

KIC 011565544

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})
011565544-01	OBS	3013.01	3.765621	131.754916	218.9	0.988	11.6	15.5	0.85	5743	1.51	327.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011565544-01	OBS	PC	1.00	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.

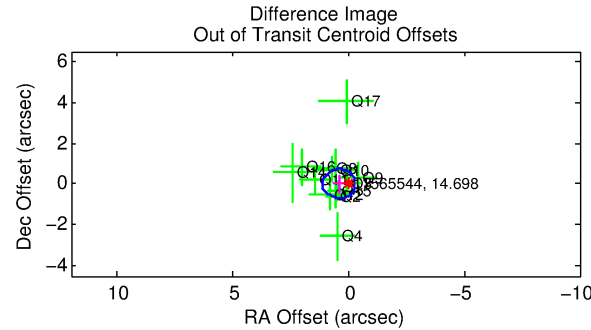
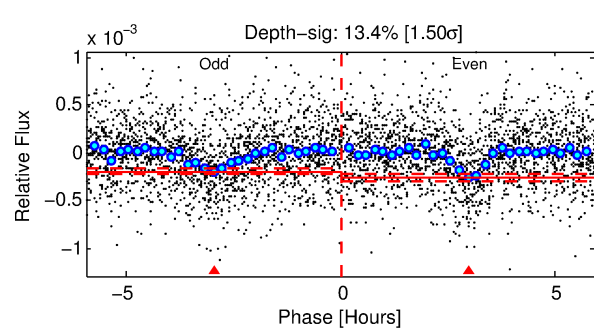
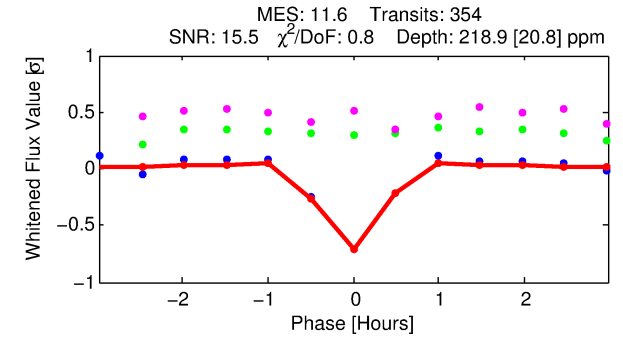
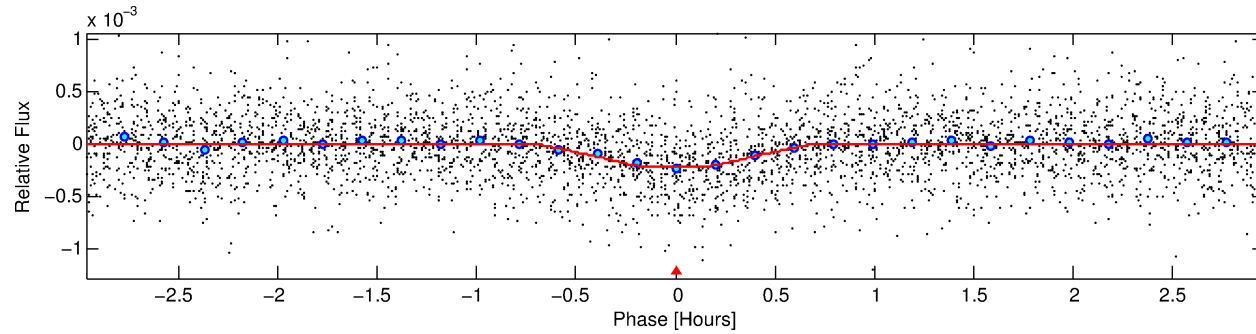
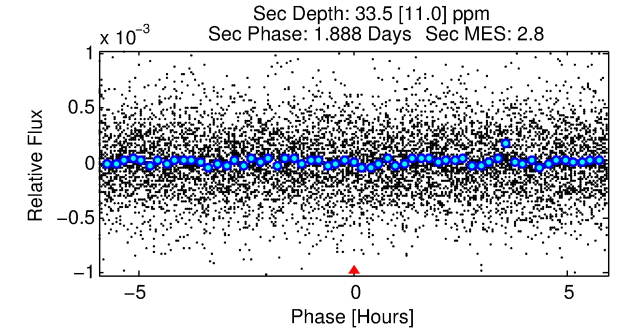
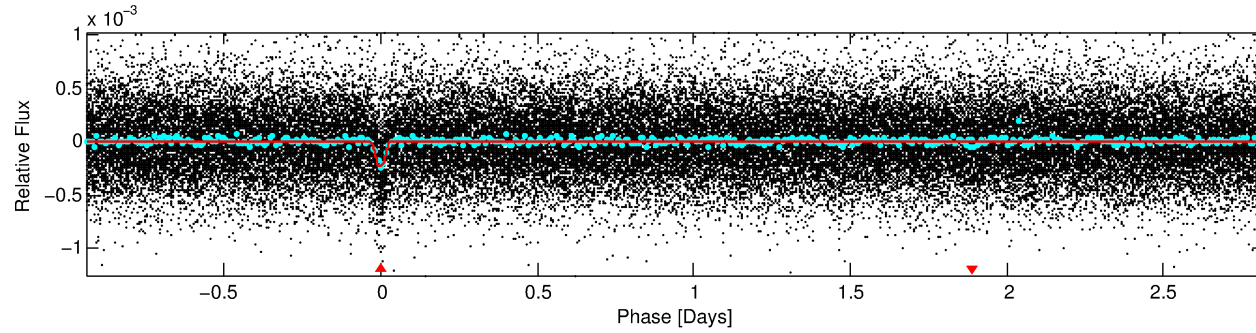
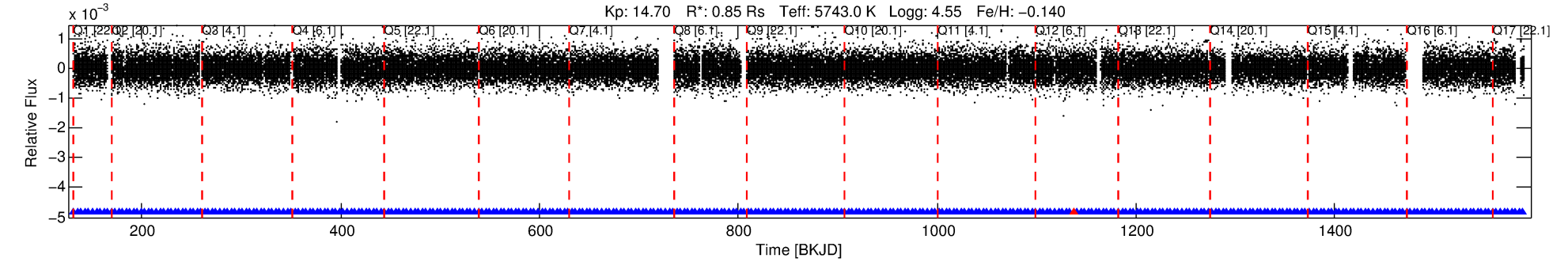
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011565544-01

No Significant Match Found

DV One-Page Summary

KIC: 11565544 Candidate: 1 of 1 Period: 3.766 d
KOI: K03013.01 Corr: 0.959



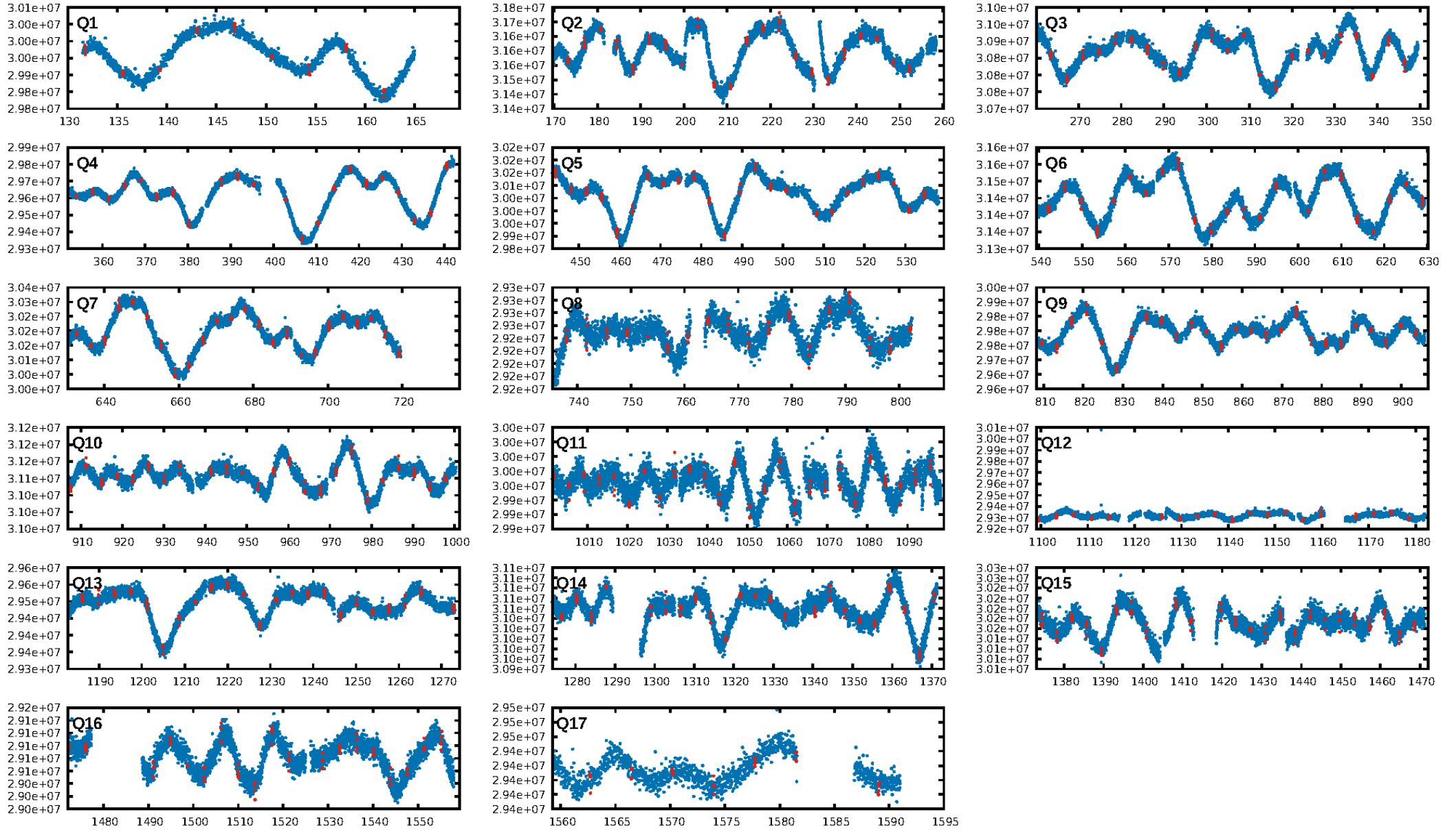
DV Fit Results:

Period = 3.76562 [0.00001] d
Epoch = 131.7549 [0.0013] BKJD
Rp/R* = 0.0162 [0.0085]
a/R* = 13.94 [34.67]
b = 0.90 [0.56]
Seff = 327.32 [111.81]
Teq = 1085 [93] K
Rp = 1.51 [0.89] Re
a = 0.0465 [0.0104] AU
Ag = 17.50 [20.11] [0.82σ]
Teffp = 3430 [950] K [2.46σ]

