

KIC 006600492

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})
006600492-01	OBS	8125.01	312.582371	325.474459	462.2	16.655	10.0	9.9	0.93	5818	2.35	1.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006600492-01	OBS	FP	0.03	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.

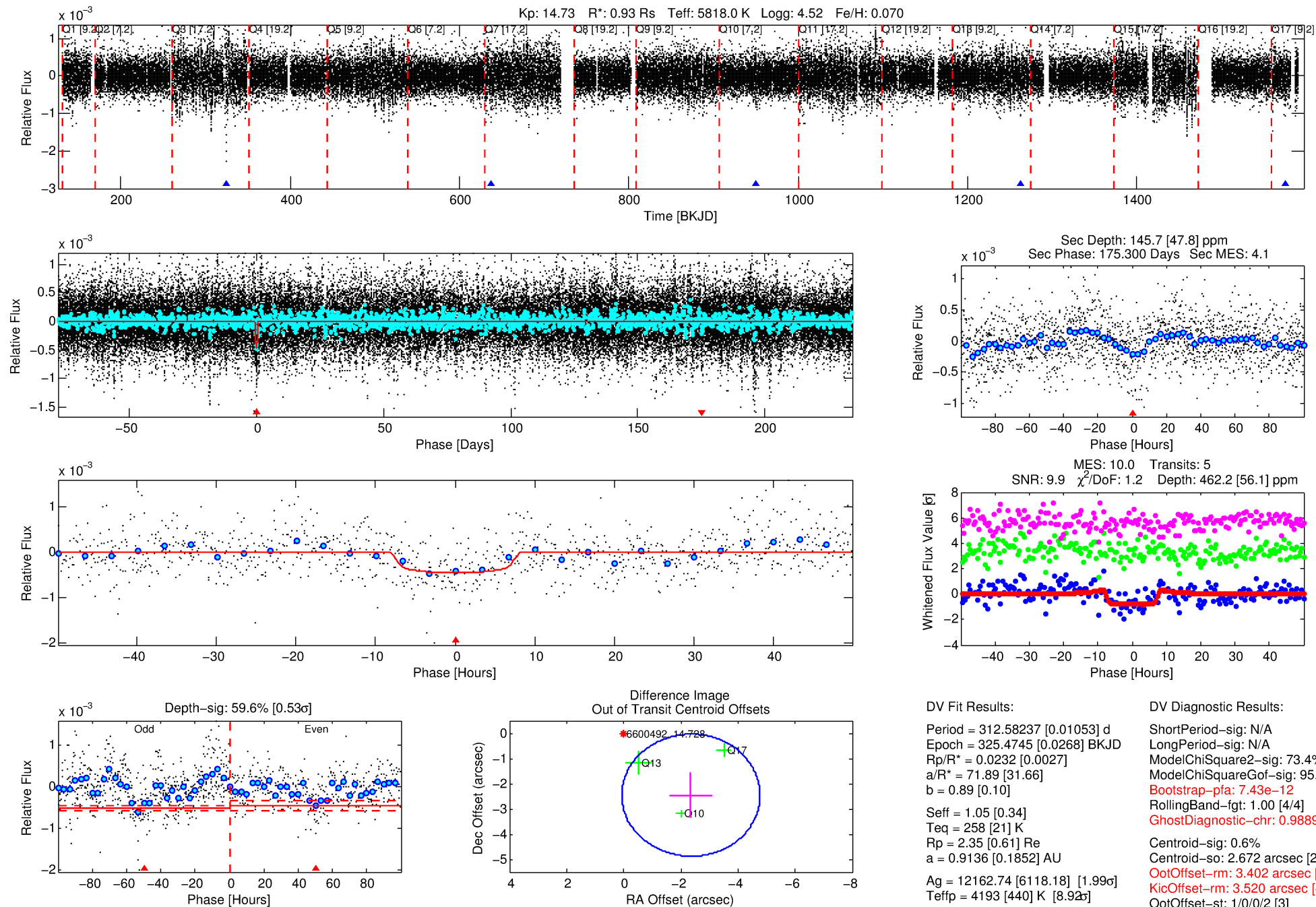
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006600492-01

No Significant Match Found

DV One-Page Summary

KIC: 6600492 Candidate: 1 of 1 Period: 312.582 d



DV Fit Results:

Period = 312.58237 [0.01053] d
Epoch = 325.4745 [0.0268] BKJD
Rp/R* = 0.0232 [0.0027]
a/R* = 71.89 [31.66]
b = 0.89 [0.10]
Seff = 1.05 [0.34]
Teff = 258 [21] K
Rp = 2.35 [0.61] Re
a = 0.9136 [0.1852] AU
Ag = 12162.74 [6118.18] [1.99σ]
Teffp = 4193 [440] K [8.92σ]

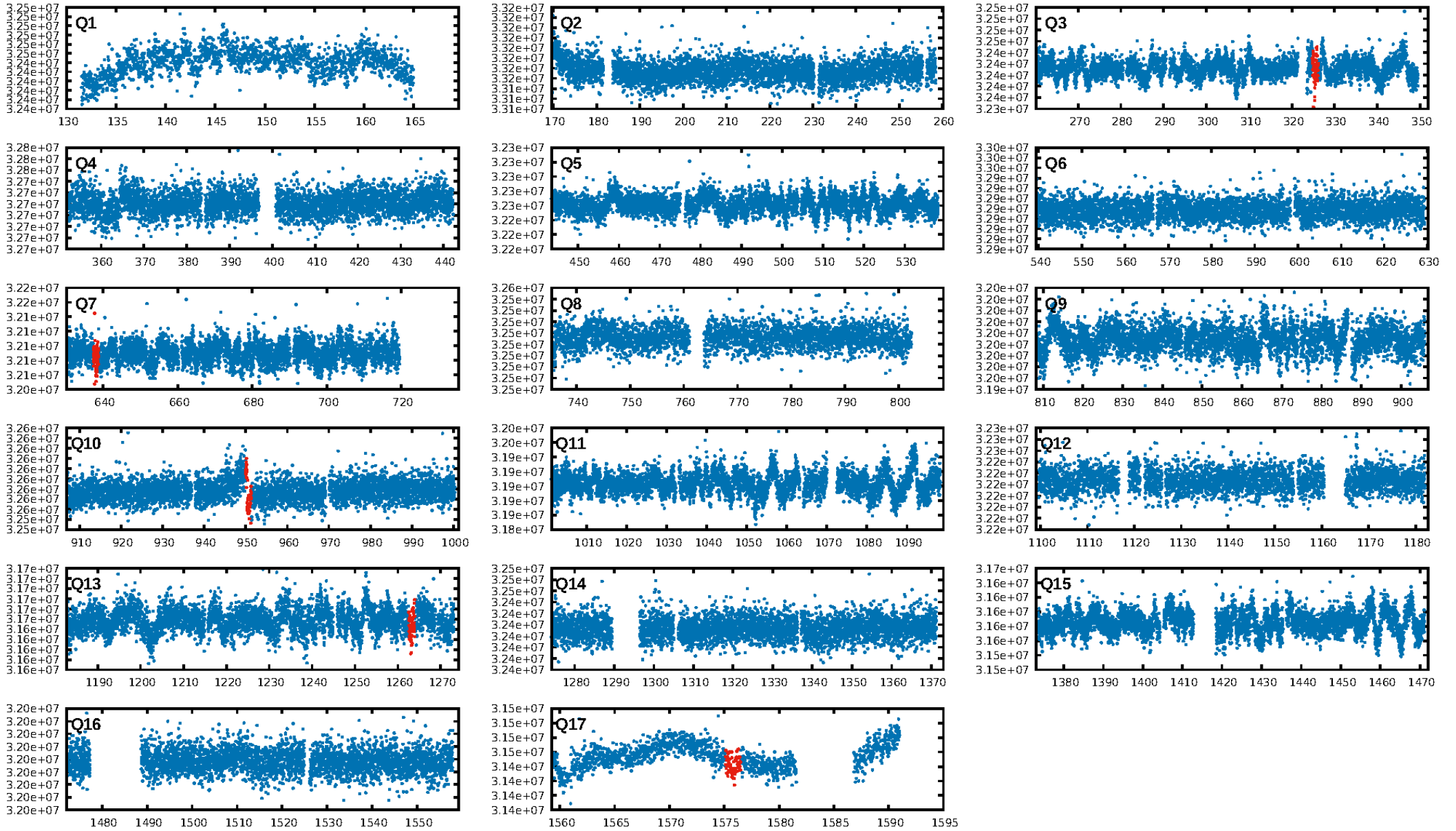
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 73.4%
ModelChiSquareGof-sig: 95.8%
Bootstrap-pfa: 7.43e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.9889
Centroid-sig: 0.6%
Centroid-so: 2.672 arcsec [2.01σ]
OotOffset-rm: 3.402 arcsec [4.22σ]
KicOffset-rm: 3.520 arcsec [4.67σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [4/4]

