

KIC 004136466

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})
004136466-01	OBS	1344.01	4.487575	133.364677	113.1	2.997	22.8	24.3	1.26	6060	1.58	686.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004136466-01	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.

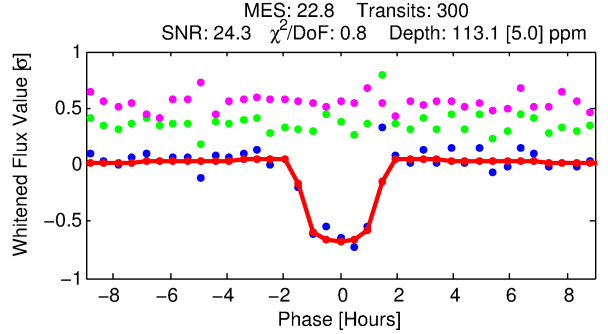
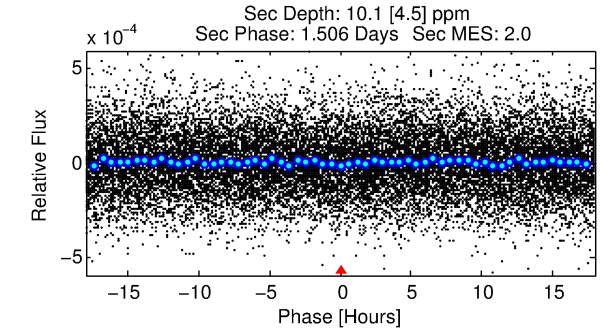
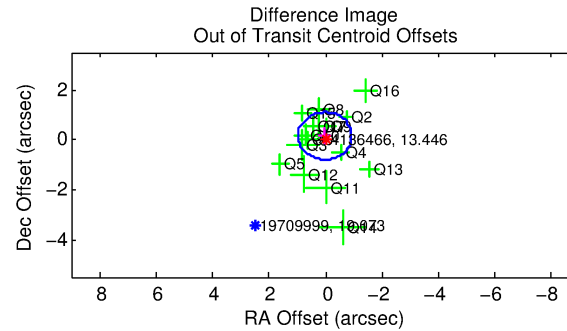
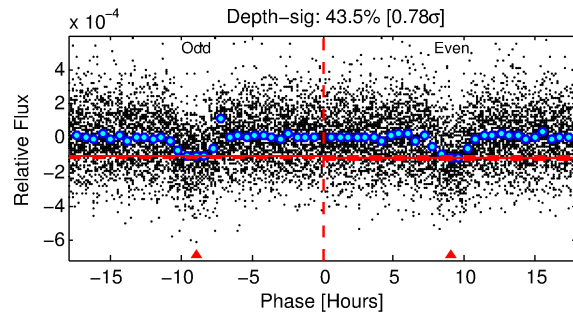
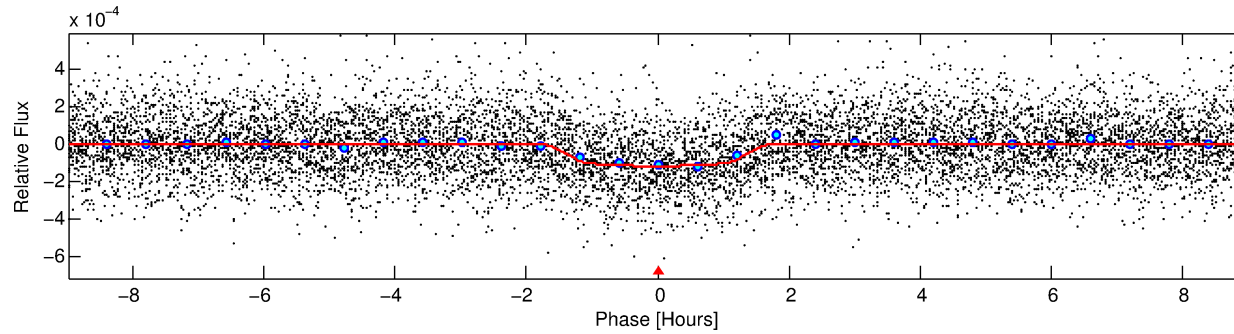
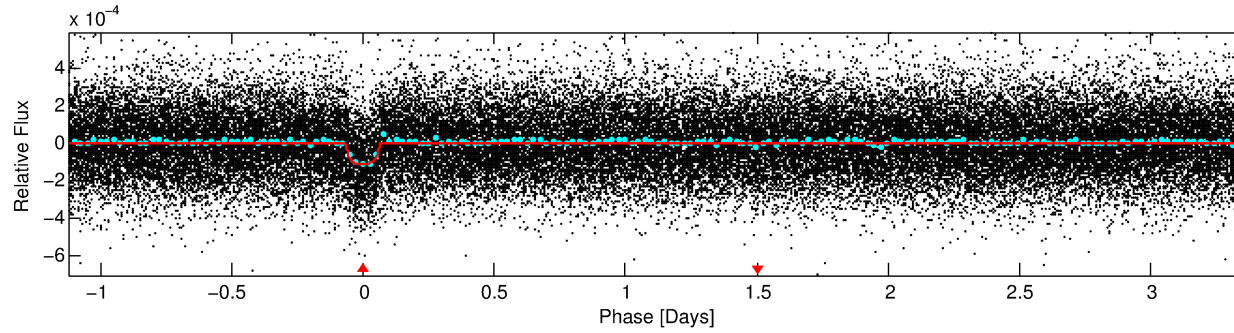
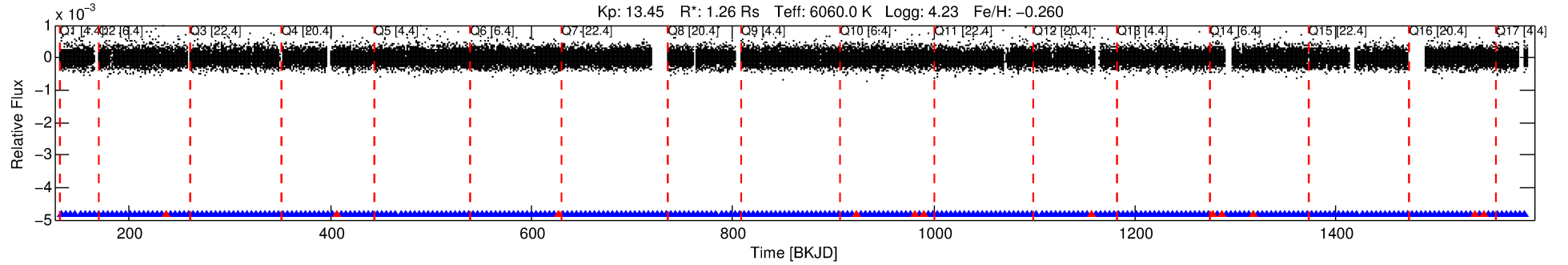
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004136466-01

No Significant Match Found

DV One-Page Summary

KIC: 4136466 Candidate: 1 of 1 Period: 4.488 d
KOI: K01344.01 Corr: 0.972



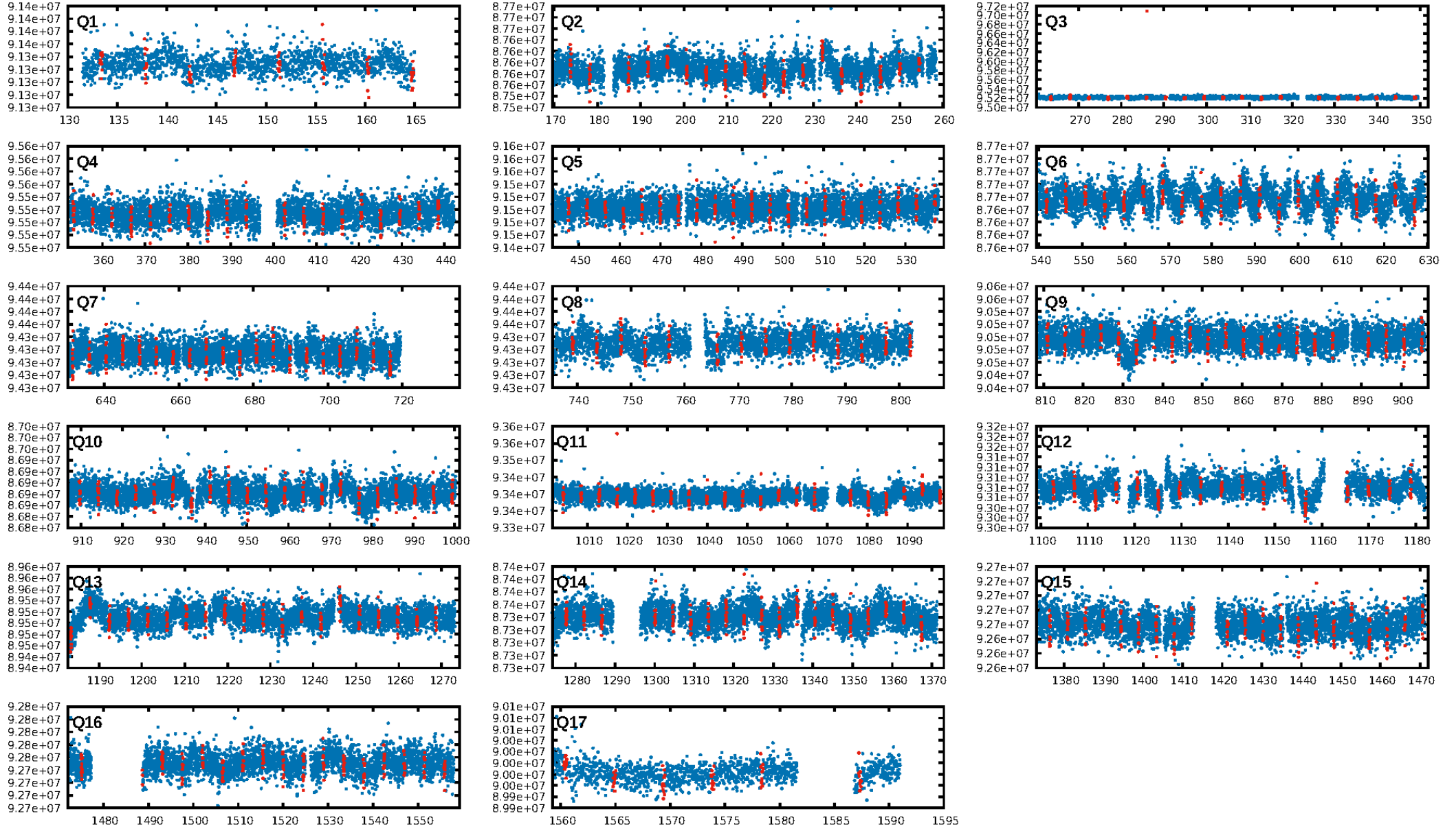
DV Fit Results:

