

KIC 005725846

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})
005725846-01	OBS	No	1.140178	132.350631	65.8	9.650	10.3	9.5	0.69	4589	0.56	542.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005725846-01	OBS	FP	0.00	1	0	0	1	LPP_DV—CENT_KIC_POS—EPHEM_MATCH

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.

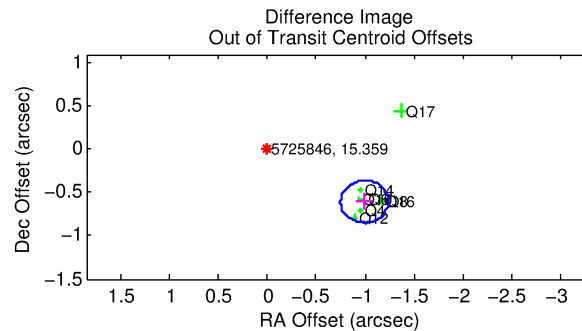
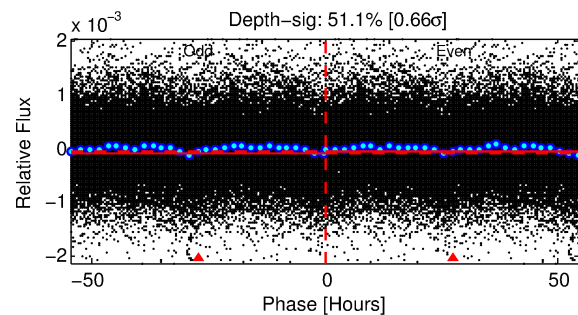
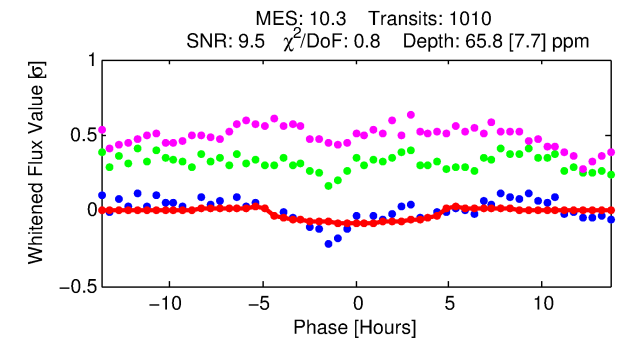
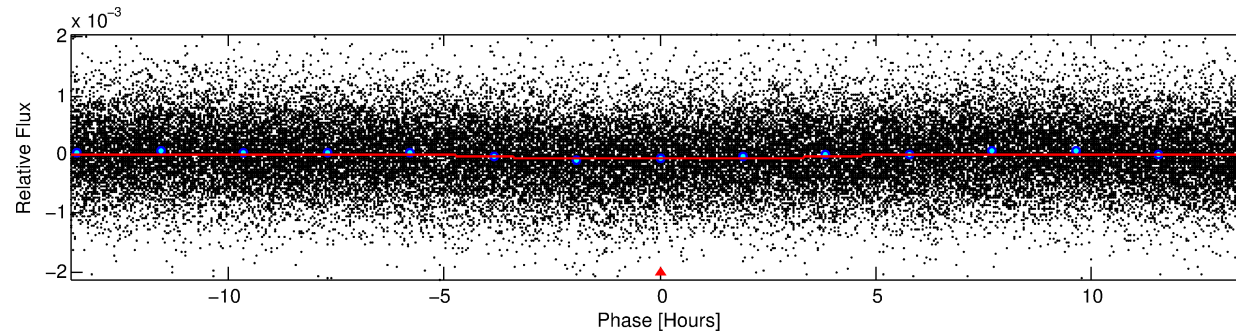
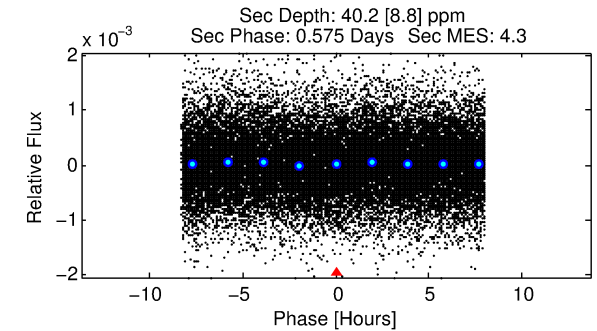
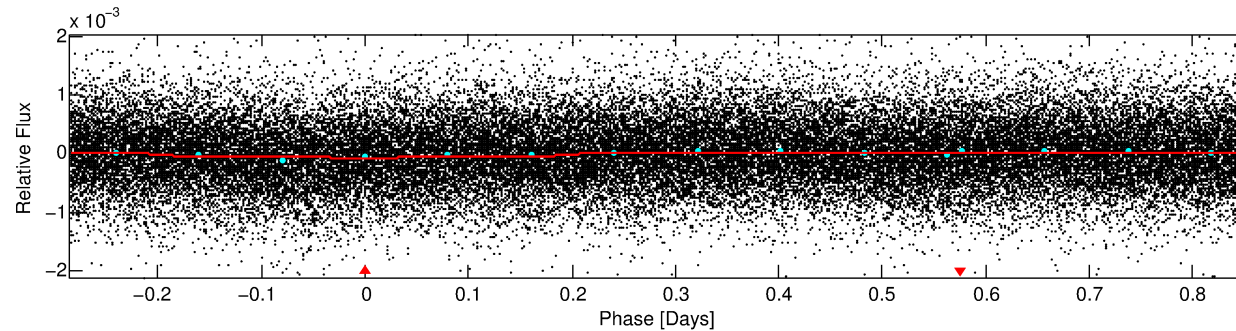
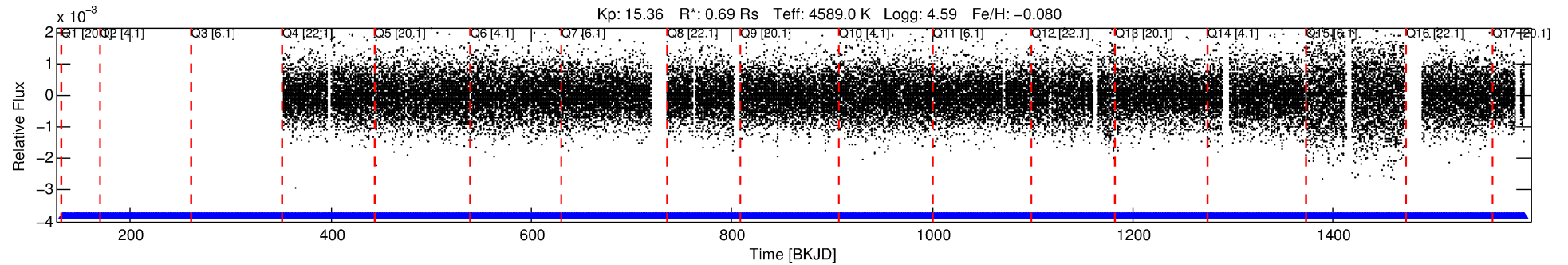
Ephemeris Match Information For 005725846-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
005725846-01	5725846	6620.01	5725851	1:1	5.4	-1	0	13.41	15.36	3.05	Direct-PRF	0	3.47	0.04

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 5725846 Candidate: 1 of 1 Period: 1.140 d



DV Fit Results:

Period = 1.14018 [0.00002] d
Epoch = 132.3506 [0.0086] BKJD
Rp/R* = 0.0074 [0.0042]
a/R* = 1.11 [0.34]
b = 0.43 [3.39]
Seff = 542.05 [97.77]
Teq = 1230 [55] K
Rp = 0.56 [0.32] Re
a = 0.0188 [0.0014] AU
Ag = 25.15 [29.38] [0.82σ]
Teff = 4260 [1248] K [2.43σ]

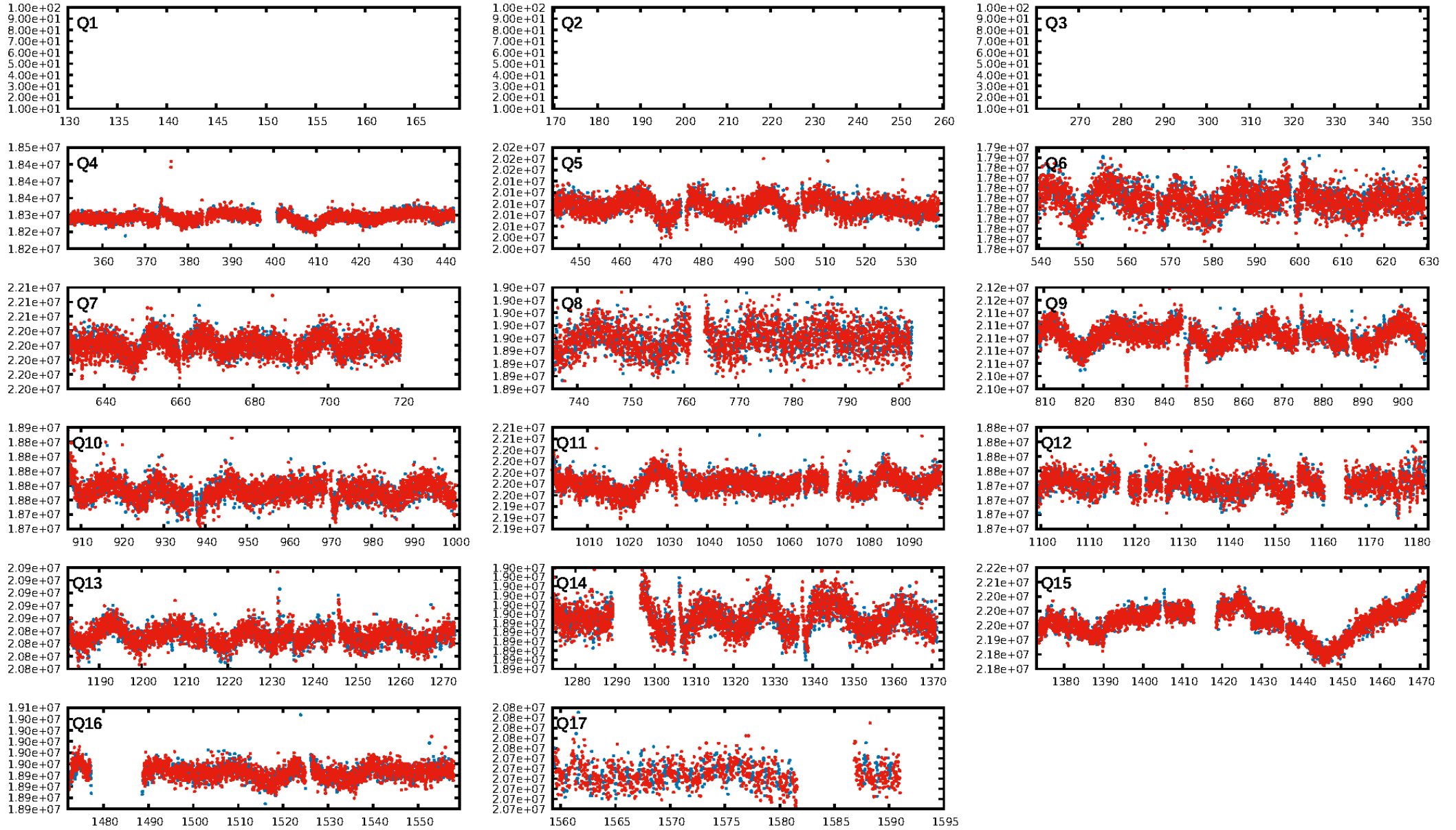
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [986/986]
GhostDiagnostic-chr: -1.376
Centroid-sig: 0.0%
Centroid-so: 3.471 arcsec [11.15σ]
OotOffset-rm: 1.162 arcsec [14.28σ]
KicOffset-rm: 2.533 arcsec [8.12σ]
OotOffset-st: 3/0/4/1 [8]
KicOffset-st: 3/0/4/1 [8]
DiffImageQuality-fgm: 0.38 [3/8]
DiffImageOverlap-fno: 1.00 [14/14]