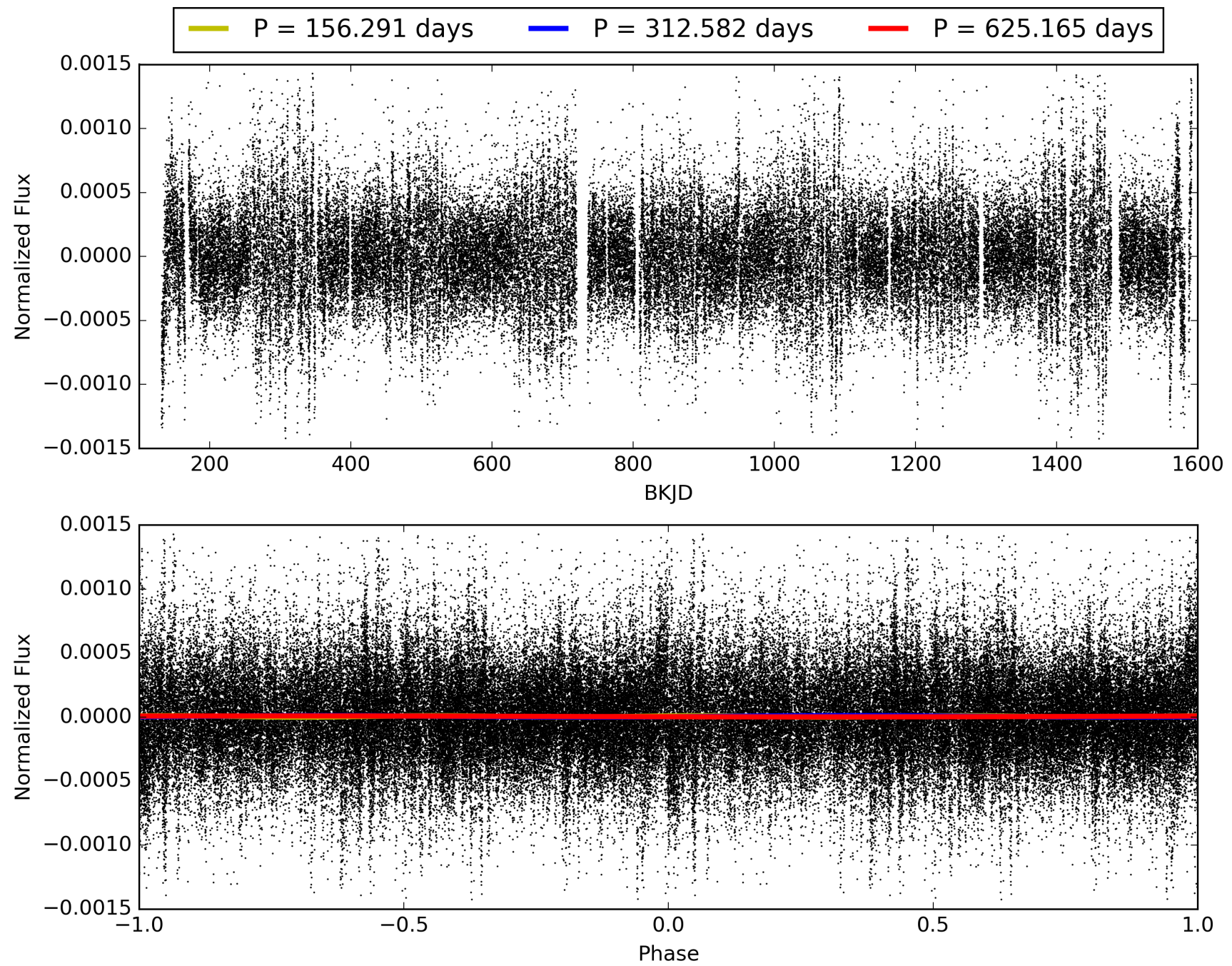
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 16:50:10 Z

