10586 - The Rosetta Stone without a Distance: Hunting for Cepheids in the "Primordial" Galaxy I Zw 18

Cycle: 14, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets*	*Configurations*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) IZW18	ACS/WFC	2	26-Oct-2005 13:43:25.0	yes
02	(1) IZW18	ACS/WFC	2	26-Oct-2005 13:43:31.0	yes
03	(1) IZW18	ACS/WFC	2	26-Oct-2005 13:43:35.0	yes
04	(1) IZW18	ACS/WFC	2	26-Oct-2005 13:43:43.0	yes
05	(1) IZW18	ACS/WFC	2	26-Oct-2005 13:43:47.0	yes

Visit	*Targets*	*Configurations*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
06	(1) IZW18	ACS/WFC	2	26-Oct-2005 13:43:51.0	yes
07	(1) IZW18	ACS/WFC	2	26-Oct-2005 13:43:55.0	yes
08	(1) IZW18	ACS/WFC	2	26-Oct-2005 13:44:00.0	yes
09	(1) IZW18	ACS/WFC	2	26-Oct-2005 13:44:06.0	yes
10	(1) IZW18	ACS/WFC	2	26-Oct-2005 13:44:10.0	yes
11	(1) IZW18	ACS/WFC	2	26-Oct-2005 13:44:14.0	yes
12	(1) IZW18	ACS/WFC	2	26-Oct-2005 13:44:18.0	yes
52	(2) IZW18-COPY	ACS/WFC	2	26-Oct-2005 13:44:22.0	yes
53	(2) IZW18-COPY	ACS/WFC	2	08-Nov-2005 21:33:27.0	yes

28 Total Orbits Used

ABSTRACT

The Blue Compact Dwarf galaxy I Zw 18 is one of the most intriguing objects in the Local Universe. It has the lowest nebular metallicity of all known galaxies (Z=1/32 solar). It has long been regarded as a possible example of a galaxy undergoing its first burst of star formation. However, its real evolutionary state continues to be controversial. The WFPC2 and NICMOS detection of AGB stars by our group and others suggested the presence of an underlying older population. However, deeper ACS observations by Izotov & Thuan (2004) recently failed to detect the signature of RGB stars. This was interpreted as confirmation that I Zw 18 is in fact a galaxy "in formation", a local analog of primordial galaxies in the distant Universe. This result was widely reported in the international news media. However, an alternative possibility is that I Zw 18 is somewhat further away than previously believed, so that Red Giant Branch stars were too faint to detect. Quoted distances in the literature have ranged from 10 to 20 Mpc. We intend to resolve this controversy by direct determination of the distance to 1 Mpc accuracy using Cepheids. For this we request 12 visits of two orbits each, to execute at carefully planned intervals. We will obtain V and I band ACS/WFC photometry in each visit. The new data will be combined with archival data, but we show that the archival data by themselves are insufficient to achieve our science goals. The distance will allow us to place I Zw 18 into its proper place in the evolutionary sequence of galaxy formation.

OBSERVING DESCRIPTION

We will obtain observations of I Zw 18 with HST ACS/WFC in the filters F606W (V) and F814W (I). Our goal is to detect Cepheids and to determine the Cepheid distance to this benchmark BCD galaxy. In order to do this, we need independent light curves in 2 passbands, and we choose the 2 most commonly used with HST. With its extreme low metallicity, there cannot be significant amounts of dust within the galaxy. So differential extinction is negligible and 2 passbands suffice. The target will be centered on the WFC2 detector. This easily covers the whole galaxy. The ACS/HRC is not preferred to the ACS/WFC, despite the higher resolution. The main reason is that longer integration times would be required, due to the lower sensitivity and smaller pixels. We have considered using the F555W filter instead of the F606W filter, but prefer F606W because of its higher sensitivity.

