

KIC 005397160

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})
005397160-01	OBS	No	1.079443	132.012502	1.9	0.535	7.5	0.3	1.62	6150	0.23	7576.13

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005397160-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT

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

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

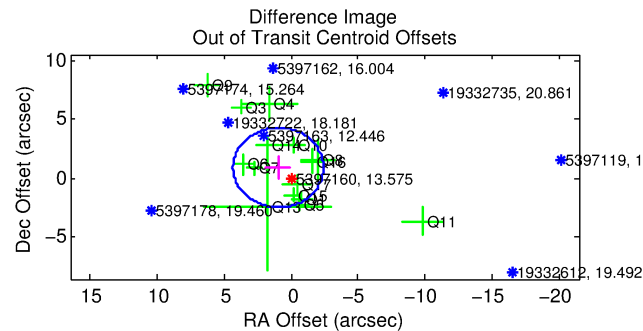
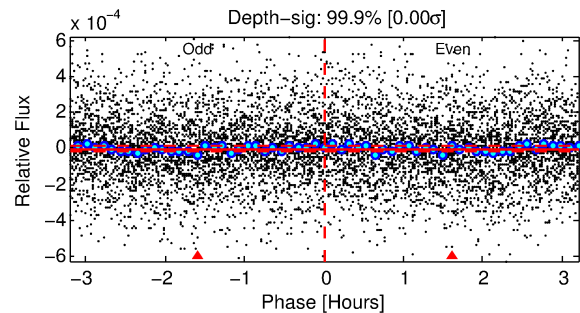
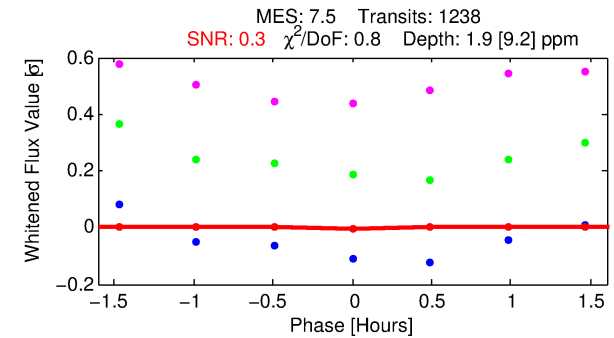
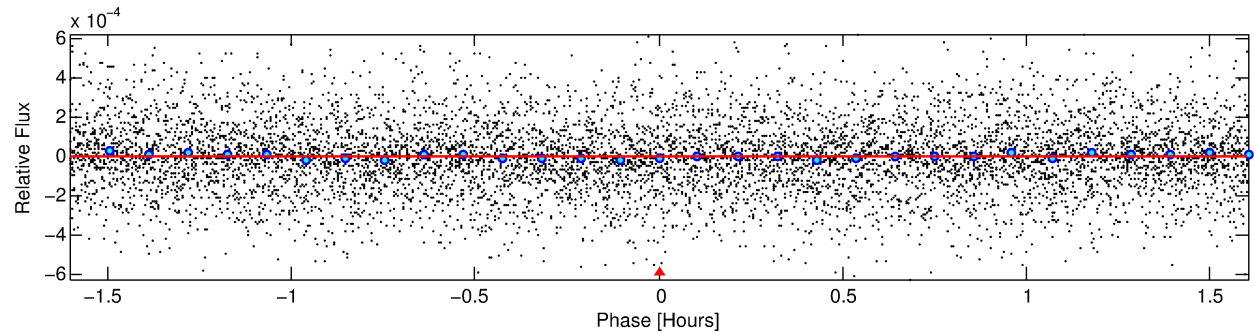
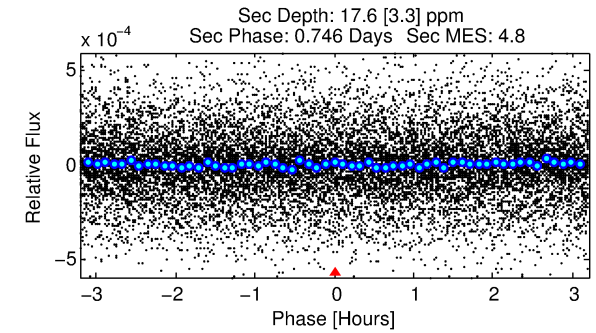
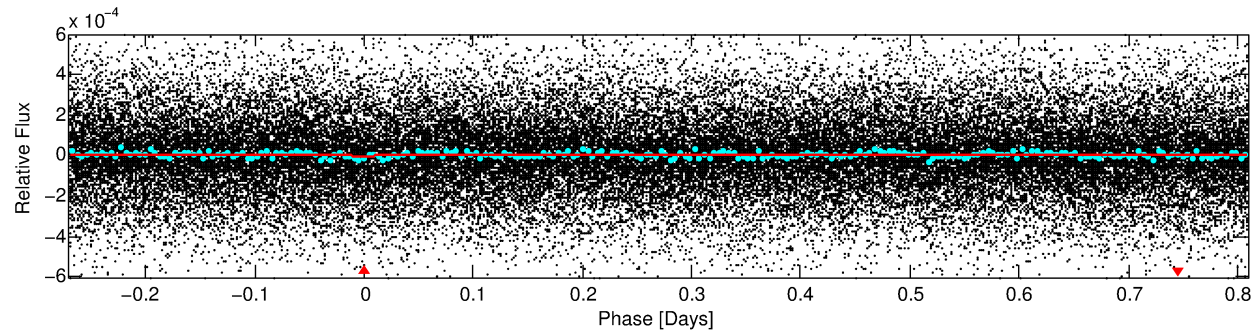
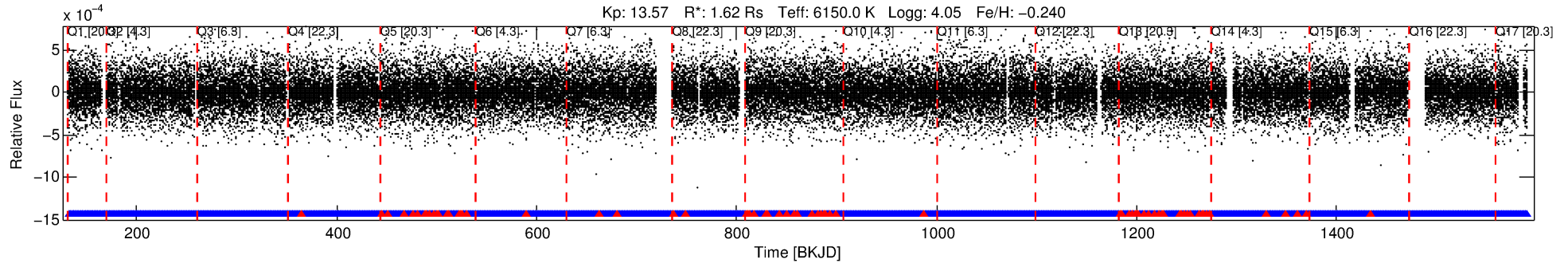
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005397160-01

No Significant Match Found

DV One-Page Summary

KIC: 5397160 Candidate: 1 of 1 Period: 1.079 d



DV Fit Results:

Period = 1.07944 [0.00036] d
Epoch = 132.0125 [0.0425] BKJD
Rp/R* = 0.0013 [0.0280]
a/R* = 15.45 [1651.14]
b = 0.01 [10298.54]
Seff = 7576.13 [4479.32]
Teff = 2379 [352] K
Rp = 0.23 [4.95] Re
a = 0.0210 [0.0074] AU
Ag = 79.97 [3418.68] [0.02σ]
Teffp = 10999 [117545] K [0.07σ]

