

KIC 006865077

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
006865077-01	OBS	No	0.690280	131.771123	27.3	4.256	8.9	7.0	3.32	7981	1.81	106579.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006865077-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_SATURATED

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

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

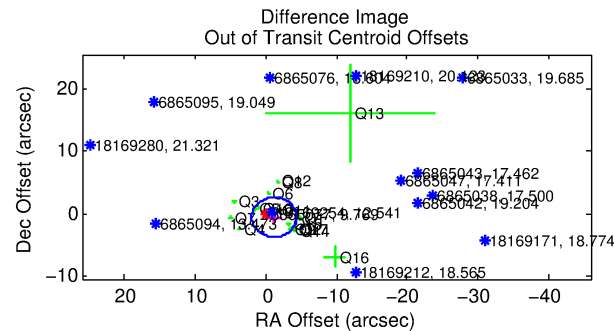
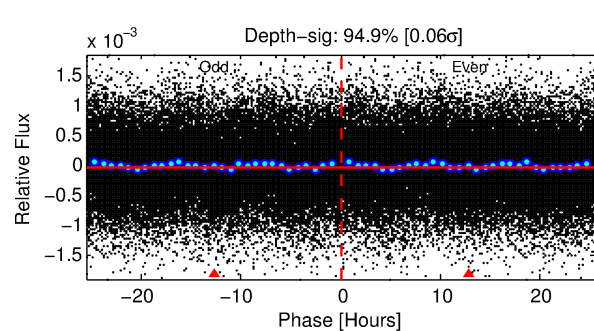
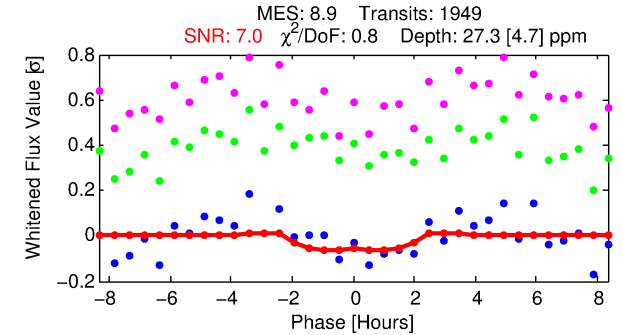
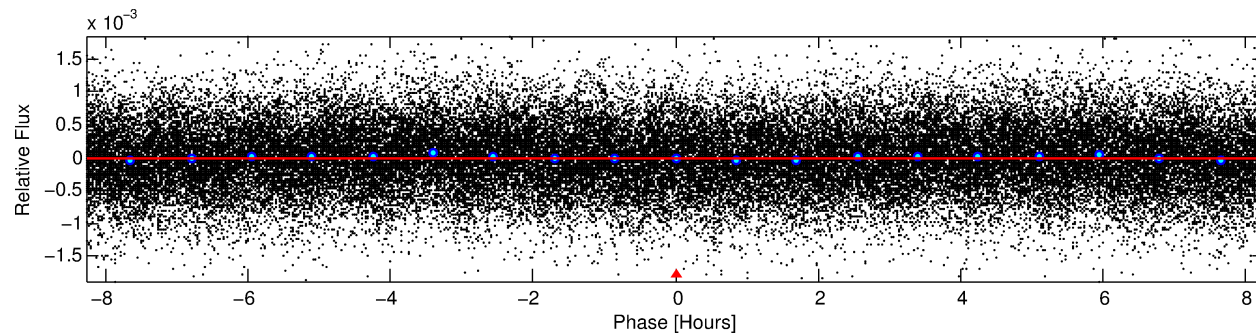
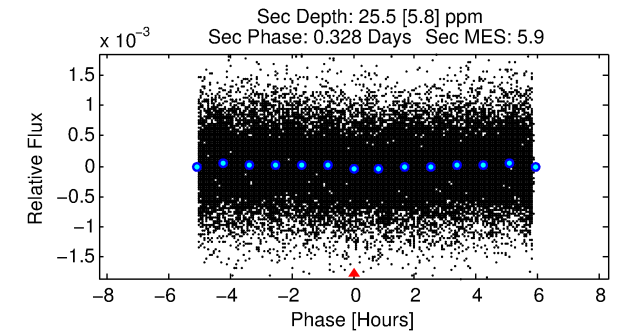
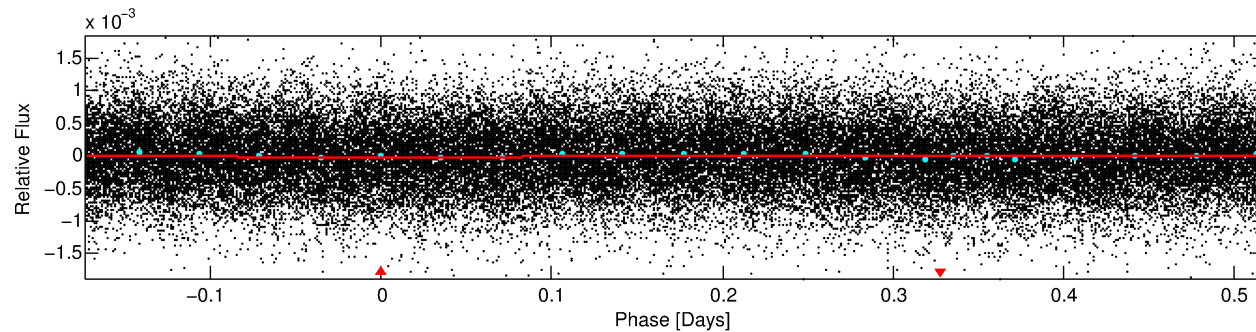
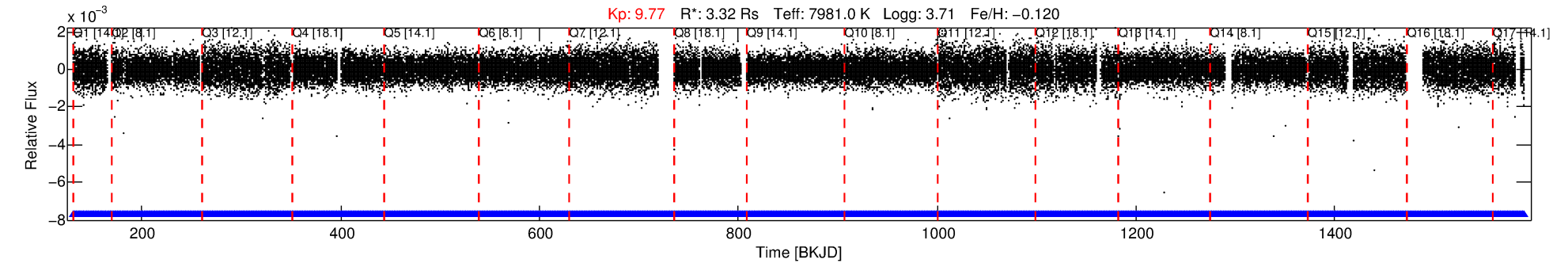
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006865077-01

No Significant Match Found

DV One-Page Summary

KIC: 6865077 Candidate: 1 of 1 Period: 0.690 d



DV Fit Results:

Period = 0.69028 [0.00001] d
Epoch = 131.7711 [0.0064] BKJD
Rp/R* = 0.0050 [0.0039]
a/R* = 1.27 [2.11]
b = 0.58 [4.96]
Seff = 106579.65 [78384.38]
Teq = 4607 [847] K
Rp = 1.81 [1.63] Re
a = 0.0194 [0.0086] AU
Ag = 1.60 [2.76] [0.22σ]
Teffp = 8009 [3159] K [1.04σ]

