

KIC 010793576

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})
010793576-01	OBS	3451.01	10.907579	136.597930	184.1	3.134	9.3	10.2	1.15	6414	1.78	196.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010793576-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

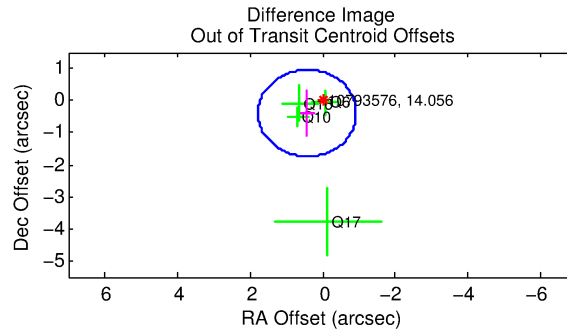
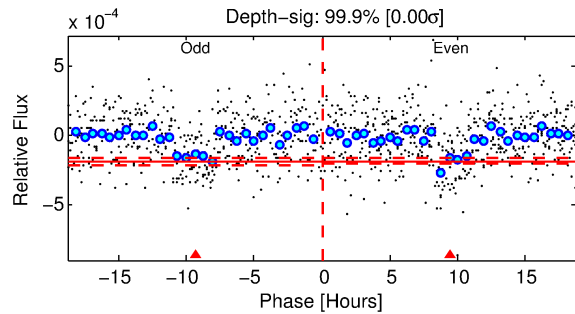
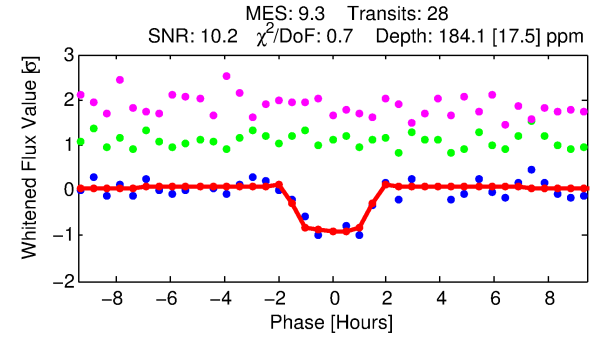
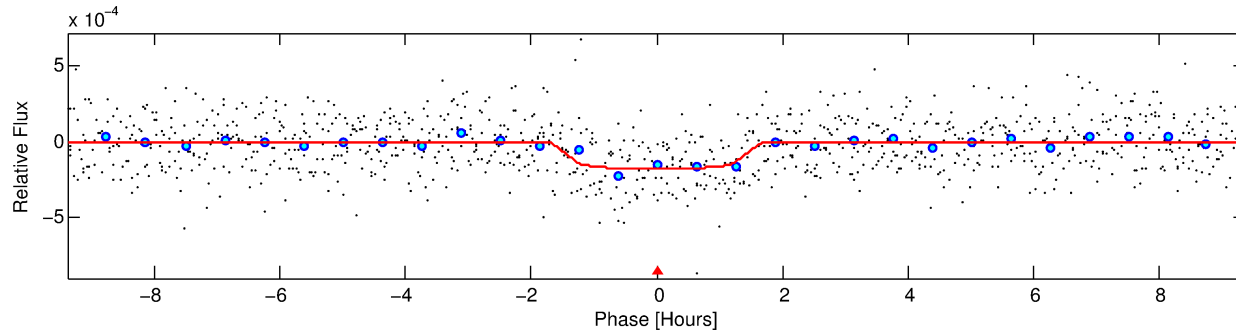
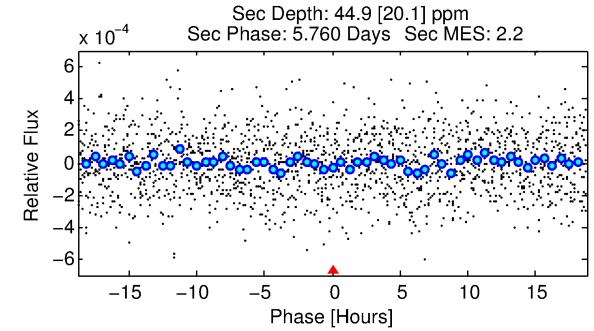
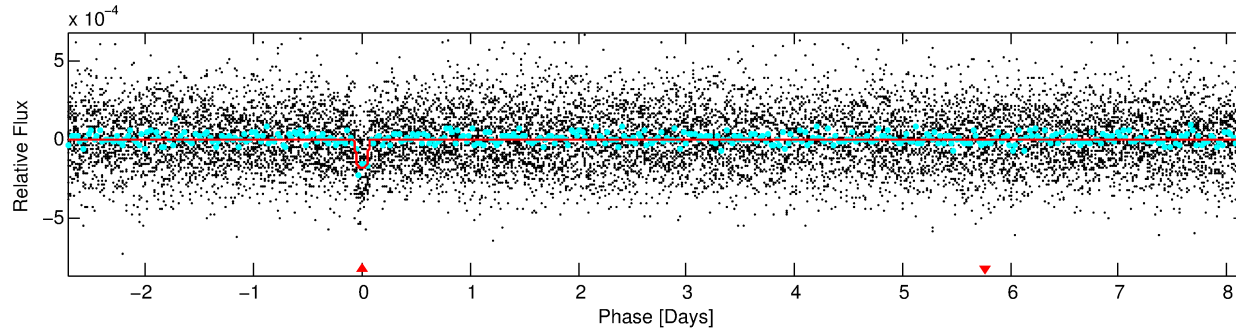
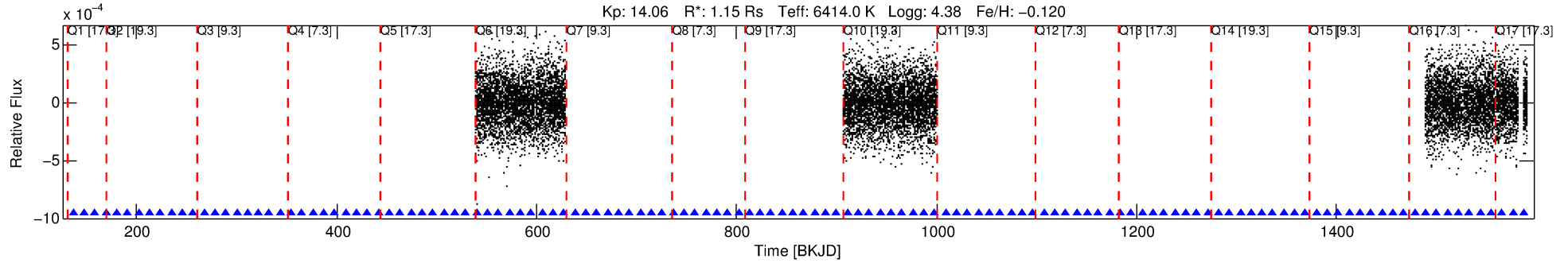
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010793576-01

No Significant Match Found

DV One-Page Summary

KIC: 10793576 Candidate: 1 of 1 Period: 10.908 d
KOI: K03451.01 Corr: 0.937



DV Fit Results:

Period = 10.90758 [0.00008] d
Epoch = 136.5979 [0.0069] BKJD
Rp/R* = 0.0143 [0.0066]
a/R* = 13.83 [35.10]
b = 0.87 [0.71]
Seff = 196.86 [81.09]
Teff = 955 [98] K
Rp = 1.78 [1.01] Re
a = 0.1007 [0.0273] AU
Ag = 78.66 [86.12] [0.90σ]
Teffp = 4398 [1140] K [3.01σ]