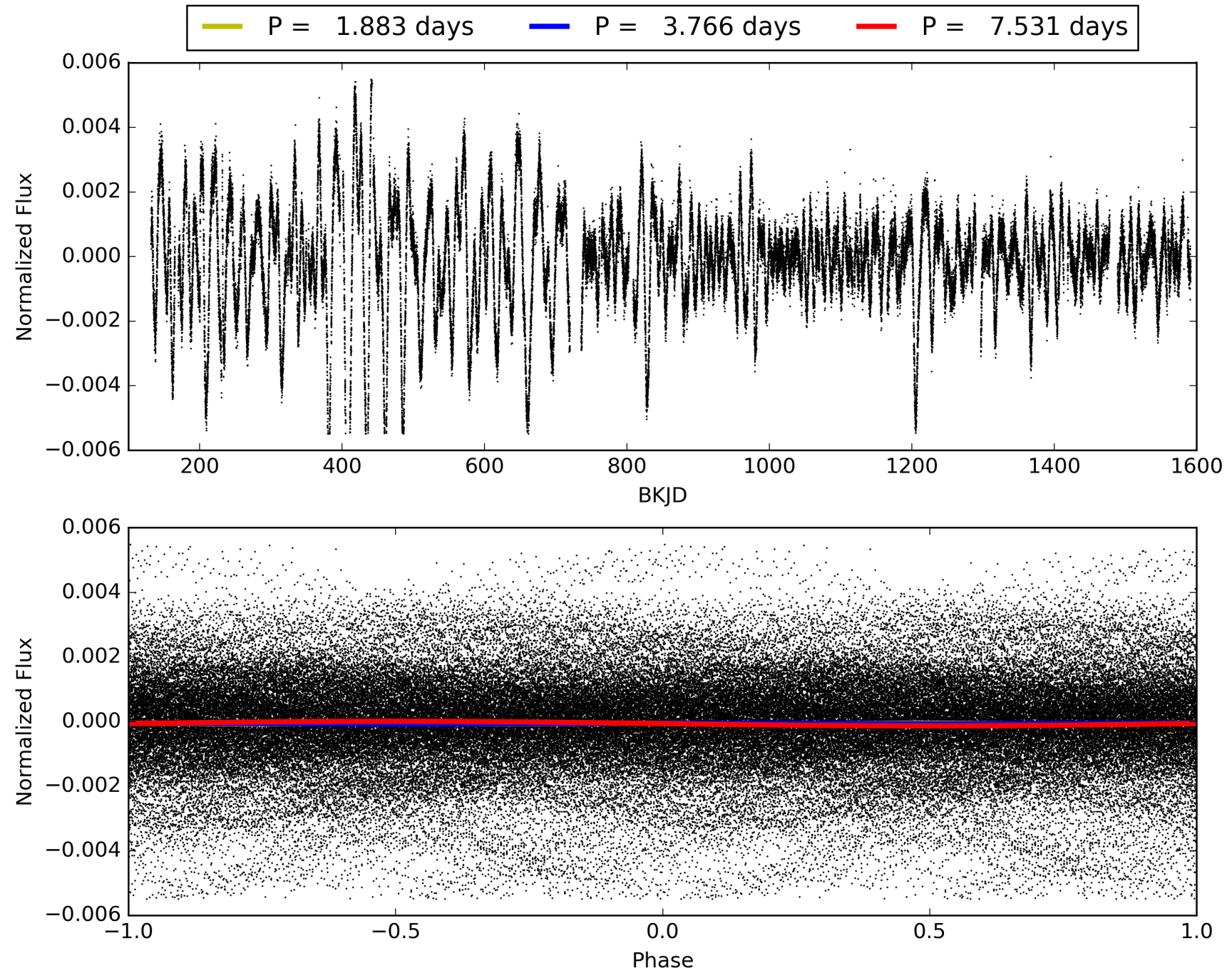
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.18e-30
RollingBand-fgt: 1.00 [337/338]
GhostDiagnostic-chr: 4.292
Centroid-sig: 25.5%
Centroid-so: 0.919 arcsec [1.24σ]
OotOffset-rm: 0.419 arcsec [1.77σ]
KicOffset-rm: 0.415 arcsec [1.88σ]
OotOffset-st: 3/4/4/2 [13]
KicOffset-st: 3/4/4/2 [13]
DiffImageQuality-fgm: 0.92 [12/13]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011565544-01, PDC Light Curves

