

KIC 007620537

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})
007620537-01	OBS	No	0.720957	131.818013	13.9	8.652	7.3	11.5	0.90	6156	0.33	4389.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007620537-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—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.

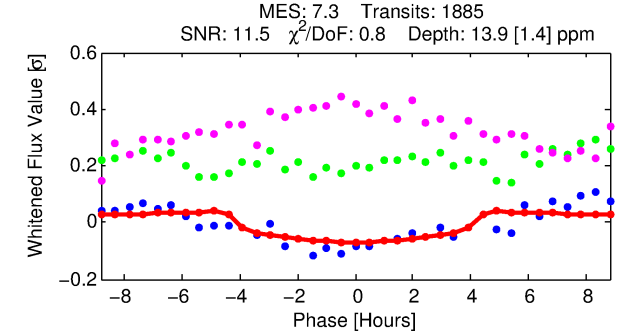
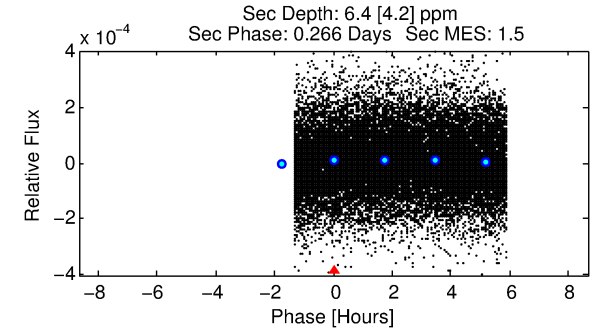
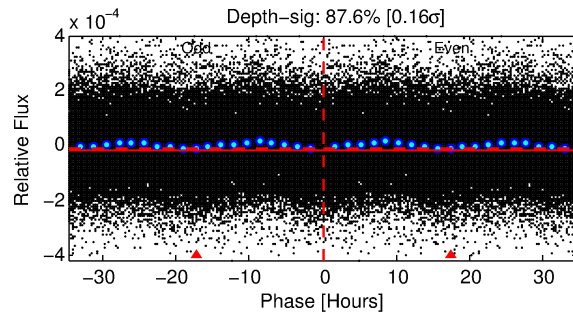
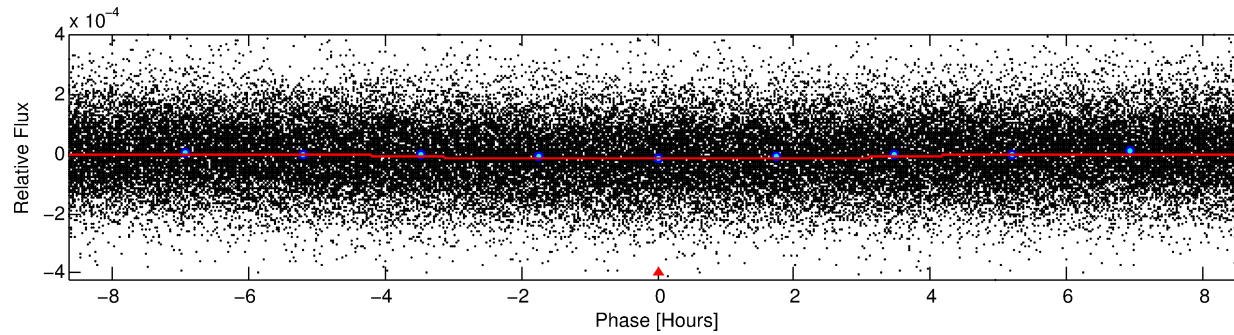
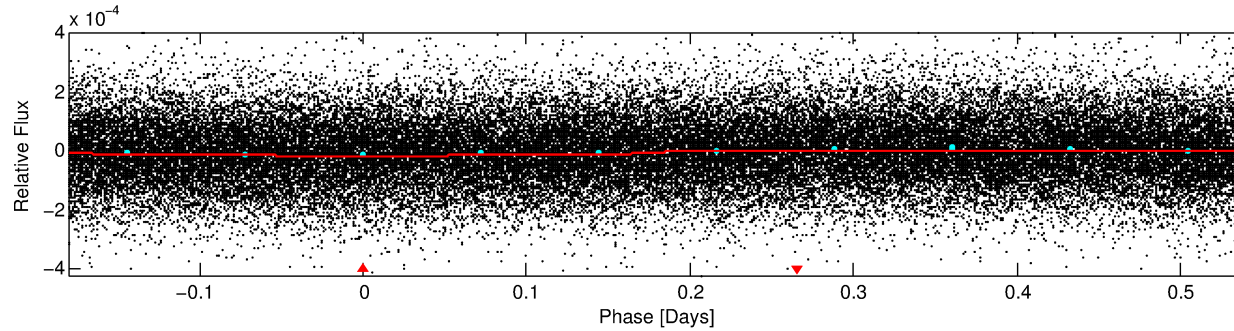
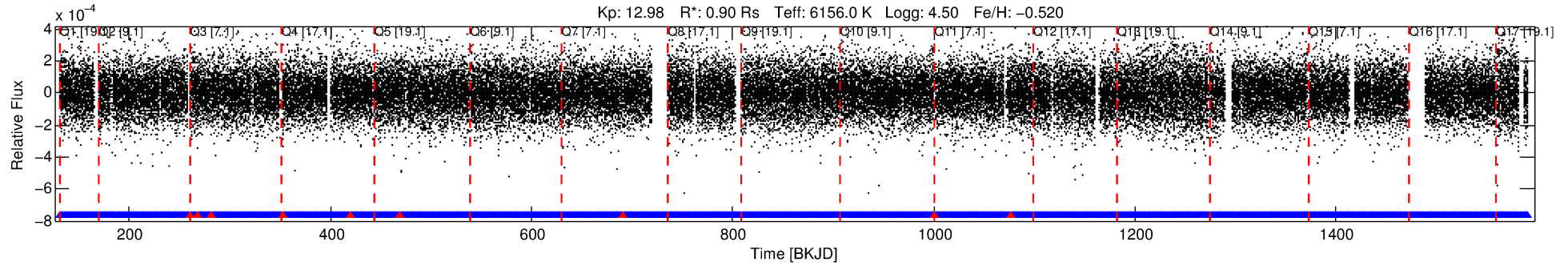
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007620537-01

No Significant Match Found

DV One-Page Summary

KIC: 7620537 Candidate: 1 of 1 Period: 0.721 d



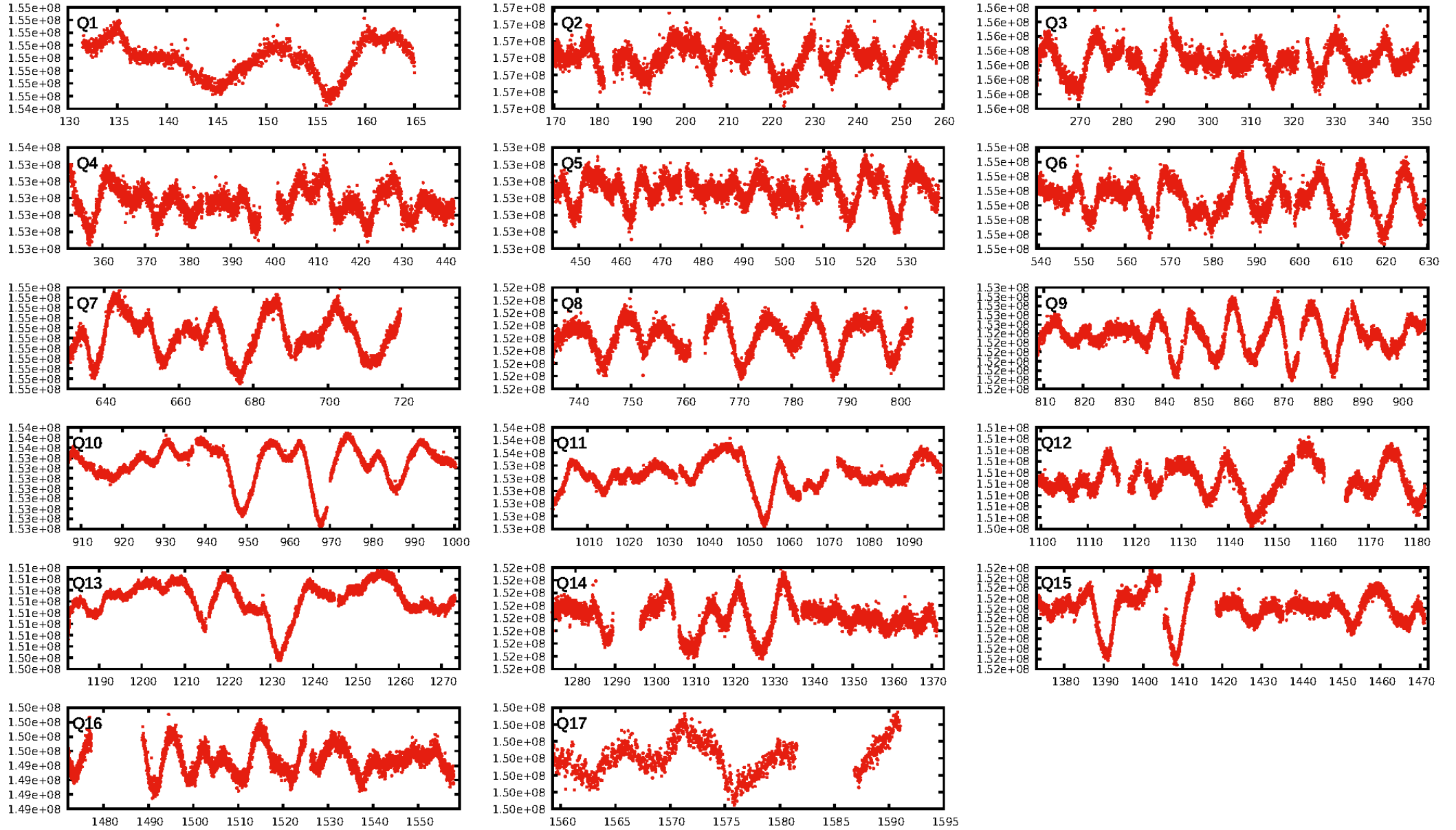
DV Fit Results:

Period = 0.72096 [0.00001] d
Epoch = 131.8180 [0.0058] BKJD
Rp/R* = 0.0034 [0.0015]
a/R* = 1.00 [0.00]
b = 0.03 [74.86]
Seff = 4389.50 [1270.34]
Teq = 2076 [150] K
Rp = 0.33 [0.16] Re
a = 0.0153 [0.0026] AU
Ag = 7.46 [8.35] [0.77 σ]
Teffp = 5304 [1459] K [2.20 σ]

