

KIC 004069477

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})
004069477-01	OBS	No	0.519347	131.688437	0.5	4.171	7.5	0.1	2.91	7409	0.24	97211.77

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004069477-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

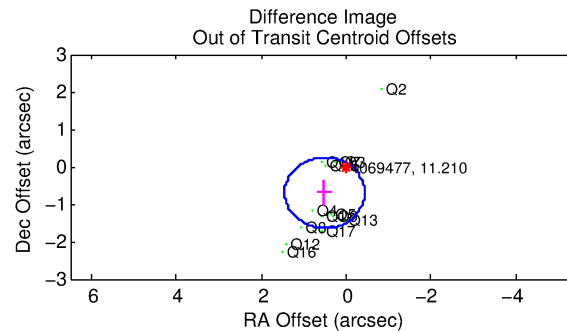
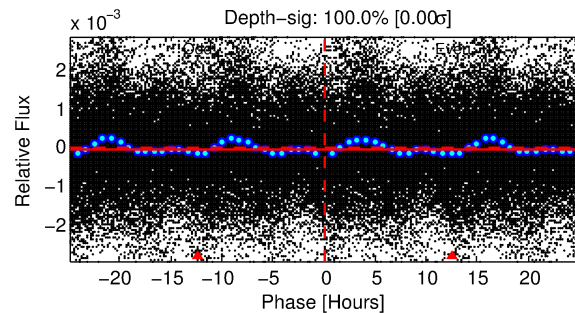
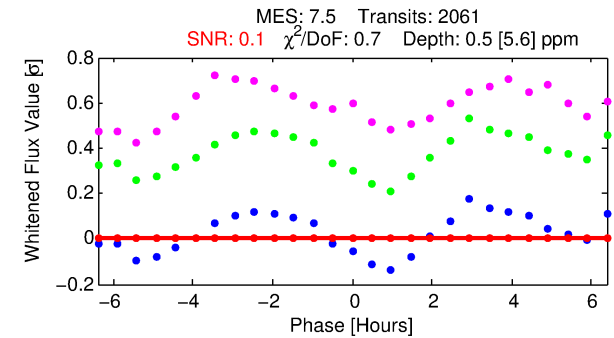
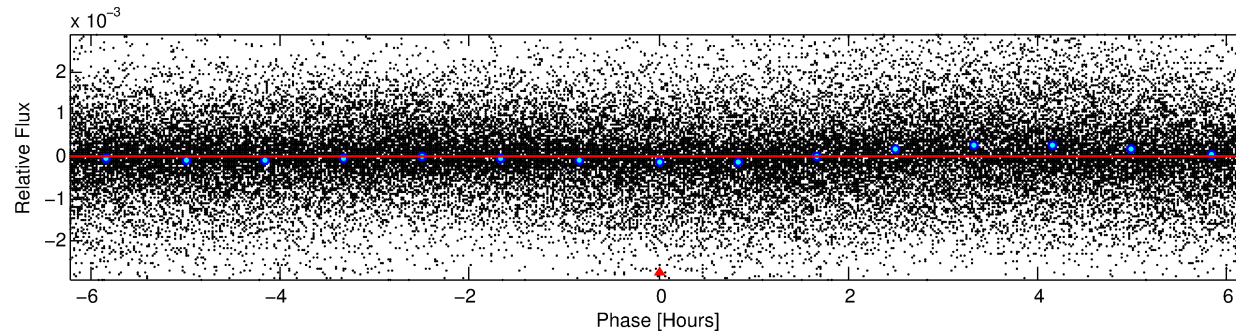
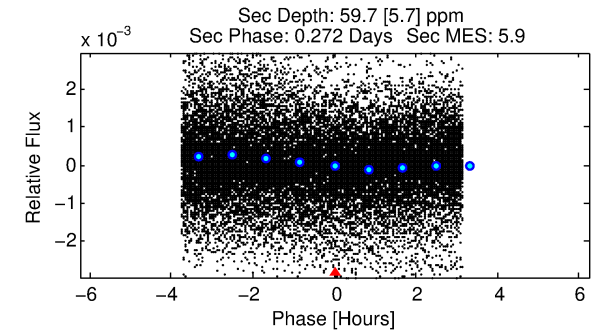
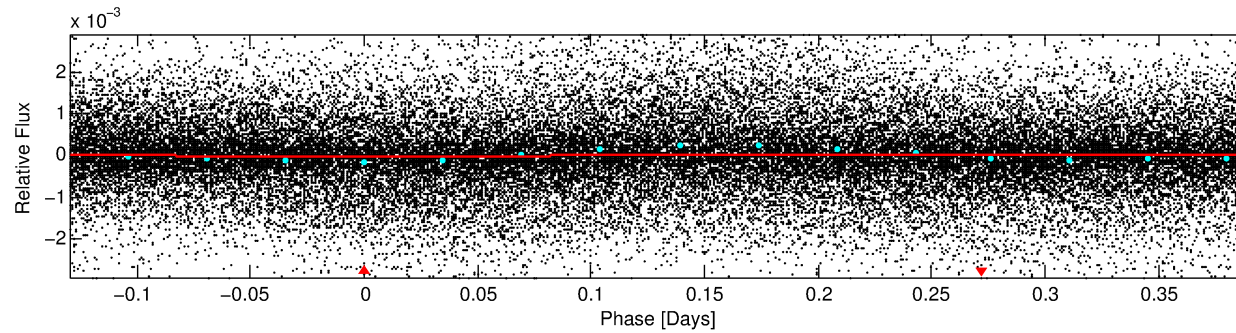
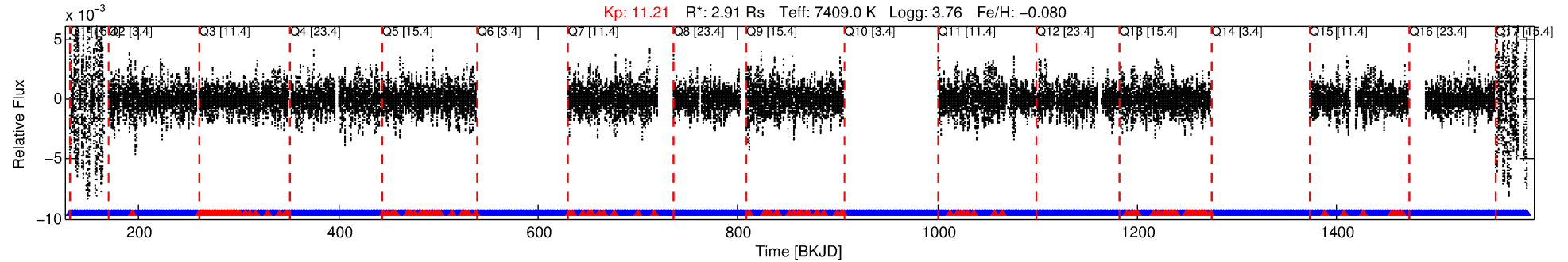
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004069477-01

No Significant Match Found

DV One-Page Summary

KIC: 4069477 Candidate: 1 of 1 Period: 0.519 d



DV Fit Results:

Period = 0.51935 [0.00084] d
Epoch = 131.6884 [0.0909] BKJD
Rp/R* = 0.0007 [0.0047]
a/R* = 1.03 [1.20]
b = 0.90 [4.10]
Seff = 97211.77 [66848.65]
Teff = 4503 [774] K
Rp = 0.24 [1.48] Re
a = 0.0153 [0.0064] AU
Ag = 138.56 [1739.74] [0.08σ]
Teffp = 23884 [74879] K [0.26σ]

