

KIC 010853908

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})
010853908-01	OBS	No	2.749008	134.046377	4.2	23.991	7.4	2.9	2.79	6562	0.57	6387.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010853908-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_FEW_MEAS

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

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

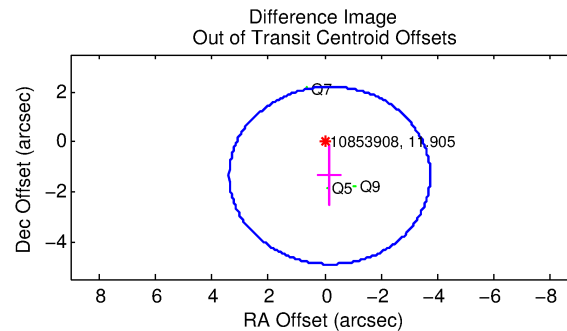
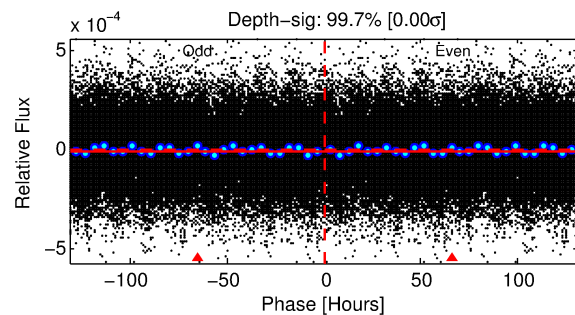
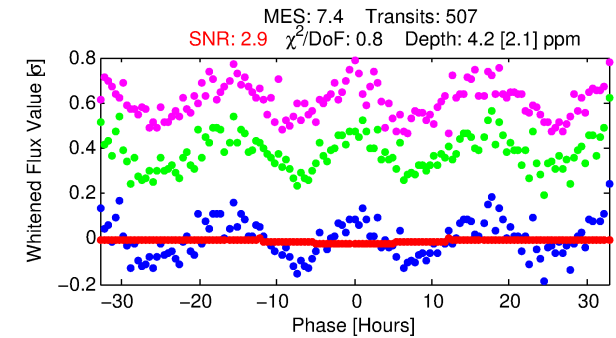
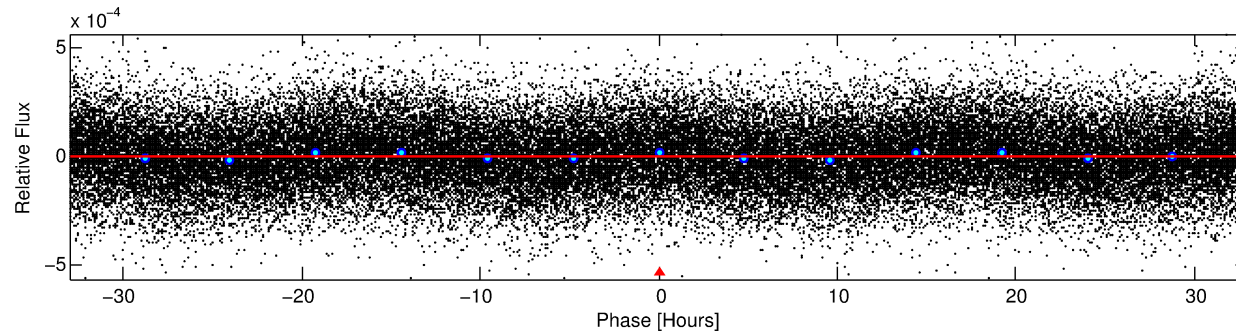
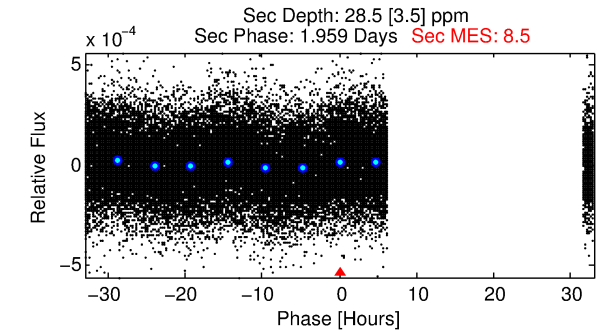
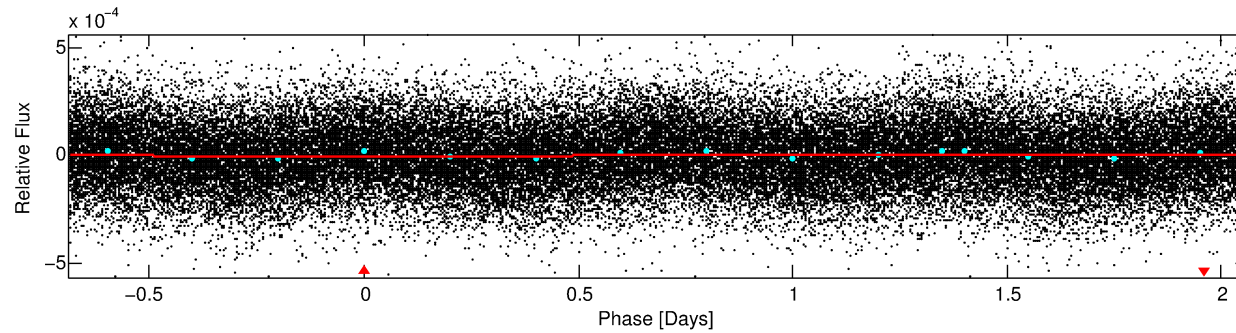
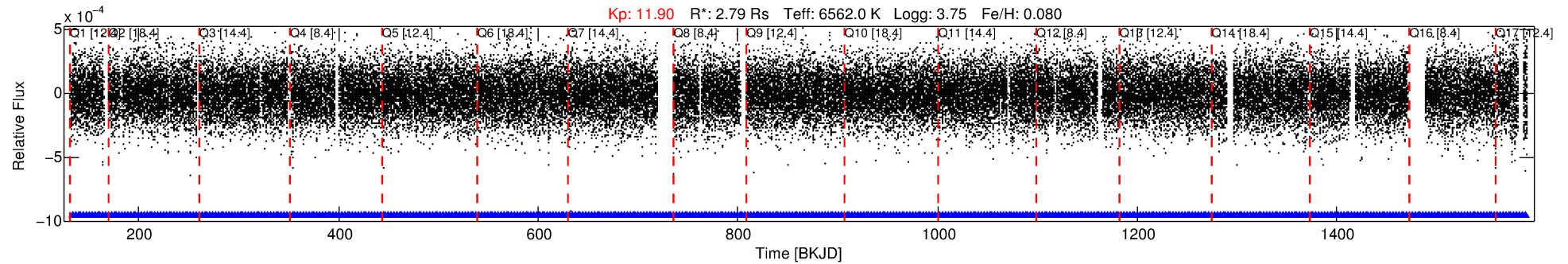
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010853908-01

No Significant Match Found

DV One-Page Summary

KIC: 10853908 Candidate: 1 of 1 Period: 2.749 d



DV Fit Results:

Period = 2.74901 [0.00024] d
Epoch = 134.0464 [0.0427] BKJD
Rp/R* = 0.0019 [0.0066]
a/R* = 1.10 [3.60]
b = 0.04 [482.88]
Seff = 6387.85 [5258.07]
Teq = 2280 [469] K
Rp = 0.57 [2.01] Re
a = 0.0449 [0.0220] AU
Ag = 95.66 [668.12] [0.14σ]
Teffp = 11023 [19121] K [0.46σ]

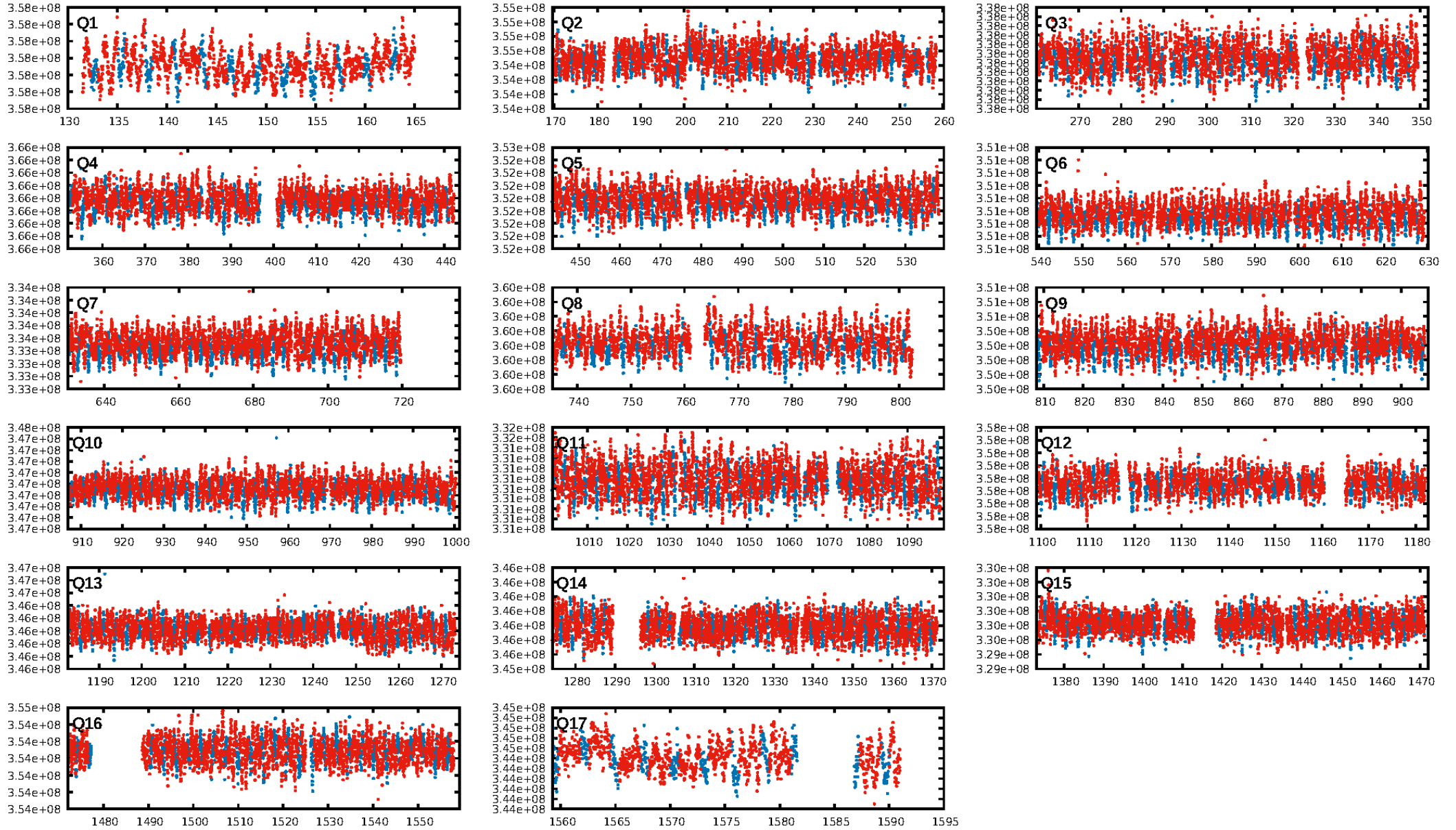
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [484/484]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.366 arcsec [1.15σ]
KicOffset-rm: 1.485 arcsec [1.24σ]
OotOffset-st: 0/1/0/2 [3]
KicOffset-st: 0/1/0/2 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [17/17]

