

KIC 006198256

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})
006198256-01	OBS	7770.01	3.548277	131.834623	70.6	3.334	10.0	10.6	1.99	6573	1.95	2458.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006198256-01	OBS	FP	0.32	1	0	0	0	MOD_NONUNIQ_ALT

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

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

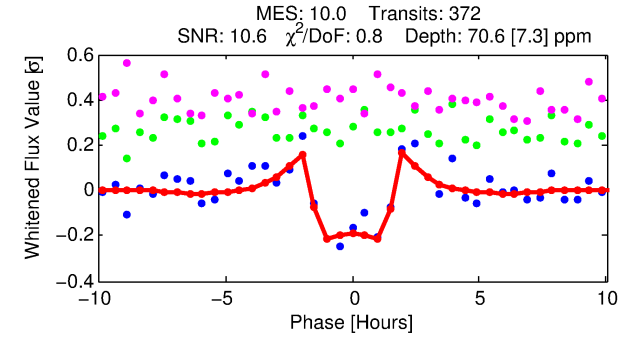
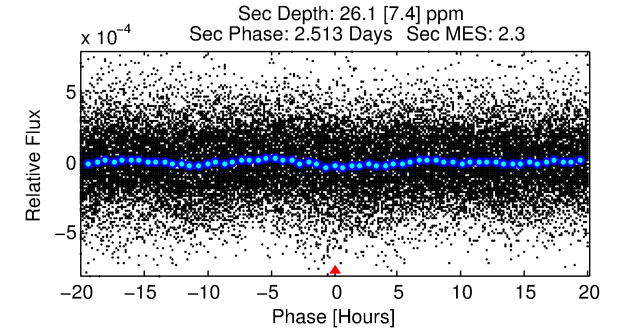
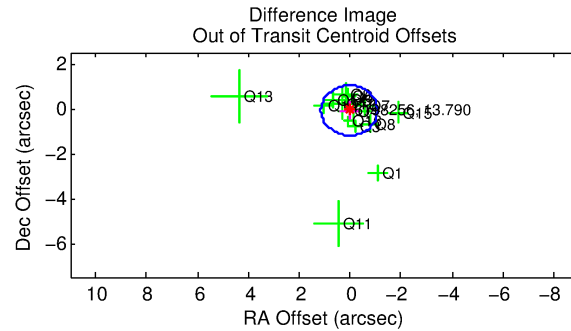
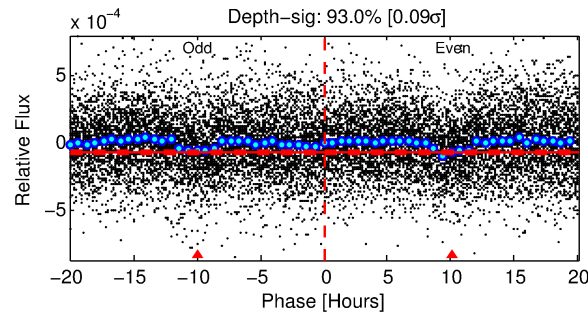
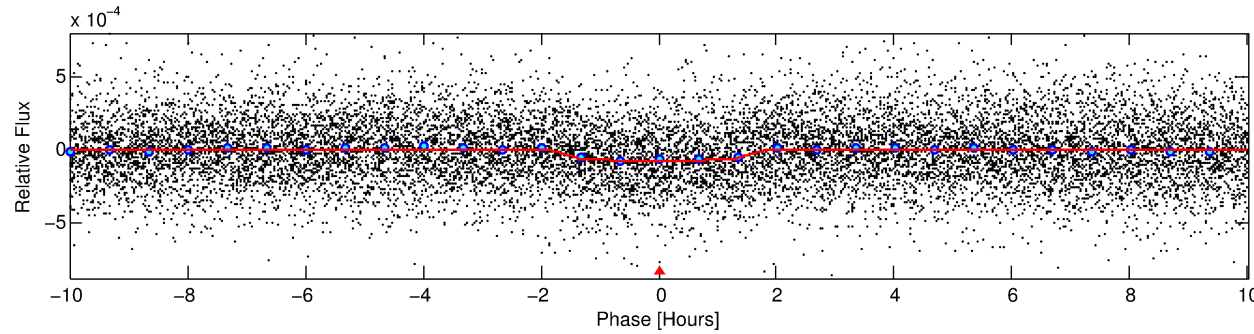
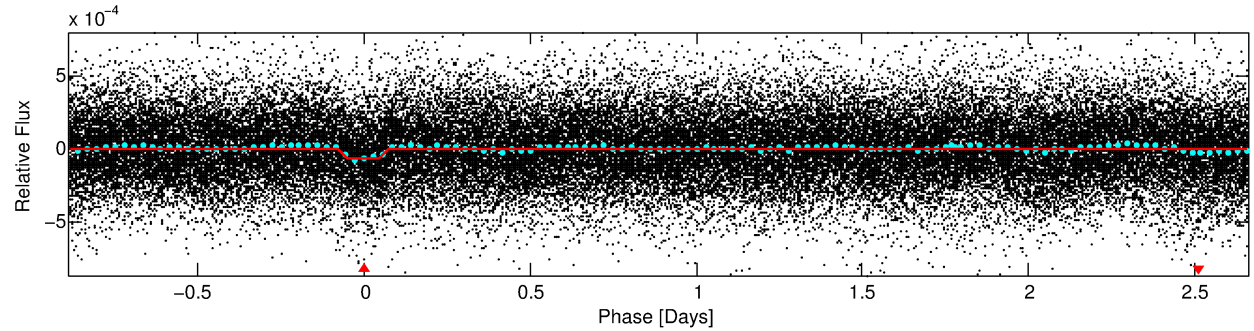
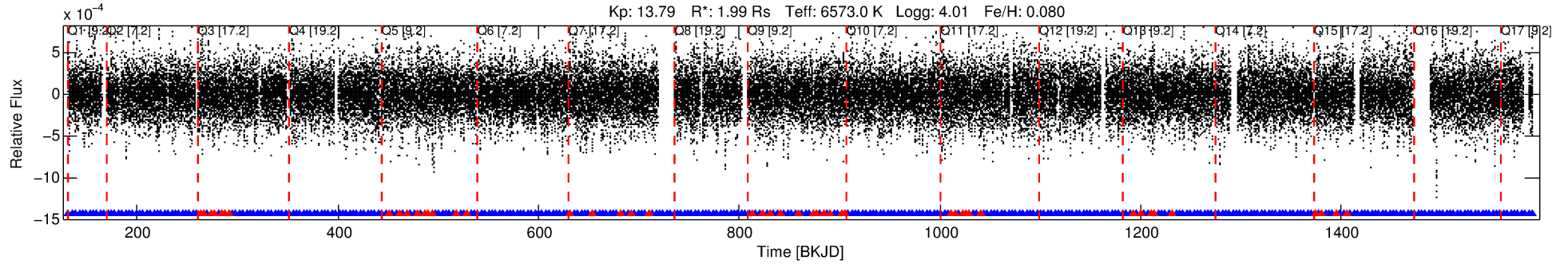
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006198256-01

No Significant Match Found

DV One-Page Summary

KIC: 6198256 Candidate: 1 of 1 Period: 3.548 d



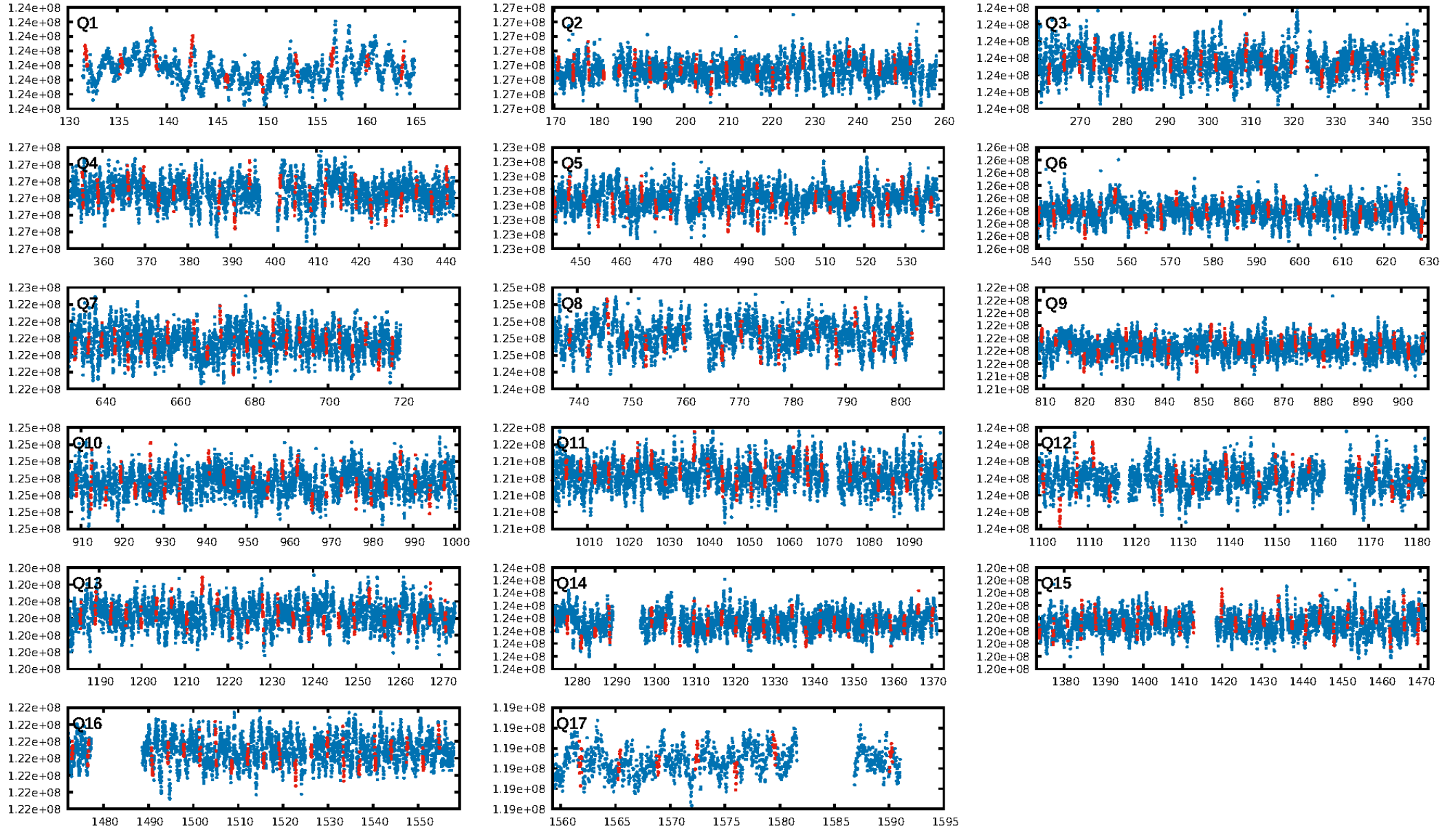
DV Fit Results:

Period = 3.54828 [0.00001] d
Epoch = 131.8346 [0.0023] BKJD
Rp/R* = 0.0090 [0.0022]
a/R* = 3.81 [4.76]
b = 0.90 [0.28]
Seff = 2458.81 [1208.92]
Teff = 1796 [221] K
Rp = 1.95 [0.79] Re
a = 0.0518 [0.0155] AU
Ag = 10.13 [7.41] [1.23 σ]
Teffp = 4952 [723] K [4.18 σ]

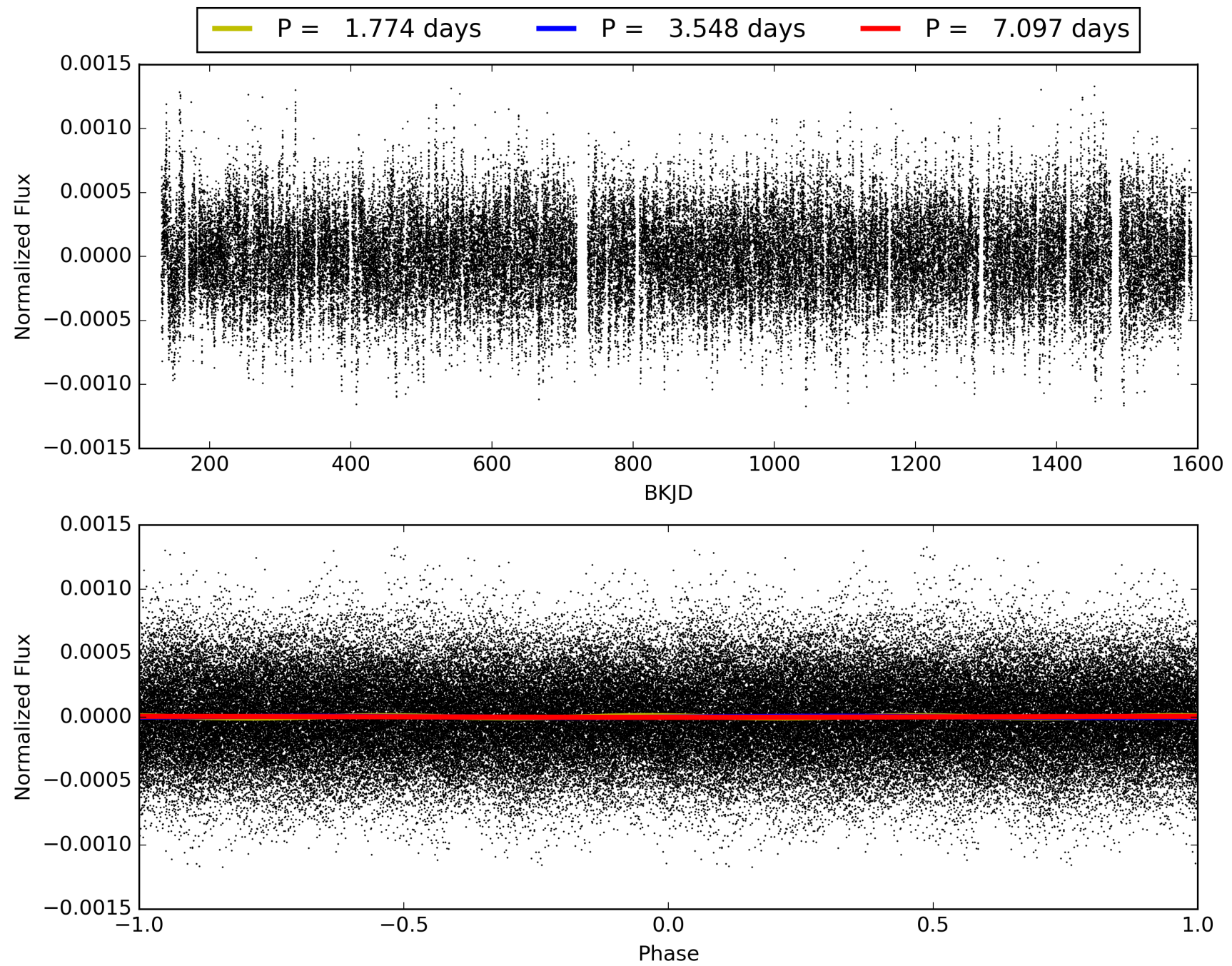
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.30e-23
RollingBand-fgt: 0.87 [308/355]
GhostDiagnostic-chr: 1.296
Centroid-sig: 36.2%
Centroid-so: 0.378 arcsec [0.67 σ]
OotOffset-rm: 0.094 arcsec [0.25 σ]
KicOffset-rm: 0.087 arcsec [0.25 σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.80 [12/15]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006198256-01, PDC Light Curves

