

KIC 005717140

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})
005717140-01	OBS	No	0.545265	131.696368	36.7	1.213	10.0	10.3	1.82	7780	1.28	45090.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005717140-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT

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

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

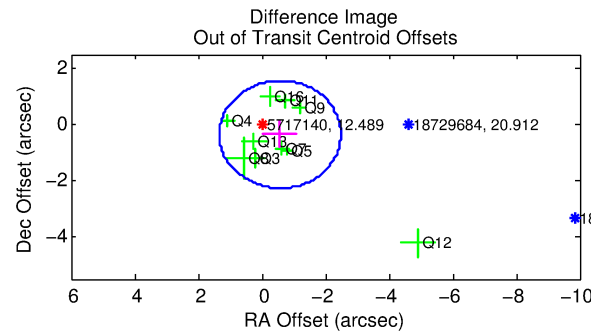
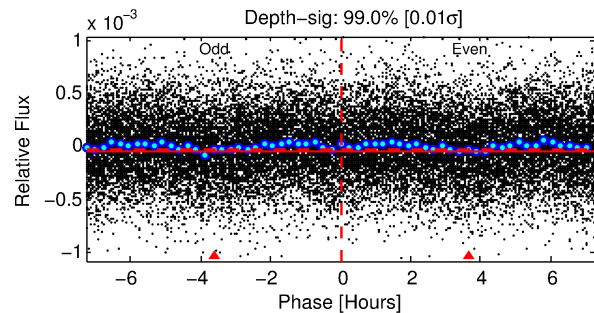
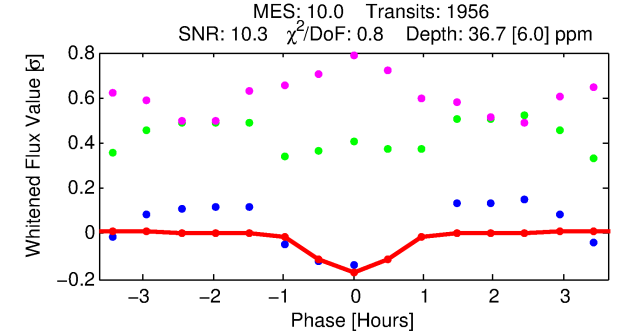
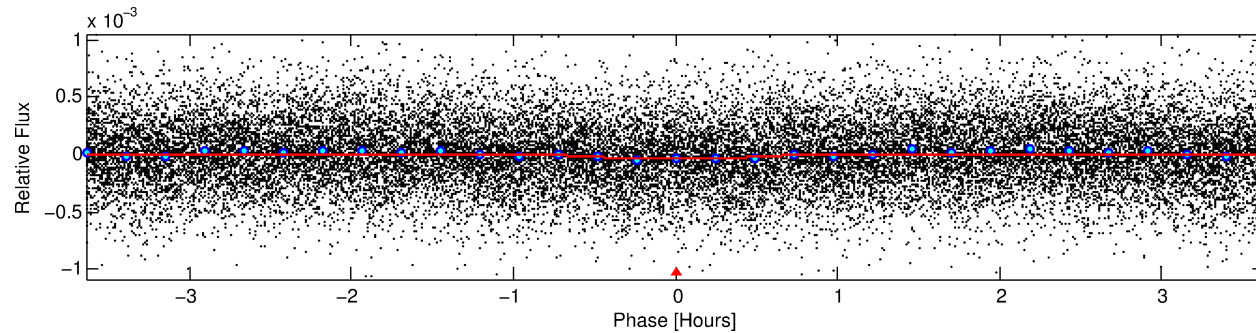
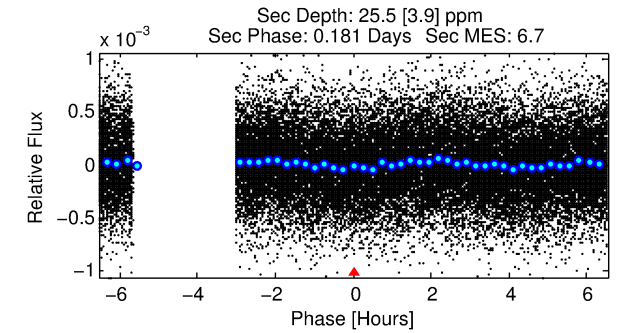
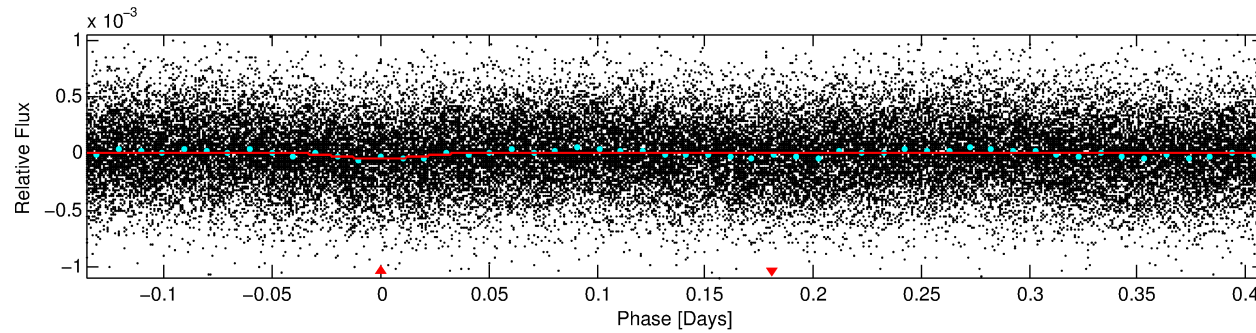
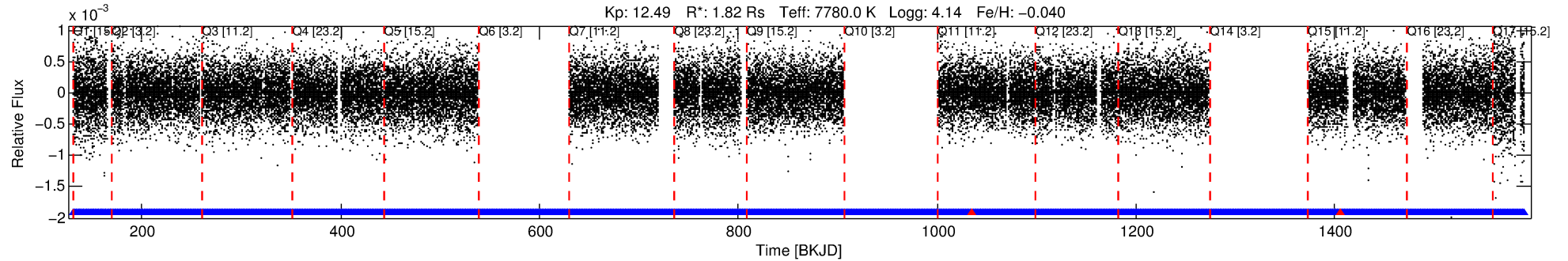
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005717140-01

No Significant Match Found

DV One-Page Summary

KIC: 5717140 Candidate: 1 of 1 Period: 0.545 d



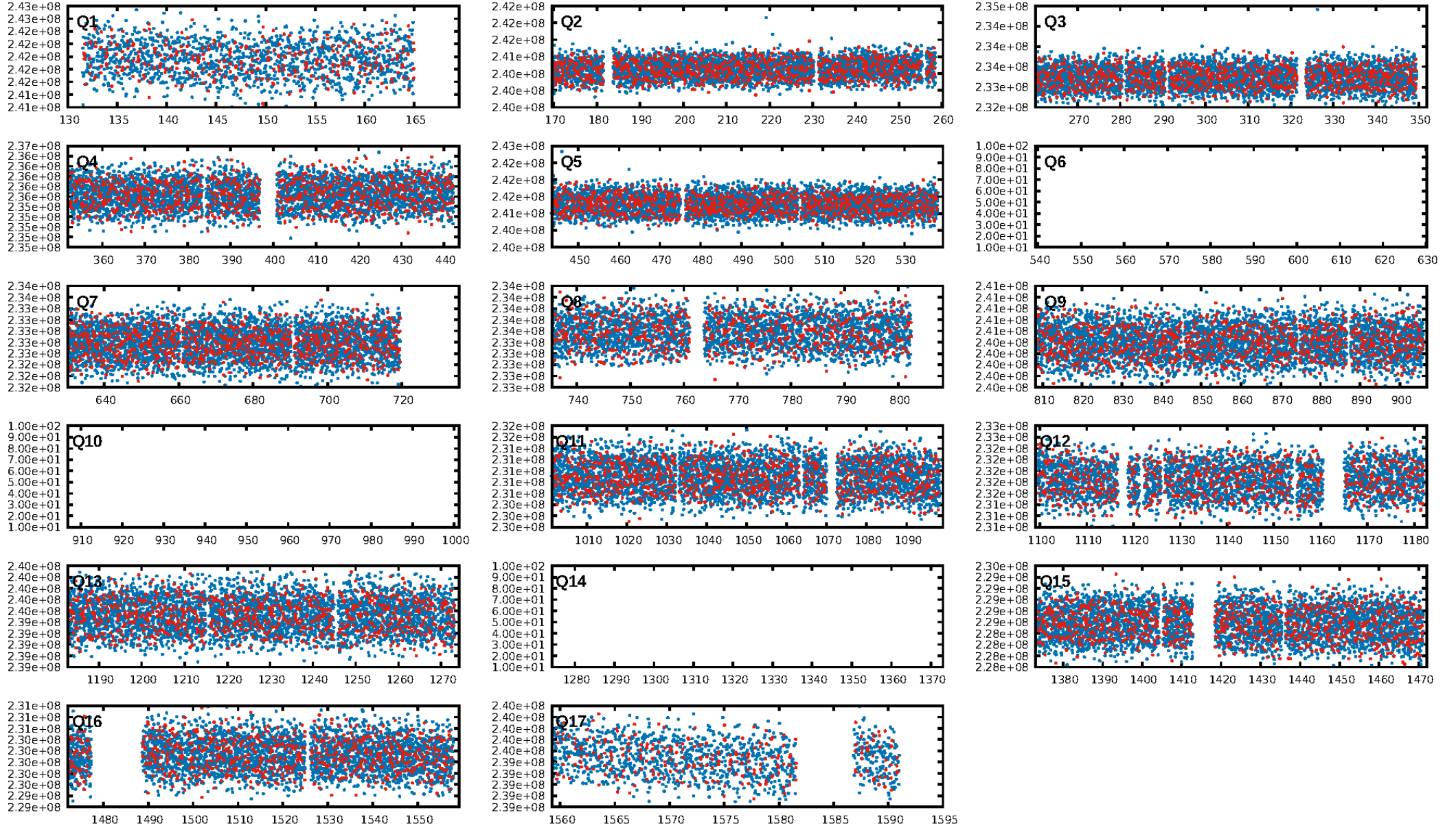
DV Fit Results:

Period = 0.54526 [0.00001] d
Epoch = 131.6964 [0.0023] BKJD
Rp/R* = 0.0064 [0.0018]
a/R* = 1.81 [2.23]
b = 0.90 [0.38]
Seff = 45090.00 [16874.52]
Teff = 3716 [348] K
Rp = 1.28 [0.51] Re
a = 0.0155 [0.0036] AU
Ag = 2.06 [1.39] [0.77σ]
Teffp = 6883 [1042] K [2.88σ]

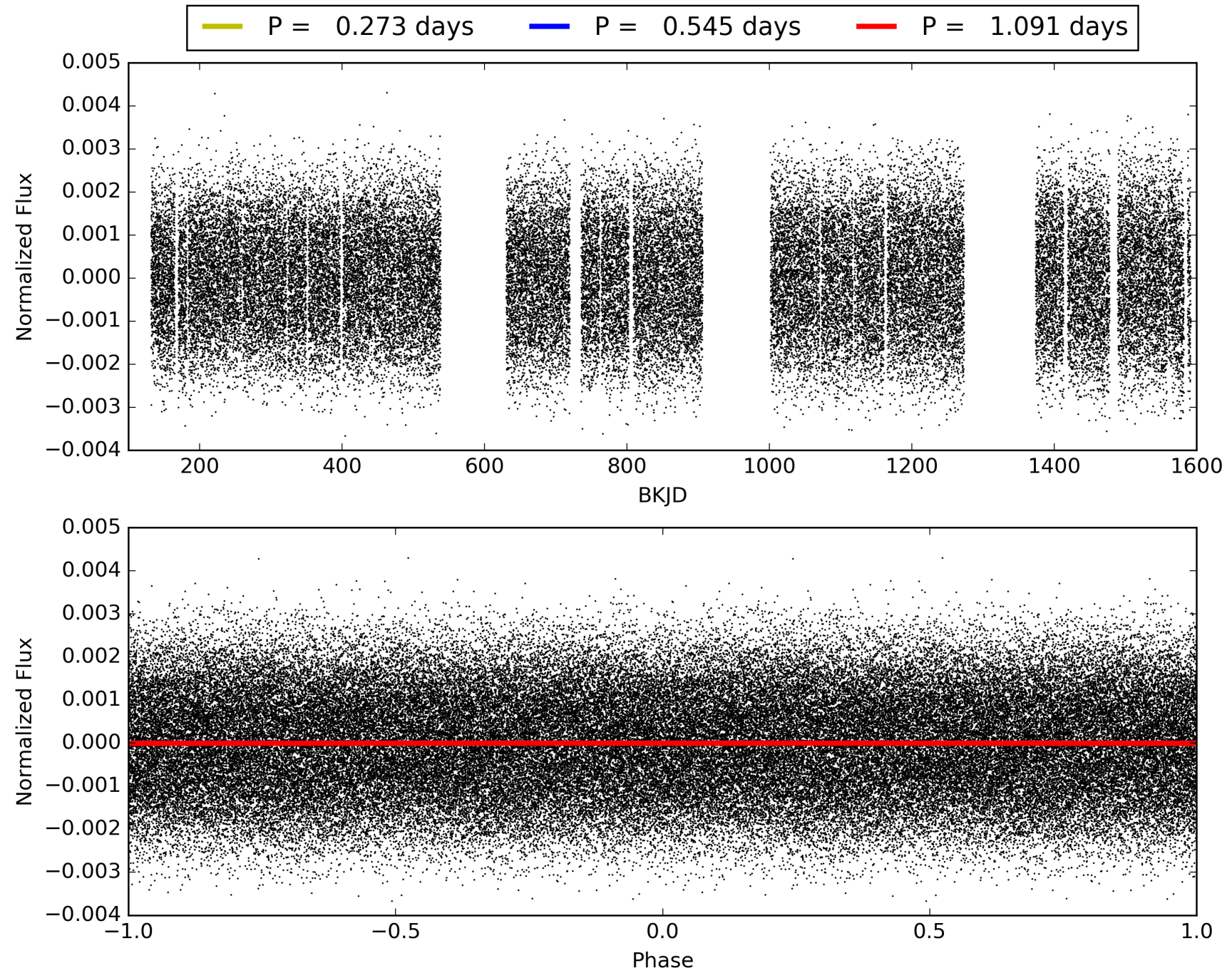
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.68e-28
RollingBand-fgt: 1.00 [1843/1845]
GhostDiagnostic-chr: 2.469
Centroid-sig: 1.5%
Centroid-so: 0.546 arcsec [1.21σ]
OotOffset-rm: 0.671 arcsec [1.05σ]
KicOffset-rm: 0.652 arcsec [1.18σ]
OotOffset-st: 0/3/4/3 [10]
KicOffset-st: 0/3/4/3 [10]
DiffImageQuality-fgm: 0.80 [8/10]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 005717140-01, PDC Light Curves

