Feb

International Council of Scientific Unions

SPECIAL COMMITTEE
ON
SOLAR-TERRESTRIAL PHYSICS

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WORLD DATA CENTER A FOR STP, D64 NOAA, BOULDER, COLORADO 80302, USA

IMS NEWSLETTER

76-2

CONTENTS

This Newsletter gives up-dated information on IMS program plans throughout the world. It is compiled from reports received from regional and national IMS information contacts or directly from participating scientists. Other useful sources have included planning documents like the CCOG Circular Letters and the French and UK program summaries. Lists of range launch schedules and copies of experiment proposals have also been helpful. We request that IMS participants share such information with this office even though it may be preliminary and subject to revision. Thanks to all those who helped with NL 76-1. ----JHA

TIMSCIE Office: Telex 45897 SOLTERWARN BDR; Cable SOLTERWARN BDR (USA)
Telephone: 303-499-1000 x6501 (FTS 323-6501)
European Information (P. Simon): Telex 200590 CNET OBS B MEUDO

PROGRAM PLANS FOR FEBRUARY 1976

Special IMS Periods

Feb 8, 1500 UT to Feb 9, 2000 UT — IMP-J, Vela 5B, Vela 6A in neutral sheet

Feb 21, 2000 UT to Feb 23, 0400 UT — IMP-J, Hawkeye 1, Magnetopause; IMP-H, Vela 6A Magnetopause

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GBR Campaigns: (numbers refer to program details in IMS Bulletin No. 2 or in references below)

--- to Feb 4; #0522; Truttse; Moscow; Aircraft - Night flights, airglow photometers, see note
--- to Feb 5; #0443; Hultqvist; ESRANGE; Rocket - particles, E-fields, e- and ion density, note
--- to Feb 5; #0400; Berning; Poker Flat; Rocket - Dark Sky, aurora, tracking test
--- to Feb 6; A-7; Evans; Poker Flat, Rocket - Complex experiment, low altitude dynamics
--- to Feb 10; A-8; Winckler; Poker Flat; Rocket - ECHO IV Program, complex experiment
--- to Feb 13; #0303; Stoker, SANAE; Balloons - X-rays, photometers; continue through Antarctic winter
--- to Feb 13; #0531; Lazutin; Kiruna, Apatity; Balloons - complex experiments of SAMBO 1-type, note
Feb 1 to Feb 29; #0152; Bryant; Andoya; Rockets (2) - new launches, added program
Feb 1 to Feb 29; #0450; Johnstone; Andoya; Rockets (2) - Night launch, plasma studies
Feb 1 to Mar 31; #0159; Chanin (Tulinov); Heiss Island; Rocket - spectrometer
Feb 1 to Mar 31; #0090; Horton; Woomera; Rocket - mass spectrometer, neutral atm species to 140 km
Feb 8 to Feb 29; #0404; Cloutier; Poker Flat; Rockets (2) - E & B-fields; particles
Feb 10; #0427; Kamada; Syowa; Rocket - 0300LT 210km
Feb 10; #0217; Oya; Syowa; Rocket - 0300LT 210km
Feb 10; A-4; T. Itoh; Syowa; Rocket - 0300LT 210km
Feb 10; A-11; S. Miyazaki (same address as #0185); Syowa; Rockets (2) - 0300LT 210km, 2000LT 130km
Feb 10; #0218; Kodama; Syowa; Rocket - 2000LT 130km
Feb 10; #0429; Tohmatsu; Syowa; Rocket - 2000LT 130km
Feb 16 to Mar 6; #0443; Hultqvist; ESRANGE; Rocket - particles, E-field, e- and ion density, coord. 0041
Feb 16 to Mar 6; #0041; Thrane; ESRANGE; Rockets (2) - Faraday, e- & ion density, coord. #0443, see note
Feb 16 to Mar 6; #0089, 0474; Holmgren, Rees; ESRANGE; Rocket - TNT-Cesium release, see note
Feb 19 to Mar 5; #0400; Berning; Poker Flat; Rockets (5)- 3 programs, coordinated, see notes on ICECAP
Feb 19 to Mar 5; #0400; Berning; Auroral zone; Aircraft - coordinated with ICECAP program, notes
Feb 19 to Mar 5; A-15; D. Baker; Poker Flat; Surface - coordinated with ICECAP program, notes
Feb 19 to Mar 10; #0164; Davis; Poker Flat; Rocket - Quiet time, multiple Barium release
Feb 20± to Mar 31; #0479; Sokolov; 3 sites; Balloons (100) - complex program, See special note on page 4
Feb 23 to Mar 5; #0328; Tinsley (Christensen); Poker Flat; Rocket - complex experiment, note
Feb 5 and 19; #0342; Kulkarni; Aspendale; Balloons - ozonesonde, launch every second Thursday, mid-day
Feb 1...29; #0458; Charakchyan; Mirny, Murmansk, Moscow, Alma Ata; Balloons, daily launches, cosmic rays