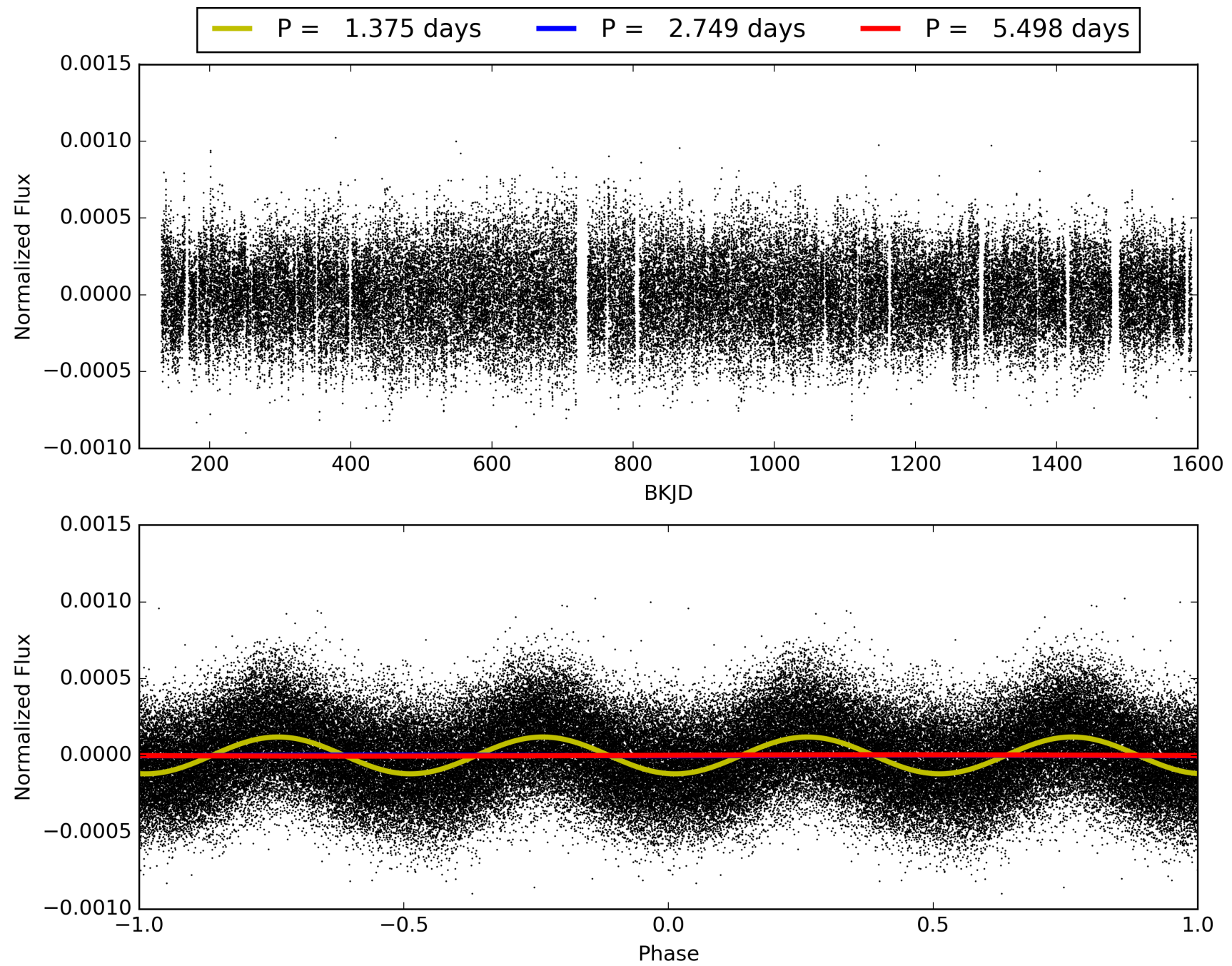
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:06:42 Z