We will make 12 visits to I Zw 18 over a period of about 60 days. The visits need to be spaced with a pre-determined cadence that optimizes phase coverage over the entire range of periods from 5 to 60 days. This is necessary in order to avoid period aliasing. Our timing scheme and observing technique have been tested and proven successful by previous Cepheid searches with HST/WFPC1 and WFPC2 by the Saha/Sandage et al. HST Supernovae Calibration (HSTSNC) team. We are using a similar scheme to that used by GO-8100 (PI: Saha), which spans approximately 60 days. It is vital for this project that the total observation window has this length in order to detect long-period Cepheids (which are brighter than short-period Cepheids). The proposed scheme is optimal in that it has a roughly geometric sequence of intervisit gaps. However, alternative schemes can be discussed if necessary to optimize scheduling efficiency or flexibility.

In each visit we will observe in F606W and F814W for 1 orbit each, using 4 dithered exposures to eliminate cosmic rays and hot pixels, and to improve sub-pixel sampling. We will not adopt a dithering strategy between different epochs, because some dithering will occur naturally due to the different acquisitions and guide stars at each epoch. The images will be used to construct the master star catalog that we will search for variable stars. The light curves of Cepheids must be derived independently in the two passbands: we cannot use prior information on the light curve relationships (derived from Galactic or LMC Cepheids) in V and I to infer one from the other, in order to avoid metallicity effects. Therefore, we request an equal number of epochs in V and I.

With respect to two-gyro operations, the major concern is the reduced target availability. This affects this proposal more than others due to the timing constraints of the data collection. However, we have found that the observations are schedulable, provided that we increase SCHED to 70%, instead of using the default value of 30%. This decreases the visibility per orbit only by about 3 minutes. The Visit Planner shows that the observations can then be performed in the period from September 20, 2005 to November 19, 2005. Ideally we would like to obtain as many of the observations as possible at the same telescope ORIENT. It is not possible to obtain all visits at the same ORIENT. However, we have used the SAME ORIENT AS requirement to group the visits into 4 groups. Within each group the observations can be obtained at the same ORIENT, without affecting the schedulability of the observations. This is because at any given date there is the freedom to roll the telescope by typically +/- 5 degrees. We do not request CVZ time for these observations. Although I Zw 18 resides in the CVZ zone, CVZ use is not compatible with the time series nature of the observations.

REAL TIME JUSTIFICATION

N/A

CALIBRATION JUSTIFICATION

N/A

ADDITIONAL COMMENTS

N/A

Visit

Proposal 10586, Visit 01 Wed Nov 09 02:33:30 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IZW18	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V1	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I1	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[2]***

Visit

Proposal 10586, Visit 02 Wed Nov 09 02:33:30 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IZW18	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V2	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I2	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	545.0 Secs	
								[==>549.0 Secs (Pattern 1)] *[==>549.0 Secs (Pattern 2)]* *[==>549.0 Secs (Pattern 3)]* *[==>549.0 Secs (Pattern 4)]*	***[2]***

Visit

Proposal 10586, Visit 03 Wed Nov 09 02:33:30 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IZW18	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V3	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I3	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	545.0 Secs	
								[==>549.0 Secs (Pattern 1)] *[==>549.0 Secs (Pattern 2)]* *[==>549.0 Secs (Pattern 3)]* *[==>549.0 Secs (Pattern 4)]*	***[2]***

Visit

Proposal 10586, Visit 04 Wed Nov 09 02:33:30 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IZW18	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V4	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I4	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	545.0 Secs	
								[==>549.0 Secs (Pattern 1)] *[==>549.0 Secs (Pattern 2)]* *[==>549.0 Secs (Pattern 3)]* *[==>549.0 Secs (Pattern 4)]*	***[2]***

Visit

Proposal 10586, Visit 05 Wed Nov 09 02:33:30 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IZW18	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V5	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I5	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	545.0 Secs	
								[==>549.0 Secs (Pattern 1)] *[==>549.0 Secs (Pattern 2)]* *[==>549.0 Secs (Pattern 3)]* *[==>549.0 Secs (Pattern 4)]*	***[2]***