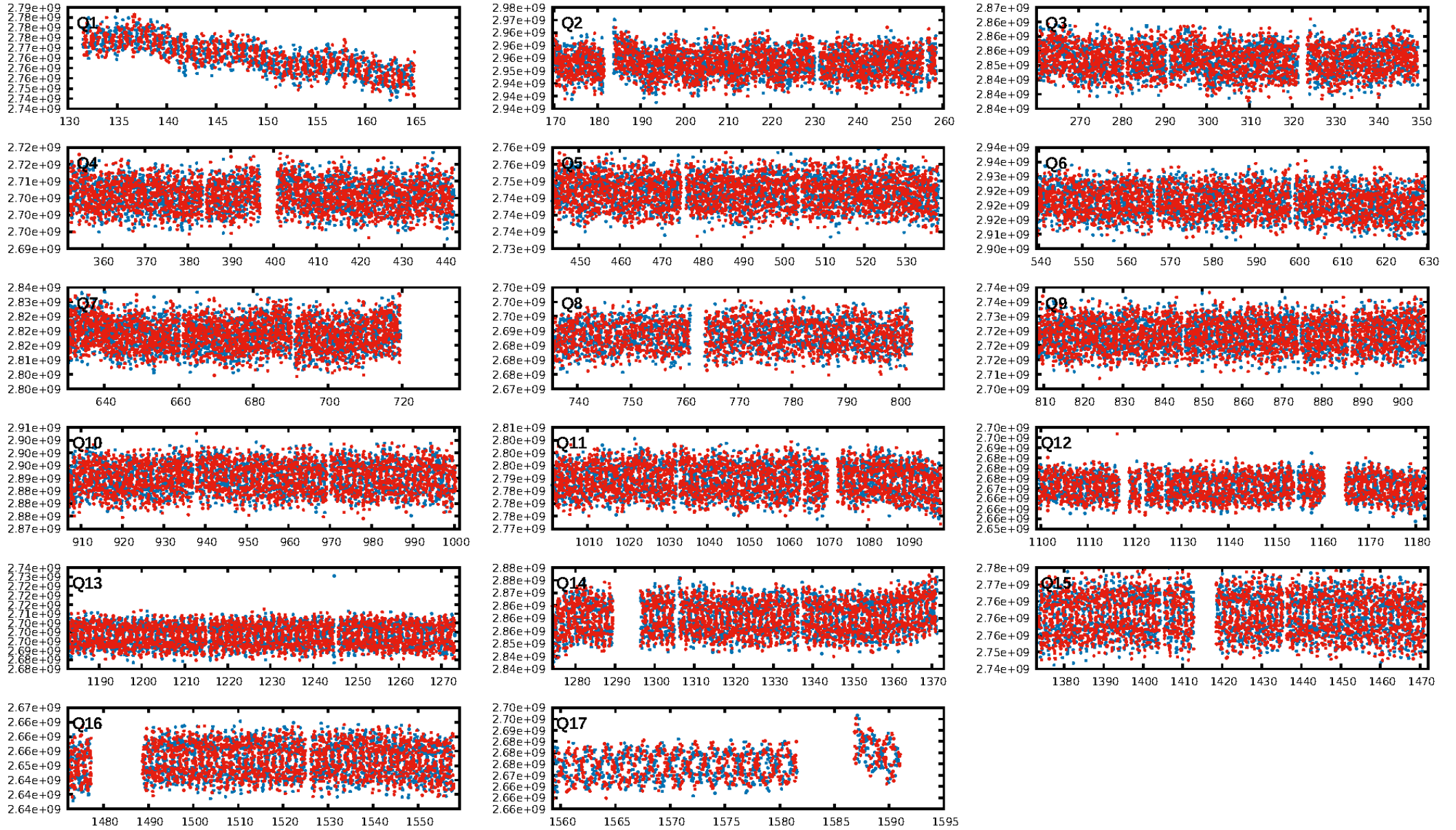
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.57e-12
RollingBand-fgt: 1.00 [1860/1860]
GhostDiagnostic-chr: N/A
Centroid-sig: 26.0%
Centroid-so: 0.443 arcsec [1.57σ]
OotOffset-rm: 1.339 arcsec [1.27σ]
KicOffset-rm: 0.957 arcsec [0.88σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 1.00 [17/17]

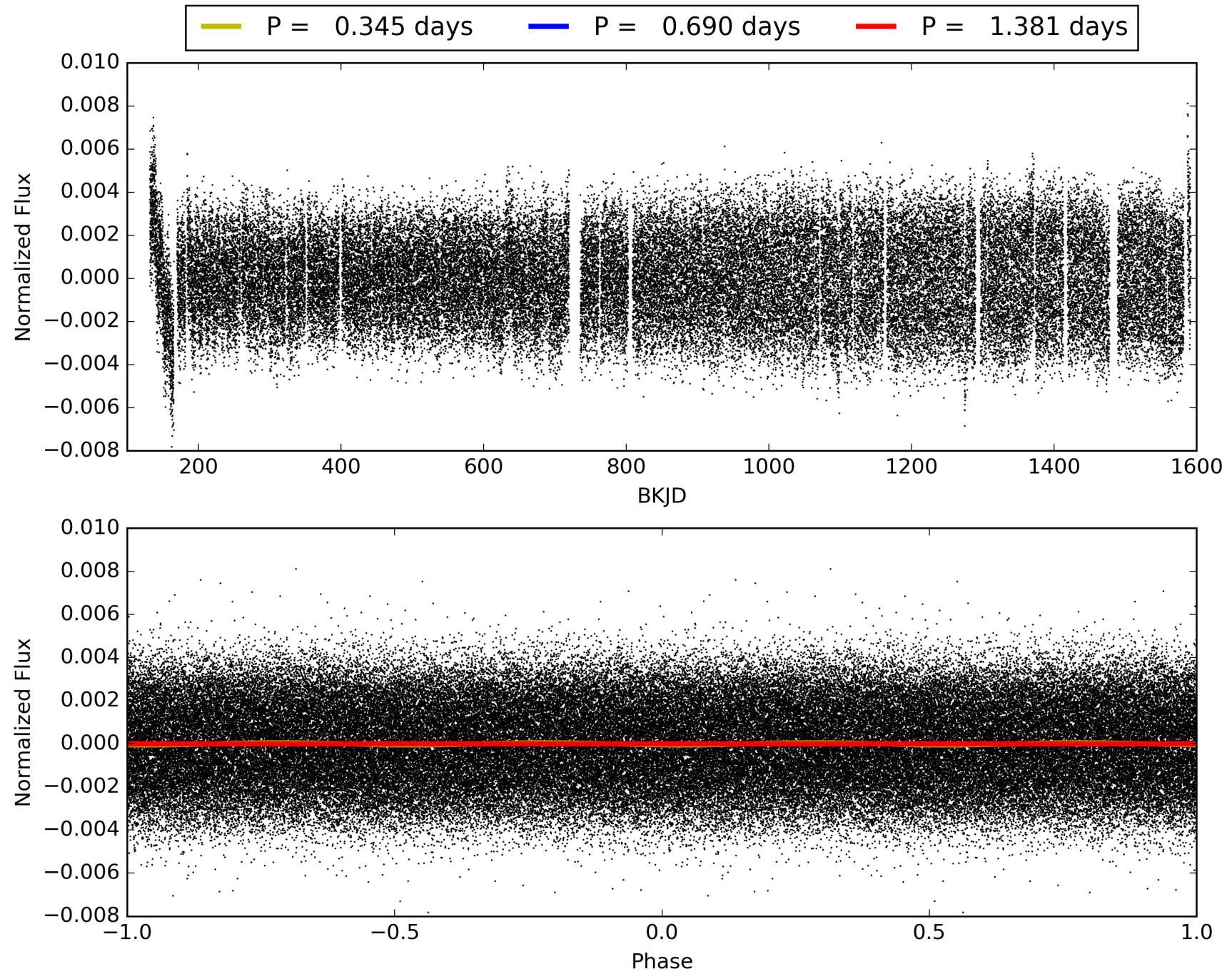
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:48:13 Z