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

TCE 006600492-01, PDC Light Curves

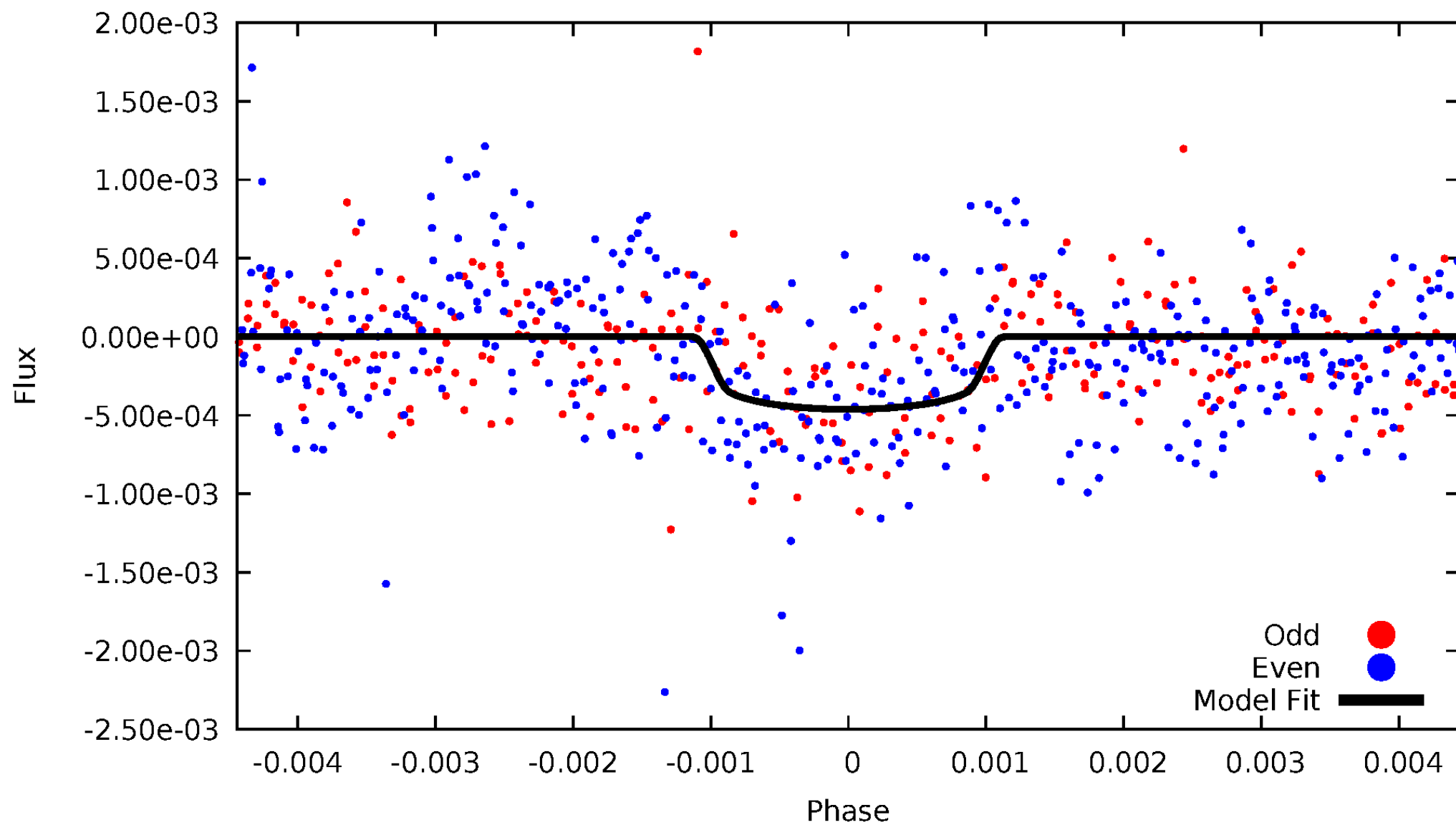


TCE 006600492-01



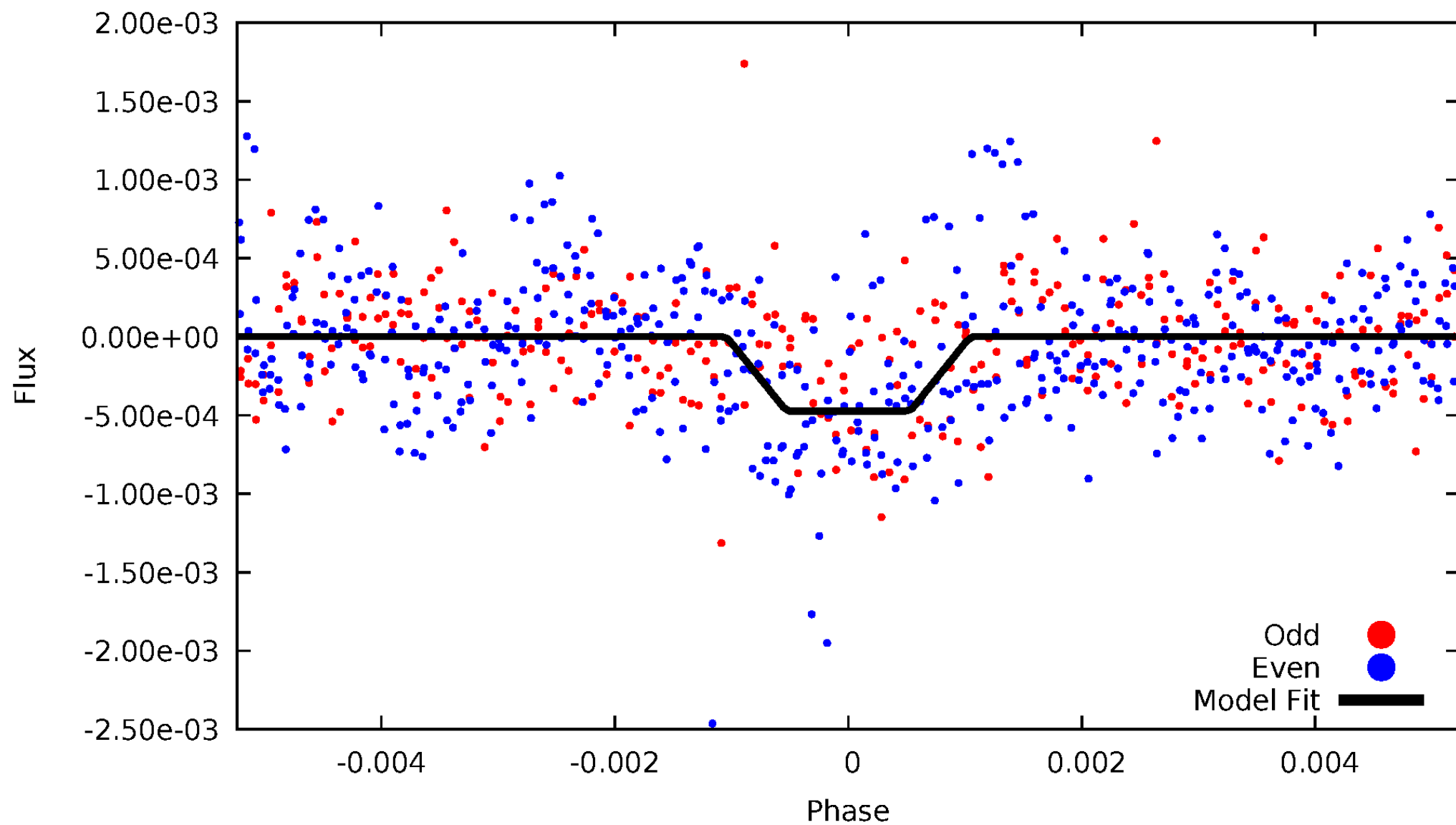
DV Odd/Even

TCE 006600492-01



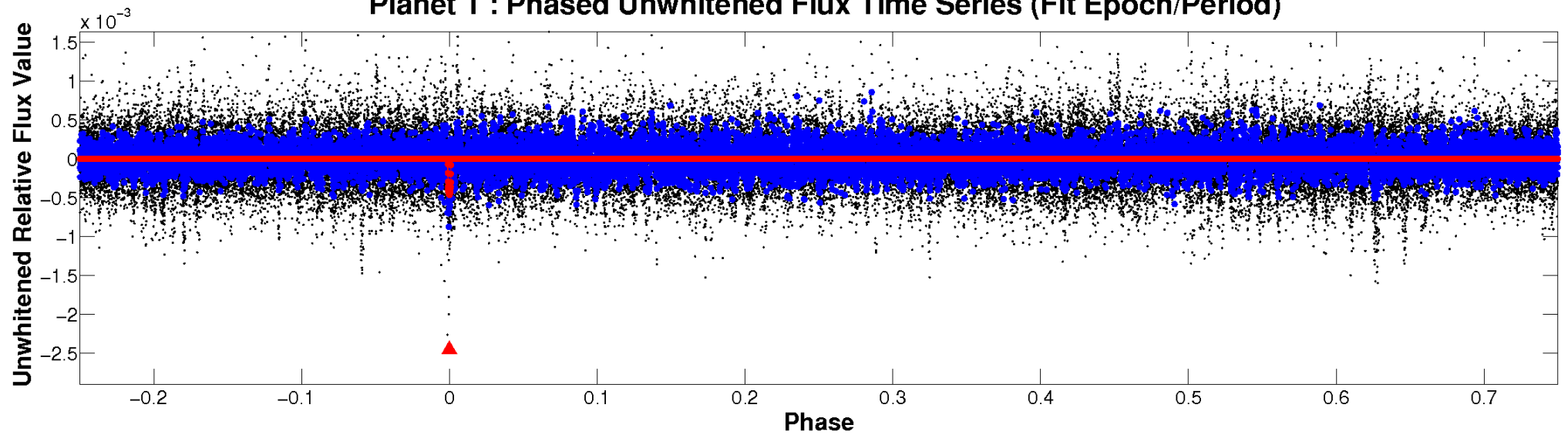
ALT Odd/Even

TCE 006600492-01

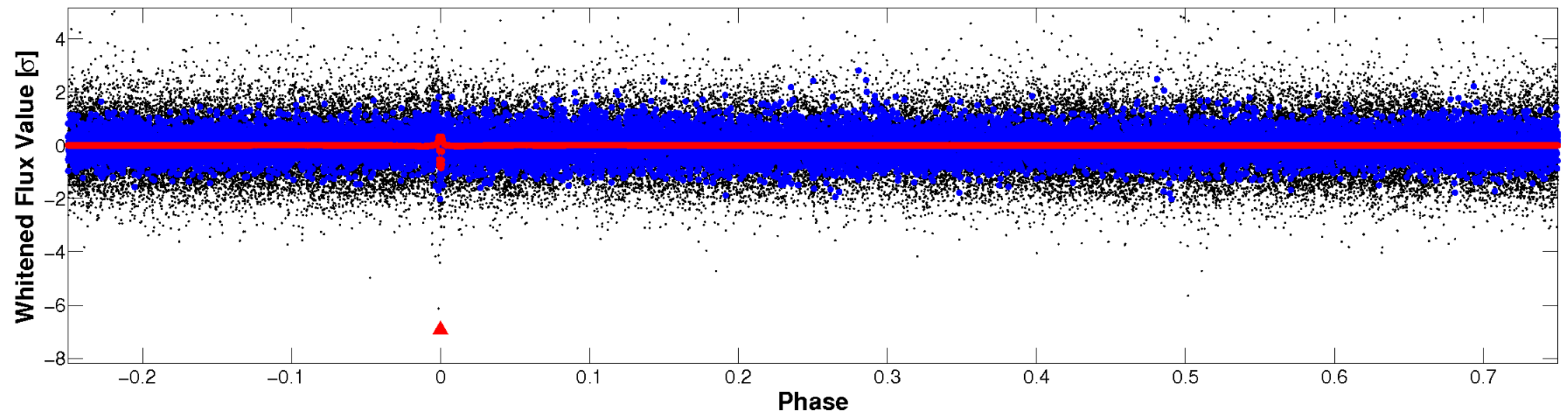


Non-Whitened Vs. Whitened Light Curve

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

