

KIC 011177543

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})
011177543-01	OBS	1648.01	38.326137	142.084561	385.8	2.648	12.9	14.2	0.90	5229	2.17	12.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011177543-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT

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

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

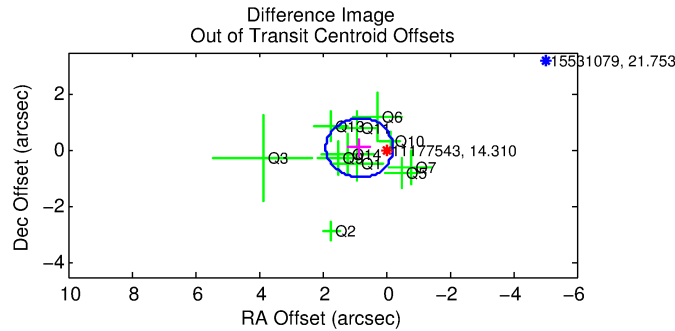
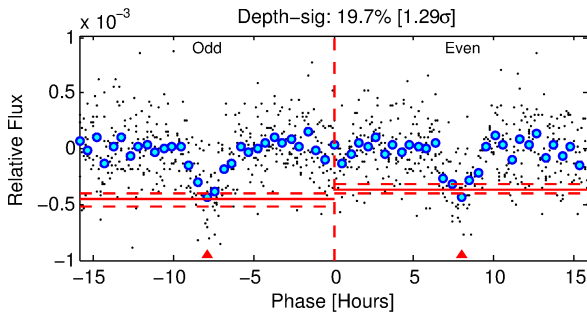
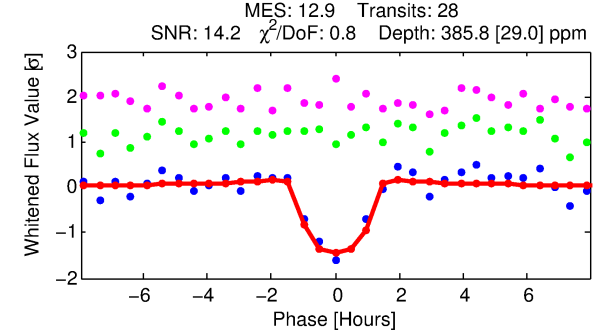
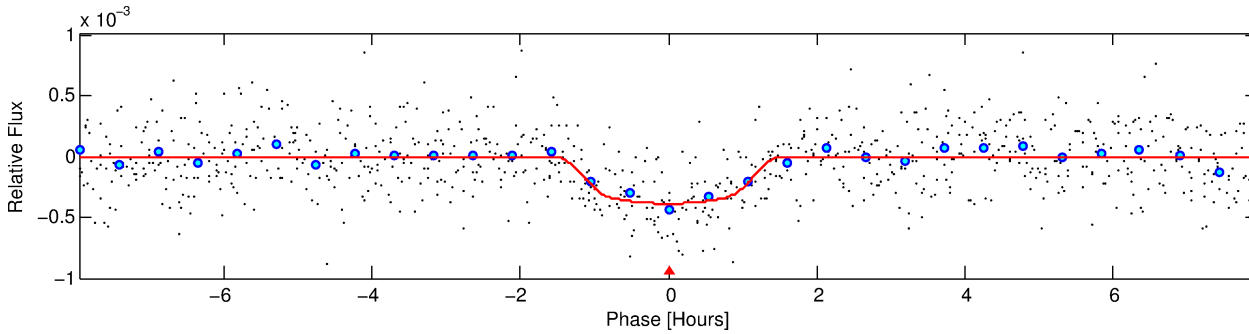
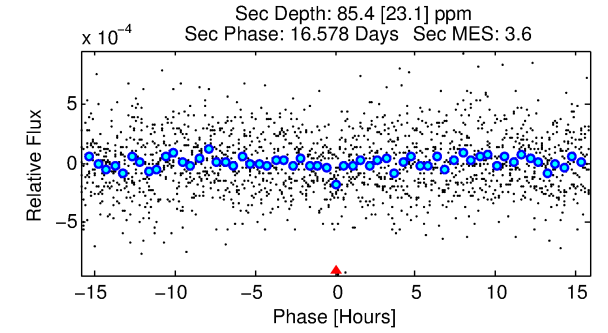
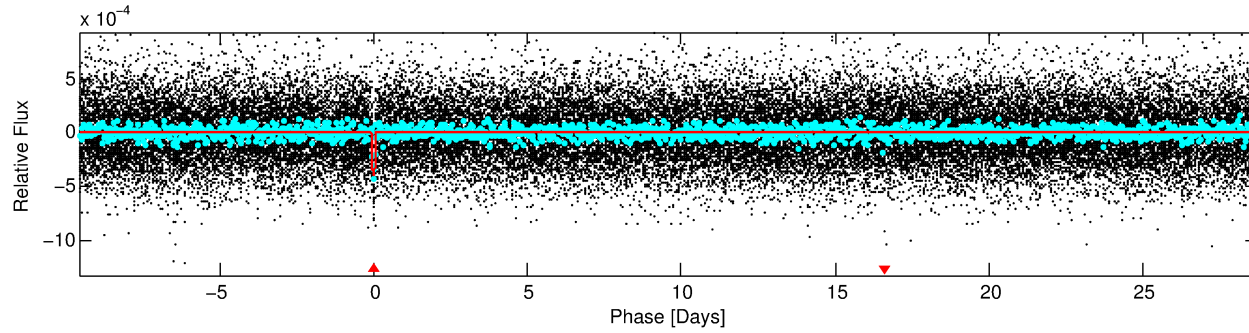
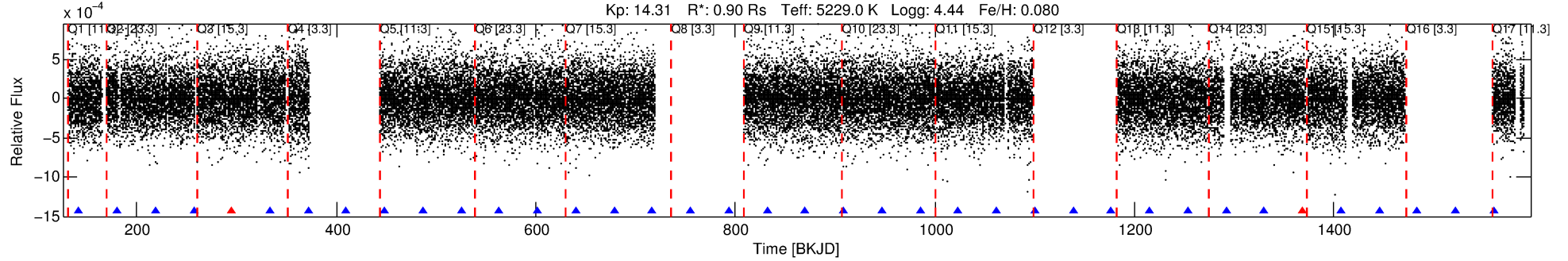
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011177543-01

No Significant Match Found

DV One-Page Summary

KIC: 11177543 Candidate: 1 of 1 Period: 38.326 d
KOI: K01648.01 Corr: 0.973



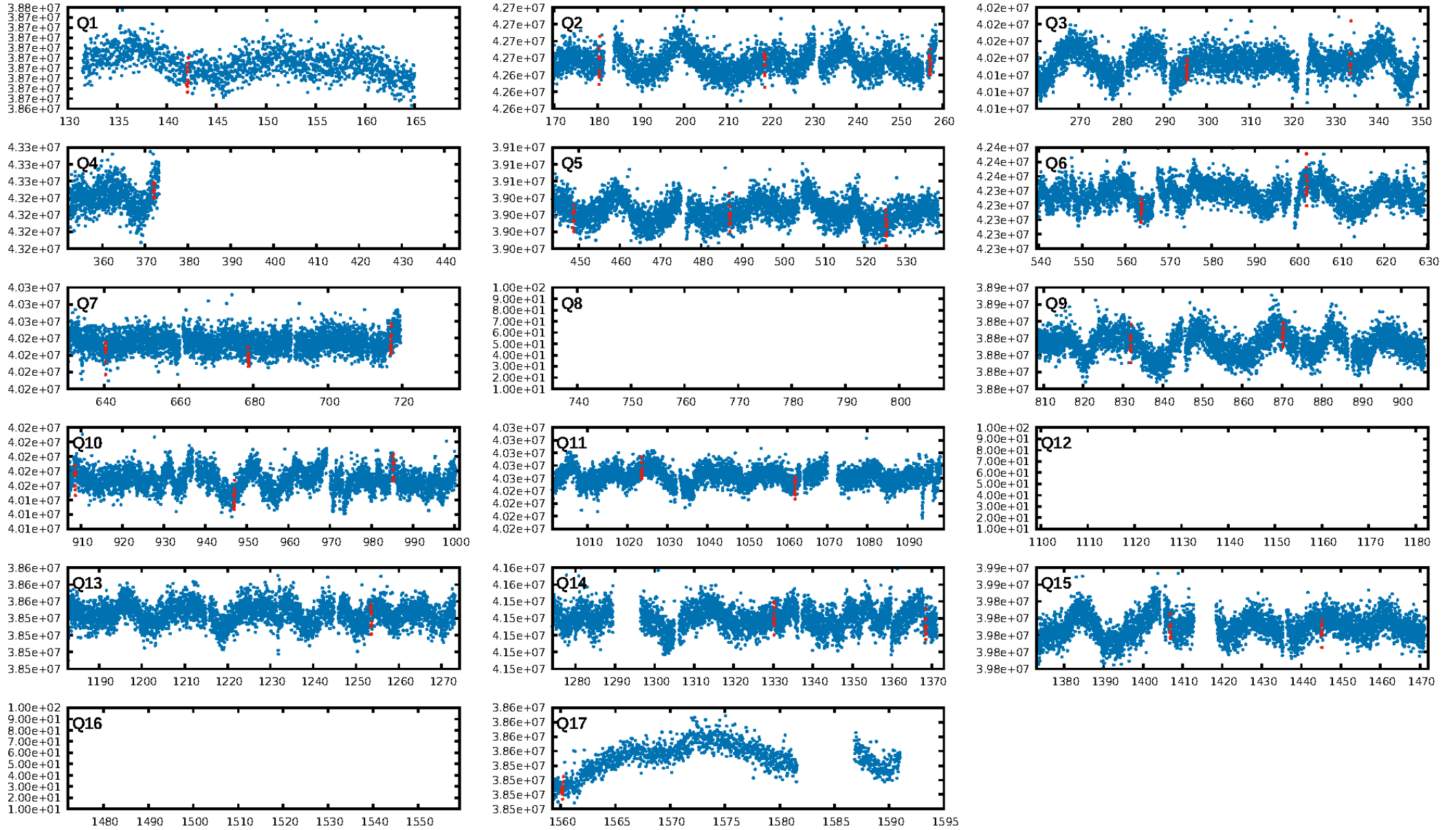
DV Fit Results:

Period = 38.32614 [0.00020] d
Epoch = 142.0846 [0.0039] BKJD
Rp/R* = 0.0220 [0.0072]
a/R* = 52.07 [69.29]
b = 0.91 [0.27]
Seff = 12.58 [2.31]
Teff = 480 [22] K
Rp = 2.17 [0.74] Re
a = 0.2084 [0.0216] AU
Ag = 434.37 [315.84] [1.37σ]
Teffp = 3390 [600] K [4.84σ]

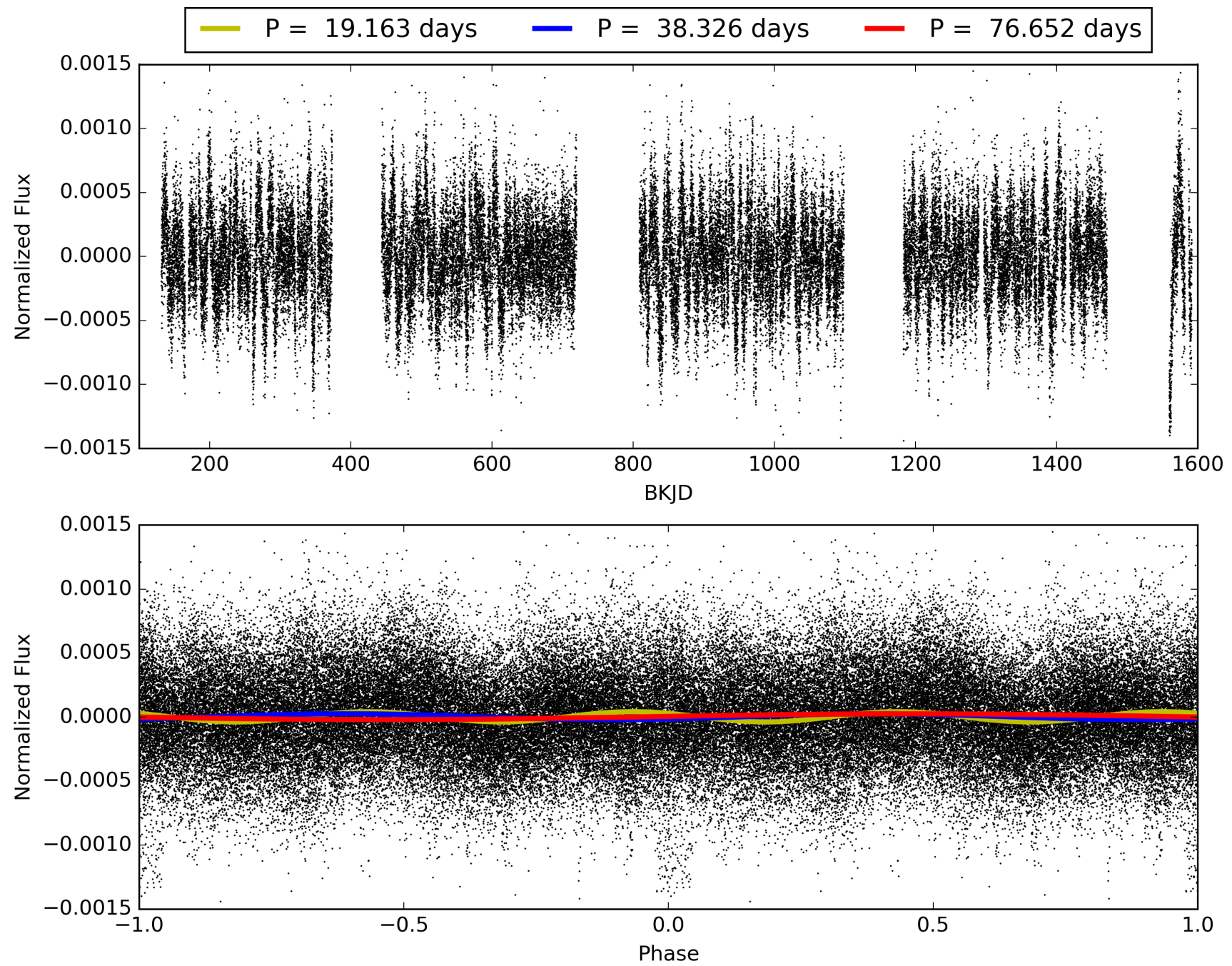
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 93.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.14e-37
RollingBand-fgt: 0.92 [23/25]
GhostDiagnostic-chr: -87.31
Centroid-sig: 21.8%
Centroid-so: 1.439 arcsec [1.41σ]
OotOffset-rm: 0.841 arcsec [2.39σ]
KicOffset-rm: 0.755 arcsec [2.05σ]
OotOffset-st: 4/3/0/4 [11]
KicOffset-st: 4/3/0/4 [11]
DiffImageQuality-fgm: 0.82 [9/11]
DiffImageOverlap-fno: 1.00 [13/13]