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

TCE 010853908-01, PDC Light Curves

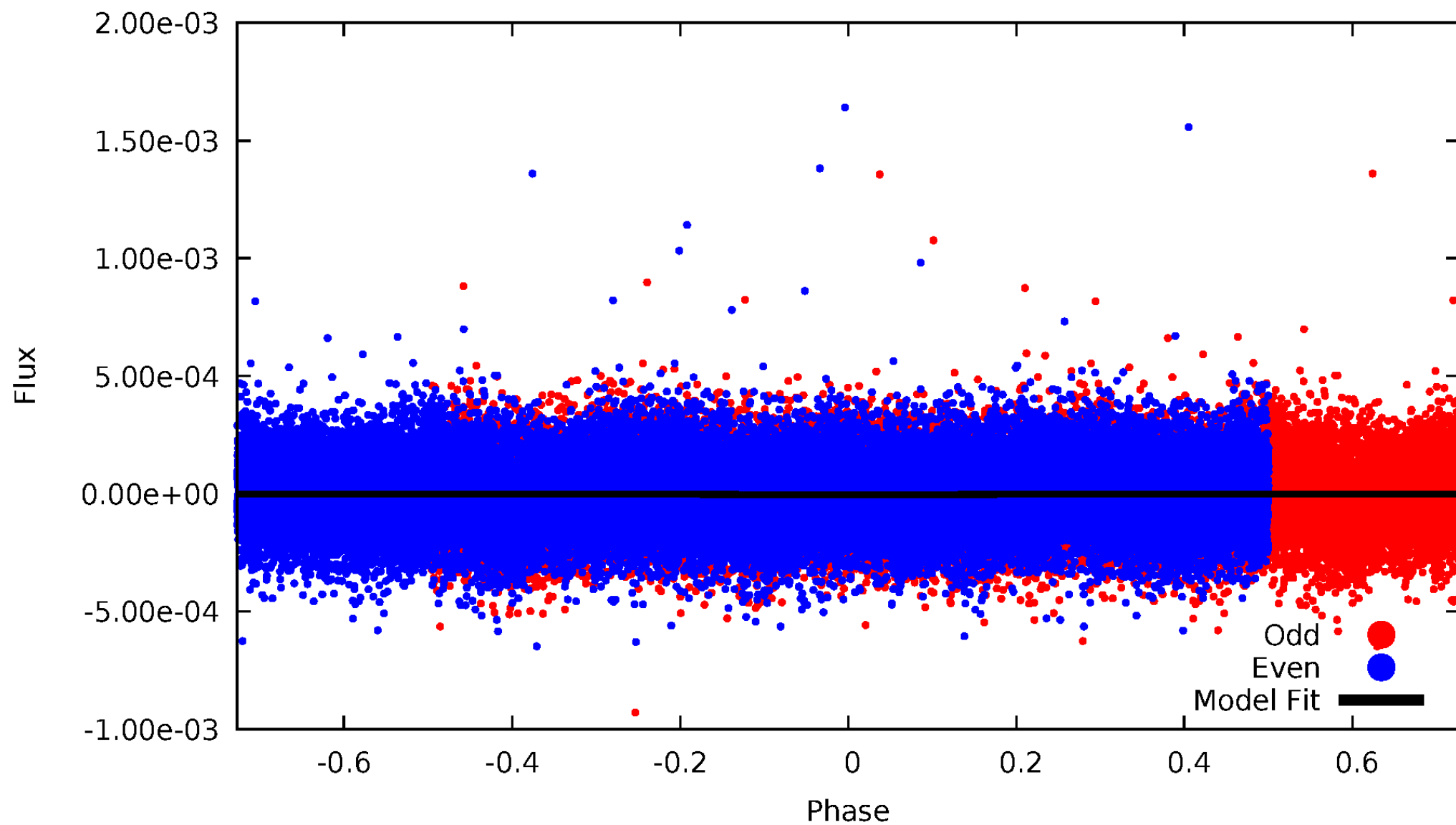


TCE 010853908-01



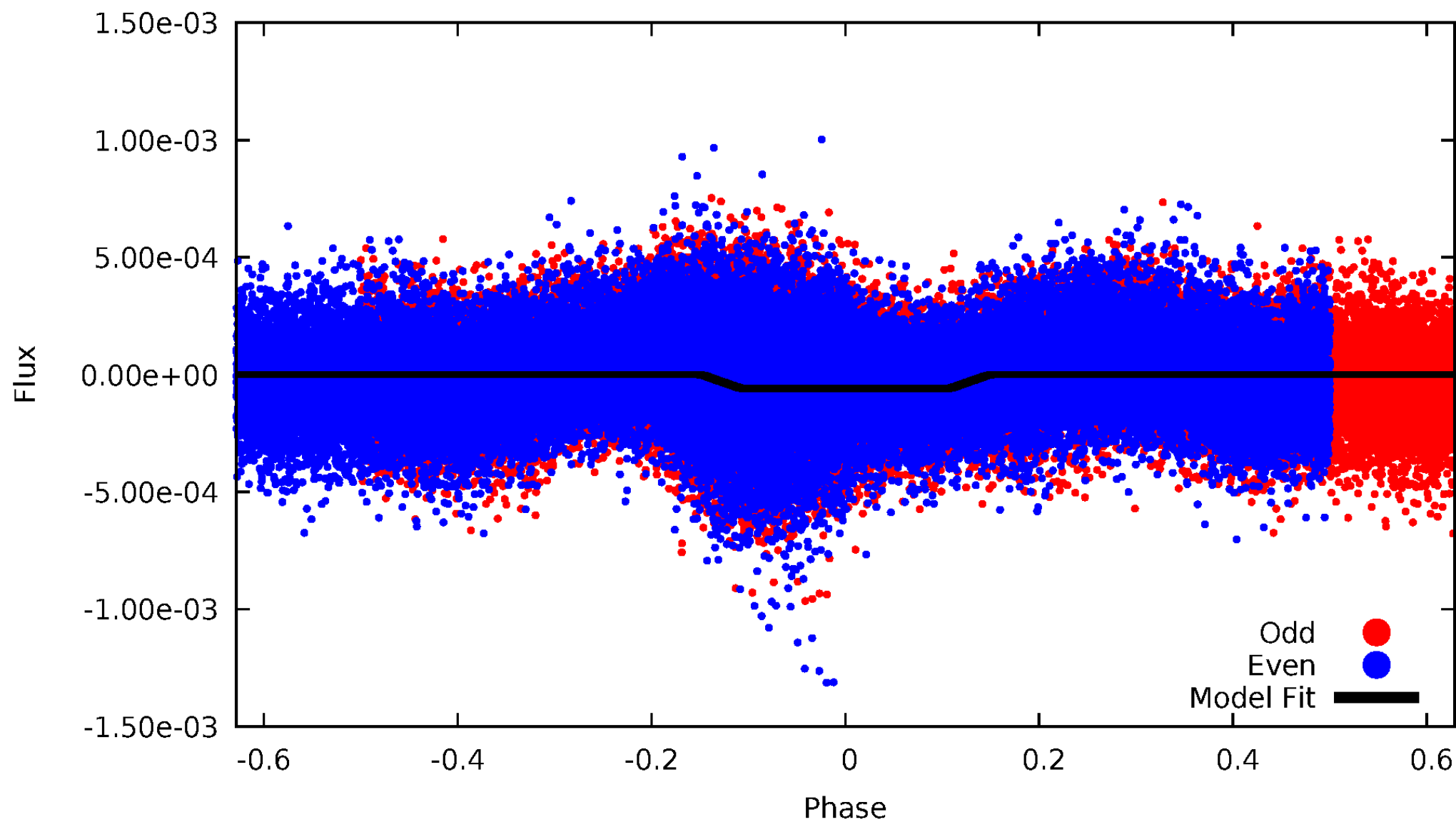
DV Odd/Even

TCE 010853908-01



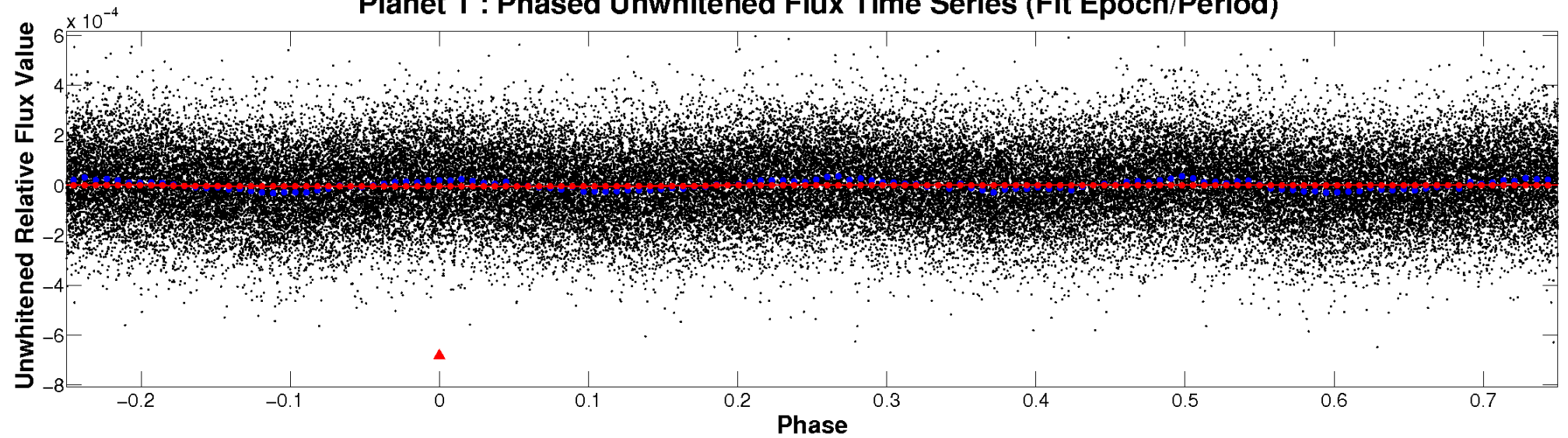
ALT Odd/Even

TCE 010853908-01

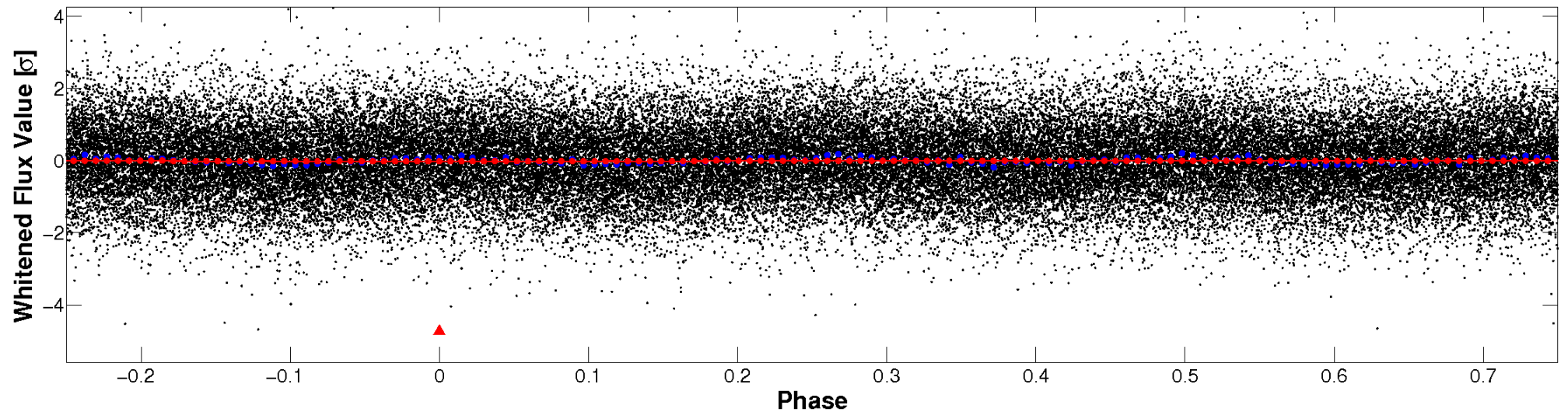


Non-Whitened Vs. Whitened Light Curve

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

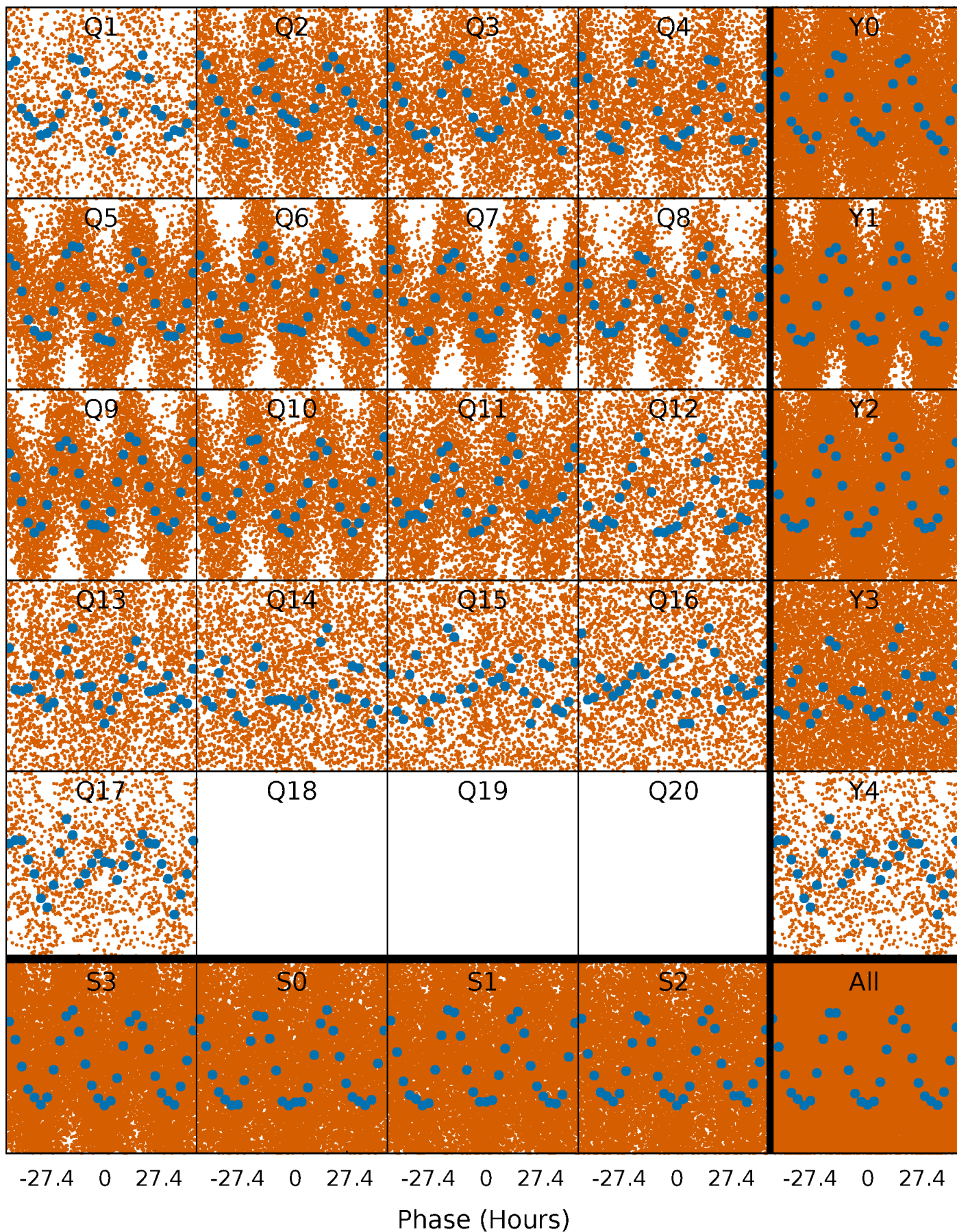