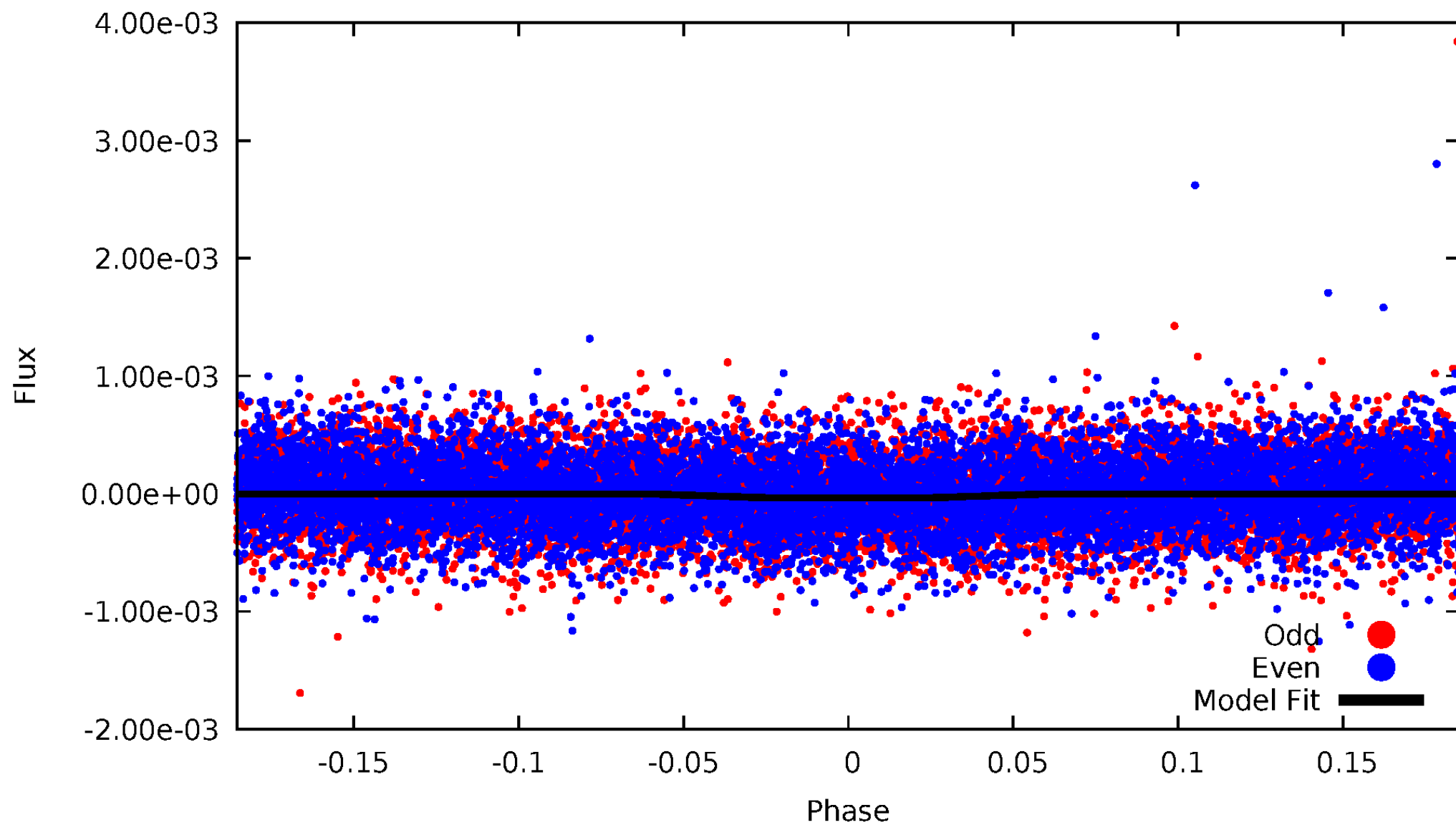


TCE 005717140-01



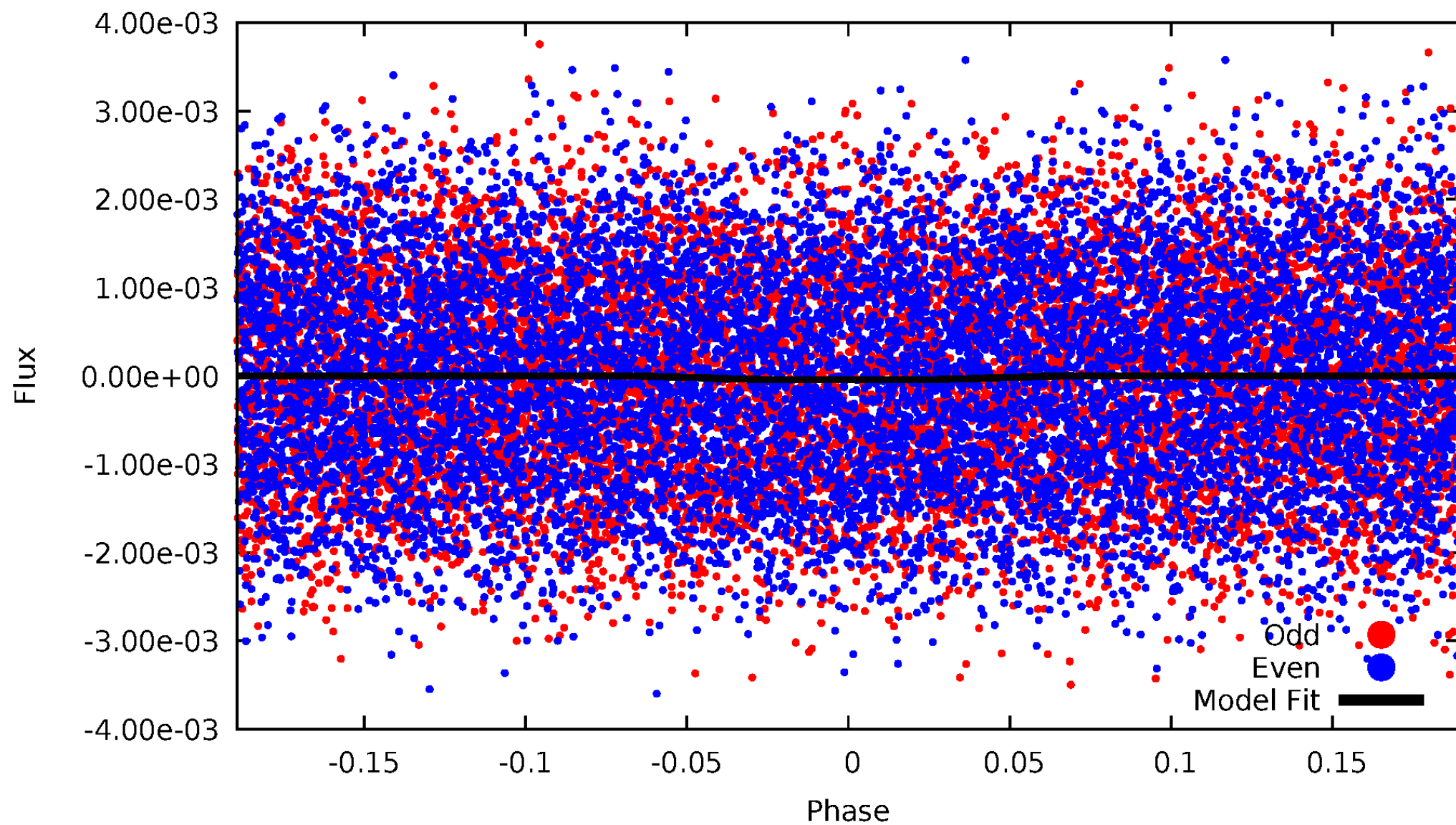
DV Odd/Even

TCE 005717140-01

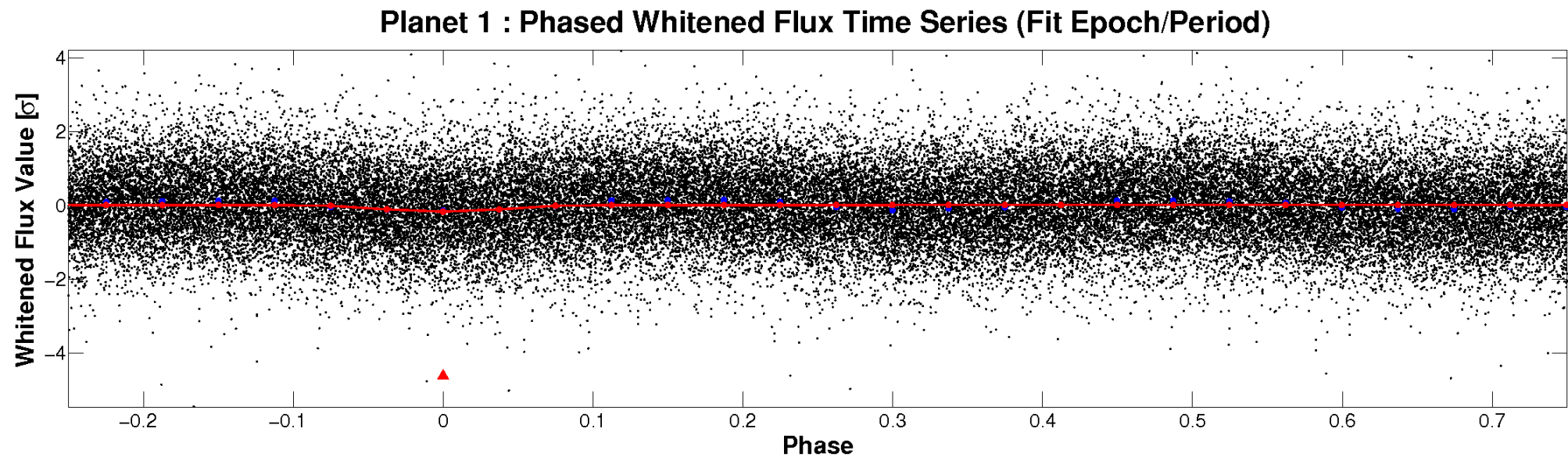
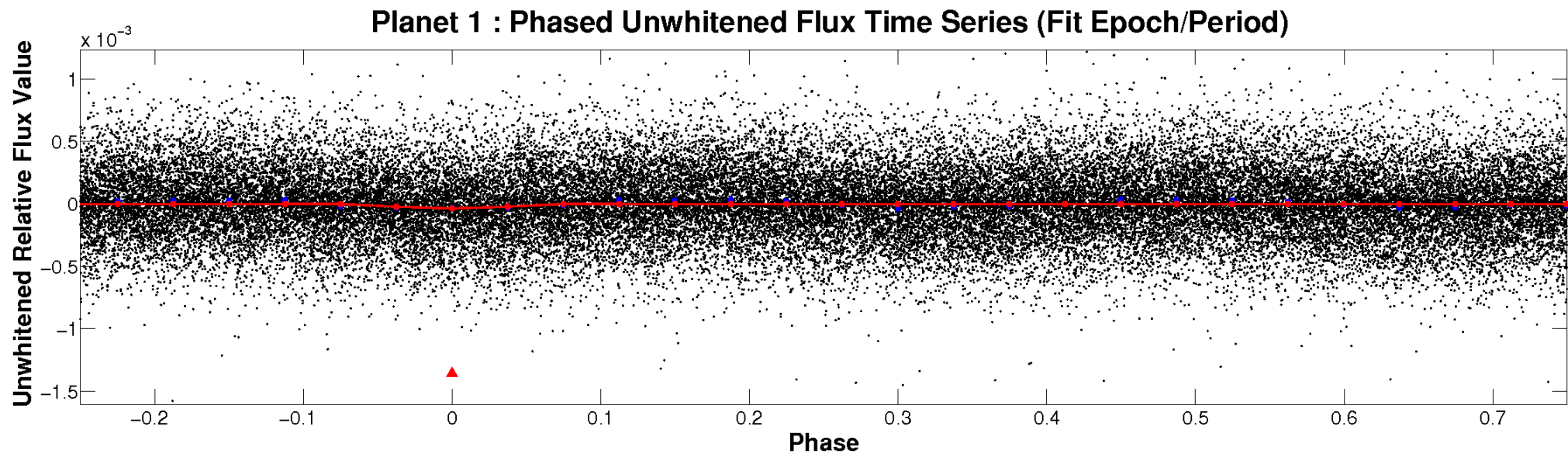