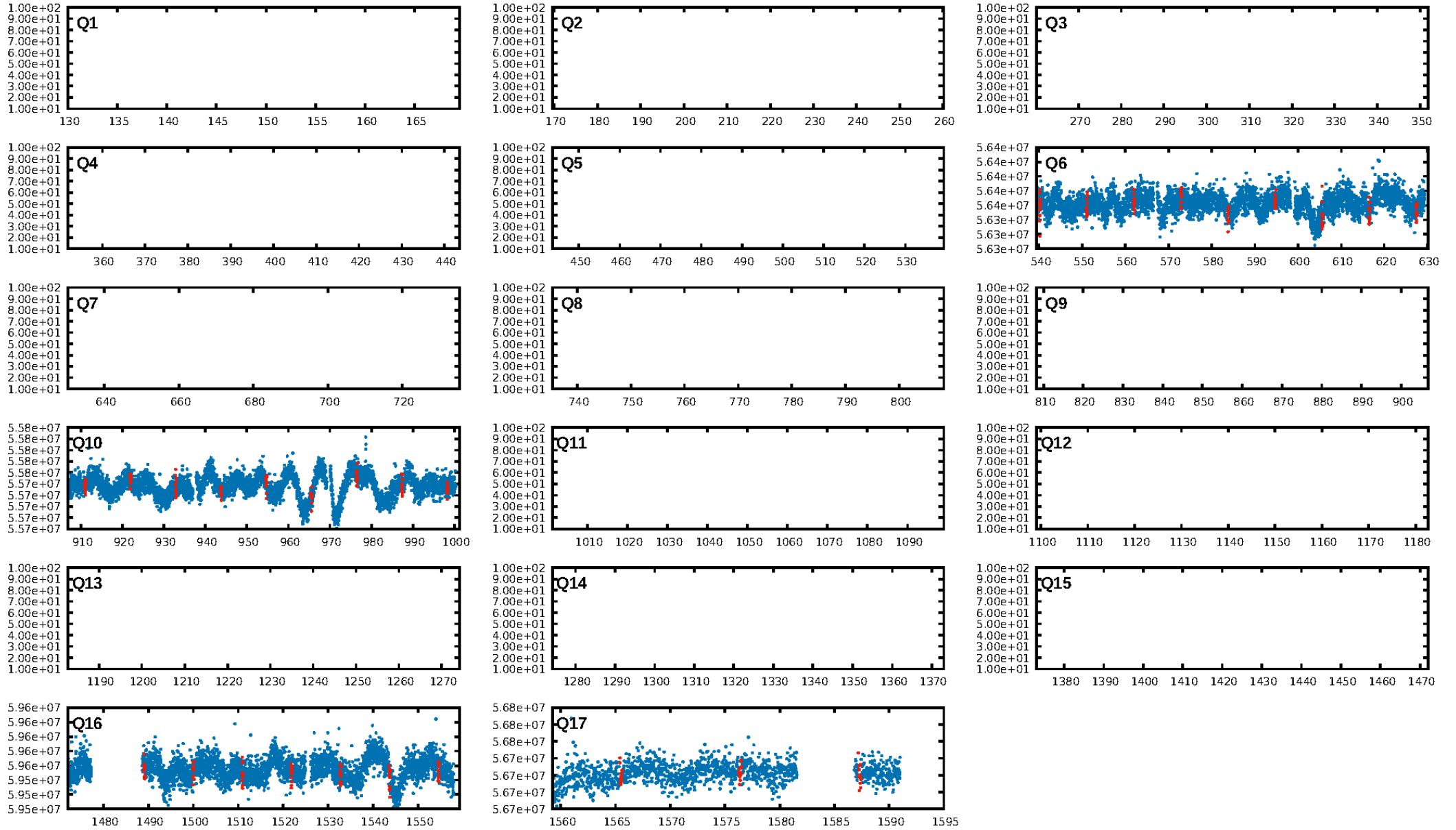
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 87.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.27e-20
RollingBand-fgt: 1.00 [25/25]
GhostDiagnostic-chr: 4.113
Centroid-sig: 58.9%
Centroid-so: 0.812 arcsec [0.69σ]
OotOffset-rm: 0.581 arcsec [1.29σ]
OotOffset-st: 2/0/1/1 [4]
KicOffset-rm: 0.568 arcsec [1.45σ]
KicOffset-st: 2/0/1/1 [4]
DiffImageQuality-fgm: 0.75 [3/4]
DiffImageOverlap-fno: 1.00 [4/4]

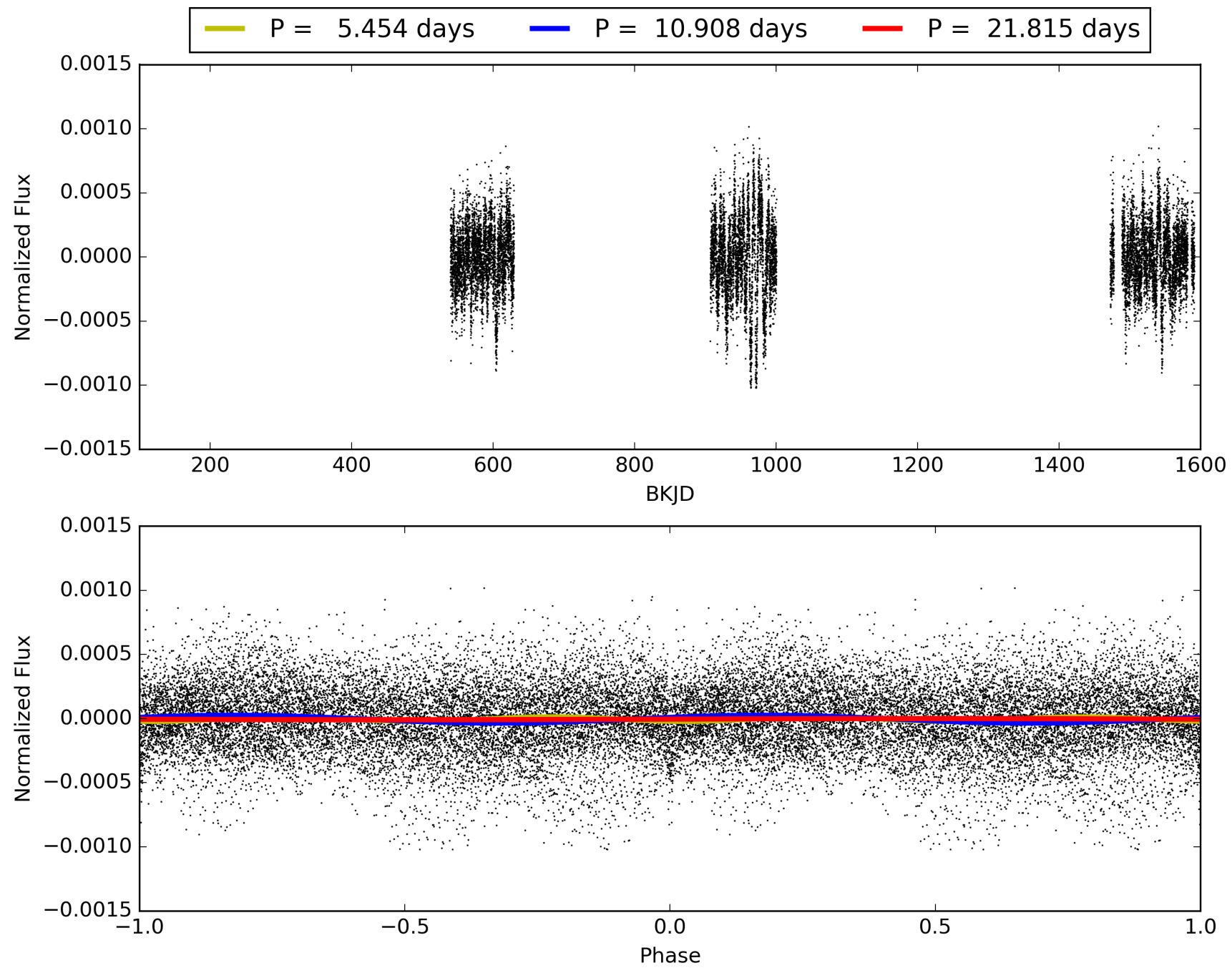
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:01:52 Z

