

KIC 011955225

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})
011955225-01	OBS	No	270.582257	283.794468	194.3	22.828	9.5	8.7	1.21	6528	1.79	3.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011955225-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE--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.

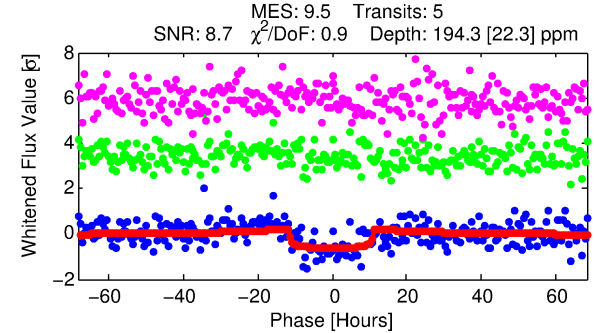
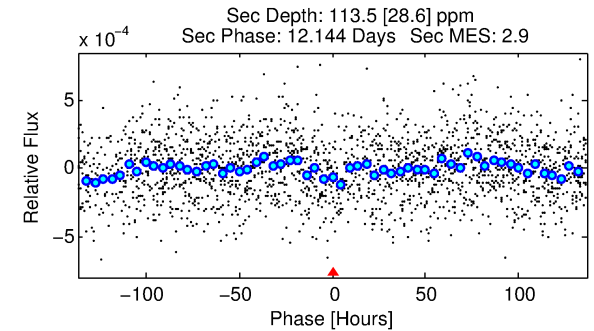
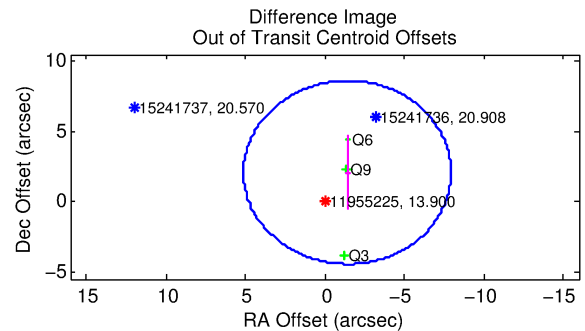
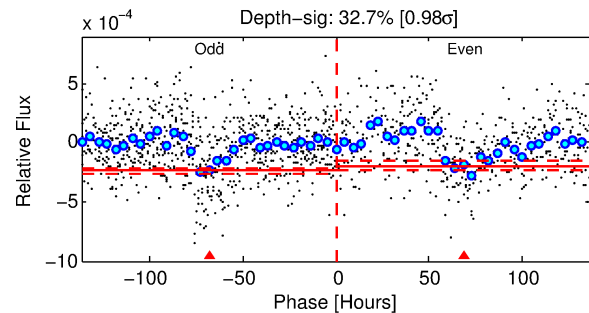
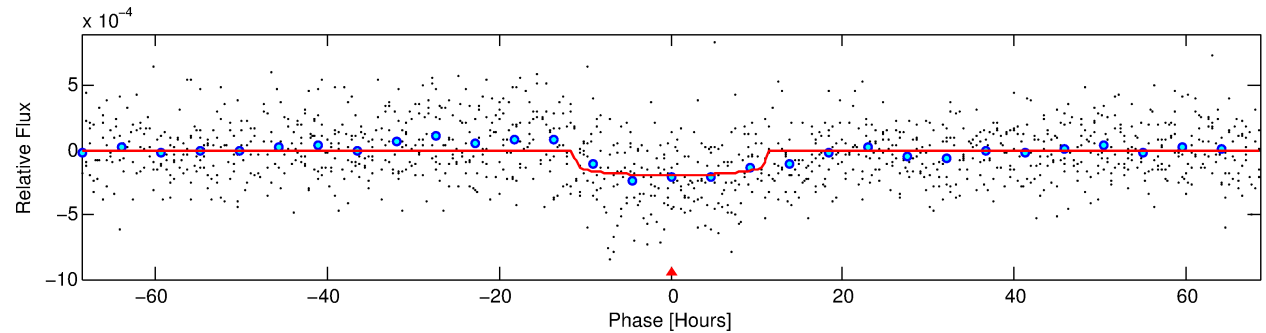
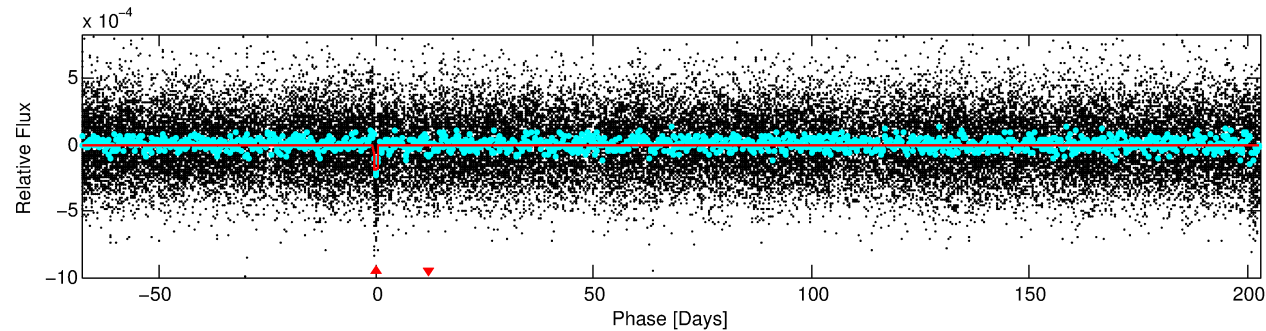
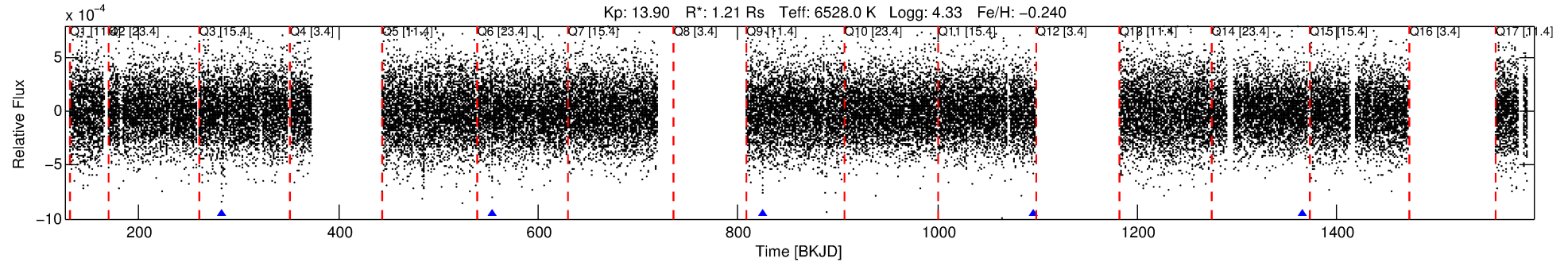
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011955225-01

No Significant Match Found

DV One-Page Summary

KIC: 11955225 Candidate: 1 of 1 Period: 270.582 d



DV Fit Results:

Period = 270.58226 [0.00918] d
Epoch = 283.7945 [0.0242] BKJD
Rp/R* = 0.0136 [0.0044]
a/R* = 69.27 [121.58]
b = 0.67 [1.47]
Seff = 3.25 [1.29]
Teq = 342 [34] K
Rp = 1.79 [0.81] Re
a = 0.8538 [0.2243] AU
Ag = 14267.14 [11218.94] [1.27 σ]
Teff = 5786 [1014] K [5.37 σ]

