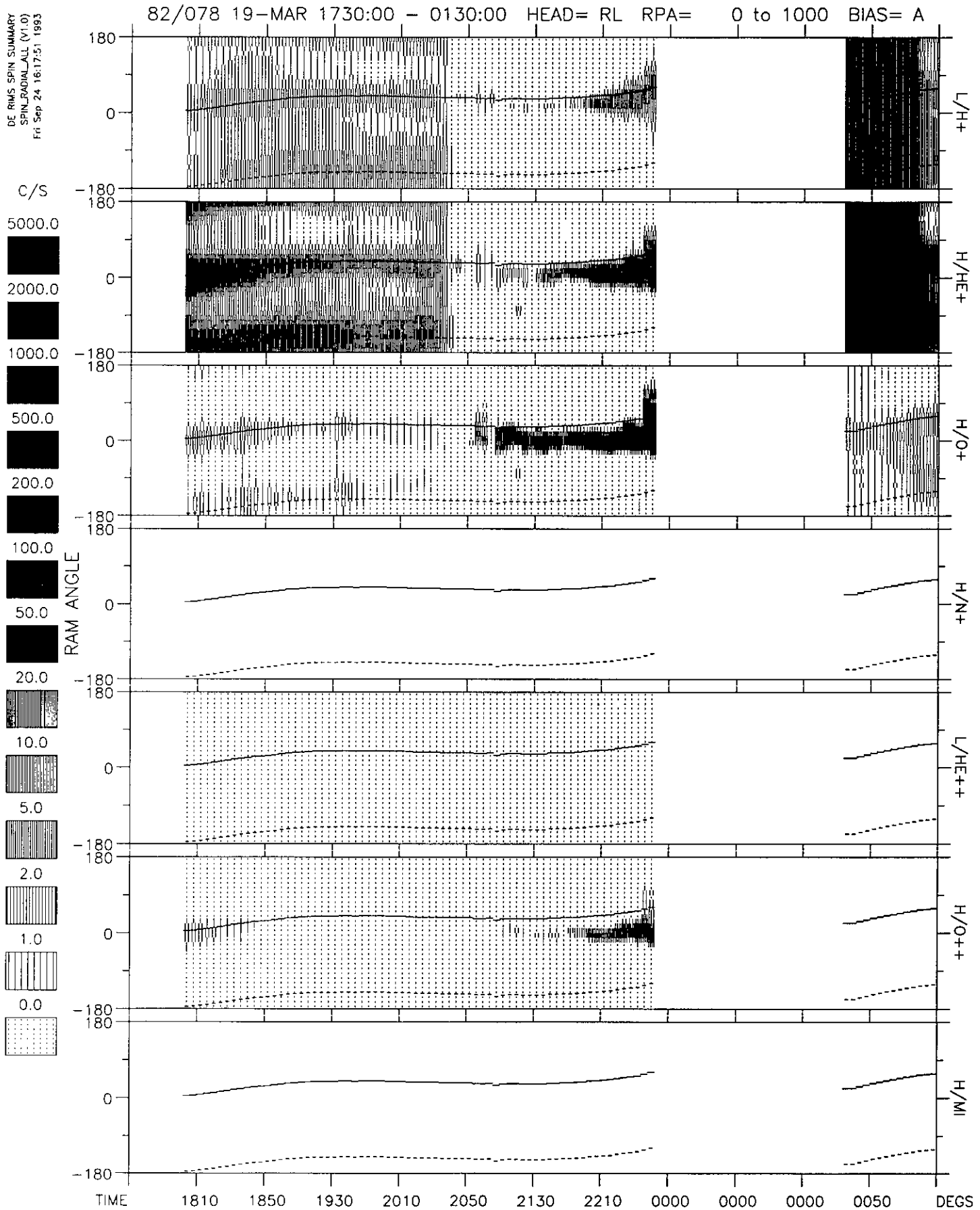

82/077 18-MAR 0700:00 - 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RACAL_ALL (V1.0)
Fri Sep 24 16:04:00 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
+H/L
+H/HE
+O/H
+N/H
++H/L
++O/H
IW/H
TIME 0740 0820 0900 0940 1020 1100 1140 1220 0000 1340 1420 DEGS
RE 3.7 4.3 4.6 4.7 4.5 4.0 3.2 2.0 0.0 2.4 3.5 HRMV
L 3.7 4.4 5.2 6.0 7.0 8.9 16.4 41.9 0.0 5.4 3.9 RE
MLT 23.0 22.8 22.7 22.5 22.3 22.1 21.5 14.2 0.0 23.2 22.9
MLAT -0.53 11.52 20.66 28.84 37.37 47.73 62.83 78.75 0.00 ***** ***** HRS
INVLAT 58.6 61.6 64.0 65.9 67.8 70.4 75.7 81.1 0.0 64.4 59.7 DEGS

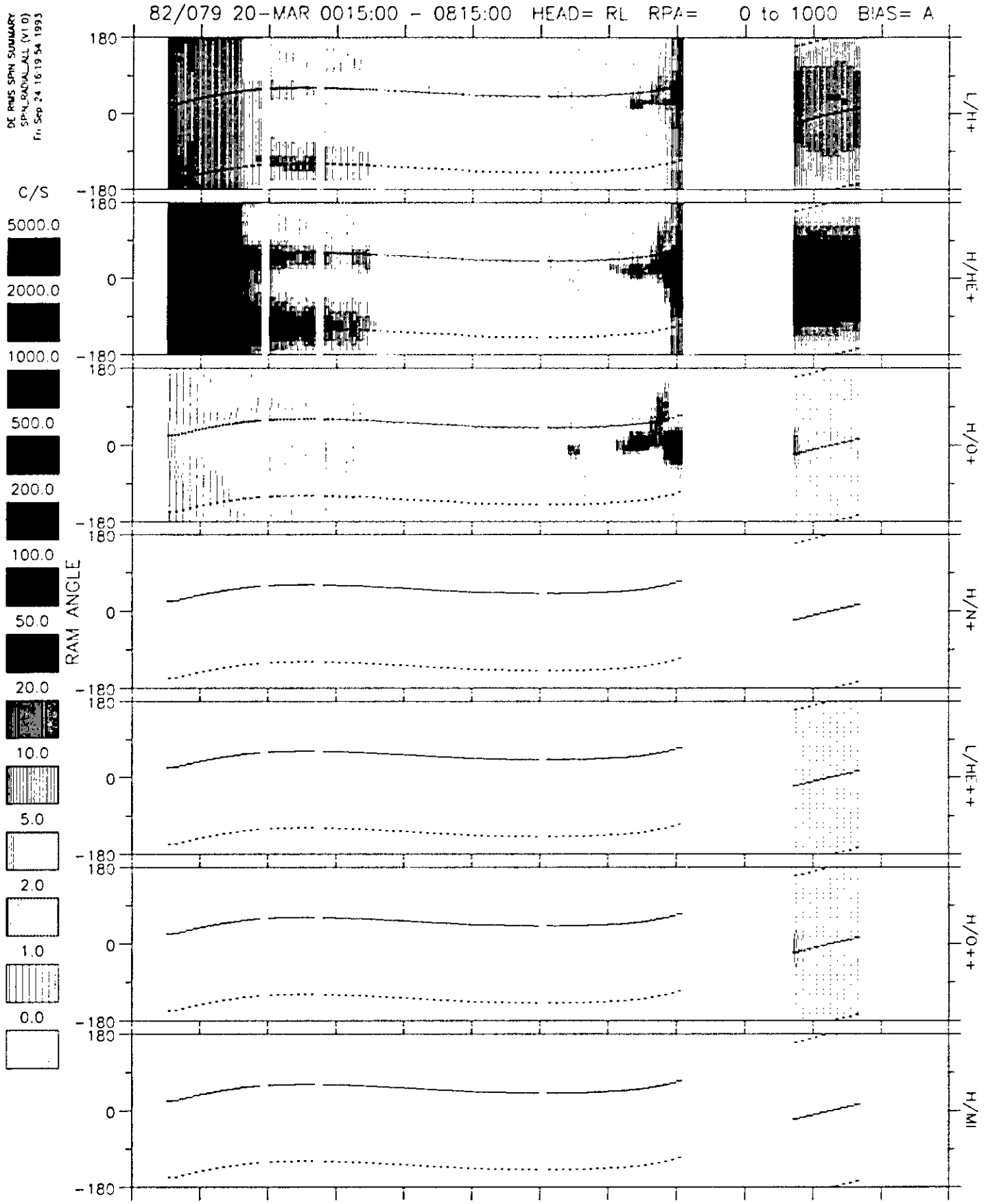

82/077 18-MAR 1400:00 - 2200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 24 16:06:19 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1440 1520 1600 1640 1720 1800 1840 1920 2000 2040 2120 DEGS
RE 3.9 4.4 4.6 4.6 4.4 3.8 3.1 1.7 1.4 2.7 3.7 HHMM
L 4.0 4.3 4.8 5.3 6.3 8.4 17.3 9.2 21.7 3.9 3.8 RE
MLT 22.9 22.9 22.9 23.0 23.1 23.4 0.1 9.5 15.2 22.4 22.8
MLAT ***** -0.80 10.20 20.94 32.53 46.58 64.05 64.61 ***** ***** -7.59 HRS
INVLAT 60.0 61.2 62.7 64.4 66.5 69.8 76.1 70.8 77.6 59.6 59.1 DEGS

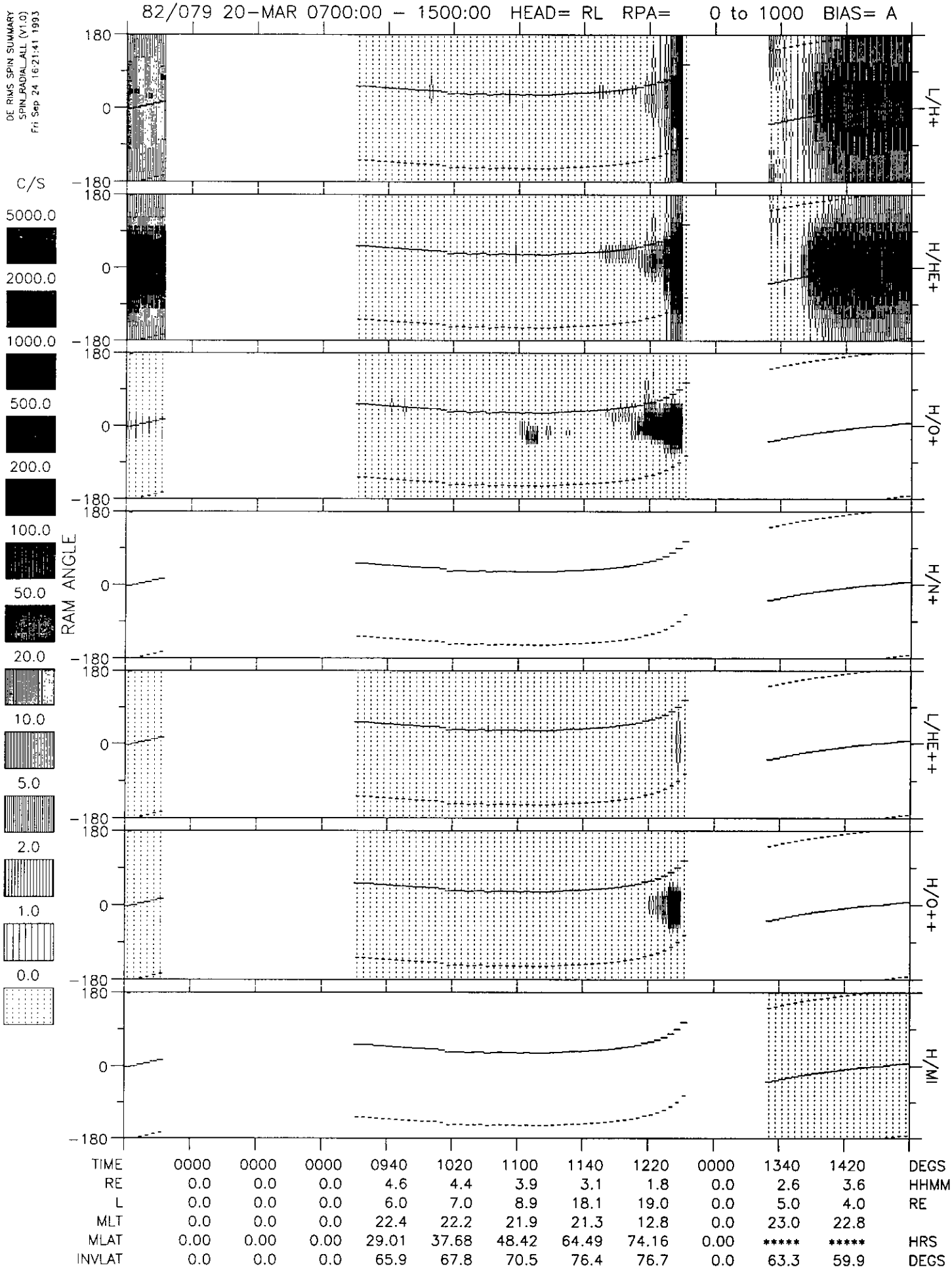

82/077 18-MAR 2100:00 - 0500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Fri Sep 24 16:08:54 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2140 2220 2300 2340 0020 0100 0140 0000 0000 0000 0420 DEGS
RE 4.0 4.5 4.7 4.6 4.3 3.7 2.7 0.0 0.0 0.0 3.8 HHMM
L 4.0 4.8 5.8 7.4 10.7 20.3 100.0 0.0 0.0 0.0 3.9 RE
MLT 22.9 23.0 23.2 23.4 23.5 23.9 6.5 0.0 0.0 0.0 22.8
MLAT 0.93 15.14 27.58 39.64 52.46 66.26 84.03 0.00 0.00 0.00 7.83 HRS
INVLAT 60.2 62.7 65.5 68.5 72.2 77.2 86.6 0.0 0.0 0.0 59.8 DEGS

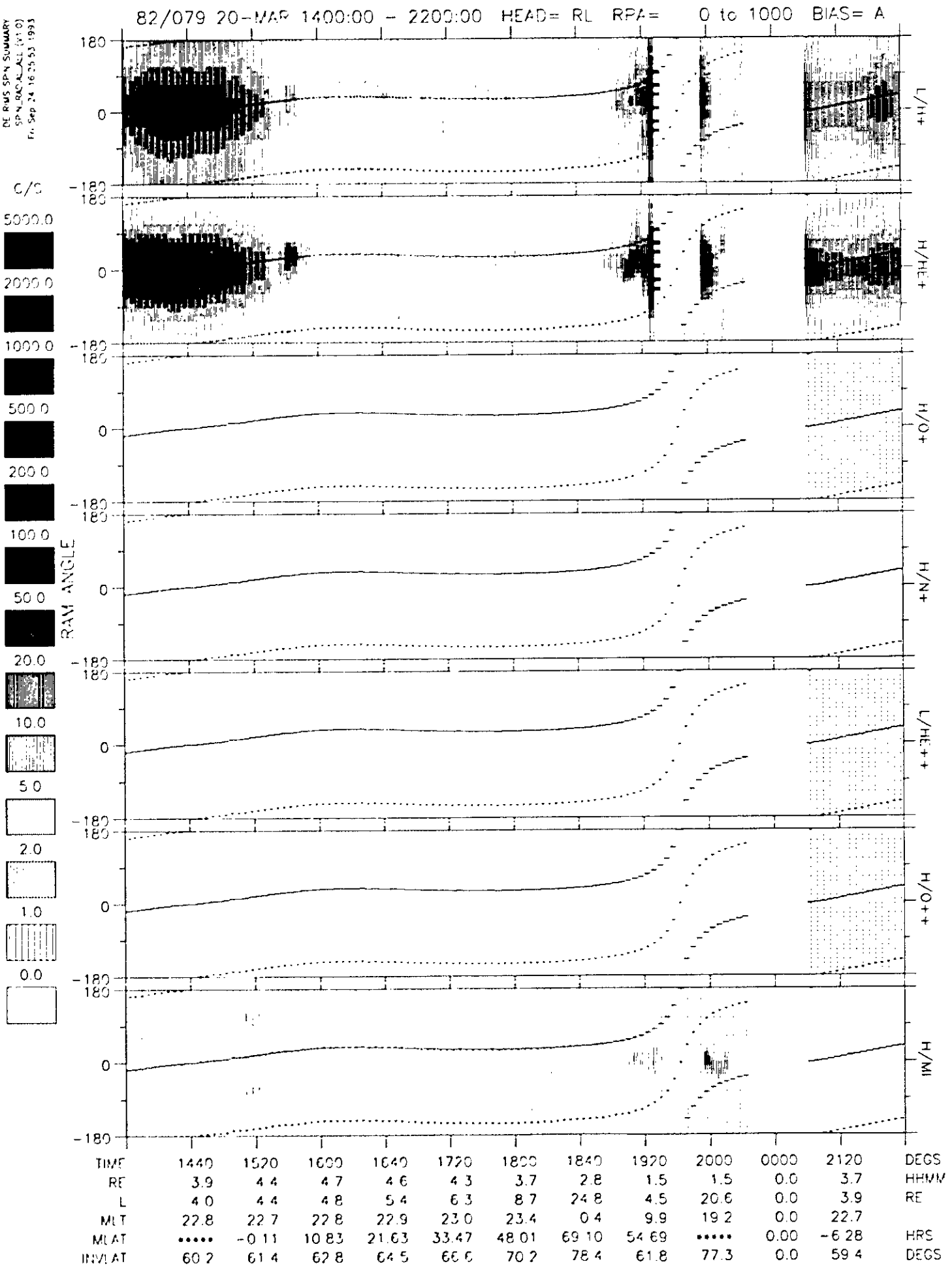

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 24 16:14:05 1993
82/078 19-MAR 0415:00 - 1215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0455 0535 0615 0655 0735 0000 0000 0000 1015 1055 1135 DEGS
RE 4.3 4.6 4.7 4.4 3.9 0.0 0.0 0.0 2.5 3.5 4.2 HHMM
L 4.9 6.1 7.6 9.7 14.0 0.0 0.0 0.0 4.0 3.7 4.1 RE
MLT 22.8 22.7 22.5 22.3 21.8 0.0 0.0 0.0 23.4 23.0 22.8
MLAT 19.14 29.42 38.46 47.50 57.95 0.00 0.00 0.00 ***** ***** -0.96 HRS
INVLAT 63.1 66.2 68.7 71.3 74.5 0.0 0.0 0.0 59.9 58.8 60.5 DEGS

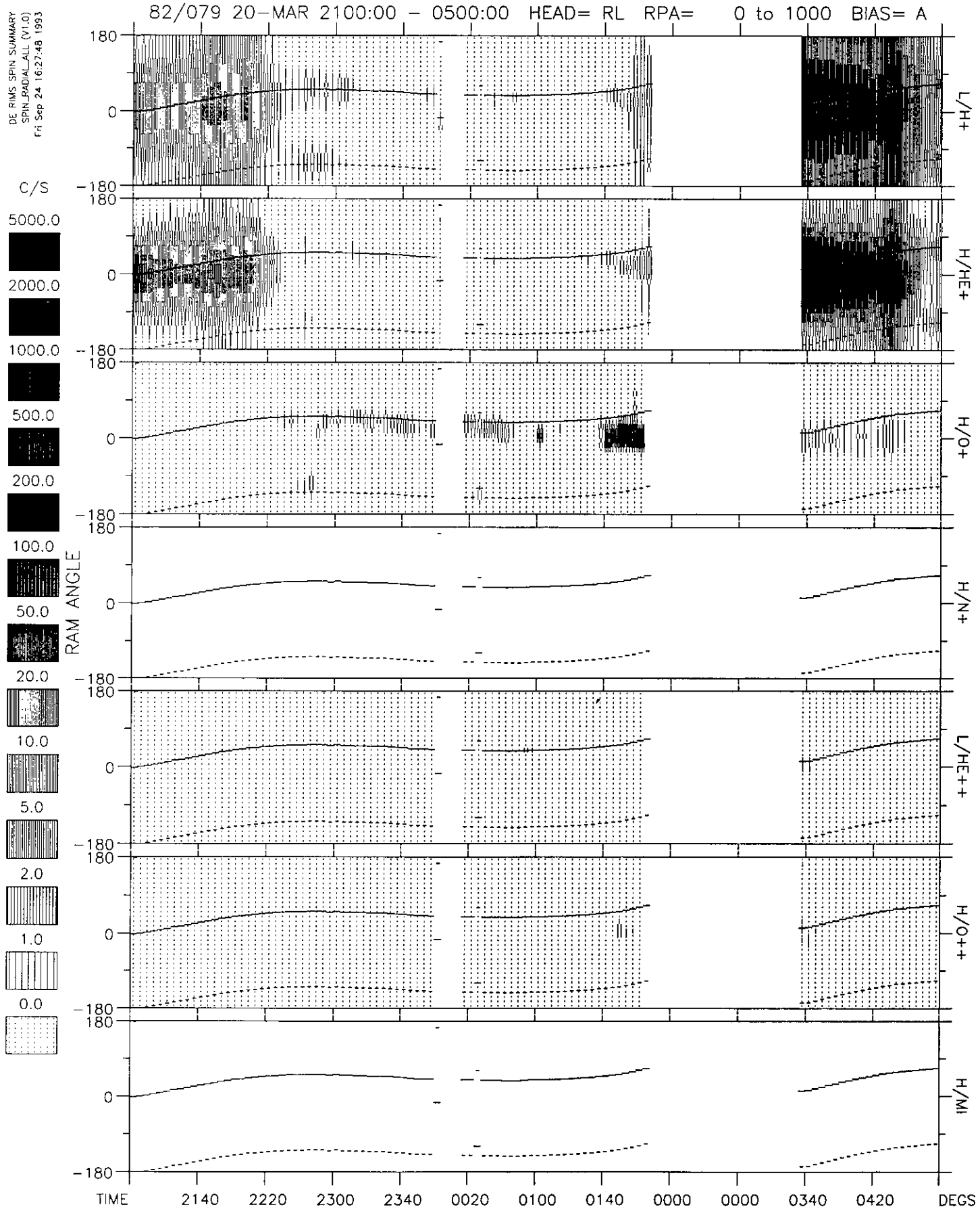

DE RIMS SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Fri Sep 24 16:15:38 1993
82/078 19-MAR 1030:00 - 1830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1110 1150 1230 1310 1350 1430 1510 1550 1630 0000 0000 DEGS
RE 3.8 4.4 4.6 4.6 4.4 3.9 3.0 1.8 1.3 0.0 0.0 HRMN
L 3.9 4.3 4.8 5.3 6.1 7.8 16.1 25.5 9.4 0.0 0.0 RE
MLT 22.9 22.7 22.6 22.6 22.6 22.6 22.7 10.5 11.4 0.0 0.0
MLAT -8.37 3.09 12.51 21.69 31.57 44.06 62.79 75.76 ***** 0.00 0.00 HRS
INVLAT 59.4 61.2 62.8 64.4 66.1 69.0 75.6 78.6 70.9 0.0 0.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 24 16:17:51 1993
82/078 19-MAR 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1810 1850 1930 2010 2050 2130 2210 0000 0000 0000 0050 DEGS
RE 4.0 4.5 4.7 4.6 4.3 3.7 2.8 0.0 0.0 0.0 3.8 HHMM
L 4.0 4.5 5.1 6.0 7.5 11.9 52.5 0.0 0.0 0.0 3.9 RE
MLT 22.8 22.9 23.1 23.3 23.5 0.1 2.6 0.0 0.0 0.0 22.8
MLAT -9.17 4.73 16.93 28.87 41.65 56.85 76.42 0.00 0.00 0.00 4.20 HRS
INVLAT 60.1 61.8 63.7 65.8 68.7 73.1 82.1 0.0 0.0 0.0 59.5 DEGS

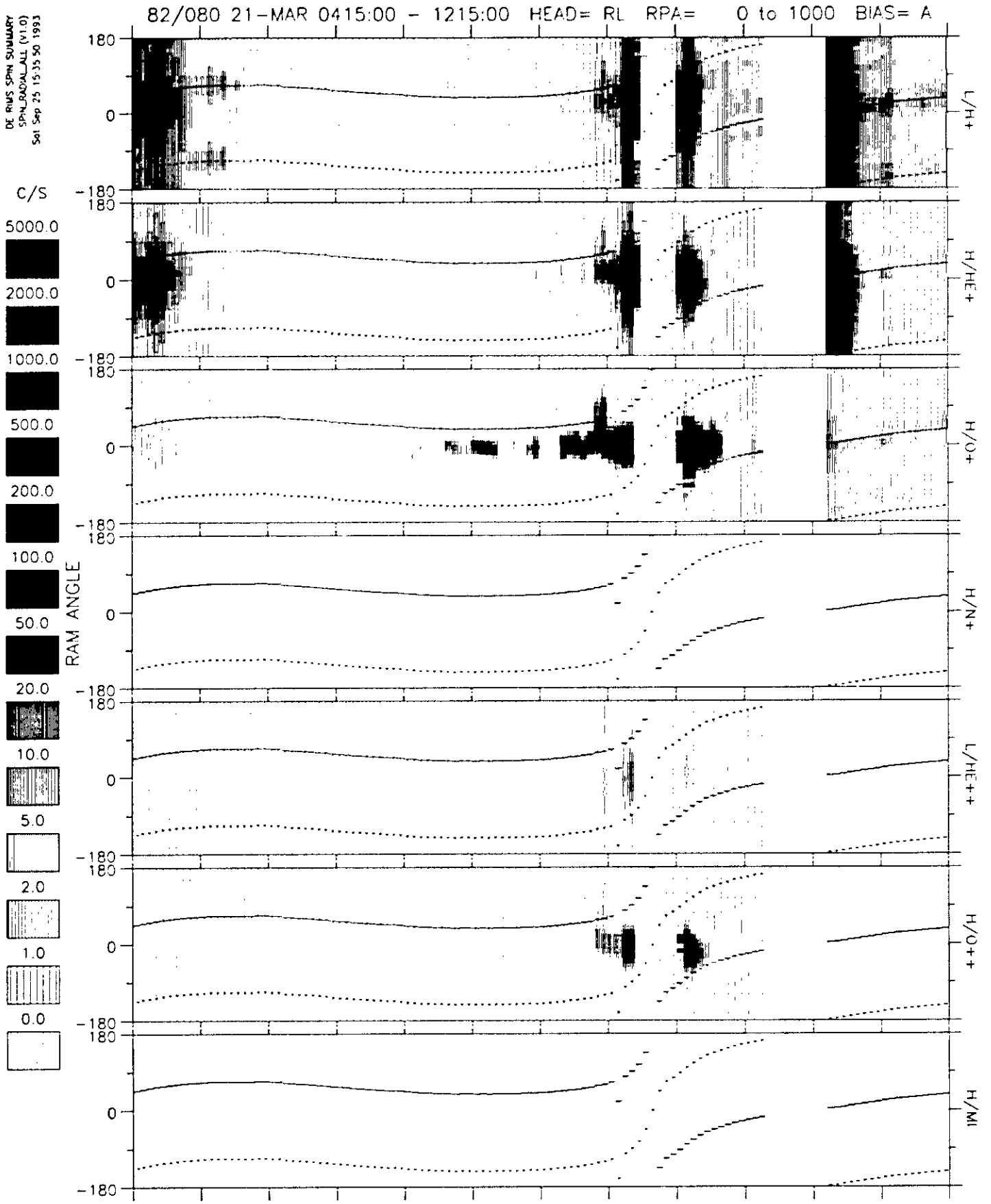

82/079 20-MAR 0015:00 - 0815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RNS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 24 16:19:54 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0055 0135 0215 0255 0335 0000 0455 0535 0000 0655 0000 DEGS
RE 3.9 4.4 4.6 4.6 4.4 0.0 2.9 1.7 0.0 2.7 0.0 HHMM
L 4.0 5.0 6.5 8.6 12.6 0.0 100.0 5.1 0.0 3.2 0.0 RE
MLT 22.8 22.9 22.9 22.9 22.7 0.0 19.1 11.3 0.0 23.1 0.0
MLAT 6.30 20.42 32.19 43.10 54.32 0.00 84.84 51.83 0.00 ***** 0.00 HRS
INVLAT 59.9 63.5 66.8 70.1 73.6 0.0 87.1 63.6 0.0 55.8 0.0 DEGS

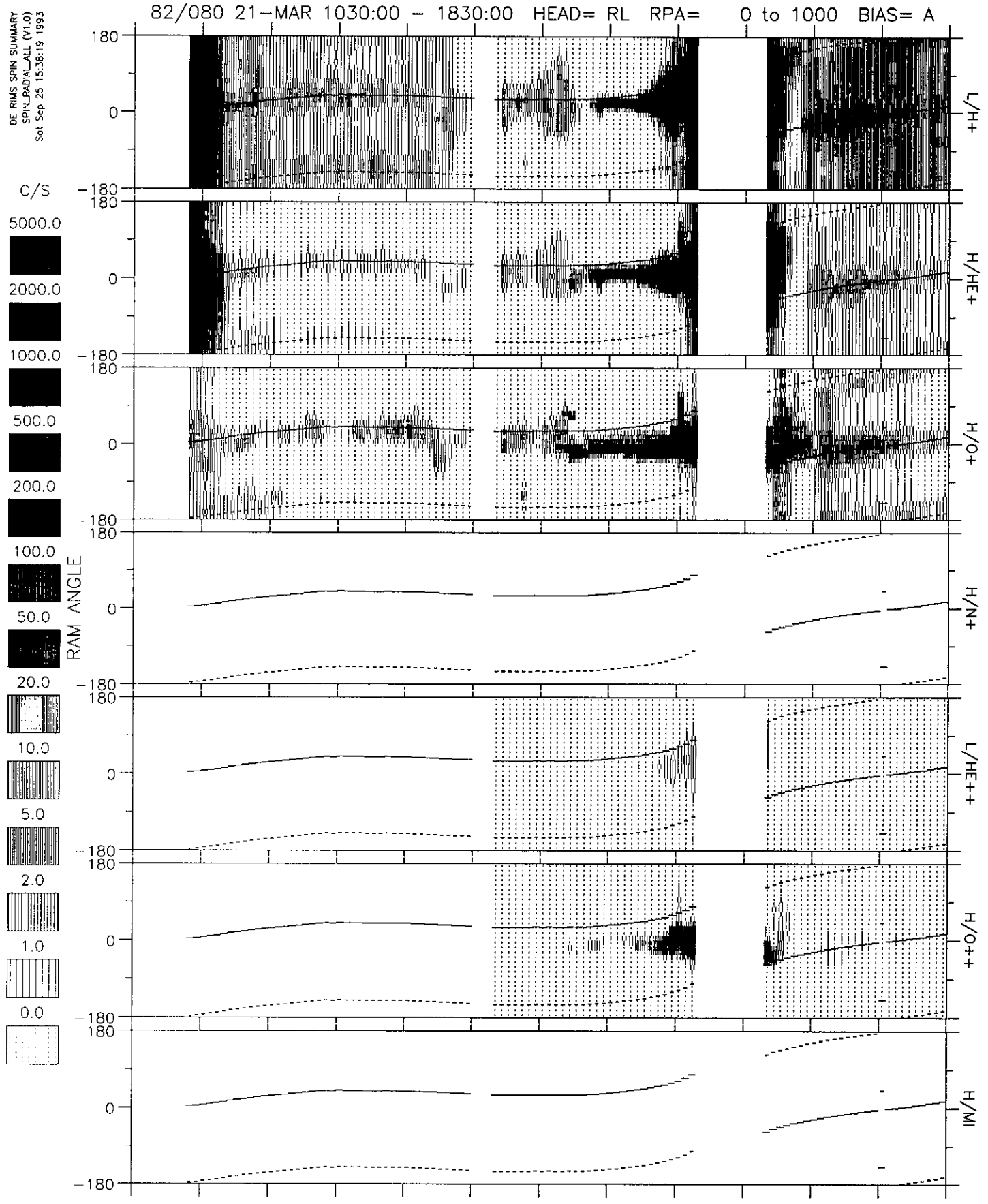

82/079 20-MAR 0700:00 - 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Sep 24 16:21:41 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0940 1020 1100 1140 1220 0000 1340 1420 DEGS
RE 0.0 0.0 0.0 4.6 4.4 3.9 3.1 1.8 0.0 2.6 3.6 HHMM
L 0.0 0.0 0.0 6.0 7.0 8.9 18.1 19.0 0.0 5.0 4.0 RE
MLT 0.0 0.0 0.0 22.4 22.2 21.9 21.3 12.8 0.0 23.0 22.8
MLAT 0.00 0.00 0.00 29.01 37.68 48.42 64.49 74.16 0.00 ***** ***** HRS
INVLAT 0.0 0.0 0.0 65.9 67.8 70.5 76.4 76.7 0.0 63.3 59.9 DEGS

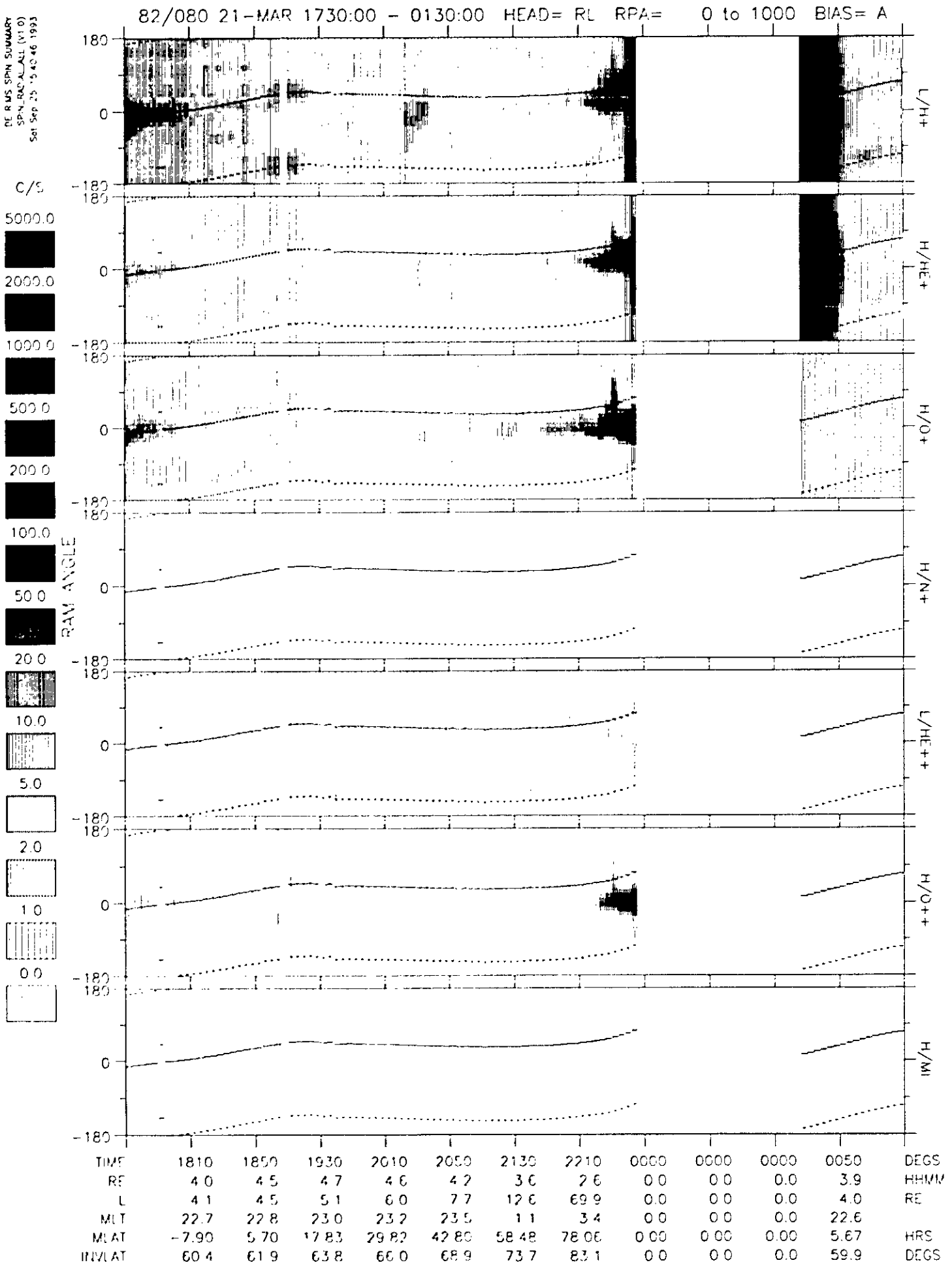

82/079 20-MAR 1400:00 - 2200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1440 1520 1600 1640 1720 1800 1840 1920 2000 0000 2120 DEGS
RE 3.9 4.4 4.7 4.6 4.3 3.7 2.8 1.5 1.5 0.0 3.7 HHMM
L 4.0 4.4 4.8 5.4 6.3 8.7 24.8 4.5 20.6 0.0 3.9 RE
MLT 22.8 22.7 22.8 22.9 23.0 23.4 0.4 9.9 19.2 0.0 22.7
MLAT ***** -0.11 10.83 21.63 33.47 48.01 69.10 54.69 ***** 0.00 -6.28 HRS
INVLAT 60.2 61.4 62.8 64.5 66.6 70.2 78.4 61.8 77.3 0.0 59.4 DEGS

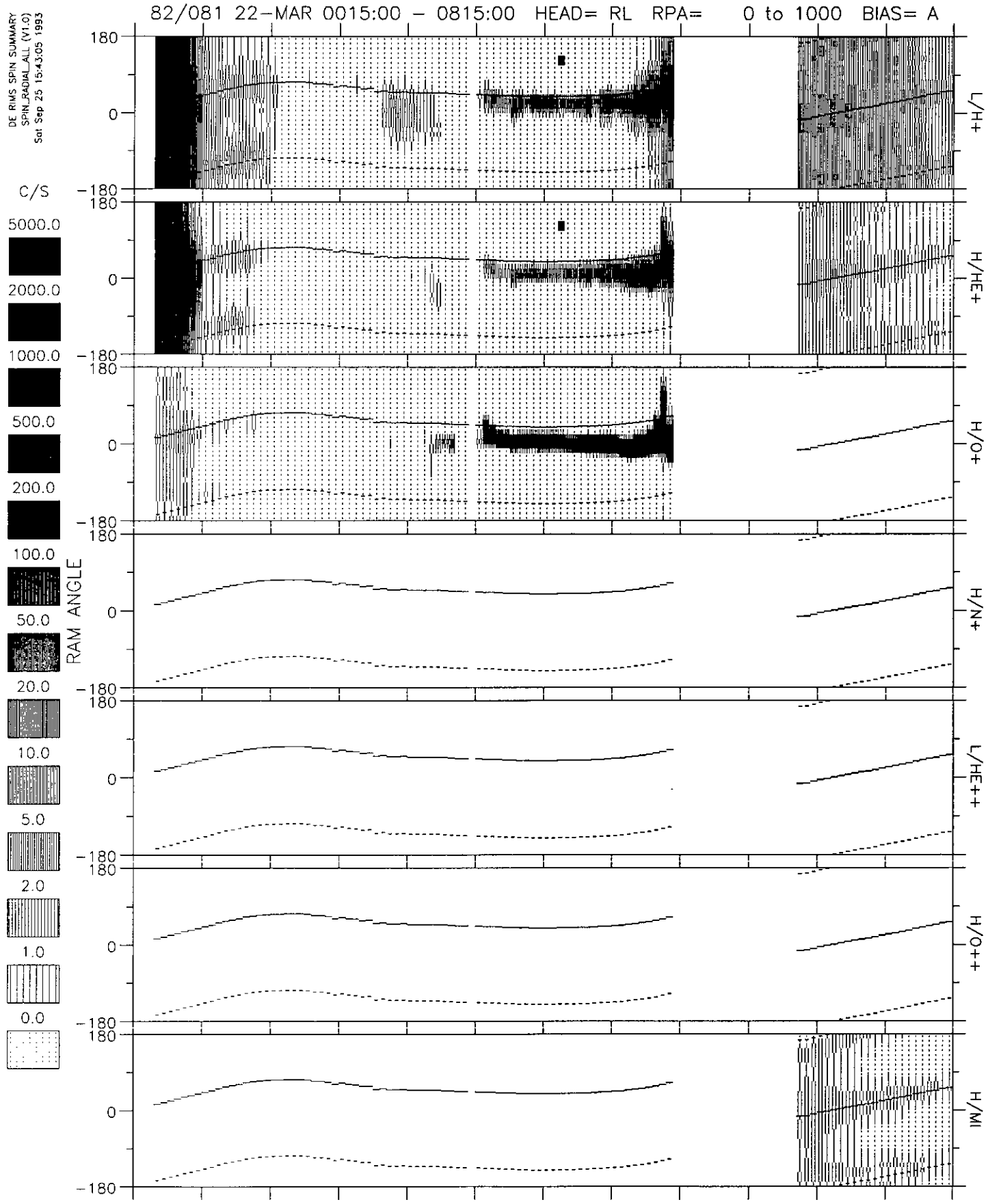


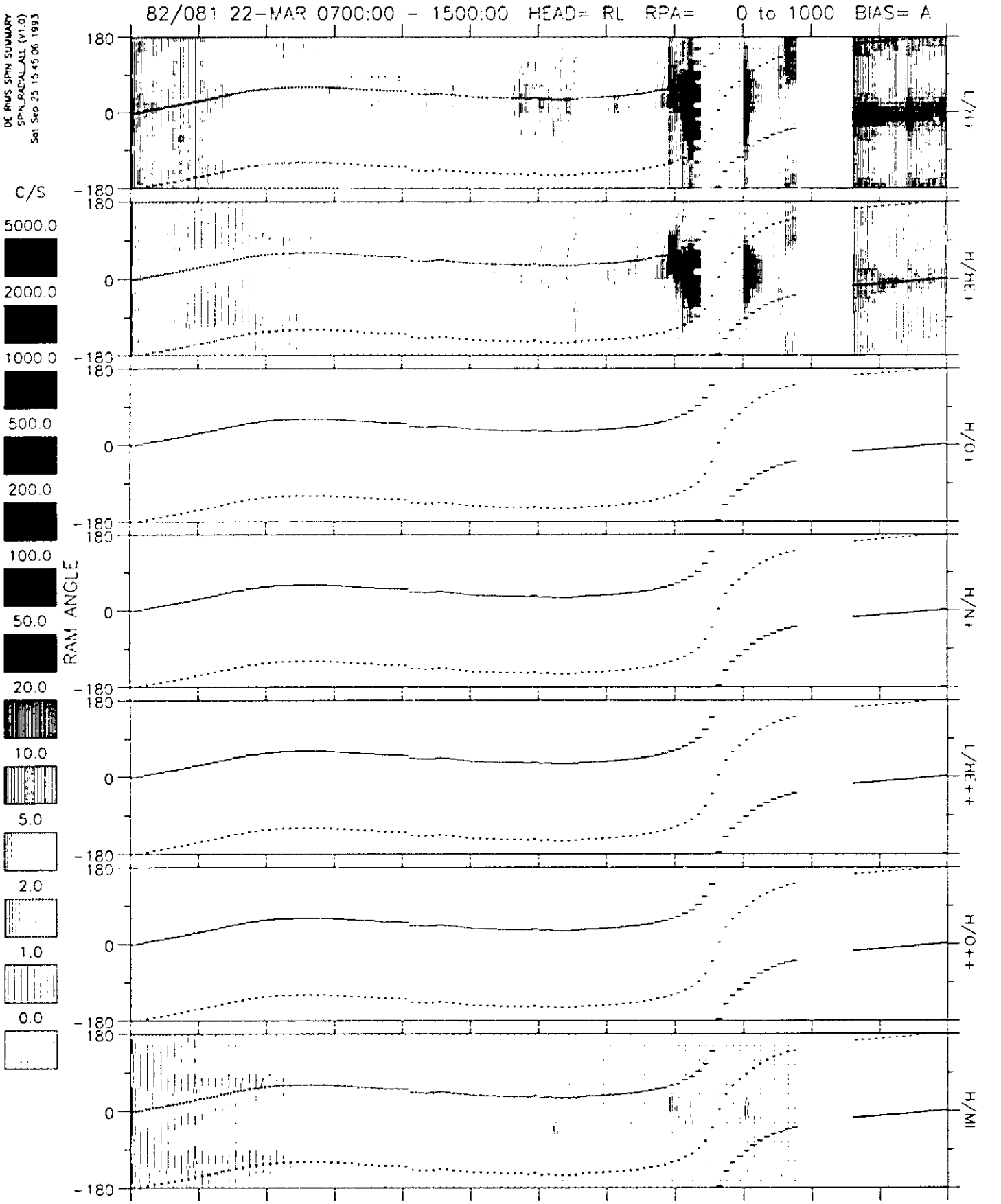
TIME	2140	2220	2300	2340	0020	0100	0140	0000	0000	0340	0420	DEGS
RE	4.1	4.5	4.7	4.6	4.2	3.6	2.6	0.0	0.0	3.1	3.9	HHMM
L	4.1	4.8	5.9	7.6	11.1	25.0	-0.0	0.0	0.0	3.2	4.1	RE
MLT	22.8	22.9	23.1	23.2	23.5	23.9	8.1	0.0	0.0	22.7	22.7	
MLAT	2.28	16.18	28.51	40.59	53.60	69.45	82.23	0.00	0.00	-9.31	8.87	HRS
INVLAT	60.5	63.0	65.7	68.7	72.6	78.4	-0.0	0.0	0.0	56.0	60.2	DEGS

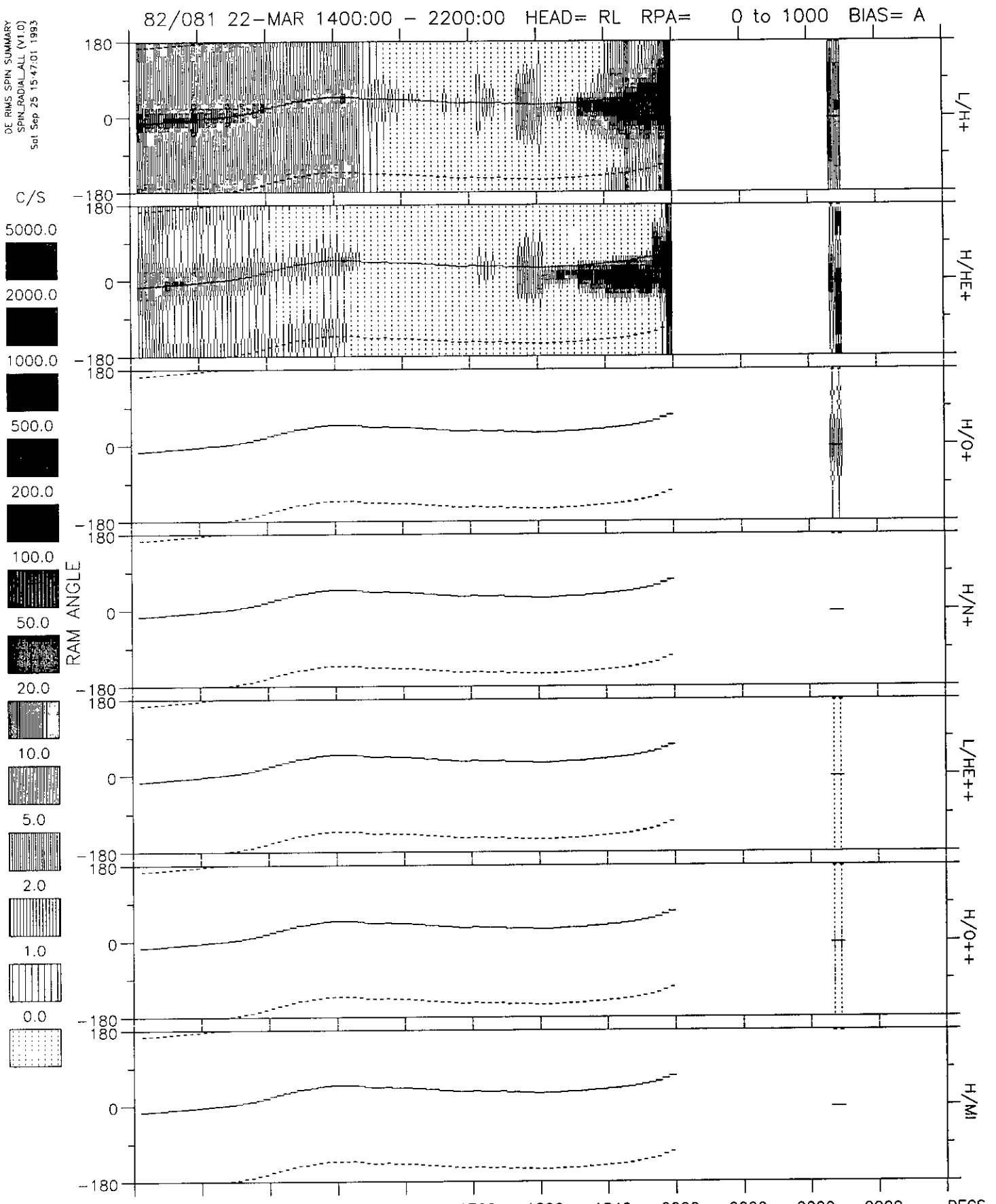

82/080 21-MAR 0415:00 - 1215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 15:35:50 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0455 0535 0615 0655 0735 0815 0855 0935 1015 0000 1135 DEGS
RE 4.4 4.6 4.6 4.4 3.9 3.0 1.7 1.3 2.6 0.0 4.3 HHMM
L 5.0 6.2 7.6 9.7 14.2 40.6 7.0 15.0 3.9 0.0 4.2 RE
MLT 22.6 22.5 22.4 22.1 21.6 20.1 12.2 6.9 23.2 0.0 22.7
MLAT 19.78 29.78 38.75 47.87 58.63 73.44 60.41 ***** ***** 0.00 -0.31 HRS
INVLAT 63.4 66.3 68.8 71.3 74.6 81.0 67.7 75.0 59.5 0.0 60.8 DEGS

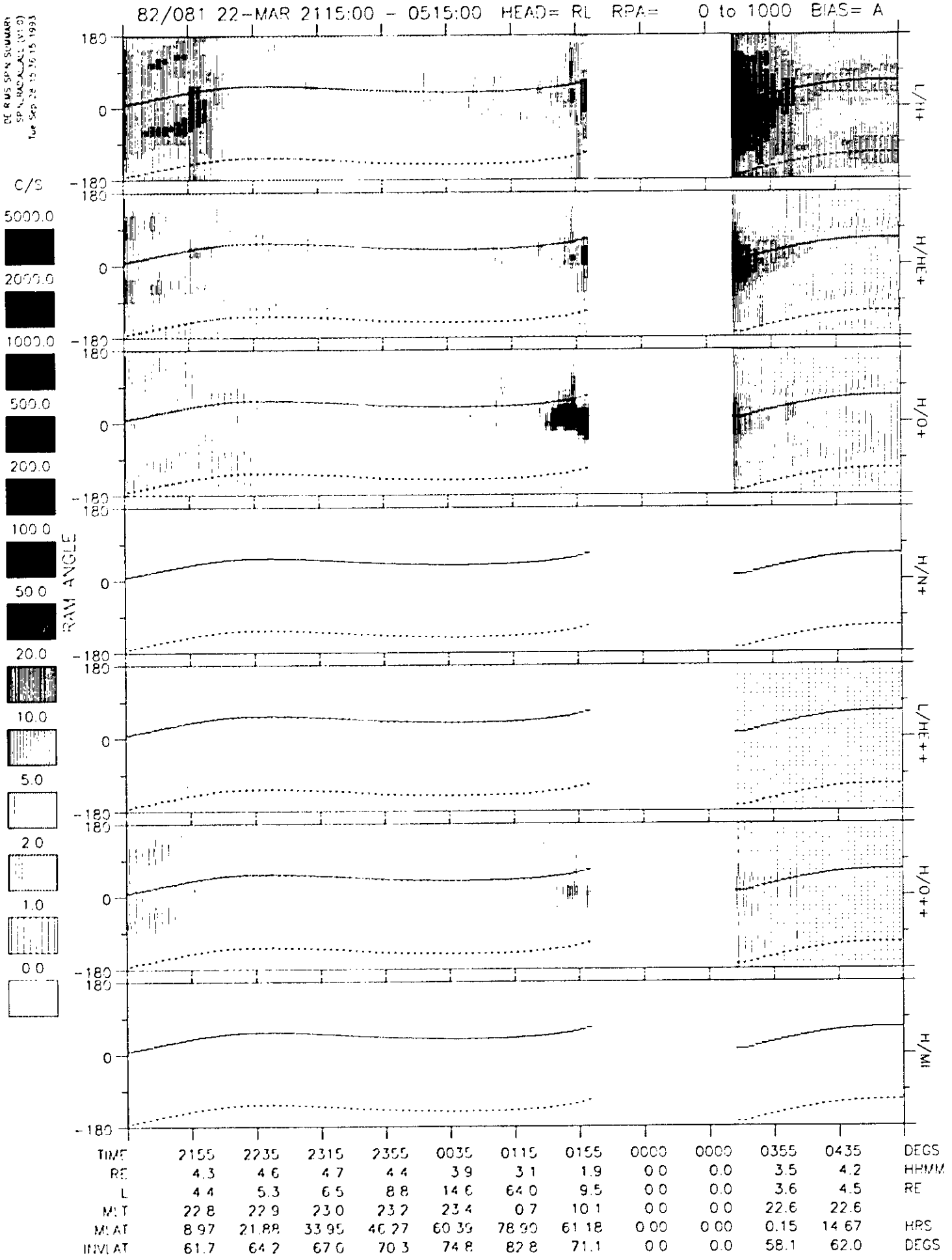

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 15:38:19 1993
82/080 21-MAR 1030:00 - 1830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1110 1150 1230 1310 0000 1430 1510 1550 0000 1710 1750 DEGS
RE 3.9 4.4 4.6 4.6 0.0 3.8 2.9 1.6 0.0 2.8 3.7 HHMM
L 3.9 4.4 4.8 5.4 0.0 7.9 18.7 9.9 0.0 4.5 4.0 RE
MLT 22.8 22.6 22.5 22.5 0.0 22.5 22.6 10.5 0.0 22.4 22.6
MLAT -7.59 3.50 12.83 21.97 0.00 45.17 65.23 66.71 0.00 ***** ***** HRS
INVLAT 59.7 61.4 62.9 64.4 0.0 69.2 76.6 71.4 0.0 61.7 59.8 DEGS