TCE 011177543-01, PDC Light Curves

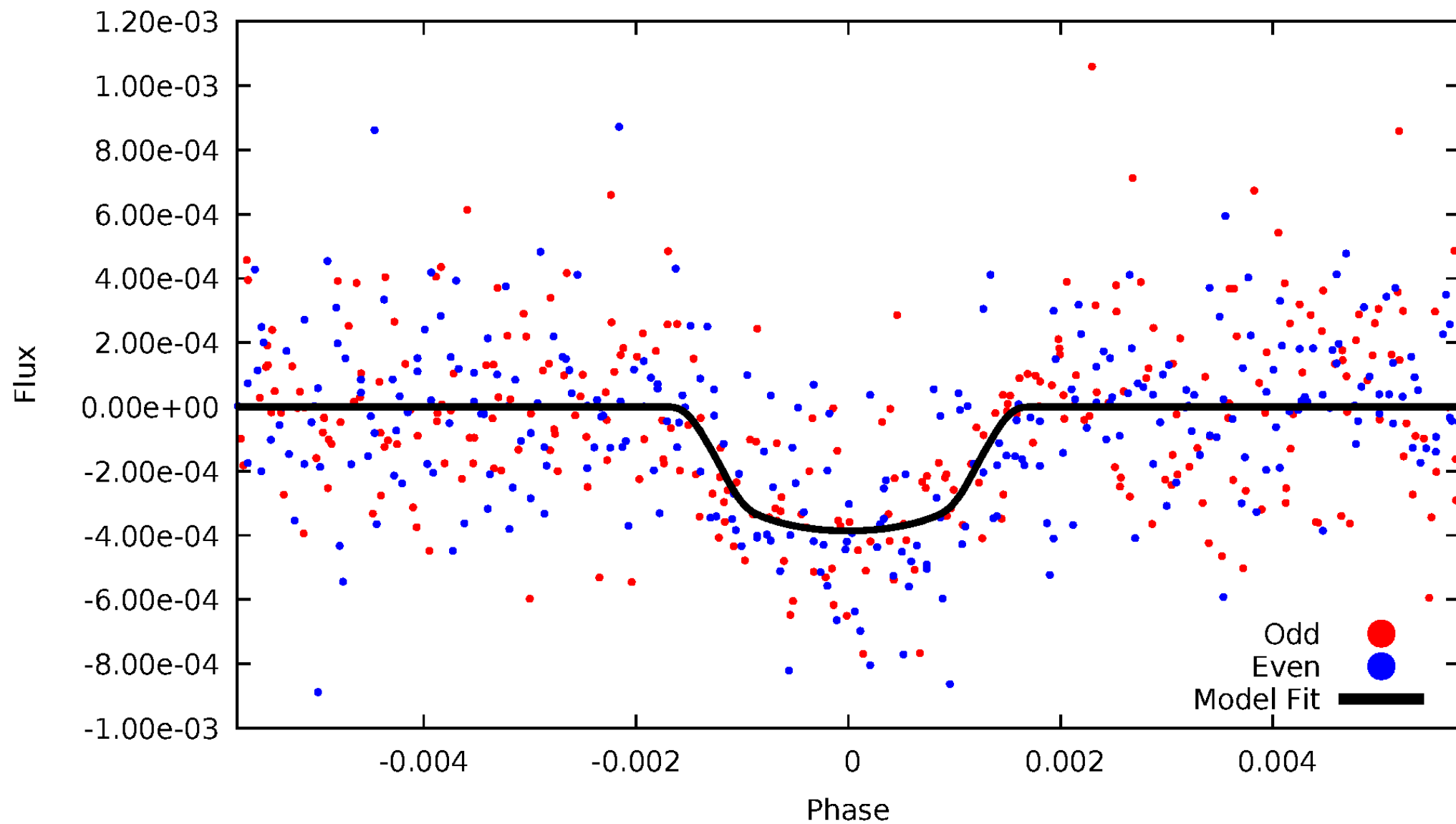


TCE 011177543-01



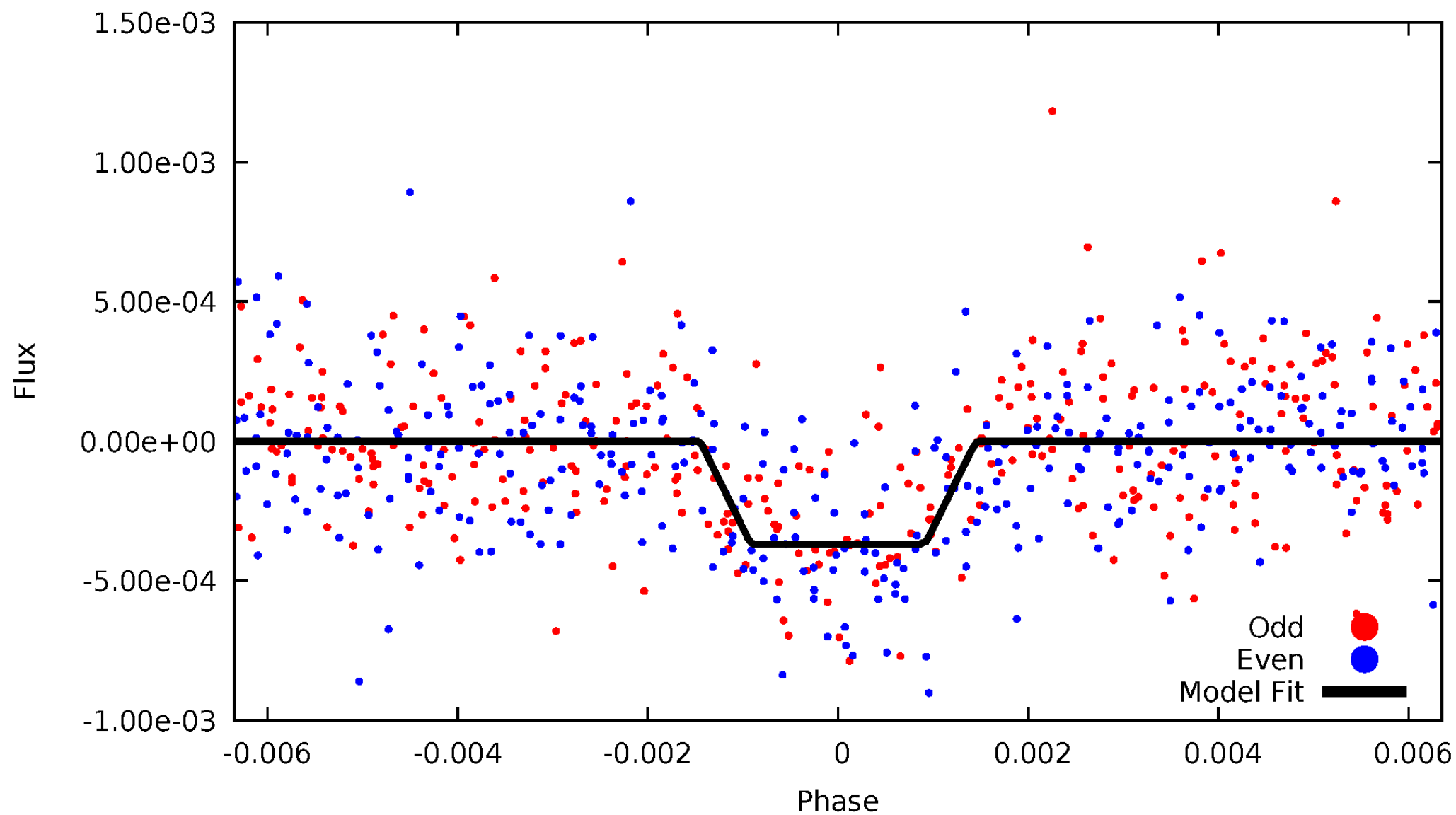
DV Odd/Even

TCE 011177543-01



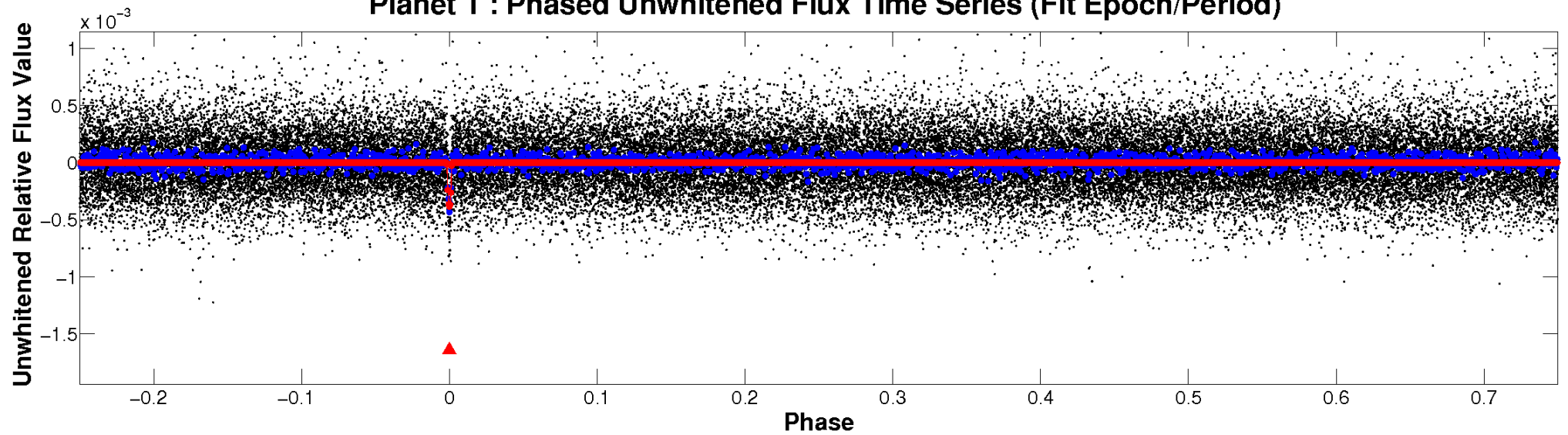
ALT Odd/Even

TCE 011177543-01

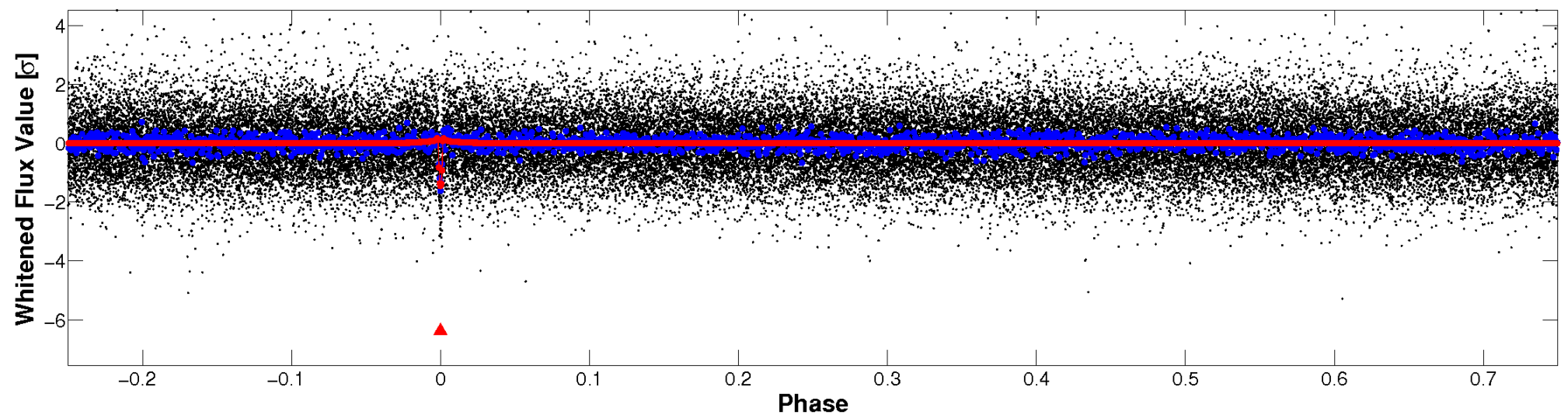


Non-Whitened Vs. Whitened Light Curve

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

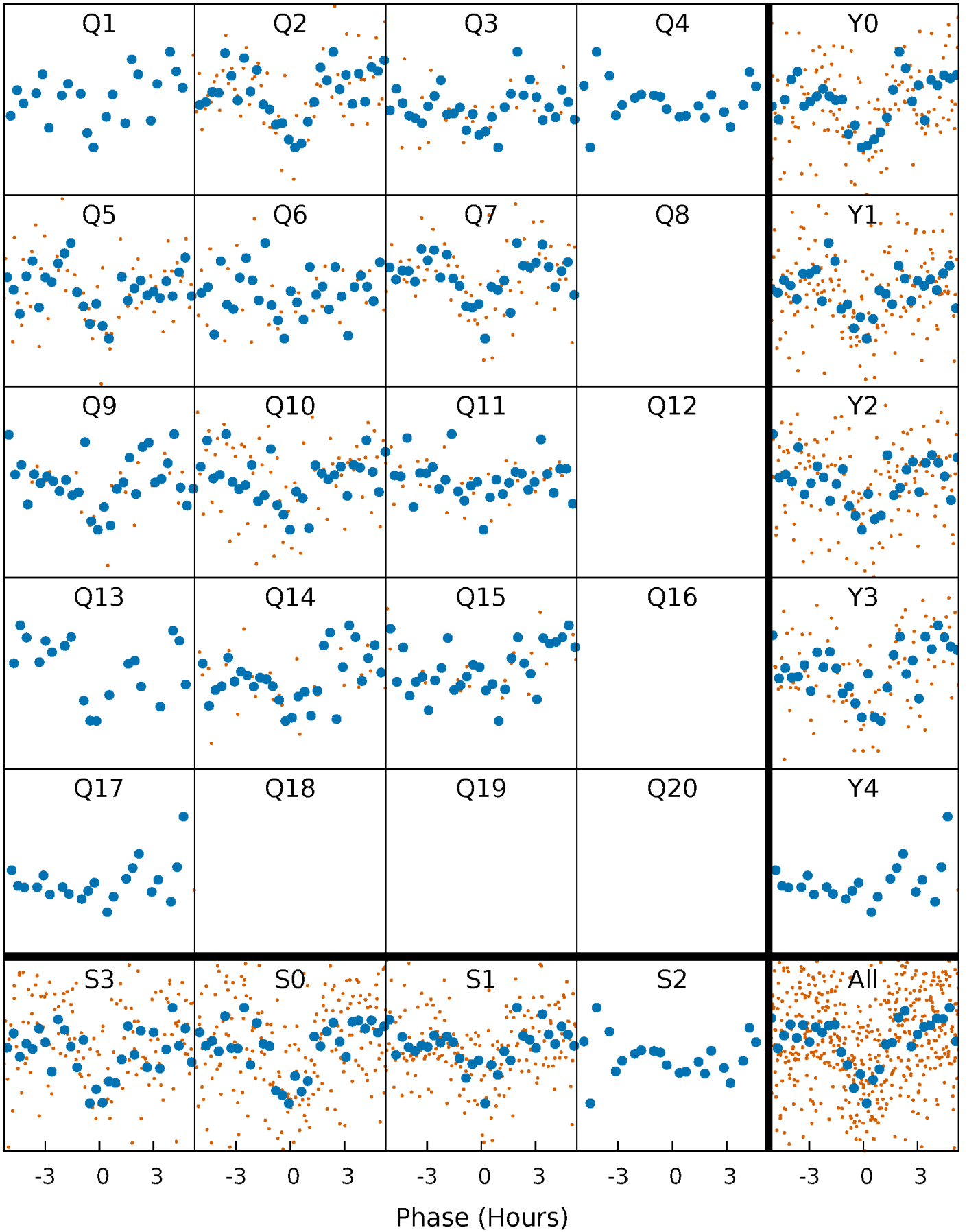