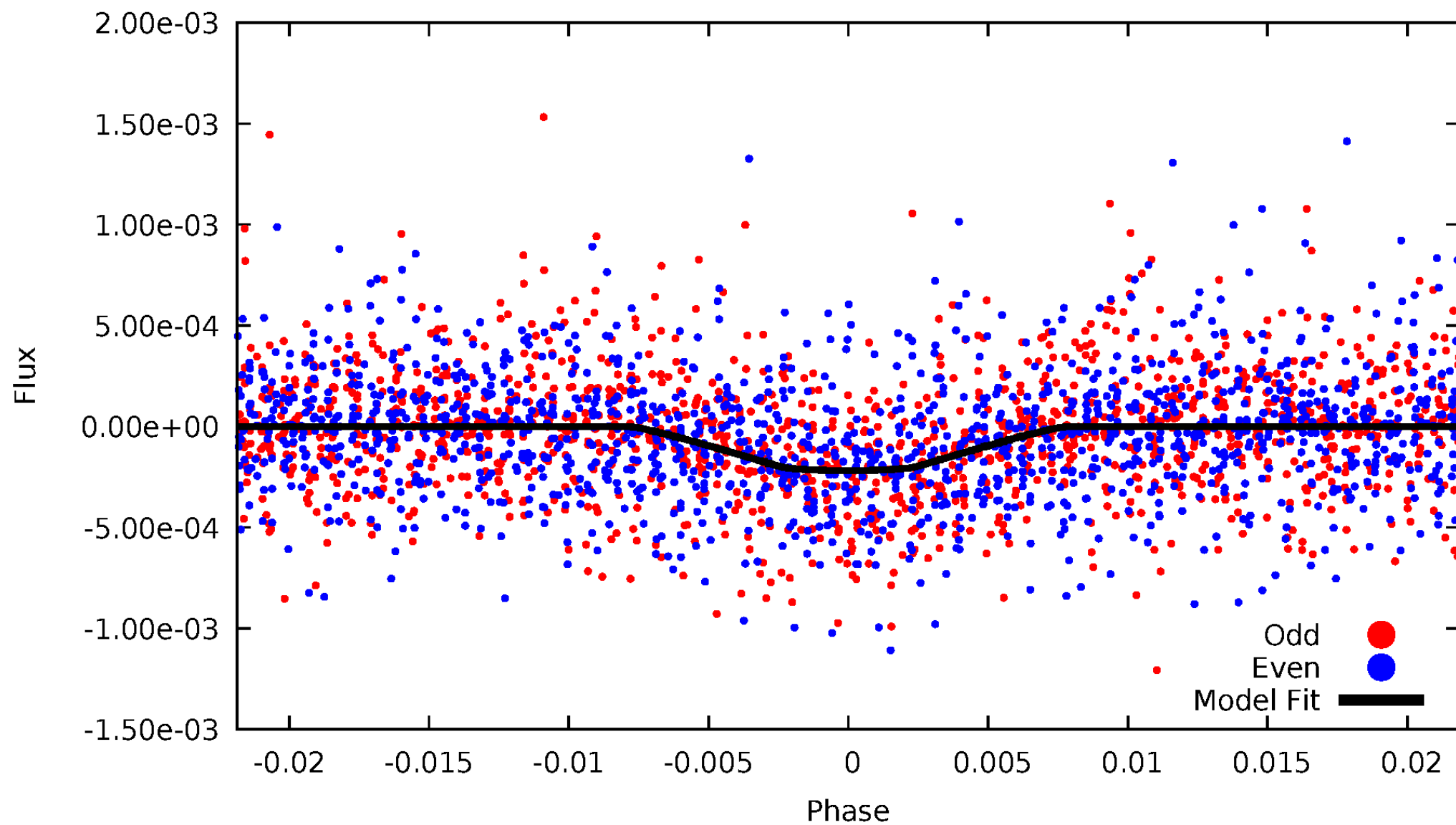


TCE 011565544-01



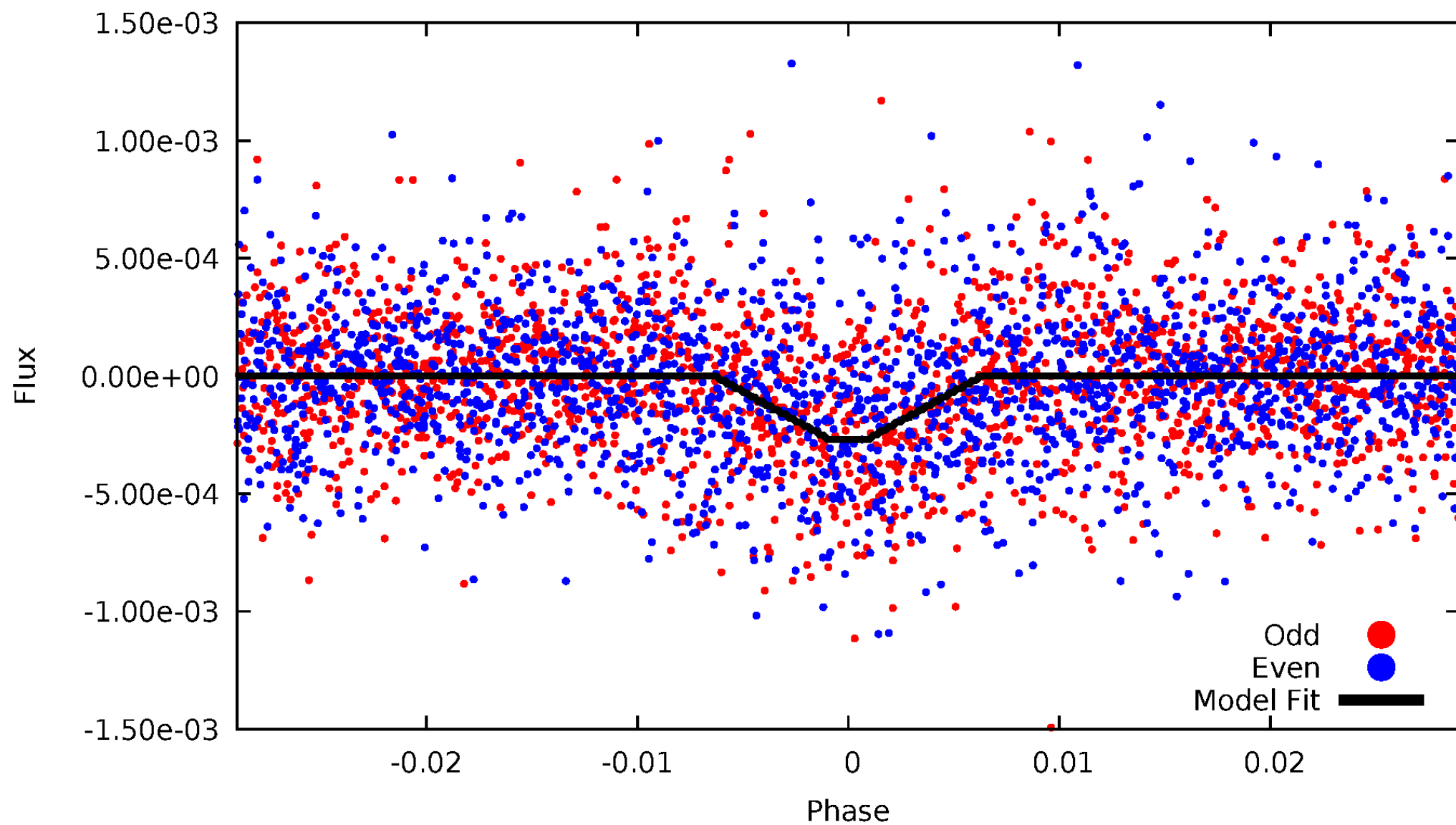
DV Odd/Even

TCE 011565544-01

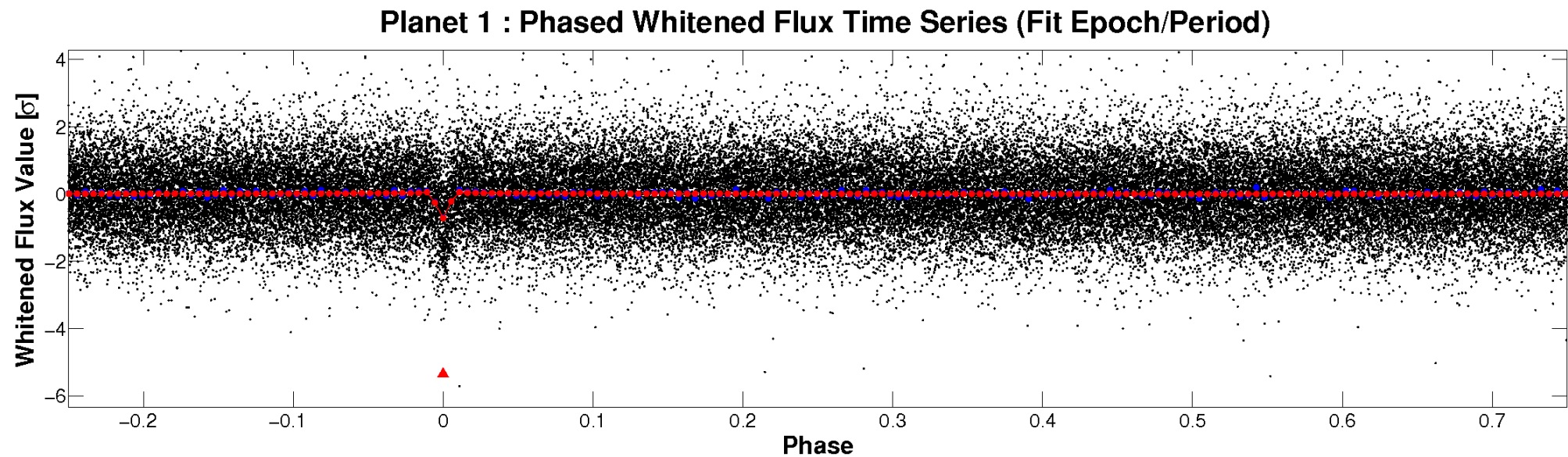
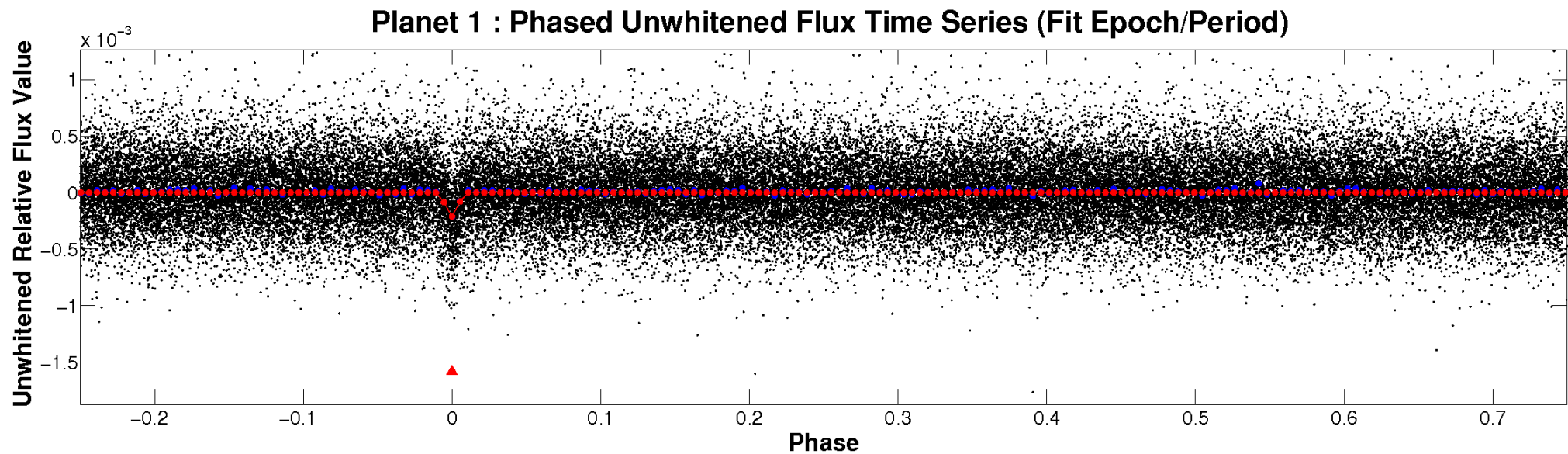


ALT Odd/Even

TCE 011565544-01

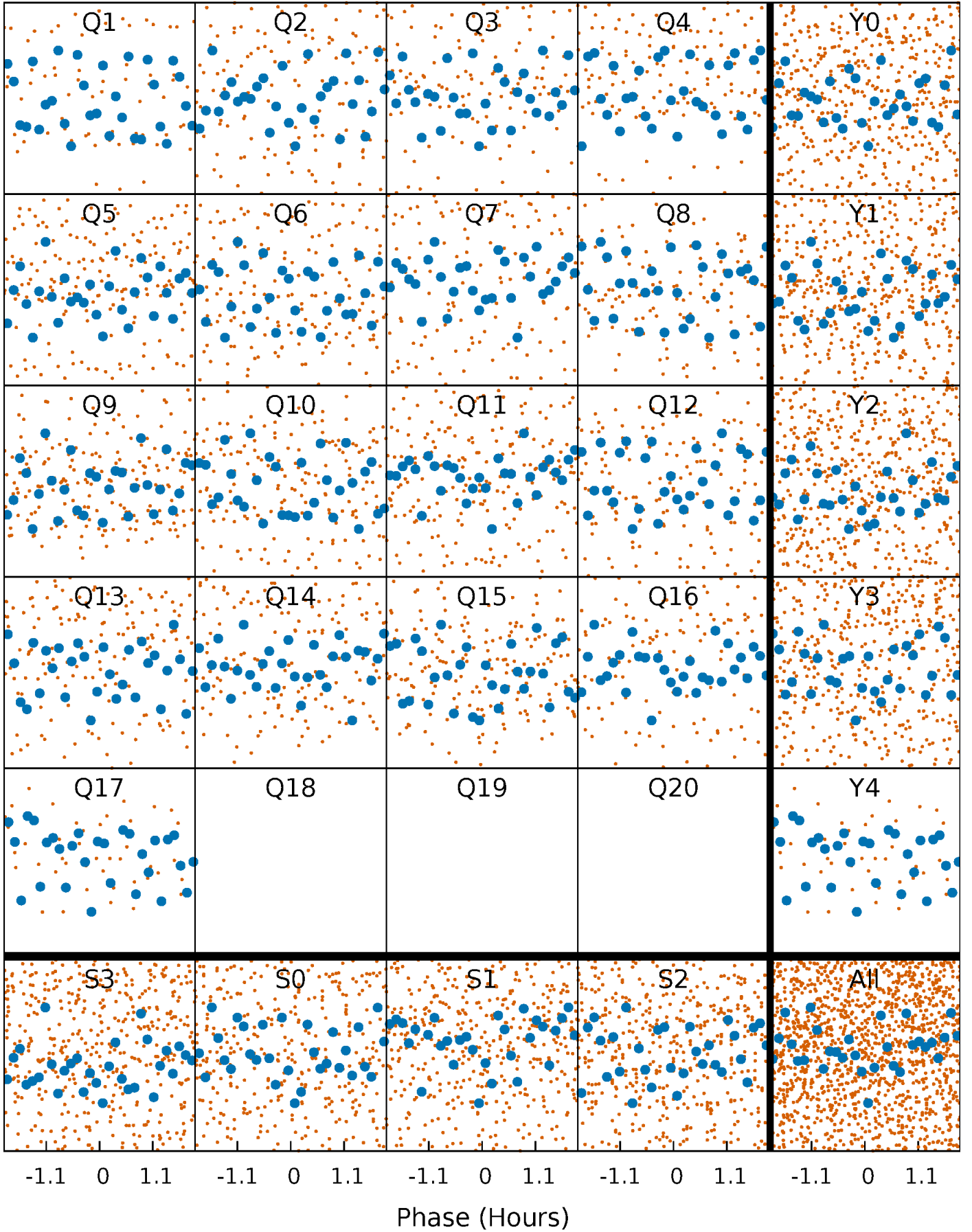


Non-Whitened Vs. Whitened Light Curve



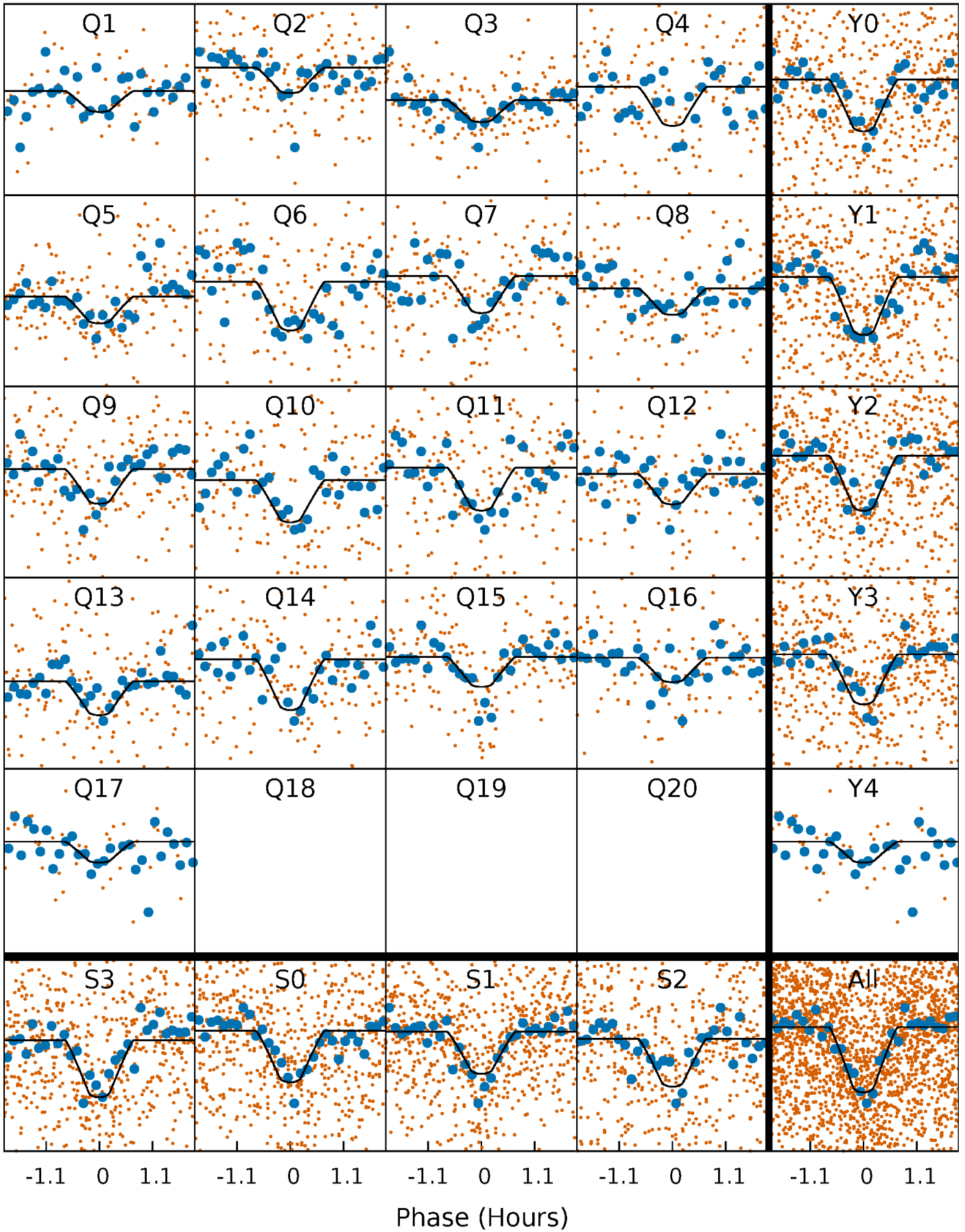
PDC Quarter-Phased Transit Curves

TCE 011565544-01 P= 3.765621 Days $T_0=131.754916$ (BKJD)