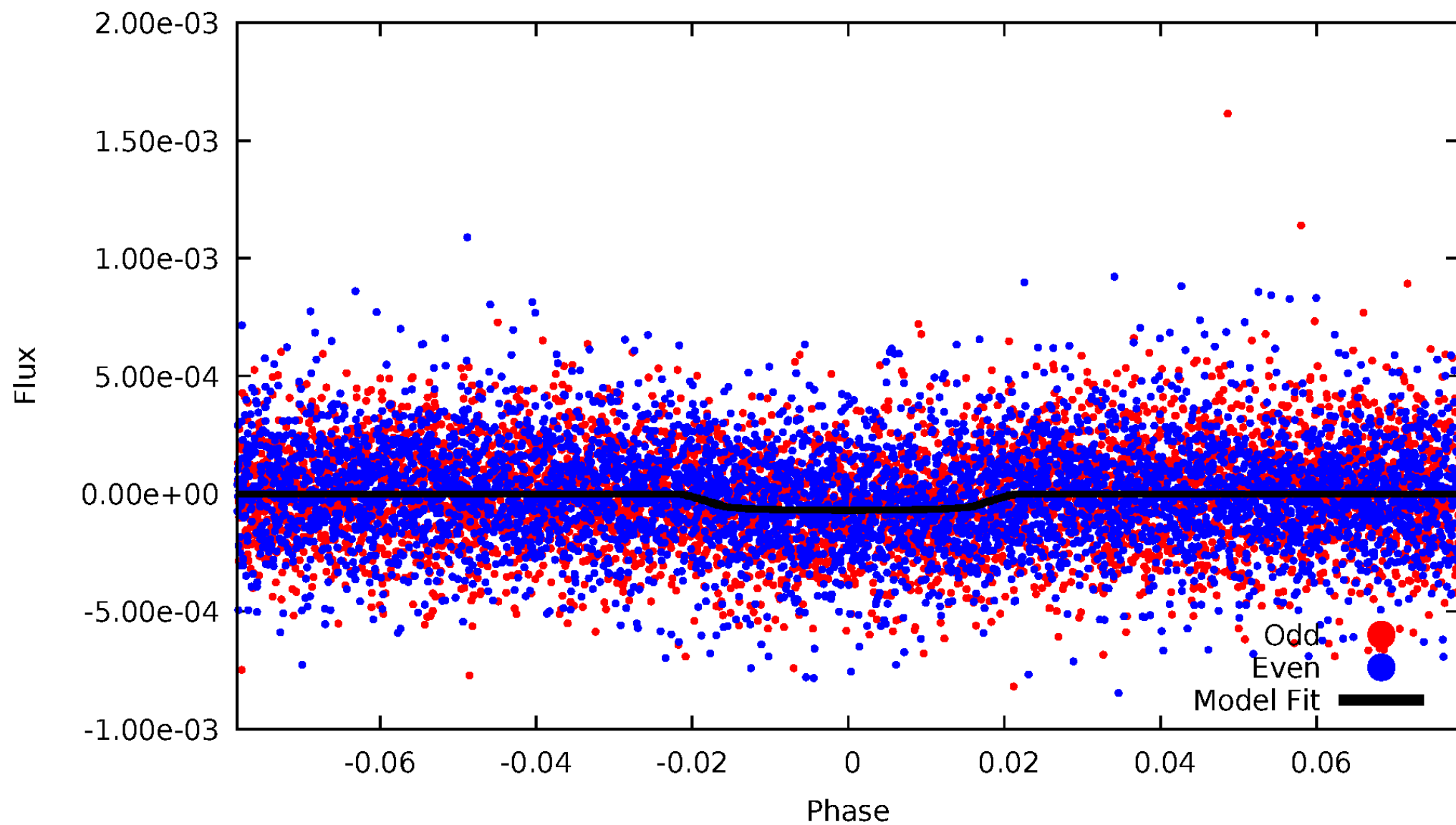


TCE 006198256-01



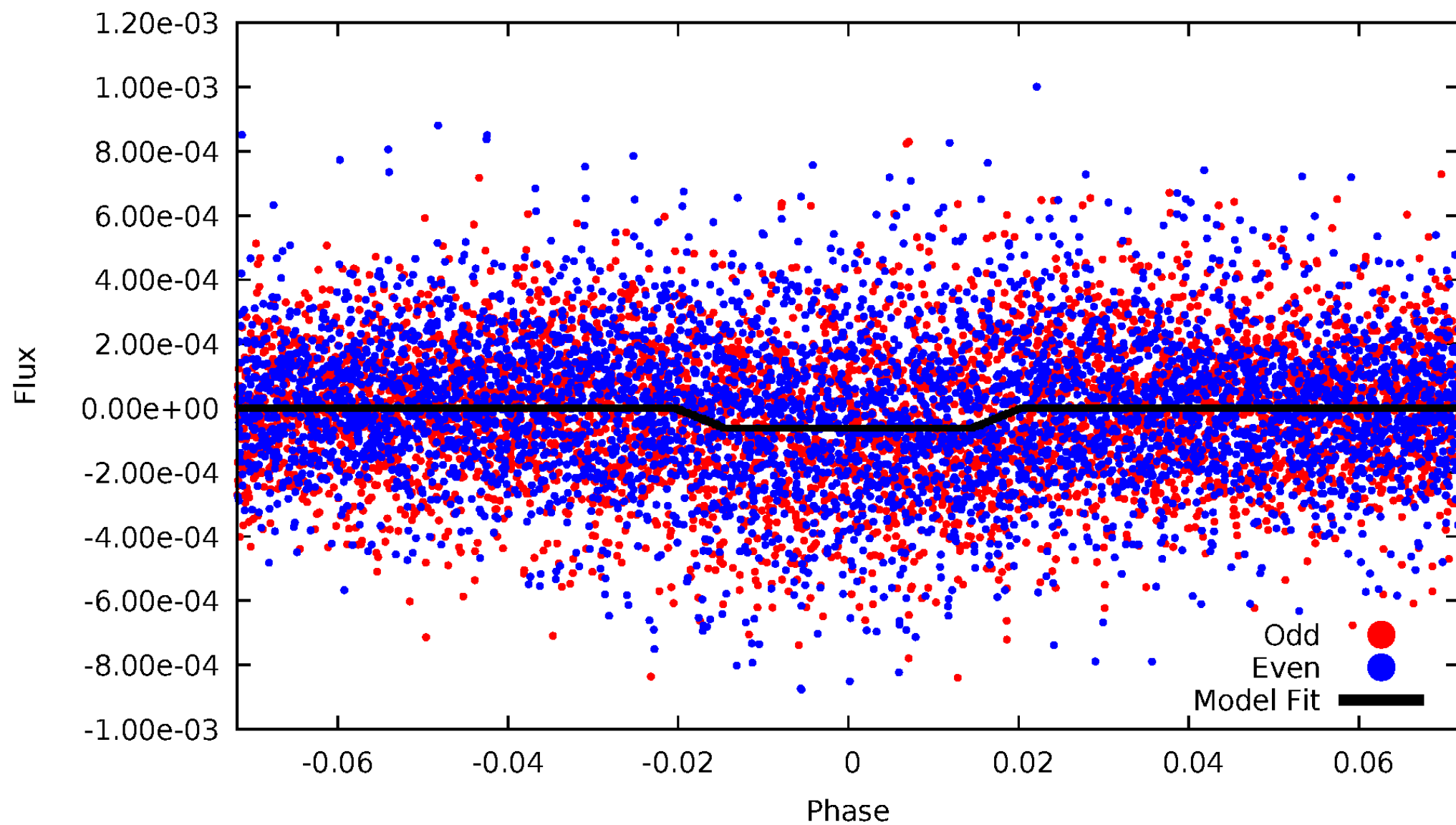
DV Odd/Even

TCE 006198256-01

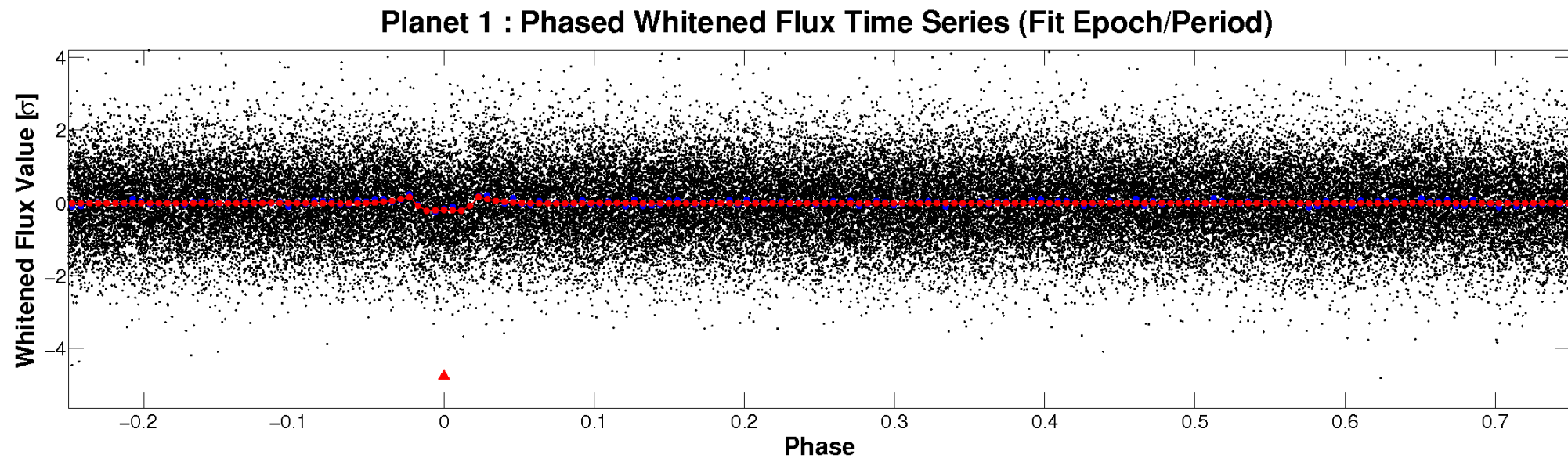
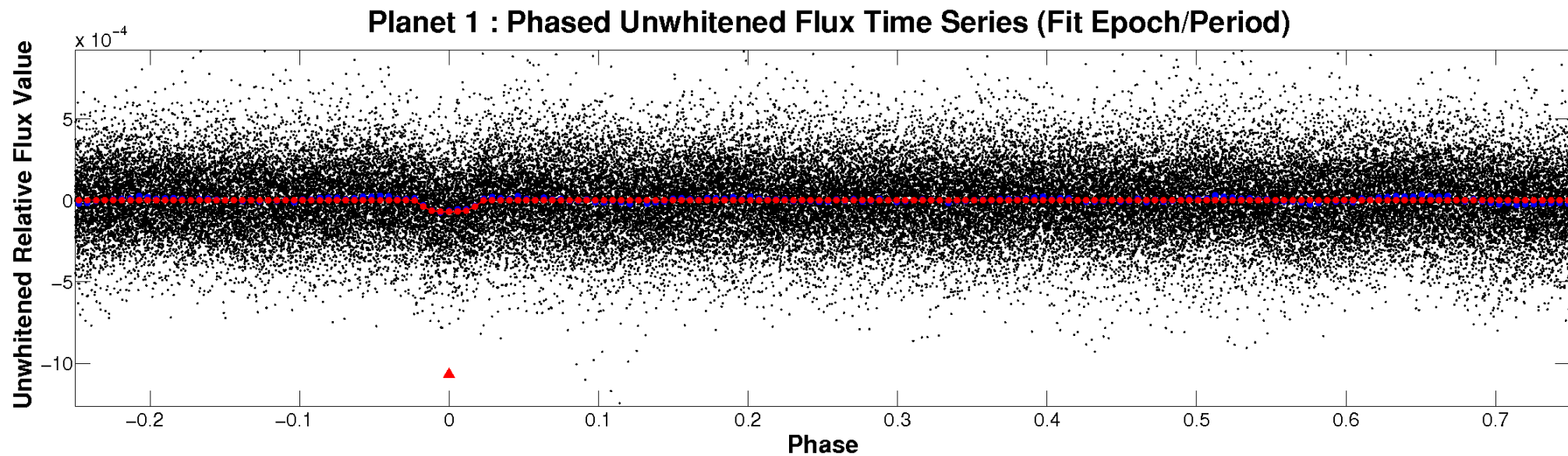


