SPACE STATION USER STUDY

APPENDICES WITH ATTRIBUTION

MARCH, 1983

PHILIP A. LAPP LIMITED

T A B L E O F C O N T E N T S

APPENDIX 8

LIST OF INTERVIEWS

Industry 1

		Interviewer	Called	Materials	Date set	Interview	Report
1.Du Pont Canada	Mr. Gerald B.Dyer	KEH	1	1	1	1	1
2.GasTops Ltd.	Mr. John W.Goodantz	JB	1	1	1	1	1
3.Bell Northern Res.	Dr. R.J.Kriegler	JB	1	1	1	1	1
4.Dipex Systems Ltd.	Dr. P.Pearl	JB	1	1	1	1	1
5.Lumonics Inc.	Mr. A.R.Buchanan	KEH	1	0	0	0	1
6.AGDA Ltd.	Mr. A.D.Gagnon	JB	1	1	1	1	1
7.Can. Sat.Comms.Inc	Mr. H.J.Underhill	KEH	1	1	1	1	1
8.Hi Tech Canada Ltd	Mr. Al Churgin	JB	1	1	1	1	1
9.Land Sea Res.Plan.	Mr. Keith Greenaway	JB	1	1	1	1	1
10.Mitel Corp.	Mr. L.Barton	JB	1	1	1	1	1
11.OPTOTEK Ltd.	Dr. D.I.Kennedy	JB	1	1	1	1	1
12.ORL Analysis Corp	Dr. S.P.Bellier	JB	1	1	1	1	1
13.Merck Frosst Inc.	Dr. C.H.Gleason	JB	1	1	1	1	1
14.Noranda C.de Res.	Dr. Peter Tarassoff	JB	1	1	1	1	1
15.PPRIC	Mr. B.W.Burgess	JB	1	1	1	1	1
16.SPAR Aerospace Ltd	Mr. J.Middleton	JDK	1	1	1	1	1
17.Bristol Myers	Dr. Yvon G.Perron	KEH	1	1	1	1	1
18.Can. Marconi	Mr. Graham Beaumont	KEH	1	1	1	1	1
19.MPB Tech.Inc.	Dr. M.Bachynski	JB	1	1	1	1	1
20.Inst.Res.d'H.Q.	M. Raymond Pronovost	KEH	1	1	1	1	1
21.ANTECH	Mr. A.R.Raab	JB	1	1	1	1	1
22.Apollo Microwave	Mr. N.Vouloumanos	JB	1	1	1	1	1
23.Bomem Inc.	Mr. G.Vaild	JB	1	1	1	1	1
24.Canadian Limited	Mr. Harry Halton	JB	1	1	1	1	1
25.Can.Marconi Ltd	M. Leveille	KEH	1	1	0	0	0
26.John A.Collins As	Mr. J.A.Collins	JB	1	1	1	1	1
27.Teleglobe Can.	Mr. Dorey	KEH	1	1	1	1	1
28.Telesat Canada	M. Jean Baby	JB	1	1	1	1	1
29.Que.C.de R.Min.	Dr. M.D.Everell	JB	1	1	1	1	0
30.Hermes Electron.	Mr. Graham Smith	DJL	1	1	1	1	1
31.MRMS	Mr. Jim Stanley	DJL	1	1	1	1	1
32.NORDCO	Mr. Frank Smith	DJL	1	1	1	1	0
33.NORDCO	Dr. Roger Stacey	DJL	1	1	1	1	1
34.B.C.Research	Dr. V.A.Mode	DJL	1	1	1	1	1
35.B.C.Hydro	Dr. H.M.Ellis	DJL	1	1	1	1	1
36.MDA	Dr. J.S.MacDonald	DJL	1	1	1	1	1
37.M&B Res	Dr. P.Cottell	DJL	1	1	1	1	1
38.Cantel Eng.Assoc.	Mr. M.Lopianowski	DJL	1	1	1	0	1
39.Microtel Pac.Res.	Dr. J.C..Madden	DJL	1	1	1	1	1
40.Panarctic Ltd.	Mr. G.Hood/Mr.Martin van Iperan	DJL	1	1	1	1	1
41.Can.Pet Ass'n	Mr. E.Pallister	DJL	1	1	1	1	1
42.Intera Env.Ltd.	Mr. B.L.Bullock	DJL	1	1	0	0	0
43.SED Systems	Mr. A.Curran	RMF	1	1	1	1	1
44.SCI-TEC Instrum.	Mr. W.Brooks	RMF	1	1	1	1	1
45.Philom Bios Inc.	Dr. George Khachatourians	RMF	1	1	1	1	1
46.Boeing of Can.Ltd	Mr. E. Murray Sloane	RMF	1	1	1	1	1

1 - activity took place
0 - activity did not take place

KEH - Mr. K.E.Hancock
JB - Dr. J.N.Barry
DJL - Mr. D.J.Lapp
RMF - Mr. R.M.Freedman
LWM - Dr. L.W.Morley
PAL - Dr. P.A.Lapp
JDK - Dr. J.D.Keys

Industry 2

			Interviewer	Called	Materials	Date set	Interview	Report
47.Bristol Aero.	Mr. B.Weibe		RMF	1	1	1	1	1
48.Dow Chem.Can.Ltd.	Dr. Mike Baldwin		LWM	1	1	1	1	1
49.Fleet Industries	Mr. R.K.Fraser	+	LWM	1	1	1	1	1
50.Raytheon Can.Ltd.	Mr. J.M.Stewart		LWM	1	1	1	1	1
51.OVAAC	Mr. E.Miller		DJL	1	1	1	1	1
52.Northern Telecom	Dr. D.A.Chisholm	+	LWM	1	1	1	1	1
53.TV Ontario	Mr. Wally Longul		RMF	1	1	1	1	1
54.Ontario Hydro	Mr. Fred J.Kee		DJL	1	1	1	1	1
55.Warner/Lamb/P.D.	Dr. Jennifer M.Sturgess		LWM	1	1	1	1	1
56.Abitibi Price	Mr. M.Thomas Neill		LWM	1	1	1	1	1
57.Barringer Res.	Dr. Richard D.Clews		DJL	1	1	0	0	0
58.CGE	Dr. P.E.Pashler		DJL	1	1	1	1	1
59.Cominco	Dr. Charles P.Lewis	#	LWM	1	1	1	1	1
60.Connaught Res.In.	Dr. W.Cochrane		DJL	1	1	1	1	1
61.Div.Res.Labs	Mr. R.Edamura		DJL	1	1	1	1	1
62.Falcon.Met.Labs	Mr. R.A.Bergman		DJL	1	1	1	1	1
63.Allelix Inc.	Dr. Derek Burke		LWM	1	1	1	1	1
64.Opto El.Ltd.	Dr. B.R.Garside		LWM	1	1	1	1	1
65.ORF	Dr. W.R.Stadelman		LWM	1	1	1	1	1
66.Bayly Eng.	Mr. T.H.Walther		DJL	1	1	1	1	1
67.Chromalox	Mr. C.R.Hollaman		DJL	1	0	0	0	0
68.High Vac.Sys.	Mr. P.Ladd	+	LWM	1	1	1	1	1
69.MA Elect.	Mr. P.Mercer	+	LWM	1	1	1	1	1
70.Moniteq	Mr. D.A.Whiteman		LWM	1	1	1	1	1
71.Optech Inc.	Dr. A.J.Carswell		DJL	1	1	1	1	1
72.Sinclair Rad.	Mr. R.W.Weir	+	LWM	1	1	1	1	1
73.Varian	Mr. Connell Smith	+	LWM	1	1	1	1	1
74.N-G	Mr. R.Marcelle		LWM	1	1	1	1	1
75.CN-CP	Mr. Charlie Webster		RMF	1	1	1	1	1
76.Digital Tele.Ltd	Dr. Colin Batin		LWM	1	1	1	1	1
77.DSMA	Mr. Lloyd Secord		PAL	1	1	1	1	1
78.CAL	Mr. J.Taylor		PAL	1	1	1	1	1
79.CAE	Mr. Ken Hansell		KEH	1	1	1	1	1
80.ITRES Res. Ltd.	Dr. C.D.Angerr		DJL	1	1	1	1	1
81.Remotec Appl.Ltd.	Dr. S.Parashar		DJL	1	1	1	1	1