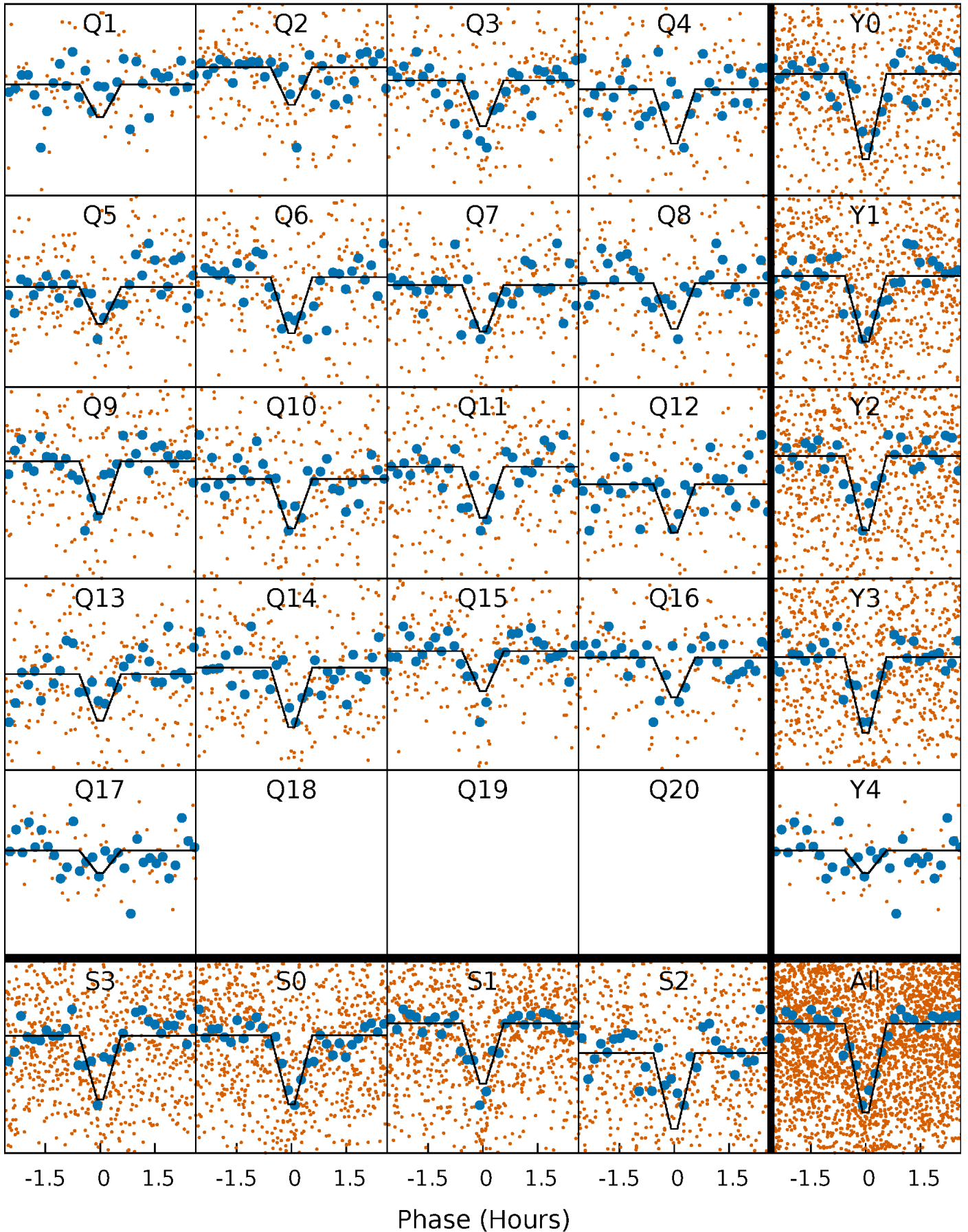
DV Quarter-Phased Transit Curves

TCE 011565544-01 P= 3.765621 Days $T_0=131.754916$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

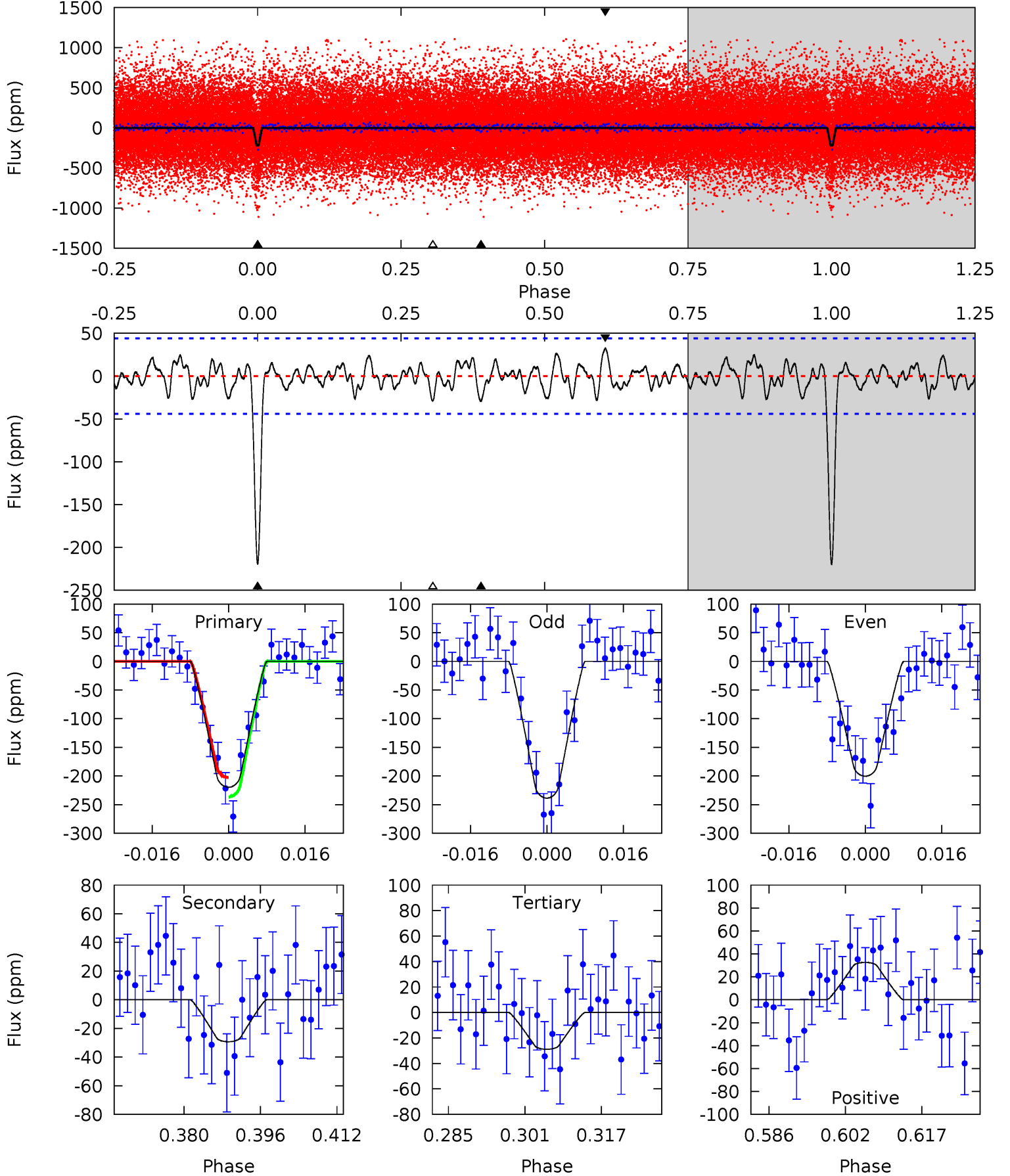
TCE 011565544-01 P= 3.765644 Days $T_0=131.751137$ (BKJD)



DV Model-Shift Uniqueness Test

011565544-01, P = 3.765621 Days, E = 127.989295 Days

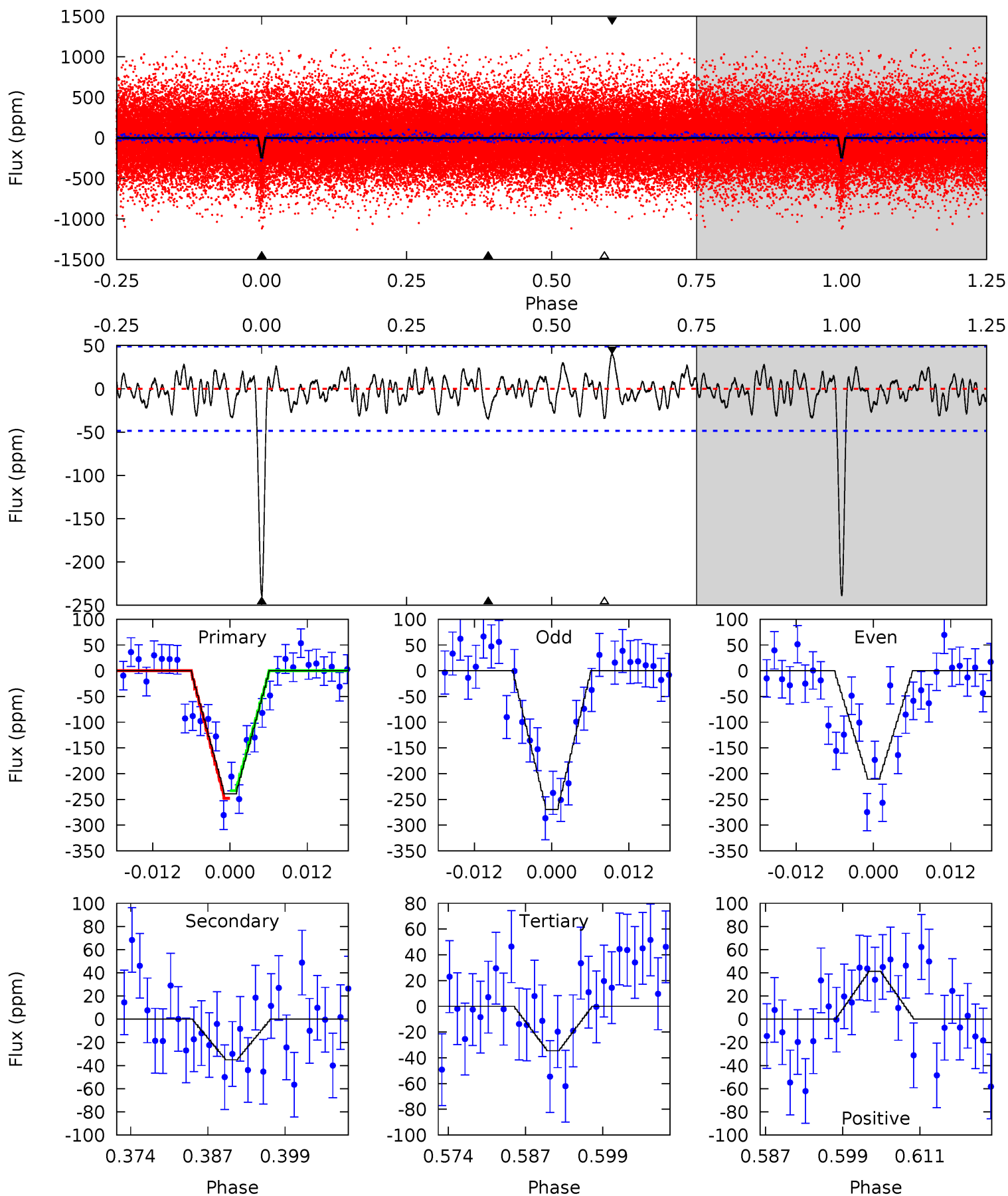
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.6	3.29	3.24	3.66	4.94	2.41	1.29	21.4	21.0	0.04	-0.37	2.16	0.93	0.13	1.90