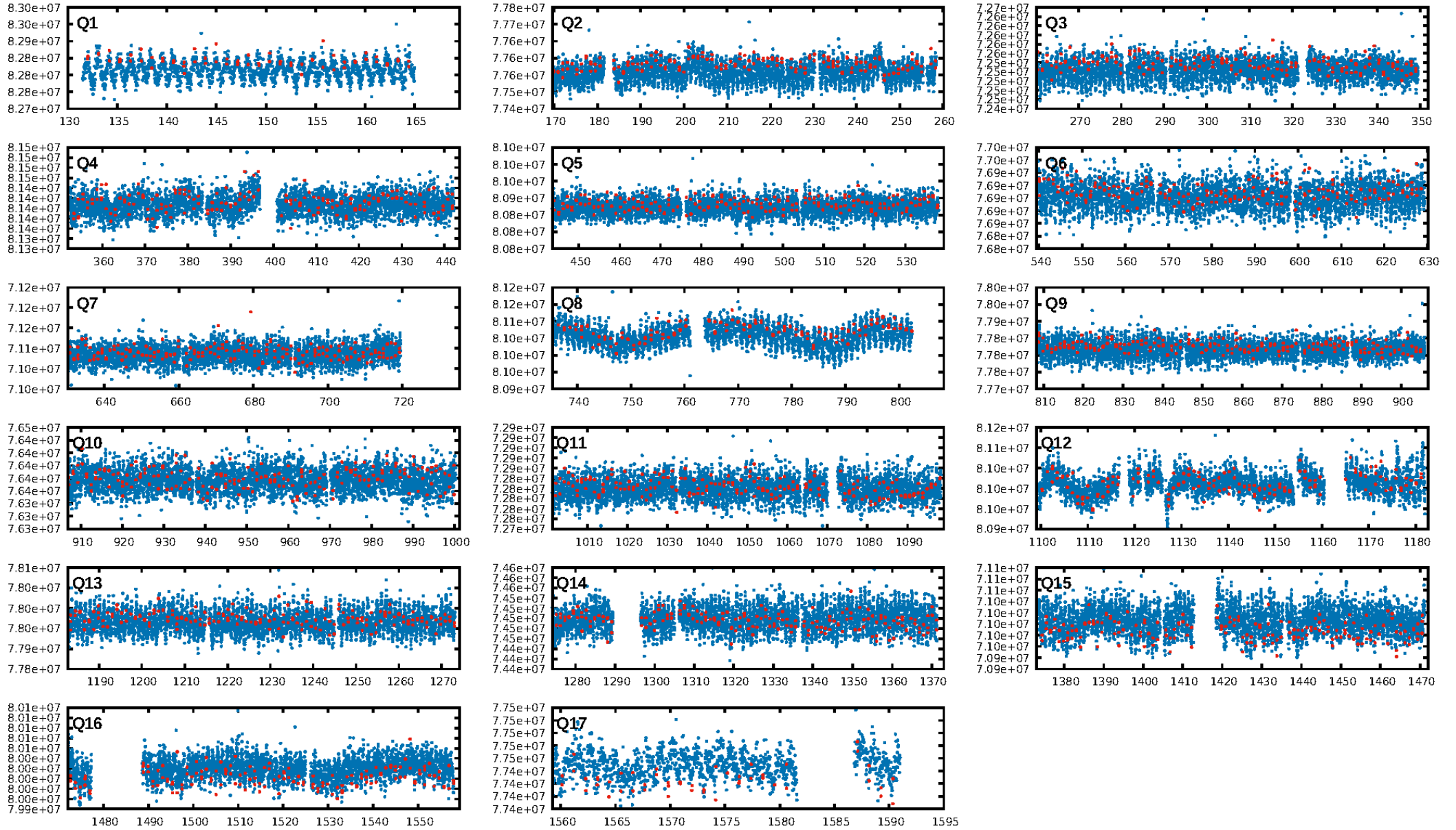
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.59e-14
RollingBand-fgt: 0.94 [1109/1183]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.340 arcsec [1.19σ]
KicOffset-rm: 1.488 arcsec [1.37σ]
OotOffset-st: 3/4/3/5 [15]
KicOffset-st: 3/4/3/5 [15]
DiffImageQuality-fgm: 0.20 [3/15]
DiffImageOverlap-fno: 1.00 [17/17]

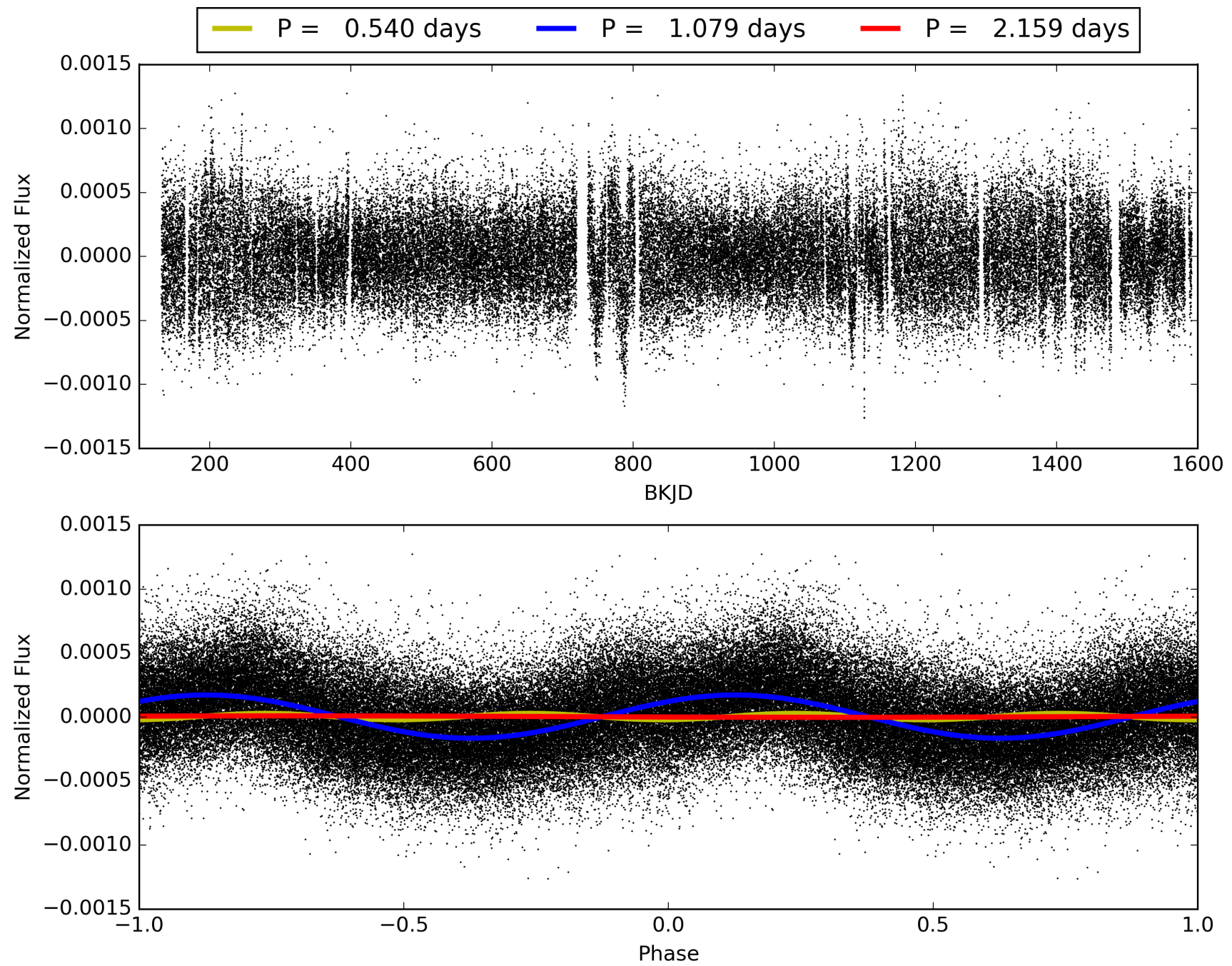
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:38:07 Z

