



**2004 - 2005
Antarctic
Air Operations
Planning Summary**

2004-2005 Antarctic Air Operations Planning Summary

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Fixed Wing Operation

LC-130 Operations

The LC-130 plan assumes 401 completed intracontinent missions, which assumes a success rate of 85% as agreed to by NSF and the 109th NYANG (New York Air National Guard).

LC-130 Landing Sites



2004 – 2005 LC-130 Landing and Airdrop Sites

Location	Latitude	Longitude	3-Letter Designator	Alpha Code
Beardmore Glacier	84.00S	164.50E	BDM	Y
Byrd Surface Camp	80.01S	119.57W	NBY	T
Horlick Mountains	85.38S	121.00W	HLK	L
Long Duration Balloon	TBD	TBD	LDB	B
McMurdo Station	77.85S	166.67E	ZCM	M
Odell Glacier	76.66S	159.95E	ODL	D
Pine Island	77.50S	95.93E	PNE	N
Siple Dome	81.66S	149.02W	SDM	S
South Pole Station	90.00S	139.27E	NPX	P
Taylor Dome	77.79S	158.79E	TDM	E
Terra Nova Bay	74.69S	164.12E	TNB	I
Thwaites Glacier	78.50S	118.50W	THW	G
Vostok	78.47S	106.82E	VOS	V

2004-2005 LC-130 Intracontinental Flight Tempo by Location

Destination	NZSP - South Pole	NZSP - Deep Field Science	BDM - Beardmore	HLK - Horlick Mountains	LDB - Long Duration Balloon	NBY - Byrd Surface Camp	PNE - Pine Island	SDM - Siple Dome	THW - Thwaites Glacier	VOS - Vostok	Unallocated	FAA Missions	Total
Week 1 week-ending: 23-Oct	2												2
Week 2 30-Oct	8			1								1	10
Week 3 06-Nov	9					3	2	2	3			1	20
Week 4 13-Nov	19					2	2	2	2				27
Week 5 20-Nov	21	1				1	1		4				28
Week 6 27-Nov	16	1				1	1		3				22
Week 7 04-Dec	22	2				1		1	1		1		28
Week 8 11-Dec	20	3	2			1	1		1				28
Week 9 18-Dec	18						1	2	1		1		23
Week 10 25-Dec	12								1				13
Week 11 01-Jan	11												11
Week 12 08-Jan	26				1		1		1			1	30
Week 13 15-Jan	26				1						1	2	30
Week 14 22-Jan	27	2									1		30
Week 15 29-Jan	20					1	1	2	2				26
Week 16 05-Feb	23								4				27
Week 17 12-Feb	32												32
Week 18 19-Feb	14												14
Total:	326	9	2	1	2	10	10	9	23		4	5	401

(*Notes on following page)

LC-130 Intracontinental Flight Tempo Notes:

- LC-130 Flight tempo does not include projected ten intercontinental USAP decks.
- Vostok: No flights allocated for 2004-2005.
- Reconnaissance missions are required for THW and PNE.
- Unallocated missions pending approval of Taylor Dome (TDM).
- In addition to the ten allocated NBY missions: Nine PNE and two THW LC-130 landing missions will refuel via NBY.
- In addition to the nine allocated SDM mission: One THW landing mission will shuttle the 931 loader from SDM to THW.
- SDM and NBY put-in missions will be executed by Twin Otters.
- HLK mission is a fuel cache airdrop (14 bundles).
- South Pole return legs will pull-out G-057 (Harvey) from BDM week ending 29 January.
- South Pole Deep Field Science missions: Three of the nine missions are tankers.
- South Pole: Total LC-130 missions is 335 (add Columns B and C totals).

Major Camp Overviews and Load Plans

Amundsen-Scott South Pole Station (NPX)

Location: 90.0 S, 139.27 E
 Elevation: Approx. 9,301 feet
 Distance: NPX - > ZCM = 728 nm
 NPX - > SDM = 499 nm

Amundsen-Scott South Pole Station will open for normal 2004-2005 austral summer activities on November 1, 2004. An operational opening on October 23, 2004 will allow for approximately one week of turnover with winter staff, preparation for summer activities and skiway maintenance.

The austral summer season is scheduled to end by February 15, 2005. A winter crew is expected to remain on station for the 2005 austral winter season from February to November to maintain station operations, conduct winter-over research, and continue construction work on the new station.

South Pole Airlift Requirements

2004-2005 LC-130 Airlift to South Pole

Calendar Date	ROS	NZSP - South Pole	Pax Numbers	PAX Weight and DV3	FEMC/DX3	SPSE/SM/DZ3	SCIENCE/CRYO/DR3	ICE CUBE	10 Meter Telescope	Bicep	OPS Cargo/Food/DW3	MAIL/SPAWAR/DU3, DN3*	TDE	FUEL (pounds)	Total Weight
23-Oct	4297	2	100	33,000	3,964	3,436	100				8,749	1,100	1,780		52,129
30-Oct	4304	8	101	33,330	9,024	28,400	2,400				23,442	1,100	6,604	104,058	208,358
6-Nov	4311	9	35	11,550	13,497	45,882	10,442	216			7,799	1,100	8,099	135,442	234,027
13-Nov	4318	19	44	14,520	13,362	158,082	41,004	137,814			45,712	1,100	40,740	41,582	493,916
20-Nov	4325	21	31	10,230	12,550	128,000	1,195	138,883		6,400	20,056	1,100	31,620	195,842	545,876
27-Nov	4332	16	14	4,620	8,500	220,500	2,170	1,075		8,000	11,660	1,100	25,958	132,362	415,945
4-Dec	4339	22	27	8,910	9,702	117,700	2,680	115,807		6,620	9,961	1,100	27,042	272,542	572,064
11-Dec	4346	20	18	5,940	1,152	79,700	27,205	126,178		1,000	1,500	1,100	24,402	252,862	521,039

Calendar Date	ROS	NZSP - South Pole	Pax Numbers	PAX Weight and DV3	FEMC/DX3	SPSE/SM/DZ3	SCIENCE/CRYO/DR3	ICE CUBE	10 Meter Telescope	Bicep	OPS Cargo/Food/IDW3	MAIL/SPAWAR/DU3, DN3*	TDE	FUEL (pounds)	Total Weight
18-Dec	4353	18	32	10,560	0	300	3,552	183,065			1,500	1,100	19,444	248,600	468,121
25-Dec	4360	12	24	7,920	1,000	61,500	1,010			400	25,115	1,100	9,247	204,682	311,974
1-Jan	5001	11	11	3,630	0	67,300	3,360				5,015	1,100	7,877	197,662	285,944
8-Jan	5008	26	33	10,890	0	9,100	11,550				35,500	1,100	5,874	602,008	676,022
15-Jan	5015	26	27	8,910	0	6,600	4,344				42,463	1,100	5,592	607,028	676,037
22-Jan	5022	27	50	16,500	0	2,900	5	43,110			50,015	1,100	9,966	578,342	701,938
29-Jan	5029	20	67	22,110	0	900	26,420	620			35,000	1,100	6,571	427,180	519,901
5-Feb	5036	23	39	12,870	0	144,500		40,093			1,500	1,100	19,206	378,820	598,089
12-Feb	5043	32	5	1,650	4,252	417,400	75,875	6,902			244,749	1,100	76,979	54,757	883,664
19-Feb	5050	14	0	0	0	71,800	15,150	9,512			224,000	1,100	32,992	9,364	363,918
Total:		326													
TOTAL WEIGHT			658	217,140	77,003	1,564,000	228,462	803,275	0	22,420	793,736	19,800	359,992	4,443,133	8,528,961
TOTAL FLIGHTS				9.0	3.0	60.2	9.0	31.0	0.0	1.0	31.0	1.0	13.8	170.9	329.0