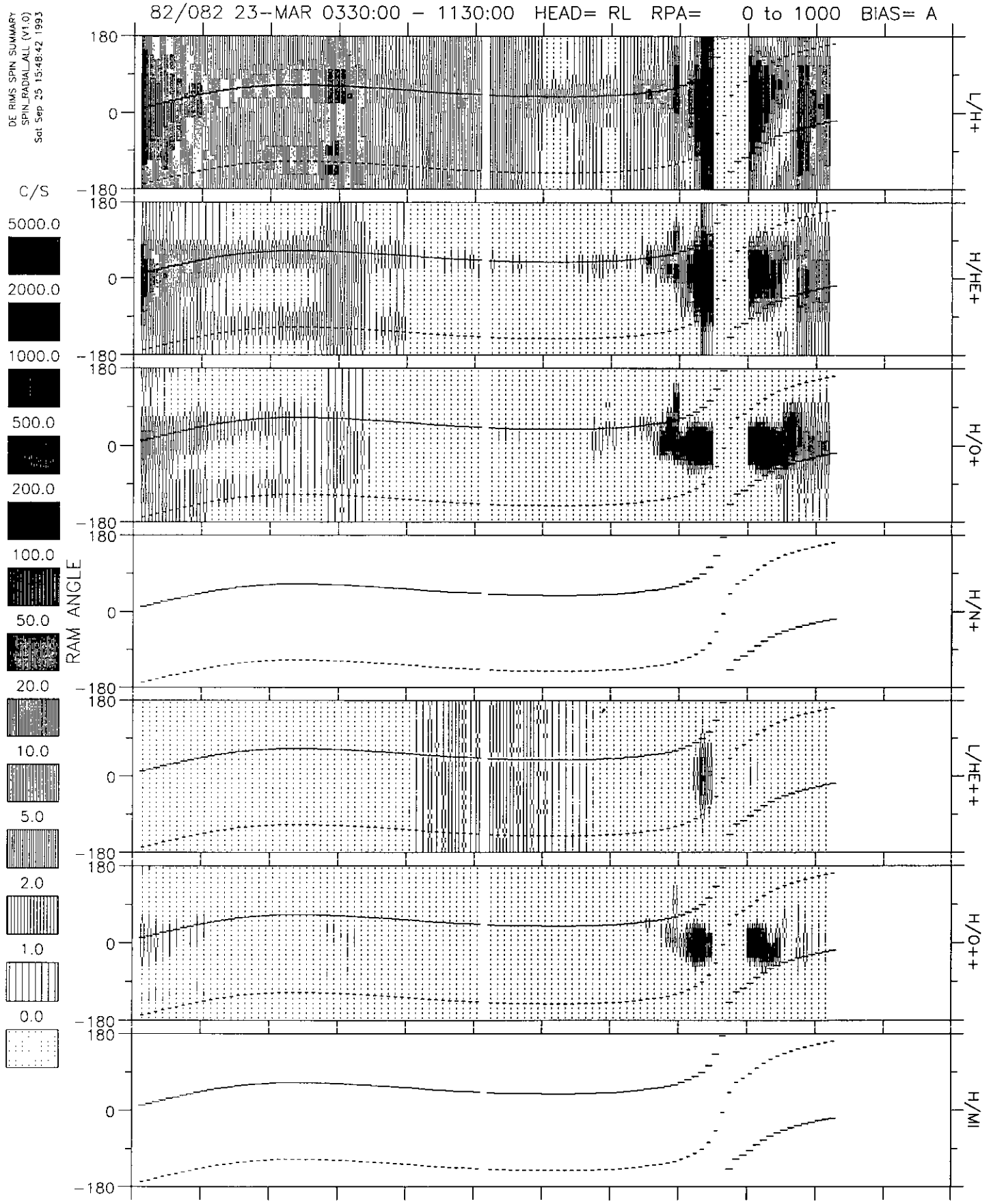

82/080 21-MAR 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAW ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1810 1850 1930 2010 2050 2130 2210 0000 0000 0000 0050 DEGS
RE 4.0 4.5 4.7 4.6 4.2 3.6 2.6 0.0 0.0 0.0 3.9 HHMM
L 4.1 4.5 5.1 6.0 7.7 12.6 69.9 0.0 0.0 0.0 4.0 RE
MLT 22.7 22.8 23.0 23.2 23.5 1.1 3.4 0.0 0.0 0.0 22.6
MLAT -7.90 5.70 17.83 29.82 42.80 58.48 78.06 0.00 0.00 0.00 5.67 HRS
INVLAT 60.4 61.9 63.8 66.0 68.9 73.7 83.1 0.0 0.0 0.0 59.9 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 15:43:05 1993
82/081 22-MAR 0015:00 - 0815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0055 0135 0215 0255 0335 0415 0455 0000 0000 0655 0735 DEGS
RE 4.0 4.4 4.7 4.6 4.3 3.7 2.8 0.0 0.0 2.9 3.8 HHMM
L 4.1 5.1 6.6 8.8 12.9 26.8 100.0 0.0 0.0 3.2 3.8 RE
MLT 22.7 22.7 22.8 22.7 22.6 22.2 17.1 0.0 0.0 22.9 22.7
MLAT 7.63 21.34 32.92 43.77 55.07 68.54 85.46 0.00 0.00 ***** -0.47 HRS
INVLAT 60.3 63.8 67.1 70.3 73.8 78.8 87.9 0.0 0.0 56.1 58.9 DEGS

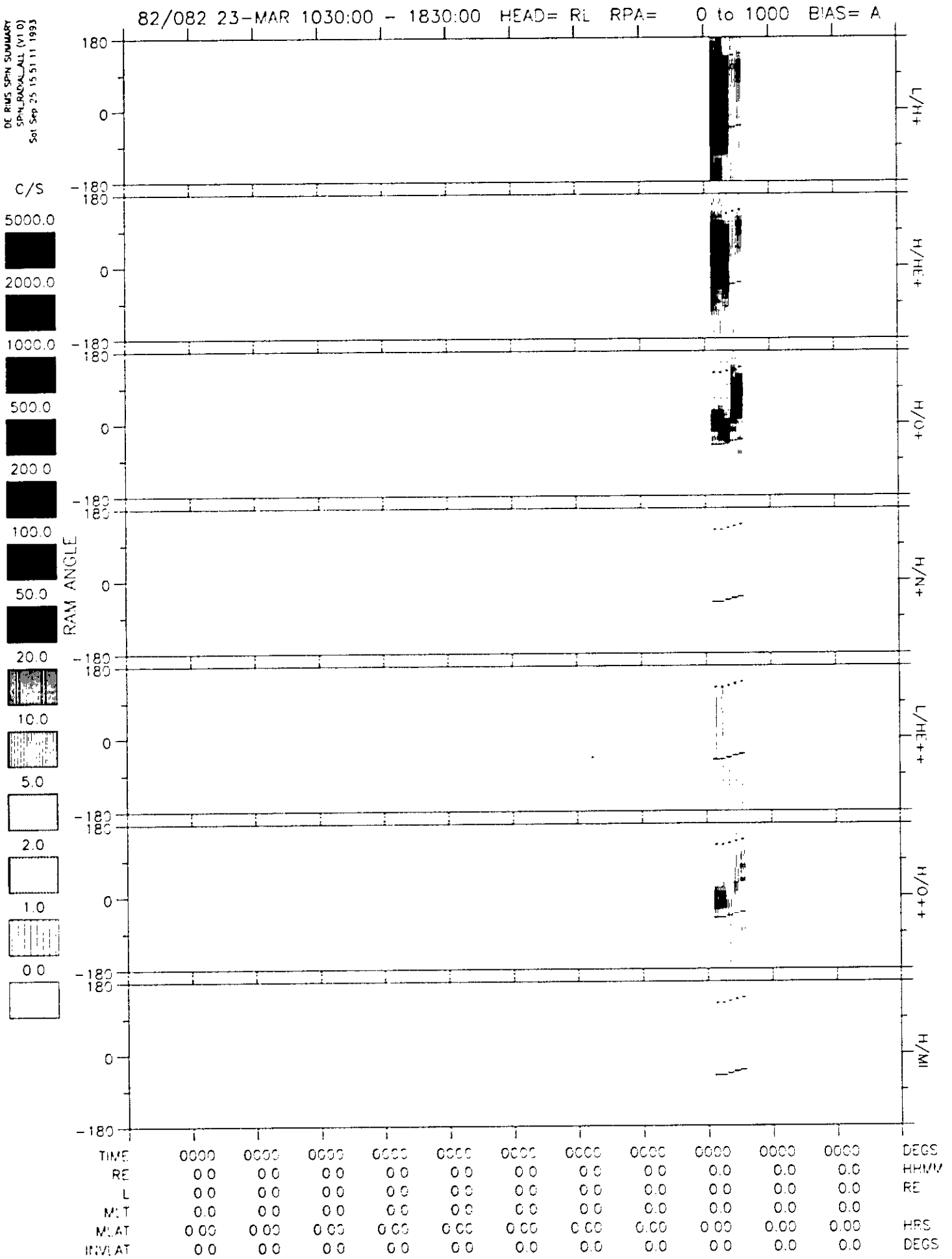

DE RMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 15:45:06 1993
82/081 22-MAR 0700:00 - 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE++
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0740 0820 0900 0940 1020 1100 1140 1220 1300 0000 1420 DEGS
RE 3.9 4.4 4.6 4.6 4.4 3.8 2.9 1.7 1.4 0.0 3.7 HHMM
L 3.8 4.5 5.3 6.0 7.0 9.1 20.5 8.8 20.2 0.0 4.0 RE
MLT 22.7 22.5 22.4 22.2 22.0 21.8 21.1 11.9 8.4 0.0 22.6
MLAT 1.23 12.27 21.04 29.21 38.06 49.21 66.41 67.26 ***** 0.00 ***** HRS
INVLAT 59.3 62.0 64.1 65.9 67.8 70.6 77.2 70.3 77.1 0.0 60.0 DEGS

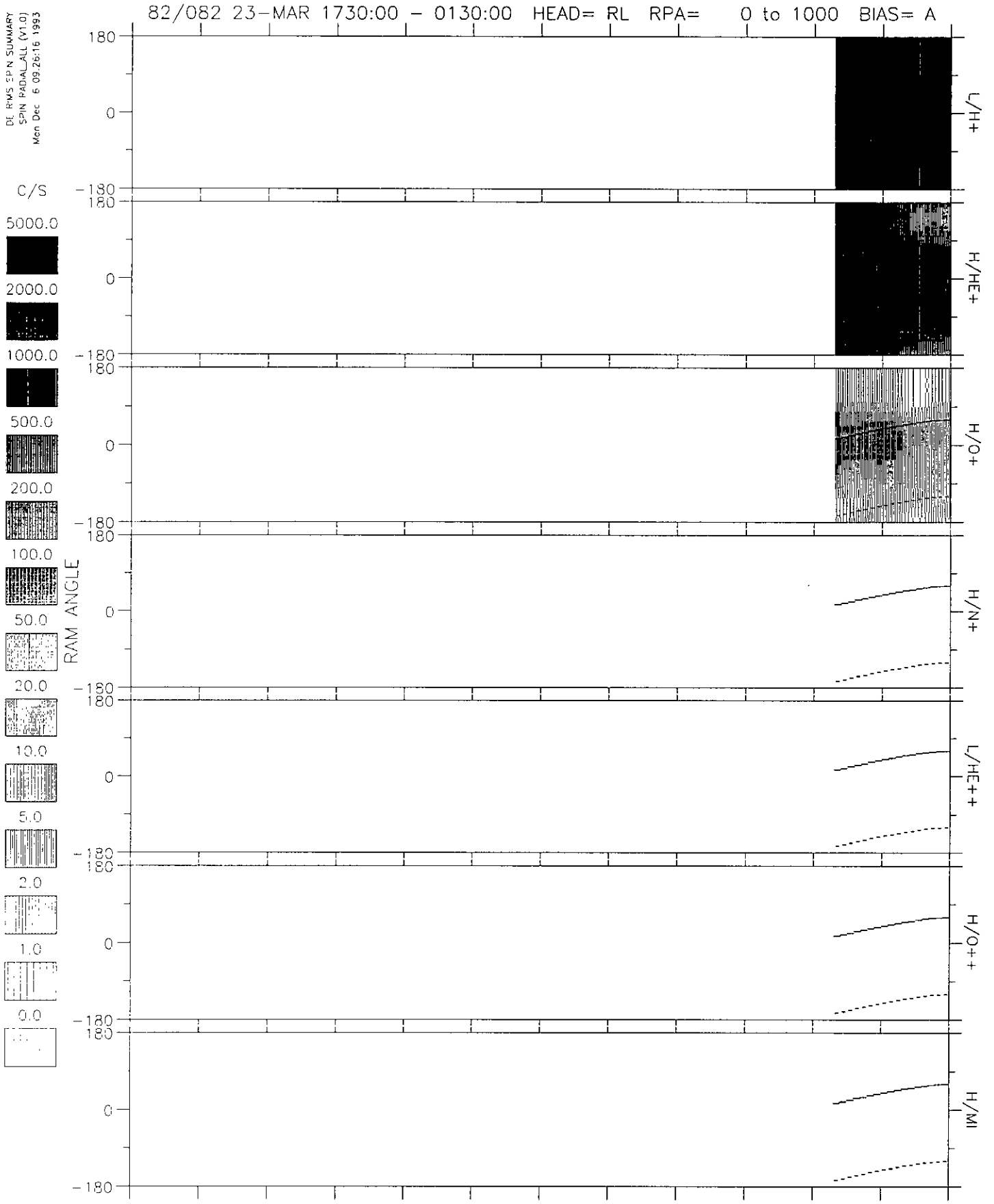

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 15:47:01 1993
82/081 22-MAR 1400:00 - 2200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1440 1520 1600 1640 1720 1800 1840 0000 0000 0000 0000 DEGS
RE 4.0 4.5 4.7 4.6 4.3 3.7 2.7 0.0 0.0 0.0 0.0 HHMM
L 4.1 4.4 4.8 5.4 6.4 9.0 31.8 0.0 0.0 0.0 0.0 RE
MLT 22.6 22.6 22.7 22.8 22.9 23.3 0.6 0.0 0.0 0.0 0.0
MLAT ***** 0.58 11.47 22.35 34.42 49.46 71.82 0.00 0.00 0.00 0.00 HRS
INVLAT 60.4 61.6 63.0 64.5 66.7 70.5 79.8 0.0 0.0 0.0 0.0 DEGS

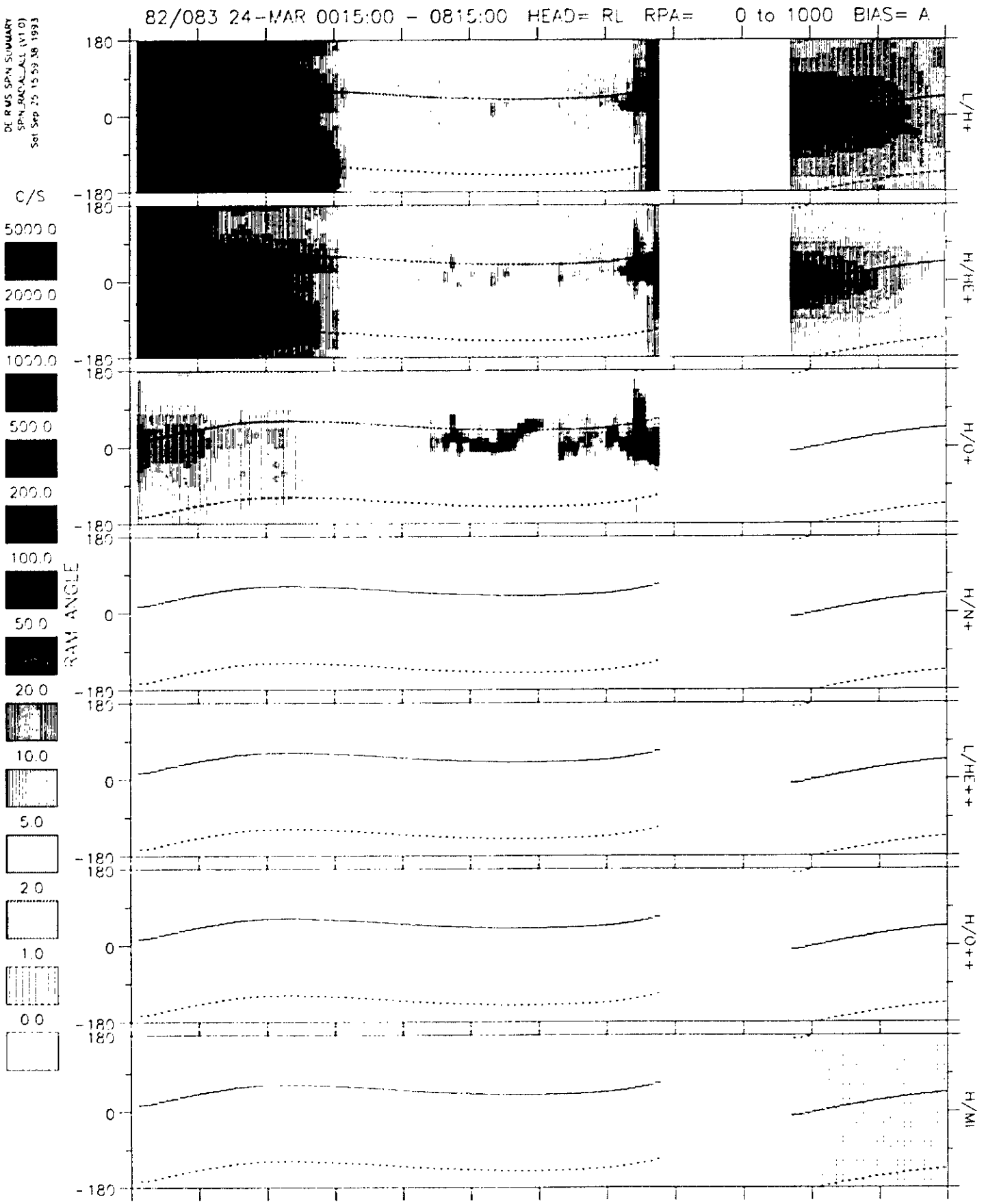

82/081 22-MAR 2115:00 - 0515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 2155 2235 2315 2355 0035 0115 0155 0000 0000 0355 0435 DEGS
RE 4.3 4.6 4.7 4.4 3.9 3.1 1.9 0.0 0.0 3.5 4.2 HHMM
L 4.4 5.3 6.5 8.8 14.6 64.0 9.5 0.0 0.0 3.6 4.5 RE
MLT 22.8 22.9 23.0 23.2 23.4 0.7 10.1 0.0 0.0 22.6 22.6
MLAT 8.97 21.88 33.95 46.27 60.39 78.90 61.18 0.00 0.00 0.15 14.67 HRS
INVLAT 61.7 64.2 67.0 70.3 74.8 82.8 71.1 0.0 0.0 58.1 62.0 DEGS

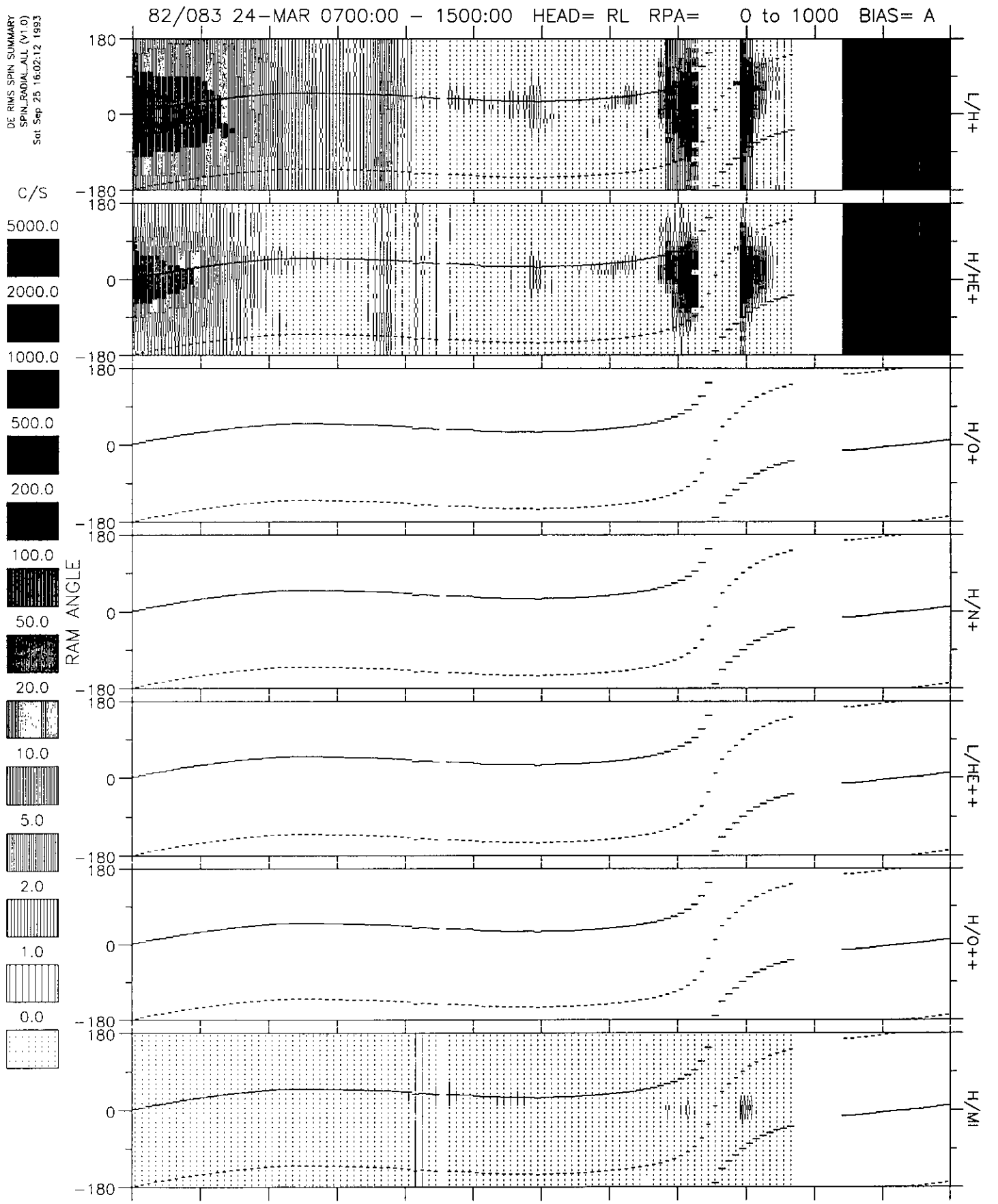


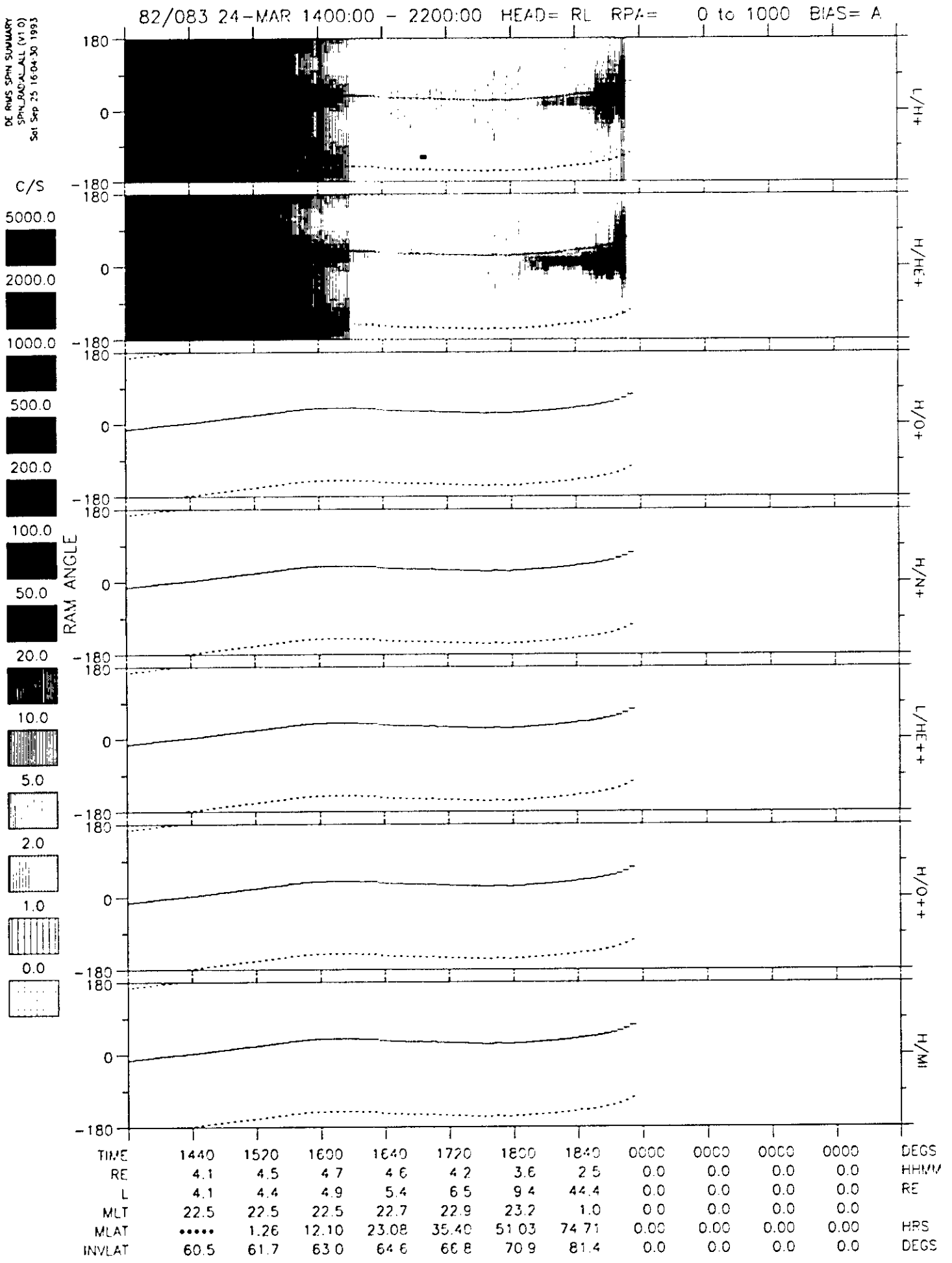
TIME	0410	0450	0530	0610	0650	0730	0810	0850	0930	1010	0000	DEGS
RE	3.8	4.4	4.6	4.6	4.4	3.9	3.0	1.7	1.3	2.6	0.0	HHMM
L	3.9	4.9	6.1	7.5	9.3	13.6	37.0	7.5	13.7	4.0	0.0	RE
MLT	22.6	22.5	22.4	22.2	22.0	21.5	20.1	12.1	7.1	23.1	0.0	
MLAT	6.30	19.01	29.00	37.94	46.53	57.79	72.70	61.46	*****	*****	0.00	HRS
INVLAT	59.7	63.2	66.1	68.5	70.8	74.3	80.5	68.5	74.3	59.8	0.0	DEGS

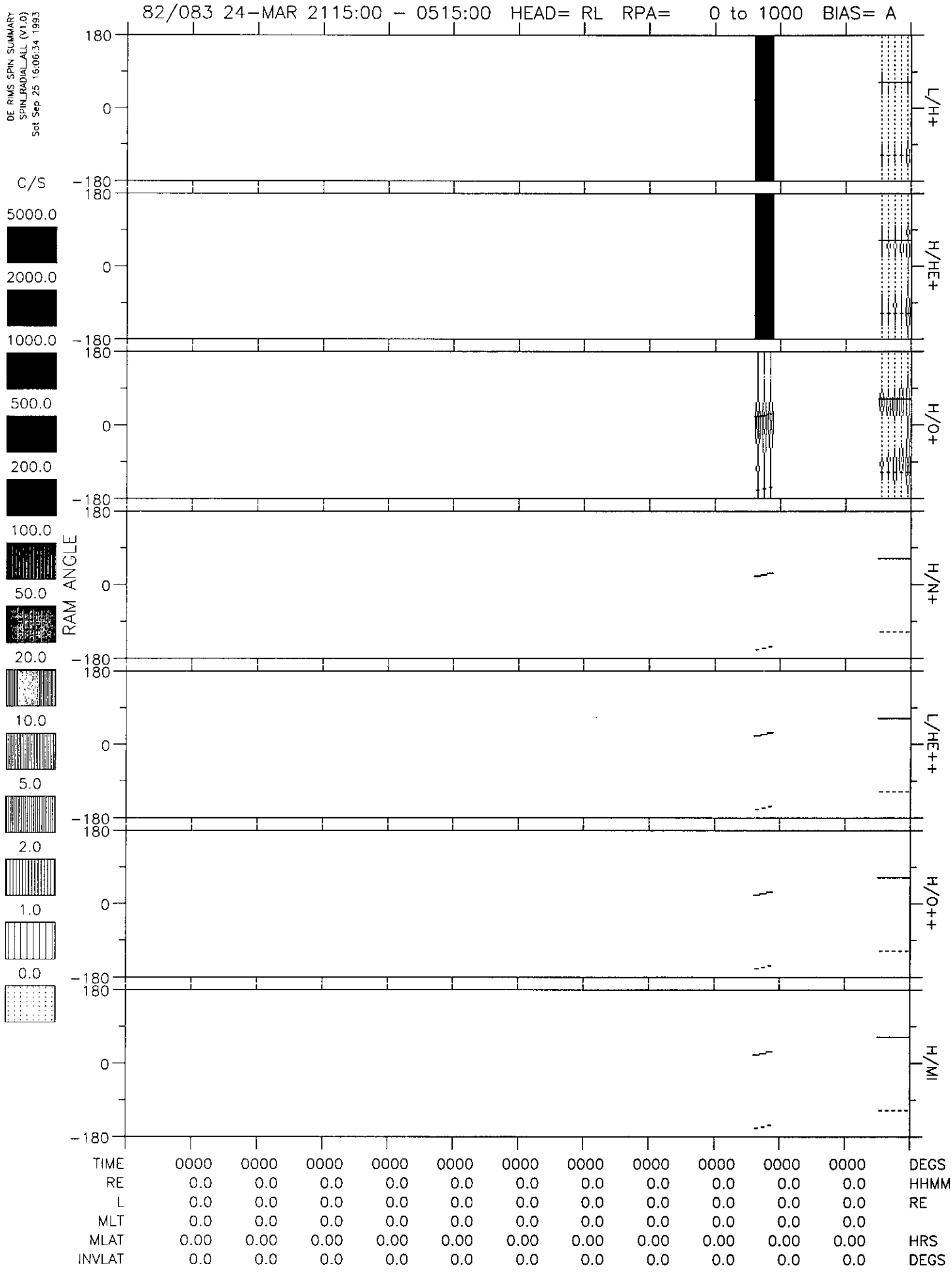

82/082 23-MAR 1030:00 - 1830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1 0)
Sat Sep 25 15 51 11 1993
C/S
5000.0
2000.0
1000.0
500.0
200 0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0 0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0.0 0.0 0.0 HHMM
L 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0.0 0 0 0.0 0.0 RE
MLT 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0.0 0.0 0.0
MLAT 0 00 0 00 0 00 0 00 0 00 0 00 0 00 0.00 0 00 0.00 0.00 HRS
INVLAT 0 0 0 0 0 0 0 0 0 0 0.0 0.0 0.0 0 0 0.0 0.0 DEGS

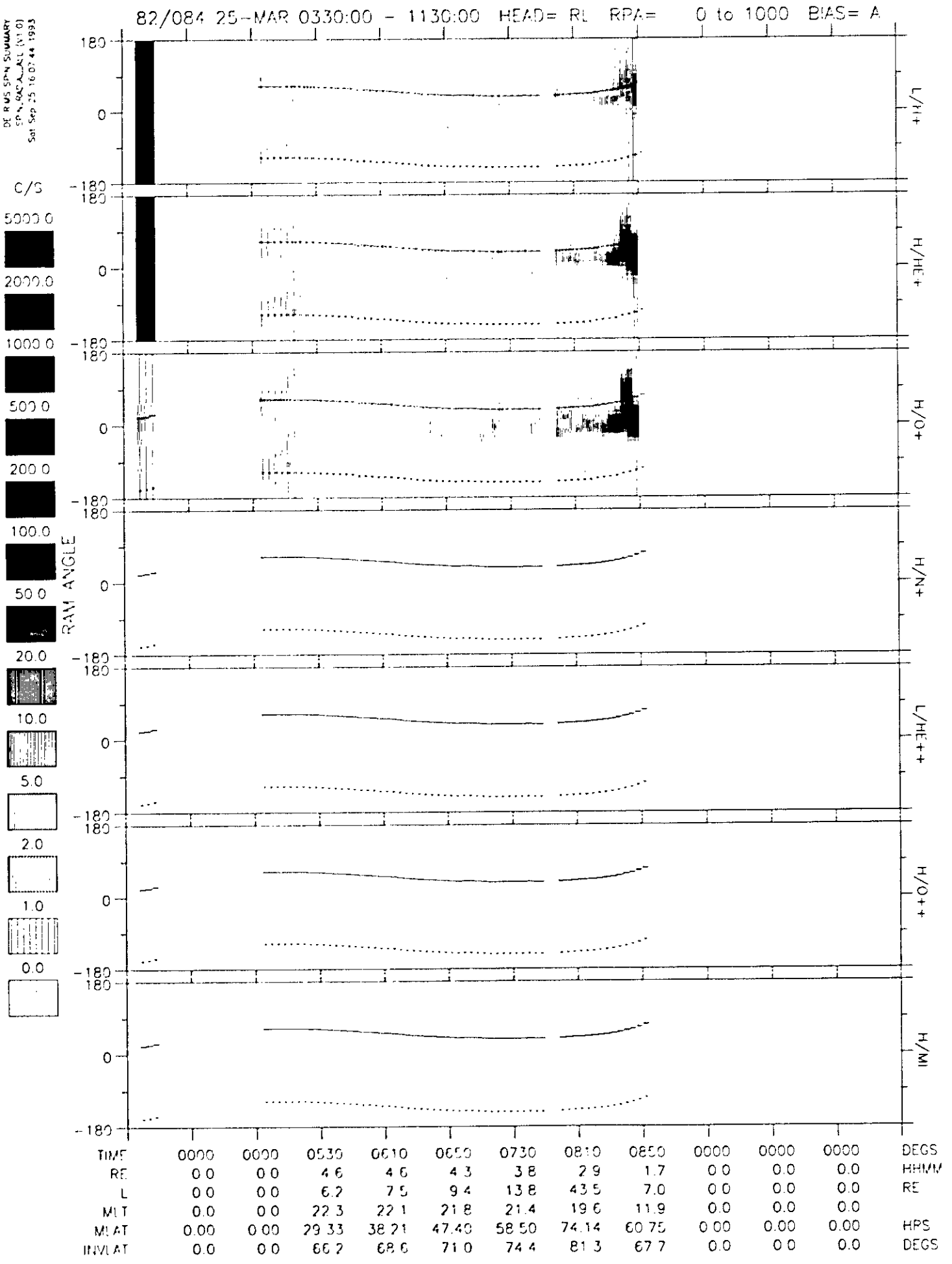

DE RMS SPIN SUMMARY
SPIN RADIAL_ALL (V1.0)
Mon Dec 6 09:26:16 1993
82/082 23-MAR 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0050 HHMM
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.9 RE
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.1
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 22.5 HRS
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 6.99 DEGS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 60.3 DEGS

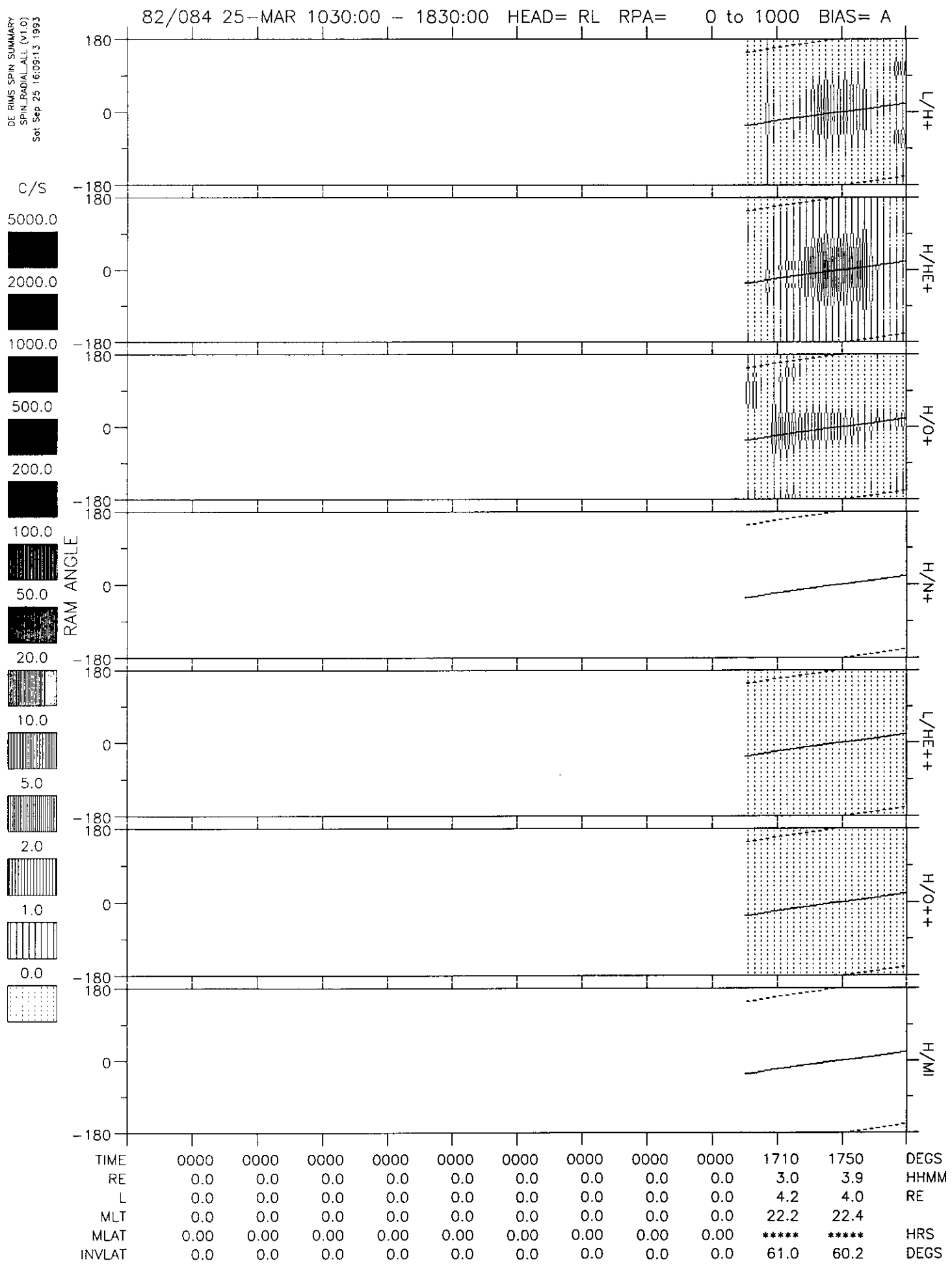

82/083 24-MAR 0015:00 - 0815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RUS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 15:59:38 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0055 0135 0215 0255 0335 0415 0455 0000 0000 0655 0735 DEGS
RE 4.0 4.5 4.7 4.6 4.3 3.6 2.6 0.0 0.0 3.0 3.9 HHMM
L 4.2 5.2 6.7 8.9 13.3 29.1 100.0 0.0 0.0 3.3 3.8 RE
MLT 22.6 22.6 22.6 22.6 22.4 22.0 14.9 0.0 0.0 22.8 22.6
MLAT 8.92 22.24 33.63 44.42 55.86 69.75 84.62 0.00 0.00 ***** 0.38 HRS
INVLAT 60.7 64.1 67.3 70.4 74.1 79.3 87.7 0.0 0.0 56.5 59.3 DEGS

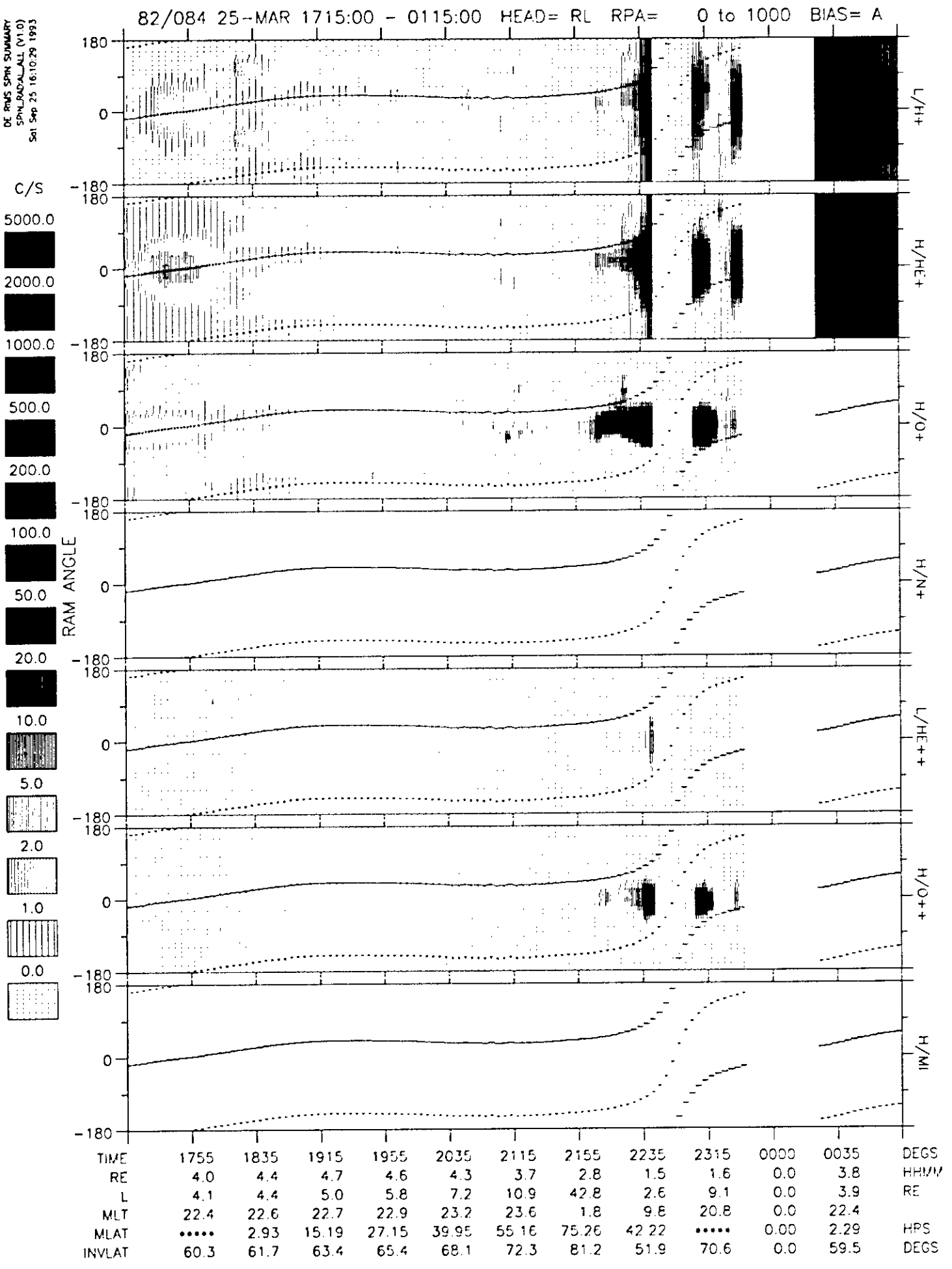

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 16:02:12 1993
82/083 24-MAR 0700:00 - 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0740 0820 0900 0940 1020 1100 1140 1220 1300 0000 1420 DEGS
RE 3.9 4.4 4.7 4.6 4.3 3.7 2.8 1.5 1.5 0.0 3.8 HHMM
L 3.9 4.6 5.3 6.0 7.0 9.2 24.2 4.4 100.0 0.0 4.0 RE
MLT 22.6 22.4 22.2 22.1 21.9 21.6 20.9 11.3 3.4 0.0 22.5
MLAT 1.96 12.61 21.24 29.43 38.43 50.09 68.59 57.92 ***** 0.00 ***** HRS
INVLAT 59.7 62.2 64.2 65.9 67.8 70.8 78.3 61.4 85.4 0.0 60.2 DEGS

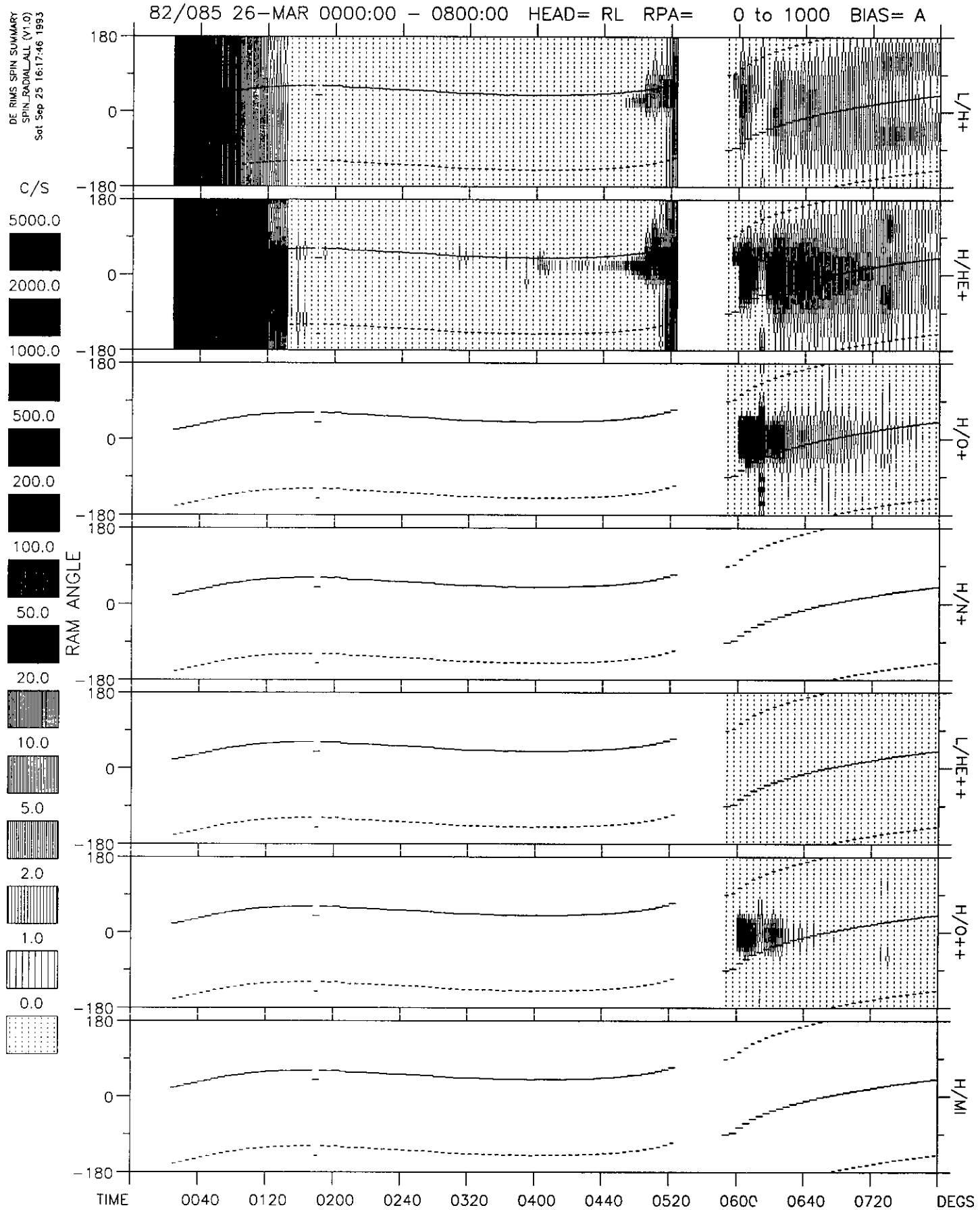

82/083 24-MAR 1400:00 - 2200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 16:04:30 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 1440 1520 1600 1640 1720 1800 1840 0000 0000 0000 0000 DEGS
RE 4.1 4.5 4.7 4.6 4.2 3.6 2.5 0.0 0.0 0.0 0.0 HHMM
L 4.1 4.4 4.9 5.4 6.5 9.4 44.4 0.0 0.0 0.0 0.0 RE
MLT 22.5 22.5 22.5 22.7 22.9 23.2 1.0 0.0 0.0 0.0 0.0
MLAT ••••• 1.26 12.10 23.08 35.40 51.03 74.71 0.00 0.00 0.00 0.00 HRS
INVLAT 60.5 61.7 63.0 64.6 66.8 70.9 81.4 0.0 0.0 0.0 0.0 DEGS