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



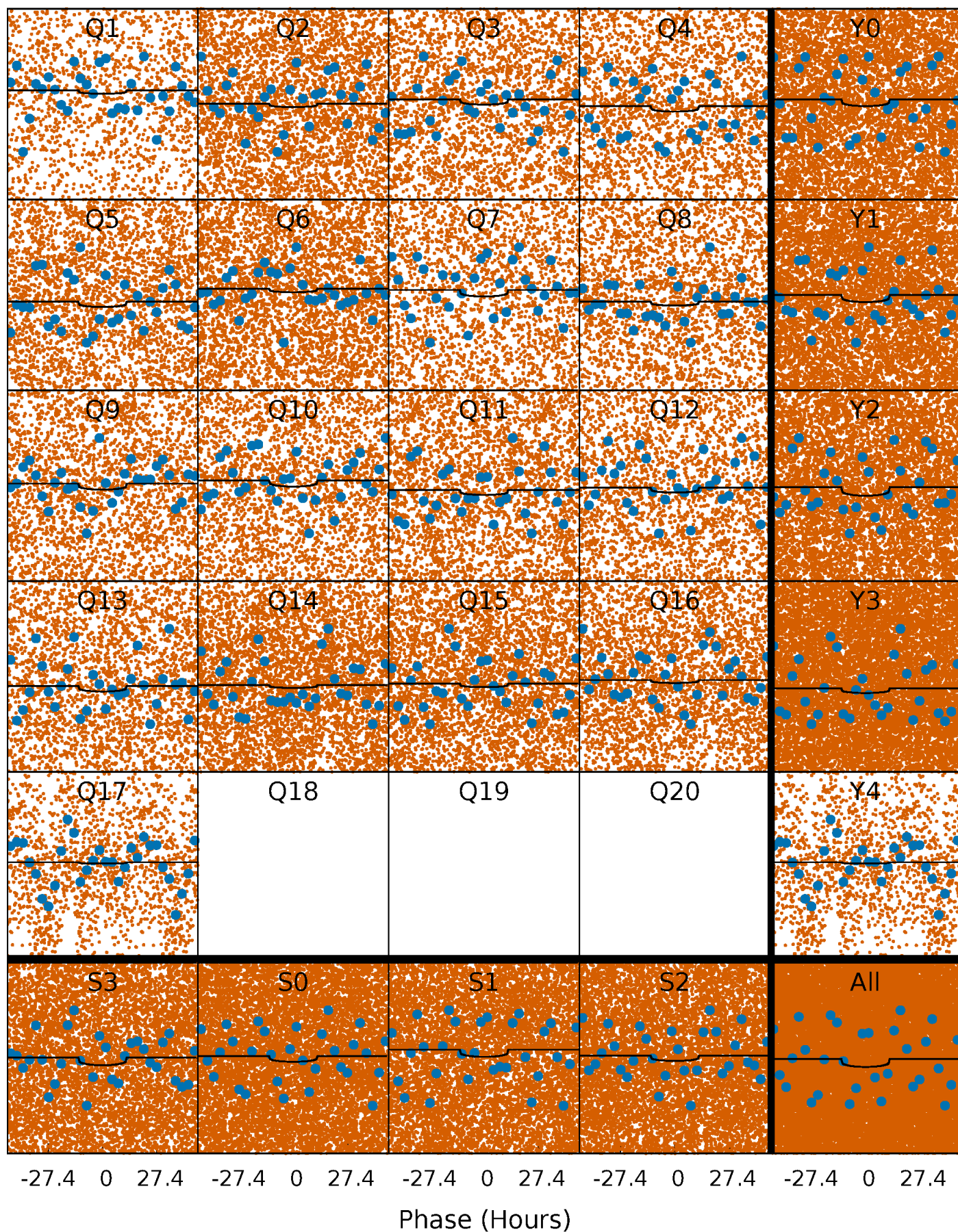
PDC Quarter-Phased Transit Curves

TCE 010853908-01 P= 2.749008 Days $T_0=134.046377$ (BKJD)



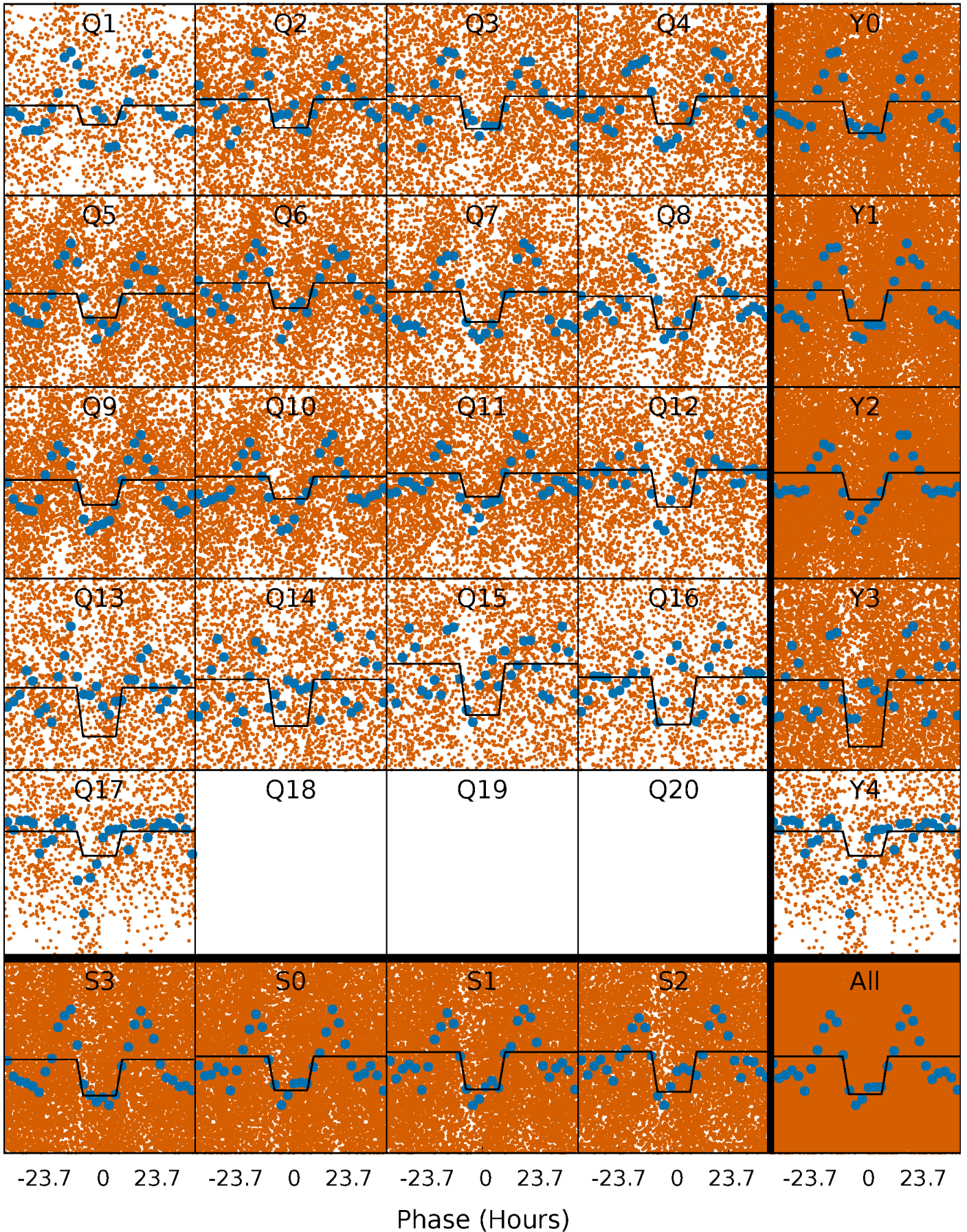
DV Quarter-Phased Transit Curves

TCE 010853908-01 P= 2.749008 Days $T_0=134.046377$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

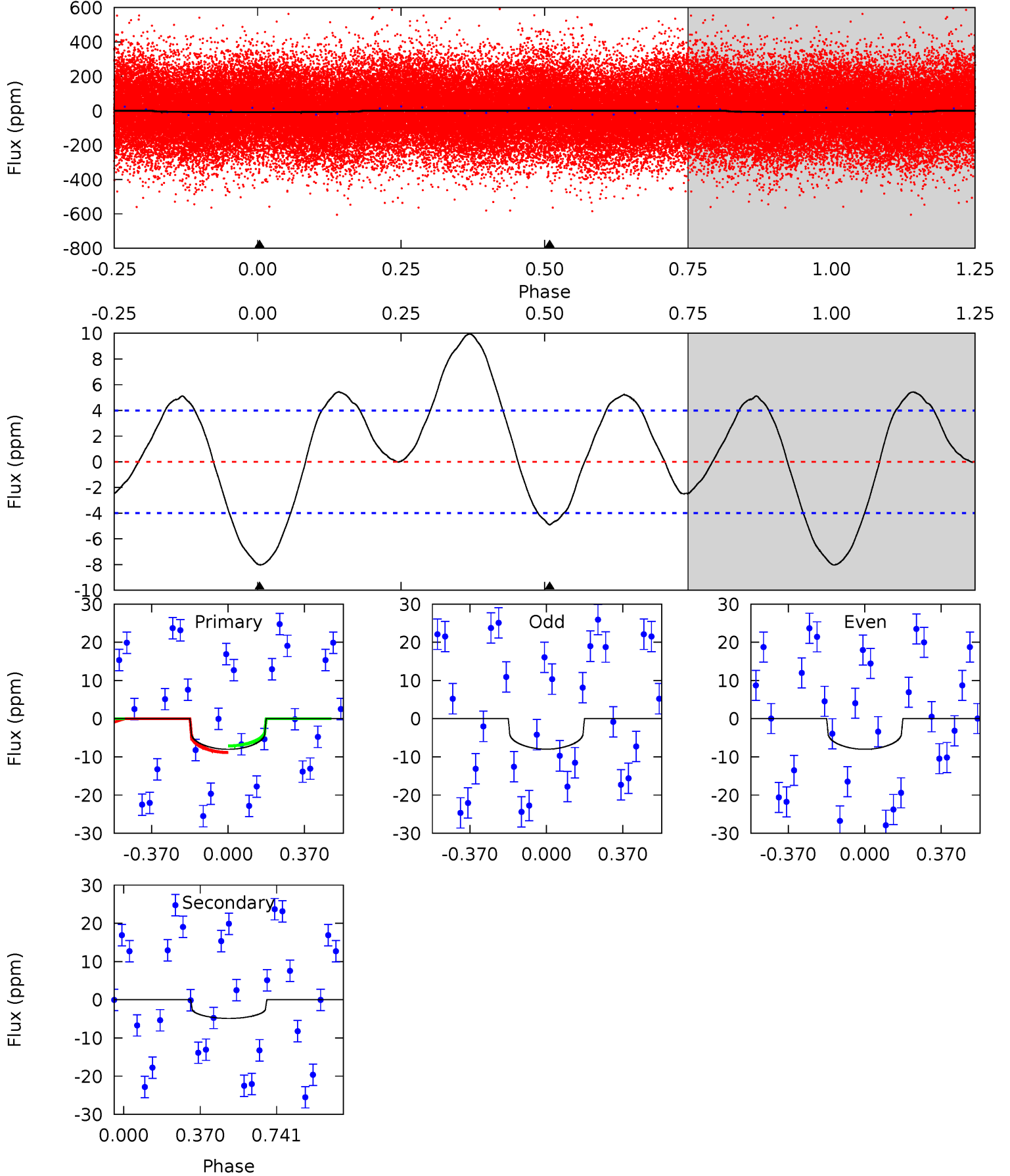
TCE 010853908-01 P= 2.748712 Days $T_0=134.065219$ (BKJD)