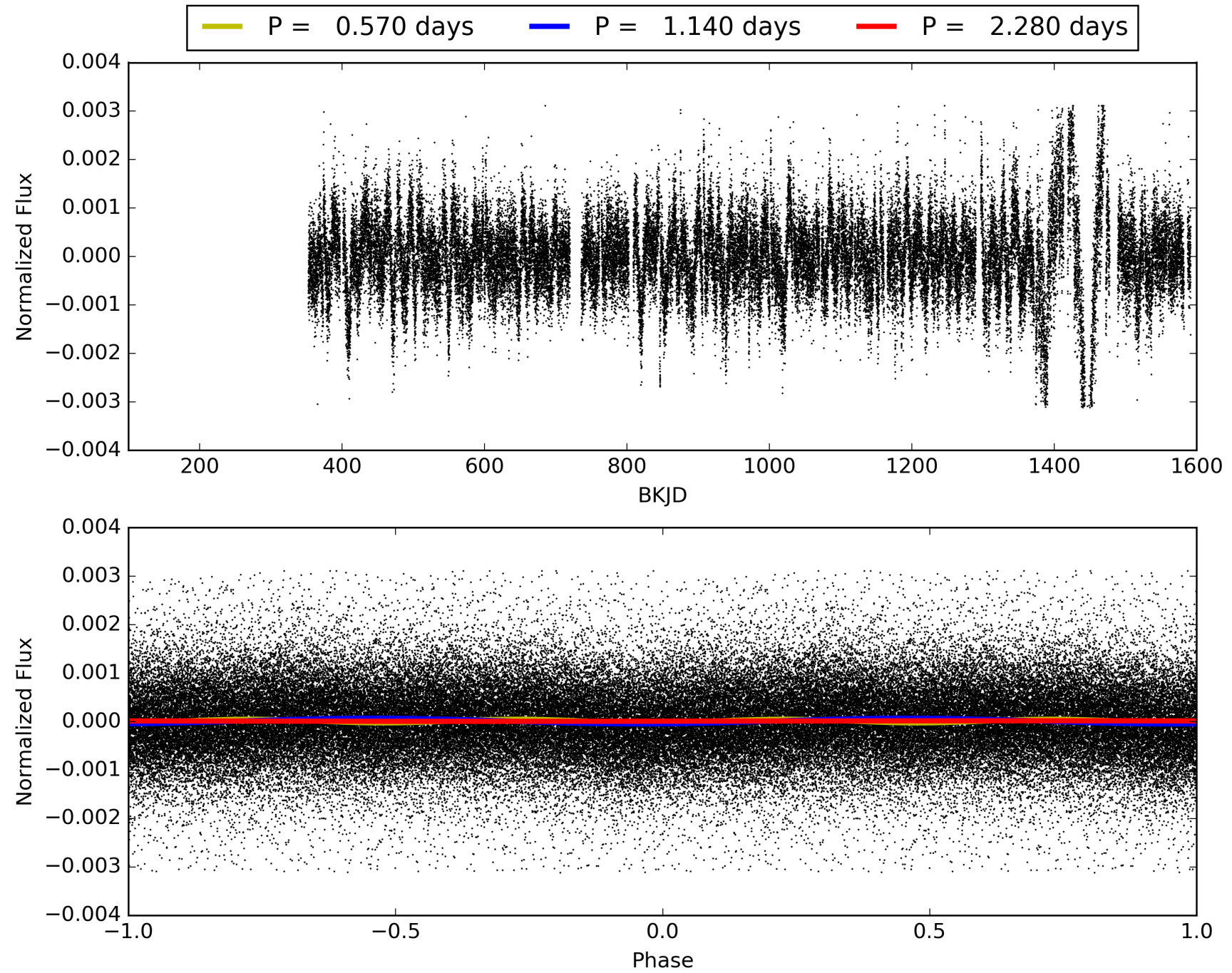
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:33:02 Z