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--- through Feb; A-9; (van der Westhuysen); South Atlantic Ocean; Surface - ship `RSA` voyages South Africa to Gough, Sanae, Marion, and return carrying neutron monitor
--- through Feb; A-10; (van der Westhuysen); Pacific Ocean; Surface - freighter Durban to Hong Kong, Japan, and return - neutron monitor
Feb 17, 0400 UT to Feb 19, 2000 UT; #0004; Bauer; IISN; Surface - F-layer studies
Feb through April; A-12; Crochet; Addis Ababa; Surface - E fields in equatorial ionosphere
(we have not fully collated available information on Surface campaigns)

Notes on Program Plans for February 1976

Refined Times of Special IMS Periods for February. Start and end times of the periods listed above and in the SCOSTEP Special Announcement shift a few hours as the result of recomputations given by Vette in the IMS/Satellite Situation Center Report No. 6 (pg 14). Refined UT times are (changed times underlined): Feb 21 2100 to Feb 23 0400.

#0522; Truttze program continuing. Flights in lat range 50-70 N from 2200 to 0600 LT subject to weather. Flights completed Jan 3-14 and Jan 24-Feb 4. Program resumes Winter 1976.

#0443; Hultqvist in two programs jointly with Lundin, Fahleson, Bjorn; E-field, particles, e- and ion density, mother/daughter payload. Second launch simultaneous with #0041.

#0041; Thrane jointly with Bjorn, and Krankowsky. One launch simultaneous with #0443, above; exp. Faraday, e- and ion density.

#0531; Lazutin is part of multi-national program to launch balloons from Kiruna (ESRANGE) drifting Eastward. Other participants are: Kremser, FRG; Zhulin, USSR; Falthammar, Sweden; Riedler, Austria; Parks, USA; Treilhou, France. Auroral X-ray study.

#0152; new program of Andoya (Andenes) launches. For details contact D.A. Bryant (see IMS Bulletin No. 2).

#0450; Johnstone Jan launch moved to Feb and second launch added.

#0089, 0474; Holmgren, Rees jointly with Spracklin, TNT-Cesium release into slightly disturbed ionos.

#0400; Berning, Blank, Ulwick, and Stair. E-region studies, 3 programs, ICECAP: (1) 3 rockets during bright auroral arc. Through and over shots to measure E region dynamics, IR emissions at 4.3um. TMA release within 10 min for neutral wind. (2) EXCEDE, e-gun, 3kv @ 1 amp up field line, apogee 110km, 6 SWIR radiometers, 22 photometers in visible, spectrometer, impedance probe, +ion mass spectrometer, study local emissions from stimulation, formation of NO & NO+ during aurora. (3) HIRIS, into auroral break-up. Very high resolution cryogenic IR interferometer/spectrometer, 4-16 um range, 1 wave # resolution. Aircraft is AFCRL NKC 135-3120, Optical IR Flying Laboratory (J. Reed). Chatanika radar will support rocket launches and aircraft flights.

A-15; D. Baker, Utah State Univ will make quick-scan airglow and auroral emission observations with cryogenic field-widened inter/spectr. Full U of Alaska ground support includes ionosondes, riometer, magnetometers, all-sky camera, etc. Contact A.T. Stair, AFGL/OPR, Hanscomb AFB, MA 01731, USA.

#0328; (Tinsley) Project Scientist is A.B. Christensen. FERRET program launch carries: EUV, ion mass spectrometer, ion and electron probes, photometers, and magnetometer.

#0342; Kulkarni, Balloon launches every second Thursday at midday from Aspendale (corrects NL 76-1). Program certain through March 1976 and possible for rest of year.