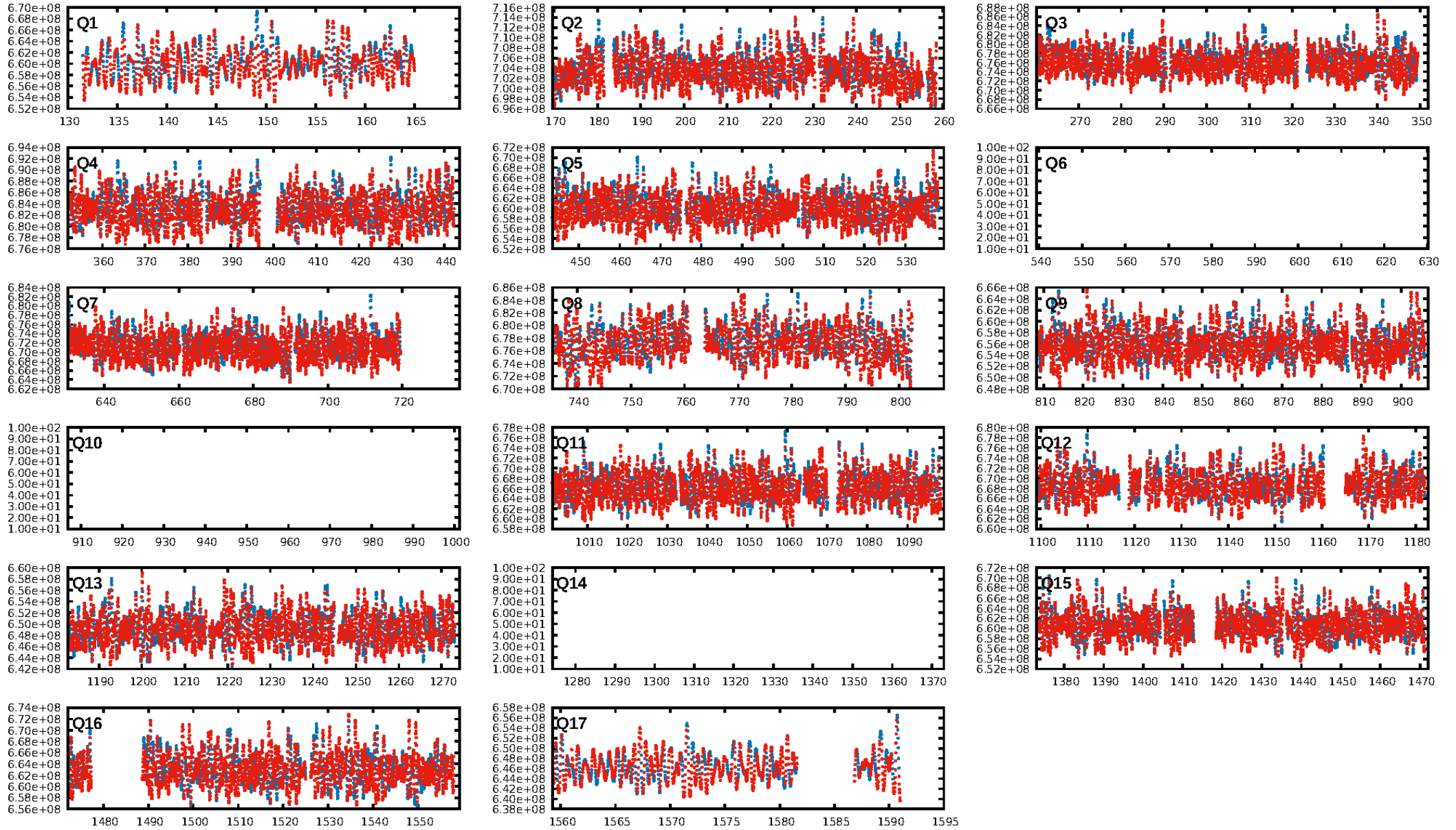
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.90 [1752/1944]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.859 arcsec [2.73σ]
KicOffset-rm: 0.849 arcsec [2.88σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 0.86 [12/14]
DiffImageOverlap-fno: 1.00 [14/14]

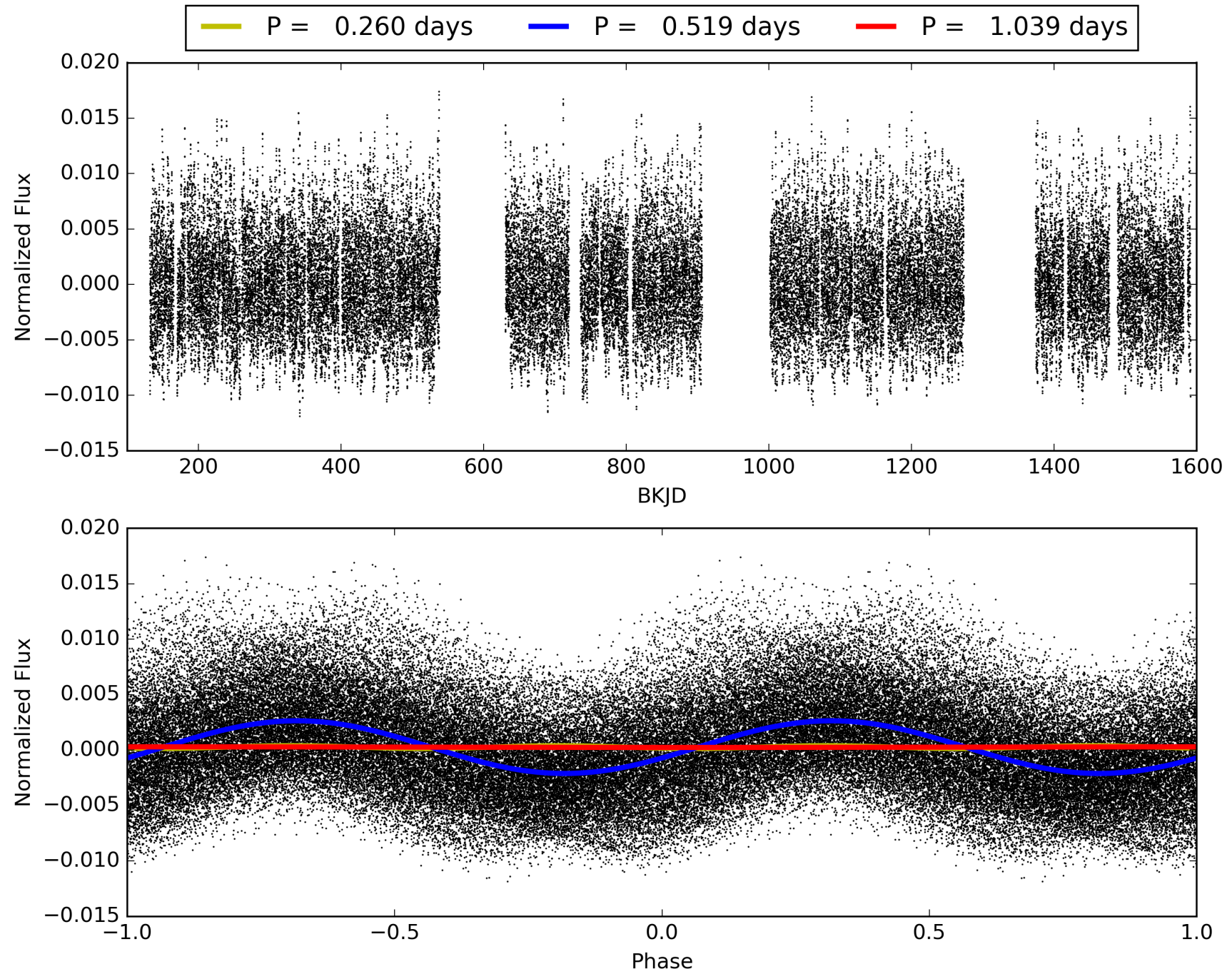
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:03:00 Z

