Chapter 2 - Encounter Overview

Contents

Introduction to Chapter 2

This chapter gives an overview of the entire Ida Encounter.

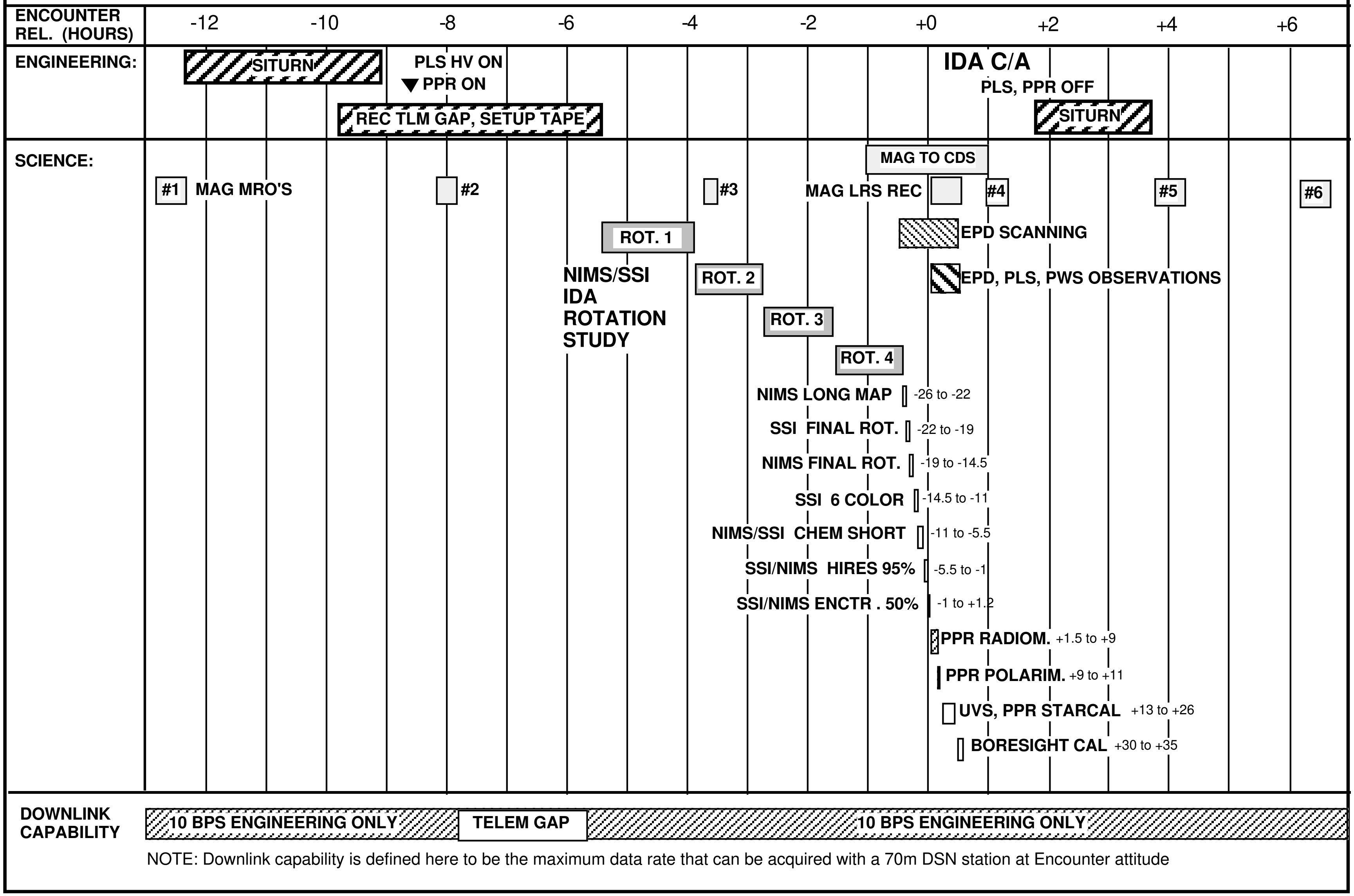
The two figures on pages 3 and 4 show the Ida Encounter Timeline from -12 to +6 hours relative to Ida Closest Approach. The timelines block out the major Remote Sensing Observations for the Ida Encounter.

The timeline on page 5, the Galileo Ida Key Events Timeline, shows the science activities occuring during the Ida Encounter, with graphical representations of the major Ida mosaics.

The table on page 6 is an overview of the NIMS observations in the Ida Encounter. It lists various geometric quantities and a brief statement of objective for each group of observations.