Alt Model-Shift Uniqueness Test

011565544-01, P = 3.765644 Days, E = 127.985493 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.5	3.59	3.54	4.24	4.98	2.50	1.34	21.0	20.3	0.05	-0.65	3.01	0.97	0.15	0.75



Stellar Parameters For KIC 011565544

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5743^{+155}_{-155}	$4.553^{+0.033}_{-0.176}$	$-0.140^{+0.300}_{-0.300}$	$0.853^{+0.229}_{-0.076}$	$0.949^{+0.092}_{-0.123}$	$2.155^{+0.391}_{-1.051}$
	+3%/-3%	+1%/-4%	+214%/-214%	+27%/-9%	+10%/-13%	+18%/-49%
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 011565544-01 / KOI 3013.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-29 ± 9	$1.62^{+0.87}_{-0.80}$	1552^{+95}_{-65}	3642^{+1061}_{-490}	12^{+39}_{-7}
Alt.	-35 ± 10	$1.66^{+0.80}_{-0.77}$	1558^{+94}_{-67}	3768^{+1074}_{-501}	14^{+42}_{-8}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

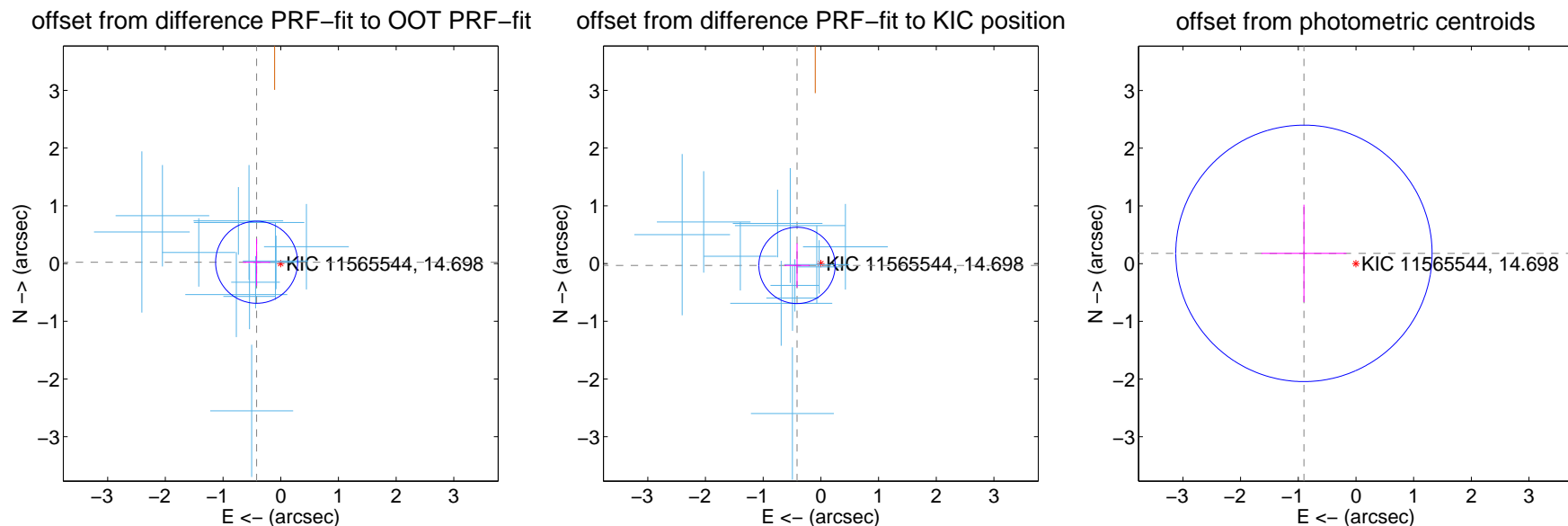
DV Centroid Data

Supplemental centroid analysis for 011565544-01. Kepler magnitude: 14.70. Transit SNR 15.54

There are 12 quarters with good PRF difference image offsets

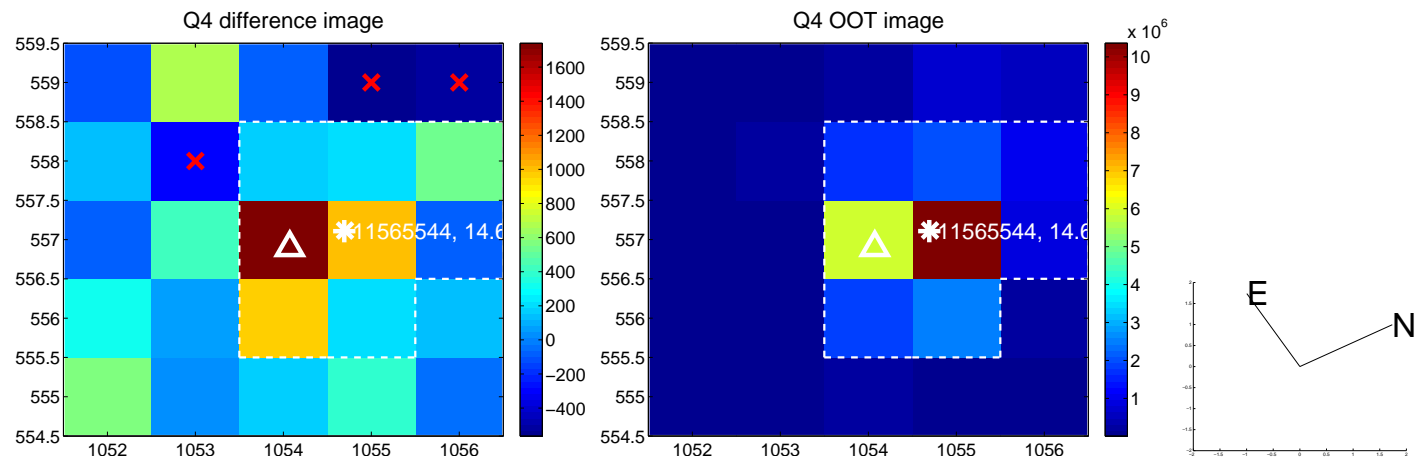
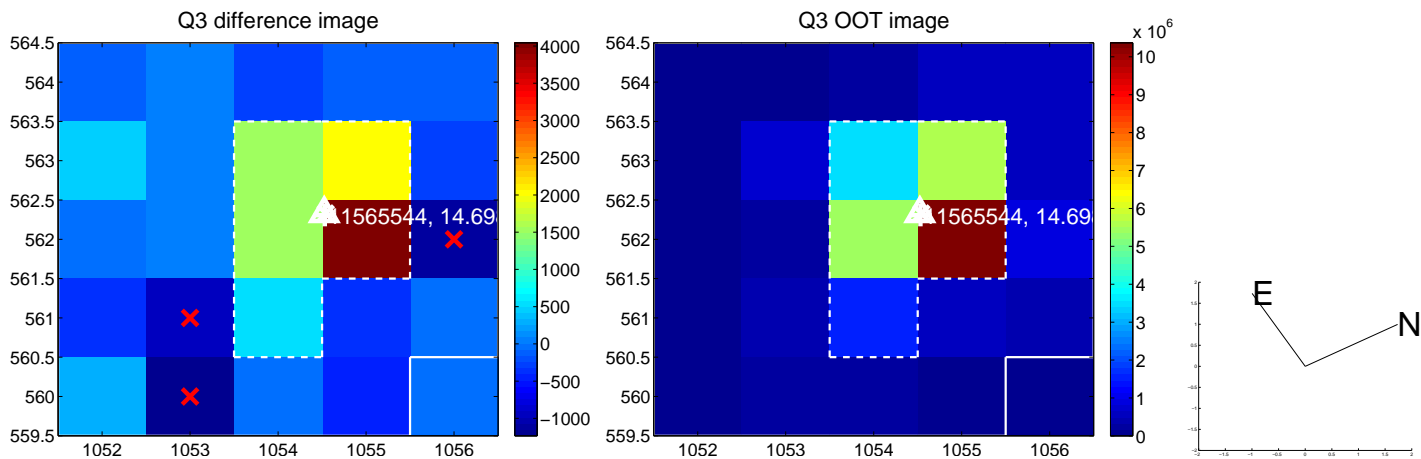
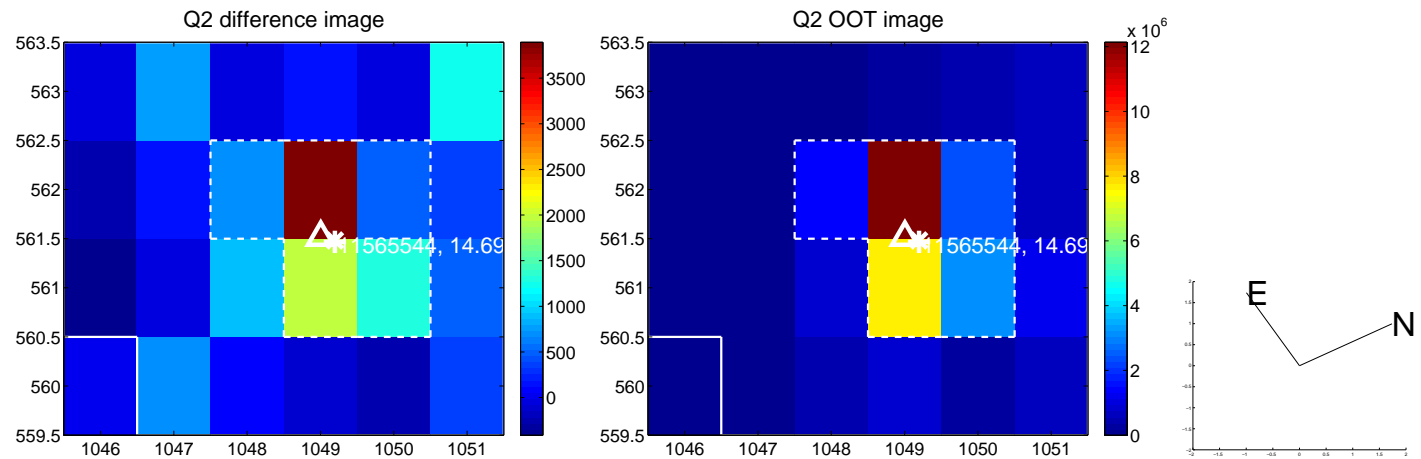
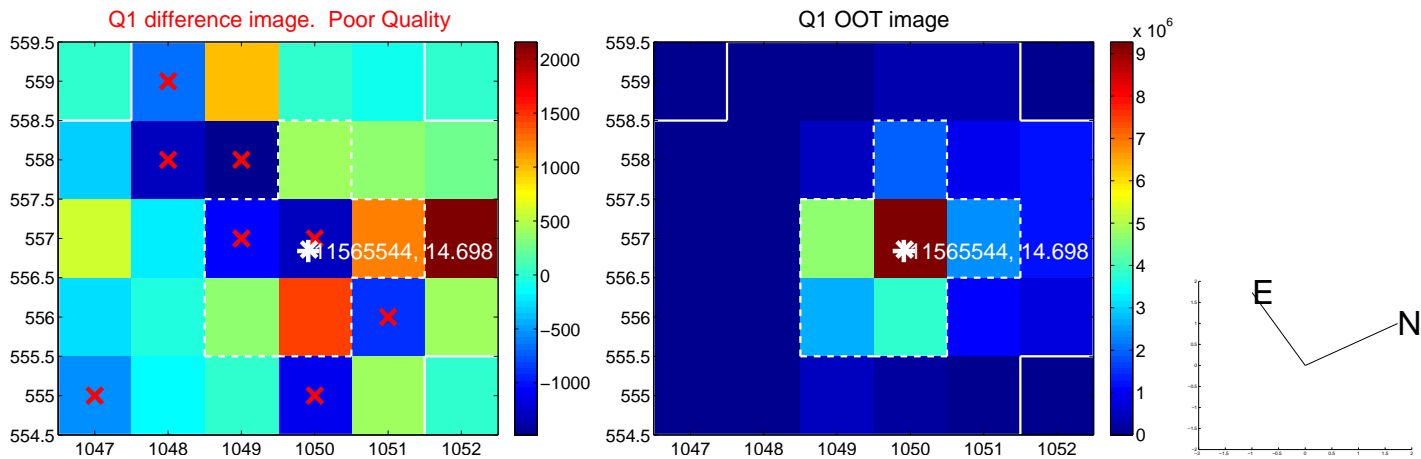
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.419 ± 0.237	1.77	0.418 ± 0.235	0.022 ± 0.406
PRF-fit source offset from KIC position	0.415 ± 0.220	1.88	0.413 ± 0.217	-0.033 ± 0.383
photometric centroid source offset	0.92 ± 0.74	1.24	0.90 ± 0.74	0.18 ± 0.84