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



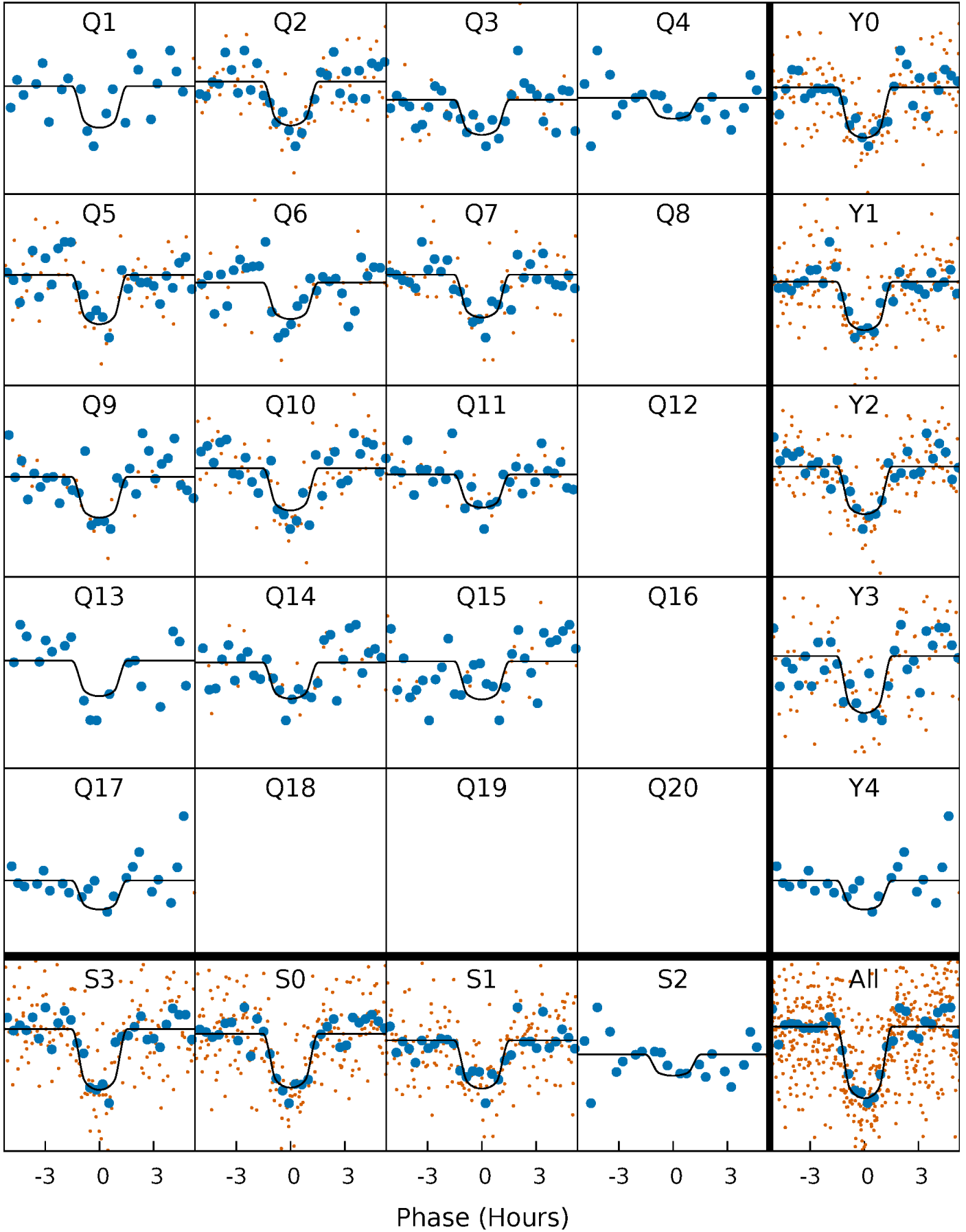
PDC Quarter-Phased Transit Curves

TCE 011177543-01 P= 38.326137 Days $T_0=142.084561$ (BKJD)



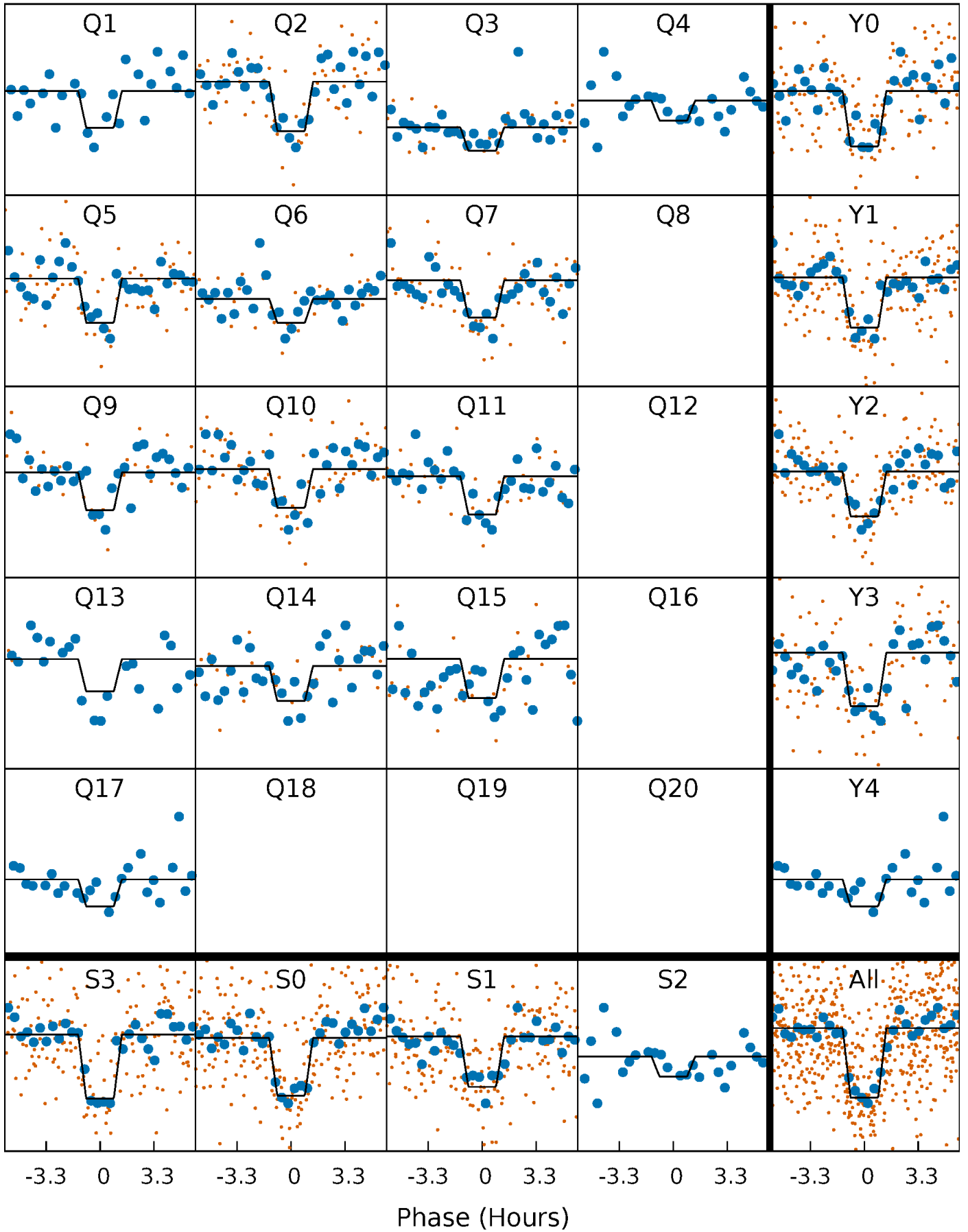
DV Quarter-Phased Transit Curves

TCE 011177543-01 P= 38.326137 Days $T_0=142.084561$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

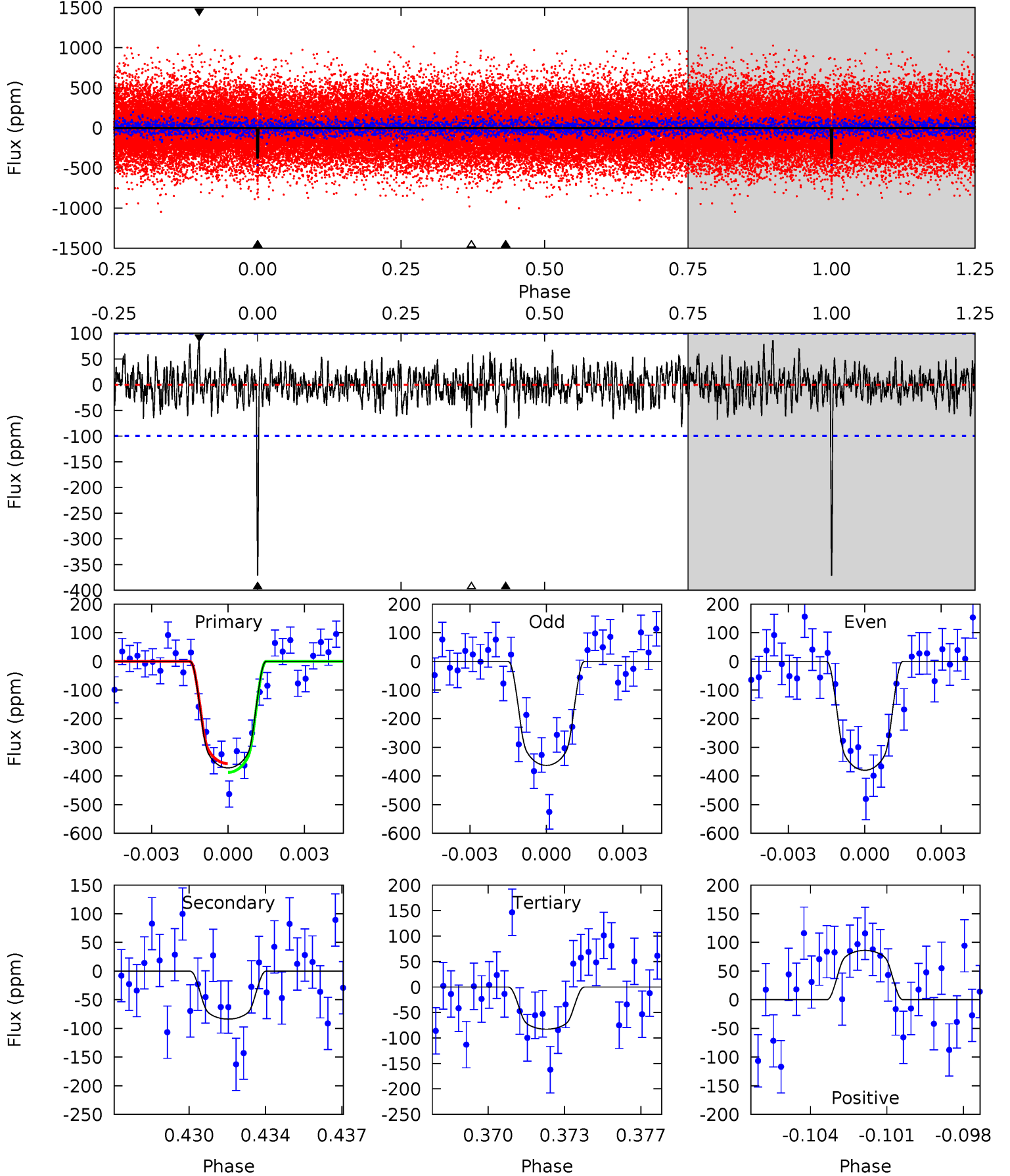
TCE 011177543-01 P= 38.326030 Days $T_0=142.086684$ (BKJD)