ALT Odd/Even

TCE 005717140-01

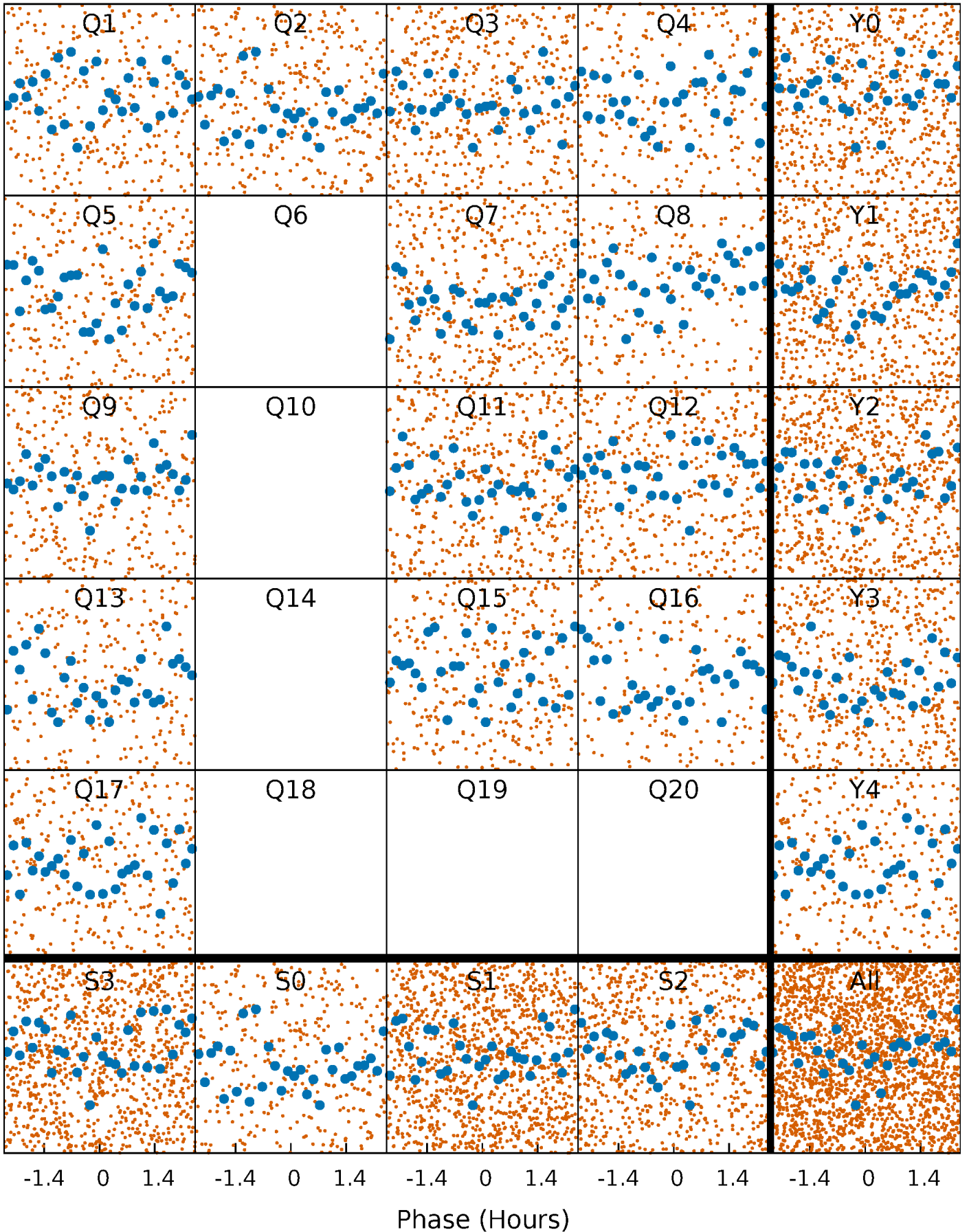


Non-Whitened Vs. Whitened Light Curve



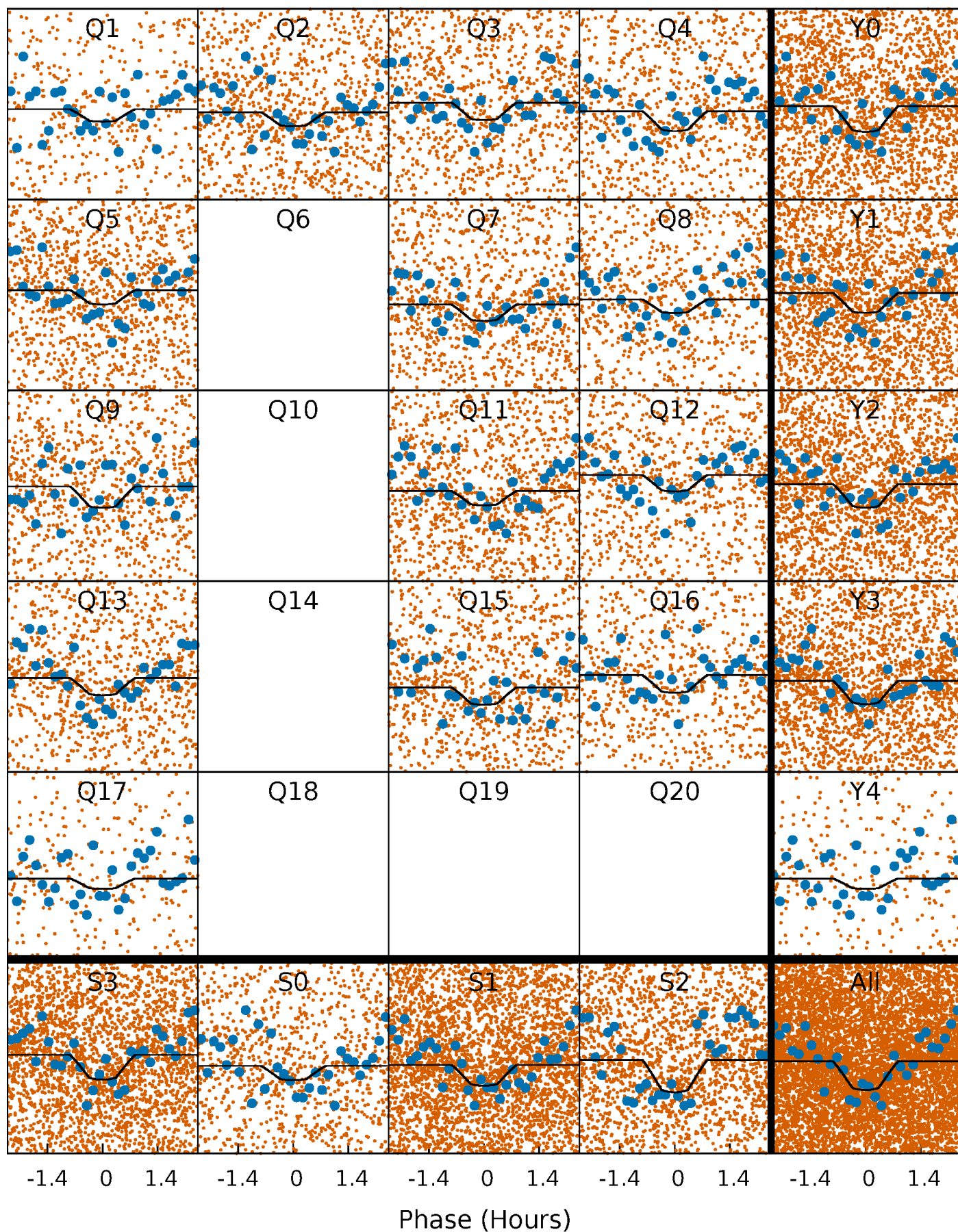
PDC Quarter-Phased Transit Curves

TCE 005717140-01 P= 0.545265 Days $T_0=131.696368$ (BKJD)



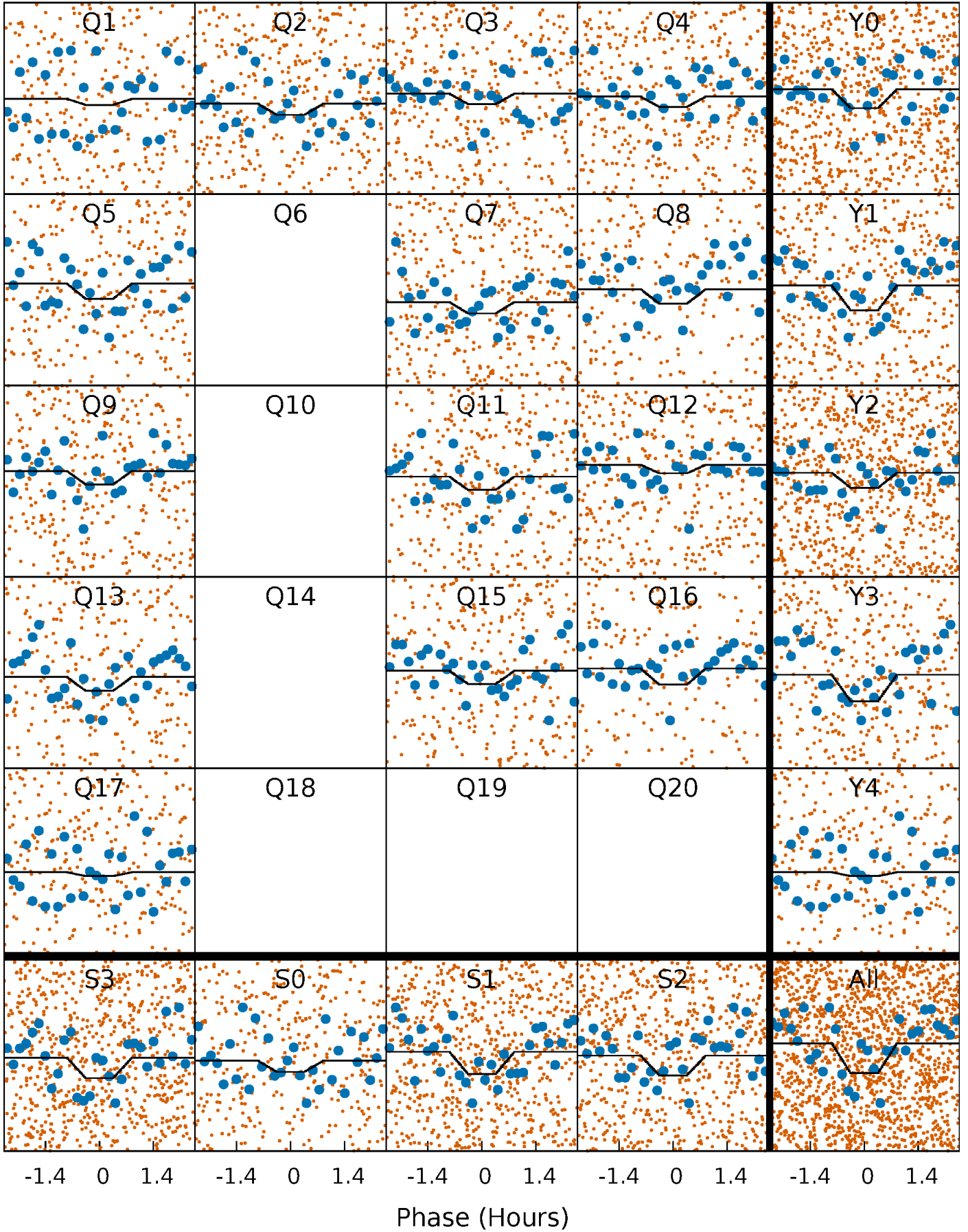
DV Quarter-Phased Transit Curves

TCE 005717140-01 P= 0.545265 Days $T_0=131.696368$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

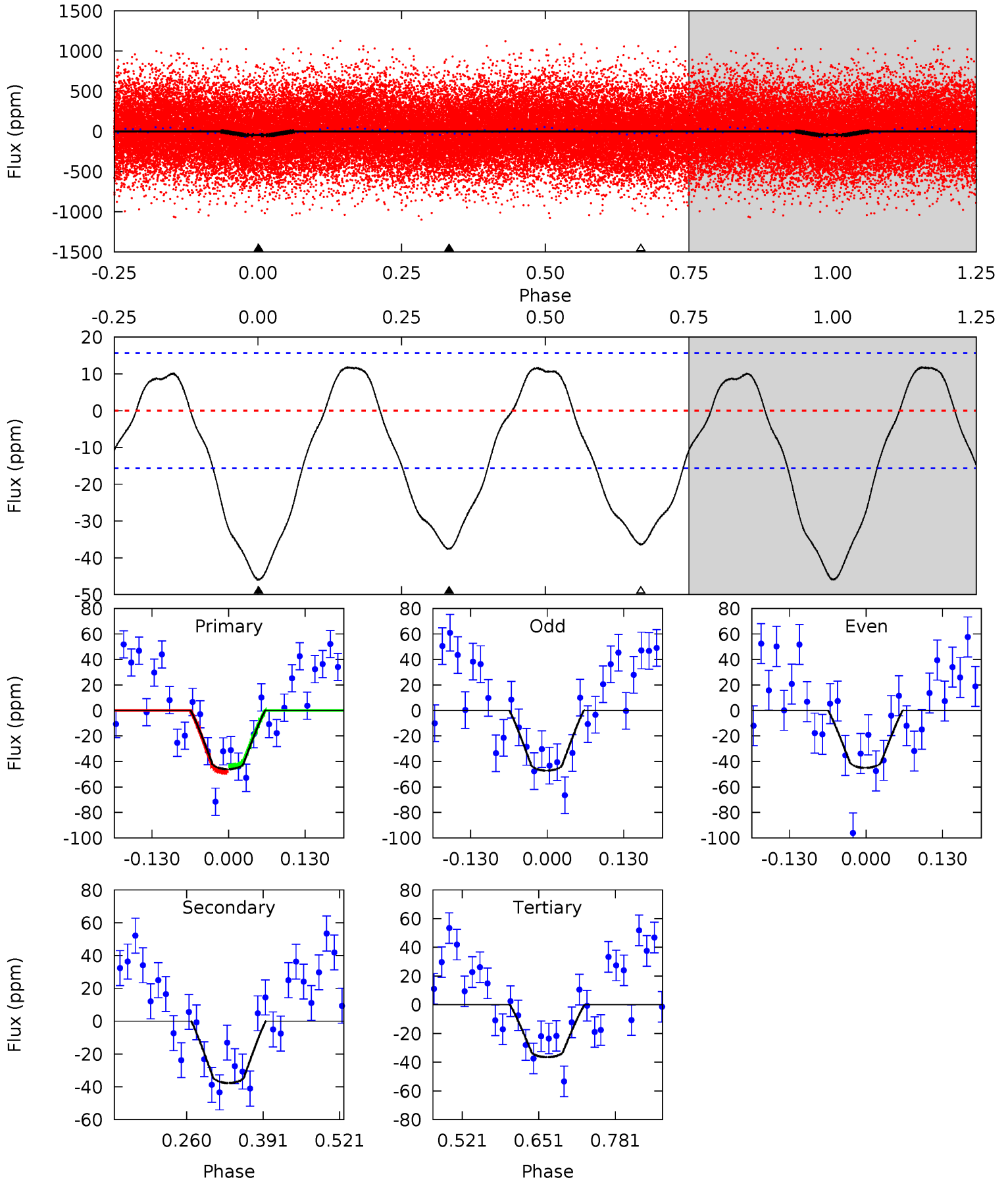
TCE 005717140-01 P= 0.545266 Days $T_0=131.696631$ (BKJD)



