

KIC 006629156

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})
006629156-01	OBS	6747.01	0.715334	131.582616	77.5	8.584	9.9	16.1	1.18	6442	1.21	7602.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006629156-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

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

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

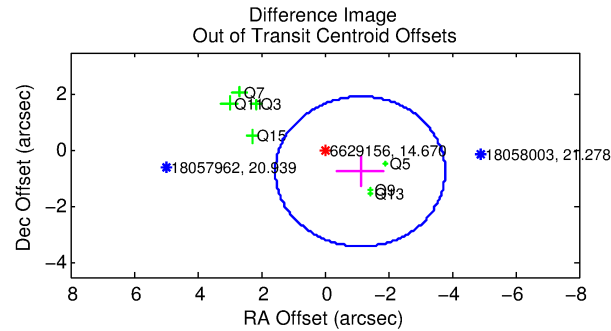
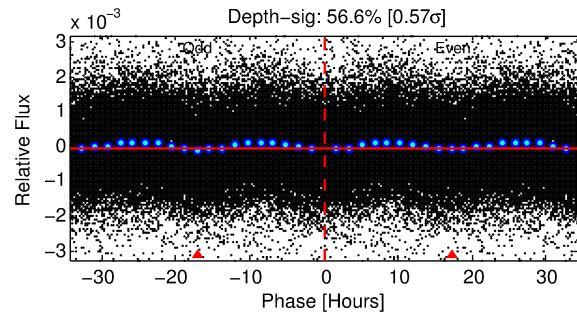
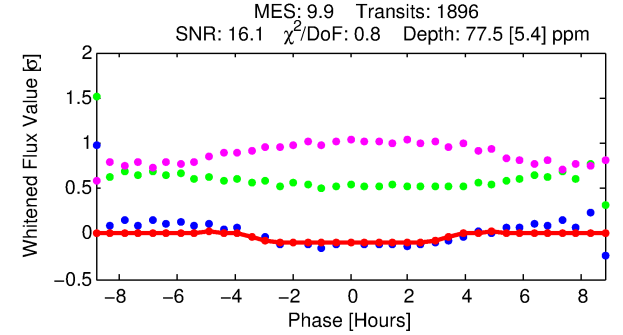
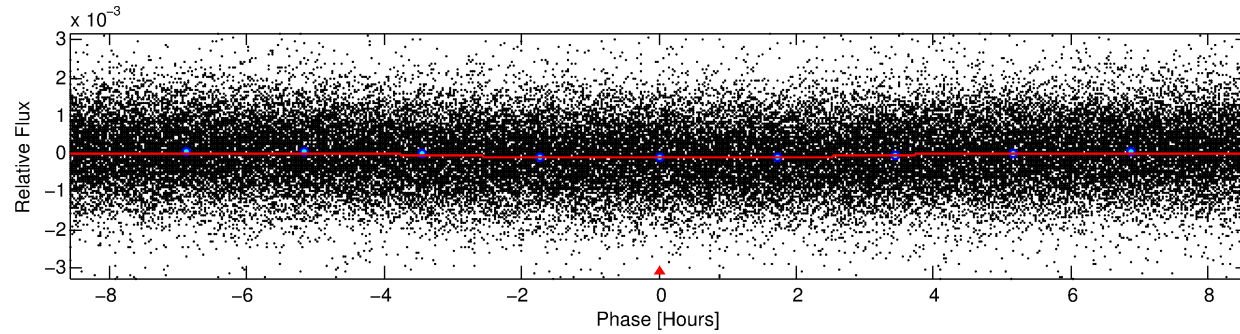
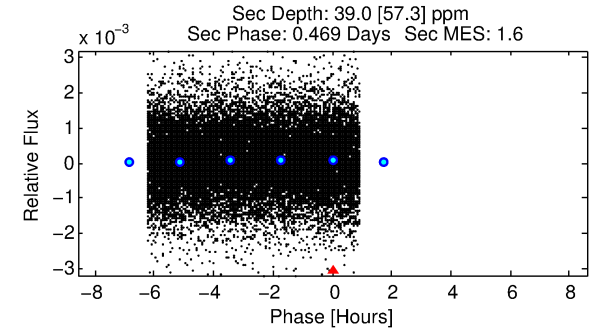
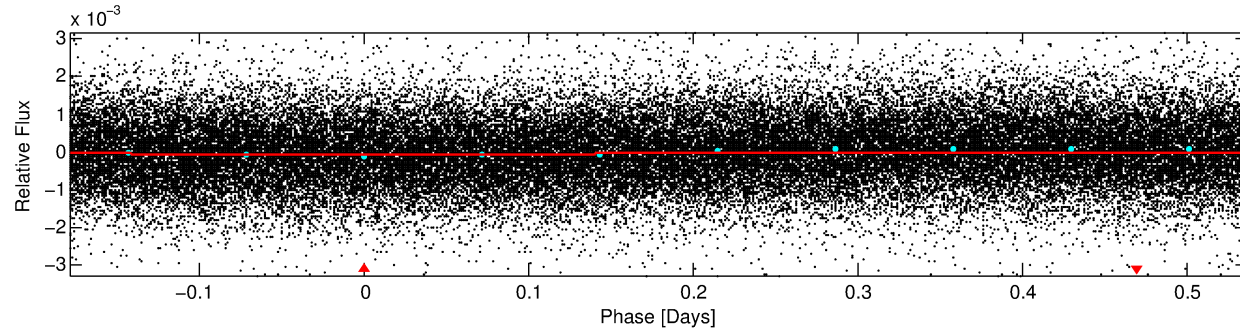
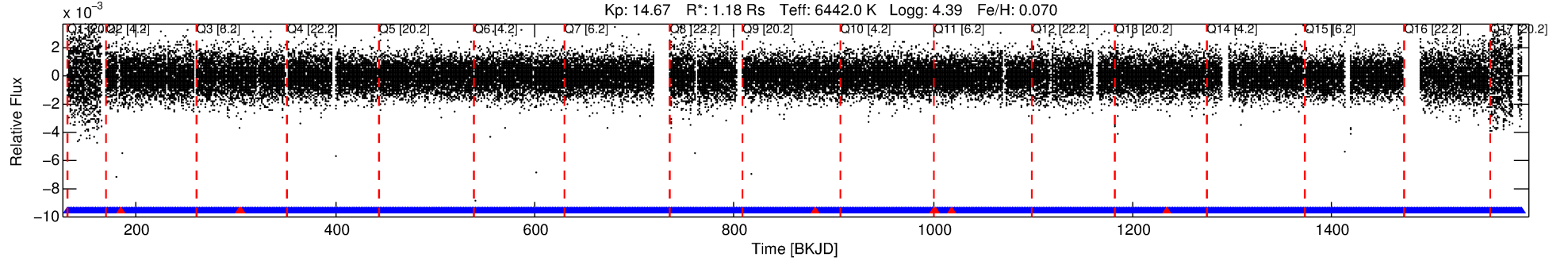
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006629156-01