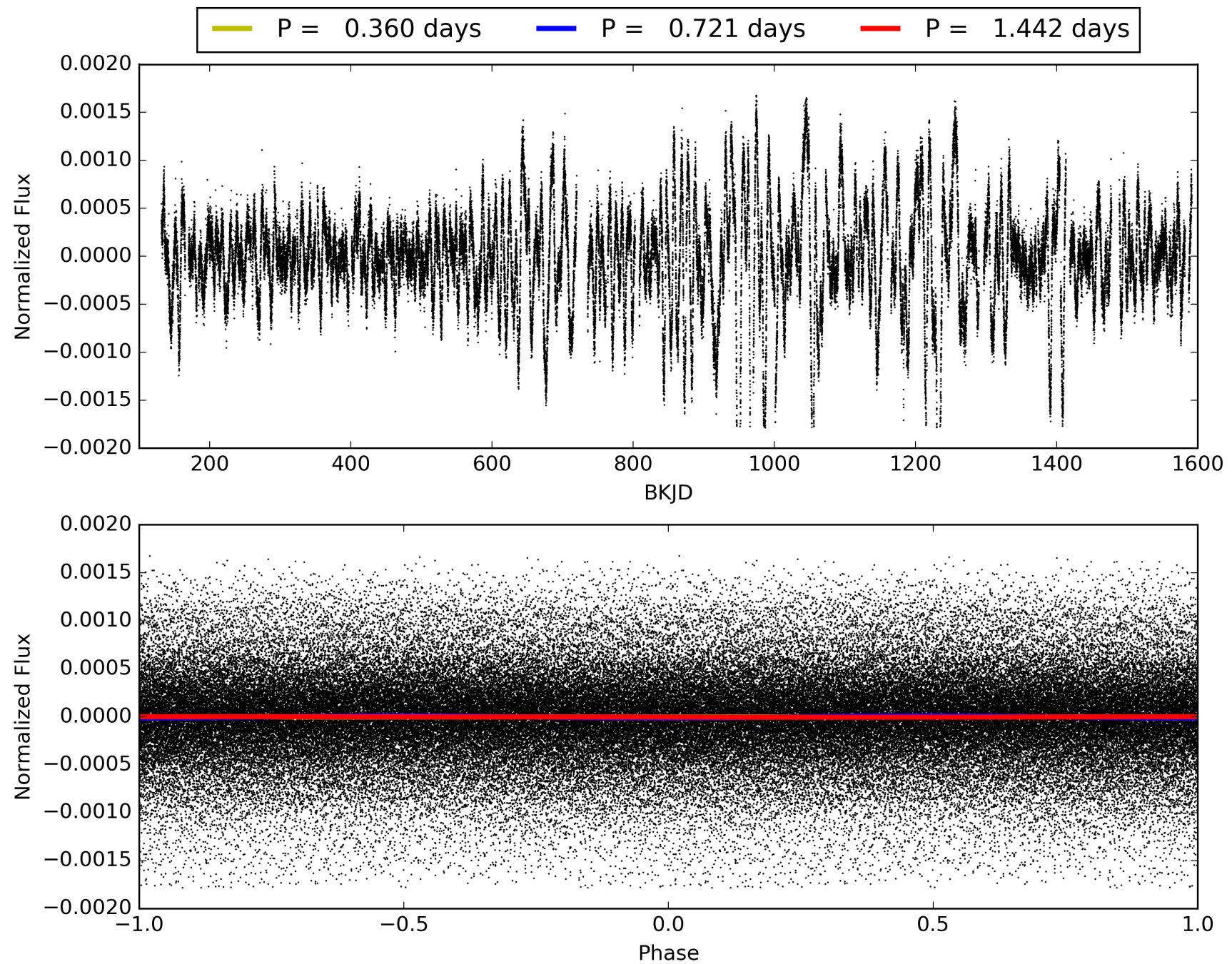
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgm: 0.99 [1790/1799]
GhostDiagnostic-chr: 1.543
Centroid-sig: 32.2%
Centroid-so: 0.562 arcsec [0.89 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007620537-01, PDC Light Curves