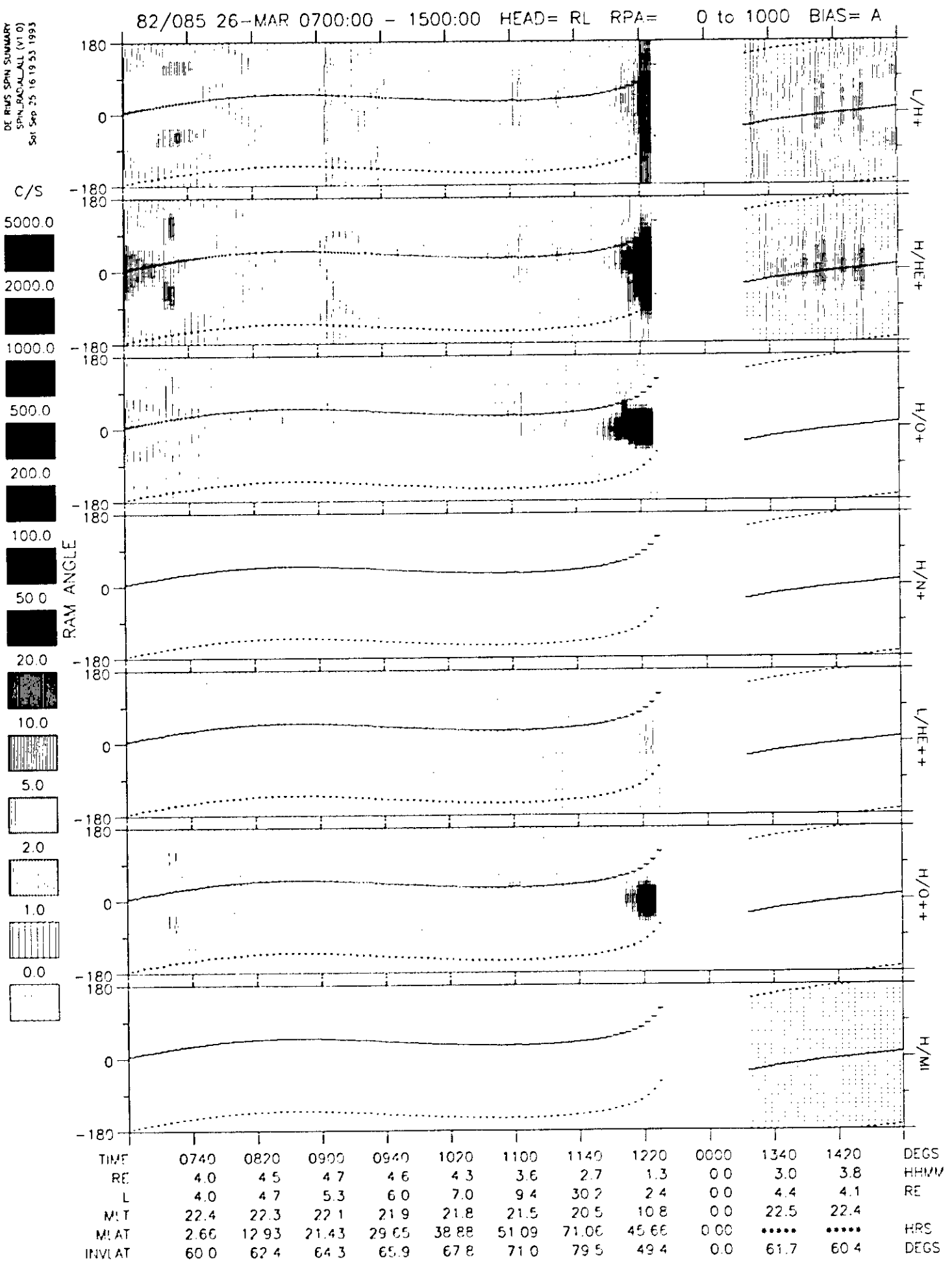

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 16:06:34 1993
82/083 24-MAR 2115:00 -- 0515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

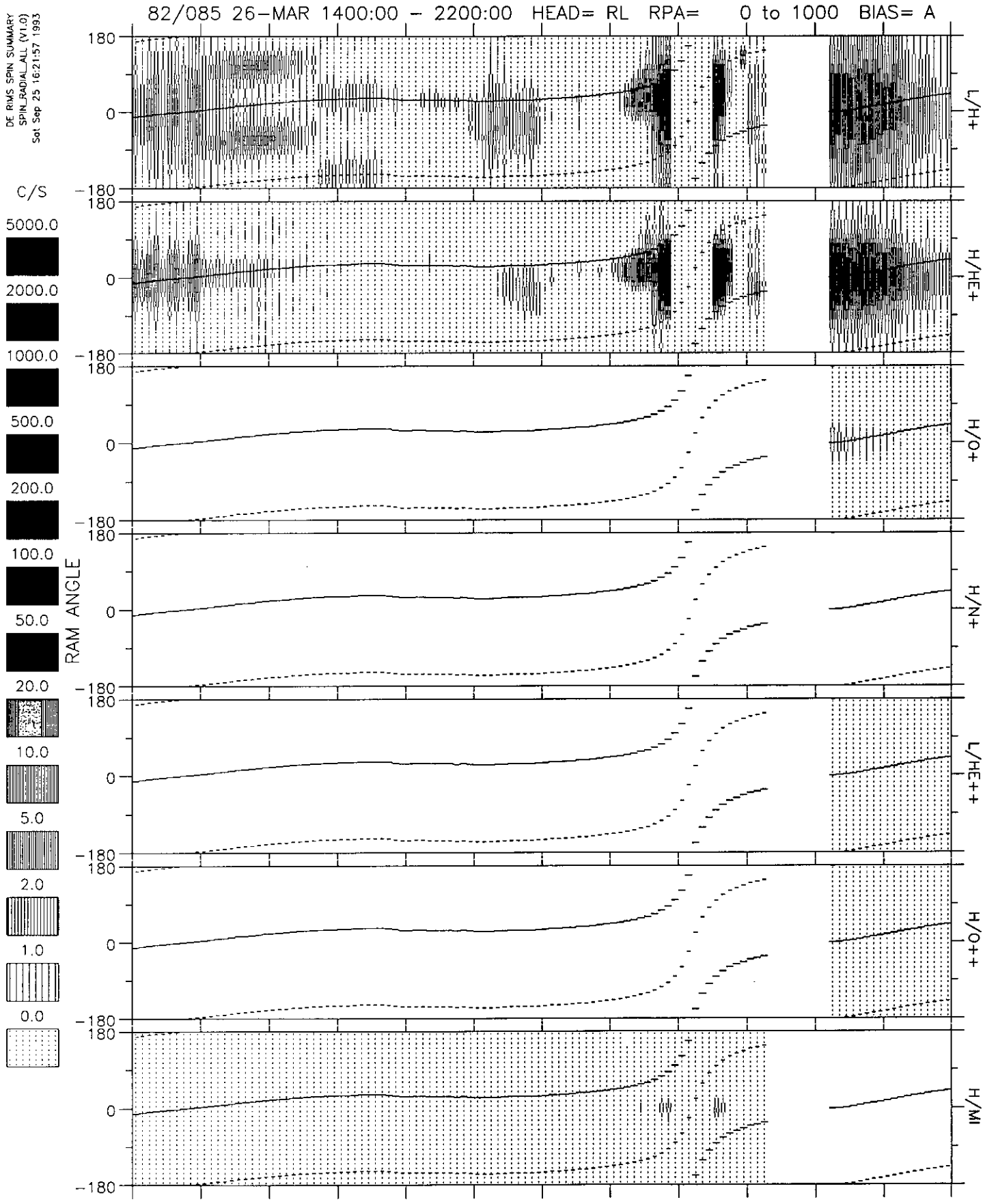

82/084 25-MAR 0330:00 - 1130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
Sat Sep 25 16:07:44 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0530 0610 0650 0730 0810 0850 0000 0000 0000 DEGS
RE 0.0 0.0 4.6 4.6 4.3 3.8 2.9 1.7 0.0 0.0 0.0 HHMM
L 0.0 0.0 6.2 7.5 9.4 13.8 43.5 7.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 22.3 22.1 21.8 21.4 19.6 11.9 0.0 0.0 0.0
MLAT 0.00 0.00 29.33 38.21 47.40 58.50 74.14 60.75 0.00 0.00 0.00 HPS
INVLAT 0.0 0.0 66.2 68.6 71.0 74.4 81.3 67.7 0.0 0.0 0.0 DEGS


82/084 25-MAR 1030:00 - 1830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 16:09:13 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 1710 1750 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.0 3.9 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.2 4.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 22.2 22.4
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ***** ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 61.0 60.2 DEGS

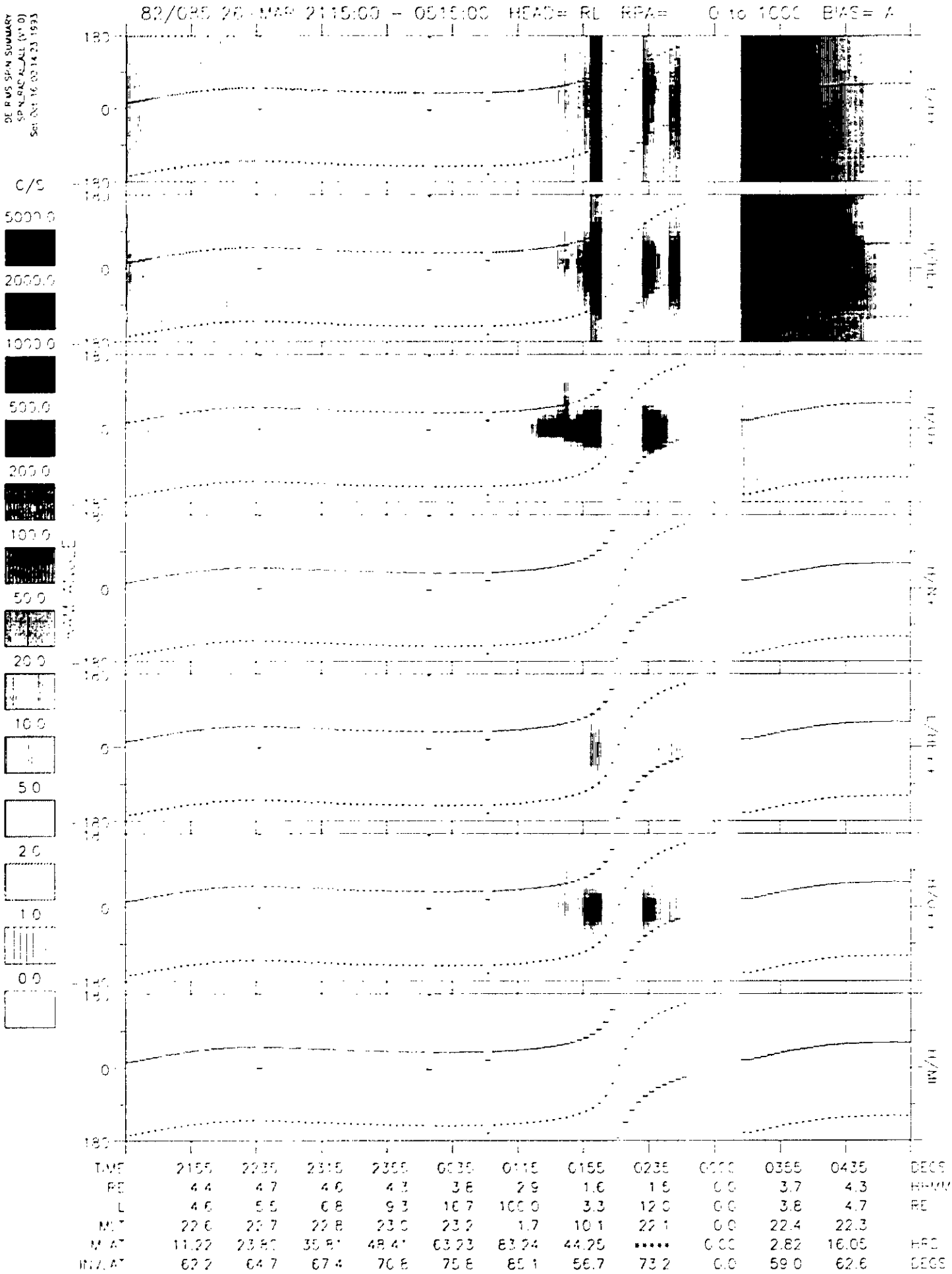

82/084 25-MAR 1715:00 - 0115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 16:10:29 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1755 1835 1915 1955 2035 2115 2155 2235 2315 0000 0035 DEGS
RE 4.0 4.4 4.7 4.6 4.3 3.7 2.8 1.5 1.6 0.0 3.8 HHMM
L 4.1 4.4 5.0 5.8 7.2 10.9 42.8 2.6 9.1 0.0 3.9 RE
MLT 22.4 22.6 22.7 22.9 23.2 23.6 1.8 9.8 20.8 0.0 22.4
MLAT ***** 2.93 15.19 27.15 39.95 55.16 75.26 42.22 ***** 0.00 2.29 HPS
INVLAT 60.3 61.7 63.4 65.4 68.1 72.3 81.2 51.9 70.6 0.0 59.5 DEGS

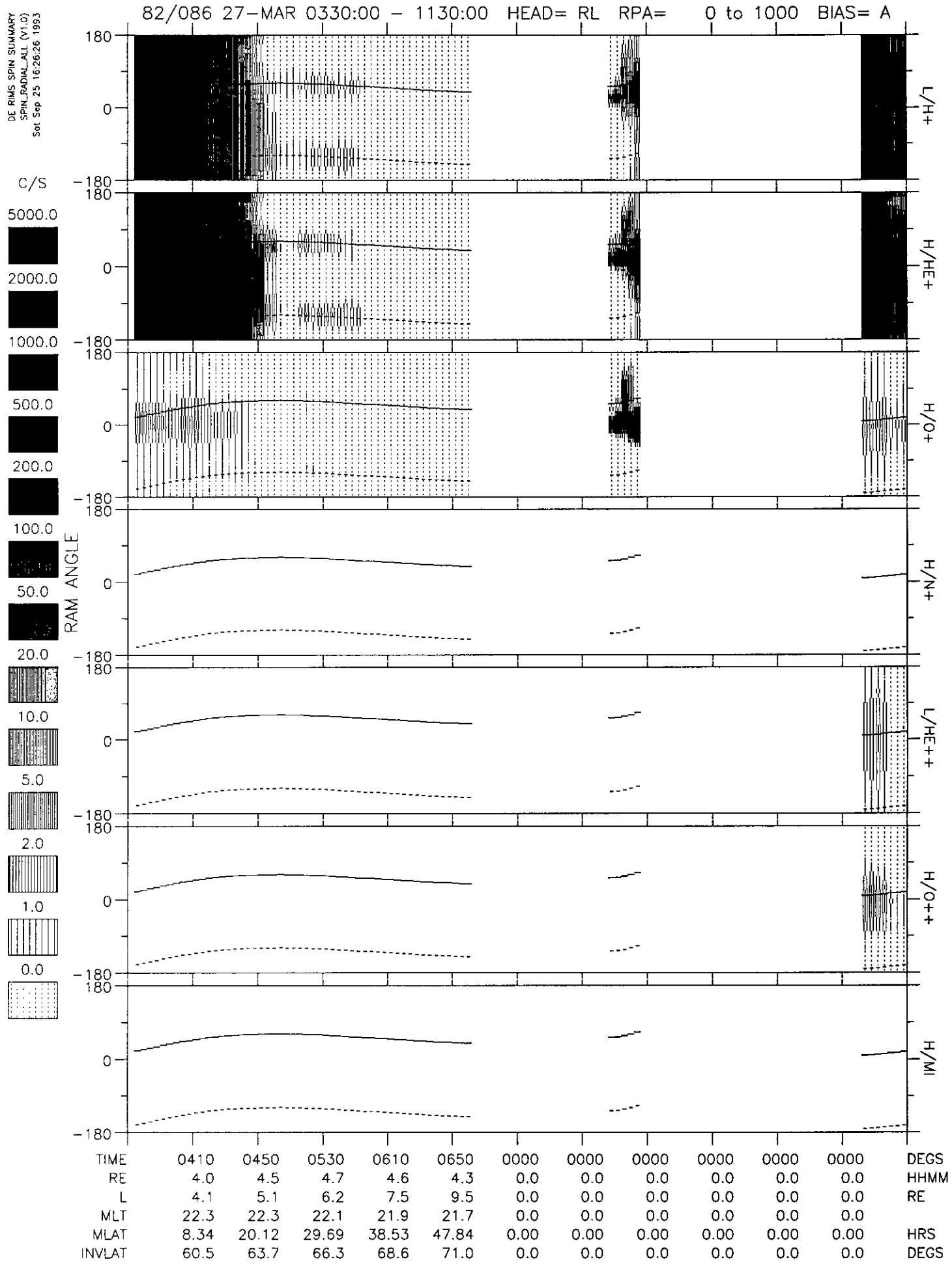

82/085 26-MAR 0000:00 - 0800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 16:17:46 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0040 0120 0200 0240 0320 0400 0440 0520 0600 0640 0720 DEGS
RE 3.9 4.4 4.6 4.6 4.4 3.8 2.9 1.7 1.4 2.7 3.7 HHMM
L 4.0 4.9 6.2 8.1 11.5 21.1 -0.0 -0.0 23.6 3.3 3.7 RE
MLT 22.4 22.5 22.5 22.5 22.3 22.0 19.8 11.0 1.6 22.8 22.5
MLAT 4.38 18.50 30.18 41.03 52.13 65.10 82.80 51.20 ***** ***** -3.94 HRS
INVLAT 59.9 63.3 66.4 69.5 72.9 77.4 -0.0 -0.0 78.1 56.4 58.6 DEGS

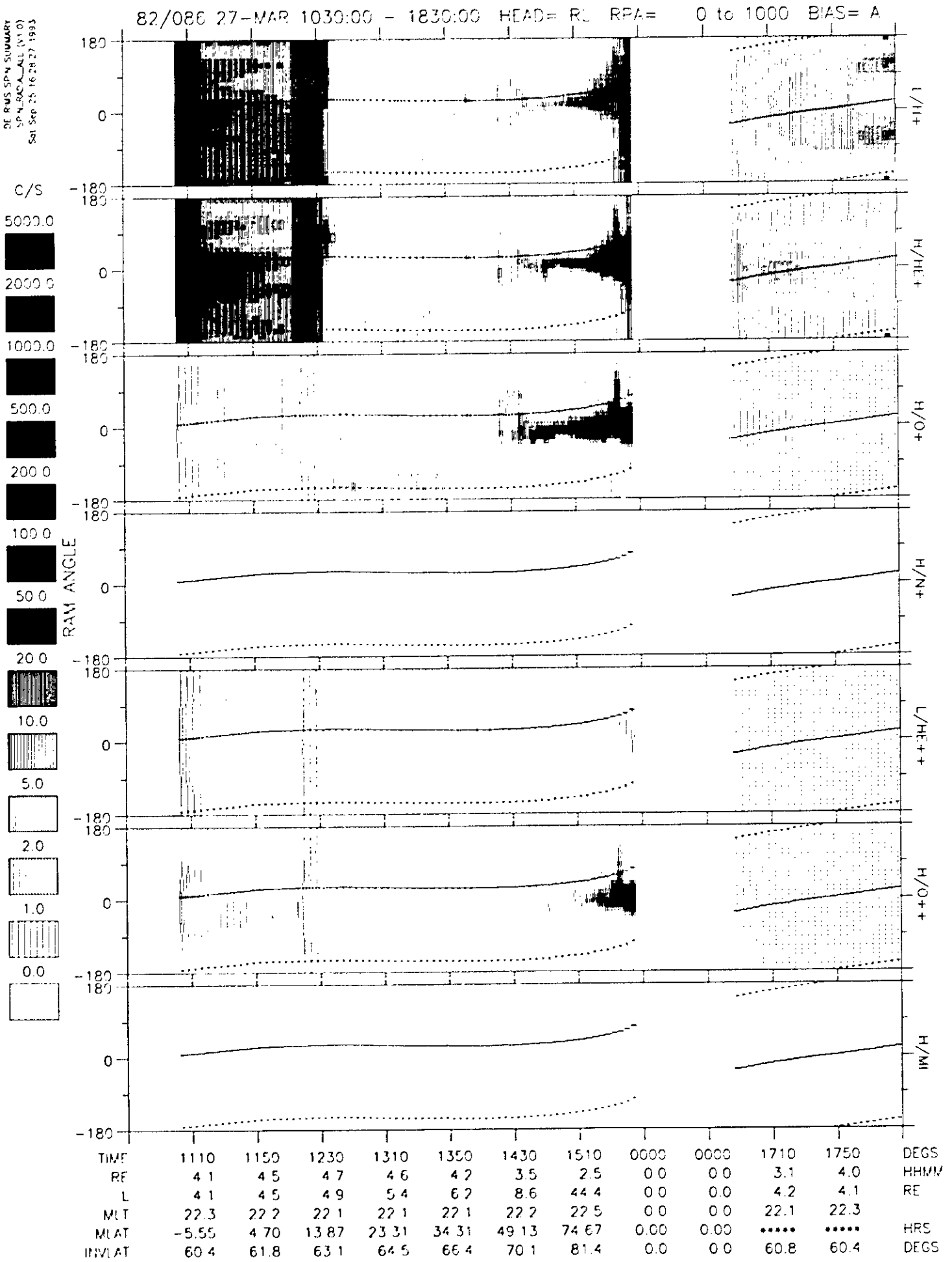

DE RMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 16:19:53 1993
82/085 26-MAR 0700:00 - 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0740 0820 0900 0940 1020 1100 1140 1220 0000 1340 1420 DEGS
RE 4.0 4.5 4.7 4.6 4.3 3.6 2.7 1.3 0.0 3.0 3.8 HHMM
L 4.0 4.7 5.3 6.0 7.0 9.4 30.2 2.4 0.0 4.4 4.1 RE
MLT 22.4 22.3 22.1 21.9 21.8 21.5 20.5 10.8 0.0 22.5 22.4
MLAT 2.66 12.93 21.43 29.65 38.88 51.09 71.06 45.66 0.00 ***** ***** HRS
INVLAT 60.0 62.4 64.3 65.9 67.8 71.0 79.5 49.4 0.0 61.7 60.4 DEGS

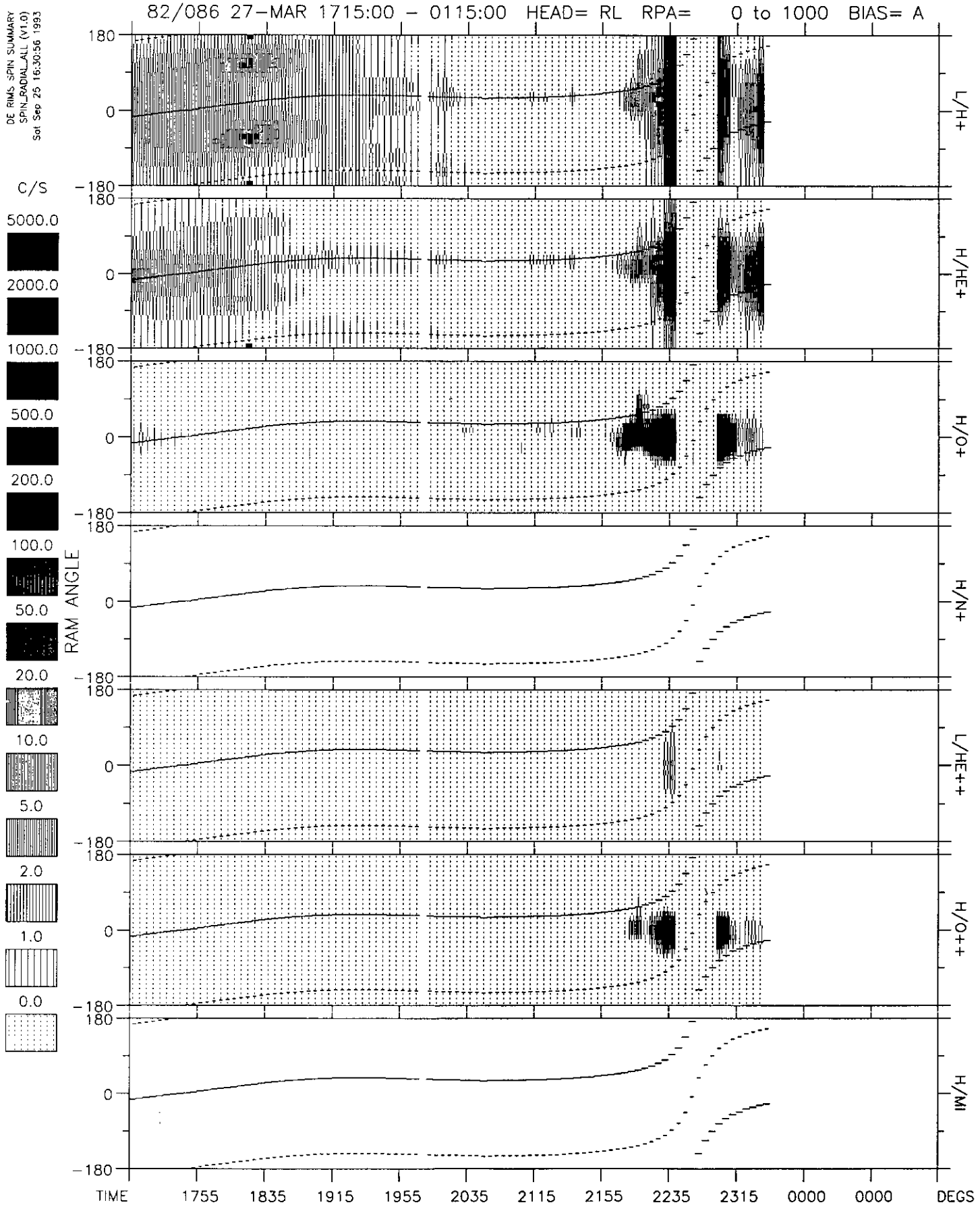


TIME	1440	1520	1600	1640	1720	1800	1840	1920	2000	0000	2120	DEGS
RE	4.1	4.5	4.7	4.5	4.2	3.5	2.4	1.1	2.0	0.0	4.0	HHMM
L	4.2	4.5	4.9	5.5	6.6	9.8	68.7	1.1	6.5	0.0	4.1	RE
MLT	22.4	22.4	22.4	22.6	22.8	23.2	1.7	10.4	21.4	0.0	22.4	
MLAT	-9.84	1.96	12.79	23.89	36.50	52.78	77.57	7.25	*****	0.00	-1.35	HRS
INVLAT	60.7	61.8	63.1	64.7	67.0	71.4	83.1	18.7	66.9	0.0	60.2	DEGS

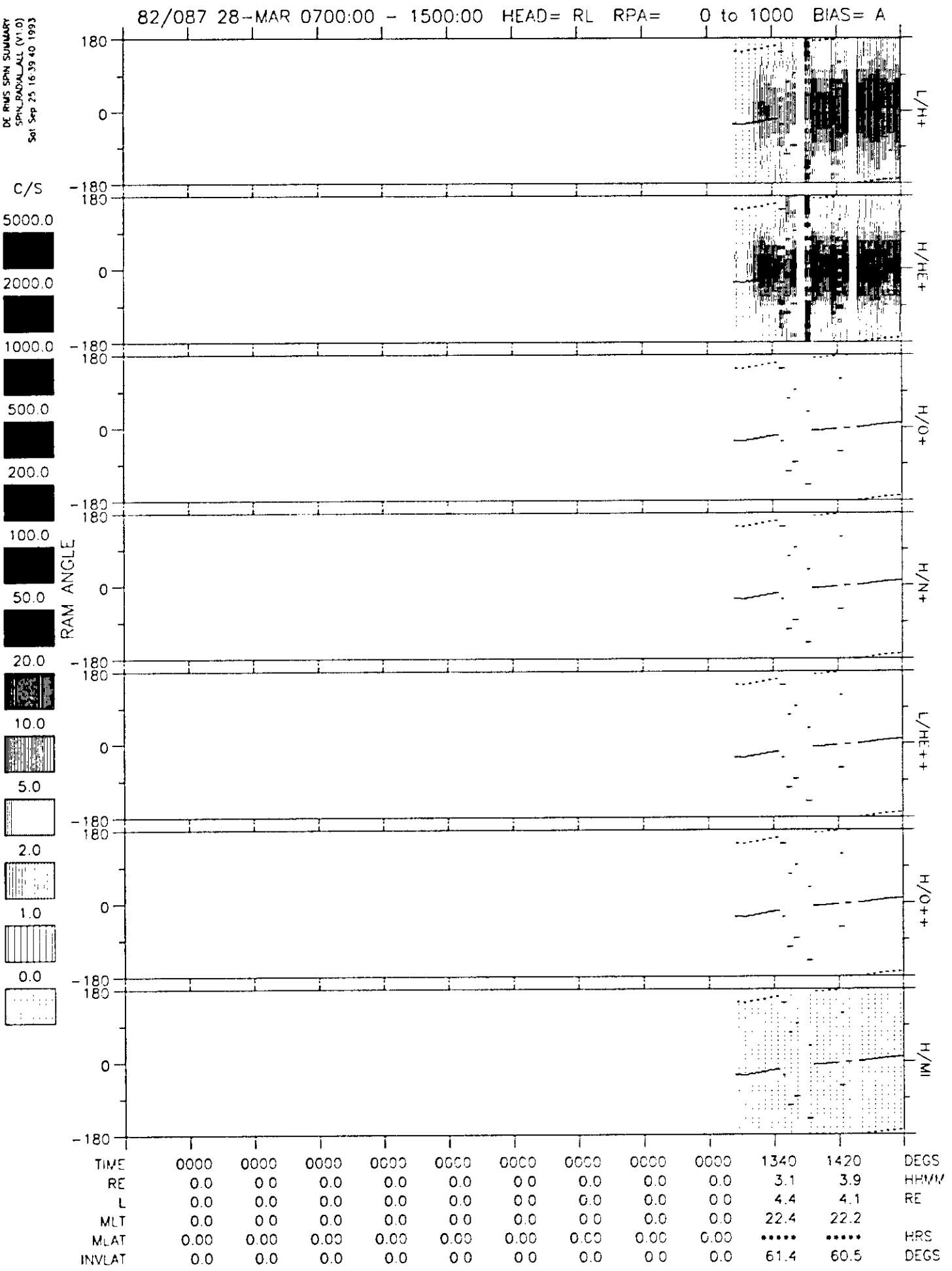

82/085 26-MAR 2115:00 - 0515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R/S SPIN SUMMARY
SPIN RADIAL ALL (V1.0)
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
TIME 2155 2235 2315 2355 0035 0115 0155 0235 0315 0355 0435 DEGS
RE 4.4 4.7 4.6 4.3 3.8 2.9 1.6 1.5 0.0 3.7 4.3 HR:MM
L 4.6 5.5 6.8 9.3 16.7 100.0 3.3 12.0 0.0 3.8 4.7 RE
MLT 22.6 22.7 22.8 23.0 23.2 1.7 10.1 22.1 0.0 22.4 22.3
M AT 11.22 23.60 35.91 48.41 63.93 83.94 44.25 ***** 0.00 2.82 16.05 HRS
INV AT 62.2 64.7 67.4 70.8 75.8 85.1 56.7 73.2 0.0 59.0 62.6 DEGS

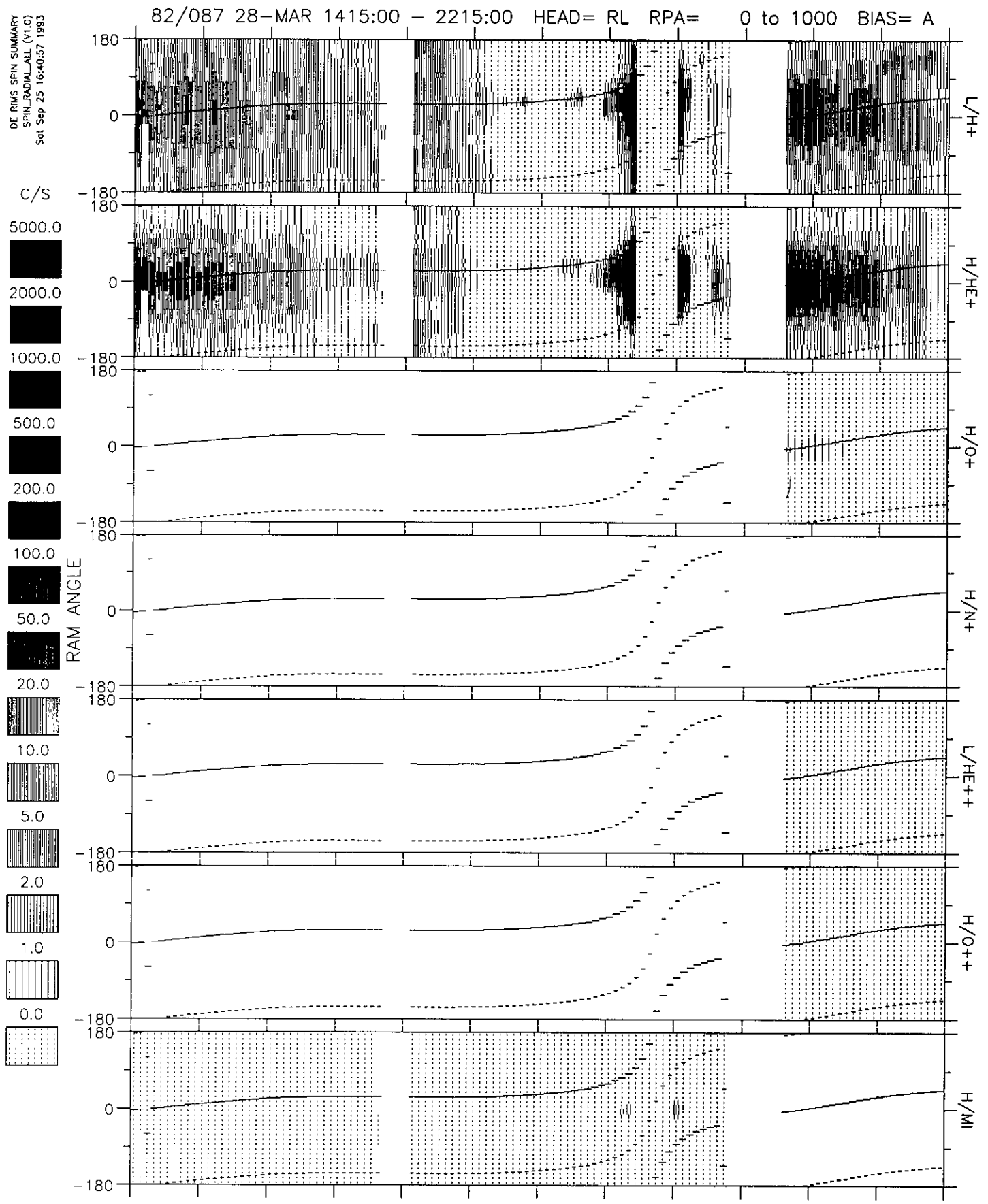

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 16:26:26 1993
82/086 27-MAR 0330:00 - 1130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0410 0450 0530 0610 0650 0000 0000 0000 0000 0000 0000 DEGS
RE 4.0 4.5 4.7 4.6 4.3 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 4.1 5.1 6.2 7.5 9.5 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 22.3 22.3 22.1 21.9 21.7 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 8.34 20.12 29.69 38.53 47.84 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 60.5 63.7 66.3 68.6 71.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

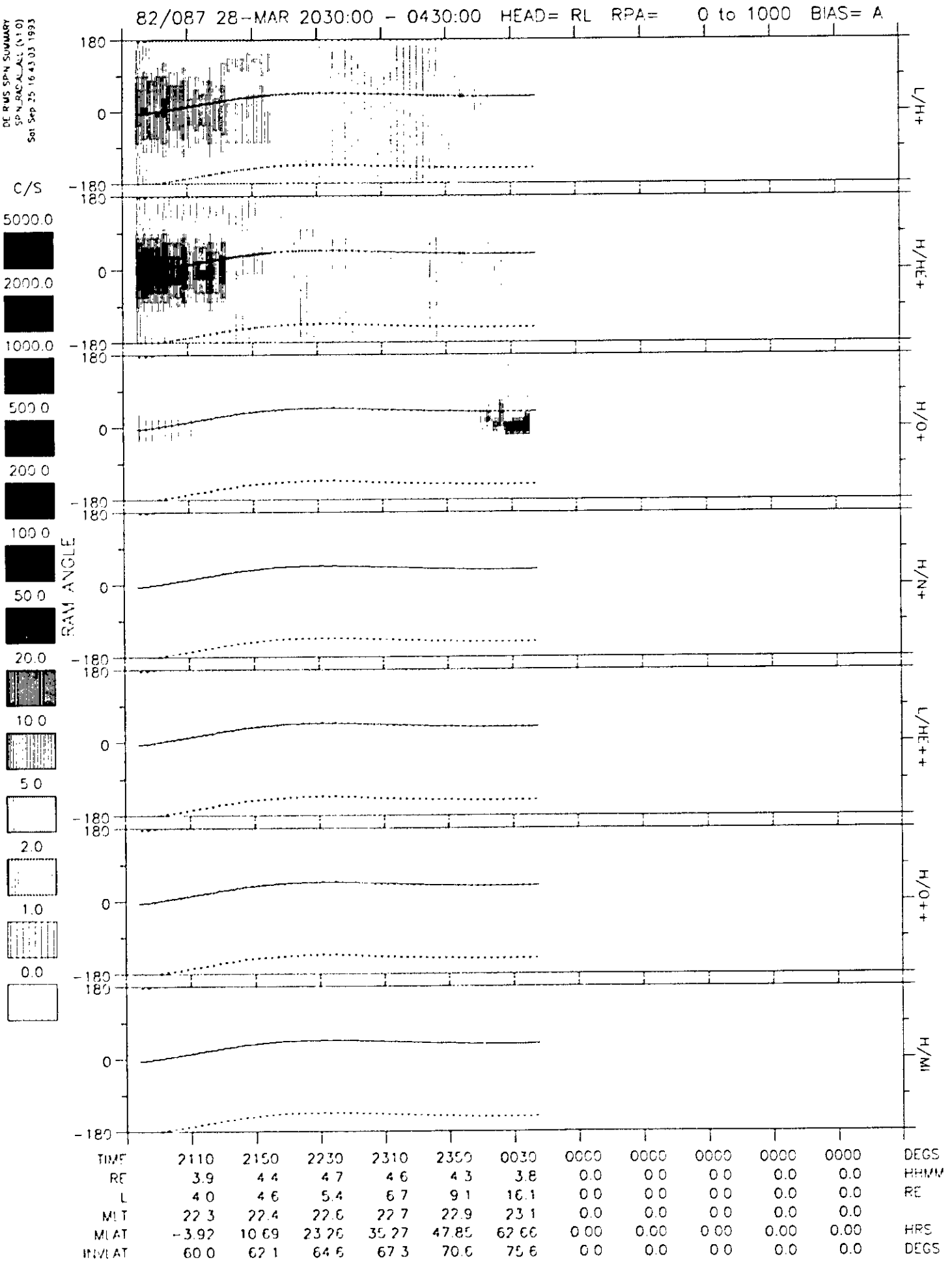

82/086 27-MAR 1030:00 - 1830:00 HEAD= R RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RPA_ALL (V1.0)
Sat Sep 25 16:28:27 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1110 1150 1230 1310 1350 1430 1510 0000 0000 1710 1750 DEGS
RE 4.1 4.5 4.7 4.6 4.2 3.5 2.5 0.0 0.0 3.1 4.0 HHMM
L 4.1 4.5 4.9 5.4 6.2 8.6 44.4 0.0 0.0 4.2 4.1 RE
MLT 22.3 22.2 22.1 22.1 22.1 22.2 22.5 0.0 0.0 22.1 22.3
MLAT -5.55 4.70 13.87 23.31 34.31 49.13 74.67 0.00 0.00 ***** ***** HRS
INVLAT 60.4 61.8 63.1 64.5 66.4 70.1 81.4 0.0 0.0 60.8 60.4 DEGS

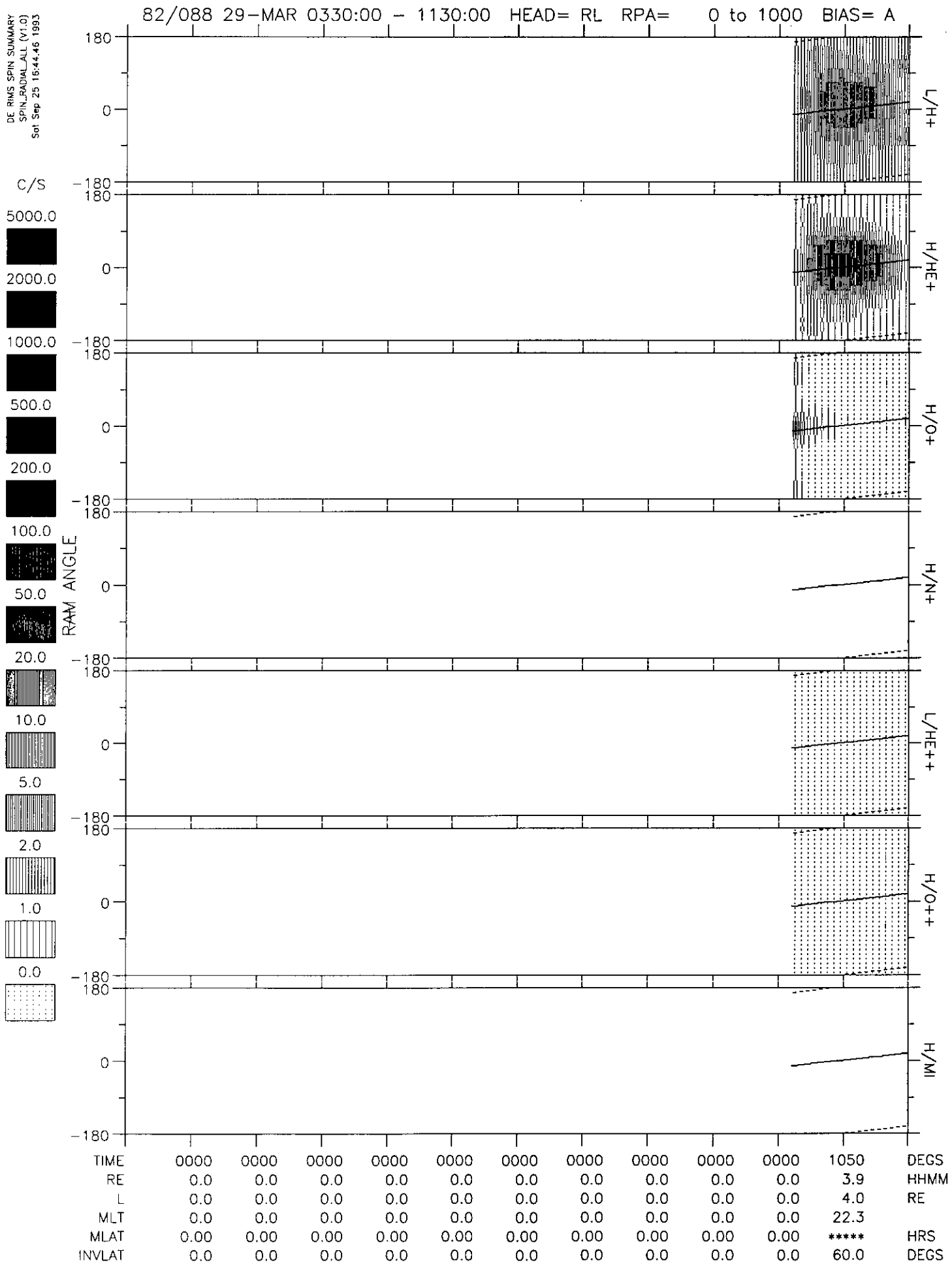


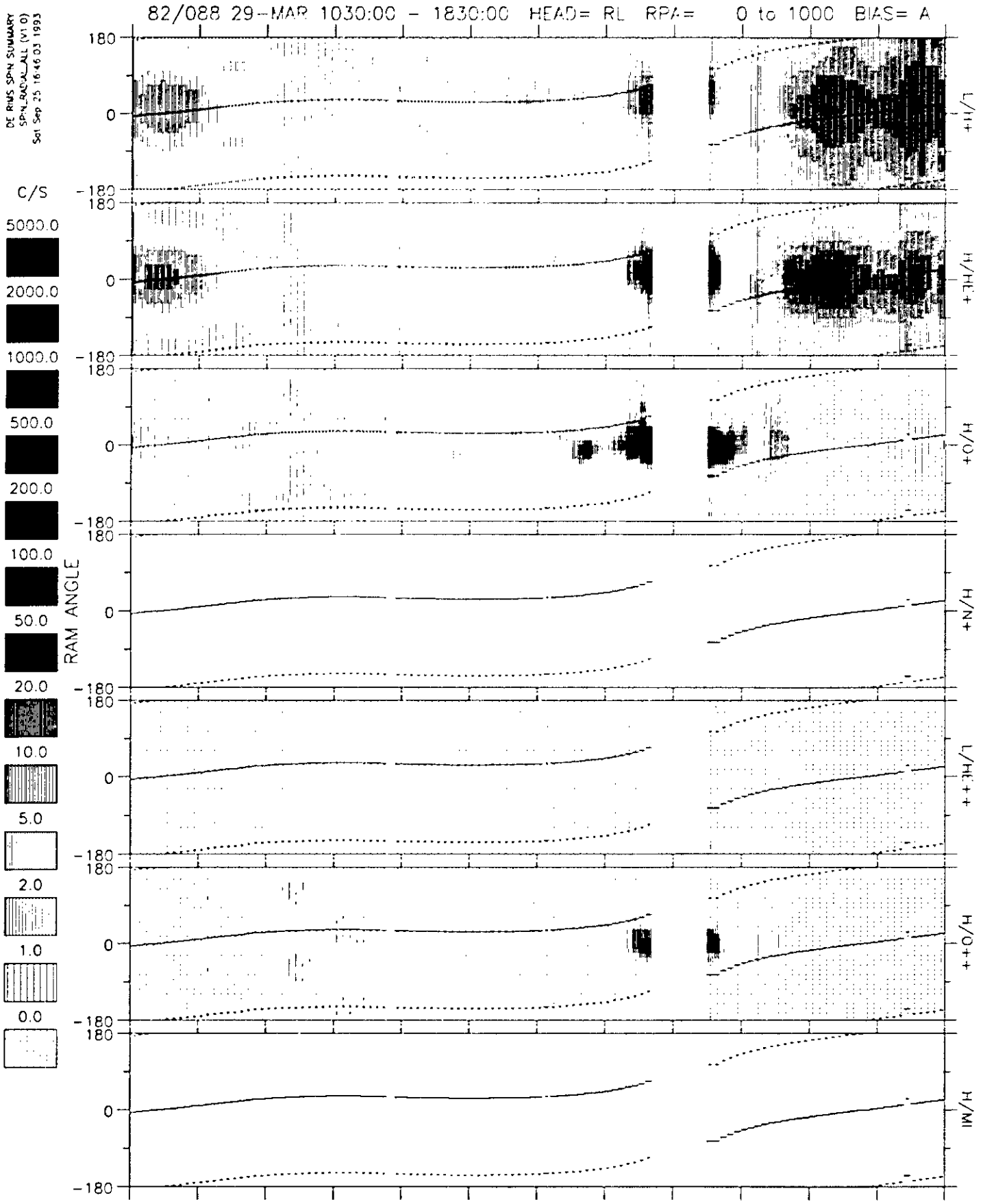
TIME	1755	1835	1915	1955	2035	2115	2155	2235	2315	0000	0000	DEGS
RE	4.0	4.5	4.7	4.6	4.3	3.6	2.6	1.3	1.7	0.0	0.0	HHMM
L	4.1	4.5	5.0	5.8	7.3	11.5	57.4	1.7	6.2	0.0	0.0	RE
MLT	22.3	22.5	22.6	22.8	23.1	23.6	2.4	9.9	21.2	0.0	0.0	
MLAT	-9.76	3.91	16.09	28.10	41.09	56.78	77.26	28.75	*****	0.00	0.00	HRS
INVLAT	60.5	61.9	63.5	65.6	68.3	72.8	82.4	39.0	66.3	0.0	0.0	DEGS

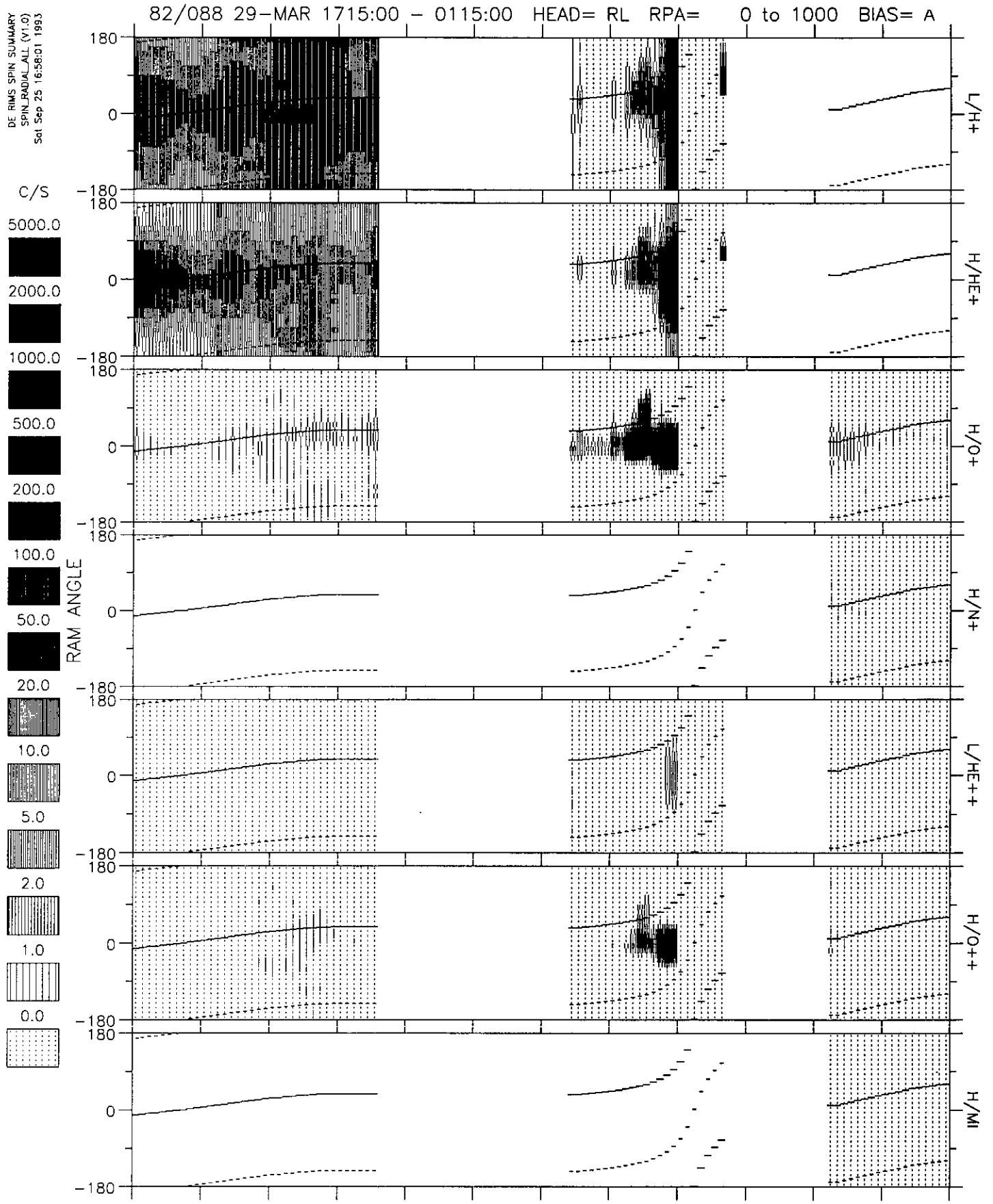

82/087 28-MAR 0700:00 - 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 16:39:40 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 1340 1420 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.1 3.9 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.4 4.1 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 22.4 22.2
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ***** ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 61.4 60.5 DEGS