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

TCE 006865077-01, PDC Light Curves

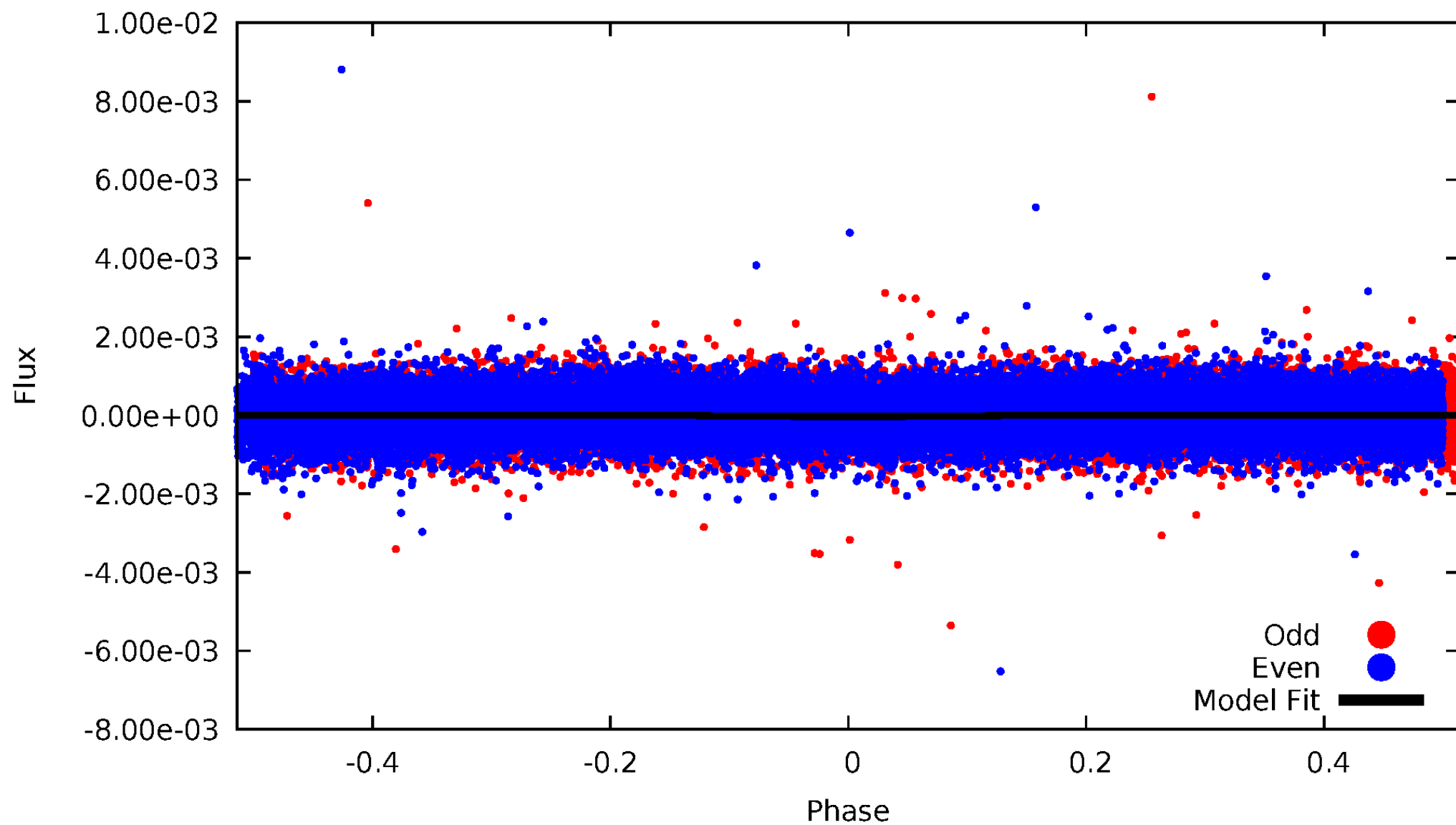


TCE 006865077-01



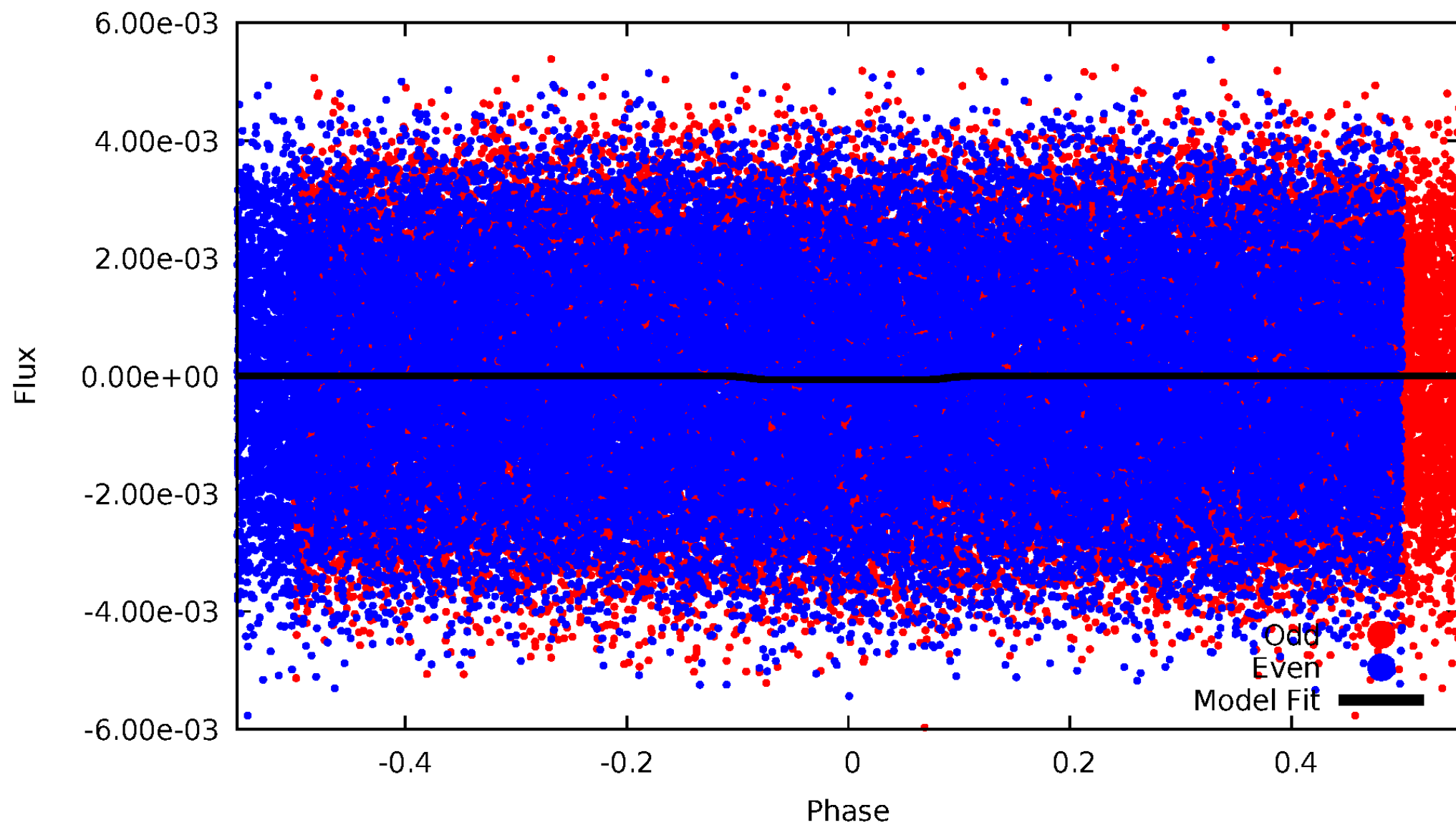
DV Odd/Even

TCE 006865077-01



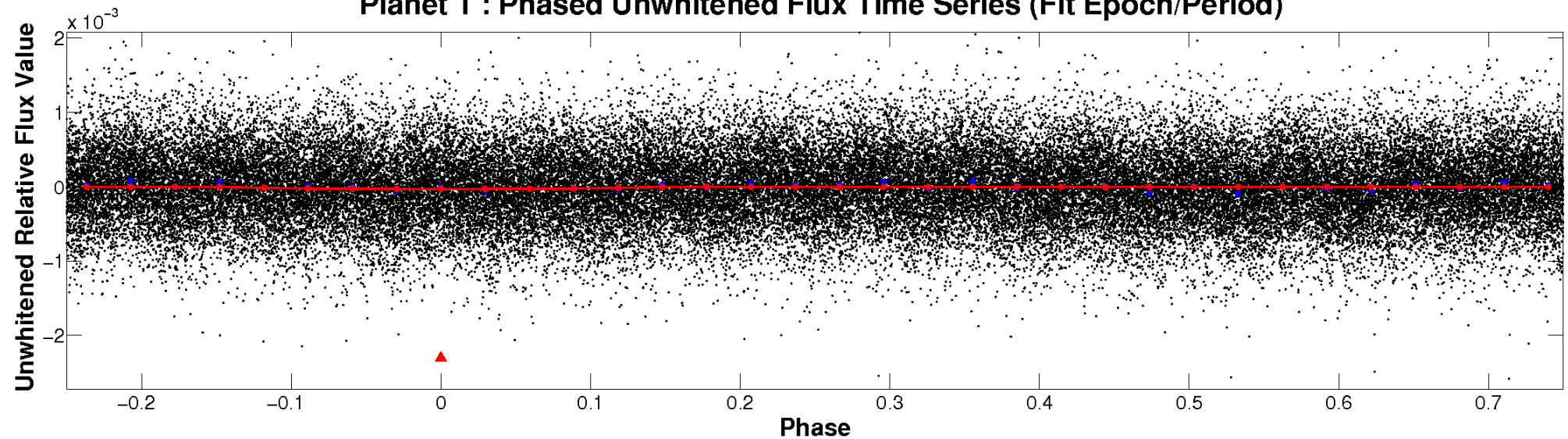
ALT Odd/Even

TCE 006865077-01

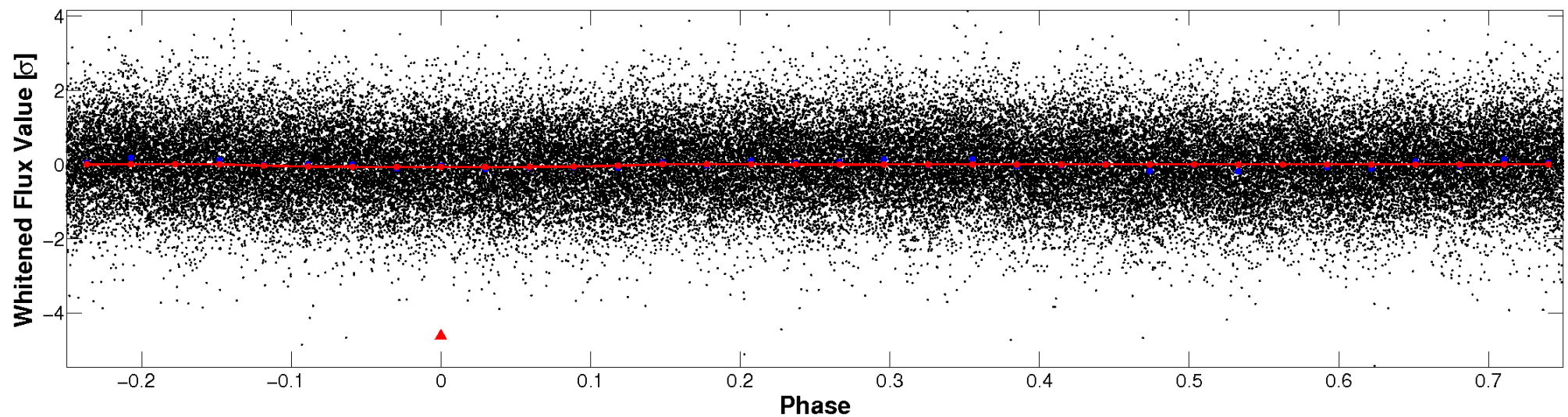


