

KIC 007117126

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
007117126-01	OBS	7814.01	0.566701	131.982655	16.1	1.323	8.7	6.7	0.96	5544	0.46	4574.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007117126-01	OBS	FP	0.00	0	0	1	1	CENT_KIC_POS—HALO_GHOST—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.

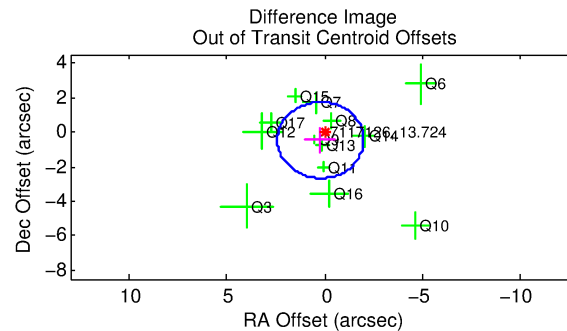
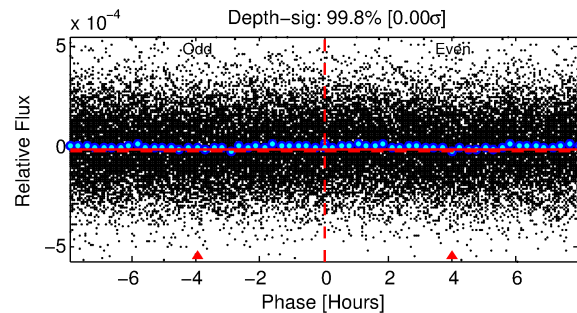
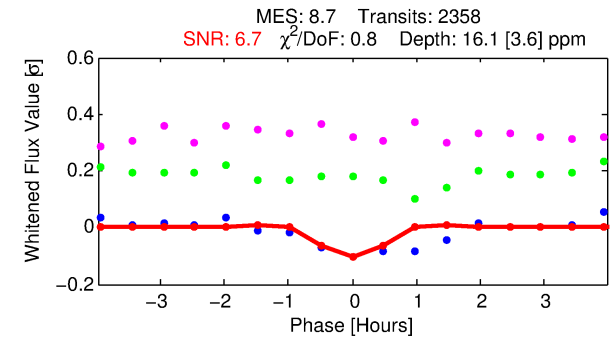
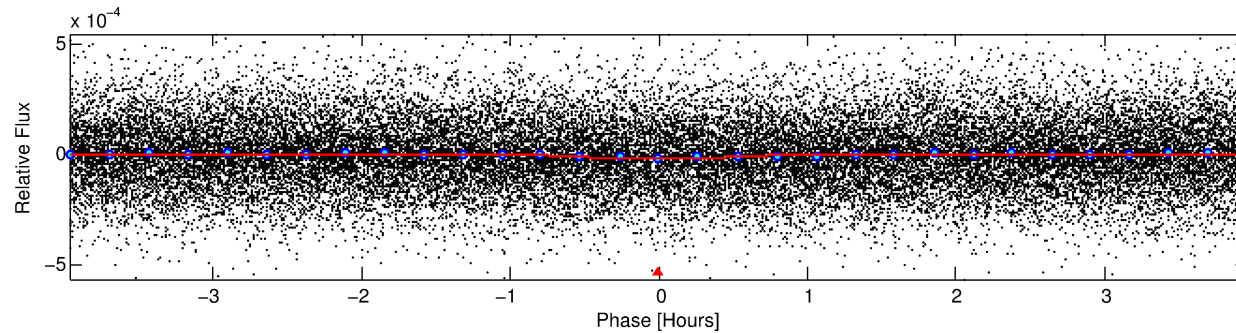
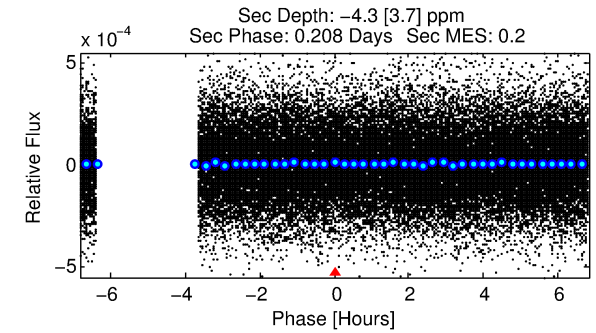
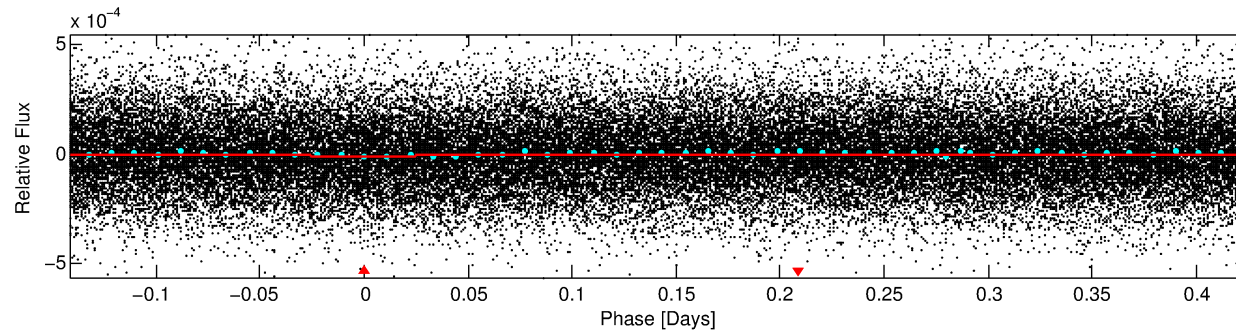
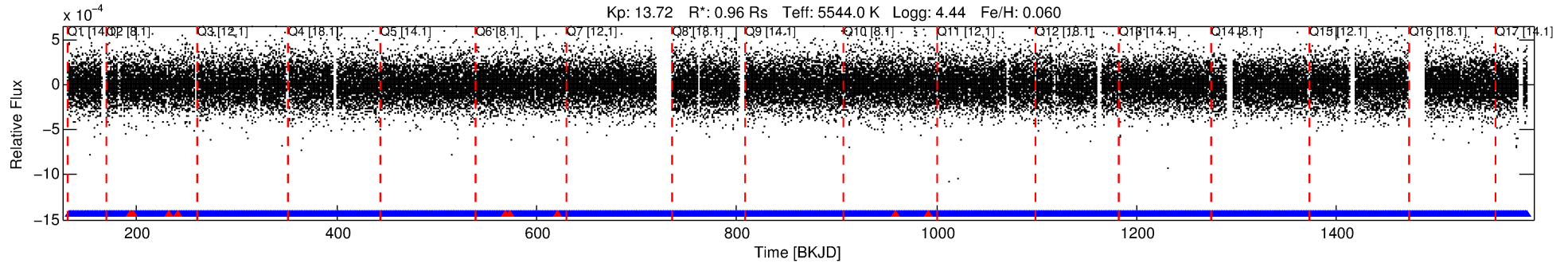
Ephemeris Match Information For 007117126-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (″)	ΔRow	ΔCol	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ _P	σ _T
007117126-01	7117126	RR-Lyr-pri	7198959	1:1	820.3	202	43	7.86	13.72	38956.00	Direct-PRF	0	3.42	4.88

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ 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 σ_P < 5.0 and σ_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: 7117126 Candidate: 1 of 1 Period: 0.567 d



DV Fit Results:

Period = 0.56670 [0.00002] d
Epoch = 131.9827 [0.0031] BKJD
Rp/R* = 0.0044 [0.0017]
a/R* = 1.79 [2.09]
b = 0.89 [0.41]
Seff = 4574.29 [1591.52]
Teff = 2097 [182] K
Rp = 0.46 [0.21] Re
a = 0.0130 [0.0029] AU
Ag = N/A
Teffp = N/A

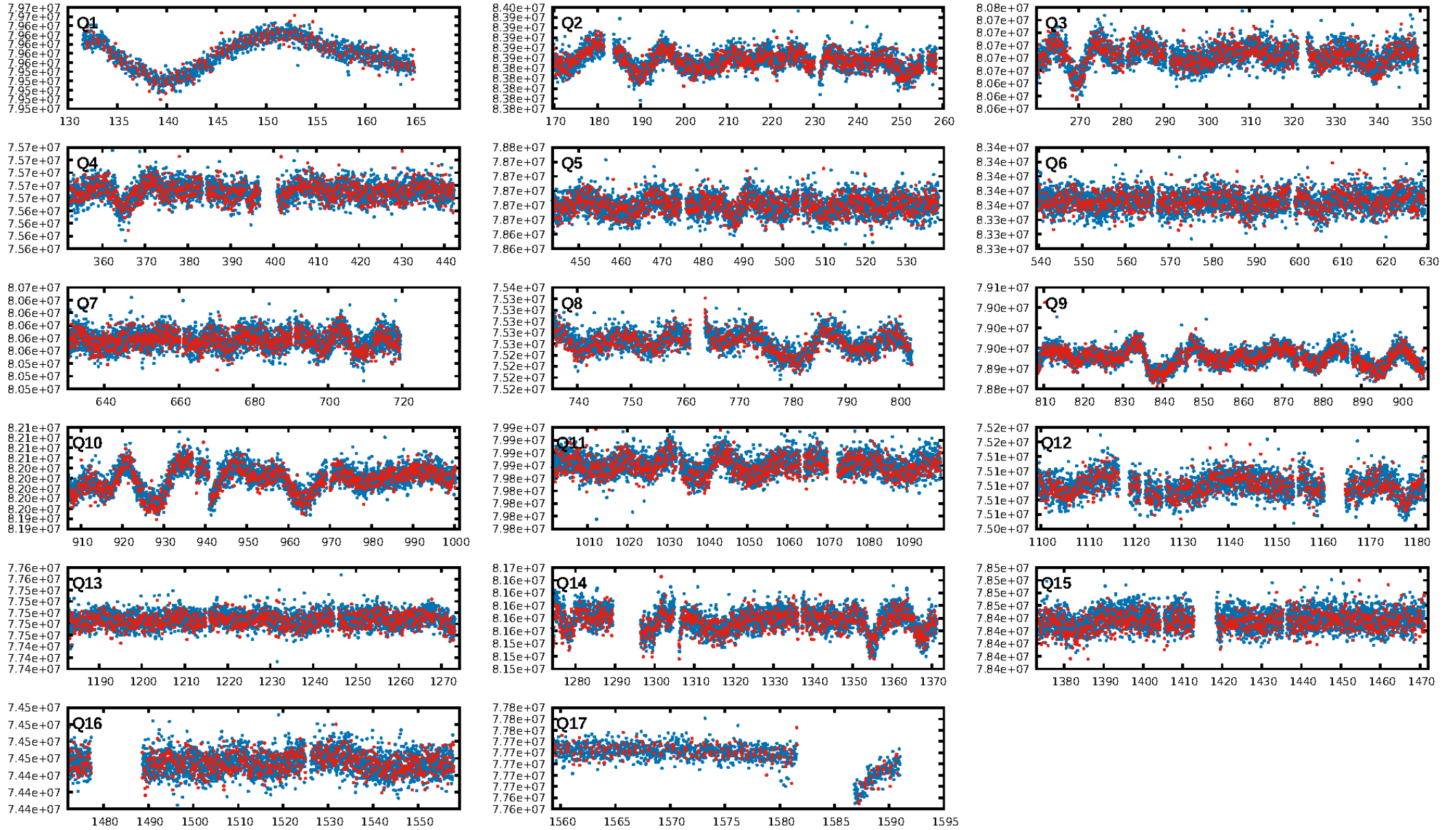
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.82e-18
RollingBand-fgt: 1.00 [2243/2252]
GhostDiagnostic-chr: -0.1766
Centroid-sig: 54.2%
Centroid-so: 1.566 arcsec [0.85σ]
OotOffset-rm: 0.513 arcsec [0.70σ]
KicOffset-rm: 0.901 arcsec [1.48σ]
OotOffset-st: 3/4/3/3 [13]
KicOffset-st: 3/4/3/3 [13]
DiffImageQuality-fgm: 0.38 [5/13]
DiffImageOverlap-fno: 1.00 [17/17]