Period = 4.48757 [0.00001] d
Epoch = 133.3647 [0.0020] BKJD
Rp/R* = 0.0115 [0.0025]
a/R* = 5.32 [6.01]
b = 0.90 [0.25]
Seff = 686.00 [206.30]
Teq = 1305 [98] K
Rp = 1.58 [0.46] Re
a = 0.0528 [0.0096] AU
Ag = 6.25 [4.29] [1.22 σ]
Teffp = 3190 [502] K [3.68 σ]

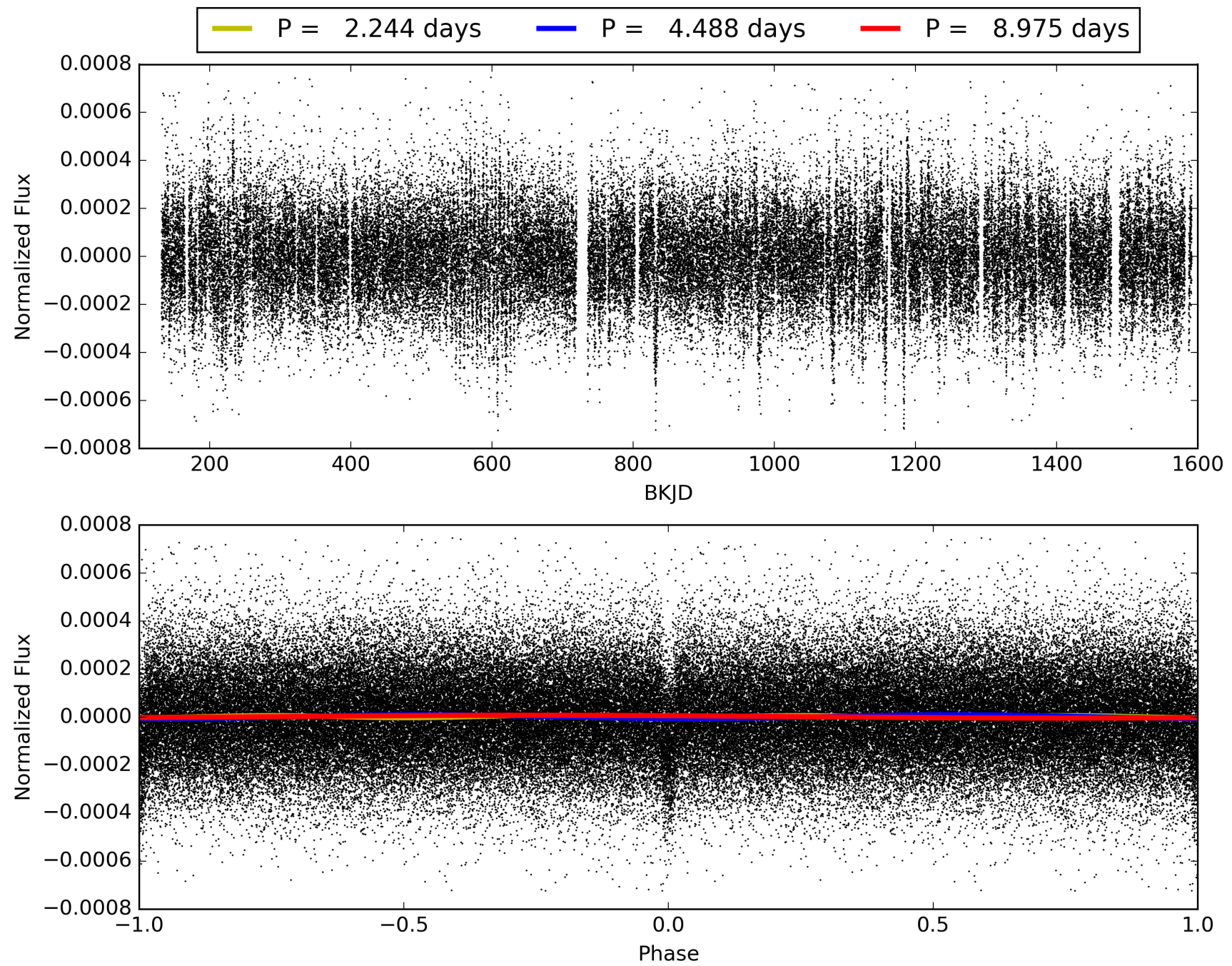
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.21e-114
RollingBand-fgt: 0.96 [274/286]
GhostDiagnostic-chr: -9.859
Centroid-sig: 0.7%
Centroid-so: 1.107 arcsec [1.88 σ]
OotOffset-rm: 0.154 arcsec [0.49 σ]
KicOffset-rm: 0.172 arcsec [0.50 σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.94 [15/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 004136466-01, PDC Light Curves