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

TCE 010793576-01, PDC Light Curves

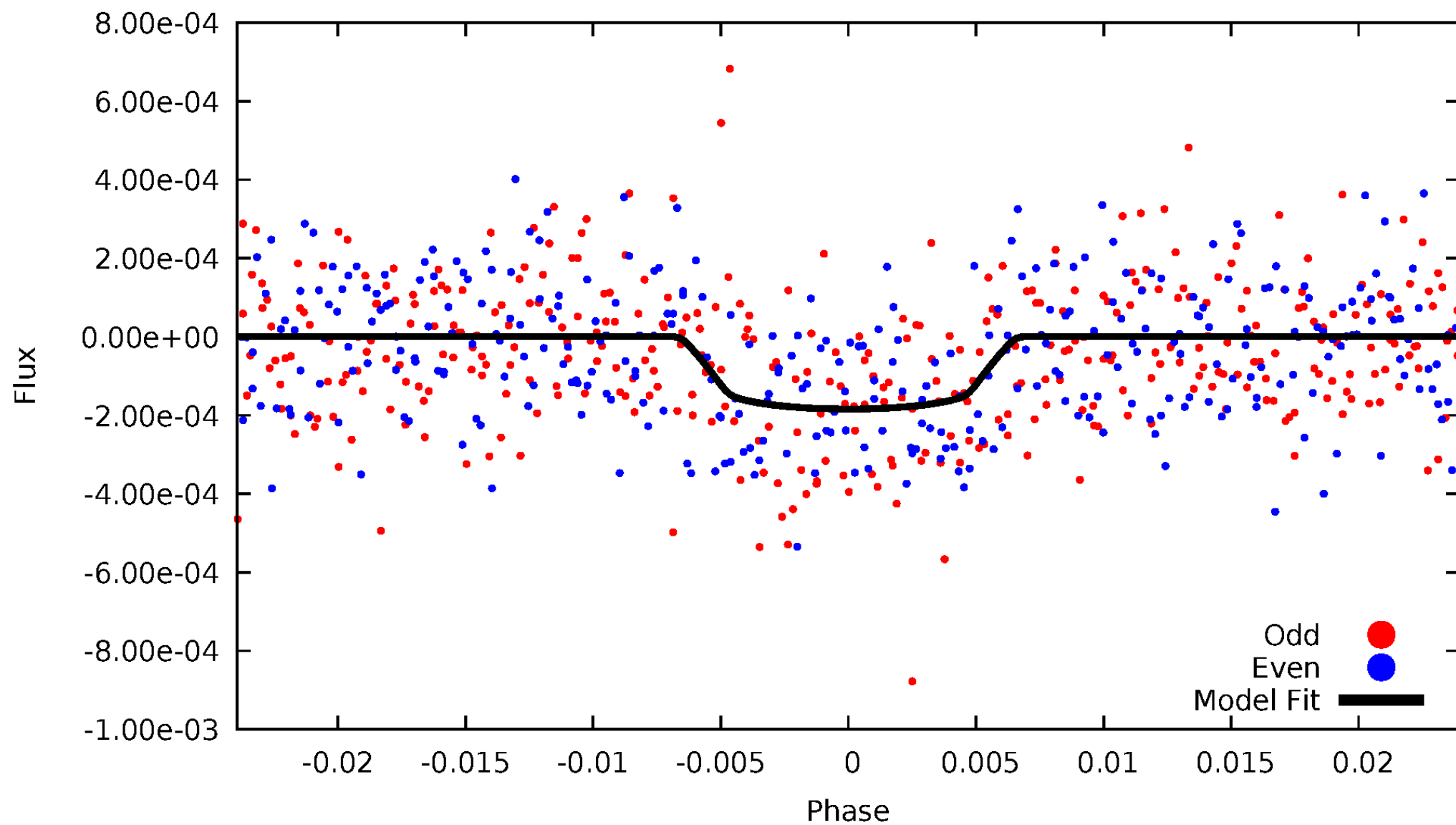


TCE 010793576-01



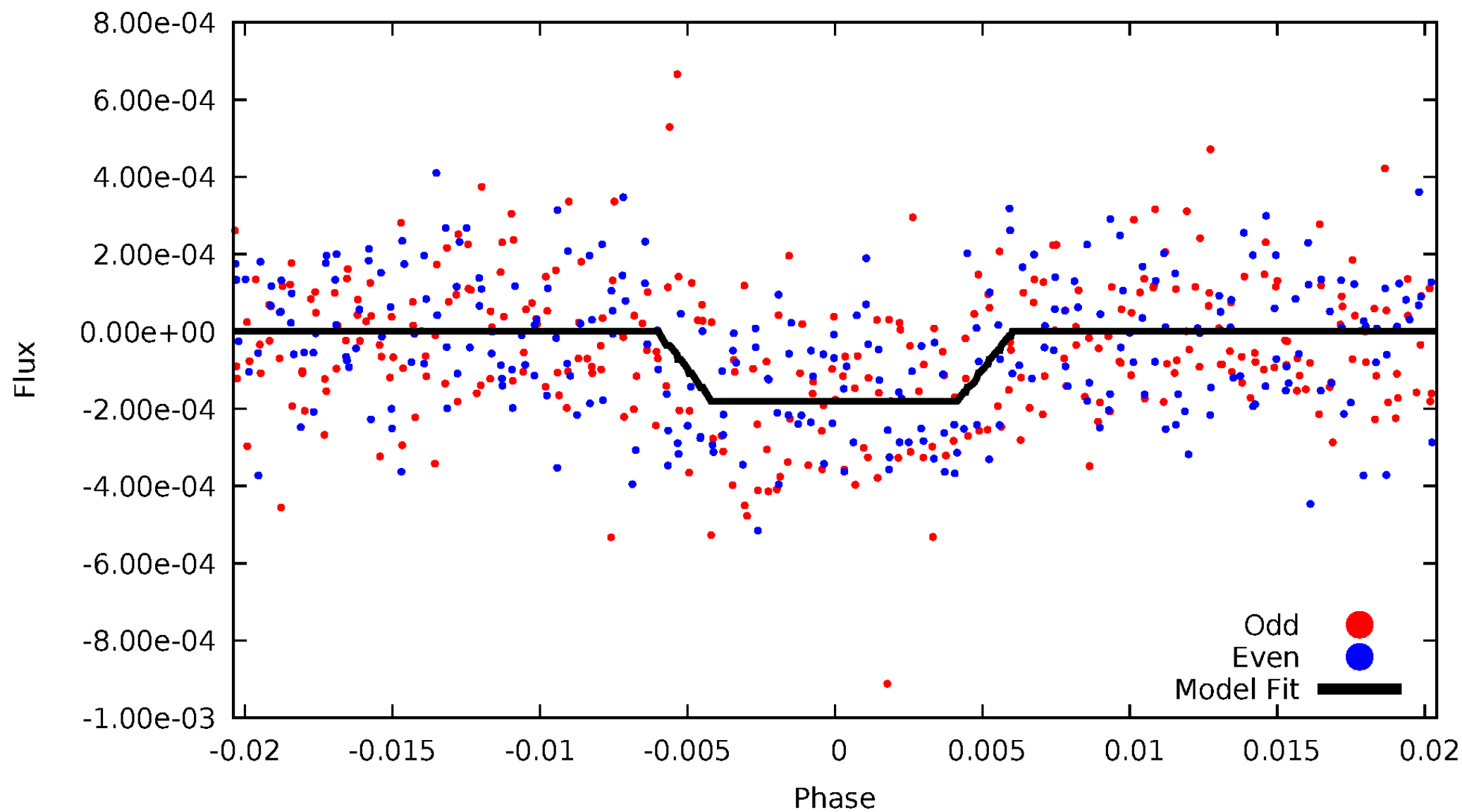
DV Odd/Even

TCE 010793576-01

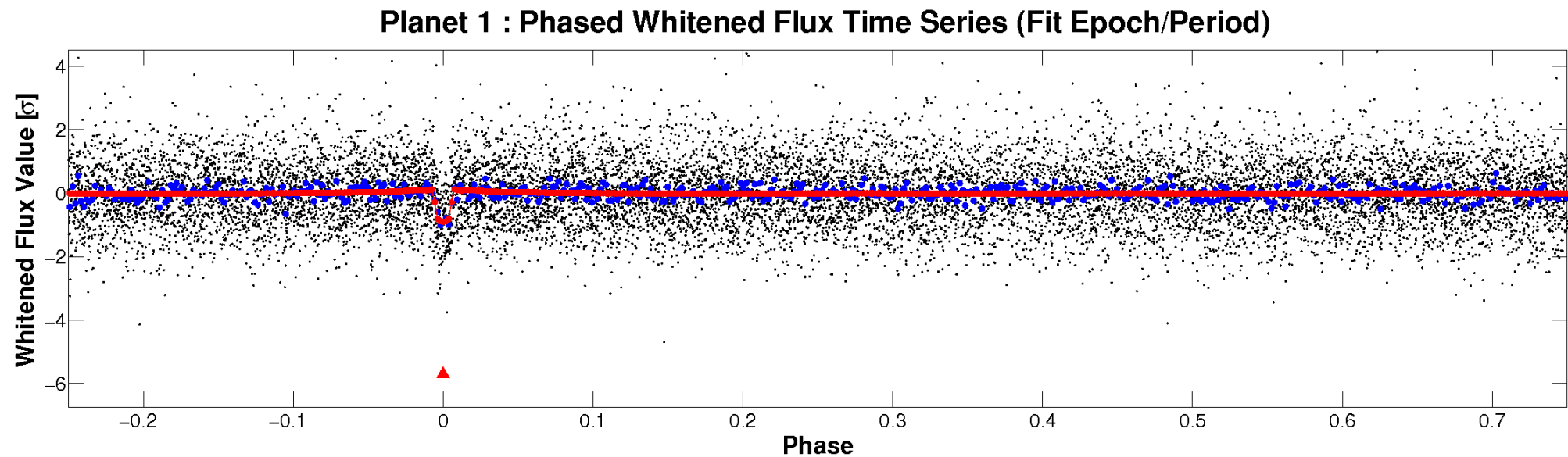
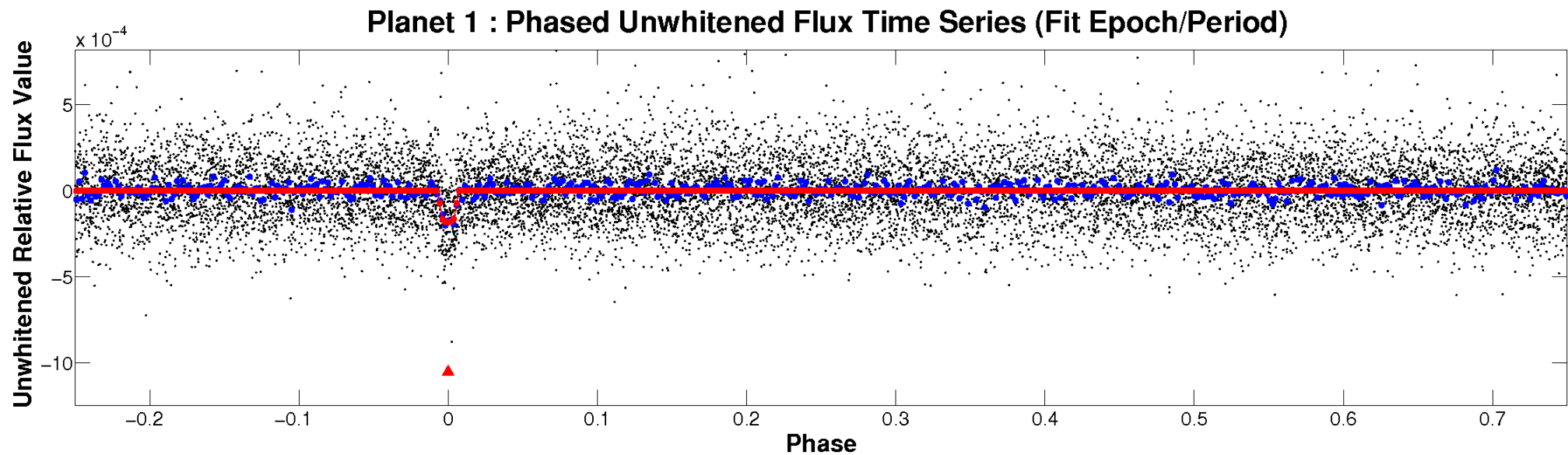