Non-Whitened Vs. Whitened Light Curve

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

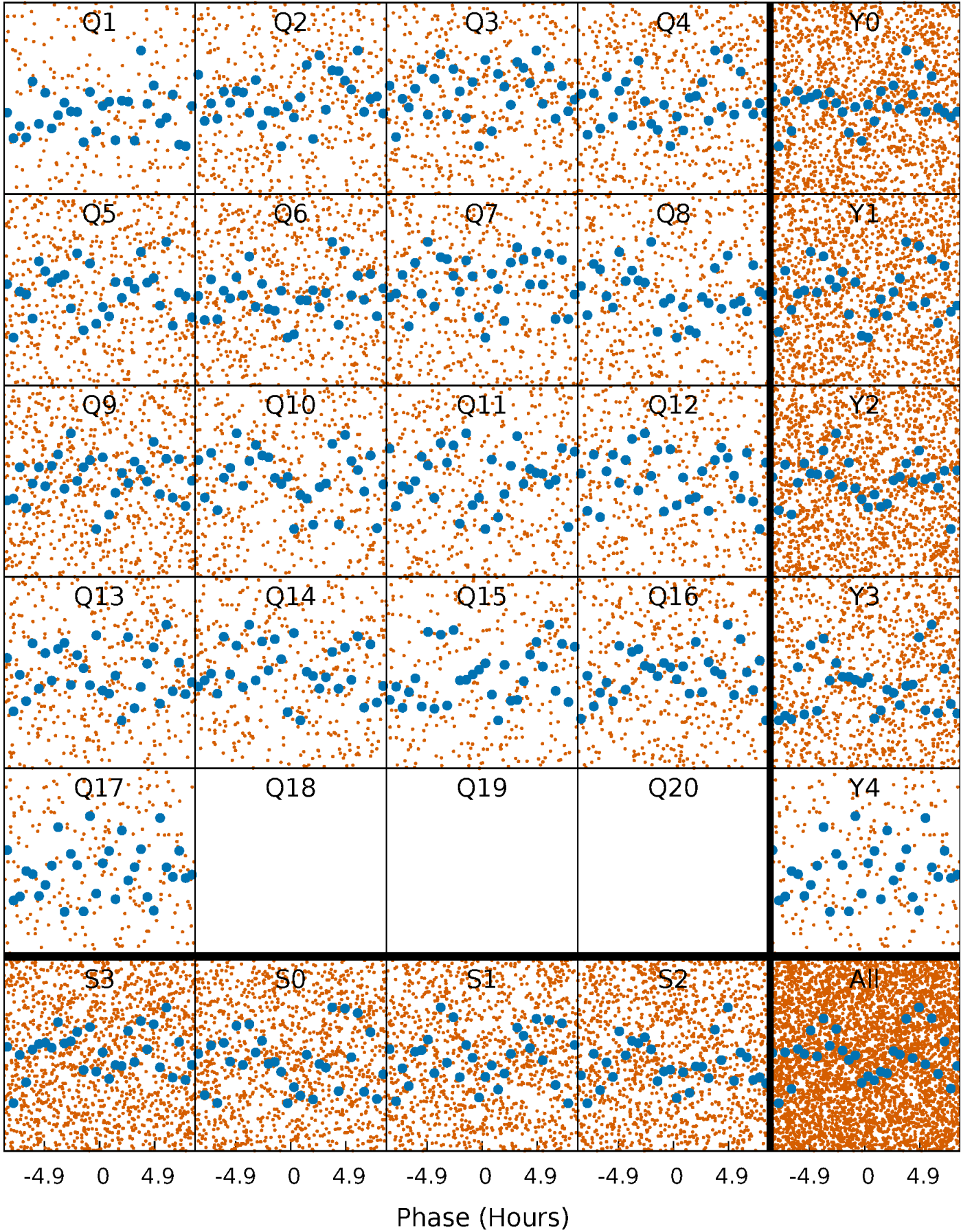


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



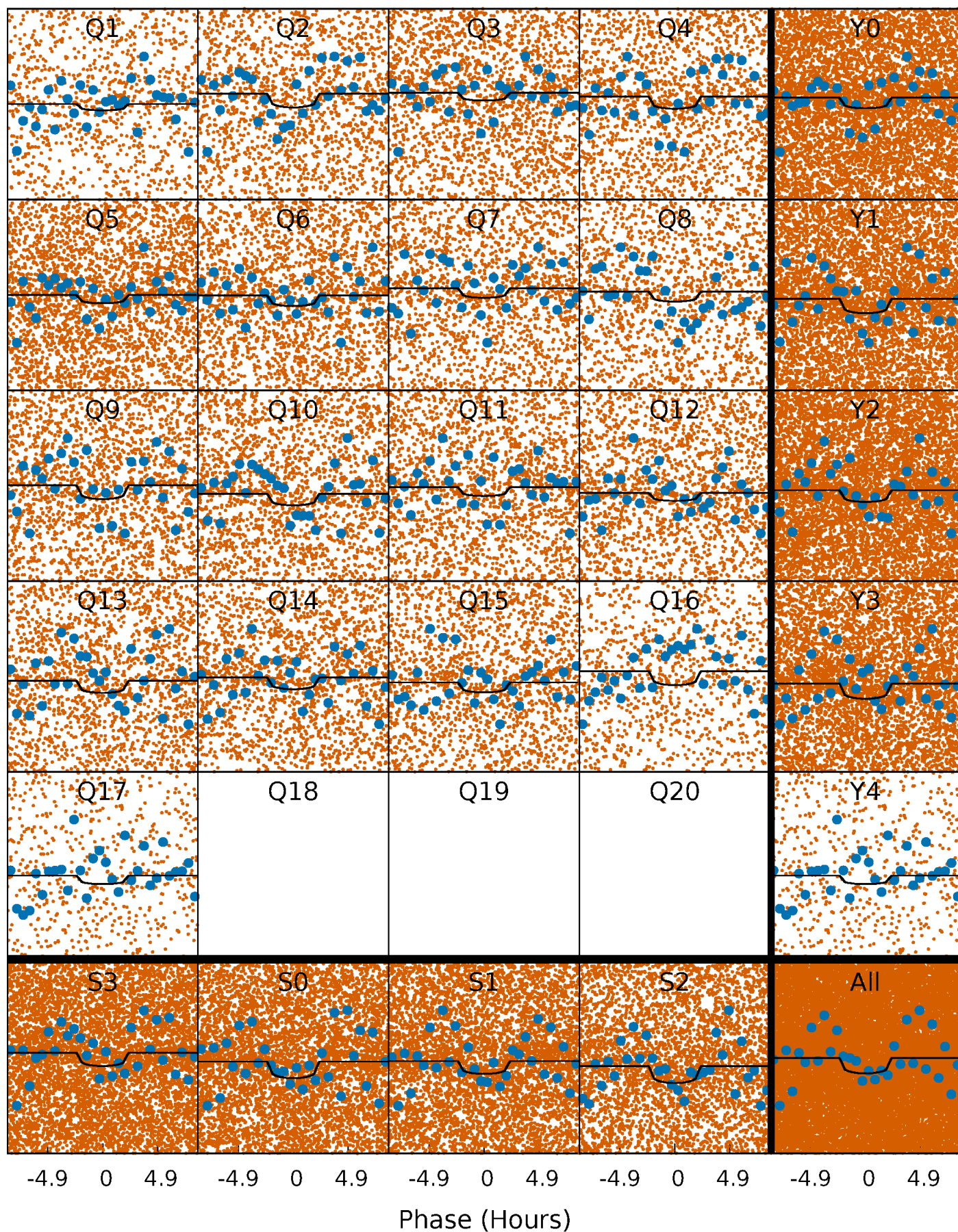
PDC Quarter-Phased Transit Curves

TCE 006865077-01 P= 0.690280 Days $T_0=131.771123$ (BKJD)