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

TCE 004069477-01, PDC Light Curves

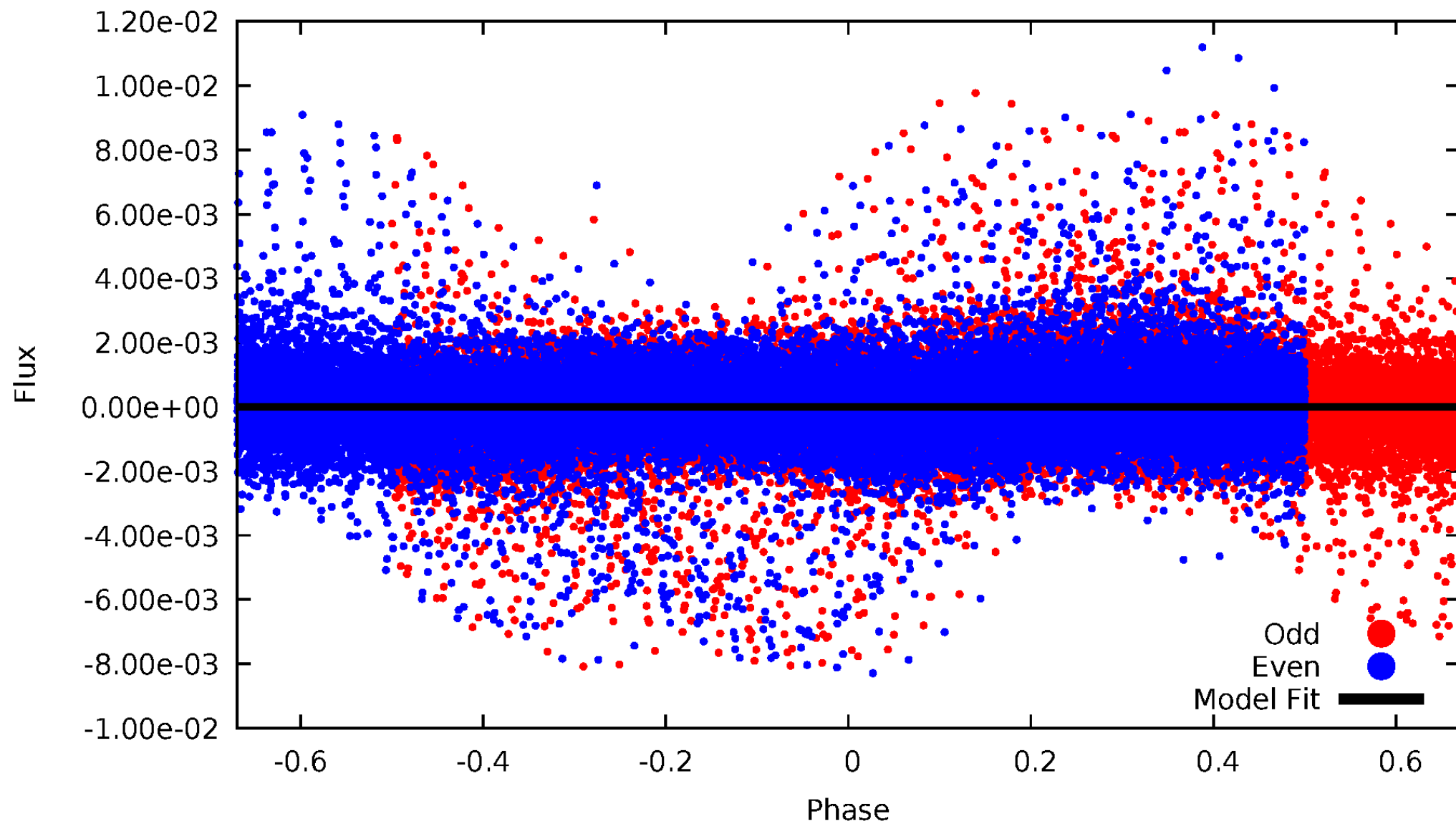


TCE 004069477-01



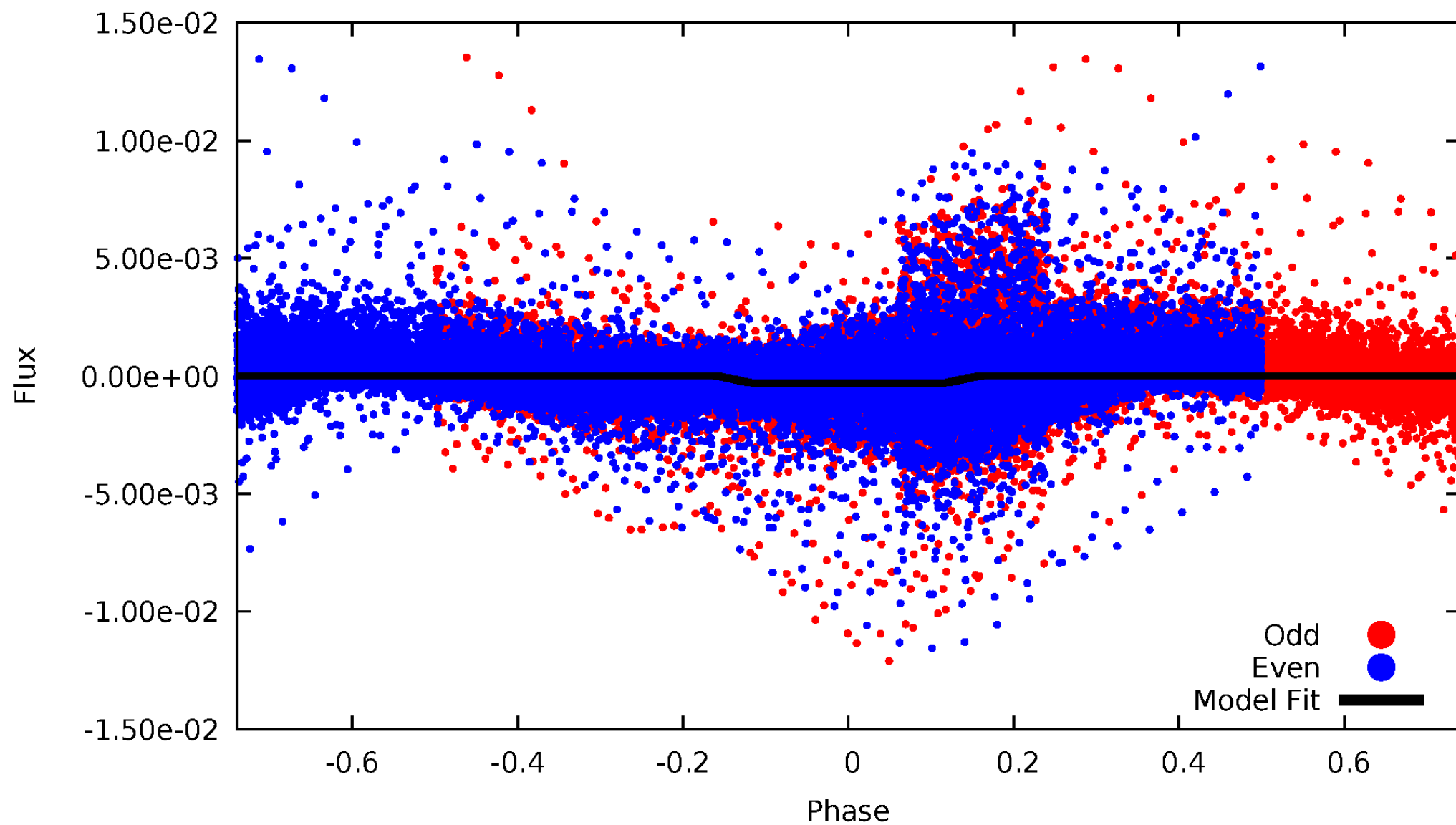
DV Odd/Even

TCE 004069477-01



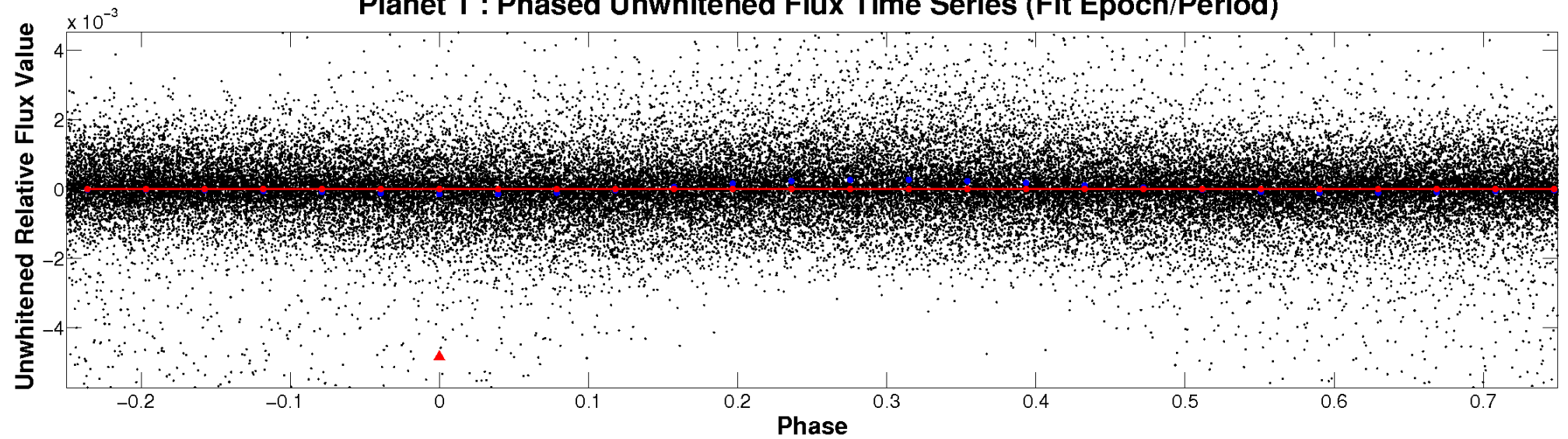
ALT Odd/Even

TCE 004069477-01

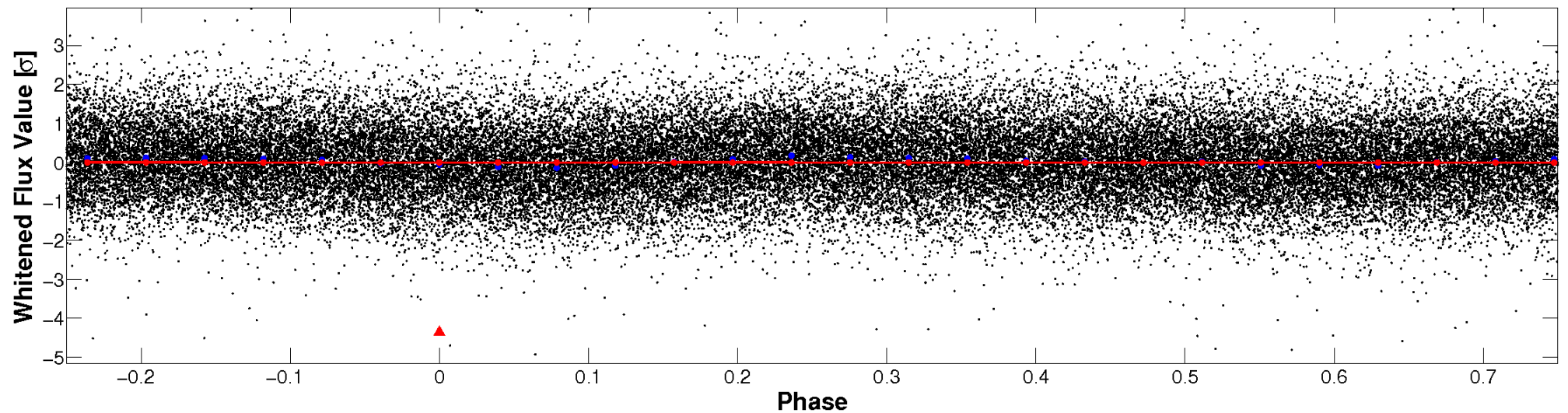


Non-Whitened Vs. Whitened Light Curve

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