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

TCE 005397160-01, PDC Light Curves

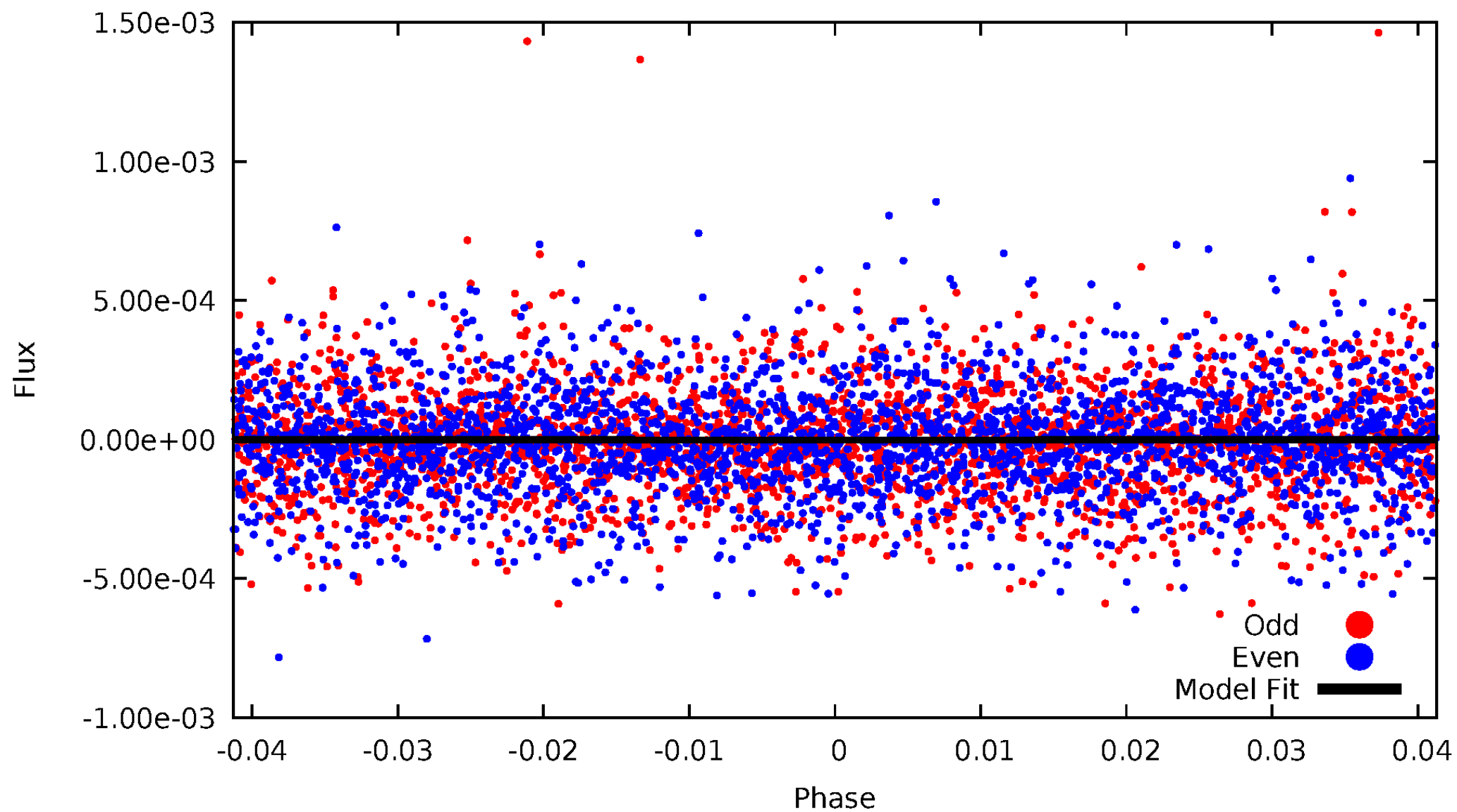


TCE 005397160-01



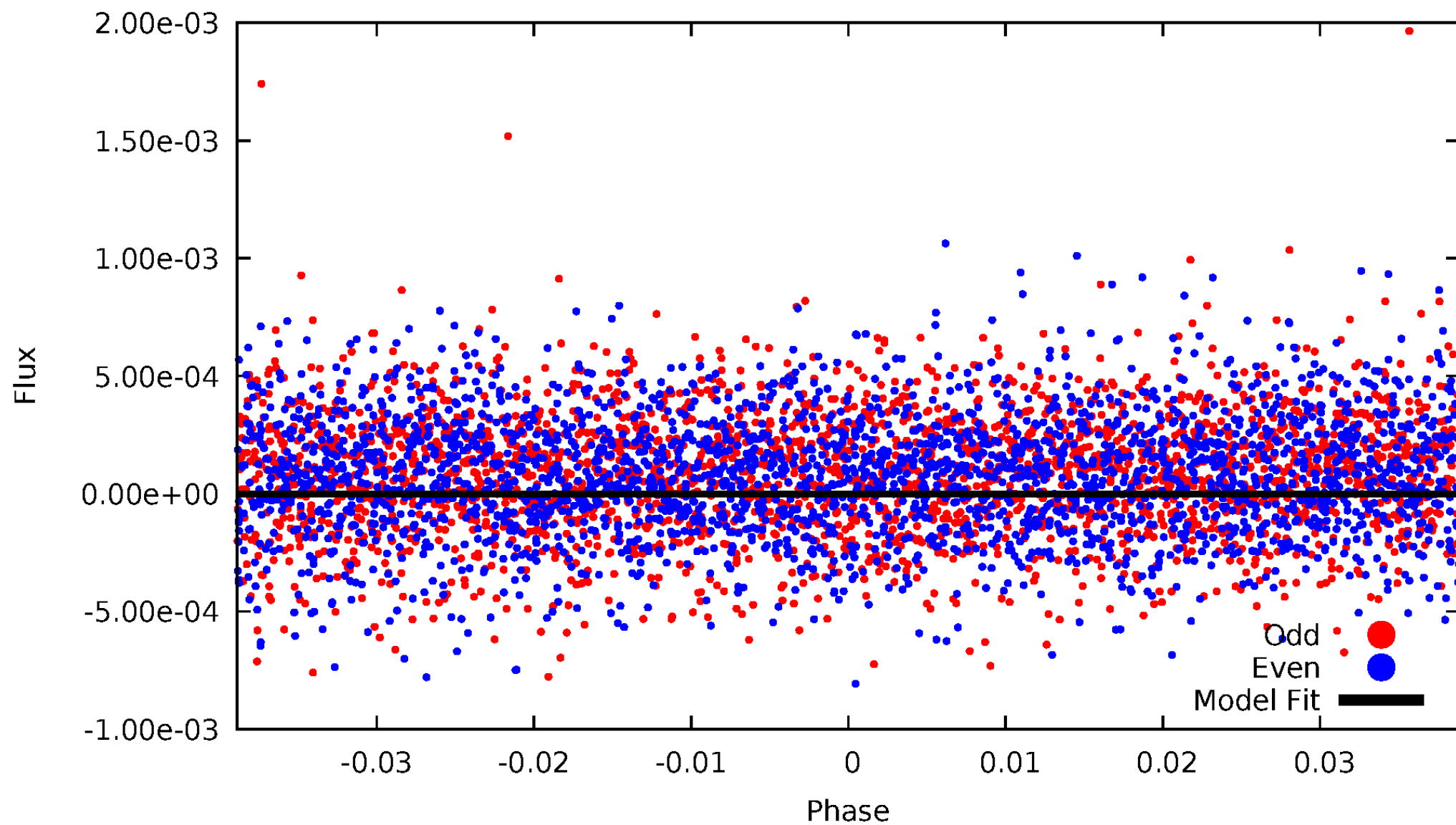
DV Odd/Even

TCE 005397160-01



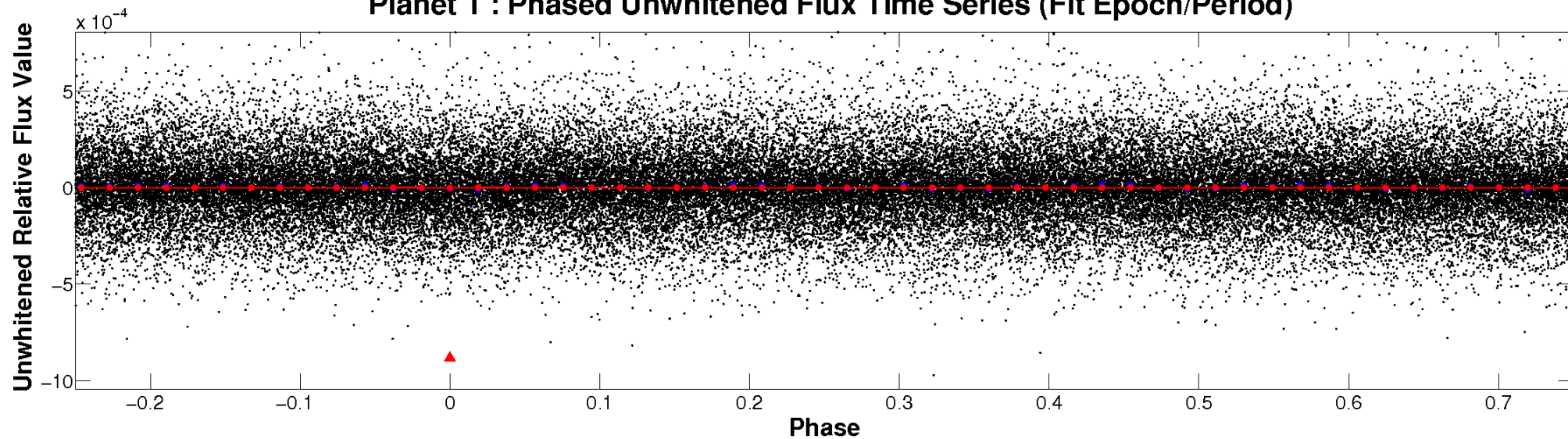
ALT Odd/Even

TCE 005397160-01

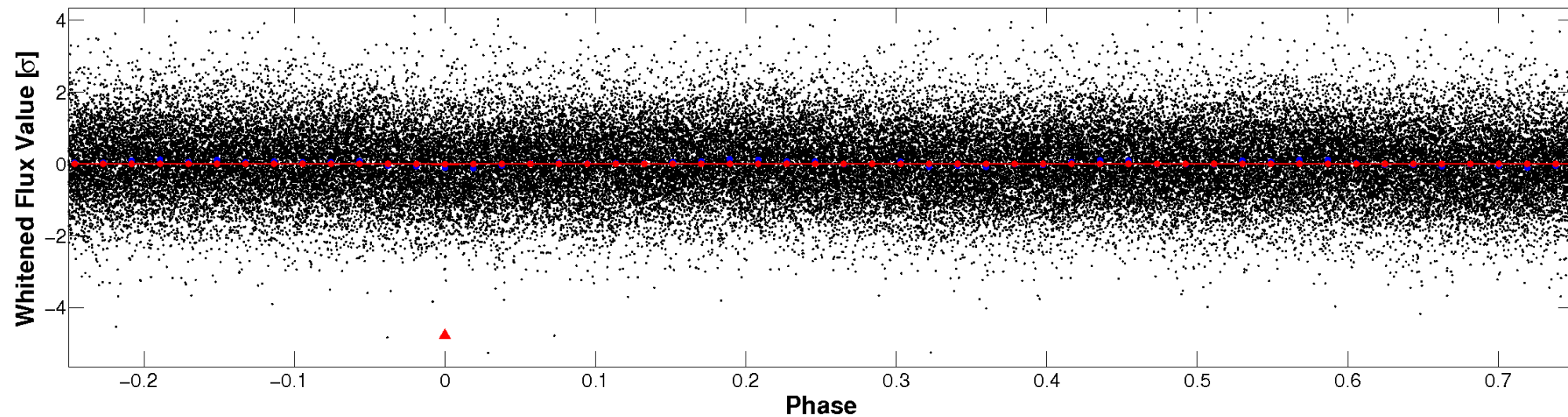


Non-Whitened Vs. Whitened Light Curve

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