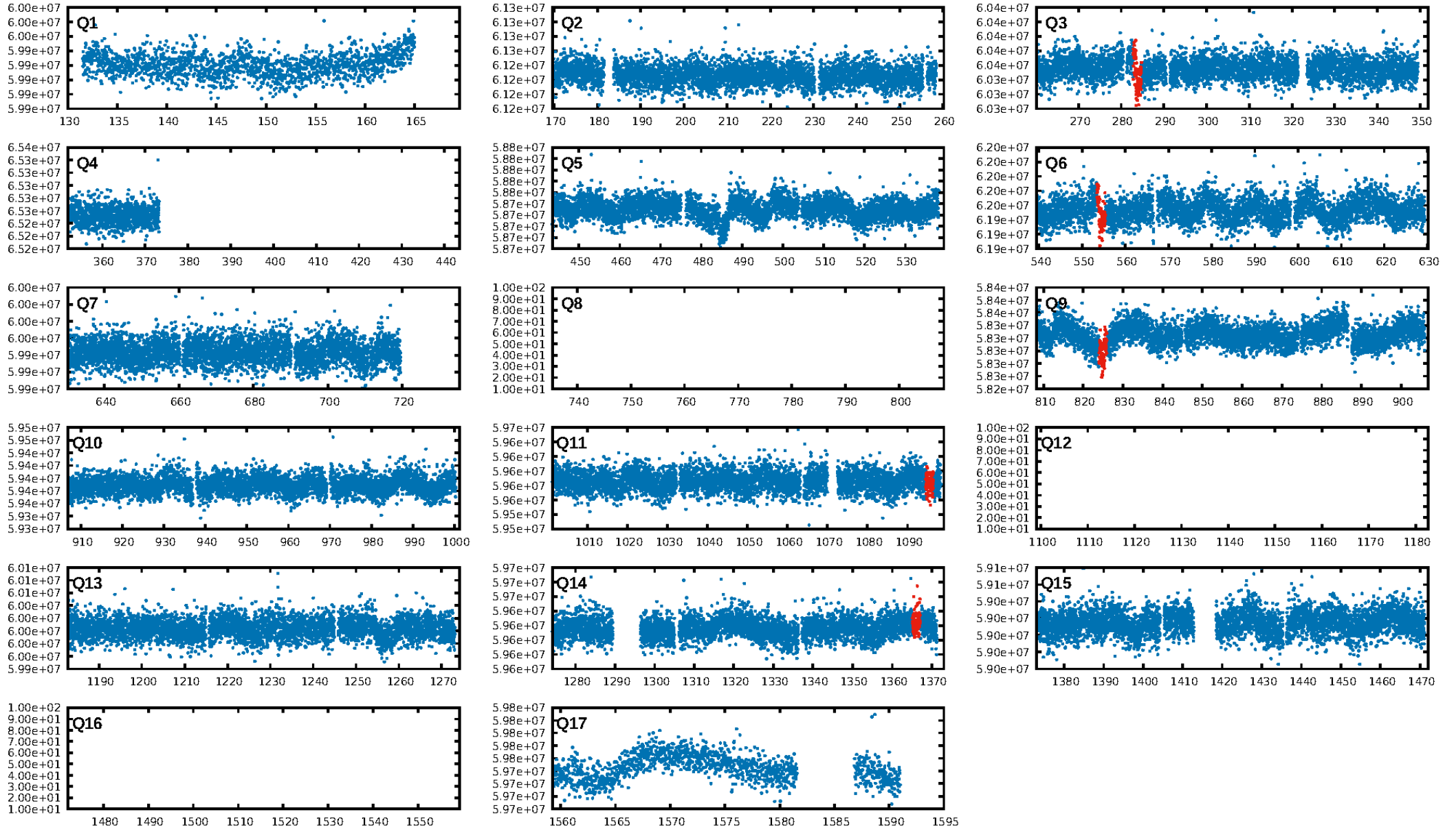
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.95e-18
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 1.098
Centroid-sig: 18.9%
Centroid-so: 1.218 arcsec [0.86 σ]
OotOffset-rm: 2.525 arcsec [1.16 σ]
KicOffset-rm: 2.610 arcsec [1.23 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [4/4]

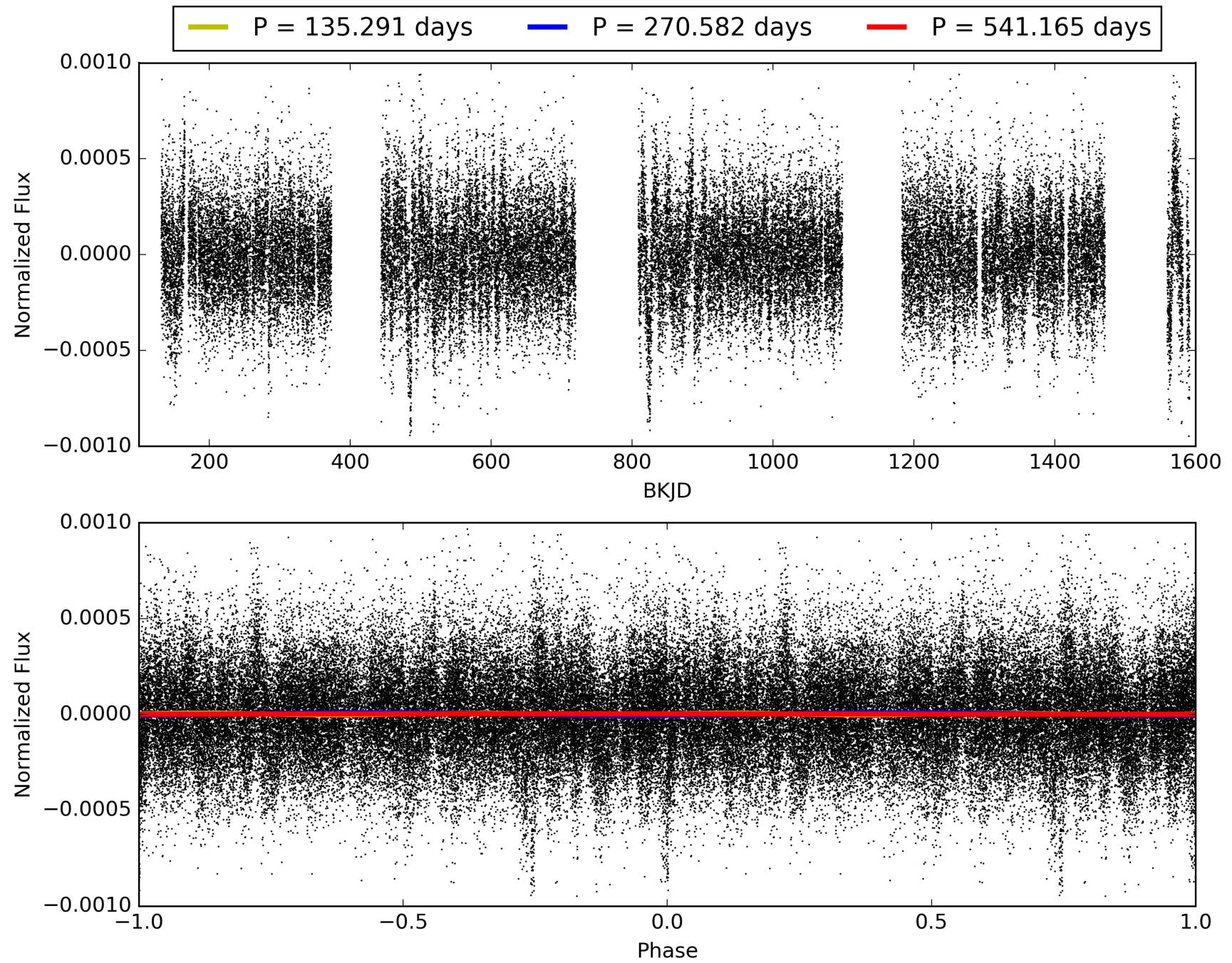
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:20:49 Z