The table on page 7 is a summary of the NIMS instrument states for the NIMS observations in the Ida Encounter.

IDA ENCOUNTER, -12 HOURS TO +6 HOURS



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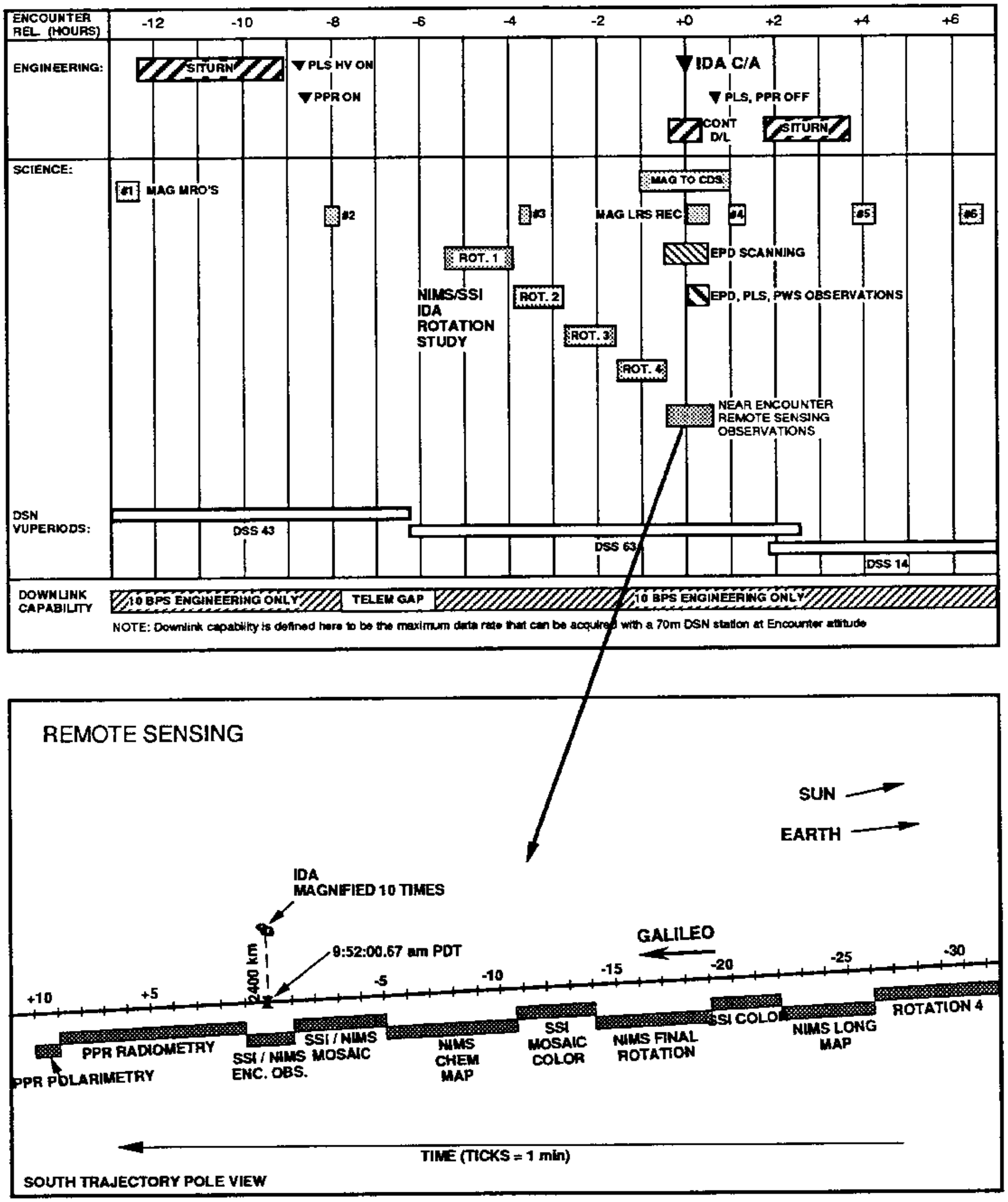
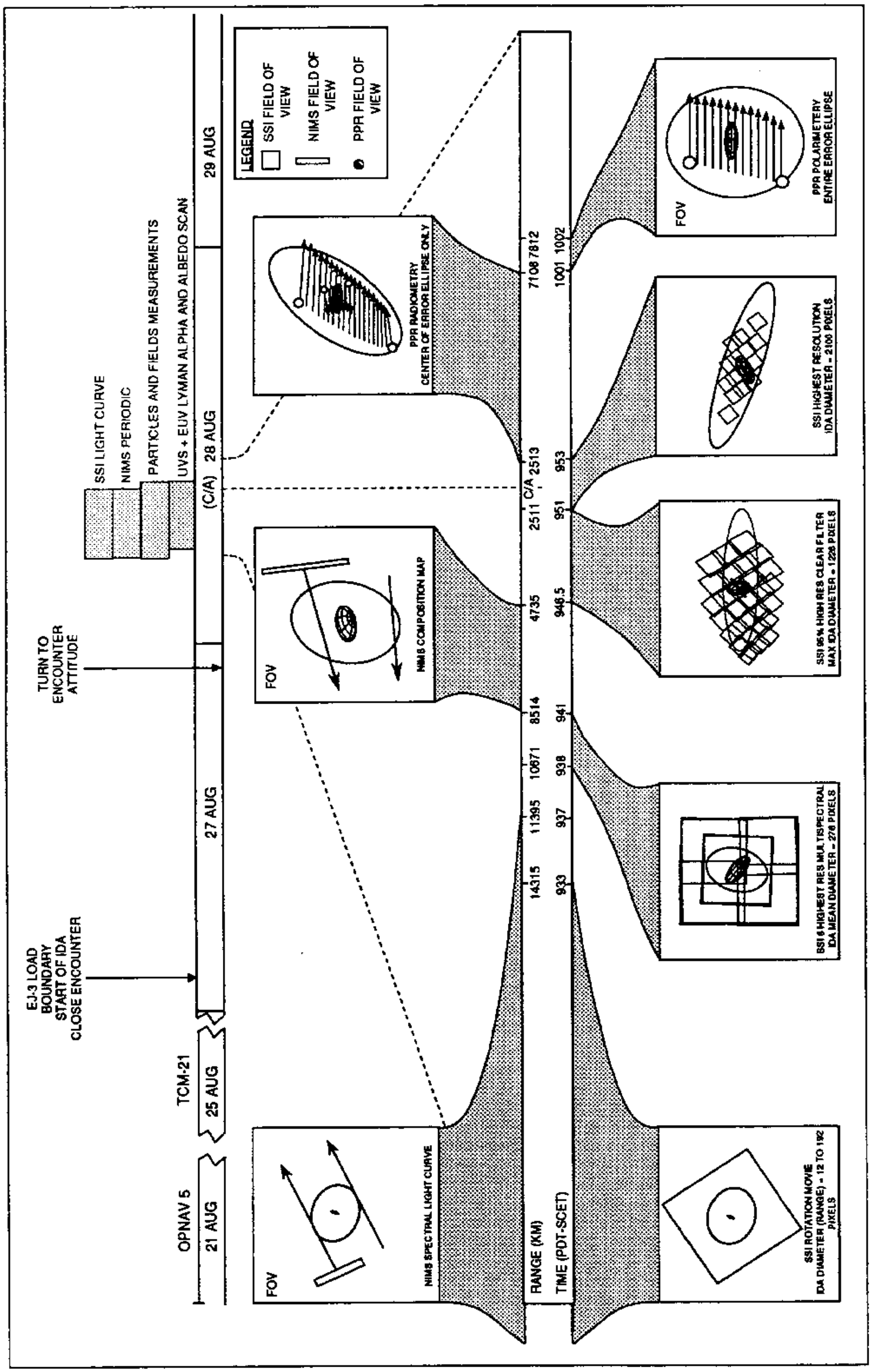