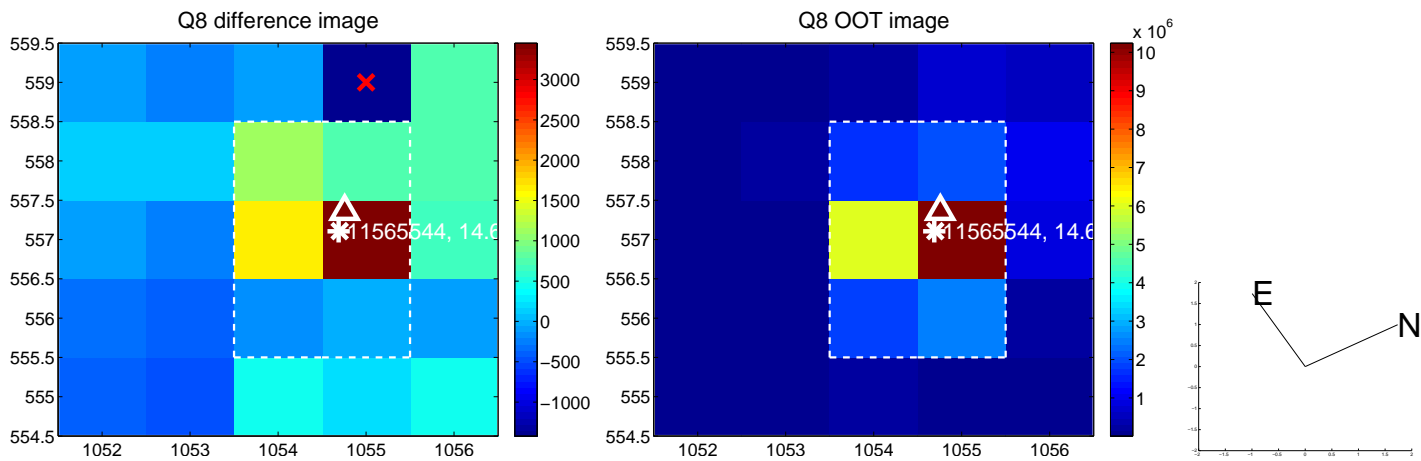
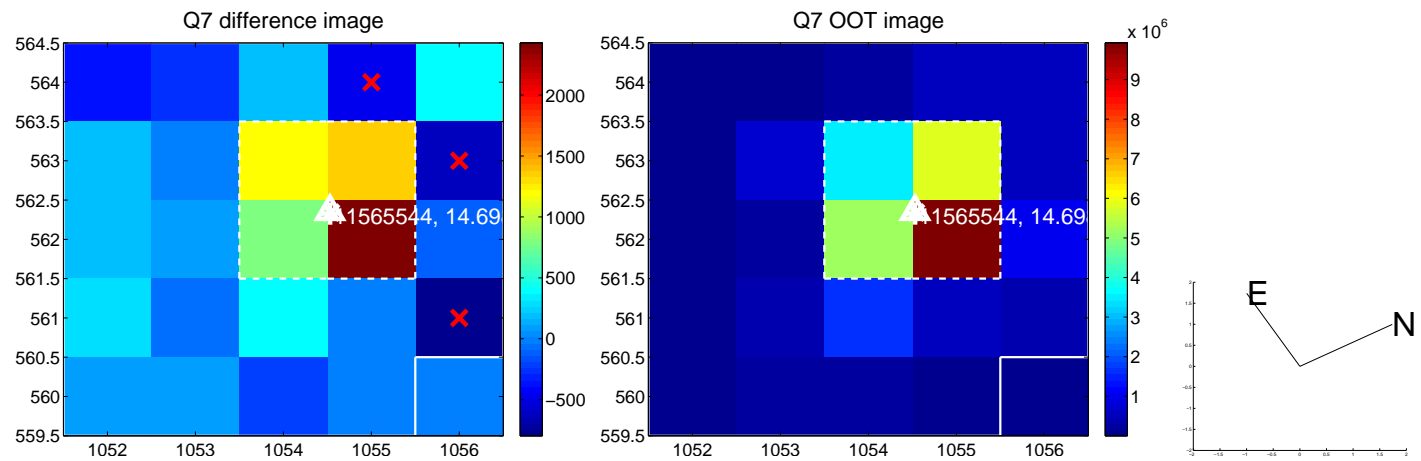
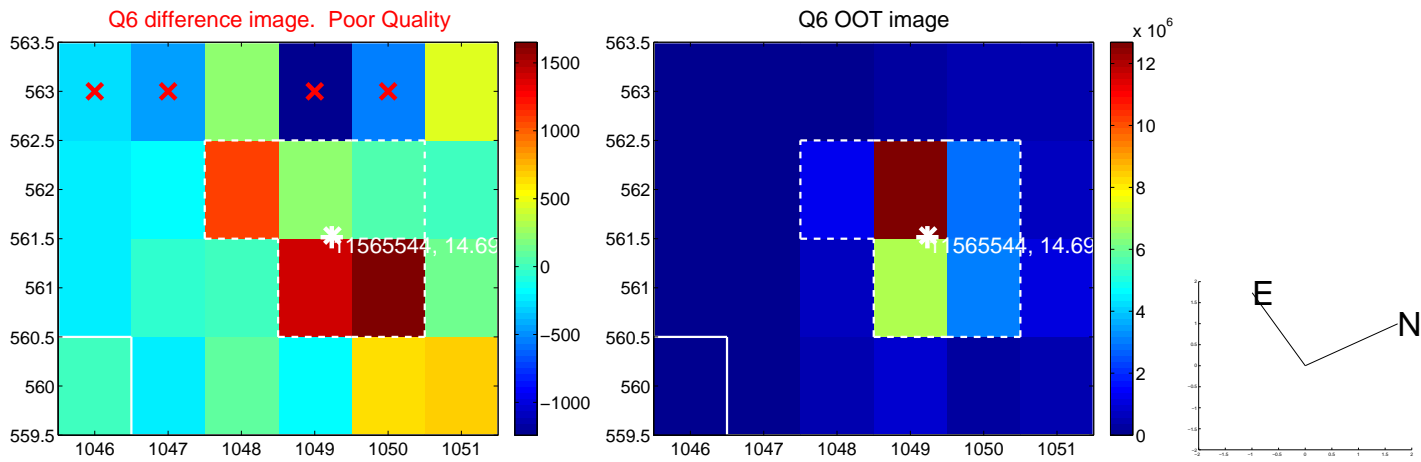
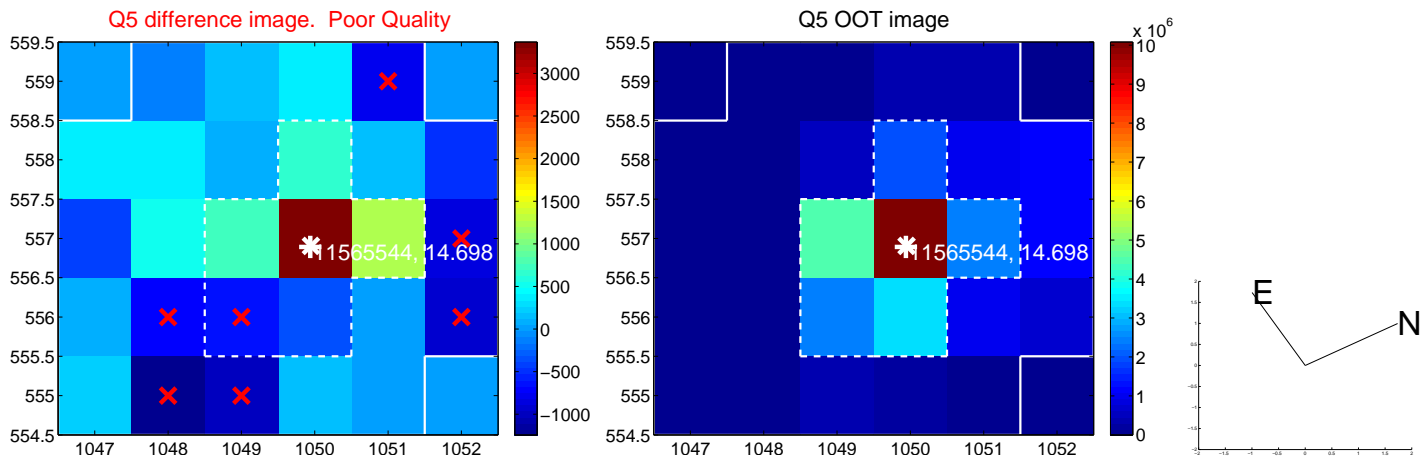