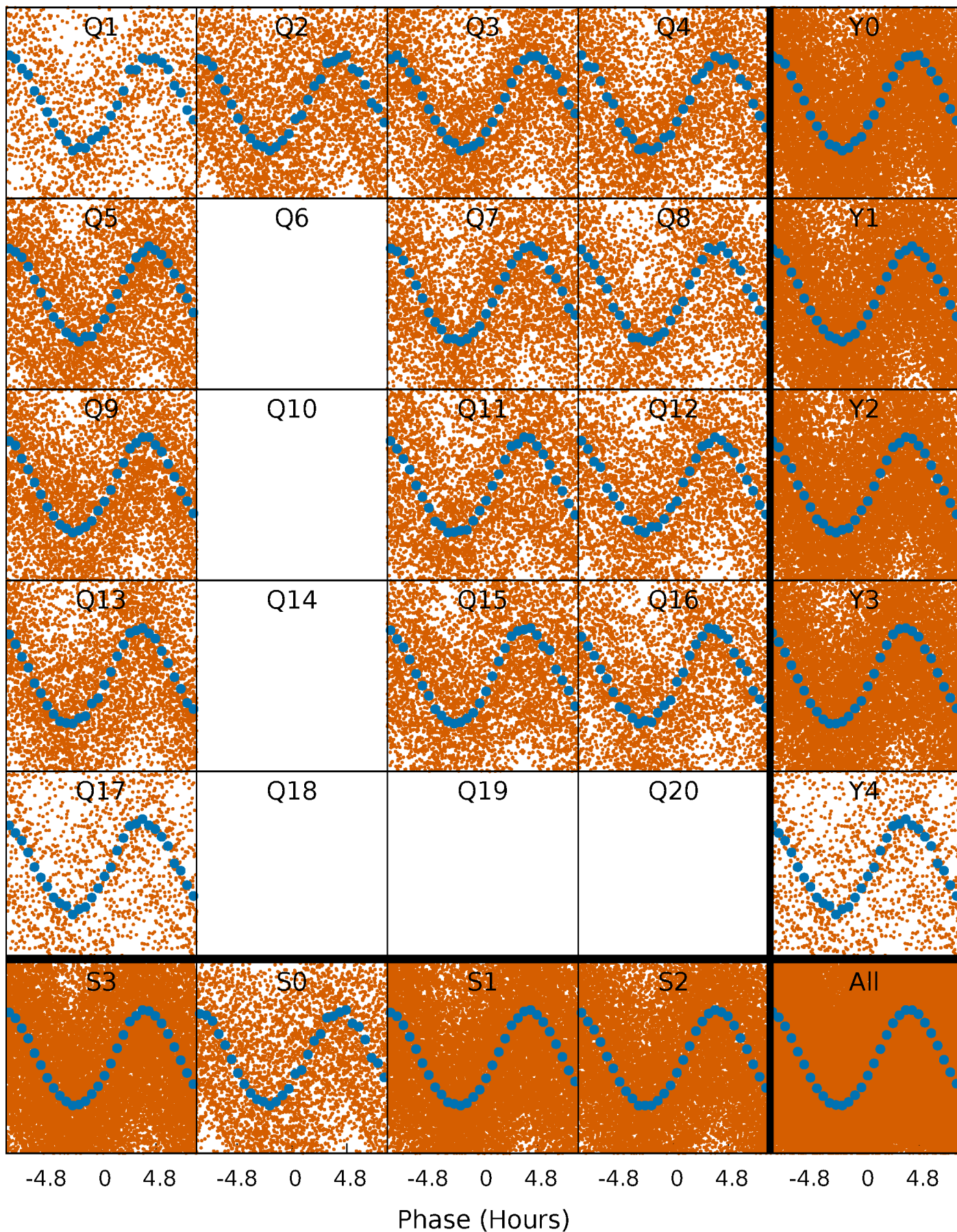


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



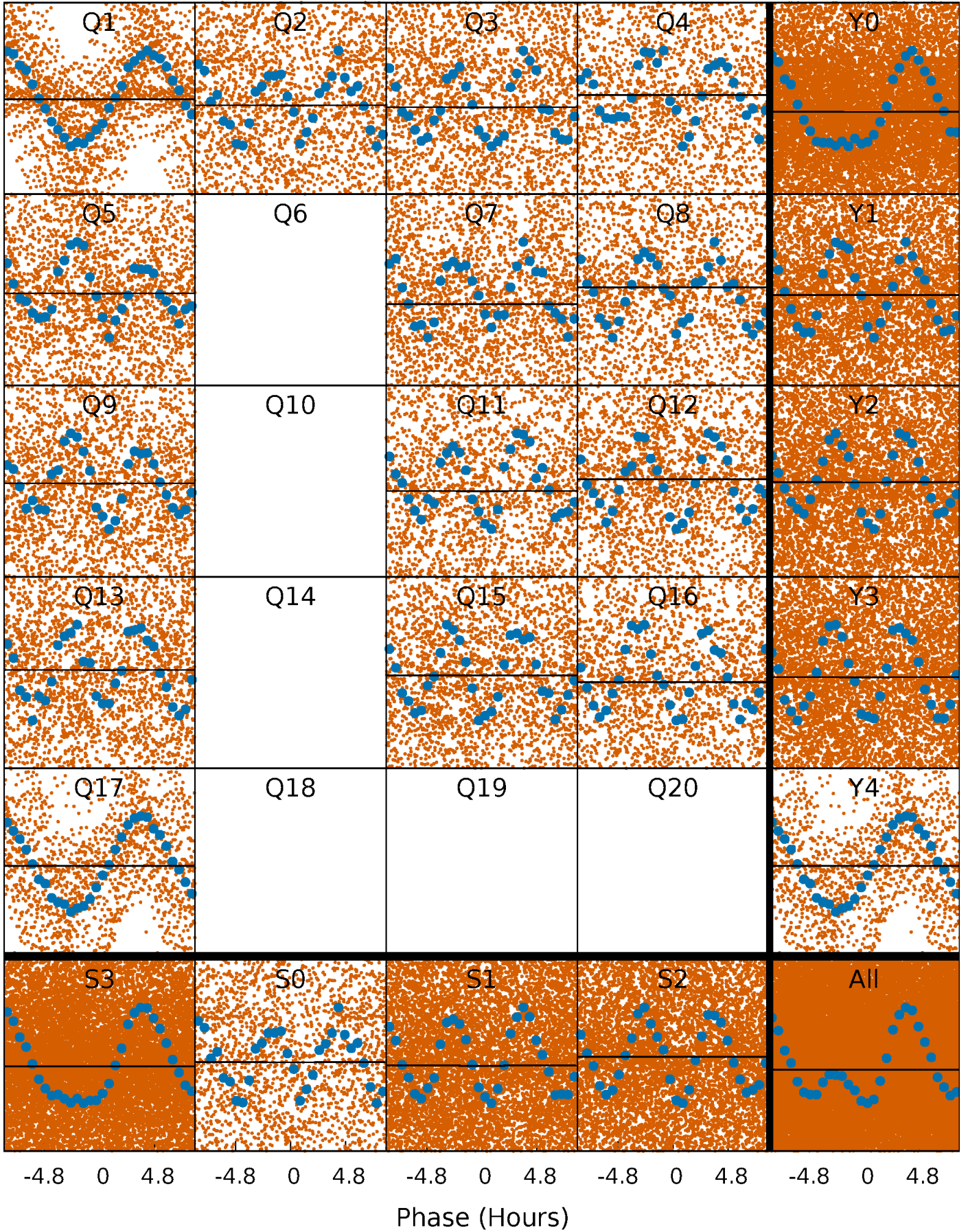
PDC Quarter-Phased Transit Curves

TCE 004069477-01 P= 0.519347 Days $T_0=131.688437$ (BKJD)



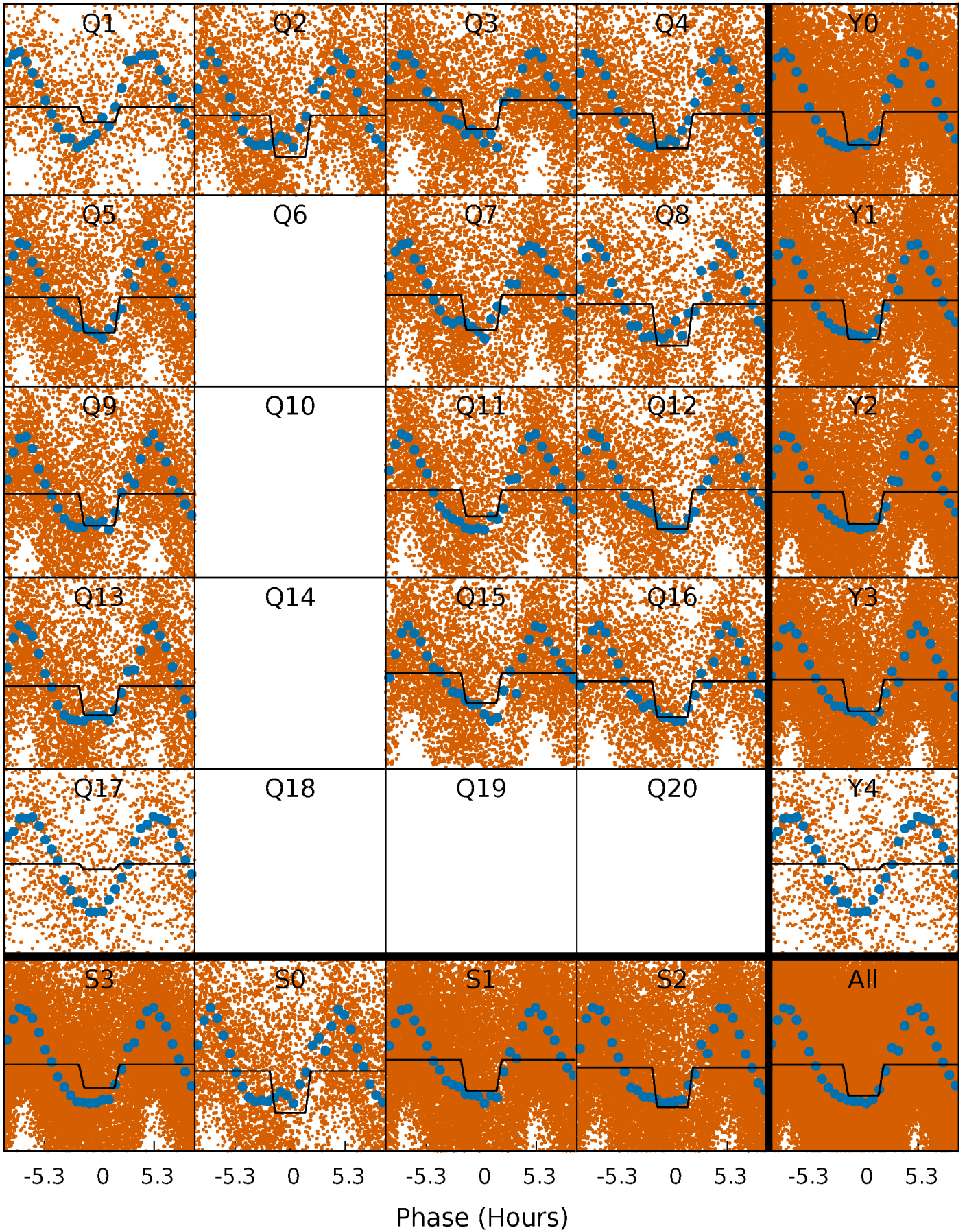
DV Quarter-Phased Transit Curves

TCE 004069477-01 $P = 0.519347$ Days $T_0 = 131.688437$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