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

TCE 005725846-01, PDC Light Curves

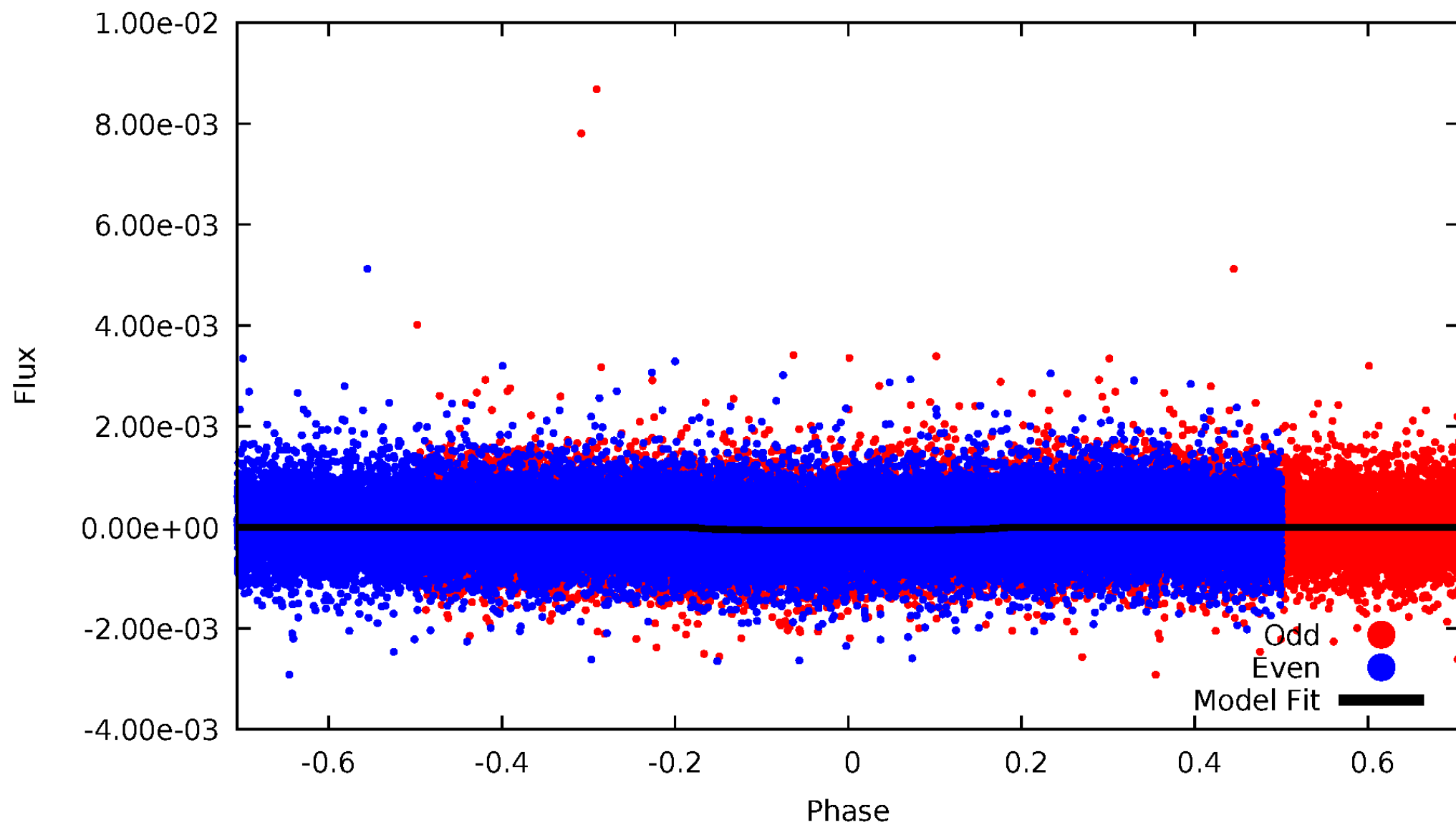


TCE 005725846-01



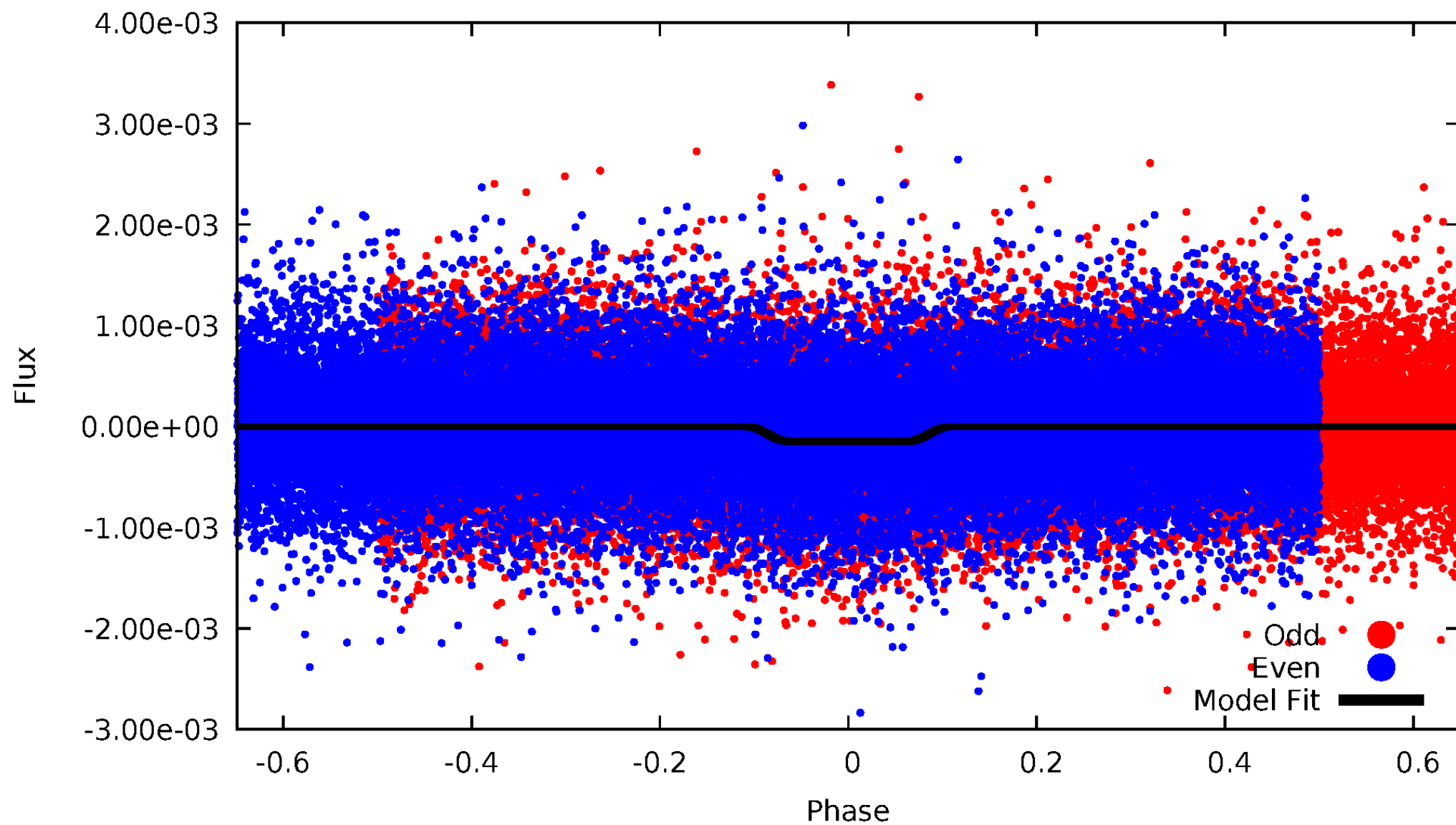
DV Odd/Even

TCE 005725846-01

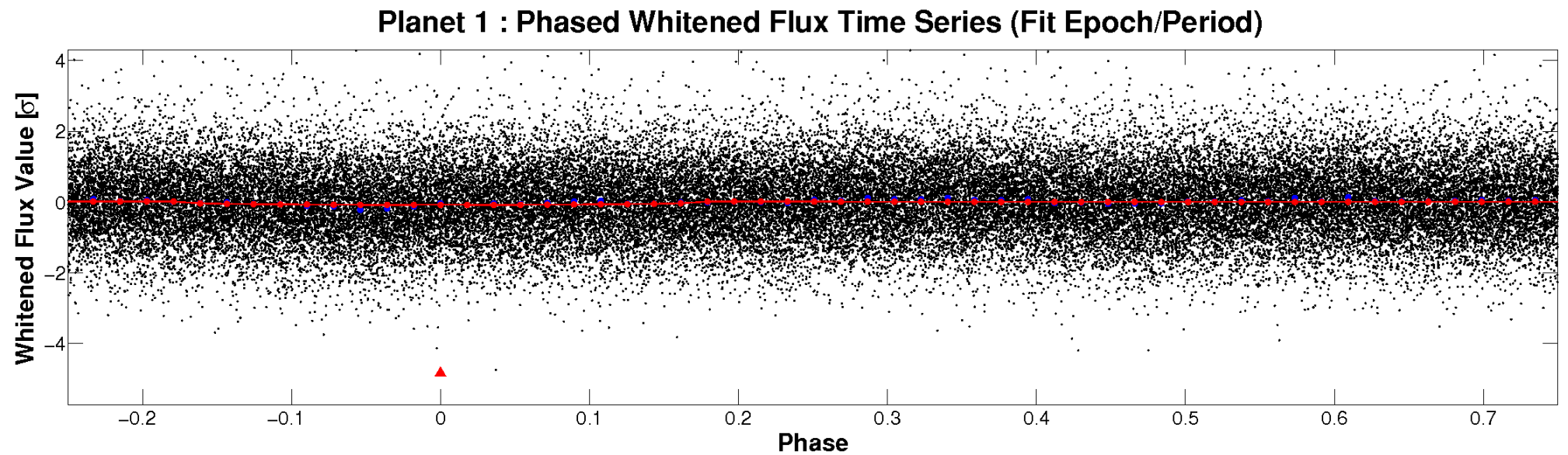
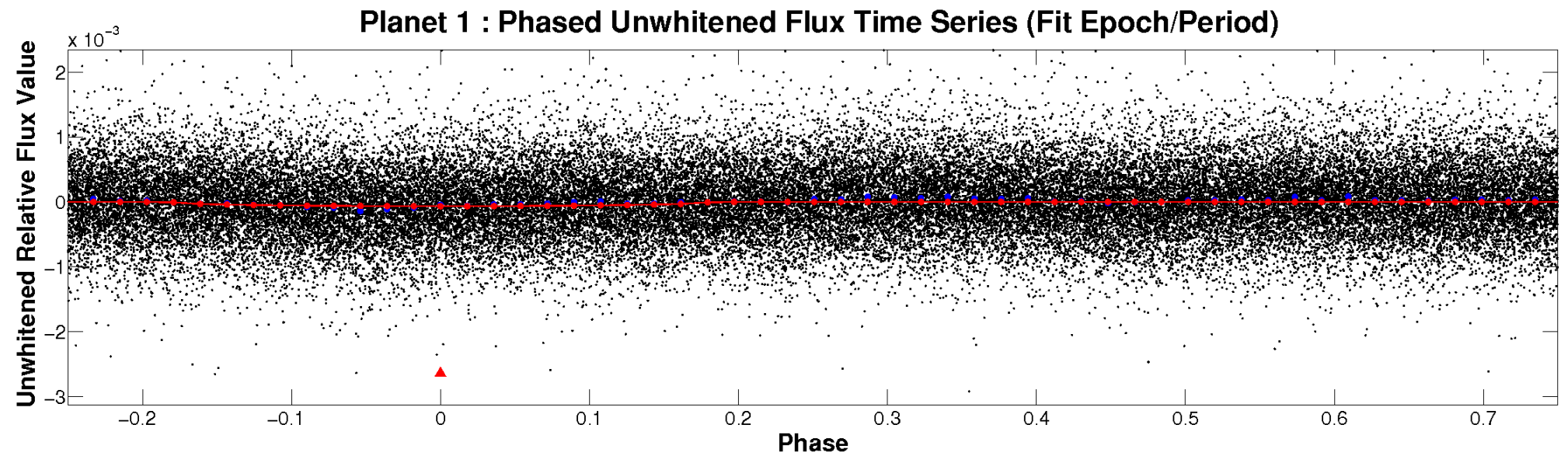