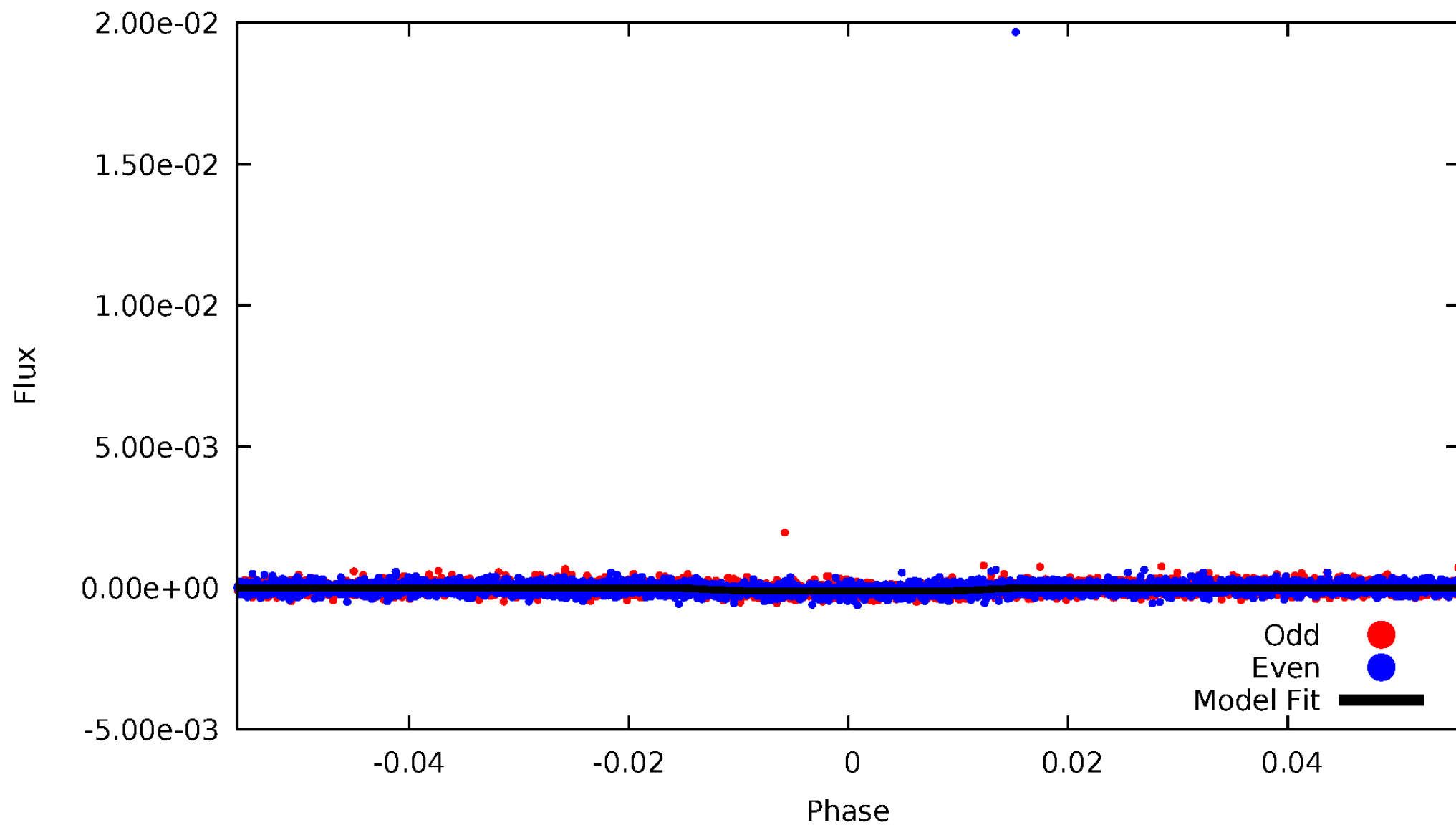


TCE 004136466-01



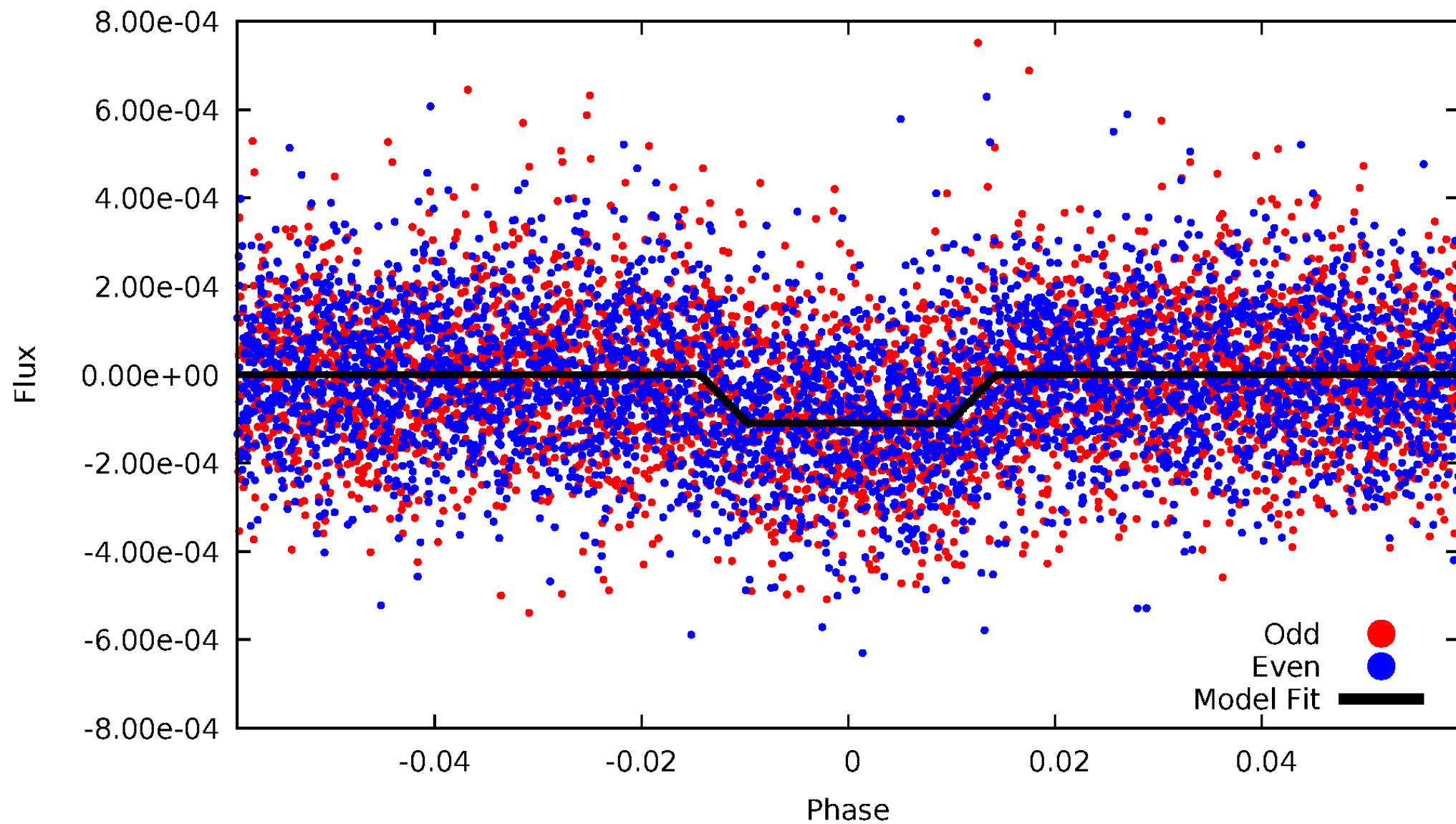
DV Odd/Even

TCE 004136466-01

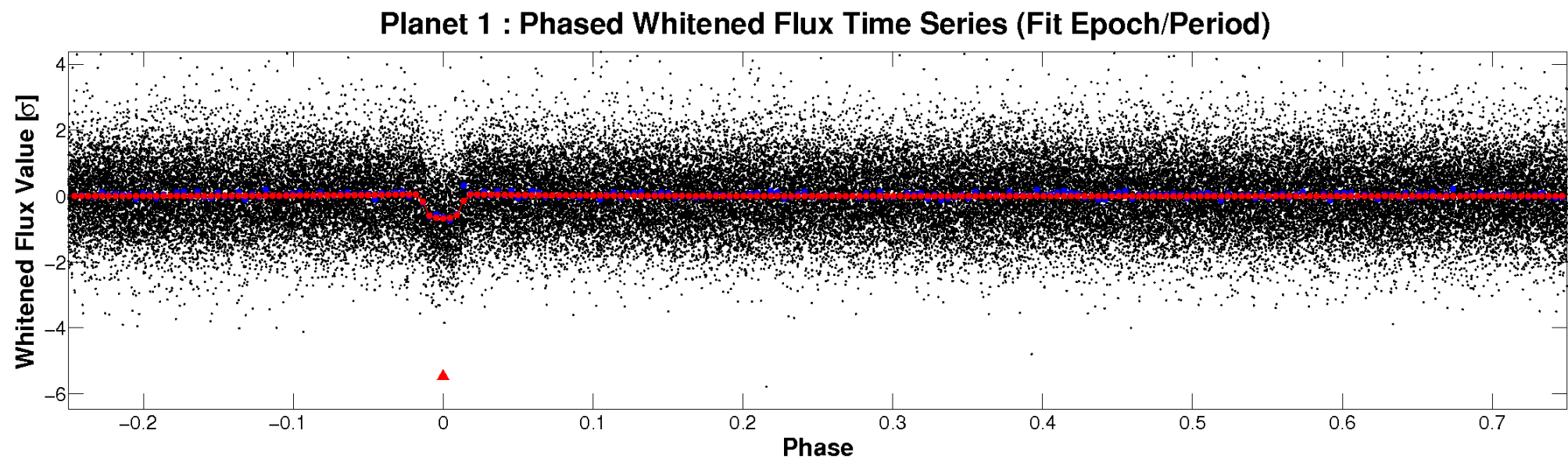
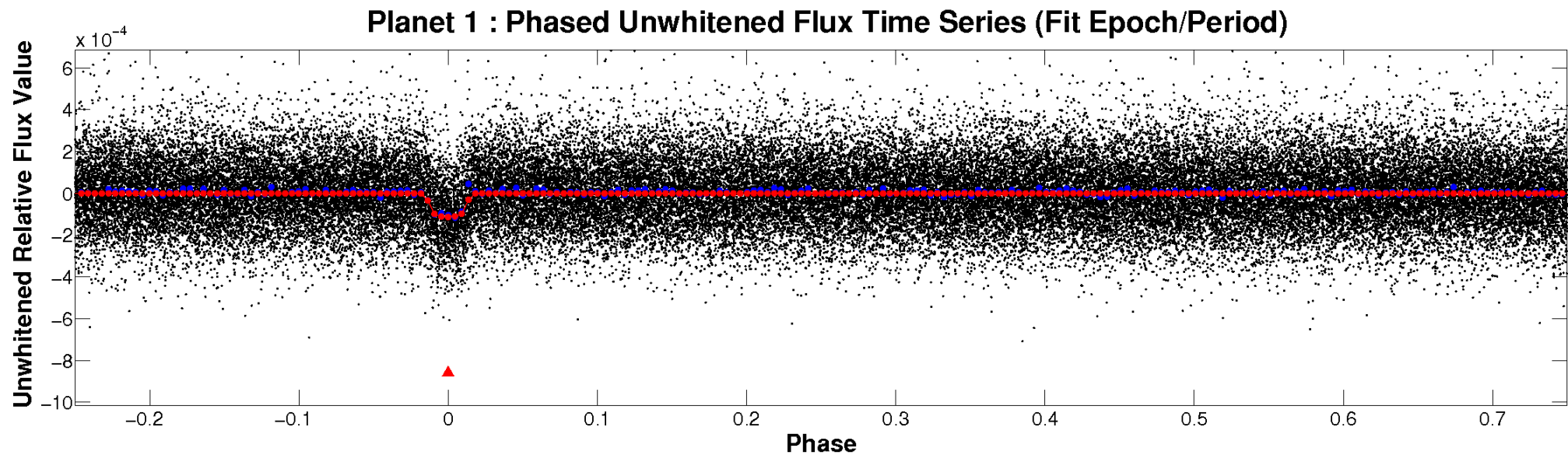