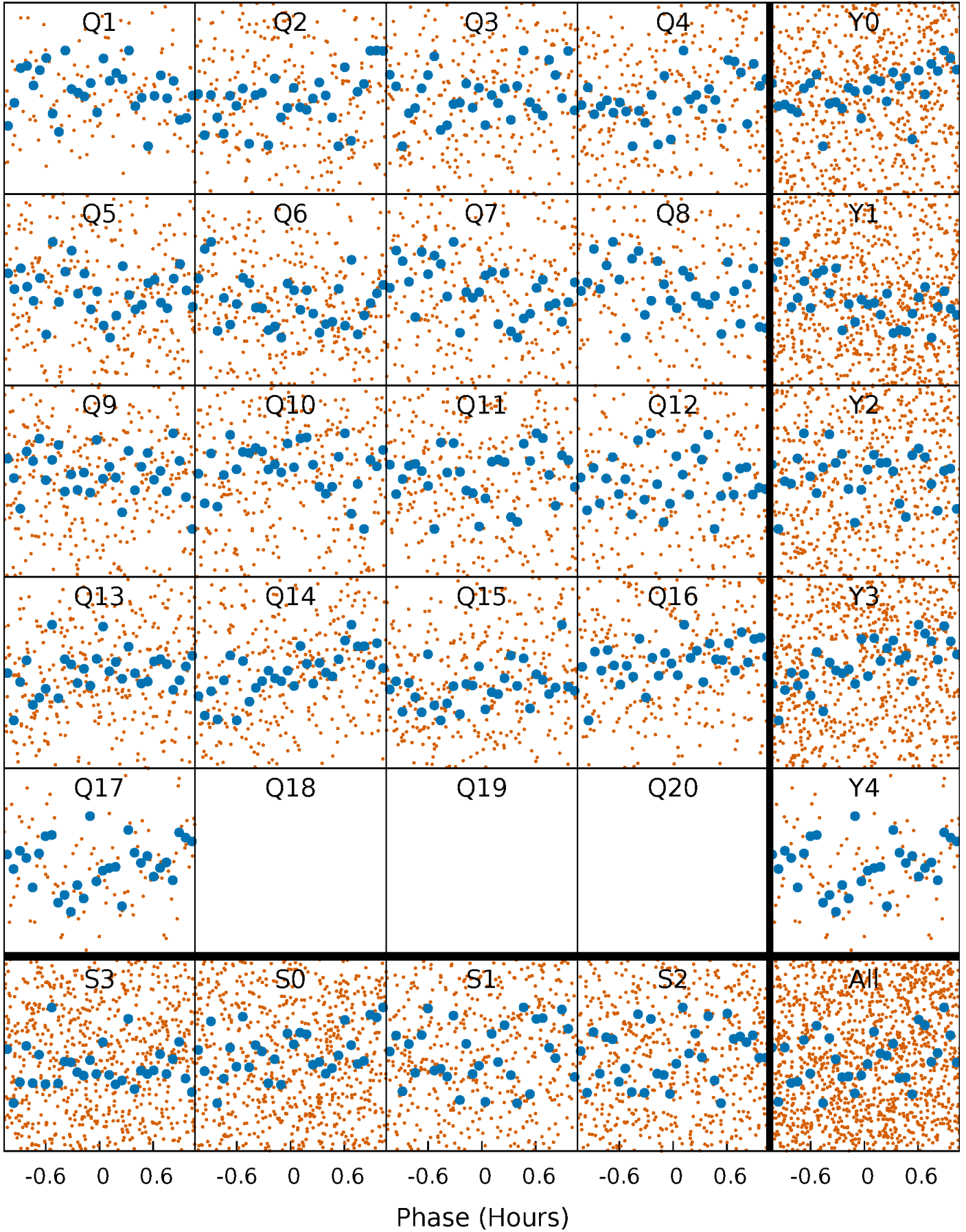


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



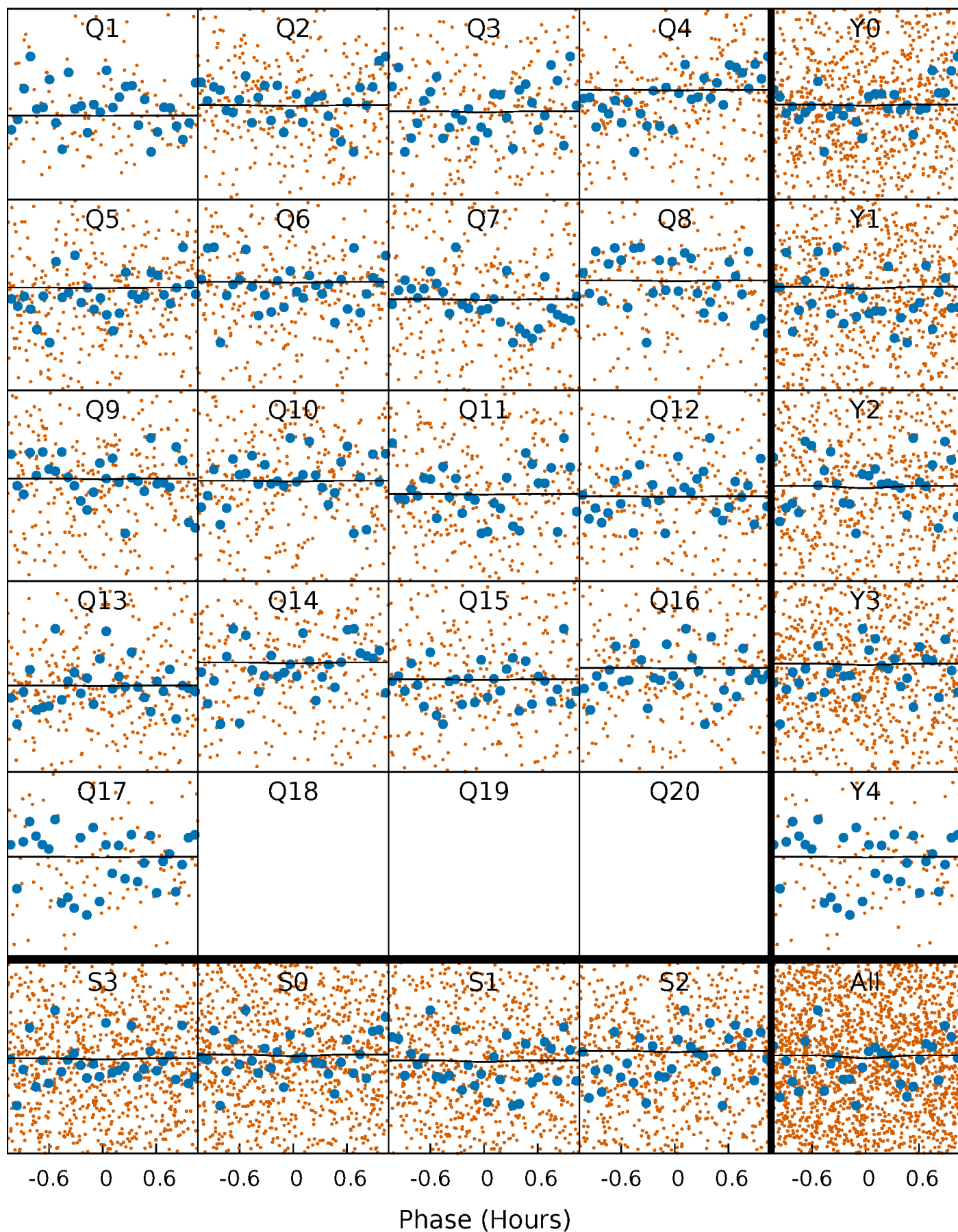
PDC Quarter-Phased Transit Curves

TCE 005397160-01 P= 1.079443 Days $T_0=132.012502$ (BKJD)



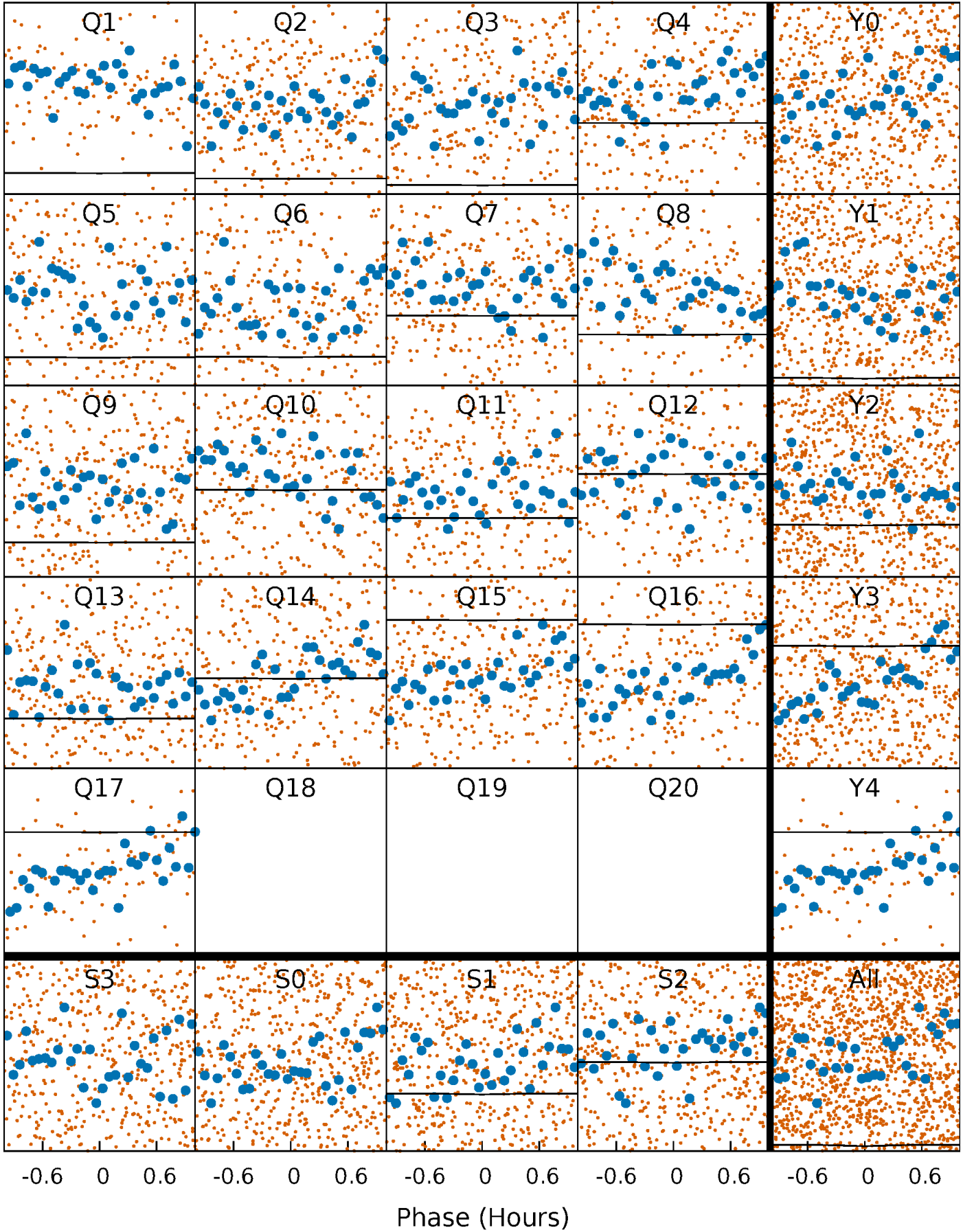
DV Quarter-Phased Transit Curves

TCE 005397160-01 P= 1.079443 Days $T_0=132.012502$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