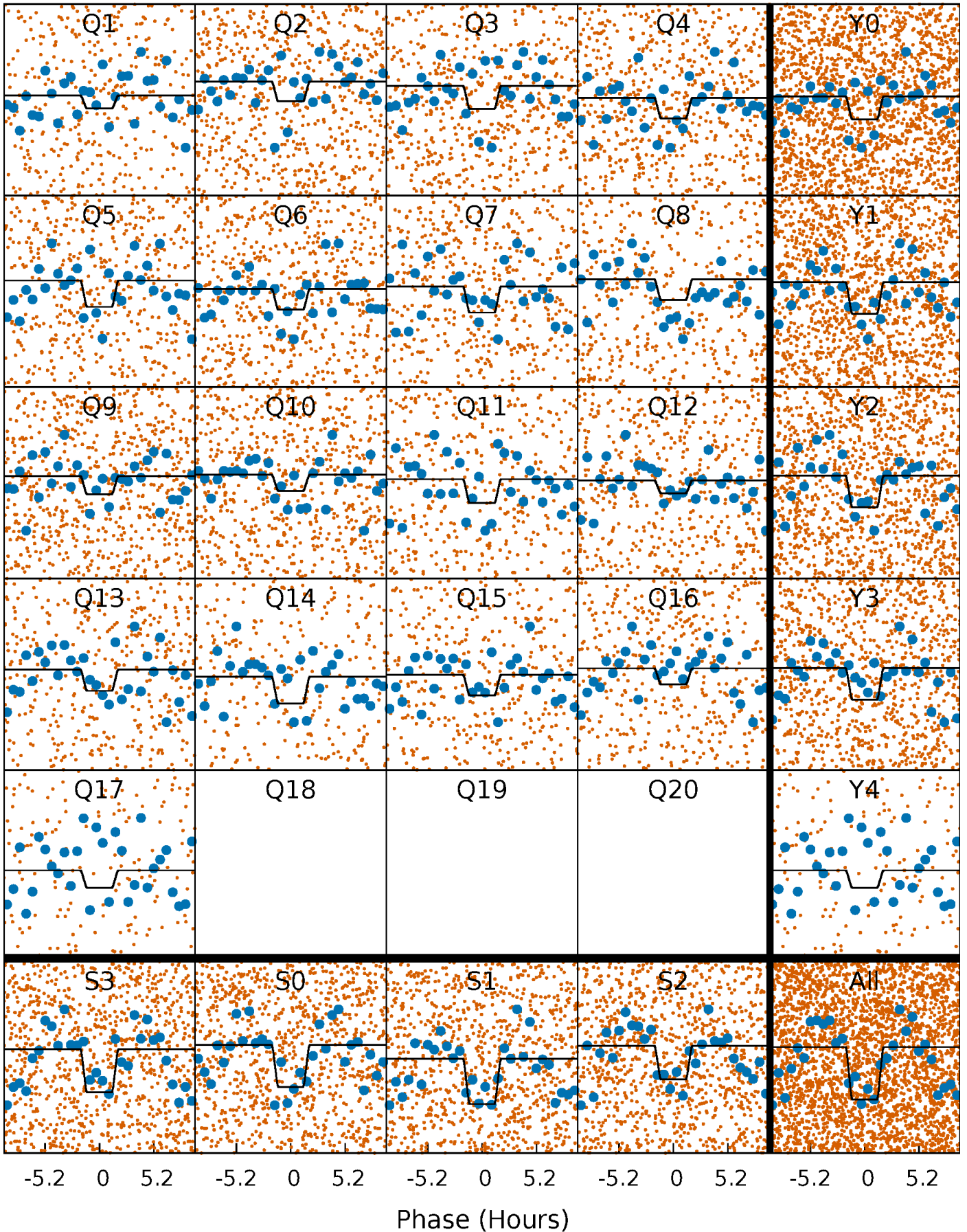
DV Quarter-Phased Transit Curves

TCE 006865077-01 P= 0.690280 Days $T_0=131.771123$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

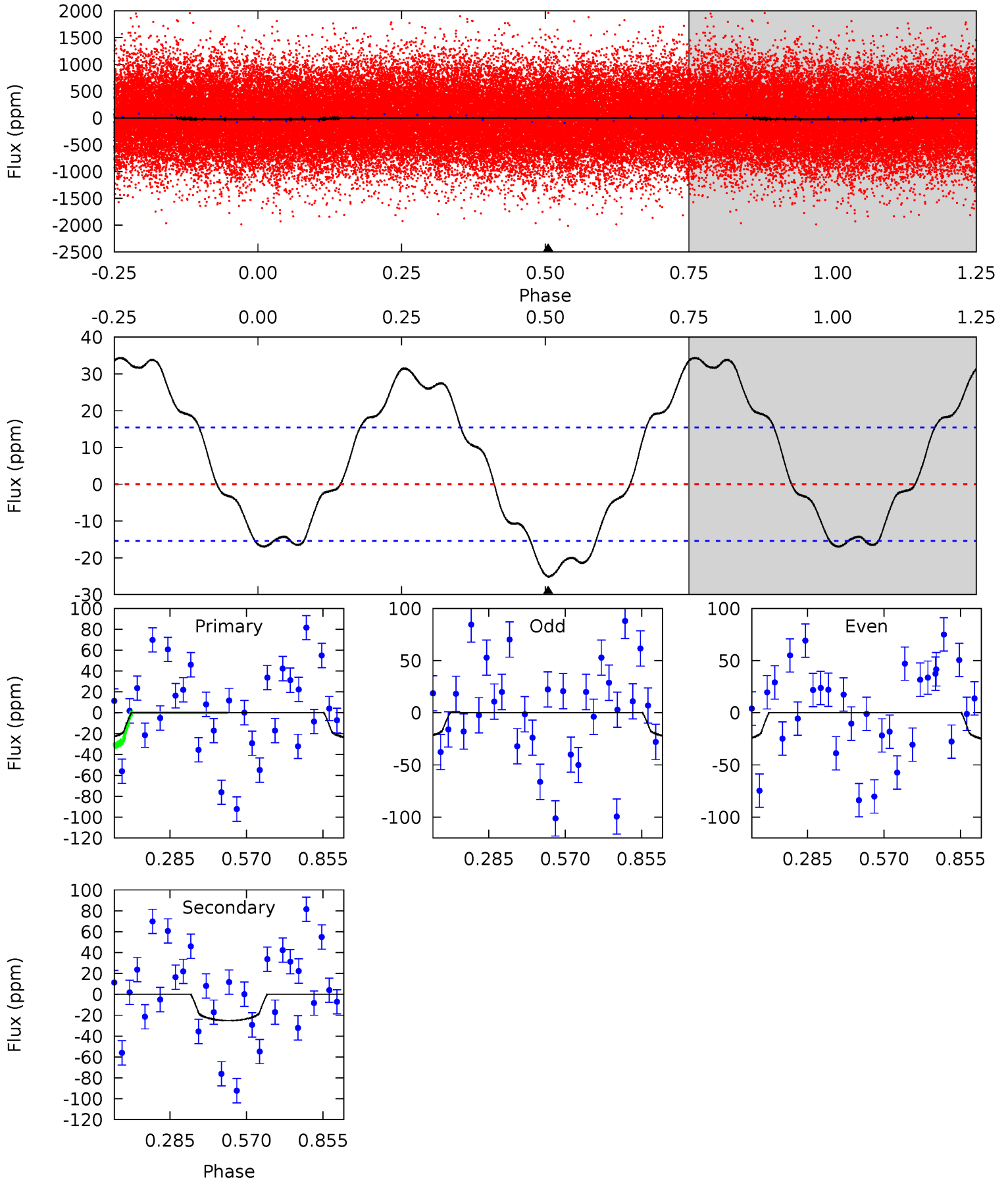
TCE 006865077-01 P= 0.690320 Days $T_0=131.756245$ (BKJD)