A-12; Crochet, coherent radar described in "French Contribution to the IMS," August 1975, item GR-4. Contact P. Simon, DASOP, Observatoire, 92190 Meudon.

PROGRAM PLANS FOR MARCH 1976

Special IMS Periods

ar 2, 0700UT to Mar 4, 0200UT — IMP-J Neutral Sheet; IMP-H, Vela 6A Magnetopause

Mar 6, 0300UT to Mar 7, 1500UT — Multiple Boundary Crossings

Mar 18, 1400UT to Mar 19, 2400UT — Multiple Boundary Crossings

The time coincidence of several GBR campaigns March 17 - Apr 4 may justify a special interval (see April)

GBR Campaigns: (numbers refer to program details in IMS Bulletin No. 2 or in references below)

--- to Mar 5; #0400; Berning; Poker Flat; Rockets (5) - 3 programs, coordinated, see notes on ICECAP
--- to Mar 5; #0400; Berning; Auroral Zone; Aircraft - coordinated with ICECAP program, Feb notes
--- to Mar 5; A-15; Baker; Poker Flat; Surface - coordinated with ICECAP program, Feb notes
--- to Mar 5; #0328; Tinsley (Christensen); Poker Flat; Rocket - complex experiment
--- to Mar 6; #0443; Hultqvist; ESRANGE; Rocket - particles, E-field, e- and ion density, coord #0041
--- to Mar 6; #0041; Thrane; ESRANGE; Rockets (2)- Faraday, e- and ion density, coord #0443, Feb note
--- to Mar 6; #0089, 0474; Holmgren, Rees; ESRANGE; Rocket - TNT-Cesium release, Feb note
--- to Mar 10; #0164; Davis; Poker Flat; Rocket - quiet time, multiple Barium release
--- to Mar 31; #0479; Sokolov; 3 sites; Balloons (100) - complex program, See special note on page 4
--- to Mar 31; #0159; Chanin (Tulinov); Heiss Island; Rocket - spectrometer
--- to Mar 31; #0090; Horton; Woomera; Rocket - mass spectrometer, neutral atm species to 140 km
Mar 1 to Mar 31; #0100; McEwen; Ft Churchill; Rocket - spectrometers, photometers, new launch date, note
Mar 1 to Mar 31; #0474; Rees; Kiruna; Rockets (2) - chemical release for thermospheric winds, new date
Mar 1 to Apr 30; #0400; Berning; Poker Flat; Rocket - e-accelerator, moon down
Mar 17 to Apr 1; A-13; Heikkila; Ft Churchill; Rocket - E & B-fields, particles, coord #0356, see notes
Mar 17 to Apr 1; #0356; Sheldon; Ft Churchill; Rocket - X-rays, E-fields, coordinated with A-13
Mar 17 to Apr 1; A-16; P.T. Berkey; Ft Churchill; Surface - ground auroral TV, coord with A-13
Mar 17 to Apr 4; A-17; Heppner; Poker Flat; Rockets (4) - Barium thermite release, see notes
Mar 18 to Apr 3; #0183,0037,0305,0308,0028,0251; Haerendel, Storey, Studemann, Theile, Riedler, Mozer; Kiruna (ESRANGE); Rockets (2) - PORCUPINE program, complex exp, coord with air, ground
Mar 18 to Apr 3; #0164; Davis; Athens, Greece; Aircraft - video TV of artificial aurora, coord PORCUPINE
Mar 18 to Apr 3; #0312, 0243; Untiedt, Maurer; N. Scandinavia; Surface - mag. chains, coord PORCUPINE
Mar 18 to Apr 3; #0066; Siebert; Finland; Surface - geomag pulsations, coordinated with PORCUPINE
Mar 18 to Apr 3; #0228; Lange-Hesse; Scandinavia; Surface - backscatter radar, coord PORCUPINE
Mar 4 and 18; #0342; Kulkarni; Aspendale; Balloons - ozonesonde, may continue through 1976
Mar 1...31; #0458; Charakchyan; Mirny, Murmansk, Moscow, Alma Ata; Balloons - daily launch, cosmic rays

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Mar through April; A-12; Crochet; Addis Ababa; Surface - E-fields in equatorial ionosphere
Mar 16 to Mar 18; #0004; Bauer; IISN; Surface - gravity waves and plasma
Mar through April; A-12; Crochet; Djibouti; Surface - E-fields in equatorial ionosphere
(we have not fully collated available information on Surface campaigns)

Notes on Program Plans for March 1976

Refined Times of Special IMS Periods for March. Start and end times of the periods listed above and in the SCOSTEP Special Announcement shift a few hours as the result of recomputations given in the IMS Satellite Situation Center Report No 6 (pg 14) by Vette. Refined UT times are (changed times underlined): Mar 6 0500 to Mar 7 1500; Mar 18 1500 to Mar 19 2300.