Ida Encounter Summary, -12 hours to +6 hours



OPNAV 5
21 AUG
TCM-21
25 AUG
EJ-3 LOAD BOUNDARY START OF IDA CLOSE ENCOUNTER
27 AUG
TURN TO ENCOUNTER ATTITUDE
(C/A)
28 AUG
29 AUG
SSI LIGHT CURVE
NIMS PERIODIC
PARTICLES AND FIELDS MEASUREMENTS
UVS + EUV LYMAN ALPHA AND ALBEDO SCAN
LEGEND
SSI FIELD OF VIEW
NIMS FIELD OF VIEW
PPR FIELD OF VIEW
FOV
NIMS SPECTRAL LIGHT CURVE
FOV
NIMS COMPOSITION MAP
PPR RADIOMETRY CENTER OF ERROR ELLIPSE ONLY
RANGE (KM)
TIME (PDT-SCET)
14315
11395
10671
8514
4735
2511
C/A
2513
7108
7812
933
937
938
941
946.5
951
953
1001
1002
SSI ROTATION MOVIE IDA DIAMETER (RANGE) - 12 TO 192 PIXELS
SSI 6 HIGHEST RES MULTISPECTRAL IDA MEAN DIAMETER - 276 PIXELS
SSI 95% HIGH RES CLEAR FILTER MAX IDA DIAMETER - 1228 PIXELS
SSI HIGHEST RESOLUTION IDA DIAMETER - 2100 PIXELS
FOV
PPR POLARIMETRY ENTIRE ERROR ELLIPSE