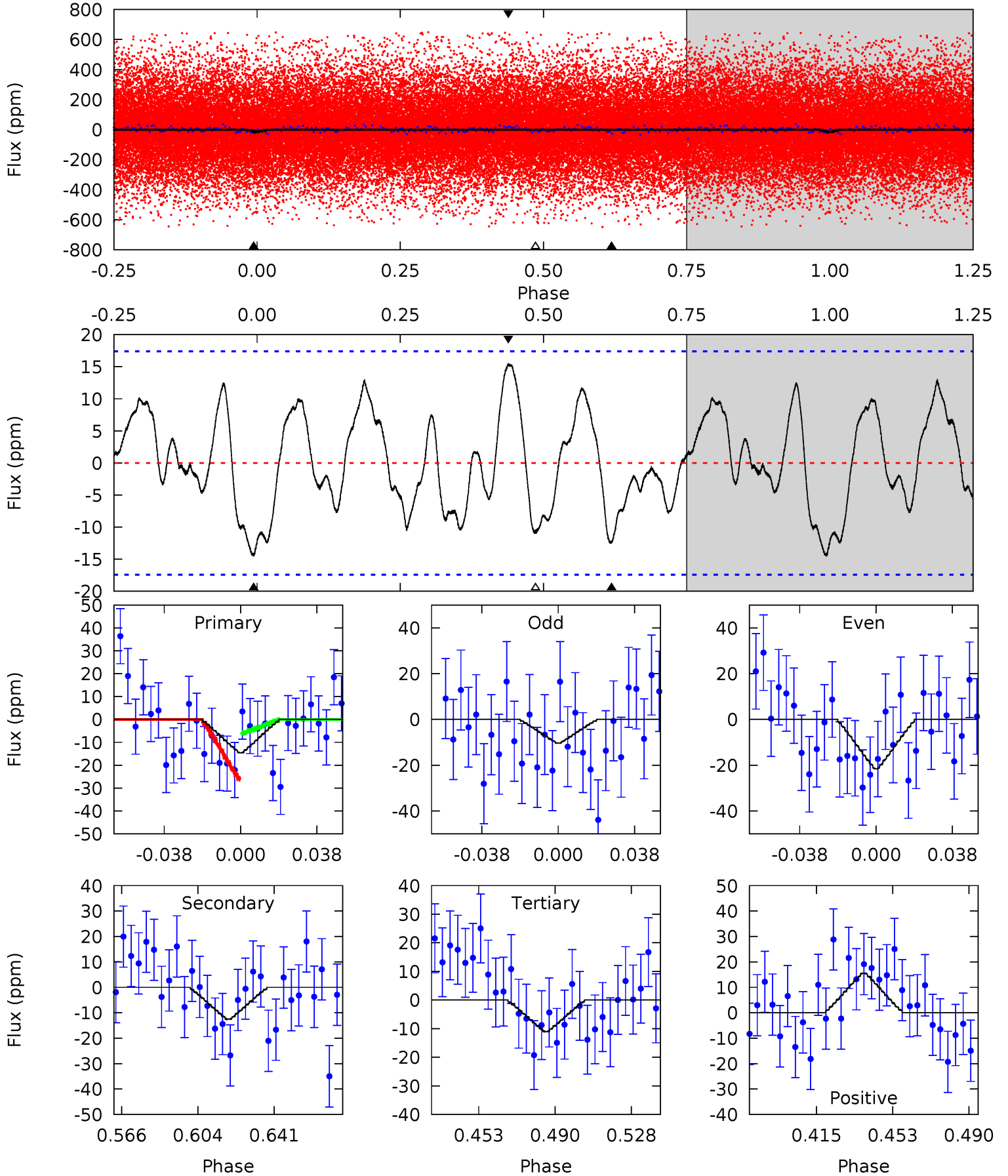
TCE 005397160-01 P= 1.079460 Days $T_0=132.012955$ (BKJD)



DV Model-Shift Uniqueness Test

005397160-01, P = 1.079443 Days, E = 130.933059 Days

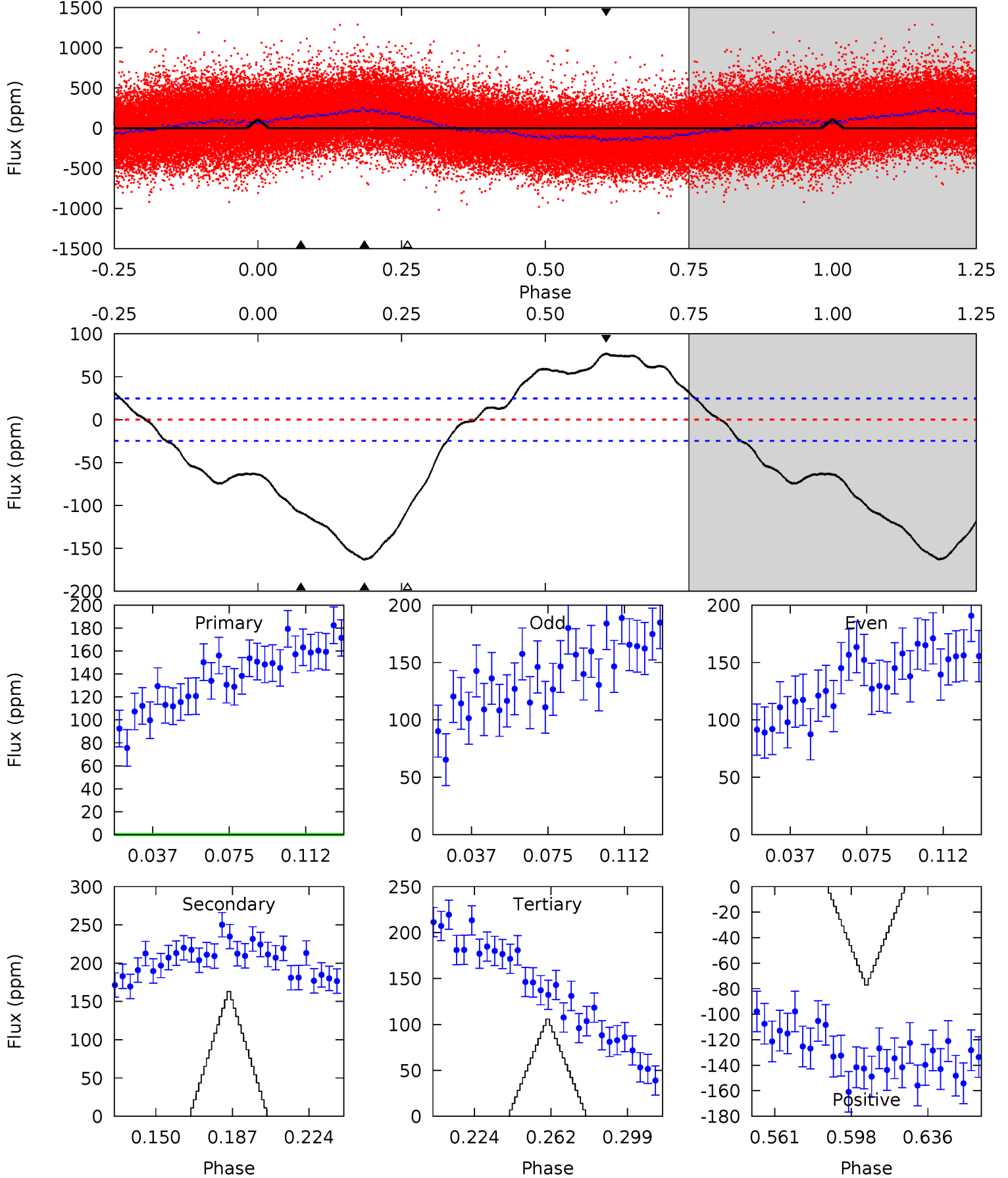
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.98	3.44	3.02	4.26	4.77	2.08	1.77	0.97	-0.27	0.42	-0.82	1.54	0.82	0.52	2.76



Alt Model-Shift Uniqueness Test

005397160-01, P = 1.079460 Days, E = 130.933495 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	31.4	20.3	14.8	4.77	2.08	12.2	0.56	6.09	11.0	16.5	0.39	0.96	0.32	0.35



Stellar Parameters For KIC 005397160

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6150^{+187}_{-206}	$4.048^{+0.343}_{-0.147}$	$-0.240^{+0.300}_{-0.300}$	$1.618^{+0.412}_{-0.566}$	$1.066^{+0.165}_{-0.165}$	$0.355^{+0.898}_{-0.149}$
	+3%/-3%	+8%/-4%	+125%/-125%	+25%/-35%	+15%/-15%	+253%/-42%
Source	PHO1	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 005397160-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-13 ± 4	$3.13^{+3.83}_{-2.18}$	3277^{+236}_{-313}	1961^{+2878}_{-5133}	$0.305^{+2.735}_{-0.242}$
Alt.	-163 ± 5	$3.11^{+3.61}_{-2.29}$	3258^{+261}_{-310}	5026^{+5784}_{-1480}	$4.119^{+52.042}_{-3.226}$