No Significant Match Found

DV One-Page Summary

KIC: 6629156 Candidate: 1 of 1 Period: 0.715 d
KOI: K06747 Corr: No Ephemeris Match



DV Fit Results:

Period = 0.71533 [0.00001] d
Epoch = 131.5826 [0.0057] BKJD
Rp/R* = 0.0094 [0.0009]
a/R* = 1.01 [0.01]
b = 0.89 [0.11]
Seff = 7602.48 [3120.91]
Teq = 2381 [244] K
Rp = 1.21 [0.40] Re
a = 0.0169 [0.0044] AU
Ag = 4.14 [6.32] [0.50σ]
Teffp = 5251 [1953] K [1.46σ]

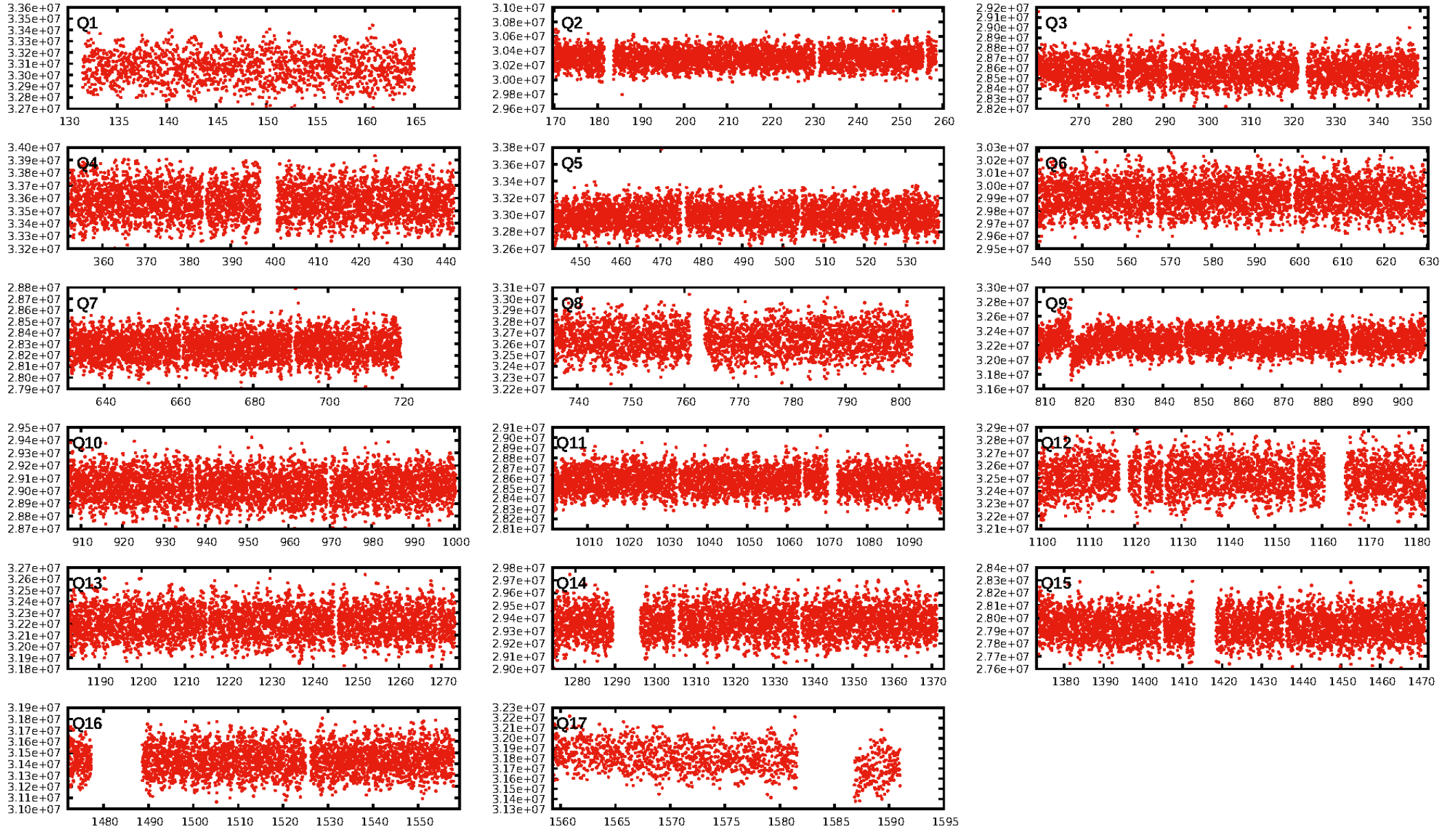
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1803/1811]
GhostDiagnostic-chr: 1.906
Centroid-sig: 0.0%
Centroid-so: 0.898 arcsec [1.94σ]
OotOffset-rm: 1.348 arcsec [1.51σ]
KicOffset-rm: 1.421 arcsec [1.50σ]
OotOffset-st: 0/4/0/3 [7]
KicOffset-st: 0/4/0/3 [7]
DiffImageQuality-fgm: 0.57 [4/7]
DiffImageOverlap-fno: 1.00 [17/17]