DV Model-Shift Uniqueness Test

006865077-01, P = 0.690280 Days, E = 131.080843 Days

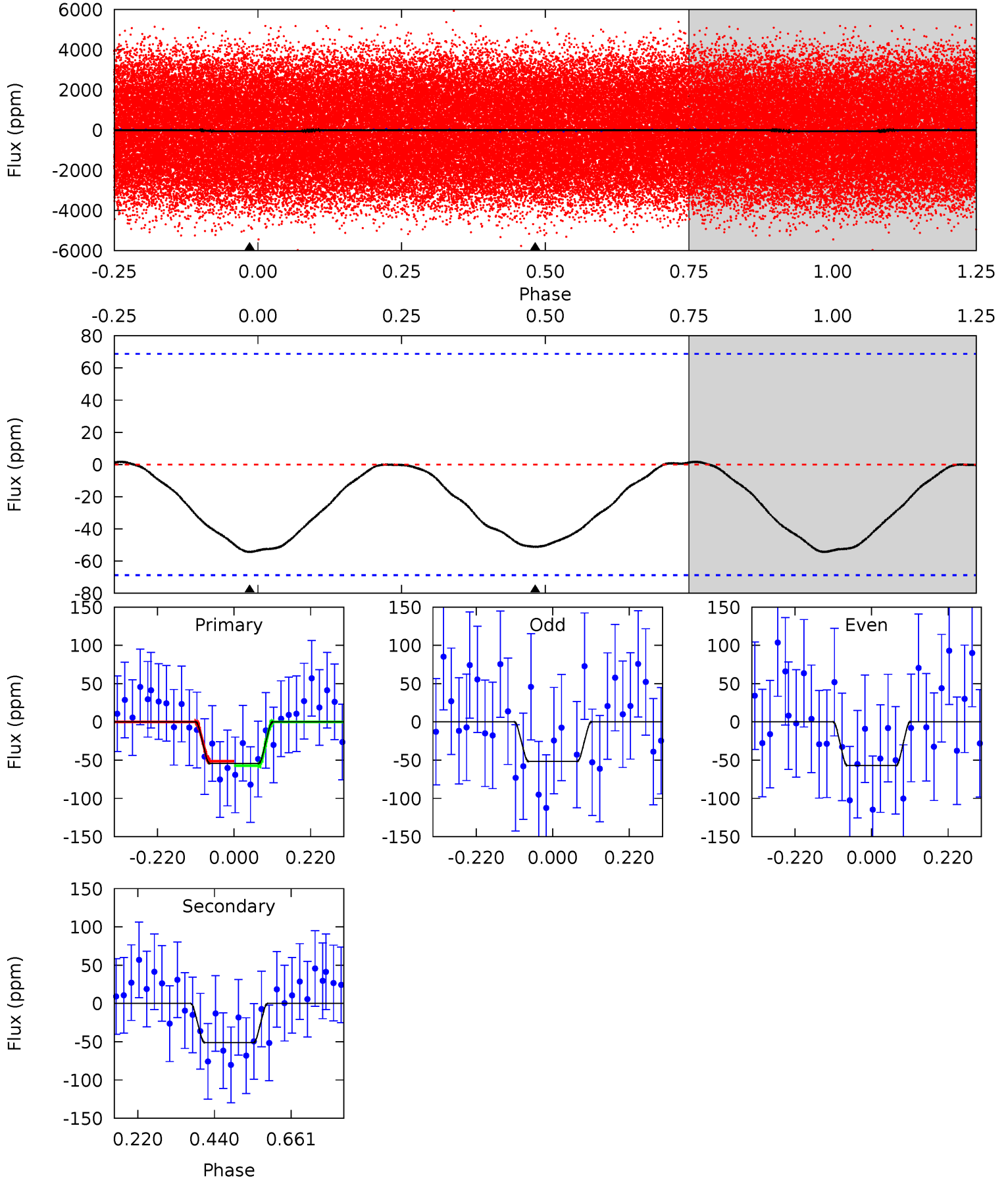
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.07	7.07	0	0	4.34	1.07	4.60	7.07	7.07	7.07	7.07	0.41	1.29	0.58	2.86



Alt Model-Shift Uniqueness Test

006865077-01, P = 0.690320 Days, E = 131.065925 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.48	3.27	0	0	4.40	1.23	0.04	3.48	3.48	3.27	3.27	0.18	1.09	0.03	0.19



Stellar Parameters For KIC 006865077

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7981^{+220}_{-331}	$3.705^{+0.424}_{-0.106}$	$-0.120^{+0.200}_{-0.350}$	$3.318^{+0.688}_{-1.491}$	$2.038^{+0.339}_{-0.509}$	$0.079^{+0.307}_{-0.028}$
	+3%/-4%	+11%/-3%	+167%/-292%	+21%/-45%	+17%/-25%	+391%/-36%
Source	KIC0	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 006865077-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-25 ± 4	$1.81^{+1.39}_{-1.09}$	6232^{+455}_{-712}	7019^{+6682}_{-2288}	$1.590^{+7.746}_{-1.085}$
Alt.	-51 ± 16	$2.59^{+1.66}_{-1.27}$	6235^{+441}_{-784}	6887^{+4384}_{-2058}	$1.520^{+4.156}_{-0.978}$

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 $A_{obs} \gg 1.0$

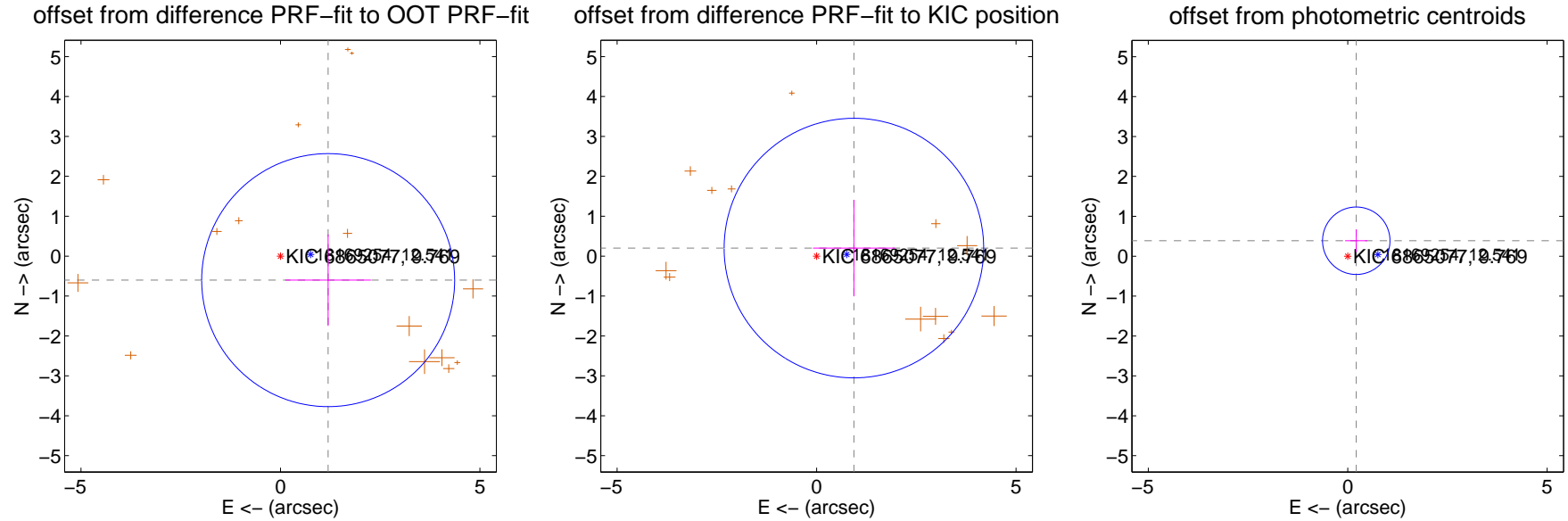
DV Centroid Data

Supplemental centroid analysis for 006865077-01. **Kepler magnitude: 9.77.** Transit SNR 7.02

There are 0 quarters with good PRF difference image offsets

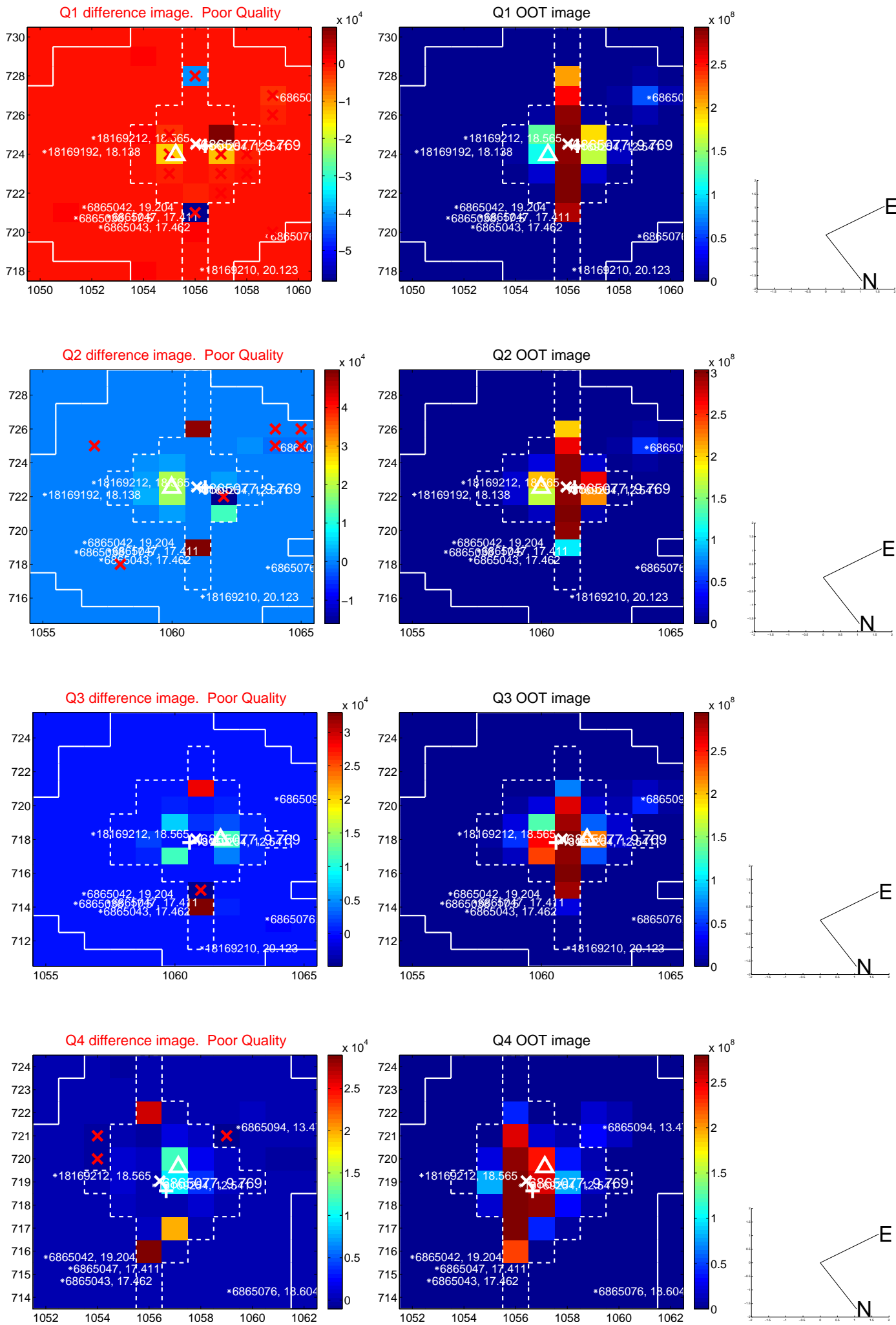
The direct PRF centroid is offset from the target star catalog position by about 1.49 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.339 ± 1.057	1.27	-1.196 ± 1.073	-0.602 ± 1.146
PRF-fit source offset from KIC position	0.957 ± 1.084	0.88	-0.935 ± 1.023	0.202 ± 1.209
photometric centroid source offset	0.44 ± 0.28	1.57	-0.21 ± 0.28	0.39 ± 0.28