DV Model-Shift Uniqueness Test

010853908-01, P = 2.749008 Days, E = 131.297369 Days

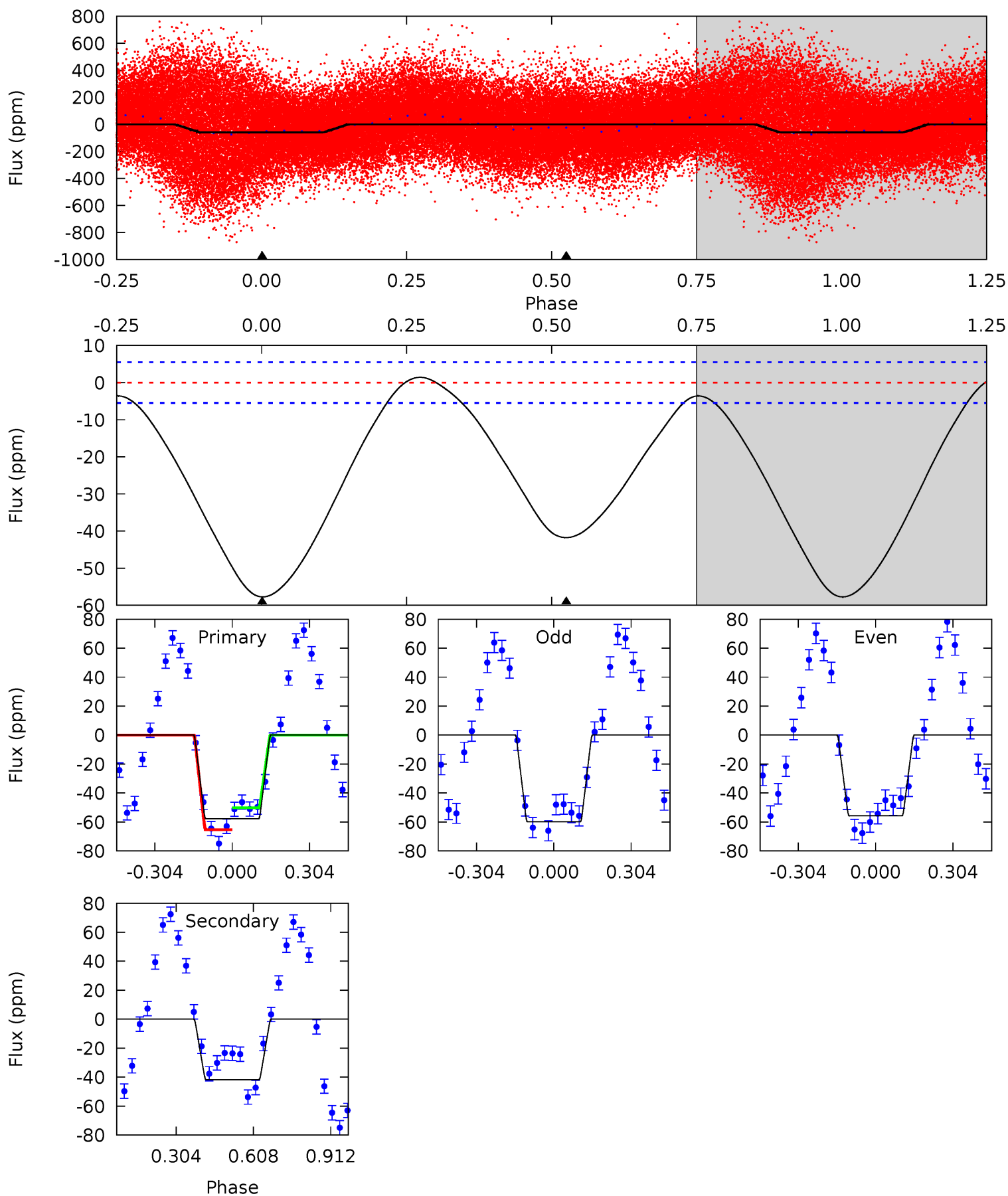
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.61	5.26	0	0	4.28	0.90	1.53	8.61	8.61	5.26	5.26	0.02	1.23	0.55	0.93



Alt Model-Shift Uniqueness Test

010853908-01, P = 2.748712 Days, E = 131.316507 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.5	32.9	0	0	4.33	1.03	1.75	45.5	45.5	32.9	32.9	1.66	1.19	0.02	4.70



Stellar Parameters For KIC 010853908

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6562^{+179}_{-247}	$3.752^{+0.485}_{-0.114}$	$0.080^{+0.250}_{-0.300}$	$2.785^{+0.568}_{-1.325}$	$1.599^{+0.211}_{-0.392}$	$0.104^{+0.484}_{-0.037}$
	+3%/-4%	+13%/-3%	+312%/-375%	+20%/-48%	+13%/-25%	+465%/-36%
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 010853908-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-5 ± 1	$1.41^{+1.40}_{-1.01}$	3101^{+221}_{-388}	4360^{+3856}_{-1099}	$2.770^{+30.780}_{-2.066}$
Alt.	-42 ± 1	$2.31^{+1.94}_{-1.37}$	3094^{+237}_{-366}	5626^{+3681}_{-1277}	$8.729^{+38.902}_{-6.164}$

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

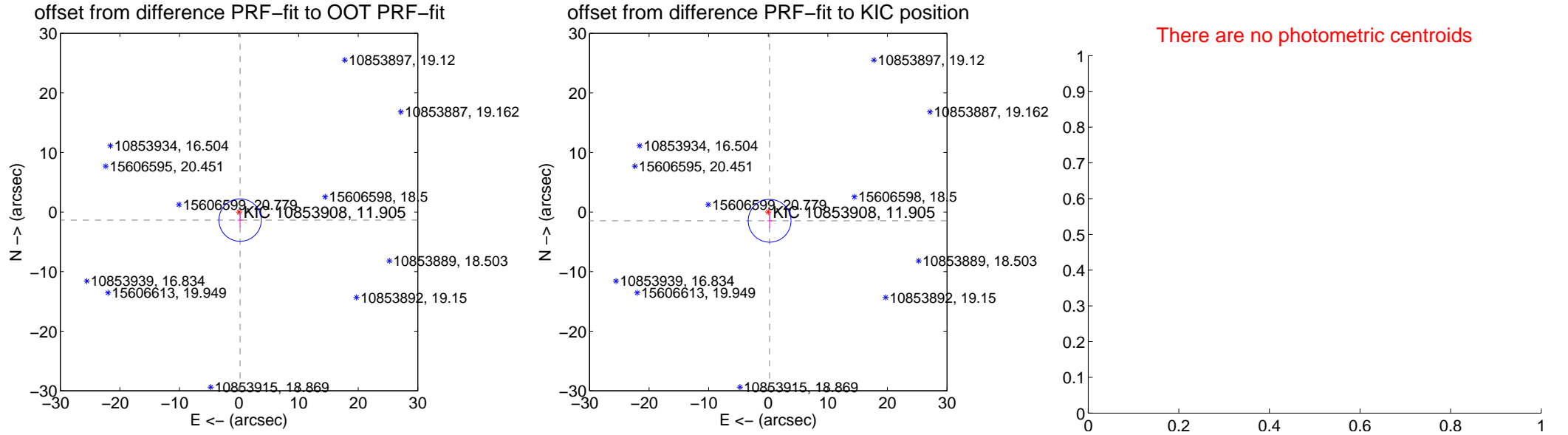
DV Centroid Data

Supplemental centroid analysis for 010853908-01. **Kepler magnitude: 11.90.** Transit SNR 2.91