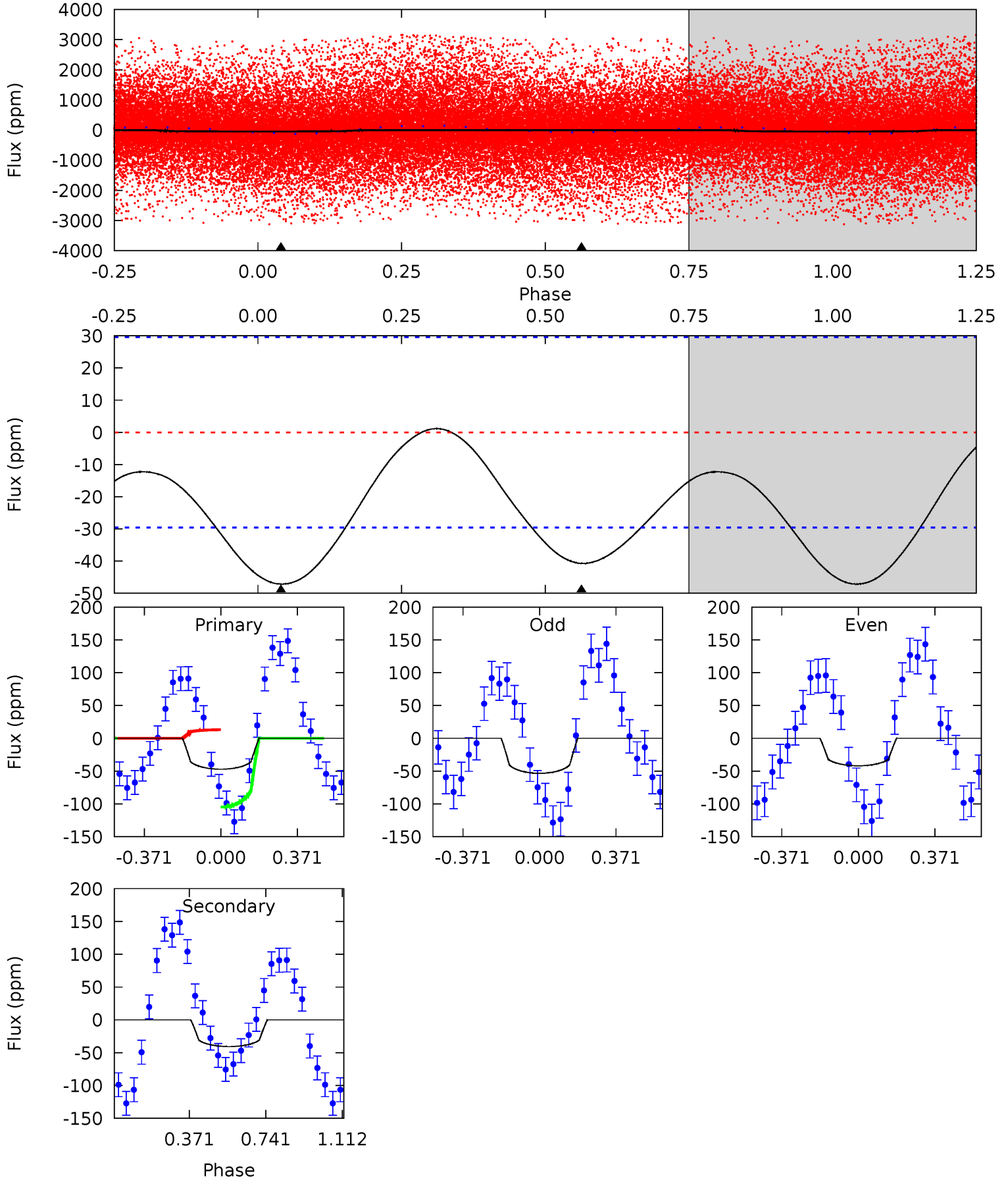
TCE 004069477-01 P= 0.519323 Days $T_0=131.679264$ (BKJD)



DV Model-Shift Uniqueness Test

004069477-01, P = 0.519347 Days, E = 131.169090 Days

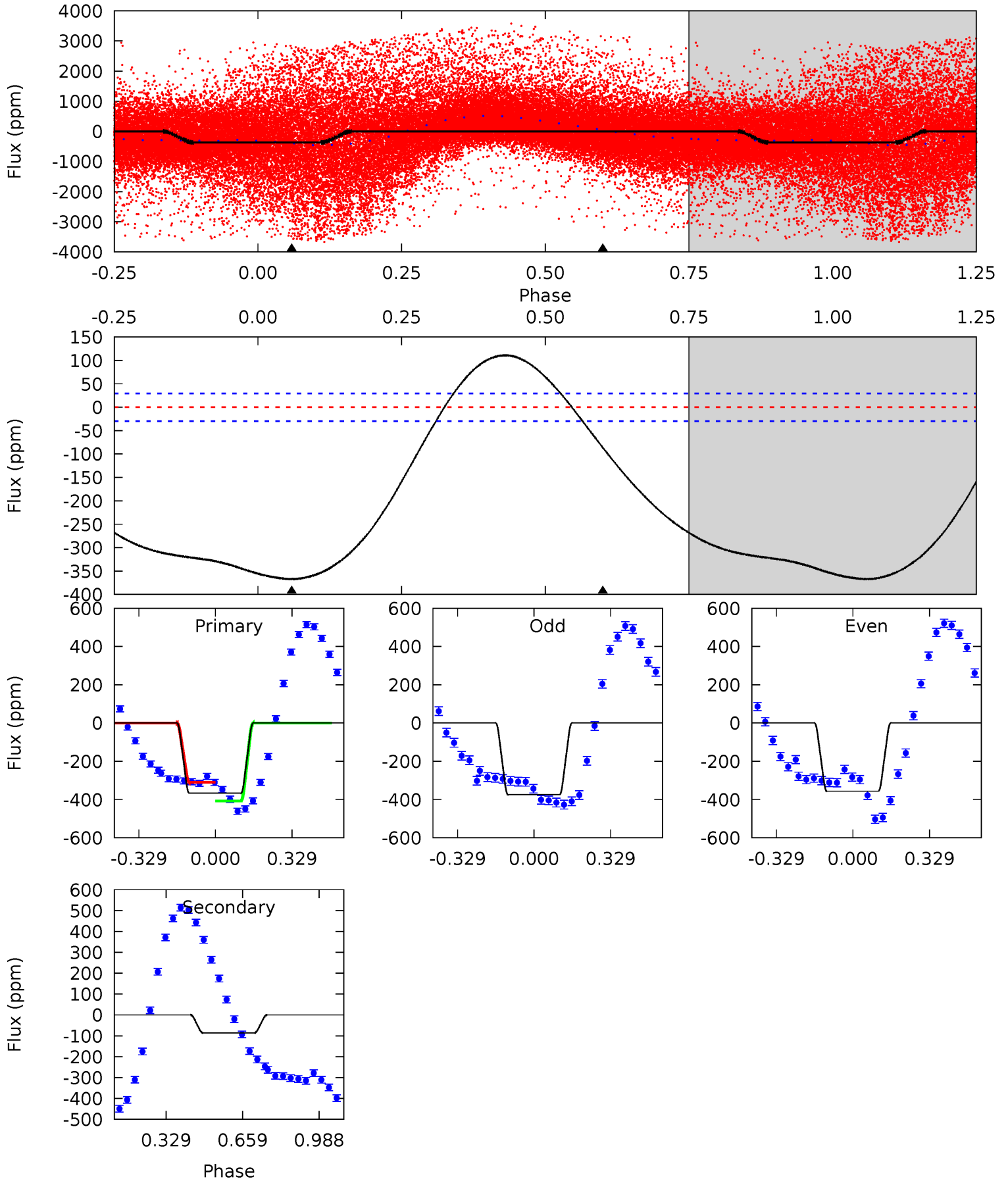
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.82	5.89	0	0	4.28	0.90	0.82	6.82	6.82	5.89	5.89	0.84	3.28	0.02	7.03