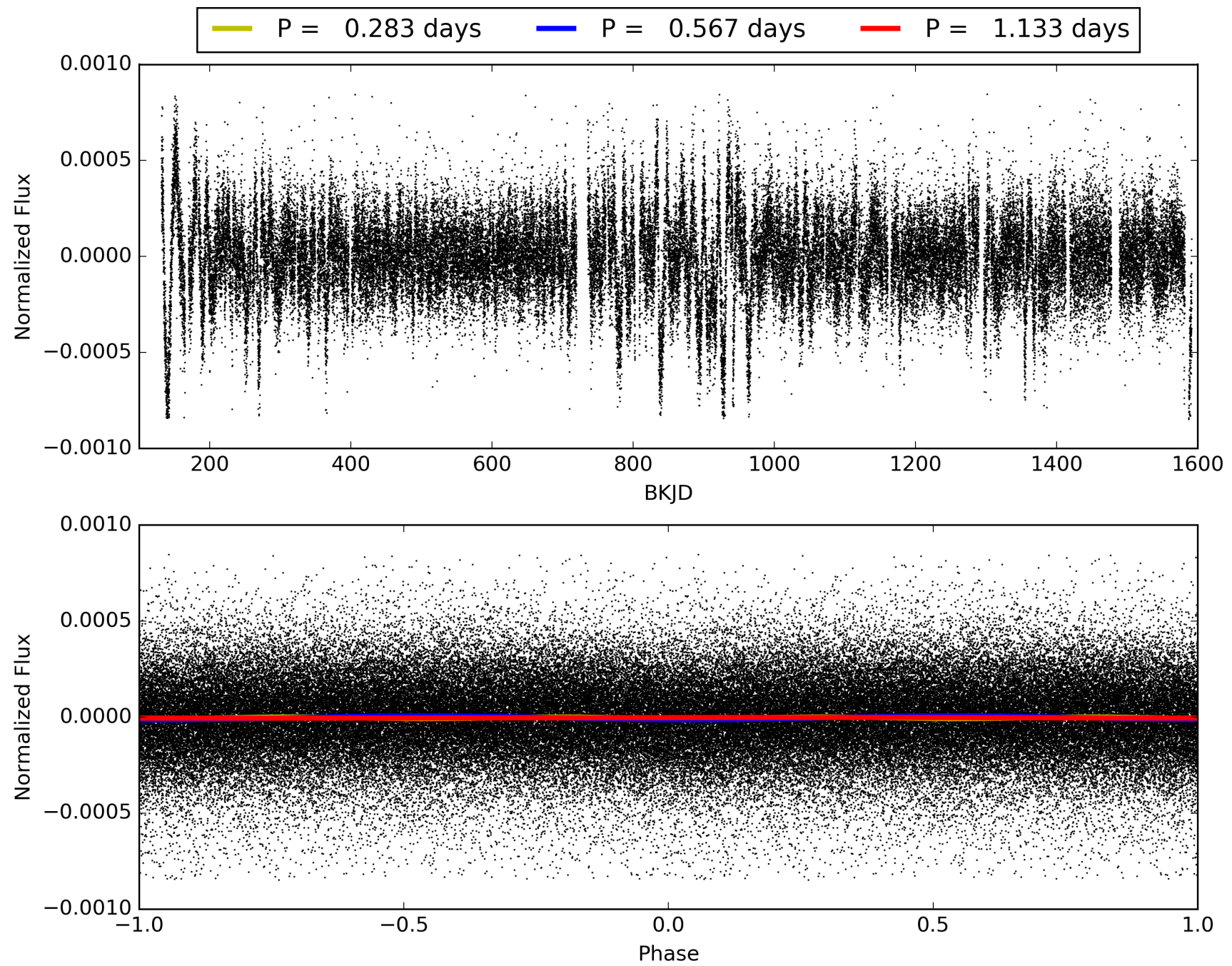
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:29:23 Z