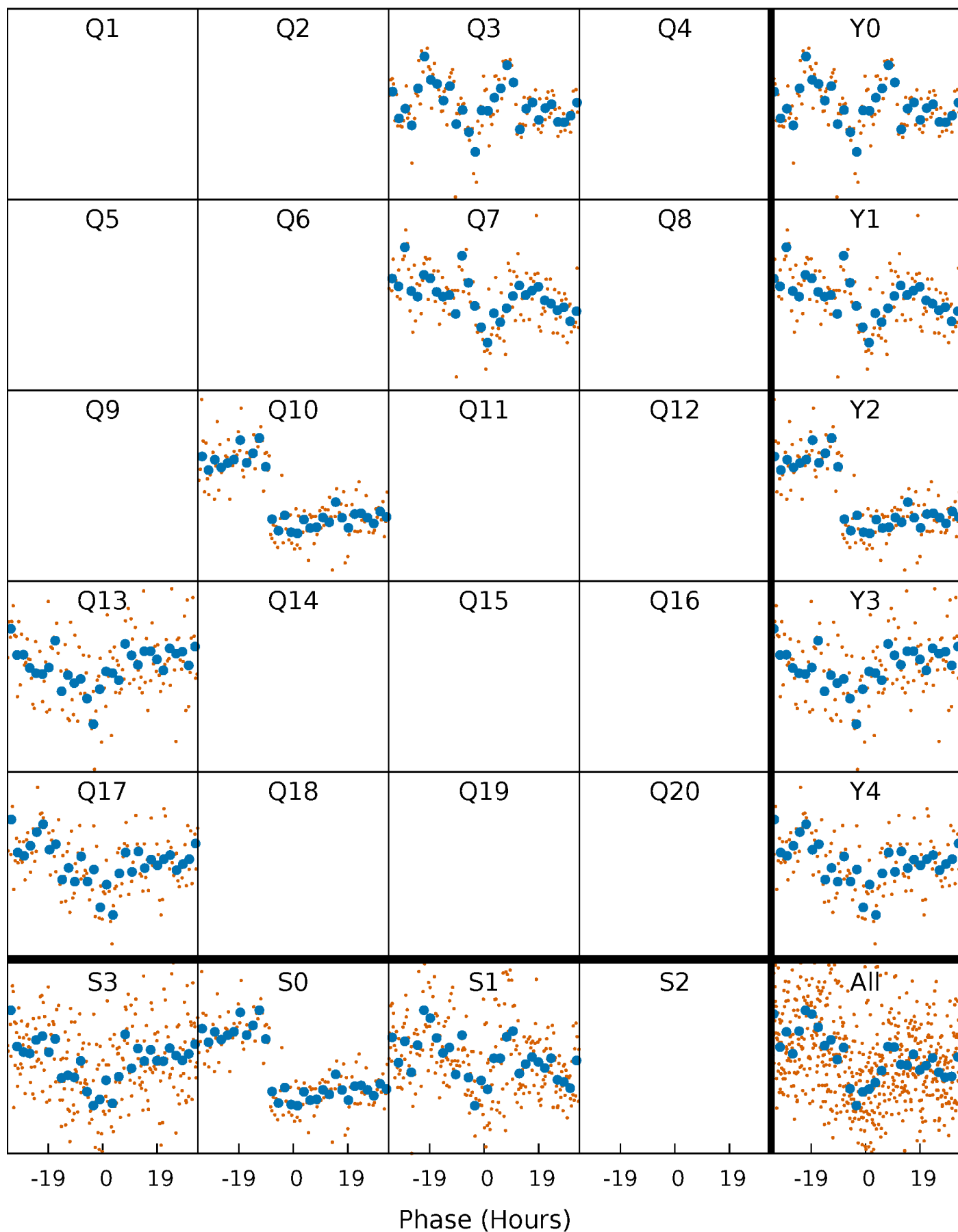


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



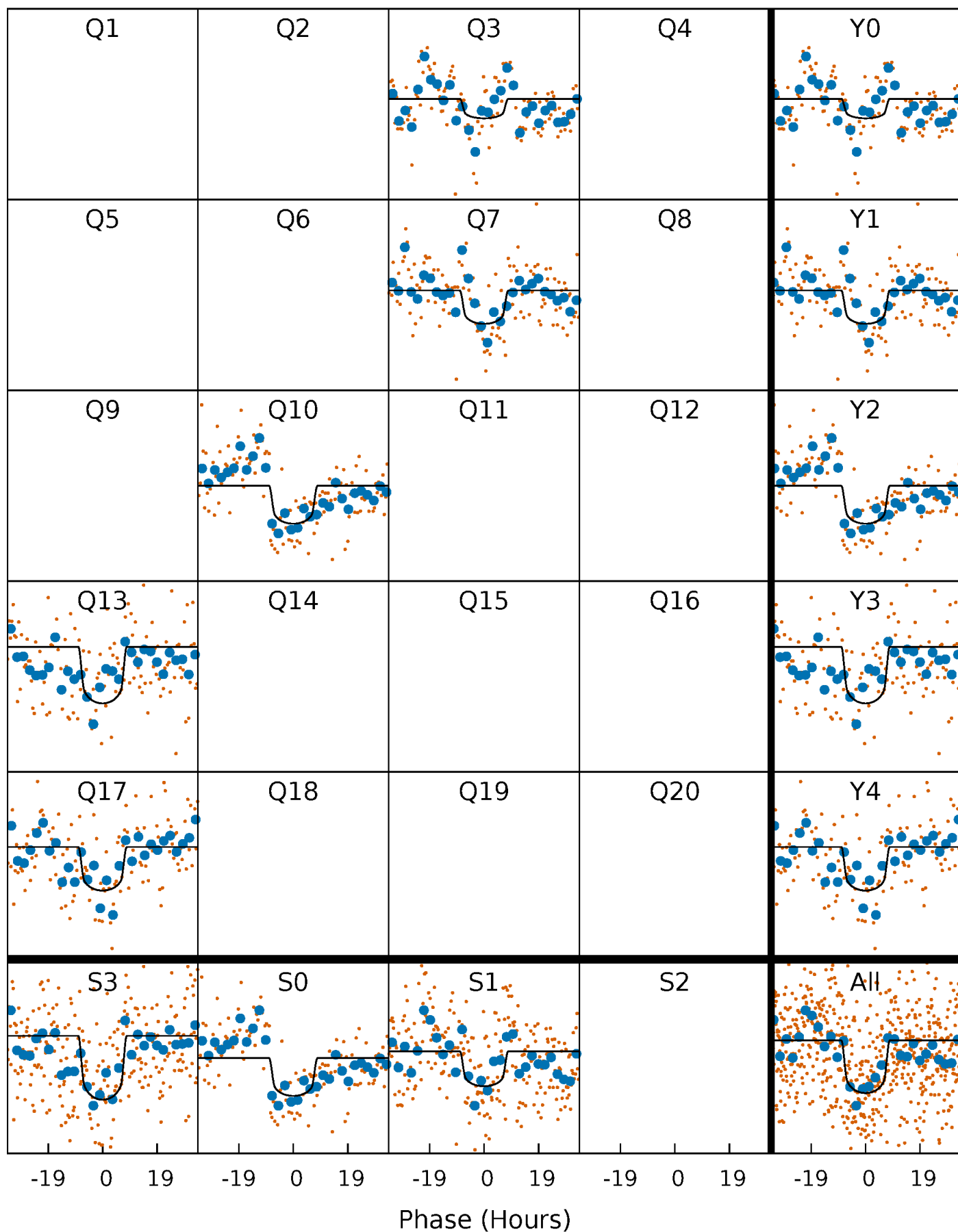
PDC Quarter-Phased Transit Curves

TCE 006600492-01 P=312.582371 Days $T_0=325.474459$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006600492-01 $P=312.582371$ Days $T_0=325.474459$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

