

KIC 005359568

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005359568-01	OBS	No	486.056318	404.044101	3355.4	66.915	19.7	67.8	5.96	4926	33.33	9.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005359568-01	OBS	FP	0.00	1	0	0	0	ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

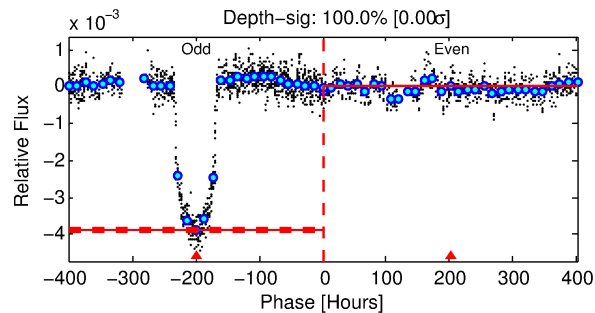
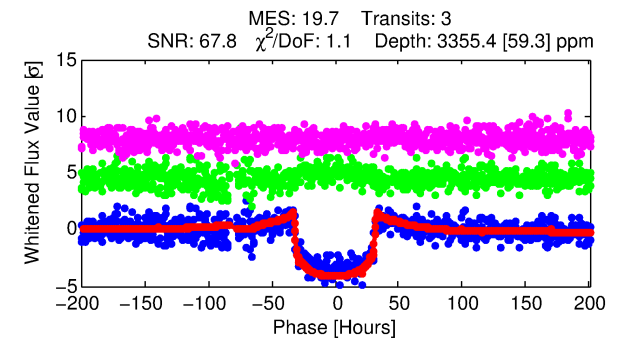
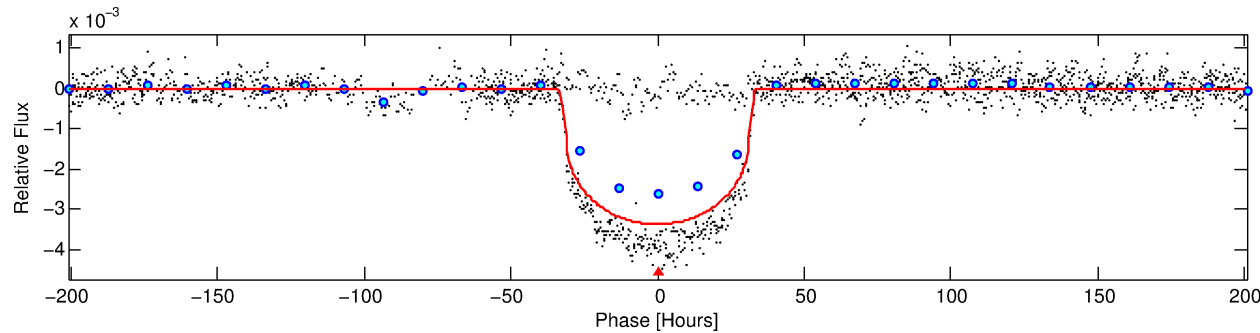
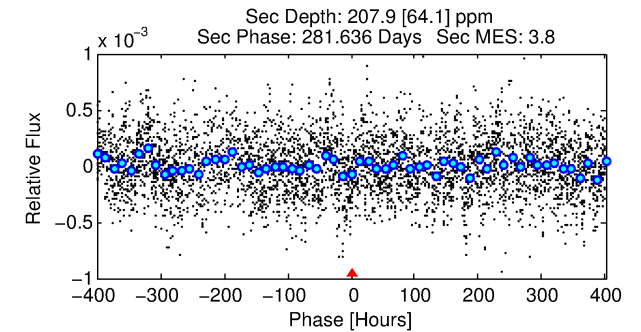
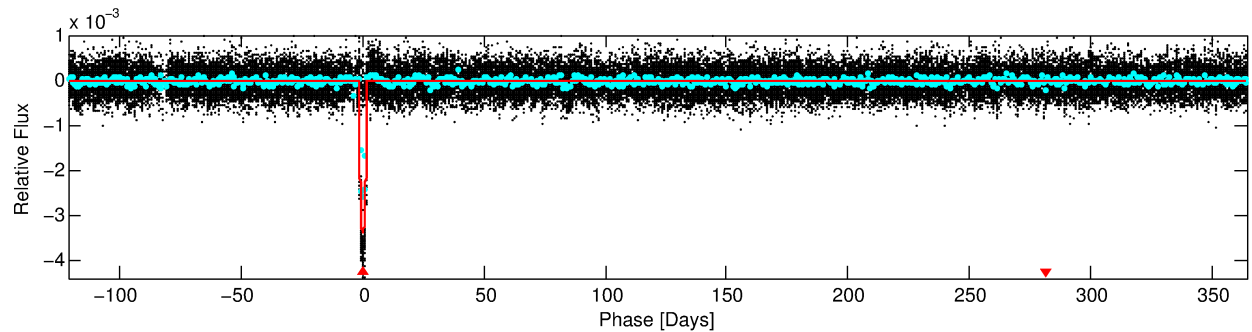
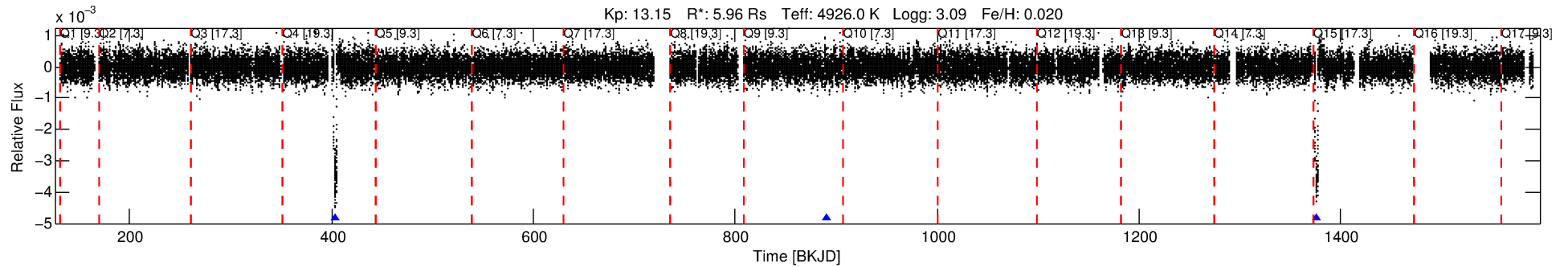
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005359568-01