ALT Odd/Even

TCE 004136466-01

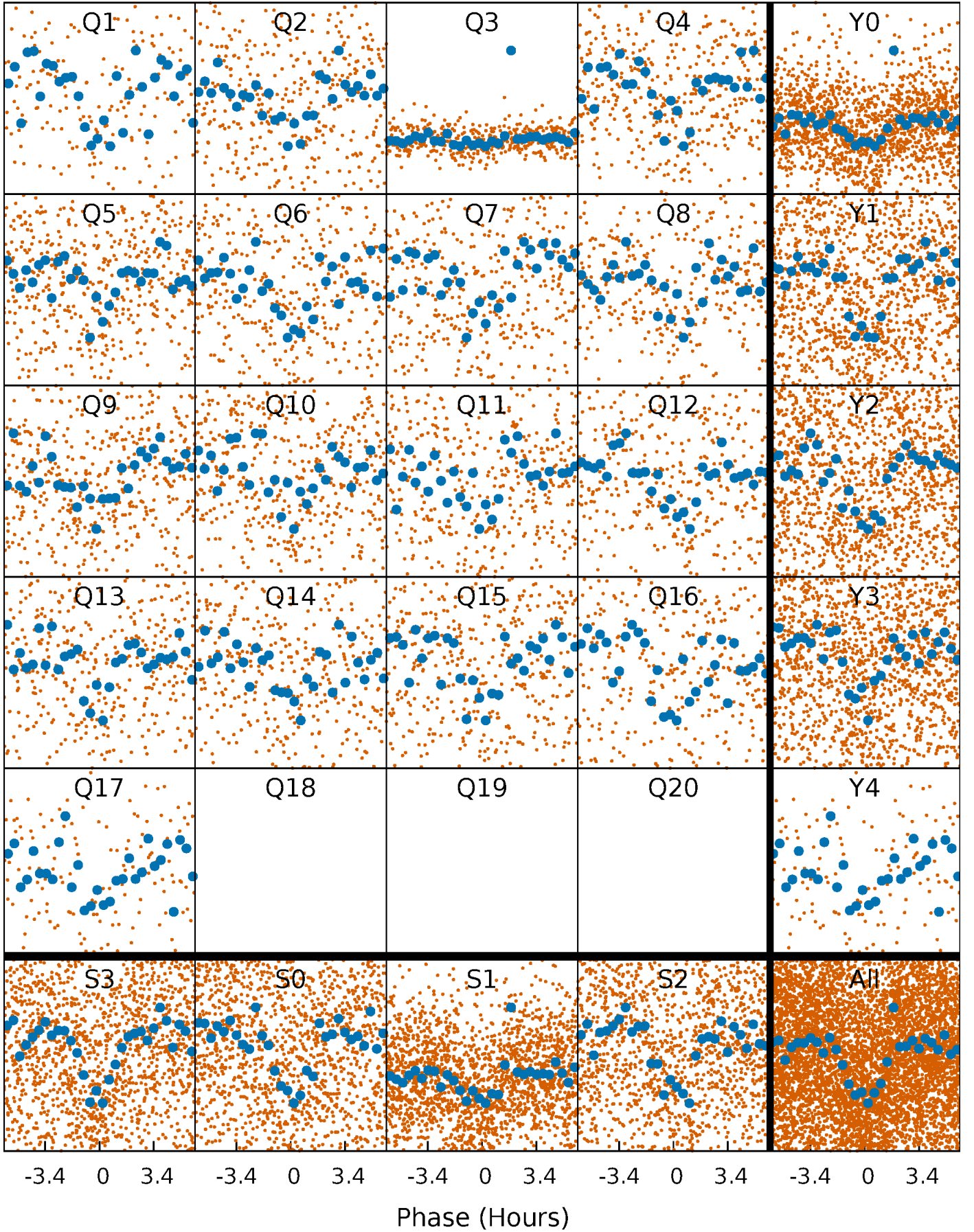


Non-Whitened Vs. Whitened Light Curve



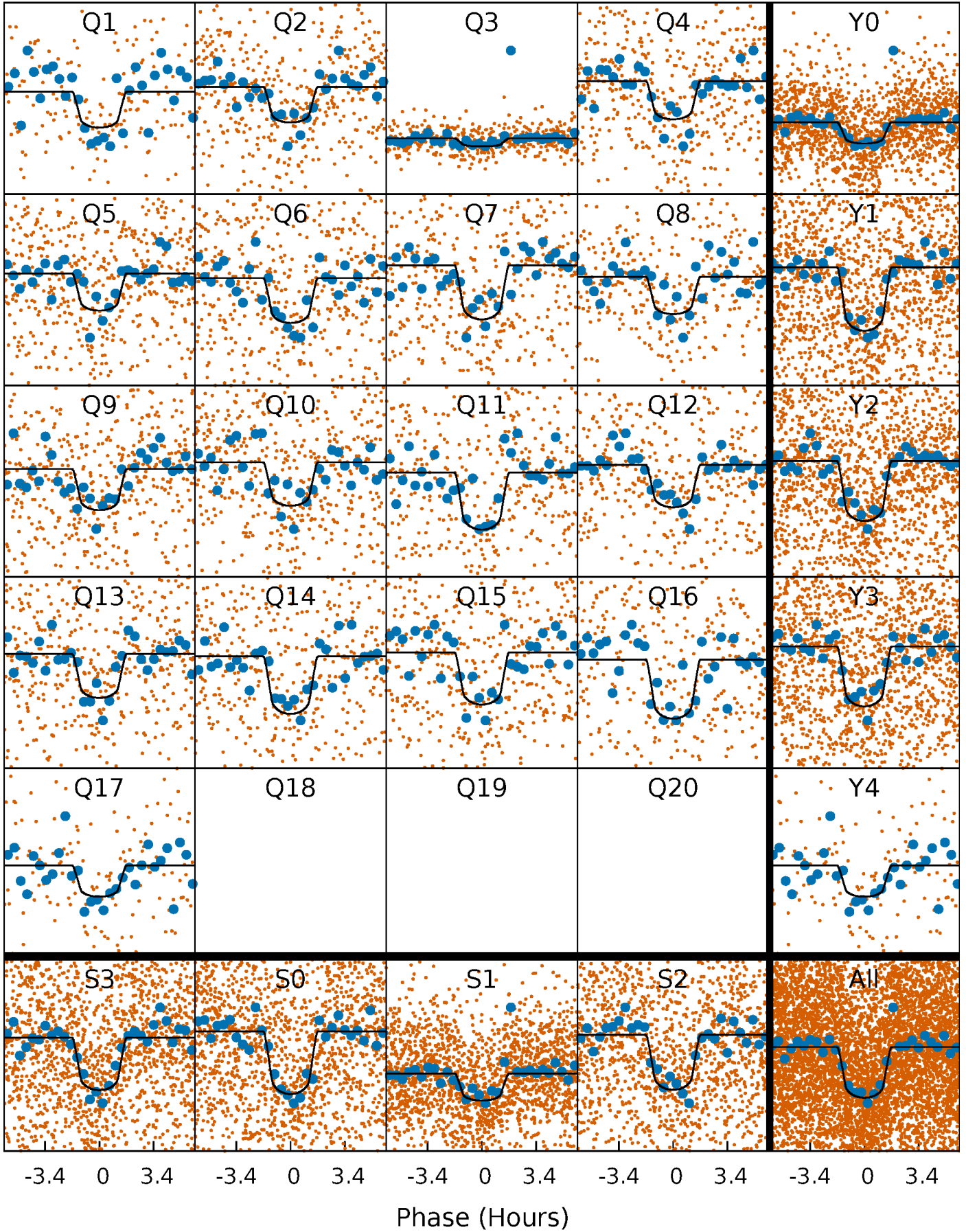
PDC Quarter-Phased Transit Curves

TCE 004136466-01 P= 4.487575 Days $T_0=133.364677$ (BKJD)



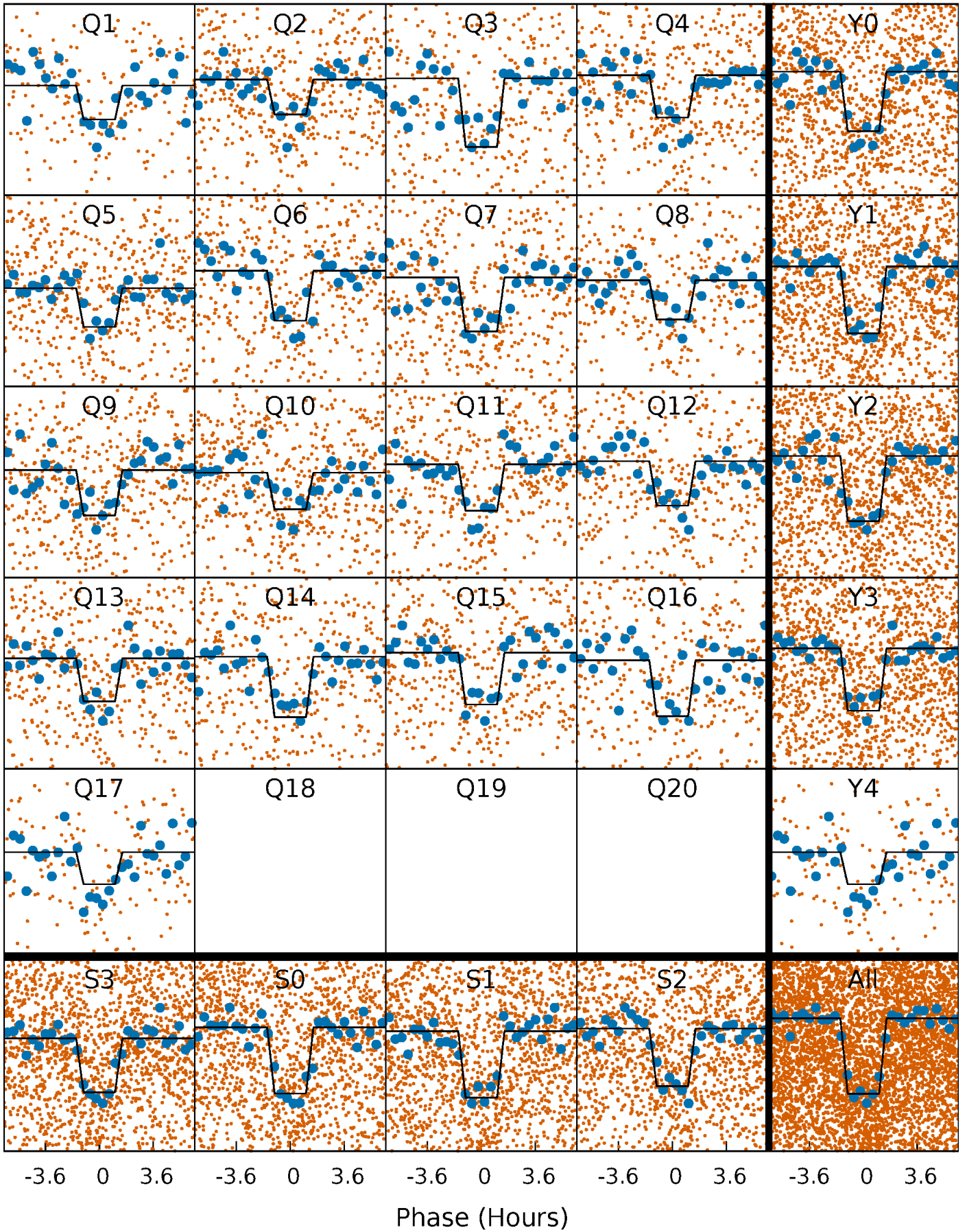
DV Quarter-Phased Transit Curves

TCE 004136466-01 P= 4.487575 Days $T_0=133.364677$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

