

KIC 010618471

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})
010618471-01	OBS	No	0.575745	131.726619	297.5	1.500	8.4	-1.0	0.73	4788	1.22	1693.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010618471-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS

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

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

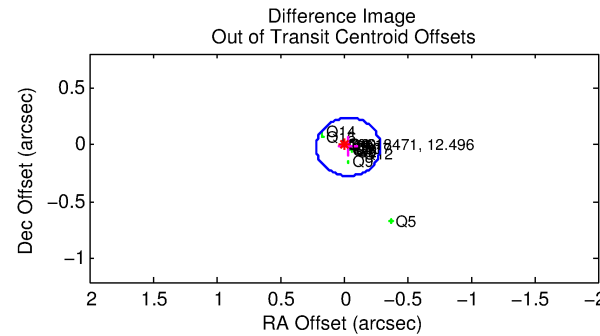
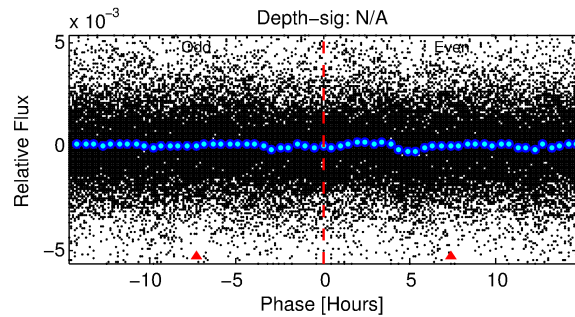
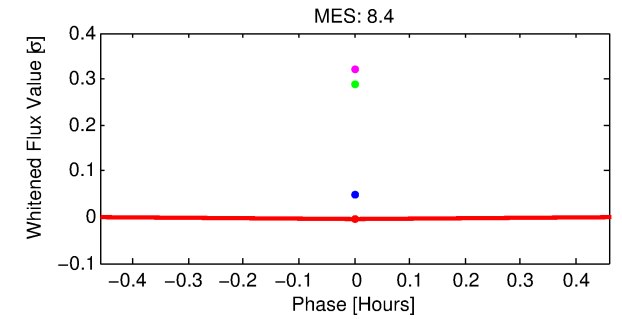
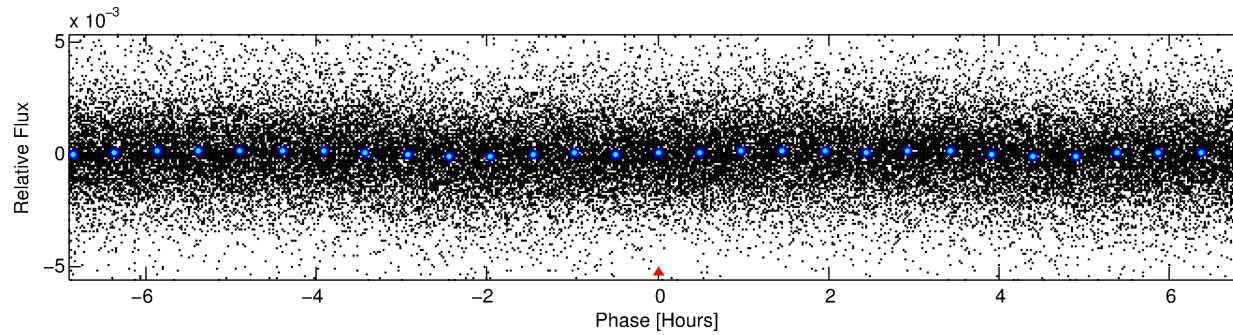
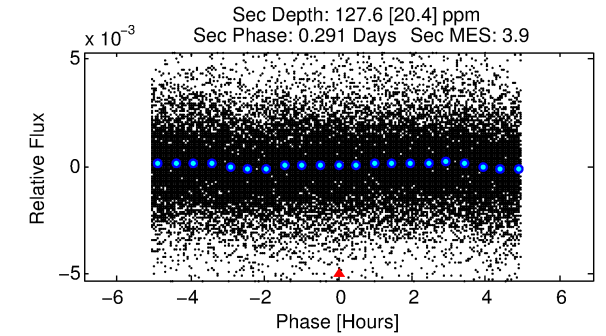
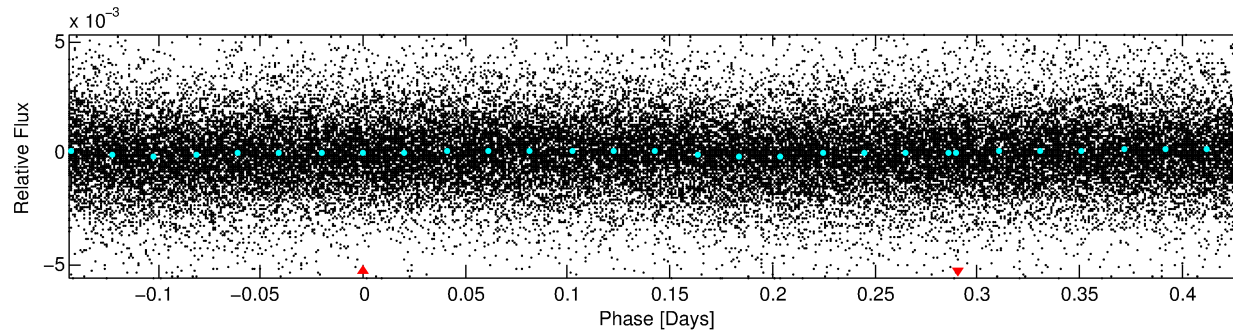
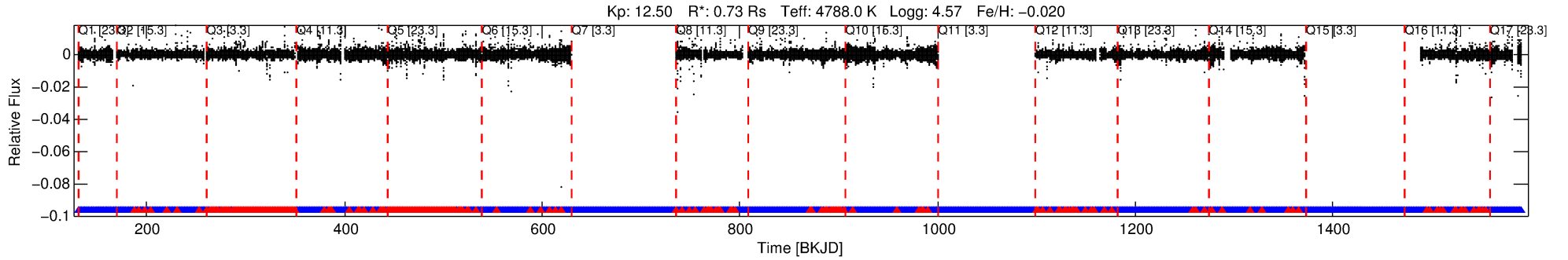
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010618471-01

No Significant Match Found

DV One-Page Summary

KIC: 10618471 Candidate: 1 of 1 Period: 0.576 d



TPS TCE Results:

Period = 0.57575 d
Epoch = 131.7266 BKJD

DV fit results are unavailable

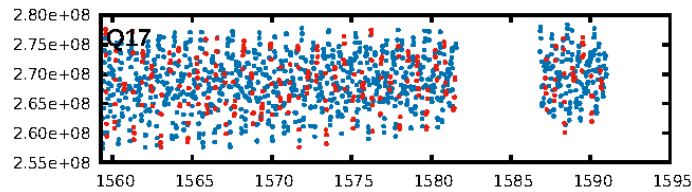
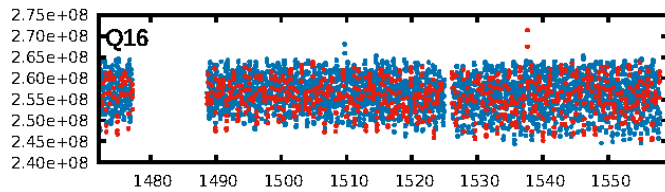
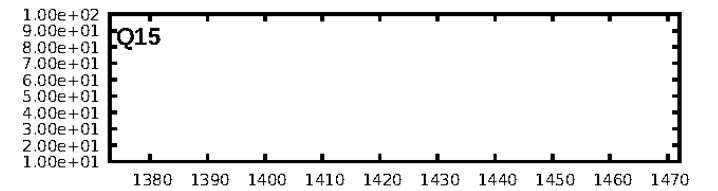
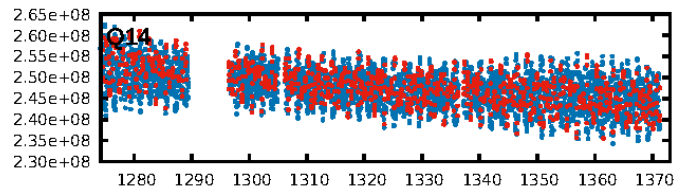
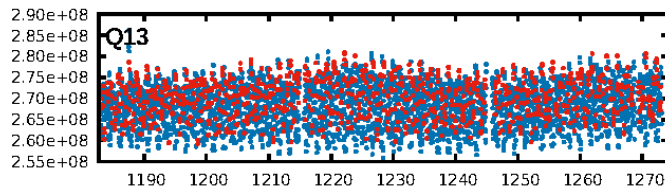
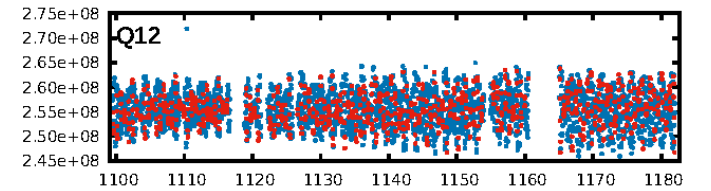
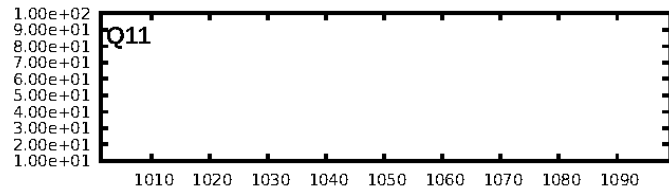
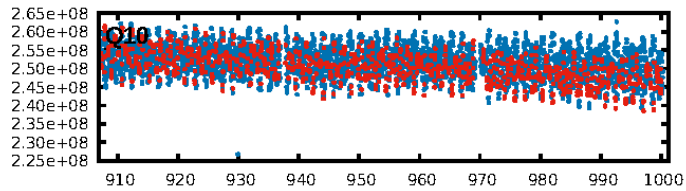
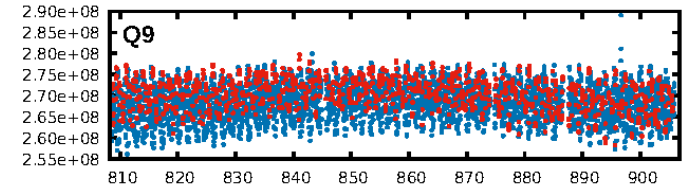
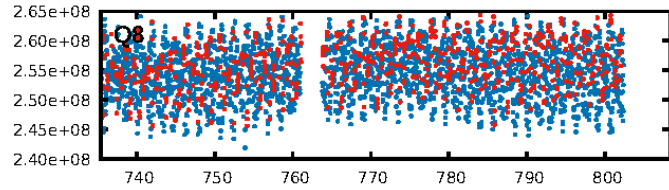
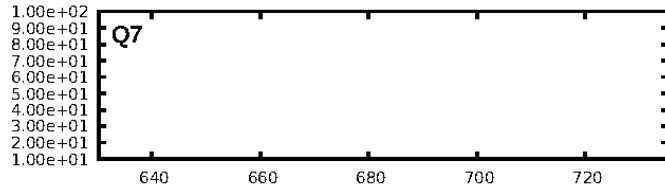
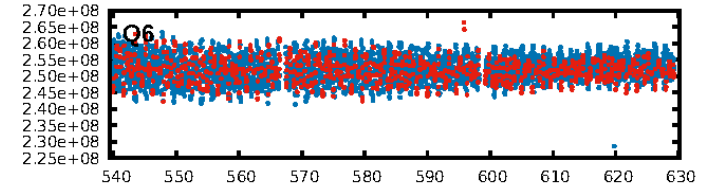
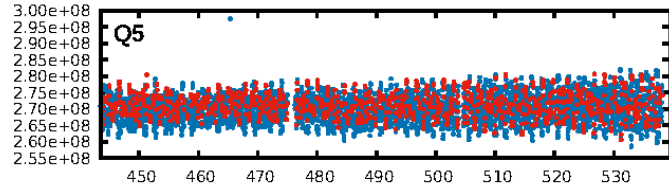
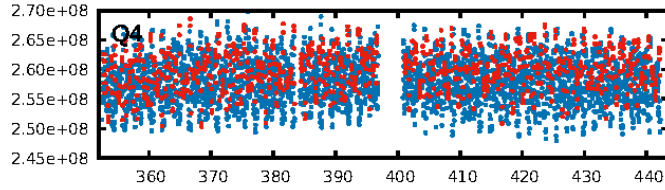
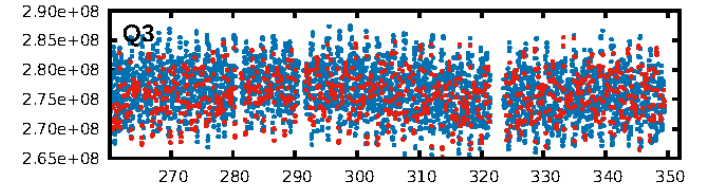
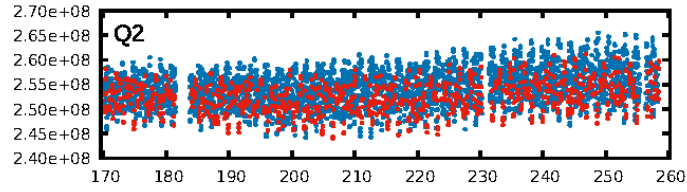
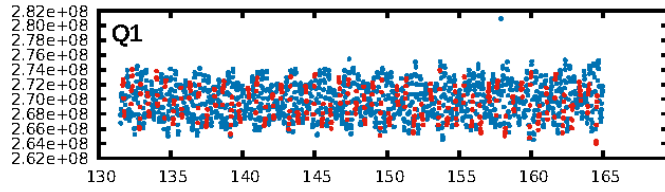
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.38e-20
RollingBand-fgt: 0.79 [1390/1755]
GhostDiagnostic-chr: -0.5397
Centroid-sig: 2.0%
Centroid-so: 0.153 arcsec [1.79σ]
OotOffset-rm: 0.039 arcsec [0.47σ]
KicOffset-rm: 0.070 arcsec [0.81σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 0.57 [8/14]
DiffImageOverlap-fno: 1.00 [14/14]

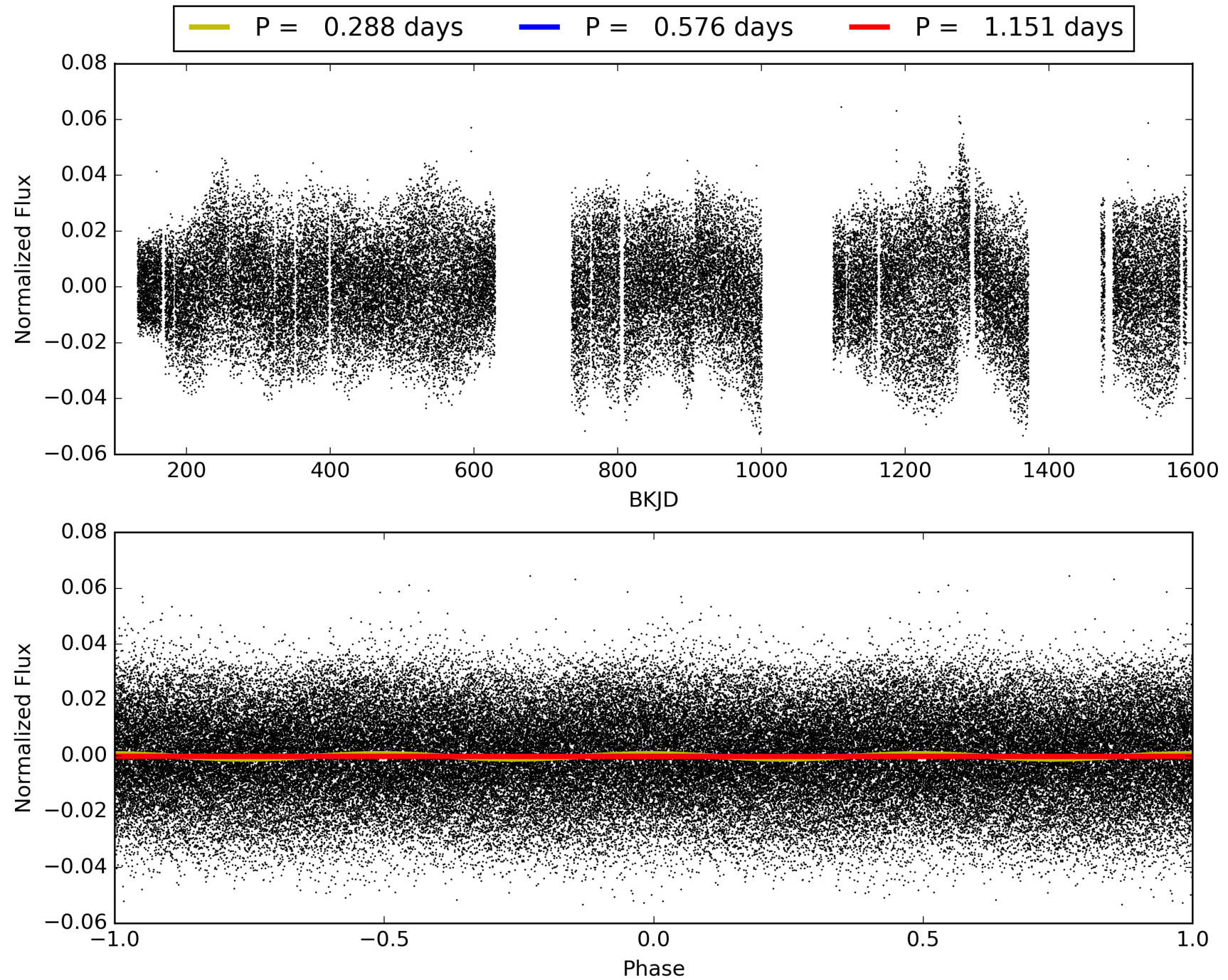
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:57:48 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010618471-01, PDC Light Curves