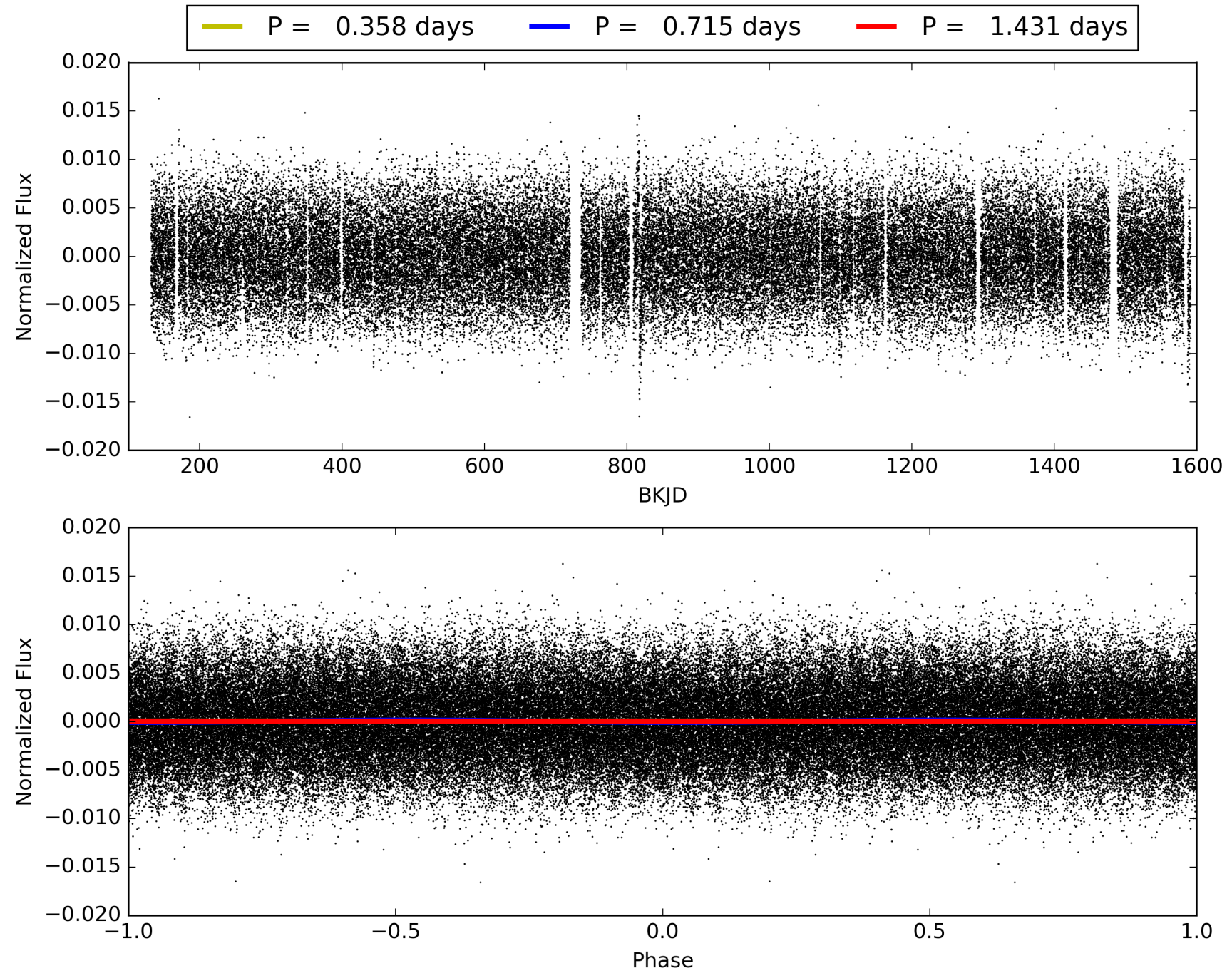
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:54:01 Z