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 $A_{obs} \gg 1.0$

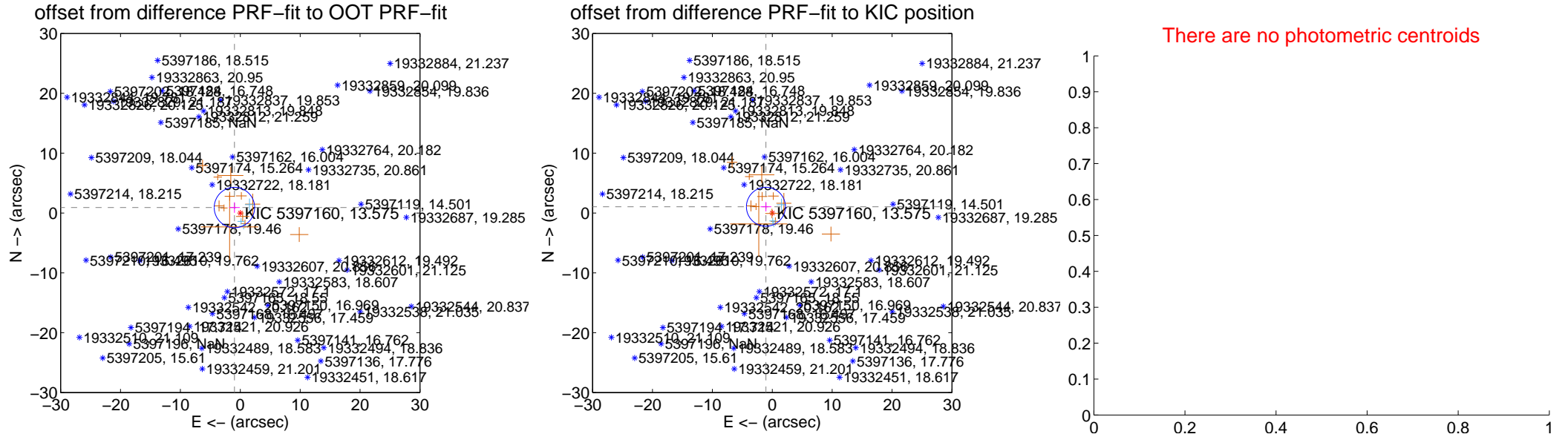
DV Centroid Data

Supplemental centroid analysis for 005397160-01. Kepler magnitude: 13.57. Transit SNR 0.28

There are 3 quarters with good PRF difference image offsets

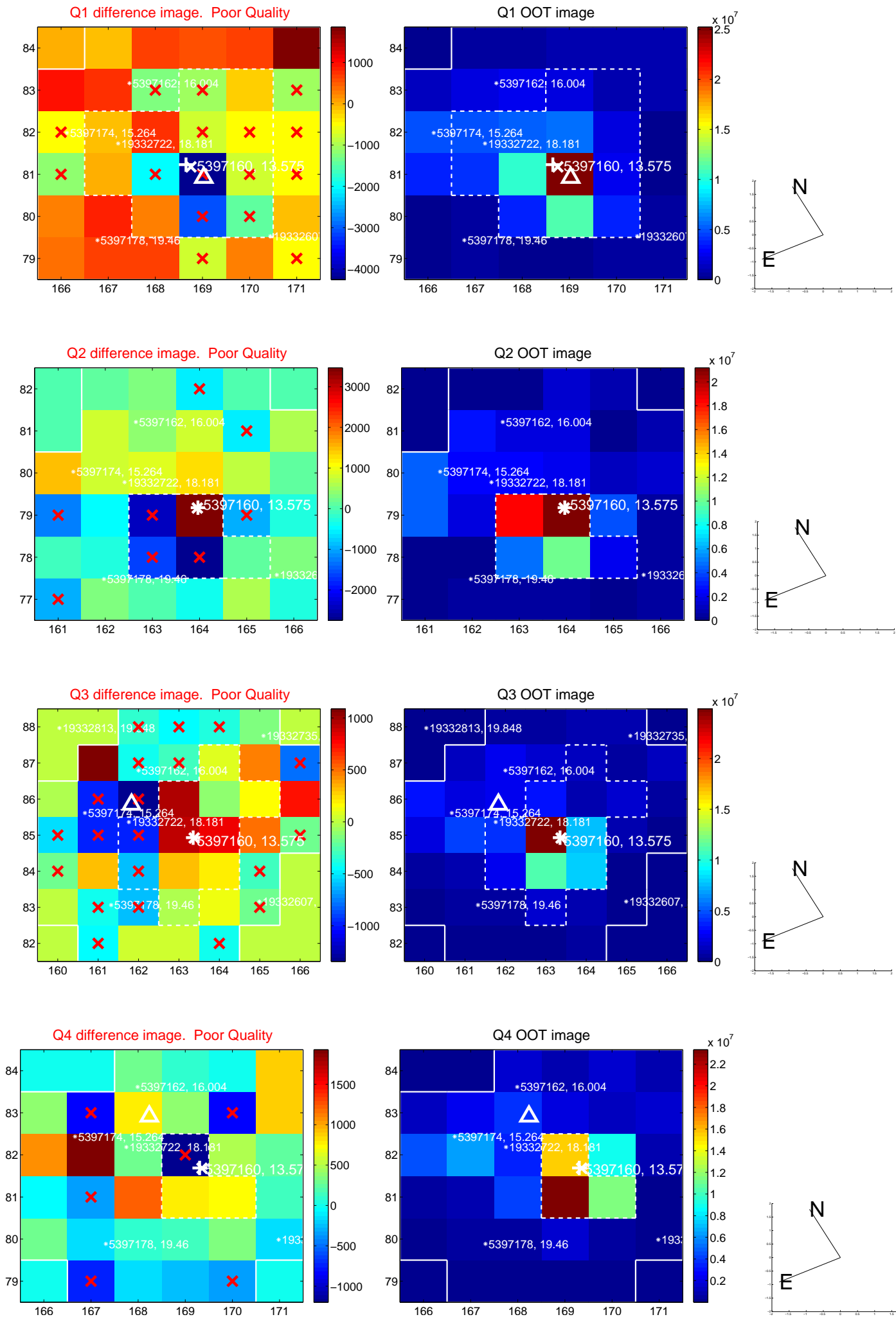
The direct PRF centroid is offset from the target star catalog position by about 0.68 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.340 ± 1.126	1.19	0.976 ± 0.879	0.917 ± 0.878
PRF-fit source offset from KIC position	1.488 ± 1.086	1.37	1.057 ± 0.897	1.048 ± 0.790
photometric centroid source offset	—	—	—	—