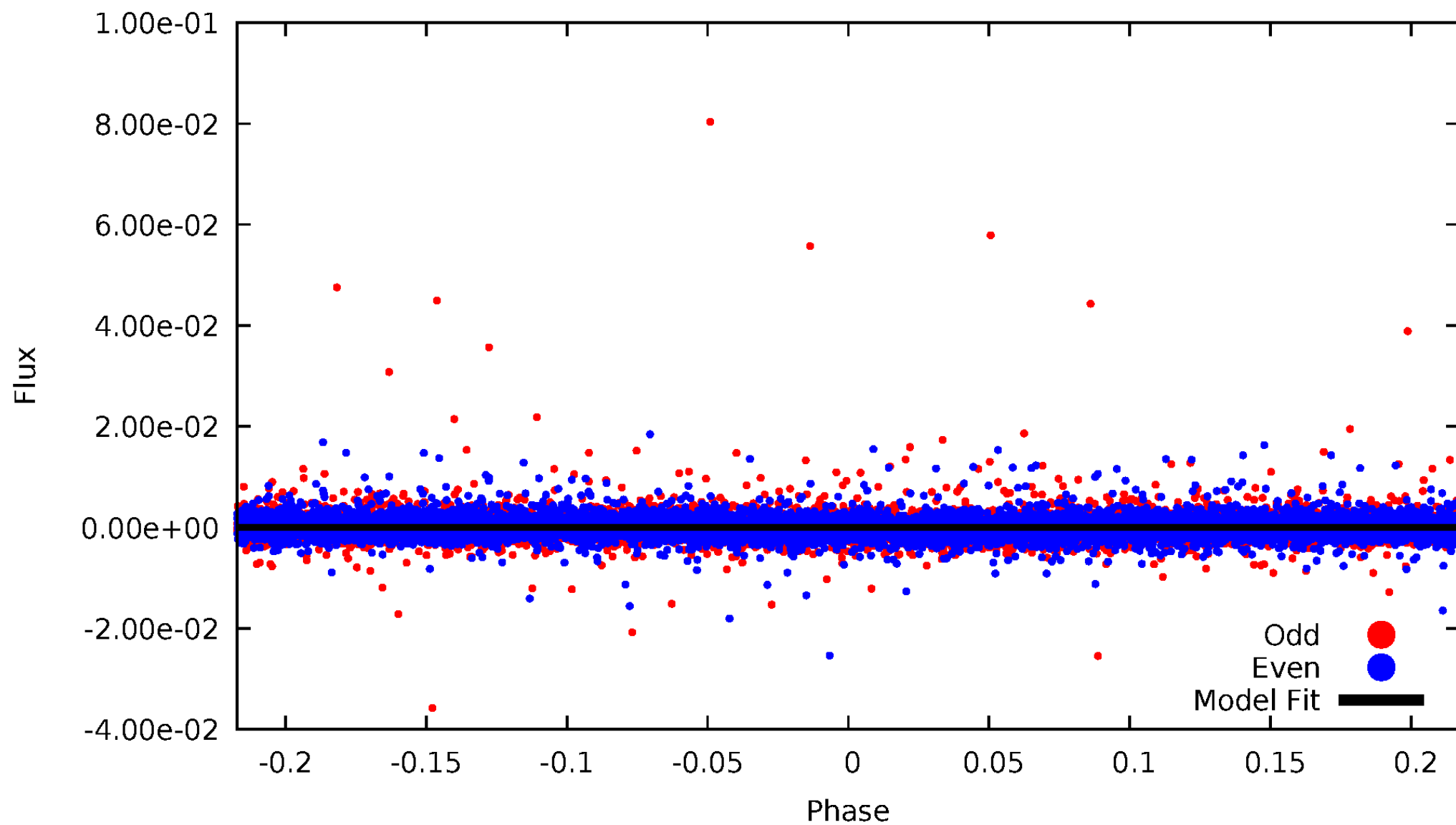


TCE 010618471-01



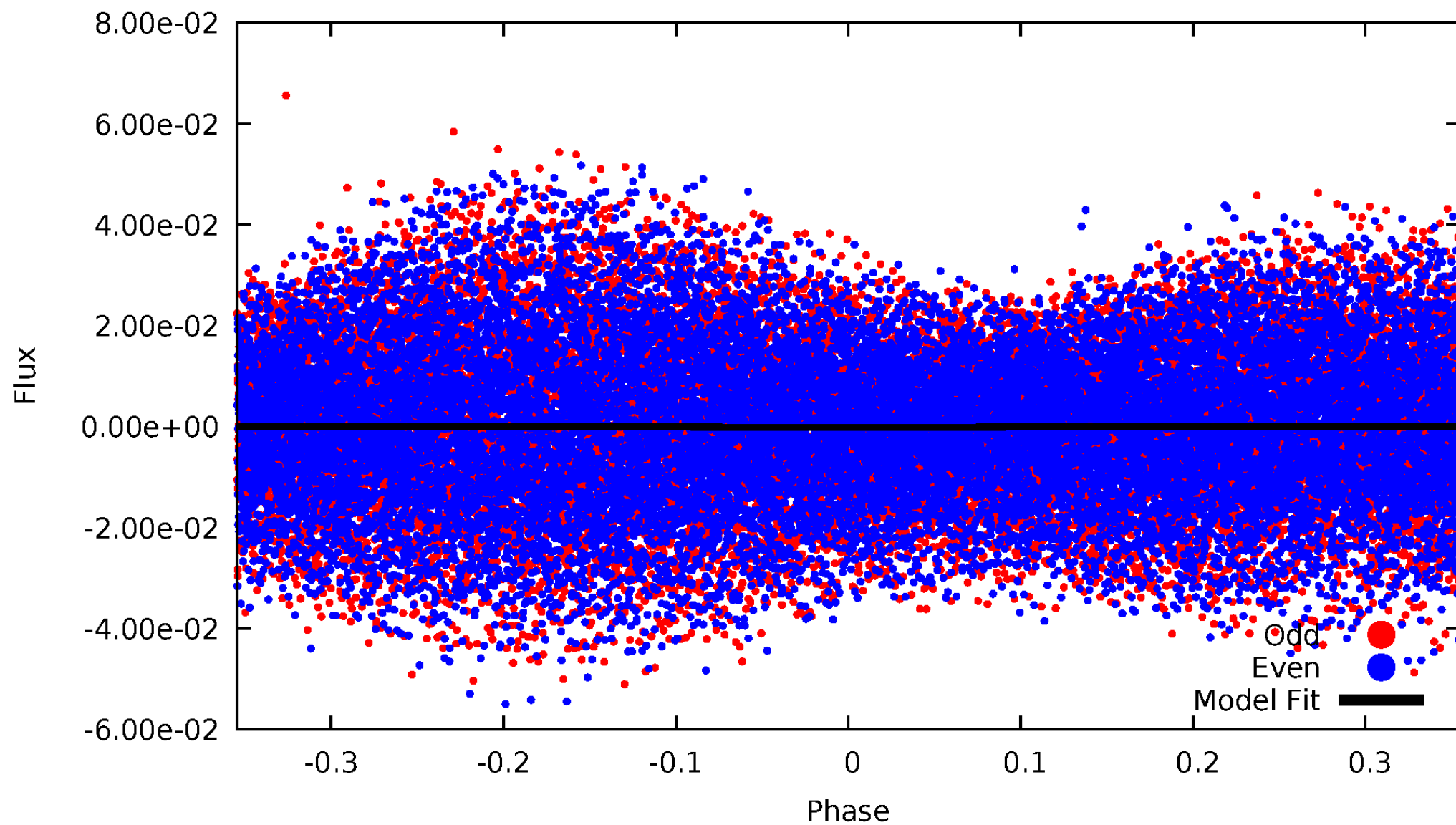
DV Odd/Even

TCE 010618471-01

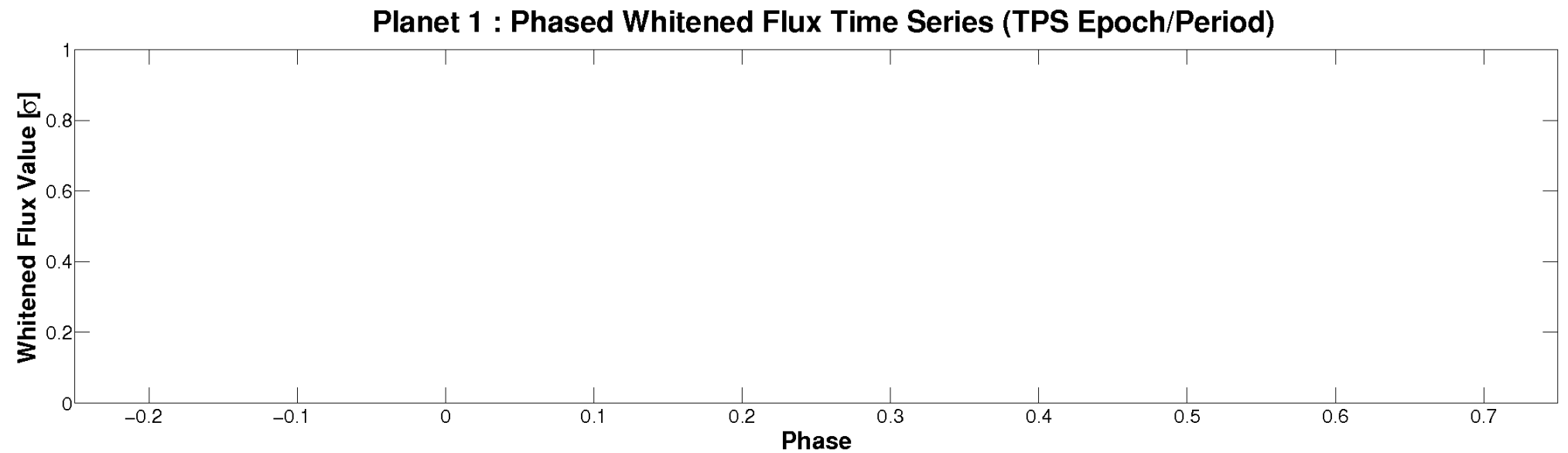
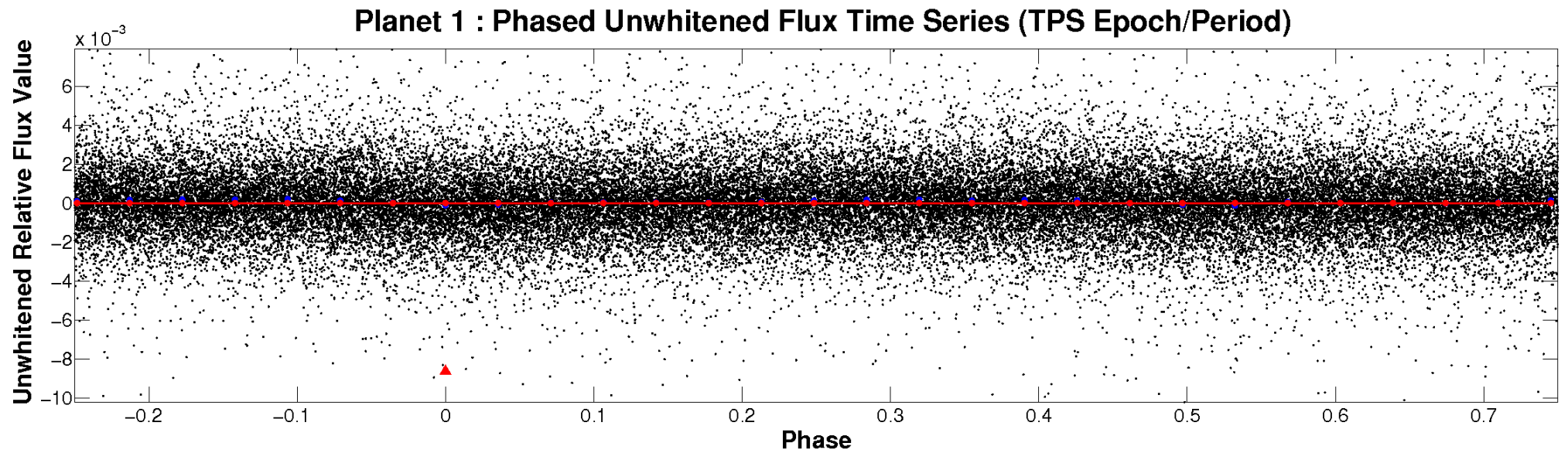