South Pole Station Notes:

- Total planned airlift for South Pole requirements is 326 flights.
- Three additional fuel flights are scheduled as South Pole Deep Field Science missions. These missions will replace the South Pole fuel used to support Deep Field Science projects. The three additional flights will increase the fuel flights total to 171. **There are 326 flights scheduled for the South Pole: Nine (three are tankers) scheduled for South Pole Deep Field Science. *Overall total of LC-130 missions is 335.
- Total fuel requirements include station Ops, SPSM and IceCube.
- Flight numbers are based on 26,000 ACL.
- Pax numbers include SPSM, IceCube and visitors.
- TDE is estimated at 10.26%.

- Total fuel projected on site February 15, 2005 to meet station requirements for the winter season and FY06 opening activities is 456,303 gallons. Schedule to be modified as required on site between South Pole NSF Representative and RPSC.

Beardmore South Camp (BDM)

Location 84.00 S, 164.50 E
 Elevation Approx. 5,900 feet
 Distance BDM → ZCM = 369 nm
 BDM → NPX = 359 nm
 BDM → HLK = 390 nm
 BDM → NBY = 617 nm
 BDM → SDM = 362 nm
 BDM → RDG = 332 nm

Beardmore will be a staging point for the G-057-M (Harvey) meteorite team utilizing the Twin Otter to access other field locations in the Beardmore region. The field team will conduct meteorite searches on a number of ice fields in regions of the central Transantarctic Mountains. The science party will travel by snowmobile and Twin Otter from the Southeast to Northwest starting near the Zanfeldt Glacier and moving toward the Beardmore Glacier.

Week Ending:	Flight #	Planning ACL*	To Beardmore South Camp (NBDM)			Remarks	From NBDM		
			Pax/Qty	Cargo/pax/fuel	Weight		Pax/Qty	Cargo/pax/fuel Retro	Weight
11-Nov-04	Y001	15,900 minus 1,200 lbs for ATO 14,700 lbs		G-057 Bamboo flags	172			***No Retrograde Cargo or Pax***	
				G-057 Food	592				
			1	G-057 Sled / tents	400				
				G-057 Field gear	1720				
				G-057 Frozen food	387				
			4	G-057 Skandic snowmobiles	1600	Class 9 / UN3166 / P5			
			8	G-057 Optimus stoves	120				
			2	G-057 Coleman stove	200				
			12	G-057 Premix (gasoline / skidoo oil) drums	4700	Class 3 / UN1203 / P5			
			2	G-057 Fire extinguisher	20	Class 2.2 / UN1044 / P5			
			12	G-057 Coleman fuel	81	Class 3 / UN1268 / P5			
				Subtotal	9992			Subtotal	0
				TDE @ 10.7%	1,069			TDE @ 10.7%	0

			To Beardmore South Camp (NBDM)			From NBDM			
Week Ending:	Flight #	Planning ACL*	Pax/Qty	Cargo/pax/fuel	Weight	Remarks	Pax/Qty	Cargo/pax/fuel Retro	Weight
			2	Green bags	90		2	Green bags	90
			4	G-057 Science Pax	1240				
				Bulk fuel	0				
				Total	12,391			Total	0
11-Dec-04	Y002	15,900 minus 1,200 lbs for ATO 14,700 lbs	12	G-057 AN5, Drum fuel	4700	Class 3 / UN1863 / P5		***No Retrograde Cargo or Pax***	
			12	G-057 AN5, Drum fuel	4700	Class 3 / UN1863 / P5			
			6	G-057 Premix (gasoline / skidoo oil) drums	2650	Class 3 / UN1203 / P5			
			1	Cruise box	100		1	Cruise box	100
				Subtotal	12,150			Subtotal	0
				TDE @ 10.7%	1290			TDE @ 10.7%	0
			1	Green bag	45		1	Green bag	45
				Bulk fuel	0				0
				Total	13,485			Total	45

ACL figures used for Skier 91 - heaviest aircraft. Actual ACLs will vary.

Beardmore Glacier Notes:

- Two put-in missions
- Pull-out mission on South Pole return leg
- Unmanned site
- No bulk fuel
- No shelter
- Open field landing

Byrd Surface Camp (NBY)

Location 80.01 S, 119.57 W
 Elevation Approx. 5,200 feet
 Distance NBY → ZCM = 799 nm
 NBY → NPX = 597 nm
 NBY → BDM = 617 nm
 NBY → HLK = 321 nm
 NBY → PNE = 292 nm
 NBY → SDM = 293 nm
 NBY → THW = 105 nm

Byrd Camp will provide air operations and fuel support for the AGASEA project operating from Thwaites Glacier and Pine Island Glacier Camps. The camp will be equipped with a Tucker and one 10,000-gallon fuel bladder for use by the Twin Otter and LC-130 aircraft. The camp will have four RPSC staff. Additionally, the camp will support the O-283-M (Stearns) automatic weather stations (AWS) project.

			To Byrd Surface Camp (NNBY)			From Byrd Surface Camp (NNBY)			
Week Ending:	Flight #	Planning ACL*	Pax/Qty	Cargo/pax/fuel	Weight	Remarks	Pax/Qty	Cargo/pax/fuel Retro	Weight
06-Nov-04	T001	12,800 minus 1,200 lbs for ATO 11,600	1	Polar Haven w/box	360	12' x 16'			
			1	Polar Haven, floor	500				
			1	Polar Haven, floor runners	72				
			1	Perfection stove w/ box	320				
			1	Perfection base stand	20				
			1	Ladder, 8'	25				
			1	Welderator	250				
			1	Nansen sled w/ towbar	100				
			2	Shovels	15				
			1	Hurdy gurdy pump	20				
			2	Allulite tables	17				
				Camp / Field gear	350				
				Mechanic tools	1200				
				Ski-way markers	500				
				Food	250				
	1	Herman Nelson	275	Class 9 / UN3166	** Any available retro **				