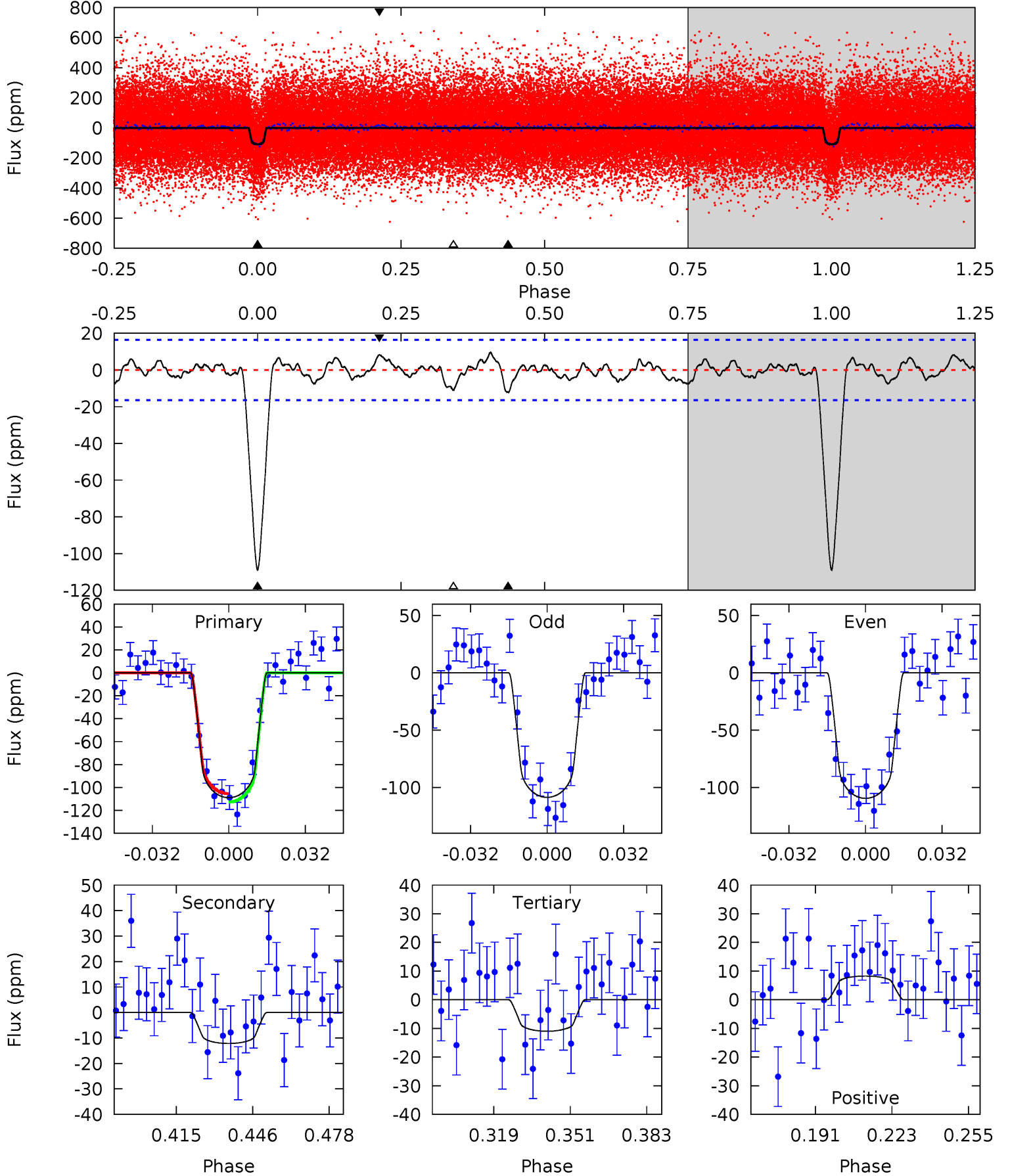
TCE 004136466-01 P= 4.487588 Days $T_0=133.361112$ (BKJD)



DV Model-Shift Uniqueness Test

004136466-01, P = 4.487575 Days, E = 128.877102 Days

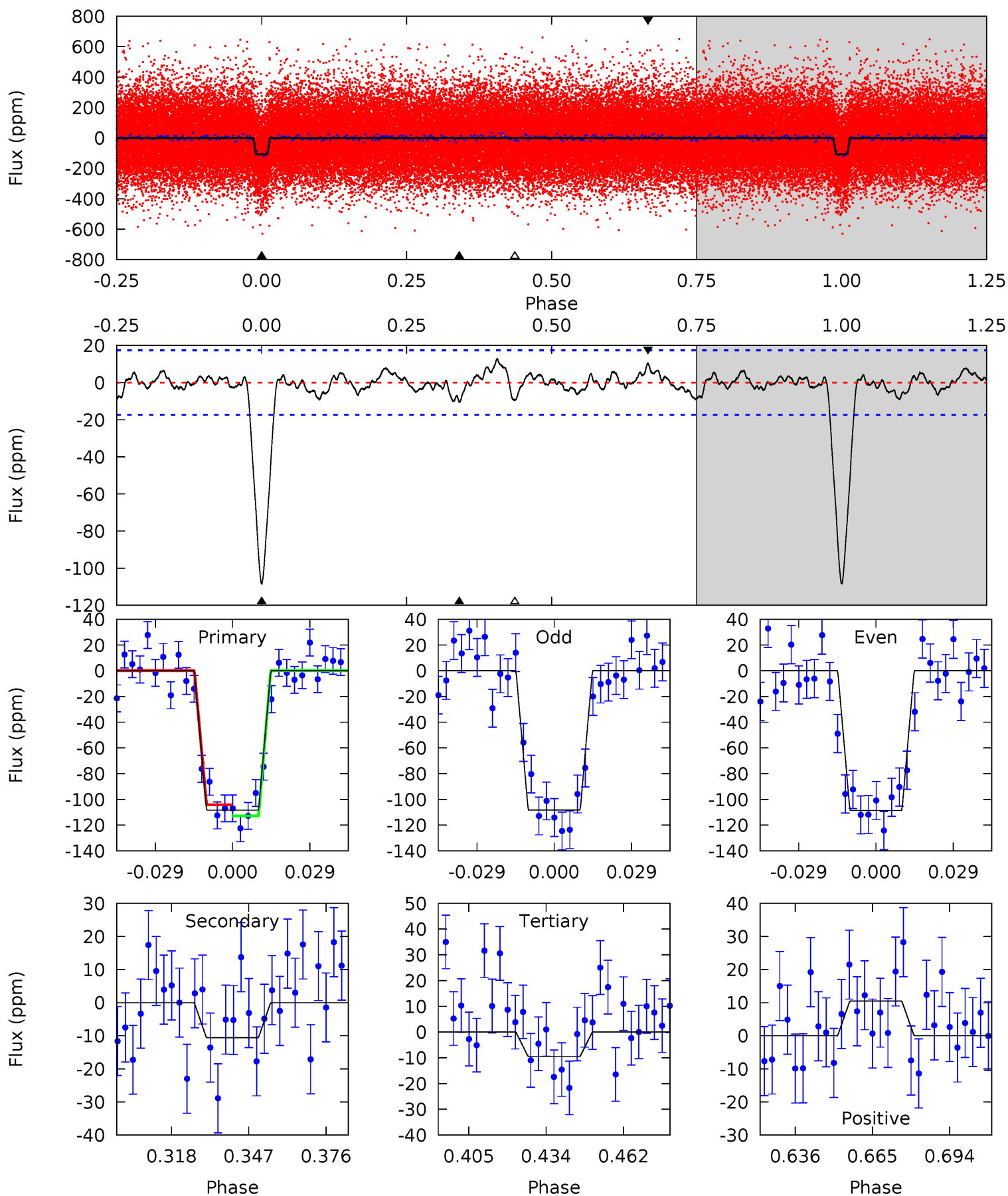
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.9	3.56	3.21	2.42	4.80	2.15	1.07	28.7	29.4	0.35	1.14	0.13	0.98	0.08	1.07



Alt Model-Shift Uniqueness Test

004136466-01, P = 4.487588 Days, E = 128.873524 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.1	2.94	2.63	2.90	4.82	2.18	1.12	27.4	27.1	0.31	0.04	0.03	0.95	0.11	1.19



Stellar Parameters For KIC 004136466

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6060^{+120}_{-132}	$4.227^{+0.168}_{-0.112}$	$-0.260^{+0.150}_{-0.150}$	$1.257^{+0.197}_{-0.241}$	$0.972^{+0.077}_{-0.069}$	$0.689^{+0.548}_{-0.221}$
	+2%/-2%	+4%/-3%	+58%/-58%	+16%/-19%	+8%/-7%	+80%/-32%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 004136466-01 / KOI 1344.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-12 ± 3	$1.55^{+0.40}_{-0.36}$	1813^{+99}_{-102}	3696^{+391}_{-309}	$7.490^{+6.266}_{-3.055}$
Alt.	-11 ± 4	$1.43^{+0.38}_{-0.37}$	1819^{+85}_{-113}	3716^{+445}_{-352}	$7.759^{+7.206}_{-3.547}$