ALT Odd/Even

TCE 005725846-01

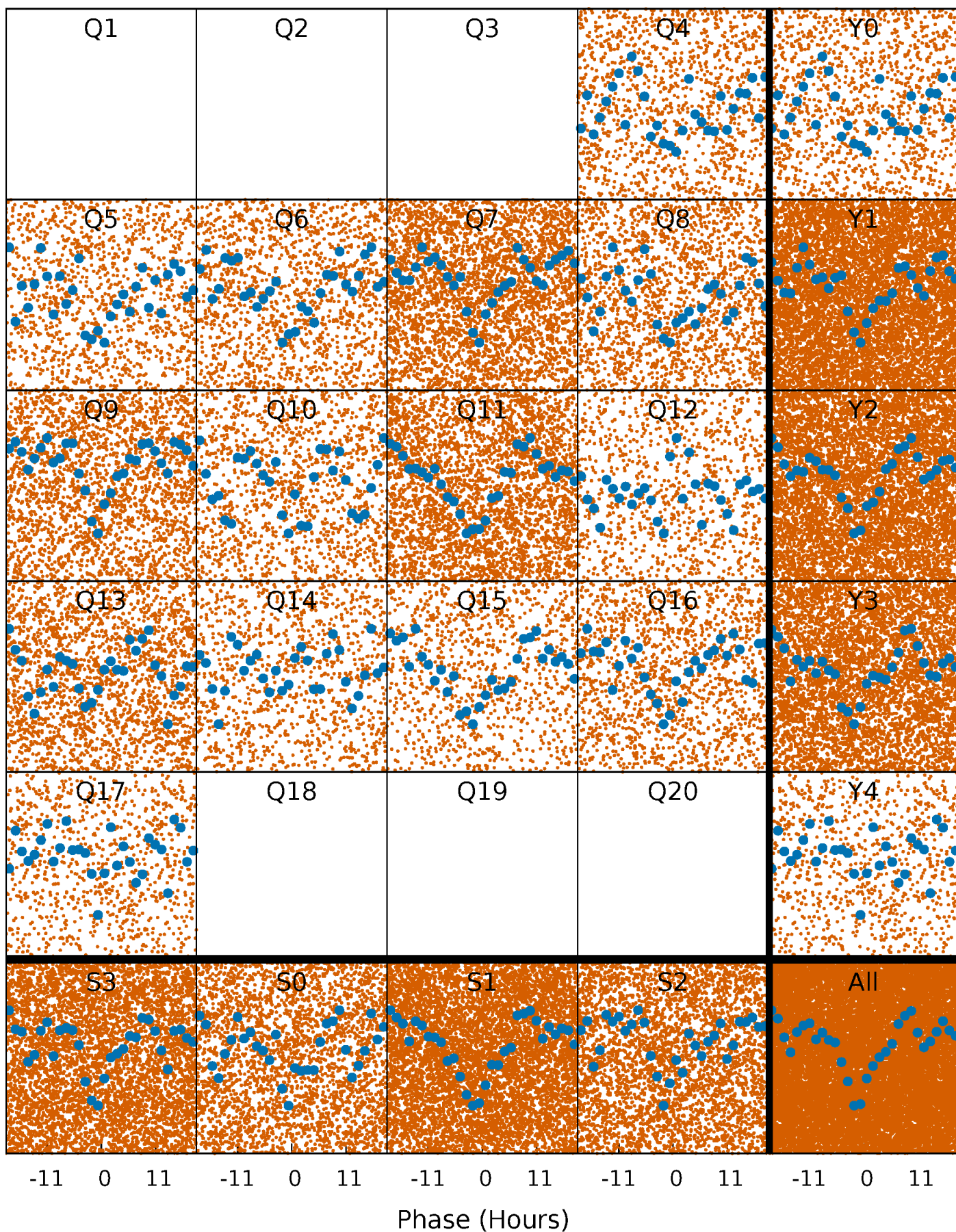


Non-Whitened Vs. Whitened Light Curve



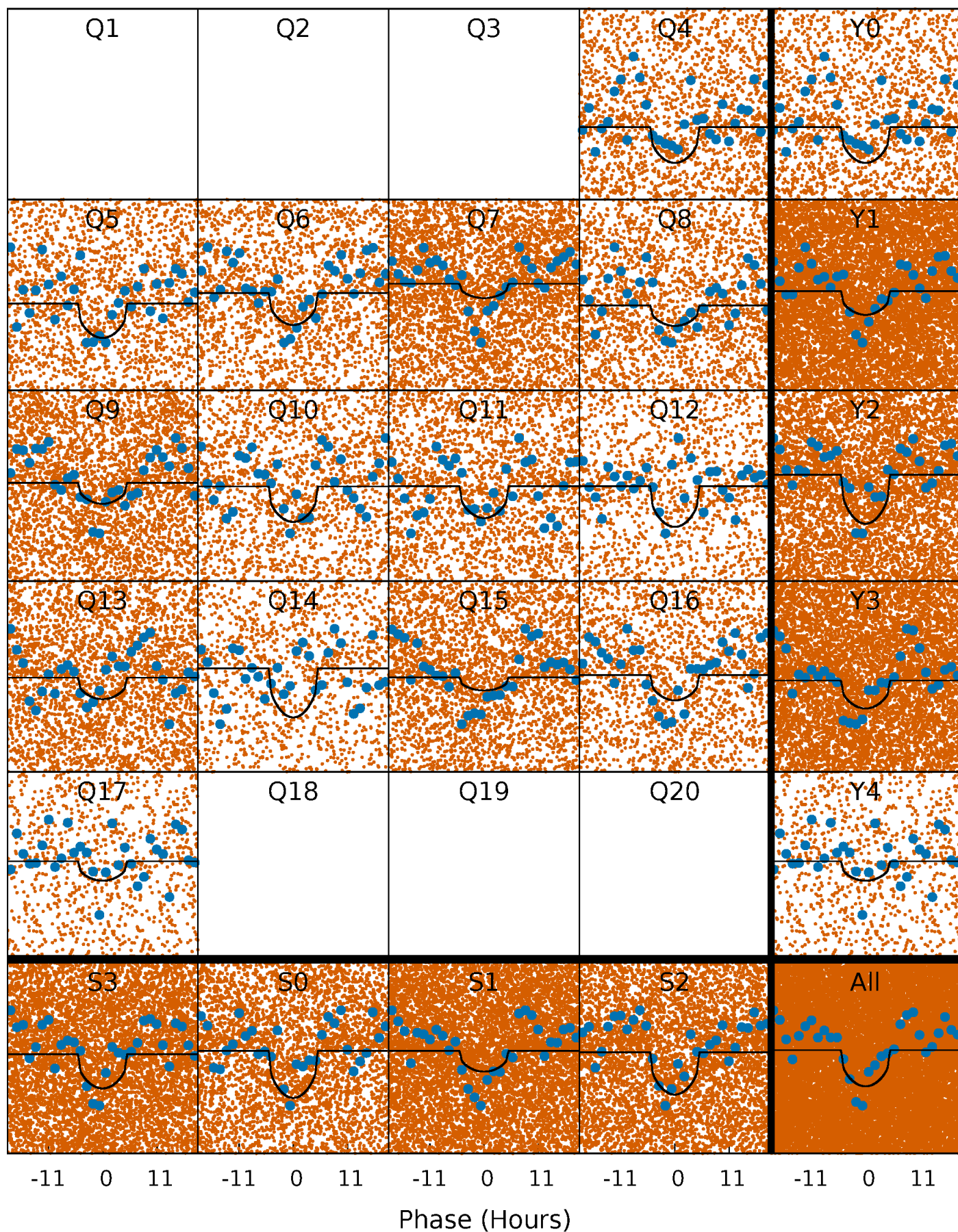
PDC Quarter-Phased Transit Curves

TCE 005725846-01 P= 1.140178 Days $T_0=132.350630$ (BKJD)



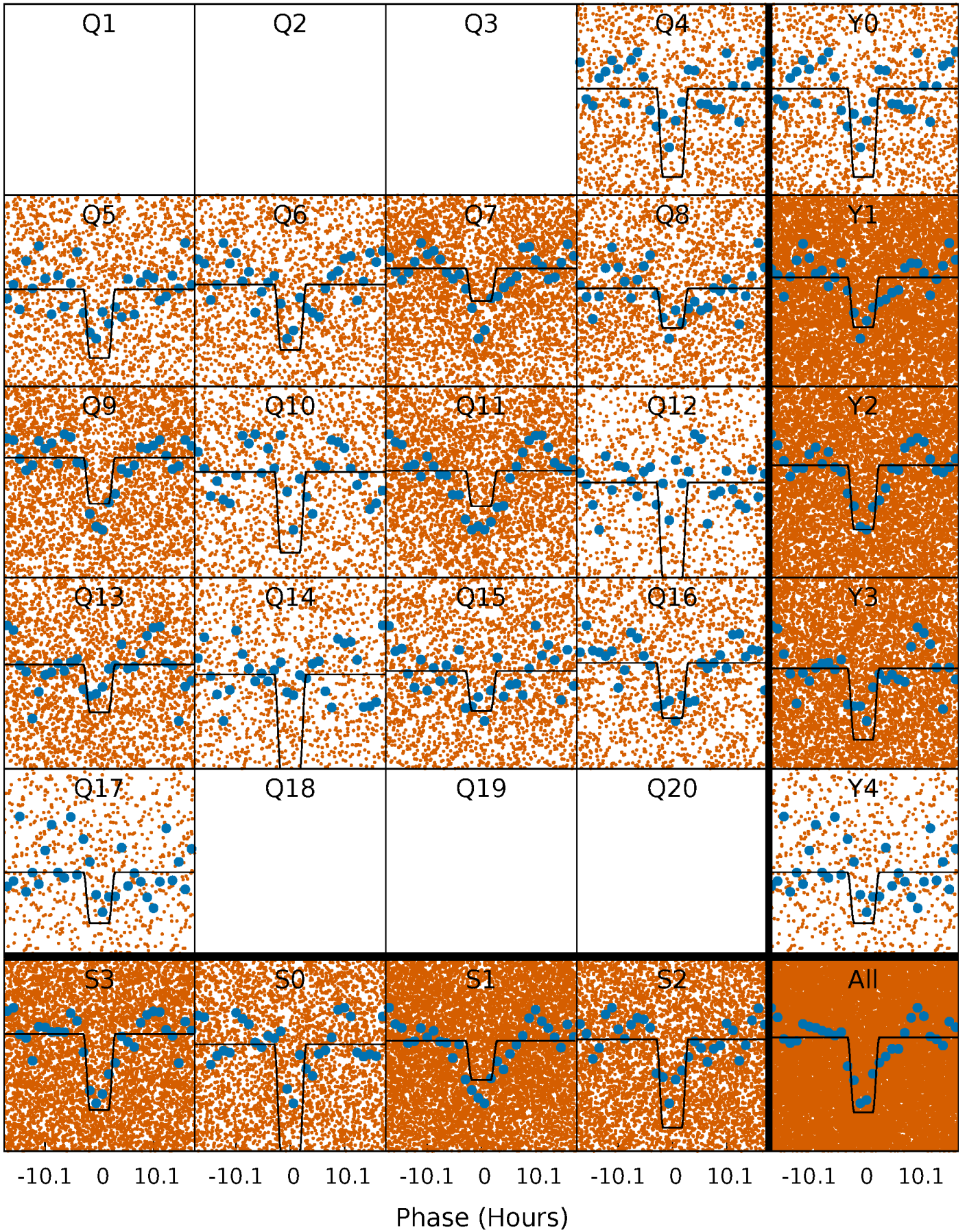
DV Quarter-Phased Transit Curves

TCE 005725846-01 P= 1.140178 Days $T_0=132.350630$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

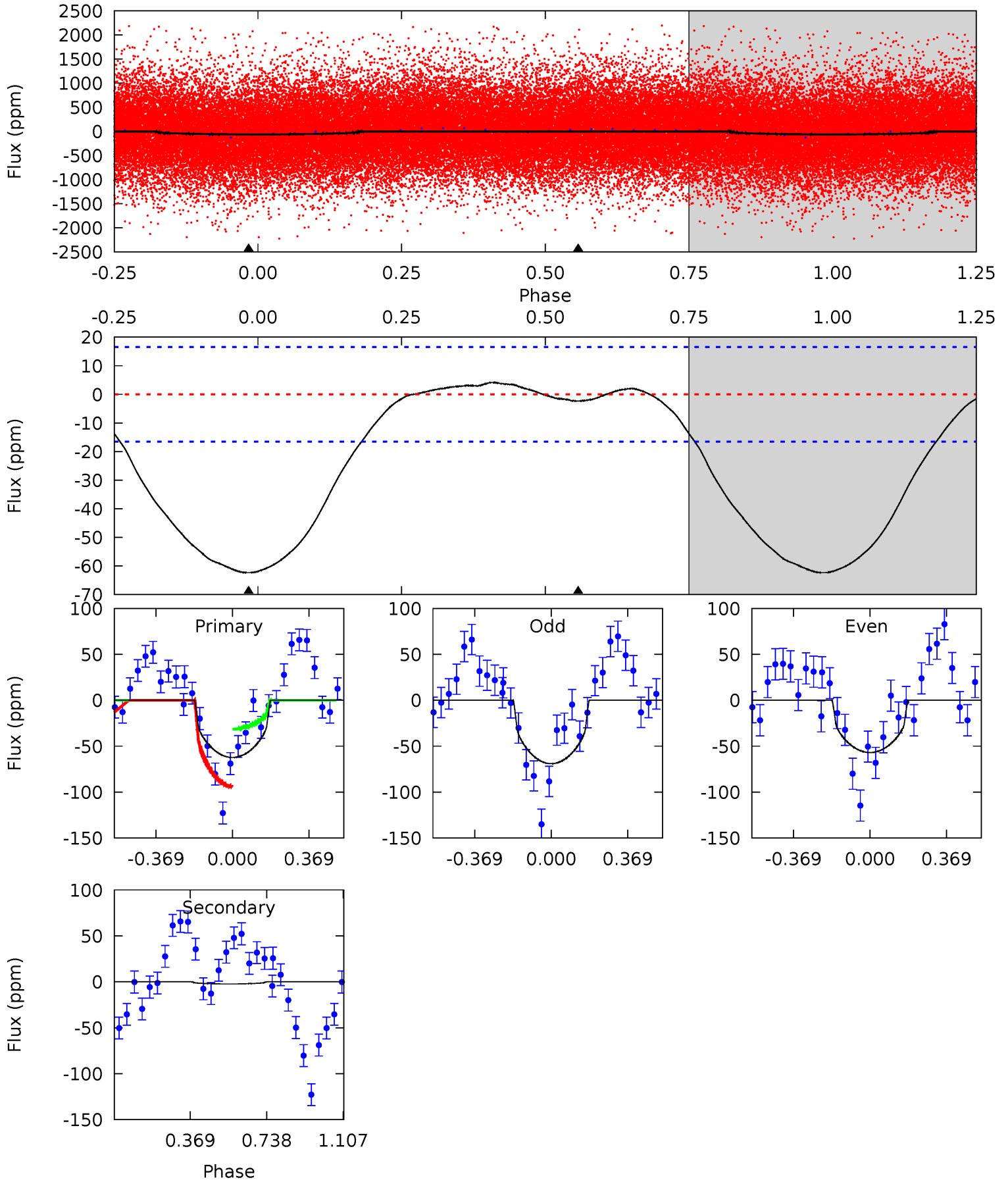
TCE 005725846-01 P= 1.140116 Days $T_0=132.344030$ (BKJD)