Visit

Proposal 10586, Visit 06 Wed Nov 09 02:33:31 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IZW18	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V6	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I6	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	545.0 Secs	
								[==>549.0 Secs (Pattern 1)] *[==>549.0 Secs (Pattern 2)]* *[==>549.0 Secs (Pattern 3)]* *[==>549.0 Secs (Pattern 4)]*	***[2]***

Visit

Proposal 10586, Visit 07 Wed Nov 09 02:33:31 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IZW18	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V7	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I7	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	545.0 Secs	
								[==>549.0 Secs (Pattern 1)] *[==>549.0 Secs (Pattern 2)]* *[==>549.0 Secs (Pattern 3)]* *[==>549.0 Secs (Pattern 4)]*	***[2]***

Visit

Proposal 10586, Visit 08 Wed Nov 09 02:33:31 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IZW18	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V8	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I8	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	545.0 Secs	
								[==>549.0 Secs (Pattern 1)] *[==>549.0 Secs (Pattern 2)]* *[==>549.0 Secs (Pattern 3)]* *[==>549.0 Secs (Pattern 4)]*	***[2]***

Visit

Proposal 10586, Visit 09 Wed Nov 09 02:33:31 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IZW18	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V9	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I9	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	545.0 Secs	
								[==>549.0 Secs (Pattern 1)] *[==>549.0 Secs (Pattern 2)]* *[==>549.0 Secs (Pattern 3)]* *[==>549.0 Secs (Pattern 4)]*	***[2]***

Visit

Proposal 10586, Visit 10 Wed Nov 09 02:33:31 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IZW18	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V10	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I10	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	545.0 Secs	
								[==>549.0 Secs (Pattern 1)] *[==>549.0 Secs (Pattern 2)]* *[==>549.0 Secs (Pattern 3)]* *[==>549.0 Secs (Pattern 4)]*	***[2]***

Visit

Proposal 10586, Visit 11 Wed Nov 09 02:33:31 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IZW18	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V11	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I11	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	545.0 Secs	
								[==>549.0 Secs (Pattern 1)] *[==>549.0 Secs (Pattern 2)]* *[==>549.0 Secs (Pattern 3)]* *[==>549.0 Secs (Pattern 4)]*	***[2]***

Visit

Proposal 10586, Visit 12 Wed Nov 09 02:33:31 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IZW18	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V12	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I12	(1) IZW18	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	545.0 Secs	
								[==>549.0 Secs (Pattern 1)] *[==>549.0 Secs (Pattern 2)]* *[==>549.0 Secs (Pattern 3)]* *[==>549.0 Secs (Pattern 4)]*	***[2]***

Visit

Proposal 10586, Visit 52 Wed Nov 09 02:33:31 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	IZW18-COPY	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V2	(2) IZW18-COPY	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	535.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I2	(2) IZW18-COPY	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	545.0 Secs	
								[==>549.0 Secs (Pattern 1)] *[==>549.0 Secs (Pattern 2)]* *[==>549.0 Secs (Pattern 3)]* *[==>549.0 Secs (Pattern 4)]*	***[2]***

Visit

Proposal 10586, Visit 53 Wed Nov 09 02:33:31 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: PCS MODE FINE; SCHED 70%

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	IZW18-COPY	RA: 09 34 1.9000 (143.5079167d) Dec: +55 14 26.00 (55.24056d) Equinox: J2000 Plate Id: (?)		V=15.6	Coordinate Source: NED

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	V3	(2) IZW18-COPY	ACS/WFC, ACCUM, WFC2-FIX	F606W	CR-SPLIT=NO		Pattern 1-1 (1)	502.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	I3	(2) IZW18-COPY	ACS/WFC, ACCUM, WFC2-FIX	F814W	CR-SPLIT=NO		Pattern 2-2 (1)	514.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[2]***

Orbit Structure