Week Ending:	Flight #	Planning ACL*	To Byrd Surface Camp (NNBY)			Remarks	From Byrd Surface Camp (NNBY)		
			Pax/Qty	Cargo/pax/fuel	Weight		Pax/Qty	Cargo/pax/fuel Retro	Weight
			1	Fire extinguisher	10	Class 2.2 / UN1044 / P5			
			1	Cruise box	100			Cruise box	100
				Subtotal	3,859			Subtotal	100
				TDE @ 10.7%	413			TDE @ 10.7%	
			1	Green bag	45		1	Green bag	45
			0	Passengers			0	Passengers	0
				Bulk fuel	7283	1,074 gallons			
				Total	11,600			Total	145
06-Nov-04	T002	17,800 minus 1,200 lbs for ATO 16,600 CAO	1	Propane, 90lb	200	Class 2.1 / UN1075 / P4			
			1	Tucker / groomer	13,300	Class 9 / UN3166 / P5			
								** Any available retro **	
				Cruise box	100			Cruise box	100
				Subtotal	13,600			Subtotal	1,200
				TDE @ 10.7%	1,455			TDE @ 10.7%	21
			1	Green bag	45		1	Green bag	45
			0	Passengers			2	RPSC staff – fuelie / carpenter	620
				Bulk fuel	1500	221 gallons			
				Total	16,600			Total	886
06-Nov-04	T003	20,600 minus 1,200 lbs for ATO 19,400							
	Tanker							** Any available retro **	
			1	Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	100
				TDE @ 10.7%				TDE @ 10.7%	
			1	Green bag	45		1	Green bag	45

Week Ending:	Flight #	Planning ACL*	To Byrd Surface Camp (NNBY)			Remarks	From Byrd Surface Camp (NNBY)		
			Pax/Qty	Cargo/pax/fuel	Weight		Pax/Qty	Cargo/pax/fuel Retro	Weight
			0	Passengers	0		0	Passengers	0
				Bulk fuel	19,045	2800 gallons			0
				Total	19,145			Total	145
13-Nov-04	T004	20,600 minus 1,200 lbs for ATO 19,400						** Any available retro **	
	Tanker			Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	100
				TDE @ 10.7%	11			TDE @ 10.7%	11
			1	Green bag	45		1	Green bag	45
			0	Passengers	0		0	Passengers	0
				Bulk fuel	19,134	2822 gallons			145
				Total	19,190			Total	2,277
13-Nov-04	T005	20,600 minus 1,200 lbs for ATO 19,400					24	Empty 55 gallon drums	2,000
	Tanker			Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	2,100
				TDE @ 10.7%	11			TDE @ 10.7%	225
			1	Green bag	45		1	Green bag	45
			0	Passengers	0		0	Passengers	0
				Bulk fuel	19,134	2822 gallons			2,145
				Total	19,290			Total	2,415
20-Nov-04	T006	20,600 minus 1,200 lbs for ATO 19,400						Retrograde waste	4,000
	Tanker			Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	0
				TDE @ 10.7%	0			TDE @ 10.7%	00
			1	Green bag	45		1	Green bag	45
			0	Passengers	0		0	Passengers	0
				Bulk fuel	19,200	2831 gallons			
				Total	19,345			Total	4,145
27-Nov-04	T007	20,600 minus		Waste tri-walls / pallets	2500			Retrograde waste	4,000
				Cruise box	100			Cruise box	100

Week Ending:	Flight #	Planning ACL*	To Byrd Surface Camp (NNBY)			Remarks	From Byrd Surface Camp (NNBY)		
			Pax/Qty	Cargo/pax/fuel	Weight		Pax/Qty	Cargo/pax/fuel Retro	Weight
	Tanker	1,200 lbs for ATO 19,400		Subtotal	100			Subtotal	4,100
				TDE @ 10.7%	279			TDE @ 10.7%	439
			1	Green bag	45		1	Green bag	45
			0	Passengers			0	Passengers	
				Bulk fuel	19,200	2831 gallons			0
				Total	19,624			Total	4,584
4-Dec-04	T008	20,600 minus 1,200 lbs for ATO 19,400		O-283 Science equipment	2000			Retrograde waste	4100
				O-283 field gear	607				
				Cruise box	100			Cruise box	100
				Subtotal	2,707			Subtotal	4,200
			1	TDE @ 10.7%	290			TDE @ 10.7%	450
			1	Green bag	45		1	Green bag	45
			2	O-283 Science pax	629		0	Passengers	0
				Bulk fuel	15,738	2,321 gallons			
		Total	19,666			Total	4,695		
11-Dec-04	T009	20,600 minus 1,200 lbs for ATO 19,400						O-283 Science equipment	500
								O-283 field gear	607
				Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	1,207
				TDE @ 10.7%	11			TDE @ 10.7%	129
			1	Green bag	45		1	Green bag	45
			0	Passengers	0		2	O-283 Science pax	620
				Bulk fuel	19,244	2838 gallons			
					Total	19,400			Total
12-Feb-05	T010	20,600 minus						Camp Retrograde	6,000
				Subtotal	0			Subtotal	6100

			To Byrd Surface Camp (NNBY)			From Byrd Surface Camp (NNBY)			
Week Ending:	Flight #	Planning ACL*	Pax/Qty	Cargo/pax/fuel	Weight	Remarks	Pax/Qty	Cargo/pax/fuel Retro	Weight
	Pull-out	1,200 lbs for ATO 19,400		TDE @ 10.7%	0			TDE @ 10.7%	653
			2	Green bags	90		2	Green bags	90
			0	Passengers	0		4	Passengers	1240
				Bulk fuel	0				
				Total	90			Total	8,083

ACL figures used for Skier 91 - heaviest aircraft. Actual ACLs will vary.

Byrd Surface Camp Notes:

- Four RPSC camp staff and fuelie put-in by Twin Otter (four flights).
- Minimum of 4,000 gallons of bulk fuel staged at NBY prior to THW and PNE put-in.
- Presently, 92 drums of AN5 are staged at NBY.
- Every LC-130 aircraft landing at PNE will take 2,000 gallons of fuel from NBY.
- Tucker staged at NBY is needed at THW, primary plan is to traverse Tucker from NBY to THW.
- The contingency plan is to transport Tucker on the LC-130 from NBY to THW.
- NBY Camp cannot close until PNE LC-130 operations are complete.

Pine Island Camp (PNE)

Location 77.50 S, 95.93 E
 Elevation Approx. 4,921 feet
 Distance PNE → ZCM = 1088 nm
 PNE → NPX = 749 nm
 PNE → SDM = 581 nm
 PNE → NBY = 292 nm
 PNE → THW = 254 nm

The Airborne Geophysical Survey of the Amundsen Sea Embayment, Antarctica (AGASEA) is a collaboration of the British Antarctic Survey (BAS) and the University of Texas (UTIG). Collectively, the primary objective is to determine boundary conditions for the major glacier drainages in the Amundsen Sea Embayment, including ice surface topography, subglacial topography, gravity and magnetic anomalies. Additional objectives of the BAS component will be to collect ground-based measurements of accumulation rate, ice velocity and to collect several short firn cores to complement the results of the US ITASE ground traverse conducted during the 2001-2002 season.