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

TCE 006629156-01, PDC Light Curves

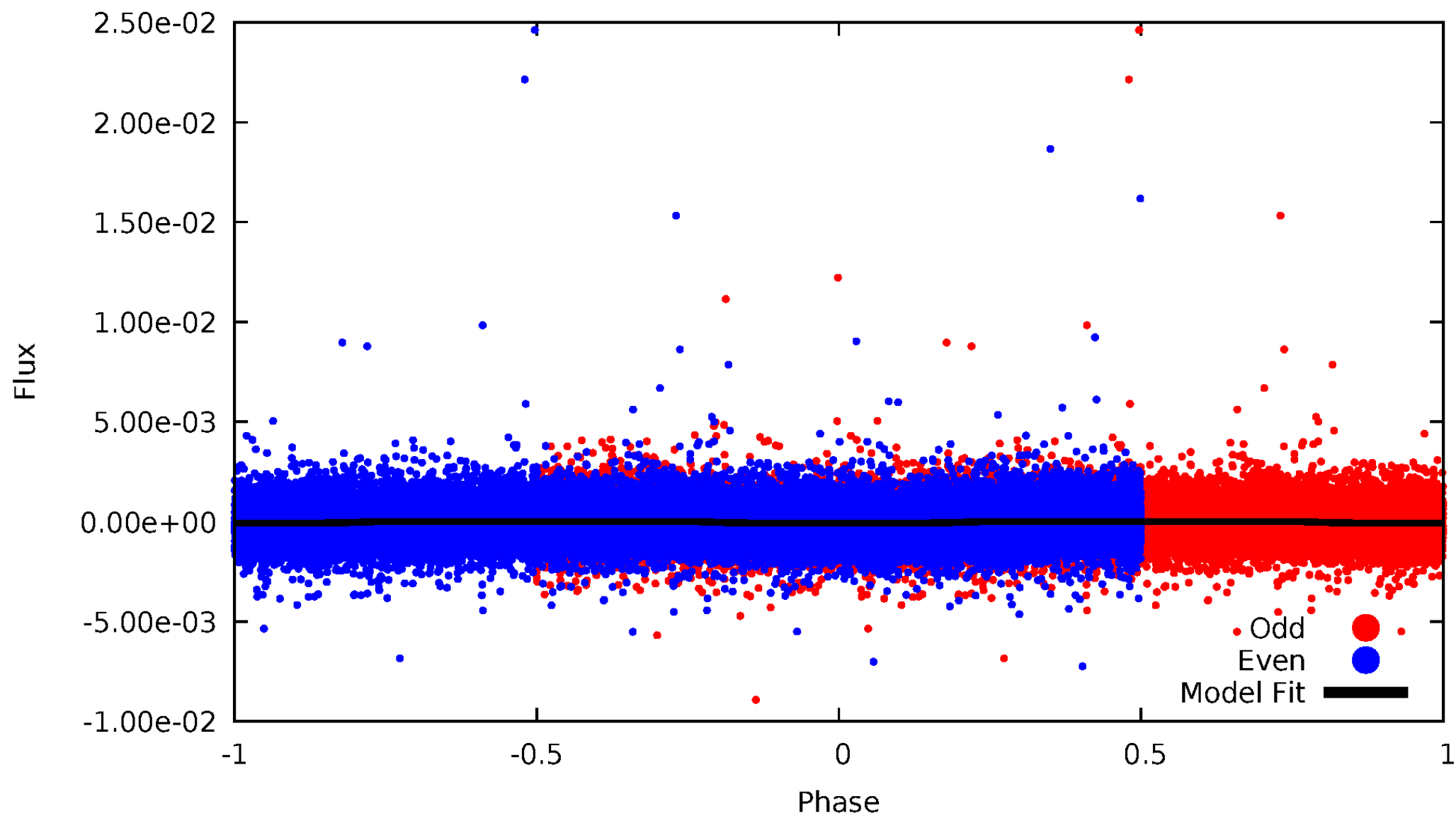


TCE 006629156-01