ALT Odd/Even

TCE 010793576-01

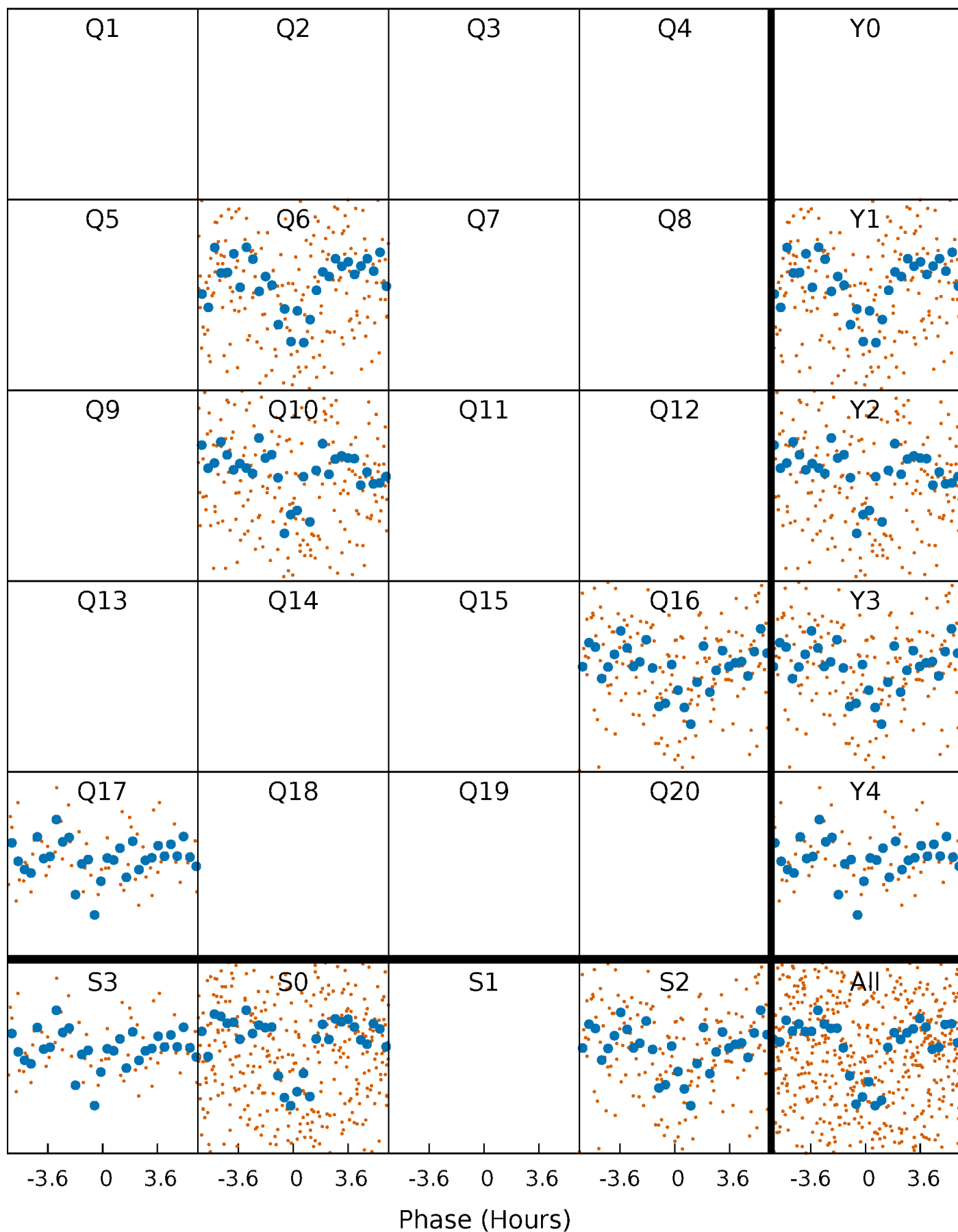


Non-Whitened Vs. Whitened Light Curve



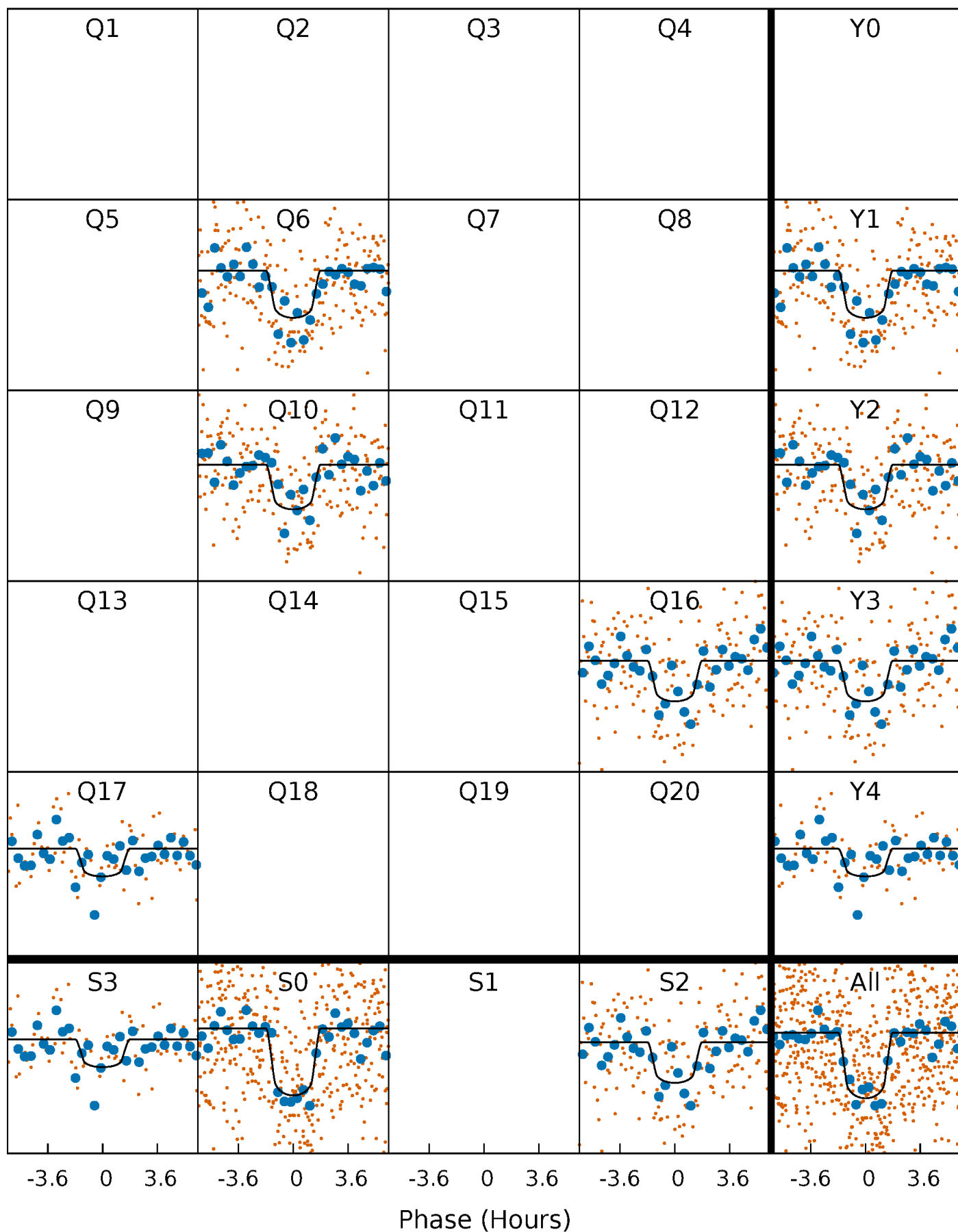
PDC Quarter-Phased Transit Curves

TCE 010793576-01 P= 10.907579 Days $T_0=136.597930$ (BKJD)