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

TCE 011955225-01, PDC Light Curves

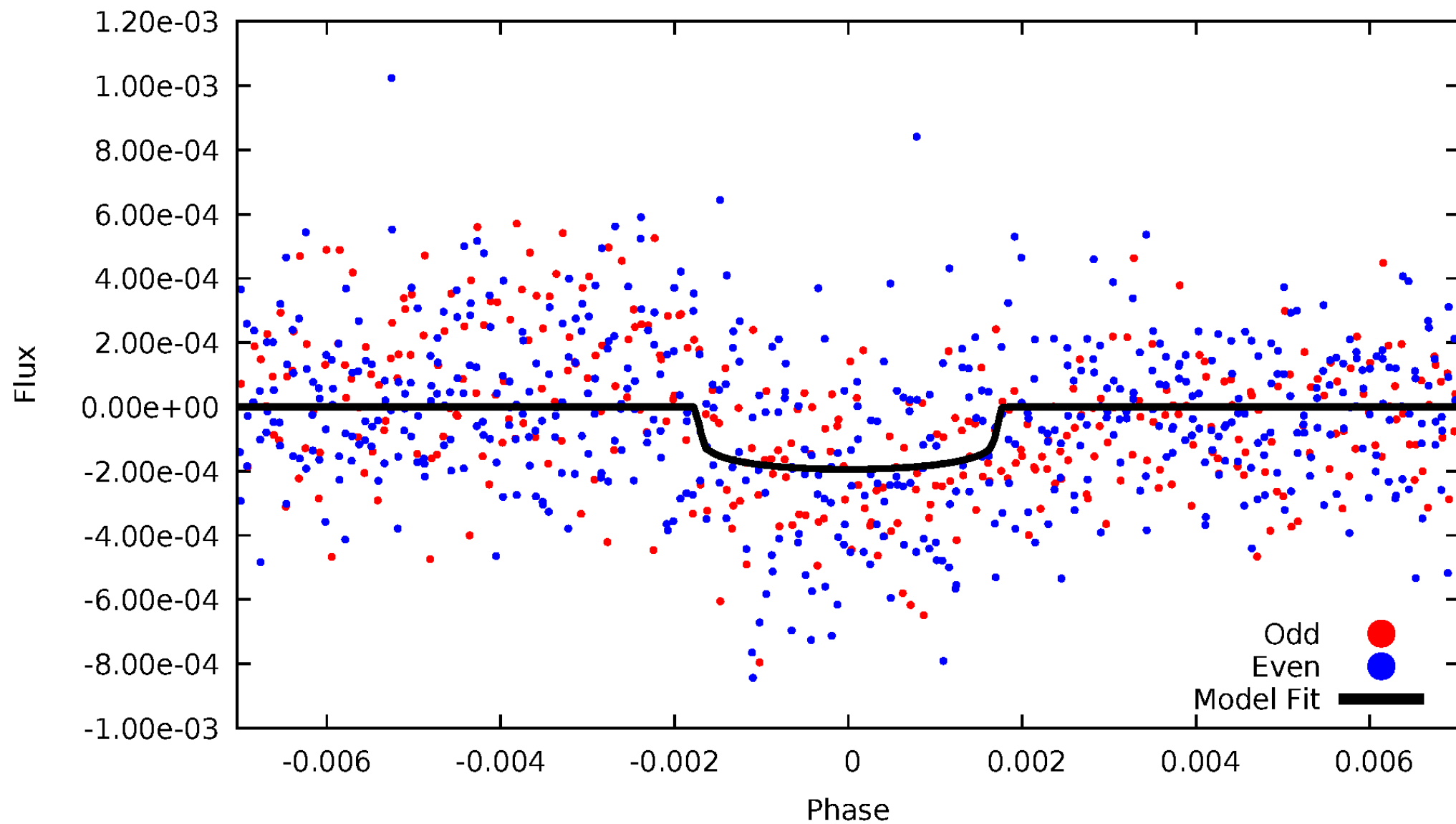


TCE 011955225-01



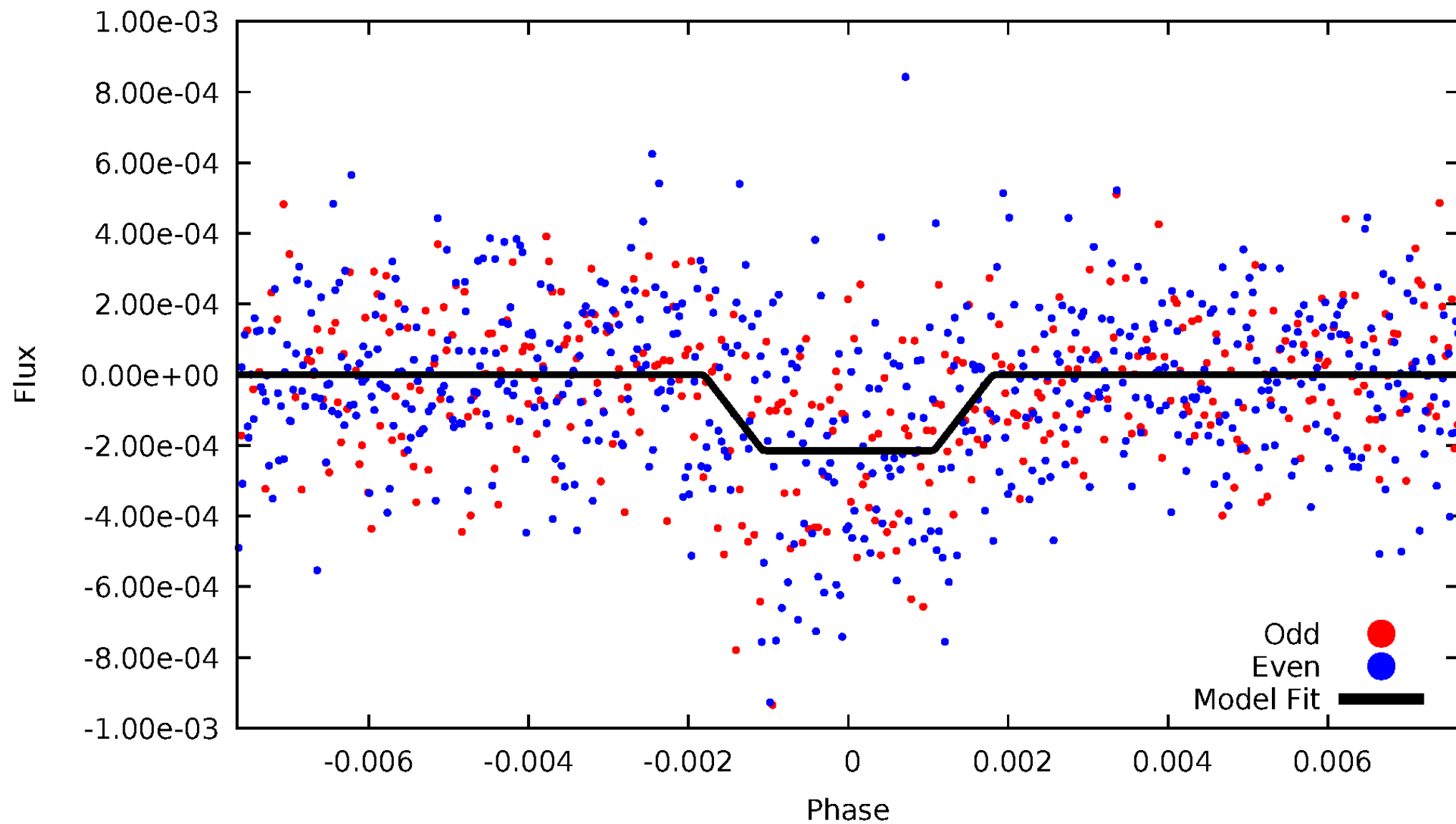
DV Odd/Even

TCE 011955225-01



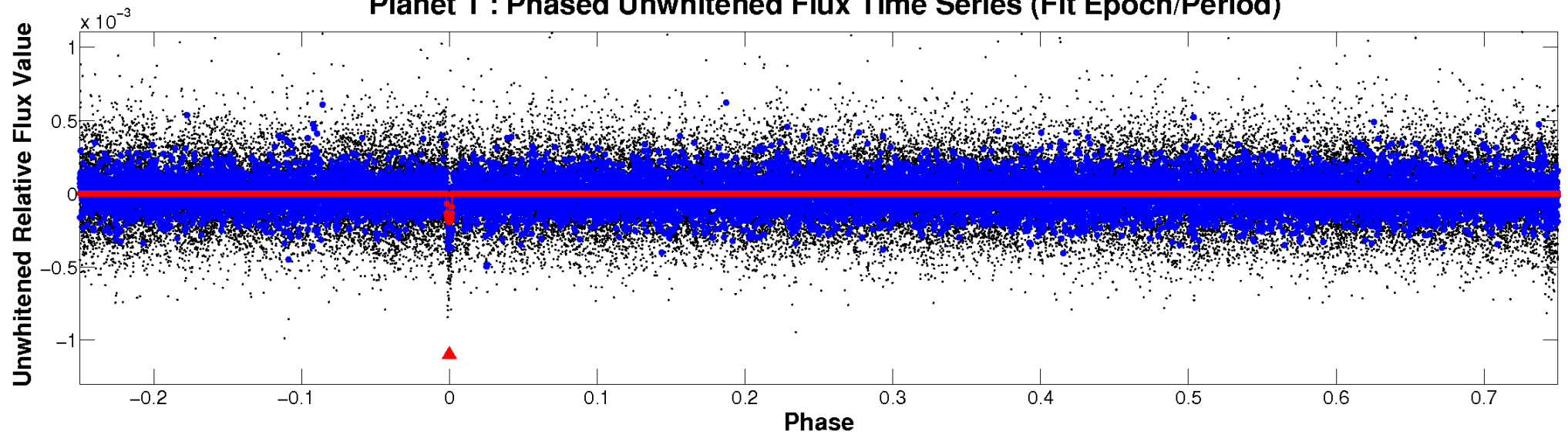
ALT Odd/Even

TCE 011955225-01

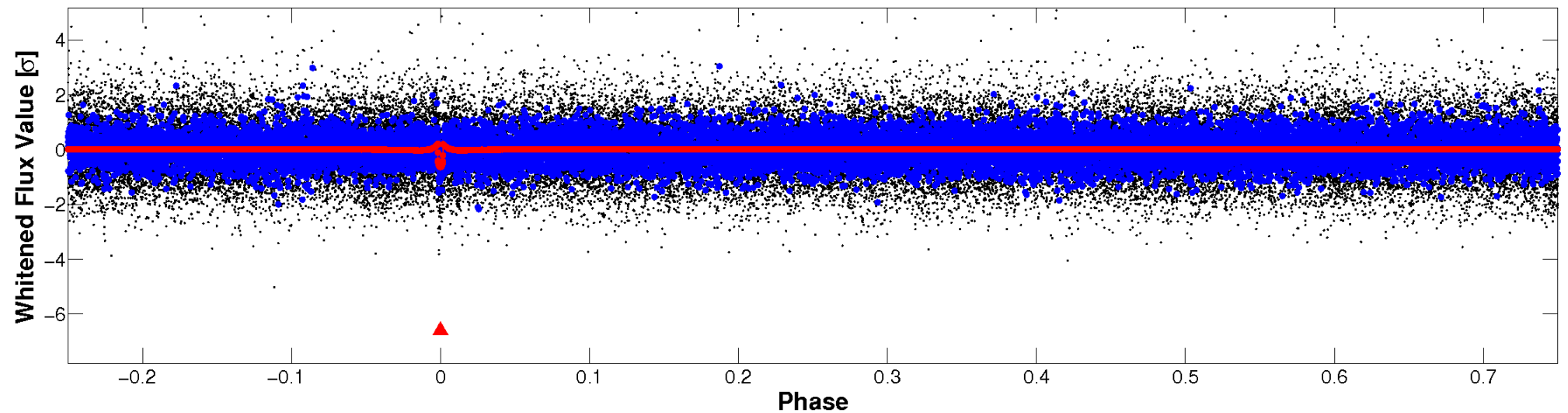