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

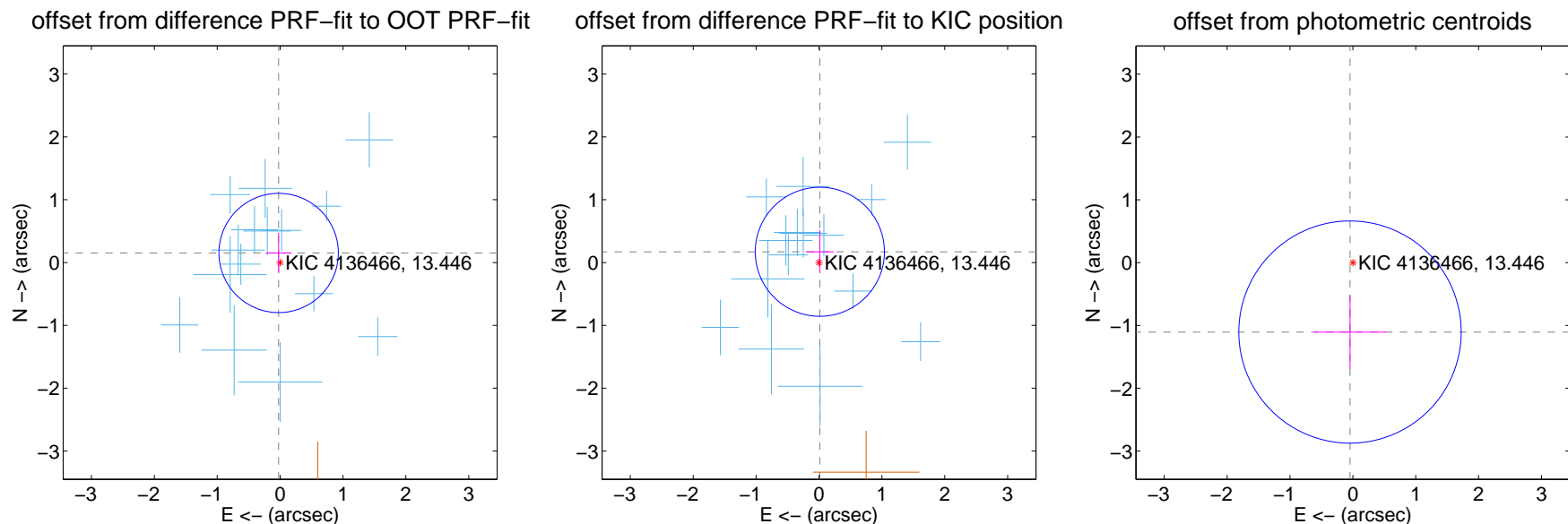
DV Centroid Data

Supplemental centroid analysis for 004136466-01. Kepler magnitude: 13.45. Transit SNR 24.29

There are 15 quarters with good PRF difference image offsets

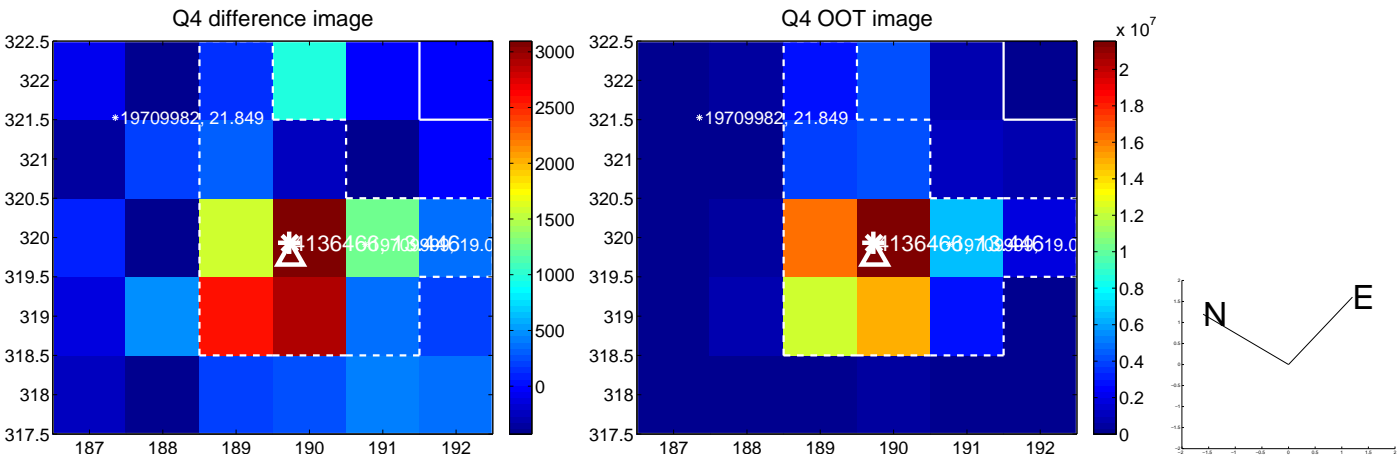
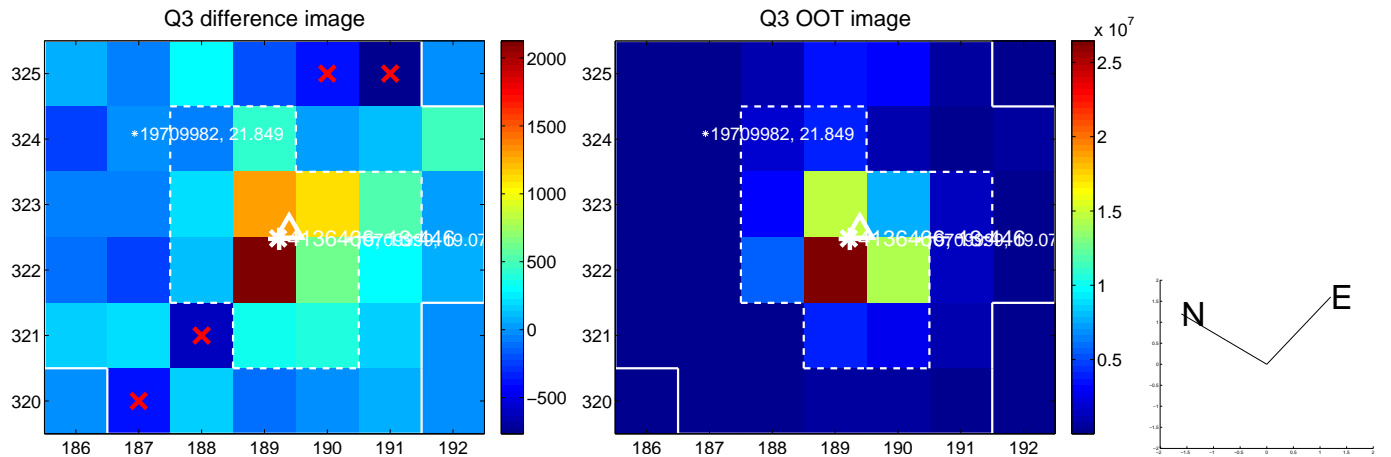
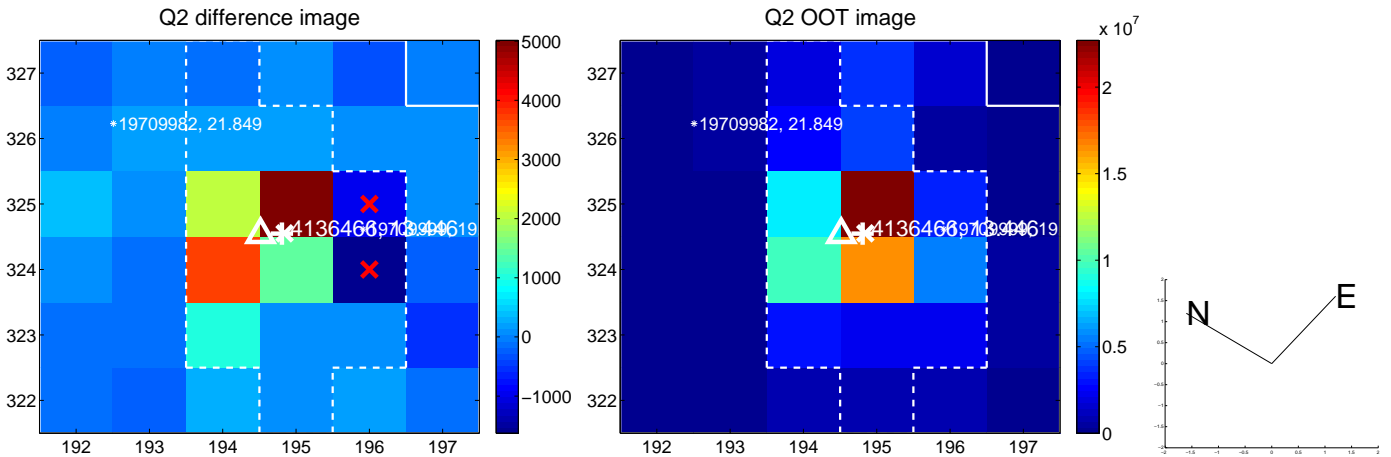
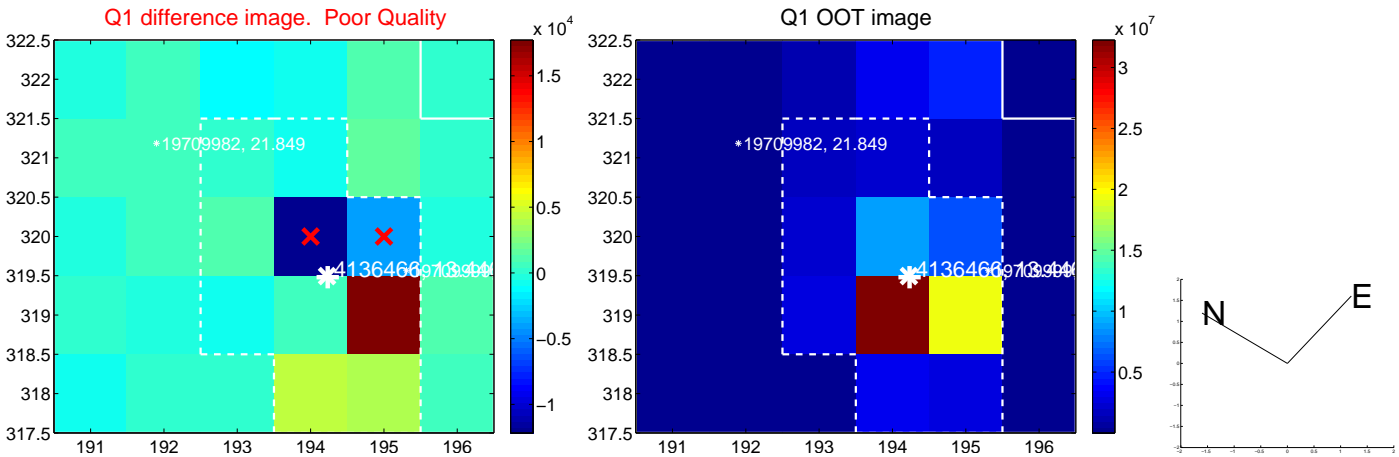
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.154 ± 0.316	0.49	0.023 ± 0.208	0.152 ± 0.320
PRF-fit source offset from KIC position	0.172 ± 0.342	0.50	-0.014 ± 0.224	0.171 ± 0.342
photometric centroid source offset	1.11 ± 0.59	1.88	0.05 ± 0.58	-1.11 ± 0.59