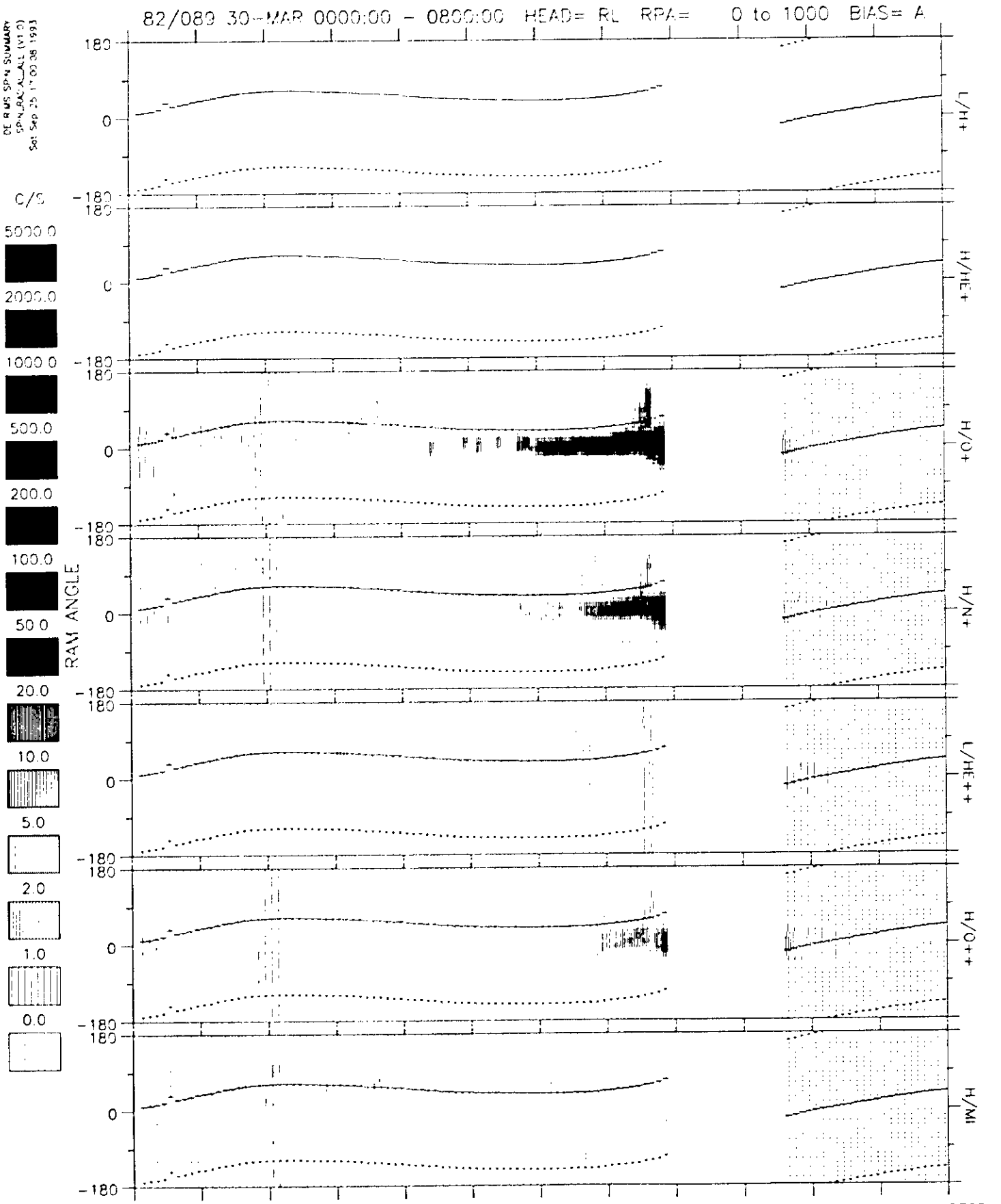

82/087 28-MAR 1415:00 - 2215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 16:40:57 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1455 1535 1615 0000 1735 1815 1855 1935 0000 2055 2135 DEGS
RE 4.4 4.6 4.6 0.0 3.8 3.0 1.7 1.3 0.0 3.6 4.3 HHMM
L 4.3 4.7 5.1 0.0 7.5 15.6 13.2 16.0 0.0 3.9 4.3 RE
MLT 22.2 22.3 22.4 0.0 22.8 23.6 8.6 13.4 0.0 22.2 22.4
MLAT -4.42 6.73 17.57 0.00 43.30 63.14 68.57 ***** 0.00 ***** 5.53 HRS
INVLAT 61.3 62.4 63.8 0.0 68.5 75.4 74.0 75.5 0.0 59.4 61.3 DEGS

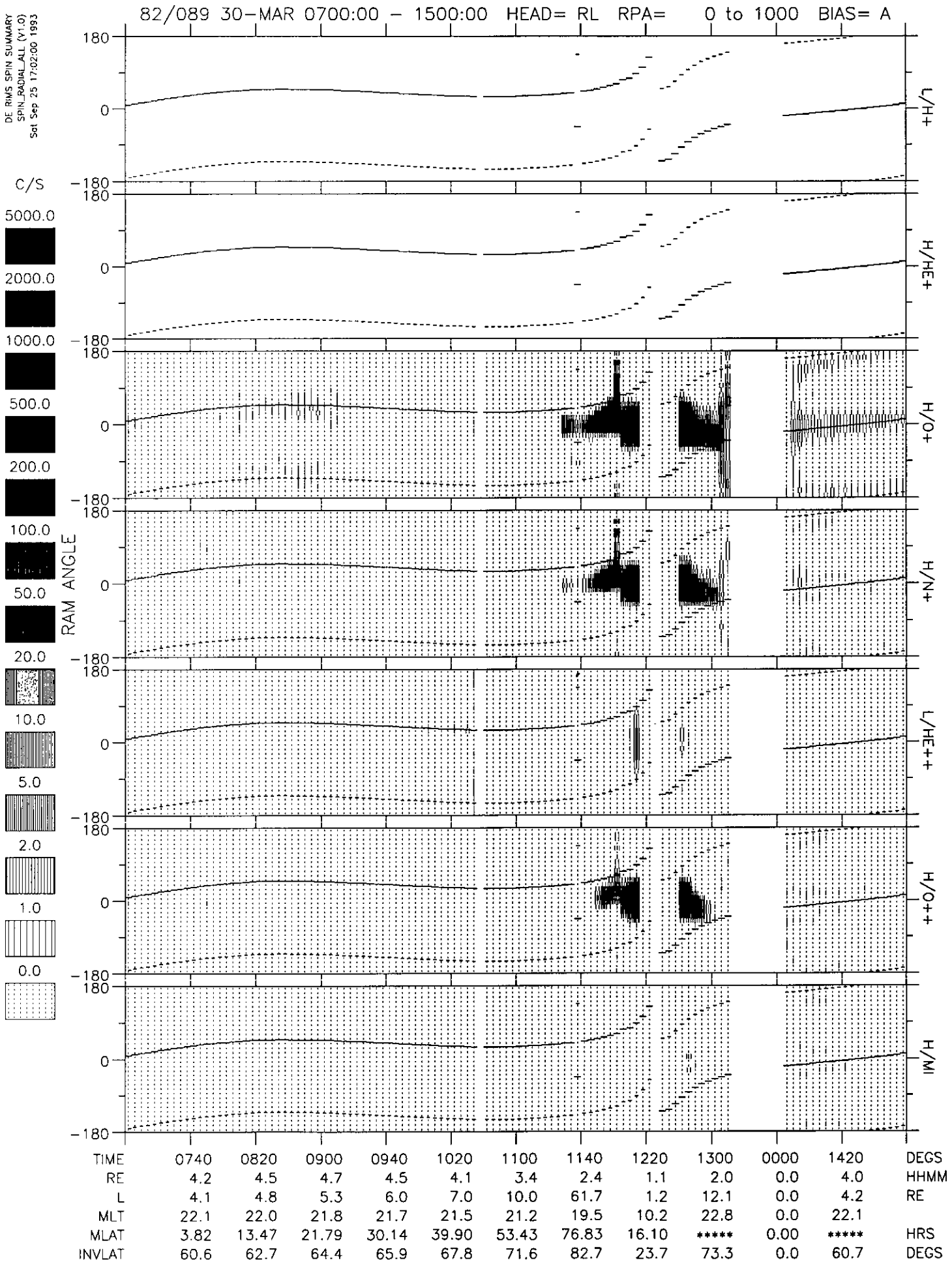

82/087 28-MAR 2030:00 - 0430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RMS SPIN SUMMARY
SPIN_RACAL_ALL (V1.0)
Sat Sep 25 16:43:03 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2110 2150 2230 2310 2350 0030 0000 0000 0000 0000 0000 DEGS
RE 3.9 4.4 4.7 4.6 4.3 3.8 0.0 0.0 0.0 0.0 0.0 HHMM
L 4.0 4.6 5.4 6.7 9.1 16.1 0.0 0.0 0.0 0.0 0.0 RE
MLT 22.3 22.4 22.6 22.7 22.9 23.1 0.0 0.0 0.0 0.0 0.0
MLAT -3.92 10.69 23.26 35.27 47.85 62.66 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 60.0 62.1 64.6 67.3 70.6 75.6 0.0 0.0 0.0 0.0 0.0 DEGS

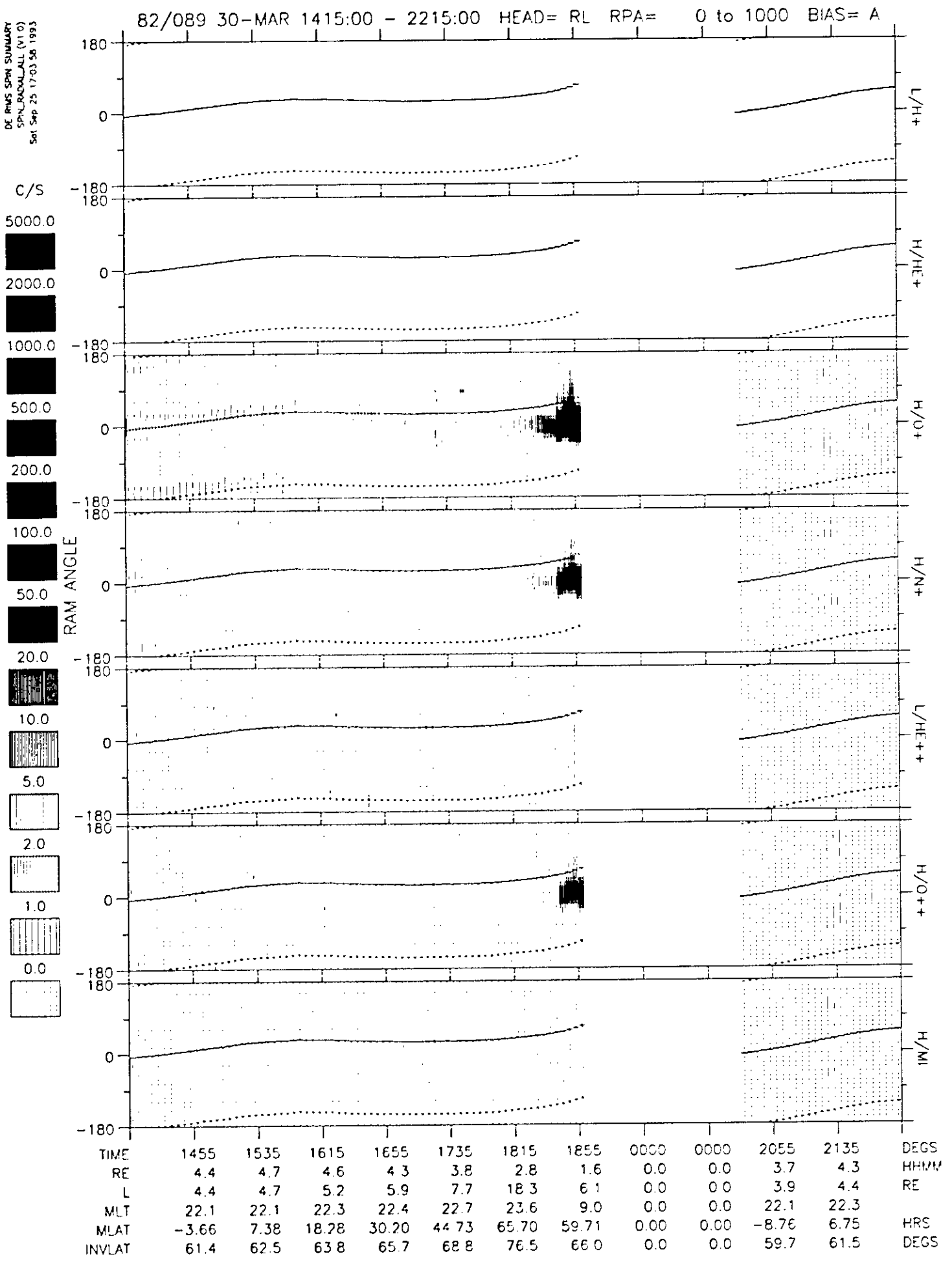

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 16:44:46 1993
82/088 29-MAR 0330:00 - 1130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 1050 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.9 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 22.3
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 60.0 DEGS

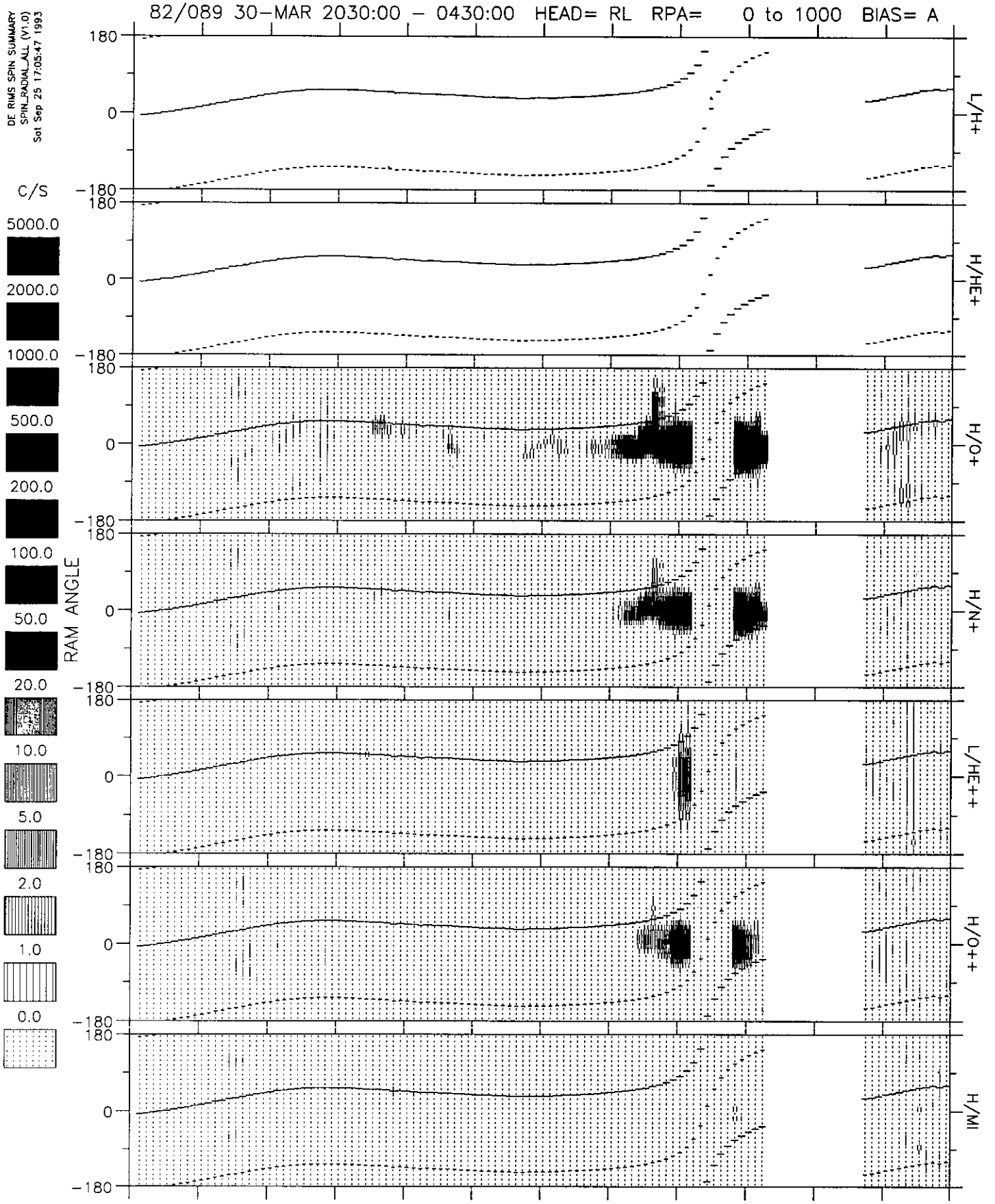

82/088 29-MAR 1030:00 - 1830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RNS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 16:46:03 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1110 1150 1230 1310 1350 1430 1510 0000 1630 1710 1750 DEGS
RE 4.2 4.6 4.7 4.5 4.1 3.4 2.3 0.0 2.1 3.3 4.0 HHMM
L 4.2 4.5 4.9 5.4 6.3 9.0 90.4 0.0 9.3 4.2 4.1 RE
MLT 22.2 22.1 22.0 22.0 22.0 22.1 22.5 0.0 21.6 22.0 22.2
MLAT -5.00 5.04 14.20 23.77 35.10 50.68 78.71 0.00 ***** ***** ***** HRS
INVLAT 60.6 62.0 63.2 64.5 66.4 70.5 83.9 0.0 70.9 60.7 60.5 DEGS

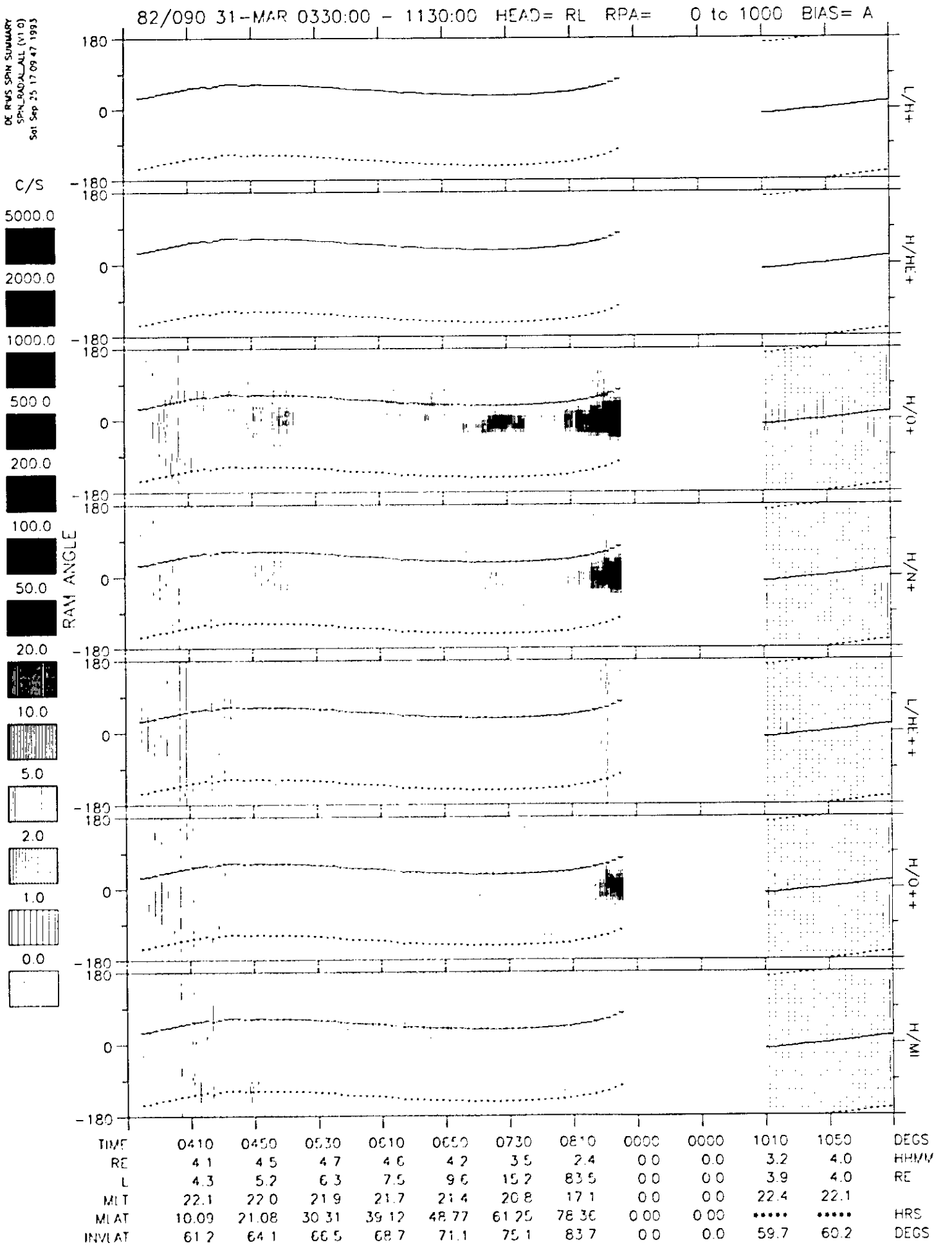

82/088 29-MAR 1715:00 - 0115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 16:58:01 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1755 1835 1915 0000 0000 0000 2155 2235 0000 0000 0035 DEGS
RE 4.1 4.5 4.7 0.0 0.0 0.0 2.5 1.2 0.0 0.0 3.9 HHMM
L 4.2 4.5 5.1 0.0 0.0 0.0 77.9 1.2 0.0 0.0 4.0 RE
MLT 22.2 22.4 22.5 0.0 0.0 0.0 3.5 10.1 0.0 0.0 22.2
MLAT -8.48 4.92 17.03 0.00 0.00 0.00 78.75 11.20 0.00 0.00 5.12 HRS
INVLAT 60.7 62.0 63.7 0.0 0.0 0.0 83.5 23.4 0.0 0.0 60.2 DEGS

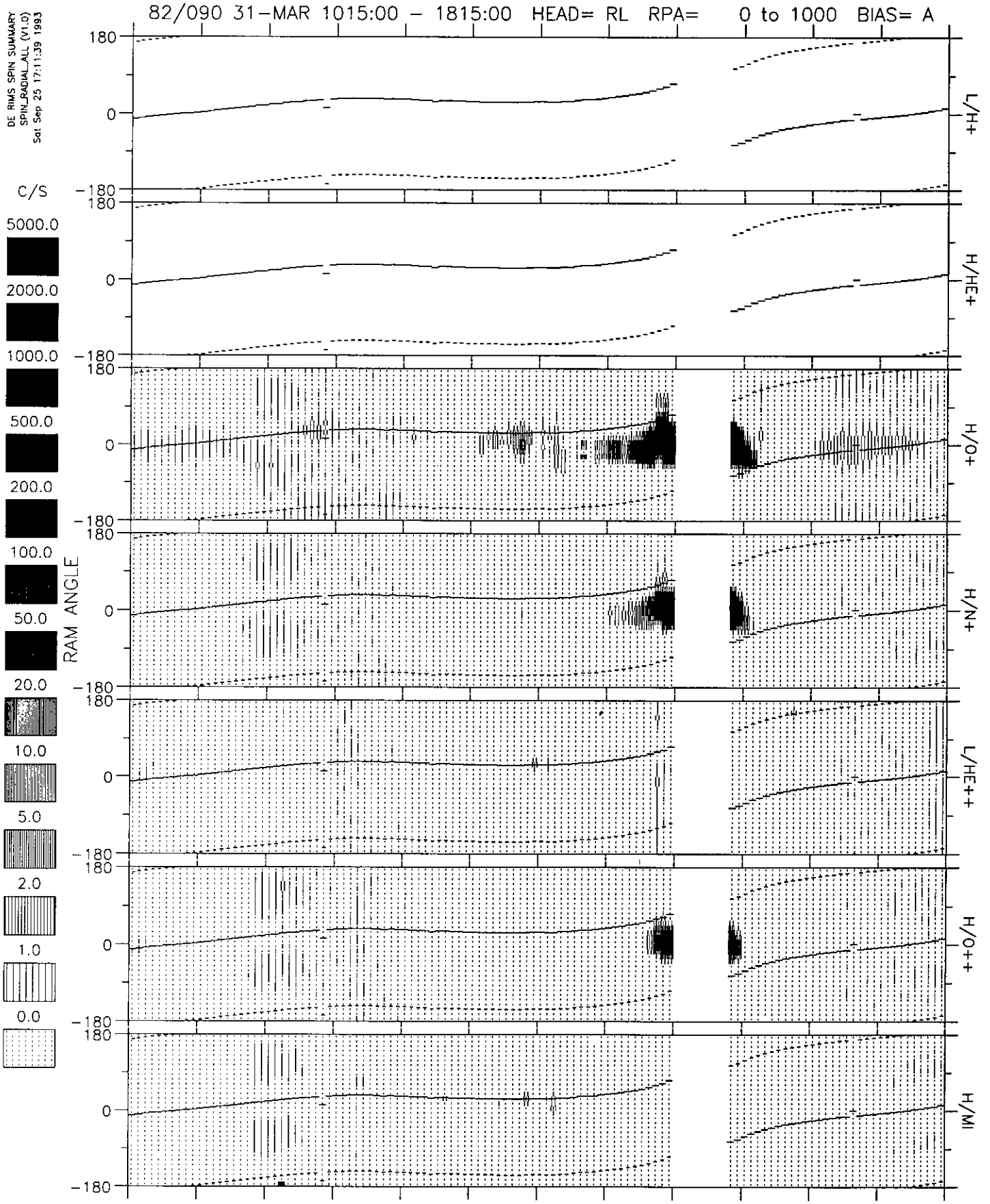

82/089 30-MAR 0000:00 - 0800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R IMS SPIN SUMMARY
SPIN_RAC_ALL (V1.0)
Sat Sep 25 17:00:38 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAW ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0040 0120 0200 0240 0320 0400 0440 0000 0000 0640 0720 DEGS
RE 4.0 4.5 4.7 4.6 4.3 3.6 2.7 0.0 0.0 3.0 3.8 HHMM
L 4.1 5.1 6.4 8.4 12.0 23.9 100.0 0.0 0.0 3.4 3.8 RE
MLT 22.2 22.3 22.3 22.2 22.0 21.6 16.4 0.0 0.0 22.4 22.2
MLAT 7.00 20.29 31.61 42.33 53.64 67.37 84.77 0.00 0.00 ***** -2.15 HRS
INVLAT 60.6 63.8 66.8 69.8 73.2 78.2 87.5 0.0 0.0 57.0 59.3 DEGS

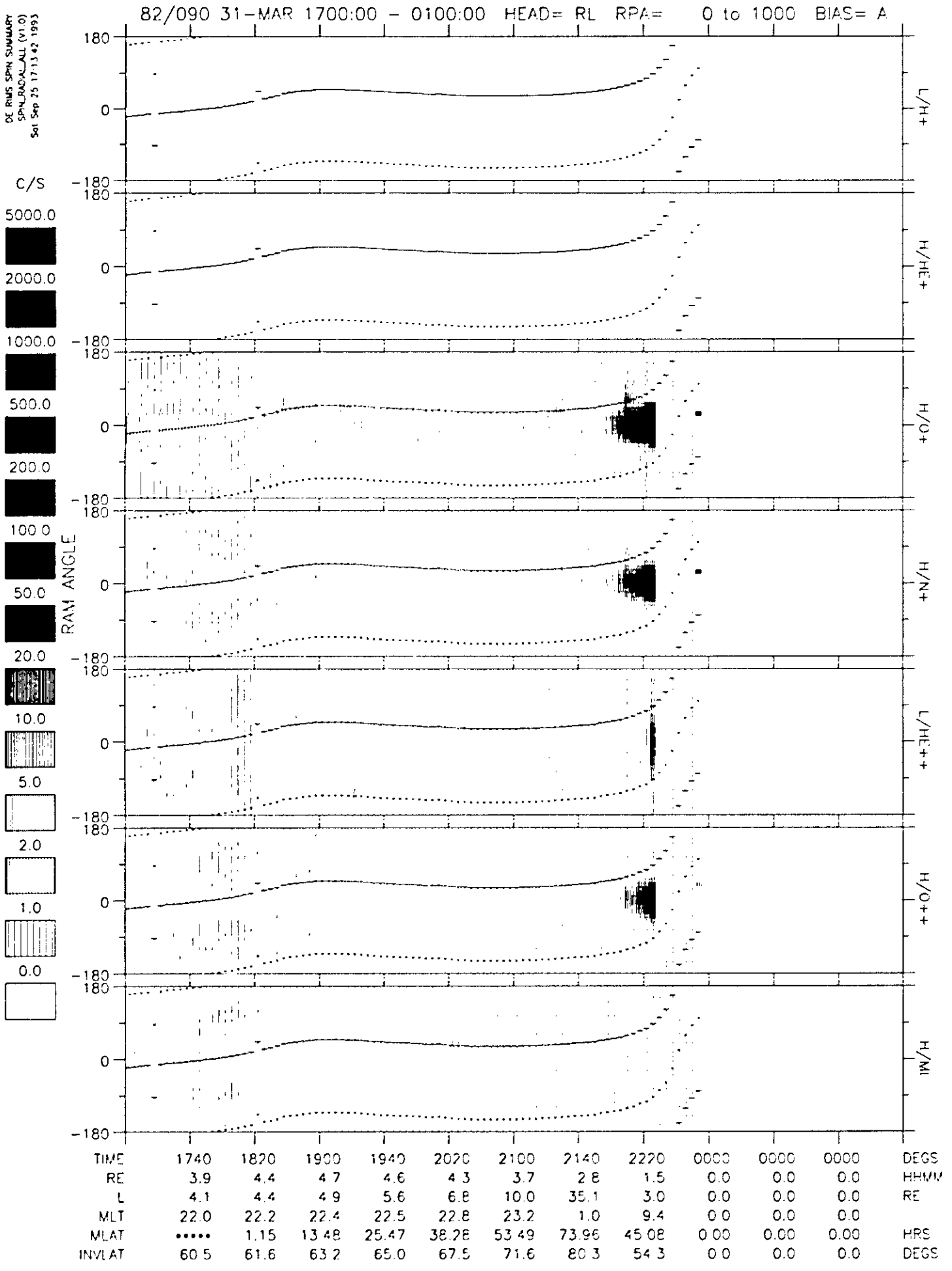

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:02:00 1993
82/089 30-MAR 0700:00 - 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0740 0820 0900 0940 1020 1100 1140 1220 1300 0000 1420 DEGS
RE 4.2 4.5 4.7 4.5 4.1 3.4 2.4 1.1 2.0 0.0 4.0 HHMM
L 4.1 4.8 5.3 6.0 7.0 10.0 61.7 1.2 12.1 0.0 4.2 RE
MLT 22.1 22.0 21.8 21.7 21.5 21.2 19.5 10.2 22.8 0.0 22.1
MLAT 3.82 13.47 21.79 30.14 39.90 53.43 76.83 16.10 ***** 0.00 ***** HRS
INVLAT 60.6 62.7 64.4 65.9 67.8 71.6 82.7 23.7 73.3 0.0 60.7 DEGS

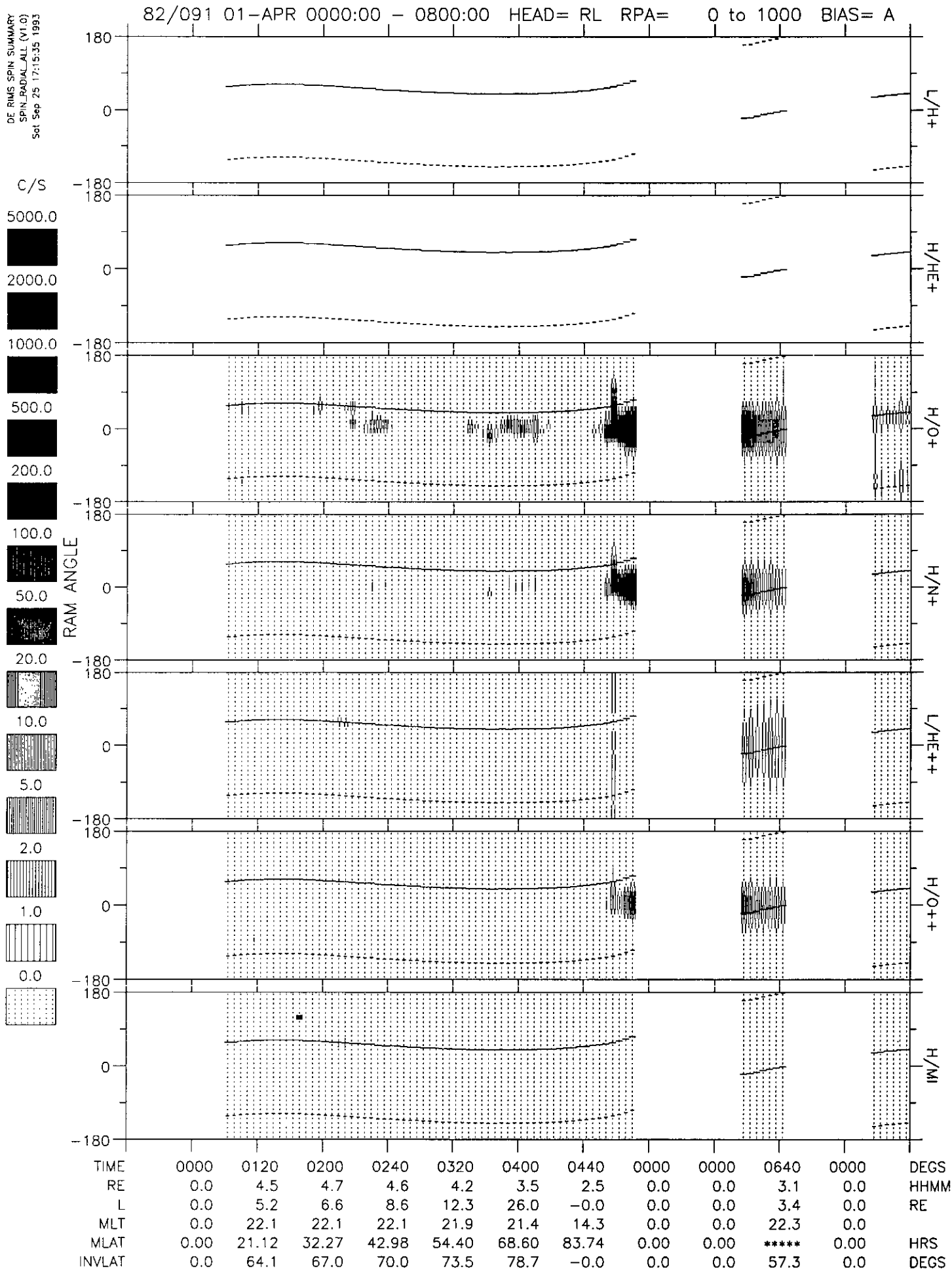

82/089 30-MAR 1415:00 - 2215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RNS SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Sat Sep 25 17:03:58 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 1455 1535 1615 1655 1735 1815 1855 0000 0000 2055 2135 DEGS
RE 4.4 4.7 4.6 4.3 3.8 2.8 1.6 0.0 0.0 3.7 4.3 HHMM
L 4.4 4.7 5.2 5.9 7.7 18.3 6.1 0.0 0.0 3.9 4.4 RE
MLT 22.1 22.1 22.3 22.4 22.7 23.6 9.0 0.0 0.0 22.1 22.3
MLAT -3.66 7.38 18.28 30.20 44.73 65.70 59.71 0.00 0.00 -8.76 6.75 HRS
INVLAT 61.4 62.5 63.8 65.7 68.8 76.5 66.0 0.0 0.0 59.7 61.5 DEGS

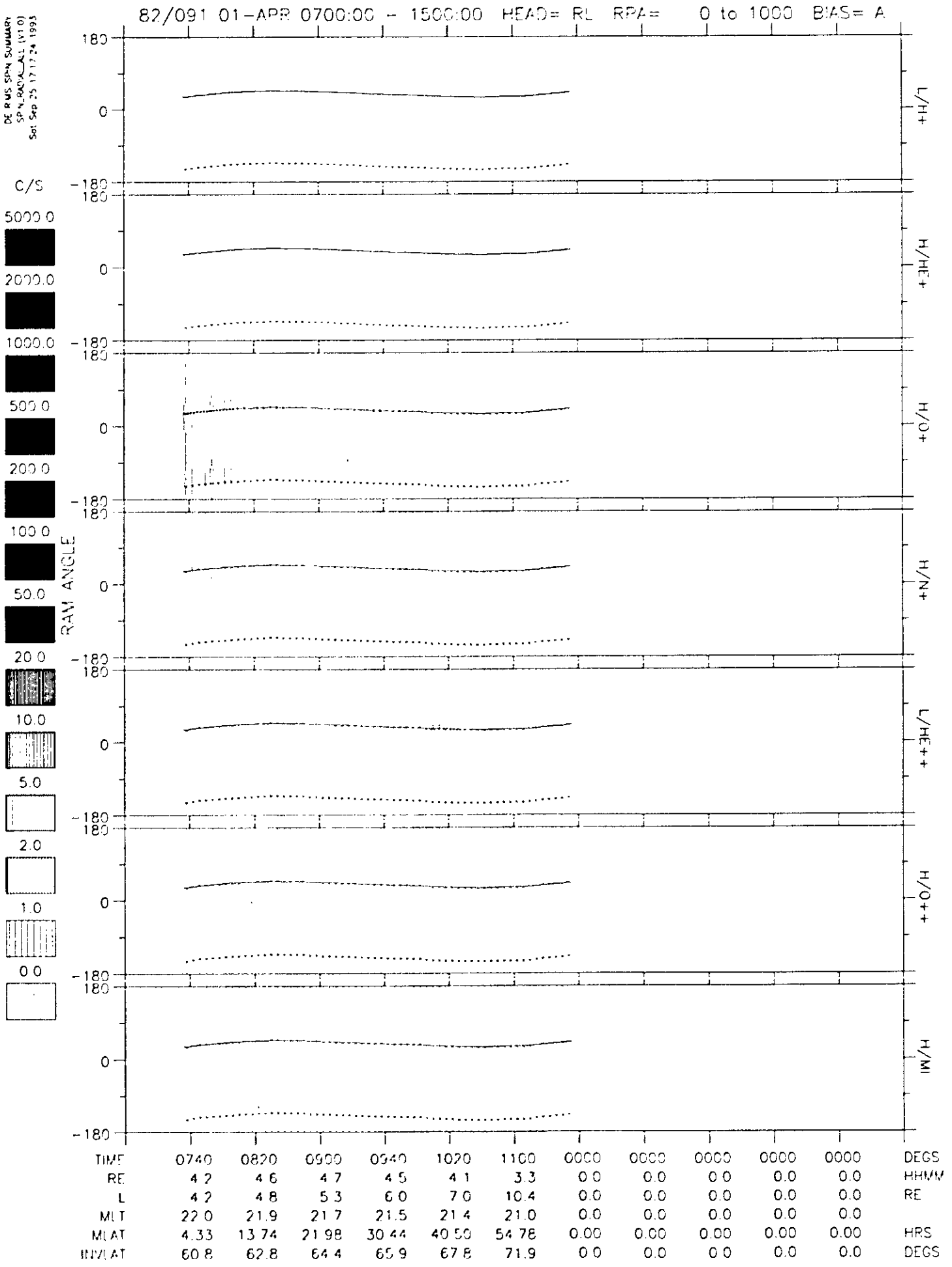

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:05:47 1993
82/089 30-MAR 2030:00 - 0430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 2110 2150 2230 2310 2350 0030 0110 0150 0230 0000 0350 DEGS
RE 4.0 4.5 4.7 4.6 4.3 3.7 2.7 1.4 1.6 0.0 3.8 HHMM
L 4.1 4.7 5.5 6.8 9.4 17.4 100.0 2.1 6.6 0.0 3.9 RE
MLT 22.2 22.3 22.5 22.6 22.7 23.0 2.7 10.0 22.0 0.0 22.1
MLAT -2.49 11.76 24.20 36.20 48.93 64.19 84.91 33.06 ***** 0.00 3.25 HRS
INVLAT 60.3 62.4 64.8 67.5 70.9 76.1 86.2 46.1 67.1 0.0 59.4 DEGS

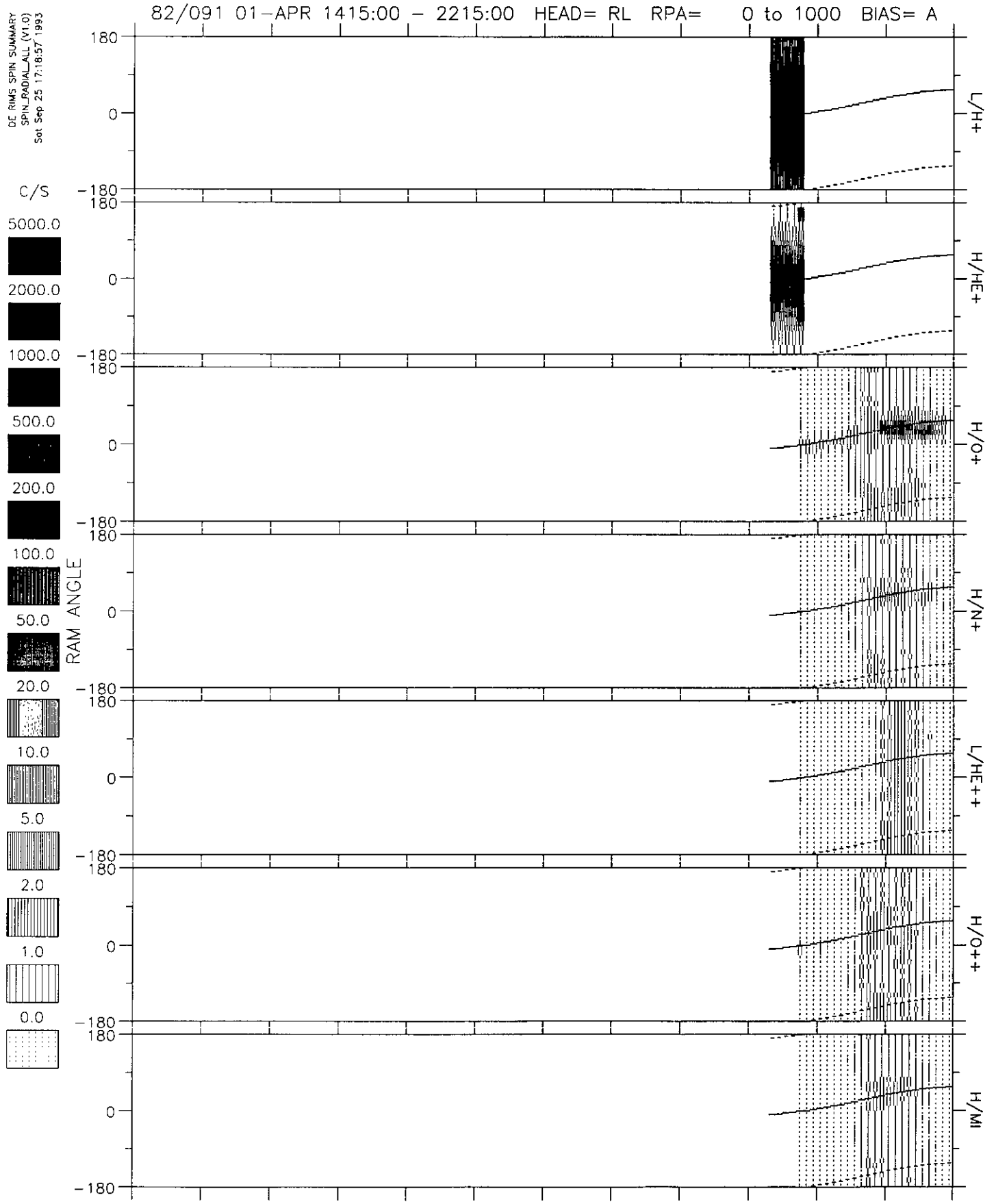

82/090 31-MAR 0330:00 - 1130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1 0)
Sat Sep 25 17 09 47 1993
C/S
5000.0
2000.0
1000.0
500 0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0410 0450 0530 0610 0650 0730 0810 0000 0000 1010 1050 DEGS
RE 4 1 4 5 4 7 4 6 4 2 3 5 2.4 0 0 0.0 3.2 4.0 HHMM
L 4.3 5.2 6 3 7.5 9 6 15 2 83 5 0 0 0 0 3.9 4.0 RE
MLT 22.1 22 0 21 9 21.7 21 4 20 8 17 1 0 0 0 0 22.4 22.1
MLAT 10.09 21.08 30 31 39 12 48 77 61 25 78 36 0 00 0 00 ***** ***** HRS
INVLAT 61 2 64 1 66 5 68 7 71.1 75 1 83 7 0 0 0.0 59.7 60.2 DEGS

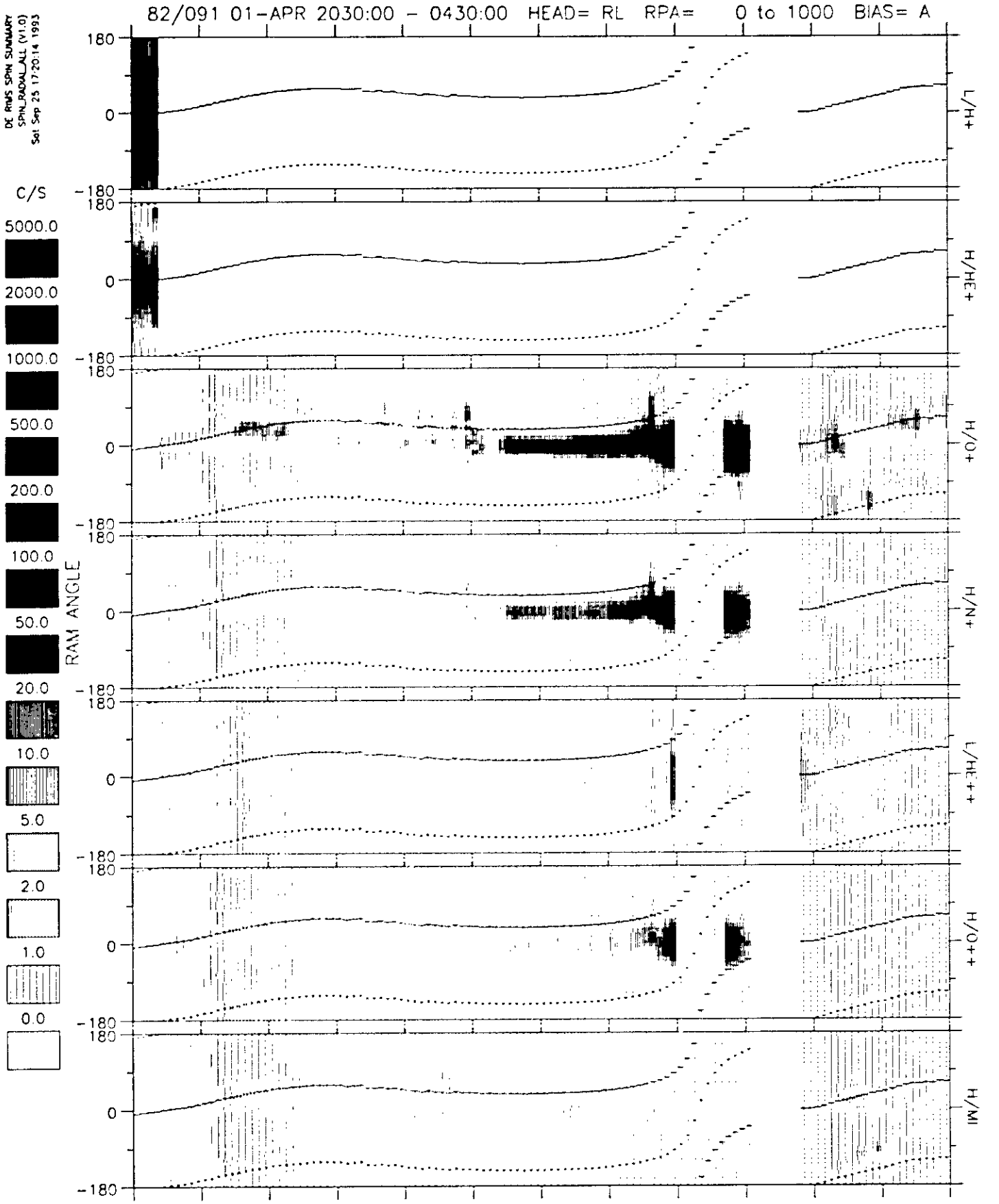

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:11:39 1993
82/090 31-MAR 1015:00 - 1815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 1055 1135 1215 1255 1335 1415 1455 0000 1615 1655 1735 DEGS
RE 4.0 4.5 4.7 4.6 4.2 3.6 2.6 0.0 1.8 3.0 3.9 HHMM
L 4.1 4.4 4.8 5.2 5.9 7.7 23.3 0.0 35.1 4.4 4.1 RE
MLT 22.1 22.0 21.9 21.9 21.9 21.9 22.2 0.0 20.8 21.8 22.0
MLAT -8.67 1.90 11.13 20.52 31.26 45.43 68.62 0.00 ***** ***** ***** HRS
INVLAT 60.4 61.6 62.8 64.0 65.7 68.8 78.0 0.0 80.3 61.7 60.5 DEGS

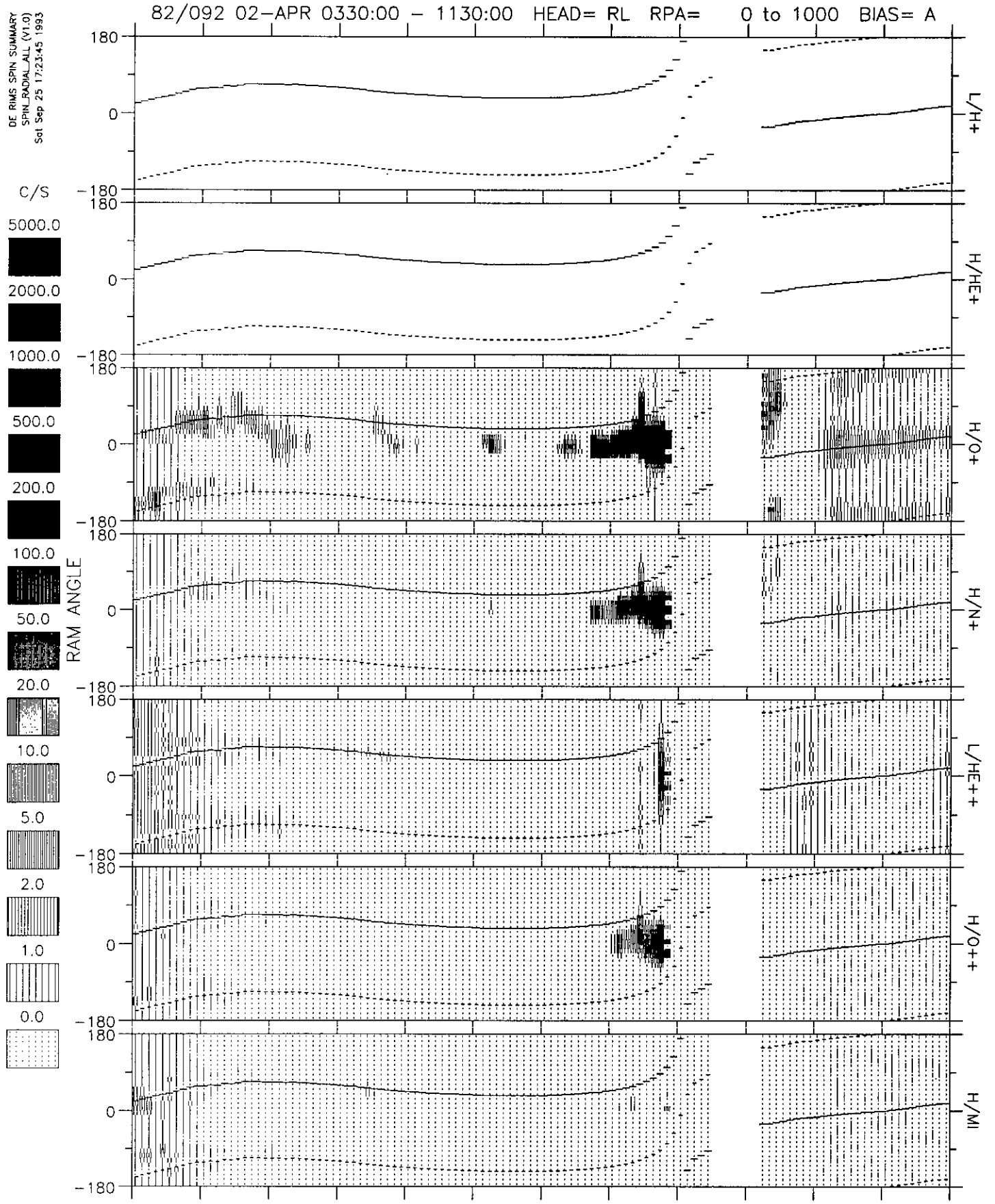

82/090 31-MAR 1700:00 - 0100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:13:42 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1740 1820 1900 1940 2020 2100 2140 2220 0000 0000 0000 DEGS
RE 3.9 4.4 4.7 4.6 4.3 3.7 2.8 1.5 0.0 0.0 0.0 HHMM
L 4.1 4.4 4.9 5.6 6.8 10.0 35.1 3.0 0.0 0.0 0.0 RE
MLT 22.0 22.2 22.4 22.5 22.8 23.2 1.0 9.4 0.0 0.0 0.0
MLAT ••••• 1.15 13.48 25.47 38.28 53.49 73.96 45.08 0.00 0.00 0.00 HRS
INVLAT 60.5 61.6 63.2 65.0 67.5 71.6 80.3 54.3 0.0 0.0 0.0 DEGS