The survey will be conducted from two bases of operation: One will be located near the Ross/Amundsen Embayment ice flow divide (Thwaites Glacier Camp) and the second on the divide between the Pine Island Glacier Basin and "Drainage Basin A" (Pine Island Glacier Camp). The Pine Island Camp will be a smaller camp to support BAS and UTIG operations. The camp will support six BAS personnel and two RPSC personnel. Additional UTIG and Kenn Borek personnel will occupy the camp periodically throughout the season. In addition to flight operations, BAS will conduct a ground survey from Pine Island Glacier using skidoos to measure ice velocity, accumulation rate and will collect shallow firn cores. UTIG will use the Pine Island Glacier Camp as a secondary base for flight operations with occasional overnights. The camp will be equipped with a Tucker/Maxey groomer and one 10,000-gallon fuel bladder to support operations for both the BAS and USAP Twin Otters.

Week Ending:	Flight #	Planning ACL*	To Pine Island (NPNE)			Remarks	From Pine Island (NPNE)		
			Pax/Qty	Cargo/pax/fuel	Weight		Pax/Qty	Cargo/pax/fuel Retro	Weight
06-Nov-04	N001	13,200 Recce Flight		Recce Flight		Aircraft does not Land			
06-Nov-04	N002	17,000 minus 1,200 lbs for ATO 15,800 Refuel at NBY		Comms equipment	200				
				RPSC camp food	500				
				BAS Camp food	270				
				BAS Medical box	45				
				BAS Spares box	60				
				BAS Pots box	45				
			BAS Kit bag	92					

			To Pine Island (NPNE)			From Pine Island (NPNE)			
Week Ending:	Flight #	Planning ACL*	Pax/ Qty	Cargo/pax/fuel	Weight	Remarks	Pax/ Qty	Cargo/pax/fuel Retro	Weight
				BAS Fuel funnels	2				
				BAS Scott tent	80				
				BAS Shovels / chisels	30				
			3	Mountain dome tents	160				
			2	Coleman stoves	10				
			1	Survival bags, 2 person	60				
			1	Kitchen box, 4 person	65				
			1	Sled, siglin	56				
			1	Maxey groomer	2500				
			1	Bamboo deadman	20				
			4	Jerry cans	28				
			1	Tool kit (standard)	18				
			1	Mechanic tools	100				
			1	Tucker, Sno-cat	9700	Class 9 / UN3166 / P5			
			6	Coleman fuel	42	Class 3 / UN1268 / P5			
			2	Gasoline (jerricans)	80	Class 3 / UN1203 / P5			
			2	Kerosene (jerricans)	60	Class 3 / UN1223 / P5			
			1	Fire extinguisher	5	Class 2.2 / UN1044 / P5			
			1	BAS Generator - 5kw	160	Class 9 / UN3166 / P5			
			1	Herman Nelson	275	Class 9 / UN3166 / P5			
				Cruise box	100			Cruise box	100
				Subtotal	14763			Subtotal	100
				TDE @ 10.7%	1579			TDE @ 10.7%	11
			2	Green bags	90		2	Green bags	90
			3	RPSC Passengers	930				
			2	BAS Personnel	620				
				Bulk fuel			4		
				Total	16,403			Total	201
06-Nov-04	N003	17,000 minus 1,200 lbs for ATO		BAS generator tent	60				
				BAS mountain tent	25				

			To Pine Island (NPNE)			From Pine Island (NPNE)			
Week Ending:	Flight #	Planning ACL*	Pax/ Qty	Cargo/pax/fuel	Weight	Remarks	Pax/ Qty	Cargo/pax/fuel Retro	Weight
		15,800		BAS food	270				
		Refuel at NBY		BAS pup tent	30				
				Mechanic tools	1400				
			512	Skiway flags	2720				
			2	Scott tents w/ floor	200				
			1	Endurance tent	80	8' x 21'			
			1	Endurance tent	36	8' x 16'			
			2	Endurance tent floors	440				
			1	Fuel pump / system	60				
			1	10K fuel bladder	800				
				Solar panels	60				
			1	Sled, siglin	50				
				Wefax system	2				
				Snowmobile oil	34				
				Misc. supplies	300				
			12	AN5, drum fuel	4700	Class 3 / UN1863 / P5			
			3	Gasoline, drum fuel	1200	Class 3 / UN1203 / P5			
			12	Coleman fuel	84	Class 3 / UN1268 / P5			
			1	Generator - 5kw	180	Class 9 / UN3166 / P5			
			1	Snowmobile	650	Class 9 / UN3166 / P5			
				Cruise box	100			Cruise box	100
				Subtotal	13,451			Subtotal	100
				TDE @ 10.7%	1400			TDE @ 10.7%	11
			1	Green bags	45			1 Green bags	45
		1	BAS passenger	310					
			Bulk fuel	0					
			Total	15,206			Total	156	
13-Nov-04	N004 Tanker	27,300 minus 1,200 lbs for ATO 26,100	12	AN5, drum fuel	4700				
			1	Kerosene, drum fuel	300				
				Cruise box	100		Cruise box	100	

			To Pine Island (NPNE)			From Pine Island (NPNE)			
Week Ending:	Flight #	Planning ACL*	Pax/ Qty	Cargo/pax/fuel	Weight	Remarks	Pax/ Qty	Cargo/pax/fuel Retro	Weight
		Refuel at NBY		Subtotal	5100			Subtotal	100
				TDE @ 10.7%	545			TDE @ 10.7%	11
			1	Green bags	45		1	Green bags	45
				Bulk fuel	20,000	2949 gallons			
				Total	25,690			Total	156
20-Nov-04	N005 Tanker	27,300 minus 1,200 lbs for ATO 26,100		Resupply	1,000				
		Refuel at NBY		Cruise box	100			Camp waste / retro	1,000
				Subtotal	1,100			Subtotal	1,100
				TDE @ 10.7%	118			TDE @ 10.7%	100
			1	Green bags	45		2	Green bags	45
			0	Passengers	0		0	Passengers	0
			Bulk fuel	24,000	3540 gallons				
			Total	25,263			Total	1,245	
27-Nov-04	N006 Tanker	27,300 minus 1,200 lbs for ATO 26,700		Cruise box	100			Camp waste / retro	1,000
		Refuel at NBY		Subtotal	100			Subtotal	1,100
				TDE @ 10.7%	11			TDE @ 10.7%	110
			1	Green bags	45		1	Green bags	45
			0	Passengers	0		0	Passengers	0
				Bulk fuel	26,000	3834 gallons			
			Total	26,156			Total	1,245	
11-Dec-04	N007 Tanker	27,300 minus 1,200 lbs for ATO 26,100		Camp resupply	1,000				
								Camp waste / retro	2,000