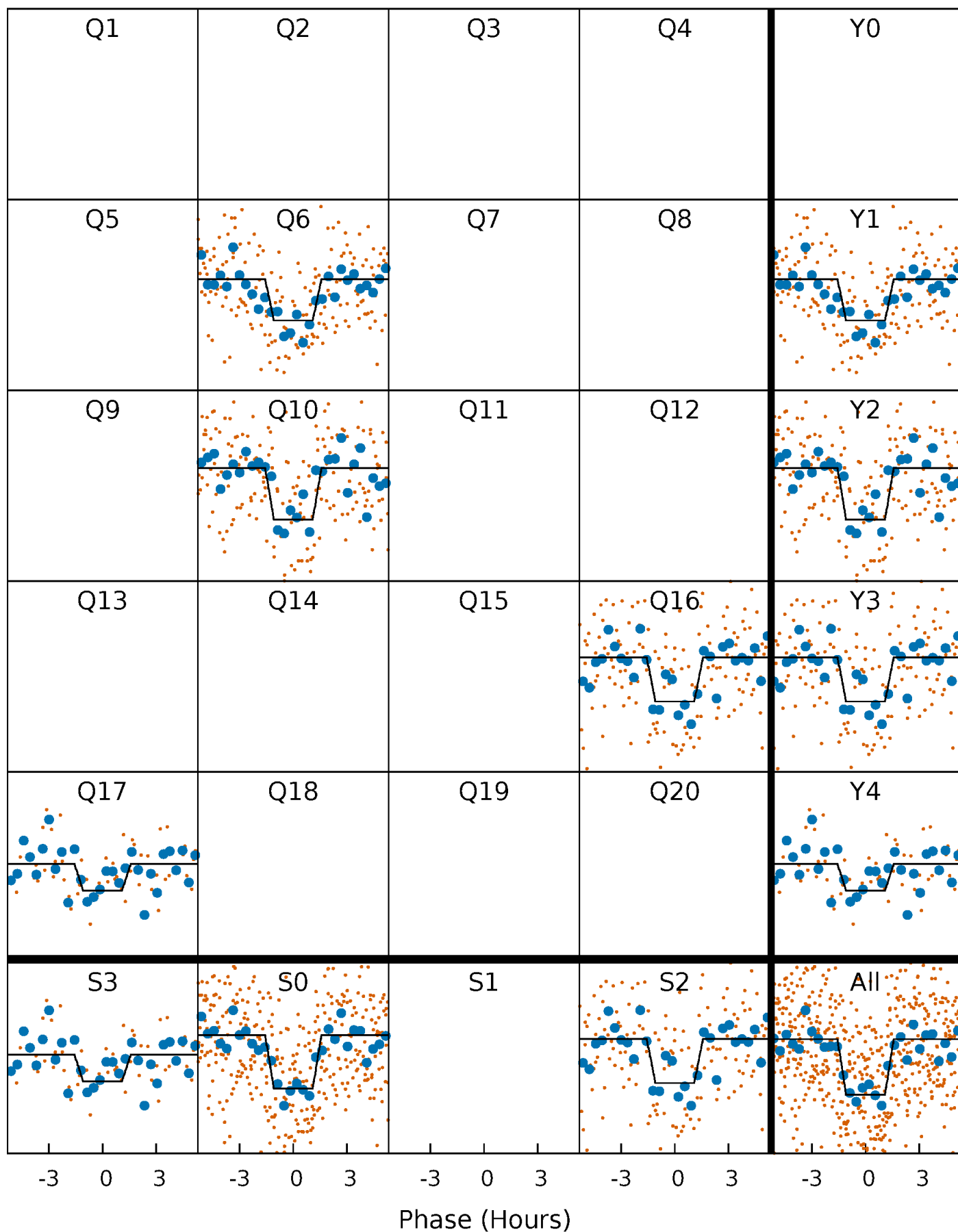
DV Quarter-Phased Transit Curves

TCE 010793576-01 P= 10.907579 Days $T_0=136.597930$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

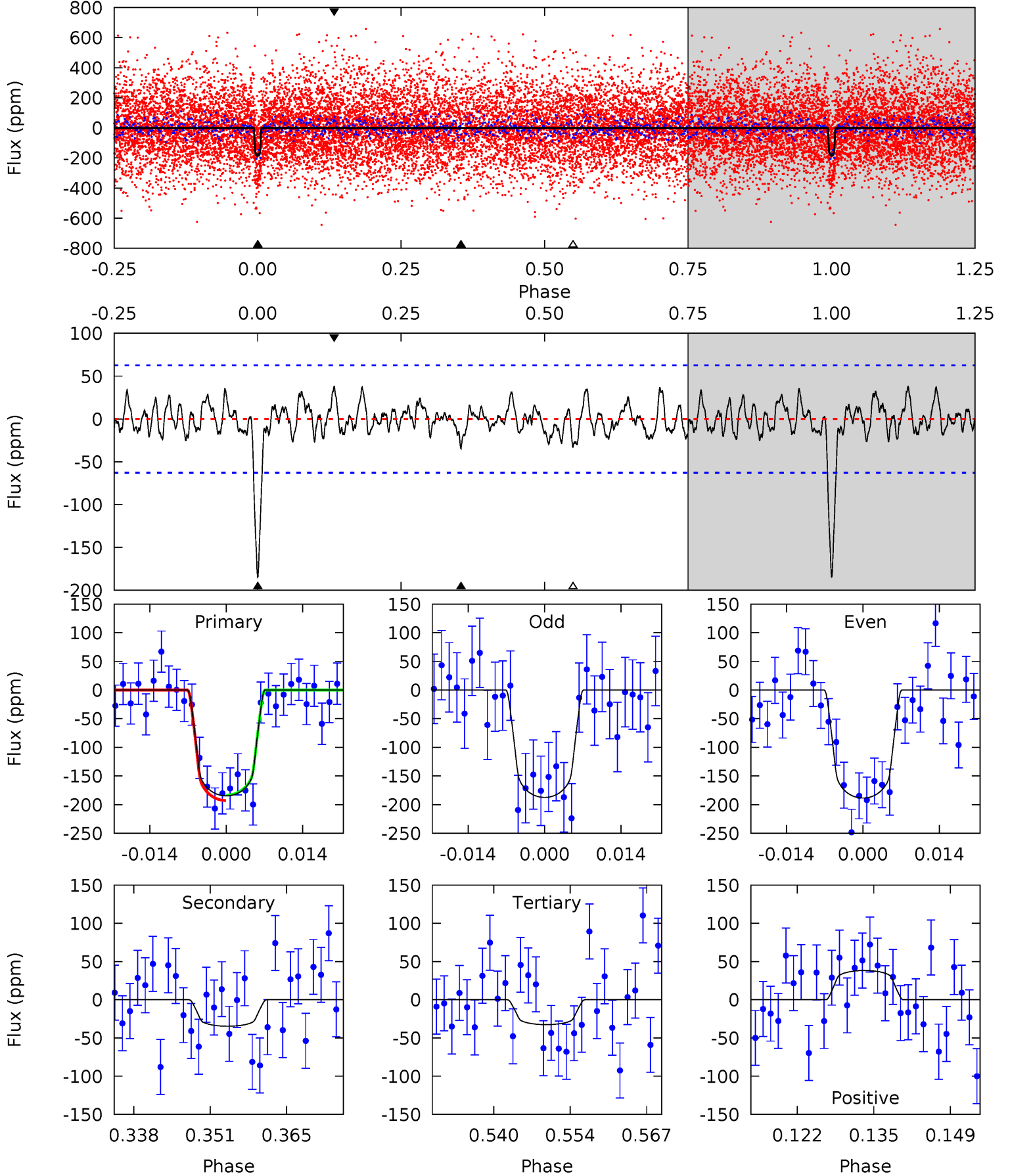
TCE 010793576-01 P= 10.907547 Days $T_0=136.607079$ (BKJD)