DV Model-Shift Uniqueness Test

005725846-01, P = 1.140178 Days, E = 132.350630 Days

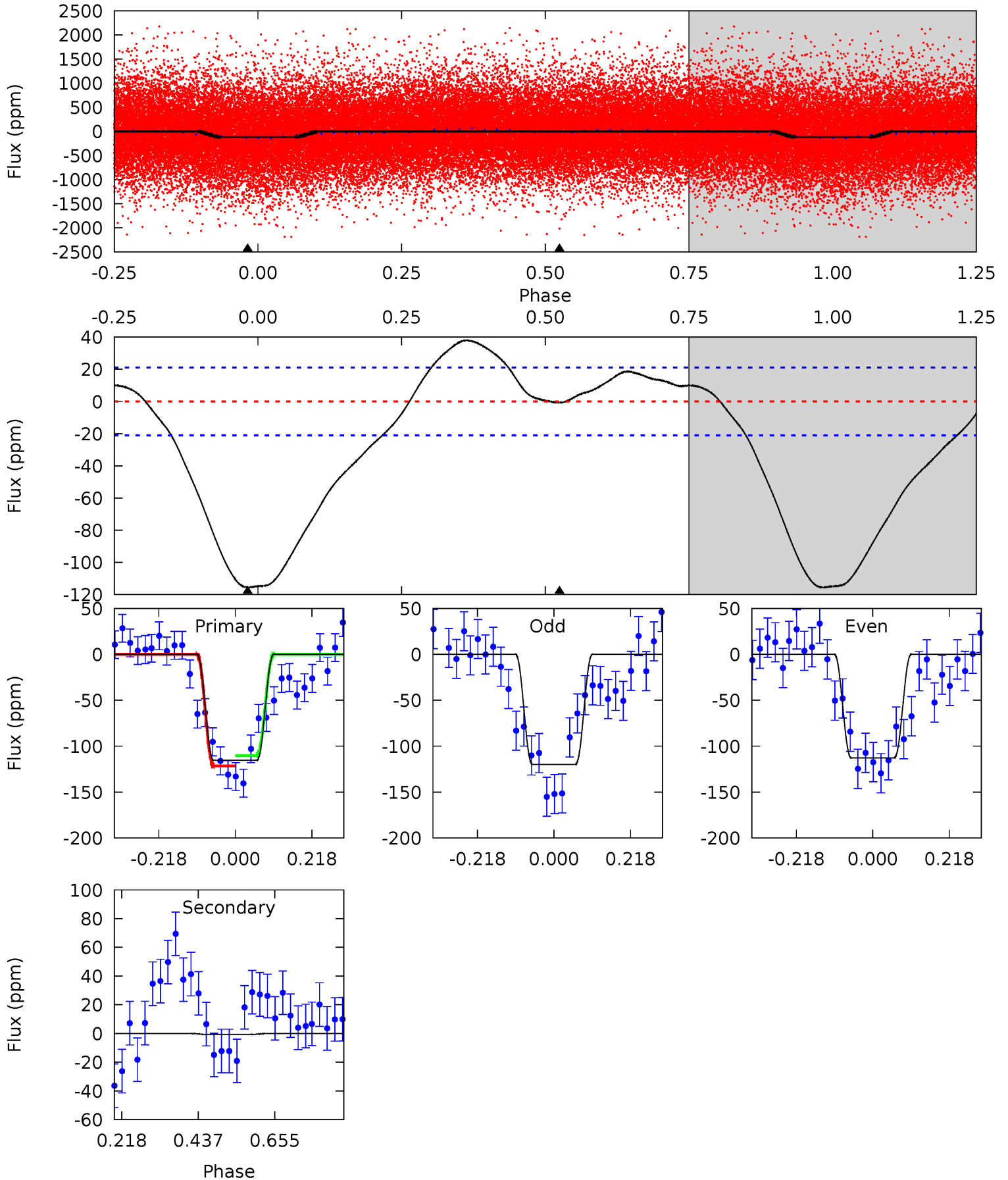
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.1	0.61	0	0	4.28	0.90	0.59	16.1	16.1	0.61	0.61	1.57	1.20	0.06	8.19



Alt Model-Shift Uniqueness Test

005725846-01, P = 1.140116 Days, E = 132.344030 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.1	0.15	0	0	4.40	1.23	3.05	24.1	24.1	0.15	0.15	0.74	1.07	0.25	1.16



Stellar Parameters For KIC 005725846

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4589^{+164}_{-164}	$4.588^{+0.059}_{-0.027}$	$-0.080^{+0.300}_{-0.300}$	$0.694^{+0.049}_{-0.065}$	$0.681^{+0.075}_{-0.056}$	$2.869^{+0.725}_{-0.328}$
	+4%/-4%	+1%/-1%	+375%/-375%	+7%/-9%	+11%/-8%	+25%/-11%
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 005725846-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2 ± 4	$0.55^{+0.32}_{-0.29}$	1713^{+68}_{-76}	2603^{+841}_{-5218}	$1.249^{+5.848}_{-1.886}$
Alt.	-1 ± 5	$0.93^{+0.32}_{-0.31}$	1713^{+69}_{-81}	-1972^{+4663}_{-725}	$0.219^{+1.239}_{-1.142}$

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

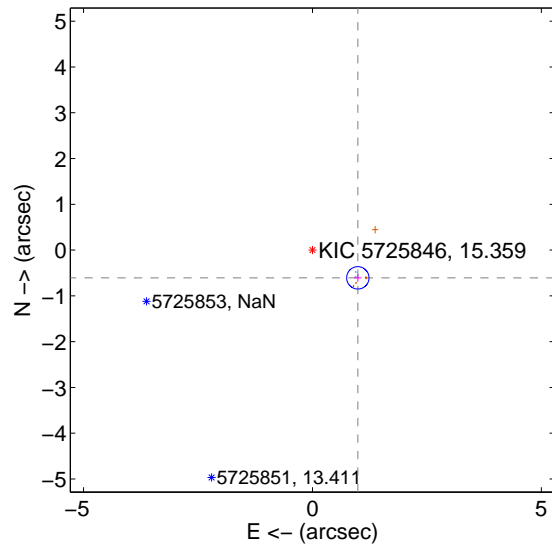
Supplemental centroid analysis for 005725846-01. Kepler magnitude: 15.36. Transit SNR 9.46

There are 3 quarters with good PRF difference image offsets

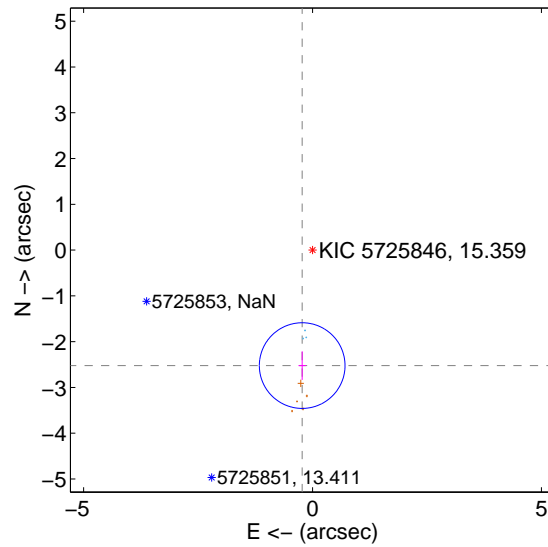
The OOT PRF centroid is offset from the target star catalog position by about 3.73 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.162 ± 0.081	14.28	-0.992 ± 0.079	-0.606 ± 0.087
PRF-fit source offset from KIC position	2.533 ± 0.312	8.12	0.226 ± 0.080	-2.523 ± 0.313
photometric centroid source offset	3.47 ± 0.31	11.15	0.02 ± 0.28	-3.47 ± 0.31

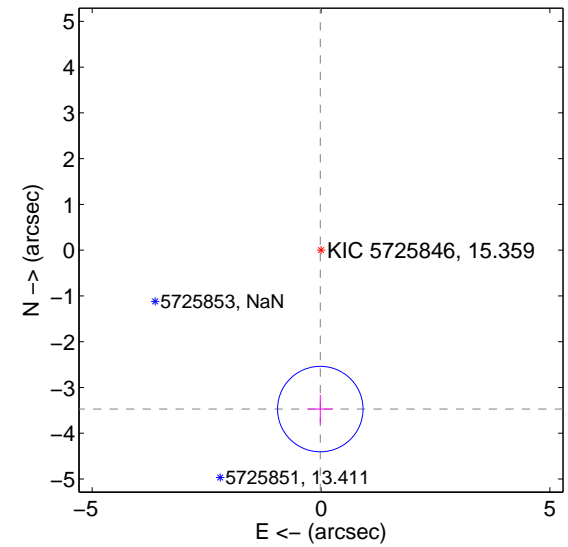
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

