ISEE / ICE / IMP NEWSLETTER

OCT, NOV, DEC 1993

I. GENERAL

ICE

There were 53 real time passes with 46 commands transmitted to the ICE spacecraft,with a 11.06 percent data coverage rate during this quarter.

A station transmitter power output vs spacecraft receiver AGC test along with commands transmitted at different power levels was performed on October 9, to provide JPL personnel with information to estimate command limits, relative to range and time to determine when these limits will be reached.

The first 1993 ICE/ULYSSES radial line-up started October 16 and ended on October 27,1993.Seven hours and thirty-five minutes of support during this time was deleted due to a Magellan spacecraft emergency. Seven-one Hours of ICE data was recovered during the radial line-up.

The second 1993 ICE/ULYSSES radial line-up started November 14 and ended on November 27,1993. A total of 112 hours and 25 minutes of ICE data was recovered during this radial line up. Sixty minutes of data were lost on November 2 at the Madrid D63 station due to weather.(Heavy rain).

IMP-8

There were 88 real time passes with 372 commands transmitted to the IMP-8 spacecraft, with a 69.99

percent data coverage rate during this quarter.

A playback of a Redu Station tape recorded during the scheduled Earth eclipse on September 15,1993, was transmitted from the Data Evaluation Lab (DEL) facility to the IMP TPOCC on October 11,1993. Analysis of the data from the tape was inconclusive as the DEL was unable to flow the data in a usable format.

A request to enhance IMP data coverage during two campaigns was received on November 3,1993, from the IMP project. One for the Geospace Environment Modeling (GEM) campaign and one for the Coupling Energetic and Dynamics of Atmosphere Regions (CEDAR) campaign.

The GEM period was two days, on Nov 9 and 10, 1993. It was during a World Day, and all the incoherent scatter radars were operating. A total of 42 hours and 7 minutes or 87.74 percent of the requested data was recovered.

The CEDAR campaign took place during an overlapping window from 1800 UT to 0700 UT from Nov 8 to Nov 18, 1993. A total of 83 hours and 8 minutes or 63.95 percent of the requested data was recovered.

The entire Wallops Island Station (WPS) was down for electrical modifications from November 11 at 1235Z until November 14 at 1600Z. Eleven hours of IMP data was lost during the CEDAR time frame due to this down time.

Both Spacecraft Command Encoders (SCE) at the Wallops station were declared inoperative on November 17,1993. They returned to operation on November 23 at 0620Z. No impact to IMP spacecraft operations was experienced during this outage. Contingency operations using Santiago as the command station were utilized. Santiago is the only other station capable of commanding IMP.

A Spacecraft experiment anomaly was discovered to have taken place on November 22,1993 at 1623Z. The spacecraft current went up and the IOE (Frank) and the IOF (Gurnett) experiments went off. The spacecraft current went back down after the experiments went off. The IOE experiment was commanded back on successfully but attempts to turn the IOF experiment back on were not successful. The IMP project, the IOF experimenters, and the IMP flight ops team are evaluating further actions. An investigation of the data taken during the anomaly by Dr. Gurnett indicated

that the IOF experiments 6-volt low voltage power supply failed.

The Hawaii station has reported that they now have some VHF antenna masking caused by a new 20 meter radio telescope. It occurs when the VHF antenna is between 181-190 degrees azimuth and pointing below 20 degrees.

II. DATA PROCESSING

A. Most current data shipped as of December 31,1993

(GROUP # - DAY/YEAR)

	IMP-8	ICE
DECOM	1808 - 316/93	802 359/93
MCE	1808 - 316/93	n/a

B. Whole groups not shipped which precede those above:
None

C. Requested redo's in progress:

IMP-8	GRP 1812
ICE	None

III. FUTURE PLANS

Currently scheduled launch dates for WIND and POLAR spacecraft are May, 1994 and November, 1994 respectively.

The First IACG (Interagency Consultative Group) Solar-Heliospheric Workshop on "Solar Sources of Heliospheric Structure Observed Out of the Ecliptic" will be held in Easton, Maryland, January 27-29, 1994. The meeting is being coordinated by Dr. Miriam Forman of the Space Physics Division at NASA Headquarters. Data from the Ulysses and Yokkoh missions are expected to play key roles in this coordinated data analysis effort, with IMP-8 and ICE providing in-ecliptic baseline data. The January meeting will be primarily to plan for subsequent coordinated data analyses. ICE and IMP will be represented by Kieth Ogilvie and Joe King respectively.

IV. OPERATIONS

DATA RECOVERY

The overall telemetry coverages for this period were:

	OCTOBER	NOVEMBER	DECEMBER
ICE	12.31%	17.21%	3.67%
IMP-8	70.03%	72.06%	67.87%

Details of the coverages for ICE and IMP-8 are listed in attachment "A".

ATTACHMENT A

Data Coverage
October 1, 1993 (274) Through December 31, 1993 (365).