ALT Odd/Even

TCE 010618471-01

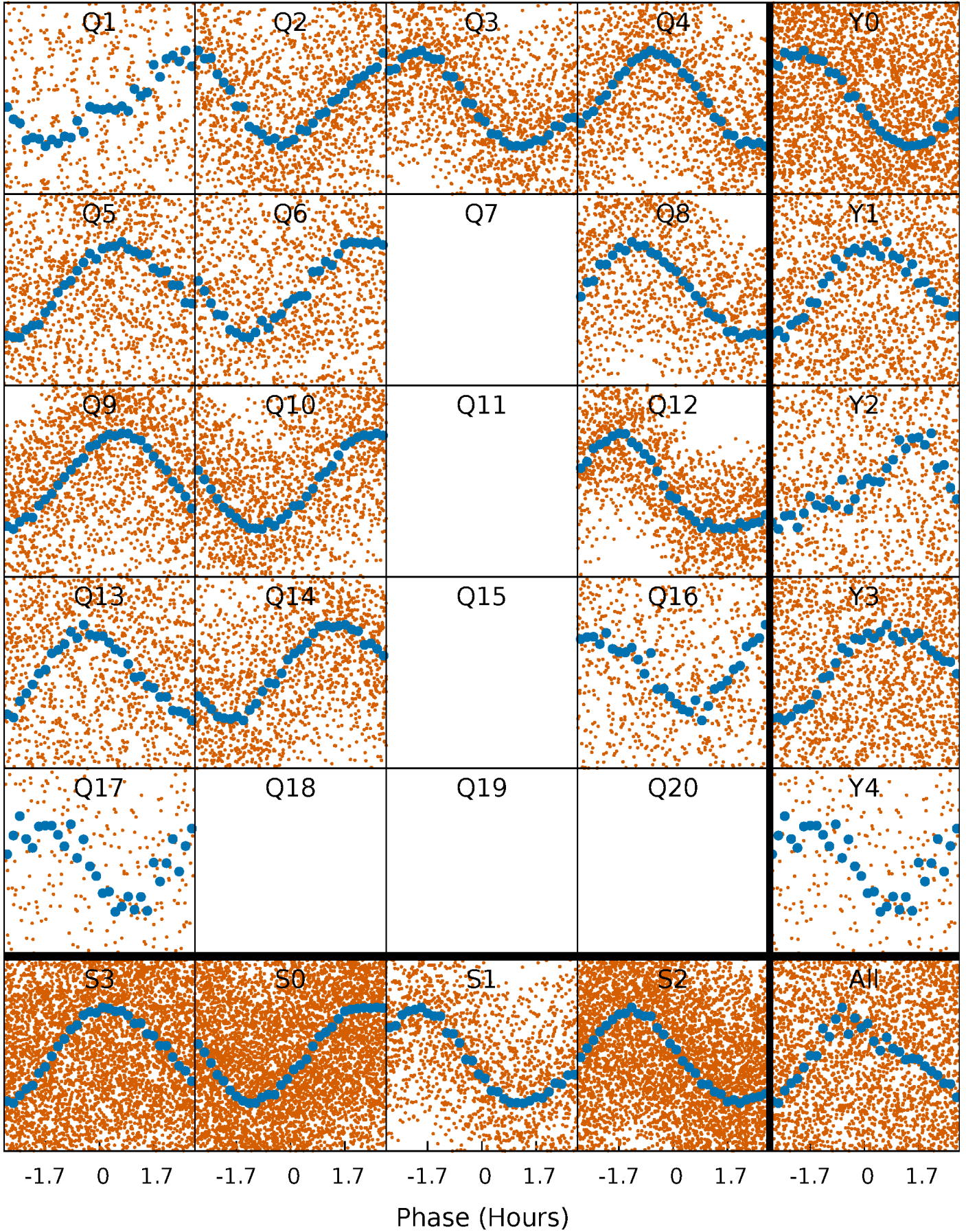


Non-Whitened Vs. Whitened Light Curve



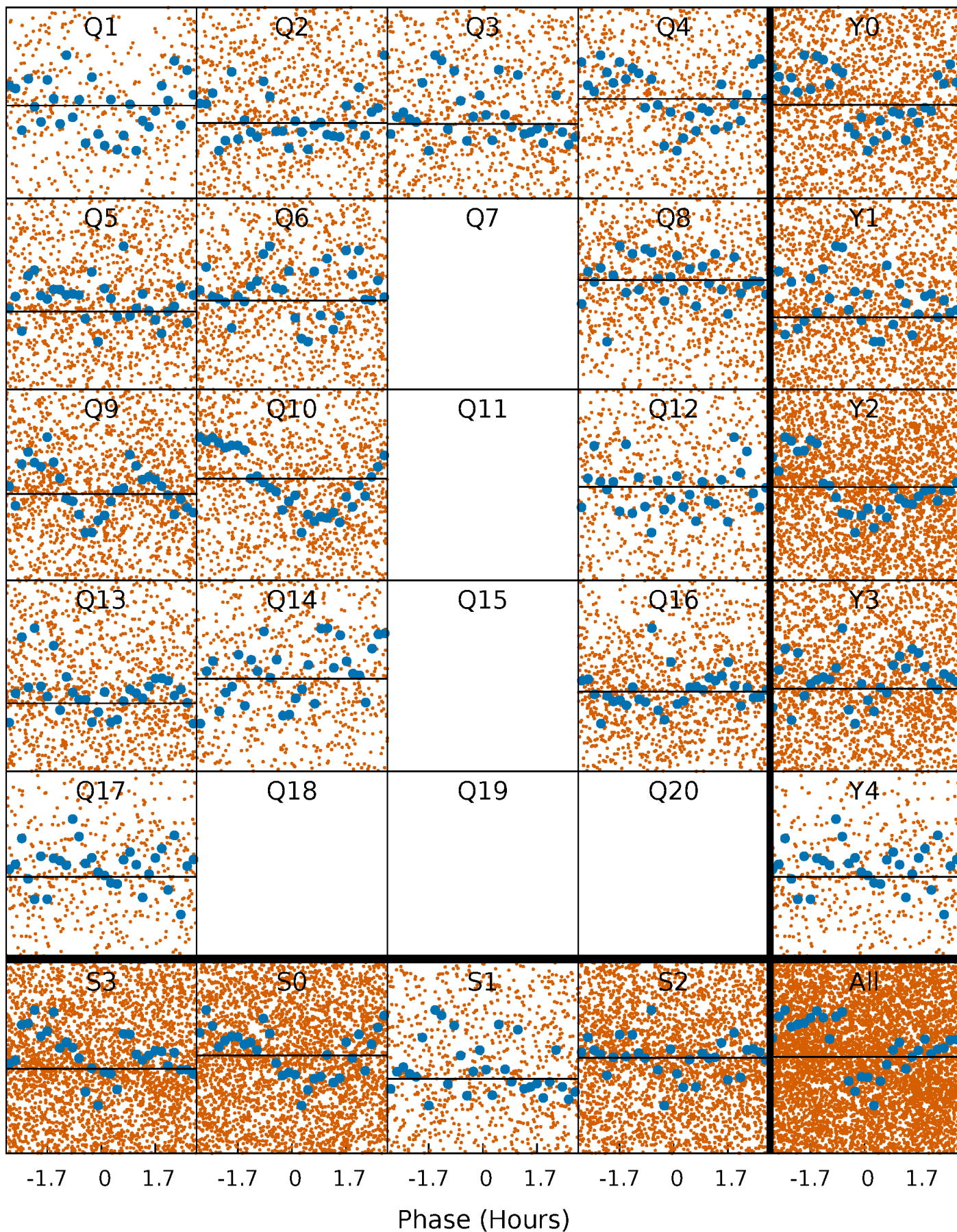
PDC Quarter-Phased Transit Curves

TCE 010618471-01 P= 0.575745 Days $T_0=131.726619$ (BKJD)