			To Pine Island (NPNE)			From Pine Island (NPNE)				
Week Ending:	Flight #	Planning ACL*	Pax/ Qty	Cargo/pax/fuel	Weight	Remarks	Pax/ Qty	Cargo/pax/fuel Retro	Weight	
		Refuel at NBY		Cruise box	100			Cruise box	100	
					Subtotal	1,100			Subtotal	2,100
					TDE @ 10.7%	112			TDE @ 10.7%	220
				1	Green bag	45		1	Green bag	45
				1	BAS Passenger	310				
					Bulk fuel	25,000	3687 gallons			
					Total	26,467			Total	2,365
18-Dec-04	N008 Tanker	27,300 minus 1,200 lbs for ATO 26,100						Camp waste / retro	1000	
				Cruise box	100			Cruise box	100	
					Subtotal	0			Subtotal	1100
					TDE @ 10.7%	0			TDE @ 10.7%	110
				1	Green bags	45		1	Green bag	45
				0	Passenger	0		0	Passenger	0
					Bulk fuel	26,000	3834 gallons			
				Total	26,045			Total	1,265	
08-Jan-05	N009 Tanker	27,300 minus 1,200 lbs for ATO 26,100						Camp cargo	4,000	
								Camp waste	2,000	
				Cruise box	100				Cruise box	100
					Subtotal	0			Subtotal	6,100
					TDE @ 10.7%	0			TDE @ 10.7%	652
				1	Green bags	45		1	Green bags	45
								1	BAS Passenger	310
		Bulk fuel	26,000	3834 gallons						
				Total				Total	7,107	
29-Jan-05	N010 Pull-out	27,300 minus 1,200 lbs for ATO 26,100						Tucker / groomer	11,000	
								Bladder / fuel system		
									Camp retro	2,000
									Waste	2,000

			To Pine Island (NPNE)			From Pine Island (NPNE)				
Week Ending:	Flight #	Planning ACL*	Pax/Qty	Cargo/pax/fuel	Weight	Remarks	Pax/Qty	Cargo/pax/fuel Retro	Weight	
		Refuel At NBY		Cruise box	100			Cruise box	100	
				Subtotal	100			Subtotal	15,100	
					TDE @ 10.7%	11			TDE @ 10.7%	
				2	Green bags	90		2	Green bags	90
				0	Passengers			2	RPSC Passengers	620
								2	BAS Passengers	620
					Bulk fuel	0				
					Total	201			Total	16,430

ACL figures used for Skier 91 - heaviest aircraft. Actual ACLs will vary.

Pine Island Camp Notes:

- Pine Island reconnaissance mission is required.
- Byrd Surface Camp (NBY) must be established prior to THW and PNE put-in.
- Minimum of 2,000 gallons of bulk fuel must be staged at Byrd prior to initial PNE put-in.
- Every LC-130 mission landing at PNE will have to refuel at NBY or THW.
- Round trip to PNE with a refuel stop equals a 15-hour crew day.

Thwaites Glacier (THW)

Location 78.50 S 118.50 W
 Elevation 6,070 feet
 Distance THW → ZCM = 870 nm
 THW → NPX = 701 nm
 THW → SDM = 374 nm
 THW → NBY = 105 nm

The Airborne Geophysical Survey of the Amundsen Sea Embayment, Antarctica (AGASEA) is a collaboration of the British Antarctic Survey (BAS) and the University of Texas (UTIG). Collectively, the primary objective is to determine boundary conditions for the major glacier drainages in the Amundsen Sea Embayment, including ice surface topography, subglacial topography, gravity and magnetic anomalies. Additional objectives of the BAS component will be to collect ground-based measurements of accumulation rate, ice velocity and to collect several short firn cores to complement the results of the US ITASE ground traverse conducted during the 2001-2002 season.

The survey will be conducted from two bases of operation: One will be located near the Ross/Amundsen Embayment ice flow divide (Thwaites Glacier Camp) and the second on the divide between the Pine Island Glacier Basin and "Drainage Basin A" (Pine Island Glacier Camp). Thwaites Glacier Camp will be the operations hub for the AGASEA project. The camp will support 15 UTIG researchers, six RPSC camp staff, and five Kenn Borek flight crew from November 2004 through January 2005. The camp will be equipped with a Tucker/Maxey groomer and two 10,000-gallon fuel bladders for use by the Twin Otter. The camp will have two Jamesways and two Polarhavens for a galley, science operations, and Kenn Borek staff berthing and work space.

Week Ending:	Flight #	Planning ACL*	To Thwaites Glacier (NTHW)			Remarks	From Thwaites (NTHW)		
			Pax/Qty	Cargo/pax/fuel	Weight		Pax/Qty	Cargo/pax/fuel Retro	Weight
06-Nov-04	G001	13,200 Recce Flight				Aircraft does not land			
06-Nov-04	G002	19,700 minus 1,200 lbs for ATO 18,500 Refuel At NBY	1	Endurance tent	80	8' x 21'			
			1	Endurance tent floor	240				
			1	Scott tent w/ floor	100				
			4	Mountain dome tents	40				
			2	Coleman stoves	10				
			1	Kitchen box, 4 person	65				
			1	Kitchen box, 2 person	52				
				Misc. Field gear	1900				
			1	Sled, siglin	56				
				Comms Equipment	100				

Week Ending:	Flight #	Planning ACL*	To Thwaites Glacier (NTHW)			Remarks	From Thwaites (NTHW)		
			Pax/ Qty	Cargo/pax/fuel	Weight		Pax/ Qty	Cargo/pax/fuel Retro	Weight
			2	10K bladder	800				
			2	Flomax pumps /system	580				
			150	Bamboo 8' w/red flag	300				
			245	Skiway markers	1600				
			1	Towbar	60				
			1	Mechanics tool set	150				
				Camp food	700				
			2	Gasoline, drum fuel	600	Class 3 / UN1203 / P5			
			2	Fire extinguisher	20	Class 2.2 / UN1044 / P5			
			24	Coleman fuel	160	Class 3 / UN1268 / P5			
			12	AN5, drum fuel	4700	Class 3 / UN1863 / P5			
			2	Herman nelson	550	Class 9 / UN3166 / P5			
			1	Skandic snowmobile	650	Class 9 / UN3166 / P5			
			1	Welderator – 5KW	350	Class 9 / UN3166 / P5			
				Cruise box	100			Cruise box	100
				Subtotal	13963			Subtotal	100
				TDE @ 10.7%	1494			TDE @ 10.7%	12
			2	Green bags	90		2	Green bags	90
			6	RPSC camp staff	1860				
				Bulk fuel					
	Total	17,407			Total	202			
06-Nov-04	G003 Tucker swap	19,700 minus 1,200 lbs for ATO 18,500	1	Tucker, 6 cylinder	10,000				
			1	Maxey groomer	2,400				
			1	Timber drag	200				
			2	20 kw generators	2600				
				Cruise box	100			Cruise box	100
				Subtotal	2,380			Subtotal	100
	TDE @ 10.7%	255			TDE @ 10.7%	12			
			1	Green bag	90		1	Green bags	45
			1	Fuelie	310				