There are 1 quarters with good PRF difference image offsets

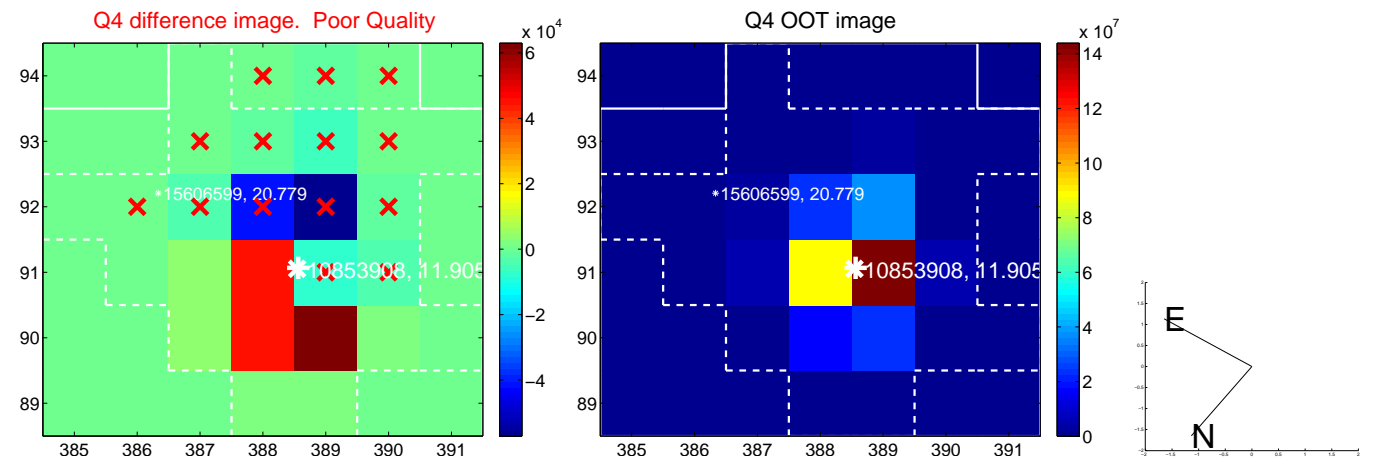
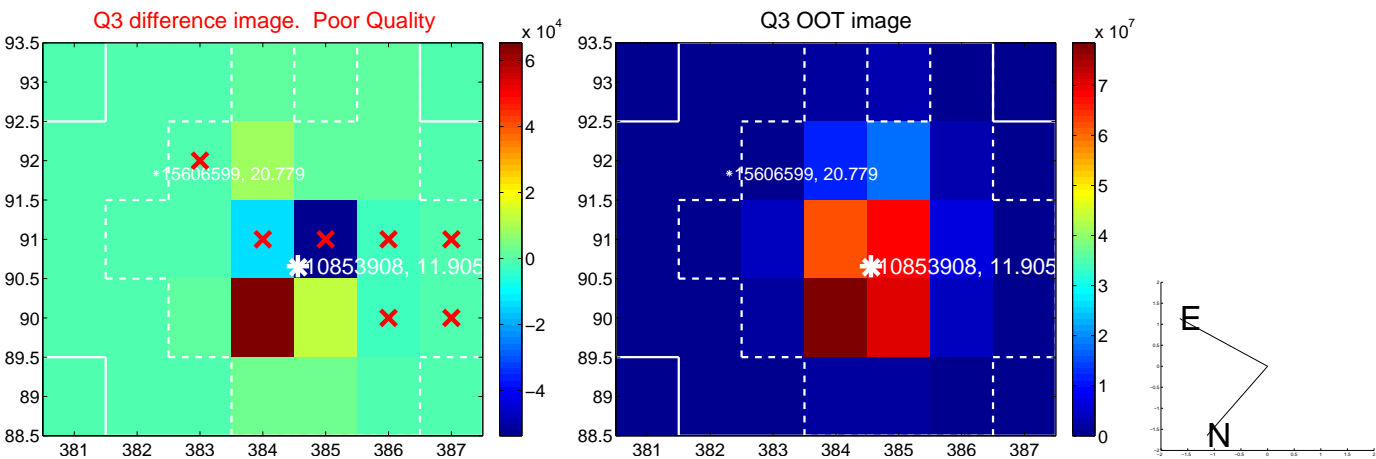
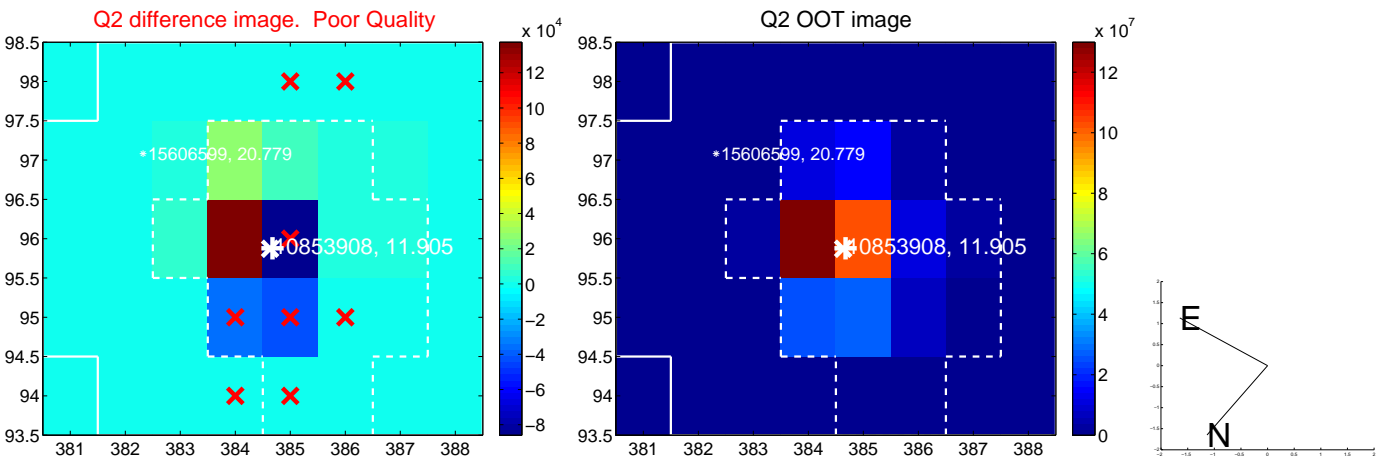
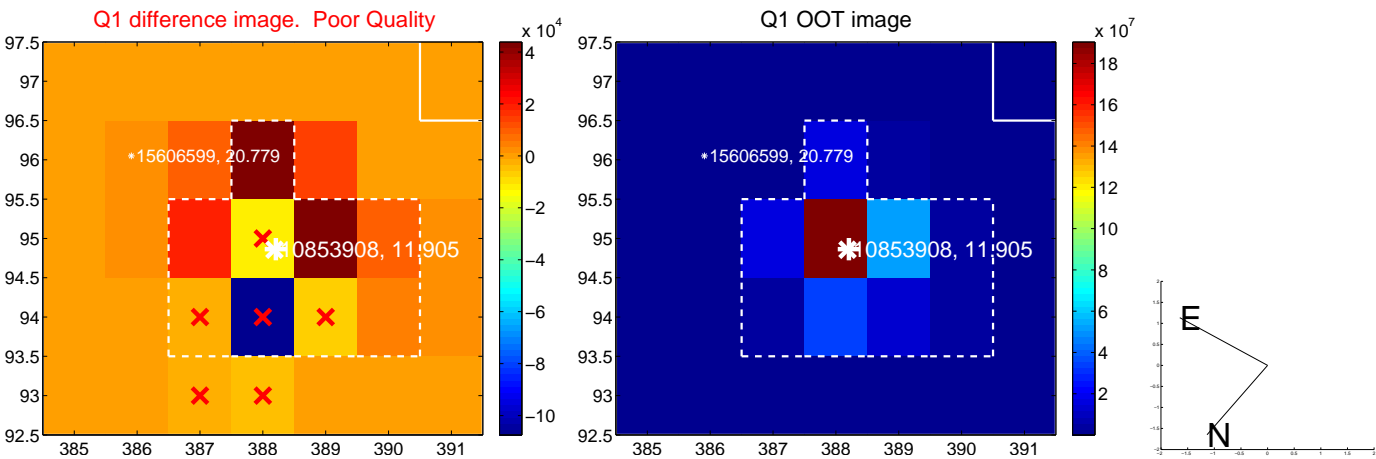
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.366 ± 1.186	1.15	-0.181 ± 0.402	-1.354 ± 1.195
PRF-fit source offset from KIC position	1.485 ± 1.198	1.24	-0.227 ± 0.404	-1.468 ± 1.210
photometric centroid source offset	—	—	—	—

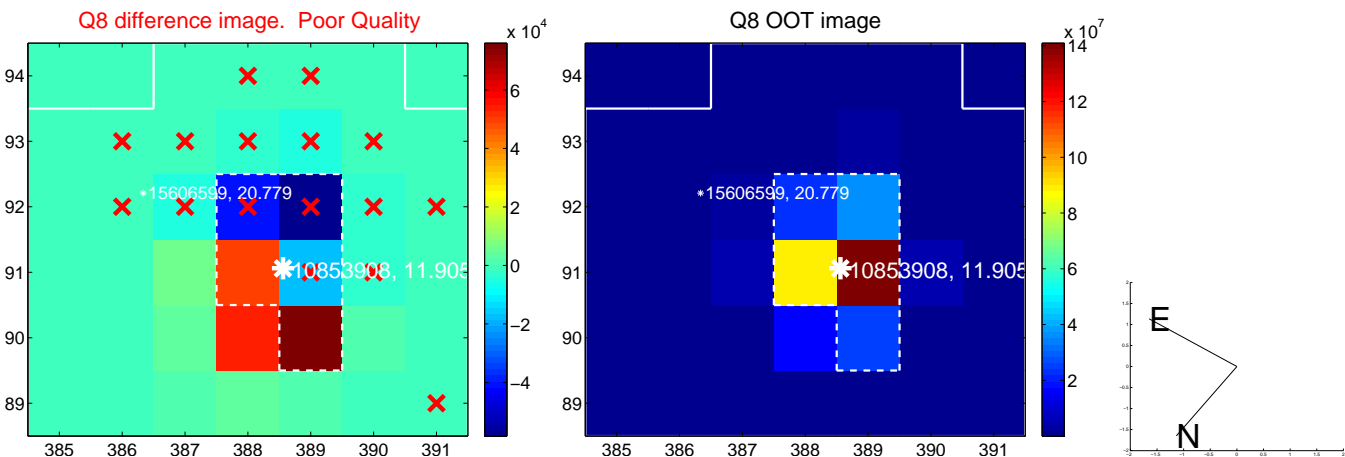
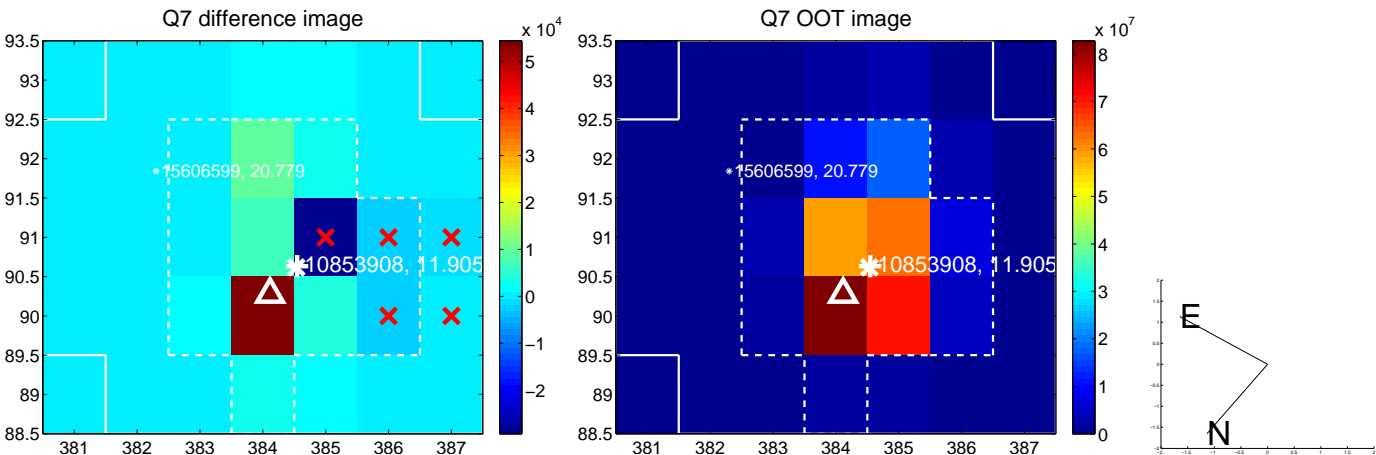
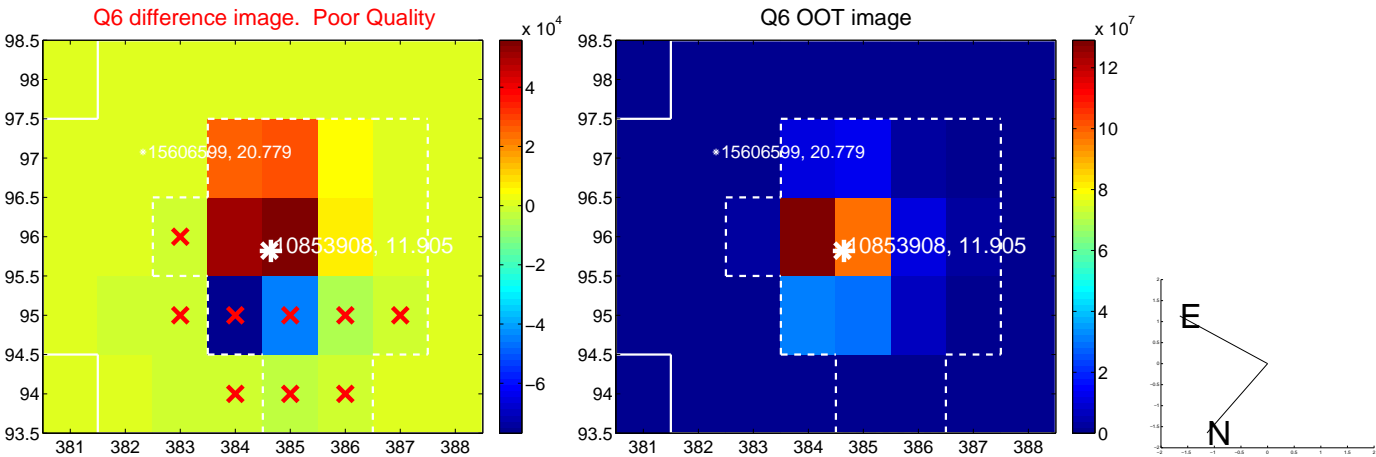
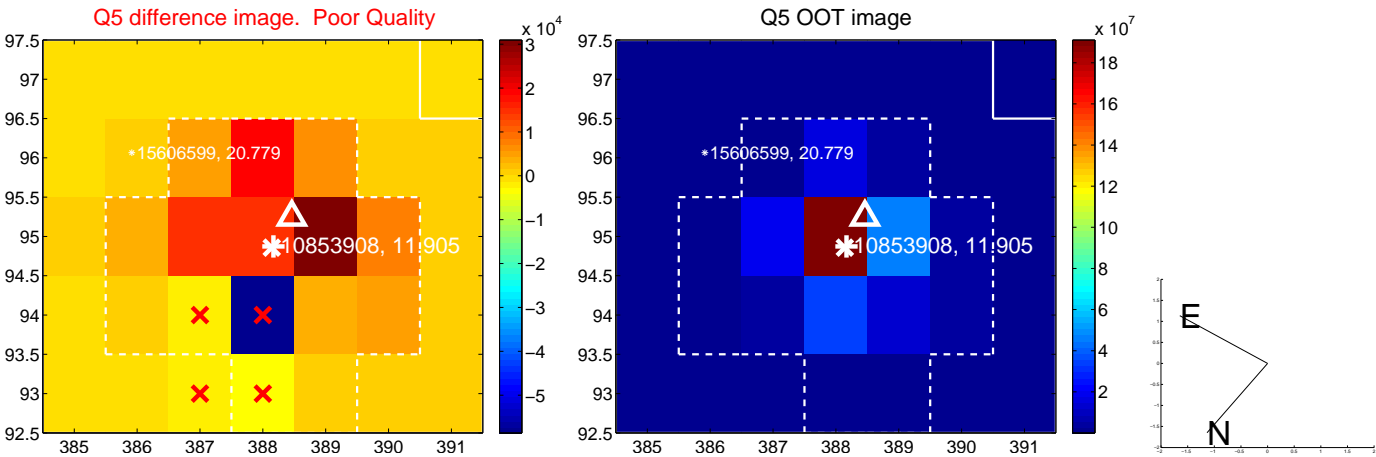