ALT Odd/Even

TCE 006198256-01

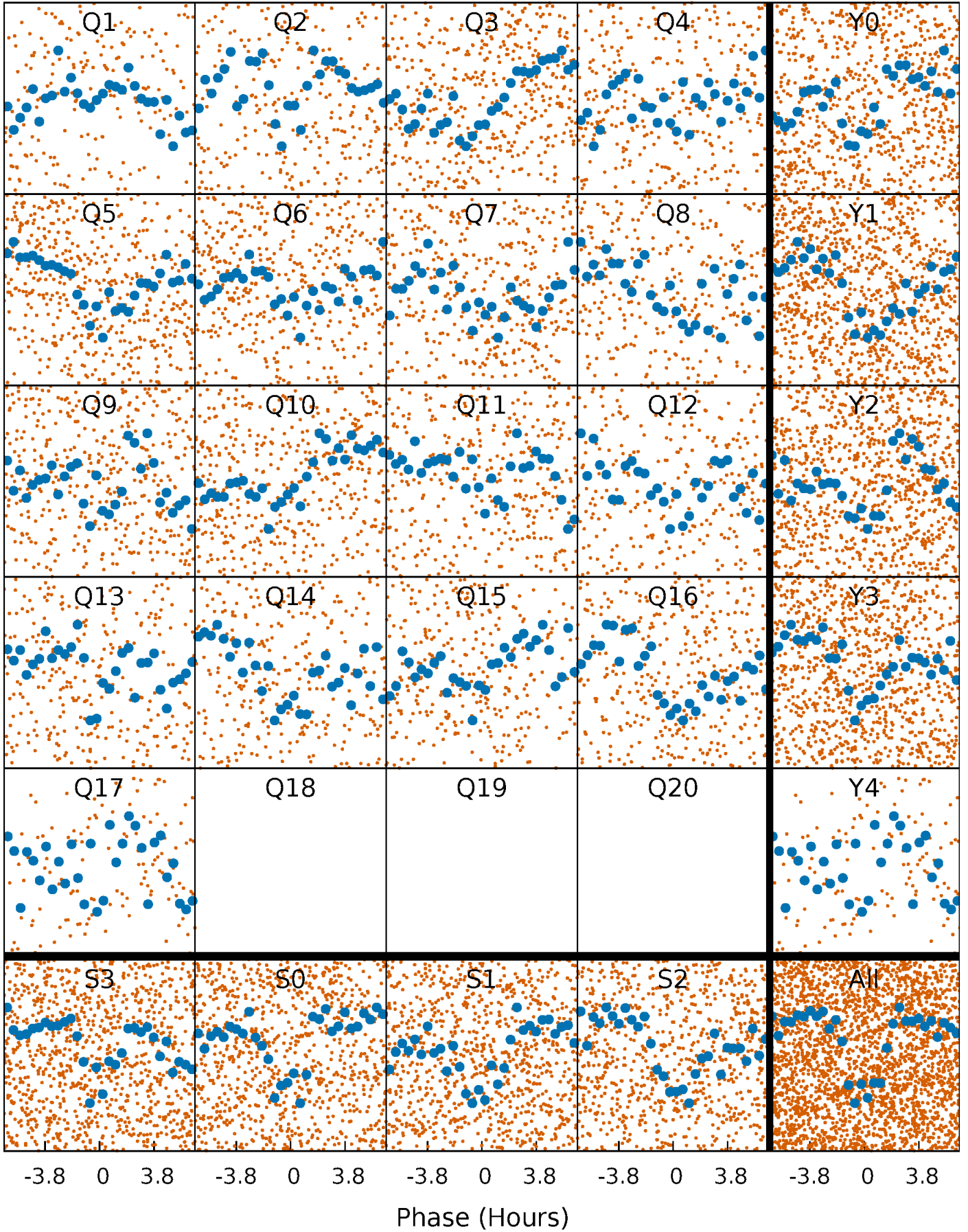


Non-Whitened Vs. Whitened Light Curve



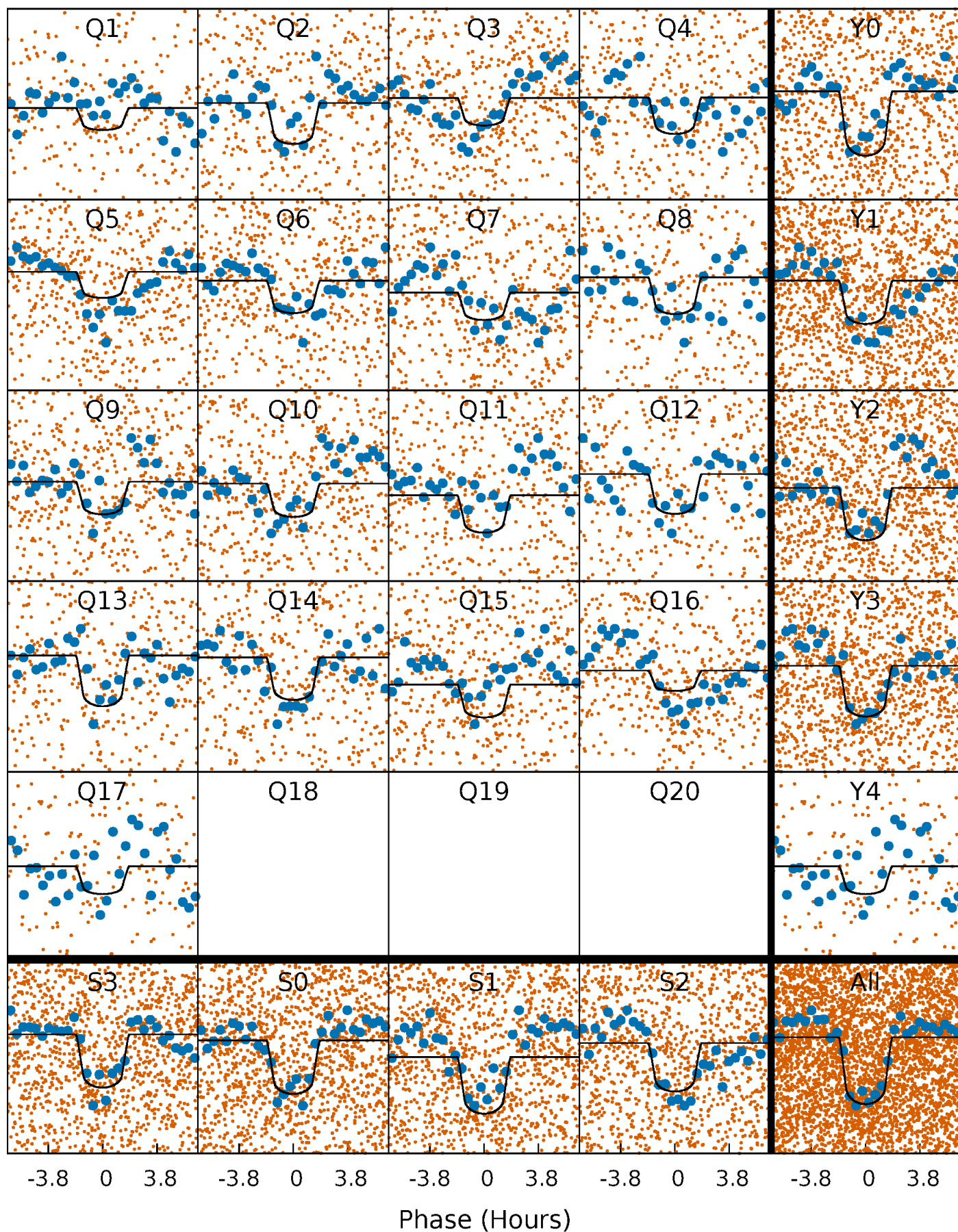
PDC Quarter-Phased Transit Curves

TCE 006198256-01 P= 3.548277 Days $T_0=131.834623$ (BKJD)



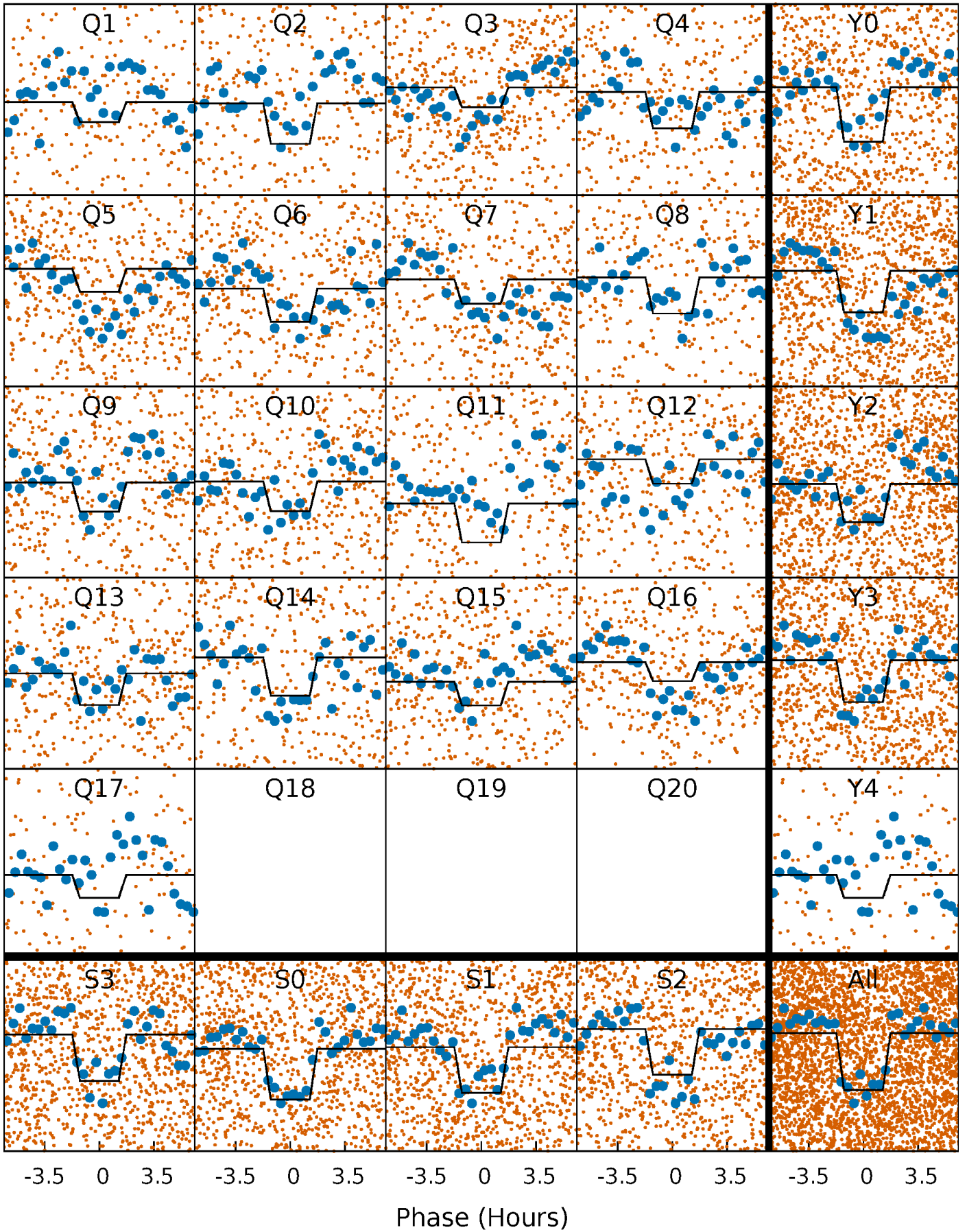
DV Quarter-Phased Transit Curves

TCE 006198256-01 P= 3.548277 Days $T_0=131.834623$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

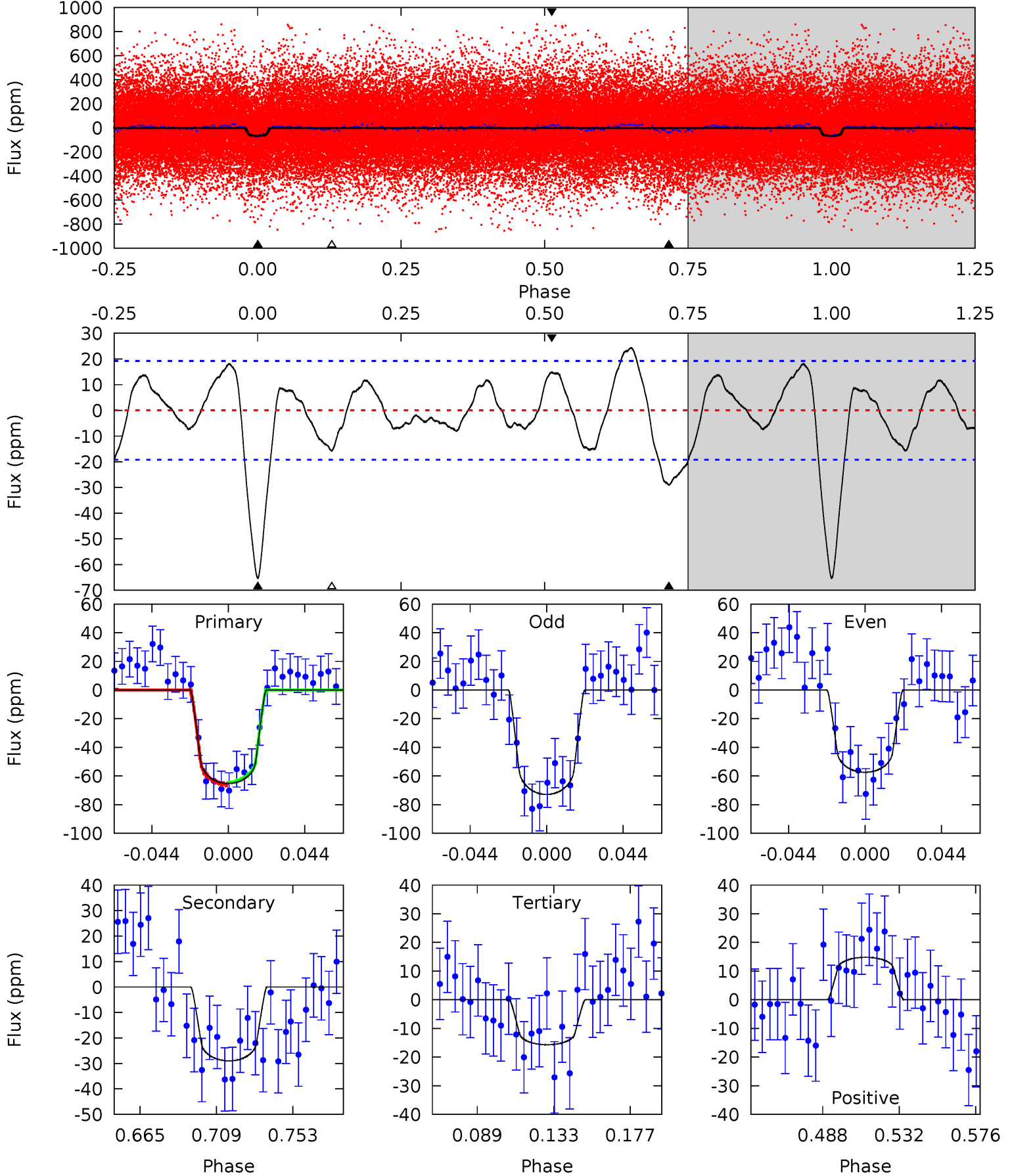
TCE 006198256-01 P= 3.548320 Days $T_0=131.826405$ (BKJD)