No Significant Match Found

DV One-Page Summary

KIC: 5359568 Candidate: 1 of 1 Period: 486.056 d



DV Fit Results:

Period = 486.05632 [0.00704] d
Epoch = 404.0441 [0.0096] BKJD
Rp/R* = 0.0512 [0.0013]
a/R* = 58.34 [4.61]
b = 0.00 [168.15]
Seff = 9.36 [1.35]
Teff = 446 [16] K
Rp = 33.33 [5.73] Re
a = 1.4147 [0.1651] AU
Ag = 206.07 [69.45] [2.95 σ]
Teffp = 2613 [209] K [10.32 σ]

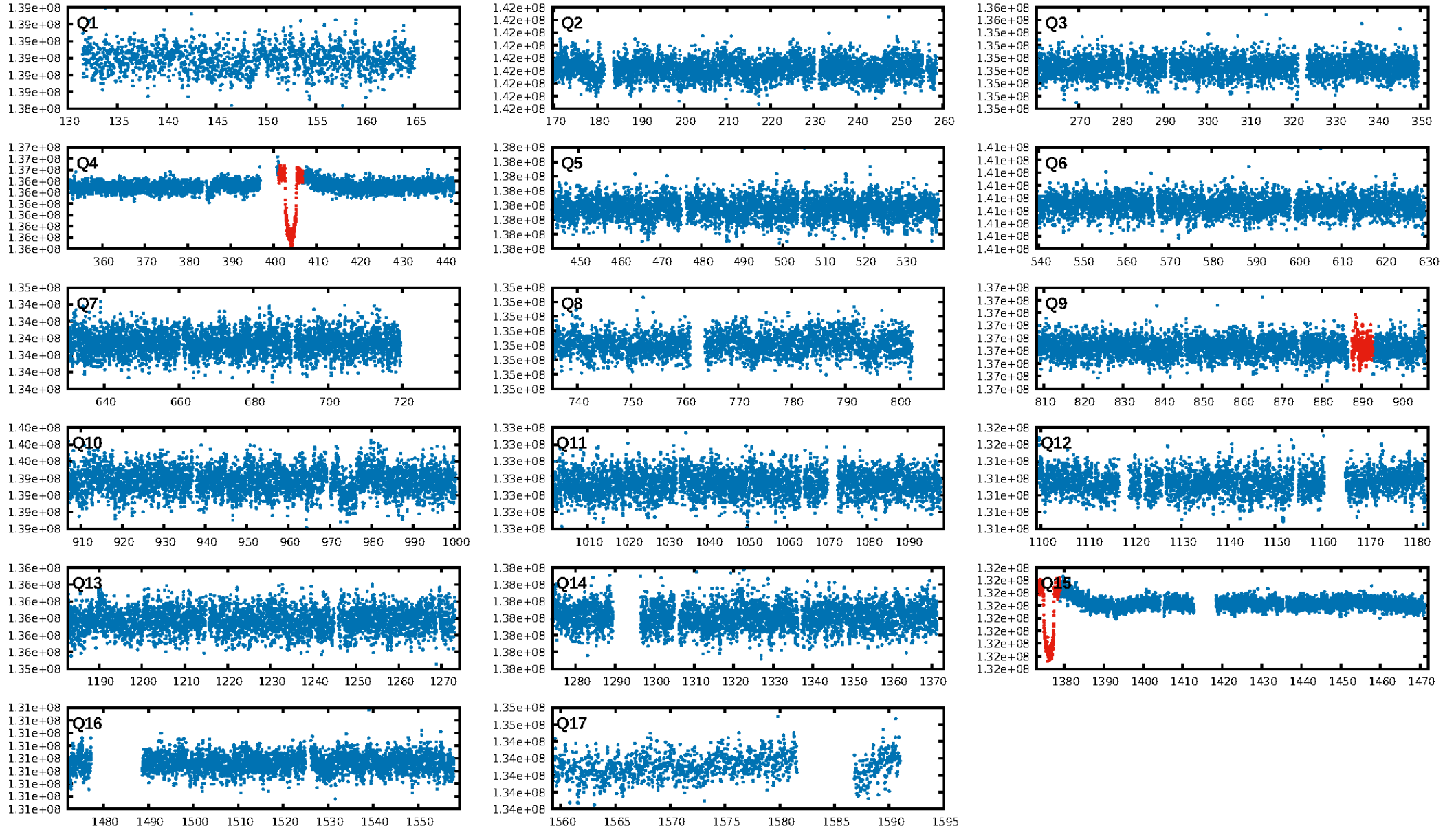
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 2.9%
Bootstrap-pfa: 8.07e-75
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.361
Centroid-sig: 46.2%
Centroid-so: 0.119 arcsec [3.82 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