DDD	HH MM IN UT	
	ICE	IMP
274	0445-0900	0000-2400
275	NONE	0000-2051
		2236-2400
276	NONE	0000-2105
277	0531-1035	0346-2400
278	NONE	0000-0130
		0826-1333
		1340-2400
279	NONE	0000-0208
		1700-1952
280	NONE	0126-0325
		1753-2345
281	NONE	0339-0946
		1841-2400
282	0515-1015	0000-0529
		1812-2400
283	NONE	0000-0819
		1710-2400
284	0700-1125	0000-1027
		1629-2400
285	NONE	0000-1302
		1644-2400
286	NONE	0000-2400
287	NONE	0000-2400
288	1011-1051	0000-2400
	1121-1145	
289	0916-0927	0000-0126
	0934-1130	0209-2008
290	0448-0945	0646-1925
	2316-2400	
291	0000-0151	1215-1904
	0231-0340	
	0945-1014	
	1018-1026	
	1043-1535	
	2245-2400	
292	0000-0315	0006-0240
	0745-1518	1659-2245
	2338-2400	
293	0000-0245	0238-0856
	0745-1003	1751-2400
	1011-1535	

294	2300-2400	0000-0439
		1722-2400
295	0000-0300	0000-0725
	0528-1400	1622-2400
296	0906-1400	0000-0930
		1542-2400
297	0916-1530	0000-1156
		1500-1530
		2143-2400
298	0448-1030	0000-2400
299	NONE	0000-2400
300	0745-1100	0000-2400
301	NONE	0000-0033
		0108-2400
302	NONE	0000-0108
		0553-2400
303	NONE	0000-0129
		1200-1830
304	NONE	0110-0910
		1609-2230
305	NONE	1145-1640
		1654-2400
306	0625-0855	0000-1400
		1641-2400
307	NONE	0000-1211
		1537-2400
308	NONE	0000-0829
		1457-2400
309	NONE	0000-1050
		1417-2400
310	0520-0820	0000-2400
311	NONE	0000-2400
312	NONE	0000-2344
313	NONE	0022-2400
314	1906-2230	0000-0020
		0515-0953
		1045-2400
315	NONE	0000-0039
		2112-2151
		2216-2400
316	NONE	0000-0057
		0504-1227
317	NONE	NONE
318	0530-1132	1605-2400
	1157-1345	
319	0828-0957	0000-0516
	1002-1124	1455-2400
	1201-1405	
320	0745-0923	0000-0724
	0925-1130	1412-2400
	1133-1340	

321	0730-1215	0000-2400
	1950-2335	
322	0621-0920	0000-2400
	2222-2400	
323	0000-0230	0000-2400
	0741-1340	
	1932-2330	
324	0537-1340	0000-1746
	1929-2330	2355-2400
325	0733-1340	0000-1738
	1926-2130	2111-2242
		2307-2400
326	1925-2330	0000-0210
		0245-0341
		0435-1700
		1800-2352
327	0731-1145	1215-1634
		2049-2400
328	0836-1305	0000-0013
	2230-2344	1416-2210
	2355-2400	
329	0000-0245	1447-2400
	0545-0905	
	2230-2400	
330	0000-0420	0000-0050
	0855-1305	0510-0841
	1930-2400	1530-1928
		1933-2400
331	0000-0229	0000-0410
	0240-0400	1411-2400
	0552-1146	
	1212-1305	
	1930-2220	
332	NONE	0000-0622
		0642-2400
333	NONE	0000-0849
		1247-2400
334	1925-2200	0000-2400
335	NONE	0000-2400
336	NONE	0000-1654
		1800-2207
		2316-1400
337	NONE	0000-1648
		1800-2240
		2312-2400
338	NONE	0000-0142
		0330-1610
339	0736-1146	1200-1541
340	NONE	1304-1817
		2308-2400

341	NONE	0000-0346
		1354-2313
		2324-2400
342	0610-1000	0000-0738
		1453-2400
343	NONE	0000-0304
		1324-2400
344	NONE	0000-0521
		1238-2400
345	1850-2200	0000-0747
		1158-2400
346	NONE	0000-2400
347	NONE	0000-2400
348	NONE	0000-1603
		1800-2108
		2125-2400
349	NONE	0000-2145
350	0628-0710	0132-1534
	0715-1145	1800-2205
351	NONE	1200-1447
		1800-2223
352	NONE	1200-1603
353	NONE	1300-2133
354	NONE	0028-0246
		0250-0511
		0810-1100
		1438-1747
		1802-2400
355	0706-1005	0000-0141
		1244-2400
356	NONE	0000-1010
		1154-2400
357	NONE	0000-0635
		1115-2400
358	NONE	0000-1007
		1011-2400
359	NONE	0000-2400
360	0627-1010	0000-1506
		1909-2400
361	0030-0445	0000-1512
		2310-2400
362	NONE	0000-1457
		1800-2107
363	NONE	0432-0634
		0854-2126
364	NONE	1215-1422
		1953-2226
365	NONE	1200-1916