+ want to talk to SPAR
# linked with 77

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		Interviewer	Called	Materials	Date set	Interview	Report
51.ARC	Mr. Peter Williams	RMF	1	1	1	1	1
52.DoE/Alt	Mr. Cal Bricker	RMF	1	1	1	1	1
53.PRL	Dr. Fred Constabel	RMF	1	1	1	1	1
54.NR/Man.	Mr. W.G.Best	RMF	1	1	1	1	1
55.DCIEM	Dr. R.Heggie	LWM	1	1	1	1	1
56.DCRS	Dr. Victor Zsilinsky	LWM	1	1	1	1	1
57.AES	Dr. G.Morrisey/S.Peteherych	DJL	1	1	1	1	1
58.AES	Dr. W.Evans	DJL	1	1	1	1	1
59.AES	Dr. W.Godsen	DJL	1	1	1	1	1
60.AES	Mr. D.Champ	DJL	1	1	1	1	1
61.DND	Mr. John Collins et al	PAL	1	1	1	1	1
62.NRC EED	Mr. Robin C.Black	KEH	1	1	1	1	1
63.EMR S&M	Mr. Ray E.Moore	JB	1	1	1	1	1

University		Interviewer	Called	Materials	Date set	Interview	Report
1.Queen's Met.Eng	Dr. R.W.Smith	KEH	1	1	1	1	1
2.McGill Physiology	Dr. G.Melville Jones	KEH	1	1	1	1	1
3.McGill Physiology	Dr. D.G.D.Watt	KEH	1	1	1	1	1
4.Inst.Armand Frapp.	Dr. V.Pavilanis	JB	1	1	1	1	1
5.Mtl.Gen.Hospital	Dr. Harry Goldsmith	KEH	1	1	1	1	1
6.UNB,Inst for Phgmt	Mr. Angus Hamilton	PAL	1	1	1	1	1
6bUNB	Mr. David Wells	PAL	1	1	1	1	1
7.C-COR	Mr. Harold Snyder	DJL	1	1	1	1	1
8.UBC Geoph.&Astron	Dr. GordonA.Walker	DJL	1	1	1	1	1
9.UBC Met.Eng.	Dr. F.Weinberg	DJL	1	1	1	1	1
10.UBC Path & Chem	Dr. D.E.Brooks	DJL	1	1	1	1	1
11.UBC R.S. Council	Dr. Peter Mathur	DJL	1	1	1	1	1
12.UofC Physics	Dr. Venkatesan et al	DJL	1	1	1	1	1
13.UofSask IASPhys	Dr. D.McEwen	RMF	1	1	1	1	1
14.UofWind Eng.	Dr. W.V.Youdelis	LWM	1	1	1	1	1
15.UWO Physics	Dr. P.Forsyth/Dr. D.R.Morcroft	LWM	1	1	1	1	1
16.UofT Elect. Eng	Dr. K.Balmain	LWM	1	1	1	1	1
17.UofT Elect. Eng	Dr. Alan Yen	LWM	1	1	1	1	1
18.UofT Met.Mat.Sci.	Dr. J.W.Rutter	LWM	1	1	1	1	1
19aUofT Inst.Aero St	Dr. R.Tennyson	DJL	1	1	1	1	1
19bUofT Inst.Aero St	Dr. P.Hughes	DJL	1	1	1	1	1
20.UofOttawa-OSH	Dr. Uhthoff	KEH	1	1	1	1	1
21.York CRESS	Dr. Ralph Nicholls	LWM	1	1	1	1	1
21aYork "	Dr. Frank Bunn	LWM	1	1	1	1	1
21bYork "	Dr. J.Lamframbois	LWM	1	1	1	1	1
21cYork "	Dr. J.Miller	LWM	1	1	1	1	1
21dYork "	Dr. J.McConnell	LWM	1	1	1	1	1
21eYork "	Dr. R.Kohler	LWM	1	1	1	1	1
21gYork "	Dr. A.Carswell	LWM	1	1	1	1	1
21iYork "	Dr. G.Shepherd	LWM	1	1	1	1	1
22.UBC ME	Dr. Modi	DJL	1	1	1	1	1
23.Tech.U NS	Dr. N.R.Yaenidjian	DJL	1	1	1	1	1
24.McGill H-K Lab.	Dr. Milic-Emili	KEH	1	1	1	1	1
25.UofT Astronomy	Dr. E.R.Seaquist	LWM	1	1	1	1	1