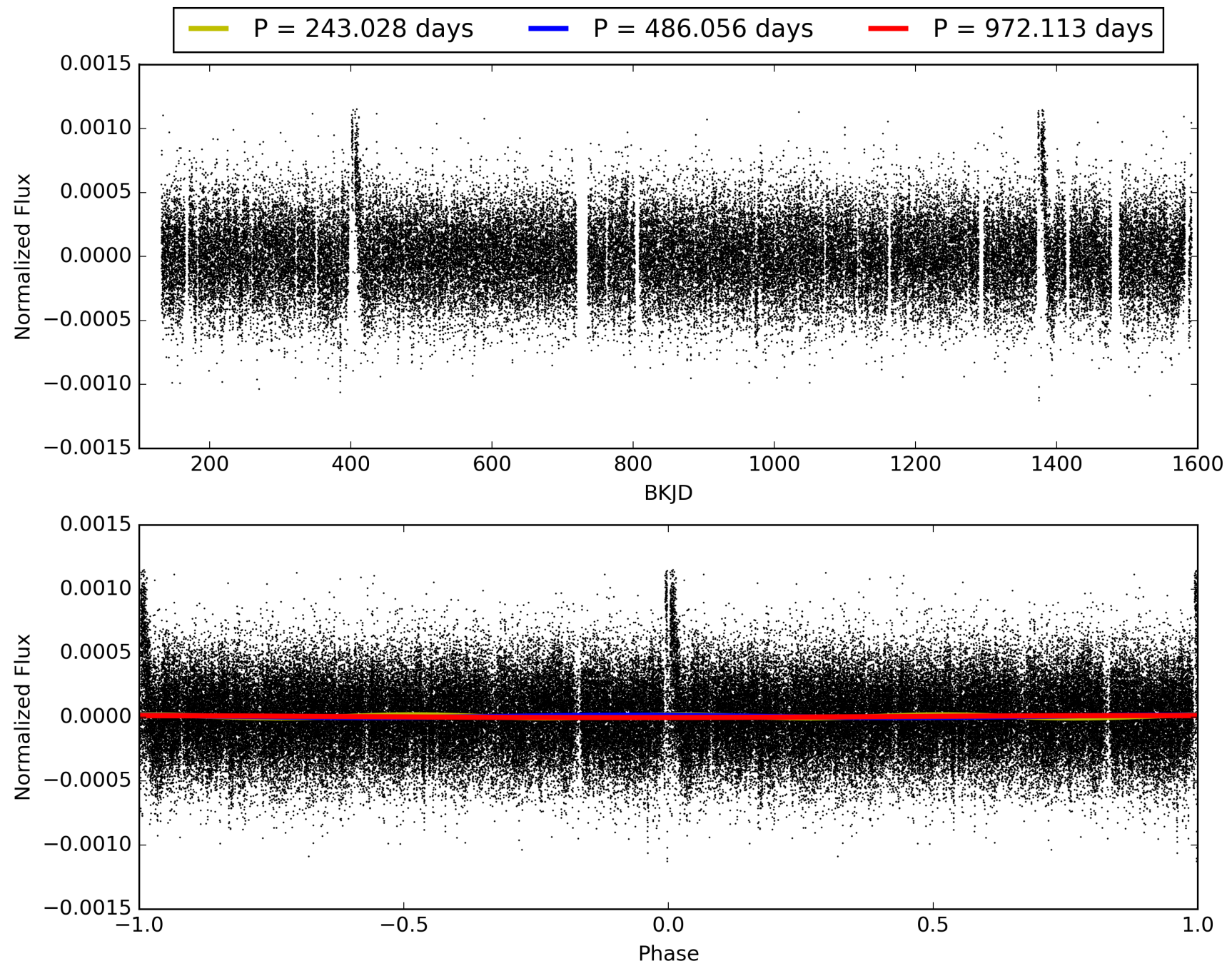
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:45:57 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005359568-01, PDC Light Curves