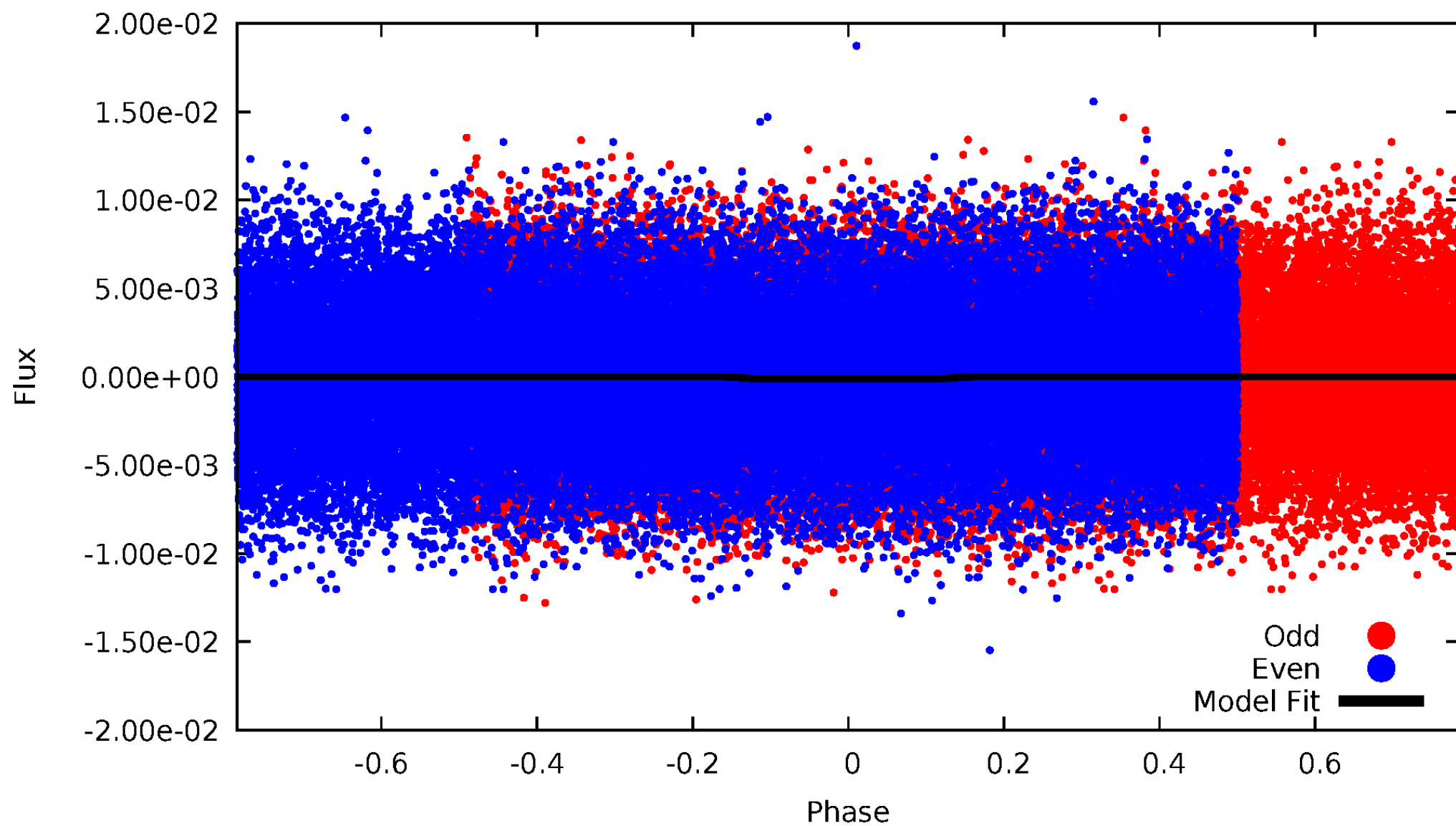
DV Odd/Even

TCE 006629156-01



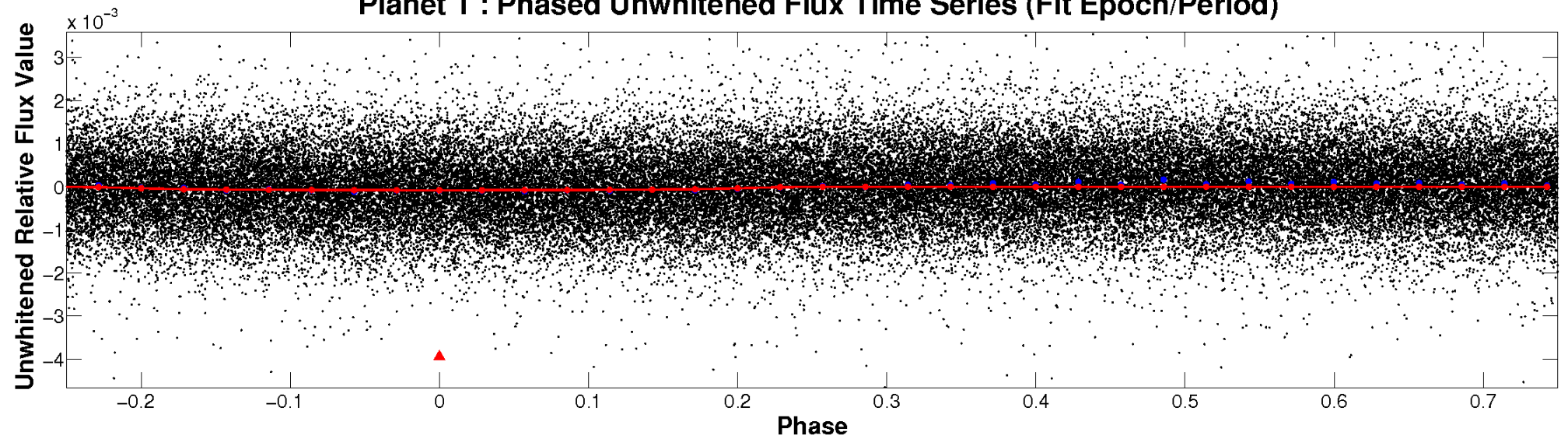
ALT Odd/Even

TCE 006629156-01

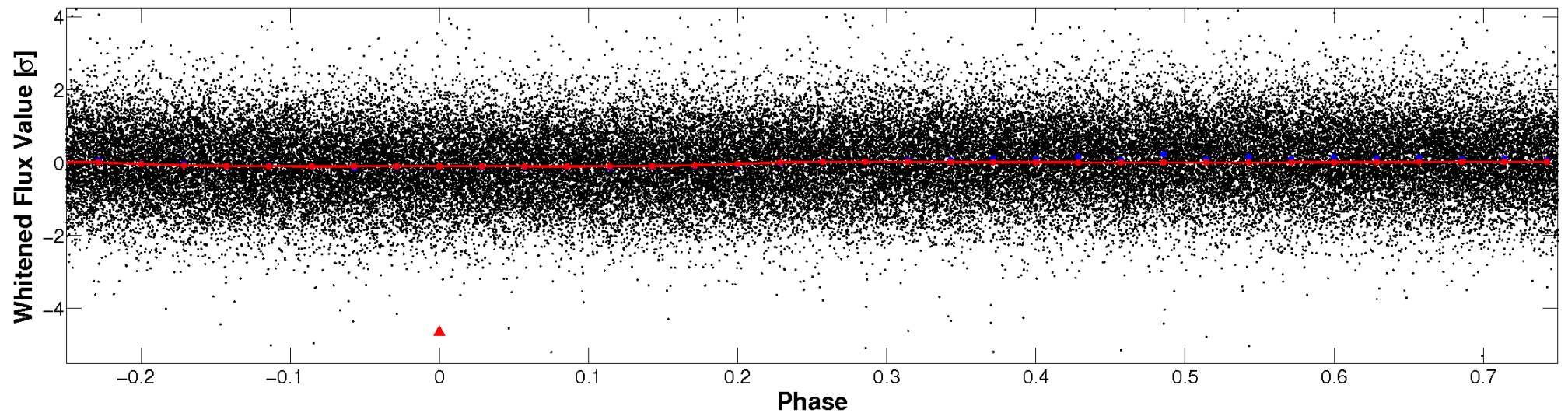