Alt Model-Shift Uniqueness Test

004069477-01, P = 0.519323 Days, E = 131.159941 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.4	12.6	0	0	4.31	0.98	15.8	53.4	53.4	12.6	12.6	1.34	1.45	0.23	7.13



Stellar Parameters For KIC 004069477

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7409^{+230}_{-307}	$3.761^{+0.392}_{-0.098}$	$-0.080^{+0.200}_{-0.350}$	$2.908^{+0.420}_{-1.259}$	$1.780^{+0.193}_{-0.386}$	$0.102^{+0.347}_{-0.032}$
	+3%/-4%	+10%/-3%	+250%/-438%	+14%/-43%	+11%/-22%	+340%/-32%
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 004069477-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-41 ± 7	$1.02^{+1.07}_{-0.71}$	6160^{+413}_{-643}	10766^{+28720}_{-4413}	$5.157^{+49.036}_{-3.981}$
Alt.	-86 ± 7	$5.11^{+1.75}_{-1.67}$	6127^{+463}_{-620}	4225^{+1341}_{-8054}	$0.426^{+0.498}_{-0.193}$

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

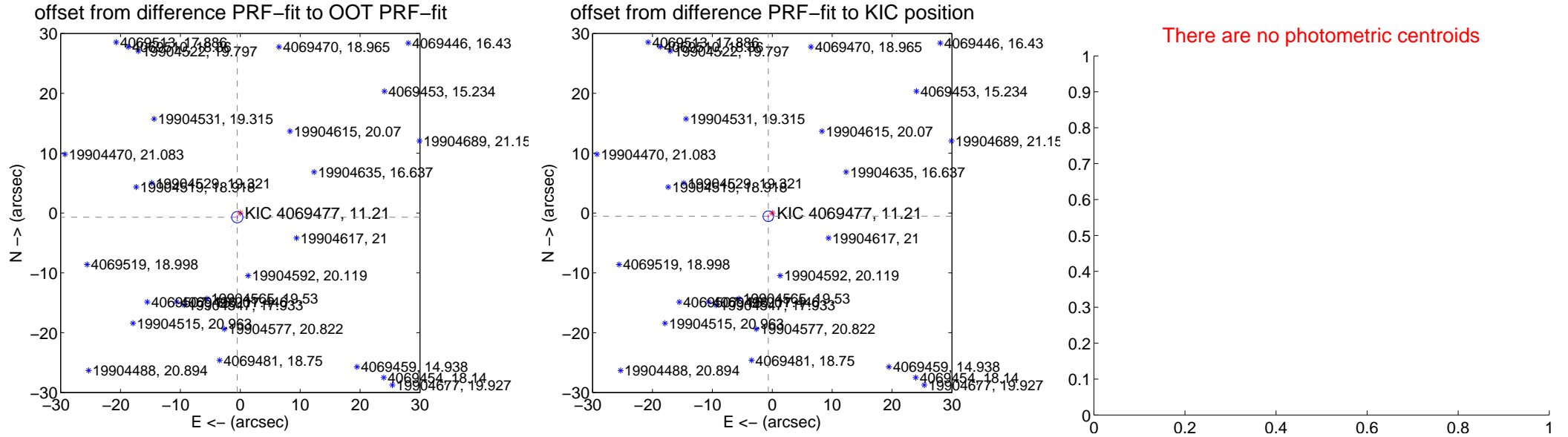
DV Centroid Data

Supplemental centroid analysis for 004069477-01. **Kepler magnitude: 11.21.** Transit SNR 0.11

There are 12 quarters with good PRF difference image offsets

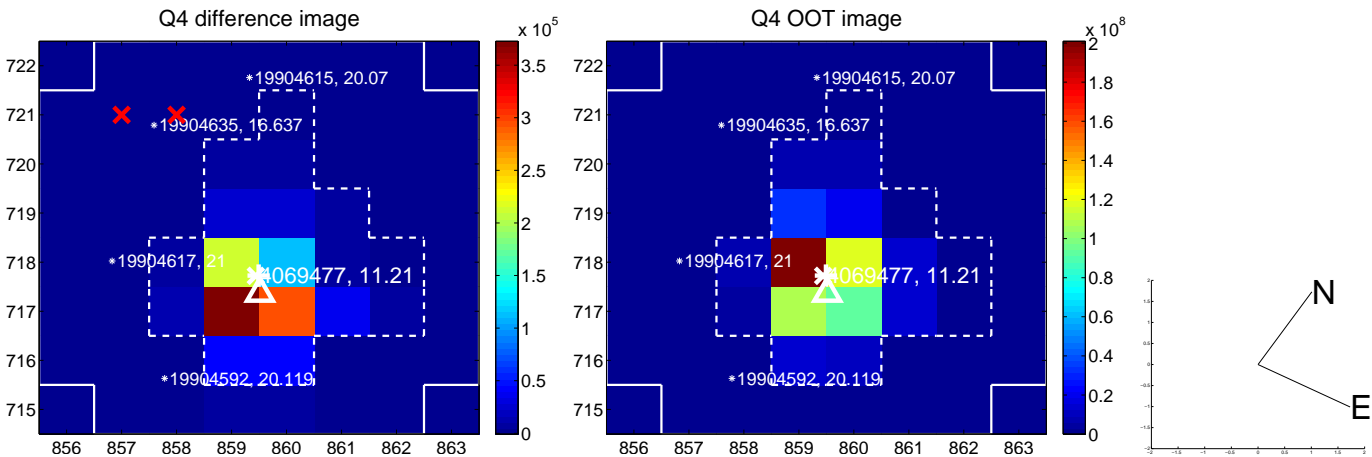
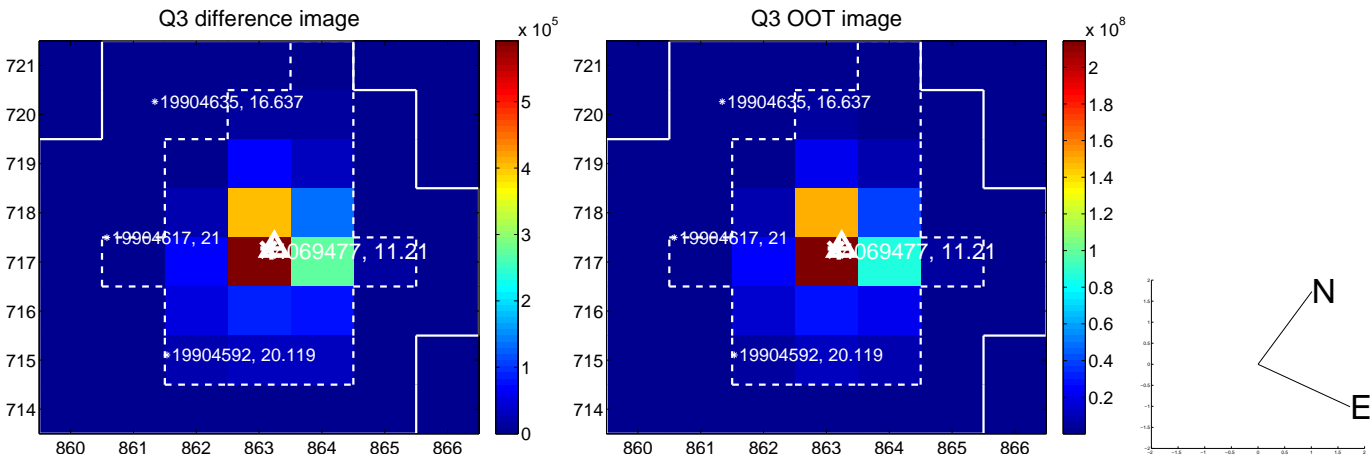
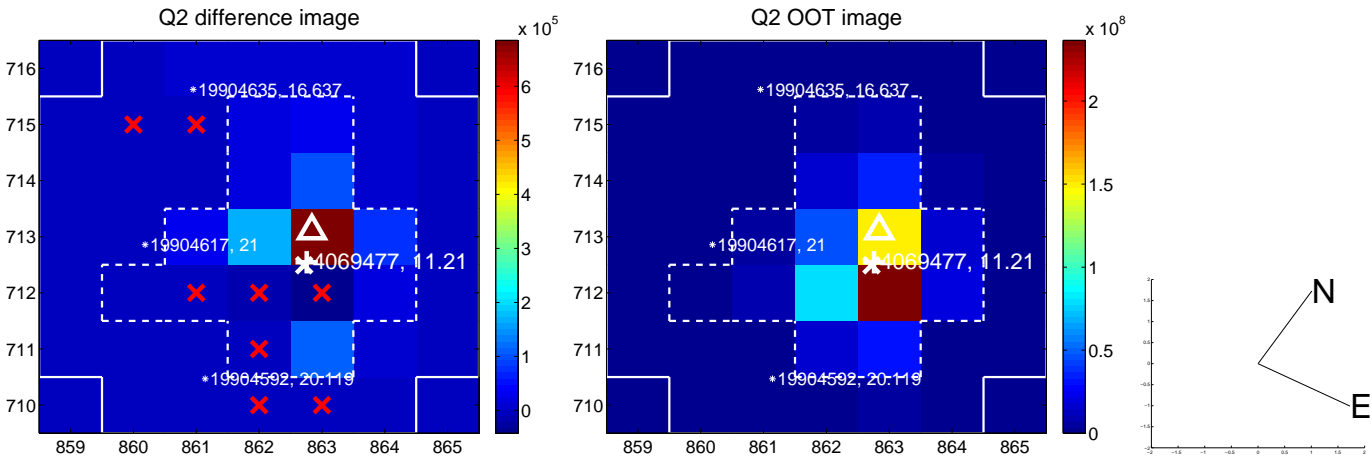
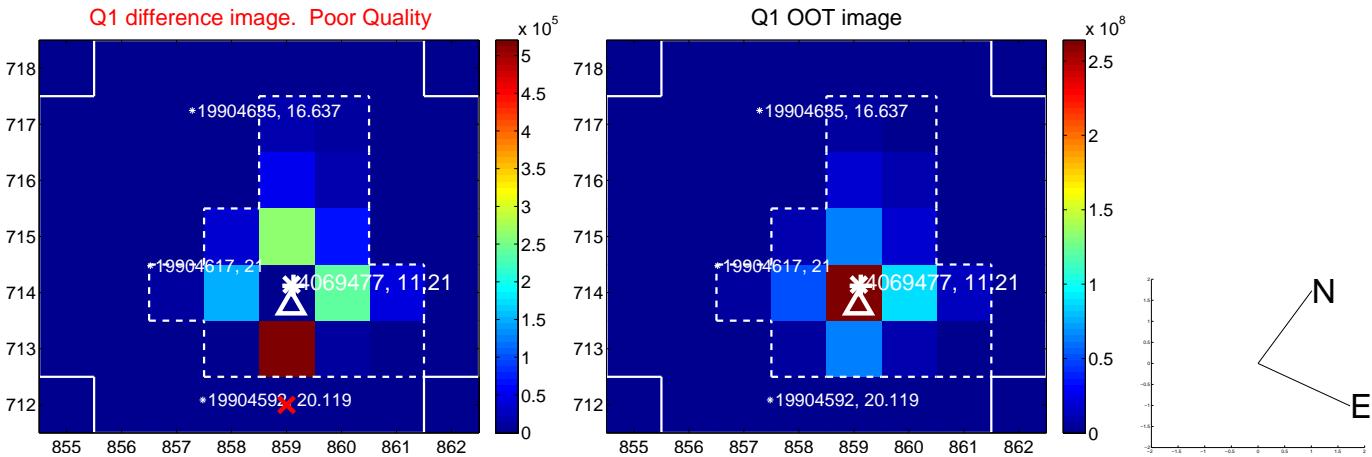
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.859 ± 0.315	2.73	0.503 ± 0.152	-0.696 ± 0.306
PRF-fit source offset from KIC position	0.849 ± 0.294	2.88	0.659 ± 0.163	-0.535 ± 0.300
photometric centroid source offset	—	—	—	—