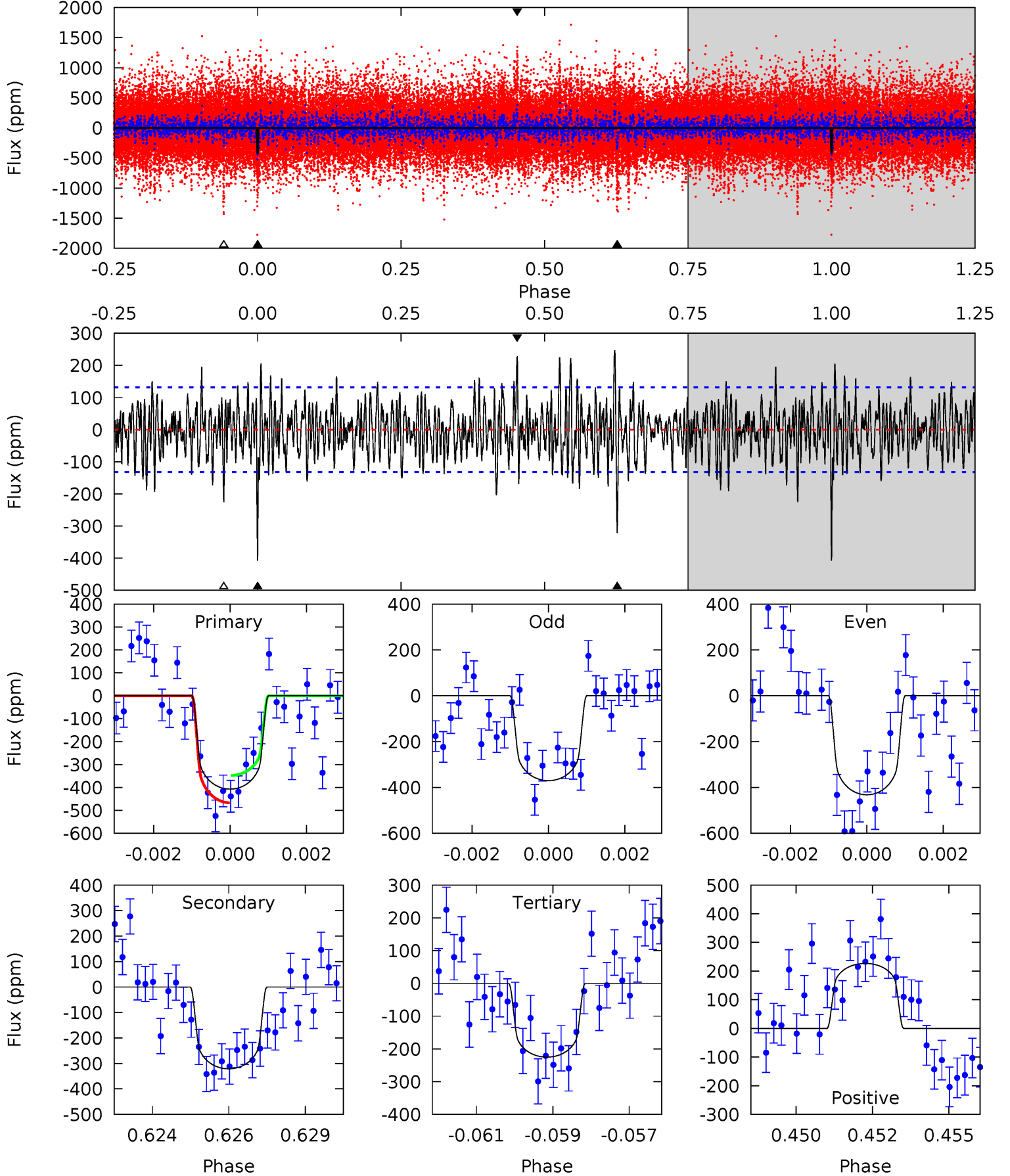
TCE 006600492-01 $P=312.572167$ Days $T_0=325.421443$ (BKJD)



DV Model-Shift Uniqueness Test

006600492-01, $P = 312.582371$ Days, $E = 12.892088$ Days

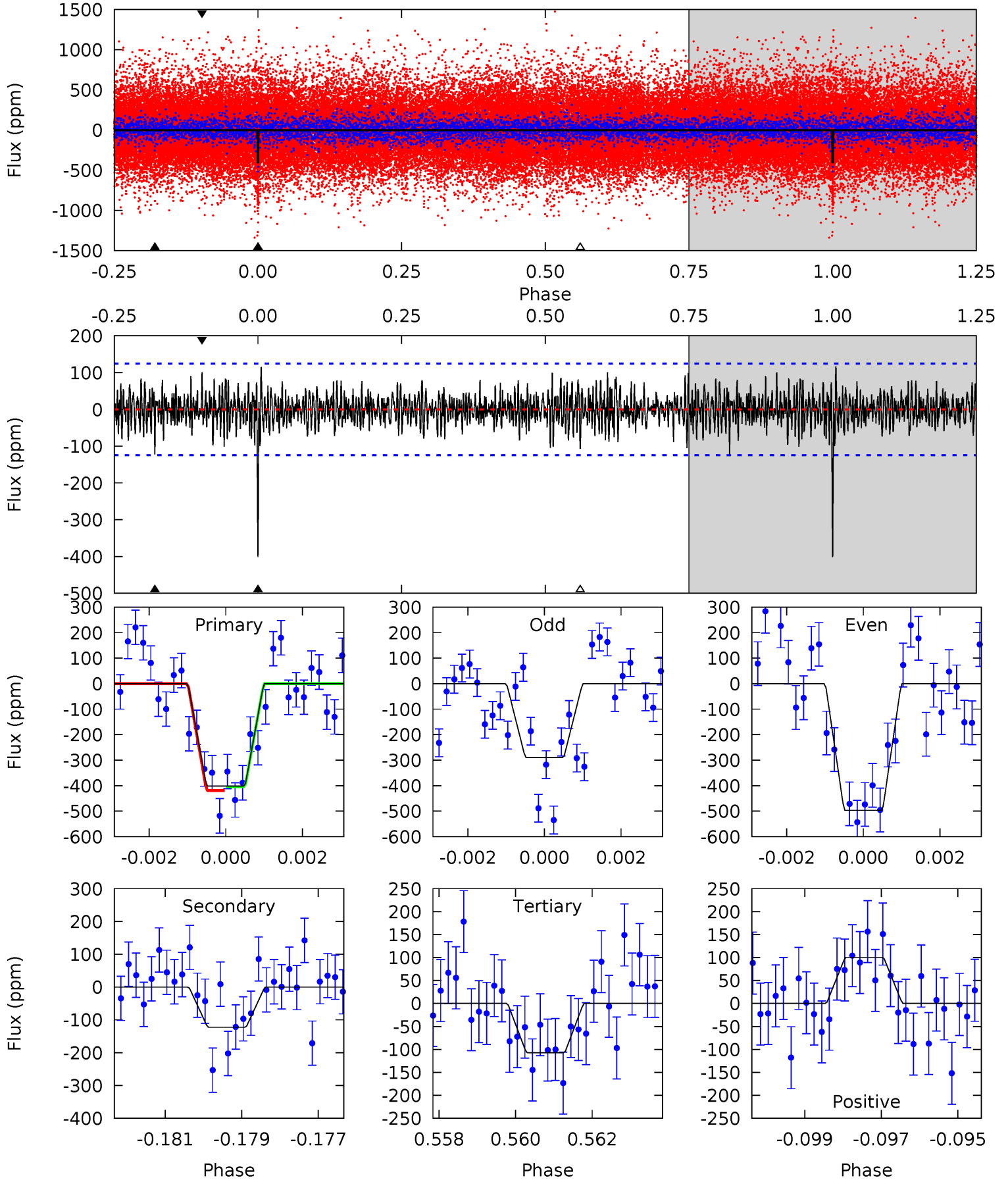
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.4	12.9	9.06	9.13	5.30	3.05	2.76	7.33	7.26	3.86	3.79	1.22	1.00	0.38	2.39