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

TCE 007117126-01, PDC Light Curves

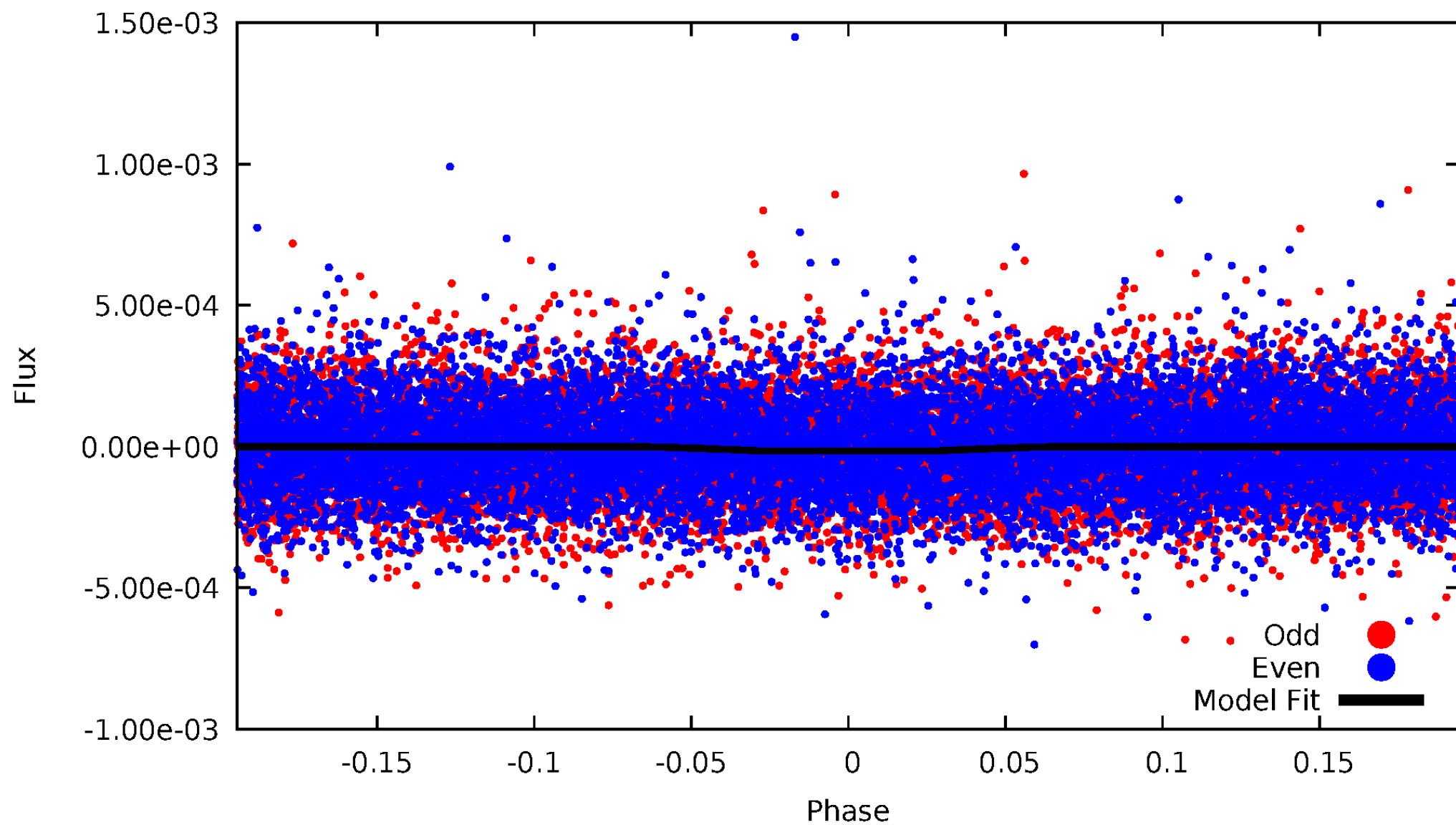


TCE 007117126-01



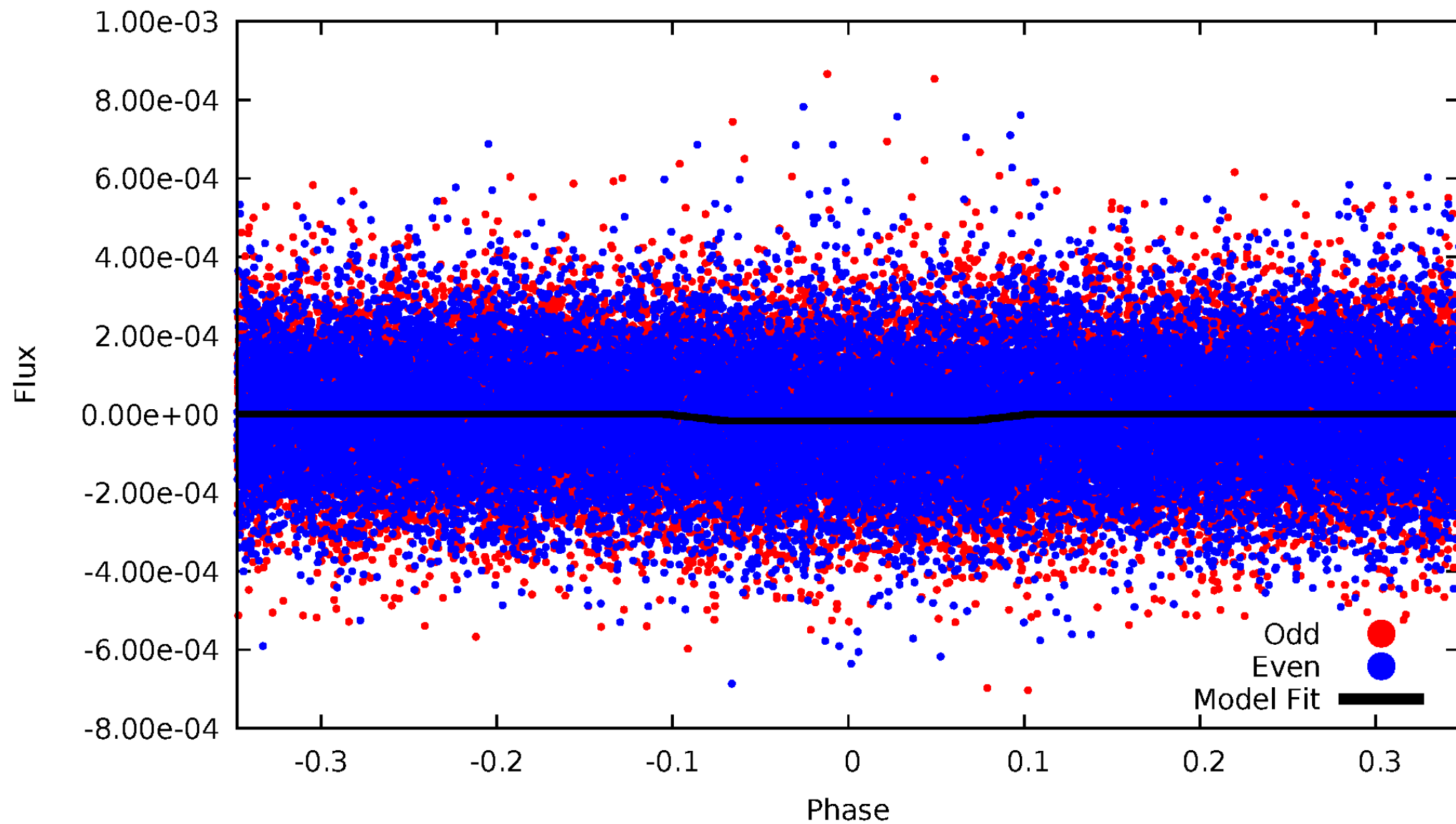
DV Odd/Even

TCE 007117126-01



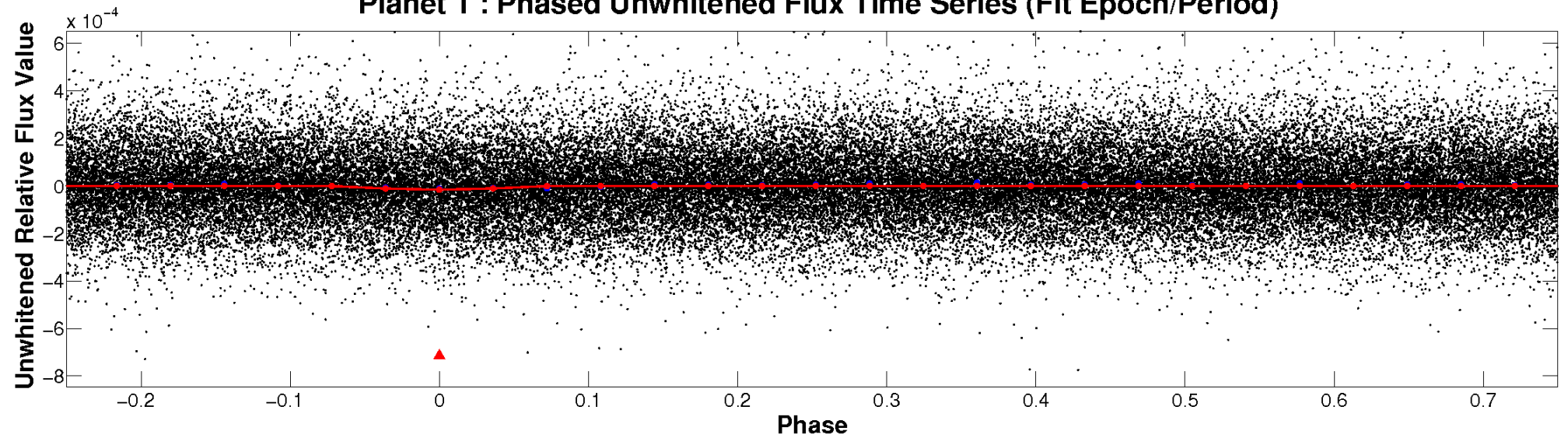
ALT Odd/Even

TCE 007117126-01

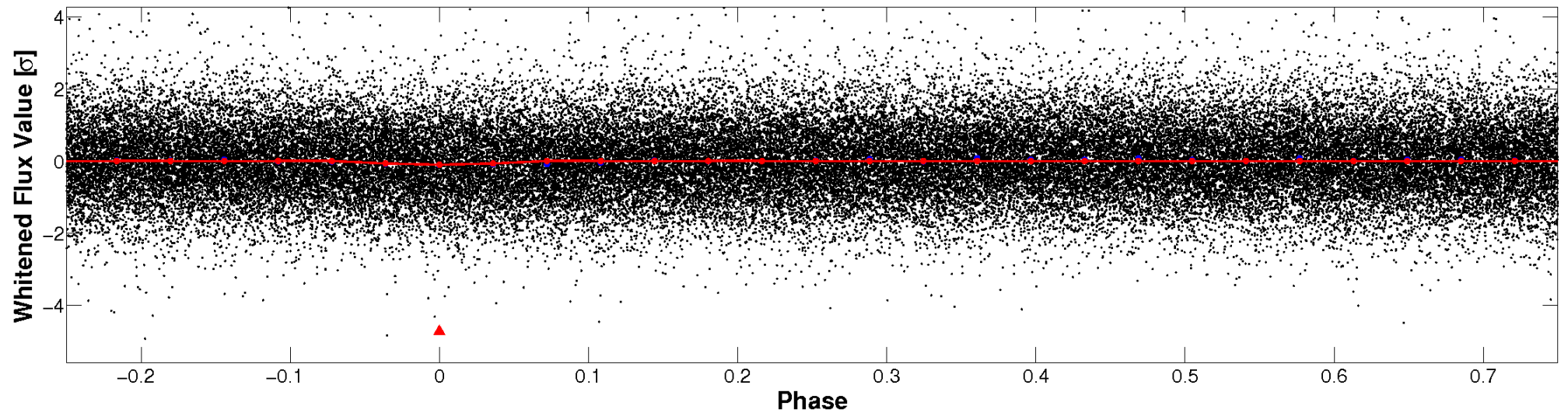


Non-Whitened Vs. Whitened Light Curve

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

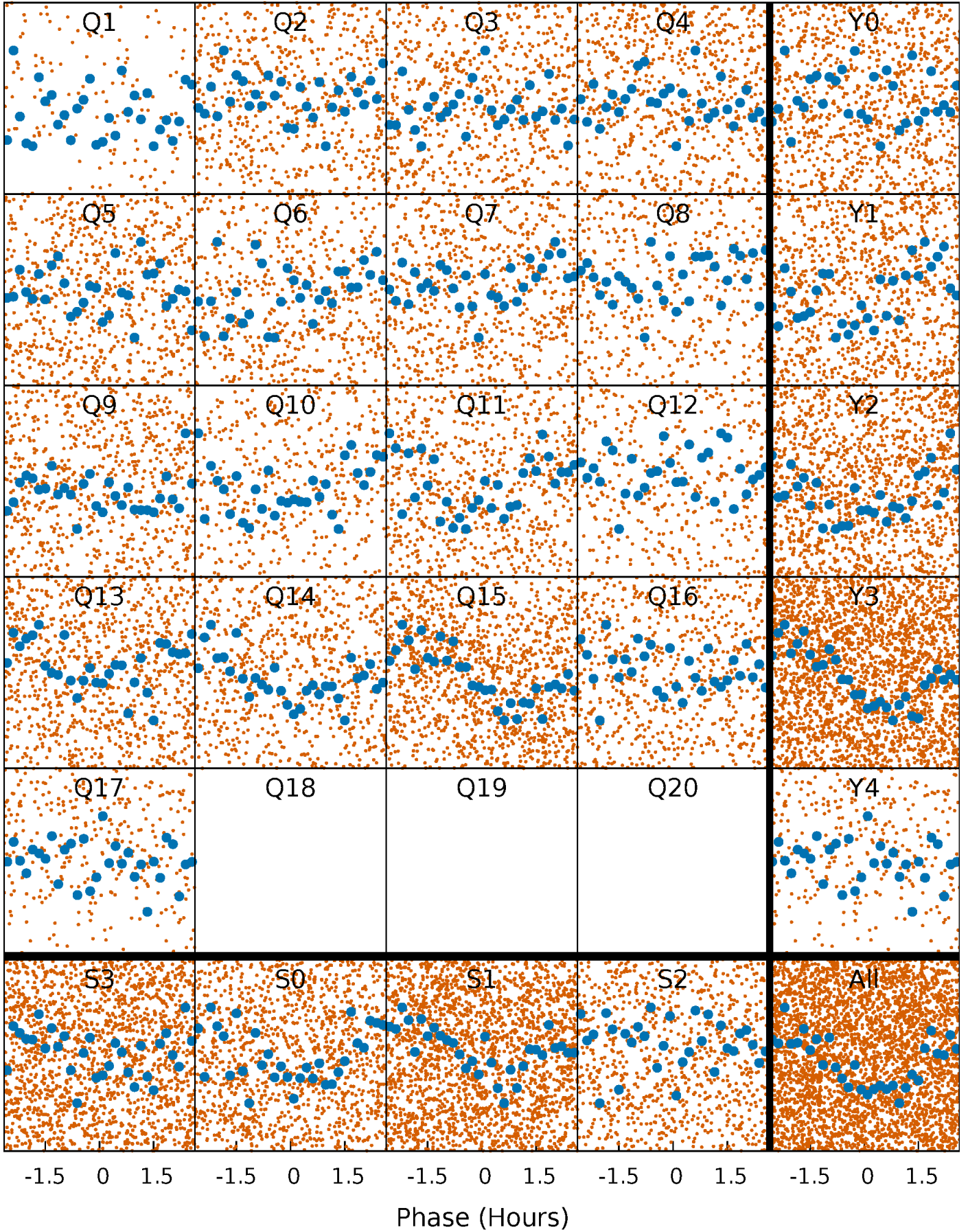


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



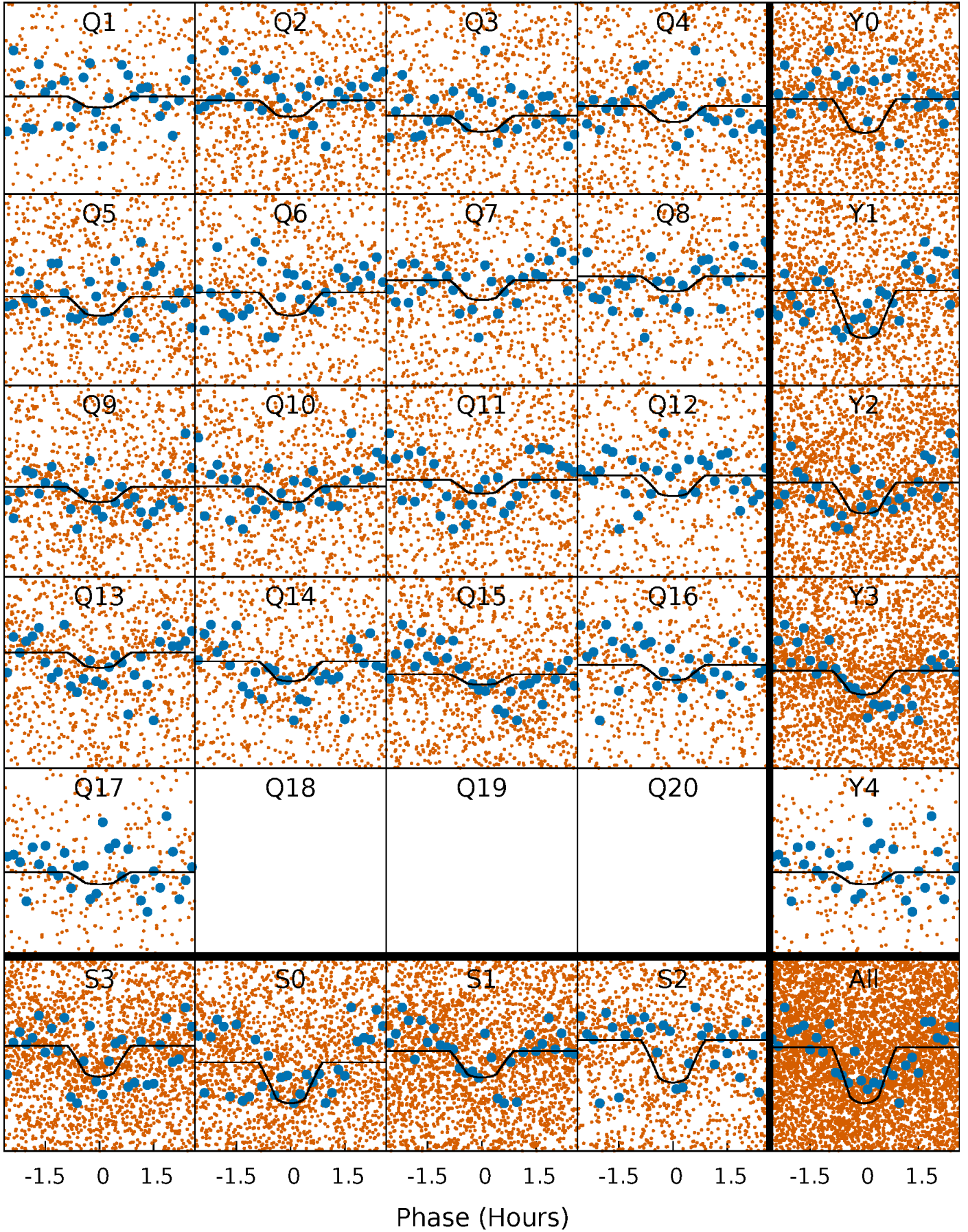
PDC Quarter-Phased Transit Curves

TCE 007117126-01 P= 0.566701 Days $T_0=131.982655$ (BKJD)