DV Model-Shift Uniqueness Test

006198256-01, P = 3.548277 Days, E = 128.286346 Days

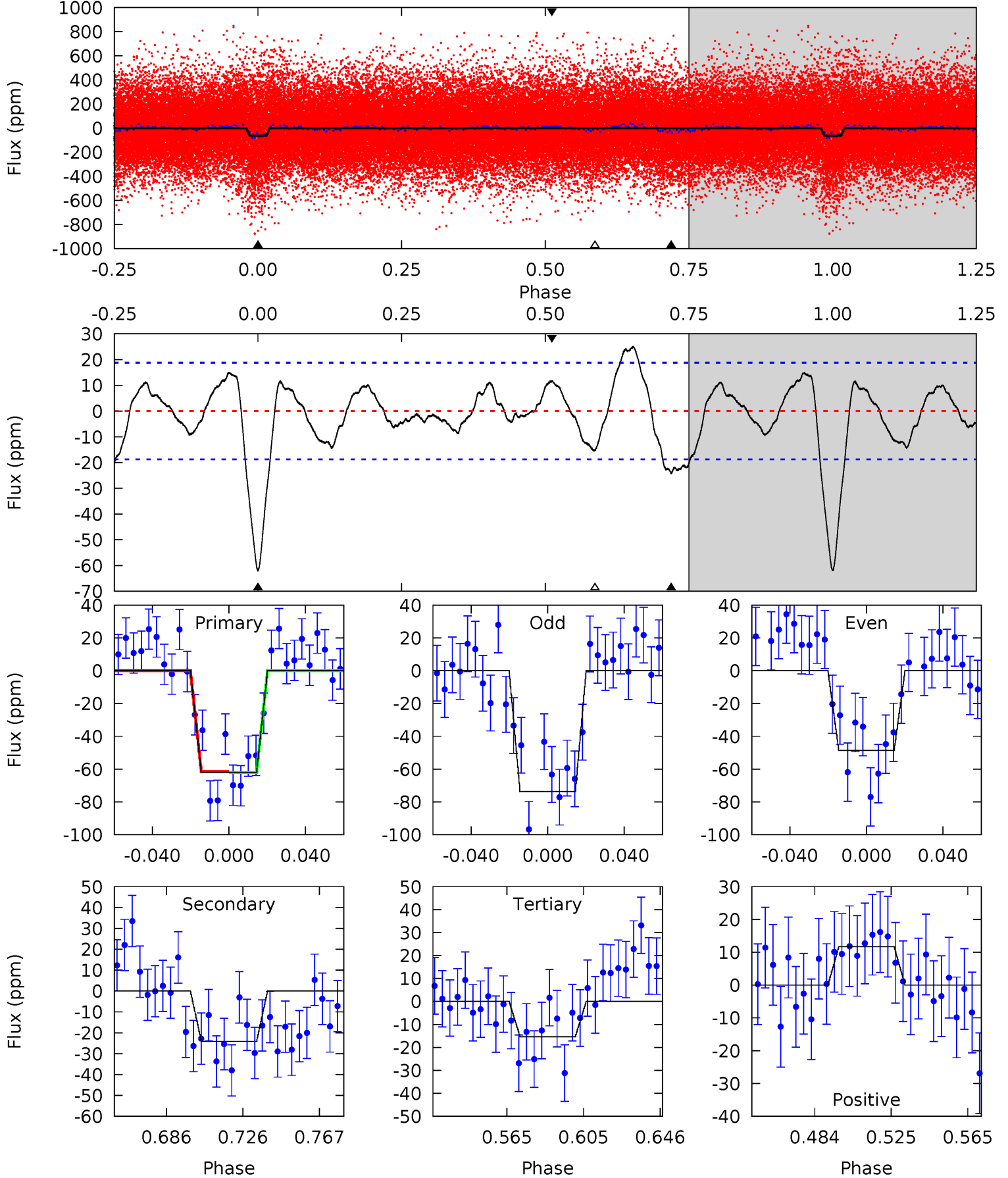
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.1	7.15	3.87	3.65	4.73	2.01	2.26	12.2	12.4	3.28	3.49	1.91	0.99	0.27	0.20



Alt Model-Shift Uniqueness Test

006198256-01, P = 3.548320 Days, E = 128.278085 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.7	6.11	3.89	2.96	4.75	2.05	2.15	11.8	12.7	2.22	3.15	3.16	0.99	0.29	0.09



Stellar Parameters For KIC 006198256

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6573^{+184}_{-253}	$4.010^{+0.270}_{-0.180}$	$0.080^{+0.250}_{-0.300}$	$1.987^{+0.577}_{-0.641}$	$1.475^{+0.200}_{-0.301}$	$0.265^{+0.457}_{-0.129}$
	+3%/-4%	+7%/-4%	+312%/-375%	+29%/-32%	+14%/-20%	+173%/-49%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 006198256-01 / KOI 7770.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-29 ± 4	$1.89^{+0.61}_{-0.54}$	2485^{+198}_{-219}	5095^{+727}_{-473}	12^{+11}_{-5}
Alt.	-24 ± 4	$1.62^{+0.57}_{-0.54}$	2482^{+214}_{-204}	5220^{+997}_{-573}	13^{+16}_{-6}

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 $A_{\text{obs}} \gg 1.0$

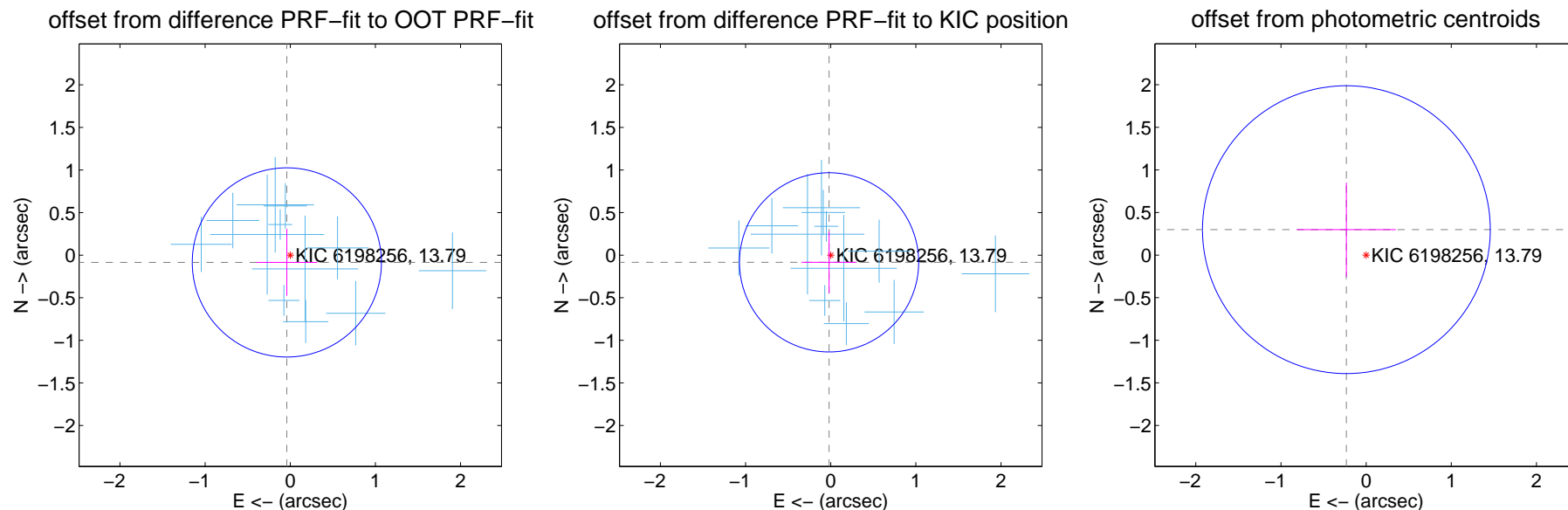
DV Centroid Data

Supplemental centroid analysis for 006198256-01. Kepler magnitude: 13.79. Transit SNR 10.61