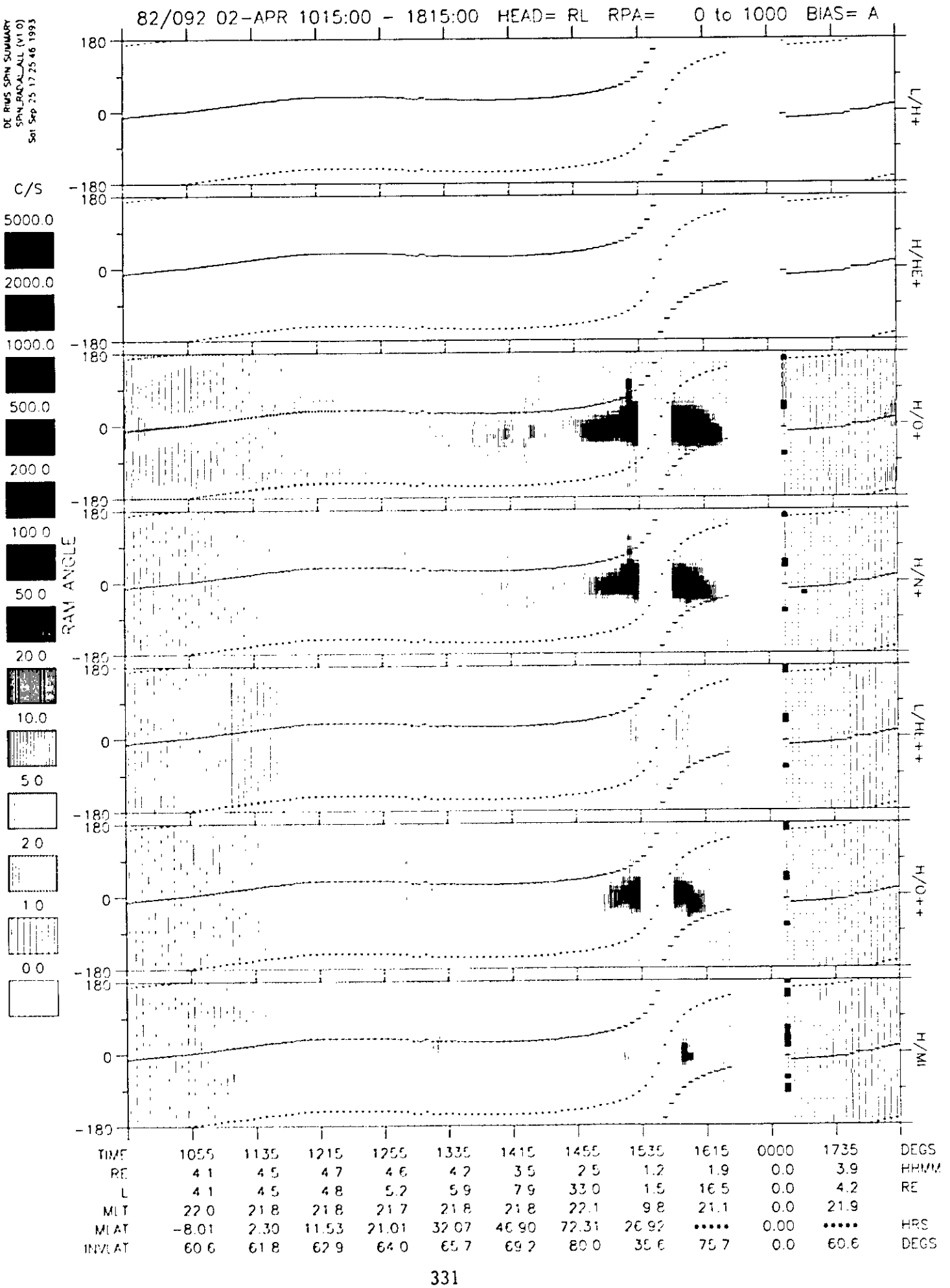

82/091 01-APR 0000:00 - 0800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:15:35 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0120 0200 0240 0320 0400 0440 0000 0000 0640 0000 DEGS
RE 0.0 4.5 4.7 4.6 4.2 3.5 2.5 0.0 0.0 3.1 0.0 HHMM
L 0.0 5.2 6.6 8.6 12.3 26.0 -0.0 0.0 0.0 3.4 0.0 RE
MLT 0.0 22.1 22.1 22.1 21.9 21.4 14.3 0.0 0.0 22.3 0.0
MLAT 0.00 21.12 32.27 42.98 54.40 68.60 83.74 0.00 0.00 ***** 0.00 HRS
INVLAT 0.0 64.1 67.0 70.0 73.5 78.7 -0.0 0.0 0.0 57.3 0.0 DEGS

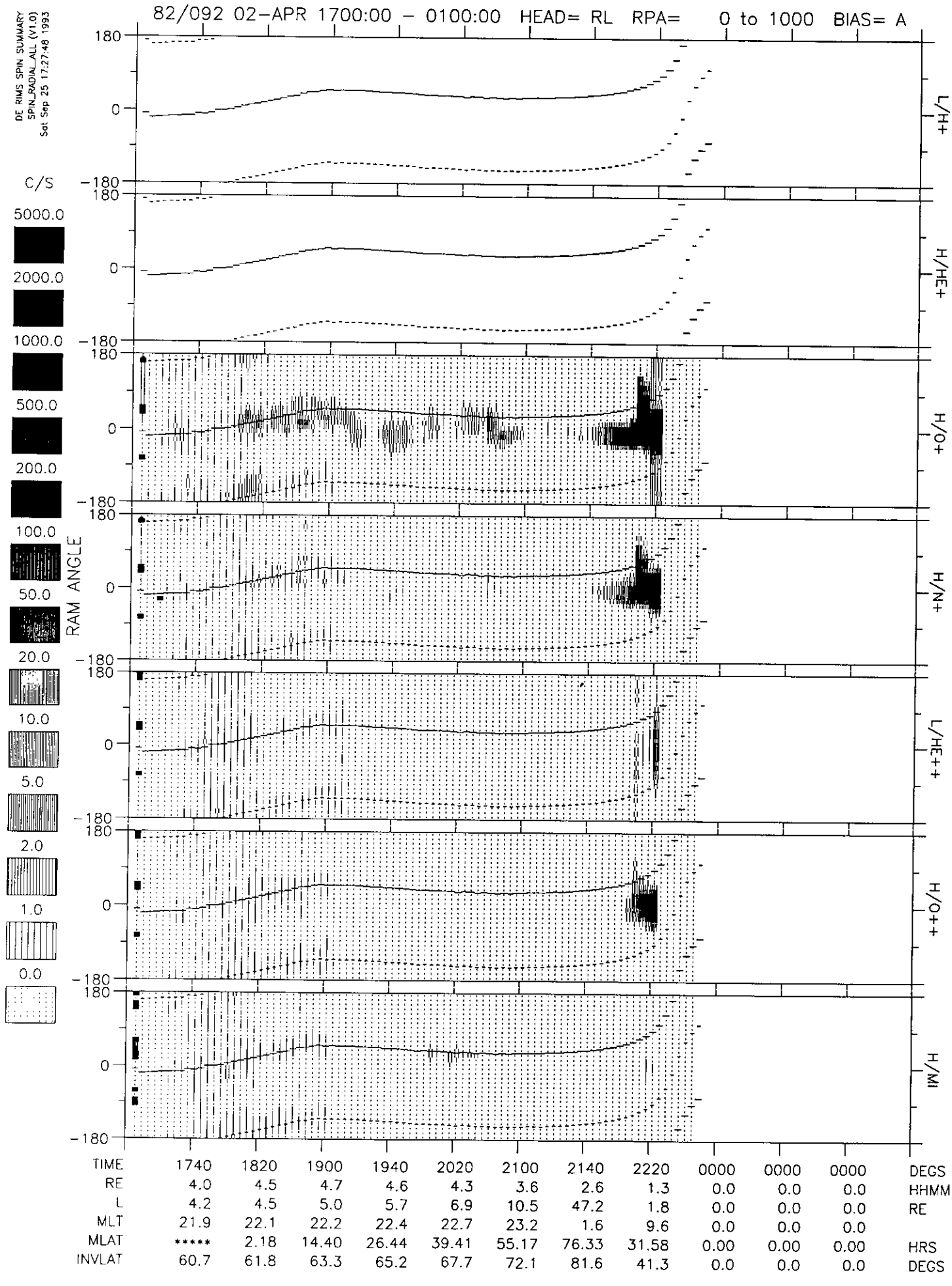

82/091 01-APR 0700:00 - 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R WS SPIN SUMMARY
SP N_RADIAL.ALL (V1 0)
Sat Sep 25 17 17 24 1993
C/S
5000 0
2000.0
1000.0
500 0
200 0
100 0
50.0
20 0
10.0
5.0
2.0
1.0
0 0
RAW ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0740 0820 0900 0940 1020 1100 0000 0000 0000 0000 0000 DEGS
RE 4 2 4 6 4 7 4 5 4 1 3.3 0 0 0.0 0 0 0.0 0.0 HHMM
L 4 2 4 8 5 3 6 0 7 0 10.4 0.0 0.0 0.0 0.0 0.0 RE
MLT 22 0 21.9 21 7 21.5 21 4 21.0 0.0 0.0 0.0 0.0 0.0
MLAT 4.33 13 74 21 98 30 44 40 50 54 78 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 60 8 62.8 64 4 65 9 67 8 71.9 0 0 0.0 0 0 0.0 0.0 DEGS

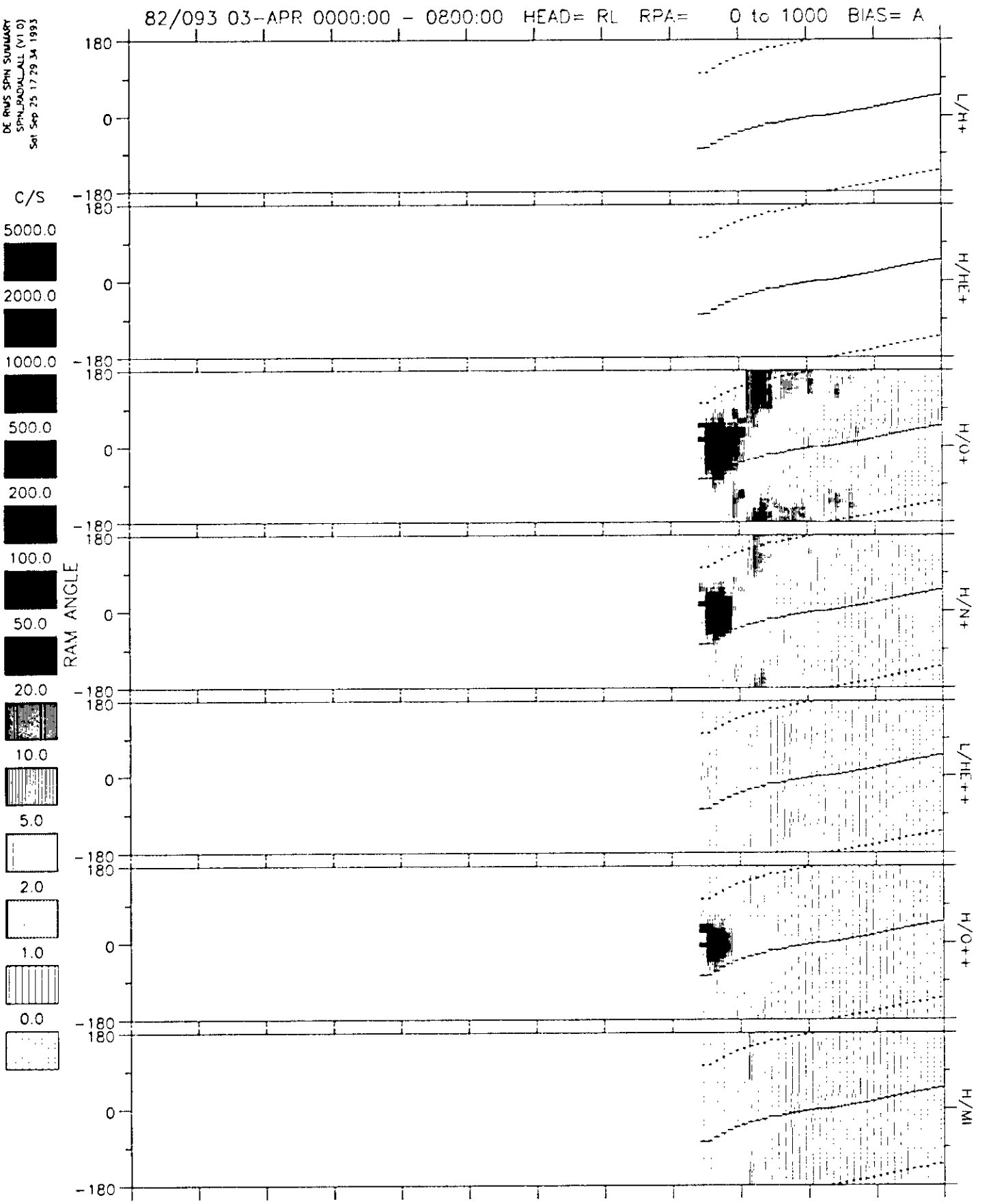

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:18:57 1993
82/091 01-APR 1415:00 - 2215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 2055 2135 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.8 4.4 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.0 4.5 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 22.0 22.2
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 -7.15 7.89 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 60.0 61.9 DEGS

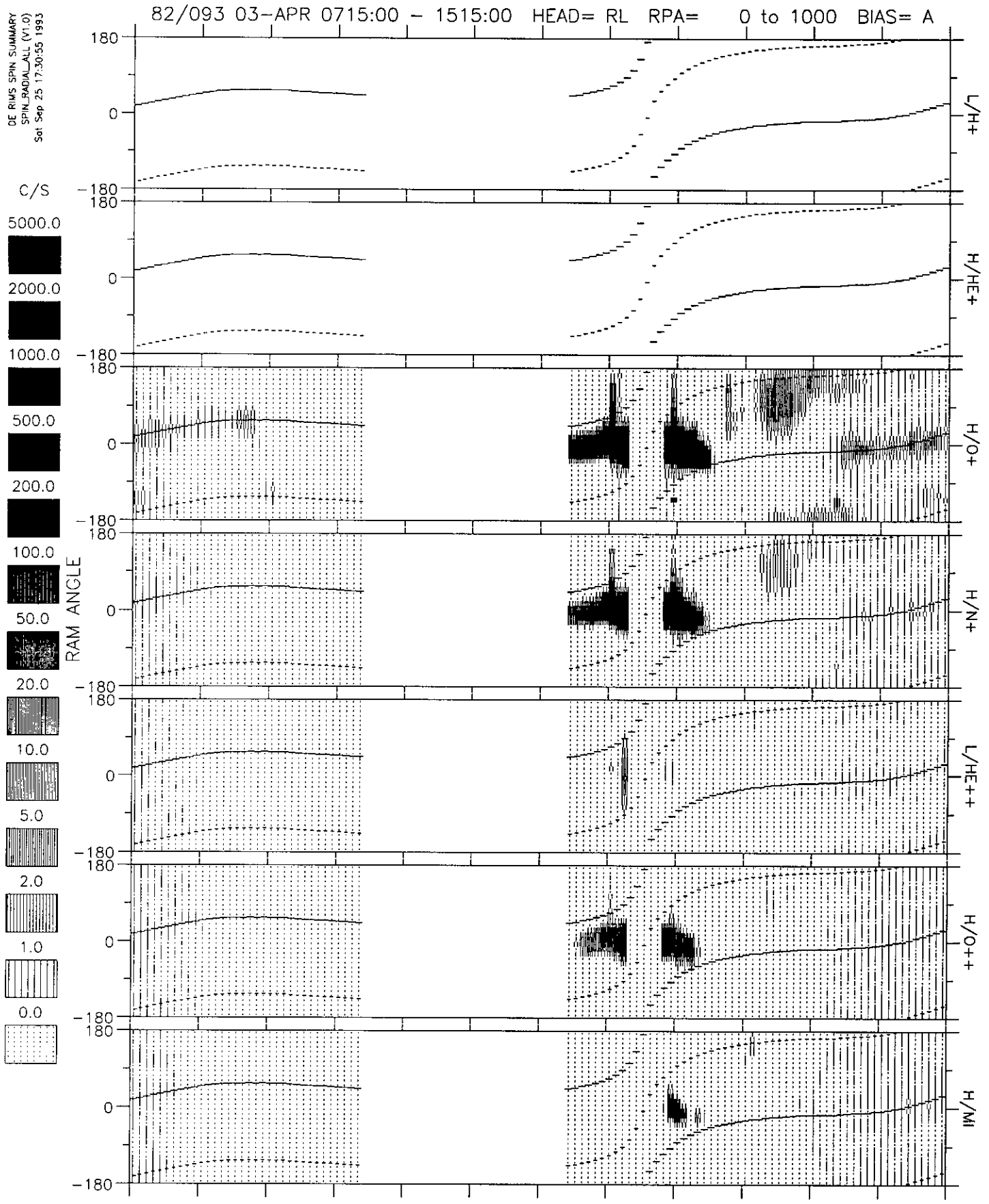

82/091 01-APR 2030:00 - 0430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:20:14 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2110 2150 2230 2310 2350 0030 0110 0150 0230 0310 0350 DEGS
RE 4.1 4.5 4.7 4.6 4.2 3.6 2.6 1.3 1.7 3.0 3.9 HHMM
L 4.2 4.8 5.6 7.0 9.7 19.0 -0.0 1.4 5.9 3.3 4.0 RE
MLT 22.1 22.2 22.4 22.5 22.6 22.9 5.3 9.9 21.9 22.0 22.0
MLAT -1.10 12.82 25.14 37.16 50.06 65.82 85.48 18.22 ***** ***** 4.32 HRS
INVLAT 60.6 62.7 65.0 67.8 71.3 76.7 -0.0 31.3 65.7 56.4 59.8 DEGS

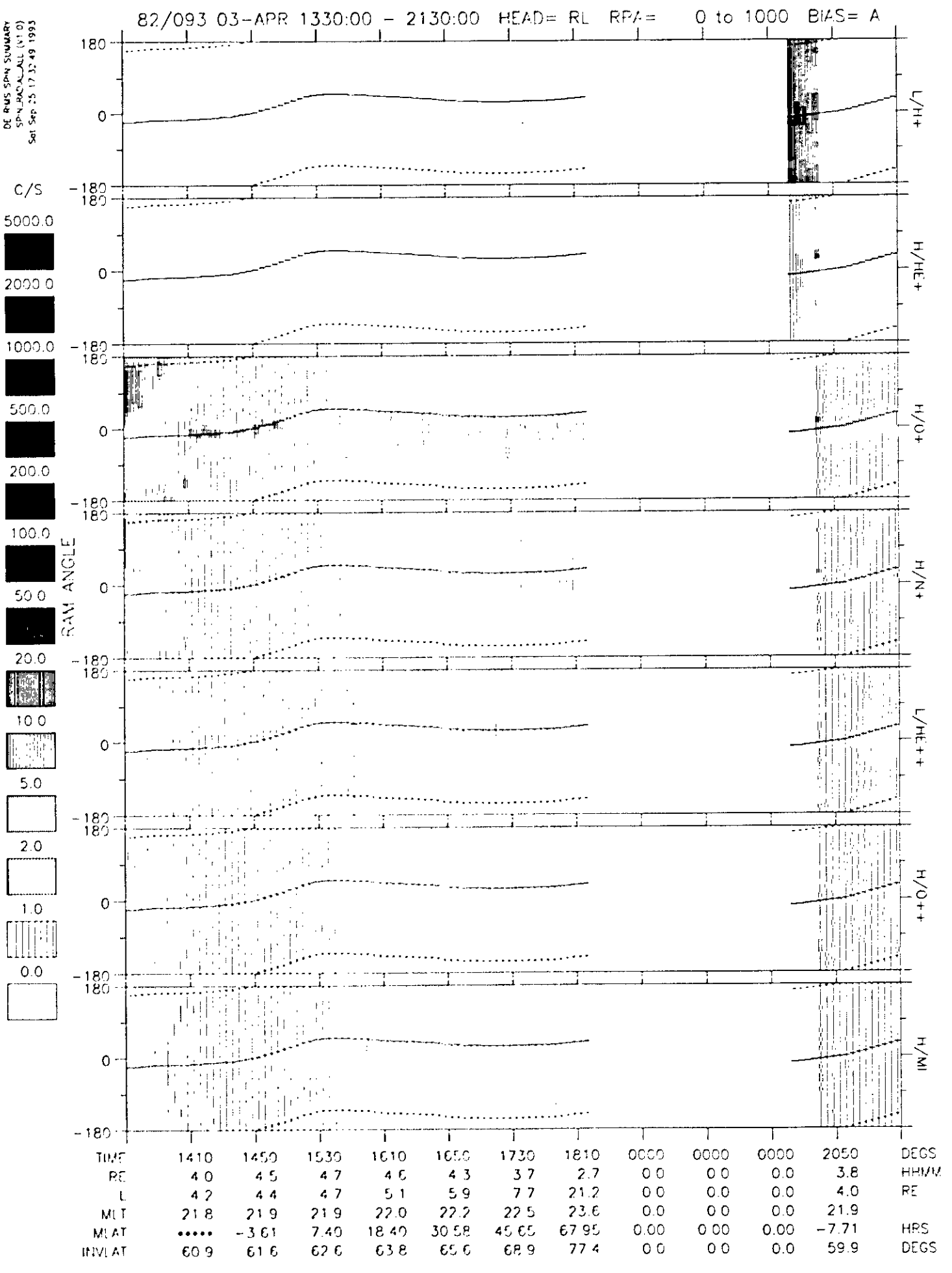

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:23:45 1993
82/092 02-APR 0330:00 - 1130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0410 0450 0530 0610 0650 0730 0810 0850 0000 1010 1050 DEGS
RE 4.2 4.6 4.7 4.5 4.1 3.4 2.3 1.1 0.0 3.3 4.0 HHMM
L 4.4 5.3 6.3 7.5 9.6 15.9 83.5 1.2 0.0 4.0 4.1 RE
MLT 22.0 21.9 21.7 21.5 21.2 20.5 15.8 9.8 0.0 22.2 22.0
MLAT 10.85 21.54 30.64 39.45 49.30 62.36 78.63 -9.06 0.00 ***** -9.49 HRS
INVLAT 61.5 64.3 66.5 68.7 71.2 75.5 83.7 25.9 0.0 59.8 60.4 DEGS

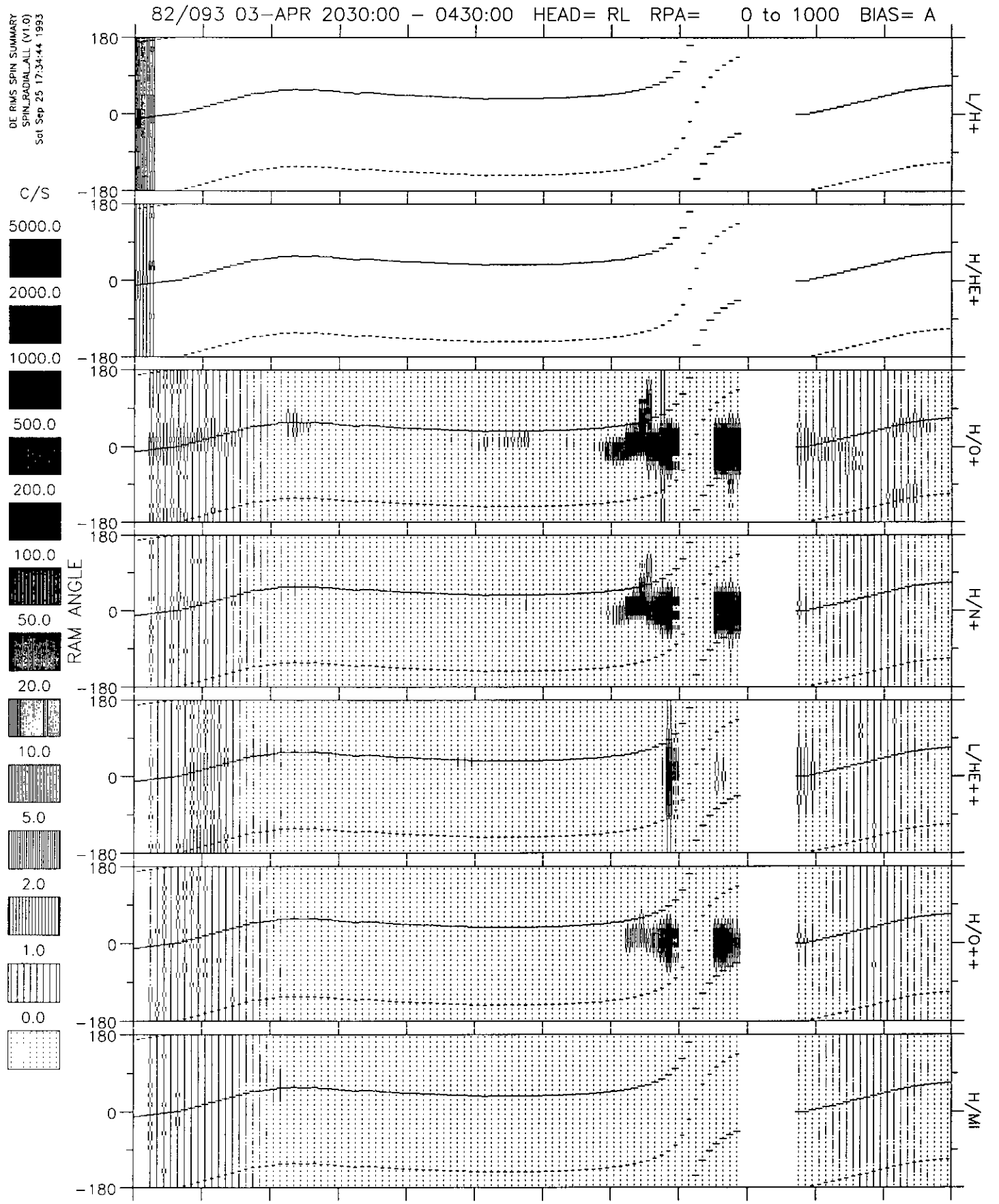

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1 0)
Sat Sep 25 17 25 46 1993
82/092 02-APR 1015:00 - 1815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200 0
100 0
50 0
20 0
10.0
5 0
2 0
1 0
0 0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1055 1135 1215 1255 1335 1415 1455 1535 1615 0000 1735 DEGS
RE 4 1 4 5 4 7 4 6 4 2 3 5 2 5 1.2 1.9 0.0 3.9 HHMM
L 4 1 4 5 4 8 5.2 5 9 7 9 33 0 1.5 16 5 0.0 4.2 RE
MLT 22 0 21 8 21 8 21 7 21 8 21 8 22.1 9 8 21.1 0.0 21.9
MLAT -8.01 2.30 11.53 21.01 32 07 46 90 72.31 26 92 ••••• 0.00 ••••• HRS
INVLAT 60 6 61 8 62 9 64 0 65 7 69 2 80 0 35 6 75 7 0.0 60.6 DEGS

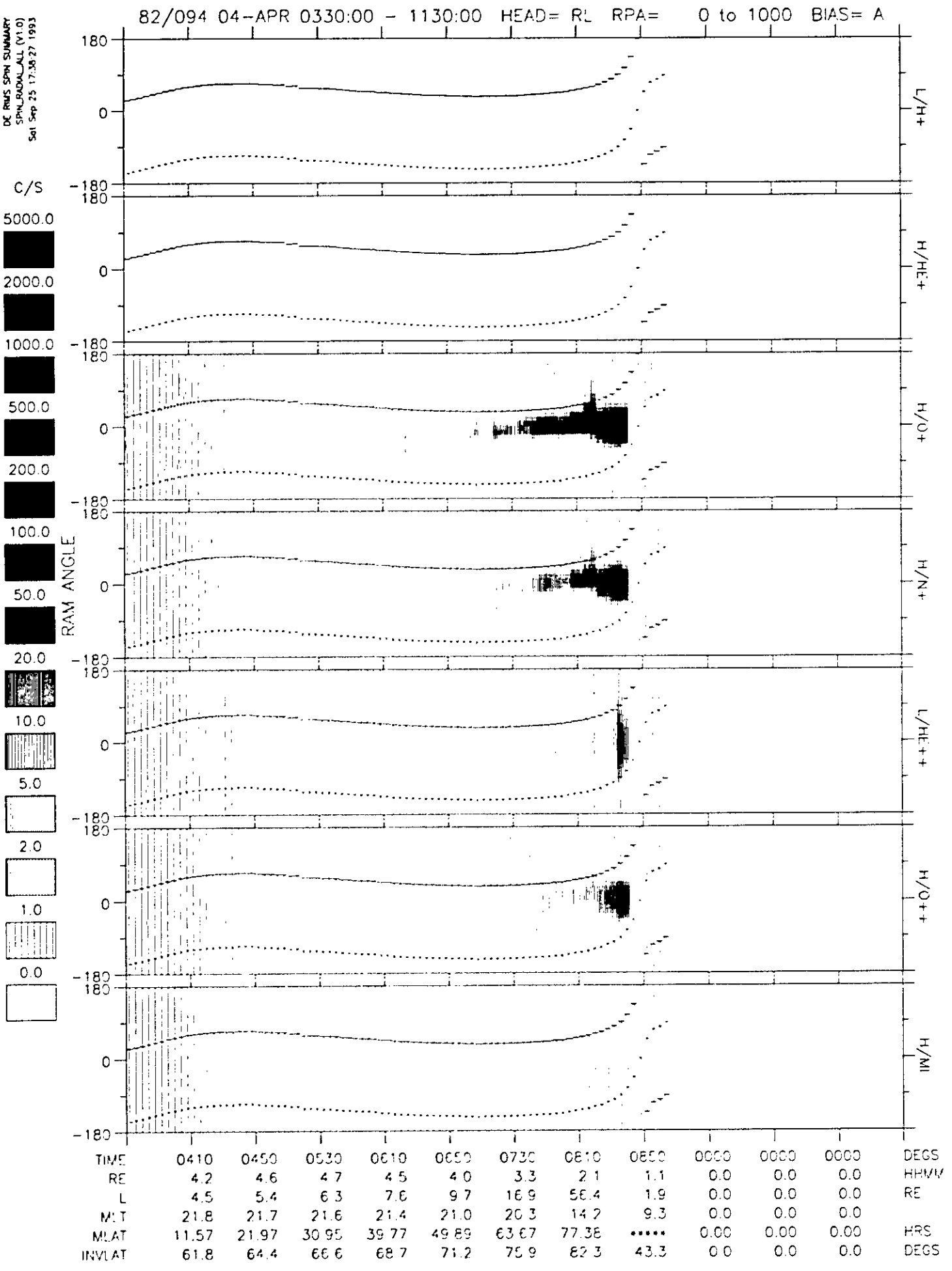

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:27:48 1993
82/092 02-APR 1700:00 - 0100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1740 1820 1900 1940 2020 2100 2140 2220 0000 0000 0000 DEGS
RE 4.0 4.5 4.7 4.6 4.3 3.6 2.6 1.3 0.0 0.0 0.0 HHMM
L 4.2 4.5 5.0 5.7 6.9 10.5 47.2 1.8 0.0 0.0 0.0 RE
MLT 21.9 22.1 22.2 22.4 22.7 23.2 1.6 9.6 0.0 0.0 0.0
MLAT ***** 2.18 14.40 26.44 39.41 55.17 76.33 31.58 0.00 0.00 0.00 HRS
INVLAT 60.7 61.8 63.3 65.2 67.7 72.1 81.6 41.3 0.0 0.0 0.0 DEGS

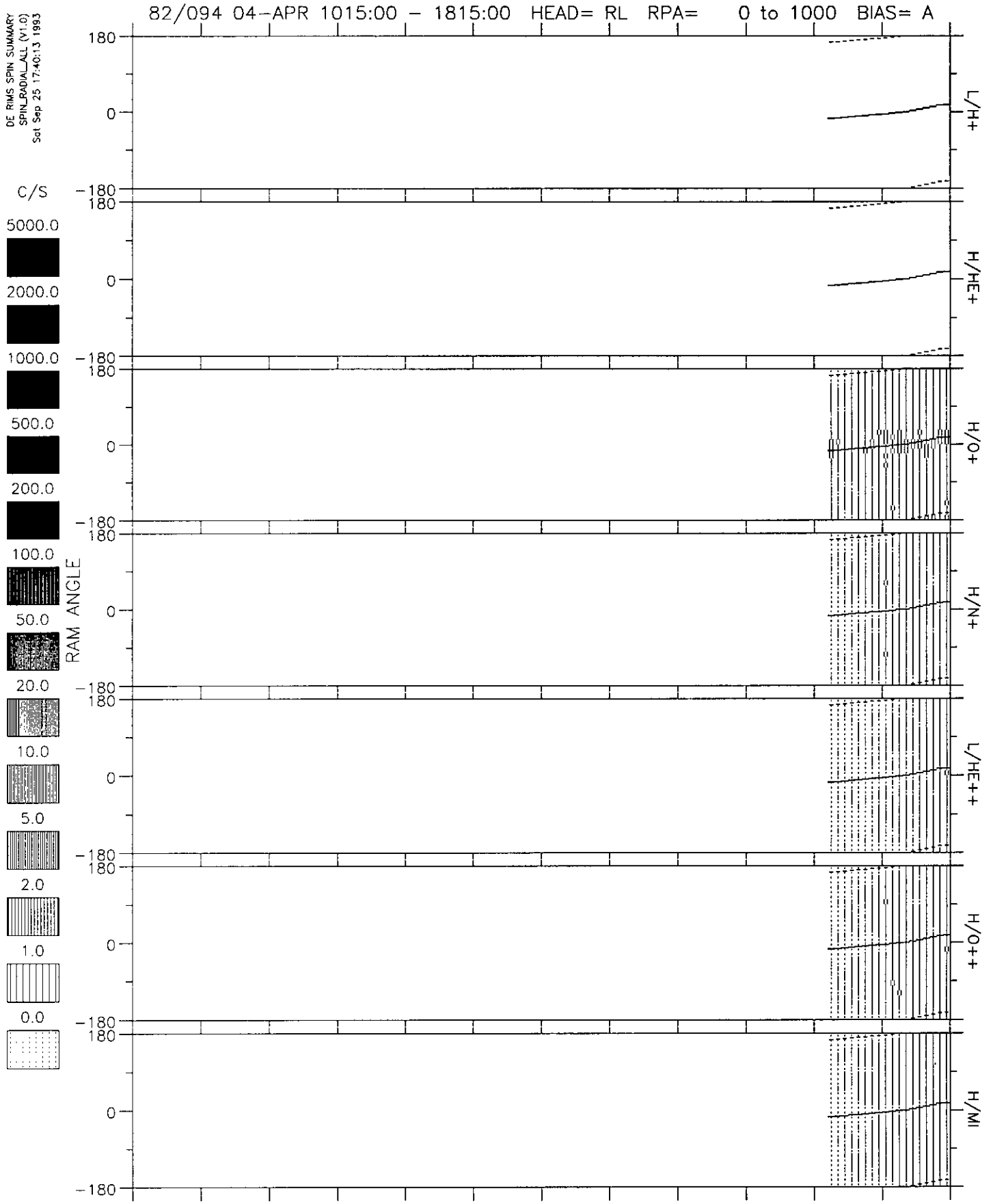

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1 0)
Sat Sep 25 17 29 34 1993
82/093 03-APR 0000:00 - 0800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0600 0640 0720 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.1 3.1 4.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.4 3.5 4.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 22.6 22.2 21.9
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ***** ***** -0.66 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 61.5 57.5 59.9 DEGS

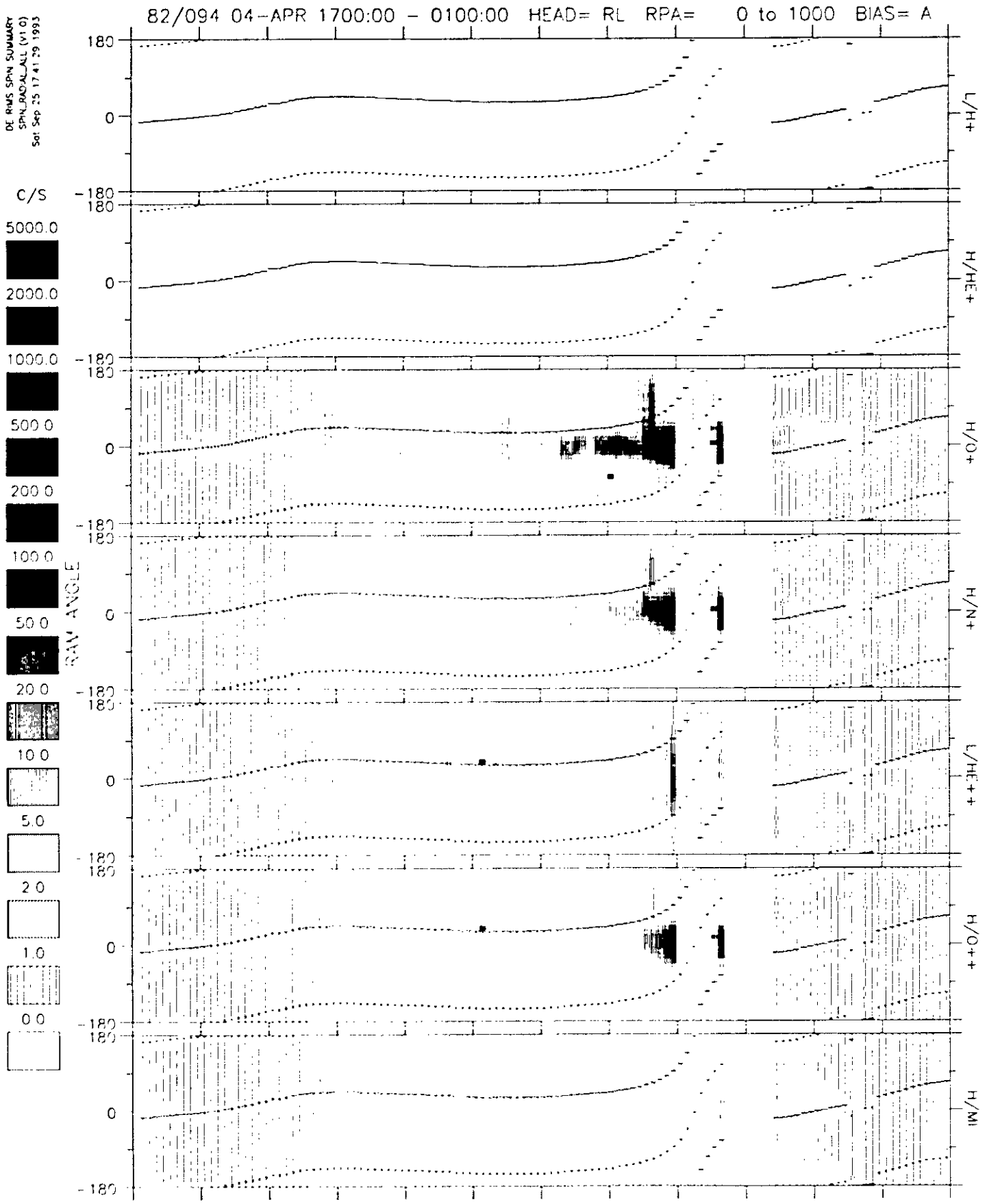

82/093 03-APR 0715:00 - 1515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:30:55 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0755 0835 0915 0000 0000 0000 1155 1235 1315 1355 1435 DEGS
RE 4.4 4.7 4.6 0.0 0.0 0.0 1.5 1.5 2.8 3.7 4.3 HHMM
L 4.5 5.0 5.6 0.0 0.0 0.0 6.1 74.3 5.1 4.2 4.3 RE
MLT 21.8 21.7 21.5 0.0 0.0 0.0 10.8 6.0 22.0 21.9 21.8
MLAT 8.44 17.08 25.28 0.00 0.00 0.00 63.30 ***** ***** ***** -8.04 HRS
INVLAT 61.8 63.5 64.9 0.0 0.0 0.0 66.0 83.3 63.8 60.9 61.3 DEGS

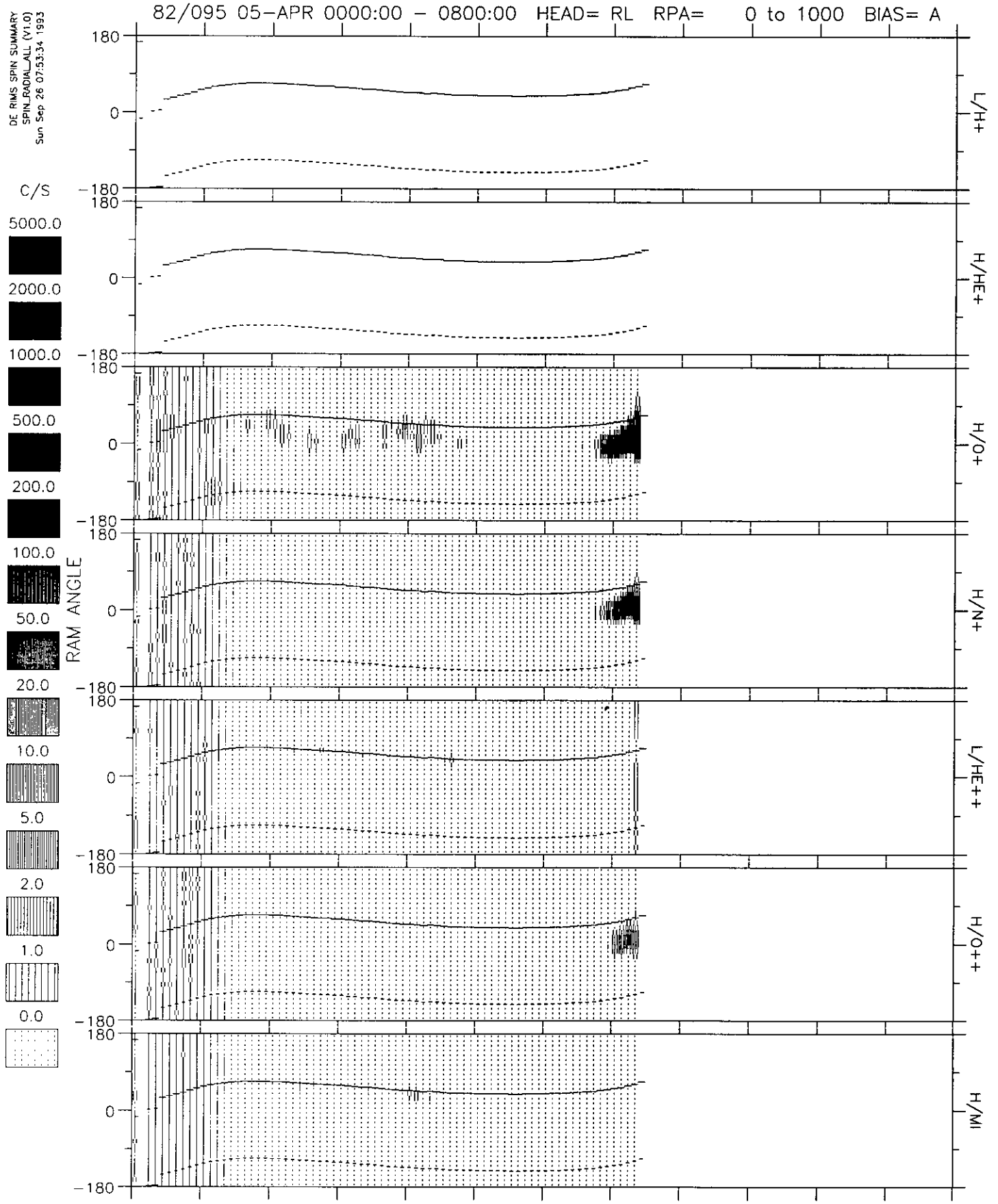

82/093 03-APR 1330:00 - 2130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RACAL_ALL (V1.0)
Sat Sep 25 17:32:49 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAW ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 1410 1450 1530 1610 1650 1730 1810 0000 0000 0000 2050 DEGS
RE 4.0 4.5 4.7 4.6 4.3 3.7 2.7 0.0 0.0 0.0 3.8 HHMM
L 4.2 4.4 4.7 5.1 5.9 7.7 21.2 0.0 0.0 0.0 4.0 RE
MLT 21.8 21.9 21.9 22.0 22.2 22.5 23.6 0.0 0.0 0.0 21.9
MLAT ..... -3.61 7.40 18.40 30.58 45.65 67.95 0.00 0.00 0.00 -7.71 HRS
INVLAT 60.9 61.6 62.6 63.8 65.6 68.9 77.4 0.0 0.0 0.0 59.9 DEGS

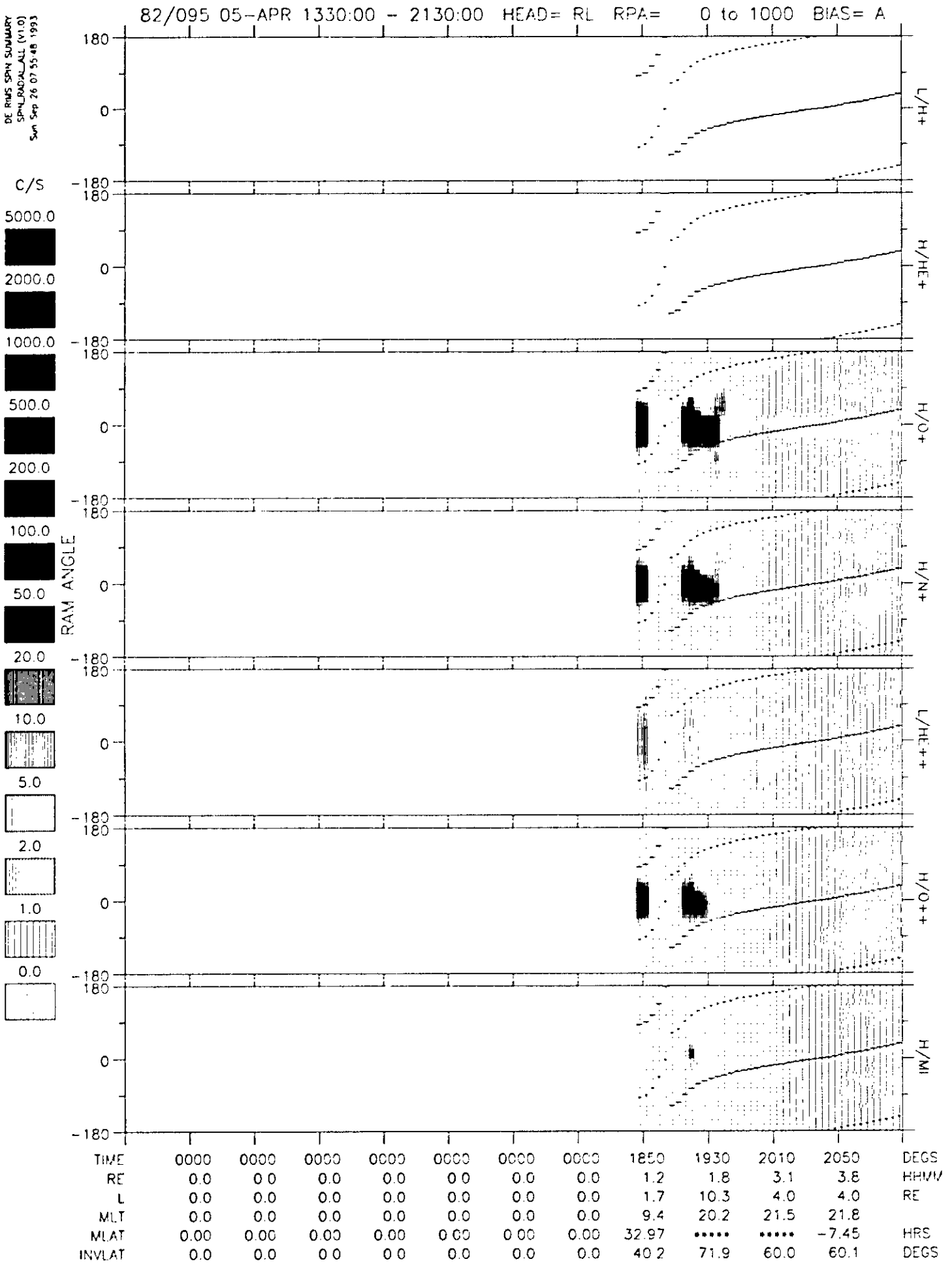

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:34:44 1993
82/093 03-APR 2030:00 - 0430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 2110 2150 2230 2310 2350 0030 0110 0150 0000 0310 0350 DEGS
RE 4.1 4.5 4.7 4.6 4.2 3.5 2.4 1.1 0.0 3.2 4.0 HHMM
L 4.2 4.8 5.7 7.1 10.0 21.0 100.0 1.1 0.0 3.3 4.0 RE
MLT 22.0 22.1 22.3 22.4 22.5 22.8 7.5 9.9 0.0 21.9 21.9
MLAT 0.23 13.86 26.07 38.12 51.23 67.58 83.45 -0.78 0.00 ***** 5.30 HRS
INVLAT 60.8 62.8 65.2 67.9 71.5 77.4 86.5 13.4 0.0 56.8 60.2 DEGS

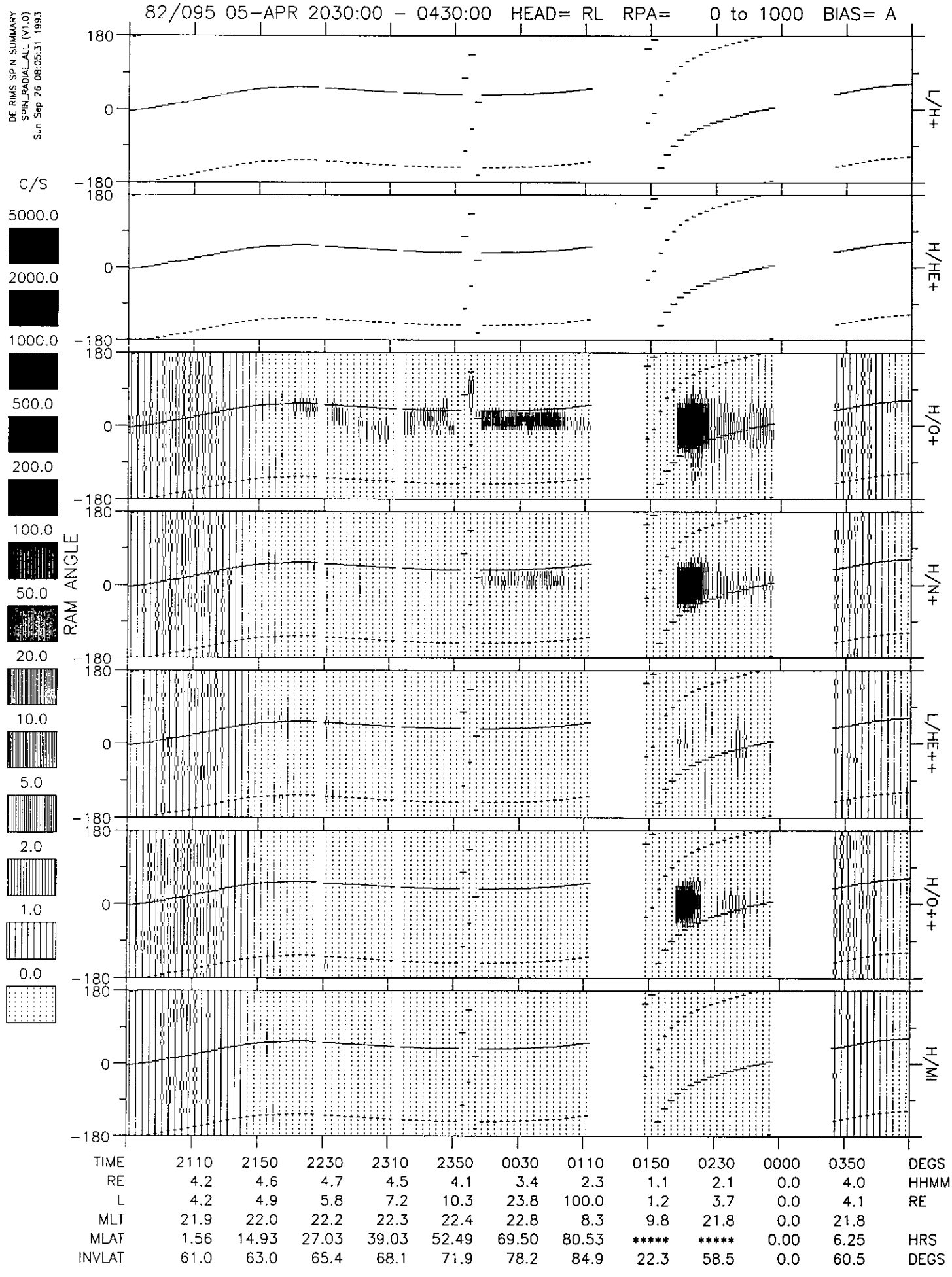

82/094 04-APR 0330:00 - 1130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:36:27 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0410 0450 0530 0610 0650 0730 0810 0850 0000 0000 0000 DEGS
RE 4.2 4.6 4.7 4.5 4.0 3.3 2.1 1.1 0.0 0.0 0.0 HHMM
L 4.5 5.4 6.3 7.6 9.7 16.9 56.4 1.9 0.0 0.0 0.0 RE
MLT 21.8 21.7 21.6 21.4 21.0 20.3 14.2 9.3 0.0 0.0 0.0
MLAT 11.57 21.97 30.95 39.77 49.89 63.67 77.38 ***** 0.00 0.00 0.00 HRS
INVLAT 61.8 64.4 66.6 68.7 71.2 75.9 82.3 43.3 0.0 0.0 0.0 DEGS

