



14042 - Hubble observations of a triple transit of Jupiter's Galilean Satellites

Cycle: 22, Proposal Category: GO/DD

(Availability Mode: AVAILABLE)

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VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
10	(1) JUPITER	WFC3/UVIS	1	20-Jan-2015 16:11:42.0	yes

1 Total Orbits Used

ABSTRACT

Io, Callisto, and Europa will simultaneously be in transit on the disk of Jupiter on 24 January 2015. Smaller moons Amalthea, Thebe, and Adrastea will also be transiting at this time. We will conduct Hubble WFC3 imaging to capture these moons, and their shadow play, across the disk of Jupiter.

OBSERVING DESCRIPTION

The most critical transit moment occurs on 24 Jan 2015 at 7:10 UT, when Io, Callisto, and Europa will all be on the disk of Jupiter at the same brief moment. Smaller moons Amalthea, Thebe, and Adrastea will also be transiting at this time, and Metis will be just off the disk. The shadows of these objects will also be evident on the disk of Jupiter. Unfortunately, the HST orbit available at this time is impacted by the South Atlantic Anomaly (SAA) near the end. We use the 1k x 1k WFC3 subarray which allows us to obtain many monochromatic "movie mode" frames as rapidly as possible to capture all the relative motions involved in the unfolding event. At the end of the orbit, and during the brief moment of triple-transit, we obtain one full-color image of Jupiter.

Proposal 14042 - Visit 10 - Hubble observations of a triple transit of Jupiter's Galilean Satellites

Visit	Proposal 14042, Visit 10, scheduled Tue Jan 20 21:11:44 GMT 2015 Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 286D TO 290 D; BETWEEN 24-JAN-2015:06:00:00 AND 24-JAN-2015:08:00:00						
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window
(1)		JUPITER	STD=JUPITER				EARTH

Proposal 14042 - Visit 10 - Hubble observations of a triple transit of Jupiter's Galilean Satellites

	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1		(1) JUPITER	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F395N	CR-SPLIT=NO	SAA CONTOUR 02	Sequence 1-5 Non-Int in Visit 10	10 Secs (10 Secs) [==>]	[1]
	2		(1) JUPITER	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F631N	CR-SPLIT=NO	SAA CONTOUR 02	Sequence 1-5 Non-Int in Visit 10	3 Secs (3 Secs) [==>]	[1]
	3		(1) JUPITER	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F502N	CR-SPLIT=NO	SAA CONTOUR 02	Sequence 1-5 Non-Int in Visit 10	3 Secs X 24 (72 Secs) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)]	[1]
	4		(1) JUPITER	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F631N	CR-SPLIT=NO	SAA CONTOUR 02	Sequence 1-5 Non-Int in Visit 10	3 Secs (3 Secs) [==>]	[1]
	5		(1) JUPITER	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F395N	CR-SPLIT=NO	SAA CONTOUR 02	Sequence 1-5 Non-Int in Visit 10	10 Secs (10 Secs) [==>]	[1]