There are 12 quarters with good PRF difference image offsets

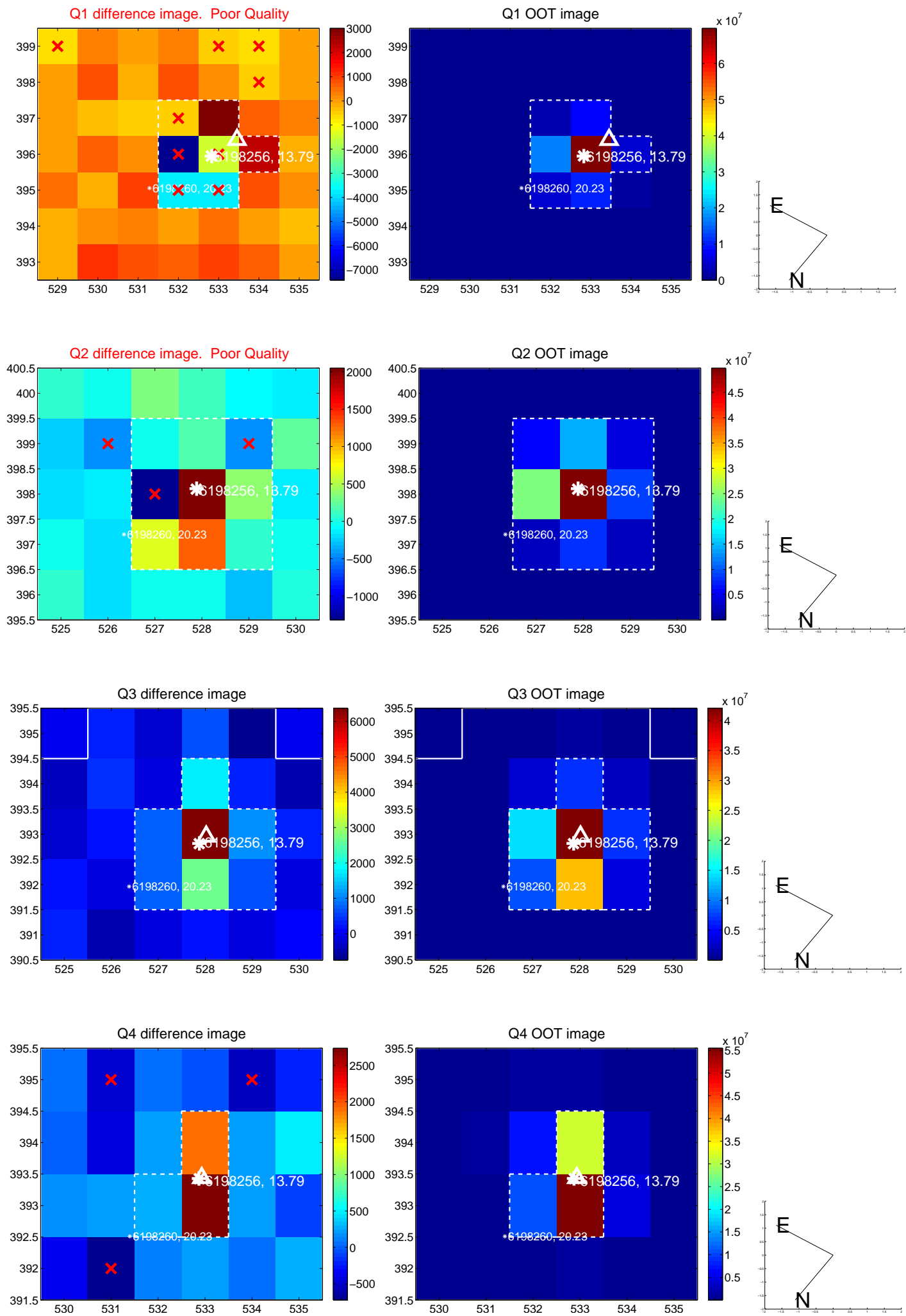
The direct PRF centroid is offset from the target star catalog position by about 0.00 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.094 ± 0.370	0.25	0.040 ± 0.358	-0.085 ± 0.392
PRF-fit source offset from KIC position	0.087 ± 0.351	0.25	0.019 ± 0.324	-0.084 ± 0.362
photometric centroid source offset	0.38 ± 0.56	0.67	0.23 ± 0.58	0.30 ± 0.55

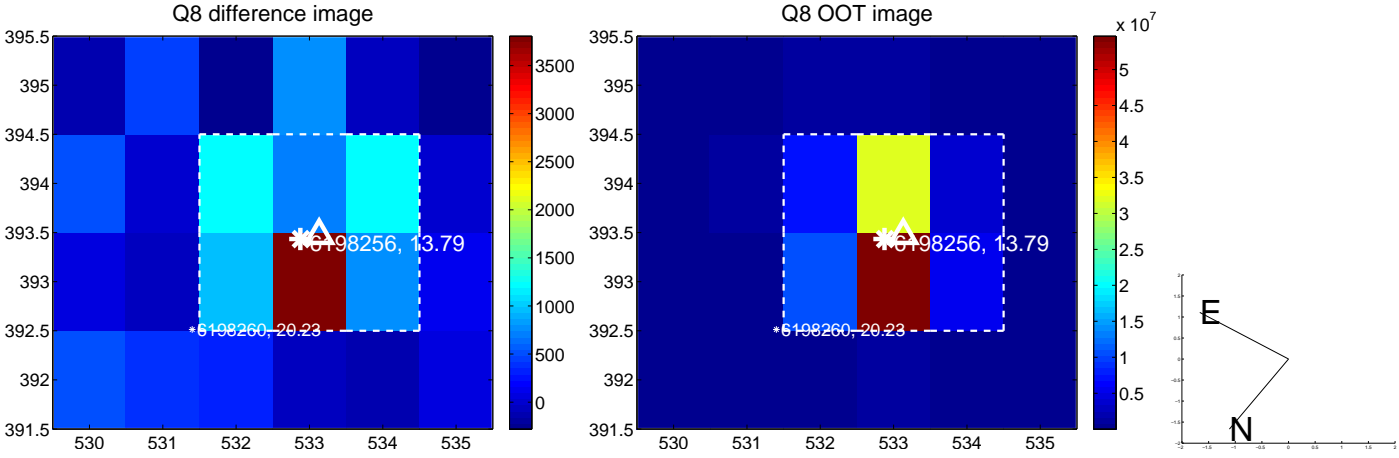
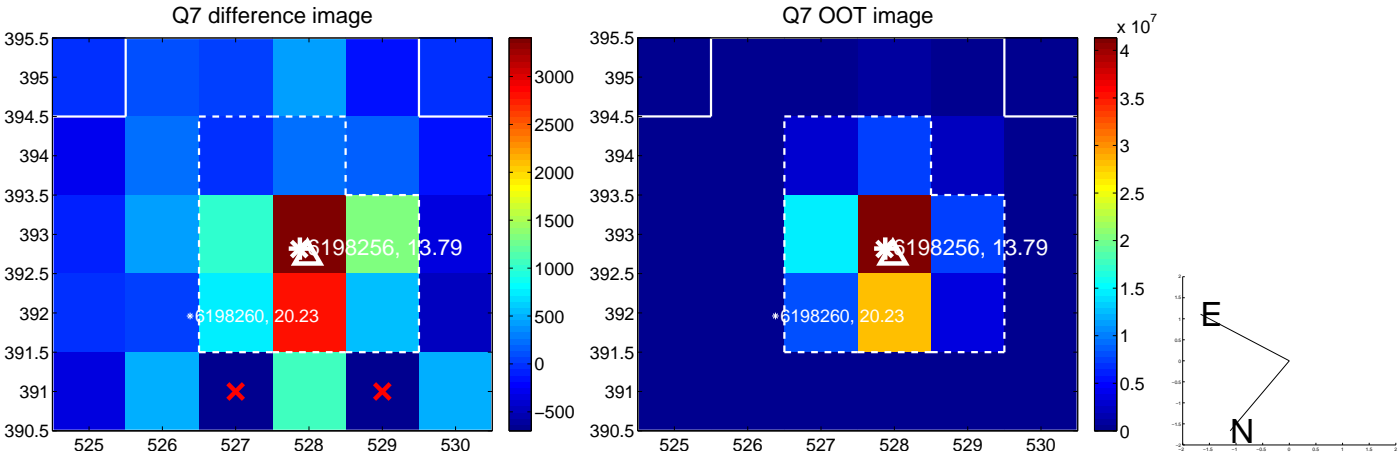
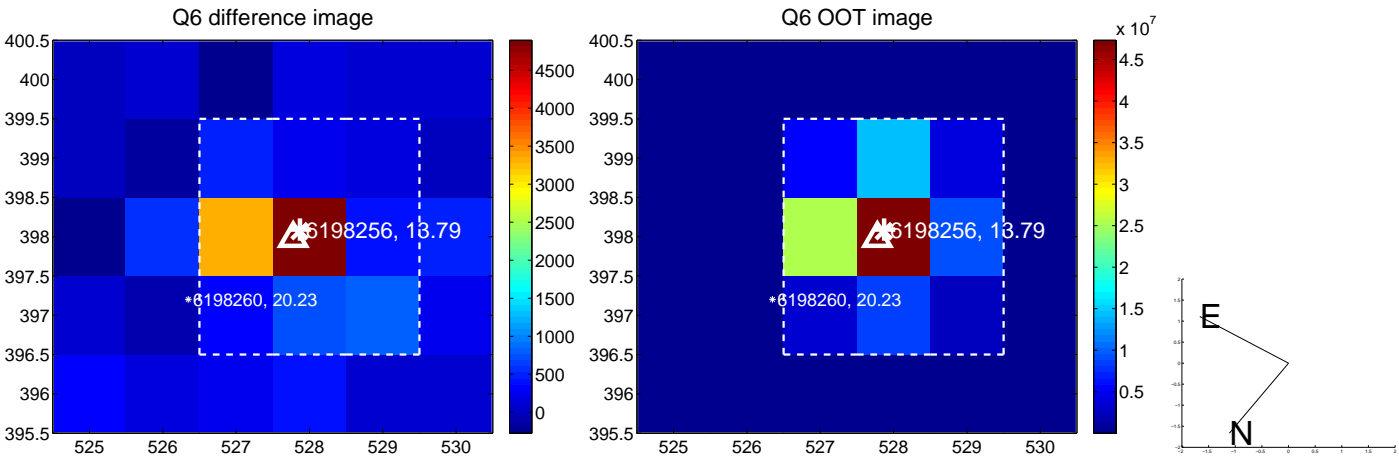
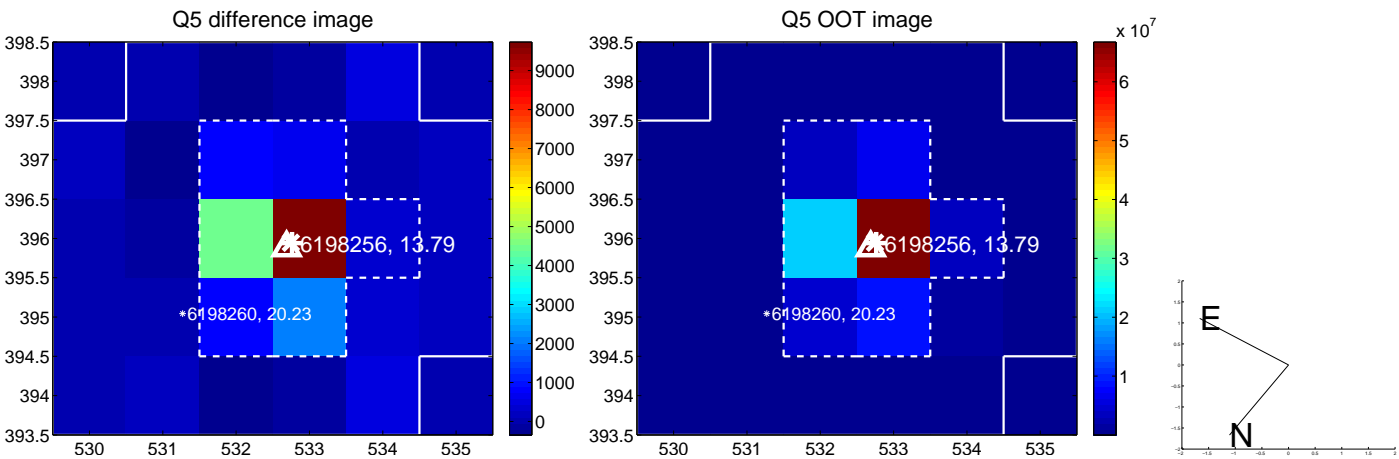