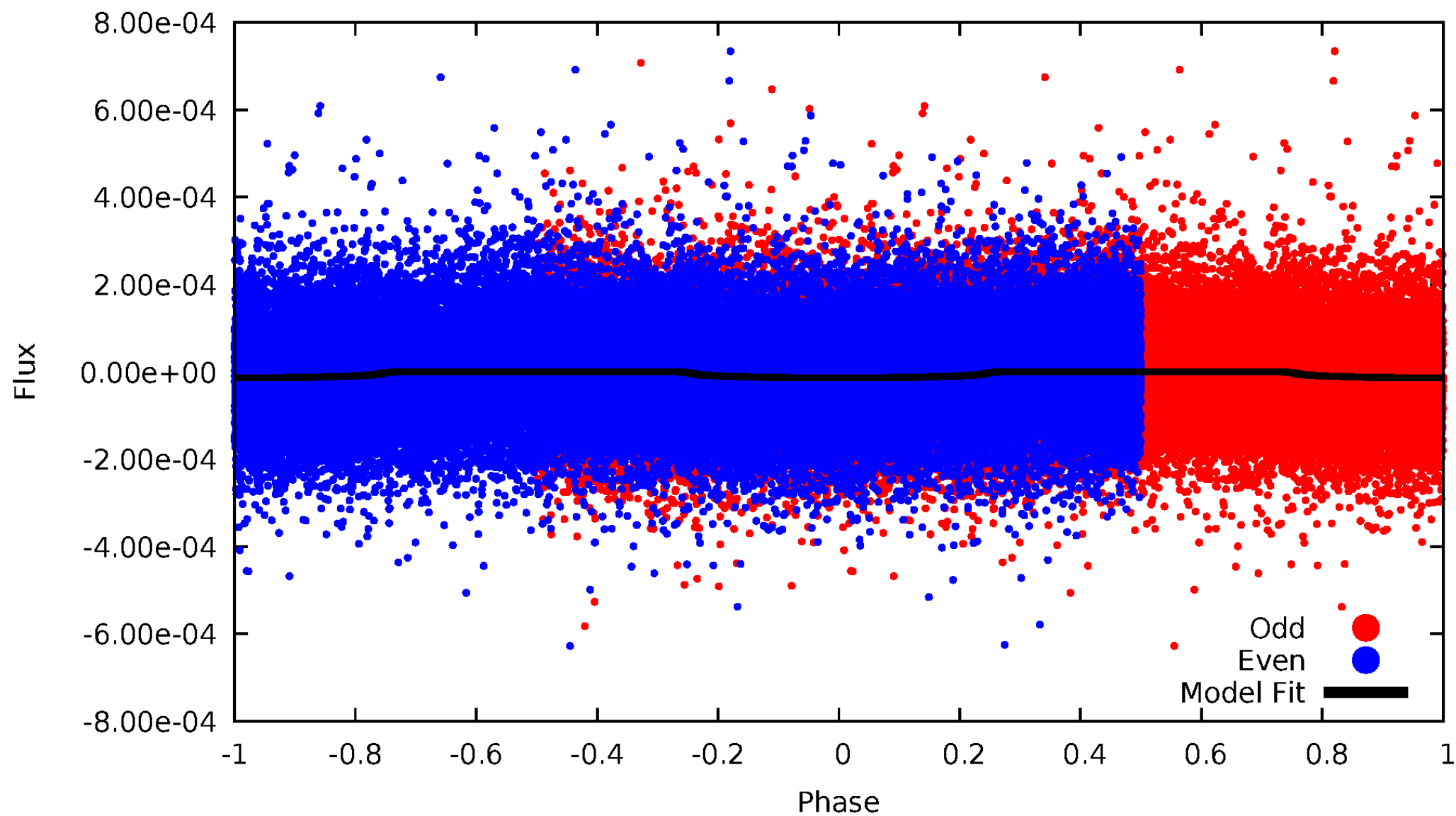


TCE 007620537-01



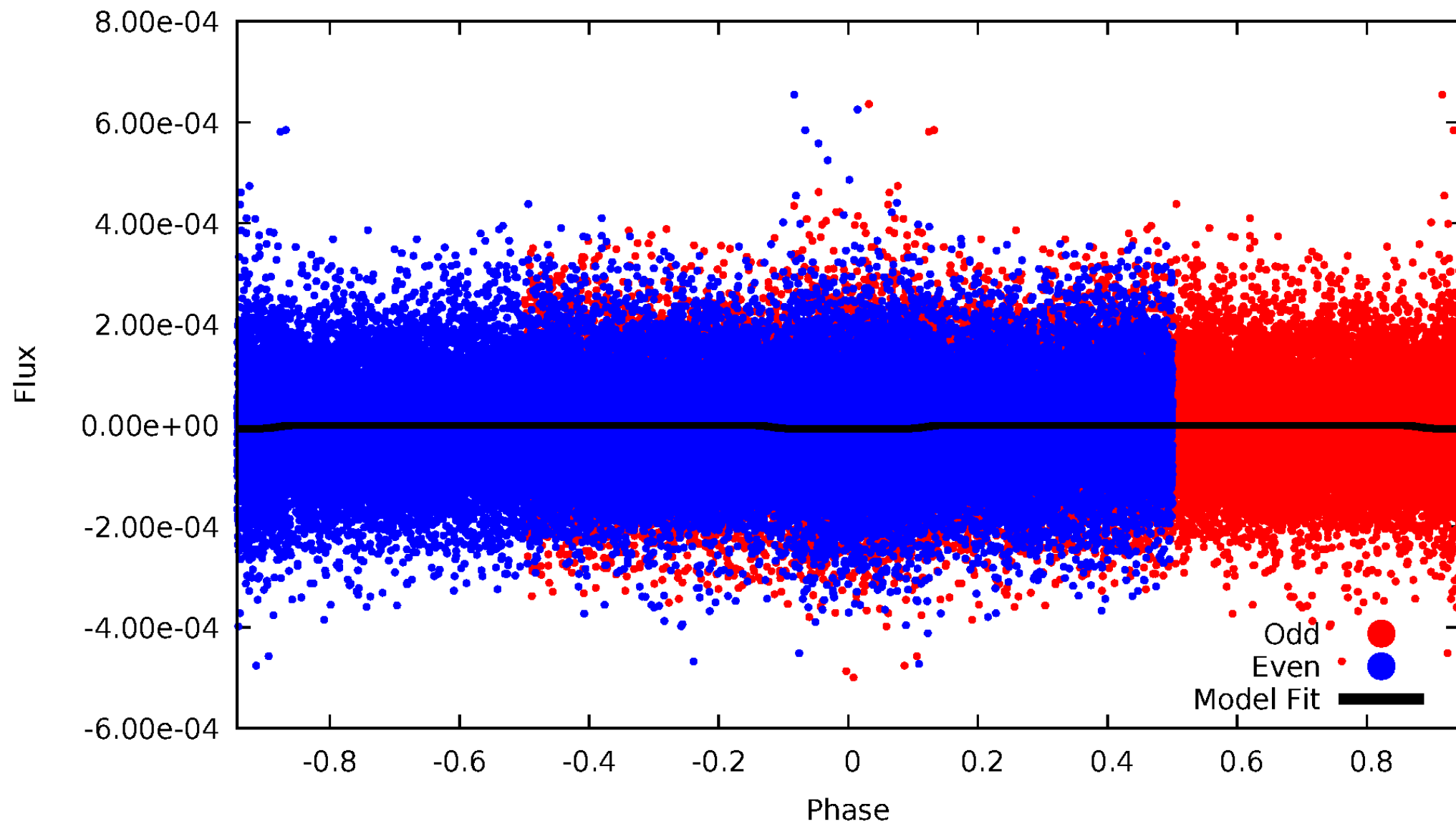
DV Odd/Even

TCE 007620537-01



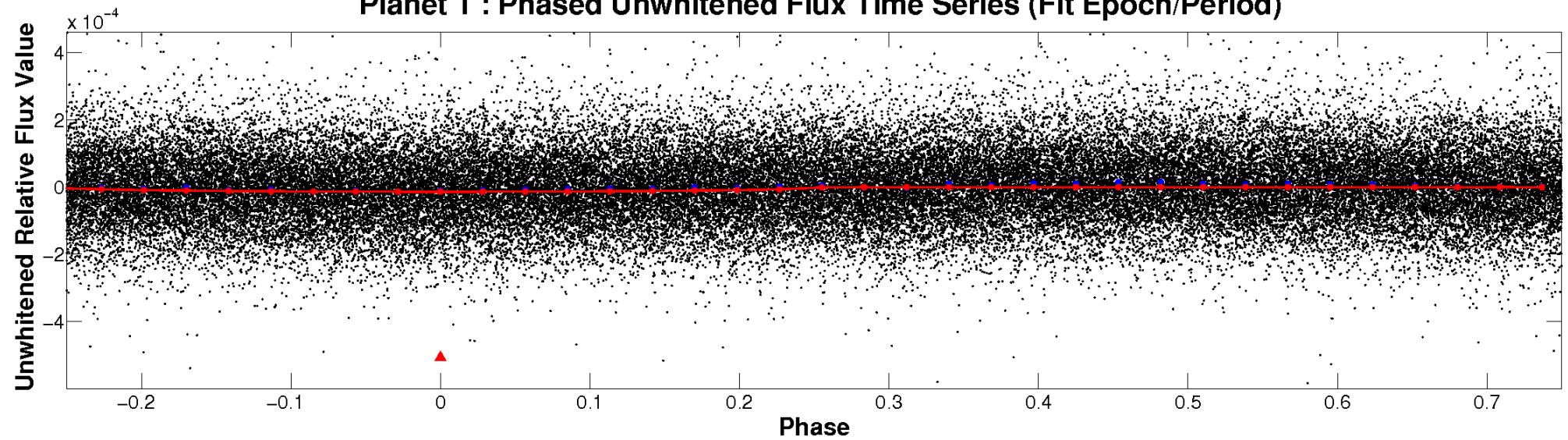
ALT Odd/Even

TCE 007620537-01

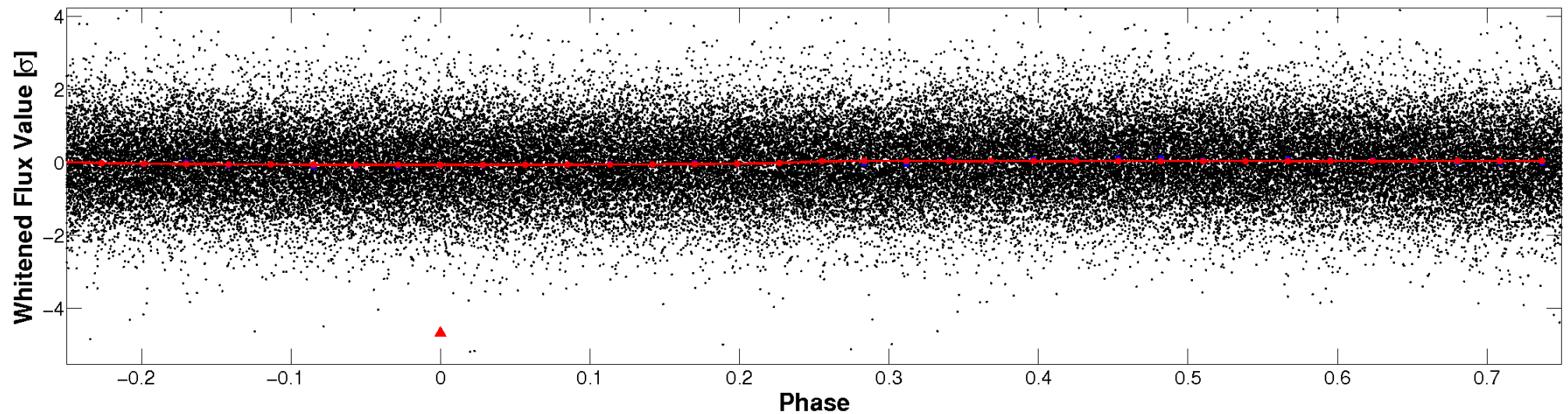


Non-Whitened Vs. Whitened Light Curve

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

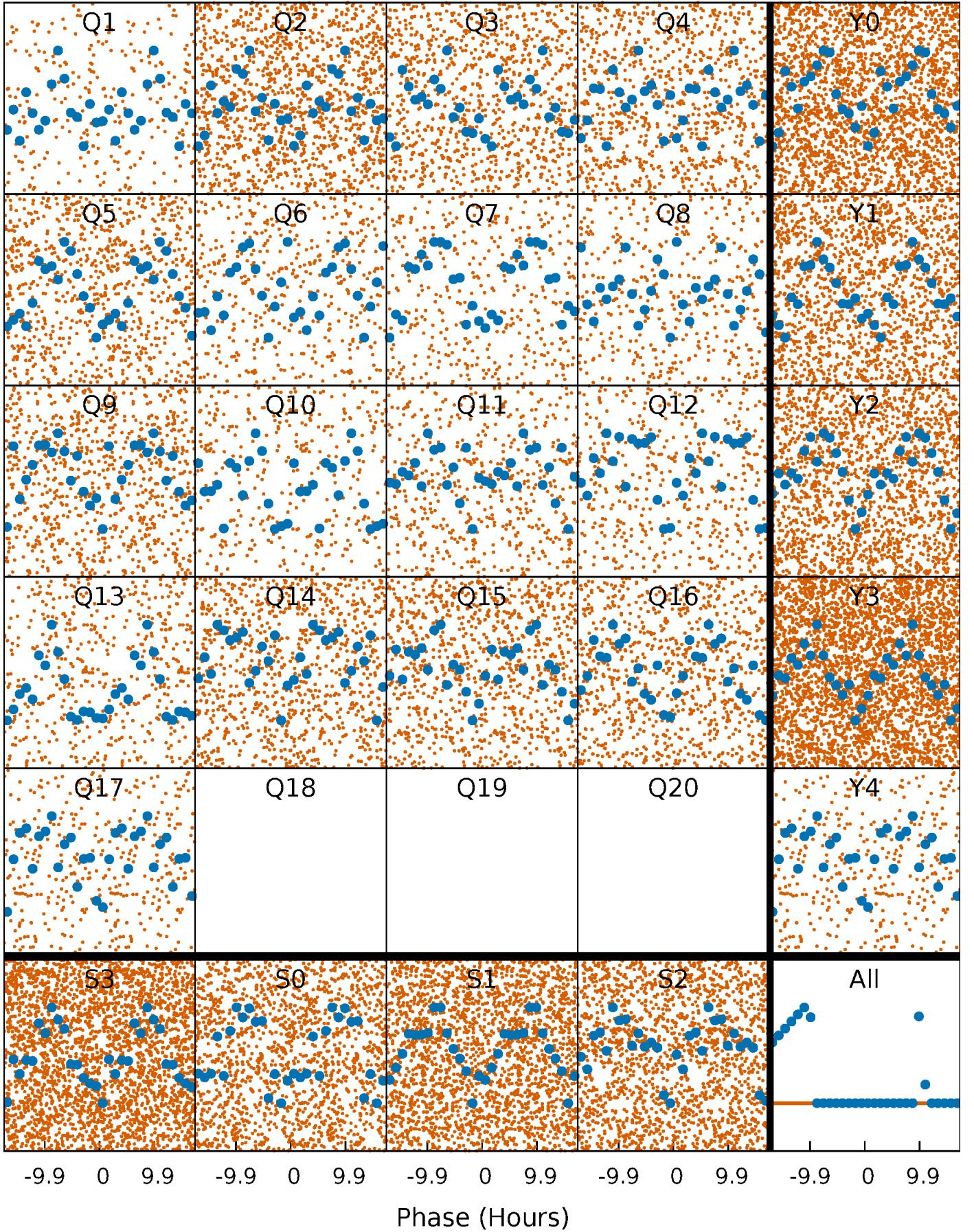


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