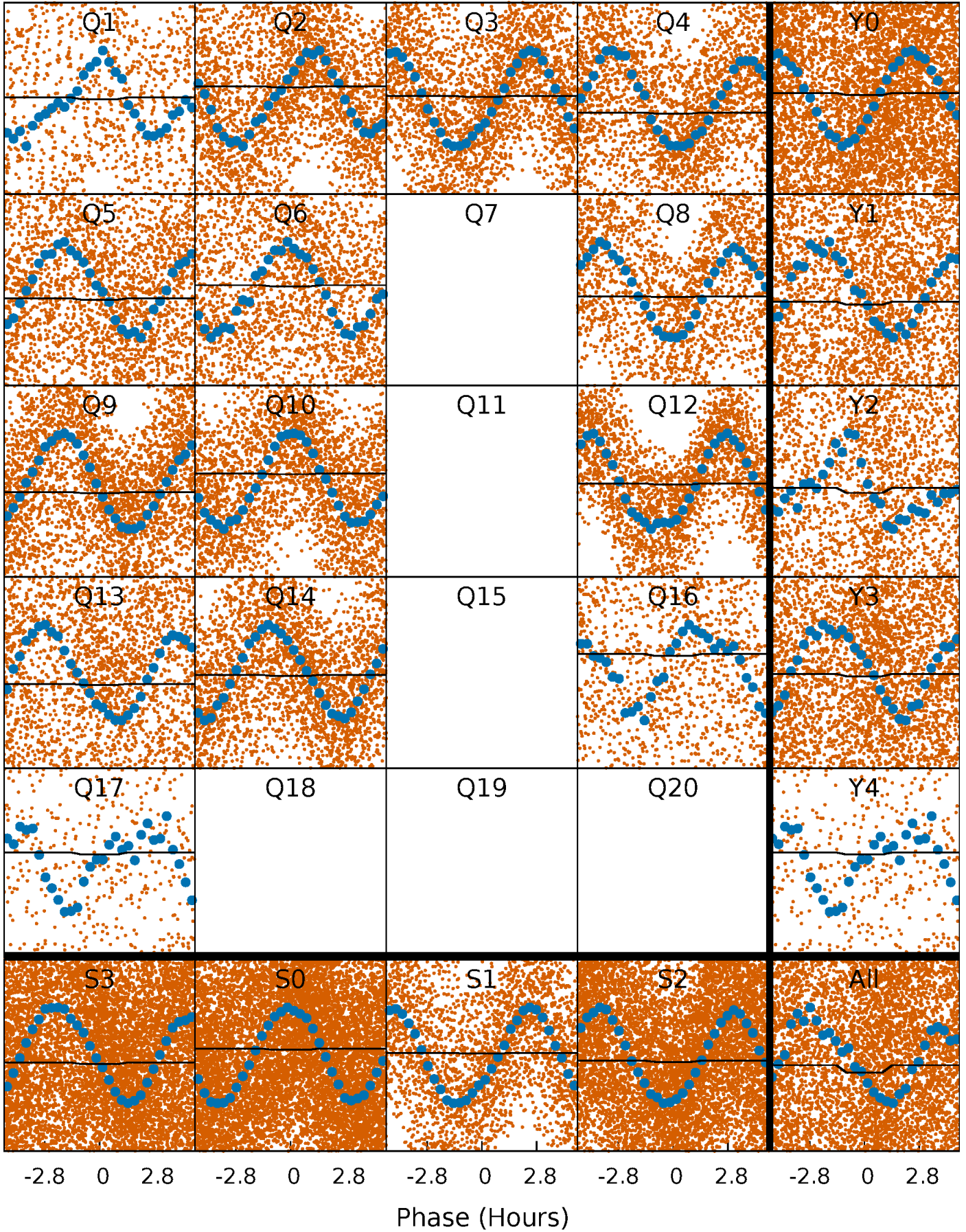
DV Quarter-Phased Transit Curves

TCE 010618471-01 P= 0.575745 Days $T_0=131.726619$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

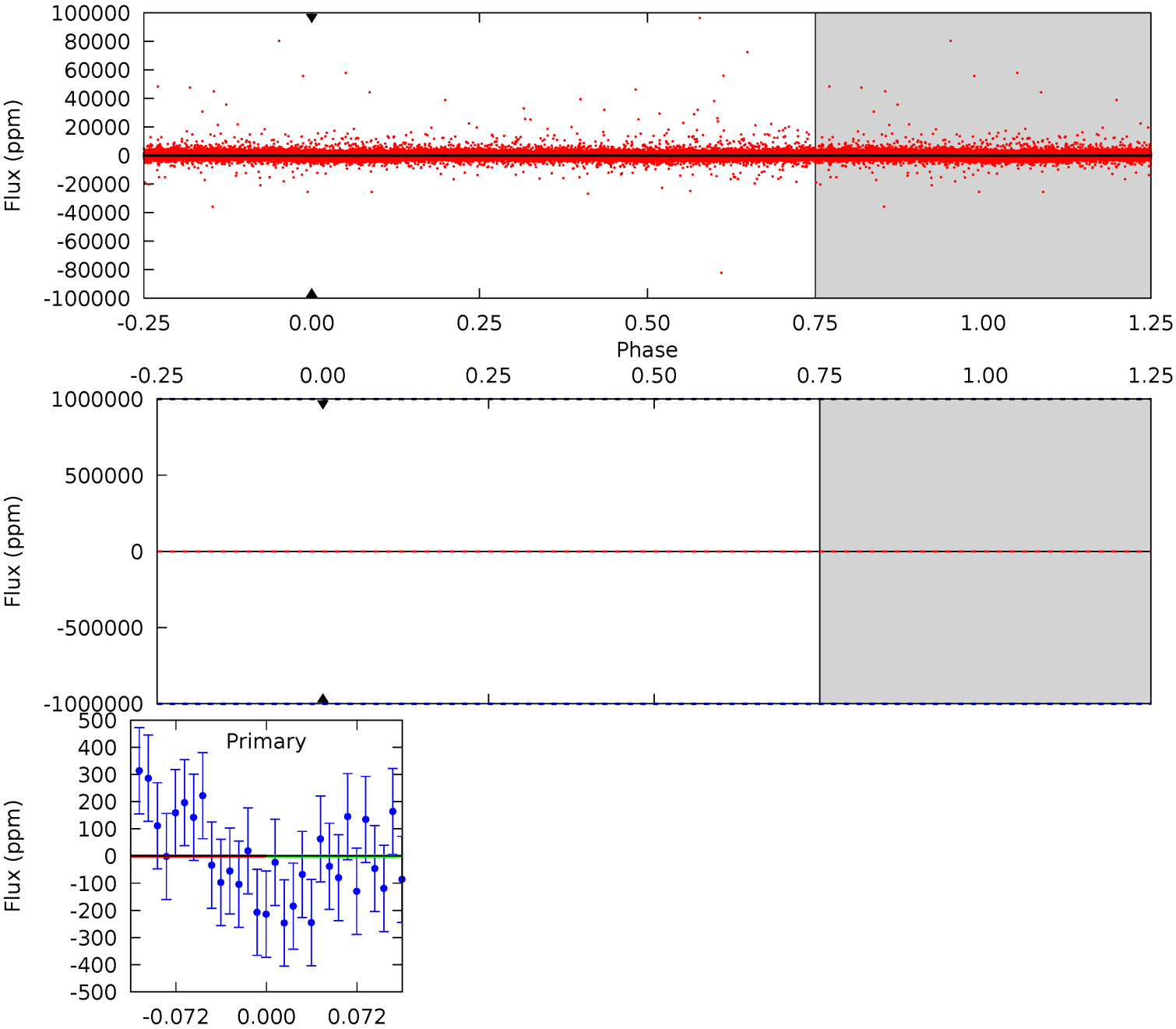
TCE 010618471-01 P= 0.575745 Days $T_0=131.830242$ (BKJD)



DV Model-Shift Uniqueness Test

010618471-01, P = 0.575745 Days, E = 131.150874 Days

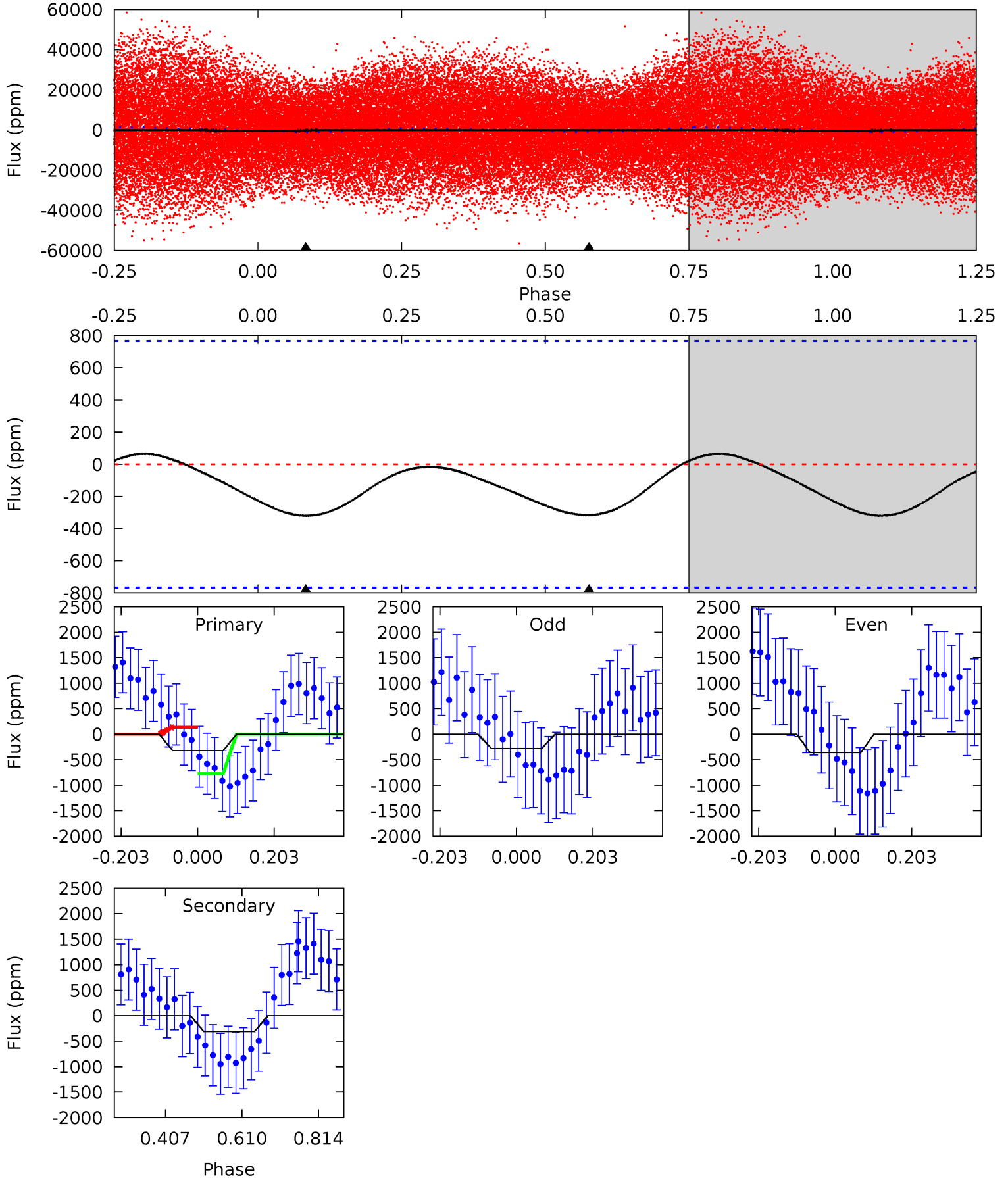
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010618471-01, P = 0.575745 Days, E = 131.254497 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.85	1.82	0	0	4.41	1.27	0.25	1.85	1.85	1.82	1.82	0.27	1.01	0.17	2.22