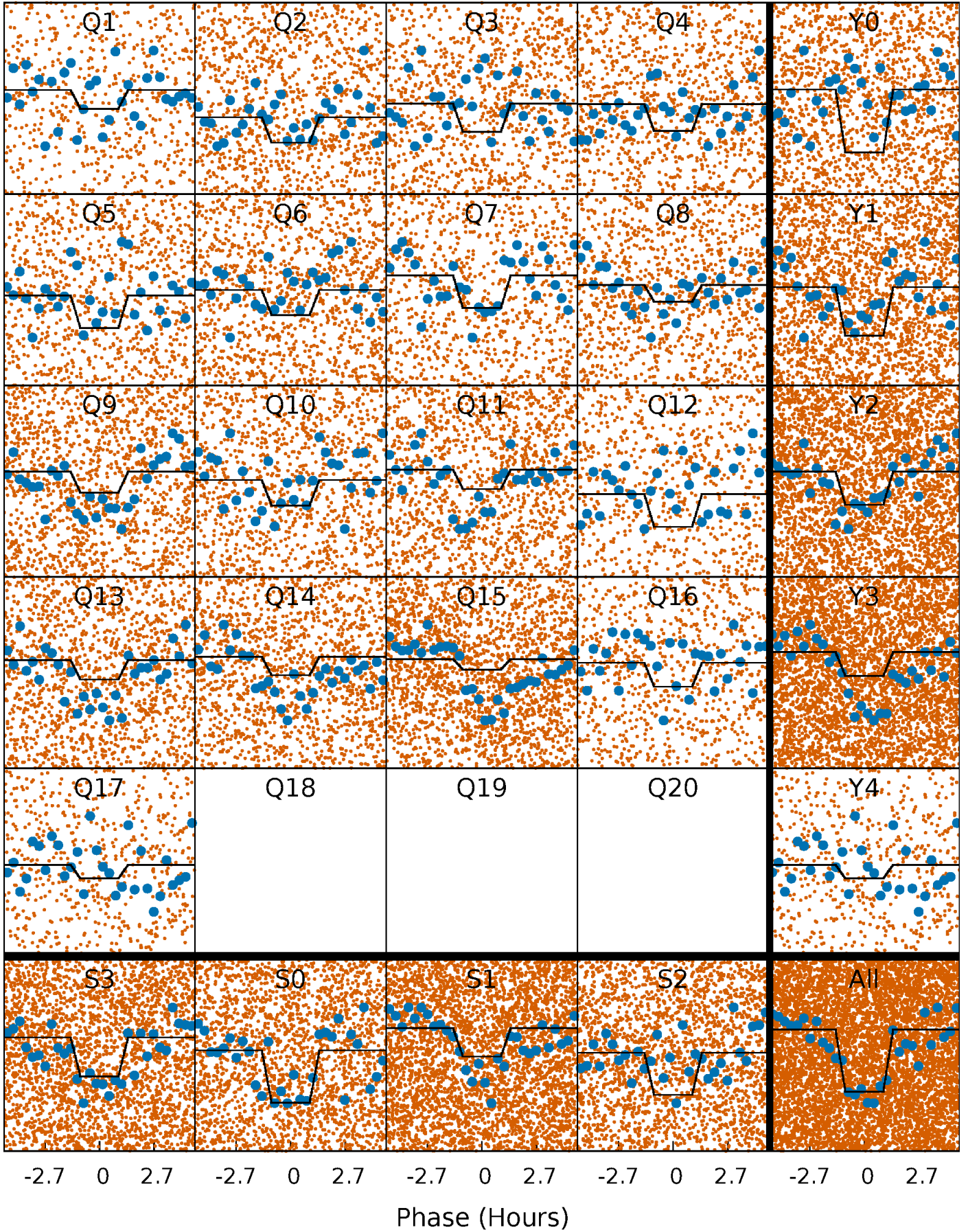
DV Quarter-Phased Transit Curves

TCE 007117126-01 P= 0.566701 Days $T_0=131.982655$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

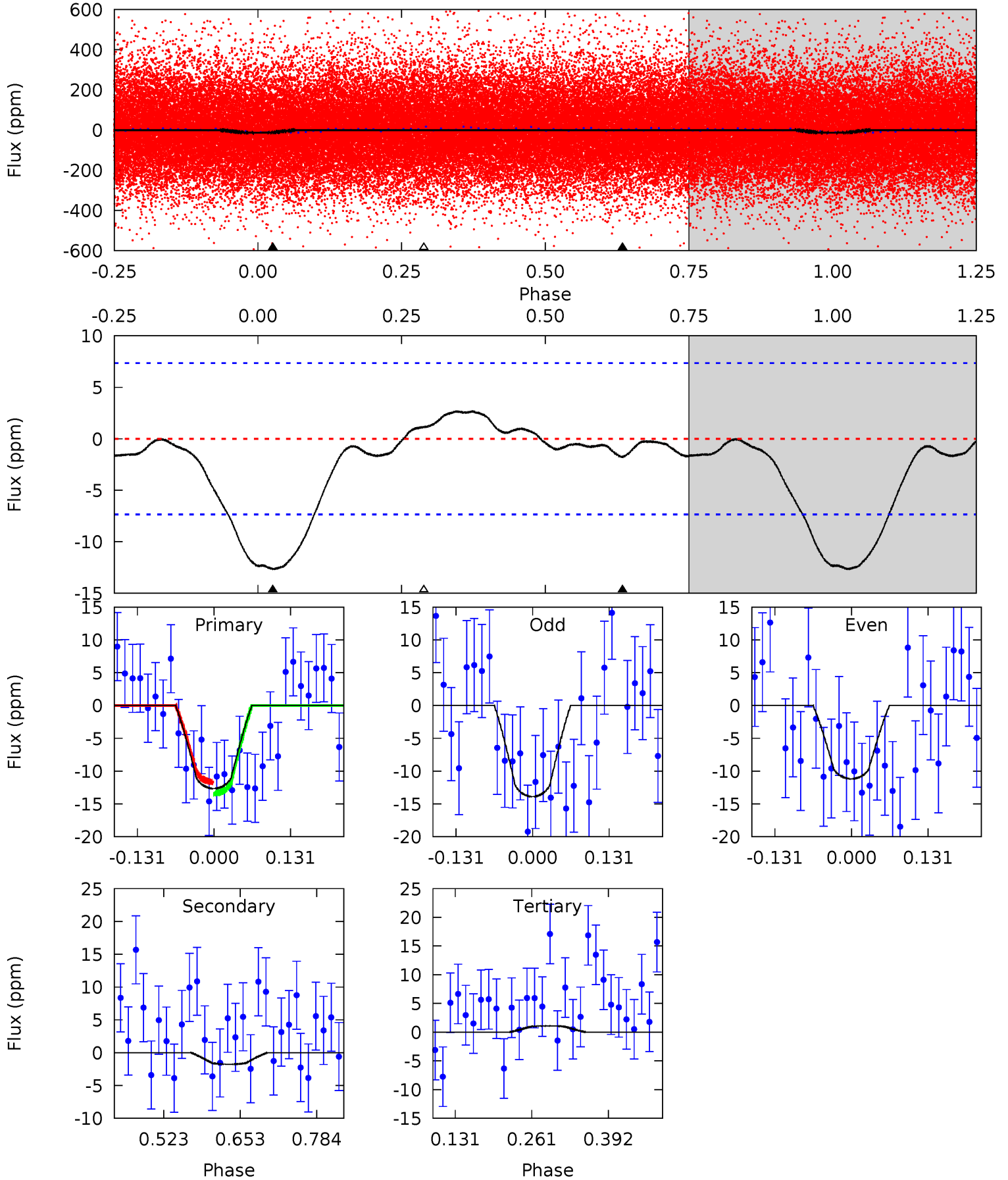
TCE 007117126-01 P= 0.566711 Days $T_0=131.981876$ (BKJD)



DV Model-Shift Uniqueness Test

007117126-01, P = 0.566701 Days, E = 131.415954 Days

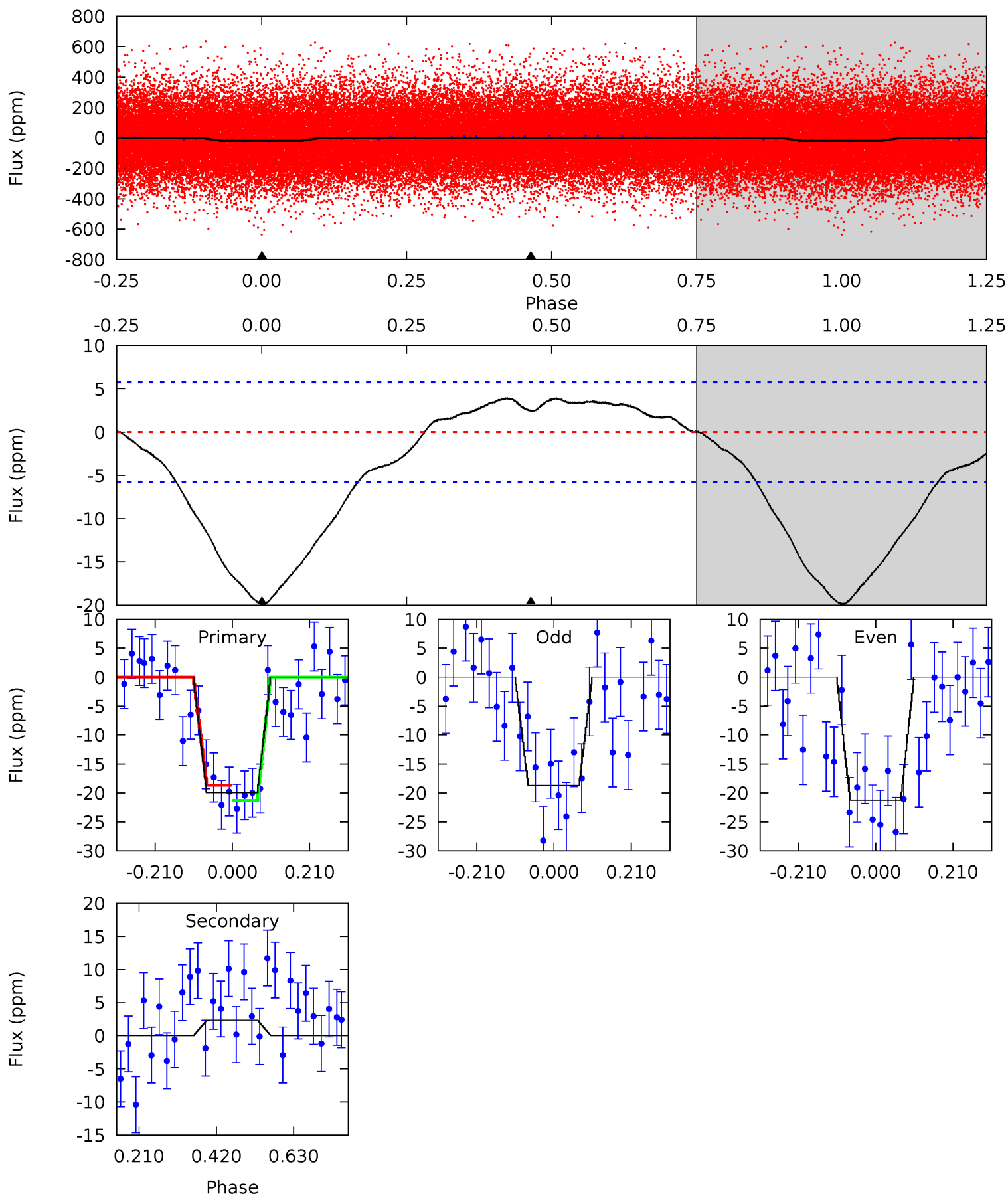
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.77	1.09	-0.67	0	4.51	1.51	0.86	8.44	7.77	1.76	1.09	0.84	0.85	0.18	0.53