Non-Whitened Vs. Whitened Light Curve

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

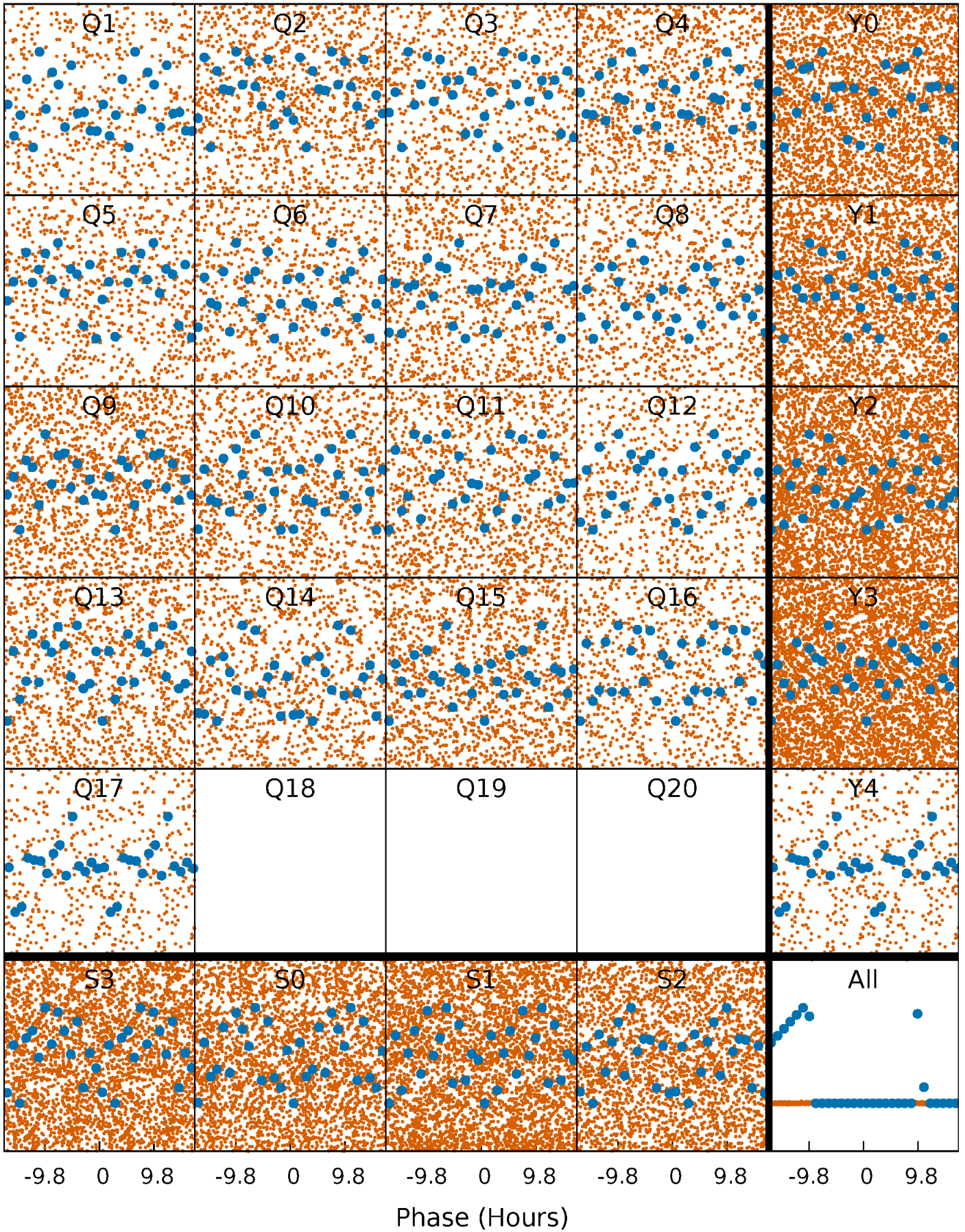


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