IDA ENCOUNTER OVERVIEW

TIME (RIMs)	OBSERVATION NAME	RANGE (km)	SPATIAL RESOLUTION (km/nimsel)	ANGULAR SEMI-DIAMETER	PHASE ANGLE (deg)	CONE ANGLE (deg)	OBSERVATION OBJECTIVE
-322	ROTATI01						This observation will
-322	RTURXM01*	241485.9	120.74	0.0033	19.48	173.98	provide a spectral light
-293	RT90FM01*	222908.3	111.45	0.0036	19.50	173.94	curve of Ida periodically
-282	RT15SM01*	208049.6	102.02	0.0039	19.52	173.91	throughout 90 degrees of
-270	RT30SM01*	200620.2	100.31	0.0030	19.53	173.89	rotation sampling every
-259	RT15SM02*	193190.9	96.60	0.0042	19.54	173.87	fifteen degrees.
-247	RT30SM02*	185761.7	92.88	0.0043	19.55	173.85	
-236	RT15SM03*	178332.5	89.17	0.0045	19.57	173.83	
-230	ROTATI02						This observation will
-230	RTURXM02*	170903.3	85.45	0.0047	19.58	173.81	provide a spectral light
-224	RT90FM02*	163474.3	81.74	0.0049	19.60	173.79	curve of Ida periodically
-213	RT15SM04*	156045.2	78.02	0.0051	19.61	173.76	throughout 90 degrees of
-201	RT30SM03*	148616.3	74.31	0.0054	19.63	173.73	rotation sampling every
-190	RT15SM05*	141187.5	70.59	0.0057	19.65	173.70	fifteen degrees.
-178	RT30SM04*	133758.8	66.88	0.0060	19.67	173.66	
-167	RT15SM06*	126330.2	63.17	0.0064	19.70	173.62	
-162	ROTATI03						This observation will
-162	RTURXM03*	118901.8	59.45	0.0067	19.73	173.57	provide a spectral light
-155	RT90FM03*	111473.5	55.74	0.0072	19.76	173.52	curve of Ida periodically
-144	RT15SM07*	104045.5	52.02	0.0077	19.80	173.46	throughout 90 degrees
-132	RT30SM05*	96617.8	48.81	0.0083	19.84	173.39	rotation sampling every
-121	RT15SM08*	89190.5	44.59	0.0090	19.89	173.31	fifteen degrees.
-109	RT30SM06*	81763.5	40.88	0.0098	19.95	173.21	
-98	RT15SM09*	72852.0	36.43	0.0110	20.04	173.07	
-92	ROTATI04						This observation will
-92	RTURXM04*	69881.8	34.94	0.0115	20.07	173.01	provide a spectral light
-86	RT90FM04*	63941.7	31.97	0.0125	20.15	172.88	curve of Ida periodically
-75	RT15SM10*	56517.8	28.26	0.0142	20.28	172.67	throughout 90 degrees
-63	RT30SM07*	47611.5	23.81	0.0168	20.49	172.33	rotation sampling every
-52	RT15SM11*	38709.7	19.35	0.0207	20.80	171.81	fifteen degrees.
-40	RT30SM08*	29816.1	14.91	0.0269	21.34	170.93	
-29	RT15SM12*	20941.5	10.47	0.0383	22.43	169.24	
-26	IDAGLM01	19466.1	9.73	0.0412	22.73	168.79	This group of observations
-22	FINROT01	16520.9	8.26	0.0486	23.50	167.64	will provide Ida's highest
-19	IDAFIN01	14319.9	7.16	0.0562	24.37	166.34	spectral resolution with
-14.5	6COLOR01	11401.1	5.70	0.0706	26.09	164.04	increasing spatial resolution.
-11	IDACHM01	8520.6	4.26	0.0948	29.27	159.91	This observation will provide
							insight into the chemical
							heterogeneity of Ida.
-5.5	HISPAT01	4762.2	2.38	0.1841	43.79	143.11	This group of observations
-1	IDACA_01	2611.0	1.31	0.3093	81.53	102.84	will provide the highest
							spatial resolution at the
							lowest spectral resolution.
+30	BORCAL01						Boresight calibration done
							jointly with UVS and PPR.
+661	PCTCAL01						PCT Calibration
+2972	RCTCAL01						RCT Calibration