Alt Model-Shift Uniqueness Test

007117126-01, P = 0.566711 Days, E = 131.415165 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	-1.81	0	0	4.41	1.25	1.46	15.2	15.2	-1.81	-1.81	0.96	1.10	0.17	0.99



Stellar Parameters For KIC 007117126

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5544^{+166}_{-150}	$4.438^{+0.098}_{-0.182}$	$0.060^{+0.250}_{-0.300}$	$0.957^{+0.243}_{-0.131}$	$0.914^{+0.104}_{-0.085}$	$1.470^{+0.609}_{-0.698}$
	+3%/-3%	+2%/-4%	+417%/-500%	+25%/-14%	+11%/-9%	+41%/-47%
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 007117126-01 / KOI 7814.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2 ± 2	$0.47^{+0.20}_{-0.18}$	2971^{+188}_{-163}	3133^{+967}_{-6095}	$0.641^{+1.556}_{-0.569}$
Alt.	2 ± 1	$0.45^{+0.20}_{-0.18}$	2957^{+202}_{-145}	-3893^{+435}_{-704}	$-1.028^{+0.669}_{-2.208}$

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 $A_{obs} \gg 1.0$

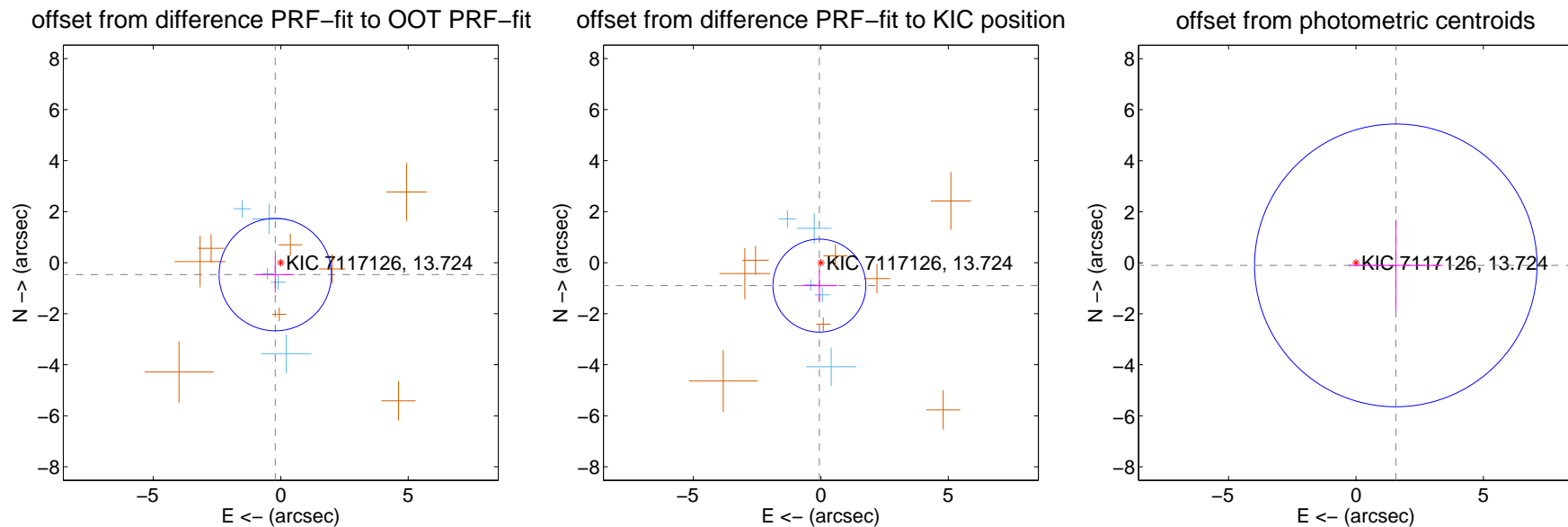
DV Centroid Data

Supplemental centroid analysis for 007117126-01. Kepler magnitude: 13.72. Transit SNR 6.72

There are 5 quarters with good PRF difference image offsets

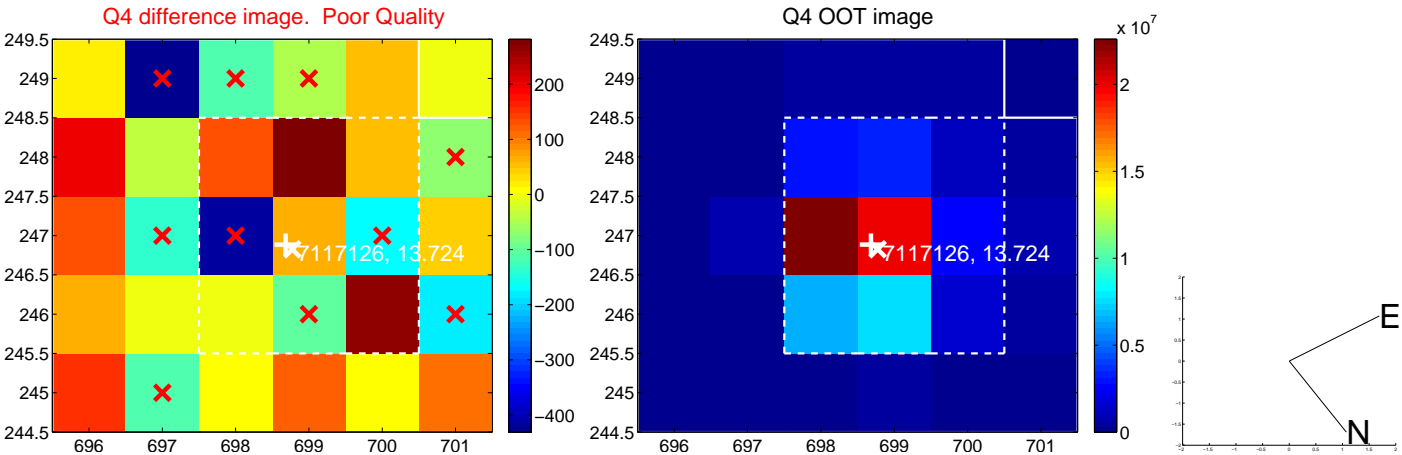
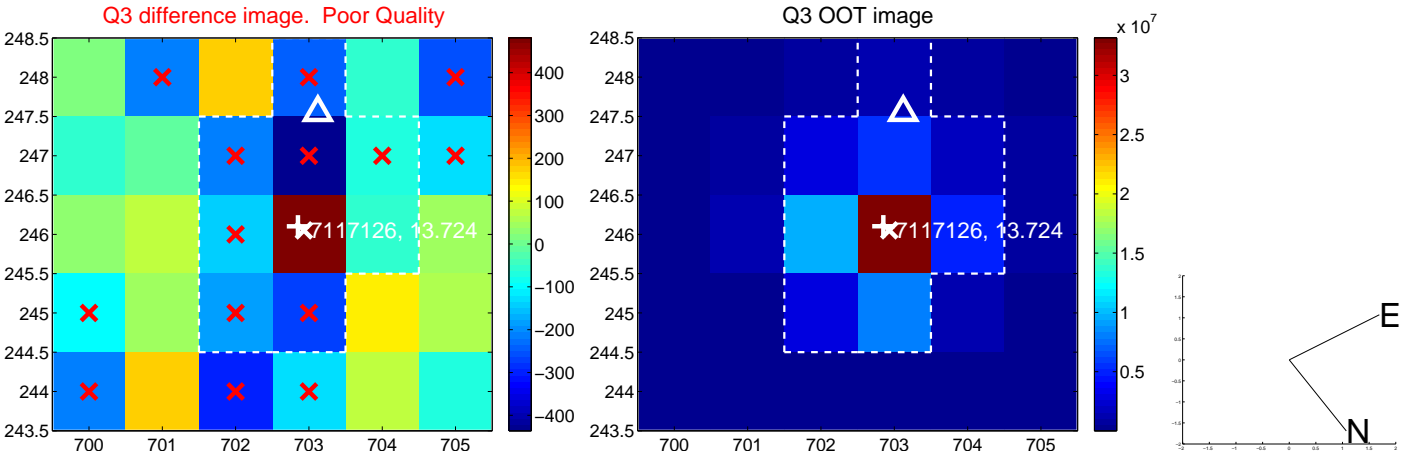
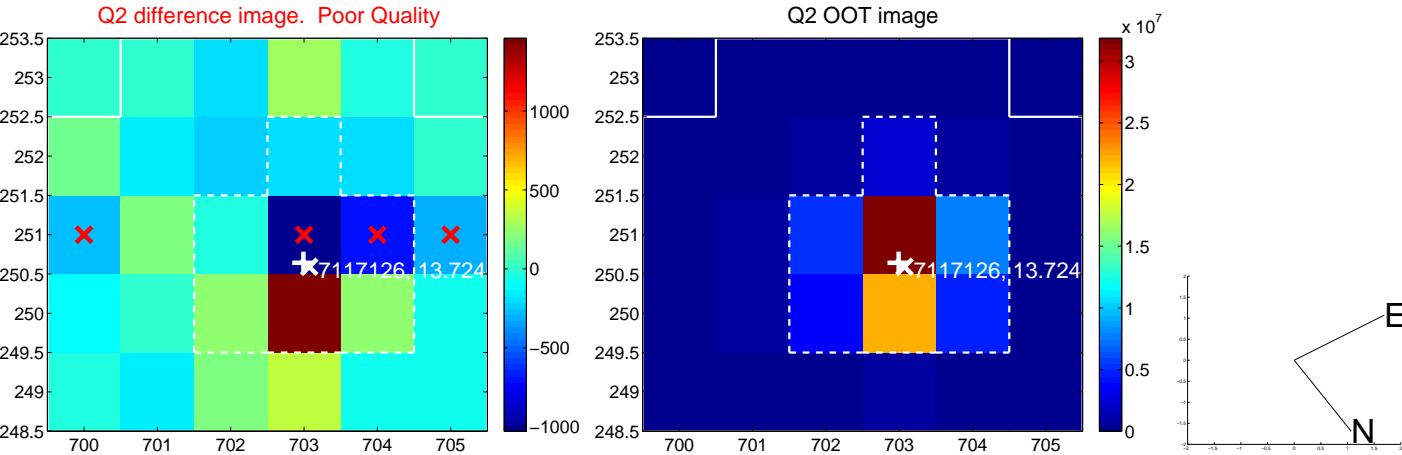
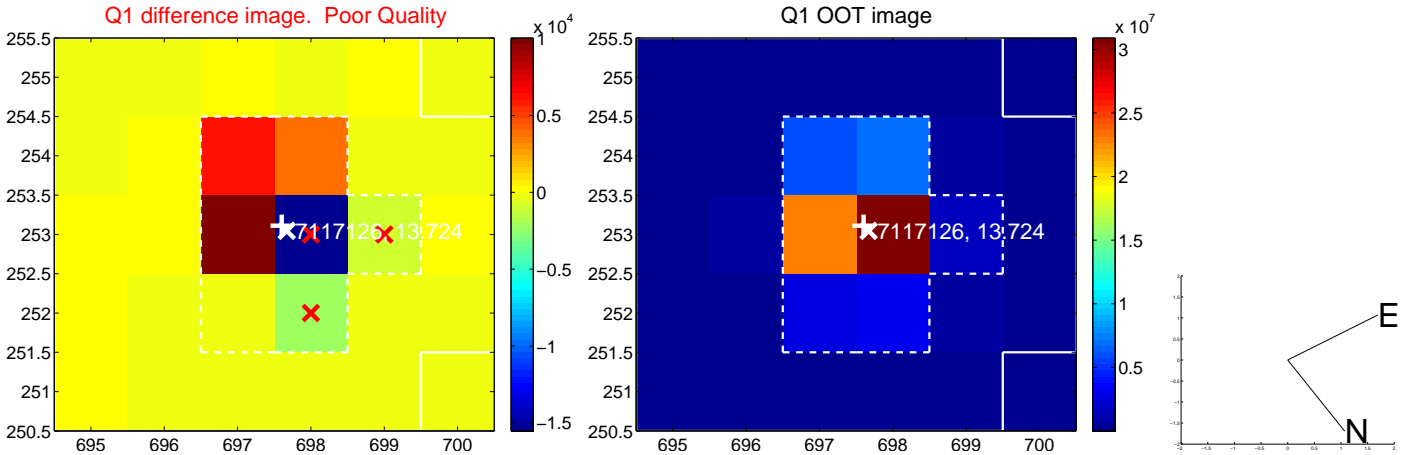
The direct PRF centroid is offset from the target star catalog position by about 0.50 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.513 ± 0.734	0.70	0.216 ± 0.751	-0.466 ± 0.702
PRF-fit source offset from KIC position	0.901 ± 0.607	1.48	0.058 ± 0.707	-0.899 ± 0.602
photometric centroid source offset	1.57 ± 1.85	0.85	-1.56 ± 1.85	-0.10 ± 1.78