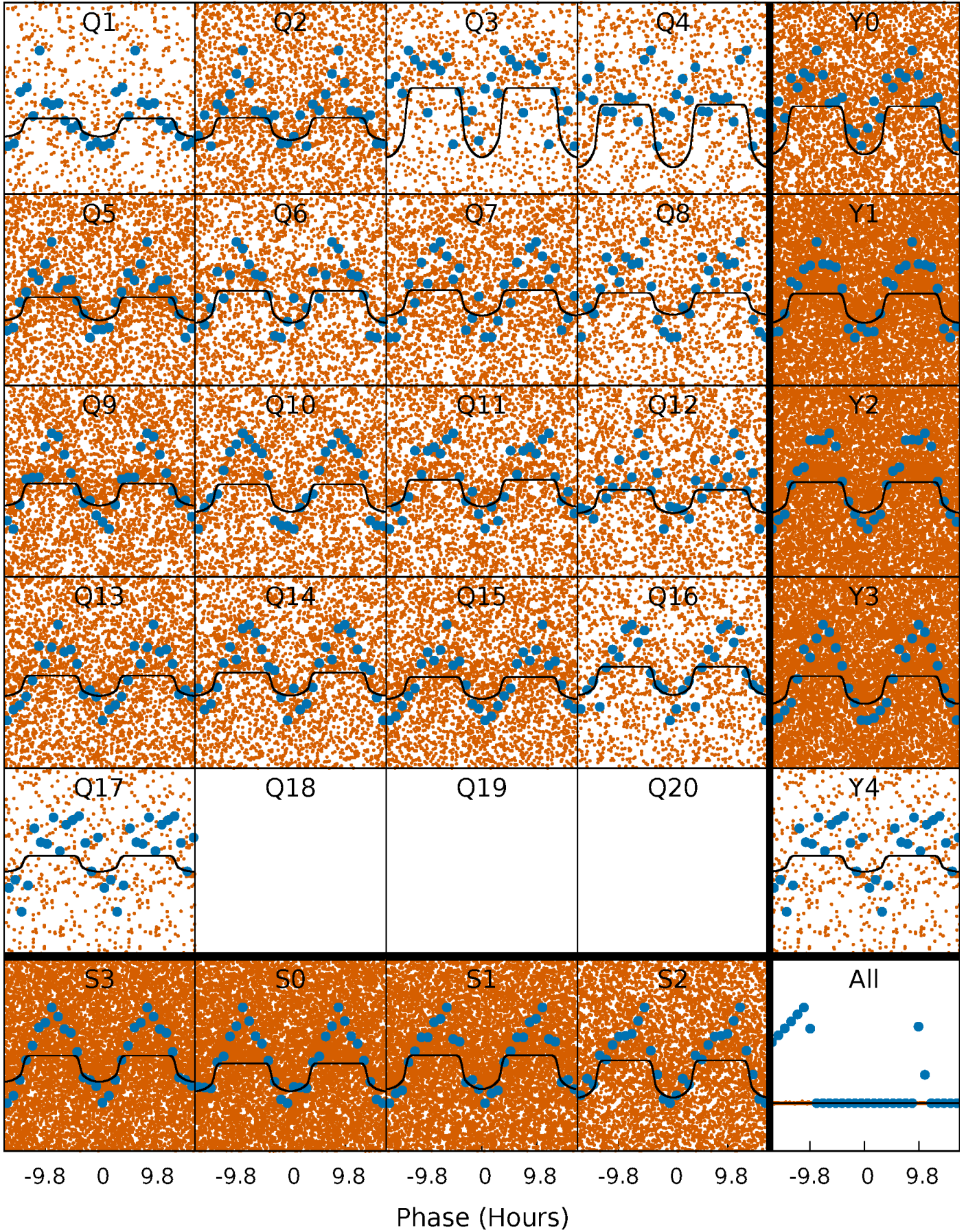
PDC Quarter-Phased Transit Curves

TCE 006629156-01 P= 0.715334 Days $T_0=131.582616$ (BKJD)