Non-Whitened Vs. Whitened Light Curve

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

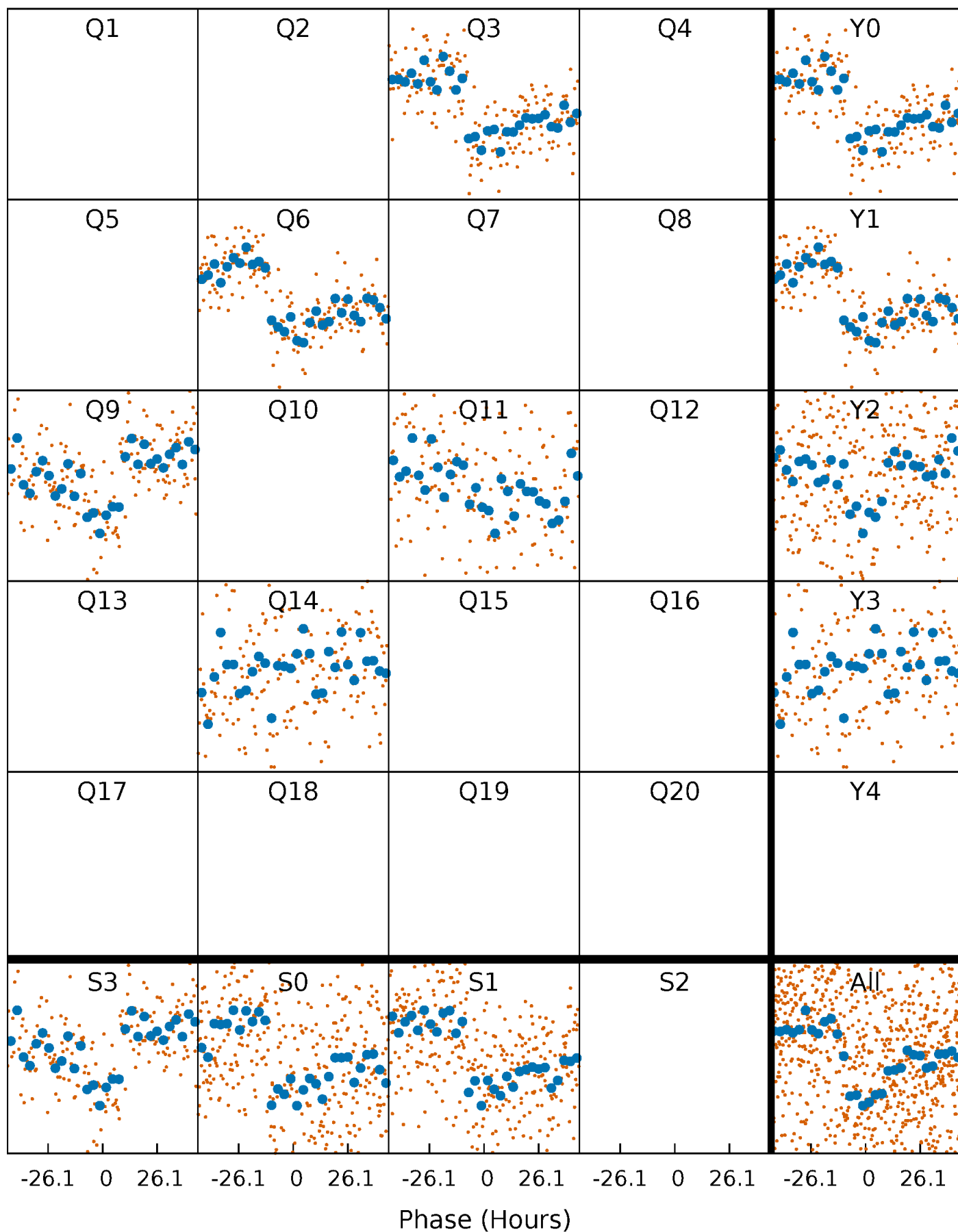


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



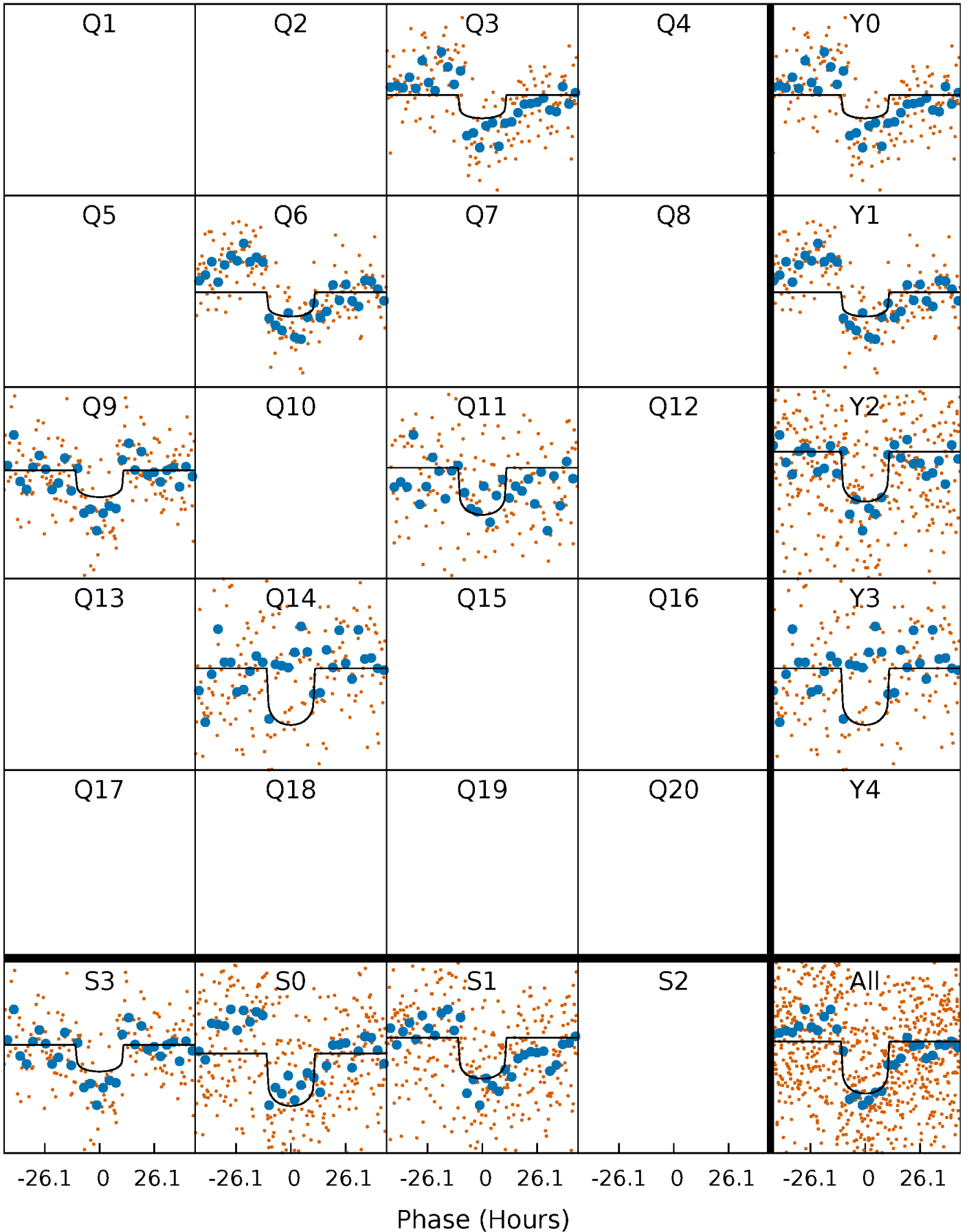
PDC Quarter-Phased Transit Curves

TCE 011955225-01 P=270.582257 Days $T_0=283.794468$ (BKJD)