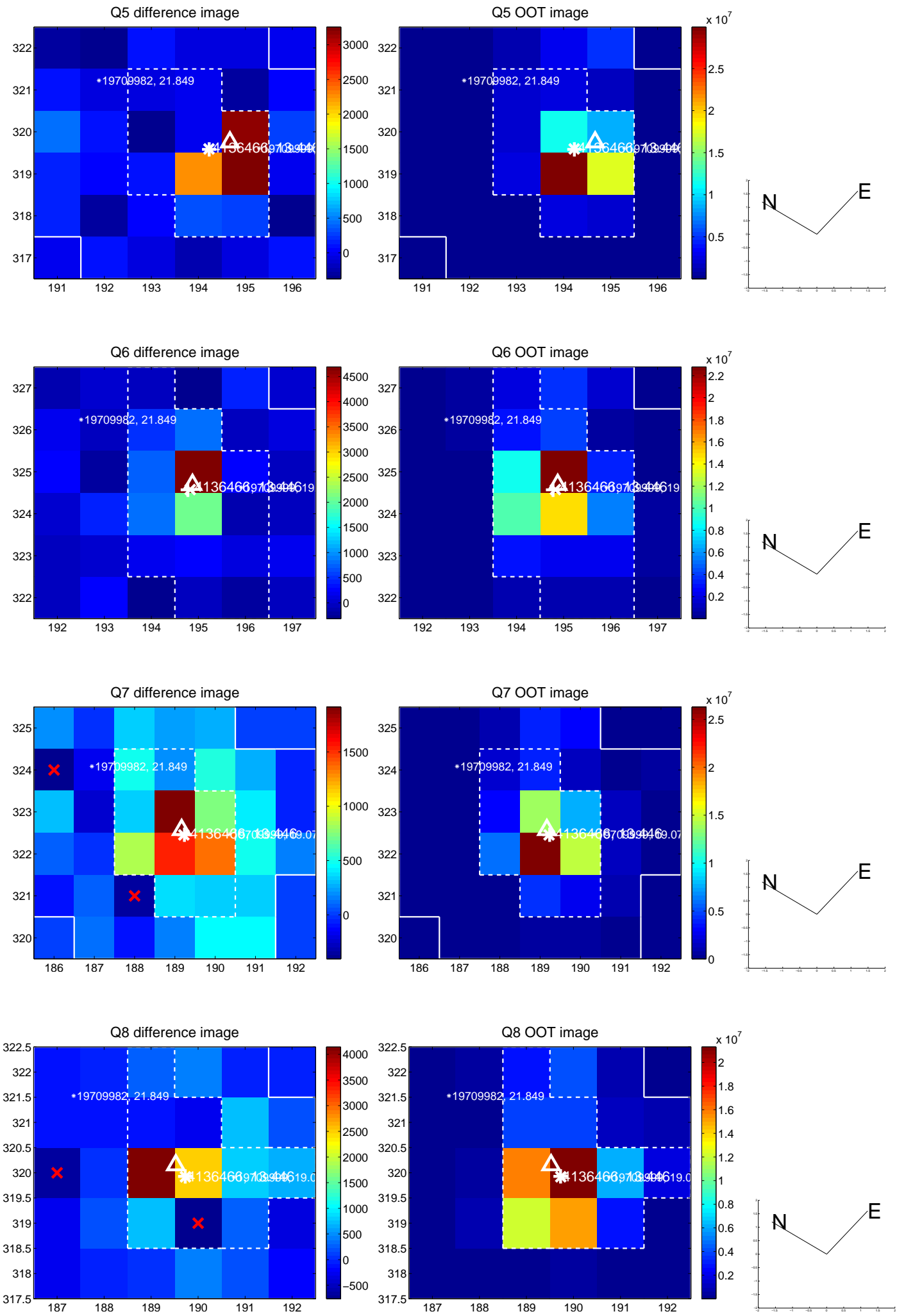


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

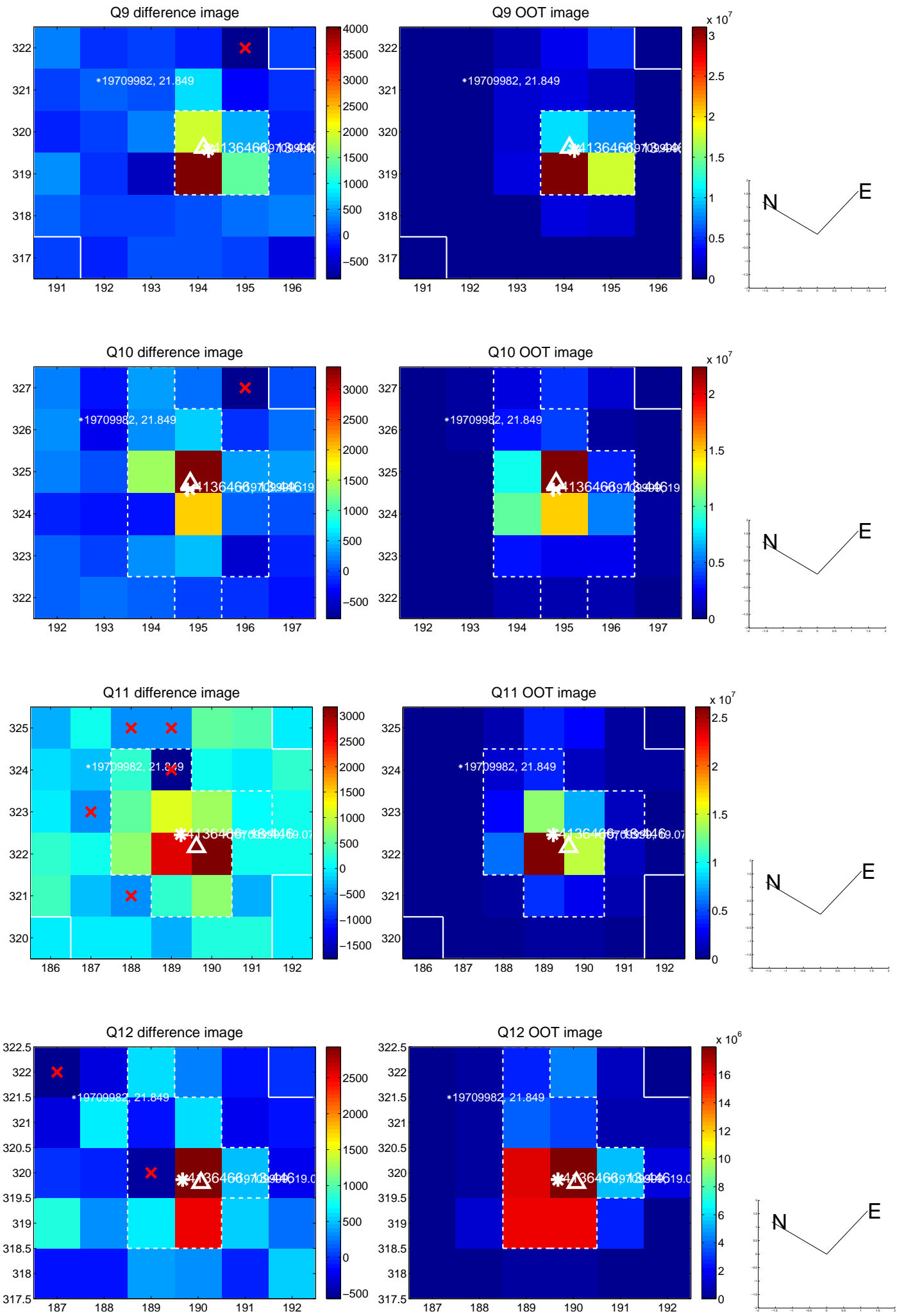
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