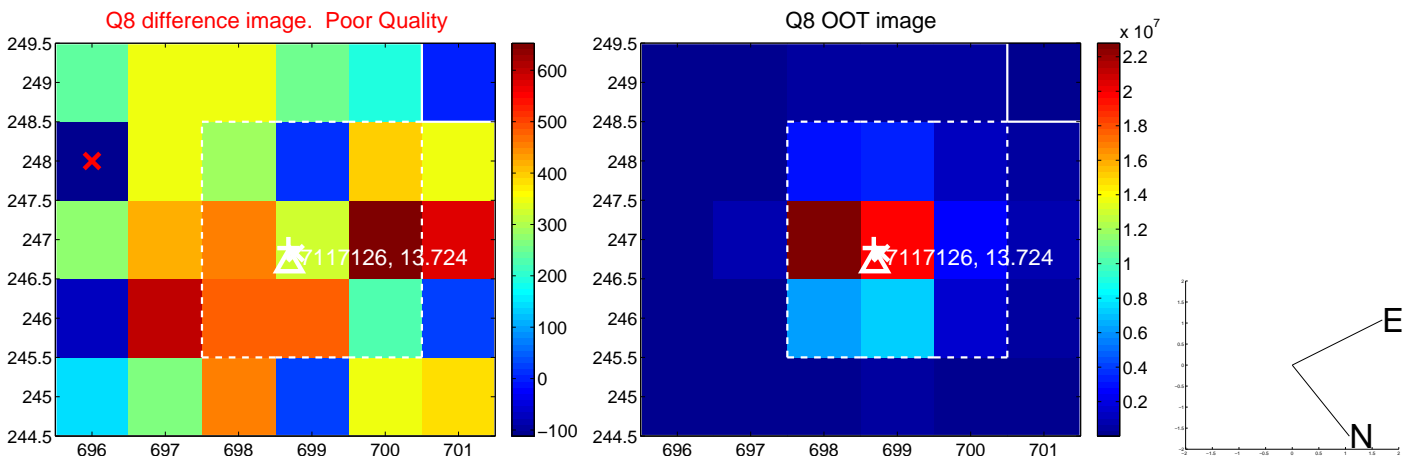
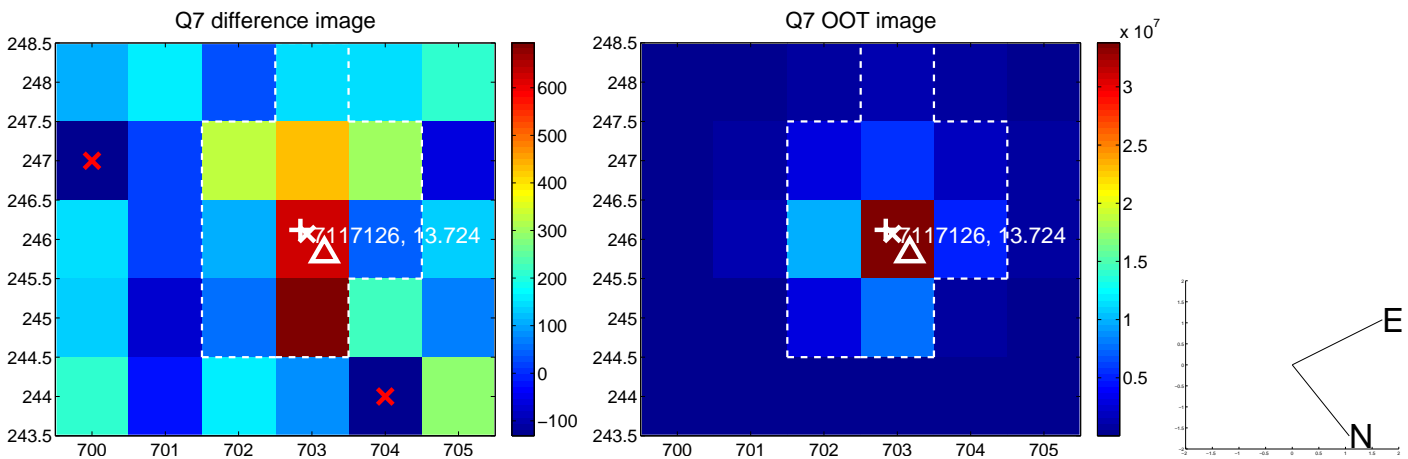
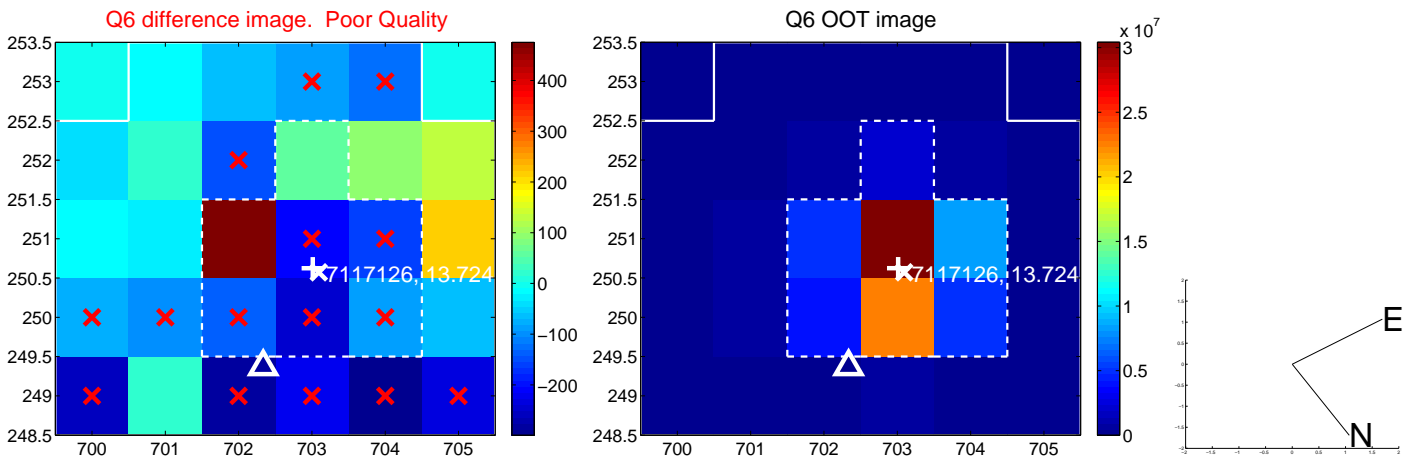
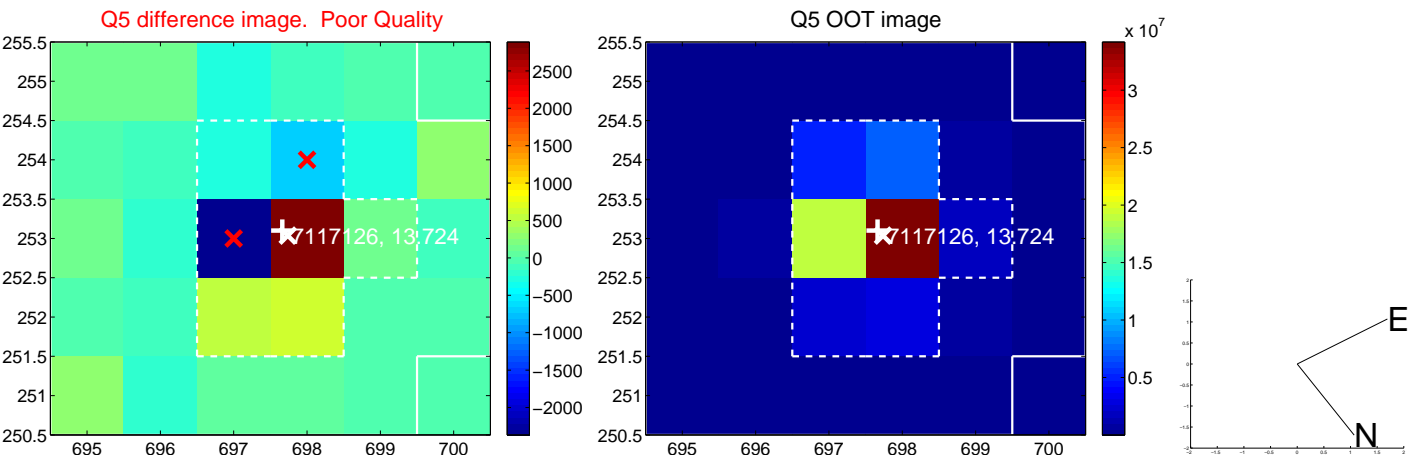