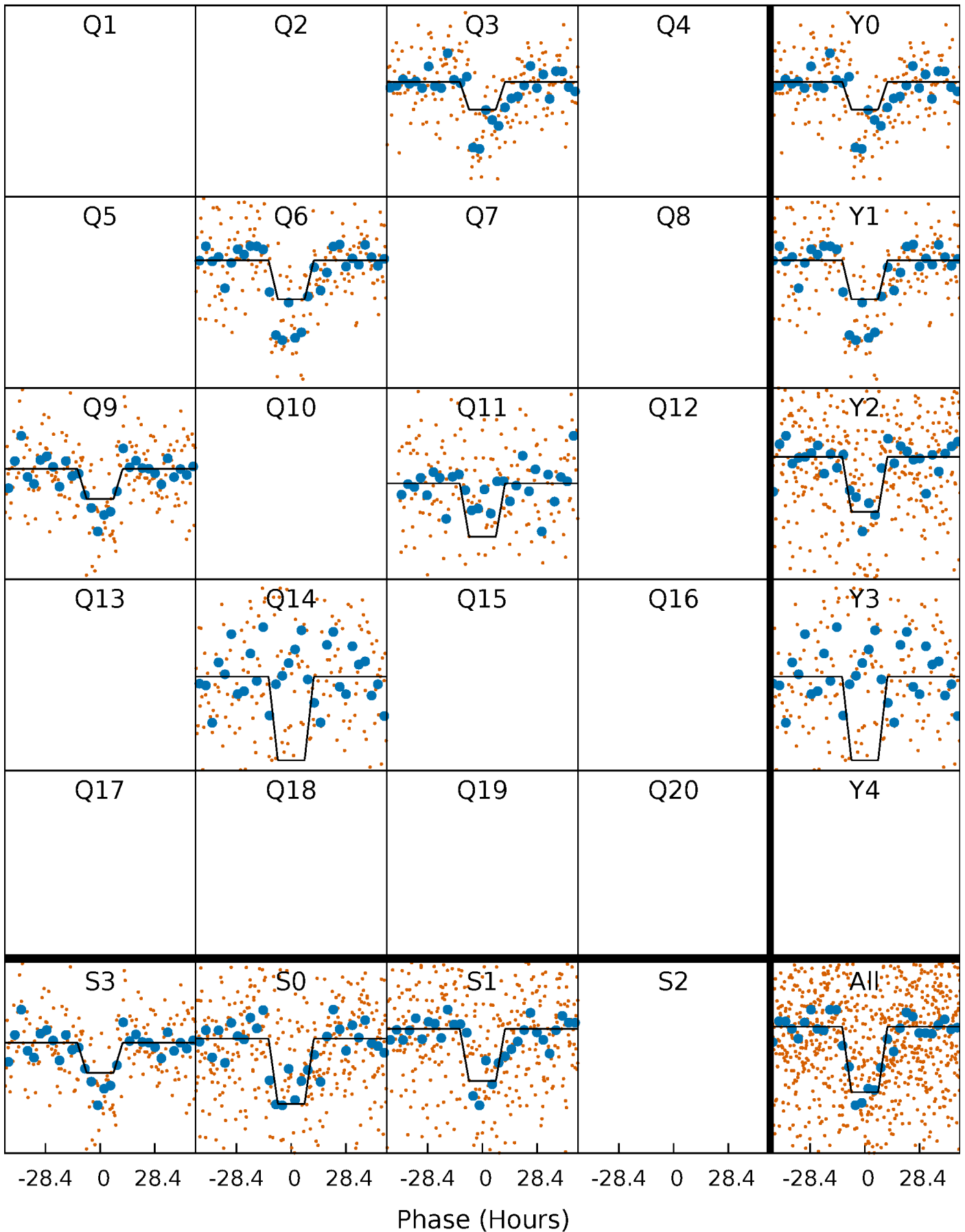
DV Quarter-Phased Transit Curves

TCE 011955225-01 P=270.582257 Days $T_0=283.794468$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

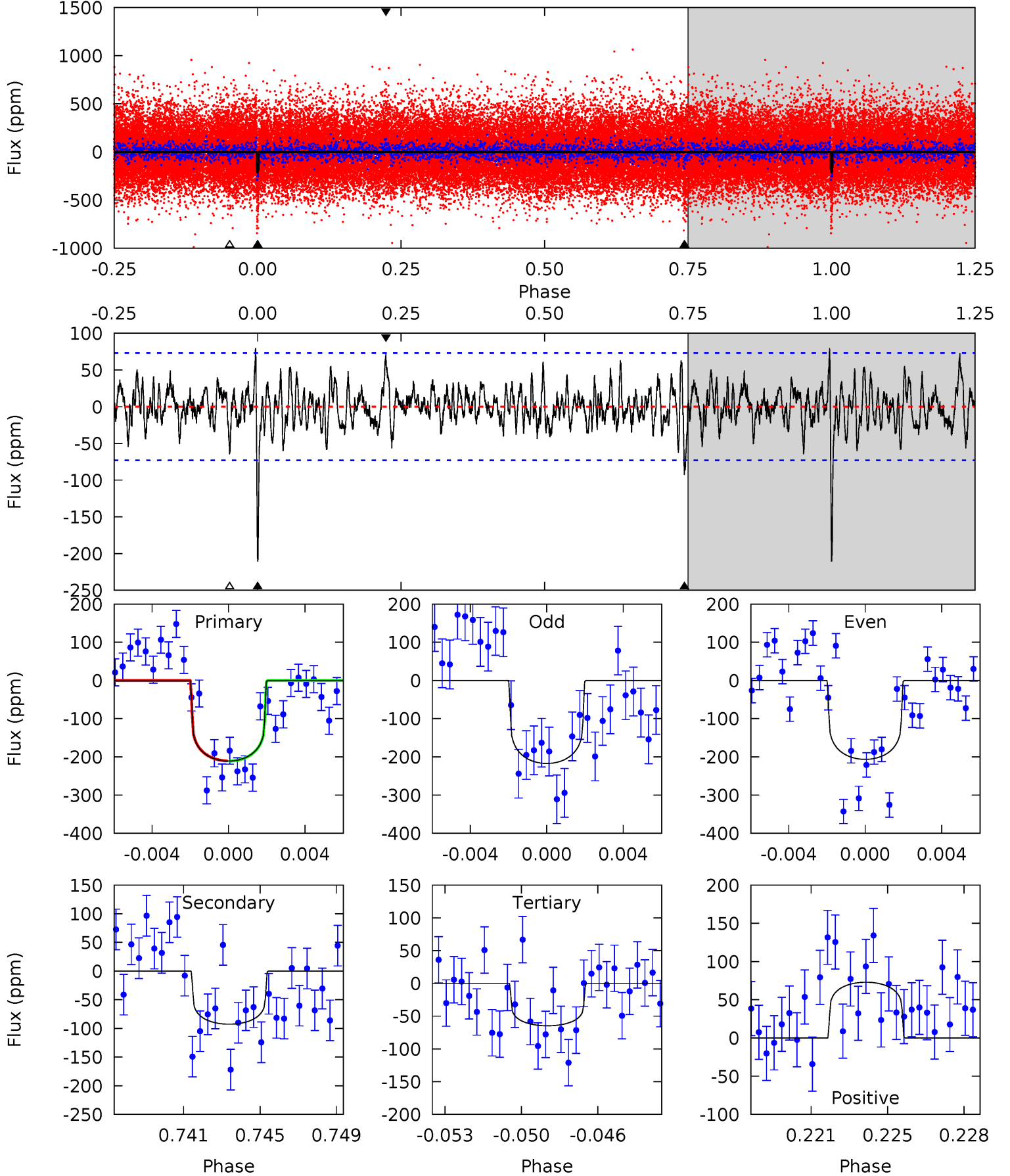
TCE 011955225-01 P=270.594824 Days $T_0=283.763075$ (BKJD)