DV Model-Shift Uniqueness Test

011177543-01, $P = 38.326137$ Days, $E = 103.758424$ Days

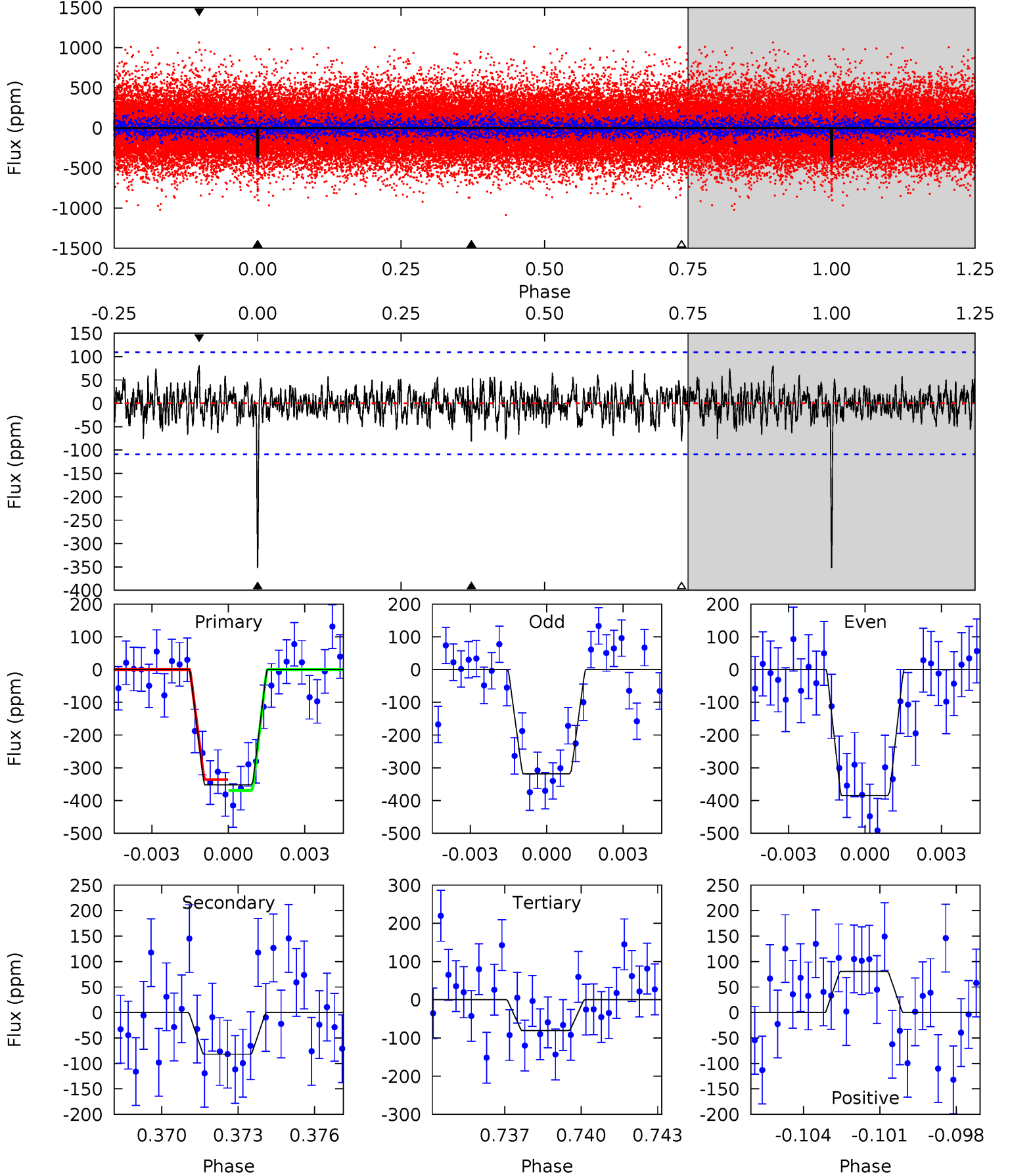
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.6	4.41	4.36	4.53	5.23	2.93	1.29	15.2	15.0	0.05	-0.12	0.44	1.03	0.19	0.81



Alt Model-Shift Uniqueness Test

011177543-01, P = 38.326030 Days, E = 103.760654 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	3.93	3.88	3.87	5.26	2.98	1.17	13.1	13.1	0.05	0.06	1.60	1.03	0.19	0.79



Stellar Parameters For KIC 011177543

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5229^{+78}_{-78}	$4.441^{+0.105}_{-0.042}$	$0.080^{+0.150}_{-0.150}$	$0.903^{+0.056}_{-0.088}$	$0.821^{+0.059}_{-0.032}$	$1.570^{+0.613}_{-0.222}$
	+1%/-1%	+2%/-1%	+188%/-188%	+6%/-10%	+7%/-4%	+39%/-14%
Source	SPE90	SPE90	SPE90	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011177543-01 / KOI 1648.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-84 ± 19	$2.13^{+0.74}_{-0.72}$	667^{+18}_{-21}	3735^{+603}_{-352}	440^{+601}_{-201}
Alt.	-82 ± 21	$1.82^{+0.77}_{-0.65}$	666^{+17}_{-20}	3927^{+694}_{-444}	581^{+862}_{-293}

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 $A_{obs} \gg 1.0$

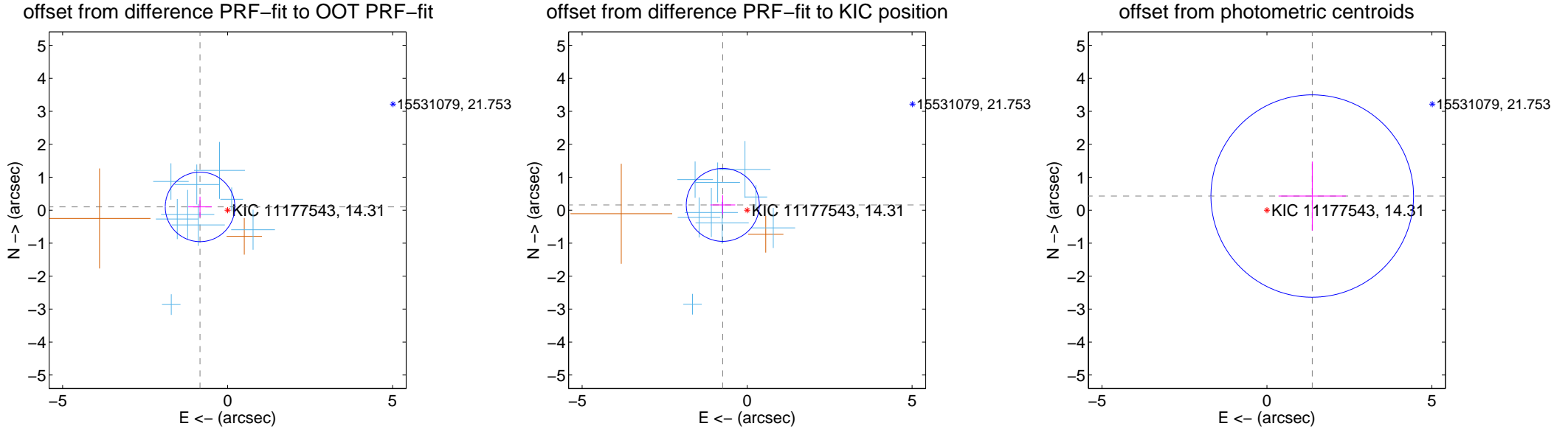
DV Centroid Data

Supplemental centroid analysis for 011177543-01. Kepler magnitude: 14.31. Transit SNR 14.18