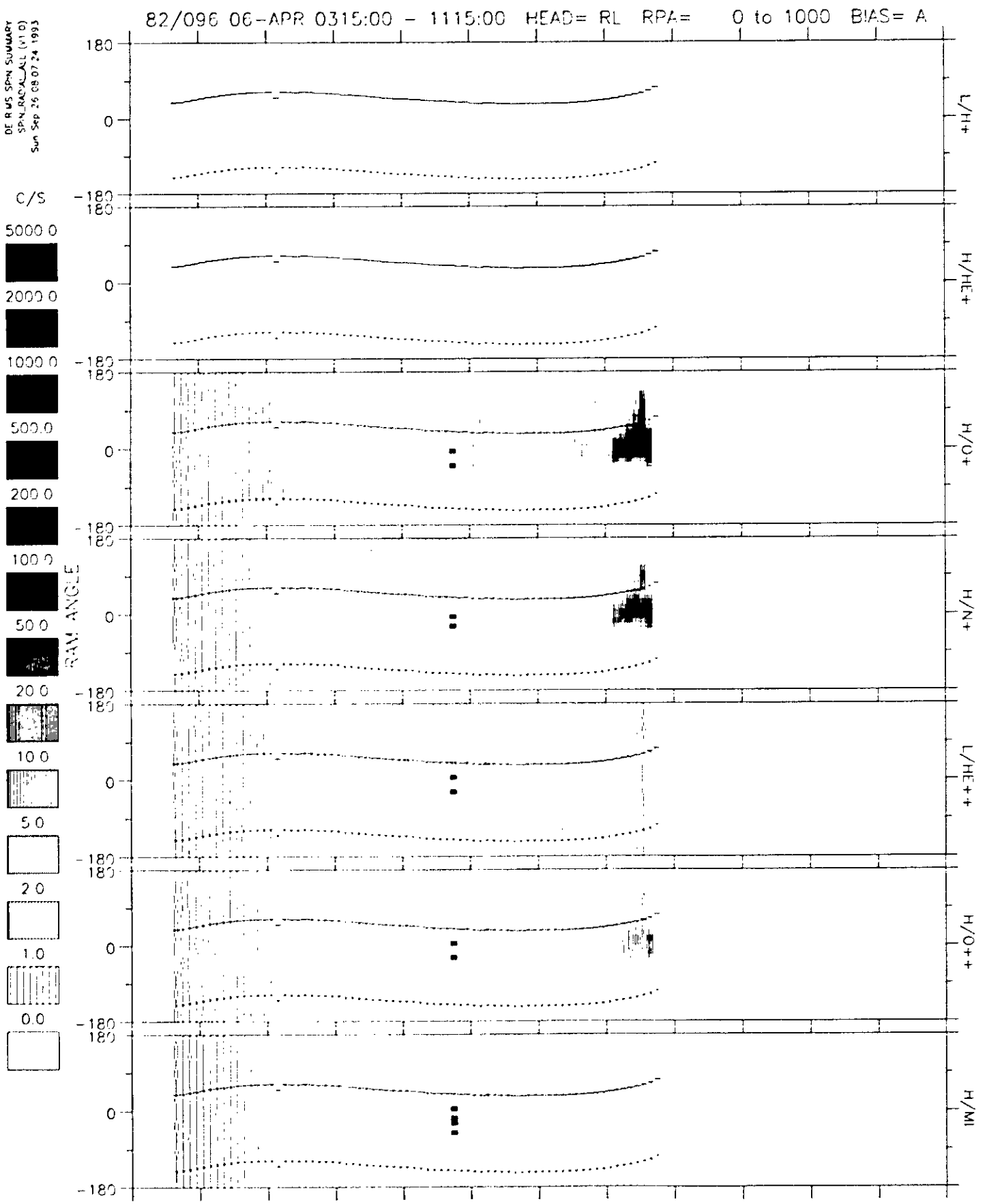

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:40:13 1993
82/094 04-APR 1015:00 - 1815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 1735 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.2 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.8
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 60.8 DEGS

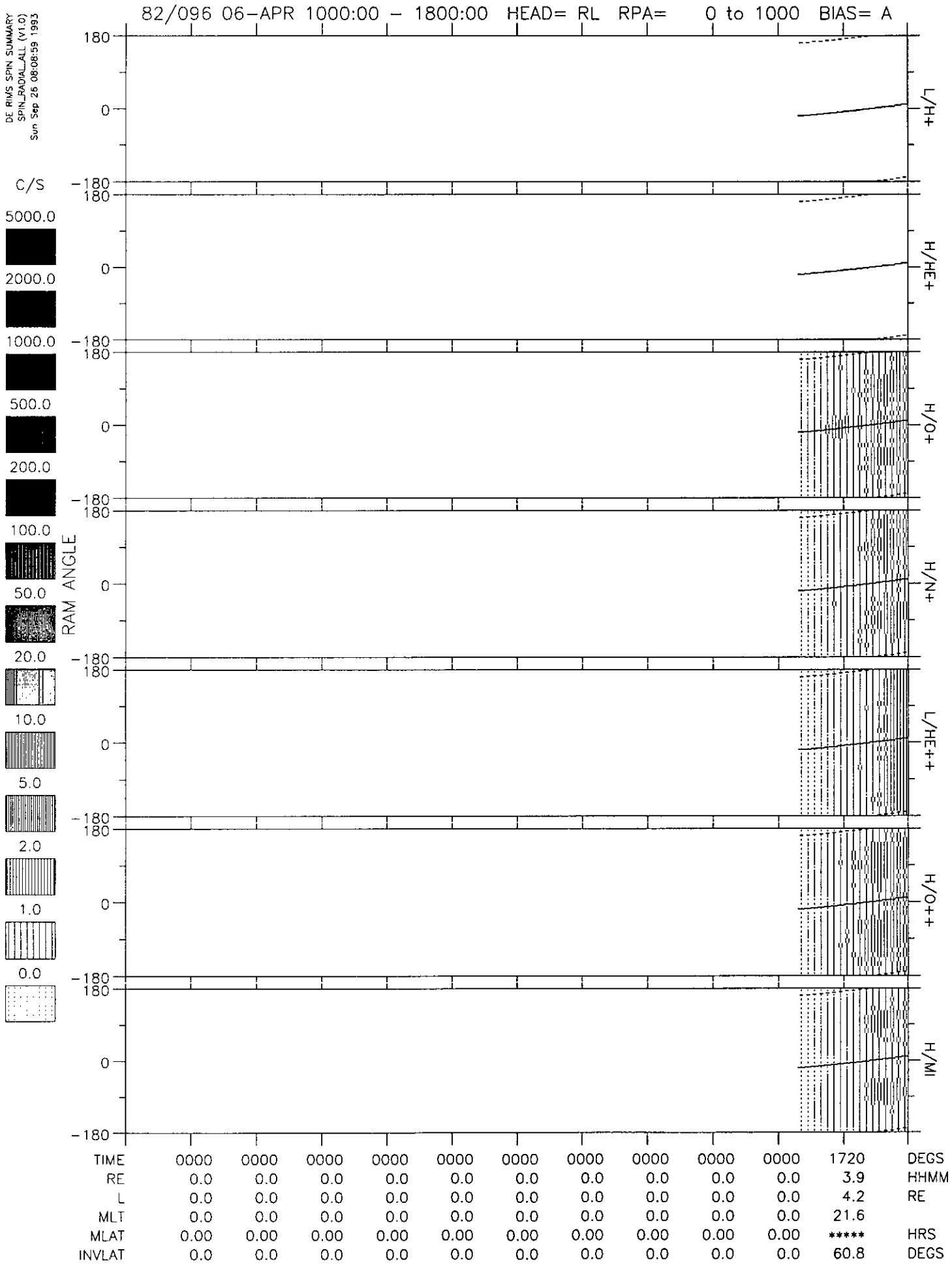

82/094 04-APR 1700:00 - 0100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Sep 25 17:41:29 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAW ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1740 1820 1900 1940 2020 2100 2140 2220 0000 2340 0020 DEGS
RE 4.1 4.5 4.7 4.6 4.2 3.5 2.5 1.2 0.0 3.1 3.9 HHMM
L 4.2 4.5 5.0 5.7 7.1 11.2 66.9 1.2 0.0 3.5 4.0 RE
MLT 21.8 22.0 22.1 22.4 22.6 23.1 2.6 9.7 0.0 21.7 21.9
MLAT ***** 3.21 15.35 27.45 40.71 56.98 78.34 14.19 0.00 ***** 3.23 HRS
INVLAT 60.9 62.0 63.4 65.3 67.9 72.6 83.0 25.4 0.0 57.8 60.2 DEGS

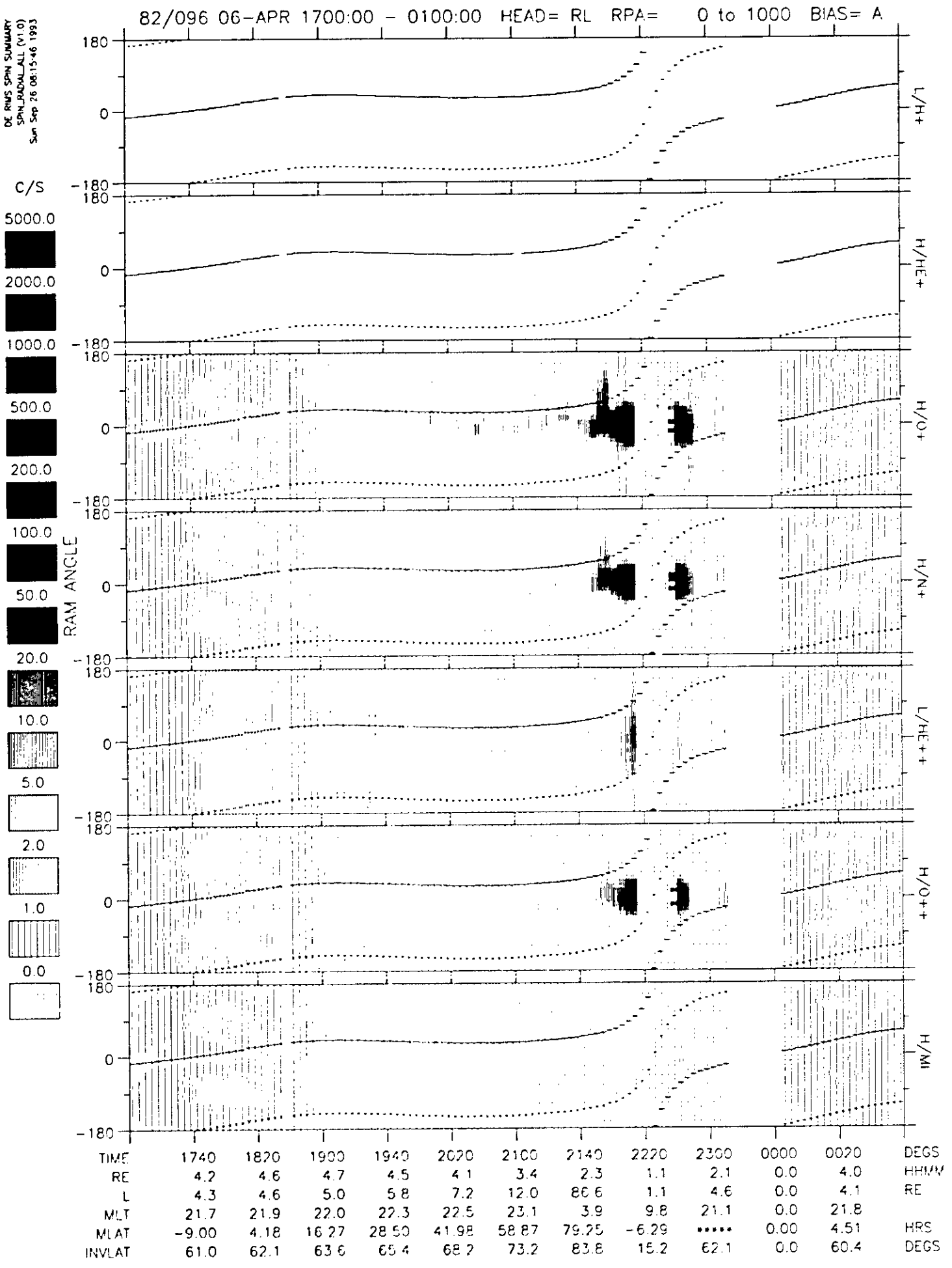

82/095 05-APR 0000:00 - 0800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 26 07:53:34 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0040 0120 0200 0240 0320 0400 0440 0000 0000 0000 0000 DEGS
RE 4.2 4.6 4.7 4.5 4.1 3.3 2.2 0.0 0.0 0.0 0.0 HHMM
L 4.4 5.4 6.8 8.8 13.0 32.3 -0.0 0.0 0.0 0.0 0.0 RE
MLT 21.9 21.9 21.9 21.8 21.6 20.9 11.8 0.0 0.0 0.0 0.0
MLAT 10.45 22.73 33.62 44.31 56.12 71.47 77.26 0.00 0.00 0.00 0.00 HRS
INVLAT 61.7 64.6 67.4 70.3 73.9 79.9 -0.0 0.0 0.0 0.0 0.0 DEGS

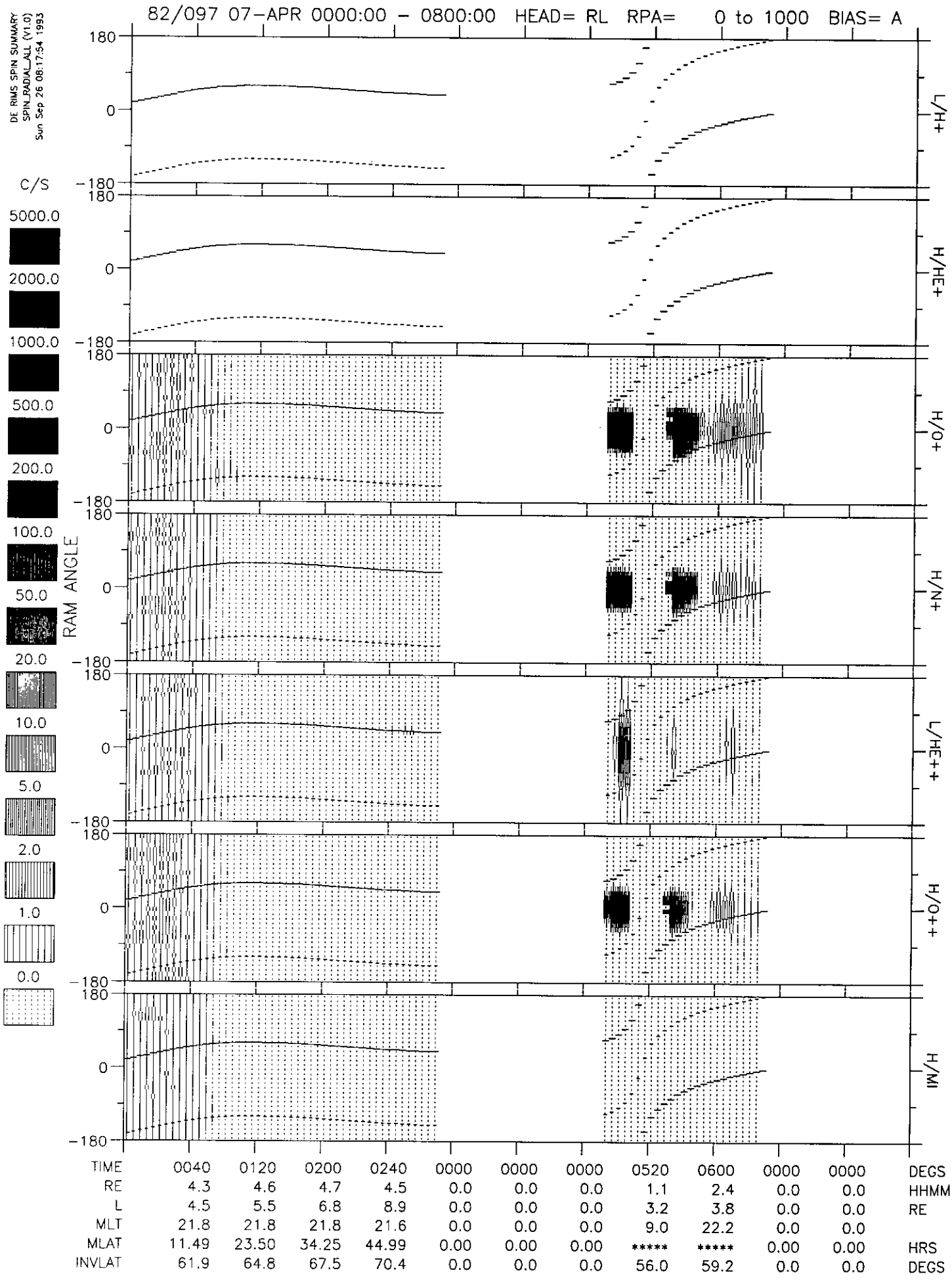

82/095 05-APR 1330:00 - 2130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 26 07:55:48 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0000 0000 0000 0000 0000 0000 0000 1850 1930 2010 2050 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.2 1.8 3.1 3.8 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.7 10.3 4.0 4.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 9.4 20.2 21.5 21.8
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 32.97 ***** ***** -7.45 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 40.2 71.9 60.0 60.1 DEGS

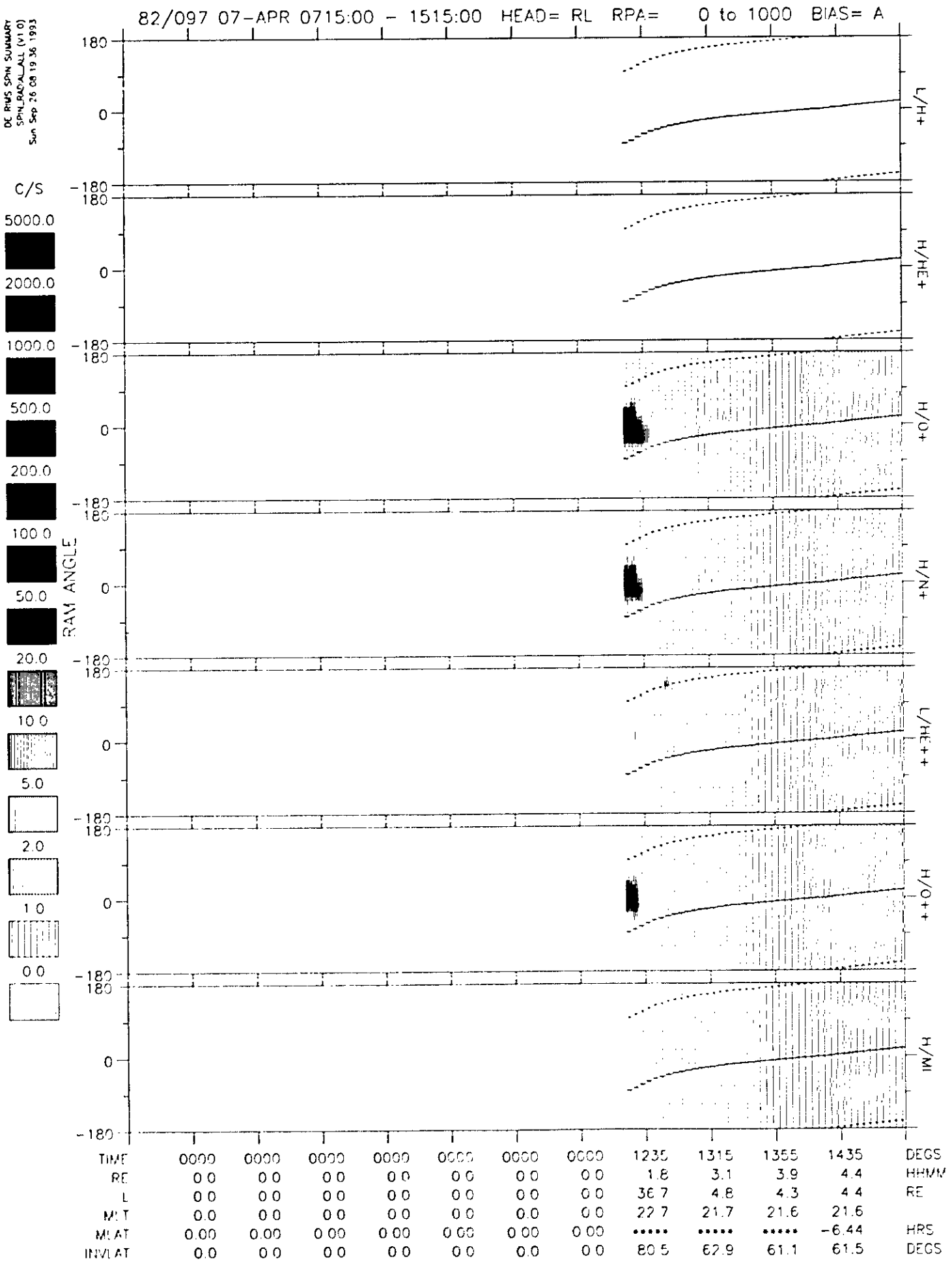

82/095 05-APR 2030:00 - 0430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 26 08:05:31 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 2110 2150 2230 2310 2350 0030 0110 0150 0230 0000 0350 DEGS
RE 4.2 4.6 4.7 4.5 4.1 3.4 2.3 1.1 2.1 0.0 4.0 HHMM
L 4.2 4.9 5.8 7.2 10.3 23.8 100.0 1.2 3.7 0.0 4.1 RE
MLT 21.9 22.0 22.2 22.3 22.4 22.8 8.3 9.8 21.8 0.0 21.8
MLAT 1.56 14.93 27.03 39.03 52.49 69.50 80.53 ***** ***** 0.00 6.25 HRS
INVLAT 61.0 63.0 65.4 68.1 71.9 78.2 84.9 22.3 58.5 0.0 60.5 DEGS

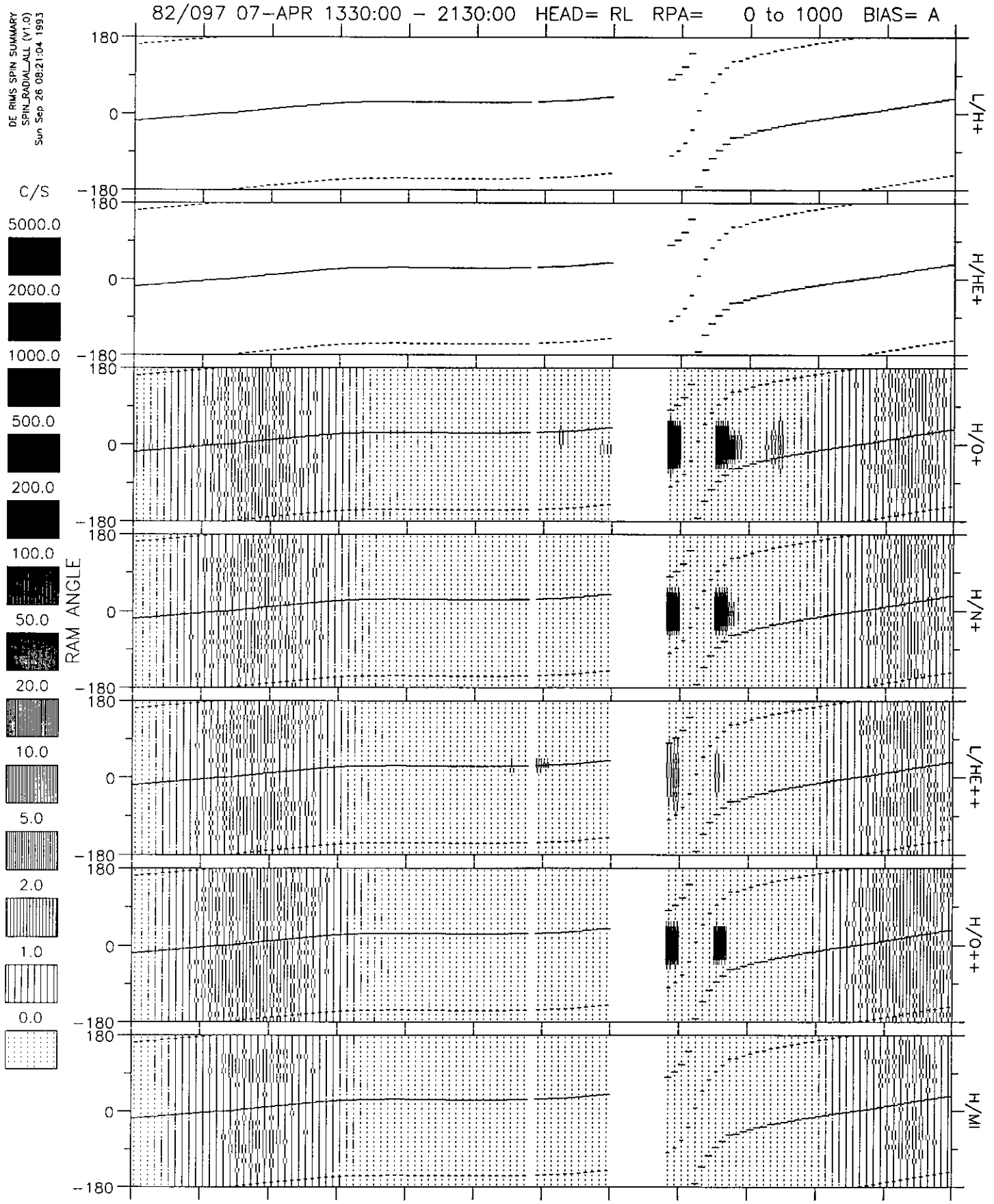

82/096 06-APR 0315:00 - 1115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R WS SPIN SUMMARY
SPIN_RADIAL_ALL (v1.0)
Sun Sep 26 08:07:24 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0355 0435 0515 0555 0635 0715 0755 0000 0000 0000 0000 DEGS
RE 4.1 4.5 4.7 4.6 4.2 3.5 2.5 0.0 0.0 0.0 0.0 HHMM
L 4.2 5.1 6.0 7.1 8.7 13.1 67.5 0.0 0.0 0.0 0.0 RE
MLT 21.7 21.6 21.5 21.3 21.0 20.5 17.5 0.0 0.0 0.0 0.0
MLAT 7.85 18.80 27.98 36.72 46.32 58.82 77.33 0.00 0.00 0.00 0.00 HRS
INVLAT 60.9 63.7 65.9 67.9 70.2 74.0 83.0 0.0 0.0 0.0 0.0 DEGS


82/096 06-APR 1000:00 - 1800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 26 08:08:59 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 1720 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.9 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.2 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.6
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 60.8 DEGS

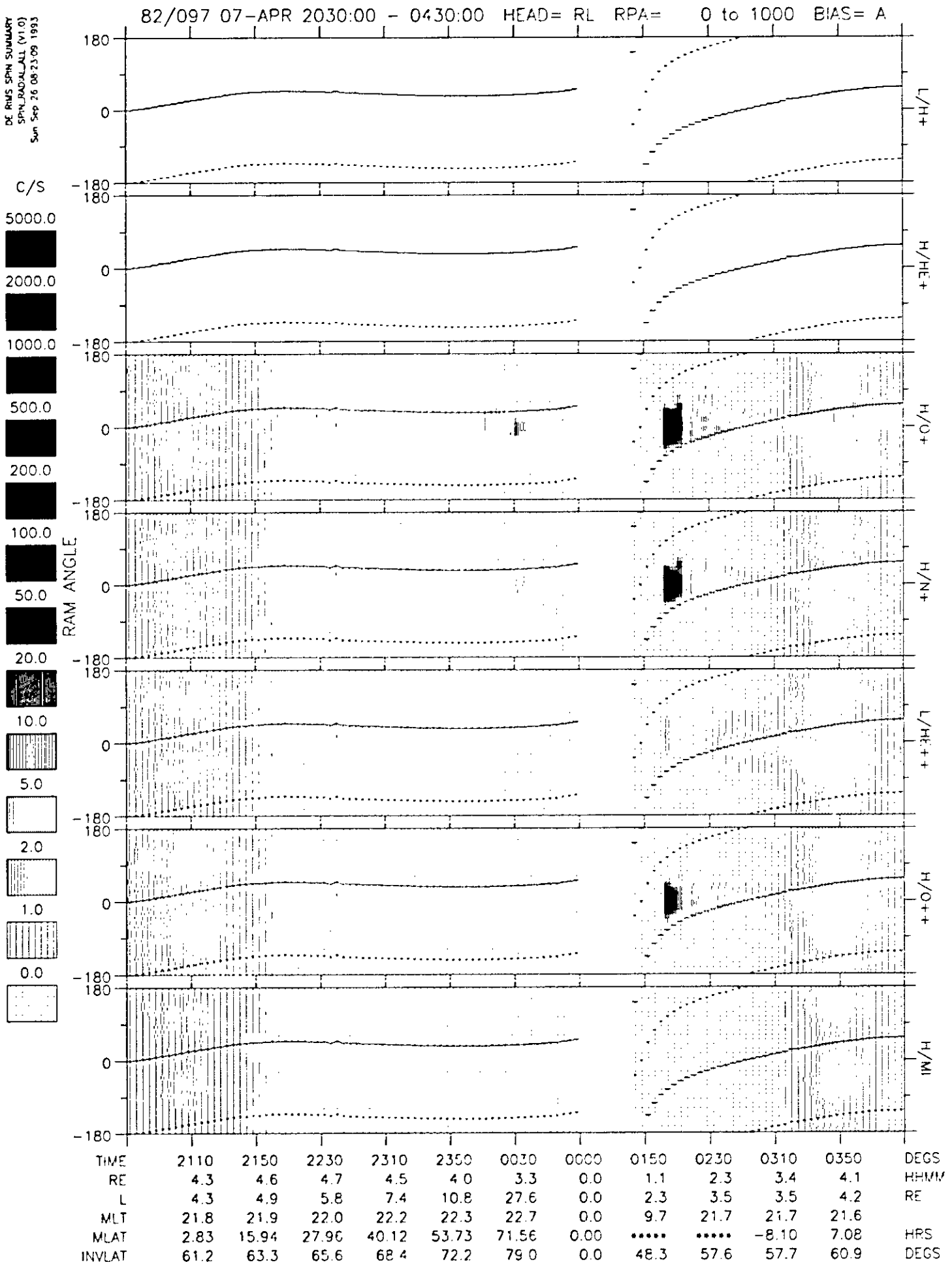

82/096 06-APR 1700:00 - 0100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 26 08:15:46 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
H+/L
H+/HE+
H+/O+
H+/N+
L+/HE++
H+/O++
H+/MI
TIME 1740 1820 1900 1940 2020 2100 2140 2220 2300 0000 0020 DEGS
RE 4.2 4.6 4.7 4.5 4.1 3.4 2.3 1.1 2.1 0.0 4.0 HHMM
L 4.3 4.6 5.0 5.8 7.2 12.0 86.6 1.1 4.6 0.0 4.1 RE
MLT 21.7 21.9 22.0 22.3 22.5 23.1 3.9 9.8 21.1 0.0 21.8
MLAT -9.00 4.18 16.27 28.50 41.98 58.87 79.25 -6.29 ***** 0.00 4.51 HRS
INVLAT 61.0 62.1 63.6 65.4 68.2 73.2 83.8 15.2 62.1 0.0 60.4 DEGS

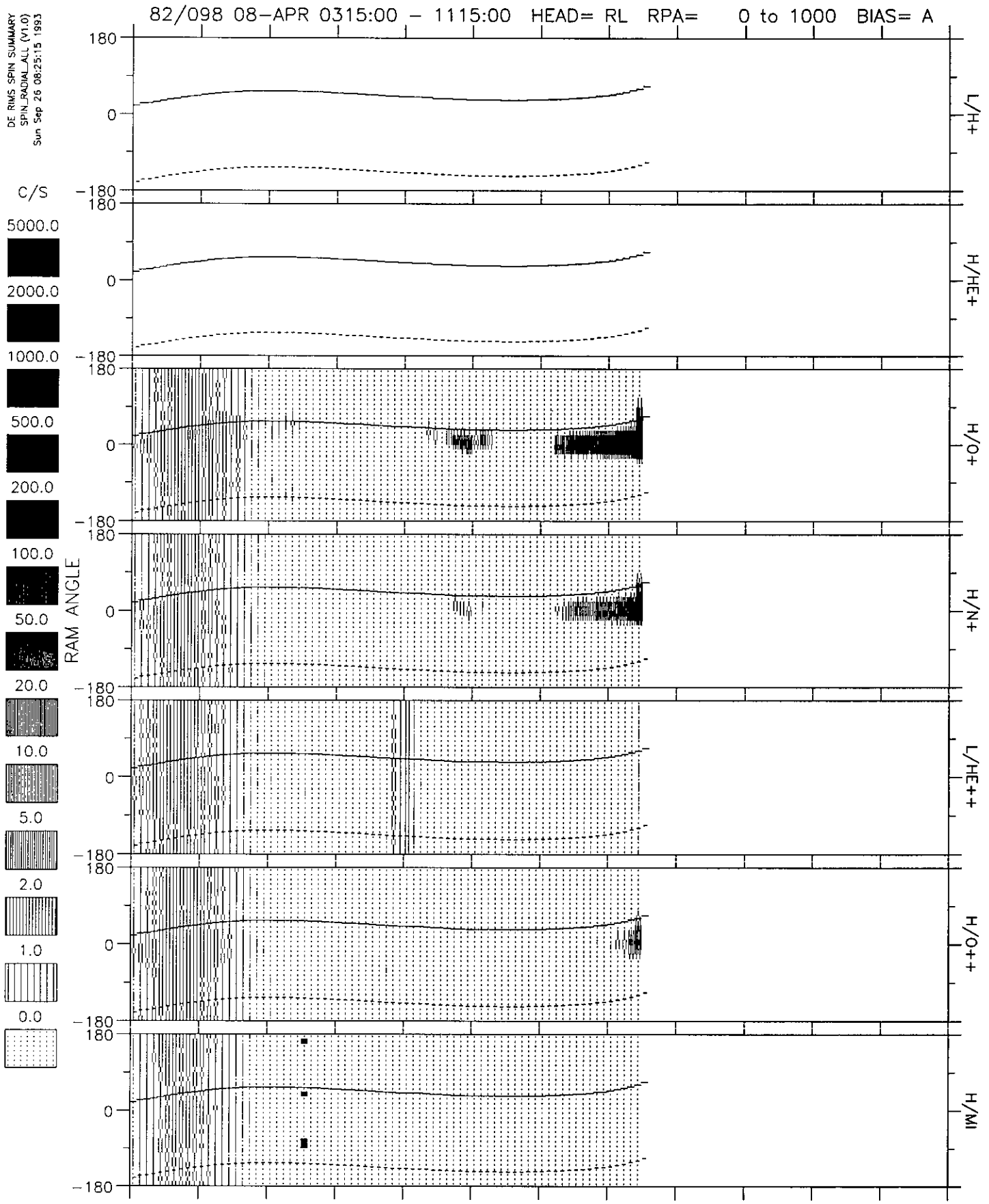

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 26 08:17:54 1993
82/097 07-APR 0000:00 - 0800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0040 0120 0200 0240 0000 0000 0000 0520 0600 0000 0000 DEGS
RE 4.3 4.6 4.7 4.5 0.0 0.0 0.0 1.1 2.4 0.0 0.0 HHMM
L 4.5 5.5 6.8 8.9 0.0 0.0 0.0 3.2 3.8 0.0 0.0 RE
MLT 21.8 21.8 21.8 21.6 0.0 0.0 0.0 9.0 22.2 0.0 0.0
MLAT 11.49 23.50 34.25 44.99 0.00 0.00 0.00 ***** ***** 0.00 0.00 HRS
INVLAT 61.9 64.8 67.5 70.4 0.0 0.0 0.0 56.0 59.2 0.0 0.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 26 08:19:36 1993
82/097 07-APR 0715:00 - 1515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0000 0000 0000 1235 1315 1355 1435 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.8 3.1 3.9 4.4 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 36.7 4.8 4.3 4.4 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 22.7 21.7 21.6 21.6
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ***** ***** ***** -6.44 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 80.5 62.9 61.1 61.5 DEGS

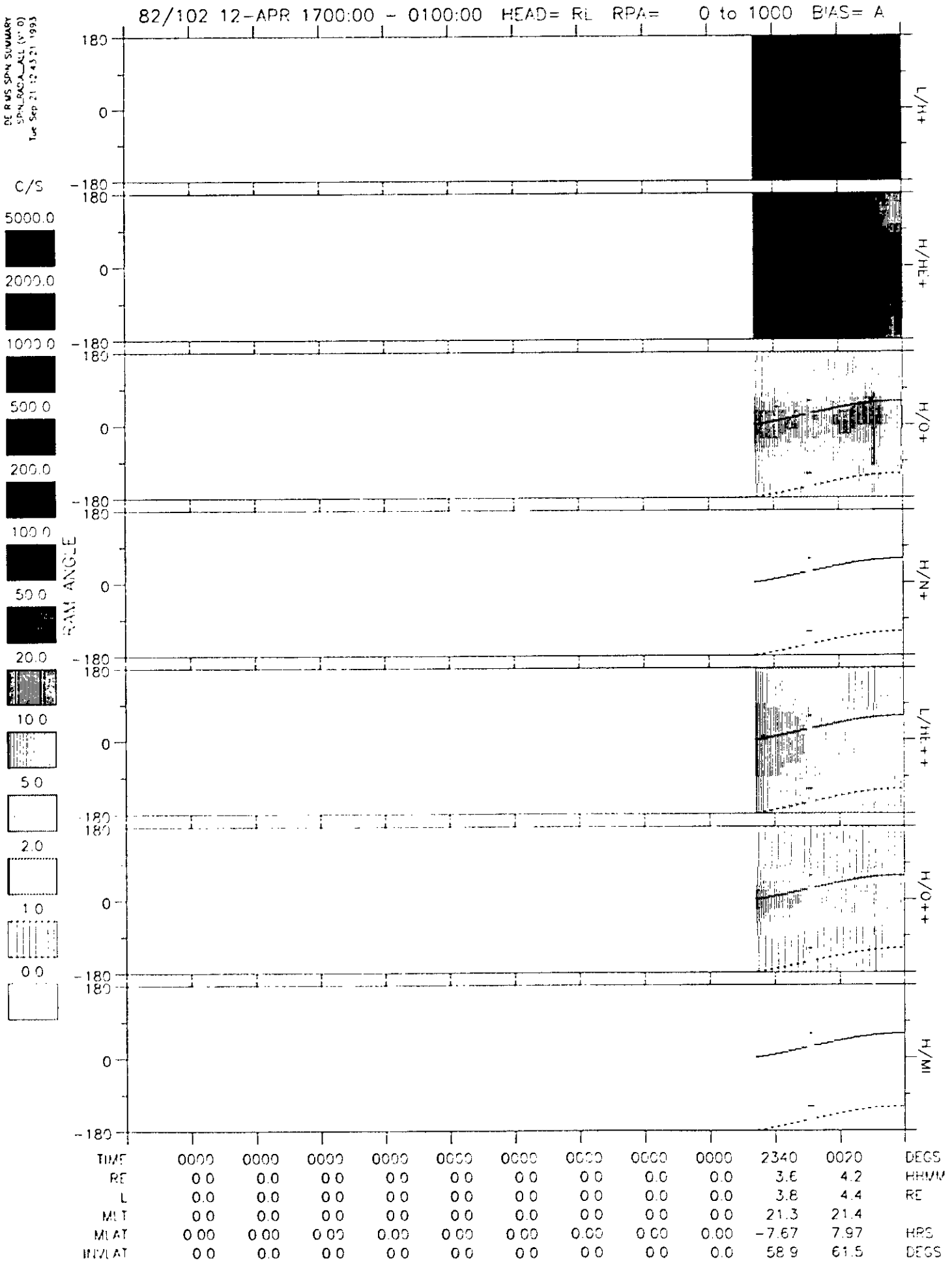


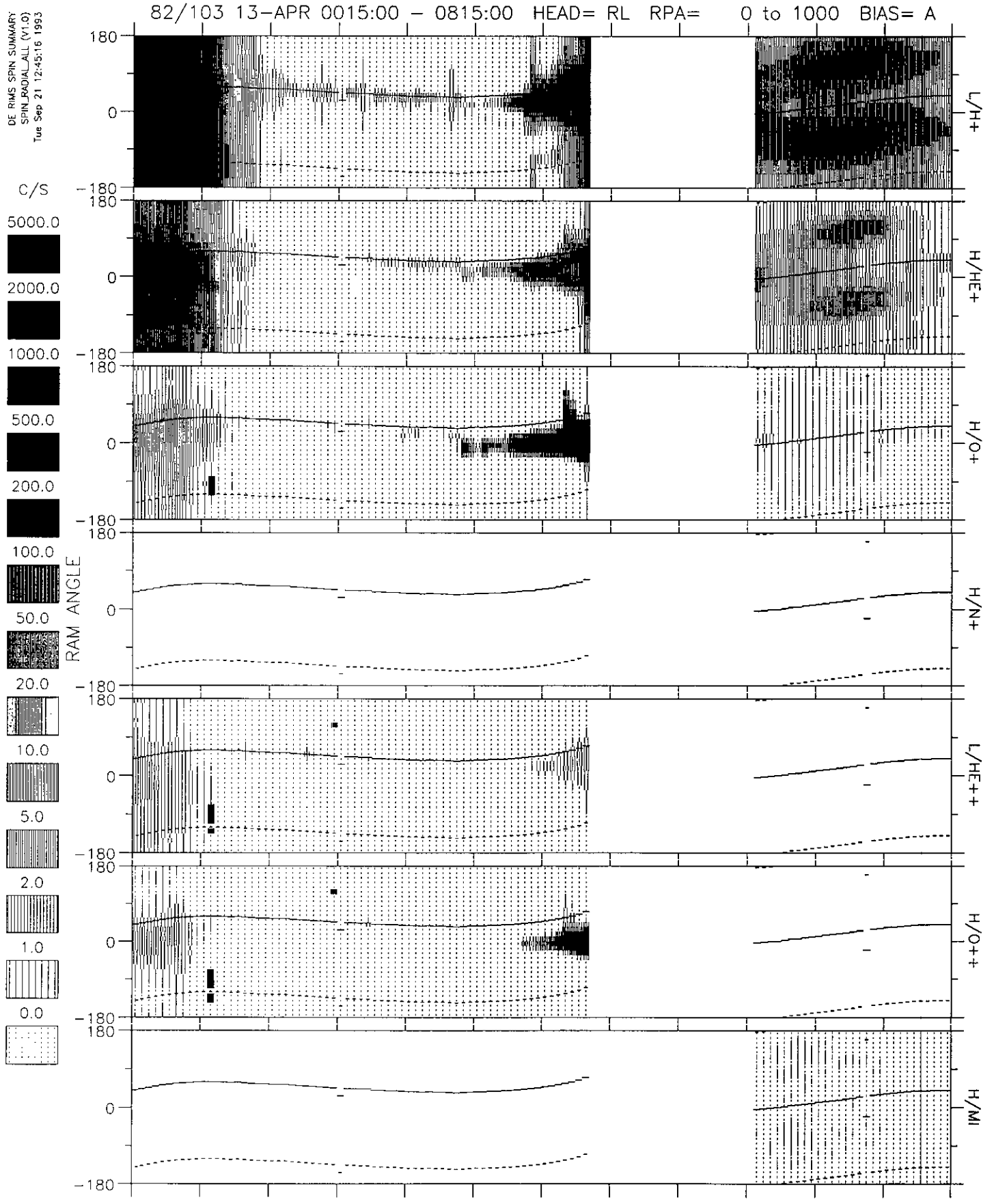
TIME	1410	1450	1530	1610	1650	1730	0000	1850	1930	2010	2050	DEGS
RE	4.1	4.5	4.7	4.5	4.2	3.5	0.0	1.1	2.0	3.2	4.0	HHMM
L	4.3	4.5	4.8	5.2	6.0	8.1	0.0	1.2	7.7	4.0	4.1	RE
MLT	21.6	21.6	21.7	21.8	22.0	22.4	0.0	9.6	20.5	21.4	21.7	
MLAT	*****	-2.13	8.81	20.02	32.70	47.90	0.00	13.80	*****	*****	-4.65	HRS
INVLAT	61.2	61.8	62.7	63.9	65.8	69.4	0.0	22.4	68.9	59.9	60.4	DEGS

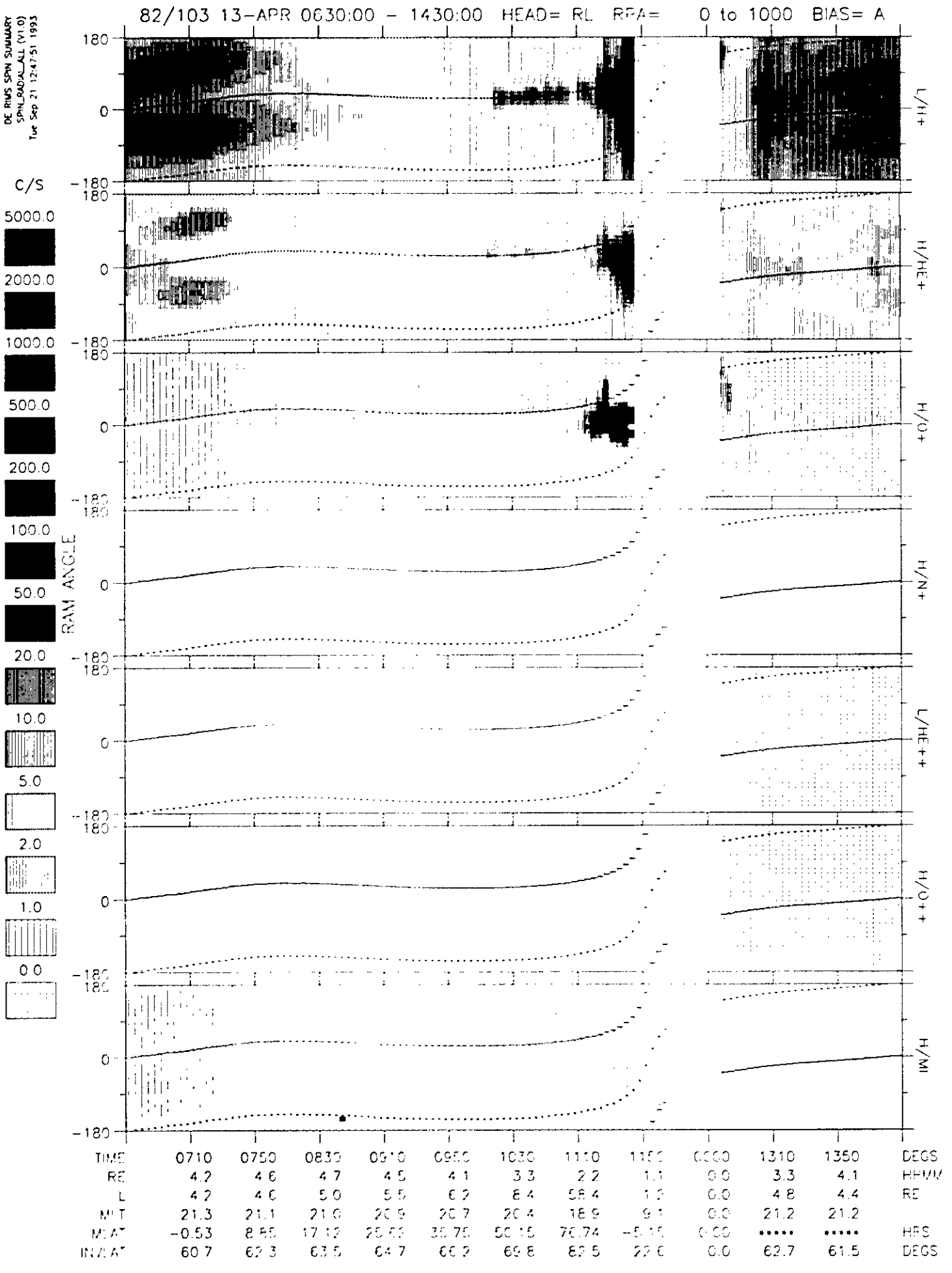

82/097 07-APR 2030:00 - 0430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Sep 26 08:23:09 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
H+
HE+
O+
N+
HE++
O++
MI
TIME 2110 2150 2230 2310 2350 0030 0000 0150 0230 0310 0350 DEGS
RE 4.3 4.6 4.7 4.5 4.0 3.3 0.0 1.1 2.3 3.4 4.1 HHMM
L 4.3 4.9 5.8 7.4 10.8 27.6 0.0 2.3 3.5 3.5 4.2 RE
MLT 21.8 21.9 22.0 22.2 22.3 22.7 0.0 9.7 21.7 21.7 21.6
MLAT 2.83 15.94 27.96 40.12 53.73 71.56 0.00 ***** ***** -8.10 7.08 HRS
INVLAT 61.2 63.3 65.6 68.4 72.2 79.0 0.0 48.3 57.6 57.7 60.9 DEGS