DV Model-Shift Uniqueness Test

010793576-01, P = 10.907579 Days, E = 136.597930 Days

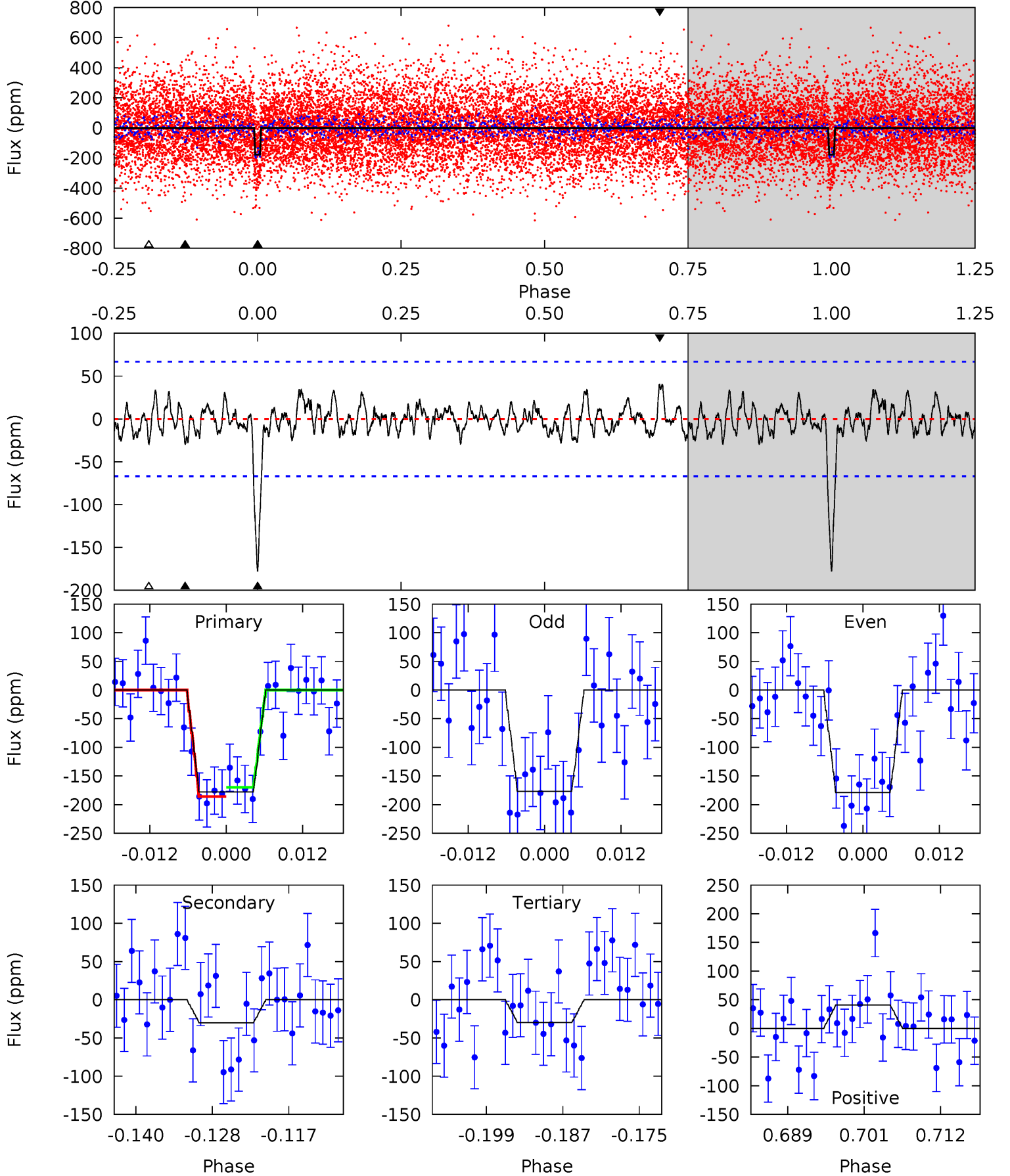
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.7	2.75	2.58	3.04	4.97	2.47	1.12	12.1	11.6	0.17	-0.29	0.04	0.98	0.17	0.38



Alt Model-Shift Uniqueness Test

010793576-01, $P = 10.907547$ Days, $E = 136.607079$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	2.25	2.24	3.06	5.00	2.52	0.99	11.1	10.2	0.01	-0.81	0.07	0.99	0.19	0.60



Stellar Parameters For KIC 010793576

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6414^{+179}_{-246}	$4.377^{+0.072}_{-0.203}$	$-0.120^{+0.250}_{-0.300}$	$1.147^{+0.381}_{-0.163}$	$1.141^{+0.188}_{-0.157}$	$1.065^{+0.399}_{-0.552}$
	+3%/-4%	+2%/-5%	+208%/-250%	+33%/-14%	+16%/-14%	+37%/-52%
Source	KIC0	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 010793576-01 / KOI 3451.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-35 ± 13	$1.84^{+0.97}_{-0.81}$	1358^{+101}_{-72}	4282^{+1226}_{-591}	53^{+125}_{-31}
Alt.	-30 ± 13	$1.82^{+0.86}_{-0.87}$	1354^{+104}_{-70}	4224^{+1439}_{-631}	47^{+144}_{-29}

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 $A_{\text{obs}} \gg 1.0$

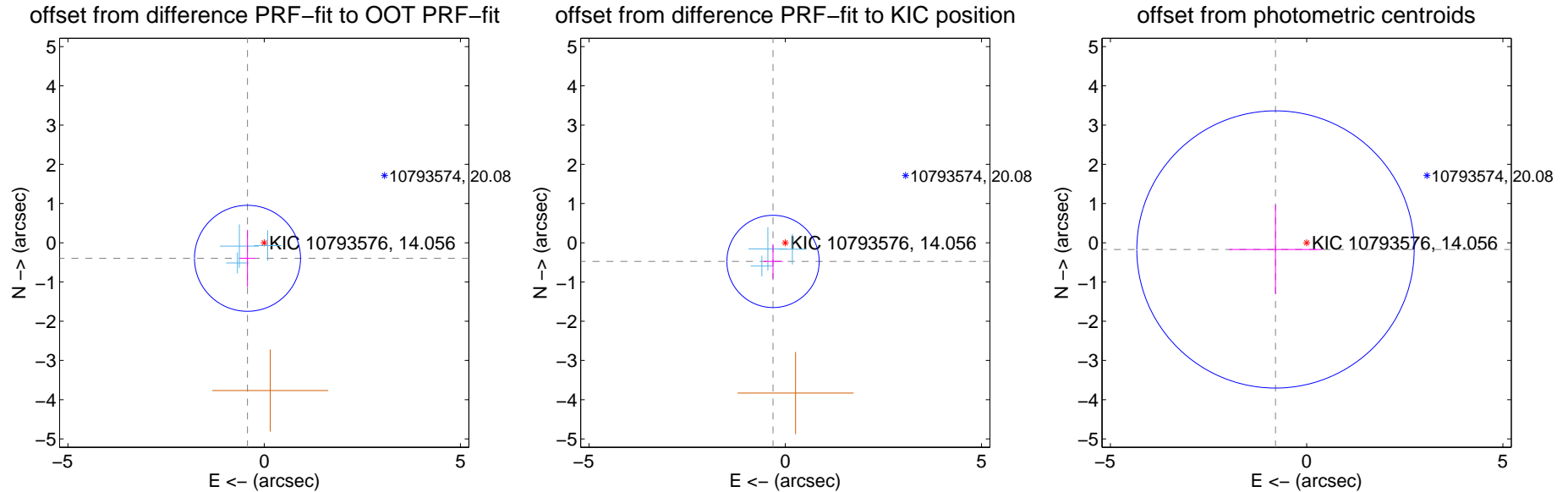
DV Centroid Data

Supplemental centroid analysis for 010793576-01. Kepler magnitude: 14.06. Transit SNR 10.21

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.581 ± 0.450	1.29	0.425 ± 0.187	-0.396 ± 0.726
PRF-fit source offset from KIC position	0.568 ± 0.392	1.45	0.311 ± 0.245	-0.476 ± 0.440
photometric centroid source offset	0.81 ± 1.18	0.69	0.79 ± 1.18	-0.17 ± 1.14