There are 9 quarters with good PRF difference image offsets

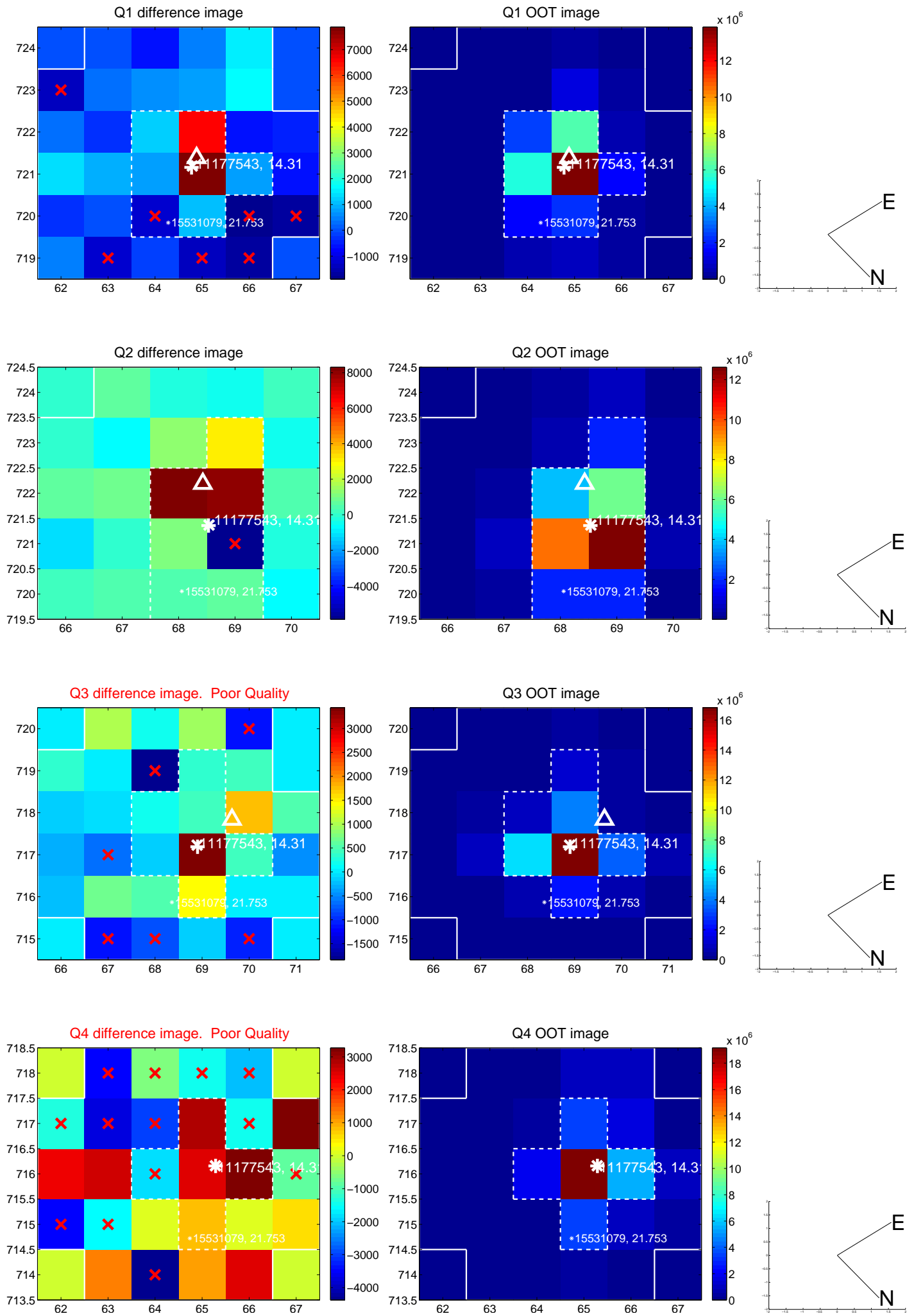
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.841 ± 0.352	2.39	0.835 ± 0.357	0.100 ± 0.311
PRF-fit source offset from KIC position	0.755 ± 0.369	2.05	0.737 ± 0.378	0.161 ± 0.291
photometric centroid source offset	1.44 ± 1.02	1.41	-1.37 ± 1.02	0.43 ± 1.05

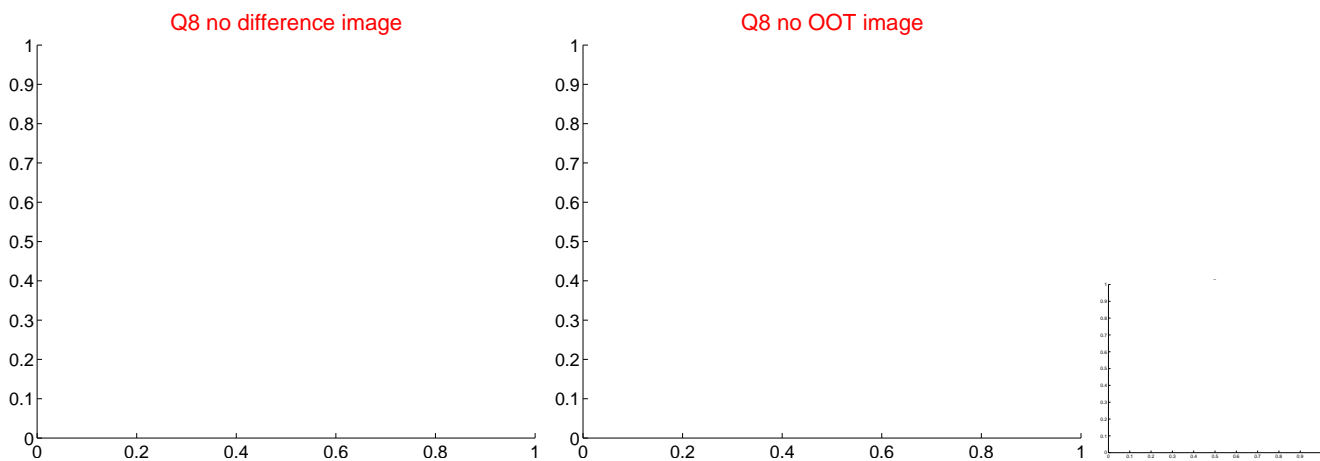
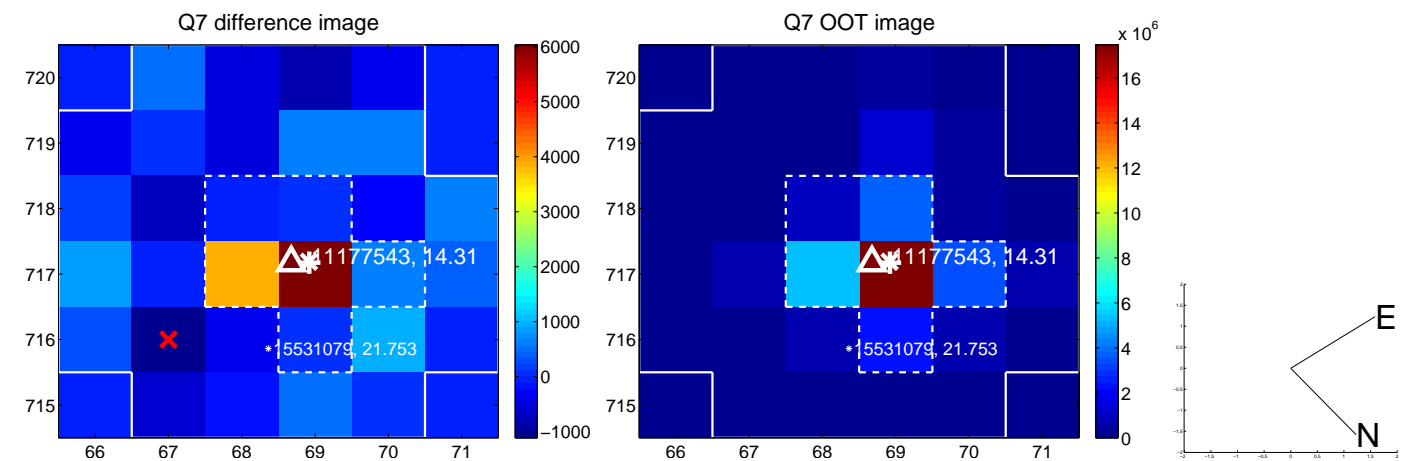
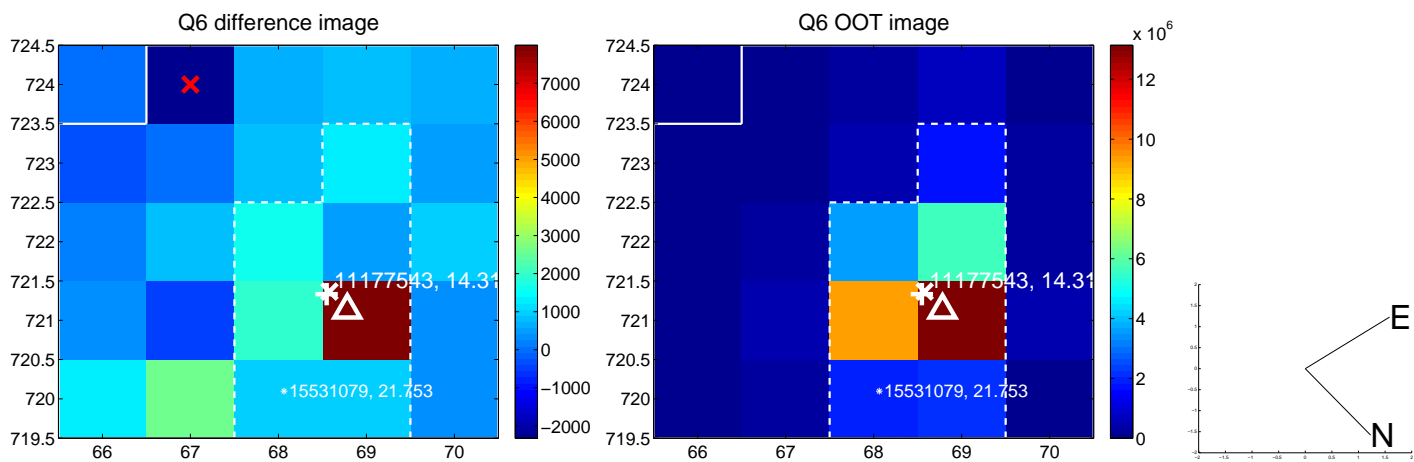
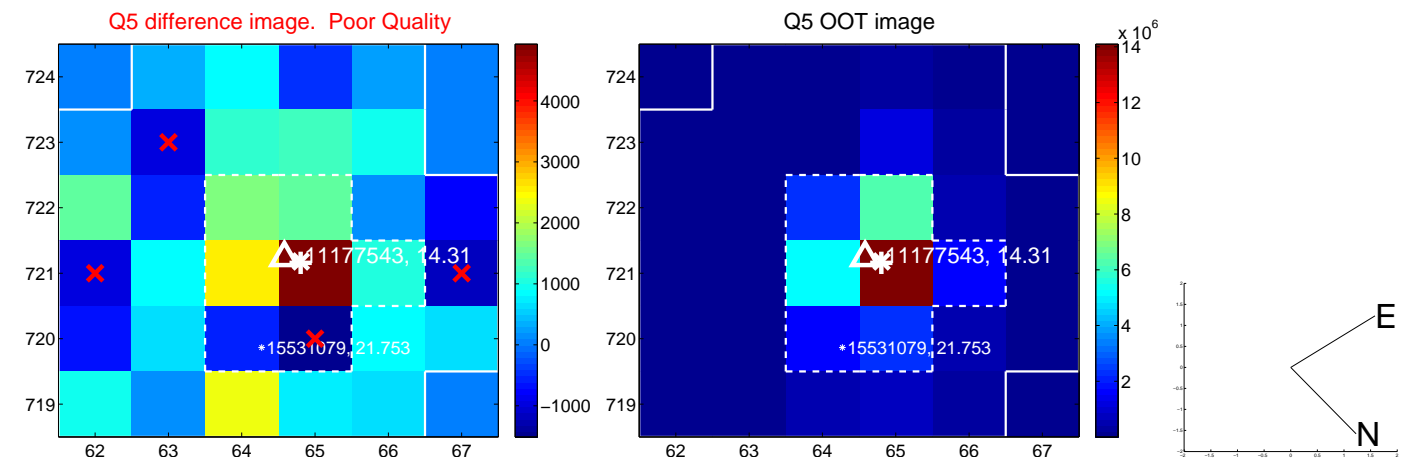