Alt Model-Shift Uniqueness Test

006600492-01, $P = 312.572167$ Days, $E = 12.849276$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	5.23	4.58	4.29	5.32	3.07	1.45	12.6	12.8	0.66	0.95	4.35	1.12	0.22	0.32



Stellar Parameters For KIC 006600492

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5818^{+140}_{-175}	$4.523^{+0.042}_{-0.168}$	$0.070^{+0.250}_{-0.350}$	$0.925^{+0.217}_{-0.087}$	$1.039^{+0.092}_{-0.139}$	$1.852^{+0.406}_{-0.834}$
	+2%/-3%	+1%/-4%	+357%/-500%	+23%/-9%	+9%/-13%	+22%/-45%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006600492-01 / KOI 8125.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-321 ± 25	$2.41^{+0.38}_{-0.33}$	367^{+20}_{-15}	5170^{+289}_{-261}	24771^{+7266}_{-6326}
Alt.	-123 ± 23	$2.25^{+0.39}_{-0.34}$	367^{+22}_{-16}	4344^{+302}_{-251}	10437^{+4655}_{-2910}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

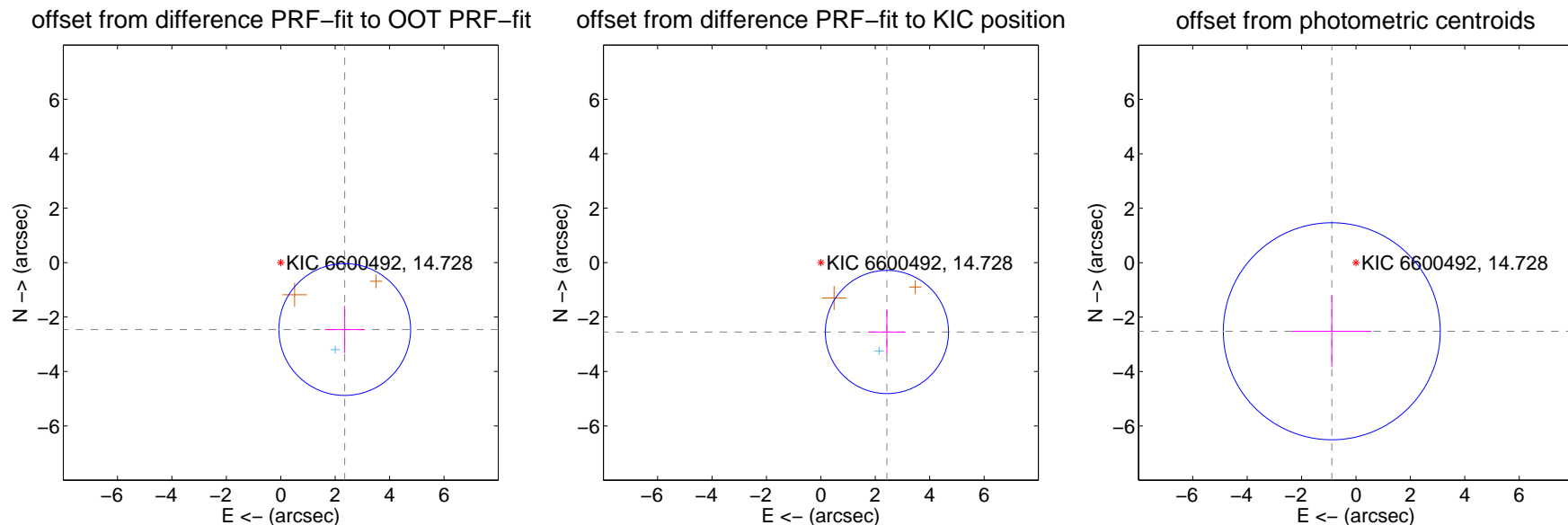
DV Centroid Data

Supplemental centroid analysis for 006600492-01. Kepler magnitude: 14.73. Transit SNR 9.94

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.402 ± 0.807	4.22	-2.351 ± 0.734	-2.458 ± 0.868
PRF-fit source offset from KIC position	3.520 ± 0.754	4.67	-2.428 ± 0.678	-2.549 ± 0.817
photometric centroid source offset	2.67 ± 1.33	2.01	0.89 ± 1.46	-2.52 ± 1.31