			To Thwaites Glacier (NTHW)			From Thwaites (NTHW)				
Week Ending:	Flight #	Planning ACL*	Pax/ Qty	Cargo/pax/fuel	Weight	Remarks	Pax/ Qty	Cargo/pax/fuel Retro	Weight	
				Bulk fuel	0					
				Total	35,742			Total	156	
13-Nov-04	G004	20,600 minus 1,200 lbs for ATO 19,400	3	Perfection heater	1020					
			2	Jamesway, 14 section	10,000					
			1	Polar Haven w/box	360	16' X 20'				
			2	Polar Haven, floor	500					
			1	Polar Haven, floor runners	72					
			1	Polar Haven	226	12' x 16'				
			1	Stove	300					
			1	Plumbing kit	340					
				Galley supplies	350					
				Carpenter tools	1000					
			1	Outhouse box	52					
				Shelves for structures	150					
			3	Ladder 12'	100			Cruise box	100	
				Subtotal	85,954			Subtotal	100	
				TDE @ 10.7%	1600			TDE @ 10.7%	11	
			3	Green Bags	135			3	Green bags	135
			6	RPSC carpenters	1860					
			2	RPSC electricians	620					
				Bulk fuel						
	Total	18,685			Total	246				
13-Nov-04	G005 Tanker	20,600 1,200 lbs for ATO 19,400		Camp gear	5000					
				GOES system	1800					
			2	Fire extinguishers	100	Class 2.2 / UN1044 / P5				
			1	Helium, cylinder	40	Class 2.2 / UN1046 / P5				
				Cruise box	100			Cruise box	100	
	Subtotal	7743			Subtotal	100				
	TDE @ 10.7%	753			TDE @ 10.7%	11				

Week Ending:	Flight #	Planning ACL*	To Thwaites Glacier (NTHW)			Remarks	From Thwaites (NTHW)		
			Pax/ Qty	Cargo/pax/fuel	Weight		Pax/ Qty	Cargo/pax/fuel Retro	Weight
			1	Green bag	45		2	Green bag	45
			2	RPSC rigger / comms tech	620		1	RPSC fuelie	310
				Bulk fuel	10,941	1613 gallons			
				Total	19,399			Total	466
20-Nov-04	G006 Tanker	20,600 1,200 lbs for ATO 19,400	10	Gasoline, drum fuel	4,000	Class 3 / UN1203 / P5			
								Carpenter ladders	200
								Carpenter tools	1000
				Cruise box	100			Cruise box	100
				Subtotal	4100			Subtotal	1300
				TDE @ 10.7%	413			TDE @ 10.7%	139
			4	Green bags	180		4	Green bags	180
			2	Kenn Borek Air pilots	320		6	RPSC carpenters	1860
							2	RPSC electricians	620
							2	RPSC rigger / comms tech	620
				Bulk fuel	14,887	2195 gallons			
				Total	19,900			Total	4,719
20-Nov-04	G007 Tanker	20,600 1,200 lbs for ATO 19,400		Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	100
				TDE @ 10.7%	13			TDE @ 10.7%	11
			1	Green bag	45		1	Green bag	45
			0	Passengers	0		0	Passengers	0
				Bulk fuel	19,200	2054 gallons			
				Total	19,358			Total	146
20-Nov-04	G008 Tanker	20,600 1,200 lbs for ATO 19,400		I-141 Science gear	6000				
								Cruise box	100

Week Ending:	Flight #	Planning ACL*	To Thwaites Glacier (NTHW)			Remarks	From Thwaites (NTHW)		
			Pax/ Qty	Cargo/pax/fuel	Weight		Pax/ Qty	Cargo/pax/fuel Retro	Weight
				Subtotal	6,000			Subtotal	100
				TDE @ 10.7%	642			TDE @ 10.7%	12
			1	Green bag	45		1	Green bag	45
			0	Passengers			0	Passengers	
				Bulk fuel	12,713	1875 gallons			
				Total	19,400			Total	157
20-Nov-04	G009 I-141 put-in	20,600 1,200 lbs for ATO 19,400		I-141 Science gear	6,000				
			5	I-141 Scott tent w/ floor	550				
			9	I-141 Mountain dome tents	90				
			1	I-141 Sled, banana	36				
			1	I-141 Sled, siglin	56				
				I-141 Misc. field gear	1700			Camp waste / retro	2000
				Cruise box	100			Cruise box	100
				Subtotal	9072			Subtotal	2100
				TDE @ 10.7%	970			TDE @ 10.7%	212
			6	Green bags	270		6	Green bags	270
			16	I-141 Science pax	4960				
				Bulk fuel	4128			608 gallons	
				Total	19,400			Total	2,582
27-Nov-04	G010 Tanker	20,600 1,200 lbs for ATO 19,400		Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	100
				TDE @ 10.7%	12			TDE @ 10.7%	12
			1	Green bag	45		1	Green bag	45
				Bulk fuel	19,200			2831 gallons	
				Total	19,357			Total	157
27-Nov-04	G011 Tanker	20,600 1,200 lbs for		Waste triwalls / pallets	1000			Camp waste/retro	2000
				Cruise box	100			Cruise box	100

Week Ending:	Flight #	Planning ACL*	To Thwaites Glacier (NTHW)			Remarks	From Thwaites (NTHW)		
			Pax/ Qty	Cargo/pax/fuel	Weight		Pax/ Qty	Cargo/pax/fuel Retro	Weight
		ATO 19,400							
				Subtotal	1100			Subtotal	2100
				TDE @ 10.7%	117			TDE @ 10.7%	224
			1	Green bag	45		1	Green bag	45
			0	Passengers			0	Passengers	0
				Bulk fuel	18,1382	2675 gallons			
				Total	19,400			Total	2,369
27-Nov-04	G012 SDM Drop-in	20,600 1,200 lbs for ATO 19,400		931 Loader	18500	Height = 104 ½"w/ cab			
								Camp waste / retro	2000
				Cruise box	100			Cruise box	100
				Subtotal	18,600			Subtotal	2100
				TDE @ 10.7%	1990			TDE @ 10.7%	224
			1	Green bag	45		1	Green bag	45
				Bulk fuel	0				
				Total	20,635			Total	2,369
04-Dec-04	G013 Tanker	20,600 1,200 lbs for ATO 19,400		Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	100
				TDE @ 10.7%	12			TDE @ 10.7%	12
			1	Green bag	45		1	Green bag	45
			0	Passengers	0		3	I-141 Science pax	930
				Bulk fuel	19,200	2831 gallons			
				Total	19,357			Total	1087
11-Dec-04	G014 Tanker	20,600 1,200 lbs for ATO 19,400		Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	100
				TDE @ 10.7%	12			TDE @ 10.7%	12
			1	Green bag	45		1	Green bag	45
			0	Passengers	0		0	Passengers	0
				Bulk fuel	19,200	2831 gallons			

Week Ending:	Flight #	Planning ACL*	To Thwaites Glacier (NTHW)			Remarks	From Thwaites (NTHW)		
			Pax/ Qty	Cargo/pax/fuel	Weight		Pax/ Qty	Cargo/pax/fuel Retro	Weight
				Total	19,357			Total	157
18-Dec-04	G015 Tanker	20,600 1,200 lbs for ATO 19,400		Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	100
				TDE @ 10.7%	12			TDE @ 10.7%	12
			1	Green bag	45	1	Green bag	45	
			2	Kenn Borek Air pilots	620	2	Kenn Borek Air pilots	620	
				Bulk fuel	18,668		2753 gallons		
				Total	19,357		Total	777	
25-Dec-04	G016 Tanker	20,600 1,200 lbs for ATO 19,400		Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	100
				TDE @ 10.7%	12		TDE @ 10.7%	12	
			1	Green bag	45	1	Green bag	45	
			0	Passengers	0	0	Passengers	0	
				Bulk fuel	19,200		2831 gallons		
				Total	19,357		Total	157	
08-Jan-05	G017 Tanker	20,600 1,200 lbs for ATO 19,400						Camp retro	4000
				Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	4100
				TDE @ 10.7%	12		TDE @ 10.7%	439	
			1	Green bag	45	1	Green bag	45	
			3	I-141 Science Pax	930	1	I-141 Science Passengers	310	
				Bulk fuel	18,313		2700 gallons		
	Total	19,400		Total	4,894				
29-Jan-05	G018 Tanker I-141	20,600 1,200 lbs for ATO 19,400						I-141 Science equipment	12000
								I-141 Field gear	2000
								Polar haven	500
	Sci								