#0100; McEwen, program shift from Feb to early Mar.
#0474; Rees, flights sched. Feb delayed to March.
A-13; Heikkila (same address as #0186 Hanson), a multi-national rocket experiment coordinated with #0356 and ground campaigns. Black Brant V-C carries experiments listed: (1) Spectrometers, soft particles, high energy and secondary elect; Heikkila & Winningham. (2) Swept-freq adm. probe R. Kist. (3) Energetic e- and p+, ion drift meter; B. Whalen. (4) Fast ion spectrometer; Freeman, Hills, Meister. (5) UV and visible photometers, 2 Lang. probes; Christensen. (6) Thermal ion mass spectrometer; Hoffman. (7) Retarding potential analyzer, thermal ions; Hanson. All-sky camera, merid scan photom, riometer, ionos, and magnetometers at launch site.
#0356; Sheldon, ARCAS launch simultaneous with A-13 to measure X-rays and E-fields.
A-16; P.T. Berkey (same address as #0128).
A-17; Heppner, campaign of 4 Nike Tomahawks. Each rocket will have: 4 cannisters to sequentially release Barium compound to monitor E-fields and neutral winds between 220-310 km. 1 trail generator for lower alt neutral winds @ 180-80 km.
#0183; Haerendel, et al, PORCUPINE First Campaign. Multi-national rocket launches of 2 ARIES from Kiruna (ESRANGE) carrying experiments listed: (1) AC E-field, Grabowski, Pedersen. (2) Plasma density fluctuations, Kelley. (3) Thermal plasma, Spenner. (4) High and middle-frequency e- currents Storey. (5) 3-comp DC B-fields, Theile. (6) AC B-fields, Haeusler. (7) Low energy e- and p+, Wilhelm, Riedler. (8) Medium energy e- and p+, Studemann. (9) Ejectable probes - 2, Mozer. (10) Barium charges - 2, Haerendel. (11) Cesium ejection, Sagdeev, Zhulin, and Haerendel.
Launch windows: UT
Mar 18-22, 1827-1005; Mar 23-26, 1845-2030; Mar 27-30, 1900-2103; Mar 31-Apr 3, 1920-2151.
Launch conditions:
Clear sky at 2 observation stations, including NASA Lear Jet; aurora over ESRANGE. PORCUPINE is coordinated with the next four campaigns.
#0164; Davis, video TV of aurora from chemical release of PORCUPINE. NASA Lear Jet over Athens.
#0312, 0243; Untiedt, Maurer with Kuppers, Kertz. Oper 3 magnetometer chains in N. Scandinavia, total 20 stations. One sample every 5 seconds.
#0066; Siebert, Voelker, induction magnetometers for pulsations at stations in Finland. Both groups Untiedt and Siebert will have same instruments operating near ESRANGE.
#0228; Lange-Hesse, Czechovsky, bistatic CW backscatter radar, all-sky cameras, photometers at locations in Scandinavia.

Contact Haerendel for further PORCUPINE information or to suggest coordination of related geophysical observations, telex 5215845 XTER D.

Cancellation notice: A-14; Peek (see note in IMS NL 76-1); Poker Flat rocket program terminated. Also cancelled, coordinated VLF measurements on simultaneous launch, #0149, Bullough and whistler observations by #0288, Rycroft.

Special IMS Periods

No Special IMS Periods in April were identified by the SSC or selected by the IMS Steering Committee at the Dec 1975 meeting. It has been suggested to the Chm of the Steering Committee that the coincidence several launch windows for major programs of coordinated rocket, aircraft and surface observations duri the time March 17 to April 4 could be the basis for declaring this 19-day interval a Special IMS Period. This period also includes the first ASHAY interval, March 21 to April 3 (see page 5).

Note also that April 13, 14, 15 are the Regular World Days on the International Geophysical Calendar when many programs concentrate their observations, data reduction and data exchange.