Stellar Parameters For KIC 010618471

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4788^{+172}_{-172}	$4.573^{+0.054}_{-0.036}$	$-0.020^{+0.250}_{-0.300}$	$0.732^{+0.054}_{-0.068}$	$0.732^{+0.073}_{-0.060}$	$2.625^{+0.625}_{-0.377}$
	+4%/-4%	+1%/-1%	+1250%/-1500%	+7%/-9%	+10%/-8%	+24%/-14%
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 010618471-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$5.70^{+5.85}_{-4.03}$	2270^{+96}_{-88}	3894^{+11332}_{-16669}	$4.344^{+558.196}_{-379.907}$
Alt.	-317 ± 174	$5.80^{+6.38}_{-3.75}$	2283^{+87}_{-95}	2715^{+1414}_{-5154}	$0.680^{+5.715}_{-0.555}$

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 $A_{obs} \gg 1.0$

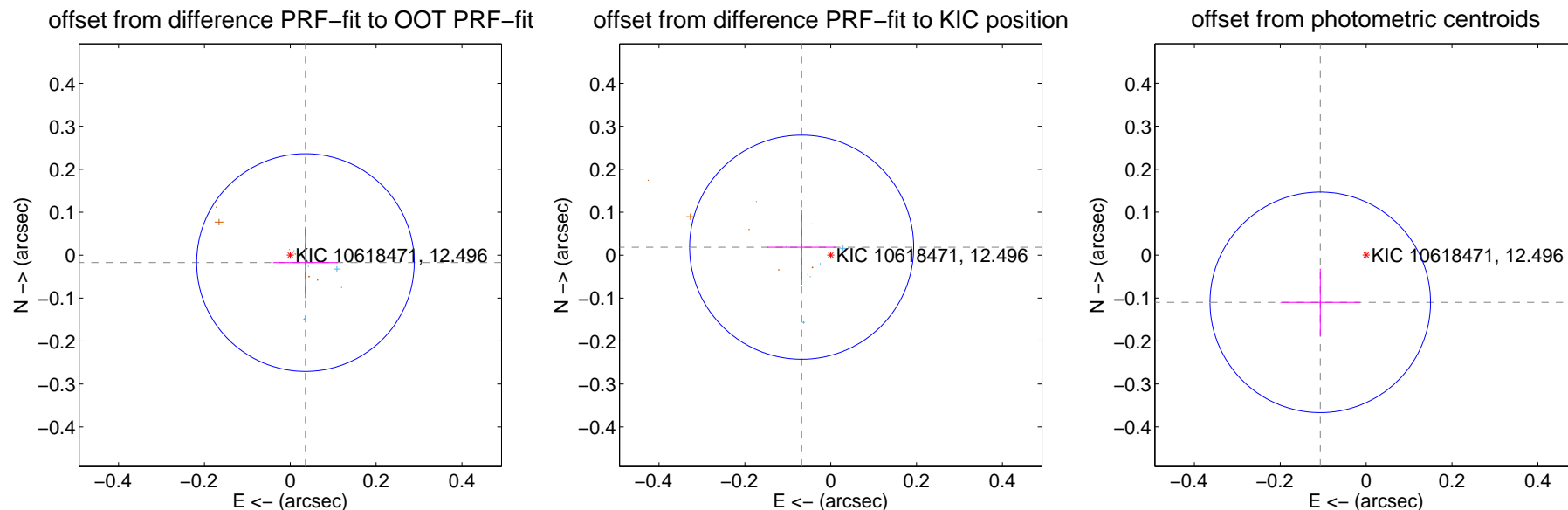
DV Centroid Data

Supplemental centroid analysis for 010618471-01. Kepler magnitude: 12.50. Transit SNR -1.00

There are 8 quarters with good PRF difference image offsets

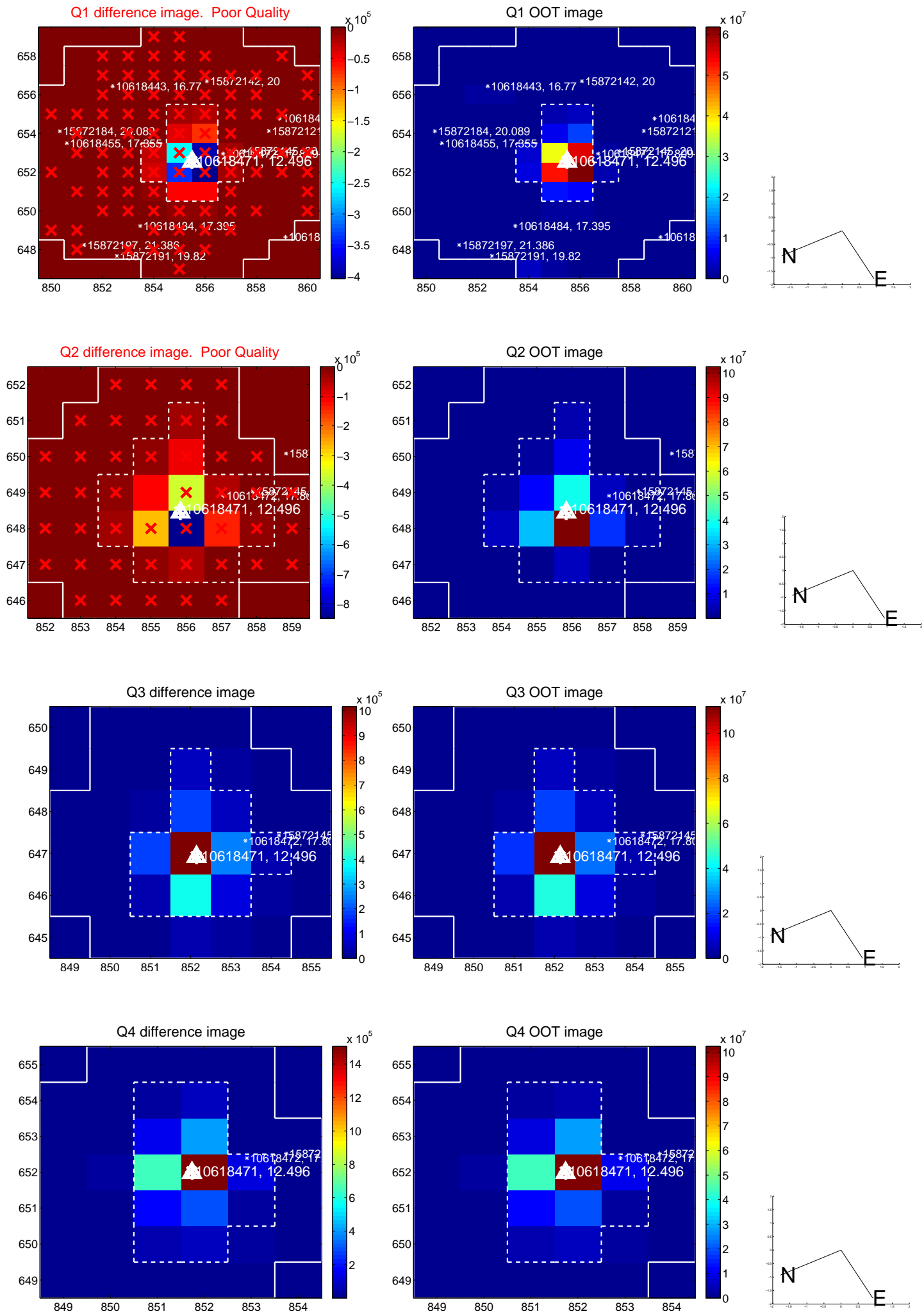
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.039 ± 0.084	0.47	-0.035 ± 0.075	-0.017 ± 0.083
PRF-fit source offset from KIC position	0.070 ± 0.087	0.81	0.068 ± 0.080	0.018 ± 0.087
photometric centroid source offset	0.15 ± 0.09	1.79	0.11 ± 0.09	-0.11 ± 0.08