Week Ending:	Flight #	Planning ACL*	To Thwaites Glacier (NTHW)			Remarks	From Thwaites (NTHW)		
			Pax/ Qty	Cargo/pax/fuel	Weight		Pax/ Qty	Cargo/pax/fuel Retro	Weight
	Pull-out			Carpenter tools	1200				
				Cruise box	100			Cruise box	100
				Subtotal	1300			Subtotal	14600
				TDE @ 10.7%	139			TDE @ 10.7%	1562
			6	Green bags	270		6	Green bags	270
			2	RPSC riggers / techs	320		15	I-141 Science passengers	4650
			2	RPSC electricians	320				
			6	RPSC carpenters	1860				
				Bulk fuel	0				
				Total	3,939			Total	21,082
5-Feb-05	G019	20,600 1,200 lbs for ATO 19,400					Construction shelters	13,000	
							Camp retro waste	1,000	
							Goes system	1800	
				Cruise box	100		Cruise box	100	
				Subtotal	100		Subtotal	14,900	
				TDE @ 10.7%	12		TDE @ 10.7%	1708	
			2	Green bags	90		2	Green bags	90
							2	RPSC rigger / comms	620
							2	RPSC carpenters	620
							2	RPSC electricians	620
		Bulk fuel	0						
		Total	202			Total	18,558		
5-Feb-04	G020 Tanker	20,600 1,200 lbs for ATO 19,400					931 Loader	18,500	
							Carp tools	1000	
				Cruise box	100		Cruise box	100	
				Subtotal	100		Subtotal	19,600	
				TDE @ 10.7%	12		TDE @ 10.7%	2097	
	2	Green bags	90		2	Green bags	90		
	0	Passengers	0		4	Carpenters	1240		

			To Thwaites Glacier (NTHW)			From Thwaites (NTHW)			
Week Ending:	Flight #	Planning ACL*	Pax/ Qty	Cargo/pax/fuel	Weight	Remarks	Pax/ Qty	Cargo/pax/fuel Retro	Weight
				Bulk fuel	0				
				Total	202			Total	23,027
5-Feb-04	G021 Tanker	20,600 1,200 lbs for ATO 19,400						Misc. camp gear	5,000
				Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	5100
				TDE @ 10.7%	12			TDE @ 10.7%	550
			1	Green bags	45	1	Green bags	45	
			0	Passengers	0	0	Passengers	0	
				Bulk fuel	0				
				Total	157			Total	5,695
5-Feb-04	G022 Tanker	20,600 1,200 lbs for ATO 19,400						Fueling equipment	1200
								Tucker / groomer	11,600
				Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	12,900
				TDE @ 10.7%	12			TDE @ 10.7%	1380
			1	Green bag	45	1	Green bag	45	
			0	Passengers	0	0	Passengers	0	
				Bulk fuel	0				
	Total	157			Total	14,325			
5-Feb-04	G022 Tanker	20,600 1,200 lbs for ATO 19,400						Misc. Camp gear	12,000
				Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	12100

			To Thwaites Glacier (NTHW)			From Thwaites (NTHW)			
Week Ending:	Flight #	Planning ACL*	Pax/ Qty	Cargo/pax/fuel	Weight	Remarks	Pax/ Qty	Cargo/pax/fuel Retro	Weight
				TDE @ 10.7%	11			TDE @ 10.7%	1294
			2	Green bags	90		2	Green bags	90
							6	RPSC camp staff	1860
				Bulk fuel	0				
				Total	201			Total	15,344

ACL figures used for Skier 91 - heaviest aircraft. Actual ACLs will vary.

Thwaites Glacier Camp Notes:

- Byrd Surface Camp must be established prior to THW put-in.
- Camp put-in missions (G002 and G003) will refuel at Byrd Surface Camp.
- Estimated 13-hour aircrew day for Tucker swap mission and the 931 loader mission to Thwaites Glacier (THW).

Siple Dome Camp (SDM)

Location 81.66 S, 149.02 W
 Elevation Approx. 2,145 feet
 Distance SDM → ZCM = 507 nm
 SDM → NPX = 499 nm
 SDM → NBY = 293 nm
 SDM → BDM = 362 nm
 SDM → RDG = 280 nm
 SDM → HLK = 286 nm
 SDM → PNE = 581 nm
 SDM → THW = 374 nm

Siple Dome will support two science projects during the 2004-05 season. The I-205 (Anandakrishnan) TIDES project will focus on the high frequency, fine-scale motion of Whillans Ice Stream (WIS). Two teams will conduct the season: Team One will operate from Siple Dome in early November to install the "backbone" array of GPS receivers on WIS. Team Two will conduct ground geophysical experiments, including a tight GPS array, a seismic array, and ground radar at various locations on the ice plain of WIS. In late December Team Two will retrieve the backbone array and retro all equipment and waste to Siple Dome for return to McMurdo. The I-345-M (Tulaczyk) project will use Siple Dome as a staging area. During their field season the team will camp at Kamb Icestream (formerly Icestream C) and conduct geophysical research designed to test whether or not it is restarting.

Siple Dome will have three resident RPSC staff. The camp will be equipped with a Tucker and one 10,000-gallon fuel bladder for use by the Twin Otter.

Week Ending:	Flight #	Planning ACL*	To Siple Dome (NSDM)			Remarks	From Siple Dome (NSDM)			
			Pax/Qty	Cargo/pax/fuel	Weight		Pax/Qty	Cargo/pax/fuel Retro	Weight	
6-Nov-04	S001 Tanker	14,200 minus 1,200 lbs for ATO 13,000	4	I-345 Skandic snowmobiles	3200	Class 9 / UN3166 / P5		**Any available Retro**		
				Cruise box	100			Cruise box	100	
				Subtotal	3300			Subtotal	100	
				TDE @ 10.7%	353			TDE @ 10.7%	11	
			1	Green bag	45			1	Green bag	45
			0	Passengers	0			1	Fuelie	310
				Bulk fuel	9,300		1371 gallons			0
				Total	12,998				Total	466
6-Nov-04	S002	17,600		I-345 Comms equip.	200					