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

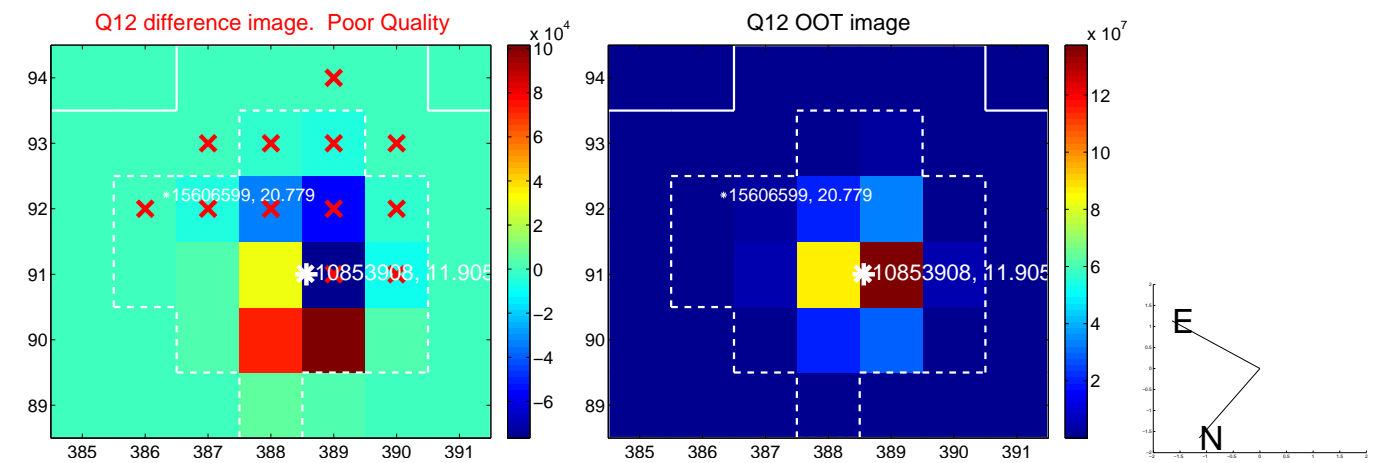
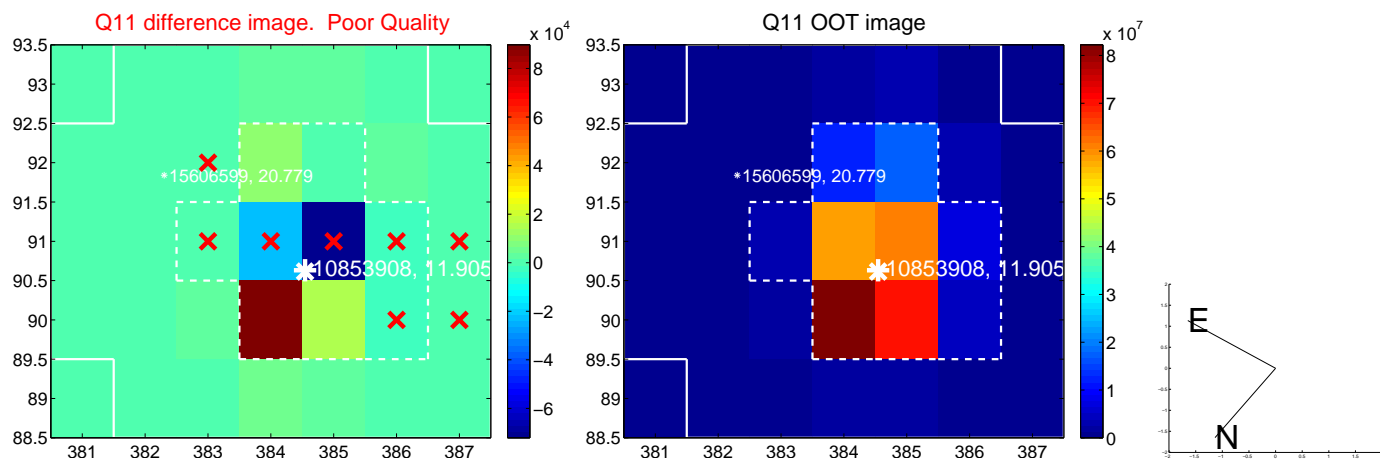
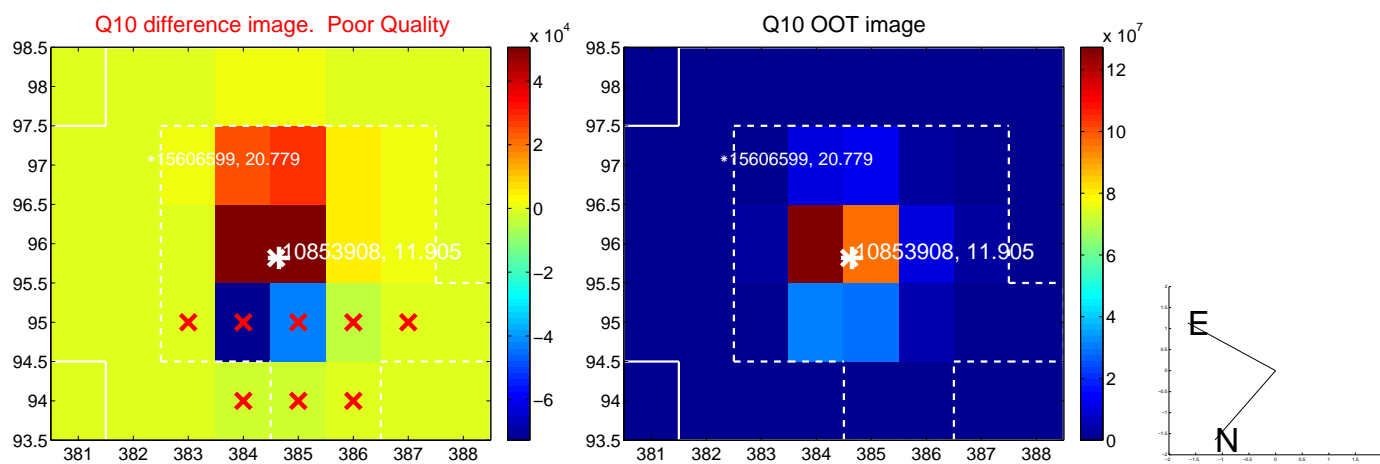
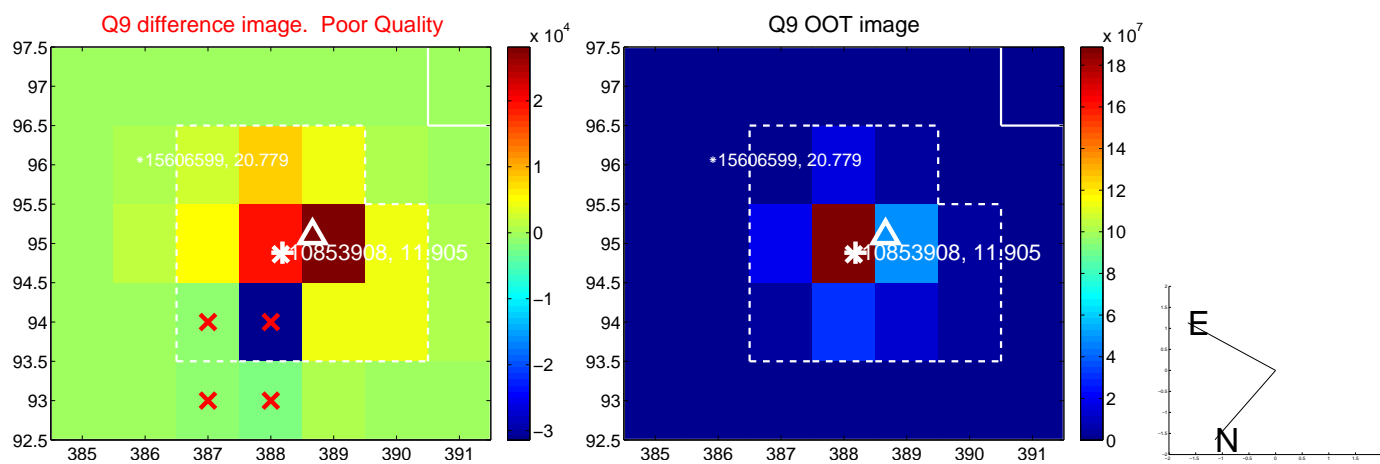
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