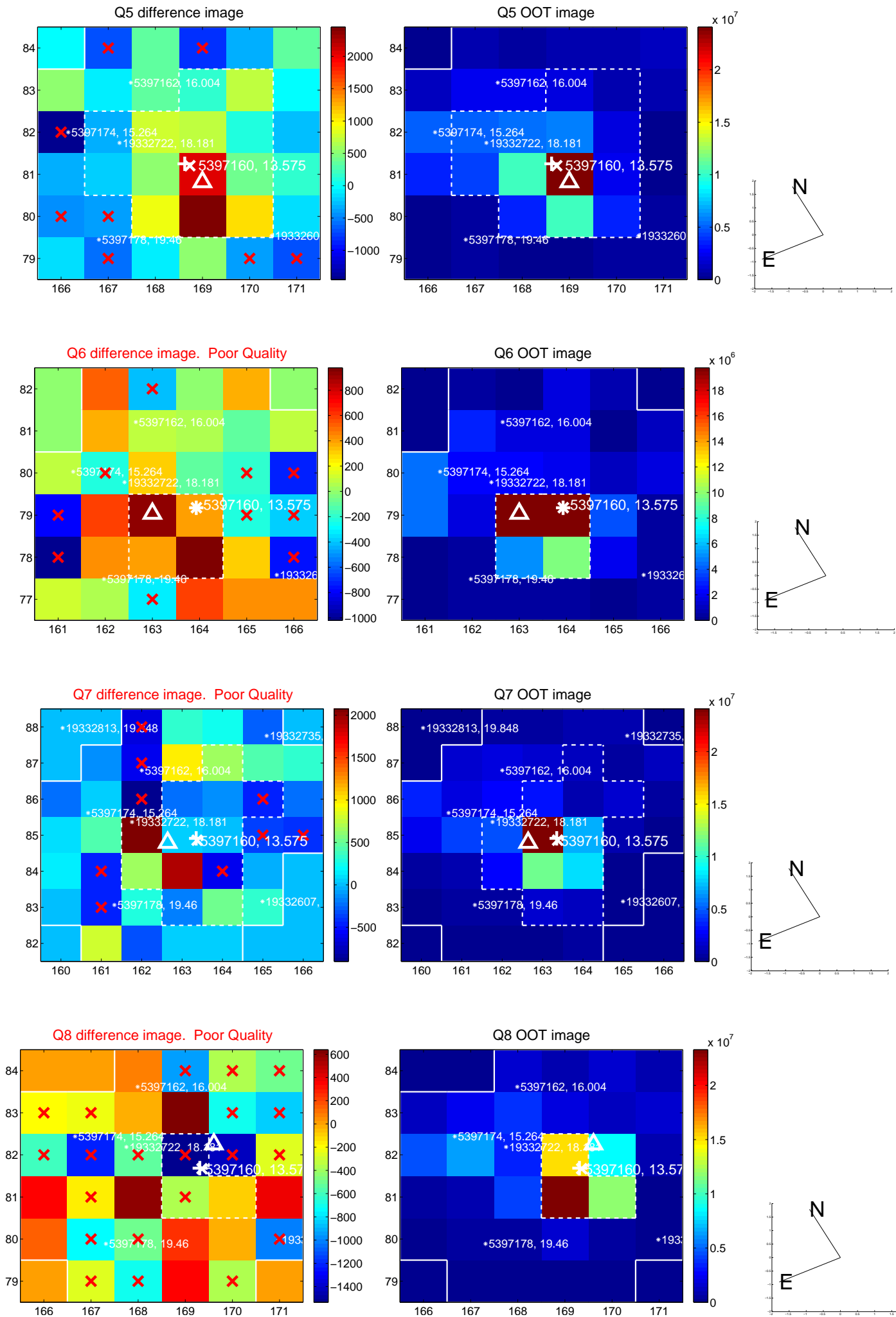


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

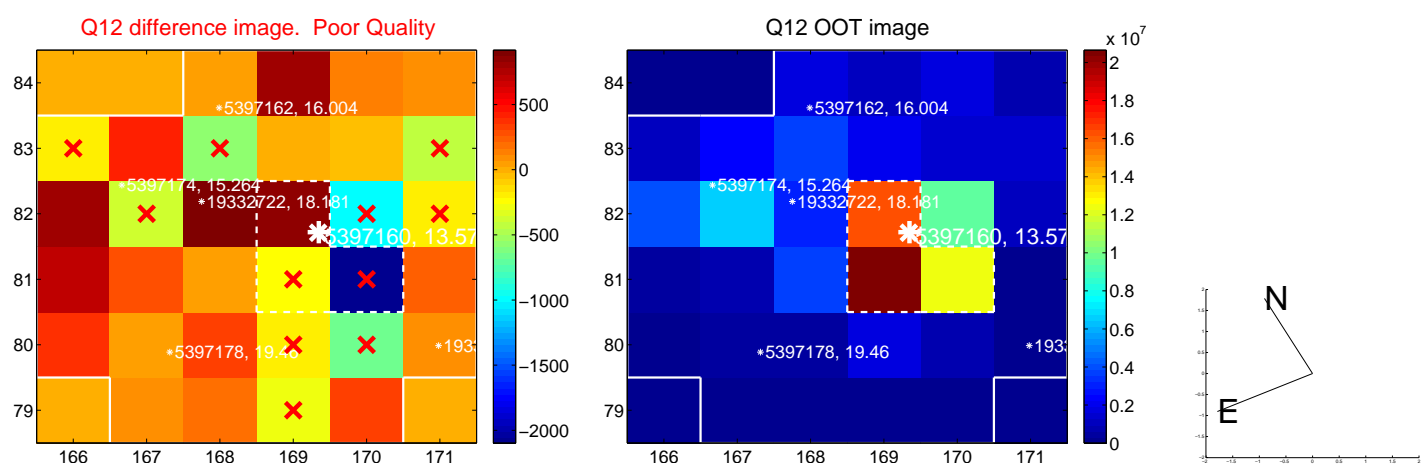
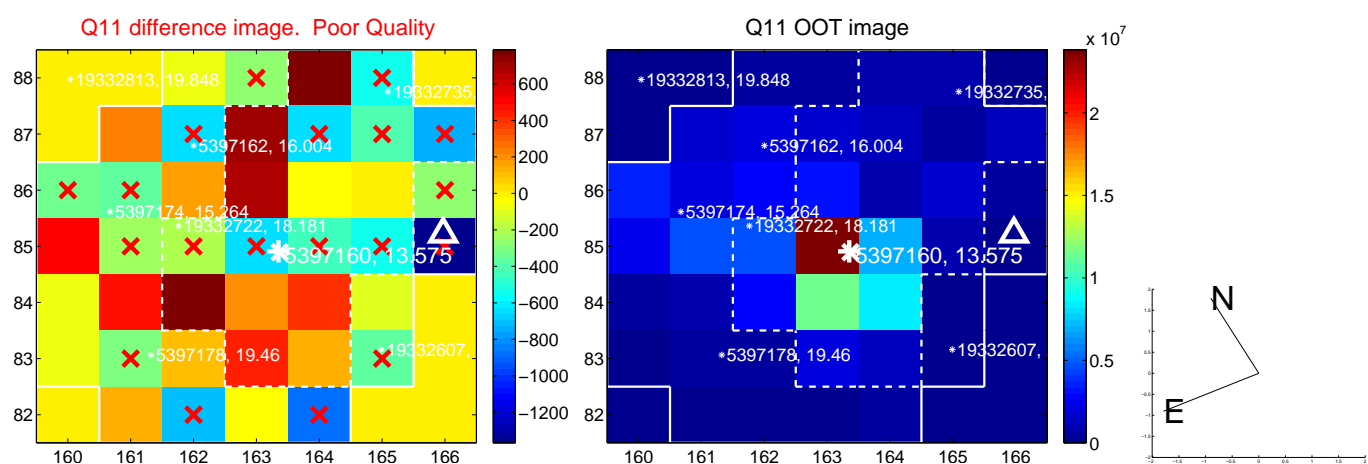
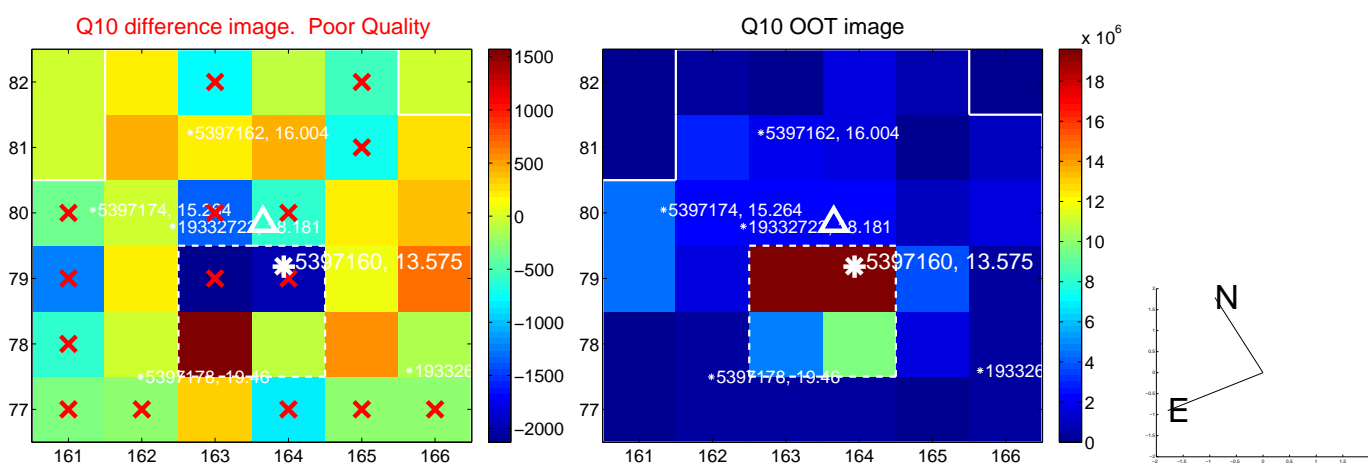
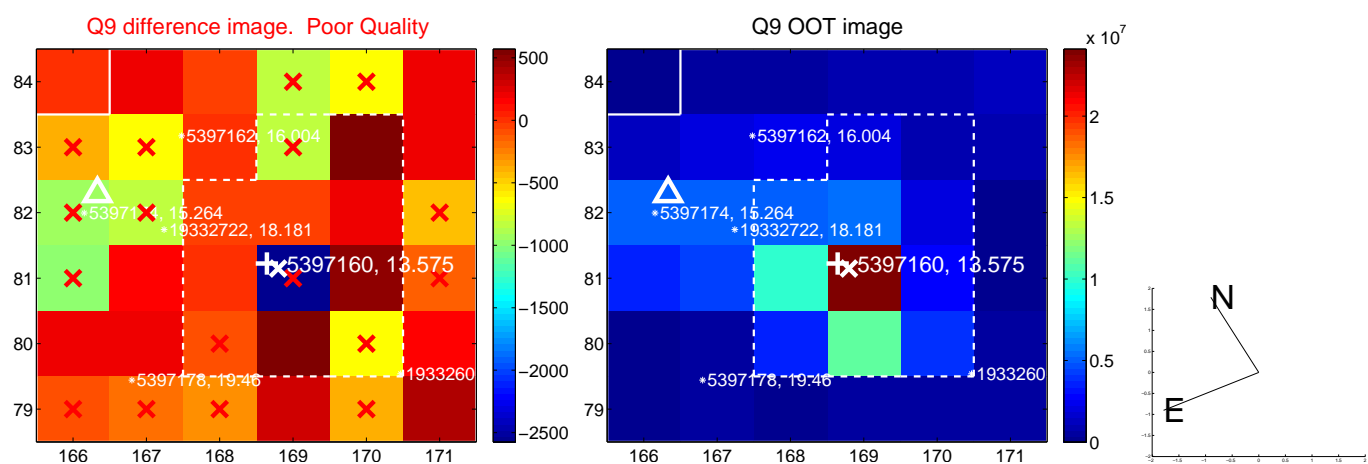
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