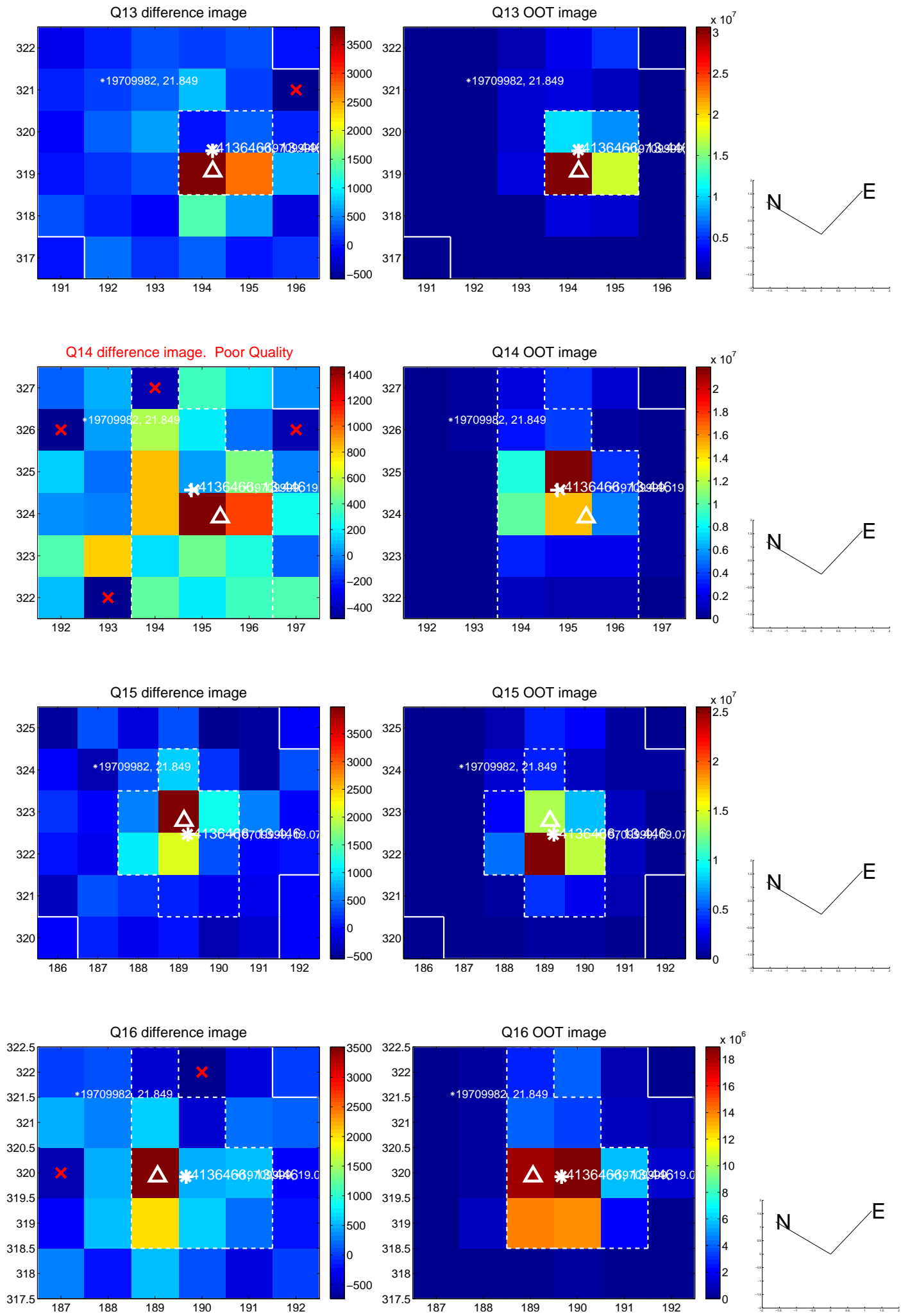
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



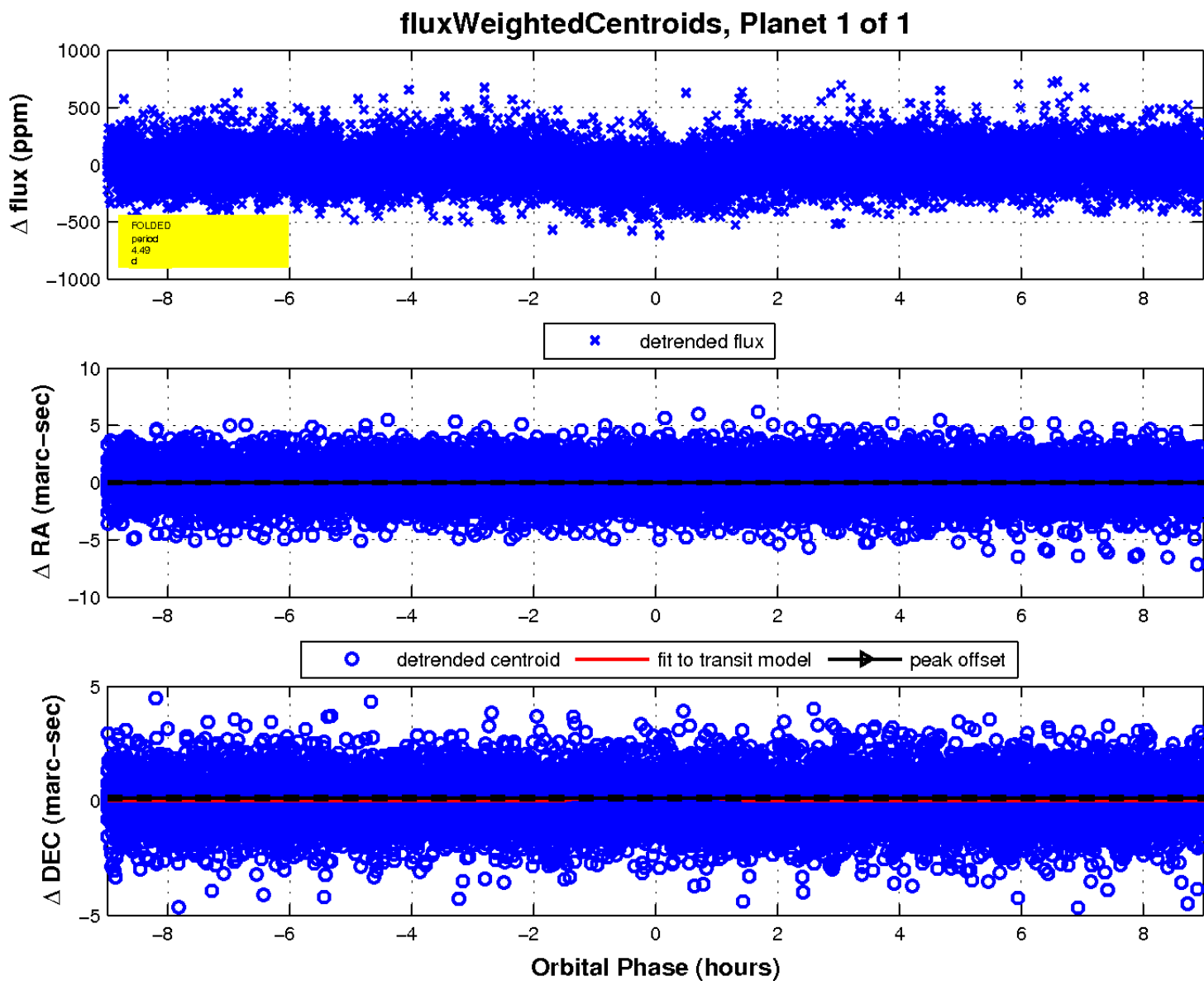
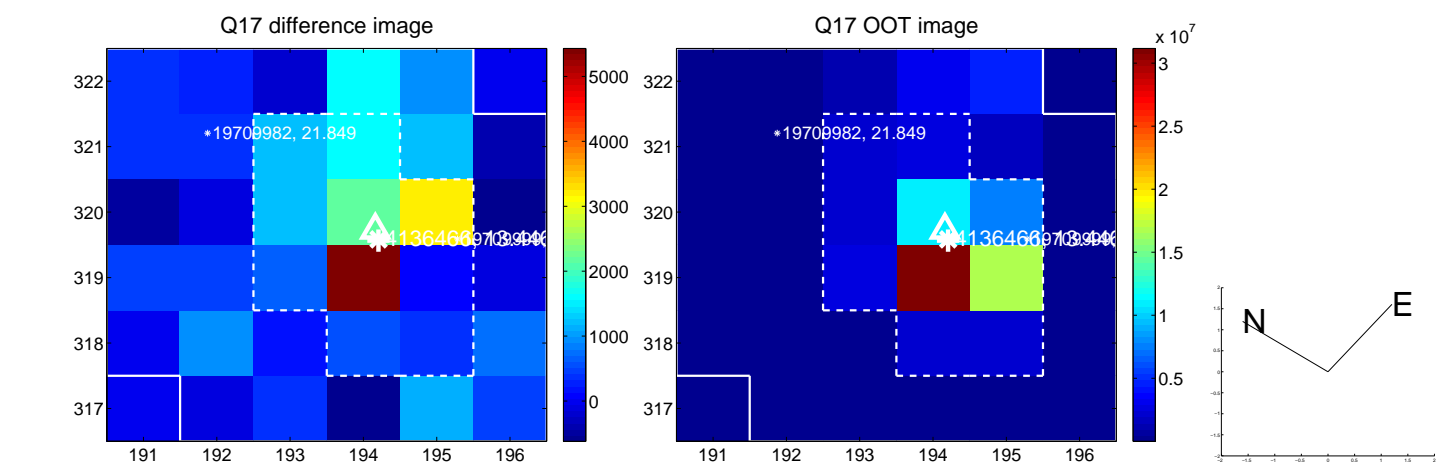
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UKIRT Image