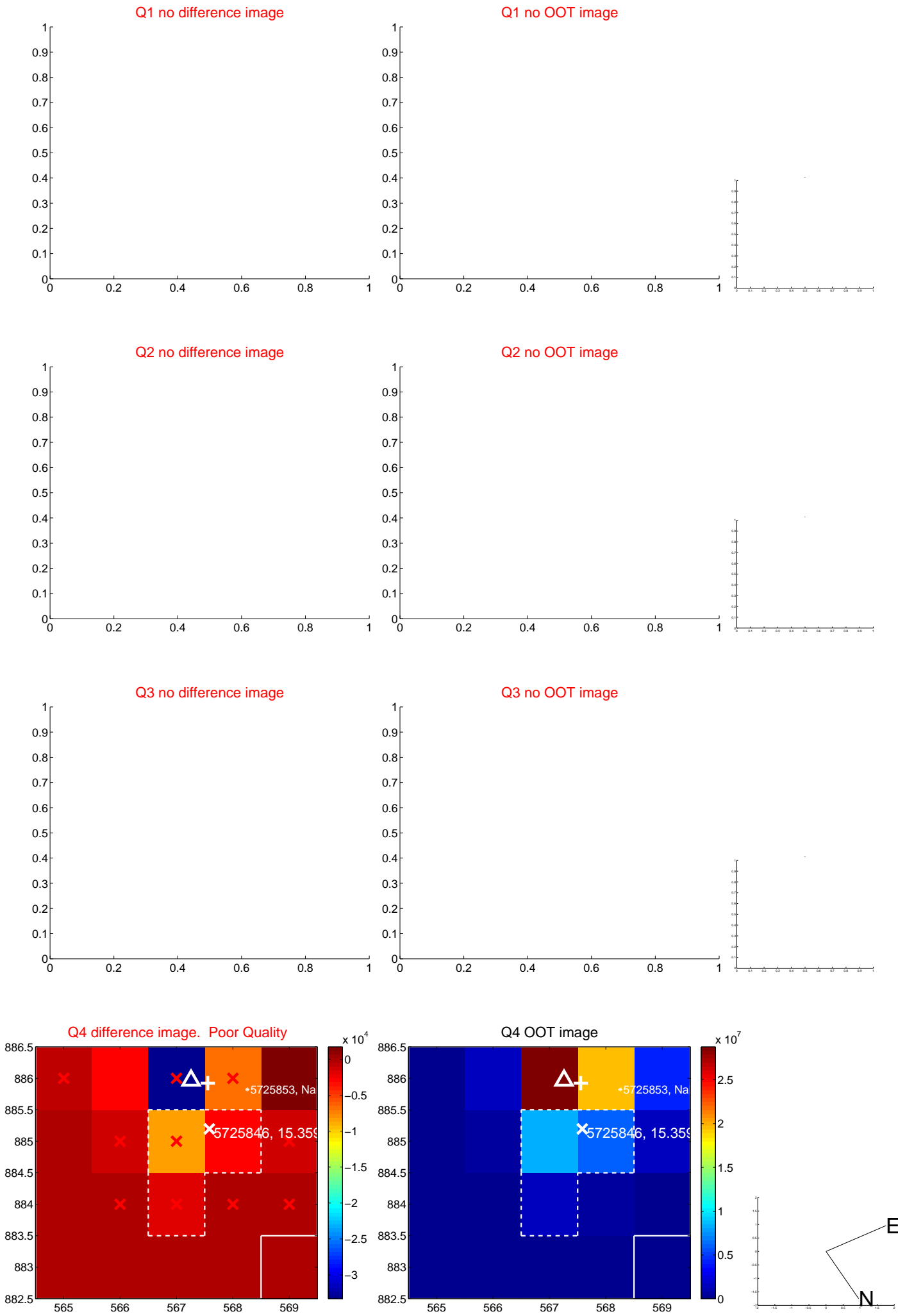


offset from photometric centroids

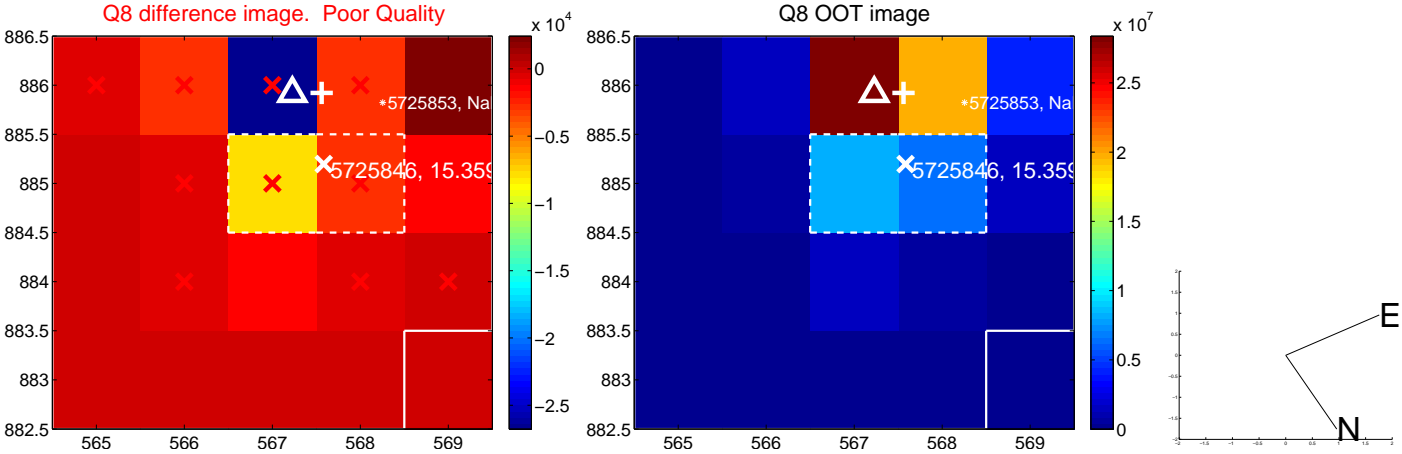
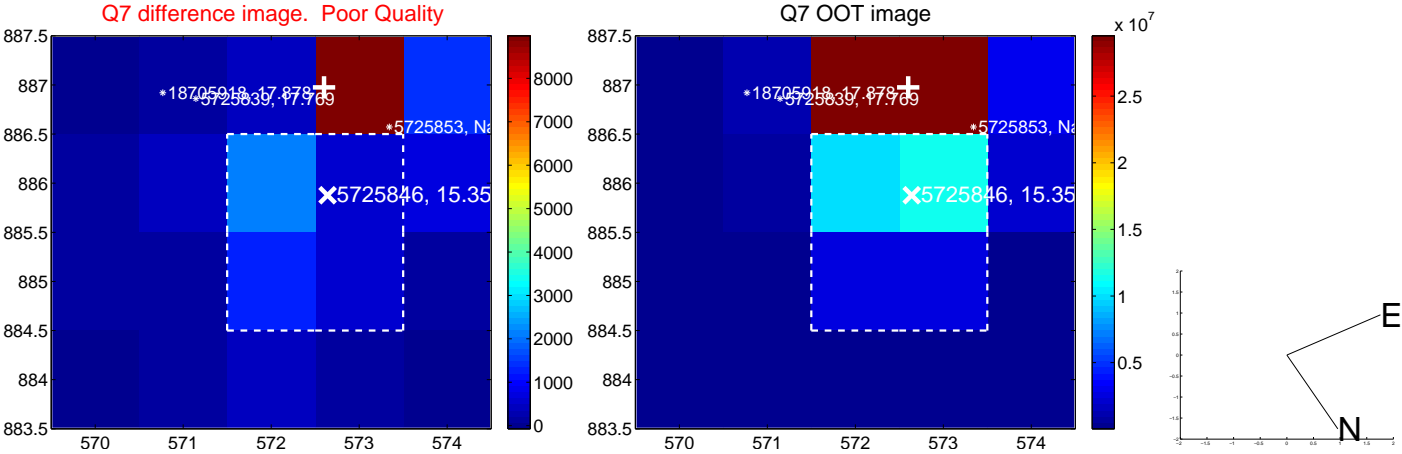
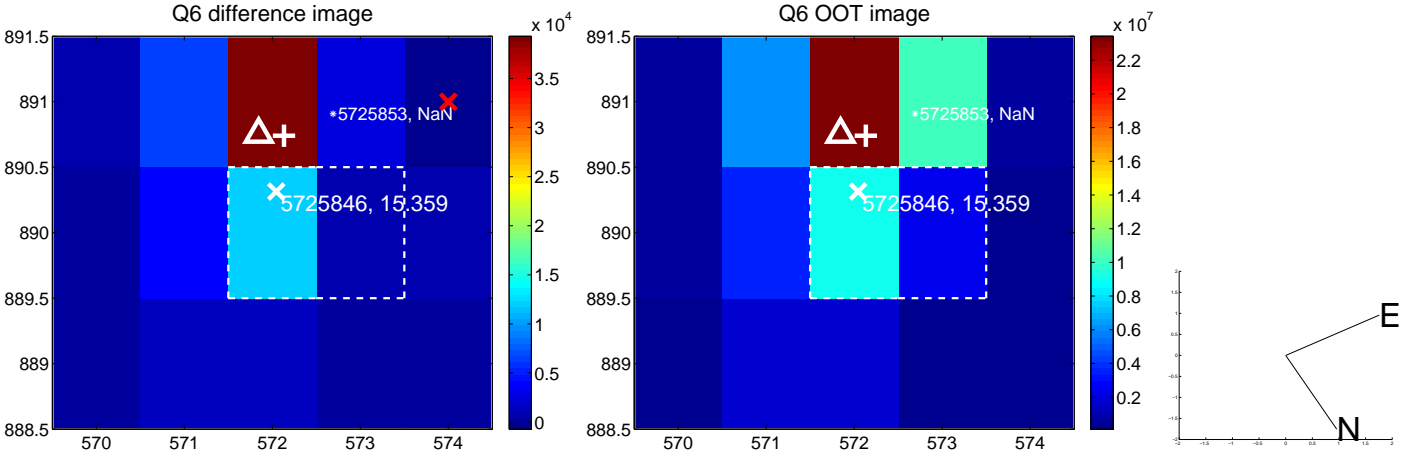
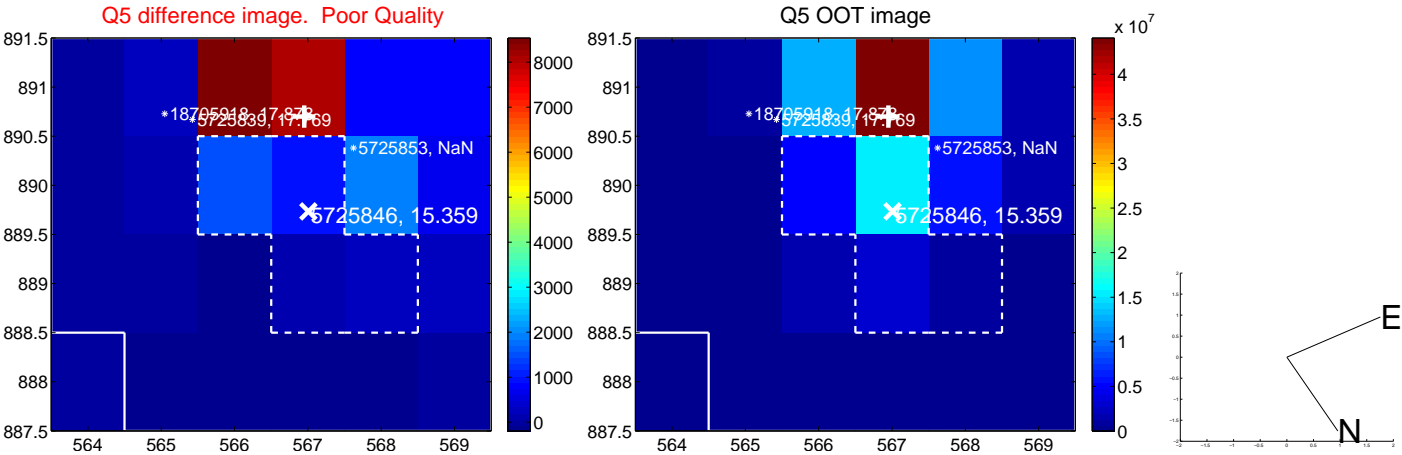