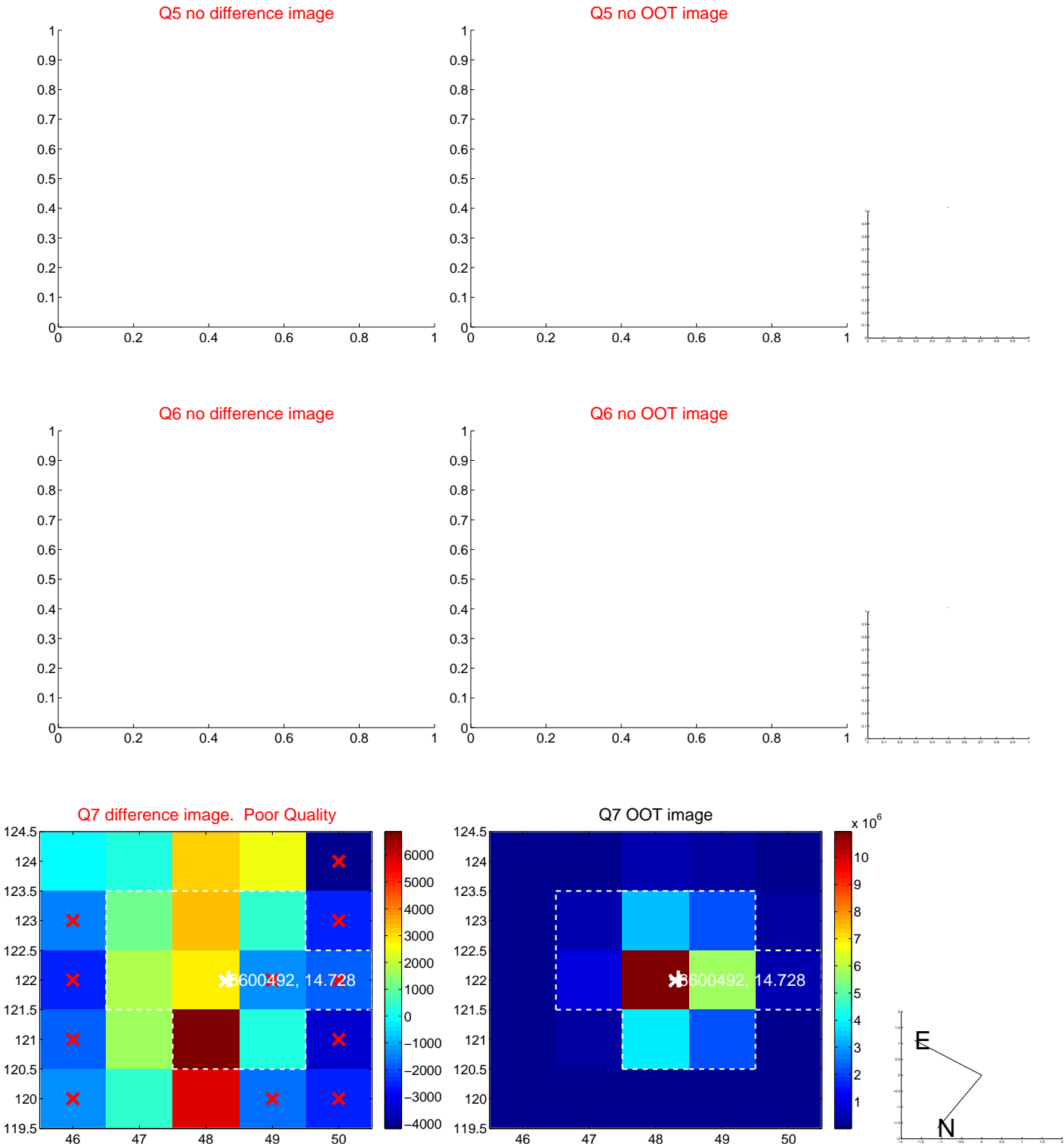


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

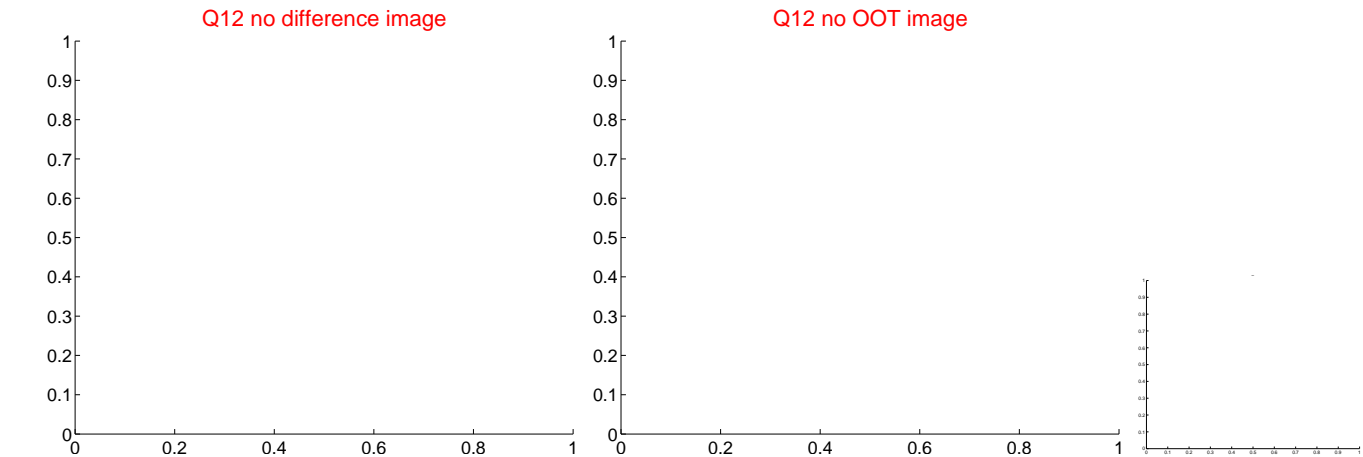
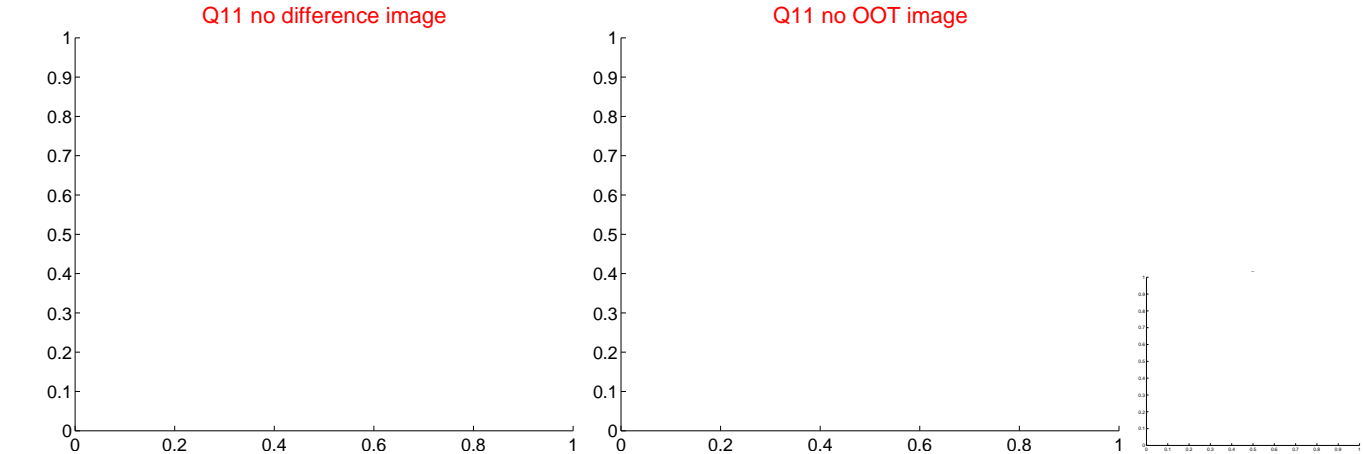
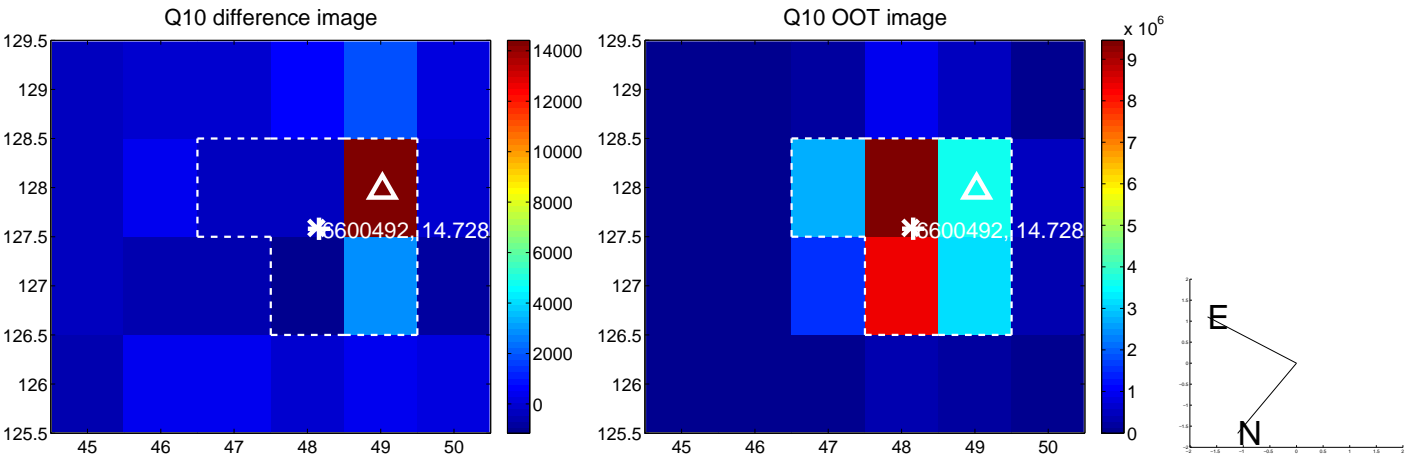
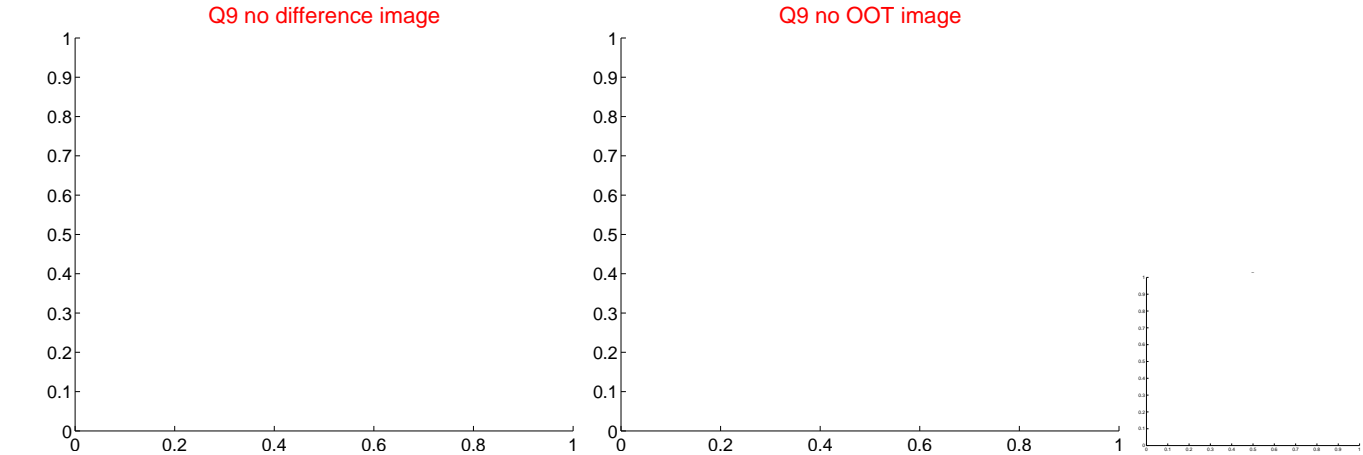
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