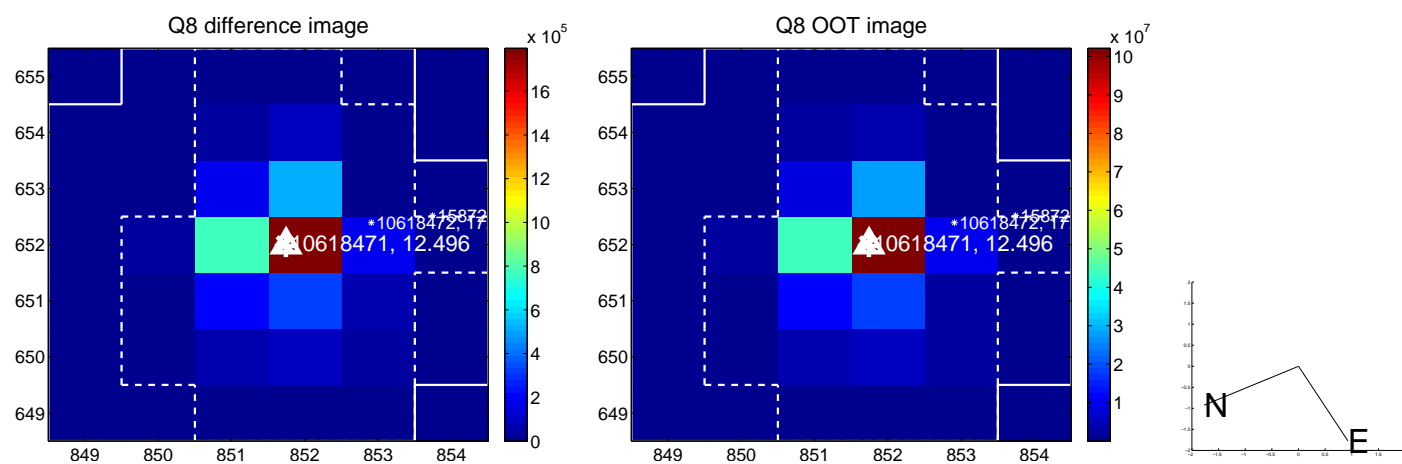
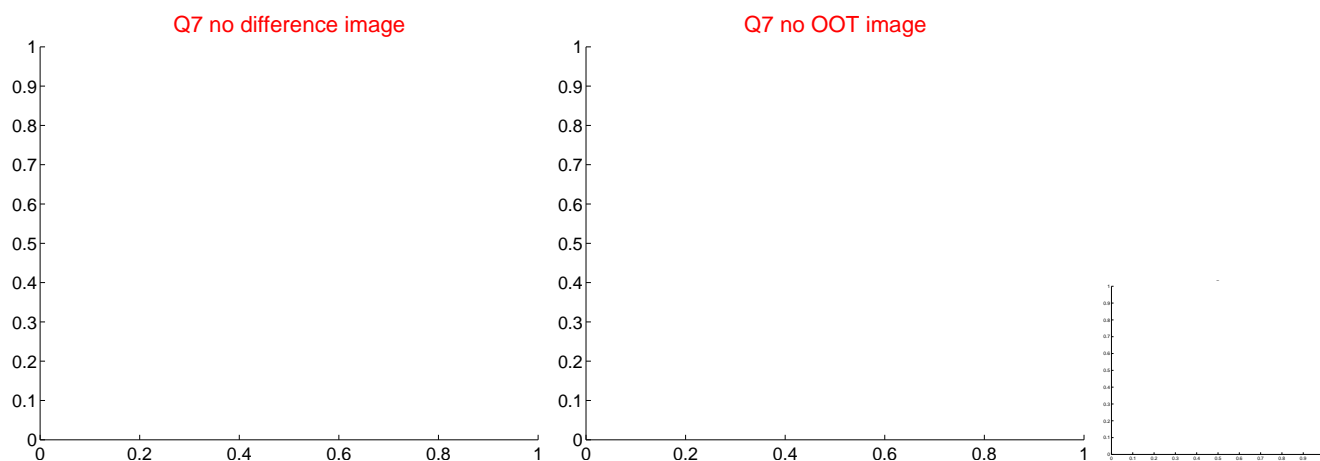
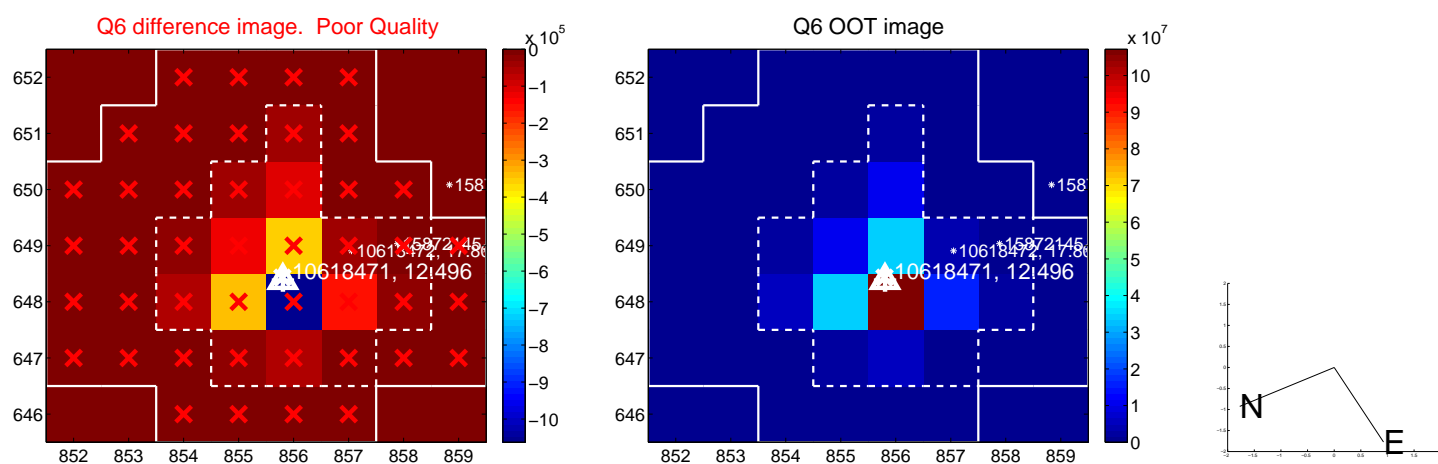
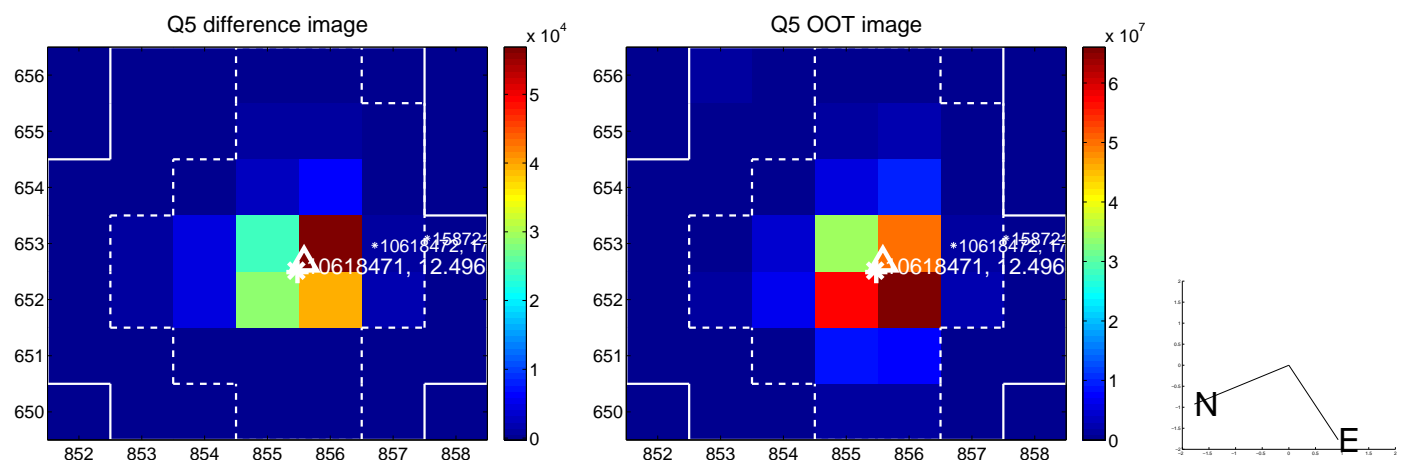


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

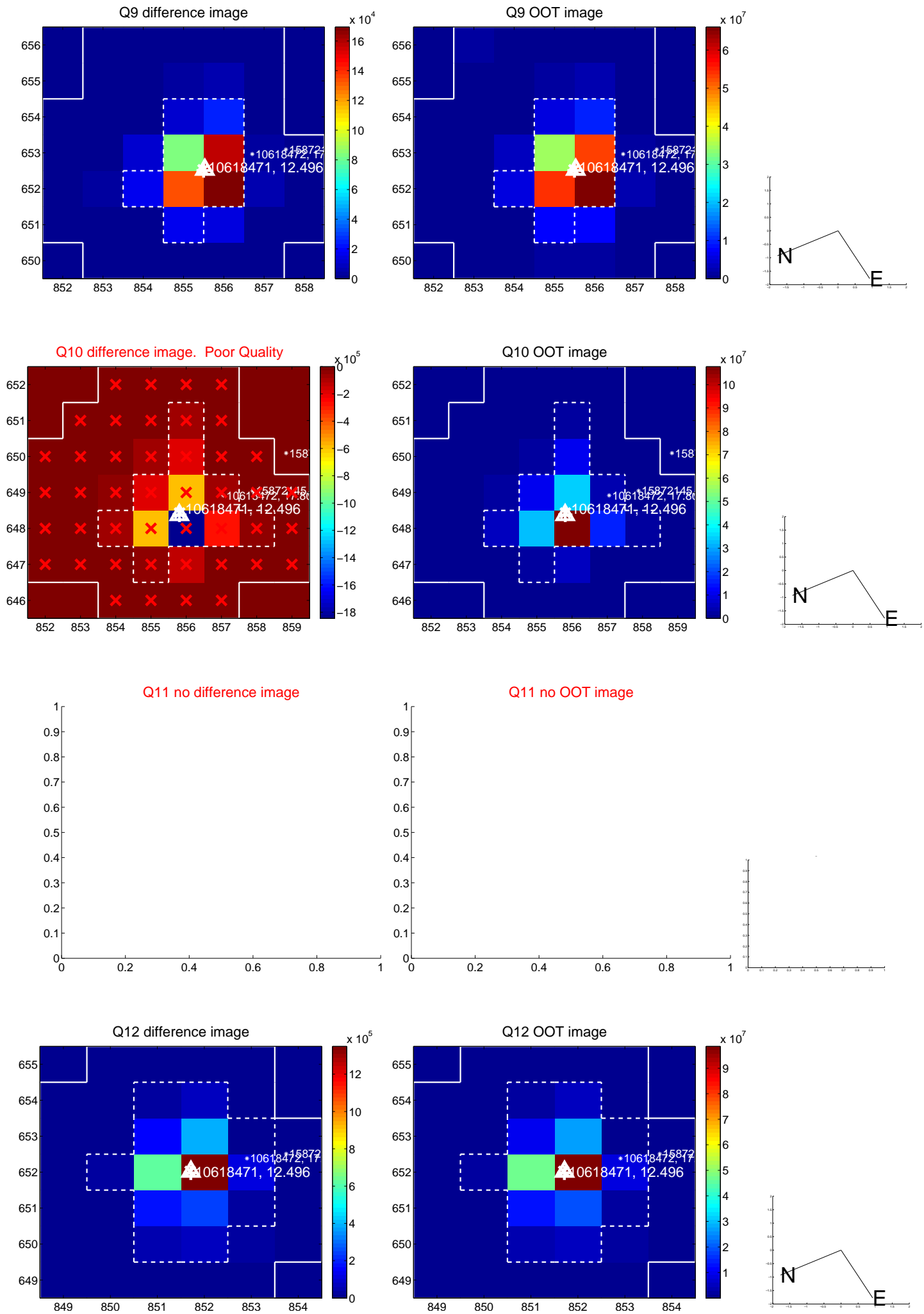
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