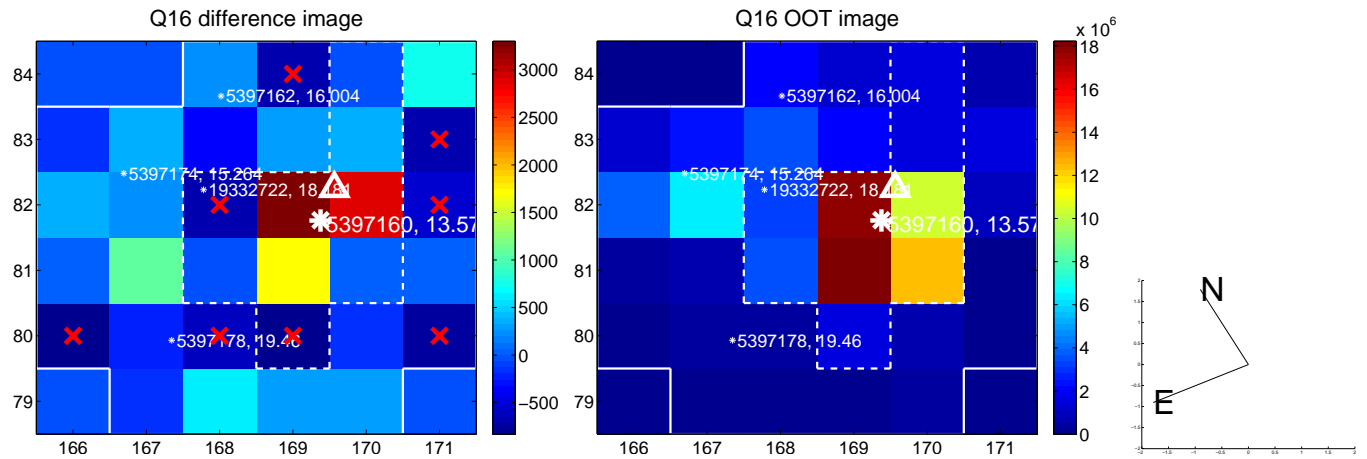
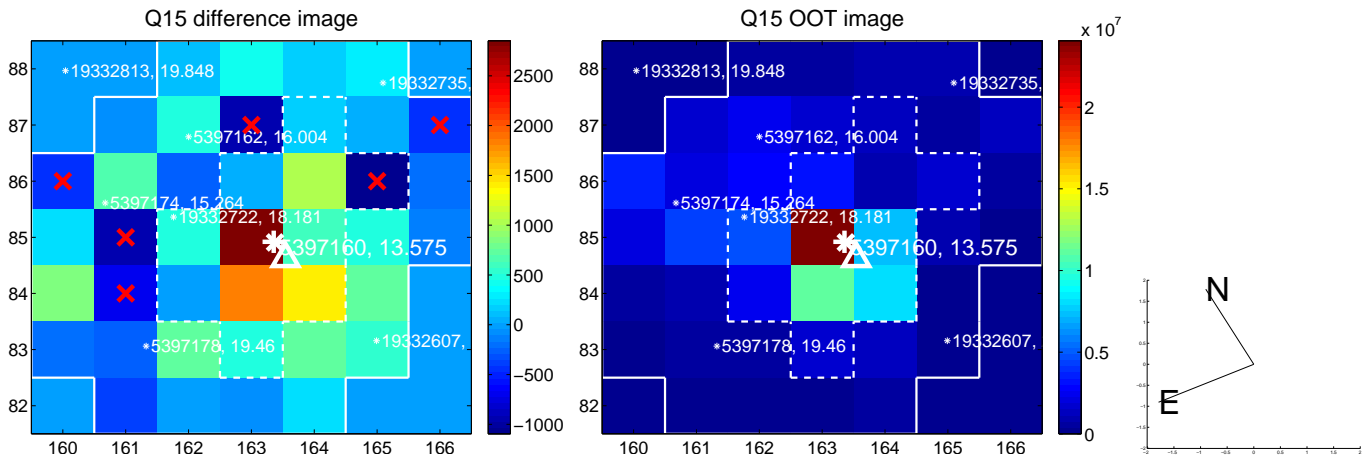
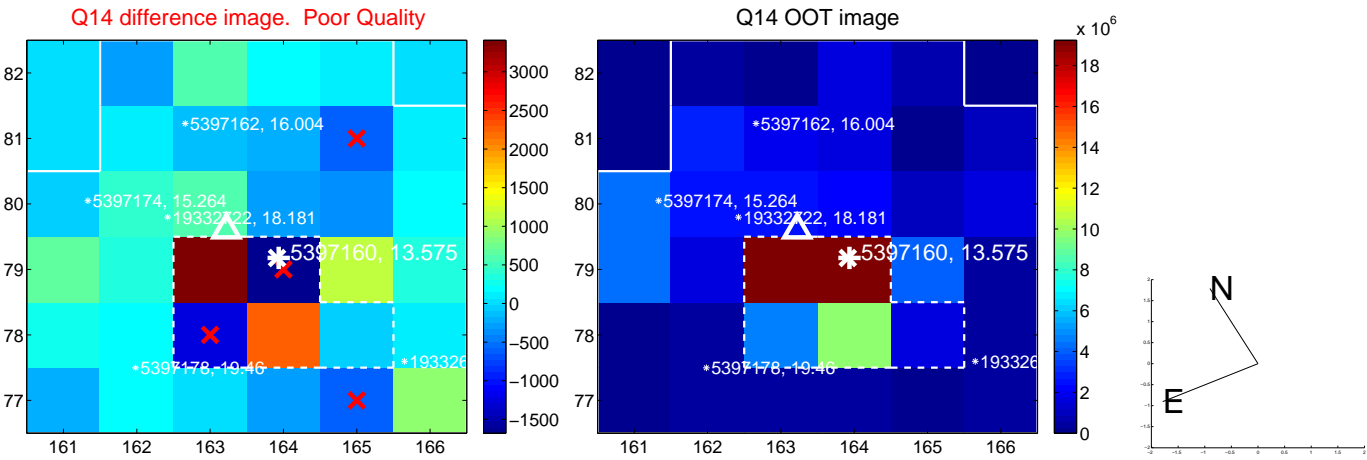
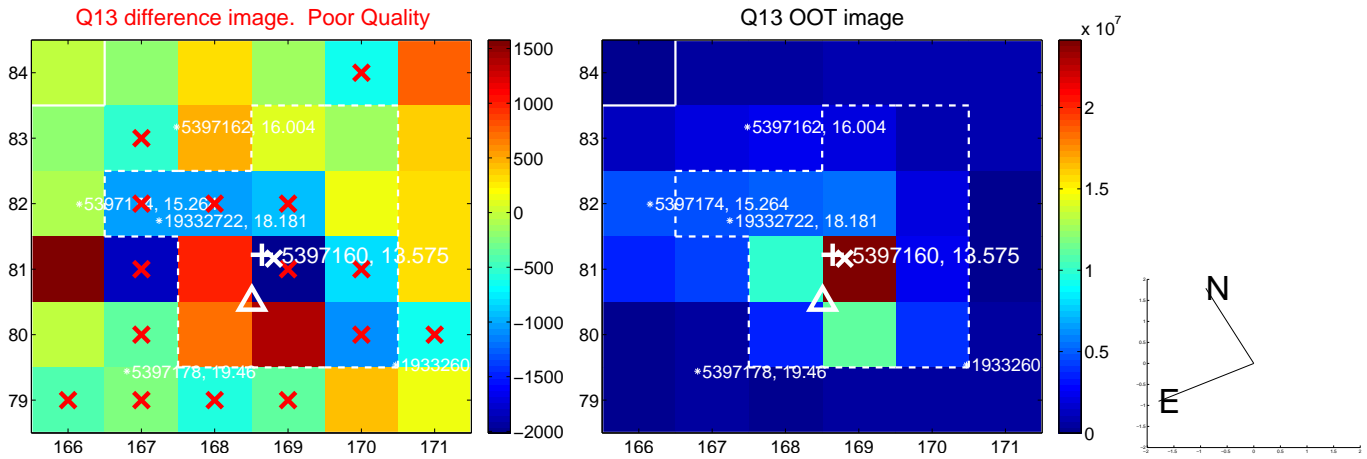
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



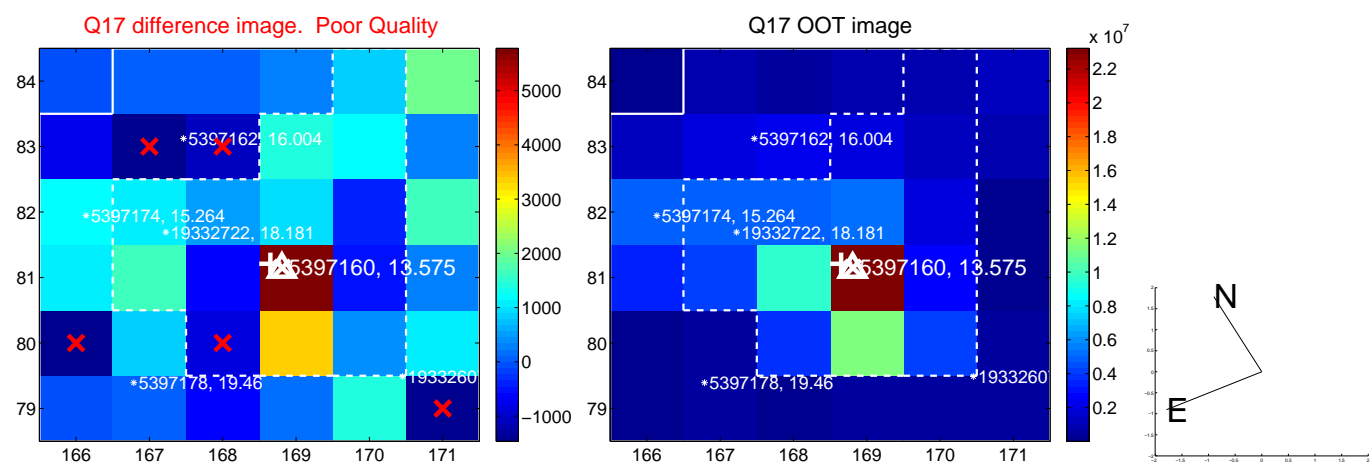
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