GBR Campaigns: (numbers refer to program details in IMS Bulletin No. 2 or in references below)

--- to Apr 1; A-13; Heikkila; Ft Churchill; Rocket - E&B-fields, particles, see March notes
--- to Apr 1; #0356; Sneldon; Ft Churchill; Rocket - X-rays, E-fields, coordinated with A-13
--- to Apr 1; A-16; P.T. Berkey; Ft Churchill; Surface - ground auroral TV, coord with A-13
--- to Apr 3; #0183,0037,0305,0308,0028,0251; Haerendel, Storey, Studemann, Theile, Riedler, Mozer; Kiruna(ESRANGE); Rockets (2) - PORCUPINE Program, coordinated, see March notes
--- to Apr 3; #0164; Davis; Athens, Greece; Aircraft - video TV of artificial aurora, coord PORCUPINE
--- to Apr 3; #0312, 0243; Untiedt, Maurer; N. Scandinavia; Surface - mag. chains, coord PORCUPINE
--- to Apr 3; #0066; Siebert; Finland; Surface - geomag pulsations, coordinated with PORCUPINE
--- to Apr 3; #0228; Lange-Hesse; Scandinavia; Surface - backscatter radar, coord PORCUPINE
--- to Apr 4; A-17; Heppner; Poker Flat; Rockets (4) - Barium thermite release, March notes
--- to Apr 30; #0400; Berning; Poker Flat; Rocket - e- accelerator, moon down
Apr 1 to Apr 30; #0149, 0288; Bullough, Rycroft; S Uist; Rockets (2) - ELF/VLF, E&B-fields, e- density
Apr 1 to Apr 30; A-18; Woolliscroft; S Uist; Rocket - +ion mass spectrometer
Apr 1 to Apr 30; #0104; Niles; Ft Wainwright; Balloons (4) - ion mass spectrometer
Apr 29 to May 15; #0070; Davis (formerly Vaina); White Sands; Rocket - solar X-rays, spectrometer, notes

--- through April 30; A-12; Crochet; Addis Ababa, Djibouti; Surface - E-fields in equatorial ionosphere
(we have not fully collated available information on Surface campaigns)

Notes on Program Plans for April 1976

#0070; Dr. J. M. Davis, American Science and Engineering, 955 Massachusetts Ave, Cambridge, MA 02139 USA, is observing solar imagery @ 8-60 A and spectra from 10-25 A. Analysis is jointly with Evans (same address as #0207).

SPECIAL IMS PERIODS FOR REST OF 1976
(From SCOSTEP Special Announcement)

Jun 23	1400 UT	to	Jun 26	1700 UT
Jul 7	0700	to	Jul 8	1900
Jul 9	2000	to	Jul 10	0800
Jul 22	0600	to	Jul 22	1800
Jul 31	2000	to	Aug 3	0400
Nov 26	1100	to	Nov 26	2300
Dec 3	0800	to	Dec 3	2000
Dec 6	0600	to	Dec 8	1800
Dec 30	0200	to	Dec 31	1300

Refined Times of Special IMS Periods for rest of 1976. The recomputations given in IMS/SSC Report No. 6 give these times (changed times underlined): Jun 23 1600 to Jun 26 1700; Jul 7 0800 to Jul 8 2000; Jul 9 2100 to Jul 10 1000; Jul 22 0600 to Jul 22 2000;Jul 31 2300 to Aug 3 0400; Nov 26 1100 to Nov 26 2400; Dec 3 0700 to Dec 3 2300; Dec 6 0600 to Dec 8 1400; Dec 30 0100 to Dec 31 1400.

Special Note on Program #0479, Sokolov. A telex received from Dr Zybin at press deadline states: "Dr Sokolov (IKFIA, Yakutsk) is planning for 1976 occasional balloon measurements to study electron precipitation above 50 Kev by means of scintillation counters with 5 energy thresholds combined with Geiger counter. In late February and in March about 100 launches are supposed to be made simultaneously (if possible) in Tixi, Zhigansk and Apatity according to the program of IKFIA complex geophysical expedition." The nominal coordinates of these sites are: Tixi 72N 129E, Znigansk 67N 123E and Apatity 68N 33E.