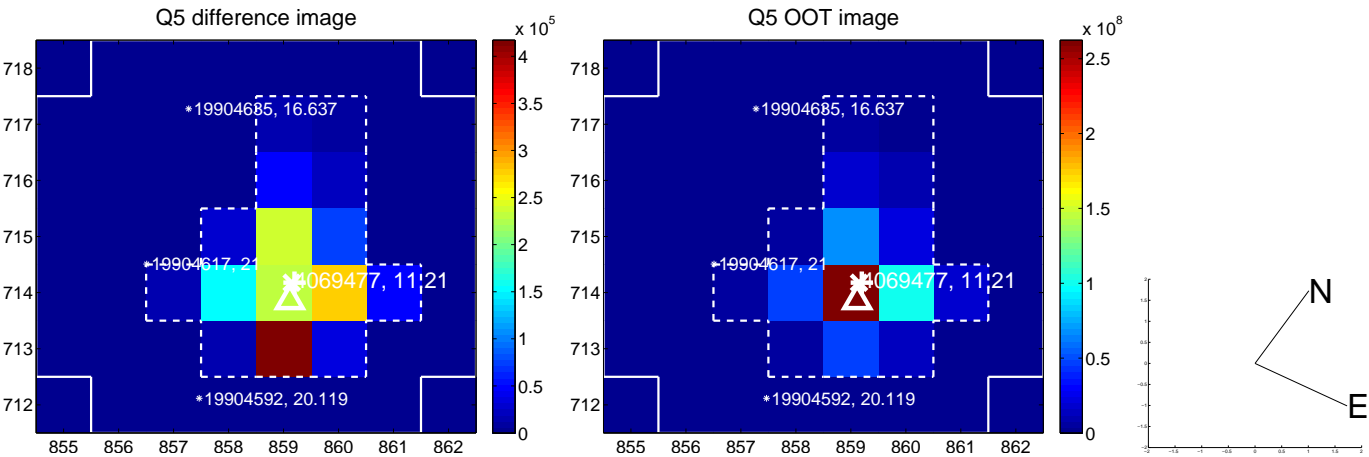


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

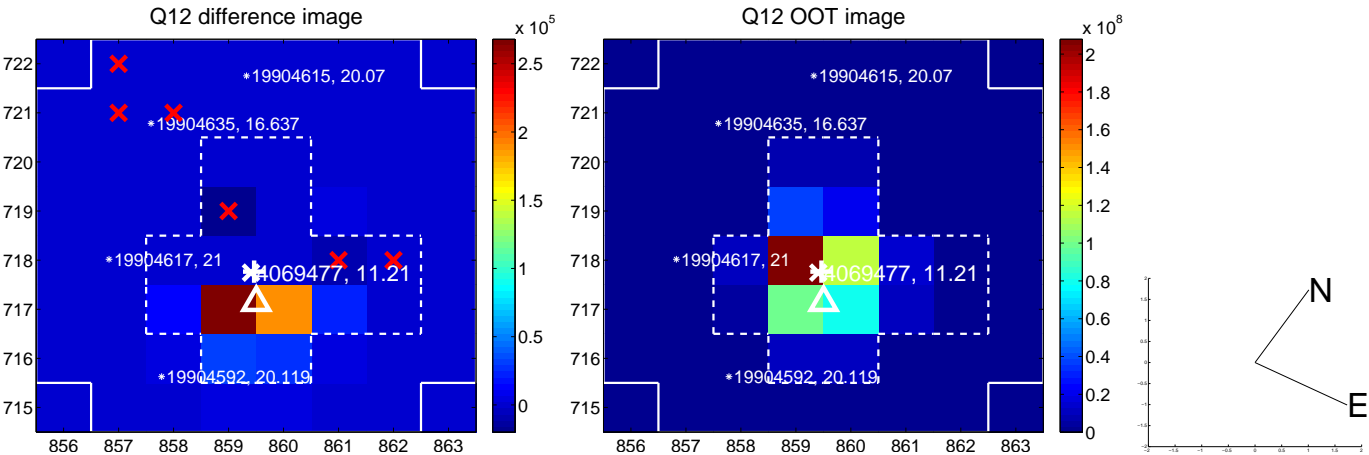
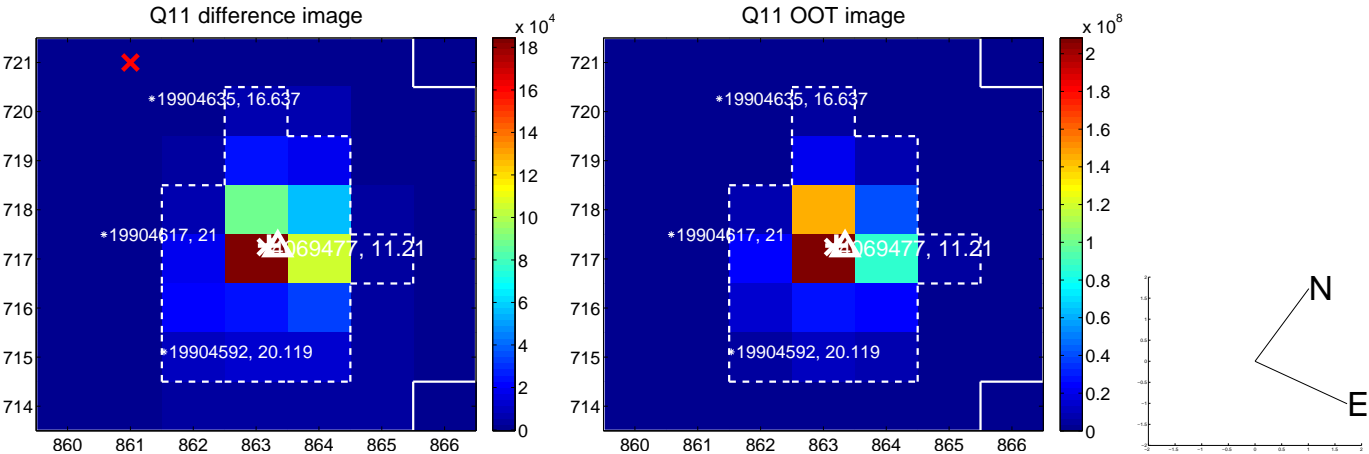
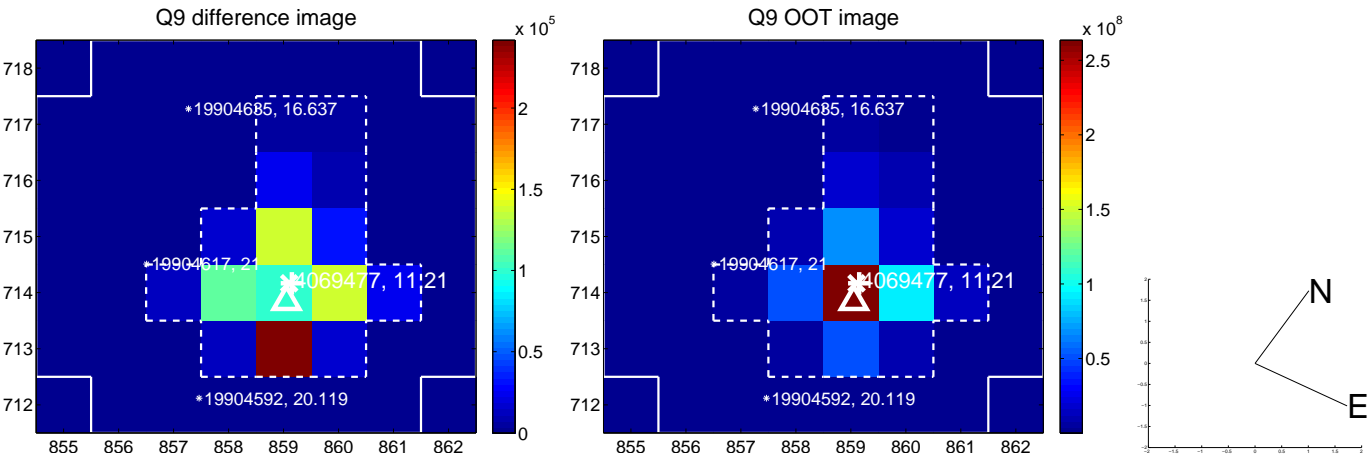
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