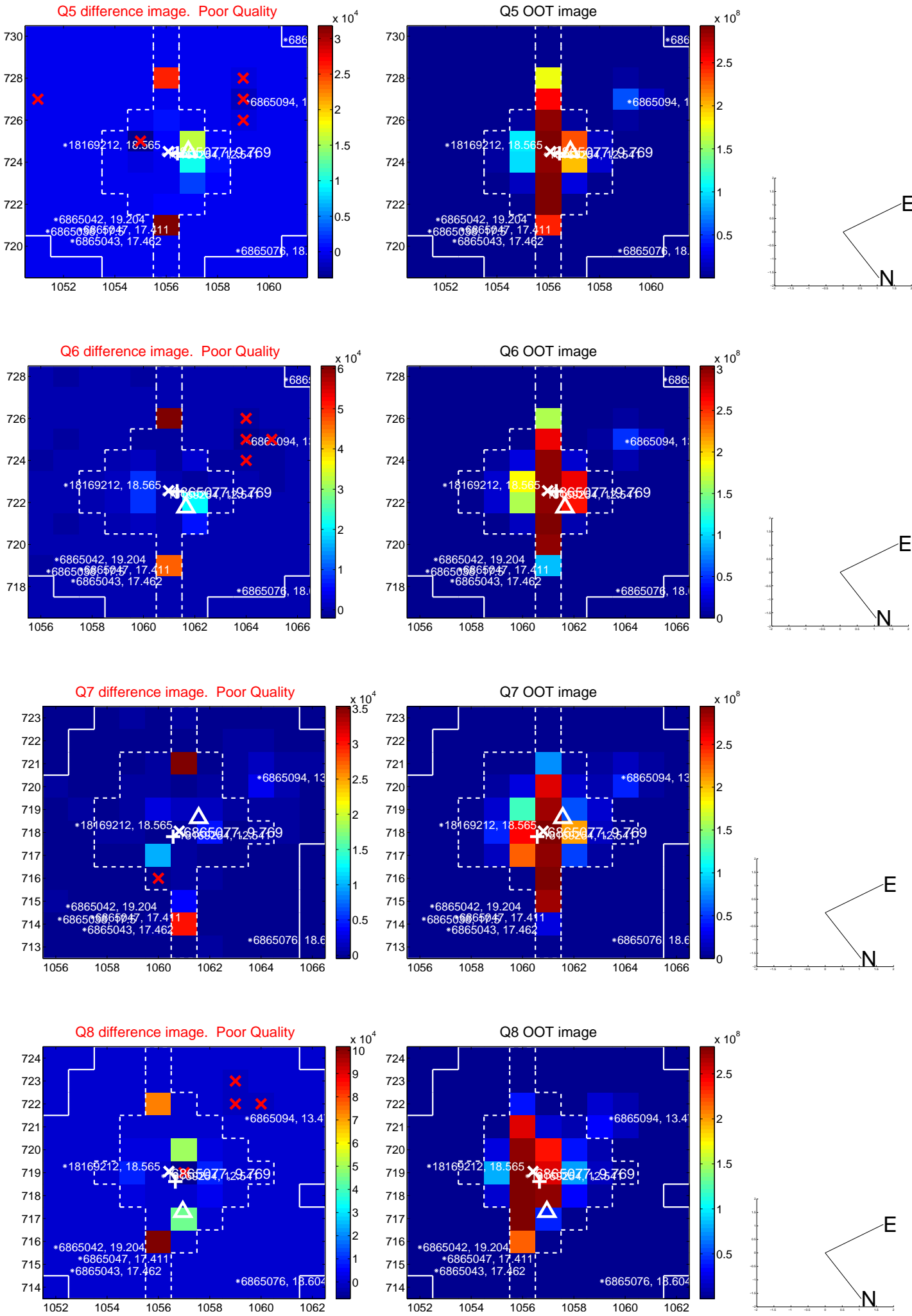


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

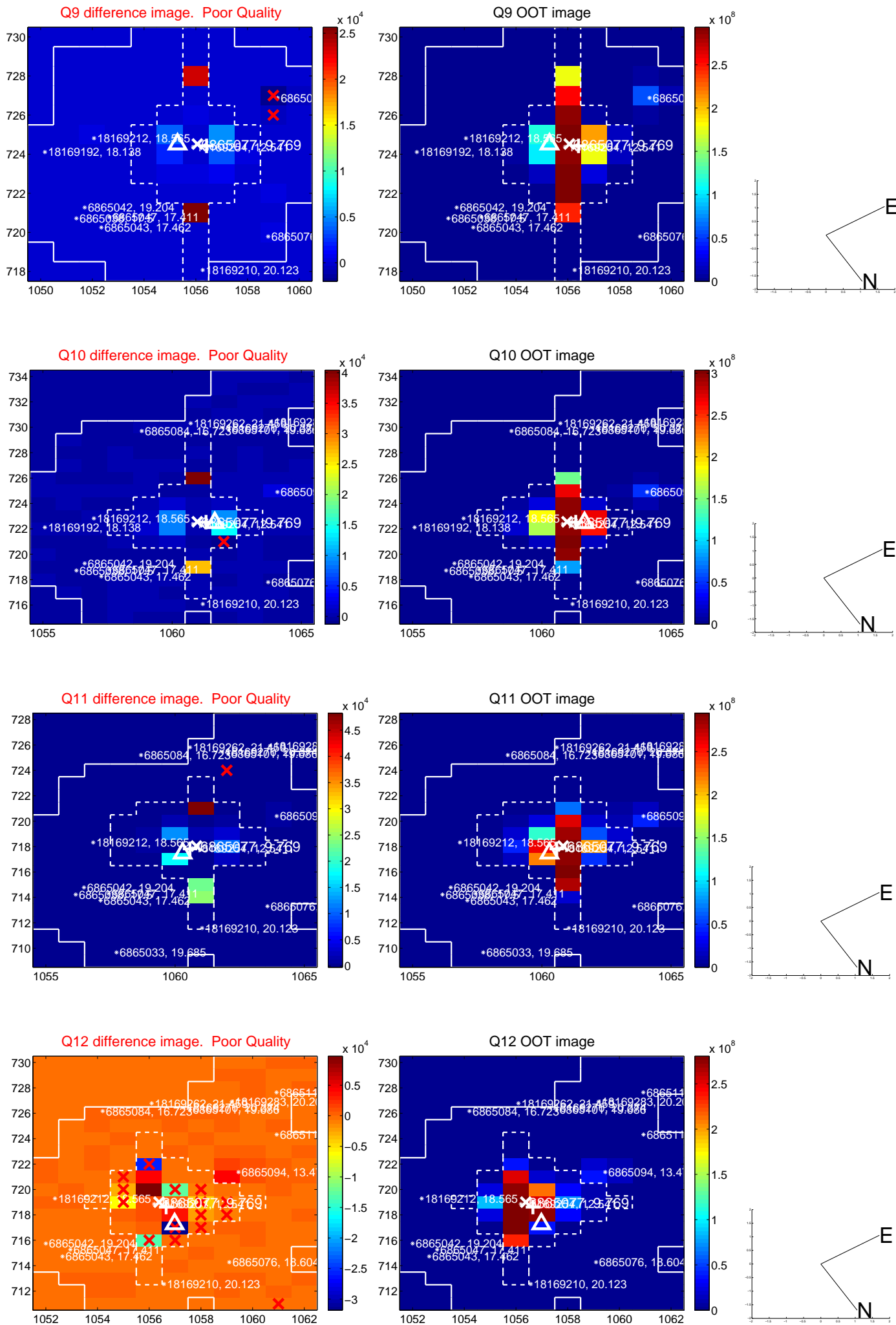
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