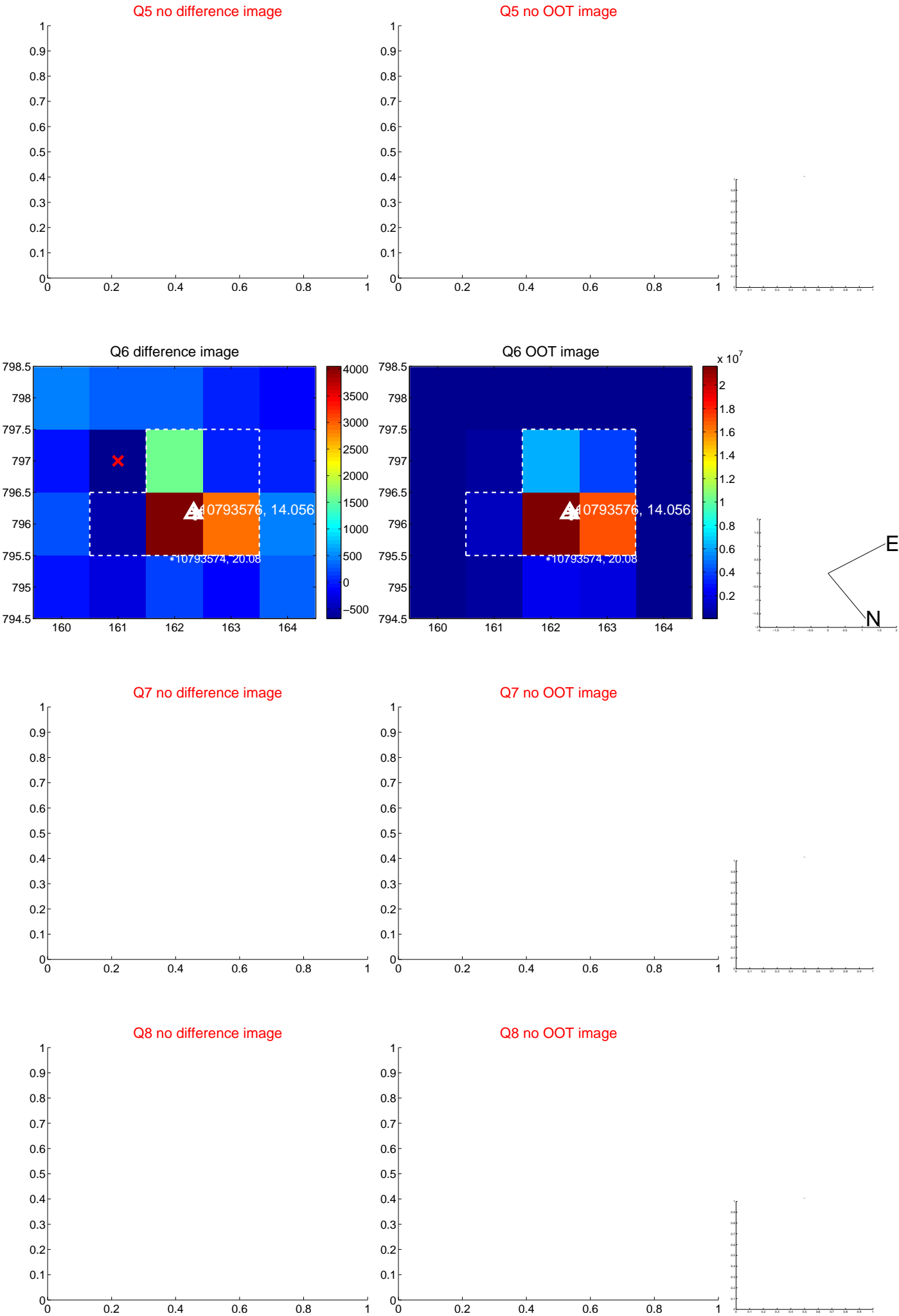


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

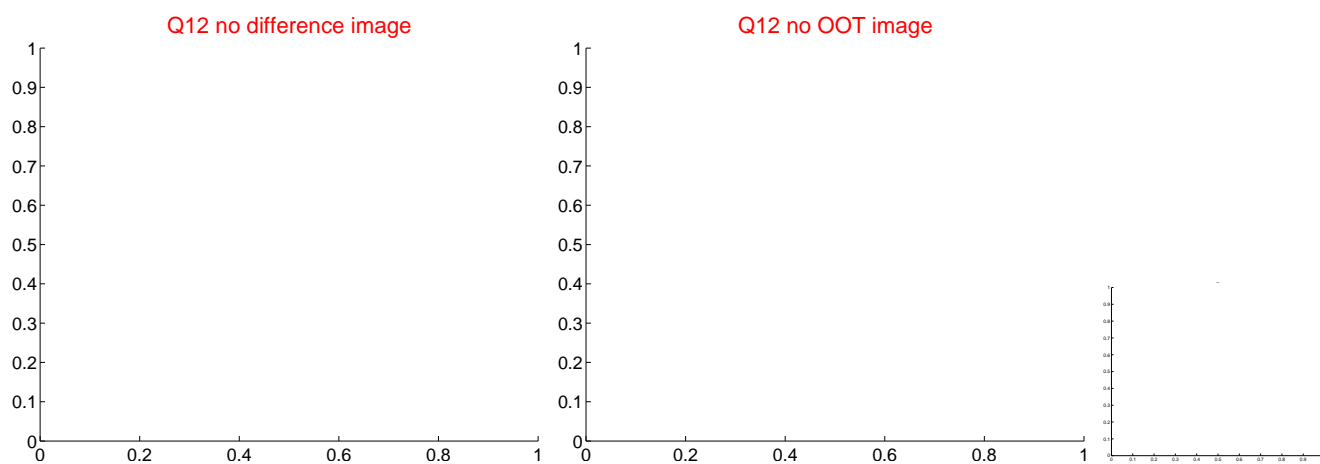
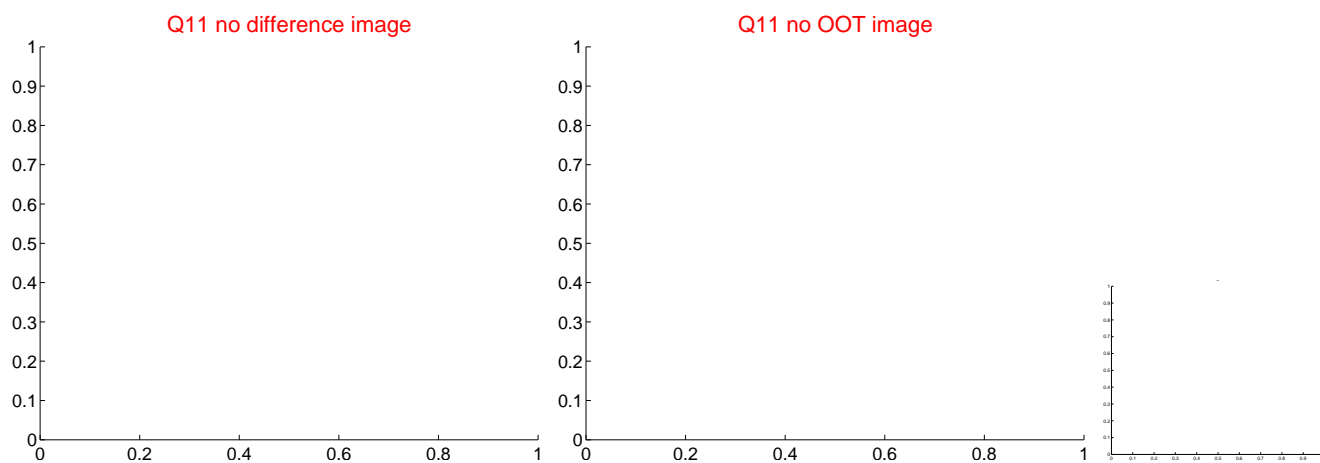
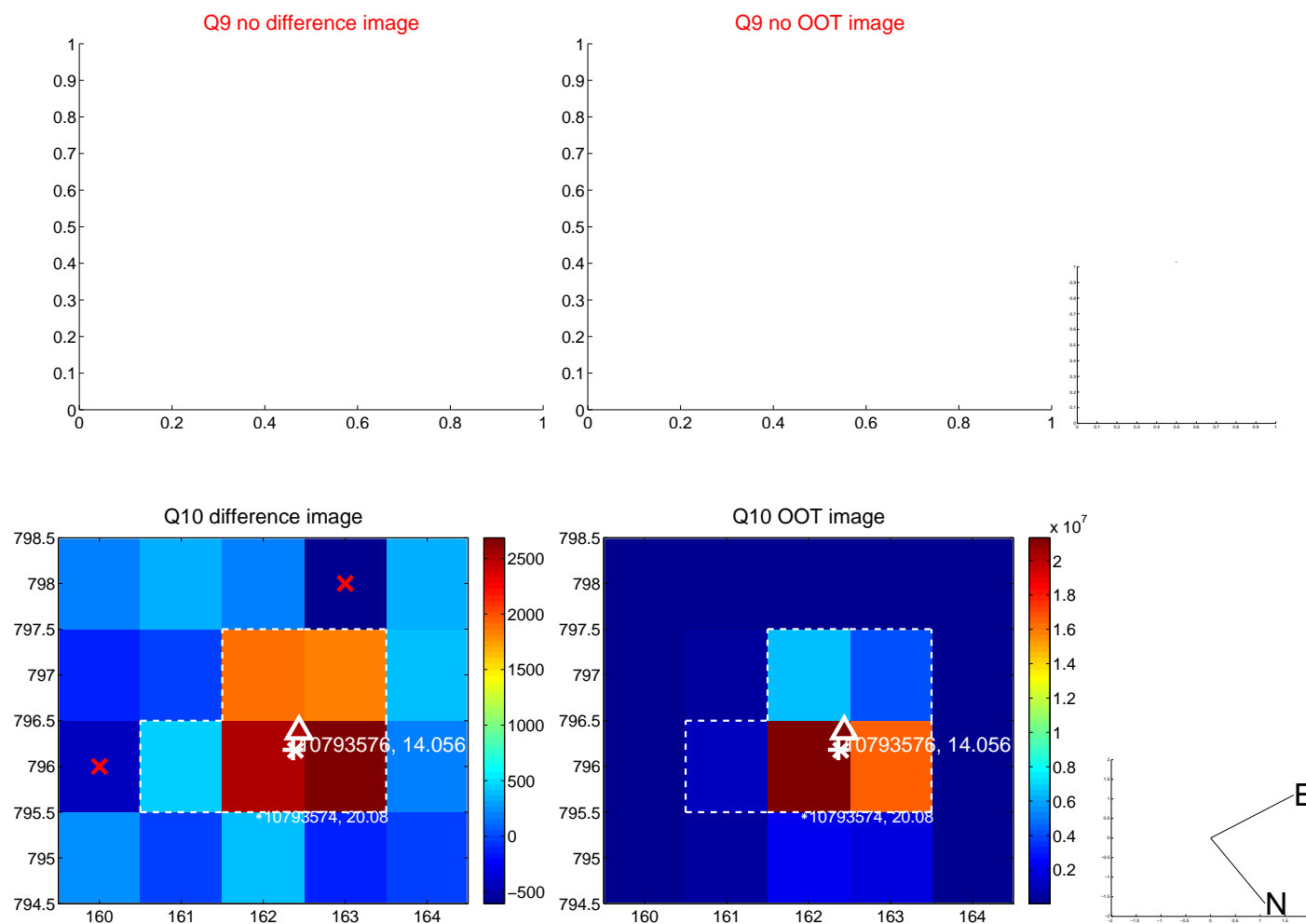
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