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

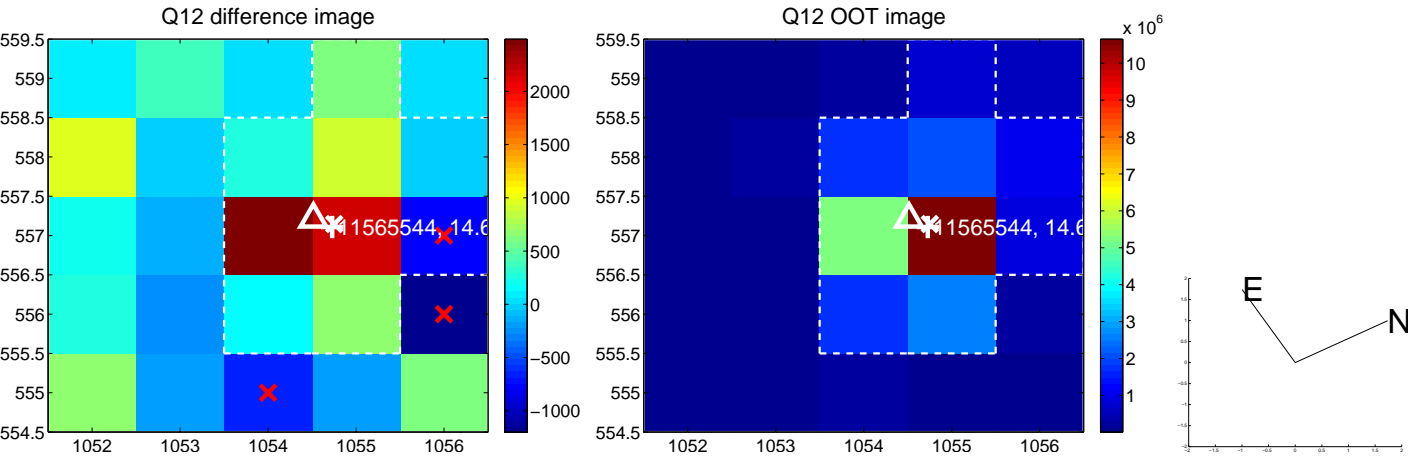
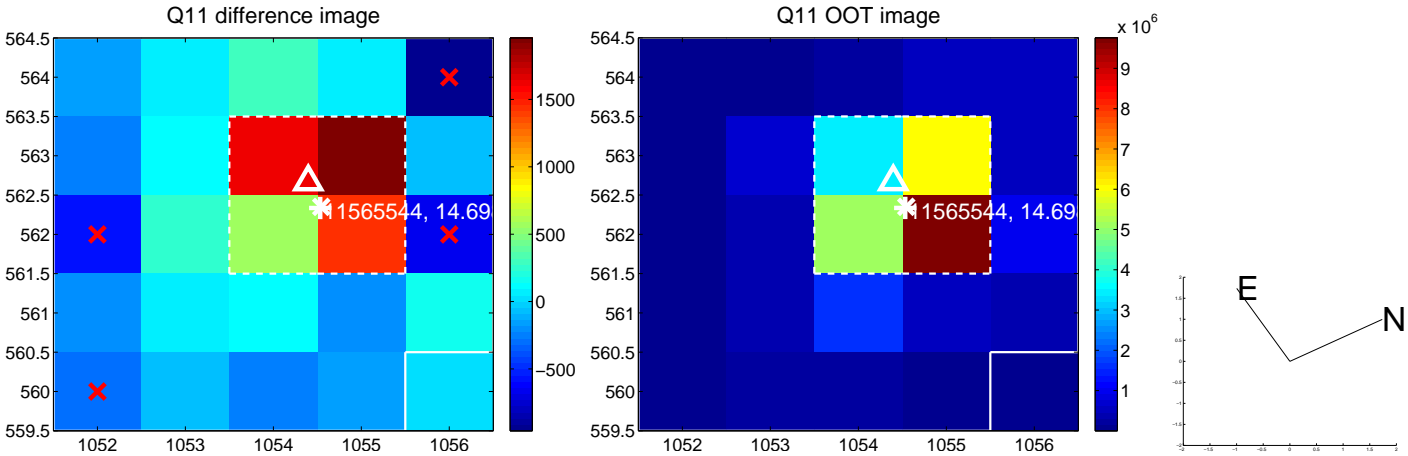
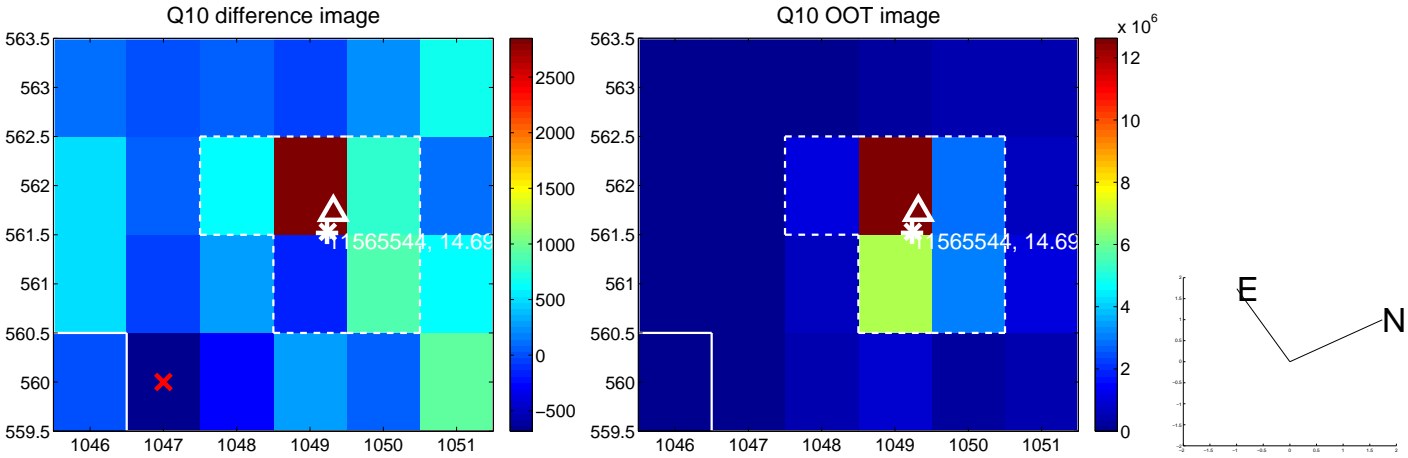
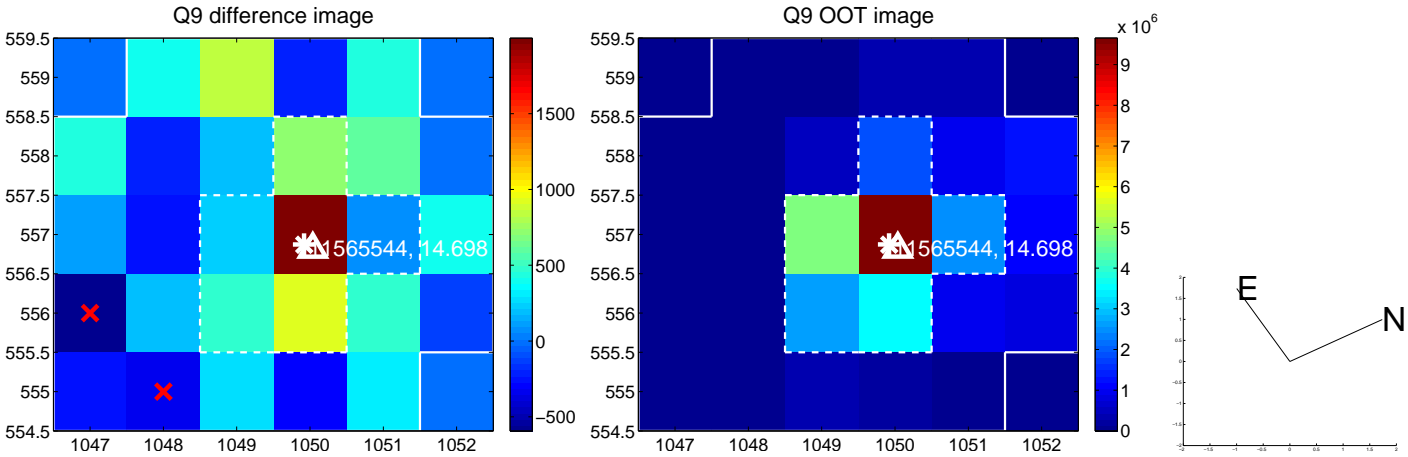
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