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

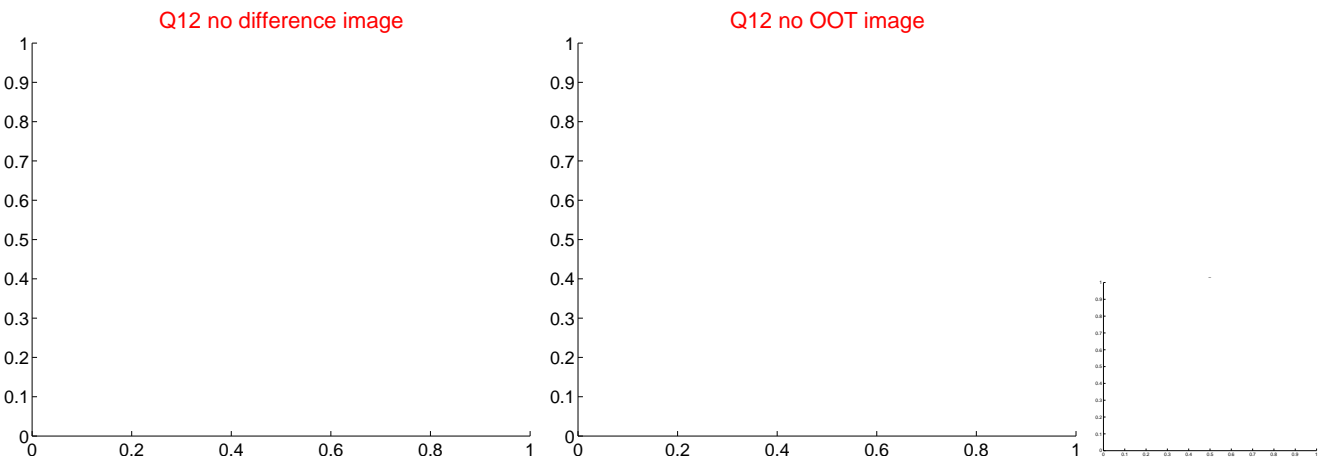
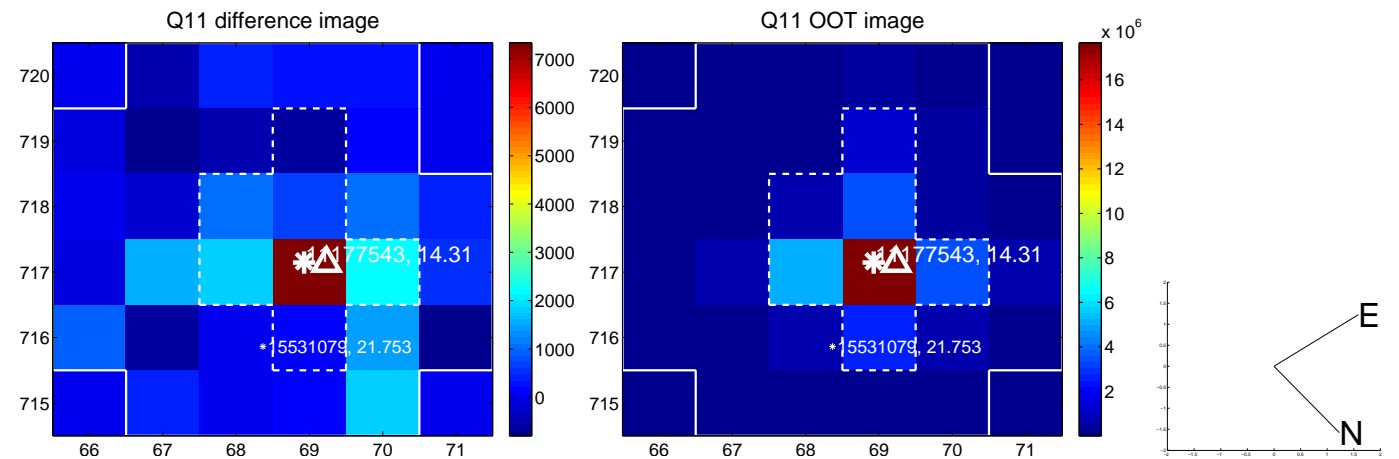
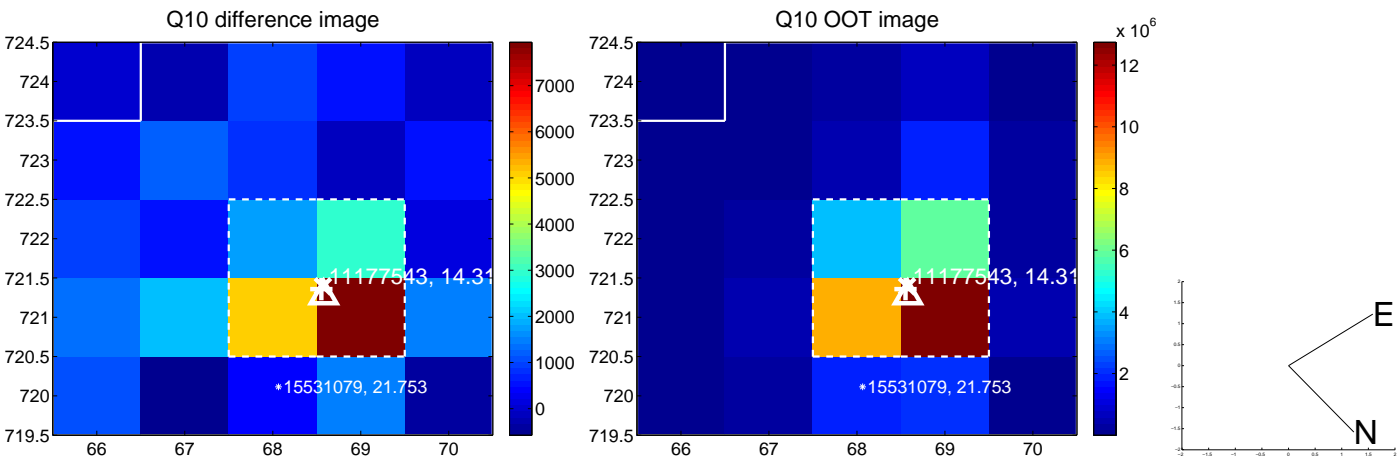
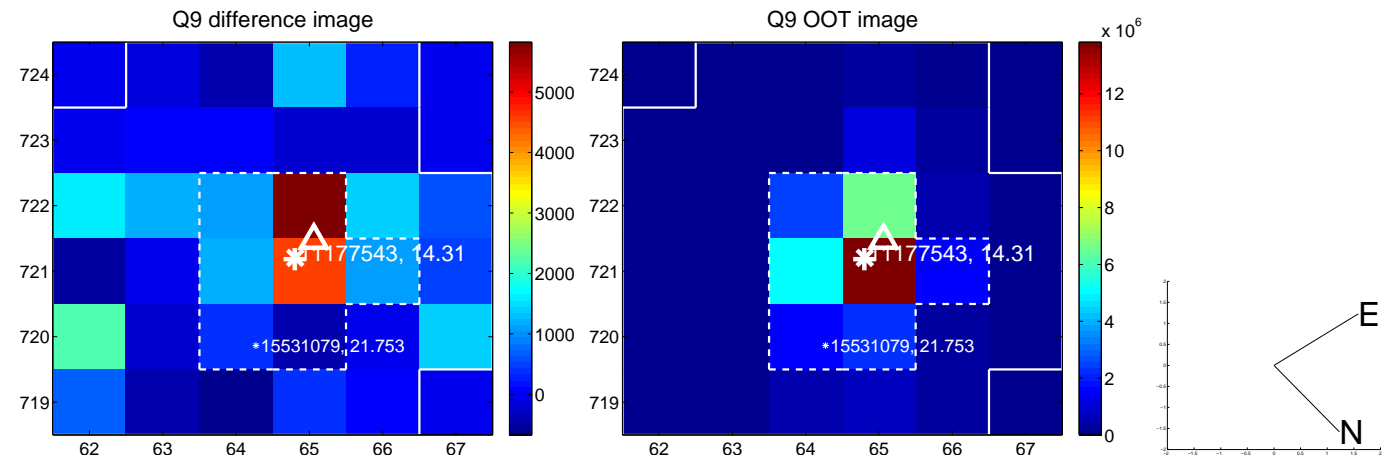
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