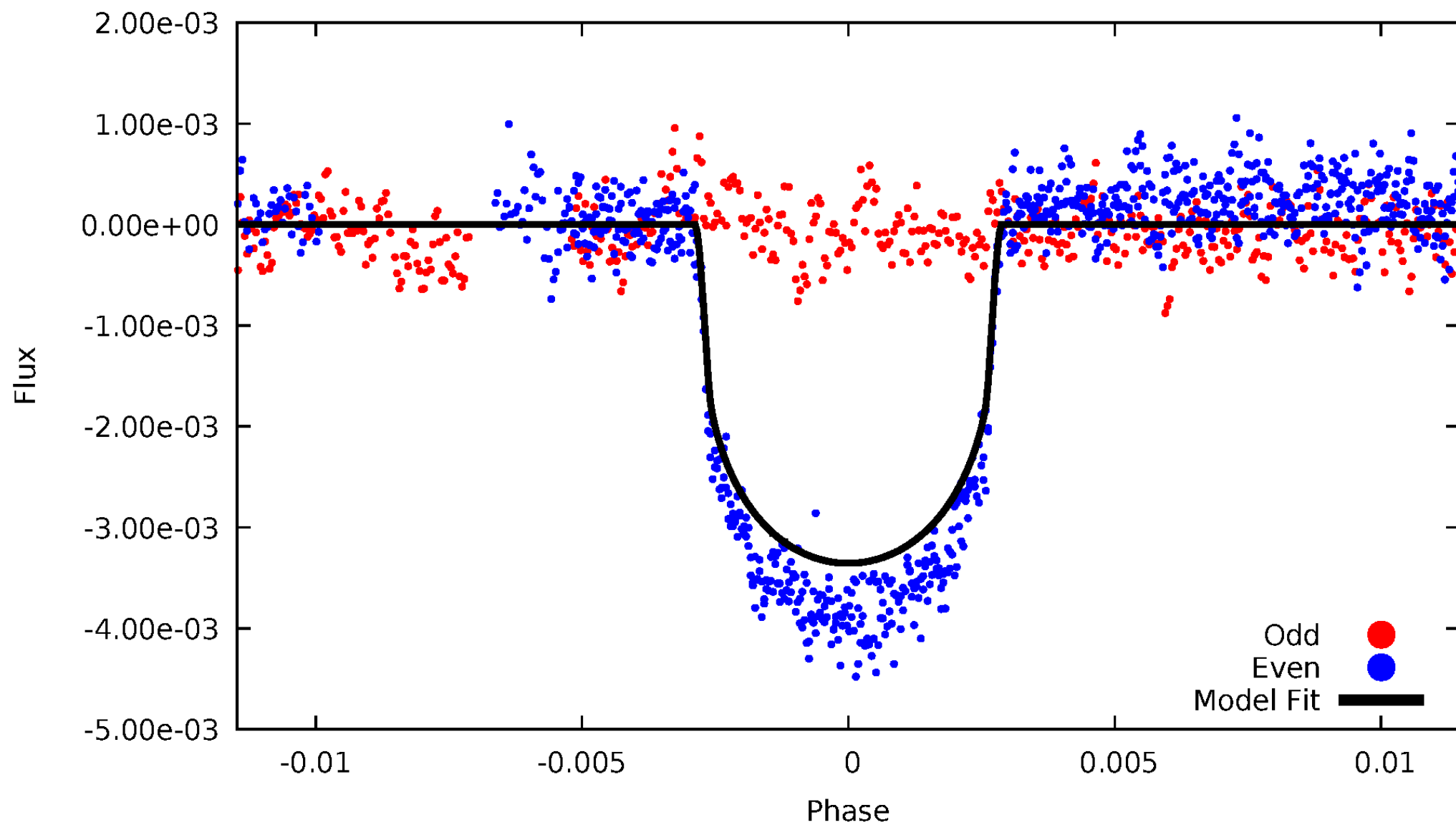


TCE 005359568-01



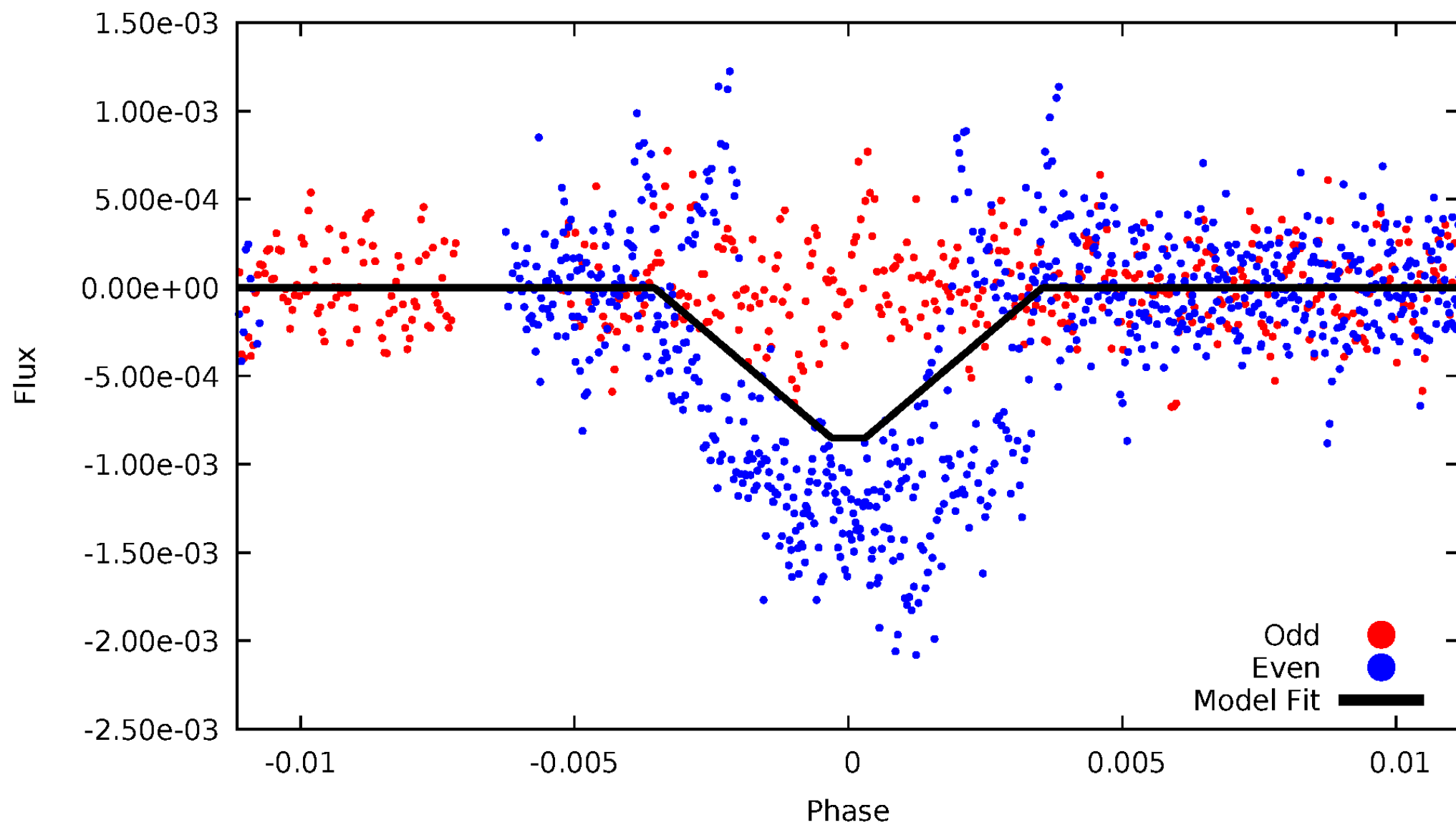
DV Odd/Even

TCE 005359568-01



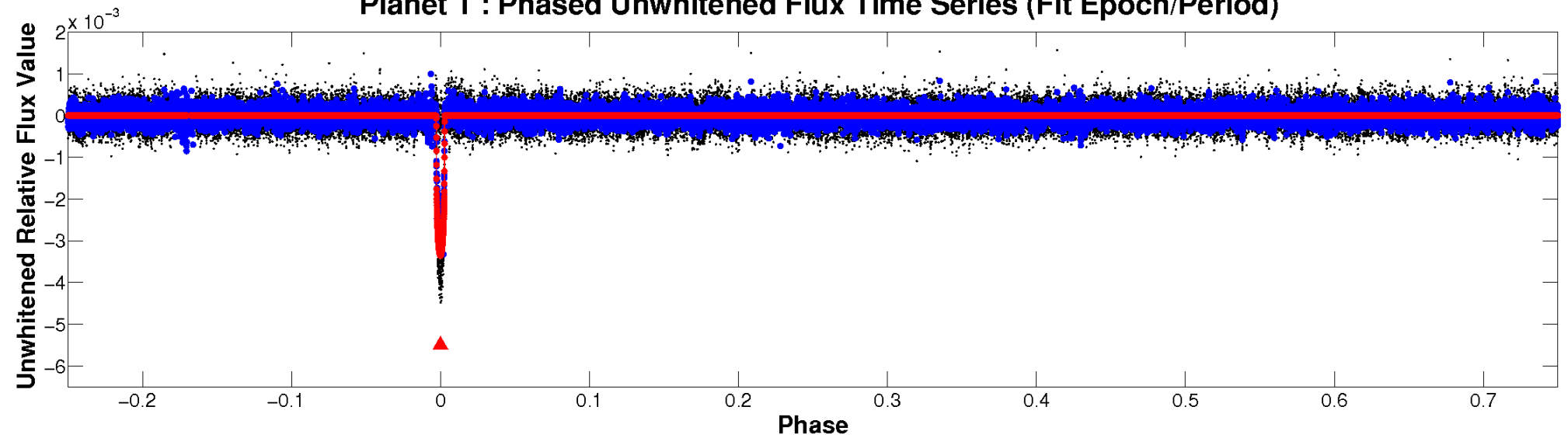
ALT Odd/Even

TCE 005359568-01

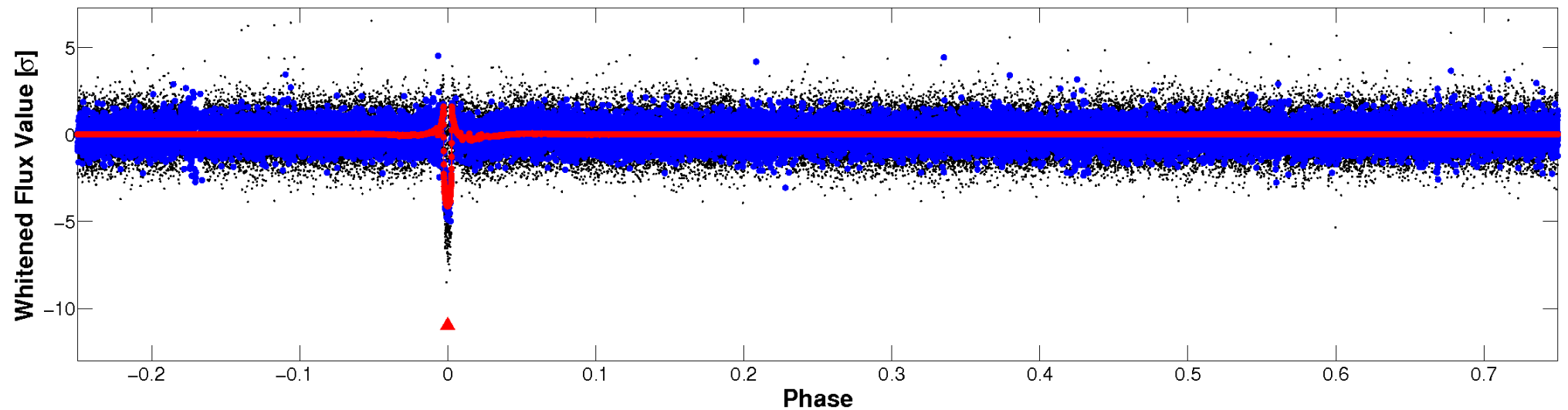