Government 1

		Interviewer	Called	Materials	Date set	Interview	Report
1.NRCC	Dr. Keith Glegg	KEH	1	1	1	1	1
2.NRCC	Mr. Ken Pulfer	KEH	1	1	1	1	1
3.NRCC	Dr. I.B.McDiarmid	JB	1	1	1	1	1
4.NRCC	Dr. Fred Lipsett	KEH	1	1	1	1	1
5.NRCC	Dr. D.M.Wiles	KEH	1	1	1	1	1
6.NRCC	Dr. J.L.Locke	JB	1	1	1	1	1
7.NRCC	Dr. P.A.Redhead	JB	1	1	1	1	1
8.NRCC	Dr. C.T.Bishop	KEH	1	1	1	1	1
9.NRCC	Dr. A.J.Alcock	KEH	1	1	1	1	1
10.NRCC	Dr. G.Atkinson	KEH	1	1	1	1	1
11.NRCC	Dr. J.P.Hobson	KEH	1	1	1	1	1
12.NRCC	Mr. E.H.Dudgeon	KEH	1	1	1	1	1
13.NRCC	Dr. K.H.Doetsch	KEH	1	1	1	1	1
14.NRCC	Dr. G.L.Bata	KEH	1	1	1	1	1
15.MOSST	Dr. Mac Evans	JB	1	1	1	1	1
16.SCC	Mr. J.Miedzinski	JB	1	1	1	1	1
17.NSERC	Ms. Janet Halliwell	KEH	1	1	1	1	1
18.CCRS	Mr. Lee Godby	JB	1	1	1	1	1
19.CCRS	Dr. E.Shaw	JB	1	1	1	1	1
20.CANMET	Dr. Dennis White	JB	1	1	1	1	1
21.DOE	Dr. Jim Patterson	JB	1	1	1	1	1
22.AECB	Mr. Ian Fraser	KEH	1	1	1	1	1
23.DOE	Dr. J.Harrington et al	JB	1	1	1	1	1
24.DOE	Mr. J.P.Bruce	JB	1	1	1	1	1
25.DOC	Mr. Gourd	KEH	1	1	1	1	1
26.DOC	Mr. Ken Hepburn	KEH	1	1	1	1	1
27.DOC	Dr. J.Chambers	KEH	1	1	1	1	1
28.DOC	Dr. B.Blevis	JB	1	1	1	1	1
29.DOC	Dr. C.Franklin	JB	1	1	1	1	1
30.DOC	Dr. R.Warren-RADARSAT	JB	1	1	1	1	1
31.DOC	Mr. Sam Altman	JB	1	1	1	1	1
32.DOC	Dr. Andy Molozzi	KEH	1	1	1	1	1
33.DOC	Dr. R.Barrington	JB	1	1	1	1	1
34.F&O	Mr. E.R.Edel	KEH	1	1	1	1	1
35.AC	Dr. R.Halstead et al	JB	1	1	1	1	1
36.MRC	Dr. J.Roxburgh	JB	1	1	1	1	1
37.H&W	Mr. Allister Thompson	JB	1	1	1	1	1
38.H&W	Dr. R.A.Heacock	JB	1	1	1	1	1
39.H&W	Dr. E.Somers	KEH	1	1	0	0	1
40.EA	Miss Anne Pollock	KEH	1	1	1	1	1
41.TC	Mr. Boris Borodchak	KEH	1	1	1	1	1
42.BIO	Dr. Clive Mason	DJL	1	1	1	1	1
43.NSLSI	Dr. John Wightman	DJL	1	1	1	1	1
47.IOS	Dr. Jim Gower	DJL	1	1	1	1	1
48.BC F.S.	Mr. Frank Hegyi	DJL	1	1	1	1	1
49.P/C	Mr. Ken Croasdale	DJL	1	1	1	1	1
50.P/CR&D	Mr. G.Derbowka	DJL	1	1	1	1	1

APPENDIX 9

INTERVIEW RESPONSES

Industry 1

		Nil	Comments	Proposals	Application	Role
1.Du Pont Canada	Mr. Gerald B.Dyer		X		materials	user
2.GasTops Ltd.	Mr. John W.Goodantz			X	technology	supplier
3.Bell Northern Res.	Dr. R.J.Kriegler		X		communications	supplier
4.Dipex Systems Ltd.	Dr. P.Pearl		X		remote sensing	supplier
5.Lumonics Inc.	Mr. A.R.Buchanan	X			technology	supplier
6.AGDA Ltd.	Mr. A.D.Gagnon			X	technology	supplier
7.Can. Sat.Comms.Inc	Mr. H.J.Underhill			X	communications	suppl/user
8.Hi Tech Canada Ltd	Mr. Al Churgin			X	technology	supplier
9.Land Sea Res.Plan.	Mr. Keith Greenaway			X	remote sensing	user
10.Mitel Corp.	Mr. L.Barton	X			technology	supplier
11.OPTOTEK Ltd.	Dr. D.I.Kennedy			X	technology	supplier
12.ORL Analysis Corp	Dr. S.P.Bellier			X	materials	user
13.Merck Frosst Inc.	Dr. C.H.Gleason	X			medicine	user
14.Noranda C.de Res.	Dr. Peter Tarassoff	X			materials	user
15.PPRIC	Mr. B.W.Burgess	X			technology	user
16.SRAR Aerospace	Mr. J.Middleton			X	technology	supplier
17.Bristol Myers	Dr. Yvon G.Perron	X			medicine	user
18.Can. Marconi	Mr. Graham Beaumont	X			communications	supplier
19.MPB Tech.Inc.	Dr. M.Bachynski		X		technology	supplier
20.Inst.Res.d'H.G.	M. Raymond Pronovost			X	remote sensing	user
21.ANTECH	Mr. A.R.Raab			X	technology	supplier
22.Apollo Microwave	Mr. N.Vouloumanos	X			technology	supplier
23.Bomem Inc.	Mr. G.Vaild			X	technology	supplier
24.Canadair Limited	Mr. Harry Halton		X		technology	supplier
25.Can.Marconi Ltd	M. Leveille	X			technology	supplier
26.John A.Collins As	Mr. J.A.Collins		X		technology	user
27.Teleglobe Can.	Mr. Martin Fournier		X		communications	user
28.Telesat Canada	M. Jean Baby		X		communications	user
29.Que.C.de R.Min.	Dr. M.D.Everell	X			materials	user
30.Hermes Electron.	Mr. Graham Smith	X			technology	supplier
31.MRMS	Mr. Jim Stanley			X	remote sensing	user
32.NORDCO	Mr. Frank Smith	X			technology	user
33.NORDCO	Dr. Roger Stacey			X	technology	user
34.B.C.Research	Dr. V.A.Mode			X	remote sensing	user
35.B.C.Hydro	Dr. H.M.Ellis			X	remote sensing	user
36.MDA	Dr. J.S.MacDonald			X	technology	supplier
37.M&B Res	Dr. F.Cottell			X	remote sensing	user
38.Cantel Eng.Assoc.	Mr. M.Lopianowski	X			technology	user
39.Microtel Pac.Res.	Dr. J.C..Madden	X			communications	supplier
40.Panarctic Ltd.	Mr. G.Hood/Mr.Martin van Ipera	X			remote sensing	user
41.Can.Pet Ass'n	Mr. E.Pallister			X	remote sensing	user
42.Intera Env.Ltd.	Mr. B.L.Bullock	X			remote sensing	user
43.SED Systems	Mr. A.Curran			X	technology	supplier
44.SCI-TEC Instrum.	Mr. W.Brooks			X	technology	supplier
45.Philom Bios Inc.	Dr. George Khachatourians			X	medicine	user
46.Boeing of Can.Ltd	Mr. E. Murray Sloane			X	technology	supplier