DV Model-Shift Uniqueness Test

005717140-01, P = 0.545265 Days, E = 131.151103 Days

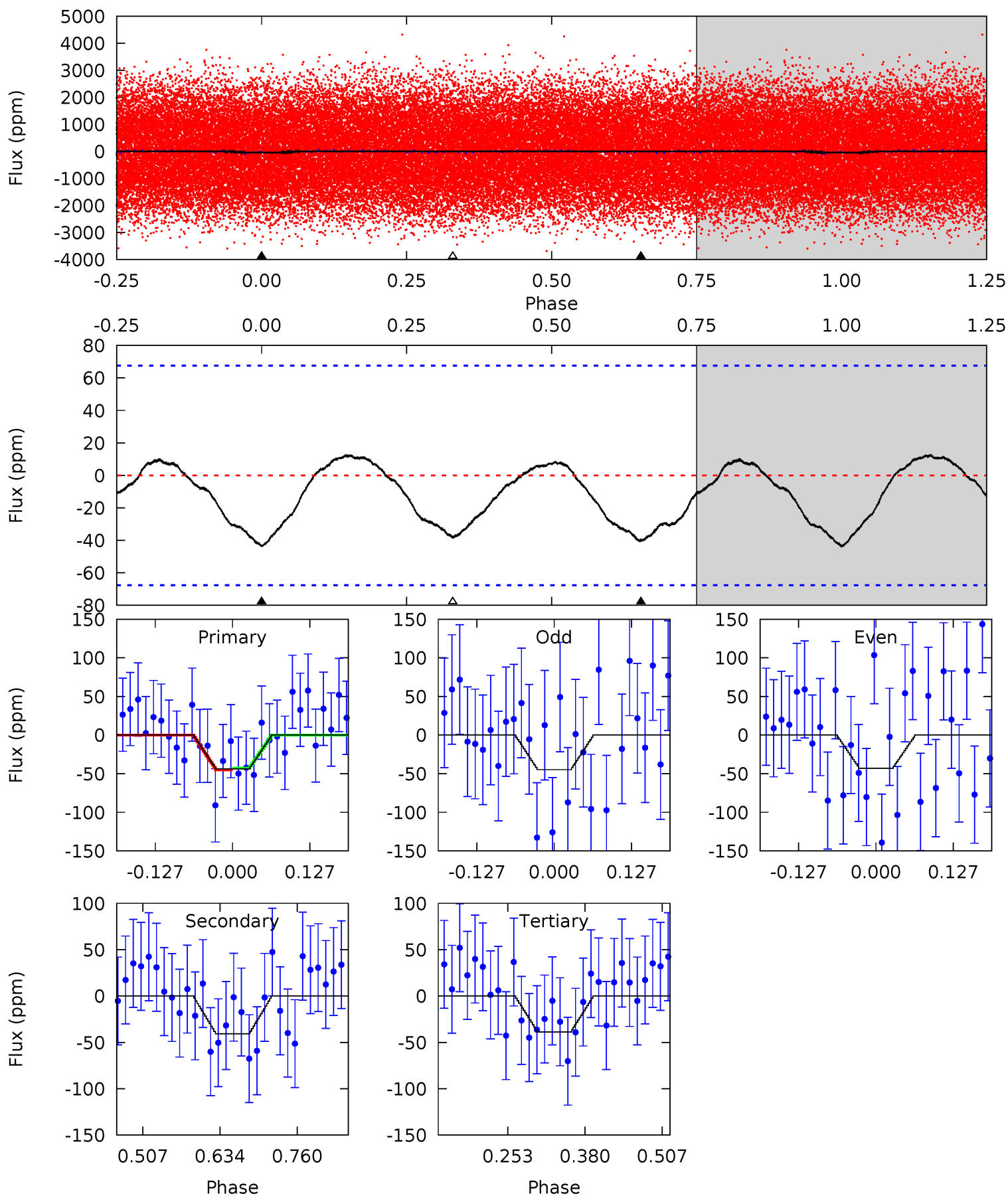
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	10.9	10.5	0	4.51	1.51	4.87	2.76	13.3	0.35	10.9	0.32	0.99	0.20	0.57



Alt Model-Shift Uniqueness Test

005717140-01, P = 0.545266 Days, E = 131.151365 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.93	2.72	2.59	0	4.51	1.53	1.06	0.34	2.93	0.13	2.72	0.06	0.98	0.23	0.08



Stellar Parameters For KIC 005717140

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot cm^{-3})$
	7780^{+214}_{-322}	$4.142^{+0.120}_{-0.180}$	$-0.040^{+0.150}_{-0.400}$	$1.816^{+0.519}_{-0.346}$	$1.666^{+0.204}_{-0.271}$	$0.392^{+0.235}_{-0.200}$
	+3%/-4%	+3%/-4%	+375%/-1000%	+29%/-19%	+12%/-16%	+60%/-51%
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 005717140-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-38 ± 3	$1.31^{+0.41}_{-0.38}$	5224^{+343}_{-342}	7270^{+1659}_{-1112}	$2.891^{+2.792}_{-1.197}$
Alt.	-41 ± 15	$1.29^{+0.43}_{-0.38}$	5207^{+382}_{-336}	7326^{+2179}_{-1342}	$2.978^{+3.731}_{-1.468}$

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 $A_{obs} \gg 1.0$

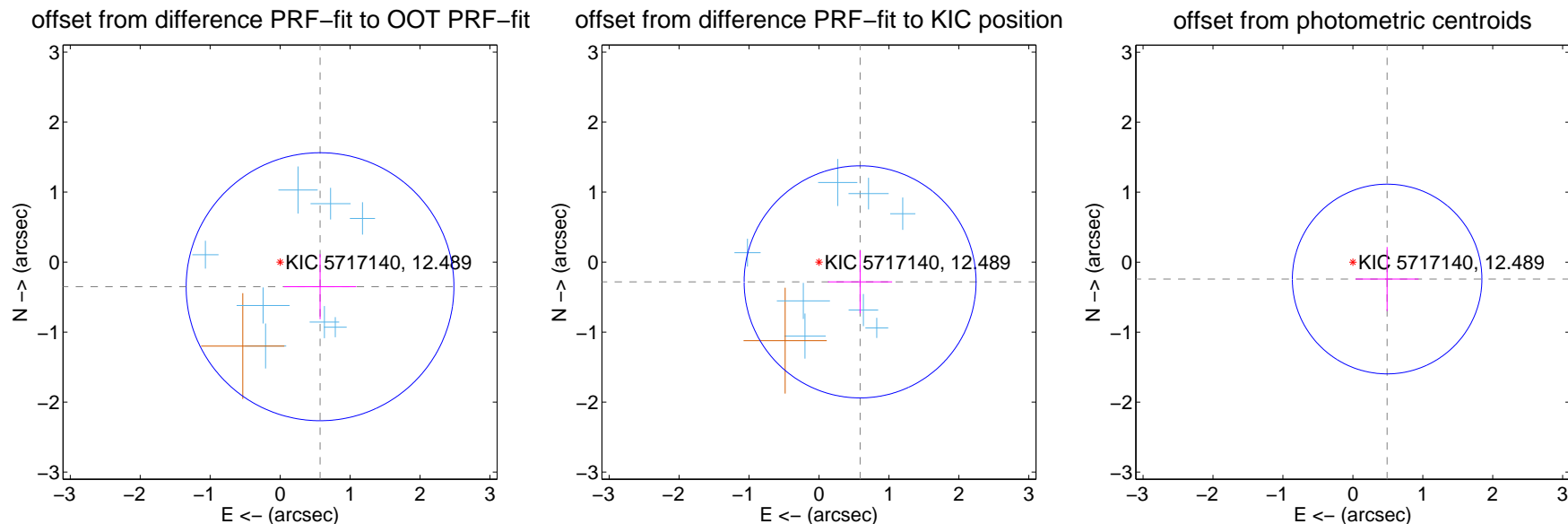
DV Centroid Data

Supplemental centroid analysis for 005717140-01. Kepler magnitude: 12.49. Transit SNR 10.30