DV Model-Shift Uniqueness Test

011955225-01, $P = 270.582257$ Days, $E = 13.212211$ Days

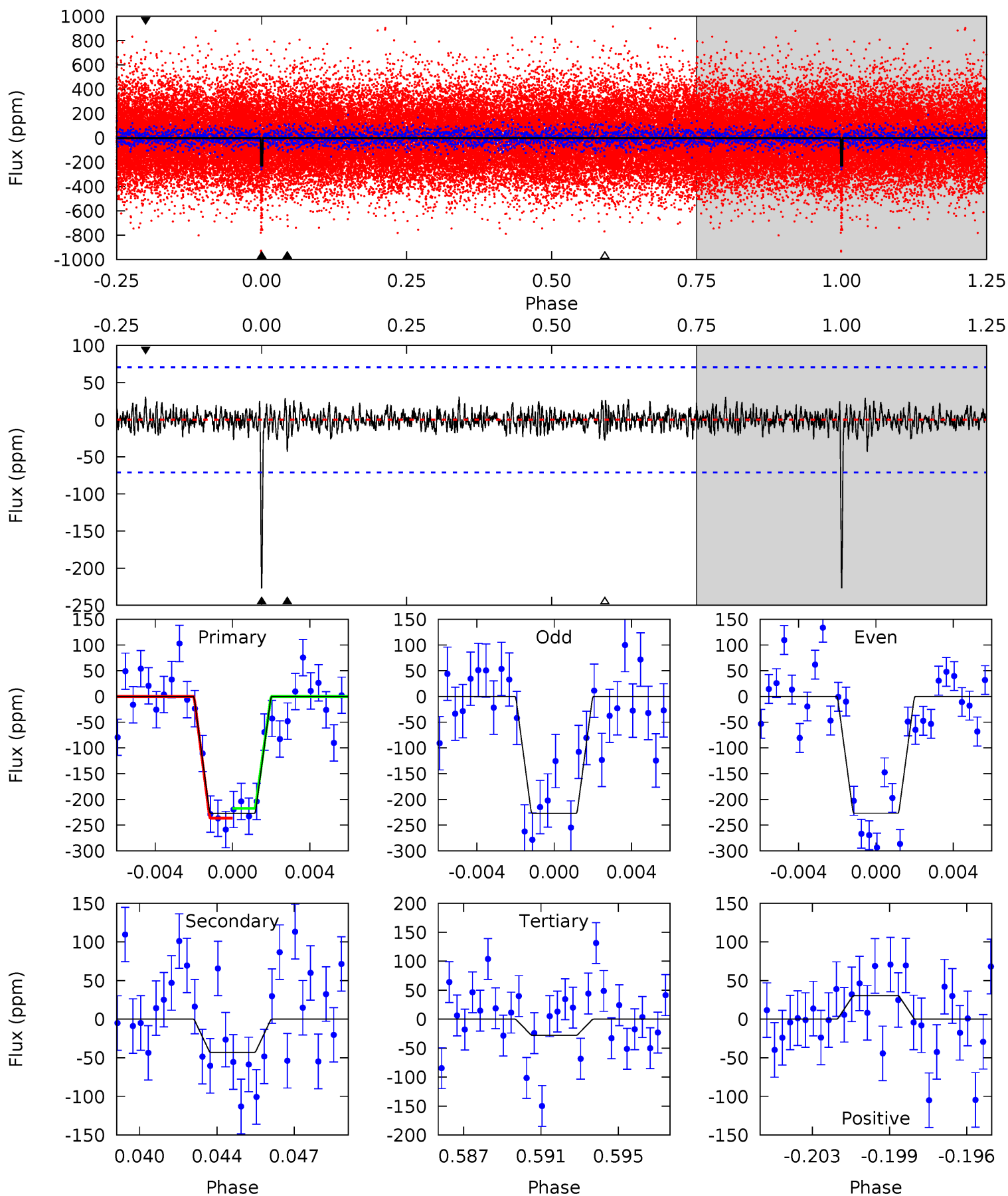
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	6.63	4.63	5.22	5.22	2.91	1.52	10.5	9.87	2.00	1.41	0.37	0.71	0.27	0.02



Alt Model-Shift Uniqueness Test

011955225-01, $P = 270.594824$ Days, $E = 13.168251$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.7	3.15	2.04	2.24	5.22	2.91	0.69	14.7	14.5	1.11	0.91	0.02	0.66	0.12	0.69



Stellar Parameters For KIC 011955225

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6528^{+158}_{-198}	$4.329^{+0.087}_{-0.203}$	$-0.240^{+0.250}_{-0.300}$	$1.207^{+0.383}_{-0.164}$	$1.133^{+0.178}_{-0.146}$	$0.909^{+0.422}_{-0.463}$
	+2%/-3%	+2%/-5%	+104%/-125%	+32%/-14%	+16%/-13%	+46%/-51%
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 011955225-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-93 ± 14	$1.88^{+0.67}_{-0.65}$	485^{+34}_{-25}	5485^{+1173}_{-644}	10195^{+13884}_{-4570}
Alt.	-43 ± 14	$2.02^{+0.68}_{-0.60}$	485^{+35}_{-26}	4496^{+745}_{-512}	4097^{+4739}_{-1984}

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

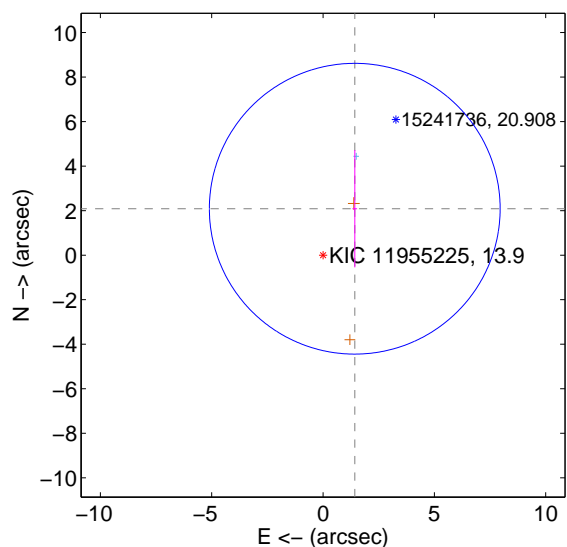
Supplemental centroid analysis for 011955225-01. Kepler magnitude: 13.90. Transit SNR 8.69

There are 1 quarters with good PRF difference image offsets

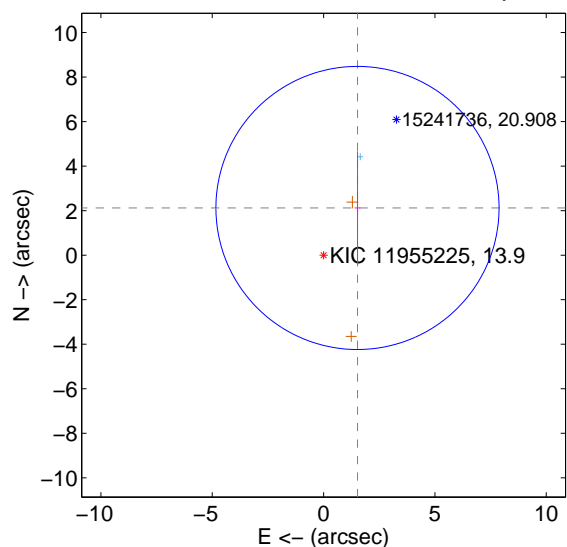
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.525 ± 2.176	1.16	-1.424 ± 0.105	2.085 ± 2.634
PRF-fit source offset from KIC position	2.610 ± 2.119	1.23	-1.522 ± 0.126	2.120 ± 2.539
photometric centroid source offset	1.22 ± 1.42	0.86	0.12 ± 1.26	-1.21 ± 1.42

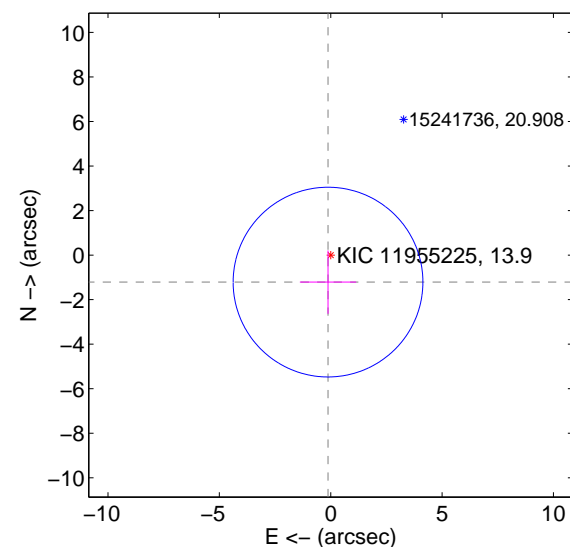
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