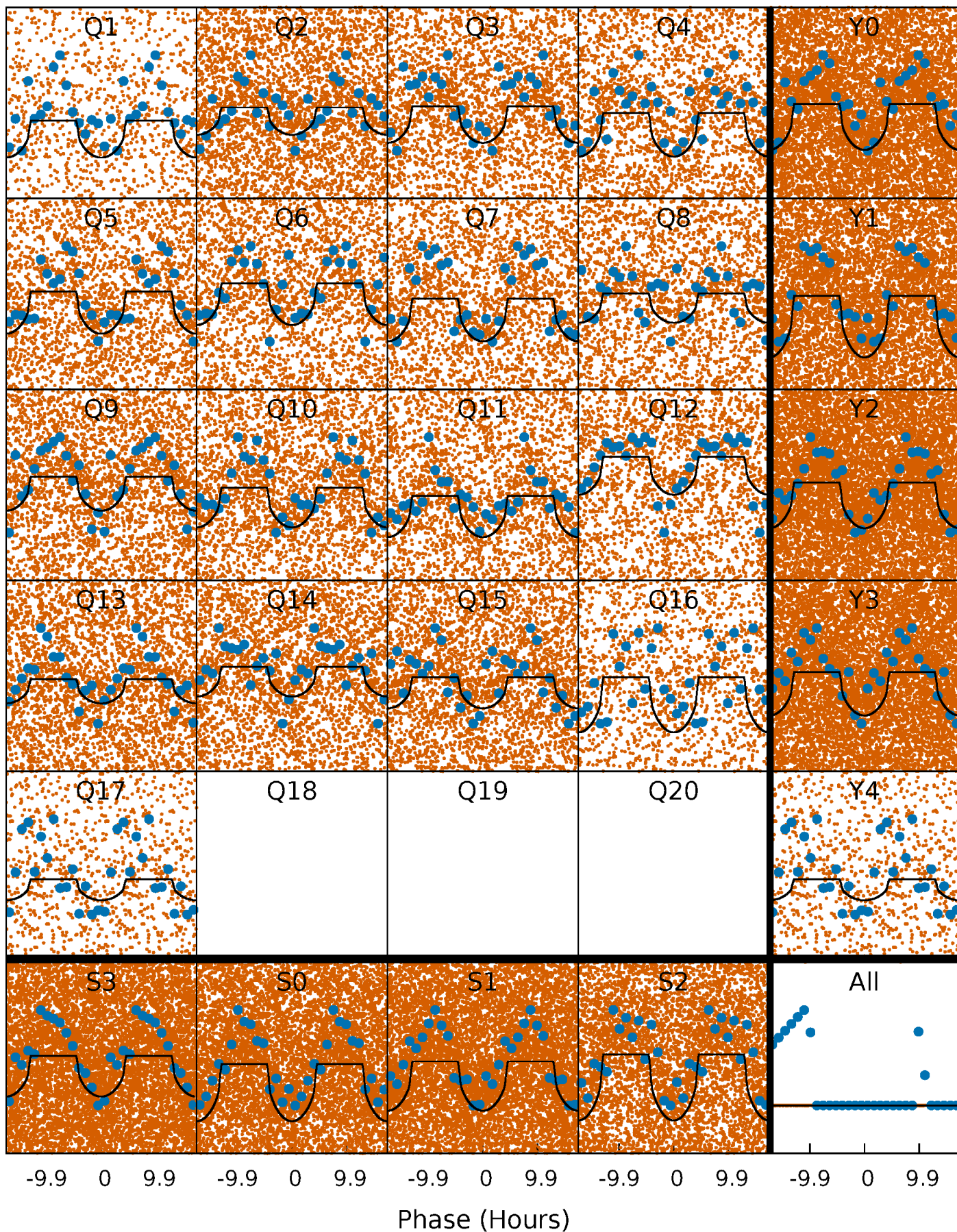
PDC Quarter-Phased Transit Curves

TCE 007620537-01 P= 0.720957 Days $T_0=131.818013$ (BKJD)



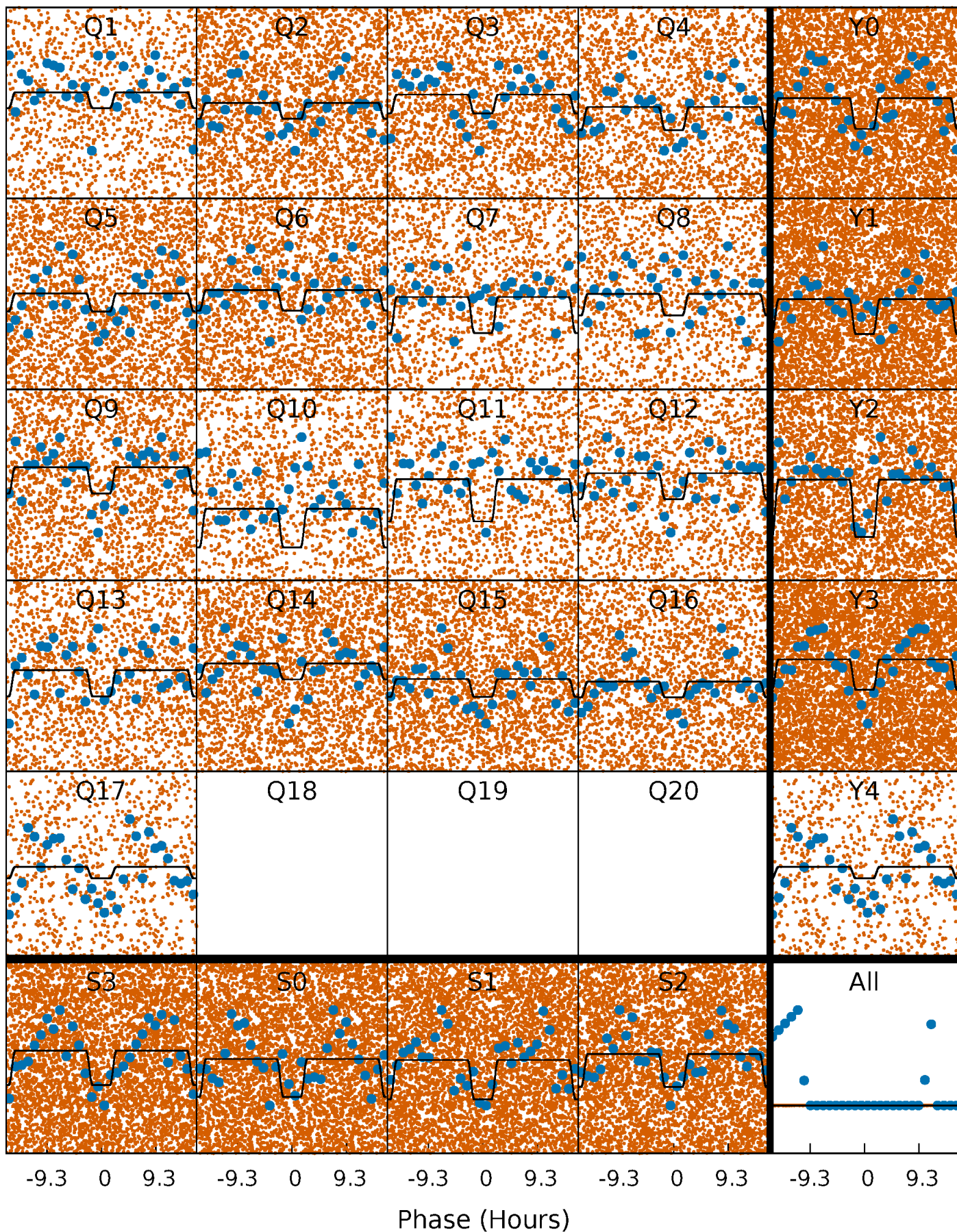
DV Quarter-Phased Transit Curves

TCE 007620537-01 P= 0.720957 Days $T_0=131.818013$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

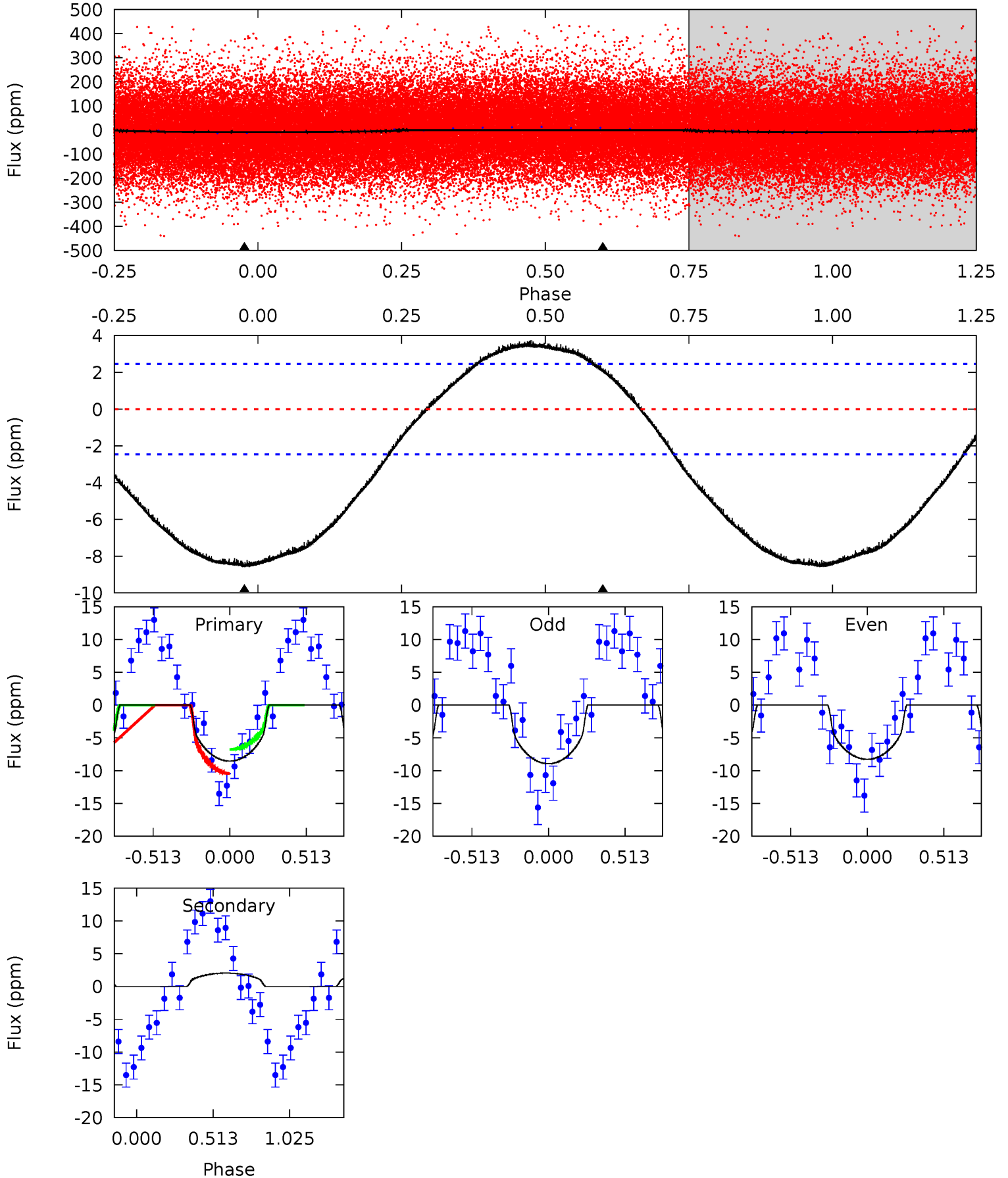
TCE 007620537-01 P= 0.720907 Days $T_0=131.842234$ (BKJD)