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

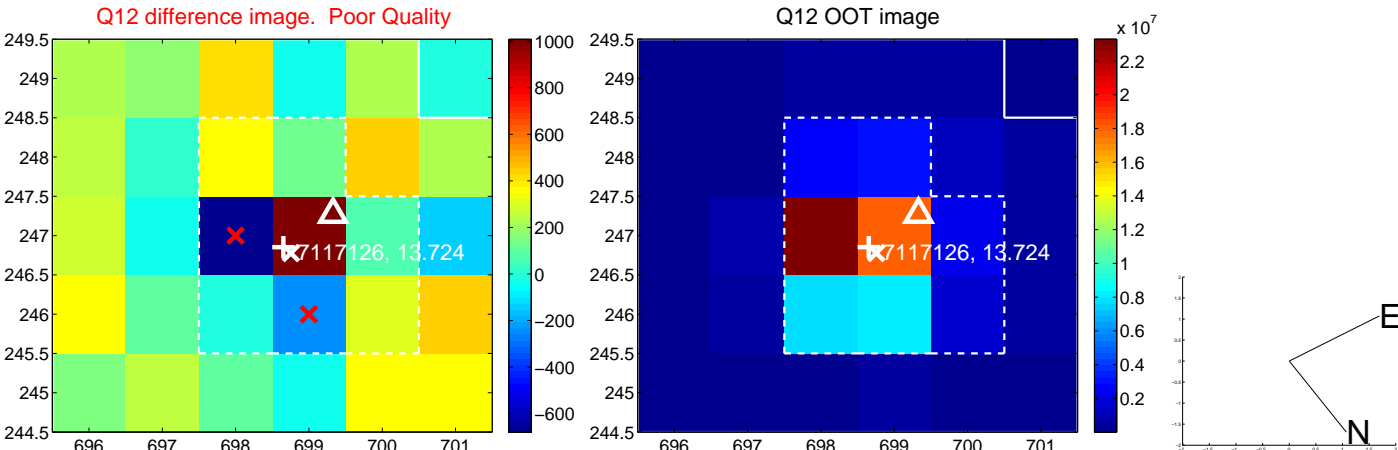
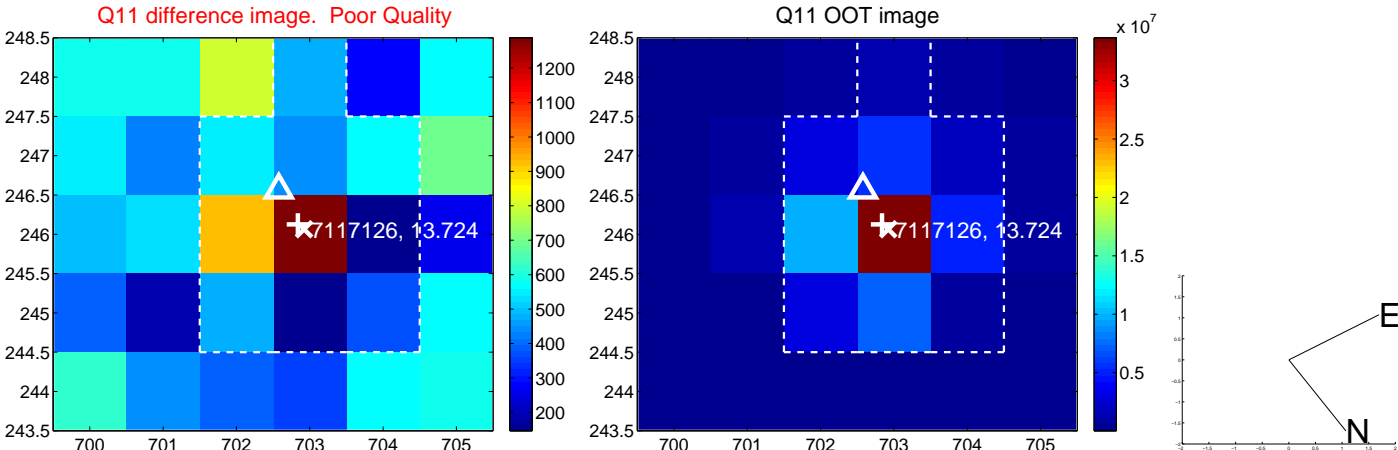
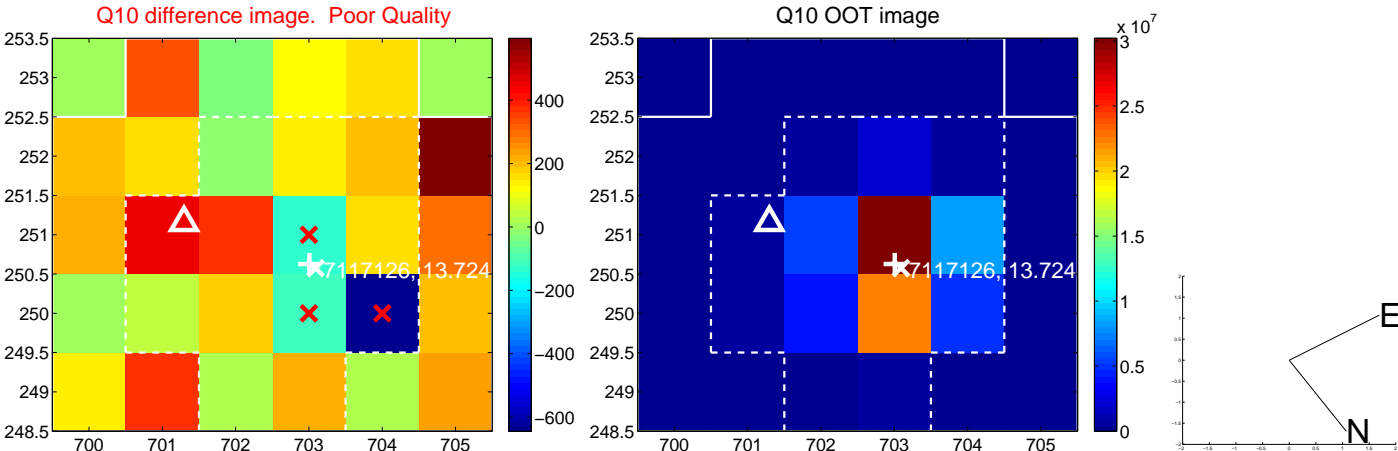
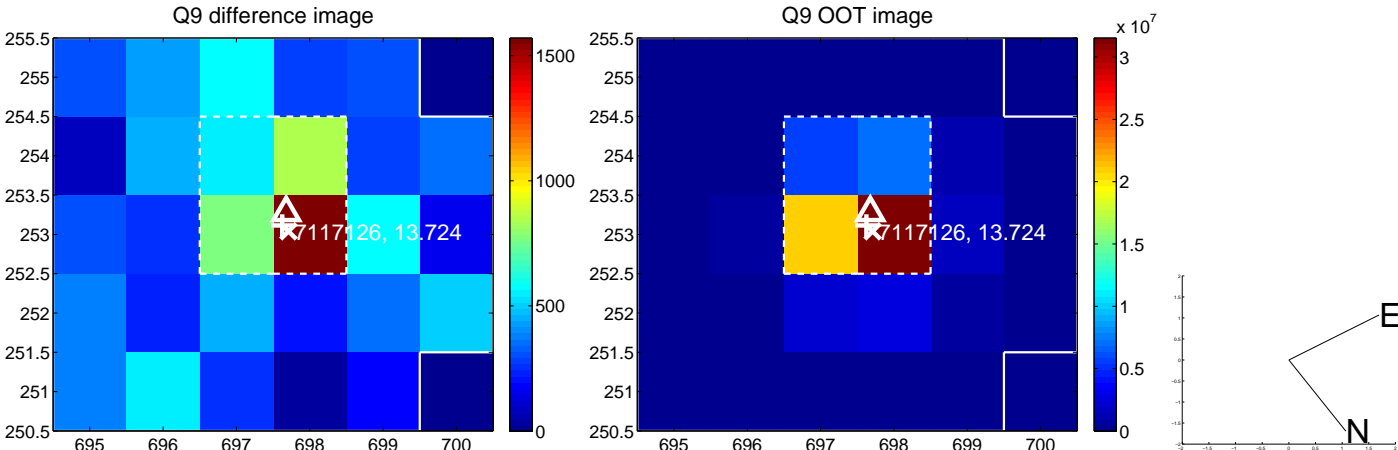
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