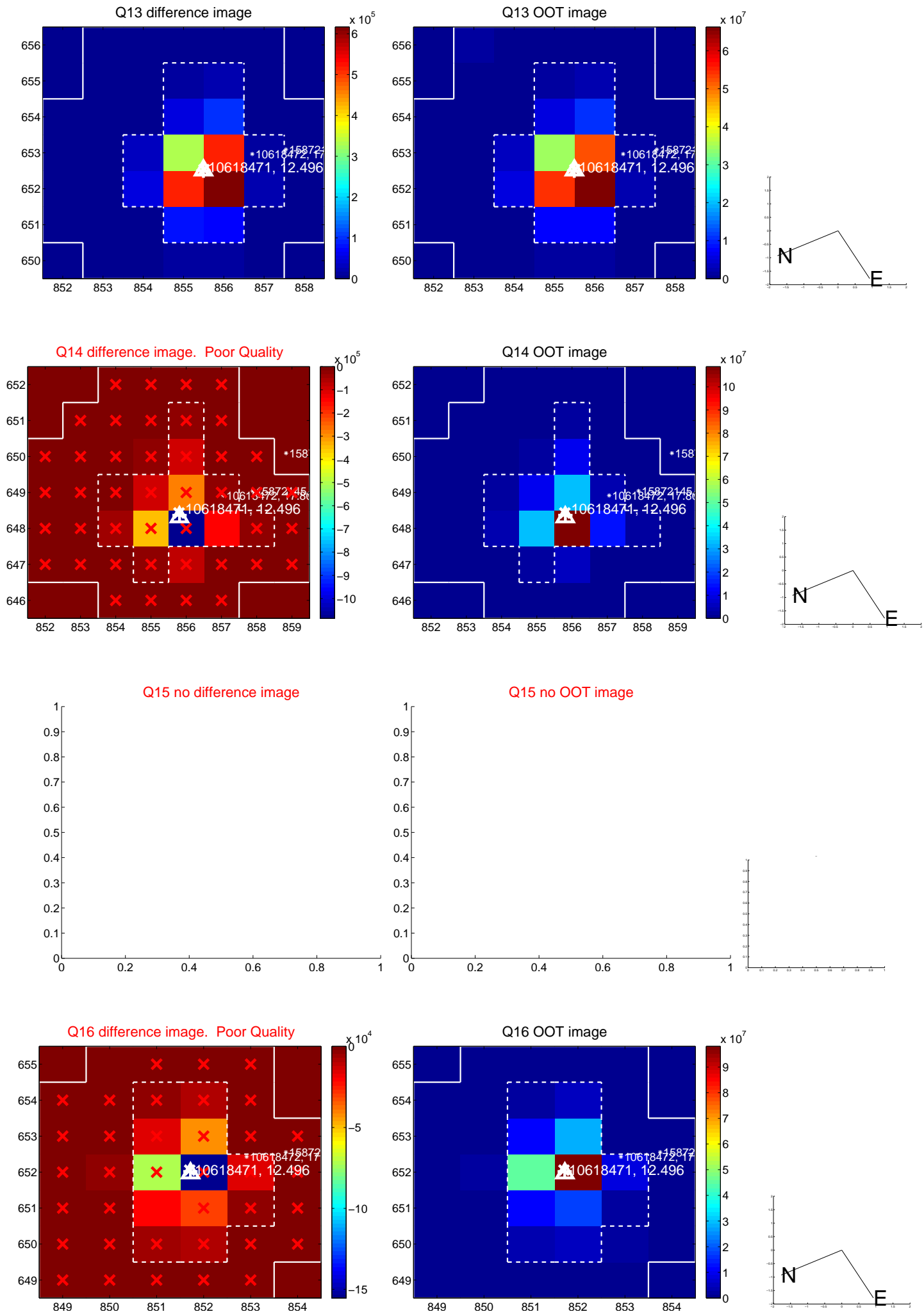
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



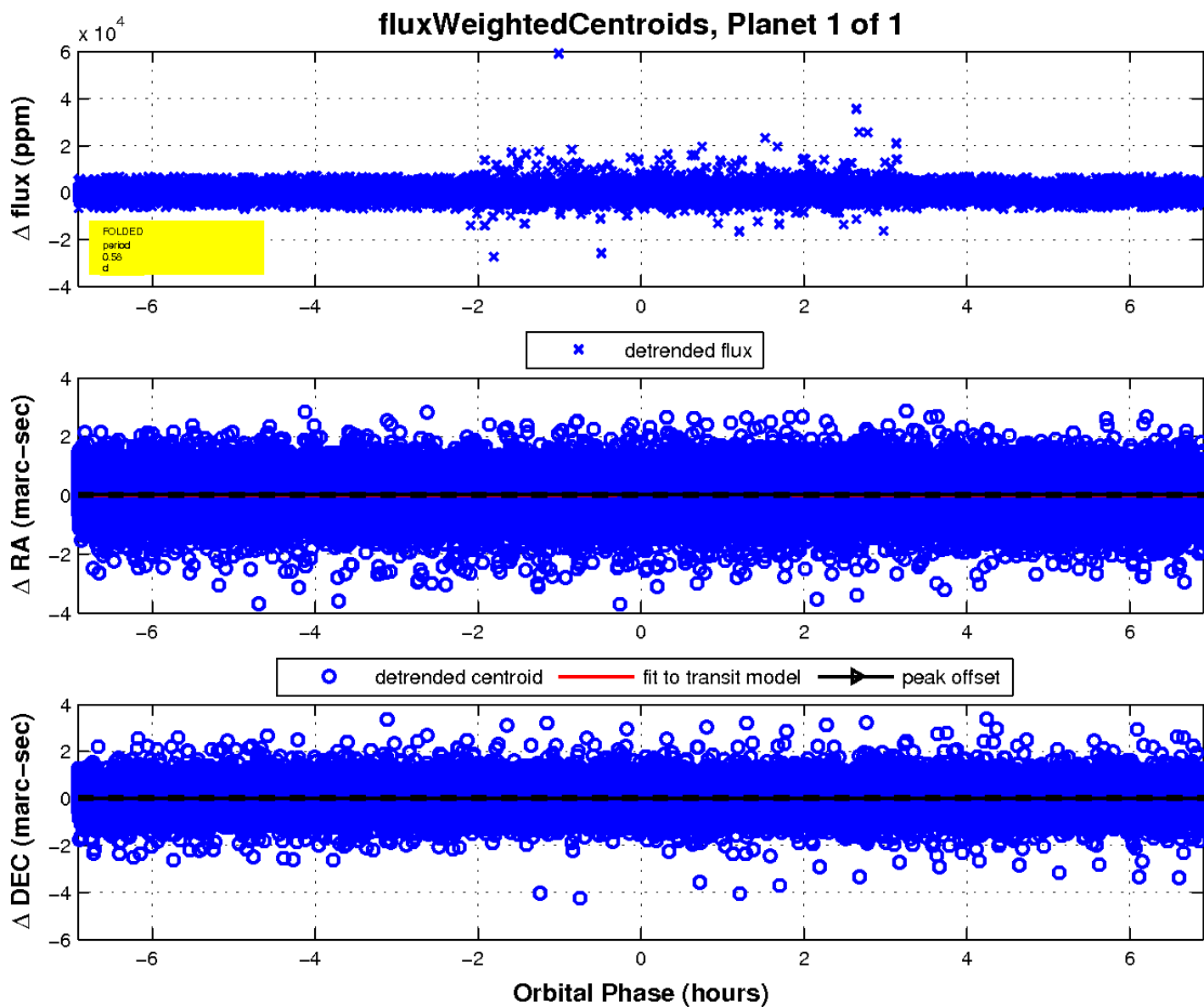
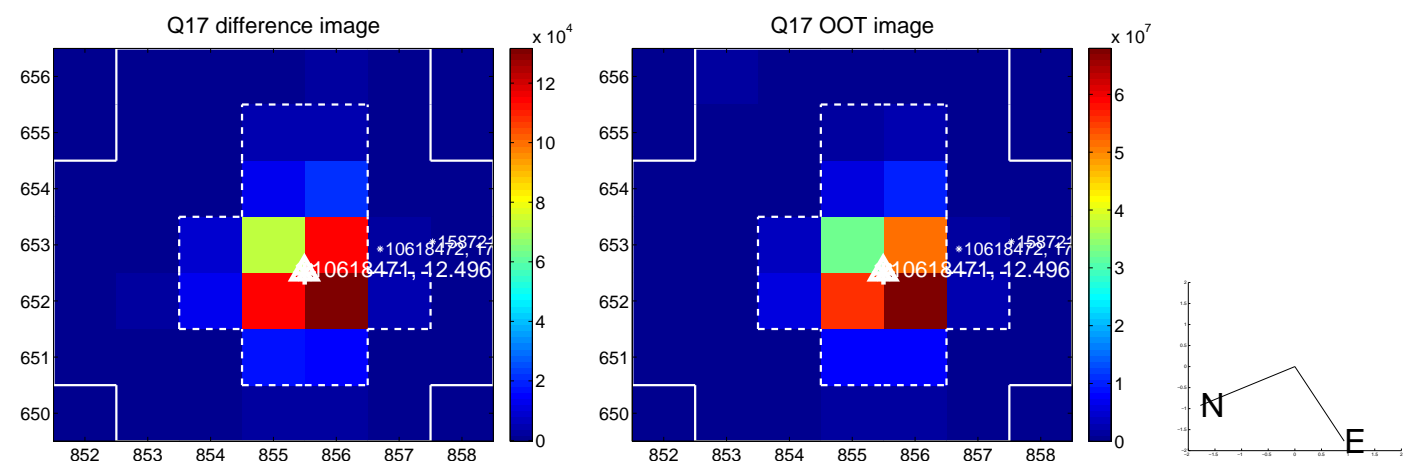
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UKIRT Image

Declination