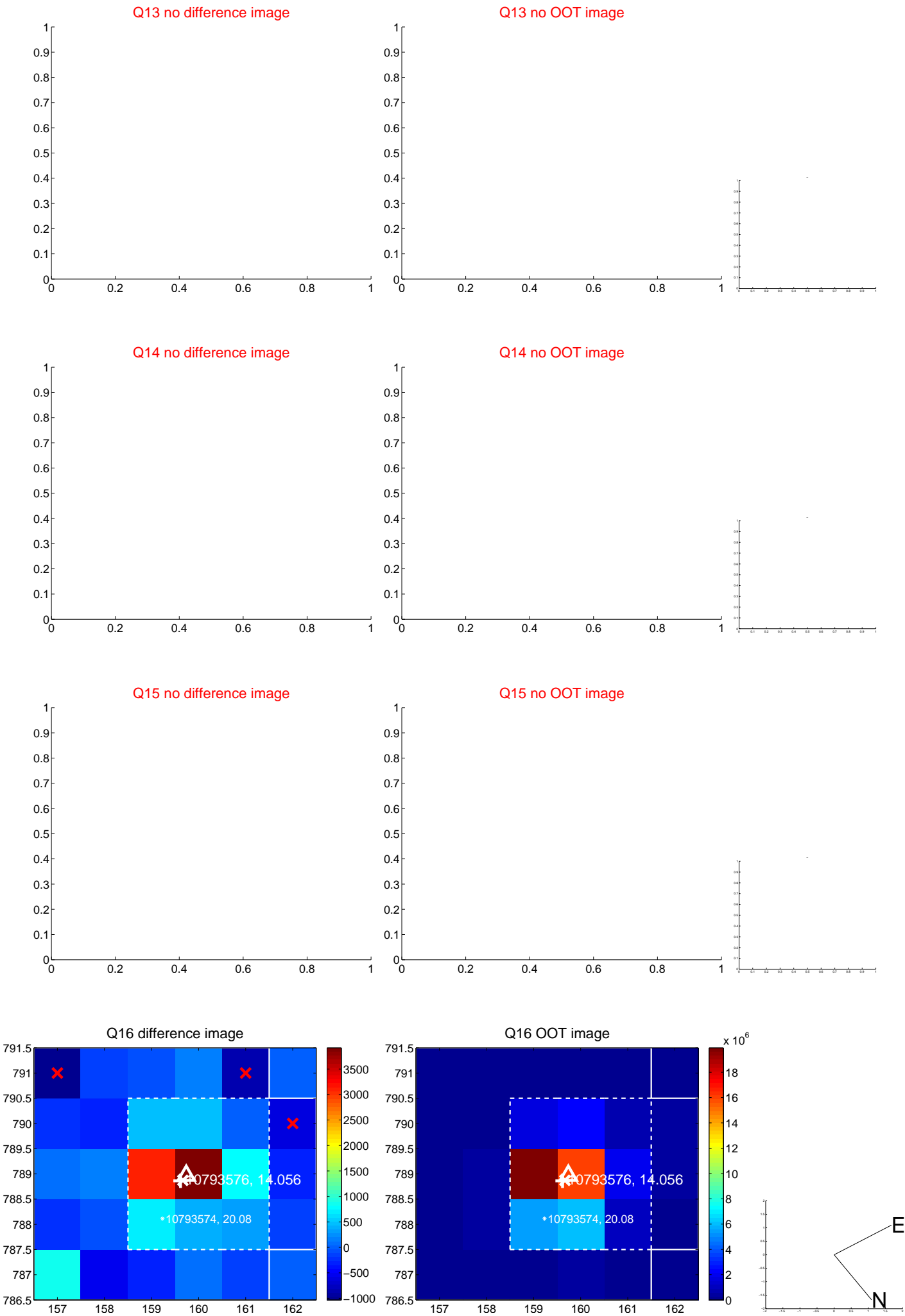
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



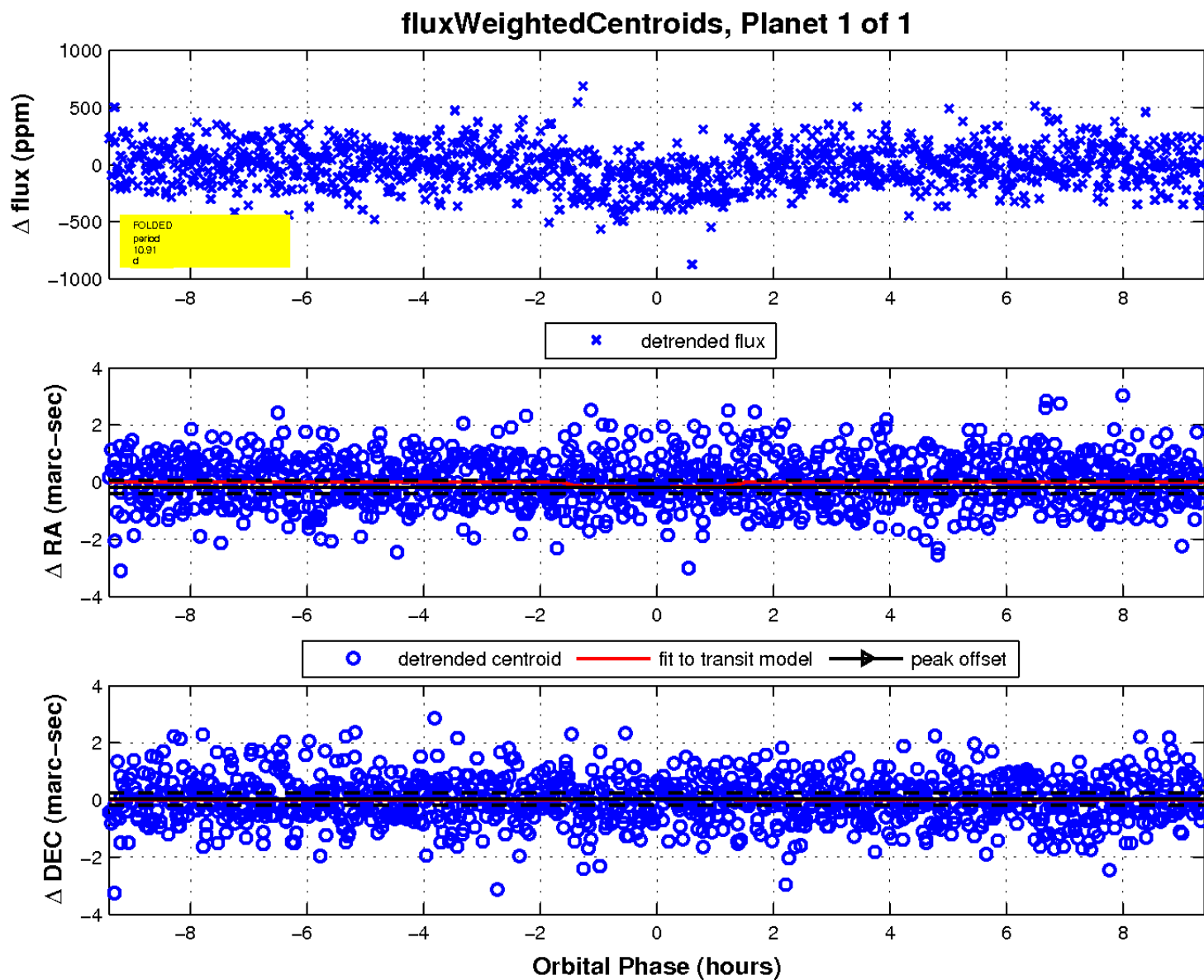
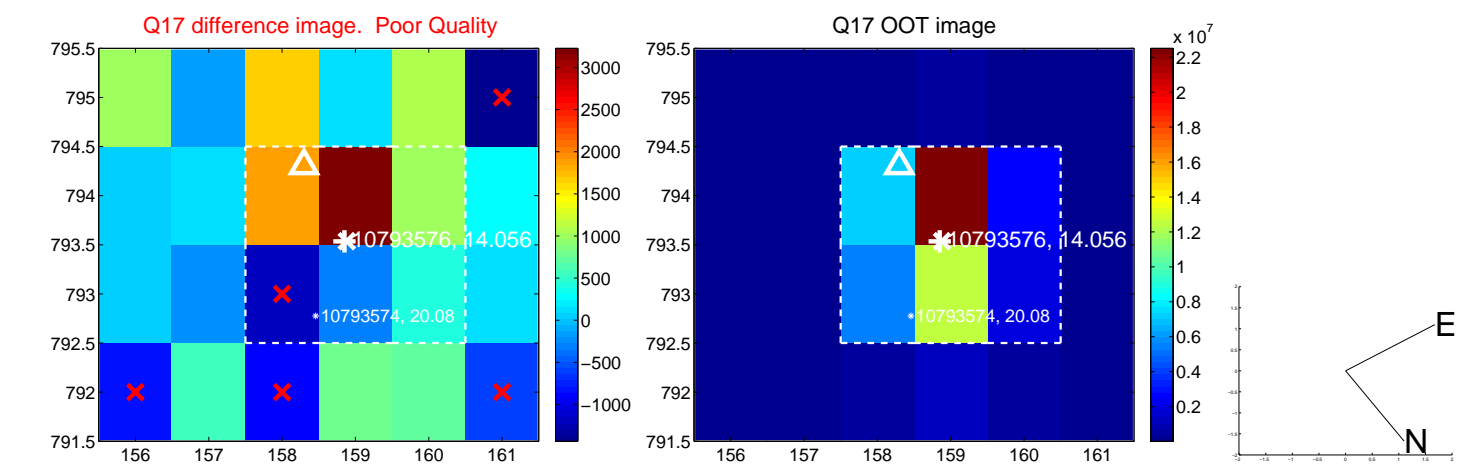
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white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