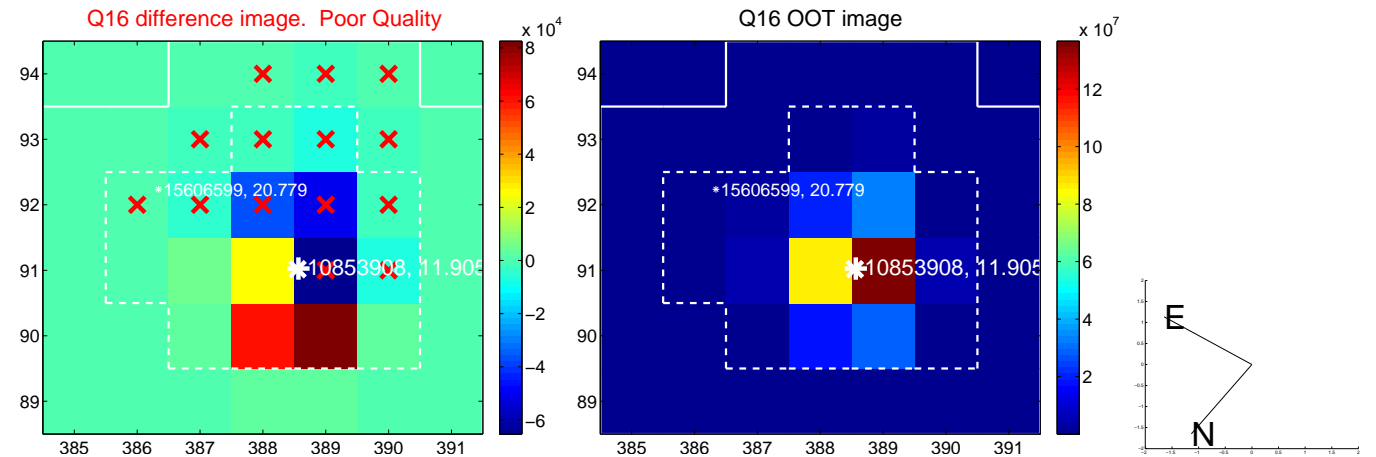
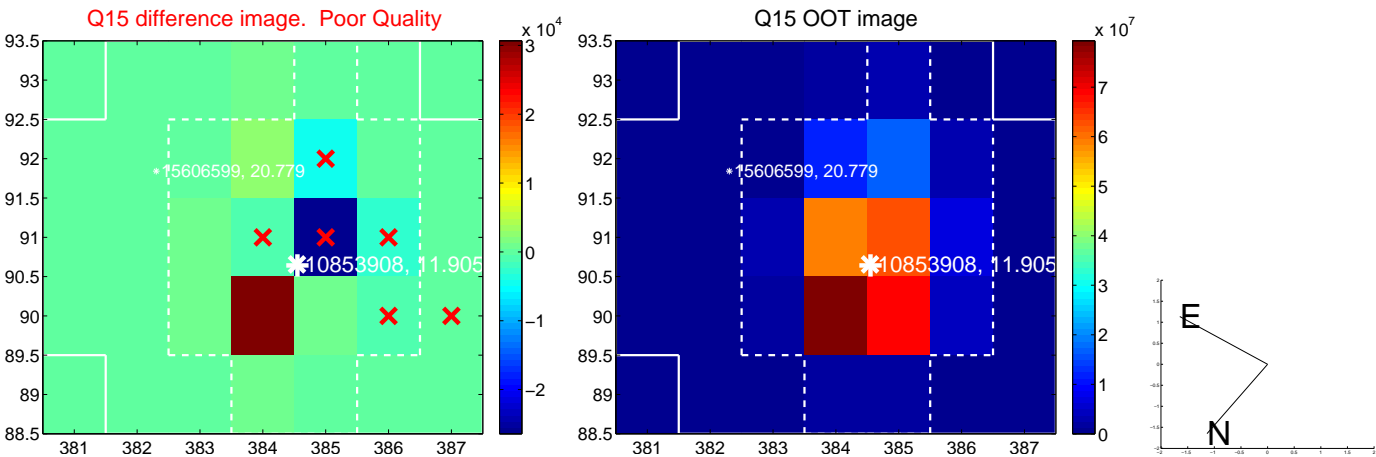
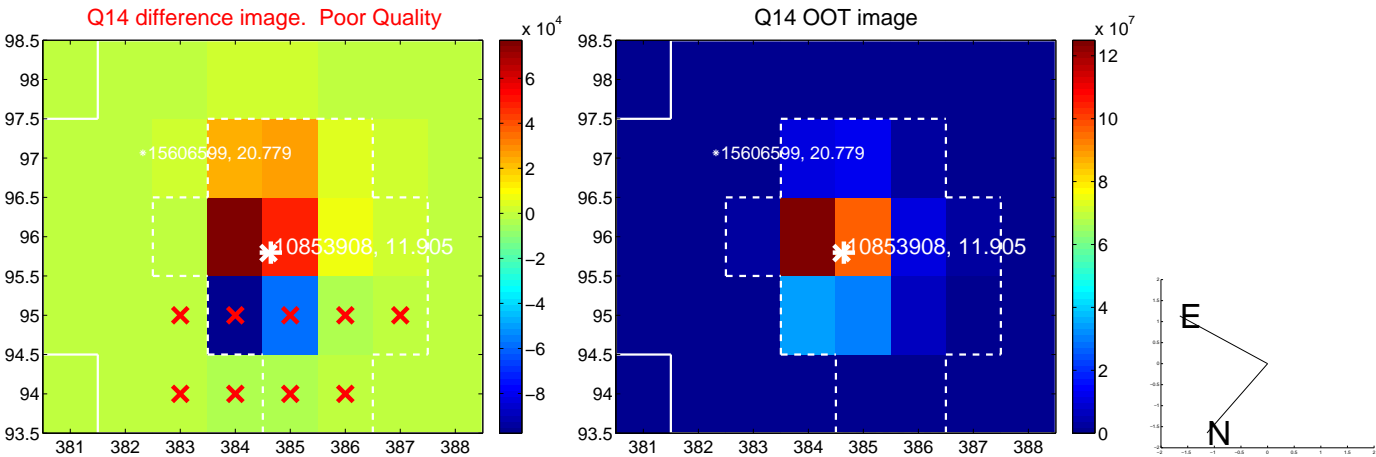
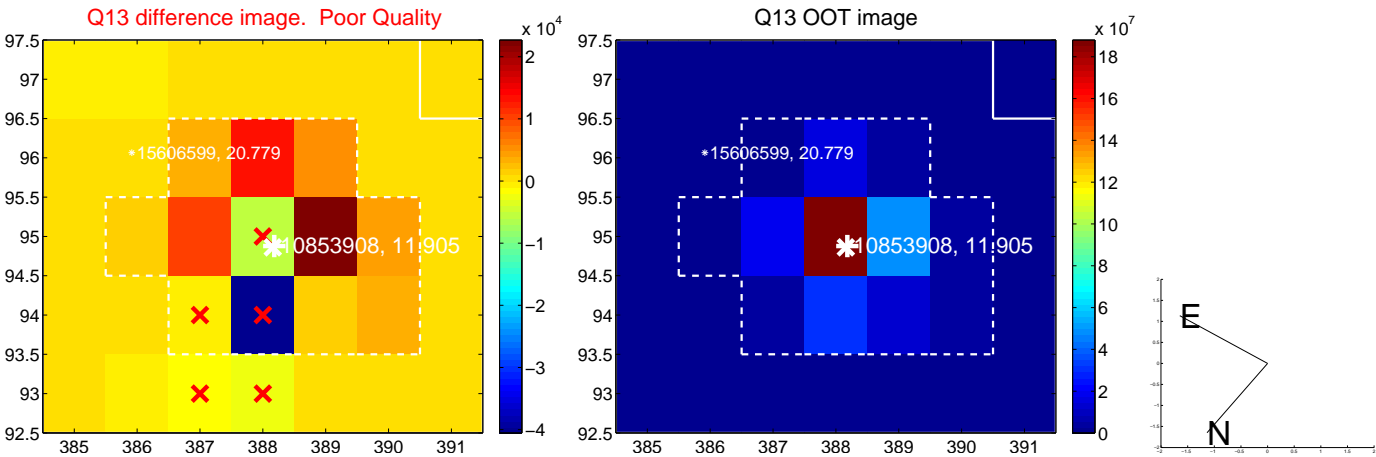
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



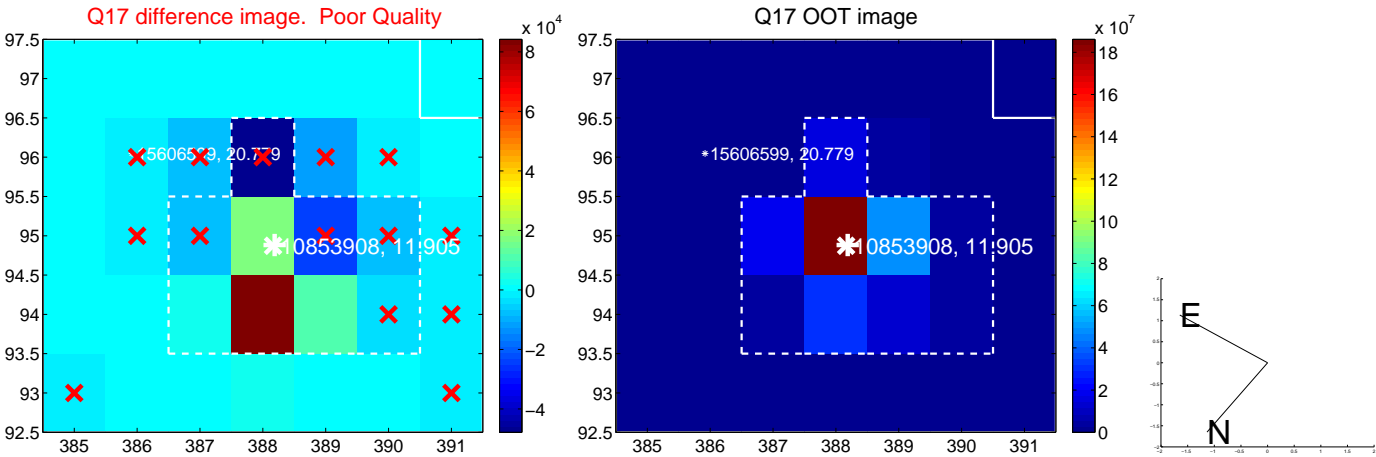
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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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