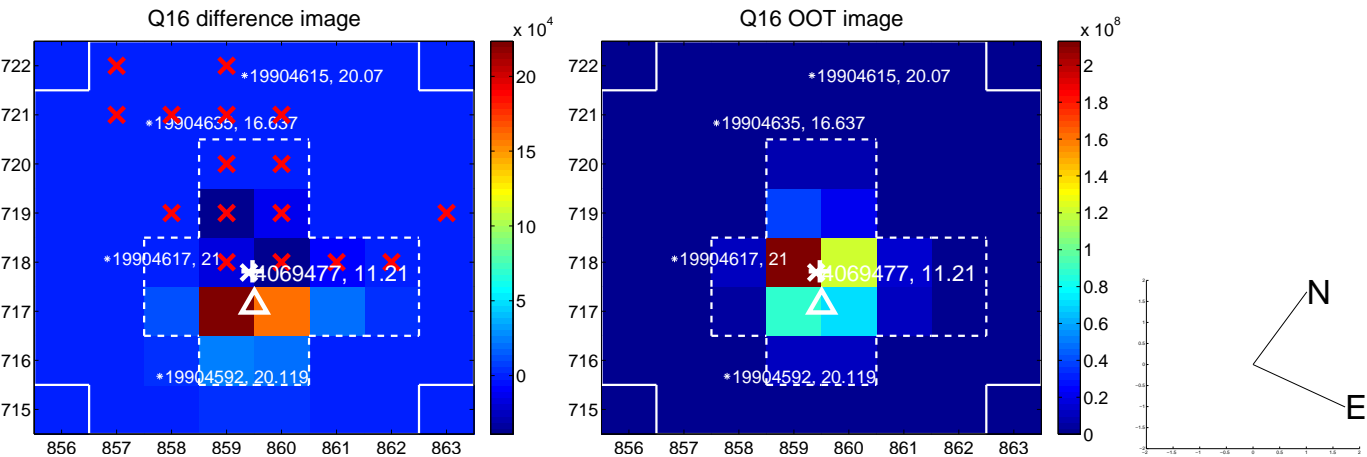
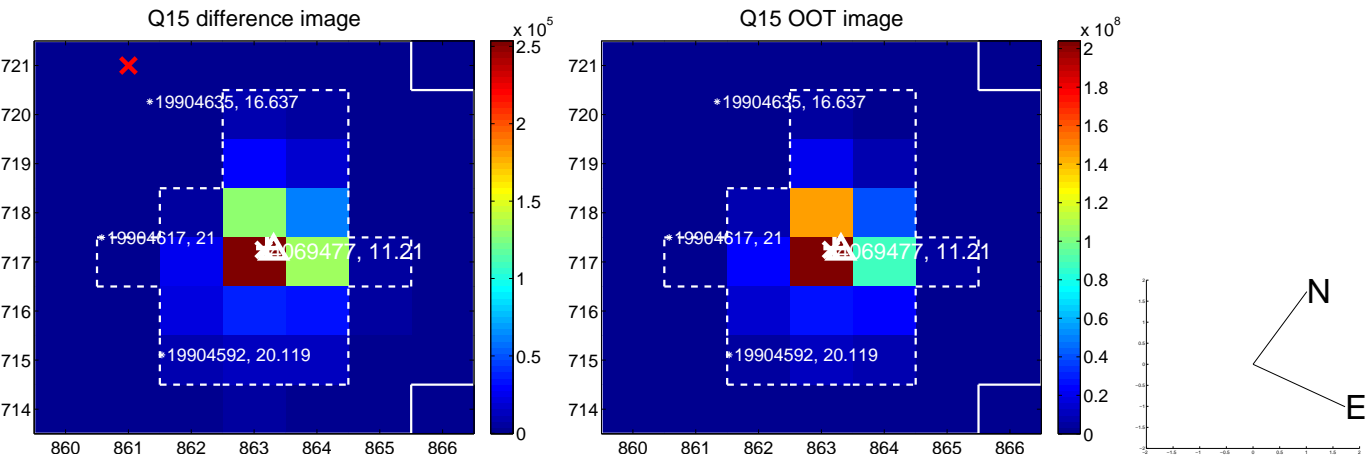
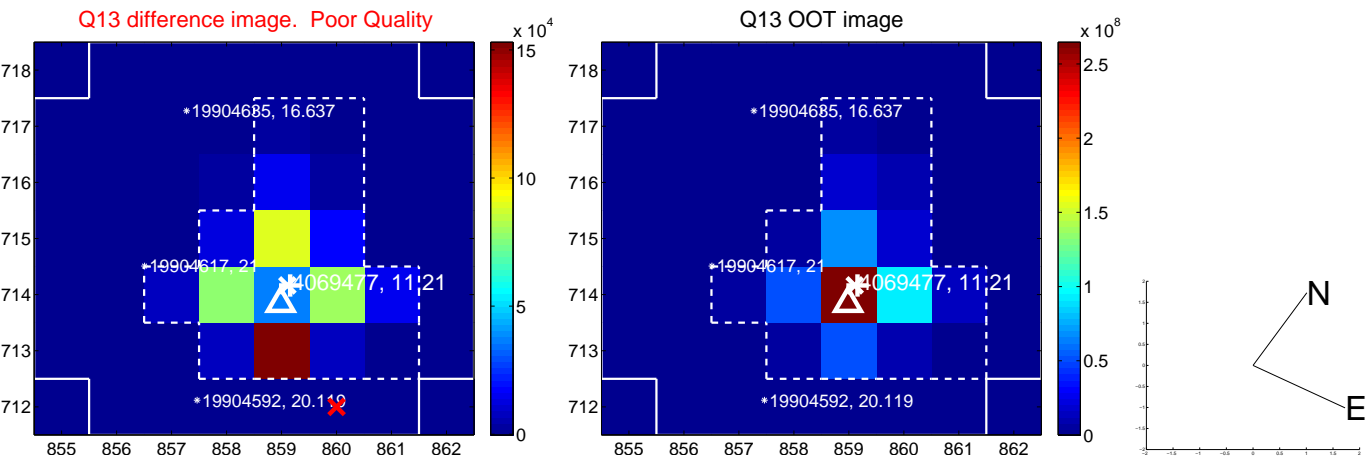
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



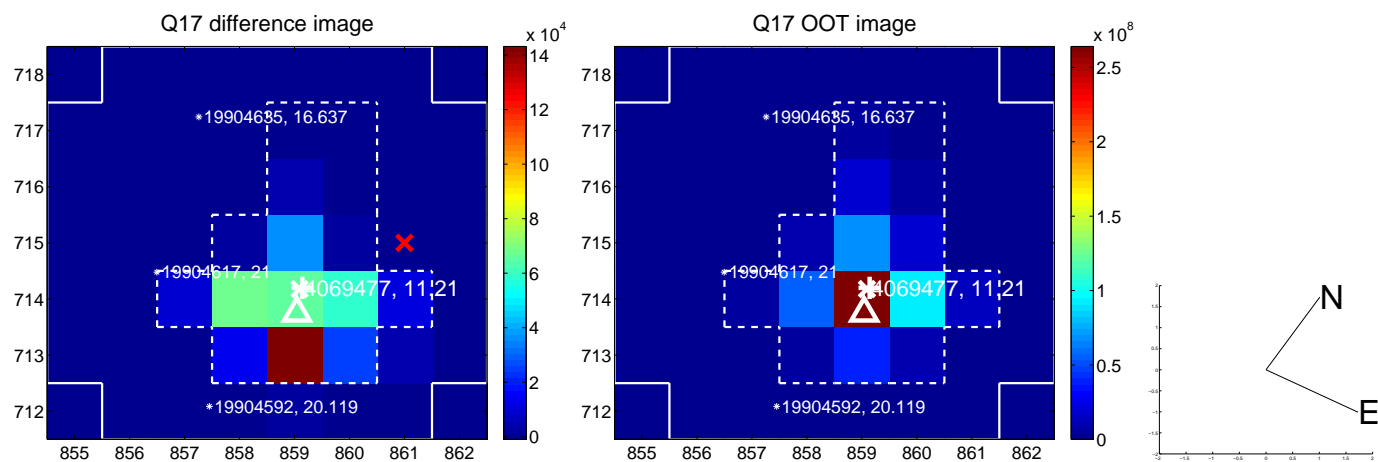
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.



UKIRT Image