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)



Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



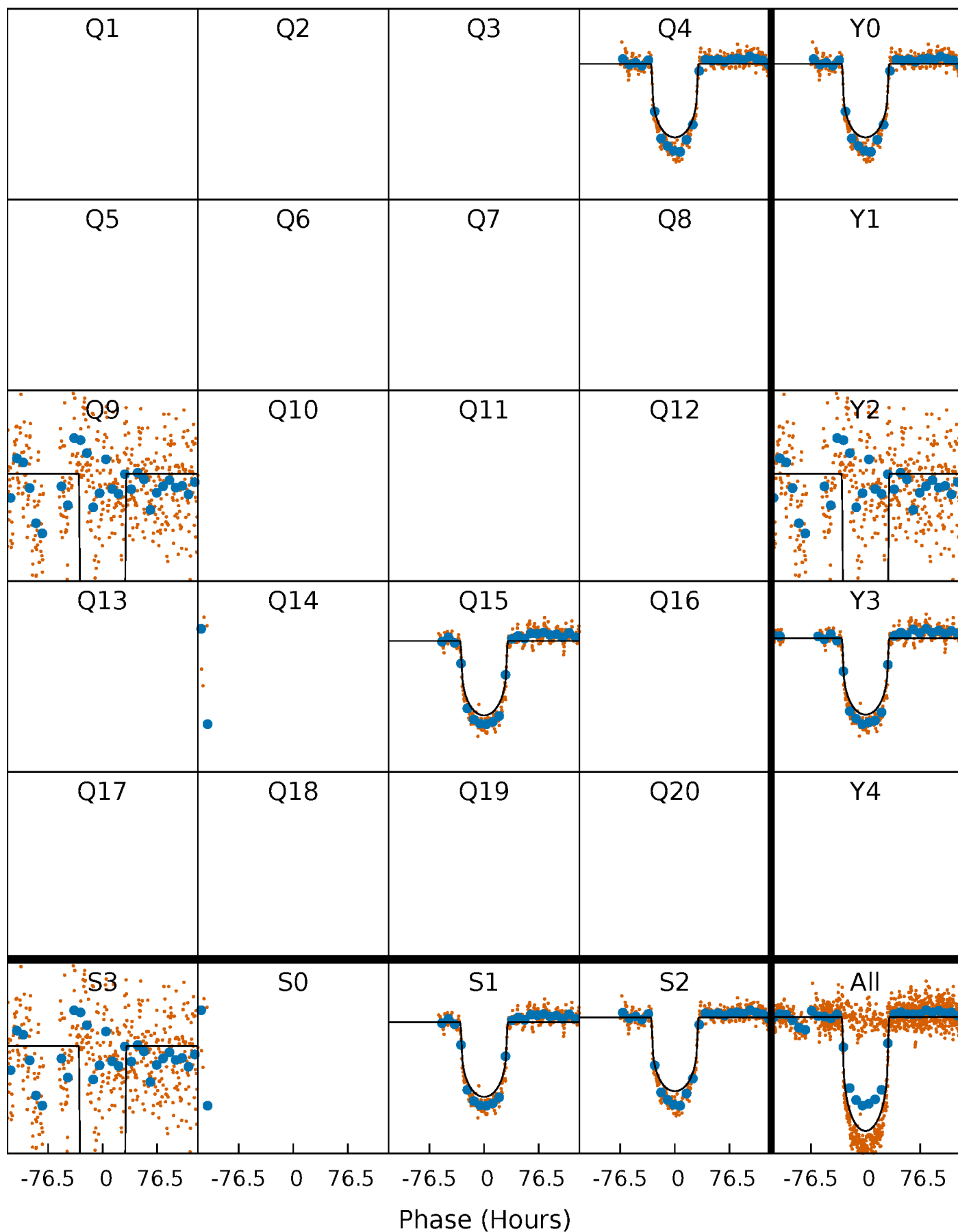
PDC Quarter-Phased Transit Curves

TCE 005359568-01 P=486.056318 Days $T_0=404.044101$ (BKJD)