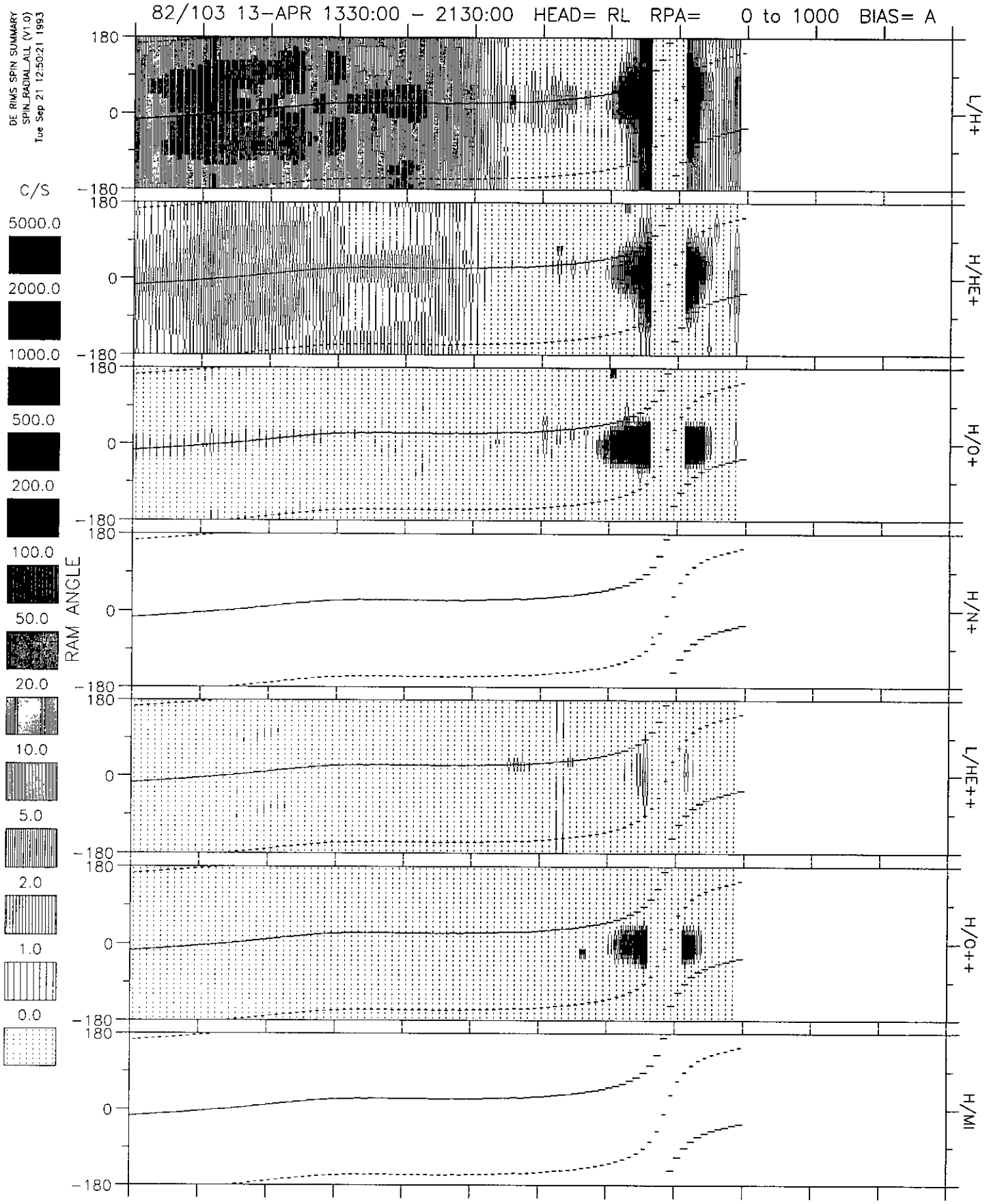


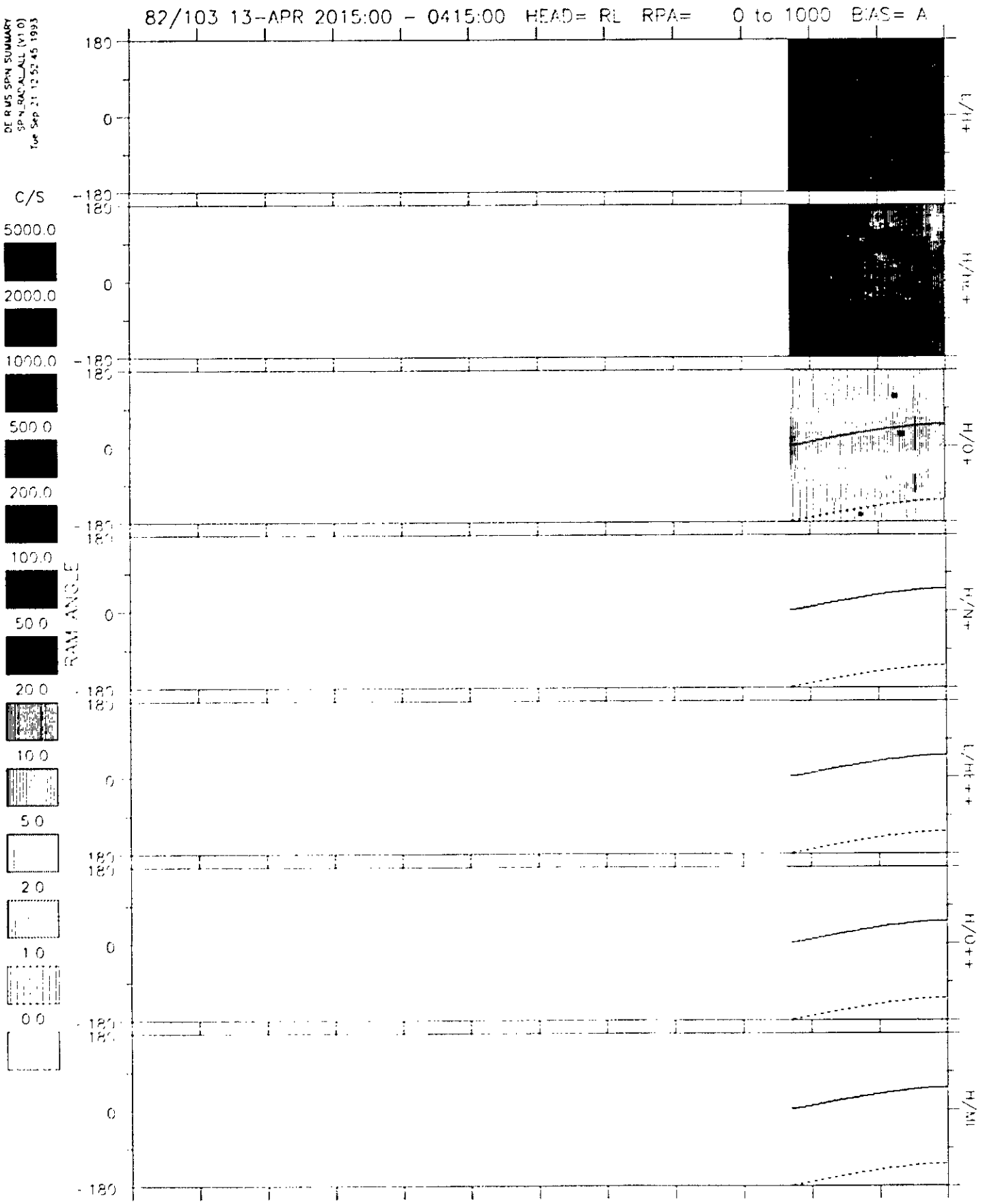
TIME	0355	0435	0515	0555	0635	0715	0755	0000	0000	0000	0000	DEGS
RE	4.2	4.6	4.7	4.5	4.1	3.4	2.3	0.0	0.0	0.0	0.0	HHMM
L	4.3	5.1	6.0	7.1	8.7	13.6	82.1	0.0	0.0	0.0	0.0	RE
MLT	21.6	21.5	21.4	21.2	20.9	20.3	16.3	0.0	0.0	0.0	0.0	
MLAT	8.63	19.22	28.28	37.04	46.87	59.98	78.47	0.00	0.00	0.00	0.00	HRS
INVLAT	61.2	63.8	66.0	67.9	70.2	74.3	83.7	0.0	0.0	0.0	0.0	DEGS


82/102 12-APR 1700:00 - 0100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE R MS SPIN SUMMARY
SPIN_RACR_ALL (V: 0)
Tue Sep 21 12:43:21 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 2340 0020 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.6 4.2 HRMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.8 4.4 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.3 21.4
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 -7.67 7.97 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 58.9 61.5 DEGS

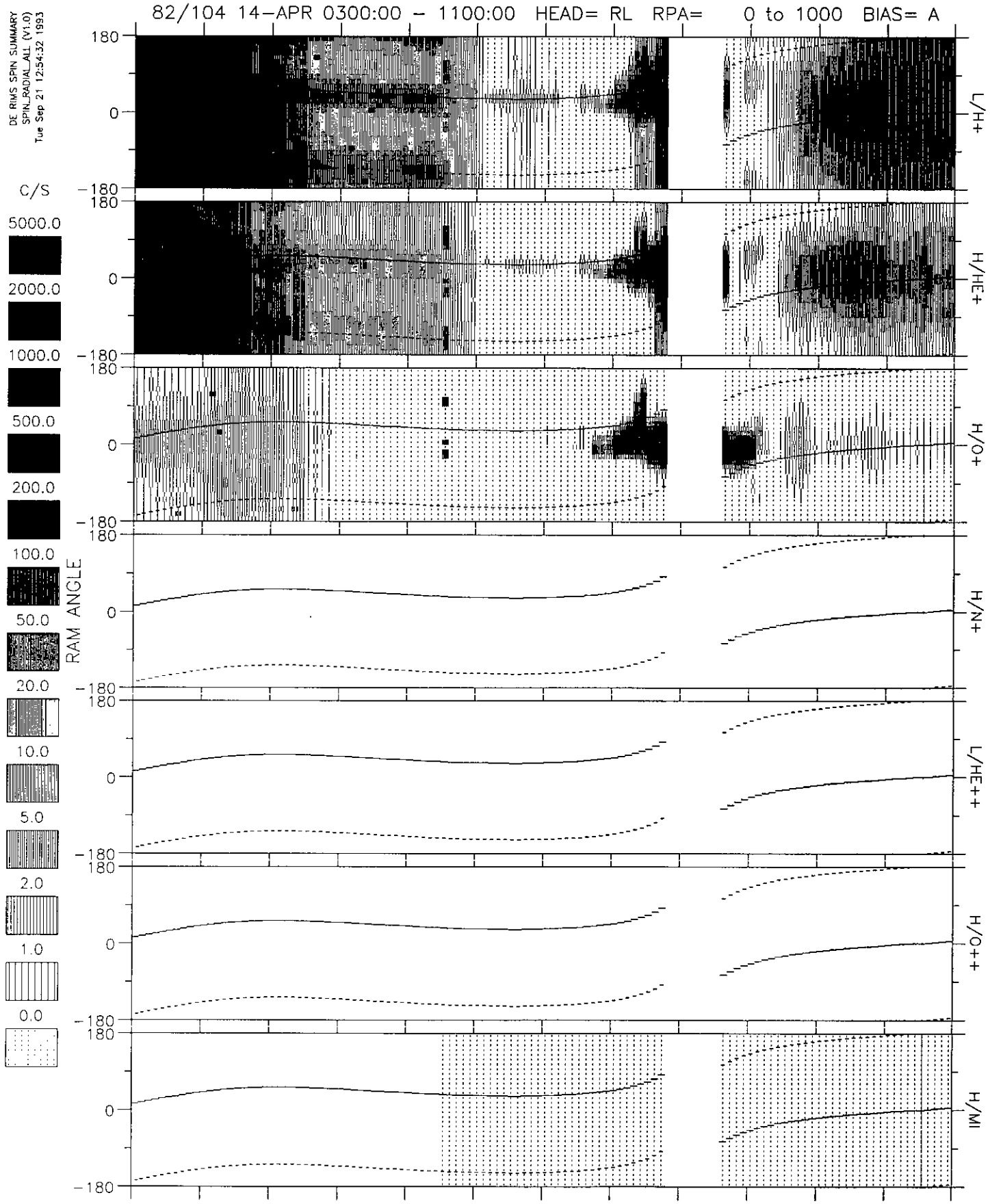

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 12:45:16 1993
82/103 13-APR 0015:00 - 0815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0055 0135 0215 0255 0335 0415 0000 0000 0000 0655 0735 DEGS
RE 4.5 4.7 4.5 4.1 3.4 2.4 0.0 0.0 0.0 4.0 4.5 HHMM
L 5.2 6.3 7.8 10.7 20.8 100.0 0.0 0.0 0.0 4.0 4.5 RE
MLT 21.4 21.4 21.3 21.1 20.6 14.0 0.0 0.0 0.0 21.4 21.2
MLAT 18.73 29.62 40.15 51.59 66.14 83.03 0.00 0.00 0.00 -4.74 5.53 HRS
INVLAT 63.8 66.4 69.1 72.2 77.3 86.7 0.0 0.0 0.0 60.1 61.8 DEGS

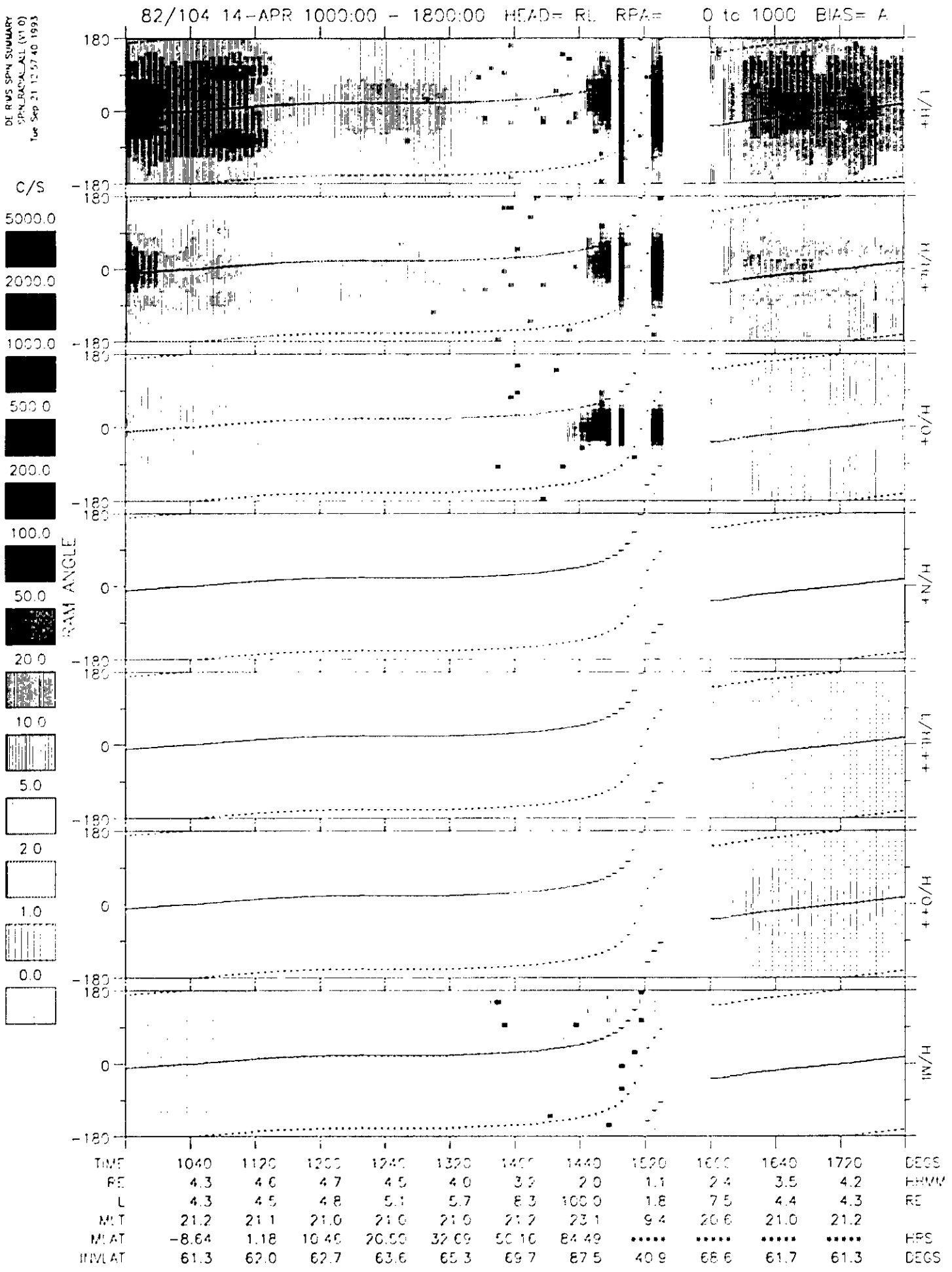

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 12:47:51 1993
82/103 13-APR 0630:00 - 1430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0710 0750 0830 0910 0950 1030 1110 1150 0000 1310 1350 DEGS
RE 4.2 4.6 4.7 4.5 4.1 3.3 2.2 1.1 0.0 3.3 4.1 HFWM
L 4.2 4.6 5.0 5.5 6.2 8.4 58.4 1.2 0.0 4.8 4.4 RE
MLT 21.3 21.1 21.0 20.9 20.7 20.4 18.9 9.1 0.0 21.2 21.2
MLAT -0.53 8.85 17.12 25.63 35.75 50.15 76.74 -5.15 0.00 ***** ***** HRS
INVLAT 60.7 62.3 63.5 64.7 66.2 69.8 89.5 22.6 0.0 62.7 61.5 DEGS

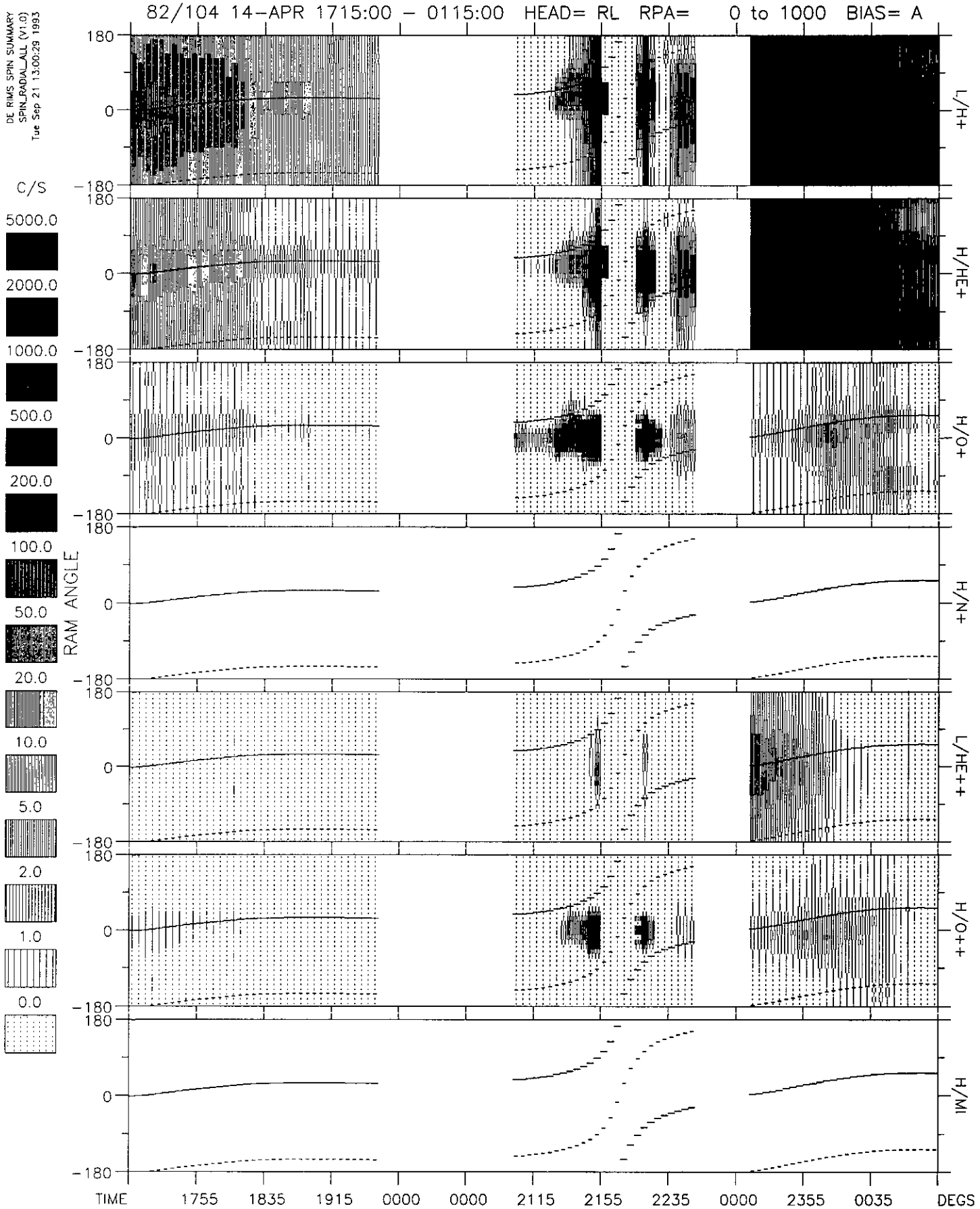

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 12:50:21 1993
82/103 13-APR 1330:00 - 2130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1410 1450 1530 1610 1650 1730 1810 1850 0000 0000 0000 DEGS
RE 4.3 4.6 4.7 4.4 3.9 3.1 1.9 1.2 0.0 0.0 0.0 HHMM
L 4.4 4.6 4.8 5.2 6.2 9.9 67.9 3.4 0.0 0.0 0.0 RE
MLT 21.2 21.2 21.3 21.5 21.8 22.3 5.0 10.4 0.0 0.0 0.0
MLAT ***** 0.05 11.04 22.69 36.42 55.12 78.70 ***** 0.00 0.00 0.00 HRS
INVLAT 61.5 62.1 62.9 64.1 66.3 71.5 83.0 57.0 0.0 0.0 0.0 DEGS

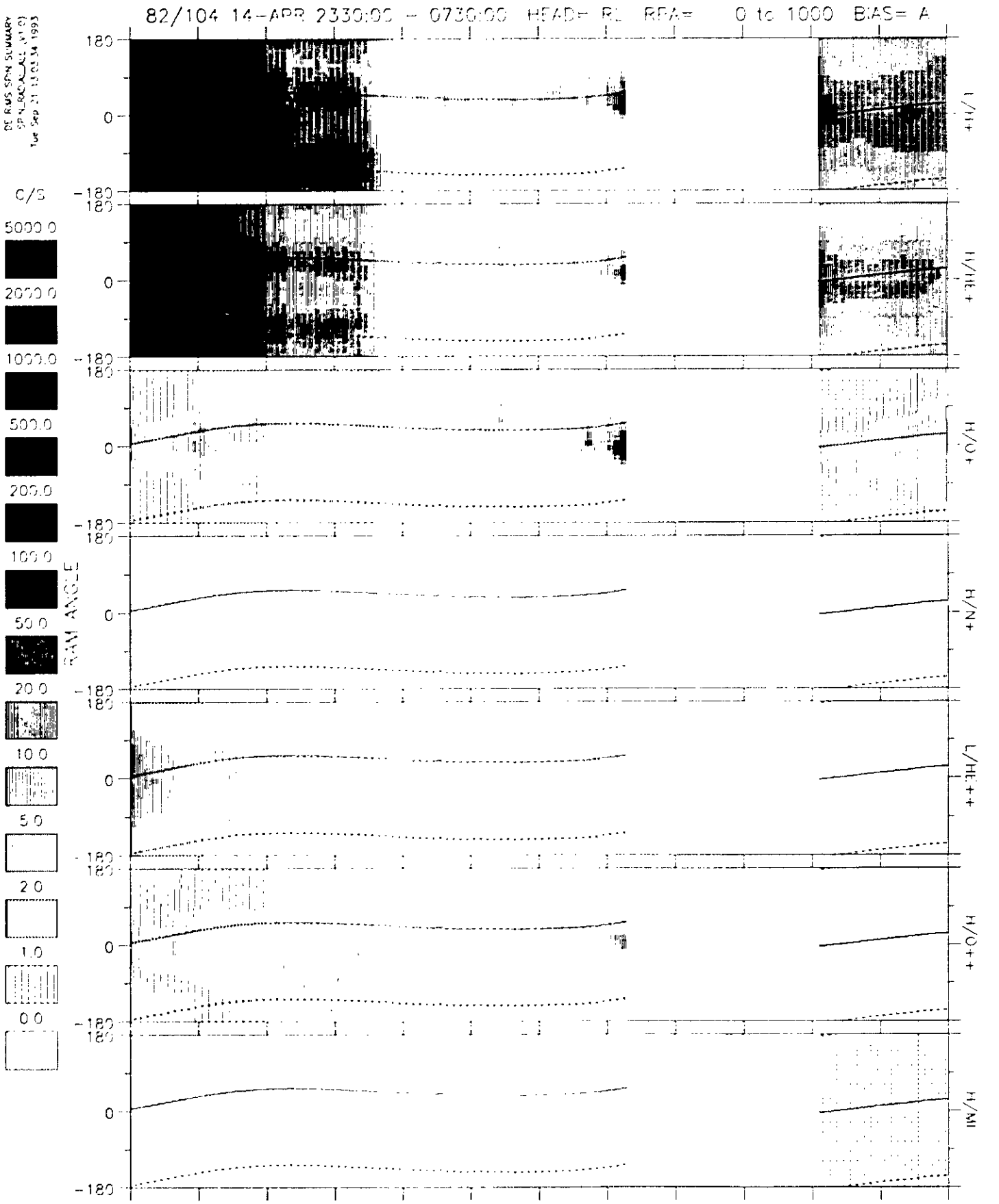


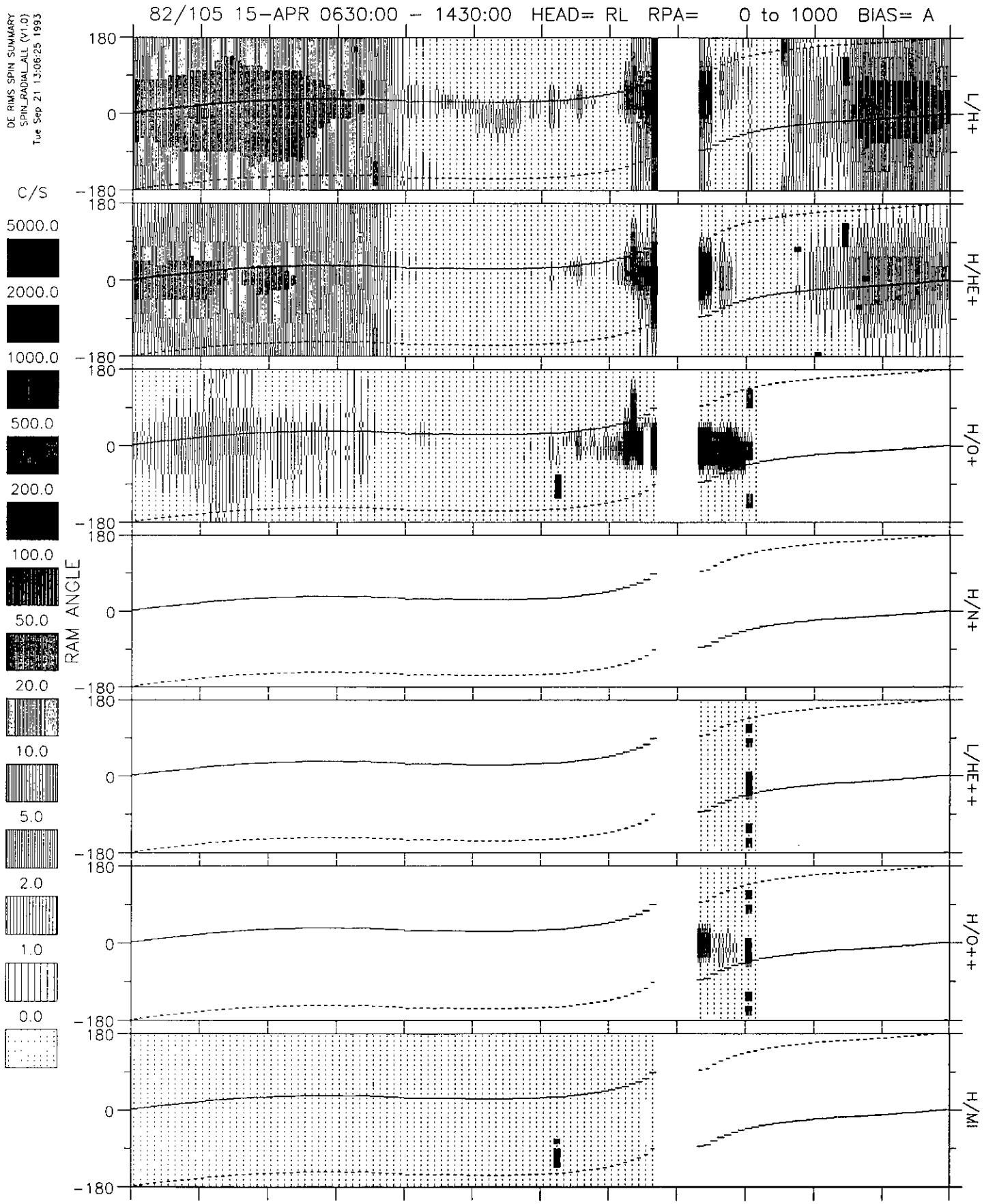
TIME	0000	0000	0000	0000	0000	0000	0000	0000	0000	0255	0335	DEGS
RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	4.1	HHMM
L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	4.2	RE
MLT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.4	21.3	
MLAT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	4.85	HRS
INVLAT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.9	60.7	DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 12:54:32 1993
82/104 14-APR 0300:00 - 1100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0340 0420 0500 0540 0620 0700 0740 0000 0900 0940 1020 DEGS
RE 4.2 4.6 4.7 4.5 4.1 3.4 2.3 0.0 2.1 3.3 4.0 HHMM
L 4.3 5.0 5.8 6.6 8.0 11.9 71.0 0.0 8.2 4.3 4.3 RE
MLT 21.3 21.2 21.0 20.8 20.5 20.0 16.7 0.0 22.4 21.5 21.2
MLAT 6.39 16.94 25.93 34.64 44.44 57.61 77.77 0.00 ***** ***** ***** HRS
INVLAT 61.1 63.4 65.4 67.2 69.3 73.1 83.2 0.0 69.5 61.2 61.0 DEGS

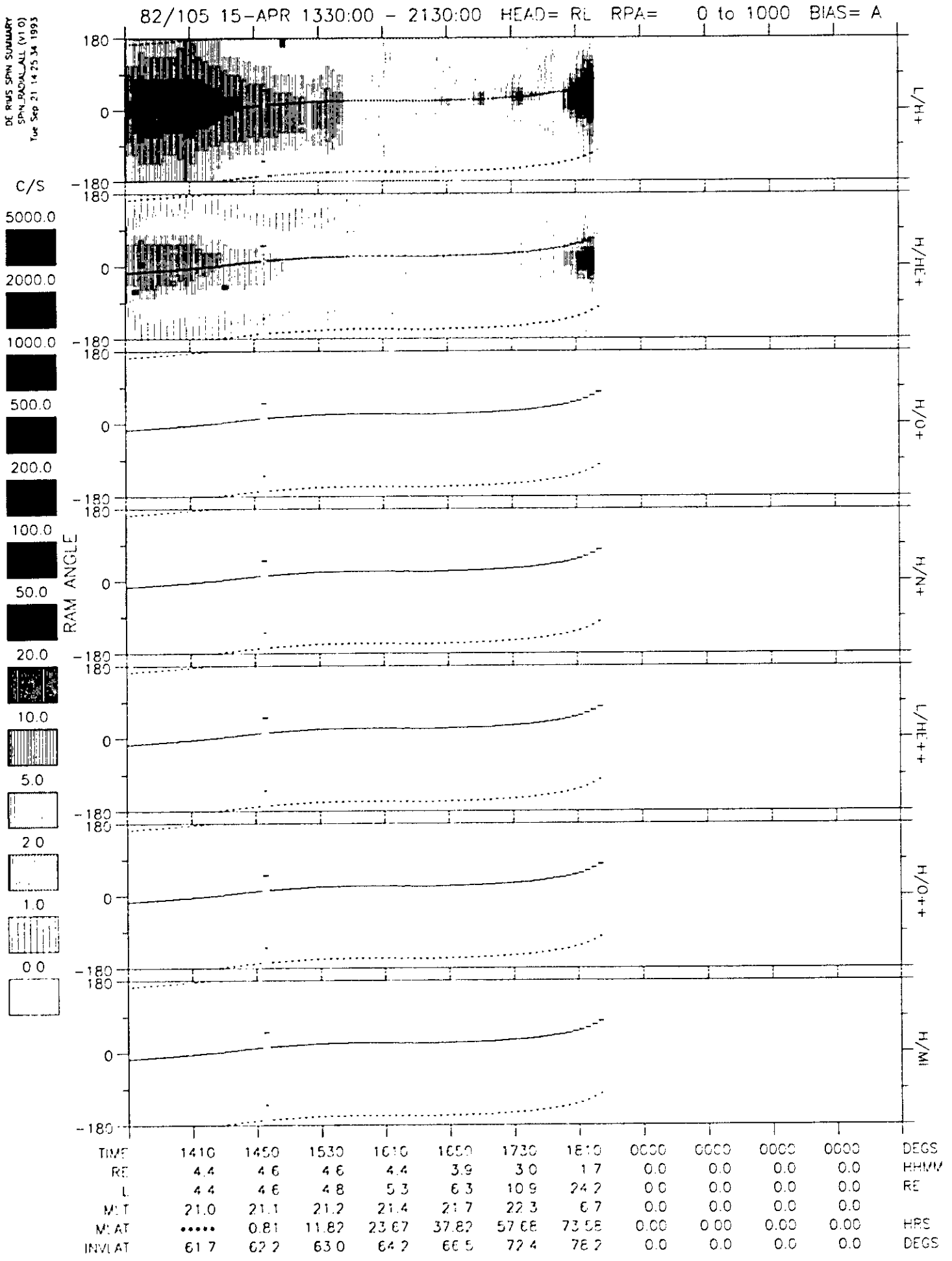

82/104 14-APR 1000:00 - 1800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPIN SUMMARY
SPIN_RADIAL.ALL (V1.0)
Tue Sep 21 12:57:40 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
-I/H+
-H/H+
-O/H+
-N/H+
-L/H++
+O/H+
-IN/H+
TIME 1040 1120 1200 1240 1320 1400 1440 1520 1600 1640 1720 DEGS
RE 4.3 4.6 4.7 4.5 4.0 3.3 2.0 1.1 2.4 3.5 4.2 FHWM
L 4.3 4.5 4.8 5.1 5.7 8.3 100.0 1.8 7.5 4.4 4.3 RE
MLT 21.2 21.1 21.0 21.0 21.0 21.2 23.1 9.4 20.6 21.0 21.2
MLAT -8.64 1.18 10.46 20.50 32.09 50.10 84.49 ***** ***** ***** ***** HRS
INVLAT 61.3 62.0 62.7 63.6 65.3 69.7 87.5 40.9 68.6 61.7 61.3 DEGS

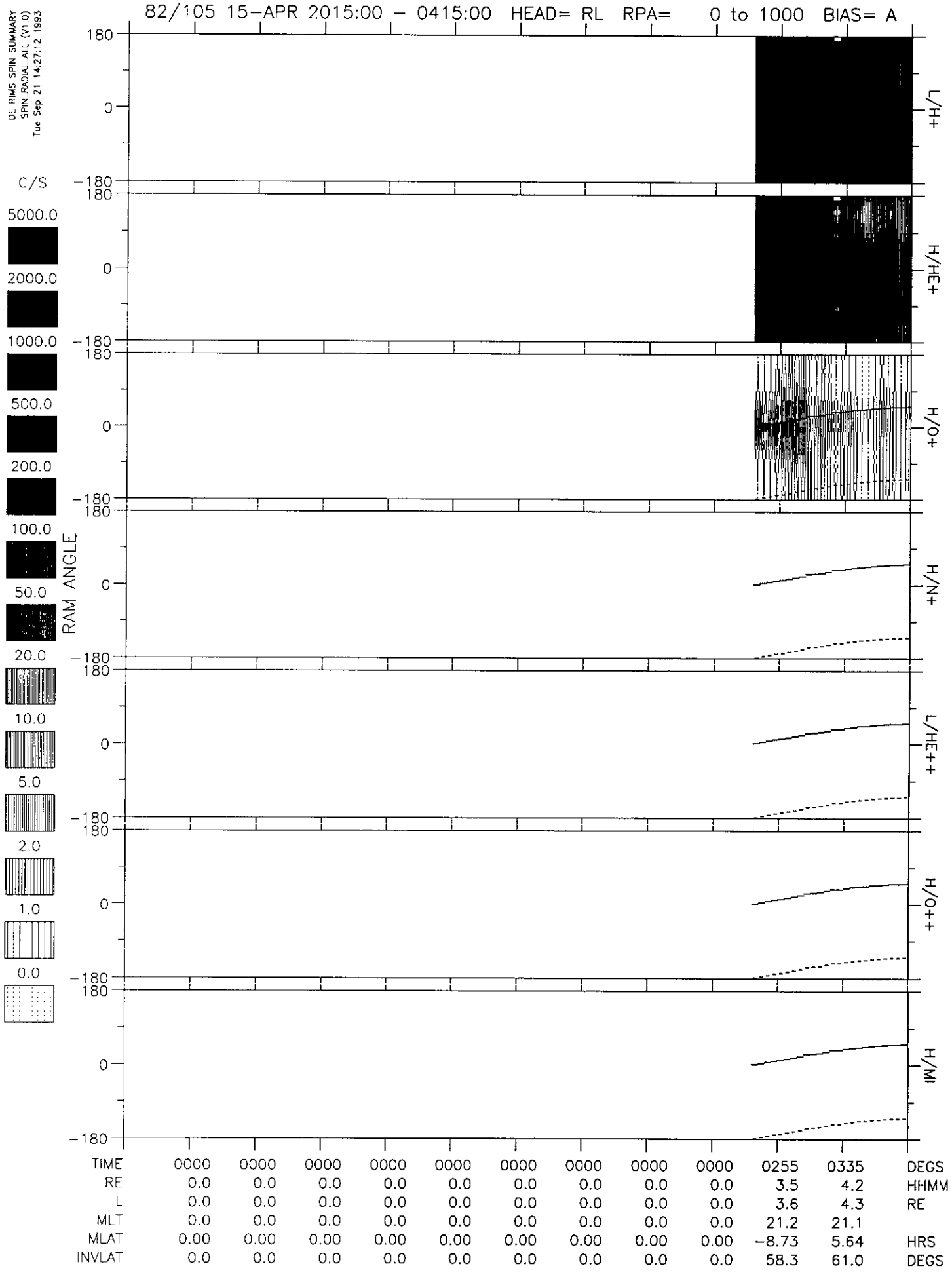

82/104 14-APR 1715:00 - 0115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 13:00:29 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1755 1835 1915 0000 0000 2115 2155 2235 0000 2355 0035 DEGS
RE 4.5 4.7 4.6 0.0 0.0 2.5 1.2 1.9 0.0 3.9 4.4 HHMM
L 4.5 4.9 5.5 0.0 0.0 49.3 1.3 6.0 0.0 4.0 4.8 RE
MLT 21.3 21.5 21.7 0.0 0.0 1.1 9.1 20.4 0.0 21.3 21.3
MLAT 0.43 12.64 24.74 0.00 0.00 77.14 18.33 ***** 0.00 0.13 13.67 HRS
INVLAT 61.9 63.1 64.7 0.0 0.0 81.8 28.1 66.0 0.0 60.0 62.7 DEGS

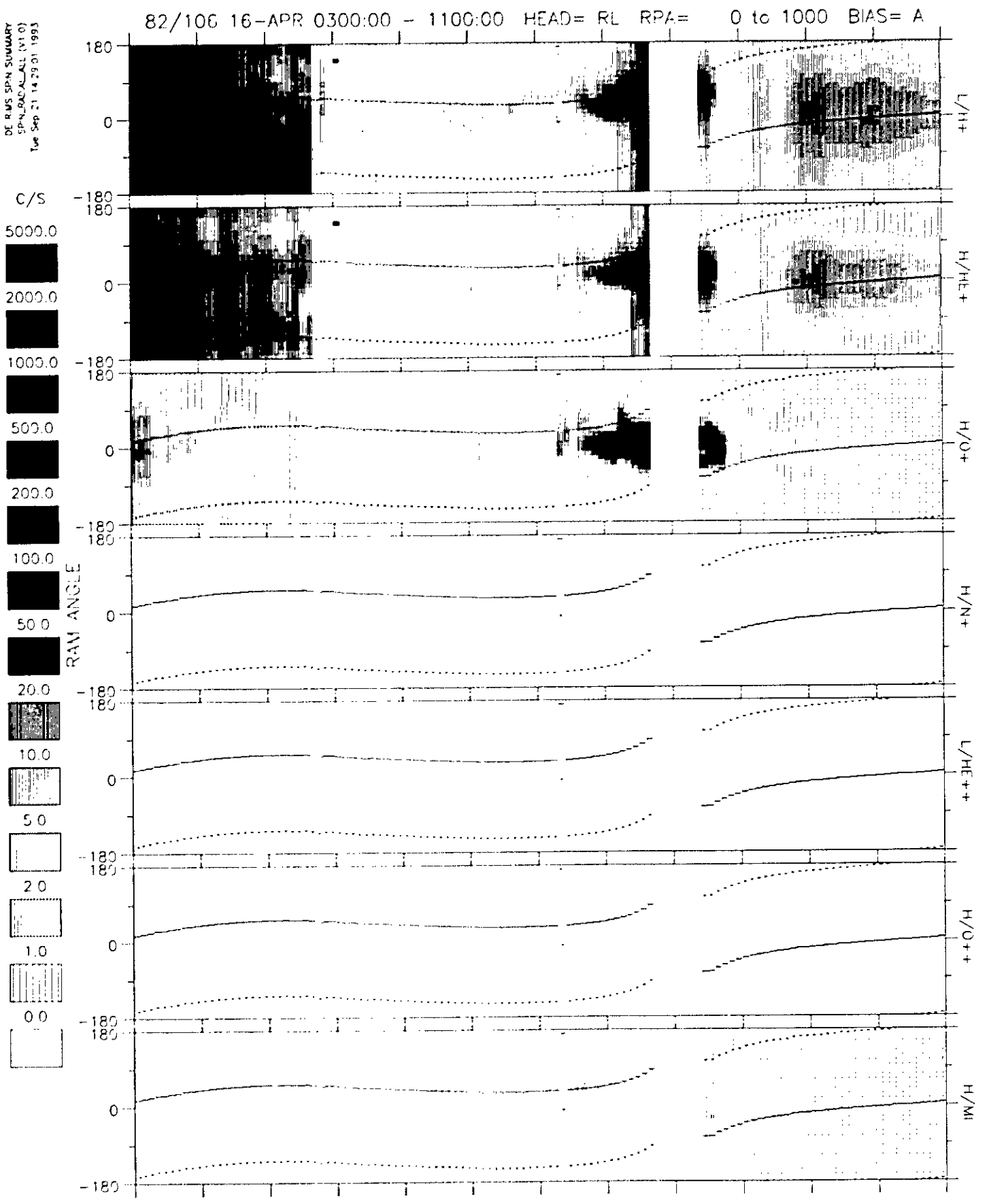

82/104 14-APR 2330:00 - 0730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
Tue Sep 21 10:01:34 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
H/L+
H/HE+
H/O+
H/N+
L/HE+
H/O+
H/MI
TIME 0010 0050 0130 0210 0250 0330 0410 0450 0530 0610 0650 DEGS
RE 4.2 4.5 4.7 4.5 4.1 3.4 2.4 0.0 0.0 0.0 4.0 HHMM
L 4.3 5.1 6.2 7.6 10.4 19.6 100.0 0.0 0.0 0.0 4.0 RE
MLT 21.4 21.3 21.3 21.2 21.0 20.5 14.3 0.0 0.0 0.0 21.2
MLAT 5.63 18.09 28.95 39.46 50.86 65.39 87.10 0.00 0.00 0.00 -5.55 HRS
INVLAT 61.0 63.7 66.2 68.8 71.9 77.0 86.7 0.0 0.0 0.0 60.1 DEGS

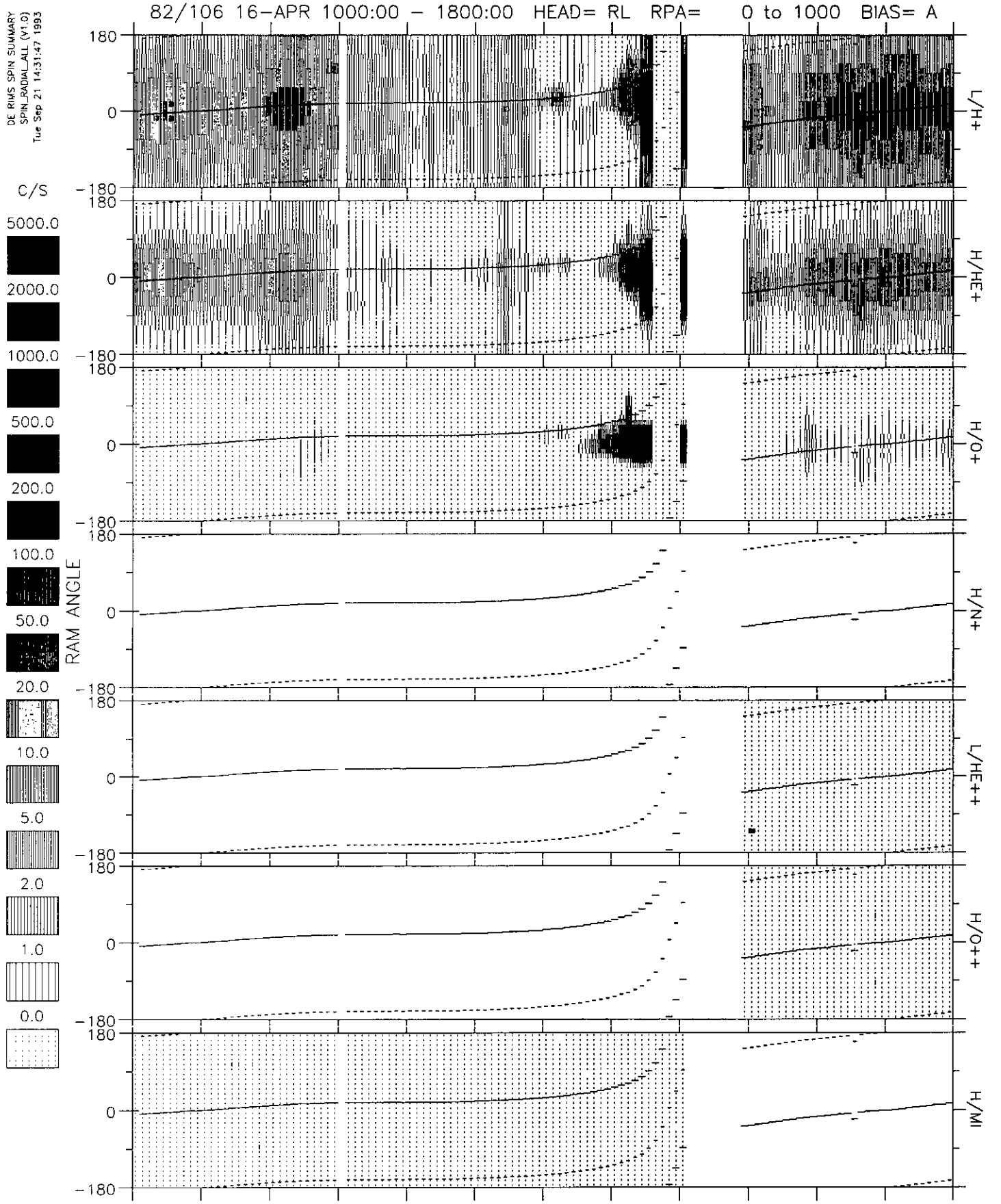


TIME	0710	0750	0830	0910	0950	1030	1110	0000	1230	1310	1350	DEGS
RE	4.3	4.6	4.7	4.5	4.0	3.2	2.1	0.0	2.4	3.4	4.1	HHMM
L	4.2	4.7	5.0	5.5	6.2	8.7	100.0	0.0	9.5	4.7	4.4	RE
MLT	21.2	21.0	20.9	20.7	20.5	20.3	17.7	0.0	21.4	21.1	21.0	
MLAT	-0.06	9.09	17.33	25.95	36.44	51.73	80.73	0.00	*****	*****	*****	HRS
INVLAT	60.9	62.4	63.6	64.7	66.3	70.2	84.7	0.0	71.1	62.6	61.6	DEGS

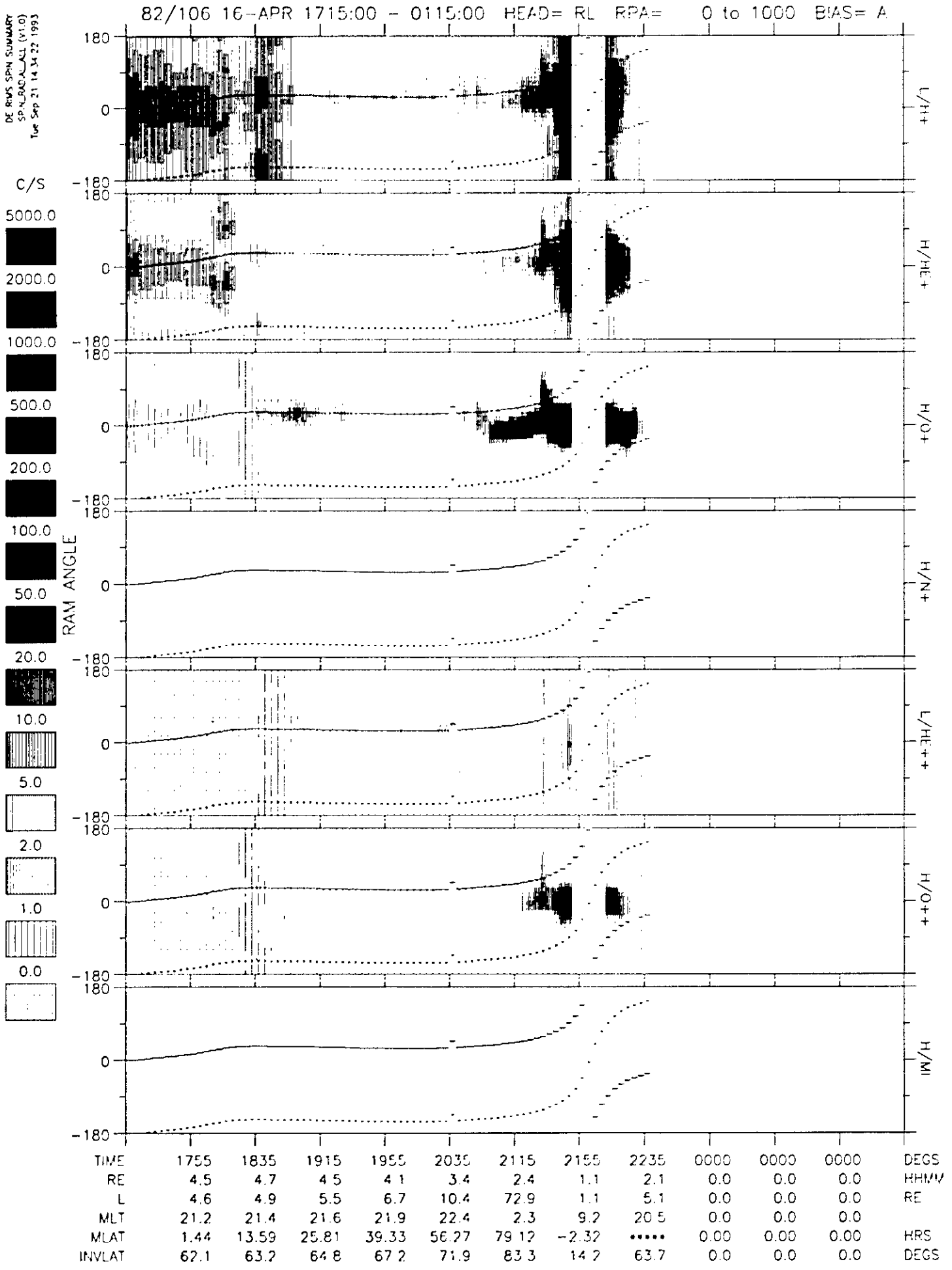

82/105 15-APR 1330:00 - 2130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 14:25:34 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
H+
HE+
O+
N+
HE++
O++
MI
TIME 1410 1450 1530 1610 1650 1730 1810 0000 0000 0000 0000 DEGS
RE 4.4 4.6 4.6 4.4 3.9 3.0 1.7 0.0 0.0 0.0 0.0 HHMM
L 4.4 4.6 4.8 5.3 6.3 10.9 24.2 0.0 0.0 0.0 0.0 RE
MLT 21.0 21.1 21.2 21.4 21.7 22.3 6.7 0.0 0.0 0.0 0.0
MLAT ***** 0.81 11.82 23.67 37.82 57.68 73.58 0.00 0.00 0.00 0.00 HRS
INVLAT 61.7 62.2 63.0 64.2 66.5 72.4 78.2 0.0 0.0 0.0 0.0 DEGS