There are 8 quarters with good PRF difference image offsets

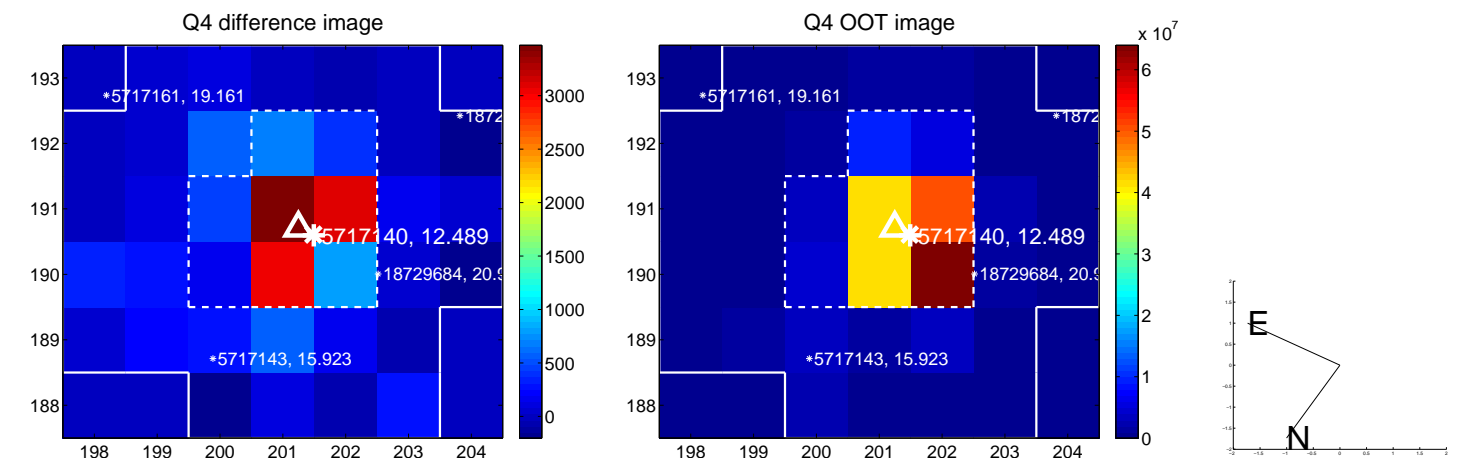
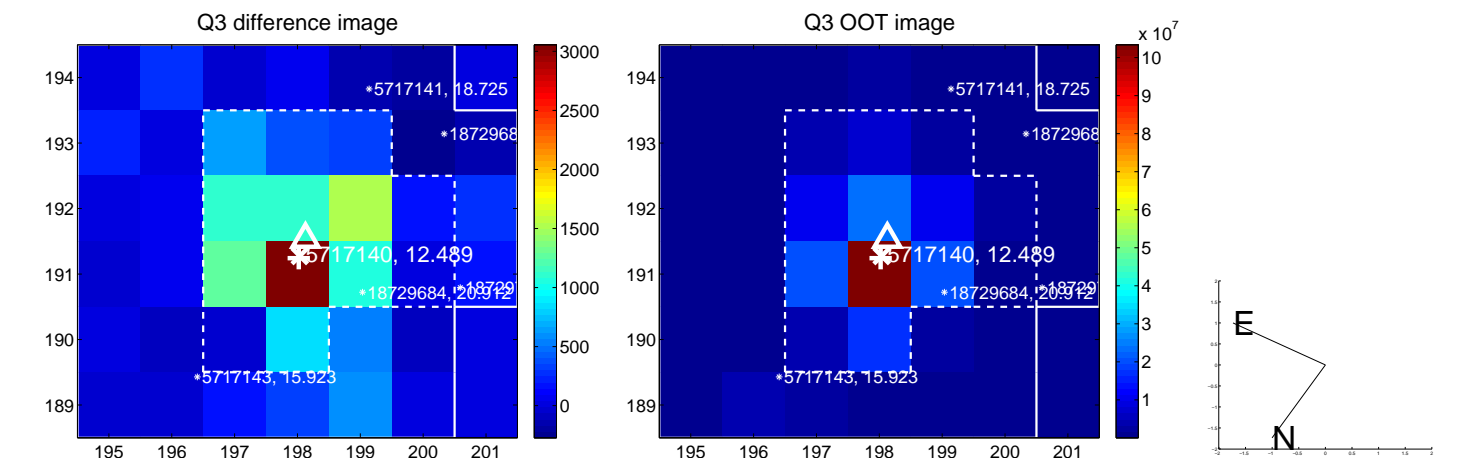
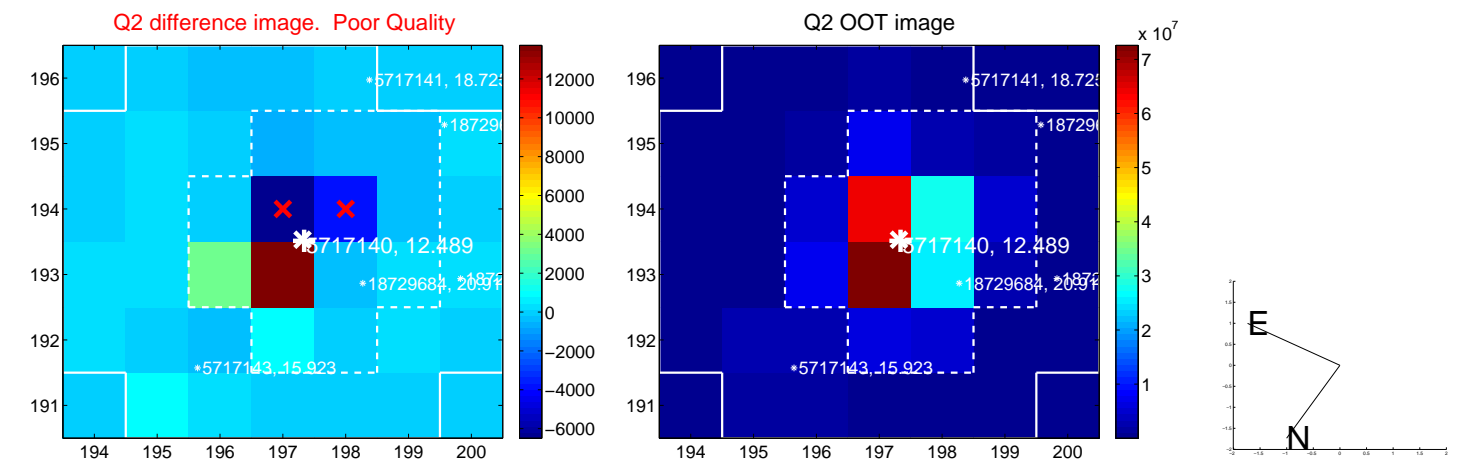
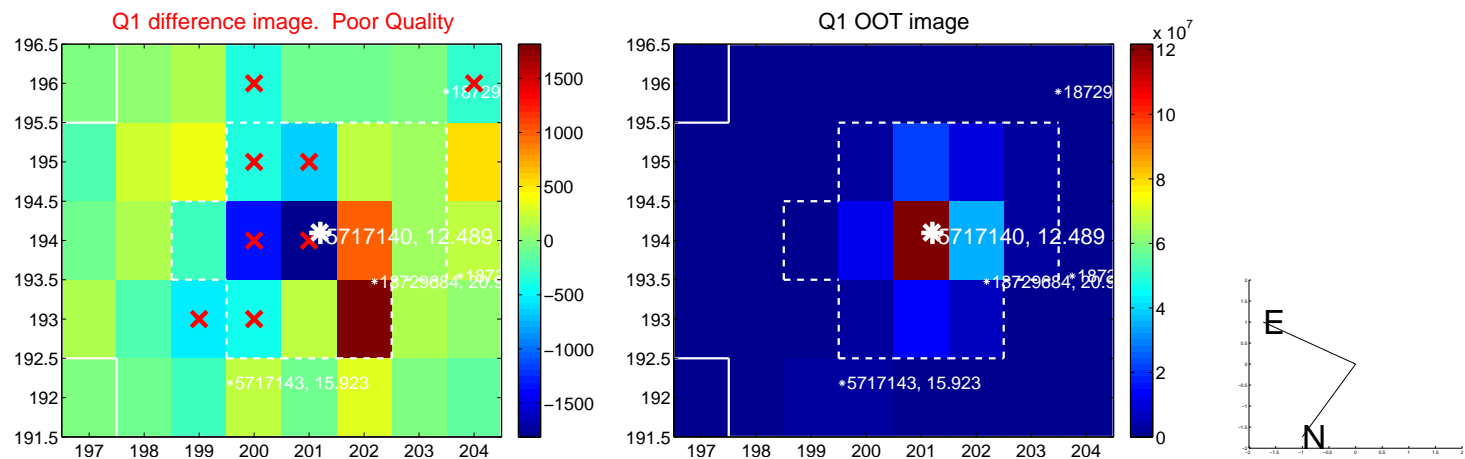
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.671 ± 0.638	1.05	-0.571 ± 0.517	-0.352 ± 0.464
PRF-fit source offset from KIC position	0.652 ± 0.553	1.18	-0.588 ± 0.459	-0.283 ± 0.450
photometric centroid source offset	0.55 ± 0.45	1.21	-0.49 ± 0.45	-0.24 ± 0.46