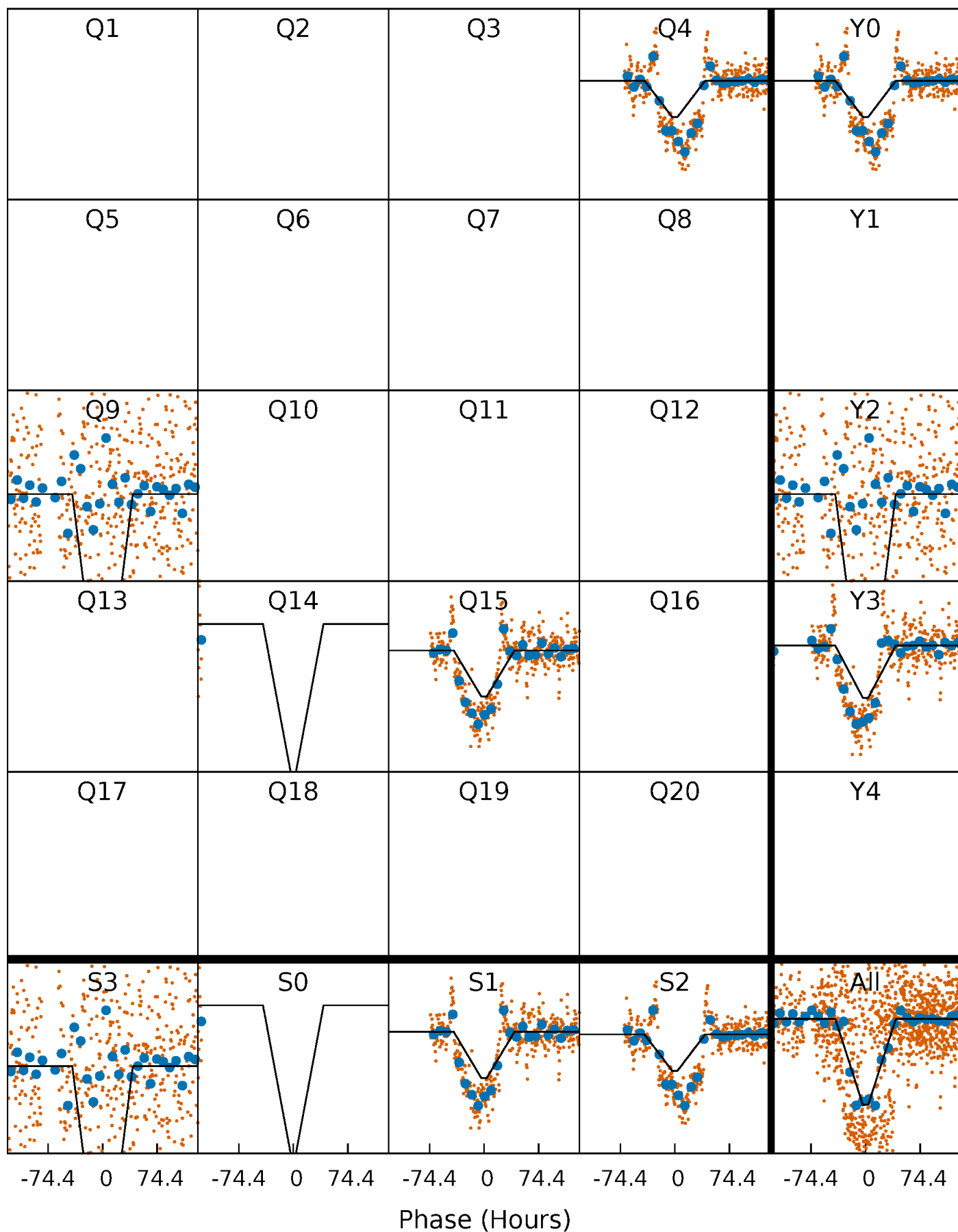
DV Quarter-Phased Transit Curves

TCE 005359568-01 P=486.056318 Days $T_0=404.044101$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

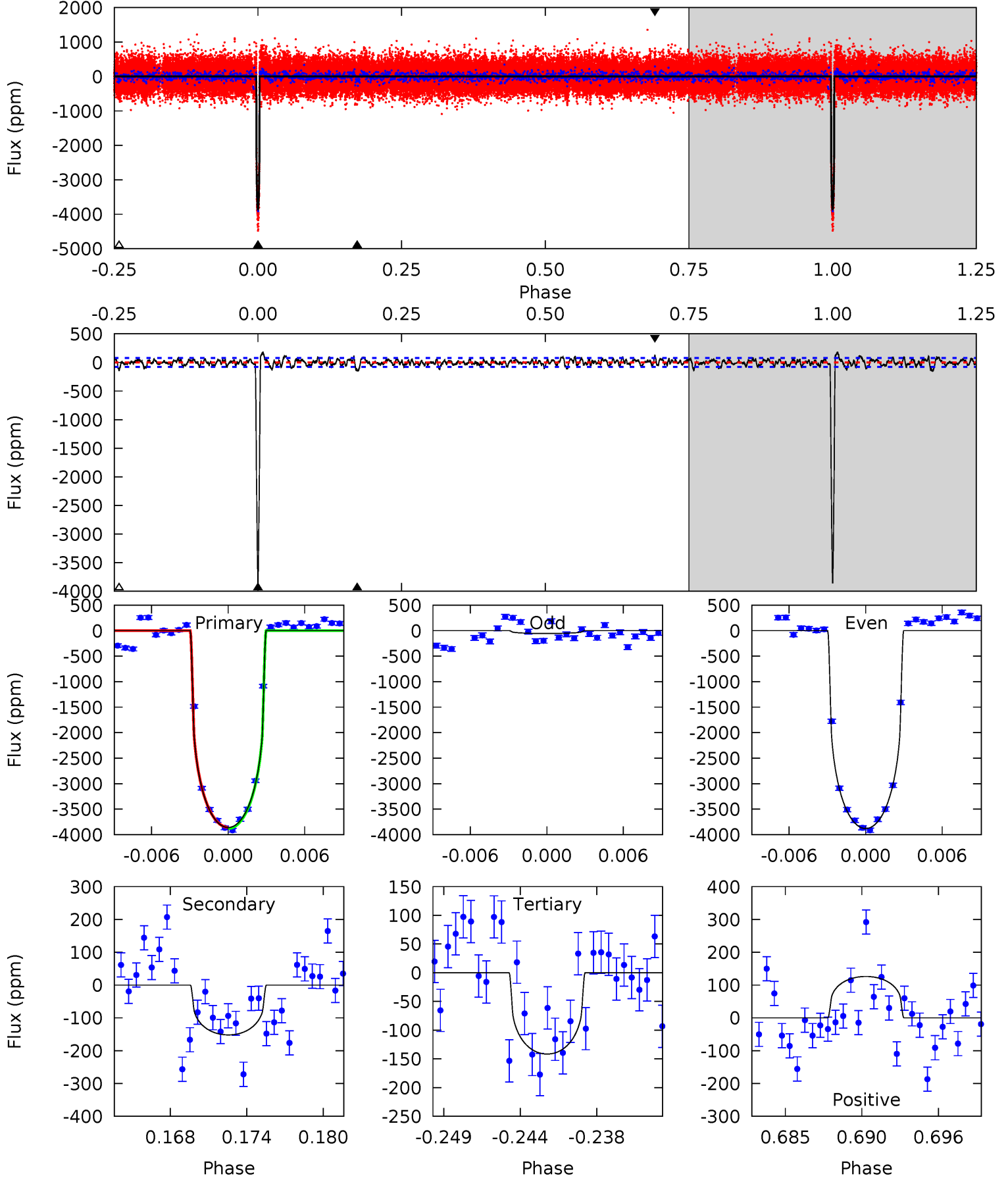
TCE 005359568-01 P=486.427707 Days $T_0=403.694614$ (BKJD)