Industry 2

		Nil	Comments	Proposals	Application	Role
47.Bristol Aero.	Mr. B.Weibe			X	technology	supplier
48.Dow Chem.Can.Ltd.	Dr. Mike Baldwin	X			materials	user
49.Fleet Industries	Mr. R K.Fraser	X			technology	supplier
50.Raytheon Can.Ltd.	Mr. J.M.Stewart	X			technology	supplier
51.OVAAC	Mr. E.Miller			X	technology	supplier
52.Northern Telecom	Dr. D.A.Chisholm		X		communications	supplier
53.TV Ontario	Mr. Peter Bowers			X	social	user
54.Ontario Hydro	Mr. Fred J.Kee			X	remote sensing	user
55.Warner/Lamb/P.D.	Dr. Jennifer M.Sturgess	X			medicine	user
56.Abitibi Price	Mr. M.Thomas Neill		X		remote sensing	supplier
57.Barringer Res.	Dr. Richard D.Clews	X			technology	supplier
58.CGE	Dr. P.E.Pashler		X		technology	user
59.Cominco	Mr. Gerald P.Lewis			X	materials	user
60.Connaught Res.In.	Dr. W.Cochrane			X	medicine	user
61.Div.Res.Labs	Mr. R.Edamura			X	medicine	user
62.Falcon.Met.Labs	Mr. R.A.Bergman			X	materials	user
63.Allelix Inc.	Dr. Derek Burke	X			medicine	user
64.Opto El.Ltd.	Dr. B.R.Garside			X	materials	user
65.DRF	Dr. W.R.Stadelman	X			technology	user
66.Bayly Eng.	Mr. T.H.Walther			X	technology	supplier
67.Chromalox	Mr. C.R.Hollaman	X			technology	supplier
68.High Vac.Sys.	Mr. P.Ladd		X		materials	supplier
69.MA Elect.	Mr. P.Mercer		X		communications	supplier
70.Moniteq	Mr. D.A.Whiteman			X	remote sensing	supplier
71.Optech Inc.	Dr. A.J.Carswell			X	remote sensing	supplier
72.Sinclair Rad.	Mr. R.W.Weir		X		communications	supplier
73.Varian	Mr. Connell Smith	X			materials	supplier
74.N-G	Mr. R.Marcelle	X			remote sensing	user
75.CN-CP	Mr. Charlie Webster			X	communications	user
76.Digital Tele.Ltd.	Dr. Colin Batin			X	technology	supplier
77.DSMA	Mr. Lloyd Secord			X	materials	user
78.CAL	Mr. J.Taylor			X	technology	supplier
79.CAE	Mr. Ken Hansell et al			X	technology	supplier
80.ITRES Res. Ltd.	Dr. C.D.Anger			X	remote sensing	supplier
81.Remotec Appl.Ltd.	Dr. S.Farashar			X	remote sensing	user

University		Nil	Comments	Proposals	Application
1.Queen's Met.Eng	Dr. R.W.Smith			X	materials
2.McGill Physiology	Dr. G.Melville Jones	X			medicine
3.McGill Physiology	Dr. D.G.D.Watt			X	medicine
4.Inst.Armand Frapp.	Dr. V.Pavilanis	X			medicine
5.Mtl.Gen.Hospital	Dr. Harry Goldsmith			X	medicine
6.UNB,Inst for Phgmt	Mr. Angus Hamilton		X		remote sensing
6bUNB	Mr. David Wells			X	remote sensing
7.C-CORE	Mr. Harold Snyder	X			remote sensing
8.UBC Geoph.&Astron	Dr. GordonA.Walker			X	science
9.UBC Met.Eng.	Dr. F.Weinberg			X	materials
10.UBC Path & Chem	Dr. D.E.Brooks			X	medicine
11.UBC R.S. Council	Prof. P.Mathur	X			remote sensing
12.UofC Physics	Dr. Venkatesan et al			X	science
13.UofSask IASPhys	Dr. D.McEwen	X			science
14.UofWind Eng.	Dr. W.V.Youdelis			X	materials
15.UWO Physics	Dr. P.Forsyth/Dr. D.R.Morcroft			X	science
16.UofT Elect. Eng	Dr. K.Balmain			X	technology
17.UofT Elect. Eng	Dr. Alan Yen			X	remote sensing
18.UofT Met.Mat.Sci.	Dr. J.W.Rutter			X	materials
19aUofT Inst.Aero St	Dr. R.Tennyson			X	materials
19bUofT Inst.Aero St	Dr. P.Hughes			X	technology
20.UofOttawa-OGH	Dr. Uhthoff			X	medicine
21.York CRESS	Dr. Ralph Nicholls			X	remote sensing
21aYork "	Dr. Frank Bunn			X	remote sensing
21bYork "	Dr. J.Lamframbois			X	technology
21cYork "	Dr. J.Miller			X	remote sensing
21dYork "	Dr. J.McConnell			X	science
21eYork "	Dr. R.Kohler			X	science
21gYork "	Dr. A.Carswell		X		remote sensing
21iYork "	Dr. G.Shepherd			X	science
22.UBC ME	Dr. Modi			X	technology
23.Tech.U NS	Dr. N.R.Ymenidjian			X	materials
24.McGill H-K Lab.	Dr. Milic-Emili	X			medicine
25.UofT Astronomy	Dr. E.R.Seaquist			X	science