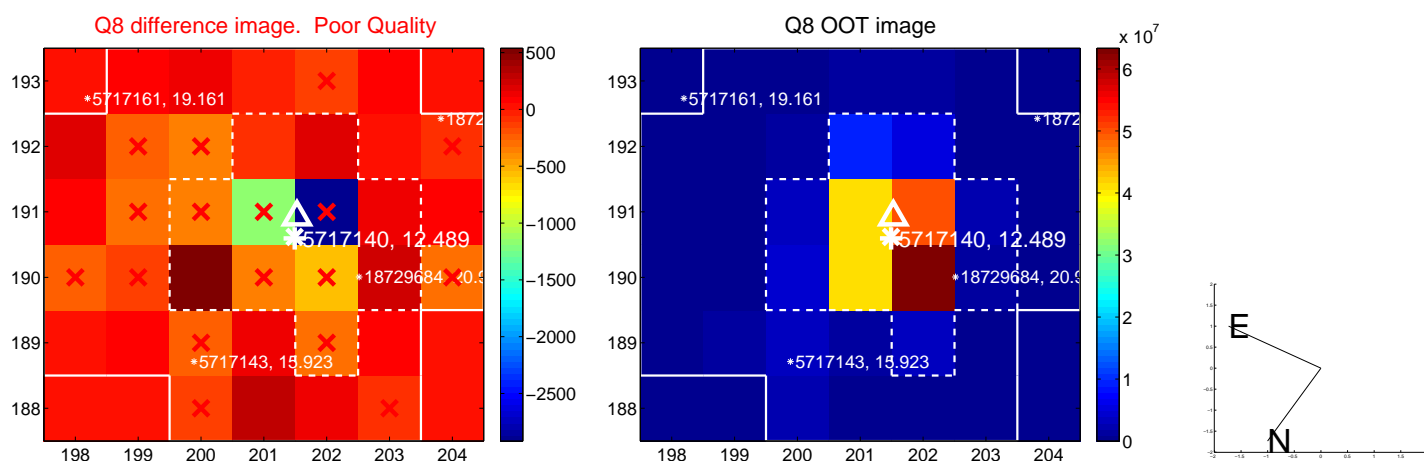
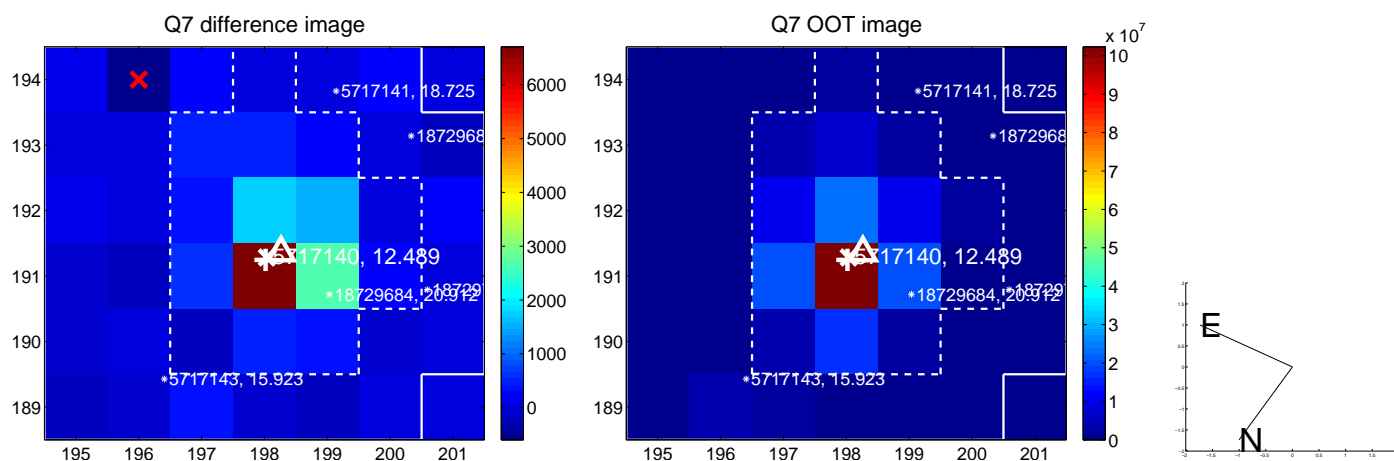
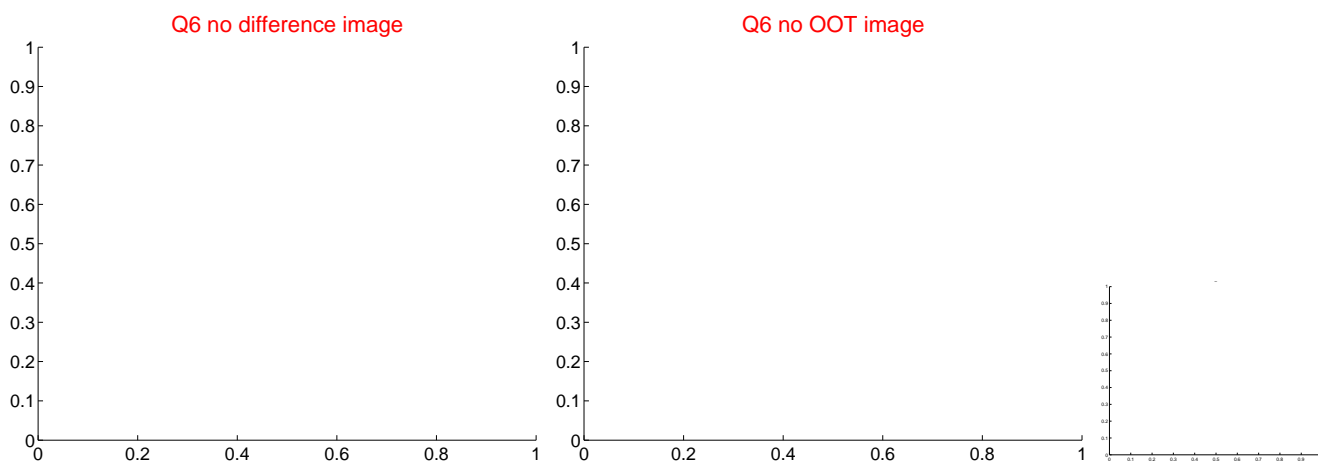
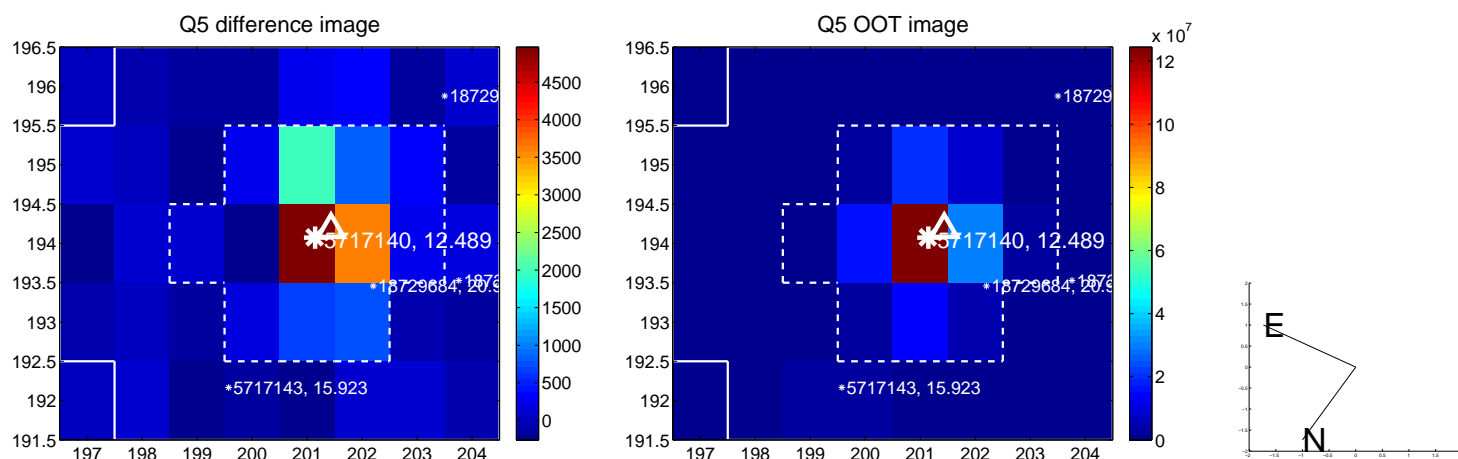


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

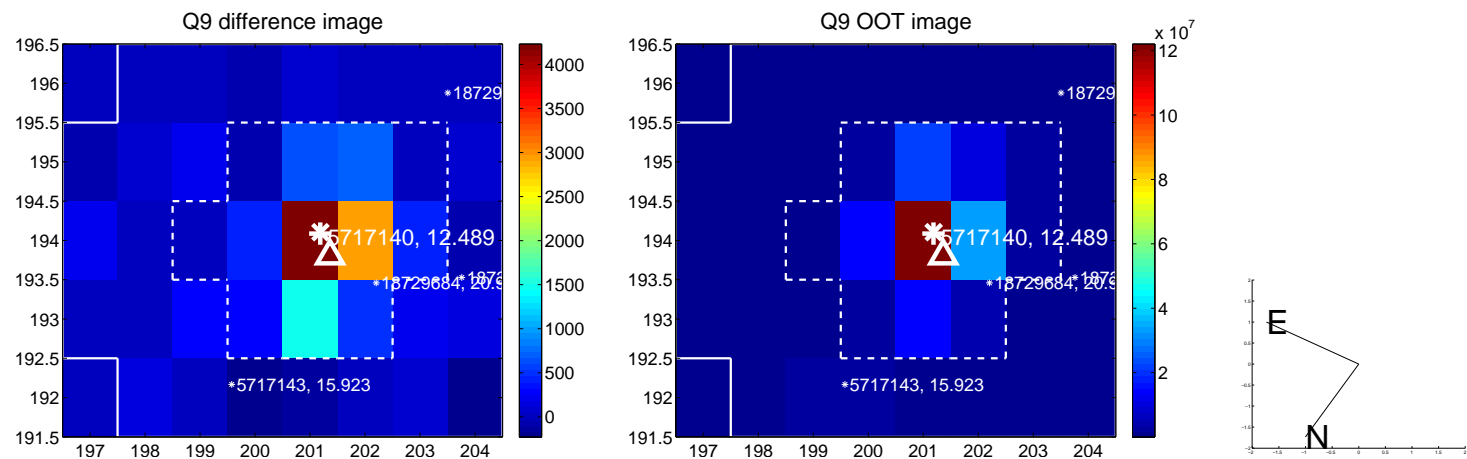
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