DV Model-Shift Uniqueness Test

007620537-01, P = 0.720957 Days, E = 131.097056 Days

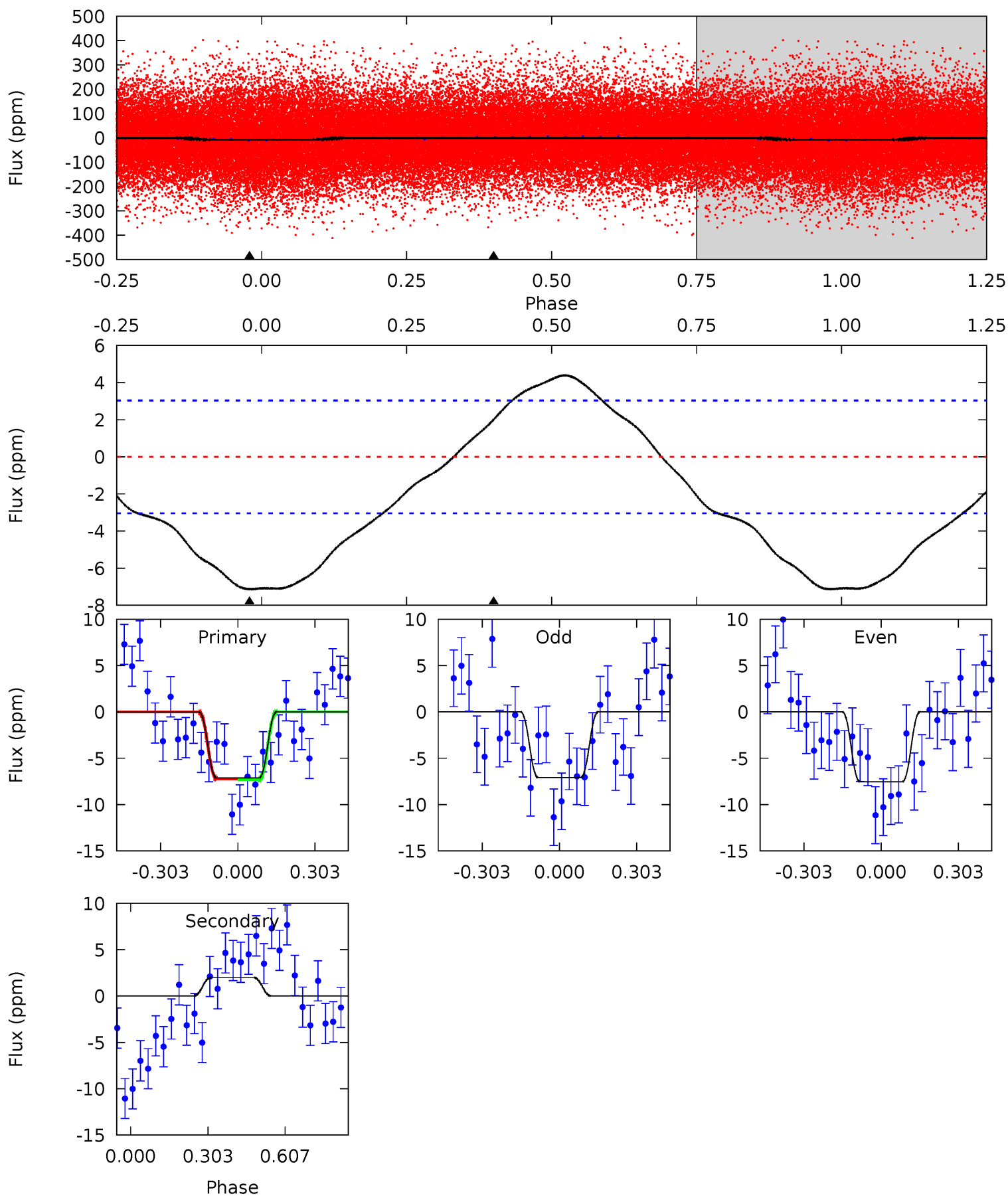
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	-3.49	0	0	4.21	0.65	1.59	14.6	14.6	-3.49	-3.49	0.58	1.12	0.31	3.13



Alt Model-Shift Uniqueness Test

007620537-01, P = 0.720907 Days, E = 131.121327 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	-2.85	0	0	4.33	1.03	1.47	10.2	10.2	-2.85	-2.85	0.32	1.06	0.38	0.09



Stellar Parameters For KIC 007620537

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6156^{+185}_{-222}	$4.500^{+0.060}_{-0.140}$	$-0.520^{+0.250}_{-0.300}$	$0.896^{+0.174}_{-0.094}$	$0.926^{+0.095}_{-0.106}$	$1.816^{+0.456}_{-0.743}$
	+3%/-4%	+1%/-3%	+48%/-58%	+19%/-10%	+10%/-11%	+25%/-41%
Source	PHO1	FLK73	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 007620537-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	2 ± 1	$0.34^{+0.16}_{-0.14}$	2928^{+158}_{-145}	-4347^{+517}_{-986}	$-2.334^{+1.350}_{-4.514}$
Alt.	2 ± 1	$0.27^{+0.15}_{-0.12}$	2934^{+150}_{-140}	-4623^{+671}_{-1426}	$-3.255^{+1.957}_{-8.854}$

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 $A_{obs} \gg 1.0$

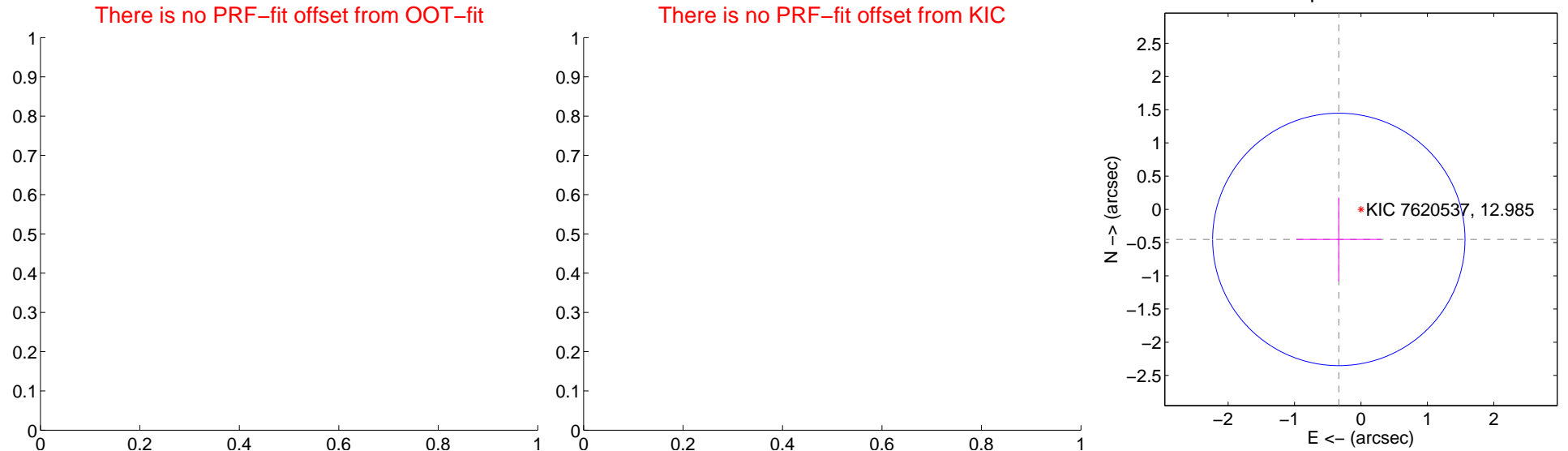
DV Centroid Data

Supplemental centroid analysis for 007620537-01. Kepler magnitude: 12.98. Transit SNR 11.50

There are 0 quarters with good PRF difference image offsets

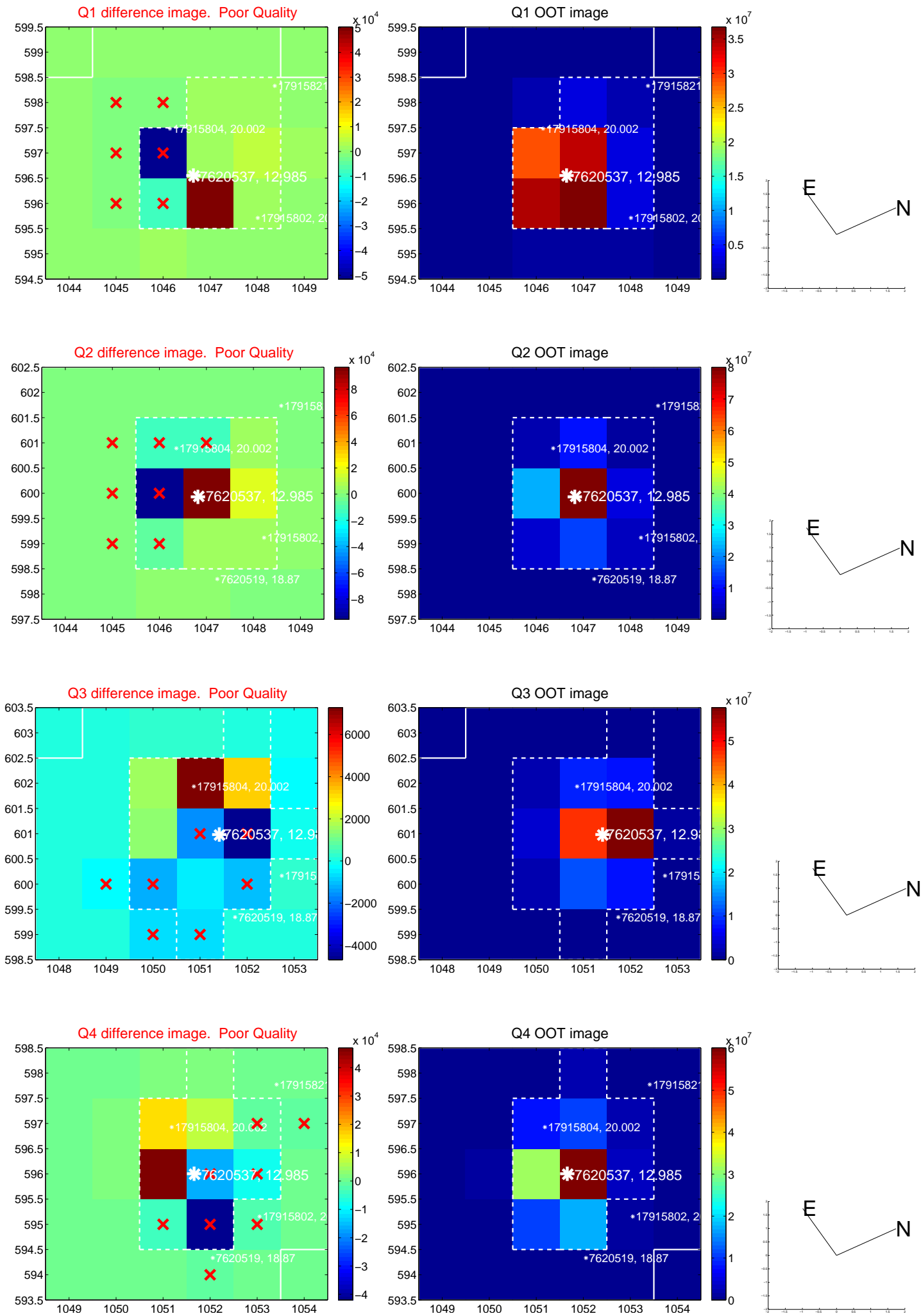
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	0.56 ± 0.63	0.89	0.33 ± 0.64	-0.45 ± 0.63