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

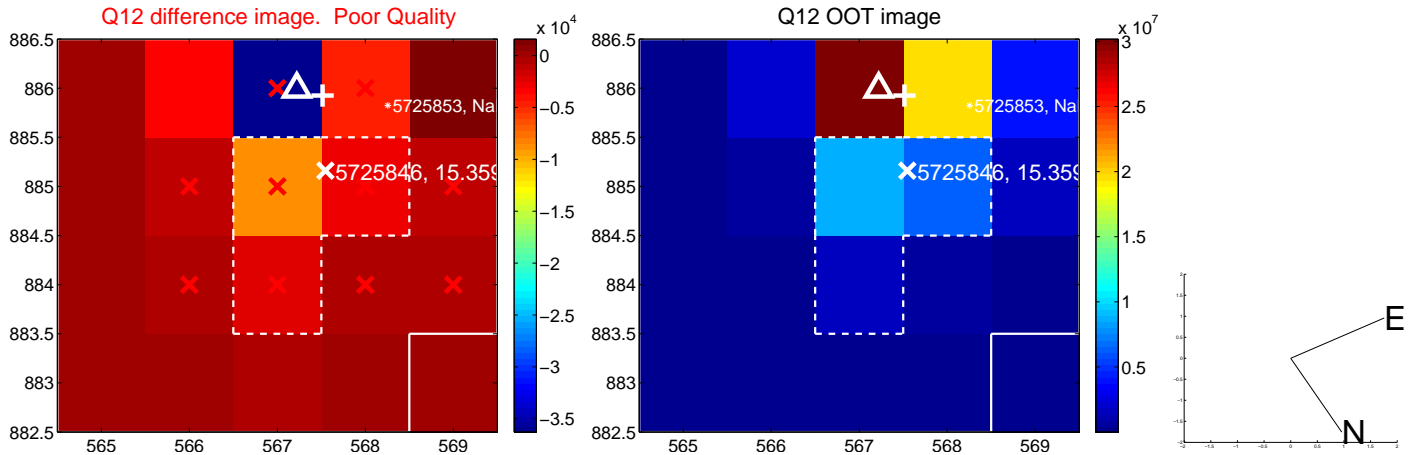
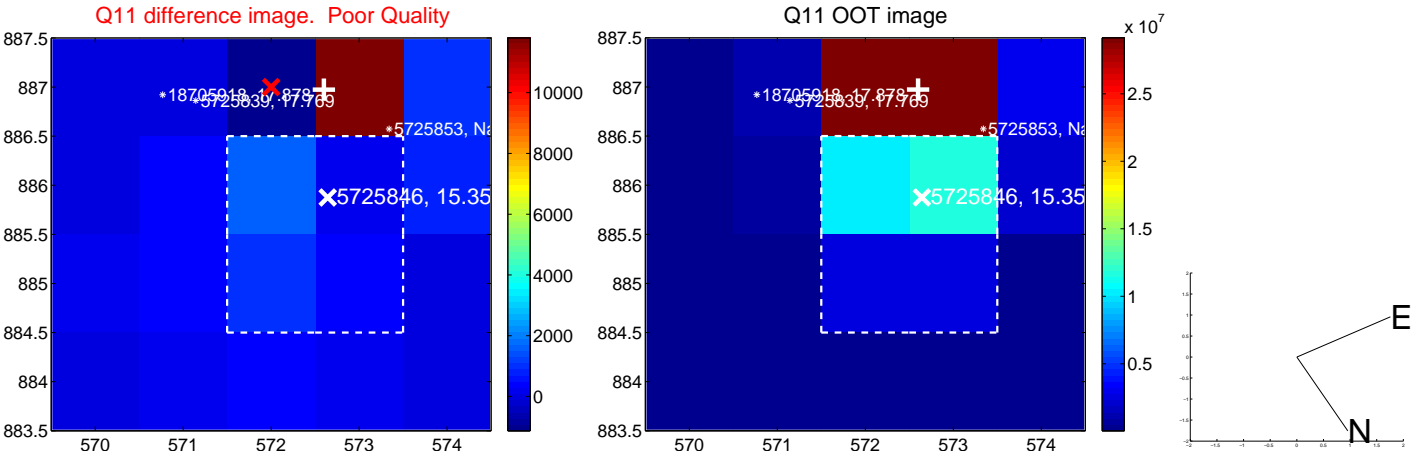
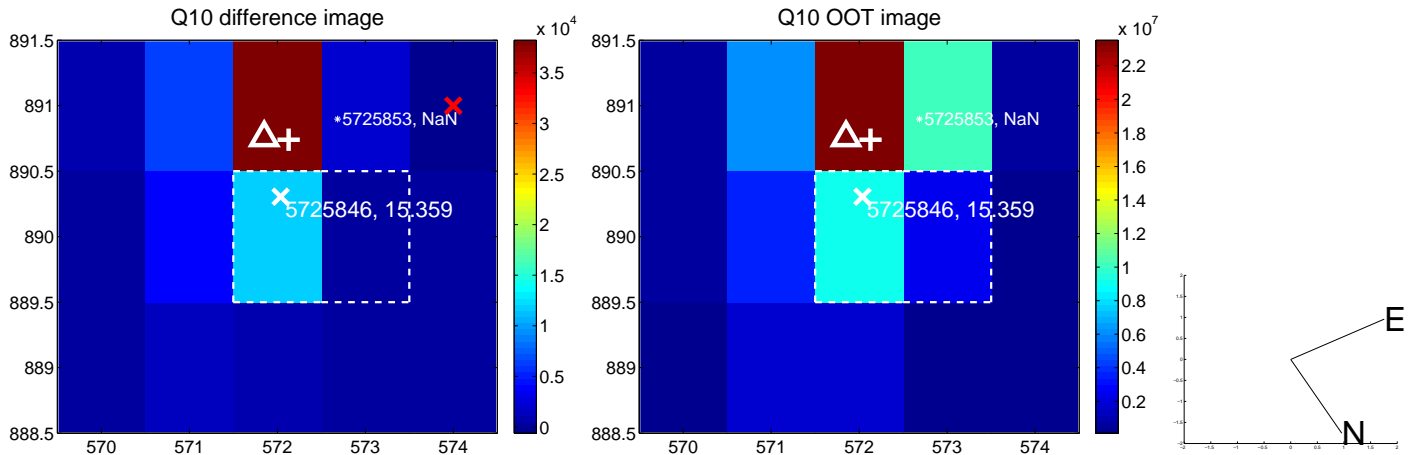
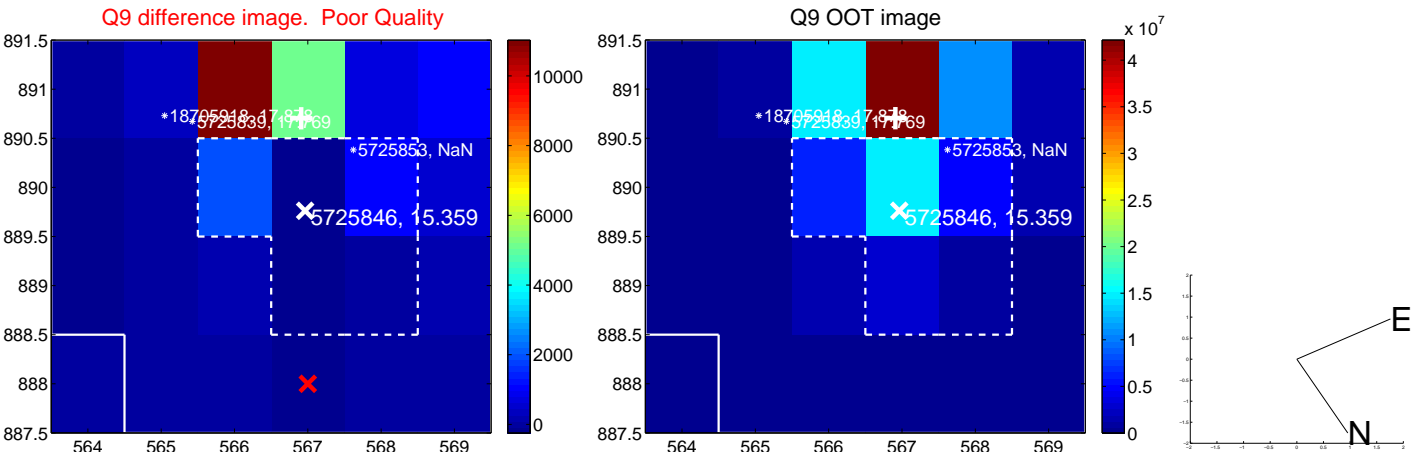
white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