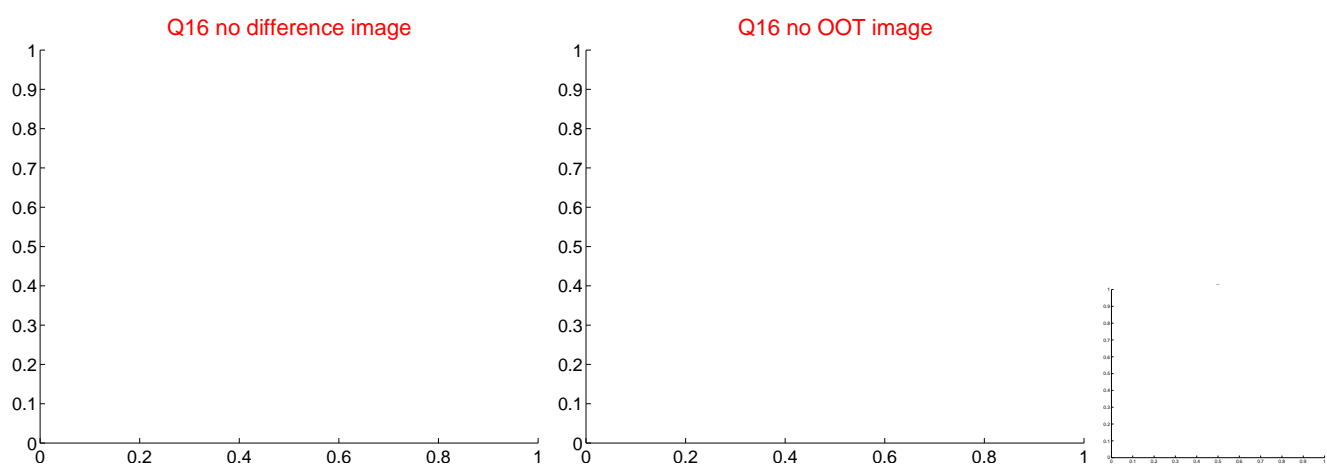
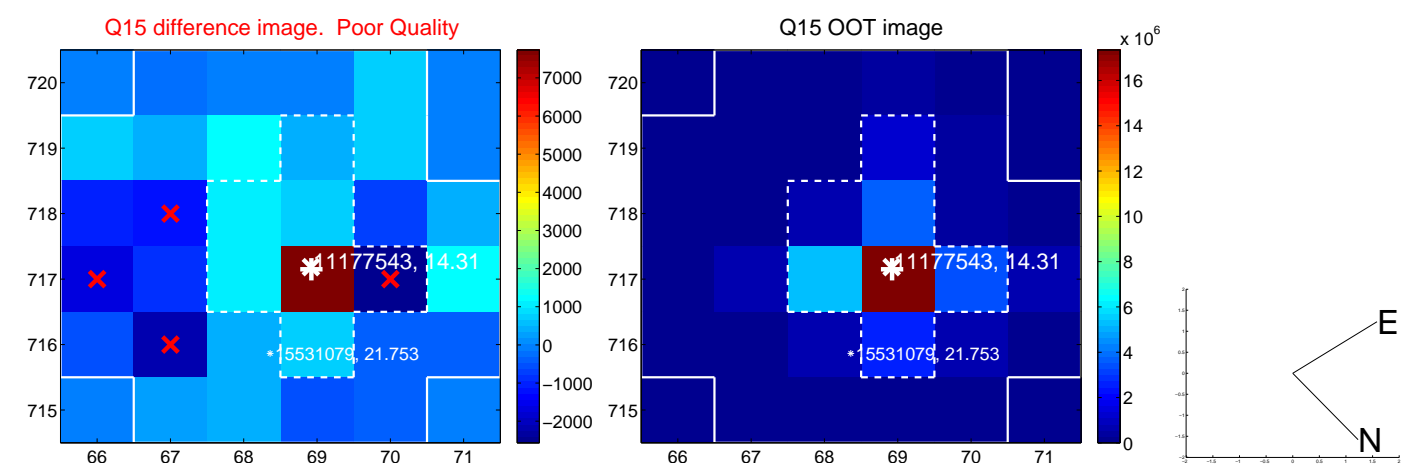
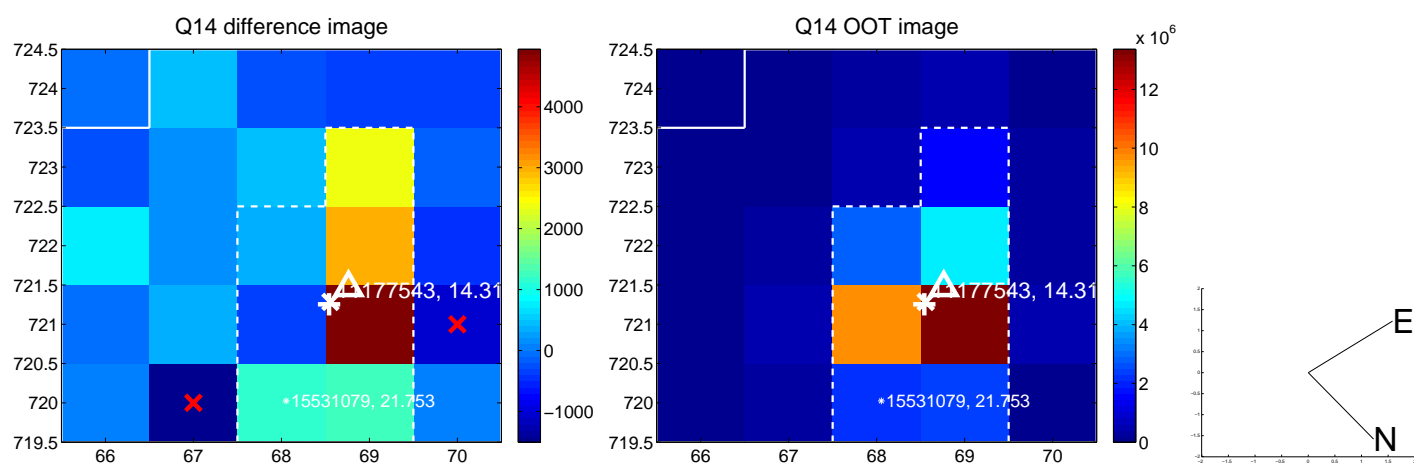
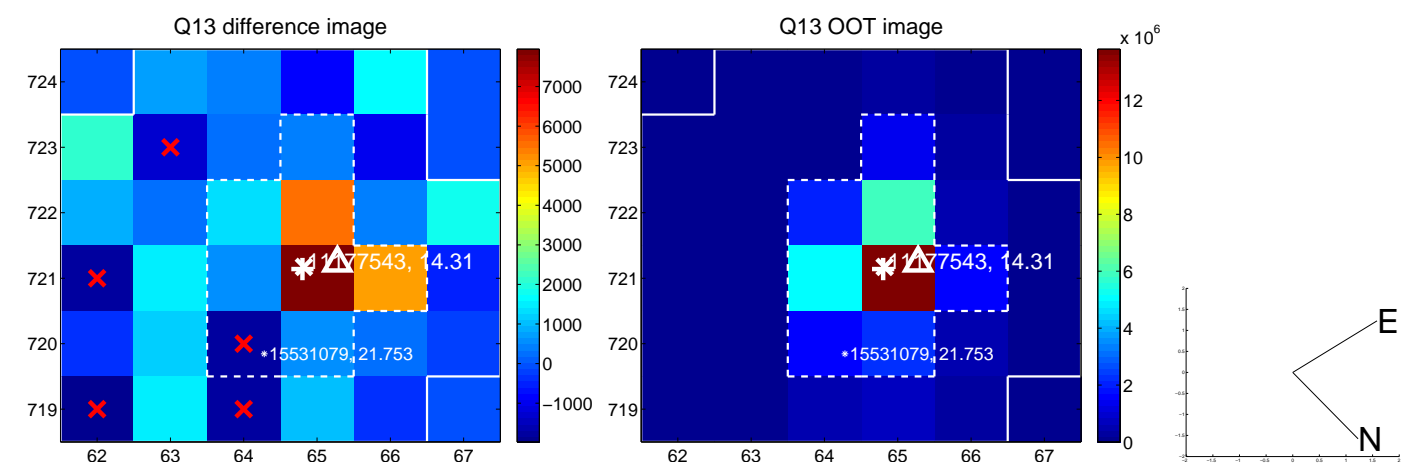
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



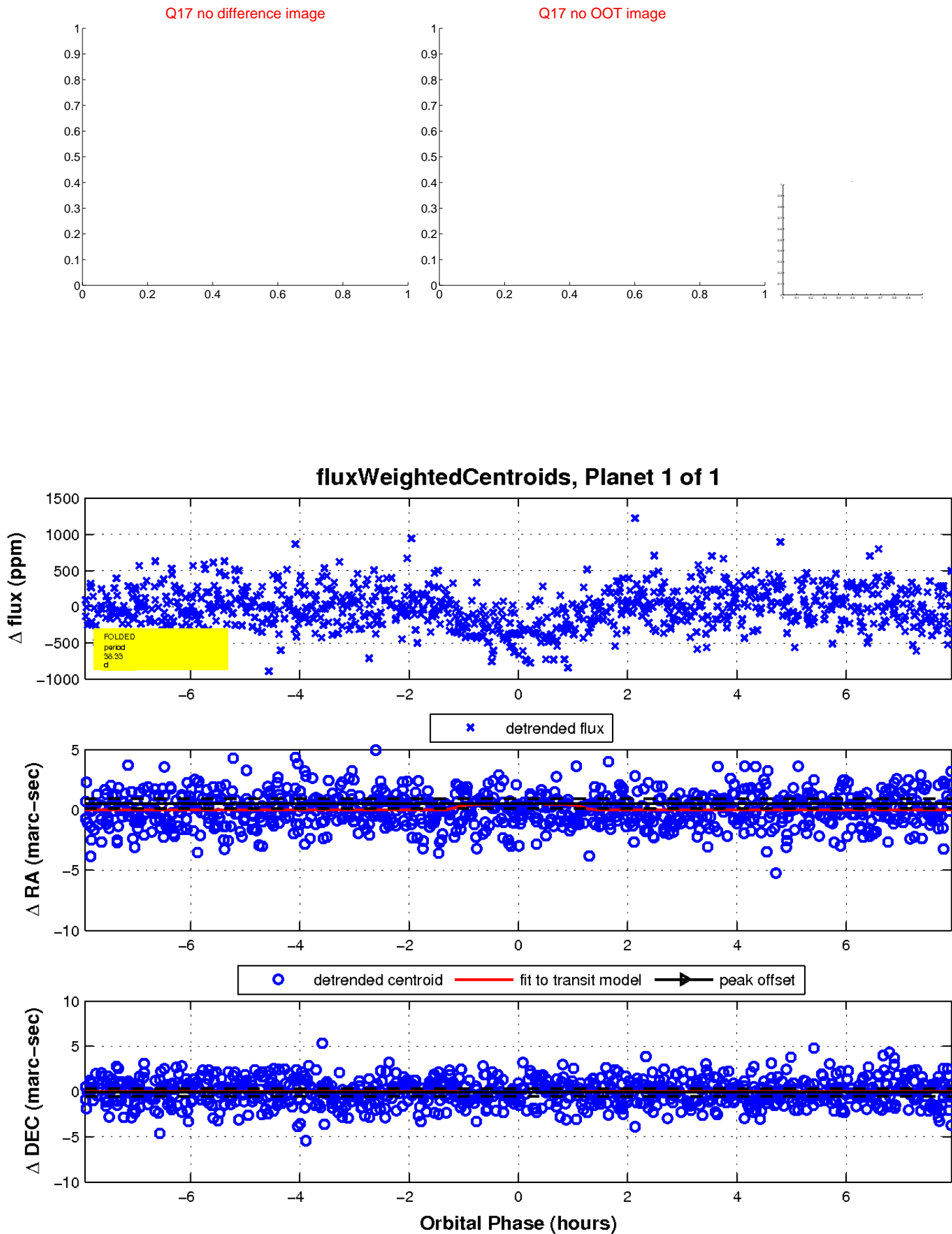
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UKIRT Image

Declination