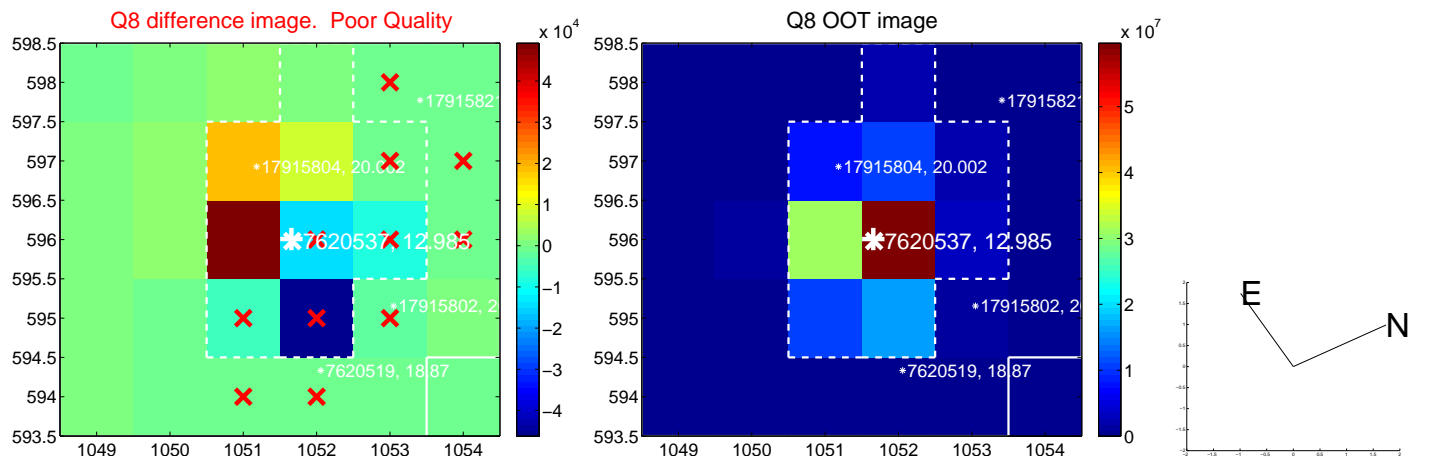
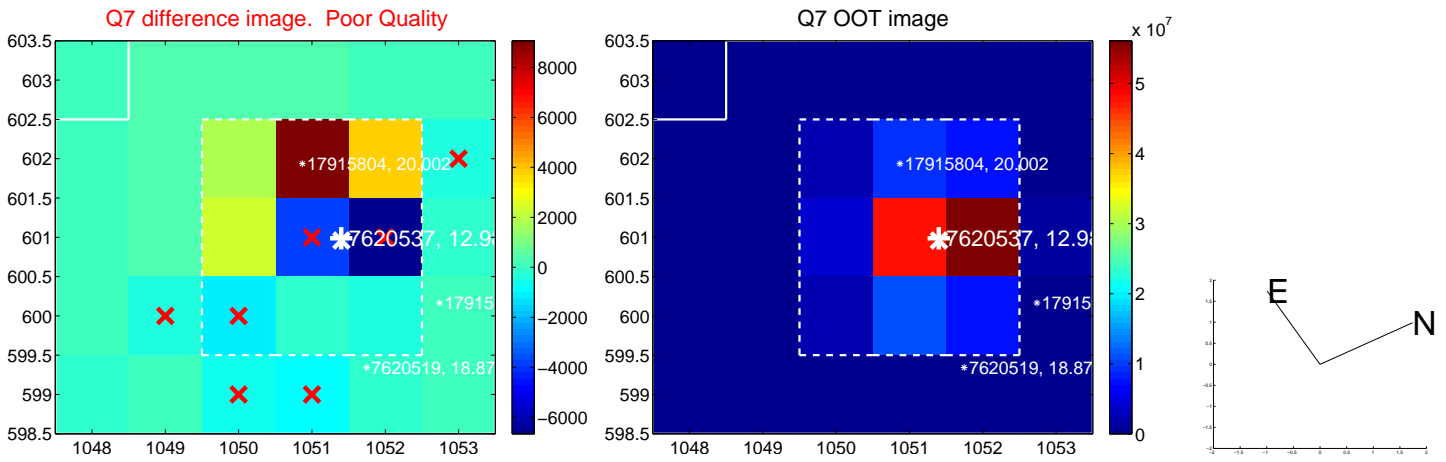
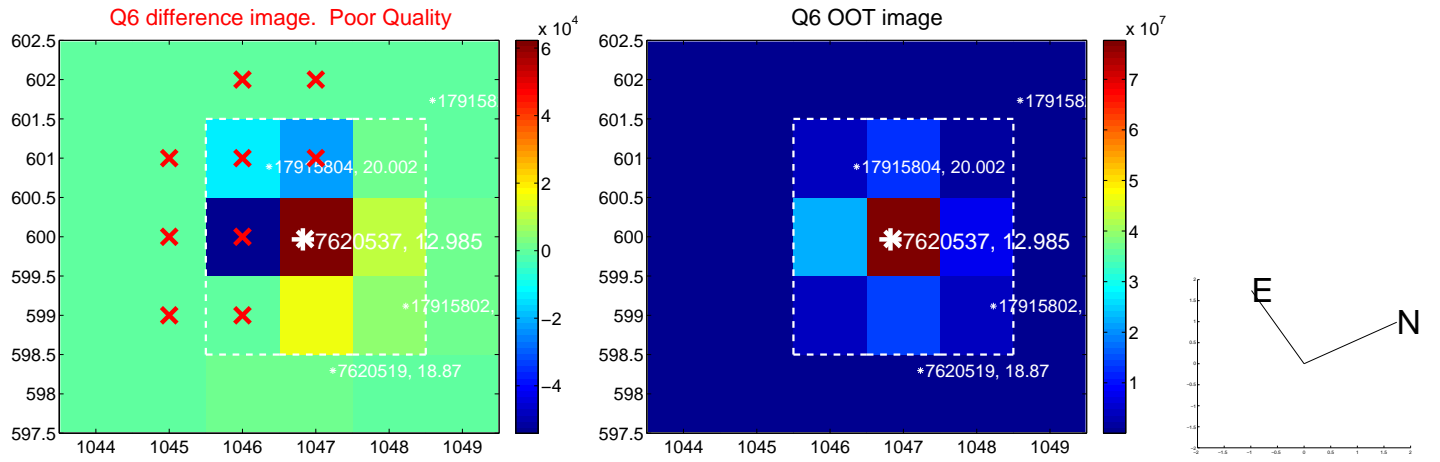
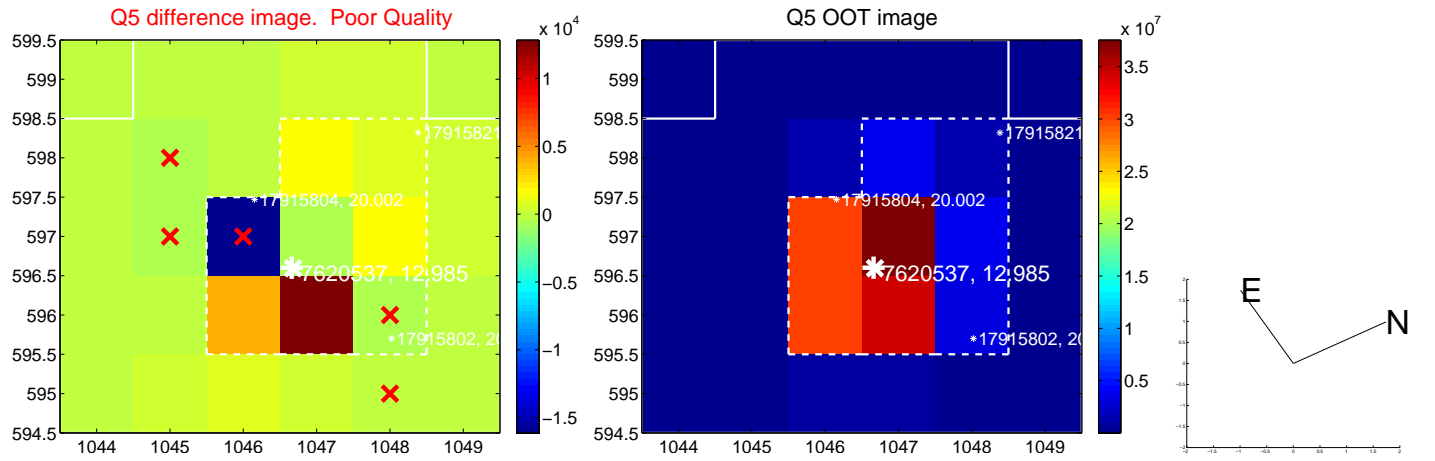