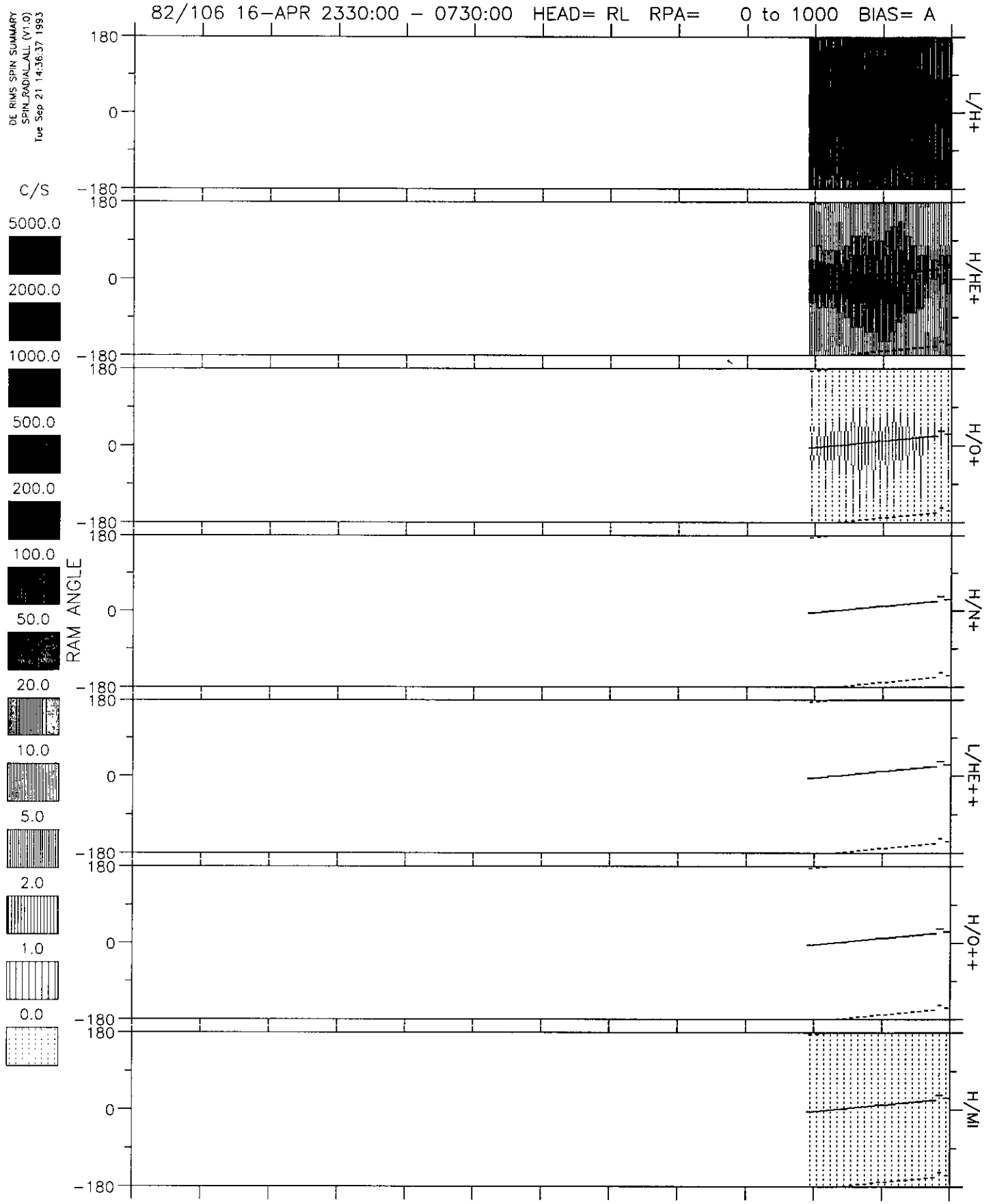

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 14:27:12 1993
82/105 15-APR 2015:00 - 0415:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0255 0335 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.5 4.2 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.6 4.3 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.2 21.1
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 -8.73 5.64 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 58.3 61.0 DEGS

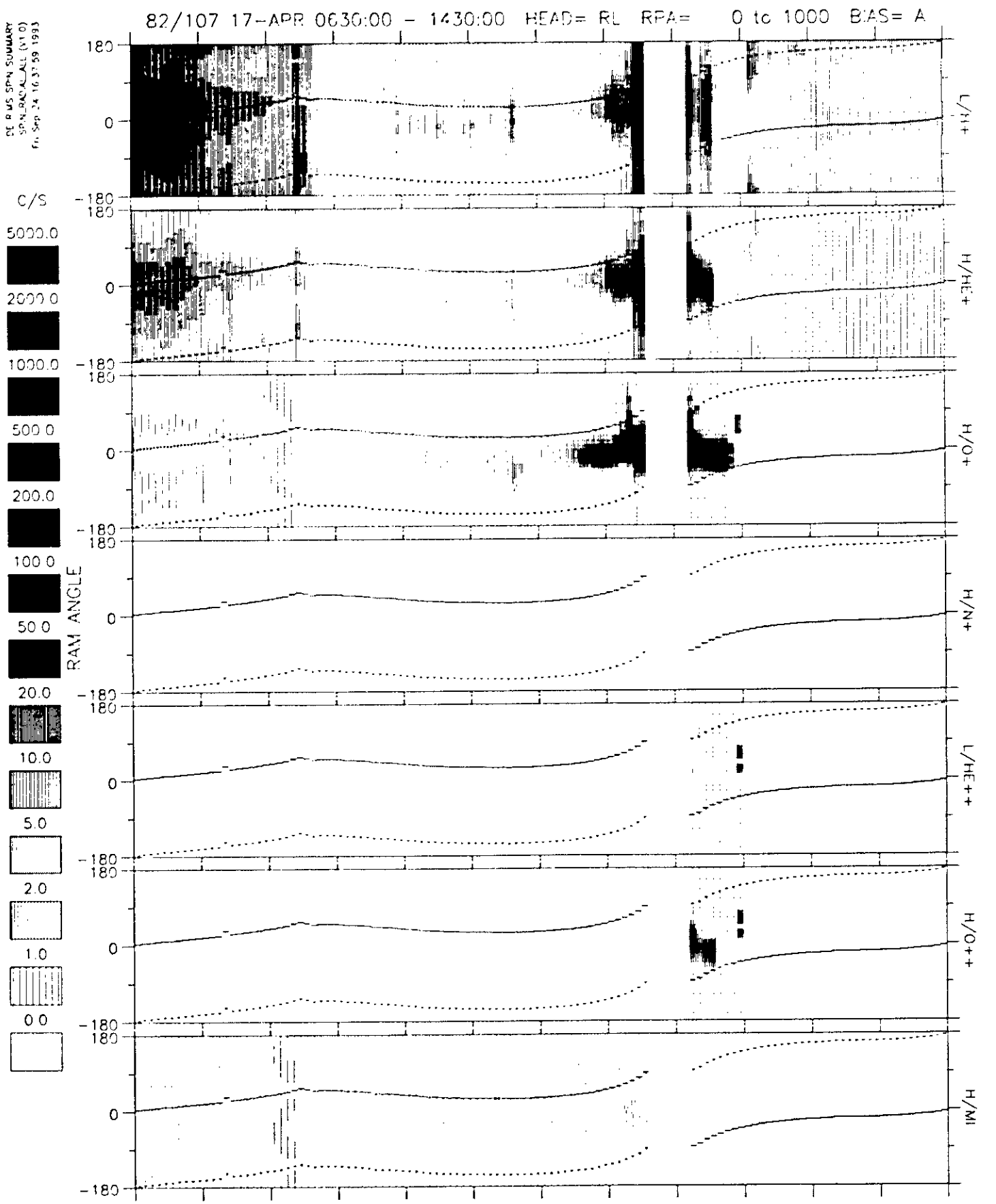

82/106 16-APR 0300:00 - 1100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 14:29:01 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0340 0420 0500 0540 0620 0700 0740 0000 0900 0940 1020 DEGS
RE 4.2 4.6 4.7 4.5 4.0 3.3 2.1 0.0 2.3 3.4 4.1 HHMM
L 4.3 5.0 5.7 6.6 8.0 12.4 80.0 0.0 6.9 4.3 4.3 RE
MLT 21.1 21.0 20.9 20.7 20.4 19.8 15.1 0.0 22.0 21.3 21.1
MLAT 7.08 17.33 25.66 34.99 45.09 58.91 78.69 0.00 ***** ***** ***** HRS
INVLAT 61.3 63.6 65.3 67.2 69.3 73.5 83.6 0.0 67.7 61.3 61.2 DEGS

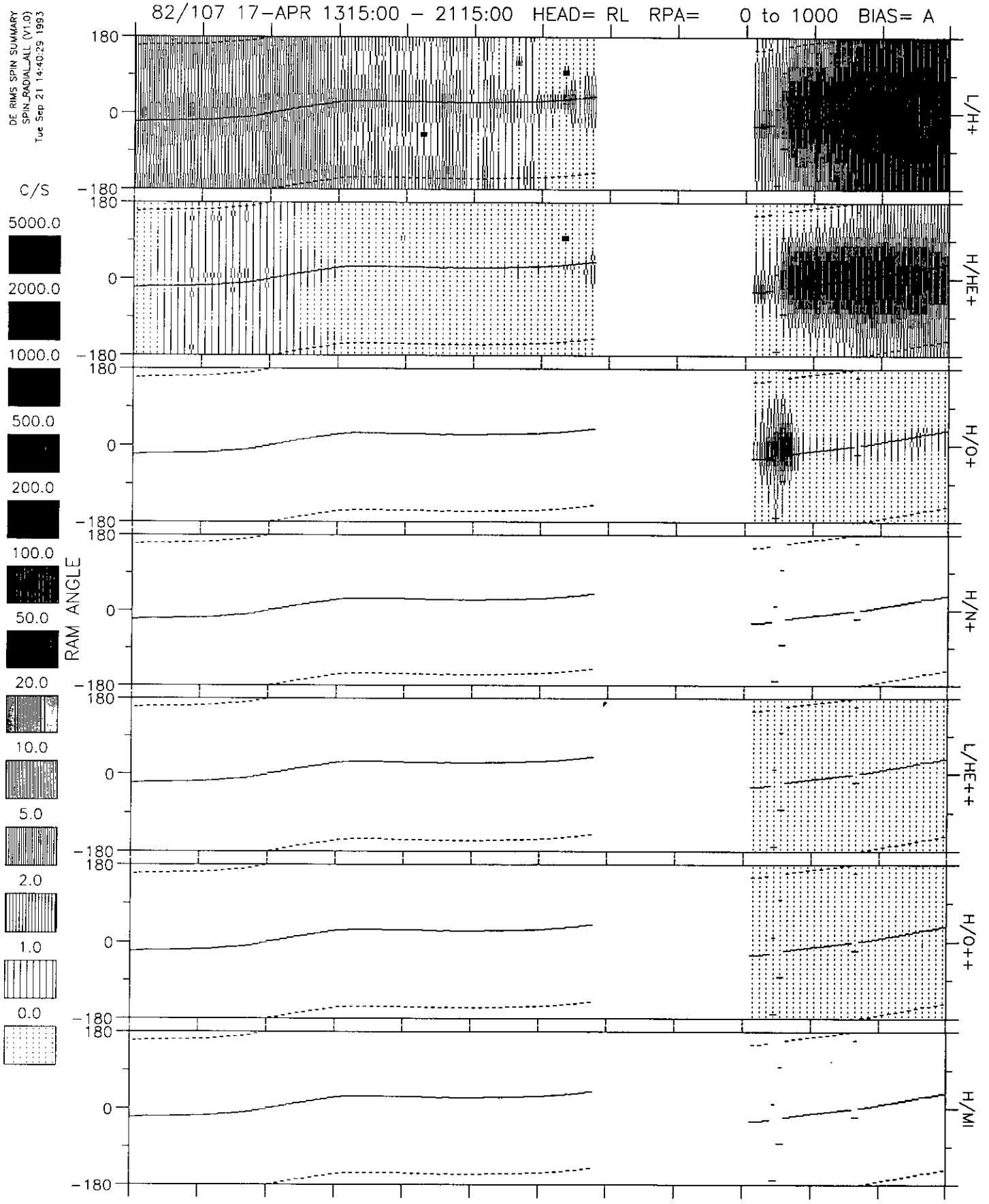


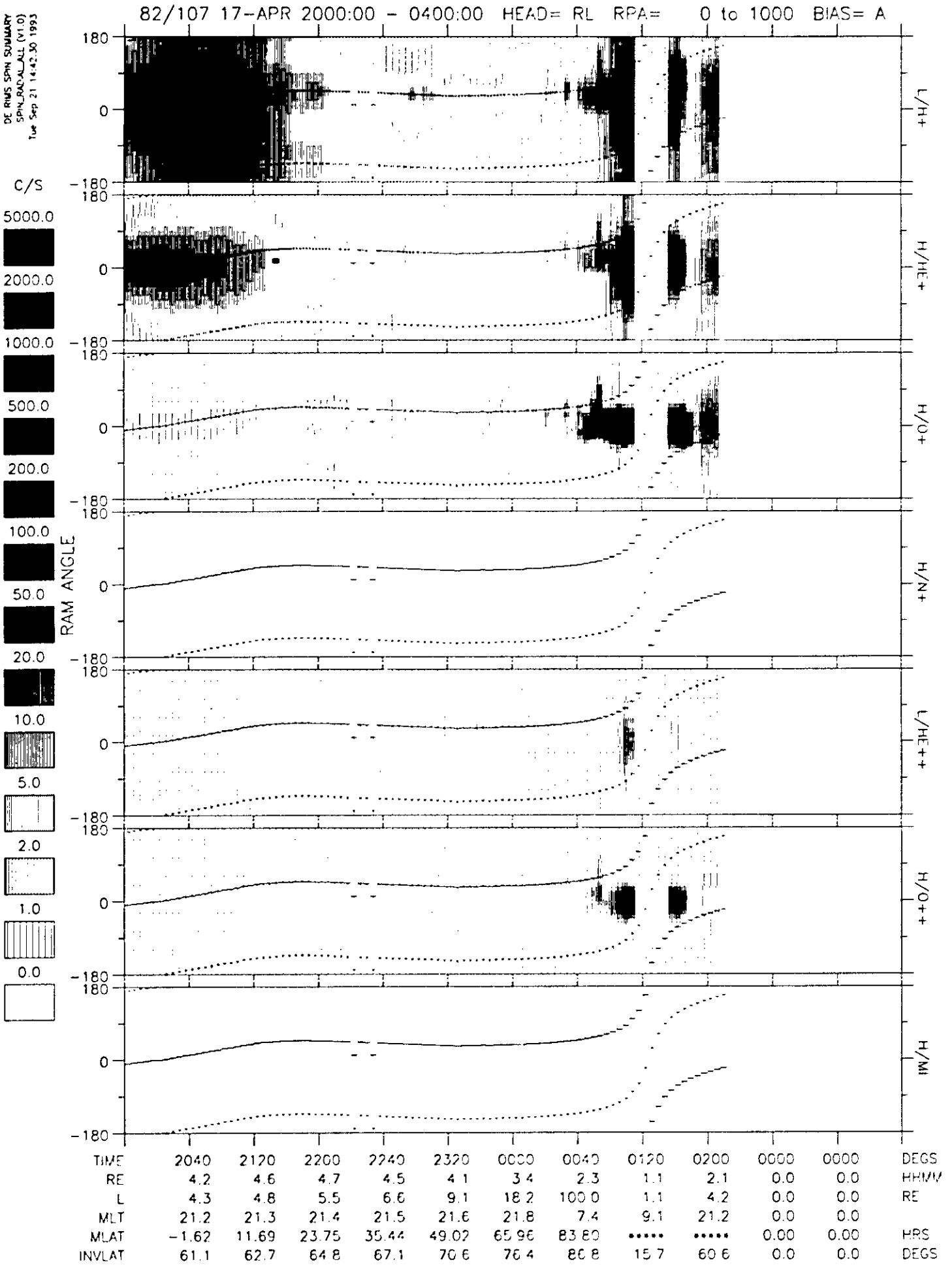
TIME	1040	1120	0000	1240	1320	1400	1440	1520	1600	1640	1720	DEGS
RE	4.3	4.6	0.0	4.4	3.9	3.1	1.8	1.2	2.6	3.6	4.2	HHMM
L	4.4	4.6	0.0	5.1	5.8	8.8	-0.0	3.6	6.6	4.4	4.4	RE
MLT	21.0	20.9	0.0	20.9	20.9	21.1	5.2	9.6	20.6	20.9	21.1	
MLAT	-8.13	1.58	0.00	21.14	33.77	52.35	86.40	*****	*****	*****	*****	HRS
INVLAT	61.4	62.1	0.0	63.6	65.4	70.3	-0.0	58.2	67.1	61.6	61.4	DEGS

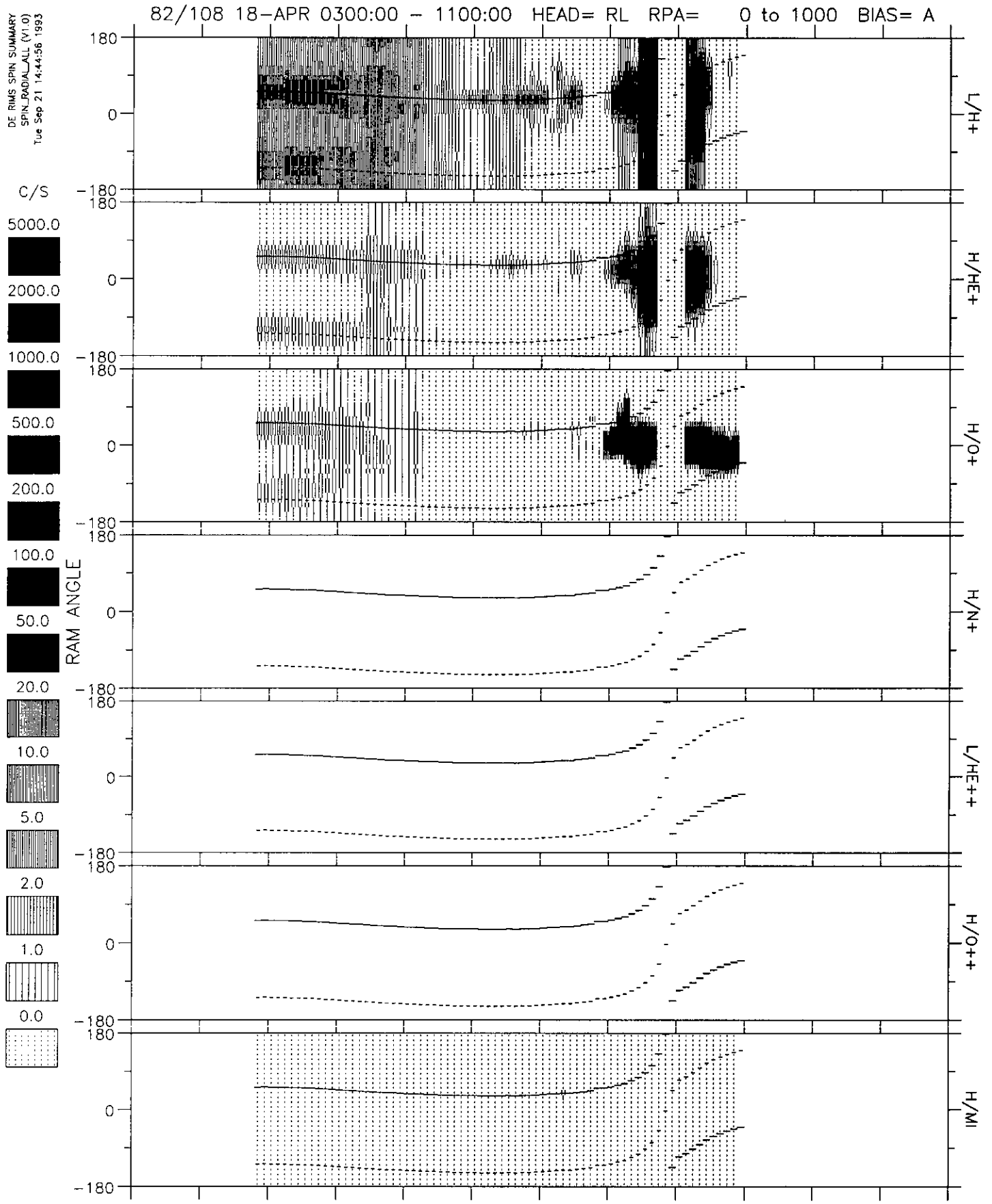

82/106 16-APR 1715:00 - 0115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SP-N_RAD-ALL (V1.0)
Tue Sep 21 14:34:22 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1755 1835 1915 1955 2035 2115 2155 2235 0000 0000 0000 DEGS
RE 4.5 4.7 4.5 4.1 3.4 2.4 1.1 2.1 0.0 0.0 0.0 HHMM
L 4.6 4.9 5.5 6.7 10.4 72.9 1.1 5.1 0.0 0.0 0.0 RE
MLT 21.2 21.4 21.6 21.9 22.4 2.3 9.2 20.5 0.0 0.0 0.0
MLAT 1.44 13.59 25.81 39.33 56.27 79.12 -2.32 ***** 0.00 0.00 0.00 HRS
INVLAT 62.1 63.2 64.8 67.2 71.9 83.3 14.2 63.7 0.0 0.0 0.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 14:36:37 1993
82/106 16-APR 2330:00 - 0730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0610 0650 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.3 4.1 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.8 4.1 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.3 21.1
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ***** -4.92 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 58.9 60.4 DEGS

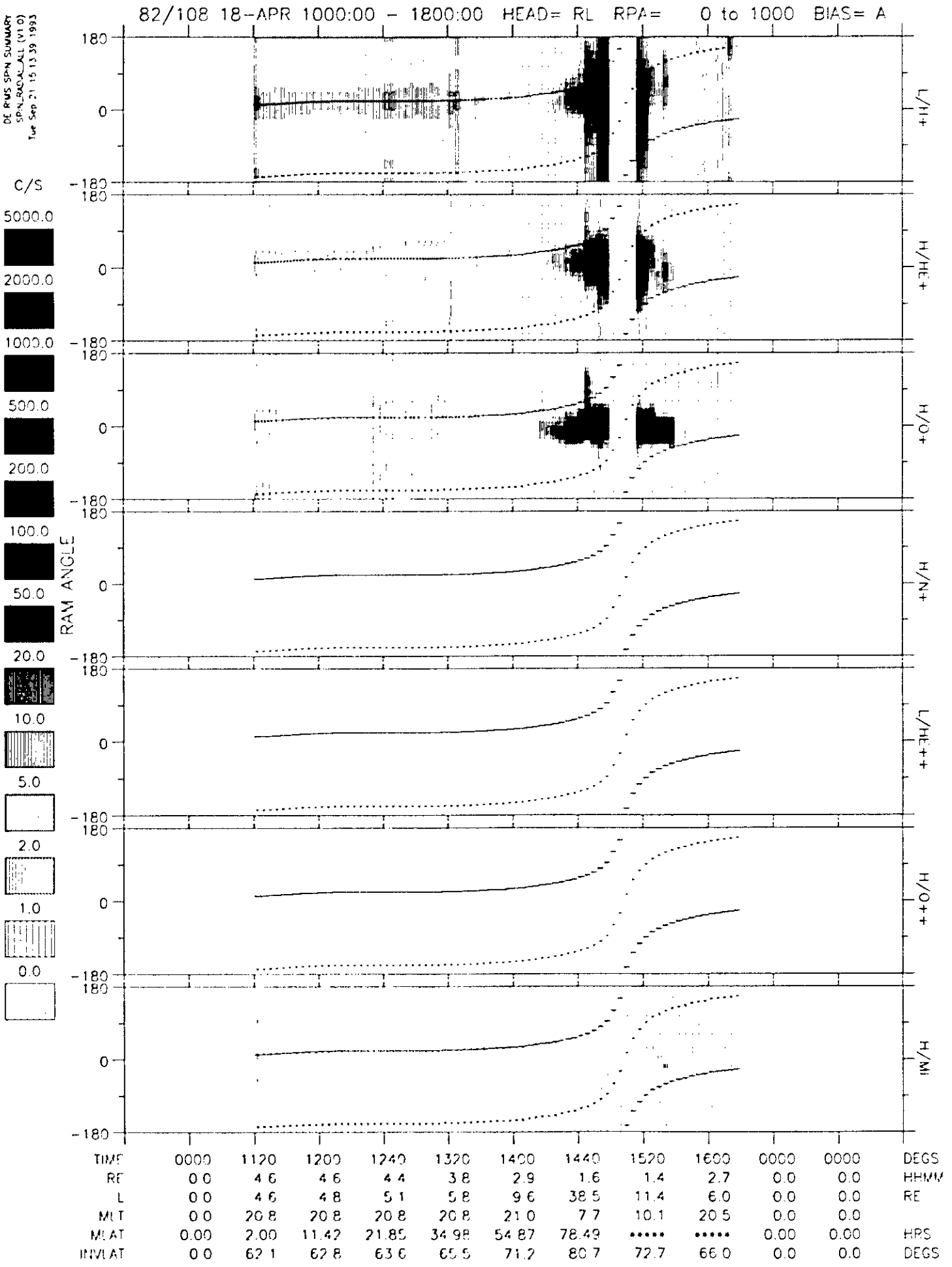

82/107 17-APR 0630:00 - 1430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE B WS SPIN SUMMARY
SPIN_RAD_ALL (V1 0)
Fri Sep 24 16 37 59 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0710 0750 0830 0910 0950 1030 1110 0000 1230 1310 1350 DEGS
RE 4.3 4.6 4.7 4.4 3.9 3.1 1.9 0.0 2.5 3.5 4.2 HHMM
L 4.3 4.7 5.0 5.4 6.2 9.2 100.0 0.0 8.0 4.7 4.4 RE
MLT 21.0 20.9 20.7 20.6 20.4 20.1 14.9 0.0 21.2 20.9 20.9
MLAT 0.36 9.32 17.55 26.32 37.20 53.52 83.16 0.00 ***** ***** ***** HRS
INVLAT 61.1 62.5 63.6 64.6 66.3 70.8 84.8 0.0 69.3 62.5 61.7 DEGS

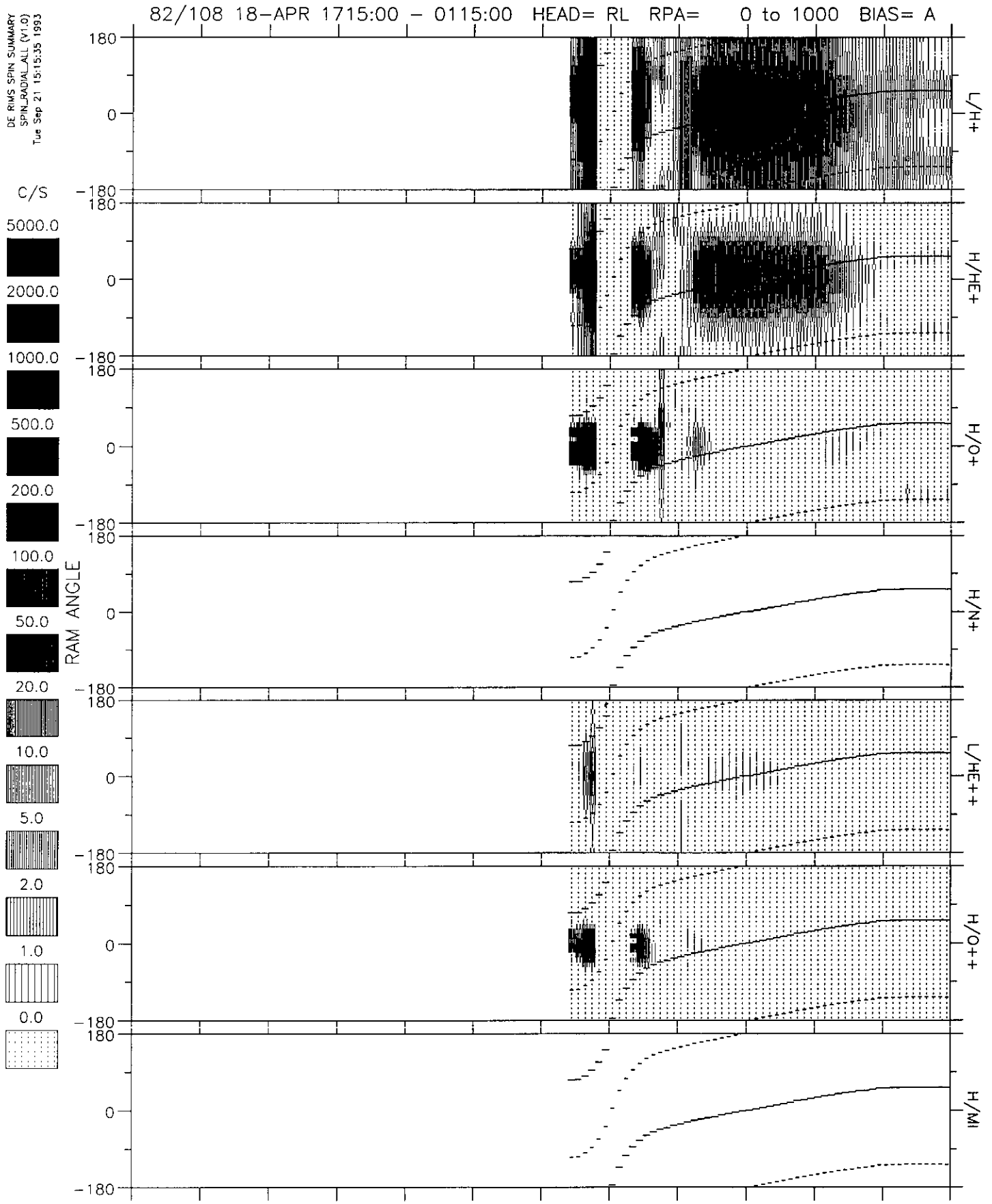

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 14:40:29 1993
82/107 17-APR 1315:00 - 2115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1355 1435 1515 1555 1635 1715 0000 0000 0000 1955 2035 DEGS
RE 4.3 4.6 4.7 4.5 4.0 3.2 0.0 0.0 0.0 3.4 4.1 HHMM
L 4.4 4.5 4.8 5.1 5.8 8.5 0.0 0.0 0.0 4.1 4.2 RE
MLT 20.9 21.0 21.1 21.2 21.5 21.9 0.0 0.0 0.0 20.9 21.1
MLAT ***** -2.60 8.43 19.98 33.38 51.29 0.00 0.00 0.00 ***** -3.49 HRS
INVLAT 61.7 62.0 62.7 63.7 65.5 70.0 0.0 0.0 0.0 60.4 60.9 DEGS

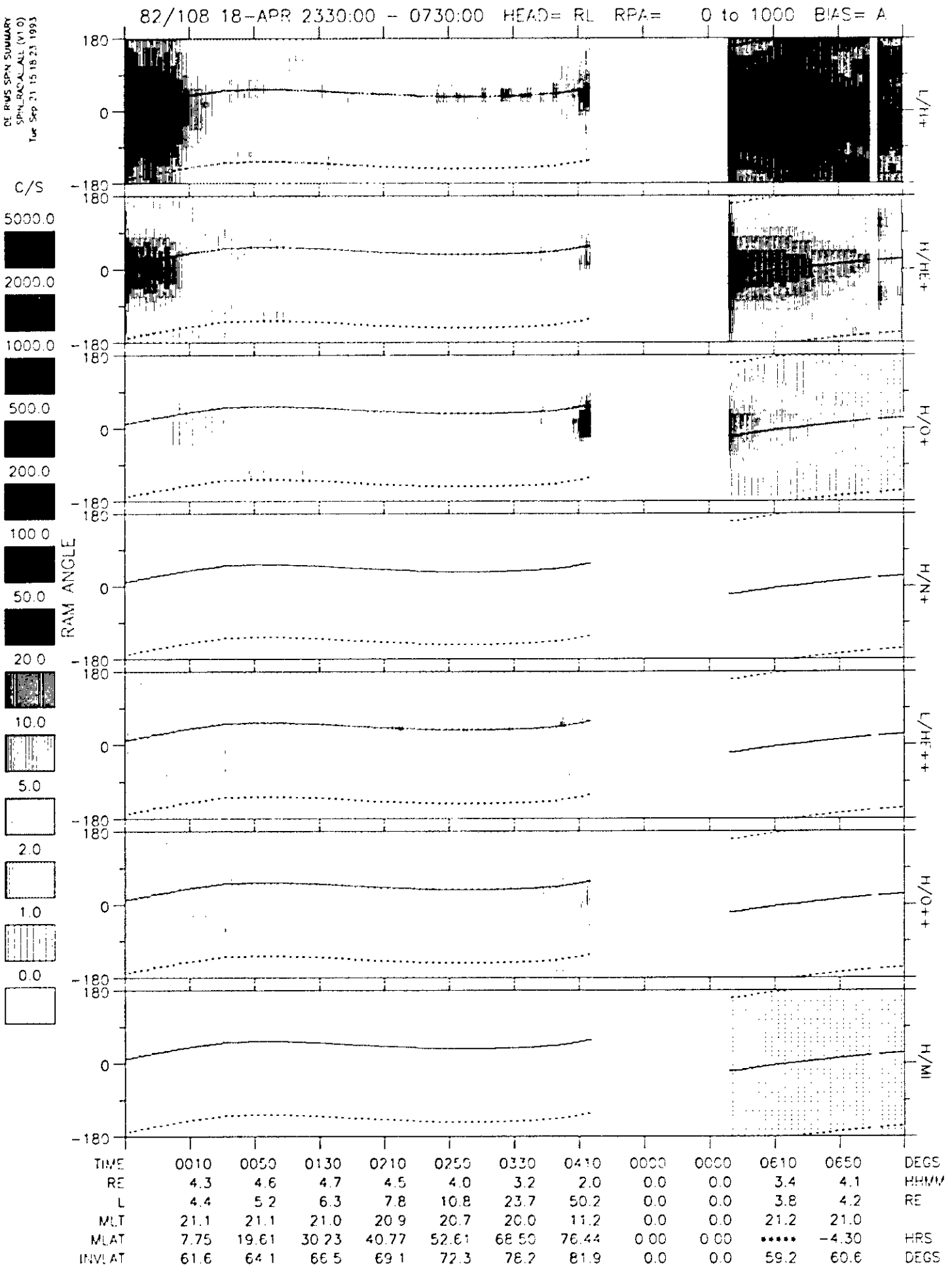

82/107 17-APR 2000:00 - 0400:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 14:42:30 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2040 2120 2200 2240 2320 0000 0040 0120 0200 0000 0000 DEGS
RE 4.2 4.6 4.7 4.5 4.1 3.4 2.3 1.1 2.1 0.0 0.0 HHMM
L 4.3 4.8 5.5 6.6 9.1 18.2 100.0 1.1 4.2 0.0 0.0 RE
MLT 21.2 21.3 21.4 21.5 21.6 21.8 7.4 9.1 21.2 0.0 0.0
MLAT -1.62 11.69 23.75 35.44 49.02 65.96 83.80 ***** ***** 0.00 0.00 HRS
INVLAT 61.1 62.7 64.8 67.1 70.6 76.4 86.8 15.7 60.6 0.0 0.0 DEGS

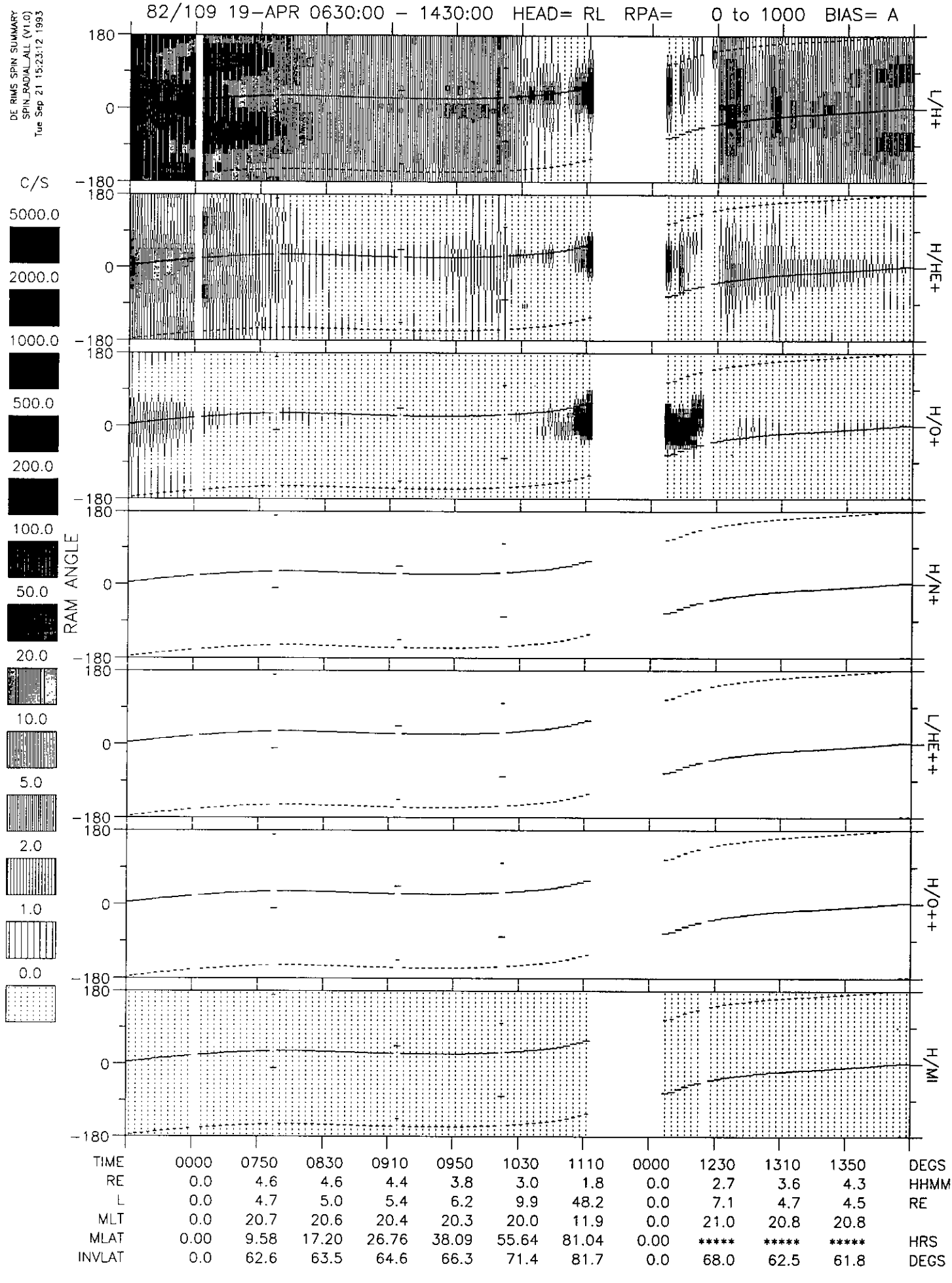


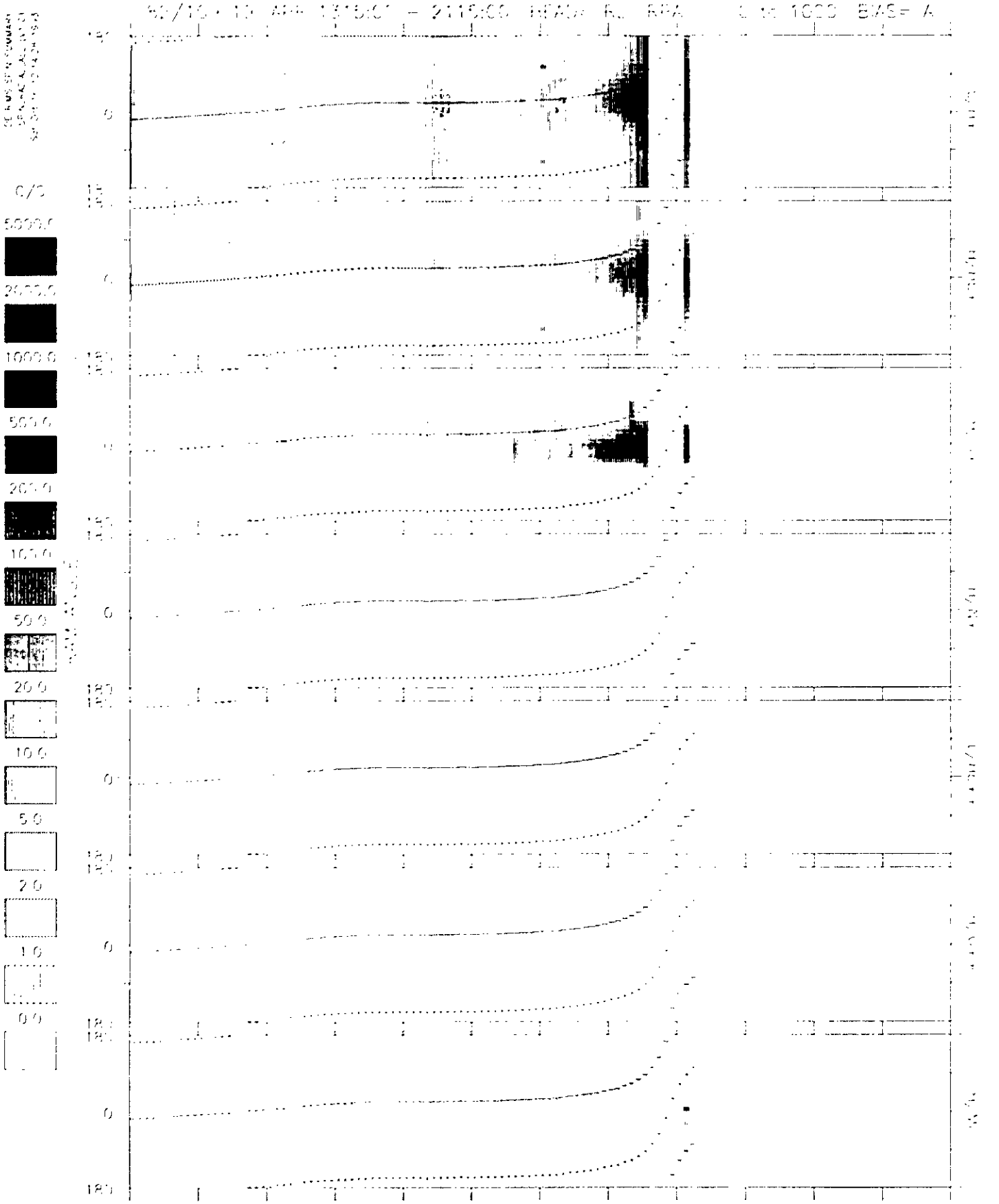
TIME	0000	0420	0500	0540	0620	0700	0740	0820	0000	0000	0000	DEGS
RE	0.0	4.6	4.7	4.4	4.0	3.2	2.0	1.1	0.0	0.0	0.0	HHMM
L	0.0	5.1	5.8	6.6	8.1	13.1	49.6	2.8	0.0	0.0	0.0	RE
MLT	0.0	20.9	20.7	20.5	20.2	19.6	13.2	8.1	0.0	0.0	0.0	
MLAT	0.00	17.74	26.52	35.35	45.69	60.42	77.28	*****	0.00	0.00	0.00	HRS
INVLAT	0.0	63.7	65.5	67.2	69.4	74.0	81.8	53.2	0.0	0.0	0.0	DEGS


82/108 18-APR 1000:00 - 1800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE PLUS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 15:13:39 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0000 1120 1200 1240 1320 1400 1440 1520 1600 0000 0000 DEGS
RE 0 0 4 6 4 6 4 4 3 8 2 9 1 6 1 4 2 7 0 0 0 0 HHMM
L 0 0 4 6 4 8 5 1 5 8 9 6 38 5 11 4 6 0 0 0 0 0 RE
MLT 0 0 20 8 20 8 20 8 20 8 21 0 7 7 10 1 20 5 0 0 0 0
MLAT 0.00 2.00 11.42 21.85 34 98 54 87 78.49 ***** ***** 0.00 0.00 HRS
INVLAT 0 0 62 1 62 8 63 6 65 5 71.2 80 7 72.7 66 0 0 0 0 0 DEGS

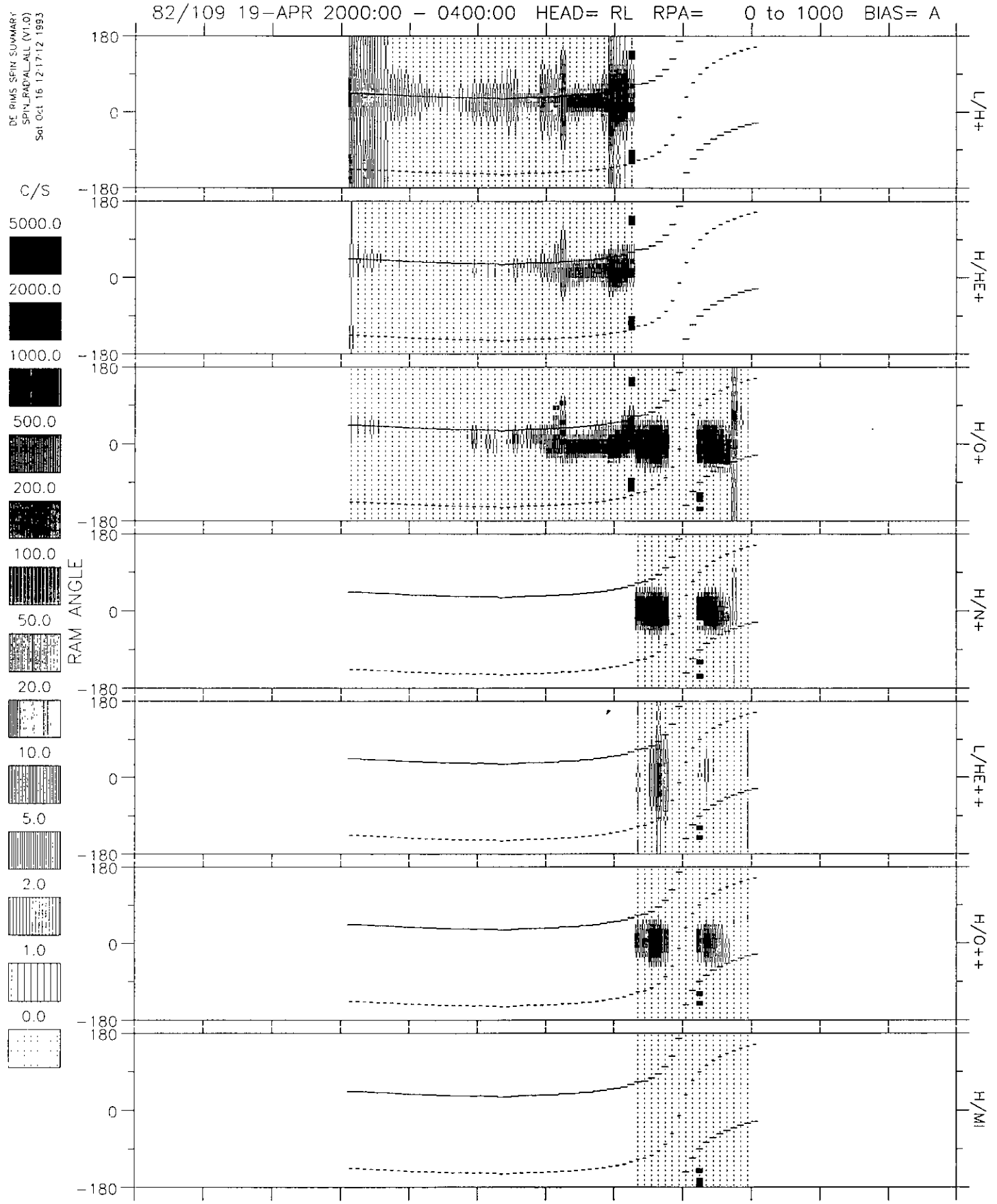

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 15:15:35 1993
82/108 18-APR 1715:00 - 0115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 2155 2235 2315 2355 0035 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 1.1 2.2 3.3 4.1 4.5 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 1.3 4.5 3.7 4.2 4.9 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 9.4 20.5 20.9 21.1 21.1
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 ***** ***** ***** 2.62 15.36 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 28.9 61.9 58.6 60.7 63.2 DEGS


82/108 18-APR 2330:00 - 0730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RWS SPN SUMMARY
SPIN_RACAL_ALL (V1.0)
Tue Sep 21 15:18:23 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
O/H+
N/H+
L/HE++
O/H++
N/H+
TIME 0010 0050 0130 0210 0250 0330 0410 0000 0000 0610 0650 DEGS
RE 4.3 4.6 4.7 4.5 4.0 3.2 2.0 0.0 0.0 3.4 4.1 HHMM
L 4.4 5.2 6.3 7.8 10.8 23.7 50.2 0.0 0.0 3.8 4.2 RE
MLT 21.1 21.1 21.0 20.9 20.7 20.0 11.2 0.0 0.0 21.2 21.0
MLAT 7.75 19.61 30.23 40.77 52.61 68.50 76.44 0.00 0.00 ***** -4.30 HRS
INVLAT 61.6 64.1 66.5 69.1 72.3 78.2 81.9 0.0 0.0 59.2 60.6 DEGS


82/109 19-APR 0630:00 - 1430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Sep 21 15:23:12 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0750 0830 0910 0950 1030 1110 0000 1230 1310 1350 DEGS
RE 0.0 4.6 4.6 4.4 3.8 3.0 1.8 0.0 2.7 3.6 4.3 HHMM
L 0.0 4.7 5.0 5.4 6.2 9.9 48.2 0.0 7.1 4.7 4.5 RE
MLT 0.0 20.7 20.6 20.4 20.3 20.0 11.9 0.0 21.0 20.8 20.8
MLAT 0.00 9.58 17.20 26.76 38.09 55.64 81.04 0.00 ***** ***** ***** HRS
INVLAT 0.0 62.6 63.5 64.6 66.3 71.4 81.7 0.0 68.0 62.5 61.8 DEGS



TIME	1355	1435	1515	1555	1635	1715	1755	1835	0000	0000	0000	DEG
RE	4.3	4.6	4.7	4.4	3.9	3.1	1.9	1.2	0.0	0.0	0.0	HHMM
L	4.5	4.6	4.8	5.1	5.9	9.1	78.7	3.1	0.0	0.0	0.0	RE
MCT	20.8	20.8	20.9	21.1	21.4	21.9	4.1	10.0	0.0	0.0	0.0	
MCAT	*****	1.86	9.19	26.95	34.67	53.50	79.13	*****	0.00	0.00	0.00	[illegible]
INVAT	[illegible]	62.1	62.7	63.7	65.7	70.6	83.5	55.4	0.0	0.0	0.0	[illegible]


82/109 19-APR 2000:00 - 0400:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Oct 16 12:17:12 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 2240 2320 0000 0040 0120 0200 0000 0000 DEGS
RE 0.0 0.0 0.0 4.5 4.0 3.3 2.1 1.1 2.2 0.0 0.0 HHMM
L 0.0 0.0 0.0 6.8 9.3 20.4 85.0 1.9 4.2 0.0 0.0 RE
MLT 0.0 0.0 0.0 21.4 21.5 21.7 8.2 9.0 21.1 0.0 0.0
MLAT 0.00 0.00 0.00 36.74 50.25 67.96 79.05 ***** ***** 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 67.4 70.9 77.2 83.8 42.9 60.7 0.0 0.0 DEGS

APPROVAL

DYNAMICS EXPLORER 1, RETARDING ION MASS SPECTROMETER SUMMARY SPECTROGRAMS—82/001 TO 82/109 SPIN-TIME SPECTROGRAMS FOR H^+, HE^+, O^+, N^+, O^{++}, M/Z=2, AND MOLECULAR IONS

DE 1/RIMS Investigators

This report has been reviewed for technical accuracy and contains no information concerning national security or nuclear energy activities or programs. The report, in its entirety, is unclassified.

Gregory S. Wilson
Director, Space Sciences Laboratory

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

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1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	October 1994	Technical Memorandum

4. TITLE AND SUBTITLE

Dynamics Explorer 1, Retarding Ion Mass Spectrometer
Summary Spectrograms—82/001 to 82/109 Spin-Time
Spectrograms for H^+, He^+, O^+, N^+, O^{++}, M/Z=2, and Molecular Ions

5. FUNDING NUMBERS

6. AUTHOR(S)

DE 1/RIMS Investigators

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

George C. Marshall Space Flight Center
Marshall Space Flight Center, AL 35812

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

National Aeronautics and Space Administration
Washington, D.C. 20546

10. SPONSORING / MONITORING AGENCY REPORT NUMBER

NASA TM- 108468

11. SUPPLEMENTARY NOTES

Point of Contact: B. L. Giles/ES83/205-544-7637
Prepared by Space Sciences Laboratory, Science & Engineering Directorate.

12a. DISTRIBUTION / AVAILABILITY STATEMENT

Unclassified--Unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT *(Maximum 200 words)*

The Retarding Ion Mass Spectrometer (RIMS) experiment onboard the Dynamics Explorer 1 (DE 1) satellite was designed to perform energy and mass-per-charge analysis on low-energy ions (<50 eV) with mass/charge ratios ranging from 1 to 40 amu/Z. The DE 1 satellite, carrying the RIMS experiment, was launched into an elliptical polar orbit on August 3, 1981. The ~7.5 hour orbit has perigee of 675 km altitude and apogee of 24,875 km altitude. This document, and those that follow in this series, contains summary RIMS data spectrograms for each orbit for which RIMS data are available. The RIMS instrument began returning science data on day 280 of 1981 and continued to return usable data until the end of the DE mission in March 1991. It should be noted that studies of the RIMS data set should be conducted only with a thorough awareness of the material described in the introduction section presented here, or in collaboration with a scientist familiar with RIMS data analysis.

14. SUBJECT TERMS

Low-Energy Ions, Inner Magnetosphere, DE RIMS Data

15. NUMBER OF PAGES

381

16. PRICE CODE

NTIS

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	Unlimited

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)

☆U.S. GOVERNMENT PRINTING OFFICE 1994-633-109/00125