NIMS Instrument States

Actid	Inst Mode	Gain State	Chopper Mode	Grating Start	Grating Offset	Special Mode	Slew Rate	Slew Mode	Slew Method	Pointer Display	Edit Table	Comp Type	Comp Depth
IDUSROTATI01*													
IDUNRTURXM01+	XM	4	Ref	6	4		750	C	NY		0		0
IDUNRT90FM01+	FM	4	Ref	0	4		60	C	NY		0		0
IDUNRT15SM01+	SM	4	Ref	2	4		110	C	NY		0		0
IDUNRT30SM01+	SM	4	Ref	2	4		110	C	NY		0		0
IDUNRT15SM02+	SM	4	Ref	2	4		110	C	NY		0		0
IDUNRT30SM02+	SM	4	Ref	2	4		110	C	NY		0		0
IDUNRT15SM03+	SM	4	Ref	2	4		110	C	NY		0		0
IDUSROTATI02*													
IDUNRTURXM02+	XM	4	Ref	6	4		750	C	NY		0		0
IDUNRT90FM02+	SM	4	Ref	2	4		110	C	NY		0		0
IDUNRT15SM04+	SM	4	Ref	2	4		110	C	NY		0		0
IDUNRT30SM03+	SM	4	Ref	2	4		110	C	NY		0		0
IDUNRT15SM05+	SM	4	Ref	2	4		110	C	NY		0		0
IDUNRT30SM04+	SM	4	Ref	2	4		110	C	NY		0		0
IDUNRT15SM06+	SM	4	Ref	2	4		110	C	NY		0		0
IDUSROTATI03*													
IDUNRTURXM03+	XM	4	Ref	6	4		750	C	NY		0		0
IDUNRT90FM03+	FM	4	Ref	0	4		60	C	NY		0		0
IDUNRT15SM07+	SM	4	Ref	2	4		110	C	NY		0		0
IDUNRT30SM05+	SM	4	Ref	2	4		110	C	NY		0		0
IDUNRT15SM08+	SM	4	Ref	2	4		110	C	NY		0		0
IDUNRT30SM06+	SM	4	Ref	2	4		110	C	NY		0		0
IDUNRT15SM09+	SM	4	Ref	2	4		110	C	NY		0		0
IDUSROTATI04*													
IDUNRTURXM04+	XM	3	Ref	6	4		750	C	NY		0		0
IDUNRT90FM04+	FM	3	Ref	0	4		60	C	NY		0		0
IDUNRT15SM10+	SM	3	Ref	2	4		110	C	NY		0		0
IDUNRT30SM07+	SM	3	Ref	2	4		110	C	NY		0		0
IDUNRT15SM11+	SM	3	Ref	2	4		110	C	NY		0		0
IDUNRT30SM08+	SM	3	Ref	2	4		110	C	NY		0		0
IDUNRT15SM12+	SM	3	Ref	2	4		110	C	NY		0		0
IDUNIDAGLM01+	LM	3	Ref	0	4		30	C	NY		0		0
IDUSFINROT01*	LM	3	Ref	0	4		30	C	NY		0		0
IDUNLONMAP01+	LM	3	Ref	0	4		0	C	NY		0		0
IDUNIDAFIN01*	LM	3	Ref	0	4		30	C	NY		0		0
IDUS6COLOR01*	LM	3	Ref	0	4		30	C	NY		0		0
IDUNLONMAP02+	LM	3	Ref	0	4		0	C	NY		0		0
IDUNIDACHM01*	SM	3	Ref	2	4		110	C	NY		0		0
IDUNHISPAT01+	XM	3	Ref	6	4		800	C	NY		0		0
IDUSHIRES_01*	XM	3	Ref	6	4		800	C	NY		0		0
IDUNIDACA_01+	XM	3	Ref	6	4		890	C	NY		0		0
IDUSENCNTR01*	XM	3	Ref	6	4		890	C	NY		0		0
IDUNBORCAL01+	XM	4	Ref	6	4		80	C	NY		0		0
IDUNPCTCAL01+	LM	1	Ref	0	4		30	C	NY		0		0
IDUNRCTCAL01+	FM	3	Ref	2	4		110	C	NY		0		0