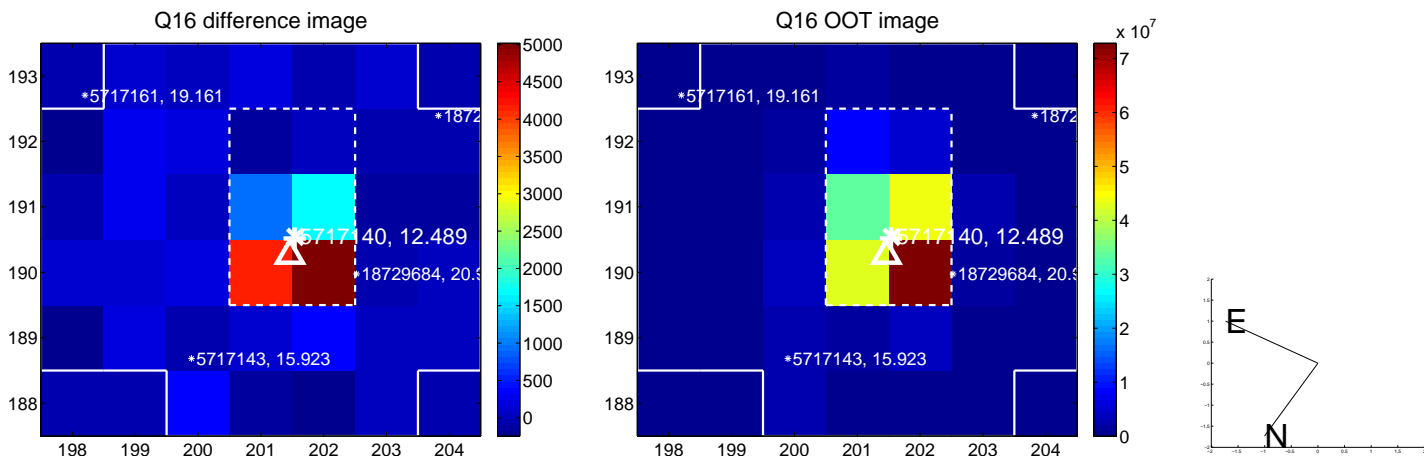
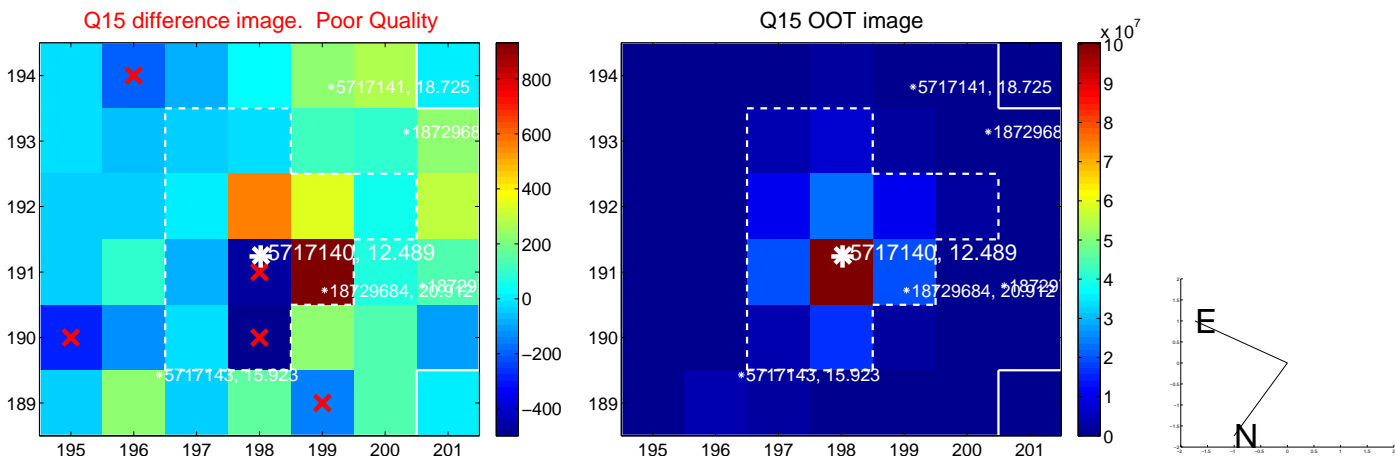
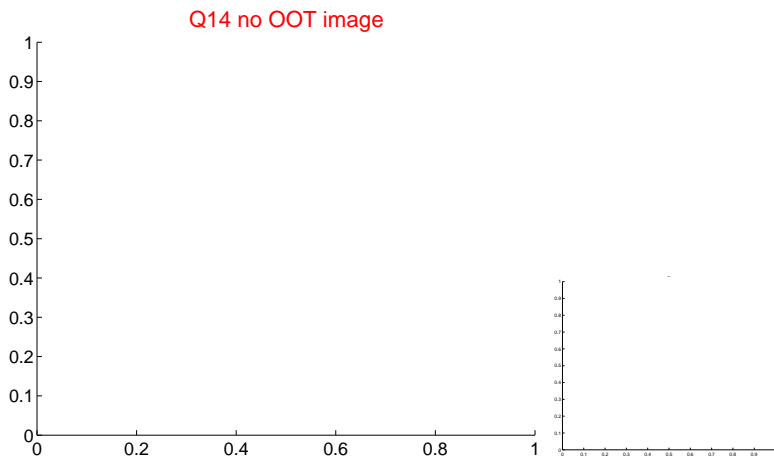
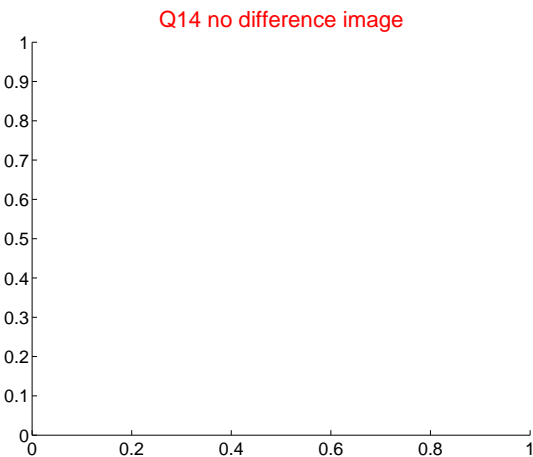
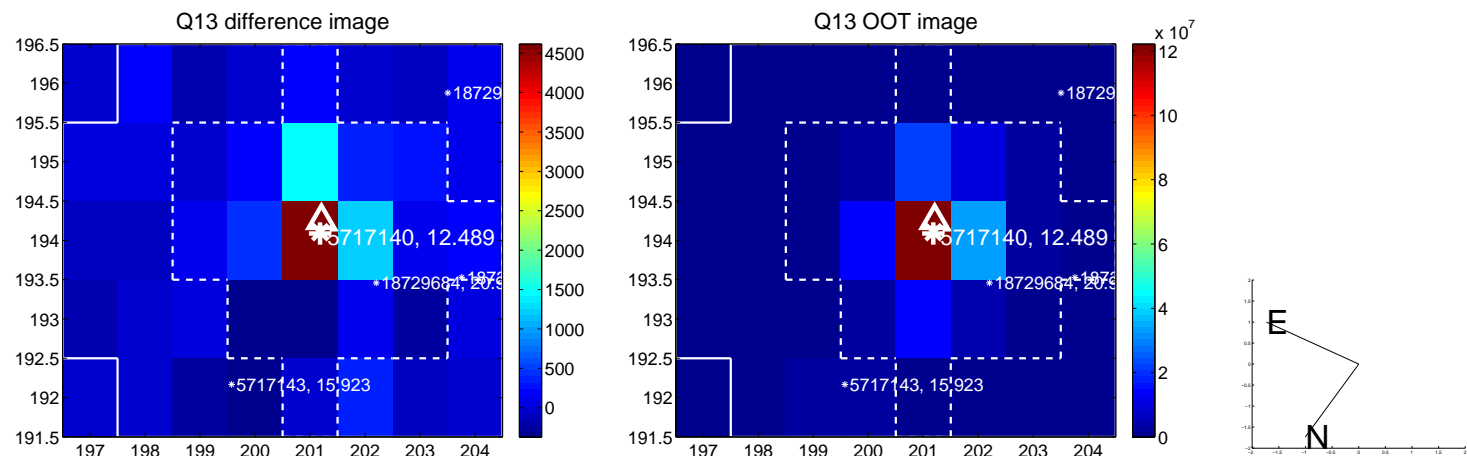
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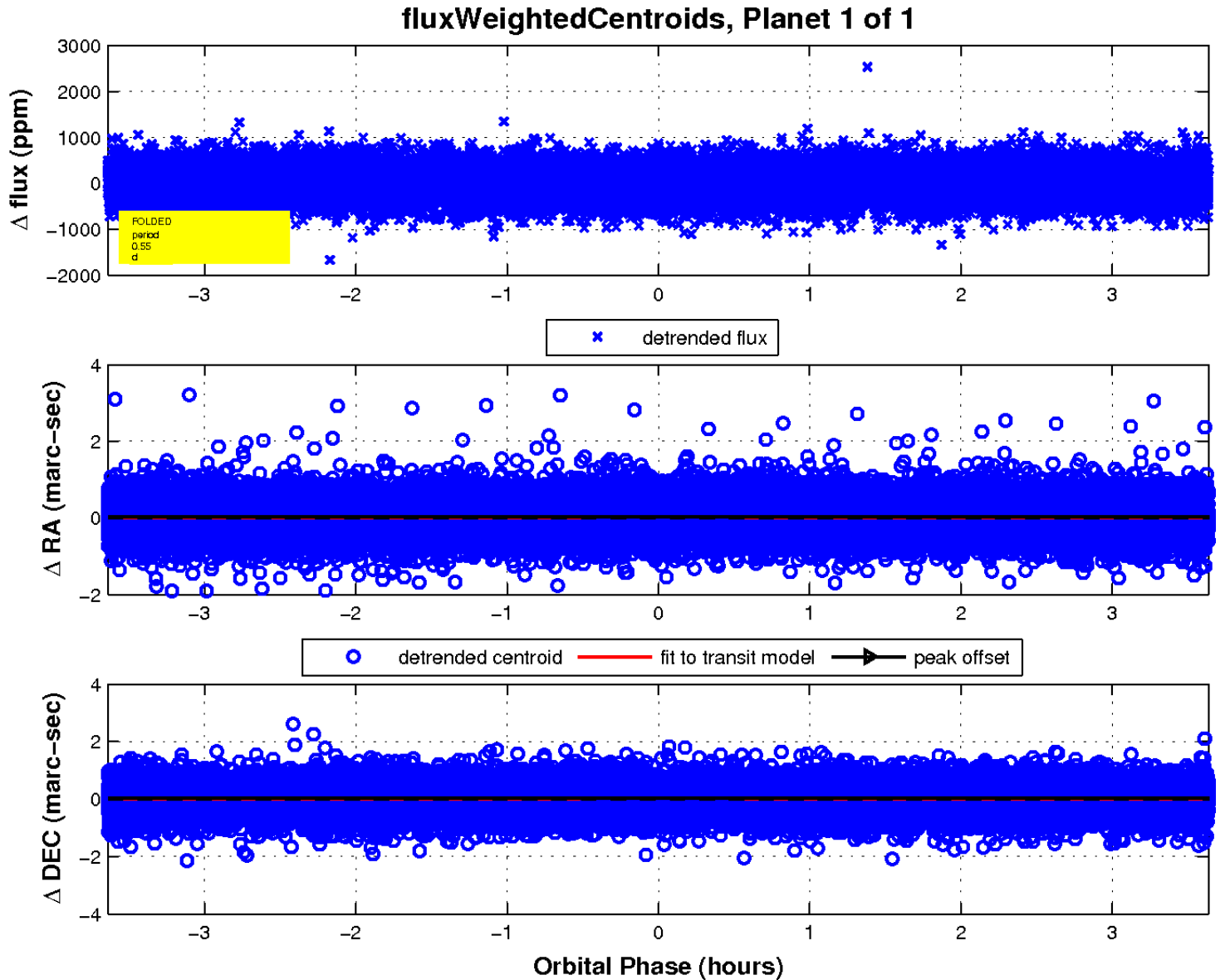
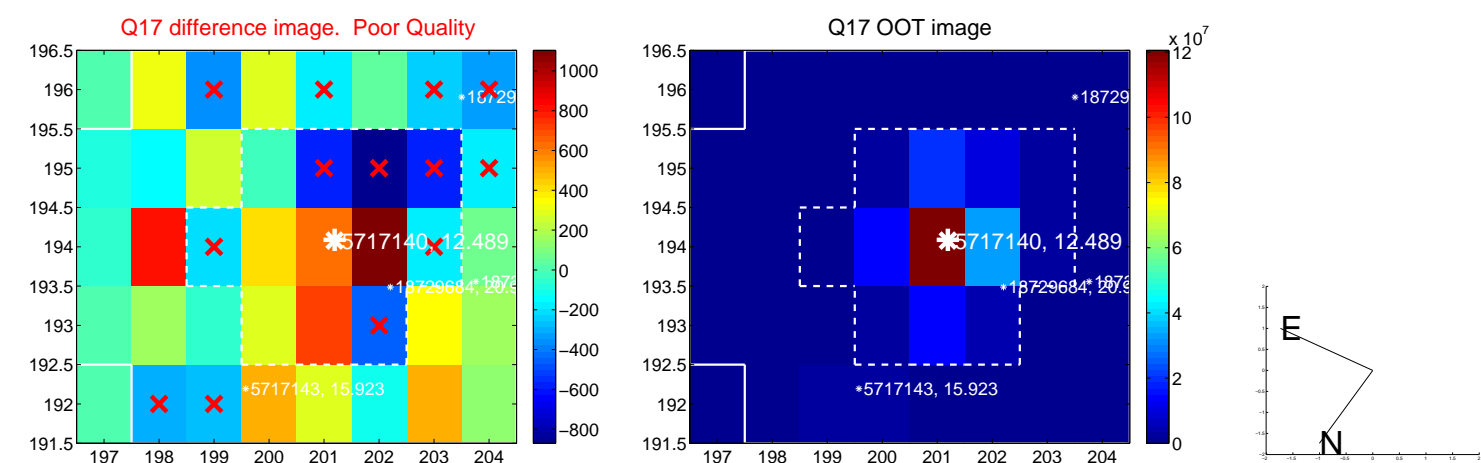
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UKIRT Image

Declination