DV Model-Shift Uniqueness Test

005359568-01, P = 486.056318 Days, E = 404.044101 Days

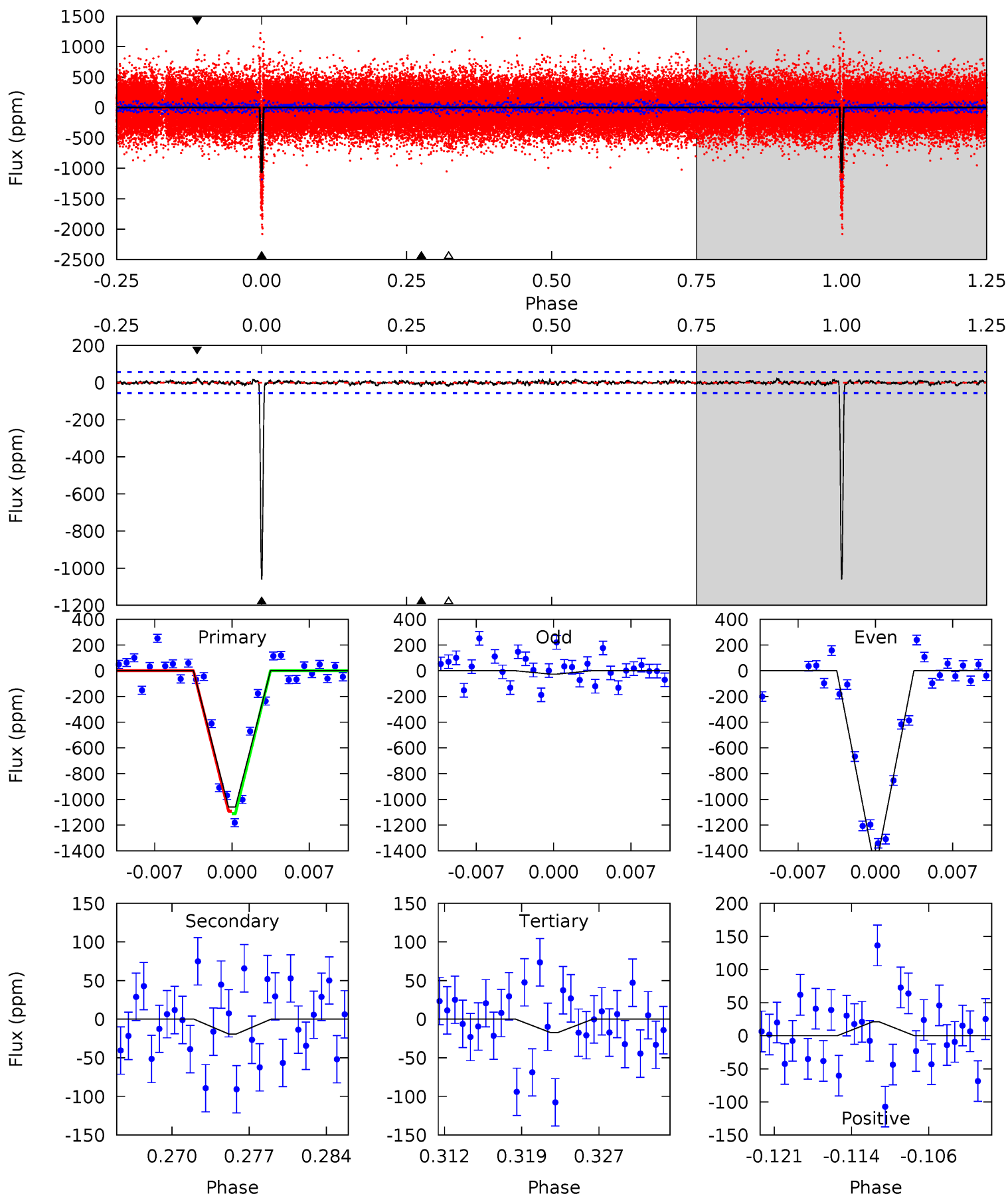
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
252.7	9.96	9.28	8.26	5.13	2.76	2.74	243.4	244.5	0.68	1.69	141.6	0.68	0.04	0



Alt Model-Shift Uniqueness Test

005359568-01, P = 486.427707 Days, E = 403.694614 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
95.6	1.75	1.57	1.89	5.09	2.69	0.49	94.0	93.7	0.18	-0.14	61.6	0.72	0.02	0.85



Stellar Parameters For KIC 005359568

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4926^{+51}_{-87}	$3.091^{+0.036}_{-0.027}$	$0.020^{+0.100}_{-0.200}$	$5.960^{+0.362}_{-1.014}$	$1.599^{+0.193}_{-0.449}$	$0.011^{+0.003}_{-0.001}$
	+1%/-2%	+1%/-1%	+500%/-1000%	+6%/-17%	+12%/-28%	+25%/-9%
Source	SPE74	AST9	SPE74	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005359568-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-152 ± 15	$33.88^{+1.48}_{-2.55}$	621^{+12}_{-14}	3019^{+57}_{-57}	151^{+20}_{-19}
Alt.	-19 ± 11	$19.25^{+1.23}_{-1.73}$	620^{+12}_{-13}	2652^{+173}_{-258}	57^{+36}_{-32}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