Notes from the IMS Satellite Situation Center

In late January the SSC distributed five reports to interested participants listed in Bulletin No 2, giving detailed information on positions of select high altitude satellites in 1976. Report No. 6 is particularly valuable for satellite-satellite and satellite-GBR researchers since it gives the positions of the various satellites together with the positions of the key magnetospheric boundaries in various coordinate systems for each of the Special IMS Periods, with time resolution of one hour. The report also gives much other relevant information on satellite and rocket experiments. Requests for these reports should be sent to WDC-A Rockets and Satellites, Code 601, GSFC, Greenbelt, MD 20771 USA

IMS-SSC Report No. 2 "Predicted Orbit Plots for Hawkeye 1-1976"
No. 3 ditto for IMP-H
No. 4 ditto for IMP-J
No. 5 ditto for Vela 5B
No. 6 "Special IMS Periods for 1976"

The SSC took delivery of a new, more powerful computer on Dec 29, 1975. Dr. Vette reports they expect to implement all programs by July 1976. At that time the SSC will be able to respond to specific requests for custom plots of low and high altitude satellite orbits and magnetospheric regions in support of individual campaigns.

Word has come that the launch date of SOLRAD 11 A,B is rescheduled to March 4. These satellites will be at 21 earth radii (geocentric) on opposite sides of the earth and will carry several particle experiments as well as solar UV, EUV, and X-ray monitors.

Word has also come that satellite AE-D has suffered a power panel failure that completely incapacitates the satellite. AE-D carried 12 experiments, as described on page 19 of SSC Report No. 6, including experiments of programs #0186 and #0196 in IMS Bulletin No. 2.

Additional IMS Program Questionnaire forms may be obtained from the SSC, the SCOSTEP Secretary, or the TIMSCIE Office. While the Directory of Participants is quite complete, it is becoming obvious that some well-known programs are missing. Return questionnaires to any of the above offices.

GENERAL NEWS

IMS Newsletter -- Schedule

These Newsletters are intended to appear monthly ith updates of IMS program plans and other infor- ation to stimulate coordination of IMS activities. The tentative timetale for the rest of 1976 for final completion is Mar 3, Mar 31, Apr 28, May 26, Jun 23, Jul 28, Aug 25, Sep 22, Oct27, Nov 24, and Dec. 22. The NL is mailed t·o days later.

Distribution of Newsletter. The Newsletter is sent directly to the addresses of the about 900 participants (experimenters and co-experimenters) listed in IMS Bulletin Nos. 2 and 3 (IMS Directory of Participants) and to about 300 others whose names have been provided. National IMS Contacts and some others are sent 5 copies or more. Send additional addresses or corrections to the TIMSCIE office directly or via Meudon.

Actuality vs Plans. we intend to give the actual dates of planned experiments described in these Newsletters beginning with the next issue. Thus far, the only information received on experiments performed in 1976 is: #0522 Truttse, completed Aircraft flights on Jan 3-14. #0474, Rees, launched 3 Petrel rockets from Aresonillo, Spain during Jan. #0458, Charakchyan (Kolomiets) is launching Balloons daily, as announced, only the time of the Moscow launches is 1000 LT.

Channels for Information. Since NL 76-1 was compiled, we have received 24 telex messages and 9 letters from 16 countries. We have received information either directly or indirectly from the following countries: France, S. Africa, Japan, Finland, UK, USSR, USA, Sweden, F.R. Germany, New Zealand, Austria, Australia, Denmark, Canada, Norway, and Brazil. For economy and efficiency we are urging IMS contacts or experimenters in Western Europe to send information via the European Information Exchange Office (Drs. P. Simon and J. Legrand) at telex 200590 CNET OBS B MEUDO.

We are trying to establish routine, efficient channels of communication so that useful, timely information will flow to the TIMSCIE Office and on to IMS participants. Special empnasis has been placed on requesting program updates from countries whose experimenters are shown in IMS Bulletin Nos. 2 and 3 to be planning GBR campaigns during 1976.