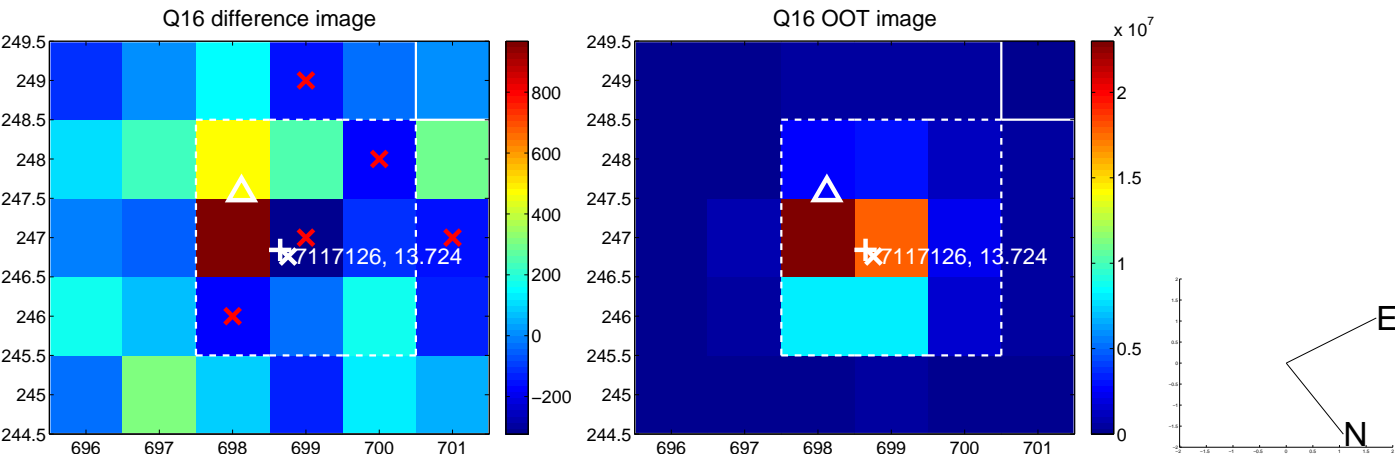
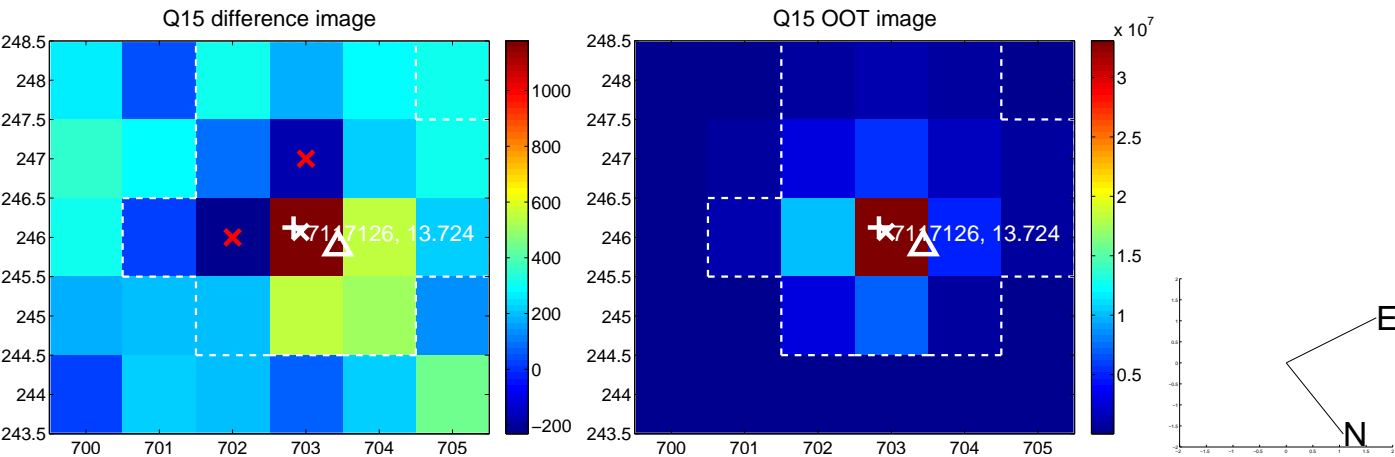
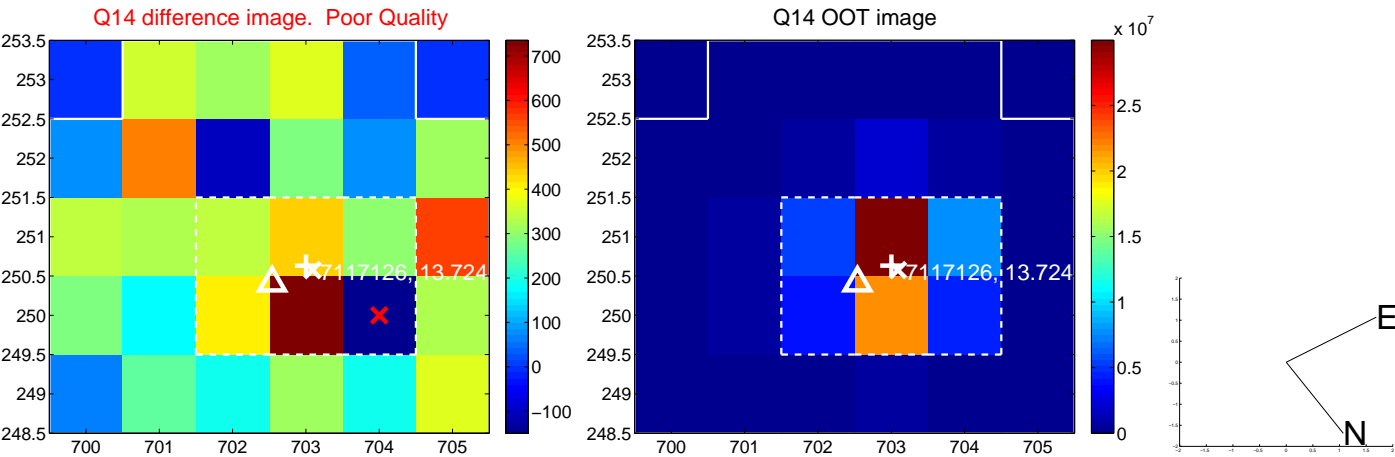
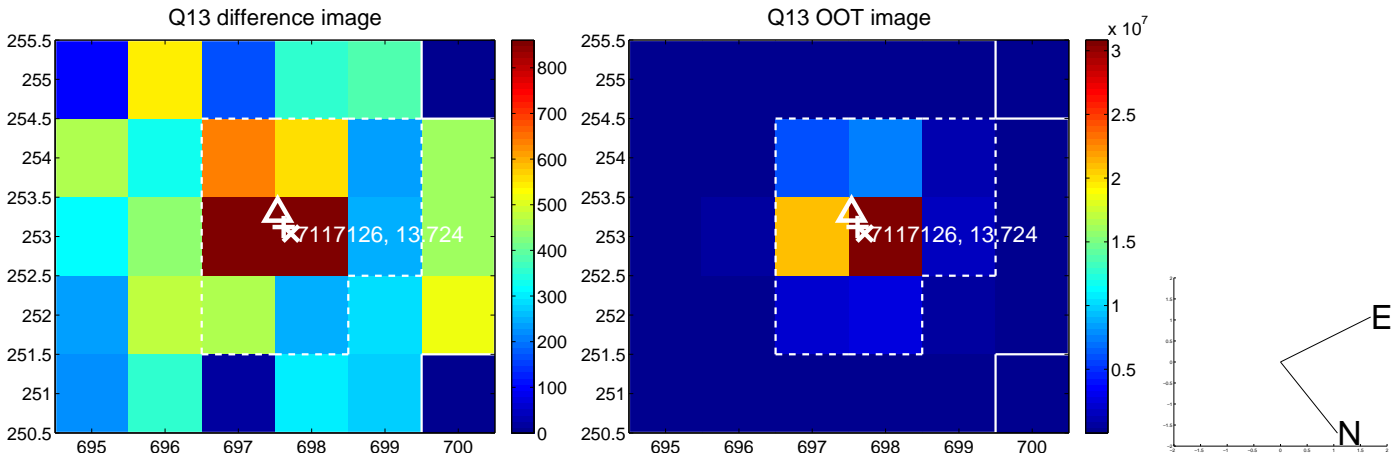
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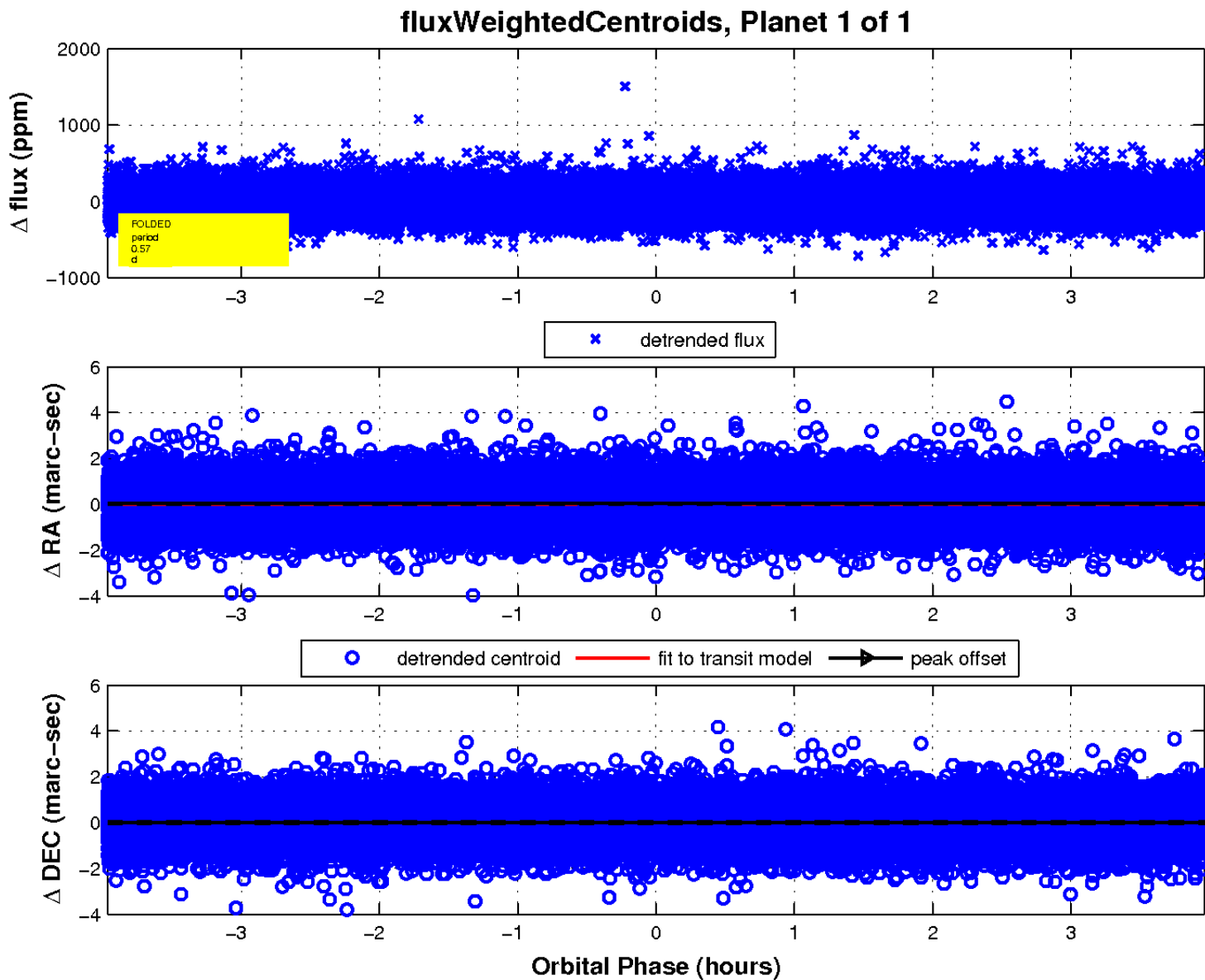
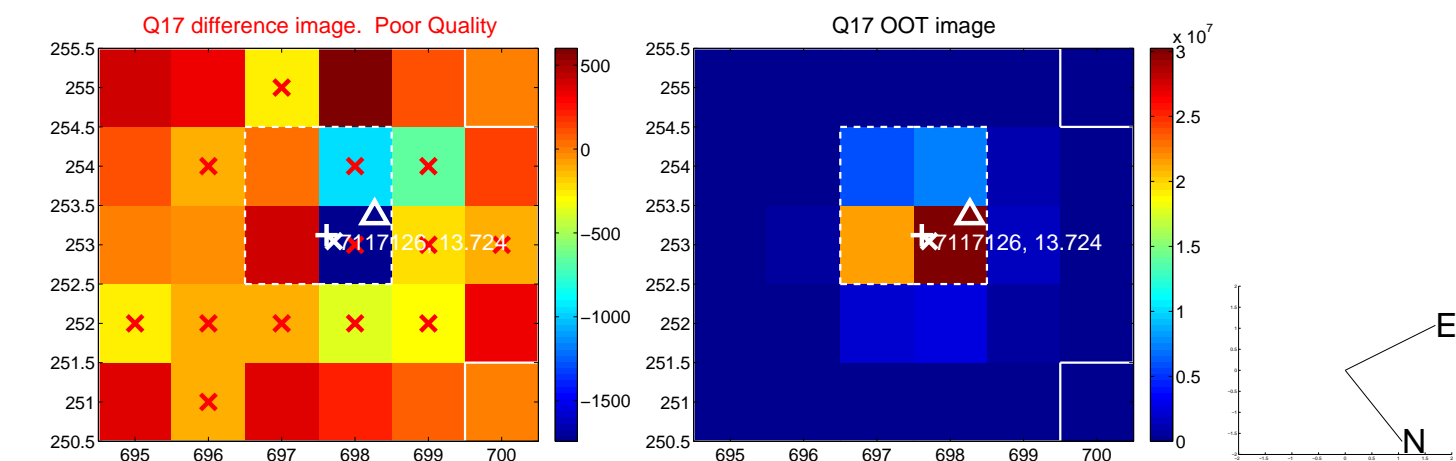
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UKIRT Image

Declination