Government 1

		Nil	Comments	Proposals	Application
1.NRCC	Dr. Keith Glegg		X		technology
2.NRCC	Mr. Ken Pulfer		X		technology
3.NRCC	Dr. I.B.McDiarmid		X		science
4.NRCC	Dr. Fred Lipsett			X	materials
5.NRCC	Dr. D.M.Wiles	X			science
6.NRCC	Dr. J.L.Locke			X	science
7.NRCC	Dr. P.A.Redhead		X		science
8.NRCC	Dr. C.T.Bishop	X			medicine
9.NRCC	Dr. A.J.Alcock	X			science
10.NRCC	Dr. G.Atkinson		X		science
11.NRCC	Dr. J.P.Hobson	X			science
12.NRCC	Mr. E.H.Dudgeon			X	technology
13.NRCC	Dr. K.H.Doetsch		X		technology
14.NRCC	Dr. G.L.Bata			X	materials
15.MOSST	Dr. Mac Evans		X		technology
16.SCC	Mr. J.Miedzinski		X		science
17.NSERC	Ms. Janet Halliwell		X		science
18.CCRS	Mr. Lee Godby			X	remote sensing
19.CCRS	Dr. E.Shaw			X	remote sensing
20.CANMET	Dr. Dennis White	X			materials
21.DOE	Dr. Jim Patterson			X	remote sensing
22.AECB	Mr. Ian Fraser	X			technology
23.DOE	Dr. J.Harrington et al			X	remote sensing
24.DOE	Mr. J.P.Bruce	X			remote sensing
25.DOC	Mr. Gourd	X			communications
26.DOC	Mr. Ken Hepburn			X	technology
27.DOC	Dr. J.Chambers		X		communications
28.DOC	Dr. B.Blevis		X		communications
29.DOC	Dr. C.Franklin		X		communications
30.DOC	Dr. R.Warren-RADARSAT			X	remote sensing
31.DOC	Mr. Sam Altman			X	technology
32.DOC	Dr. Andy Molozzi		X		communications
33.DOC	Dr. R.Barrington			X	communications
34.F&O	Mr. E.R.Edel			X	remote sensing
35.AC	Dr. R.Halstead et al			X	medicine
36.MRC	Dr. J.Roxburgh		X		medicine
37.H&W	Mr. Allister Thompson	X			medicine
38.H&W	Dr. R.A.Meacock	X			medicine
39.H&W	Dr. E.Somers	X			medicine
40.EA	Miss Anne Pollock		X		social
41.TC	Mr. Boris Borodchak		X		traffic control
42.BIO	Dr. Clive Mason	X			remote sensing
43.NSLSI	Dr. John Wightman		X		remote sensing
47.IDS	Dr. Jim Gower			X	remote sensing
48.BC F.S.	Mr. Frank Hegyi			X	remote sensing
49.P/C	Mr. Ken Croasdale		X		communications
50.P/CR&D	Mr. G.Derbowka	X			communications

Government 2

		Nil	Comments	Proposals	Application
51.ARC	Mr. Peter Williams		X		remote sensing
52.DoE/Alt	Mr. Cal Bricker	X			remote sensing
53.PRL	Dr. Fred Constabel			X	medicine
54.NR/Man.	Mr. W.G.Best		X		remote sensing
55.DCIEM	Dr. R.Heggie			X	medicine
56.OCRS	Dr. Victor Zsilinsky			X	remote sensing
57.AES	Dr. G.Morrisey/S.Peteherych		X		remote sensing
58.AES	Dr. W.Evans	X			remote sensing
59.AES	Dr. W.Godsen	X			remote sensing
60.AES	Mr. D.Champ	X			remote sensing
61.DND	Mr. John Collins et al		X		defence
62.NRC EED	Mr. Robin C.Black			X	medicine
63.EMR S&M	Mr. Ray E.Moore		X		remote sensing

APPENDIX 10

SUMMARY OF PROPOSALS

TABLE 3.2 (Page 1 of 3)

REMOTE SENSING PROPOSALS

Index No.	No.	Proposal	STRATEGIC BENEFIT: Economic Opportunity	National Interest	Regional Development	Advancement of Knowledge	Capability	TECHNOLOGY DEVELOPMENT: Development	Potential	Space Station Advantage
		Thematic Mapping								
I-9	T-1	High Resolution Synoptic Imaging Radar	Useful	Very important	Contributes	Significant	Growth	R&D	Favourable	Sufficient
U-17	T-2	Passive Microwave Radiometer with 1 km array	Useful	Beneficial	Moderately Distributed	Significant	Embryonic	Concept	Favourable	Necessary
U-21a	T-3	High-Resolution Microwave Scanner	Useful	Beneficial	Moderately Distributed	Significant	Embryonic	Concept	Favourable	Necessary
U-6b	T-4	Determination of shorter wavelength features of earth's gravity field	None	Little importance	Concentrated in existing areas	Very significant	Embryonic	Concept	Average	Necessary
G-56	T-5	Thematic Mapper on 50° Space Station	None	Beneficial	Concentrated in existing areas	Insignificant	Mature	Proven	Unfavourable	Sufficient
U-6b	T-6	Monitoring earth deformations via laser ranging	None	Little importance	Concentrated in existing areas	Insignificant	Embryonic	Concept	Average	Necessary
		Topographic Mapping and Surveying								
G-18	M-1	Recovery of film from on-board cameras	Major	Beneficial	Well distributed	Insignificant	Mature	Proven	Unfavourable	Necessary
I-31	M-2	High resolution sensors and geodetic positioning	Minor	Beneficial	Moderately distributed	Moderate	Mature	Proven	Unfavourable	Sufficient
U-6b	M-3	studies of atmospheric refraction with geodetic emphasis(distribution of water vapour in troposphere)	None	Little importance	Concentrated in existing areas	Very significant	Embryonic	Concept	Average	Necessary
		Change Monitoring								
I-35	C-1	Monitoring Lake Levels for Hydroelectric Power Application	Major	Beneficial	Well Distributed	Moderate	Embryonic	Concept	Unfavourable	Sufficient
I-20	C-2	Remote Sensing Power Line Conditions	Moderate	Beneficial	Well Distributed	Moderate	Embryonic	R&D	Average	Sufficient
U-21c	C-3	CCD Array Scanners for water, vegetation analysis	Useful	Beneficial	Concentrated in Existing Areas	Moderate	Non-Existent	Concept	Average	Sufficient

TABLE 3-2 (Page 2 of 3)