What do we mean by GBR, SSC, TIMSCIE, NL, STP, etc ? In this Newsletter we often use many abbreviations both to save space and to transmit information succinctly. We trust that all know what IMS stands for. GBR stands for Ground-based, Balloon and Rocket experiments but also includes experiments on aircraft and on ship cruises. In program updates we specify that an experiment is "Rocket", "Aircraft", or "Balloon", while the label "Surface" is used to cover all remaining GBR program experiments. SSC stands for the IMS Satellite Situation Center, which is and will be the source of information on satellite positions, particularly the simultaneous positions of two or more spacecraft in the same or related regions of the magnetosphere. The TIMSCIE Office is where this Newsletter is compiled; see the letterhead on page 1. STP is also identified in the letterhead. We will sometimes use NL in referring to these IMS Newsletters. We hope the other abbreviations and contractions of English words used in the Newsletter will be understood without too great difficulty. We also usually omit titles of persons named in order to save space.

SCOSTEP Secretariat Message

SCOSTEP Secretary, Dr Dyer, reports that he now expects to distribute IMS Bulletin No. 3 in March, having been slightly delayed in order to accomodate recent last minute revisions. As reported earlier, No. 3 will contain about 50 new program summaries and revisions of many more; but it will not reprint summaries from Bulletin No. 2 that are believed to be still correct. It will thus be a supplement to Bulletin No 2 and not a complete new edition. However, the indexes by participant, country, type of observation, field of scientific interest, etc., will cover the entire IMS directory as contained in both Bulletins No 2 and No 3. Since the time between successive issues of the IMS Bulletin may be as long as a year and since some information in a given issue may therefore be a year old, all IMS participants are advised to update their own copy with the much more recent information contained in these IMS Newsletters.

IMS ニュース --- Japanese Language News About IMS. Dr. Obayashi sends us a copy of "IMS News" in Japanese. It is a 12 page pamphlet dated October, 1975 and contains very detailed information on Japan's program. It includes the following IMS research plans: (1) Structure and dynamics of the earth's plasmasphere, (2) aurora flare -- magnetospheric storms and substorms, (3) earth corona, (4) solar plasmasphere, (5) active areas of the sun and (6) synthetic analysis. For each there are detailed lists of Japanese projects and participants. There is also an article by H. Tanaka on the Radioheliograph work at Nagoya University. Dr. Obayashi (Univ of Tokyo, Komaba, Meguro-ku, Tokyo) says it would be possible to include communications from overseas.