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

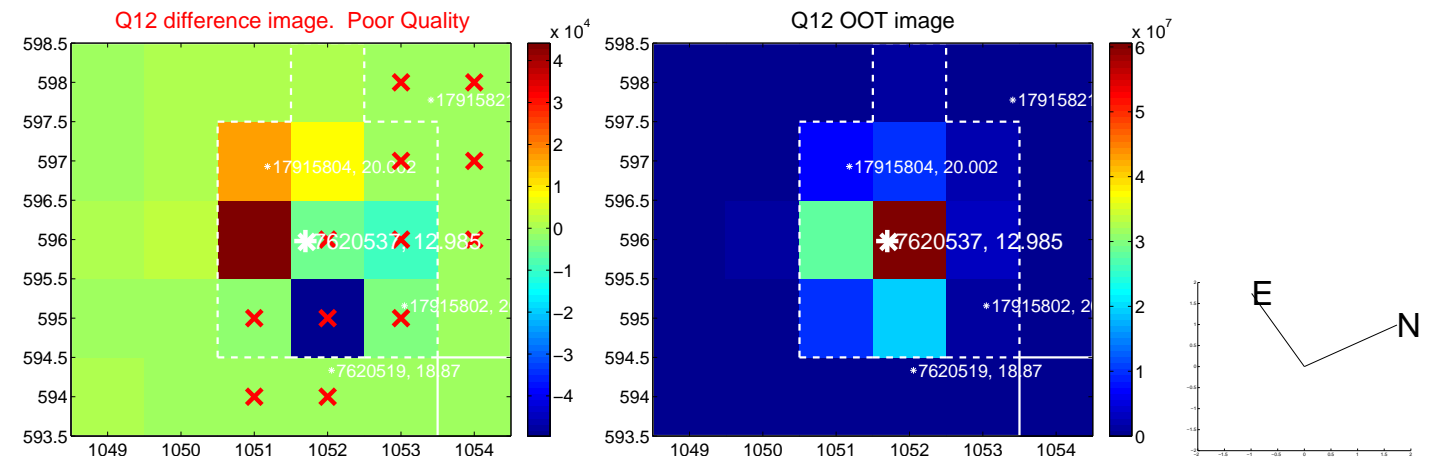
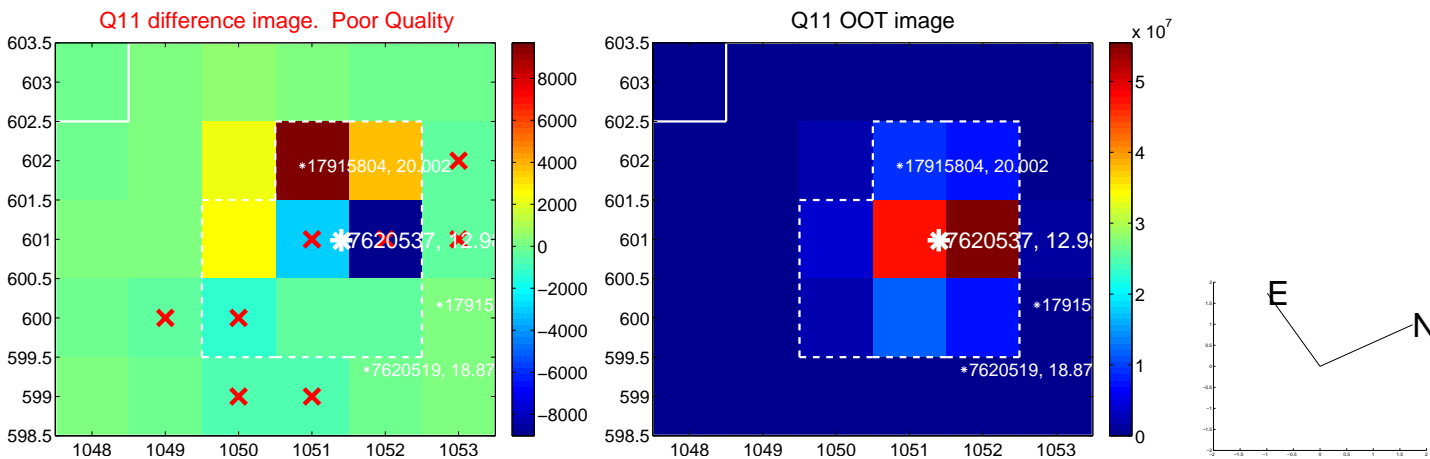
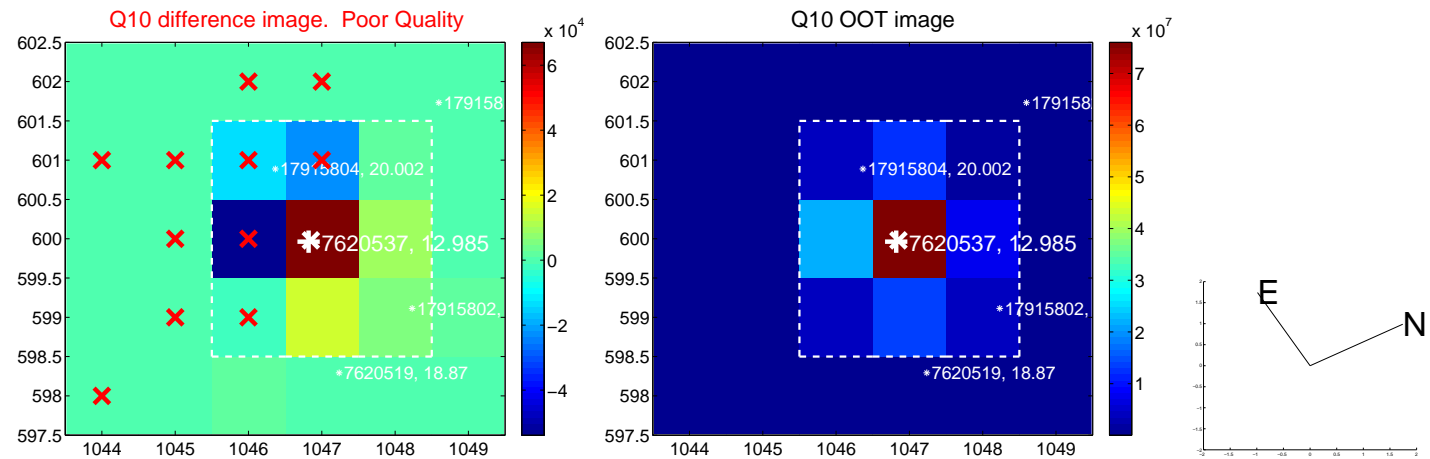
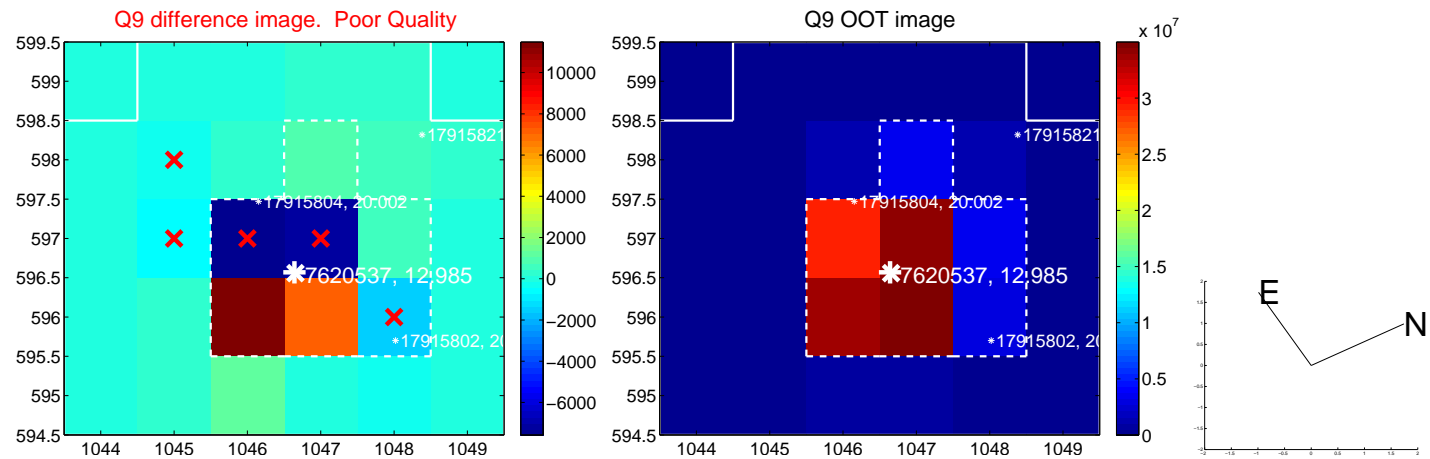
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