Index No.	No.	Proposal	STRATEGIC BENEFIT: Economic Opportunity	National Interest	Regional Development	Advancement of Knowledge	TECHNOLOGY DEVELOPMENT: Capability	Development	Potential	Space Station Advantage
I-34	C-4	Navigation and Remote Sensing Hydrological Applications in B.C.	Moderate	Beneficial	Moderately Distributed	Moderate	Early Growth	Concept	Average	Sufficient
G-23	C-5	High resolution stereo imagery for Woodlot inventory	Useful	Beneficial	Concentrated in existing areas	Moderate	Early Growth	R&D	Average	Sufficient
I-37	C-6	Surveying and Mapping of Woodlots during Cutting application	Useful	Beneficial	Concentrated in existing areas	Moderate	Embryonic	Concept	Favourable	Sufficient
G-48	C-7	High resolution stereo, geo-referenced Imagery for forest inventory	Useful	Beneficial	Concentrated in existing areas	Moderate	Growth	Prototype	Average	Sufficient
I-41	C-8	Test Ice Space Radar	Minor	Beneficial	Concentrated in existing areas	Significant	Growth	R&D	Average	Necessary
G-18	C-9	Human observations of icebergs and episodical events	None	Very important	Contributes	Insignificant	Mature	Proven	Unfavourable	Necessary
I-54	C-10	Pollution (SO_2, NO_x) Monitoring	None	Beneficial	Concentrated in existing areas	Moderate	Growth	Prototype	Average	Sufficient
G-21	C-11	Remote Sensing of Migratory Bird Habitats	None	Little importance	Moderately distributed	Moderate	Embryonic	Concept	Unfavourable	Sufficient
		Sensor and Data Processing Development								
I-70	S-1	Scanner and Pollution Sensor Development	Major	Very important	Concentrated in existing areas	Significant	Growth	Proven	Favourable	Necessary
I-71	S-2	Space Laser Radar Development	Major	Very important	Concentrated in existing areas	Very significant	Growth	R&D	Very favourable	Necessary
I-36	S-3	Testing of Sensors and On-Board Processors	Useful	Beneficial	Concentrated in existing areas	Significant	Mature	Prototype	Favourable	Necessary
G-18	S-4	On board processing of R/S Data	Moderate	Beneficial	Concentrated in existing areas	Significant	Mature	Prototype	Favourable	Necessary
G-19	S-5	Multi-Frequency SAR - B -10 KW	Useful	Beneficial	Moderately distributed	Moderate	Growth	R&D	Average	Necessary
I-81	S-6	High-Resolution Sensors and On-Board Processing	Useful	Beneficial	Well distributed	Moderate	Embryonic	R&D	Favourable	Necessary
I-80	S-7	CCD Imager	Useful	Beneficial	Concentrated in existing areas	Moderate	Growth	Prototype	Average	Necessary
G-30	S-8	Wide-Swath Scatterometer	Useful	Beneficial	Concentrated in existing areas	Significant	Non-Existent	Concept	Average	Sufficient
G-34	S-9	Fluorescence Line Imaging from Space	Minor	Beneficial	Concentrated in existing areas	Insignificant	Early Growth	R&D	Favourable	Sufficient

TABLE 3.2 (Page 3 of 3)

Index No.	No.	Proposal	STRATEGIC BENEFIT				TECHNOLOGY DEVELOPMENT			Space Station
			Economic Opportunity	National Interest	Regional Development	Advancement of Knowledge	Capability	Development	Potential	Advantage
	Special Applications									
I-78	Sp-1	Spotlight SAR for S.A.R.	None	Very important	Well distributed	Insignificant	Early Growth	Concept	Favourable	Necessary
U-21	Sp-2	Limb Scanning of the Atmosphere	None	Beneficial	Concentrated in Existing Areas	Very significant	Embryonic	R&D	Unfavourable	Sufficient
G-47	Sp-3	Planetary Fluid Dynamics Simulator	None	No Importance	Concentrated in Existing Areas	Very significant	Embryonic	Concept	Very favourable	Necessary

TABLE 3.3

COMMUNICATIONS PROPOSALS

Index No.	Proposal	Economic Opportunity	STRATEGIC BENEFIT		TECHNOLOGY DEVELOPMENT				Space Station Advantage
			National Interest	Regional Development	Advancement of Knowledge	Existing Capability	State of Development	Innovation Potential	
I-7	Low earth orbit satellite for store and forward video and audio from non-North American satellites.	None	No importance	Could contribute to services in remote countries	Insignificant	Mature	Proven	Average for development of store and forward operation	Necessary
I-75	Repair, re-supply proving and hardening of telecommunications satellites	Moderate	Beneficial	Concentrated in existing areas	Insignificant	Embryonic	Concept	Favourable	Necessary
I-76	Provision of space station Communications systems	Minor	No Importance	Concentrated in existing areas	Insignificant	Early growth	R&D	Favourable	Necessary
G-33	Waves in Space Plasma	Moderate for construction of wave injection facility	Beneficial to maintain Canadian competence	Concentrated in existing areas	Moderate	Mature	Prototype	Favourable	Necessary shuttle times too short, interference from other pay loads.

TABLE 3.4

MATERIALS PROPOSALS

Index No.	Proposal	Economic Opportunity	STRATEGIC BENEFIT			TECHNOLOGY DEVELOPMENT			Space Station Advantage
			National Interest	Regional Development	Advancement of Knowledge	Existing Capability	State of Development	Innovation Potential	
I-12	Investigate the processes by which radiation damage occurs in solid state memories.	Moderate if a method of overcoming the problem is developed.	No importance	Concentrated in existing areas.	Potentially significant	Growth	R&D	Favourable	Sufficient
I-59 I-77	Build a micro gravity furnace for growing highly-refined Hg-cd-Te crystals.	Minor unless studies reveal advantages for processing in space.	Little importance unless processing in space proves advantageous	Work is well distributed	Insignificant	Early Growth	R&D	Favourable	Sufficient
I-62	Study of alloy processes in absence of gravity and crucible.	Moderate	Beneficial	Contributes to regional development	Significant	Embryonic	R&D	Average	Sufficient
I-64	Design and fabricate facilities for materials processing in space	Minor	No importance	Moderately distributed	Insignificant	Early Growth	Concept	Favourable	Necessary
U-1	Study of solidification processes in entectics	Minor	Little importance	Moderately distributed	Significant	Growth	R&D	Average	Sufficient
U-9 U-23 G-4	Study of crystal growth Process in space	Moderate	Little importance	Well distributed	Significant	Embryonic	R&D	Average	Sufficient
U-14	Study of growth of Bi-Sb single crystals of high quality	Minor	Little importance	Well distributed	Significant	Embryonic	Concept	Average	Sufficient
U-18	Study of interface phenomena in metallic and semiconducting crystal growth	Moderate	Little importance	Well distributed	Significant	Embryonic	R&D	Average	Sufficient
U-19a	Effect of space environment on polymer matrix composite materials	Useful for construction of future space structures	Very important if Canada is to undertake construction of space structures	Concentrated in existing areas	Significant	Growth	Prototype	Favourable	Necessary
G-14	Materials research in space	Moderate	Little importance	Well Distributed	Significant	Embryonic	Concept	Favourable	Sufficient