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

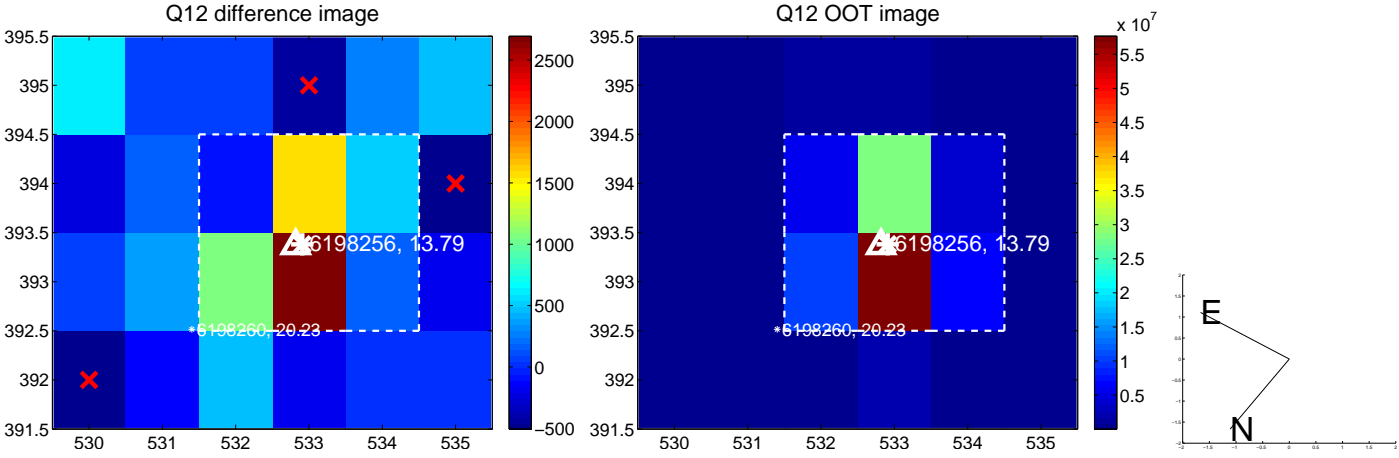
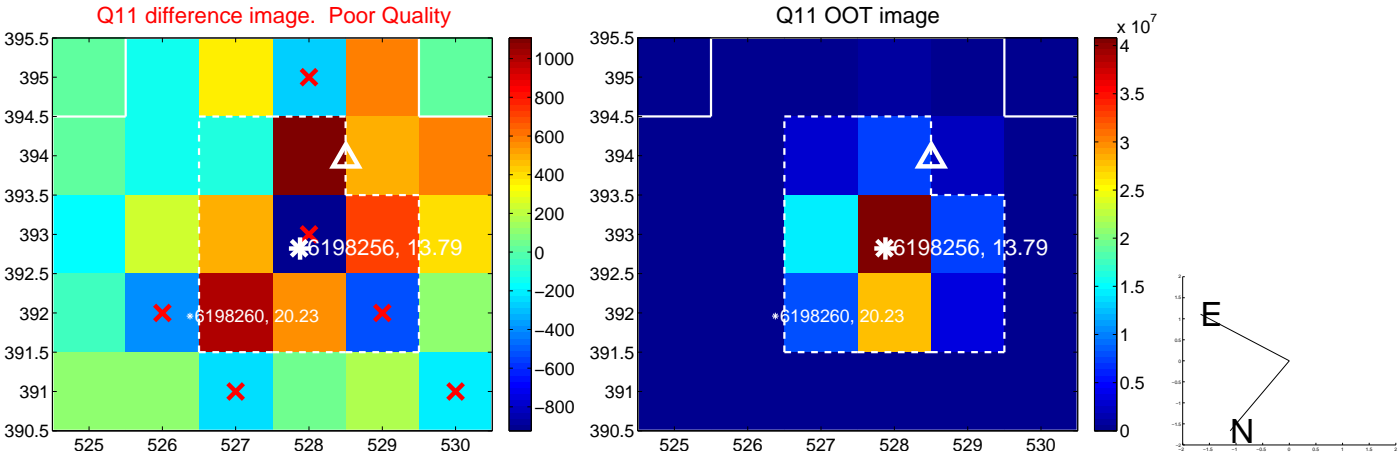
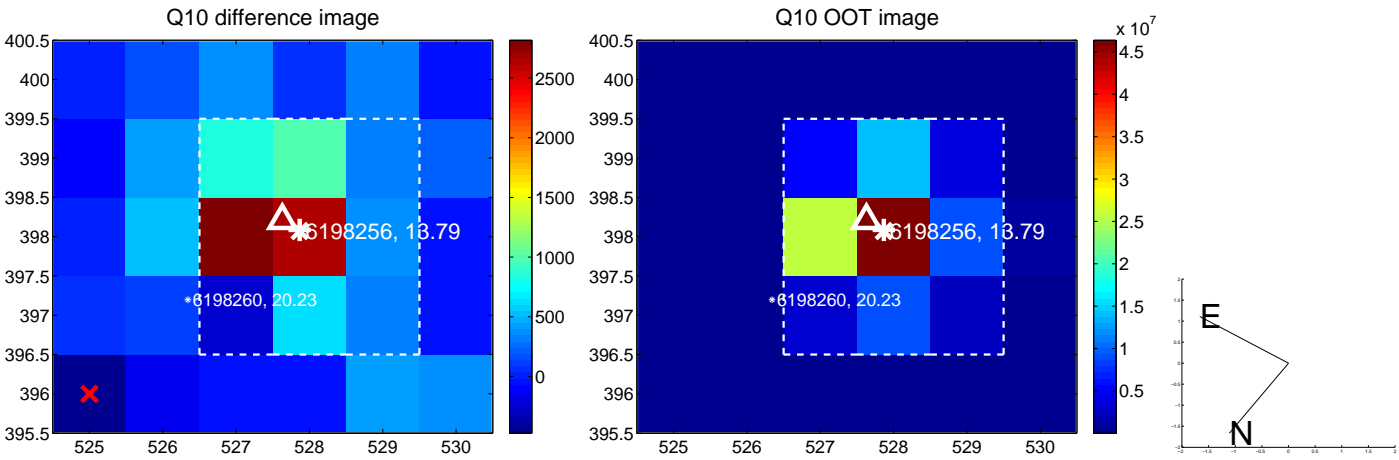
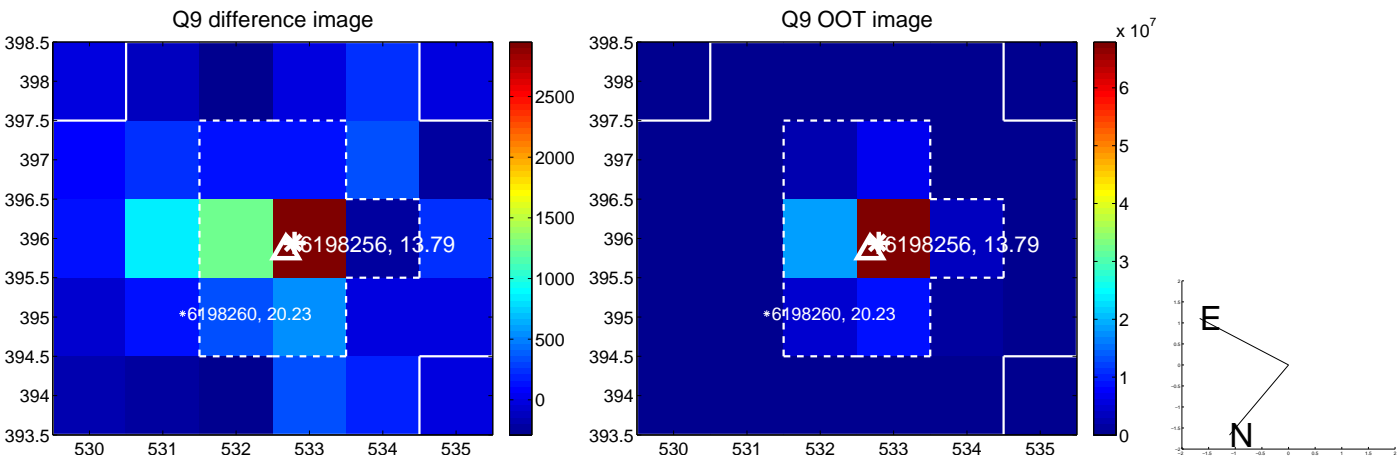
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