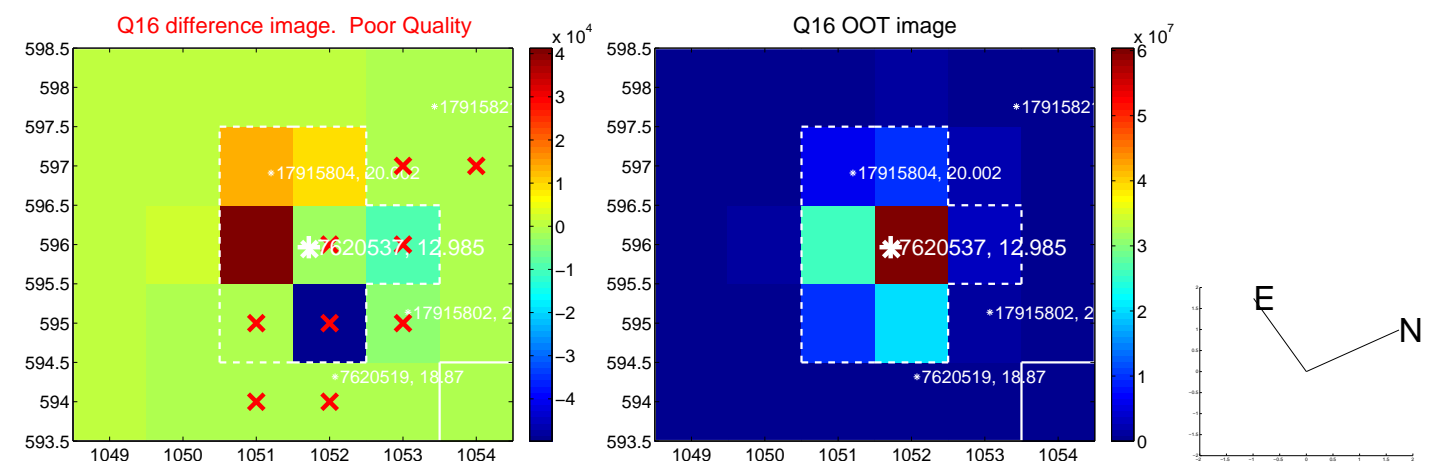
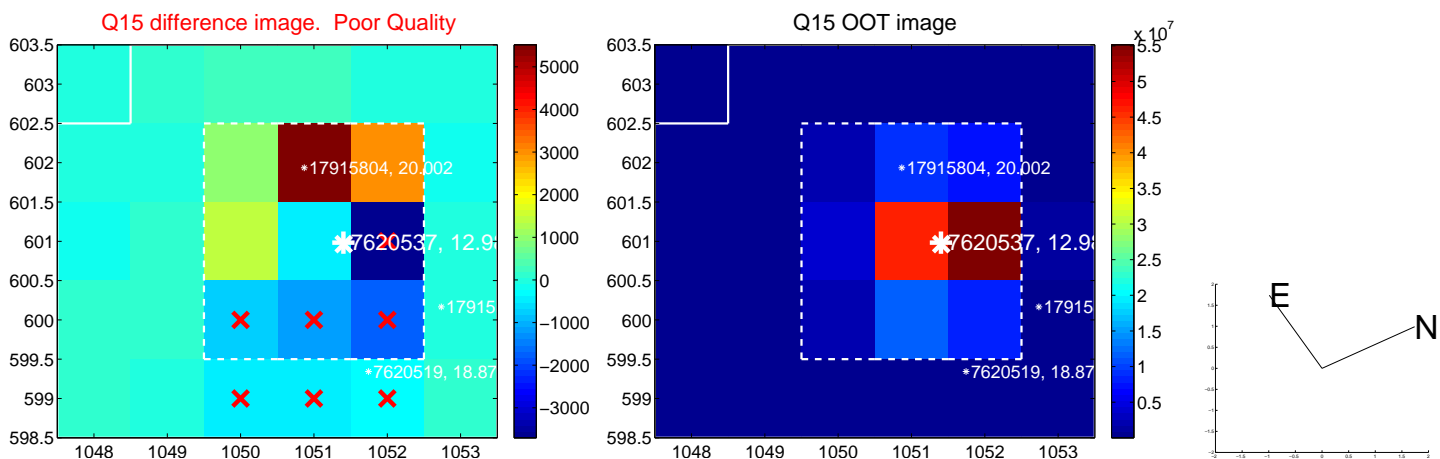
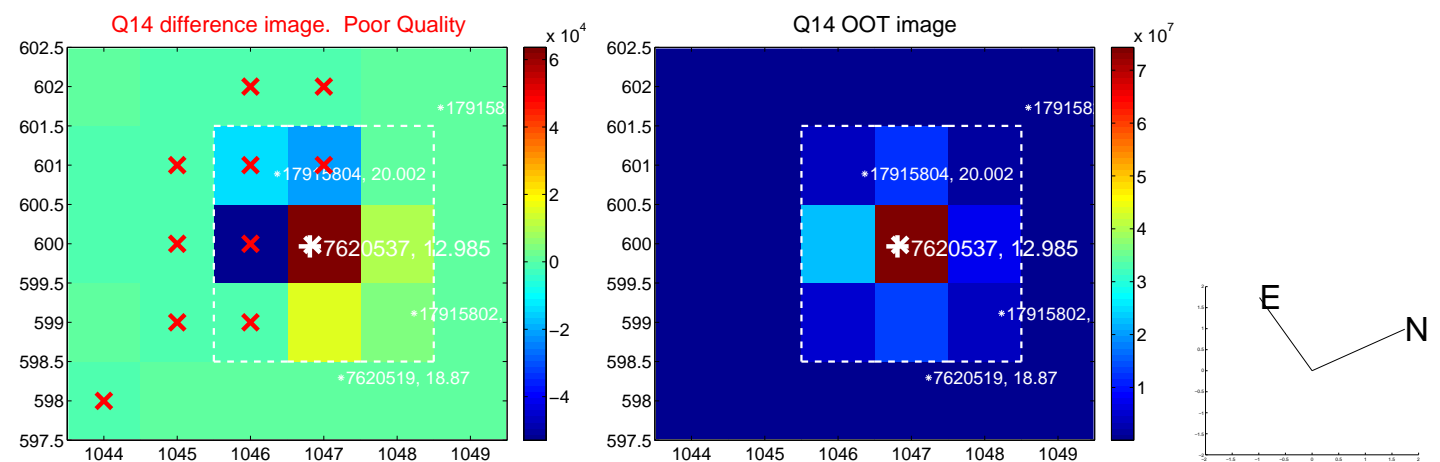
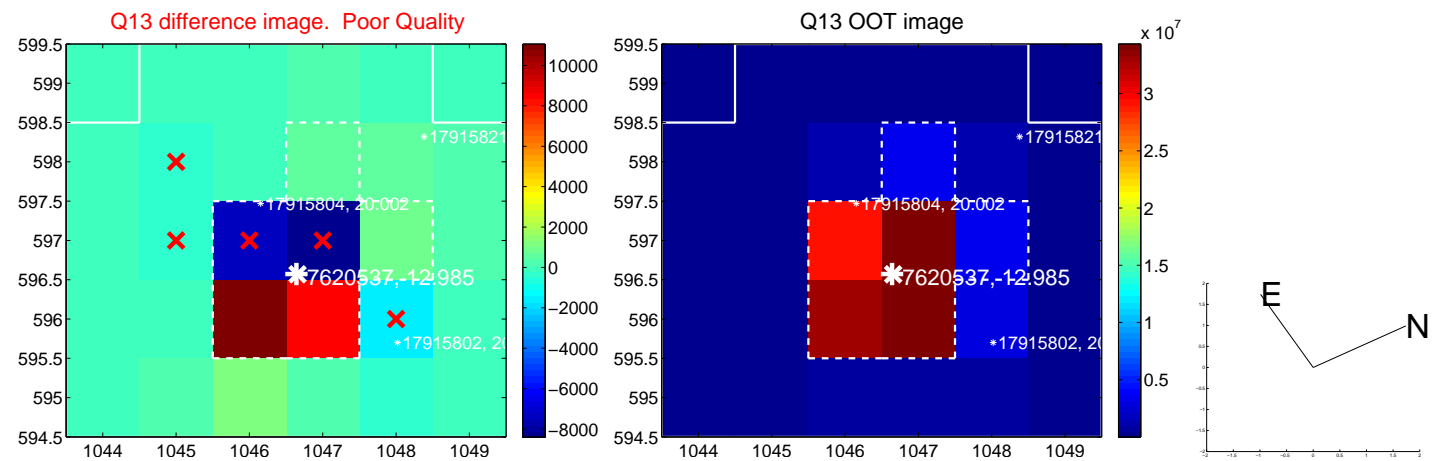
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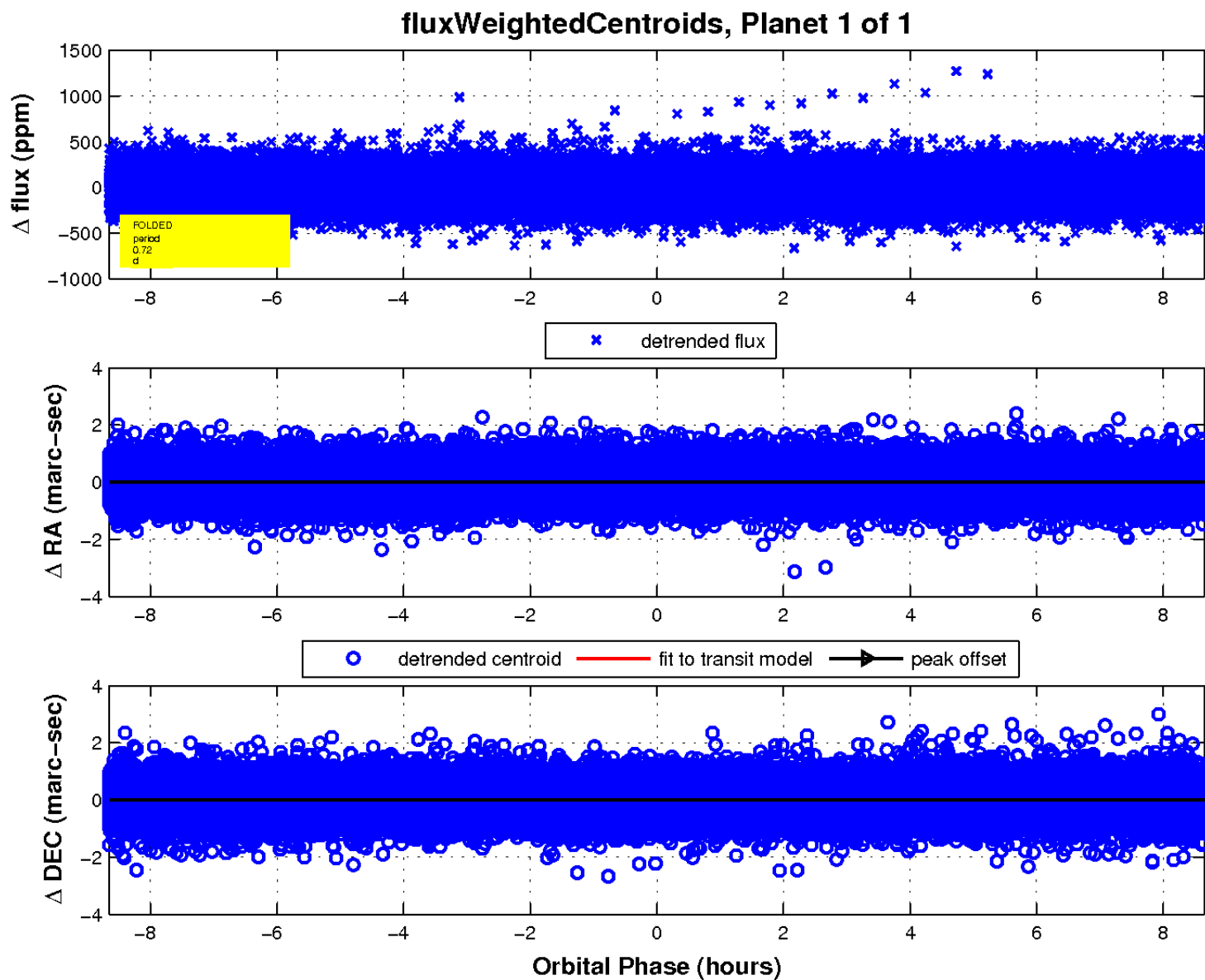
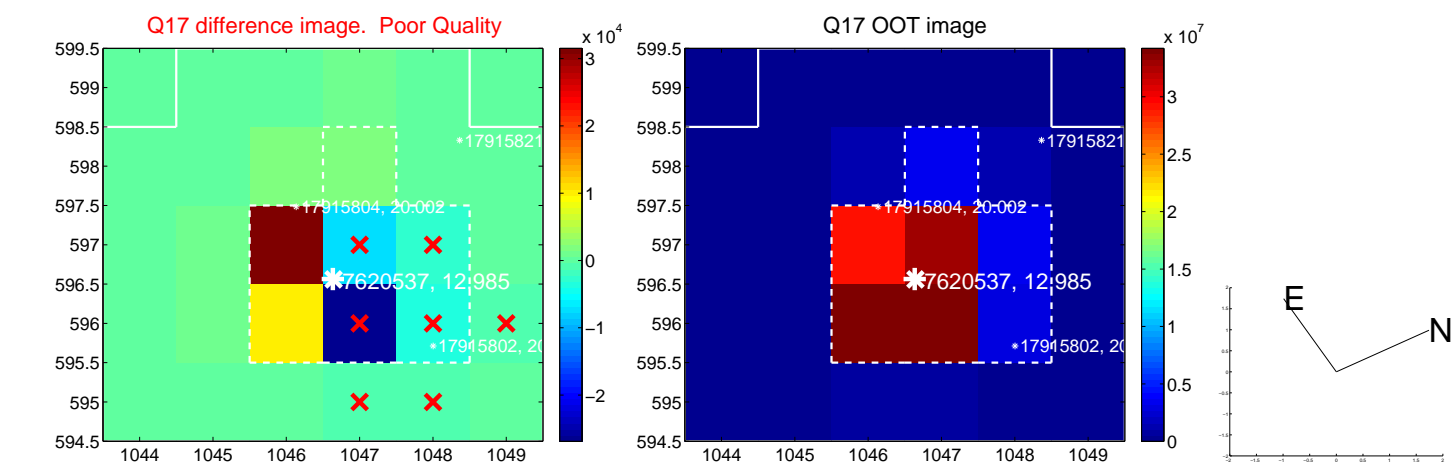
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UKIRT Image

Declination