TABLE 3.5

SPACE SCIENCE PROPOSALS

Index No.	Proposal	STRATEGIC BENEFIT: Economic Opportunity	STRATEGIC BENEFIT: National Interest	STRATEGIC BENEFIT: Regional Development	TECHNOLOGY DEVELOPMENT: Advancement of Knowledge	TECHNOLOGY DEVELOPMENT: Existing Capability	TECHNOLOGY DEVELOPMENT: State of Development	TECHNOLOGY DEVELOPMENT: Innovation Potential	TECHNOLOGY DEVELOPMENT: Space Station Advantage
U-8	STARLAB	Moderate	Very important extends Canadian competence	Moderately Distributed	Very significant at leading edge	Growth	R&D	Very favourable	Necessary-needs to be retrieved
U-12 U-21d	High resolution spectrographs auroral studies	Minor	Very important auroral studies important in Canada	Moderately Distributed	Significant	Mature	Prototype	Favourably	Sufficient
U-15	Testing of very long antenna	Useful for Canada's continuing involvement in space	Very important	Concentrated in existing areas	Moderate	Early growth	Concept	Average	Necessary-shuttle can't handle.
U-21e U-21c	Use of space station for advanced WAMDI and electron probe measurements.	Minor	Beneficial as a continuation of Canadian space science	Concentrated in existing areas	Significant	Growth	Concept	Average	Necessary-requires power and weight capability
U-25	Extension of Canadian Long Base Line Array	Minor	Very important if VLBA project goes forward	Well distributed	Very significant	Early growth	Concept	Favourable	Necessary to extend VLBA beyond earth stations.
G-6	Assembly and deployment of huge receiving apertures, optical and electrical, for astrophysics research	Moderate	Beneficial to maintain Canadian competence	Moderately distributed	Significant	Growth	Concept	Favourable	Necessary for assembly

TABLE 3.6 (Page 1 of 3)

SPACE STATION TECHNOLOGY PROPOSALS

Index No.	Proposal	STRATEGIC BENEFIT				TECHNOLOGY DEVELOPMENT			
	Space Station Construction	Economic Opportunity	National Interest	Regional Development	Advancement of Knowledge	Existing Capability	State of Development	Innovation Potential	Space Station Advantage
I-2	Design and production of simulators for testing space structures	Major if Canada decides to participate	Important as part of tech. sovereignty	Concentrated in existing centres	Significant in relation to technology	Growth	Concept	Average	None
I-8	Design and test of a Canada-wide communications and information processing system	Useful as part of Canada's capability	Improved communications equipment	Will moderately distribute industrial activity	Moderate	Growth	Concept	Favourable	Necessary
I-16a	Supply of solar arrays for space platforms	Major-based on large market for present line and potential international market	Very important to maintain and increase national capability	Concentrated in existing areas	Significant	Mature - systems have been designed	Prototype	Very Favourable	Sufficien
I-16b	Construction and servicing of Space Station	Major-Canada will be a partner in overall program and will contribute substantially to the technology.	Very important to advance national capability	Well distributed-Canadian suppliers available throughout the country	Signficant	Mature - based on systems developed	Proven	Very Favourable	Necessary
I-16c	Evaluation and control of space structures	Major - tied to construction and servicing	Important as part of national capability	Well distributed-broad base of Canadian competence exists	Significant	Mature	Prototype	Very Favourable	Necessary
I-11	Information display panels and microwave components	Minor benefit	No particular national interest	Concentrated in existing areas	Moderate-as developments will occur anyway	Mature	Concept	Low	Necessary
I-34	Packaging applications for articles in space	Useful as new industry could be developed	Important if Canada joins space station	Possibility for moderate distribution	Insignificant	Embryonic	R&D	Very Favourable	Necessary
I-46	Manufacture of panels, booms, support structures, antennas and wave guides	Useful - some could be high volume	No particular national interest	Impact in a regional area	Only moderate	Mature	Proven	Favourable	Sufficient
I-47	Orbit transfer solid rocket motors and local space traffic control systems	Major opportunity for an industrial leader	Important to maintain capability	Impact in a regional area	Insignificant	Mature	Prototype	Favourable	Necessary

TABLE 3.6 (Page 2 of 3)

Index No.	Proposal	STRATEGIC BENEFIT			TECHNOLOGY DEVELOPMENT				Space Station Advantage
		Economic Opportunity	Economic Interest	Regional Development	Advancement of of Knowledge	Existing Capability	State of Development	Innovation Potential	
I-51	On-board image analysis and data processing	Useful when used with robotics	Some importance	Concentrated in existing areas	Moderate	Growth	R&D	Favourable	None
I-66	Manufacturing methods in space for mechanical and electrical components	Useful if space is commercialized.	Important as possible Canadian contribution	Probably concentrated in existing areas	Insignificant	Embryonic	Concept	Average	Necessary
I-78	Construction of high reliability energy management systems for spacecraft	Useful	Of little national interest	Concentrated in existing areas	Moderate contribution	Mature	Proven	Favourable	Necessary
I-79	Simulators for spacecraft	Minor-except for spin-offs and maintenance of capability	Important to build on existing capability	Concentrated in existing areas	Moderate-evolutionary	Mature	Prototype	Favourable	Sufficient
U-19b	Investigation of the dynamics of large flexible structures	Major as continuation of RMS	Very important as part of space program	Concentrated in existing areas	Very significant in field of large structure design	Growth	Prototype	Very favourable	Sufficient
U-22	Design and testing of large solar arrays and space trusses	Useful as part of on-going program	Some importance as part of on-going program	Concentrated in existing areas	Very significant if space construc- to materialize	Embryonic	R&D	Very favourable	Sufficient
G-31	New manufacturing techniques and testing of large space structures	Useful to capitalize on superior analytical techniques	Little importance	Concentrated in existing areas	Significant	Mature	R&D	Favourable	Sufficient
	Provision of Payload								
I-21	Development of millimetric microwave technology	Useful opportunity for sales	Very important to enhance Canadian strength	Concentrated in existing areas	Insignificant-primarily engineering	Growth	Concept	Favourable	Necessary
I-23	Design manufacture and testing of precision IR and visible spectro photometers	Minor for sale of instruments	No importance	Contributes to regional development	Insignificant	Mature	Prototype	Average	None
I-33 U-21i G-26	Development of Canadian module for space station	Major	Very important as Canada would be a world leader	Contributes to regional development	Very significant	Non-existent	Concept	Very favourable	Necessary
I-43	Payload integration	Moderate	Little importance	Contributes to regional development	Insignificant	Mature	Prototype	Average	Sufficient

TABLE 3.6 (Page 3 of 3)

Index No.	Proposal	Economic Opportunity	Economic Interest	Regional Development	Advancement of of Knowledge	Existing Capability	State of Development	Innovation Potential	Space Station Advantage
I-44	Adaptation of ozone and atmospheric sensors	Useful-might capture a share of monitoring business	Important	Contributes to regional development	Moderate	Mature	Concept	Low	None
I-51	Small scale construction/ fitting	Moderate	No importance	Concentrated in existing areas	Insignificant	Embryonic	R&D	Favourable	Sufficient
	Instrument Testing								
I-36	Testing of sensors and processors	Useful-satellites too long, shuttle too short	Important if Canada is to maintain space capability	Builds on existing strength	Very significant	Early growth	Concept	Very favourable	Necessary
U-19b	Testing of control systems for remote manipulator arms in natural working environment	Useful as a continuation of present programs	Very important	Concentrated in existing areas	Significant	Early growth	R&D	Very favourable	Sufficient
	Experiments								
U-16 U-21b	Study of spacecraft charging	Insignificant	Little importance	Concentrated in existing areas	Very significant	Early growth	R&D	Favourable	Sufficient
G-12	Study of combustion in micro-gravity	Insignificant	Little importance	Concentrated in existing areas	Significant	Non-Existent	Concept	Average	Necessary
	Ground Stations								
I-6	Development, testing and ground control of next generation of spacecraft	Useful for sale off-shore	Little importance	Concentrated in existing areas	Moderate	Growth	Concept	Average	None