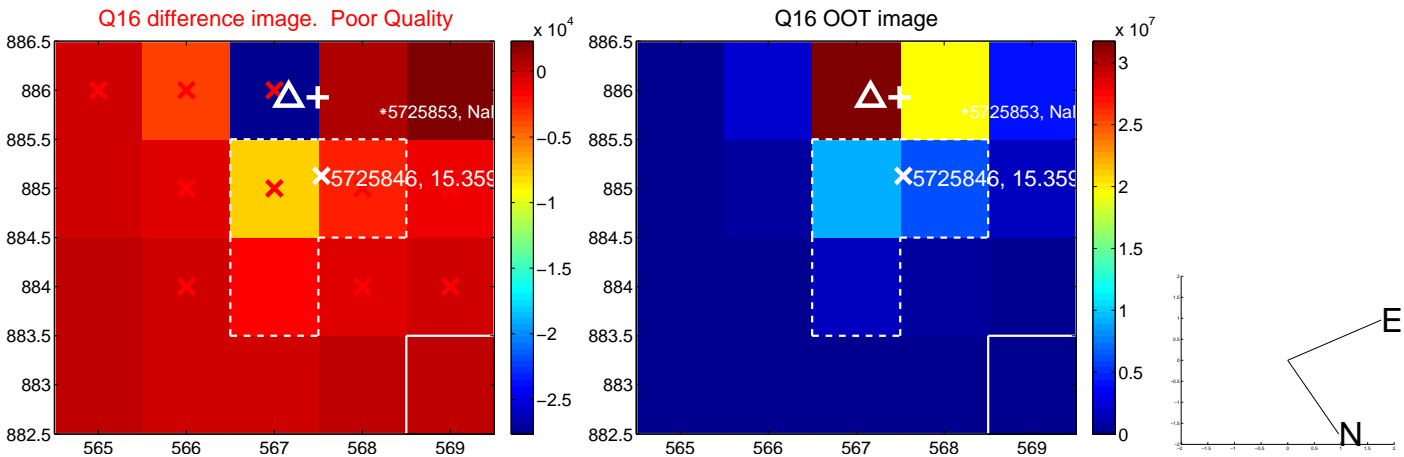
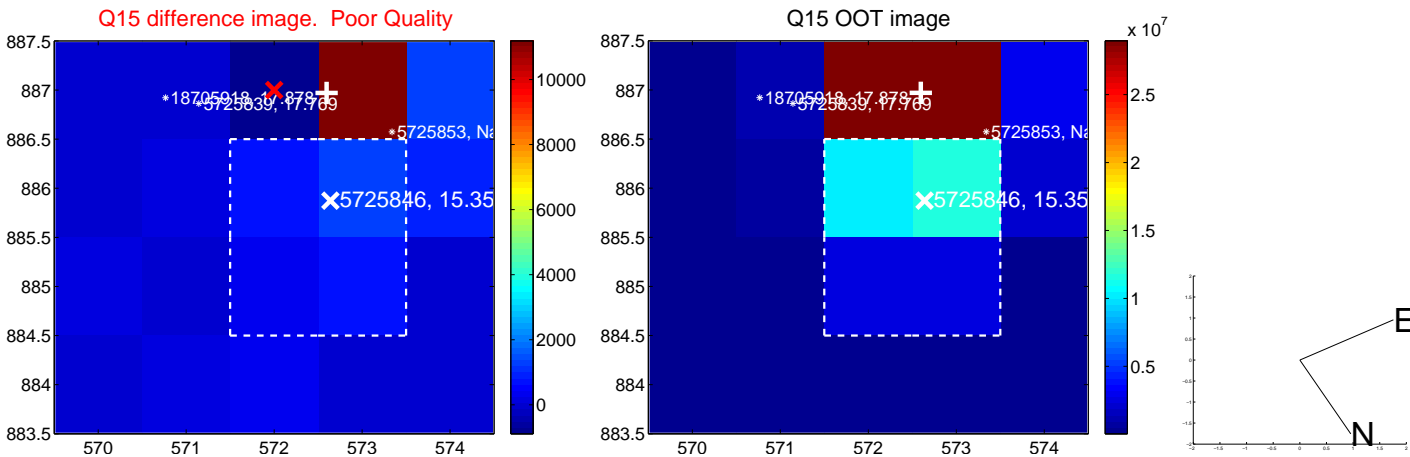
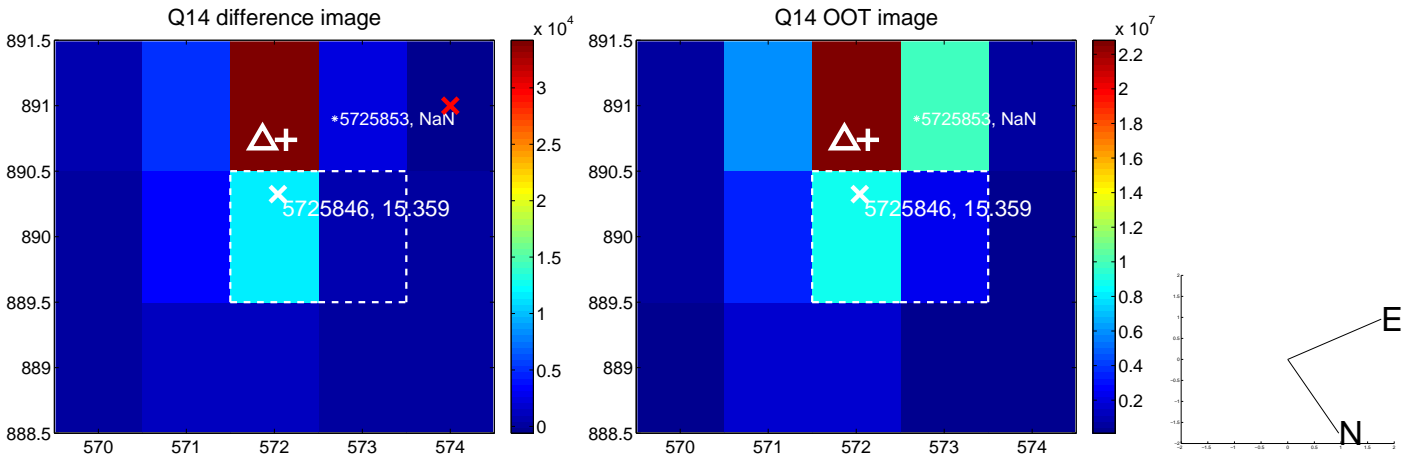
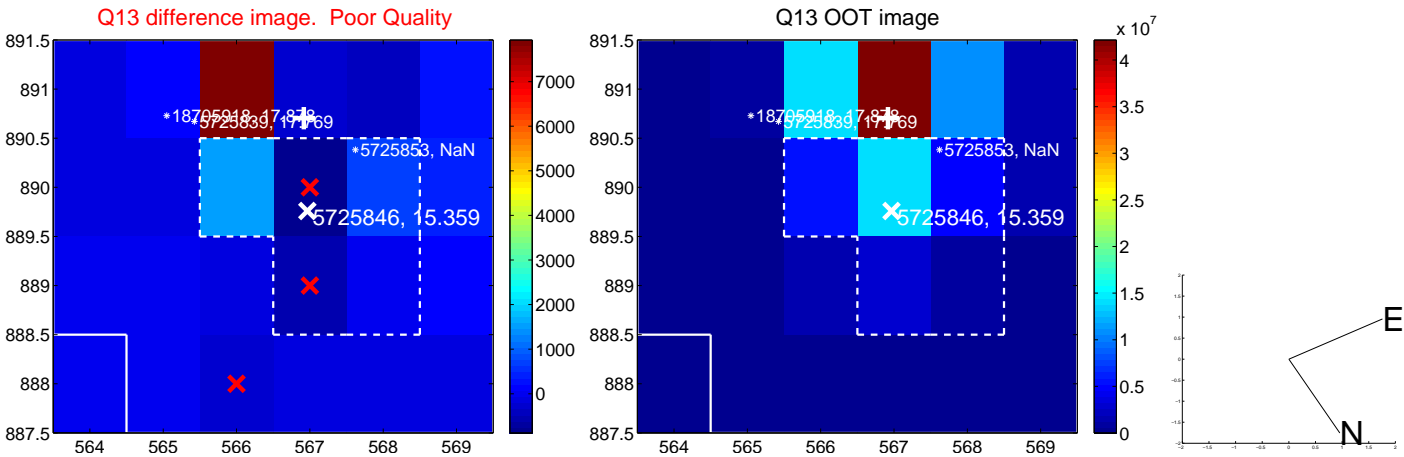
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



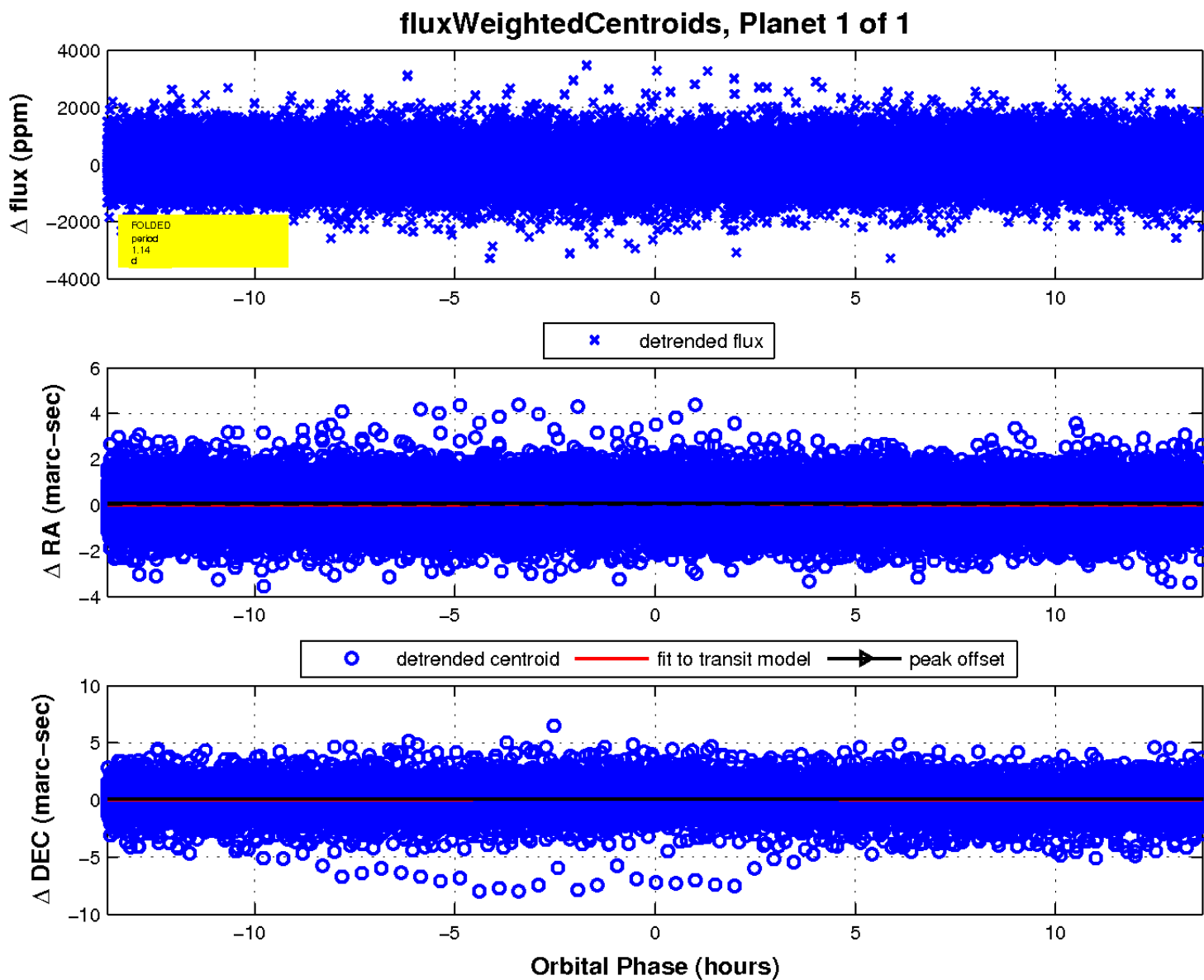
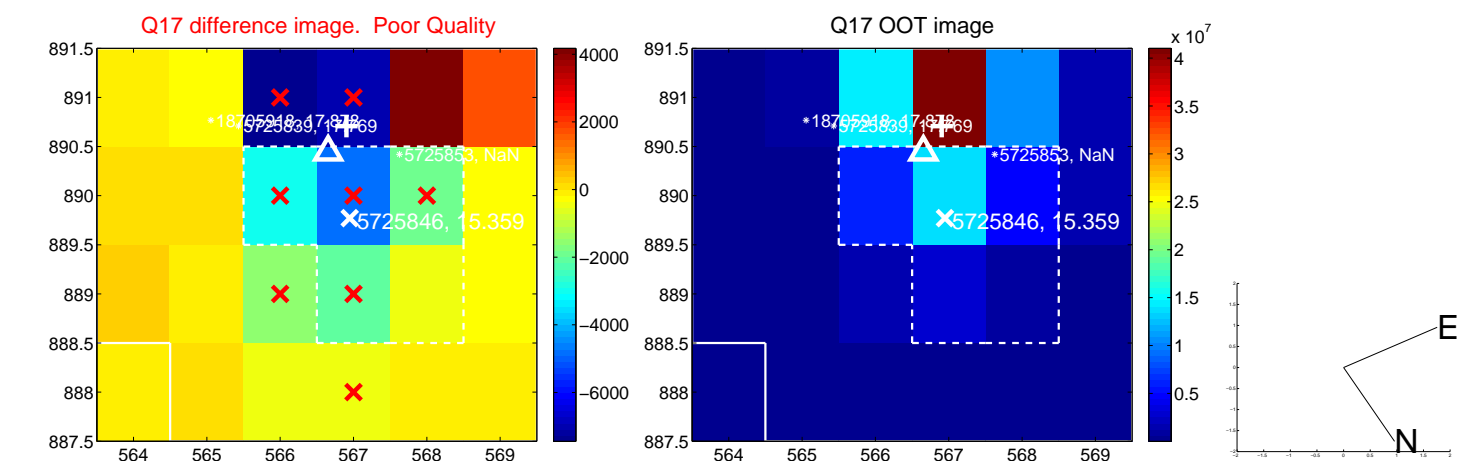
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white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