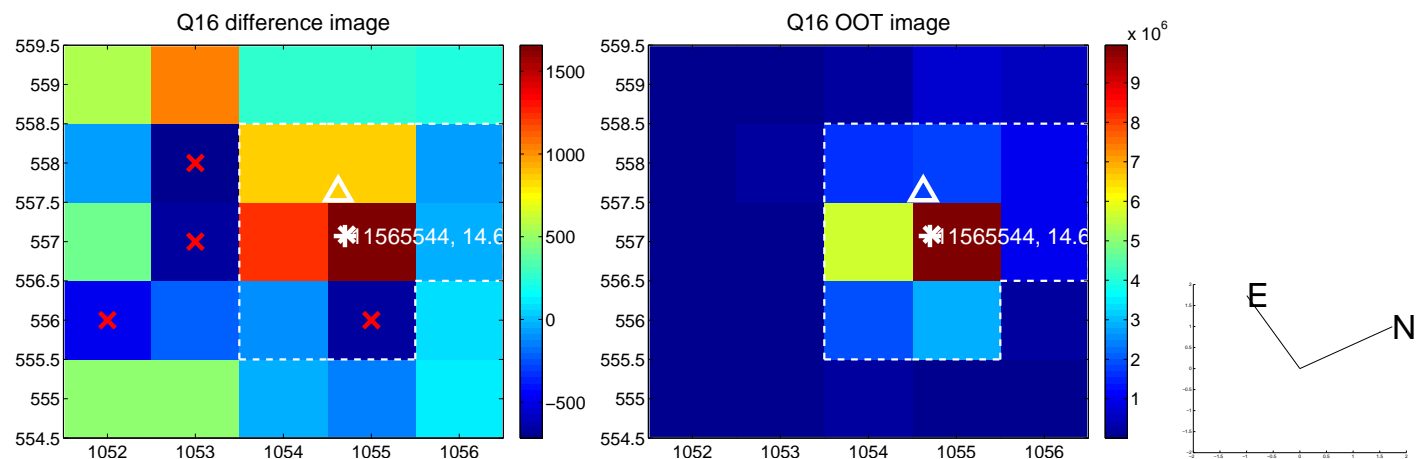
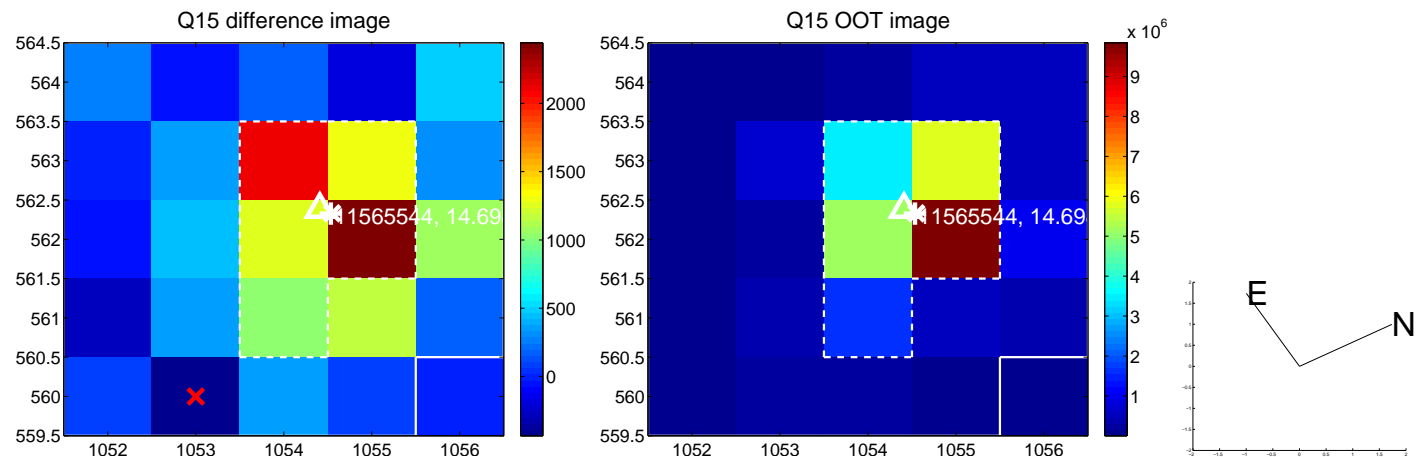
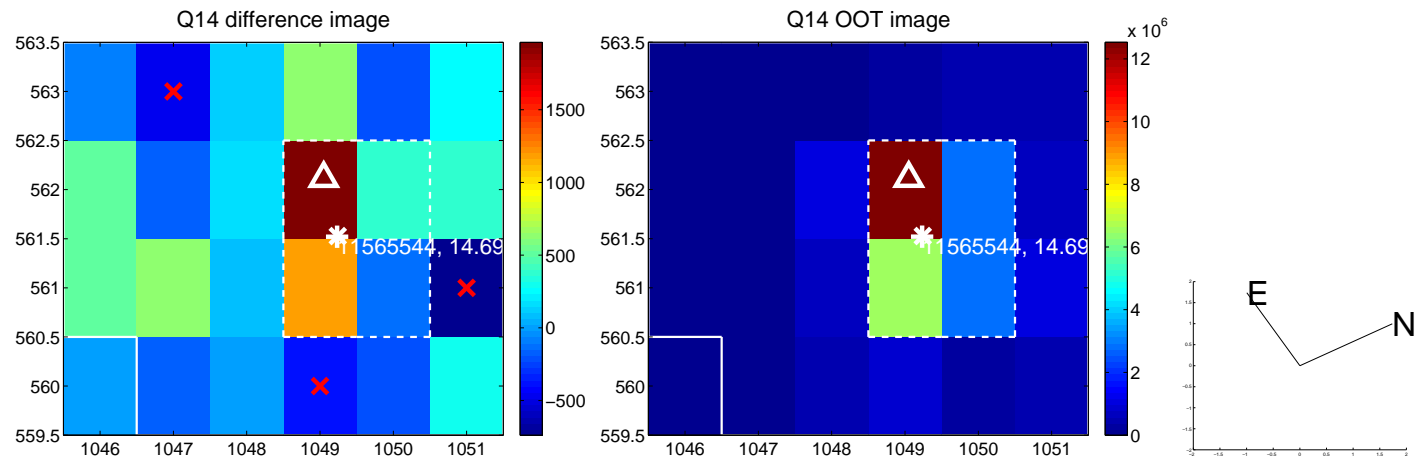
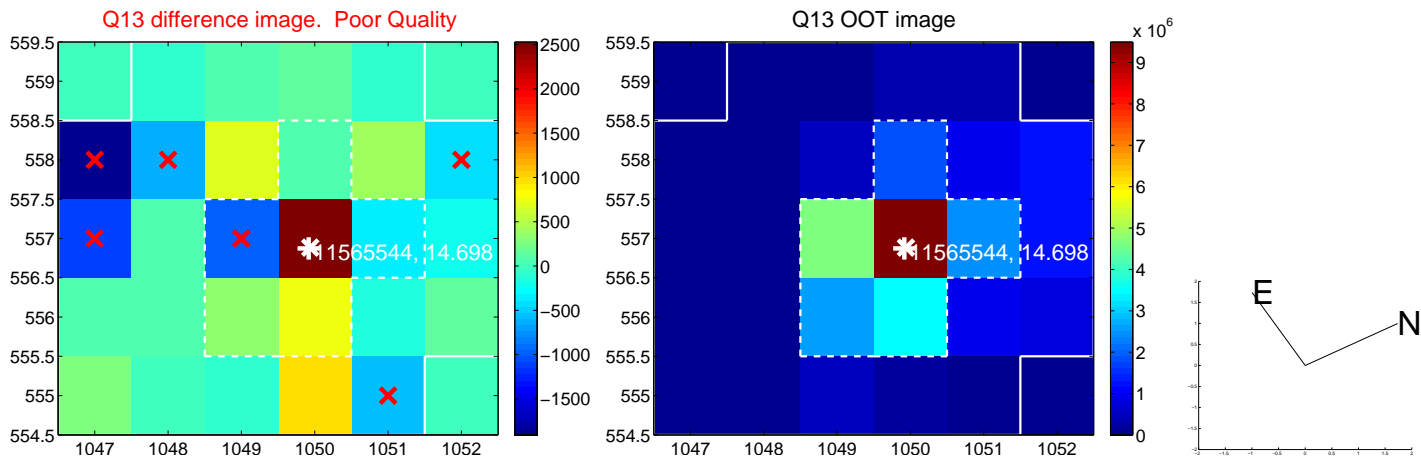
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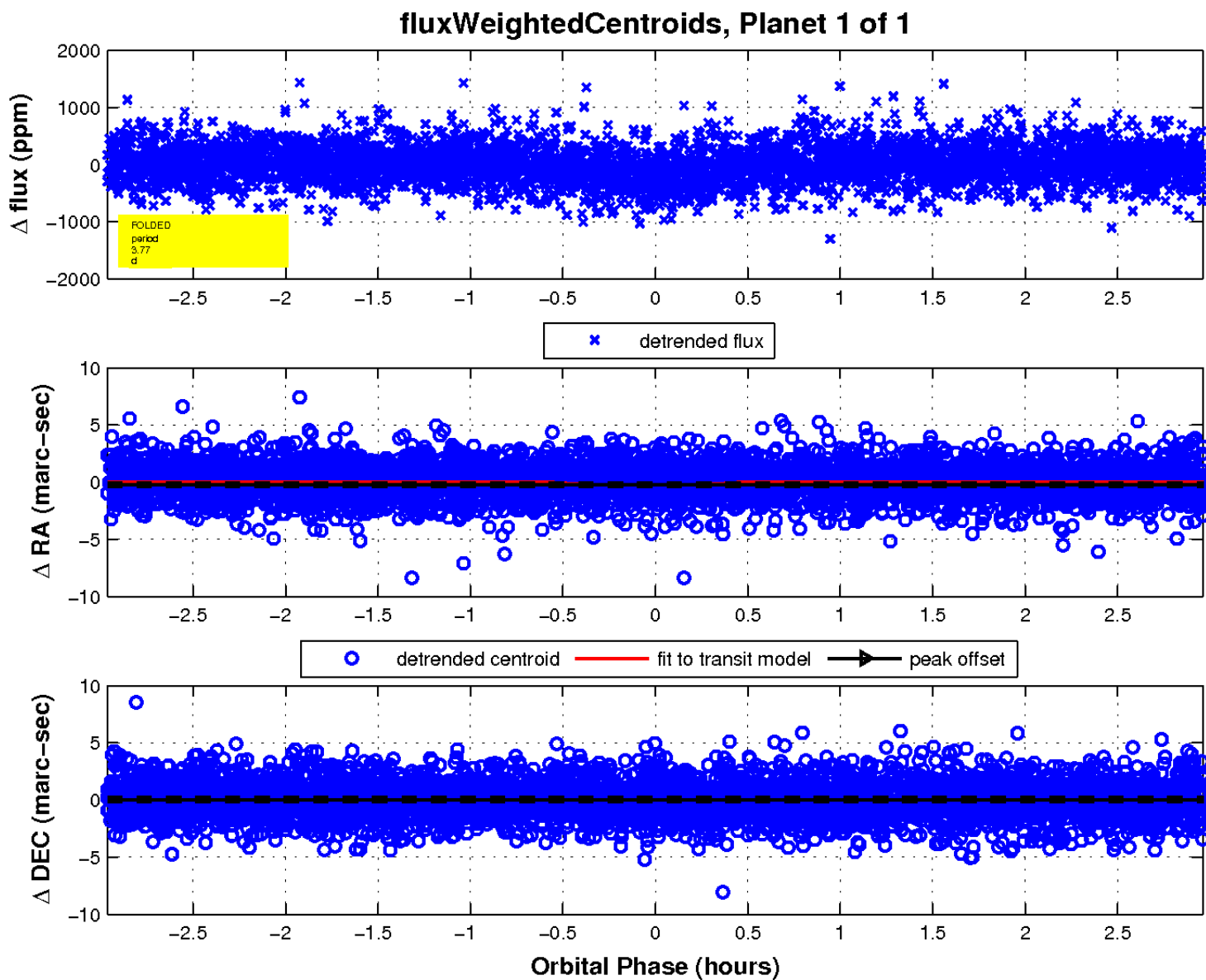
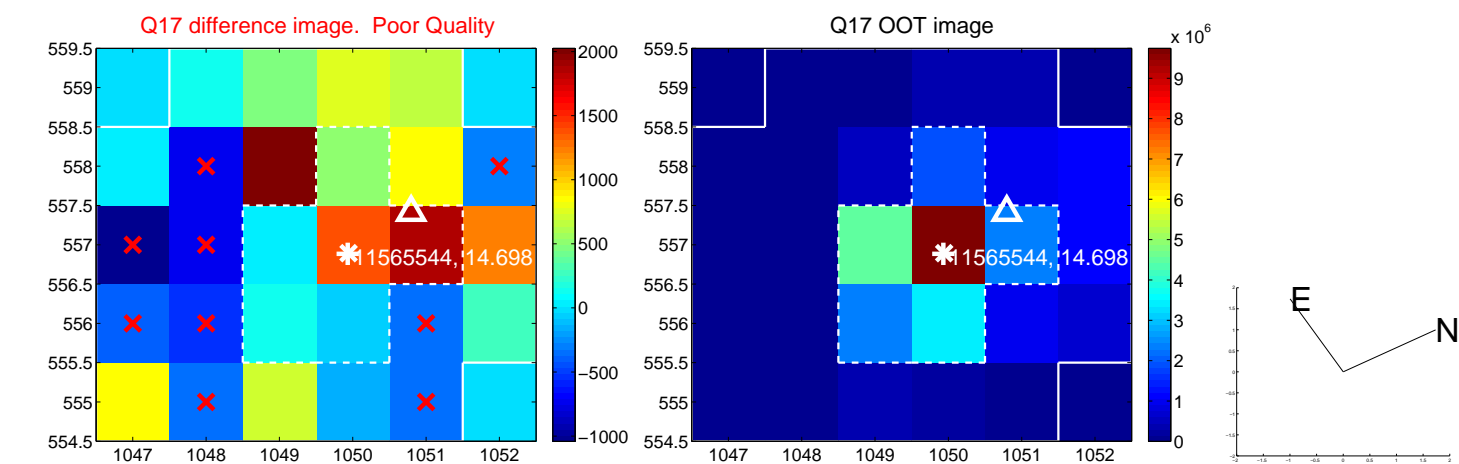
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