TABLE 3.7

SPACE MEDICINE/BIOLOGY PROPOSALS

Index No.	Proposal	STRATEGIC BENEFIT: Economic Opportunity	National Interest	Regional Development	Advancement of Knowledge	TECHNOLOGY DEVELOPMENT: Existing Capability	State of Development	Innovation Potential	Space Station Advantage
-60	Separation of proteins and trace blood elements in microgravity	Moderate	Beneficial	Concentrated in Existing areas	Significant	Non-existent	R&D	Favourable	Necessary
-45	Develop a biological regenerative closed cycle life support system	Minor	Beneficial	Contributes to regional development	Significant	Embryonic	R&D	Average	Necessary
-61 -55	Investigate problems to be solved if space colonies are to be developed.	Useful as man-in-space programs progress	Beneficial as may contribute to land systems in harsh environments	Concentrated in existing areas	Significant	Non-existent	Concept	Favourable	Necessary
-3	Investigate adaptation of nervous system to various gravity environments	Useful if Canadian companies can exploit opportunities	Very important for Canadian astronauts	Concentrated in existing areas	Significant	Growth	R&D	Very favourable	Necessary
-5	Investigate the effect of gravity on disease and healing mechanisms	Moderate	Beneficial-maintain Canada's reputation	Concentrated in existing areas	Very significant	Embryonic	R&D	Average	Necessary
-10	Investigate technique for cell separation in a microgravity environment.	Moderate	Little importance	Could be moderately distributed	Significant	Embryonic	R&D	Favourable	Sufficient
-20 -62	Investigation of bone loss in space	Minor	Very important for Canadian astronauts	Concentrated in existing areas	Significant	Embryonic	Concept	Favourable	Necessary
-53	Use of space station as a gene bank	Moderate as many gene banks are being established	Very important for genetic pools specific to Canadian needs.	Well distributed	Moderate	Non Existent	Concept	Favourable	Necessary
-35	Biochemical studies in space	None	No Importance	Concentrated in existing areas	Moderate	Non Existent	Concept	Average	Sufficient
-33	Fish behaviour and evolution in space	Minor	Little Importance	Contributes to regional development	Very significant	Non Existent	Concept	Favourable	Necessary

APPENDIX 11

SUMMARY OF ADVANCED PROPOSALS

ADVANCED PROPOSALS DEALING WITH MATERIALS PROCESSING IN SPACE

Ref. No.	Proposal	Operational use	Demonstration	Scientific use
U1	To build a temperature gradient furnace to be placed on a space platform to measure solidification of eutectics and crystal growth	not in short term	reasonable possible in medium term	of fundamental importance in study of crystal growth
I64	To build and supply a facility on space station for growing crystals of very high value which cannot be grown in a gravity field	not in short term	reasonably possible	expected to yield valuable fundamental data
I77	To build a micro-gravity furnace for growing highly-refined crystals of Hg-Cd-Te, a valuable strategic compound	not in short term	reasonably possible	of fundamental scientific importance
I59	To redesign their present furnaces used for growing Hg-Cd-Te and GaAs crystals for use on space station; their customers are requesting higher purity and fewer imperfections	not in short term	reasonably possible	of fundamental scientific importance
U23	To design and experiment with crystal growth in space; is now designing a facility for growing the world's largest crystals of GaAs	not in short term	reasonably possible	expected to yield data of fundamental importance
U19a	To design a facility to study the effects of the space environment on structures which could not be simulated on earth, e.g. thermal vacuum cycling, uv radiation and electron bombardment; an extension of present work with NASA	could affect the design of space craft in the short and long term		
G4	Materials processing in space	possible in long term	reasonably possible in medium term	of fundamental importance in study of crystal growth
I21	To supply a facility for examining radiation damage (temporary or permanent) to solid state memories in space and to design protecting devices	could have an immediate effect on most space activity	immediate	-

ADVANCED PROPOSALS DEALING WITH SPACE SCIENCE

Ref. No.	Proposal	Operational use	Demonstration	Scientific use
U21e	To design and construct a higher resolution, more sophistocated wide-angle doppler Michelson interferometer than is being made for the Shuttle	-	-	to study coupling between upper and lower atmosphere for weather prediction
U21i	To design a Canadian Science Module or sub-satellite to space station taht can be operated in an autonomous manner	-	-	multi-scientific use

ADVANCED PROPOSALS DEALING WITH SPACE TECHNOLOGY

Ref. No.	Proposal	Operational use	Demonstration	Scientific use
I16a	To supply solar arrays for Space Station		of immediate importance for current space programs and as a basic technology for developing advanced systems	
I16b	To contribute to the construction and servicing of Space Station		of importance to the development of Space Station	
I16c	To contribute to the evaluation and control of space structures		of importance as support for construction and servicing	
G6	To assemble in space and deploy a very large receiving antenna for radio astronomy	–	possibly could be used also for high resolution passive m/w observation of the earth	this is probably the next important technology step in the astronomical study of the universe
U22	To design and deploy a facility in space station for testing large solar arrays and space trusses	very important in the long term	possibly of medium term importance	–
U19b	To design and build a facility in space station to test large space structures under actual space conditions and to design controls for flexible structures	very important in the long term	of medium term importance	–

ADVANCED PROPOSALS DEALING WITH SPACE MEDICINE/BIOLOGY

Ref. No.	Proposal	Operational use	Demonstration	Scientific use
I61	To develop a self-contained ecosystem on space station for food production and processing and for maximizing the recycling of waste	very long term use	possilbe in medium term	-
G62	Development of automated animal habitat for space station to study biological effects of zero gravity on rats and mice	of short and long term importance	possible results in short term	will increase understanding of fundamental biological processes
U3	Development of facilities in space station for carrying out vestibular physiology projects	of short and long term importance for future space exploration	possible results in short term	limited
U5	Development of facilities in space station for studying the effects of variations in gravity on the blood, lungs and heart	of immediate practical and scientific importance both in the treatment of disease on earth and for space-related problems in astronauts		
U10	To design and build a facility in space station to investigate techniques for cell separation in a micro-gravity environment	of long term importance	reasonably possible in medium term	fundamental bio-technology research