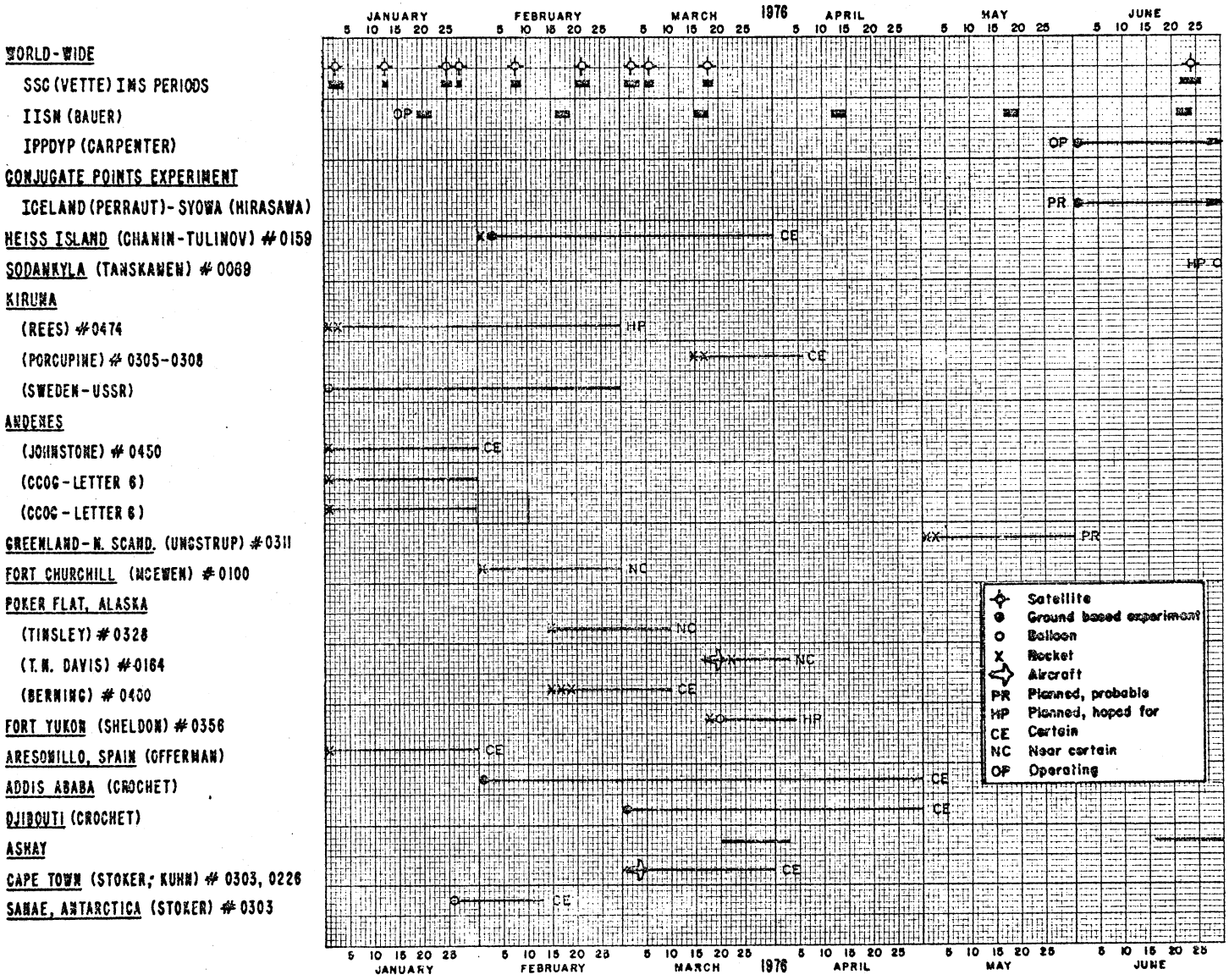
ASHAY Programs for 1976. ASHAY stands for "Antarctic and Southern Hemisphere Aeronomy Year." Its programs, coodinated by a steering committee under S.M. Radicella (Av Benavidez 8175 Oeste, Marqezado, San Juan, Argentina), include: (1) Aeronomic effects in the South Atlantic Anomaly, J.A. Gledhill; (2) Low latitudes F region in the South America sector, J.R. Manzano; (3) Auroral and subauroral aeronomy, K.D. Cole. Each program also has a designated data coordinator. Four periods of intensive observation and international cooperation have been designated: Mar 21 to Apr 3, Jun 17 to 30, Sept 15 to 29, and Dec 8 to 23, 1976. It is planned to circulate data catalogues for each period before the beginning of the next.

Project PORCUPINE (see program notes under March on pg 3) is described in great detail in an ilustrated brochure and updating leaflet which many IMS participants will have received. It is intended to stimulate the coordination of related activities. All interested participants who have not already done so should contact G. Haerendel, Max-Planck-Institut fuer extraterrestrische Physik, 8046 Garching, FRG.

National/Regional Summaries. To this time, TIMSCIE Office has received three comprehensive summary reports: French Contribution to the IMS, United Kingdom IMS Summary, and the CCOG Circular Letter No 6.

CALENDAR OF GBR EXPERIMENTS

On page 6 is the same "Calendar for Coordination" that we published in IMS Newsletter 76-1. We have not yet had time to revise and extend it to include the updated information shown elsewhere in this Newsletter. The format was devised by P. Simon of Meudon and is generally self-explanatory. Abbreviations will be recognized by all who are involved.


JANUARY
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WORLD-WIDE
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HEISS ISLAND (CHANIN-TULINOV) # 0159
SODANKYLA (TANSKANEN) # 0069
KIRUNA
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(PORCUPINE) # 0305-0308
(SWEDEN-USSR)
ANDENES
(JOHNSTONE) # 0450
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GREENLAND - N. SCAND. (UNGSTRUP) # 0311
FORT CHURCHILL (MCEWEN) # 0100
POKER FLAT, ALASKA
(TINSLEY) # 0328
(T.N. DAVIS) # 0164
(BERNING) # 0400
FORT YUKON (SHELDON) # 0356
ARESONILLO, SPAIN (OFFERMAN)
ADDIS ABABA (CROCHET)
DJIBOUTI (CROCHET)
ASHAY
CAPE TOWN (STOKER; KUHN) # 0303, 0226
SANAE, ANTARCTICA (STOKER) # 0303
OP
CE
HP
NC
PR
Satellite
Ground based experiment
Balloon
Rocket
Aircraft
PR Planned, probable
HP Planned, hoped for
CE Certain
NC Near certain
OP Operating