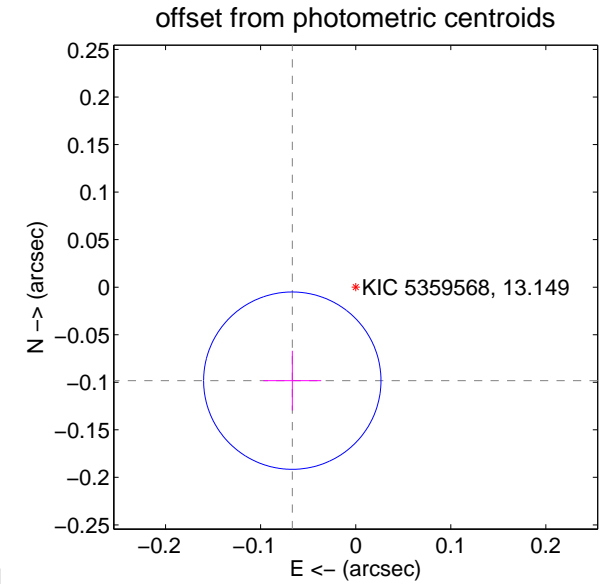
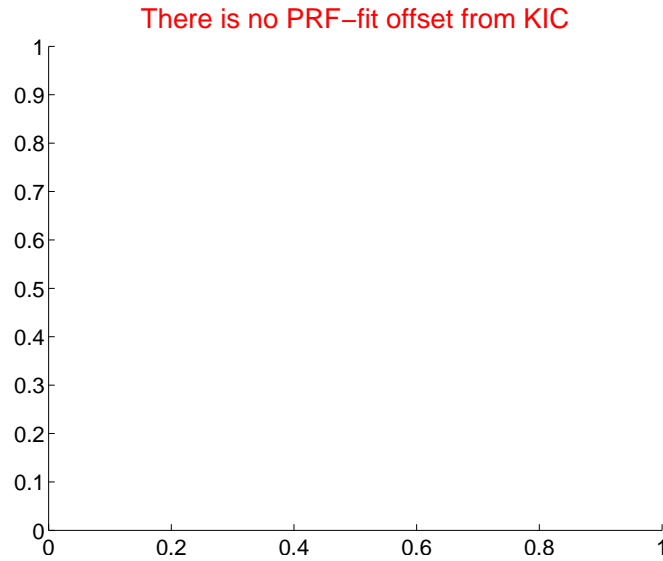
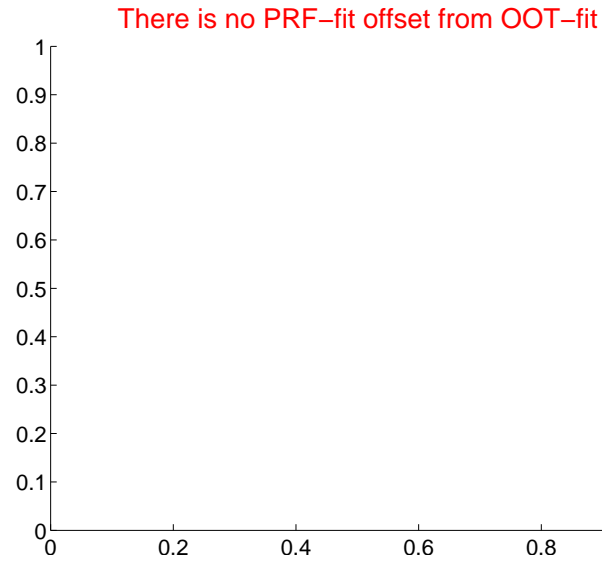
DV Centroid Data

Supplemental centroid analysis for 005359568-01. Kepler magnitude: 13.15. Transit SNR 67.79

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	0.12 ± 0.03	3.82	0.07 ± 0.03	-0.10 ± 0.03



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



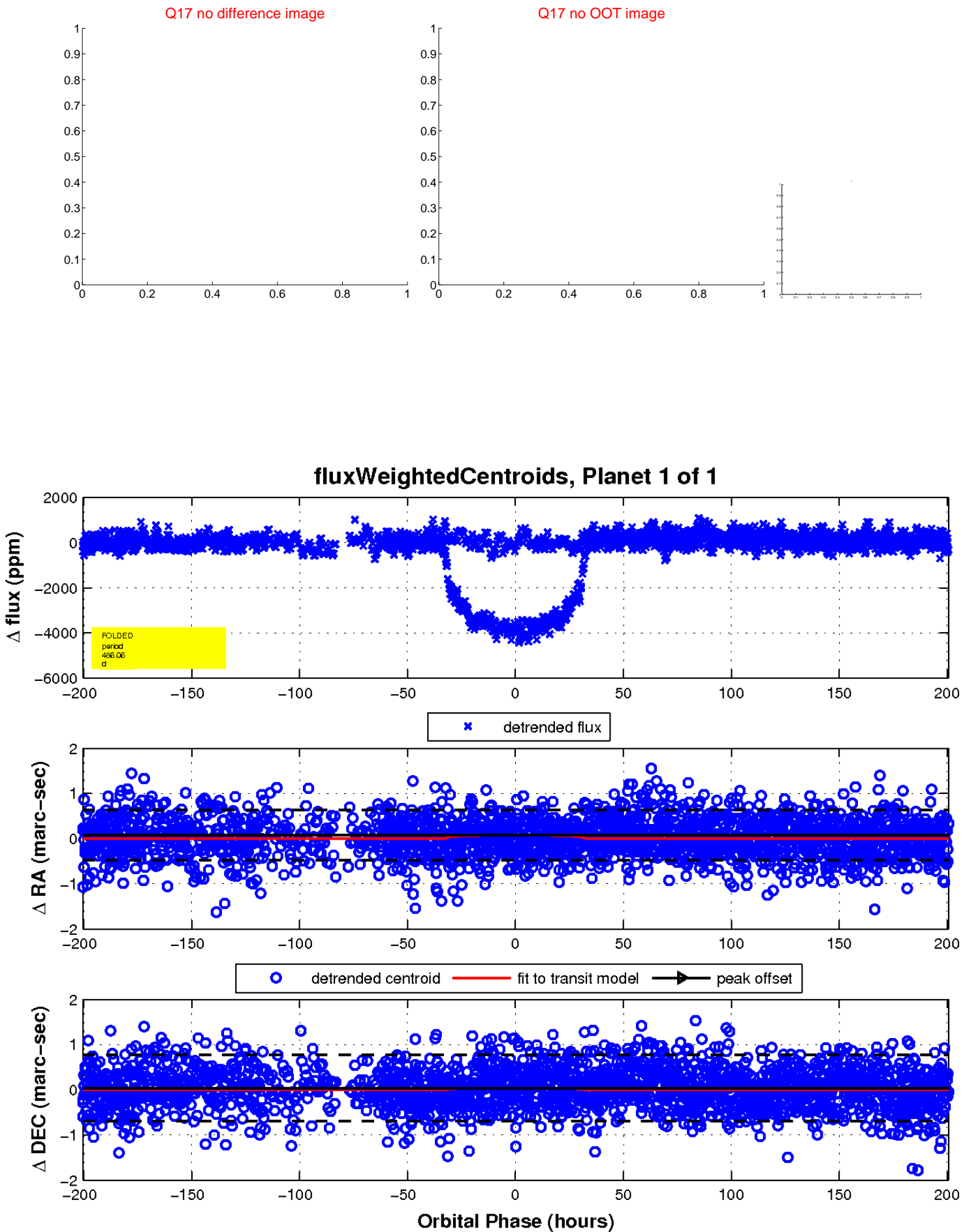
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