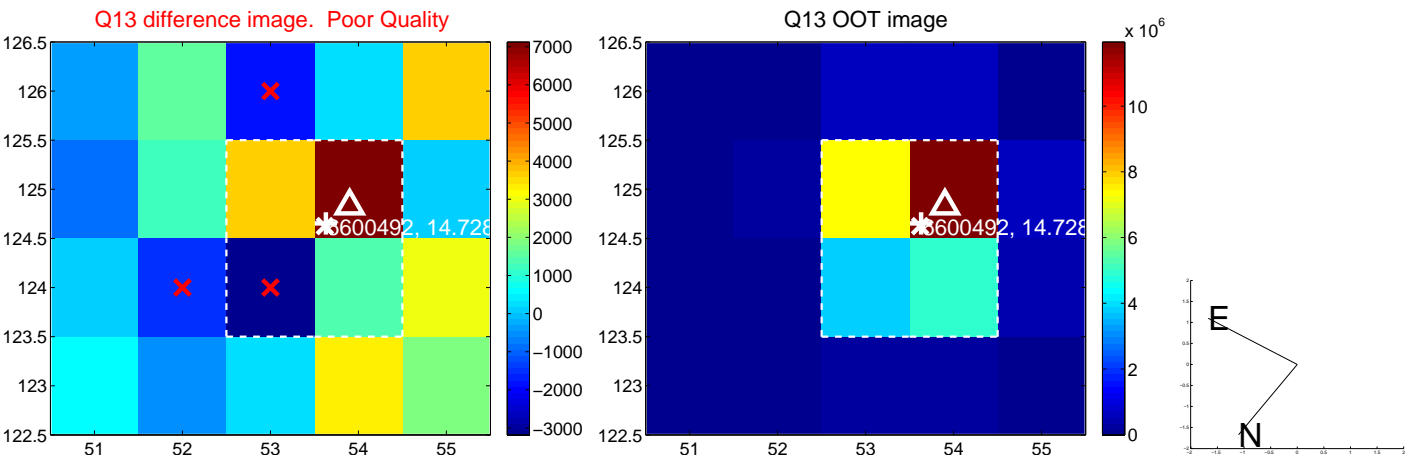
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



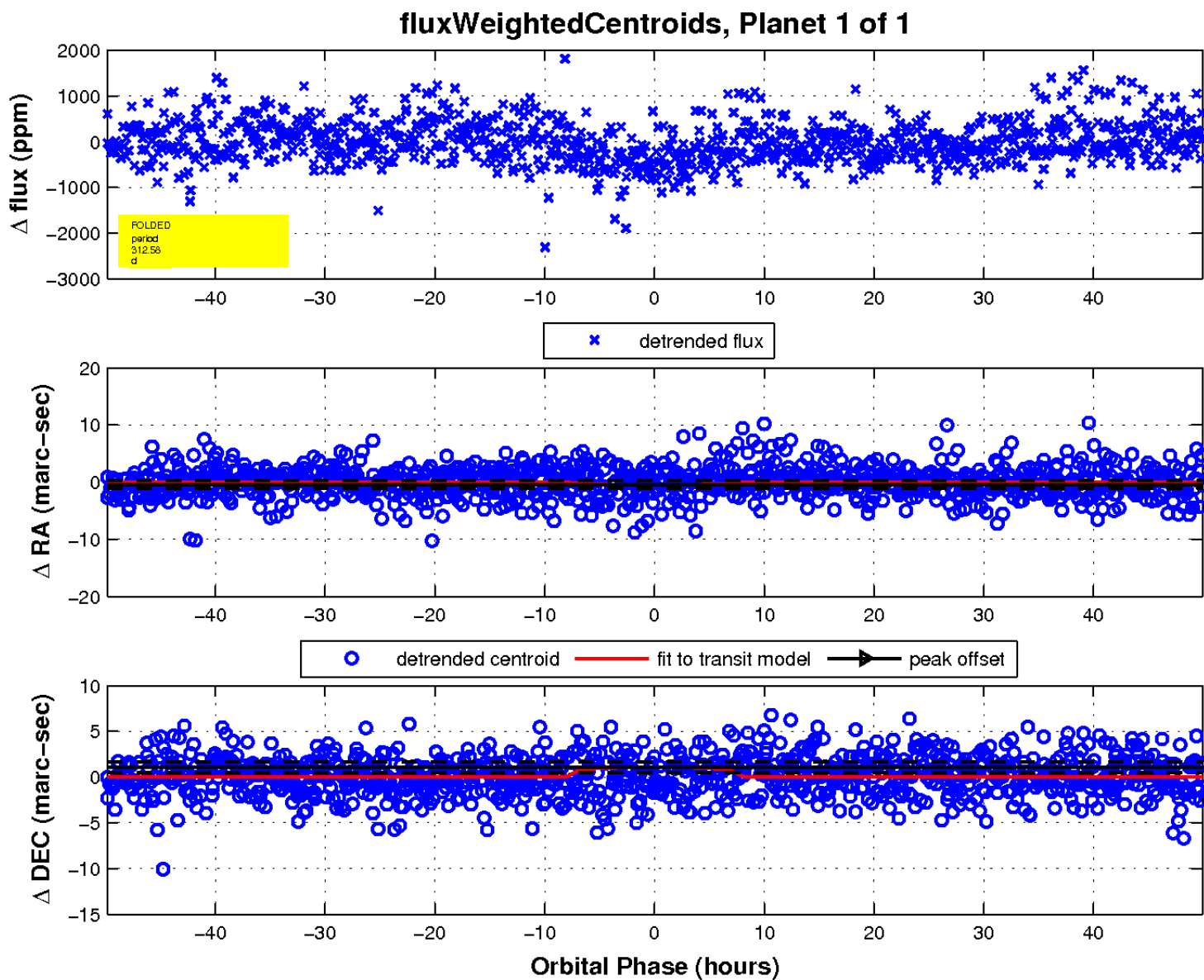
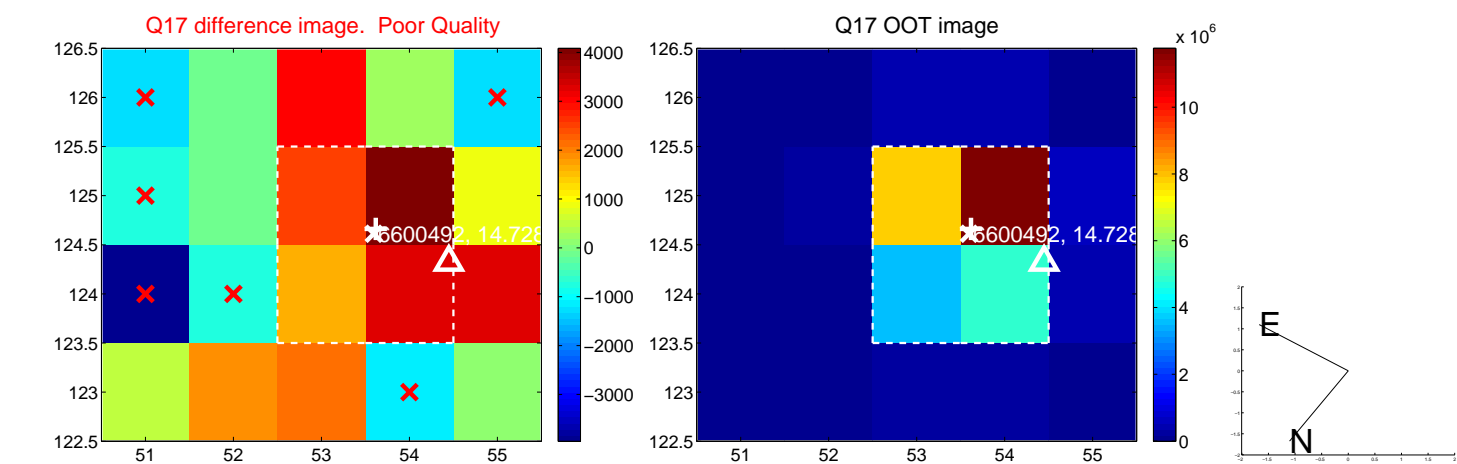
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UKIRT Image

Declination