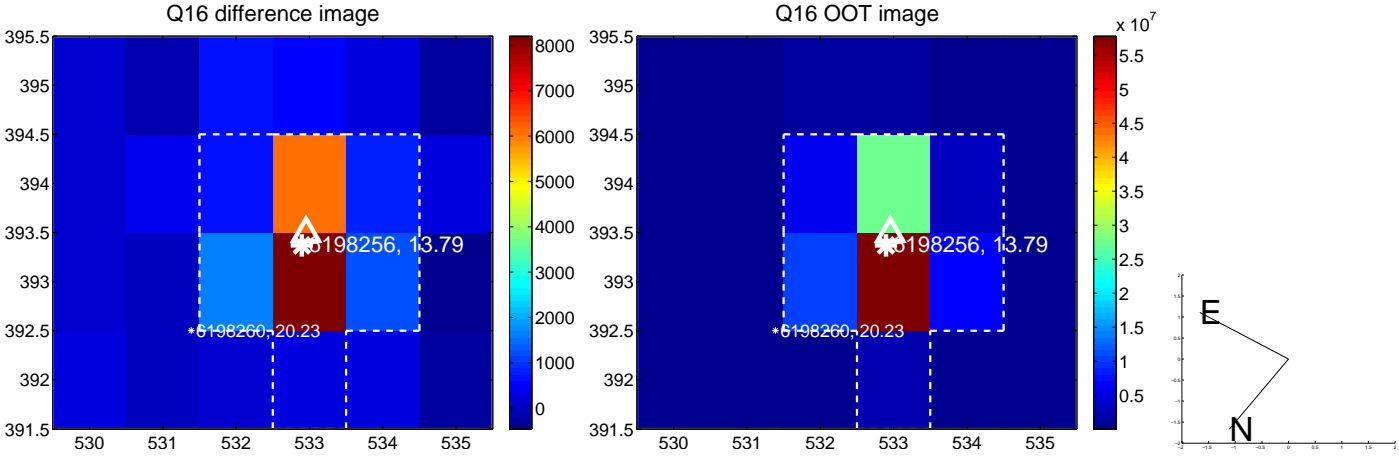
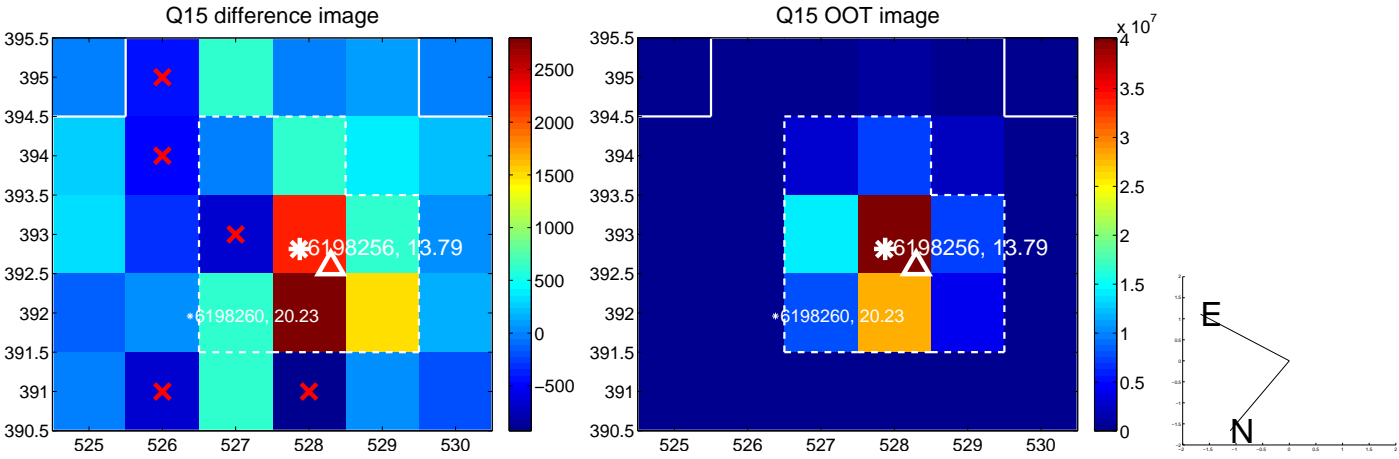
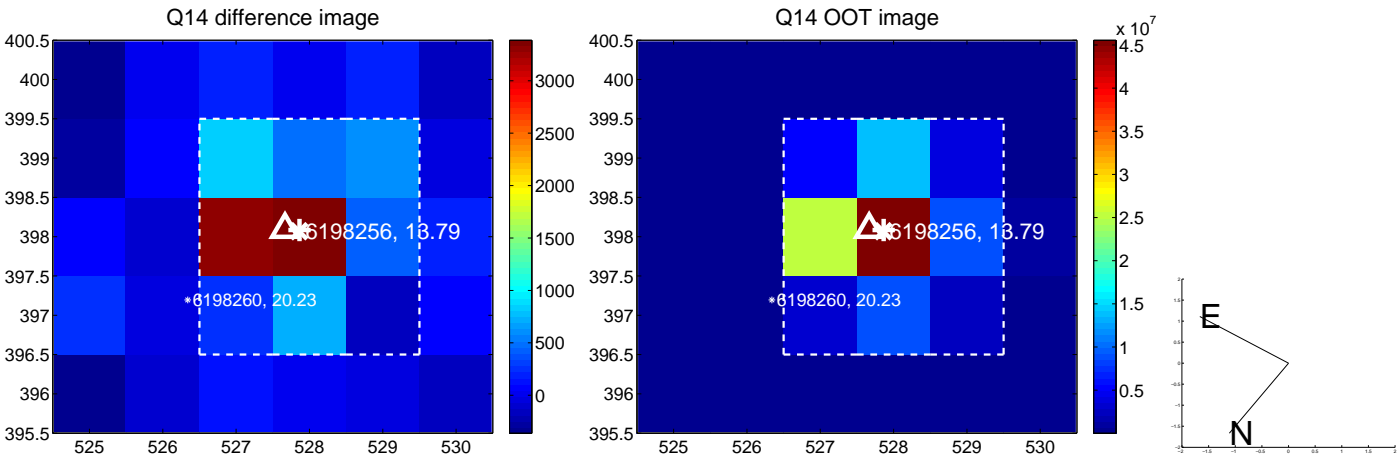
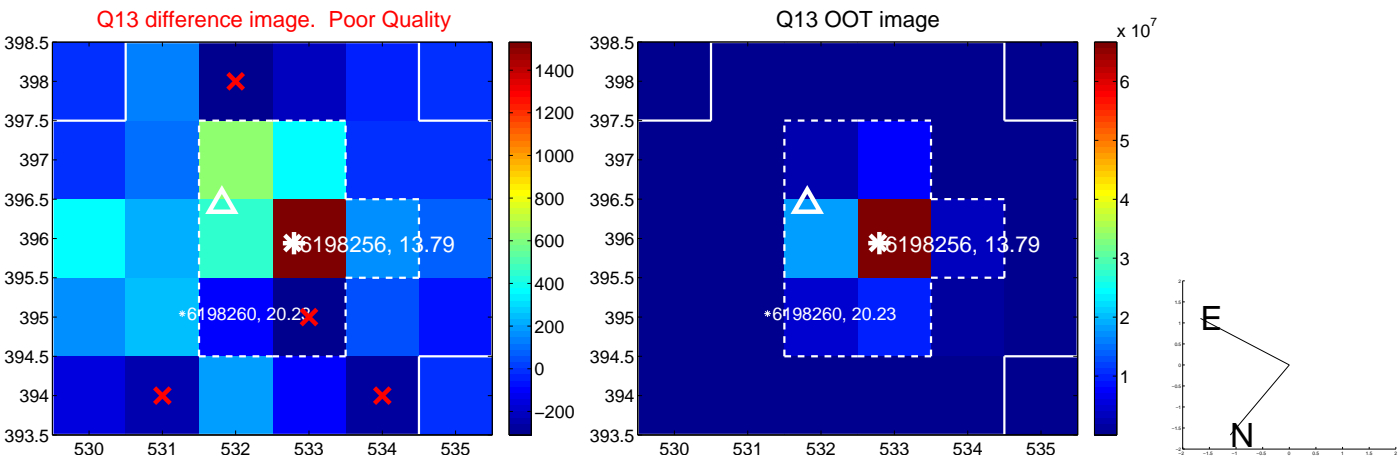
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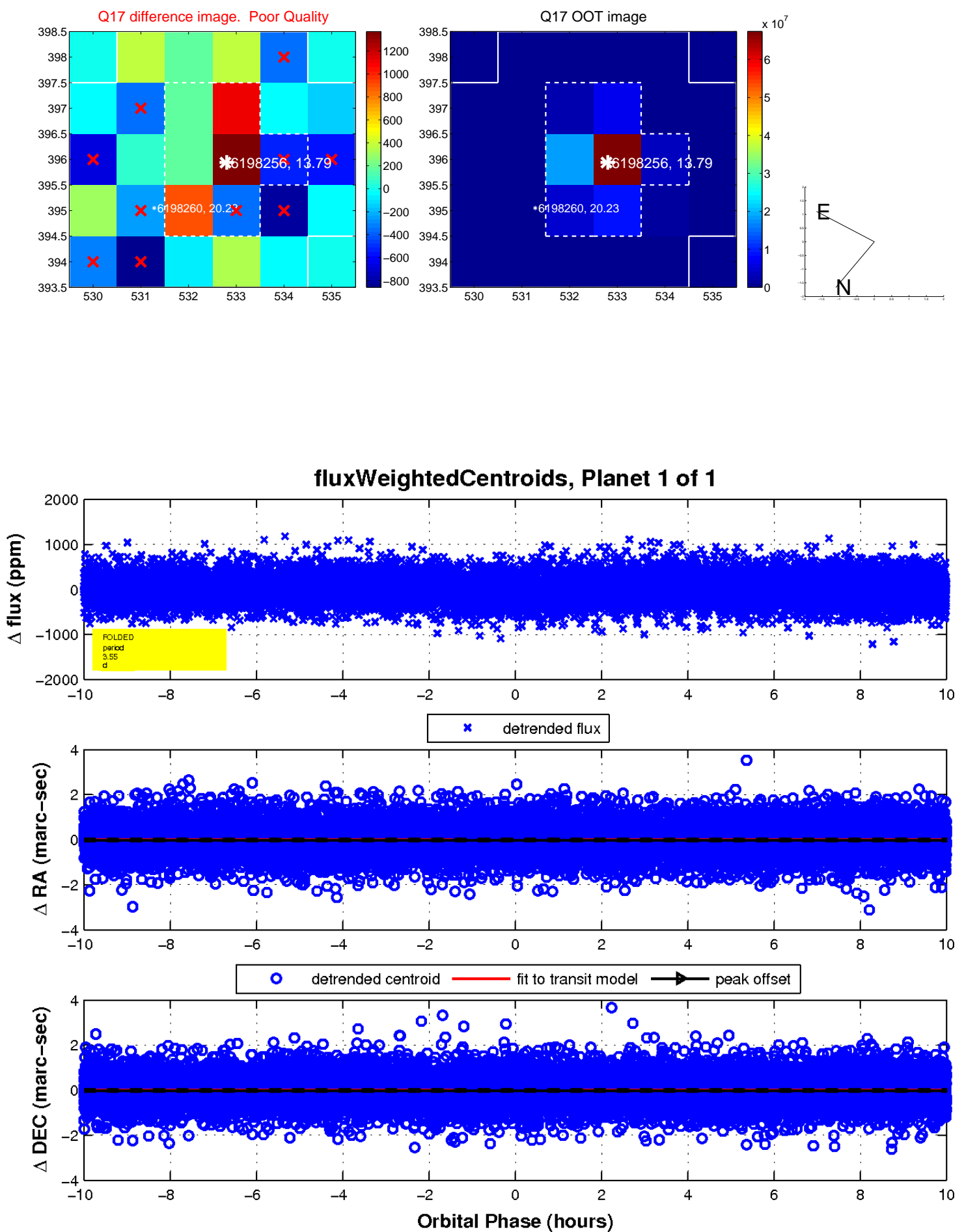
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UKIRT Image

Declination