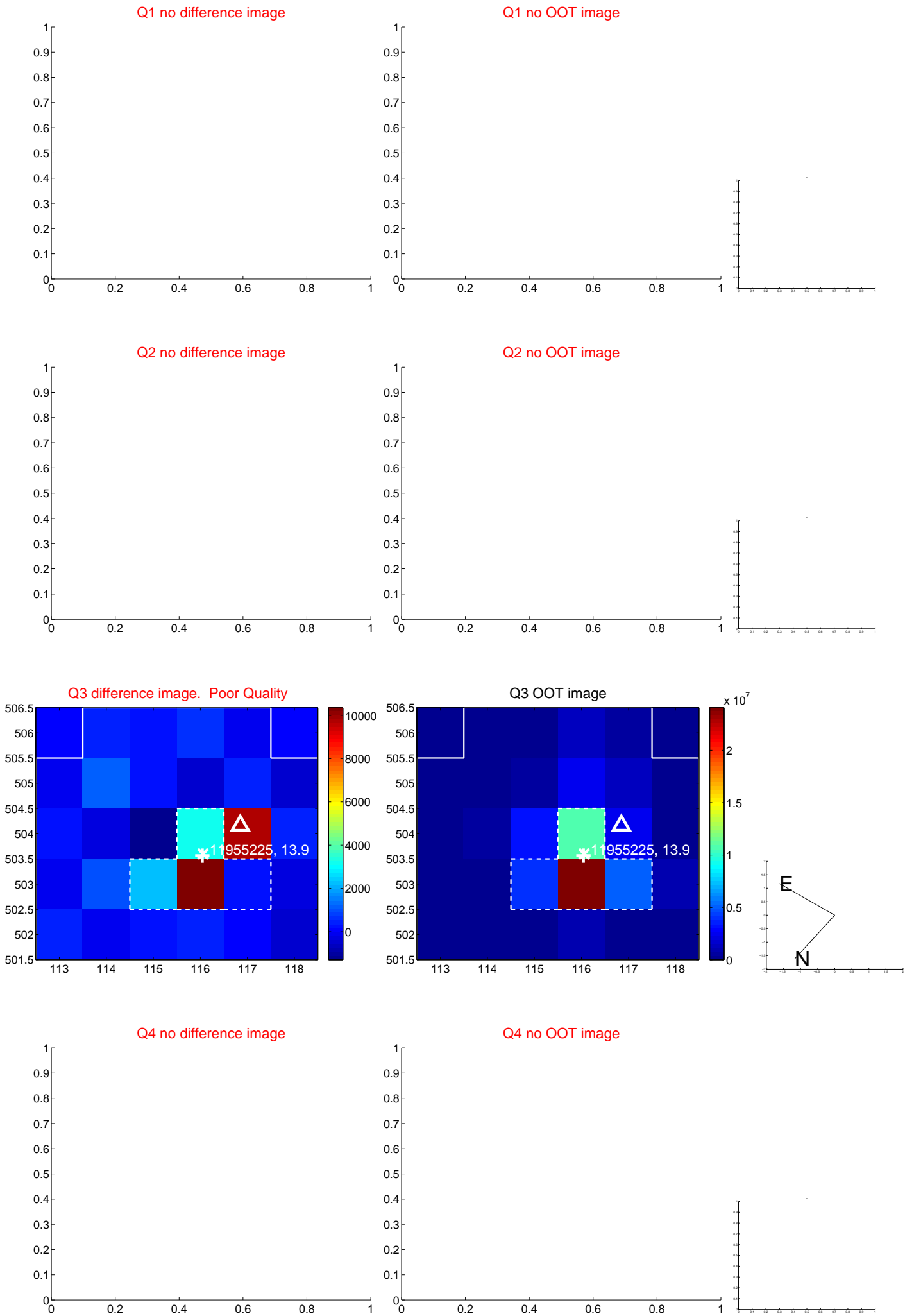


offset from photometric centroids

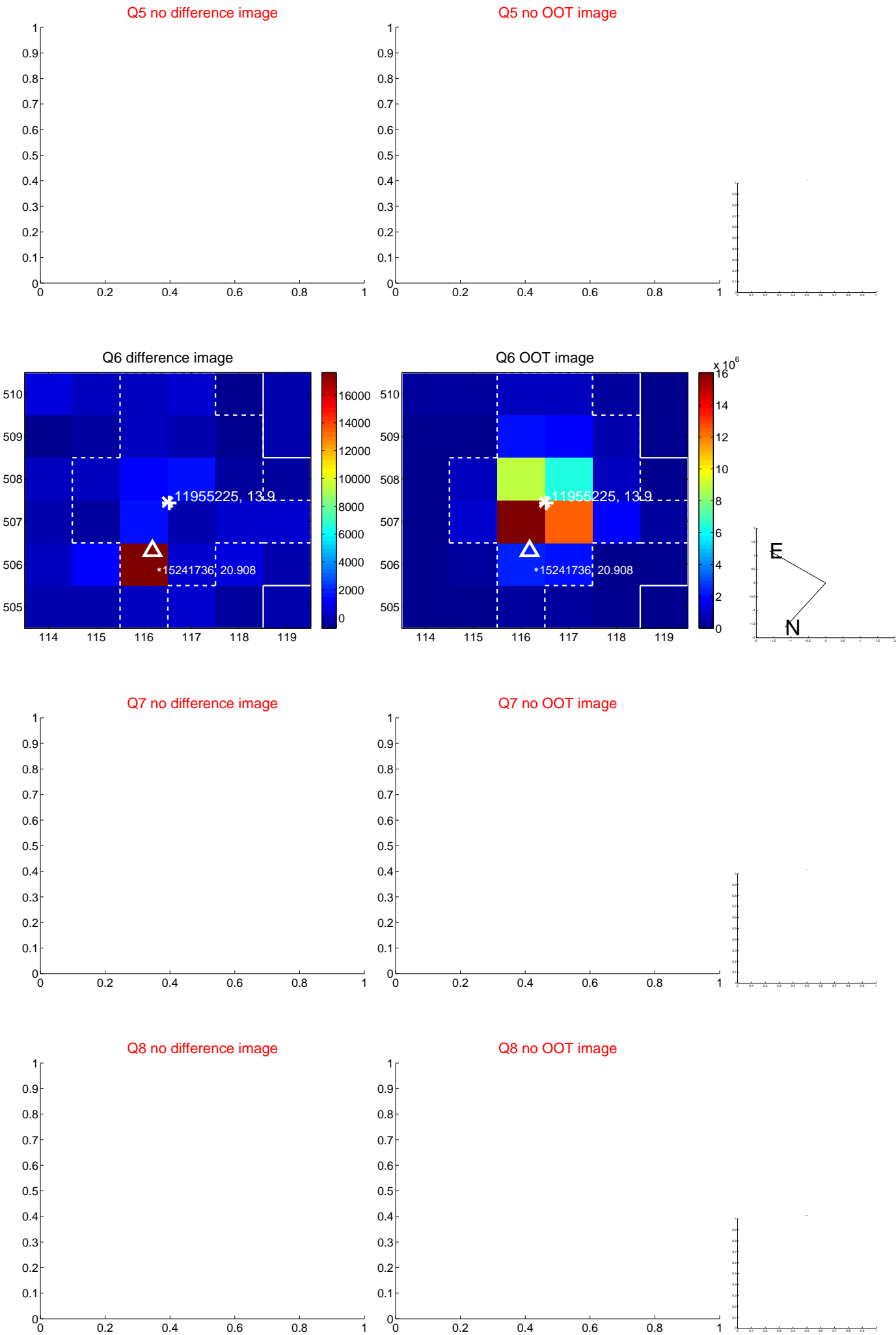


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

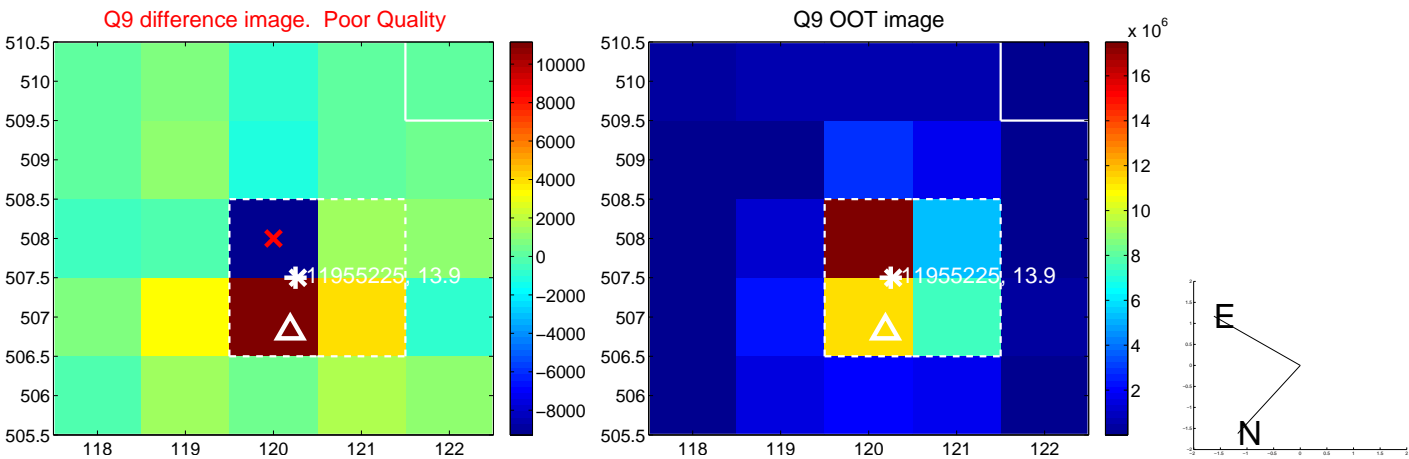
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