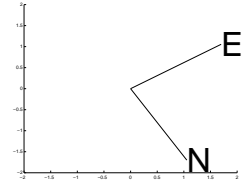
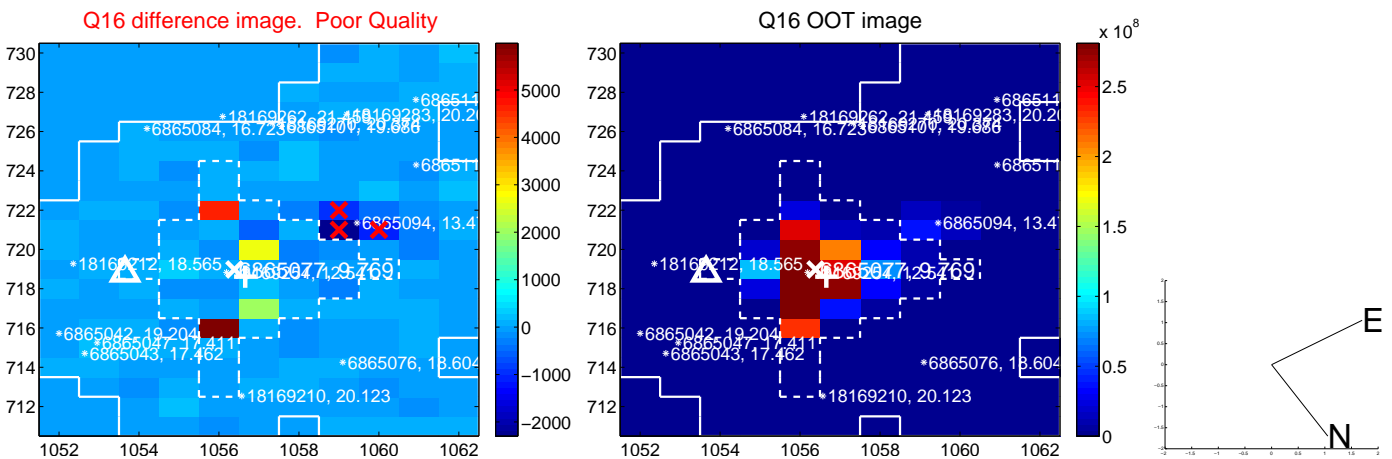
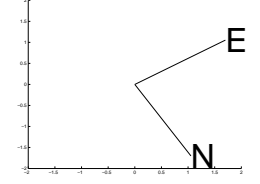
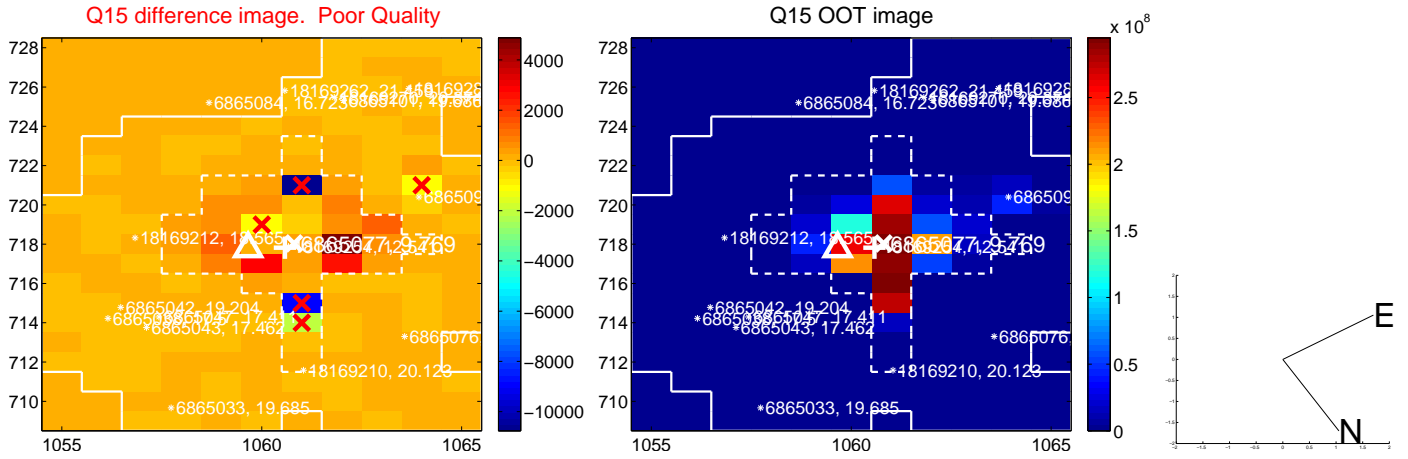
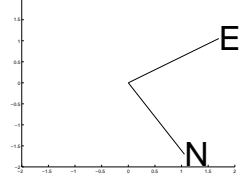
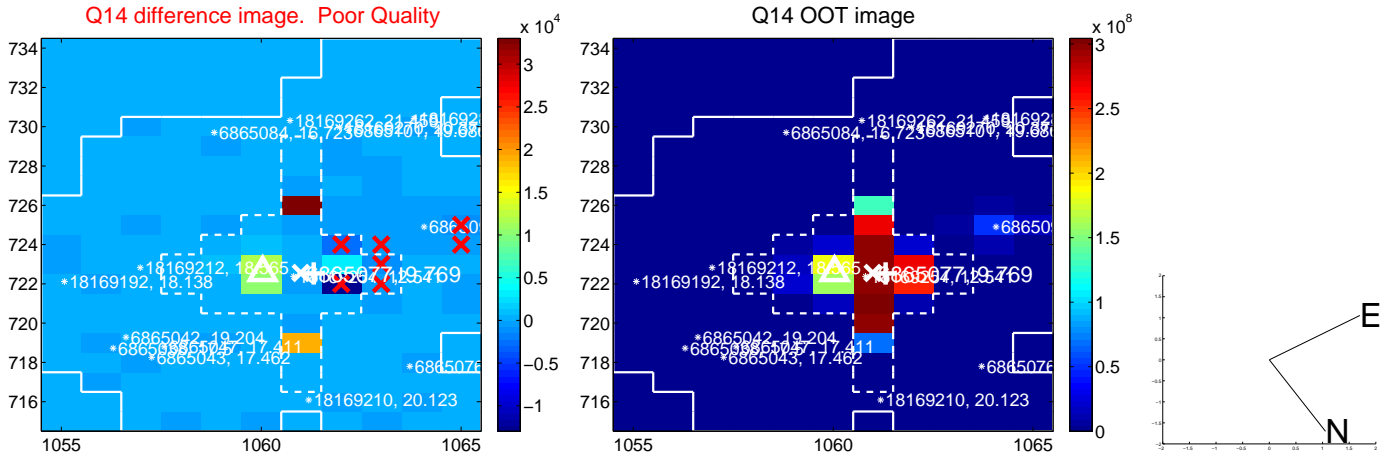
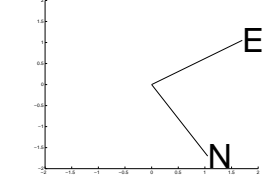
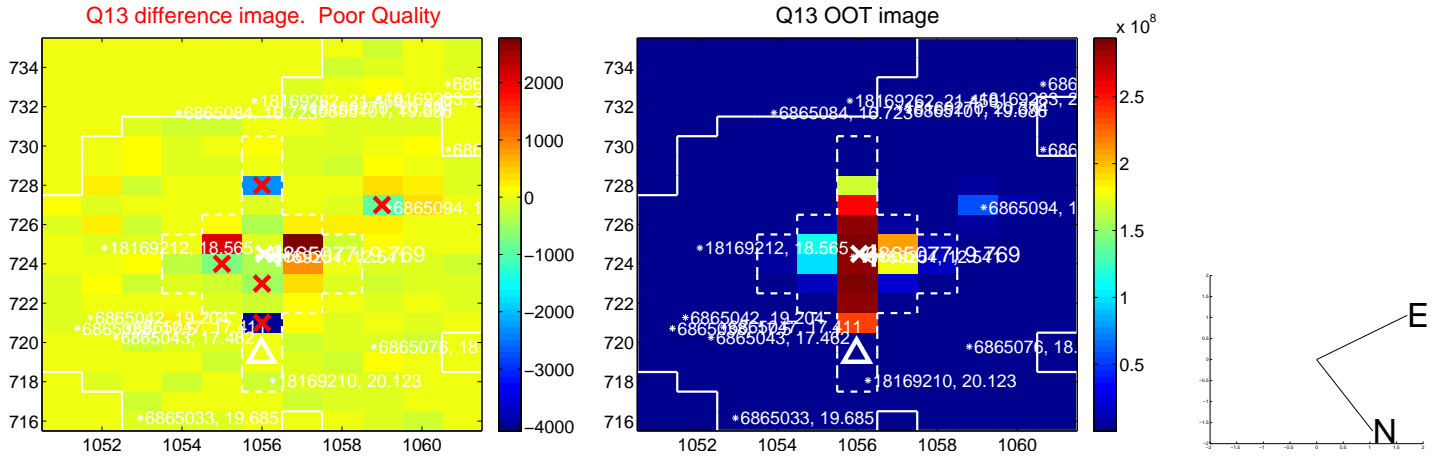
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