Week Ending:	Flight #	Planning ACL*	To Siple Dome (NSDM)			Remarks	From Siple Dome (NSDM)		
			Pax/Qty	Cargo/pax/fuel	Weight		Pax/Qty	Cargo/pax/fuel Retro	Weight
	I-345 Put-in	minus 1,200 lbs for ATO 16,400		I-345 Food	800				
				I-345 Field Gear	460				
			2	I-345 Scott tents w/ floor	200				
			1	I-345 Endurance tent	80		8' x 21'		
			1	I-345 Endurance tent floor	240				
			4	Mountain dome tents	160				
			4	I-345 Coleman stoves	40				
			2	I-345 MSR stoves	2				
			1	I-345 Kitchen box, 4 person	65				
			1	I-345 Kitchen box, 2 person	52				
			1	I-345 Sled, Mt. Smith	18				
			4	I-345 Sled, Nansen w/ tow bar	500				
			300	I-345 Bamboo 8' w/ flags	600				
			4	I-345 Jerry cans	28				
			1	I-345 Tool kit (standard)	18				
				I-345 Science equipment	1500				
			3	I-345 Gel cell batteries, 42 Amp	108		Non-haz for transport		
			8	I-345 Gel cell batteries, 100 Amp	680		Non-haz for transport		
			25	I-345 Coleman fuel	200		Class 3 / UN1268 / P5		
			14	I-345 Premix drums	5200		Class 3 / UN1203 / P5		
			2	I-345 Gasoline drums	900		Class 3 / UN1203 / P5		
			1	Kerosene drums	400		Class 3 / UN1223 / P5		
			5	I-345 Fire extinguishers	30		Class 2.2 / UN1044 / P5		
	1	I-345 Generator 1.8kw	190		Class 9 / UN3166 / P5				

Week Ending:	Flight #	Planning ACL*	To Siple Dome (NSDM)			Remarks	From Siple Dome (NSDM)		
			Pax/Qty	Cargo/pax/fuel	Weight		Pax/Qty	Cargo/pax/fuel Retro	Weight
			1	I-345 Generator -2.5 kw	220	Class 9 / UN3166 / P5	**Any available retro**		
				Subtotal	12,681		Subtotal	0	
				TDE @ 10.7%	1,340		TDE @ 10.7%	0	
			2	Green bags	90	2	Green bags	90	
			6	I-345-M Science passengers	1,860	0	Passengers	0	
				Bulk fuel	0			0	
				Total	15,971		Total	90	
13-Nov-04	S003 I-205 Tanker	17,600 minus 1,200 lbs for ATO 16,400	10	I-205 Premix drums	4000	Class 3 / UN1203 / P5			
			4	I-205 Skandics	3200				
								Any available retro	
				Cruise box	100		Cruise box	100	
				Subtotal	7300		Subtotal	0	
				TDE @ 10.7%	642		TDE @ 10.7%	0	
			1	Green bag	45	1	Green bag	45	
			1	Passengers	0	0	Passengers	0	
				Bulk fuel	8413		1240 gallons		
				Total	16,387		Total	145	
13-Nov-04	S004 I-205 Put-in	22,600 minus 1,200 lbs for ATO 21,400		I-205 Passcal Equip.	1100				
				I-205 UNAVCO GPS	1050				
			1	I-205 Sled, Siglin	56				
			4	I-205 Sled, Nansen, w/ keel	460				
			100	I-205 Bamboo, 8'w/flag	200				
				I-205 Food	400				
			2	I-205 Scott tents w/floor	200				
			1	I-205 Endurance tent	80		8' x 21		
4	I-205 Mountain dome tent	160							

Week Ending:	Flight #	Planning ACL*	To Siple Dome (NSDM)			Remarks	From Siple Dome (NSDM)		
			Pax/Qty	Cargo/pax/fuel	Weight		Pax/Qty	Cargo/pax/fuel Retro	Weight
				I-205 Field gear	1000				
			1	I-205 Kitchen box, 4 person	65				
			1	I-205 Hammer drill	130				
			2	I-205 Coleman Stove	10				
			42	I-205 Batteries, 40 Amp	1512	Non-hazardous for transport			
			8	I-205 Coleman fuel	56	Class 3 / UN1268 / P5			
			1	I-205 Gasoline drum	450	Class 3 / UN1203 / P5			
			10	I-205 Premix drums	4000	Class 3 / UN1203 / P5			
			2	I-205 Generator 1.0 kw	60	Class 9 / UN3166 / P5			
			1	I-205 Fire extinguishers	5	Class 2.2 / UN1044 / P5		Camp waste / retro	2000
				Cruise box	100			Cruise box	100
				Subtotal	11,094			Subtotal	2100
				TDE @ 10.7%	1187			TDE @ 10.7%	225
			1	Green bag	45		1	Green bag	45
			2	I-205 Science pax	620		0	Passengers	
				Bulk fuel	8450	1245 gallons			
	Total	21,346			Total	2,370			
4-Dec-04	S005 Tanker	22,600 minus 1,200 lbs for ATO 21,400							
							Camp waste / retro	2,000	
				Cruise box	100			Cruise box	100
				Subtotal	100			Subtotal	2,100
				TDE @ 10.7%	11			TDE @ 10.7%	220
			2	Green bag	90		2	Green bag	90
			4	I-205 Science pax	1240		0	Passengers	0
				Bulk fuel	19,950	2940 gallons			
	Total	21,391			Total	2,410			
18-Dec-04	S006 I-345	22,600 minus					I-345 Science retro	10,000	
				Cruise box	100		Cruise box	100	

Week Ending:	Flight #	Planning ACL*	To Siple Dome (NSDM)			Remarks	From Siple Dome (NSDM)			
			Pax/ Qty	Cargo/pax/fuel	Weight		Pax/ Qty	Cargo/pax/fuel Retro	Weight	
		1,200 lbs for ATO 21,400		Subtotal	100			Subtotal	10,000	
					TDE @ 10.7%	11			TDE @ 10.7%	1100
				2	Green bags	90		2	Green bags	90
								6	I-345 Science pax	1860
					Bulk fuel	20,000	2950 gallons			
				Total	20,201			Total	13,050	
18-Dec-04	S007 Tanker	22,600 minus 1,200 lbs for ATO 21,400						I-205 science retro	3,000	
								Camp / waste retro	1,000	
					Cruise box	100			Cruise box	100
					Subtotal	100			Subtotal	4100
					TDE @ 10.7%	11			TDE @ 10.7%	440
			1		Green bag	45		1	Green bag	45
			0		Passengers			0	Passengers	0
					Bulk fuel	20,000	2950 gallons			0
				Total	20,156			Total	4,595	
8-Jan-05	S008 I-205 Pull-out	22,600 minus 1,200 lbs for ATO 21,400						I-205 Science retro	10,000	
					Cruise box	100			Cruise box	100
					Subtotal	100			Subtotal	10,100
					TDE @ 10.7%	11			TDE @ 10.7%	1080
			2		Green bag	90		2	Green bag	90
								4	I-205 Science pax	1240
					Bulk fuel	20,000	2950 gallons			
							Total	20,156		
29-Jan-05	S009 Camp	22,600 minus						Camp waste / retro	2,000	
					Cruise box	100			Camp field gear	1,000
					Subtotal	100			Subtotal	3100
		TDE @ 10.7%	11			TDE @ 10.7%	332			