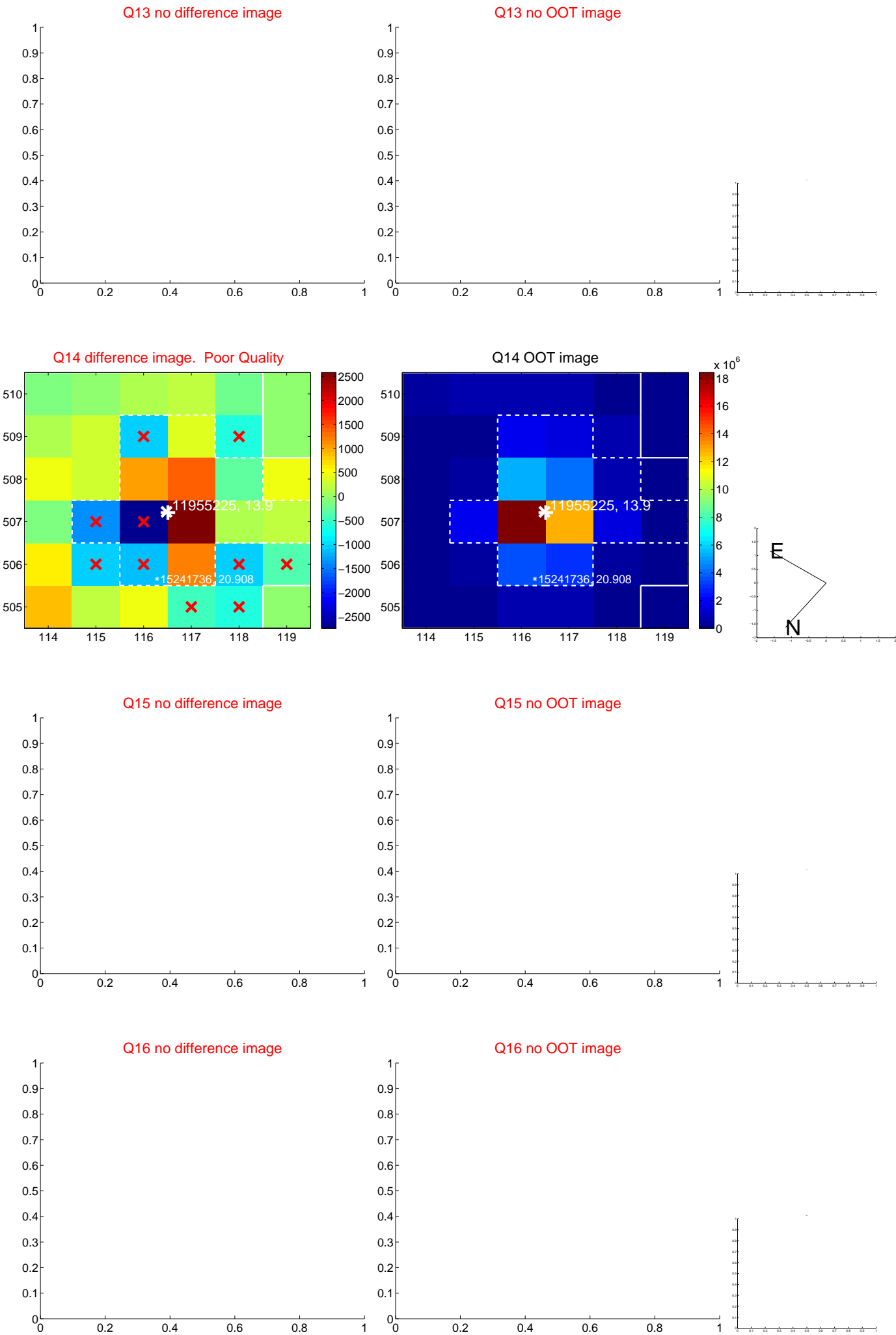
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



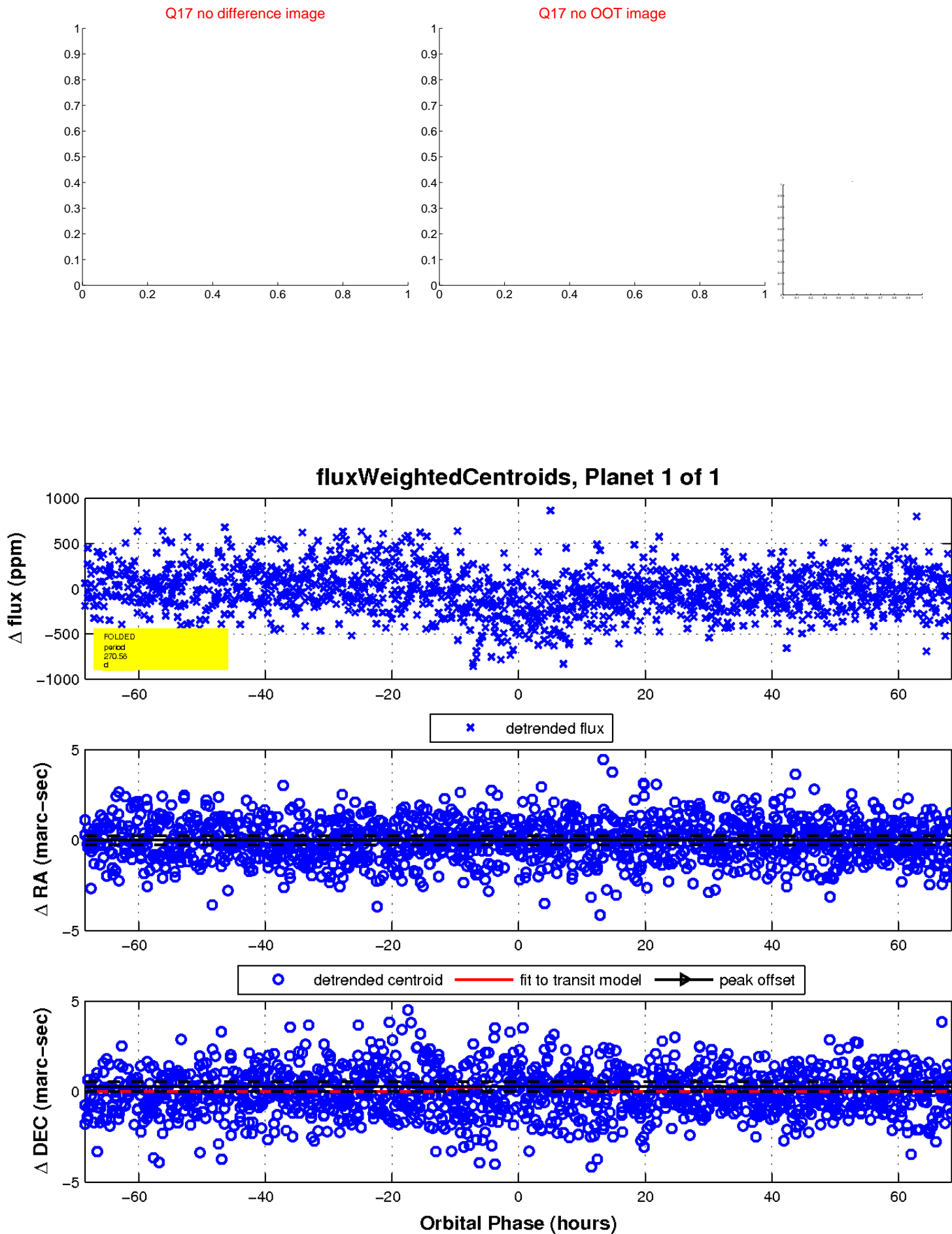
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