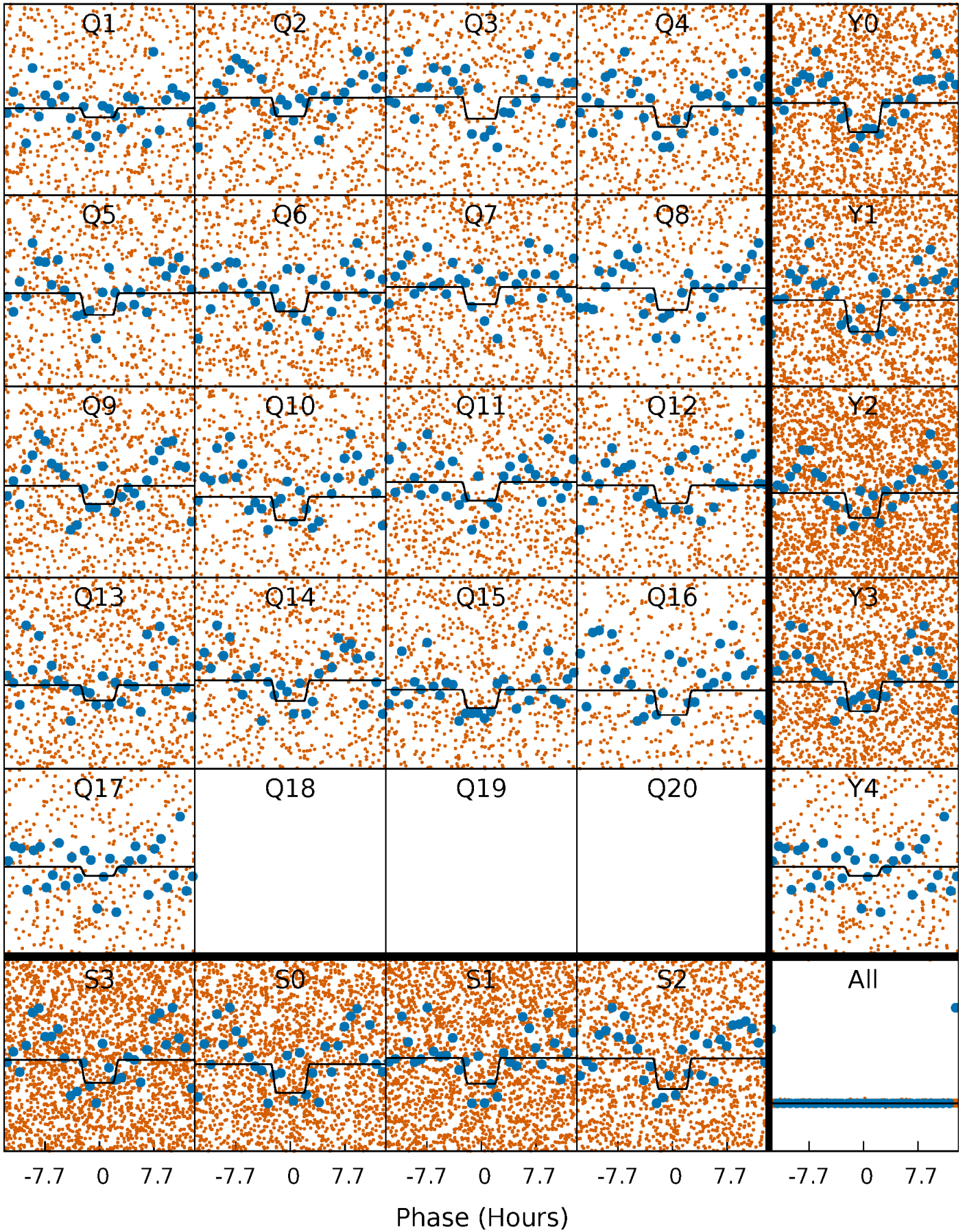
DV Quarter-Phased Transit Curves

TCE 006629156-01 P= 0.715334 Days $T_0=131.582616$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

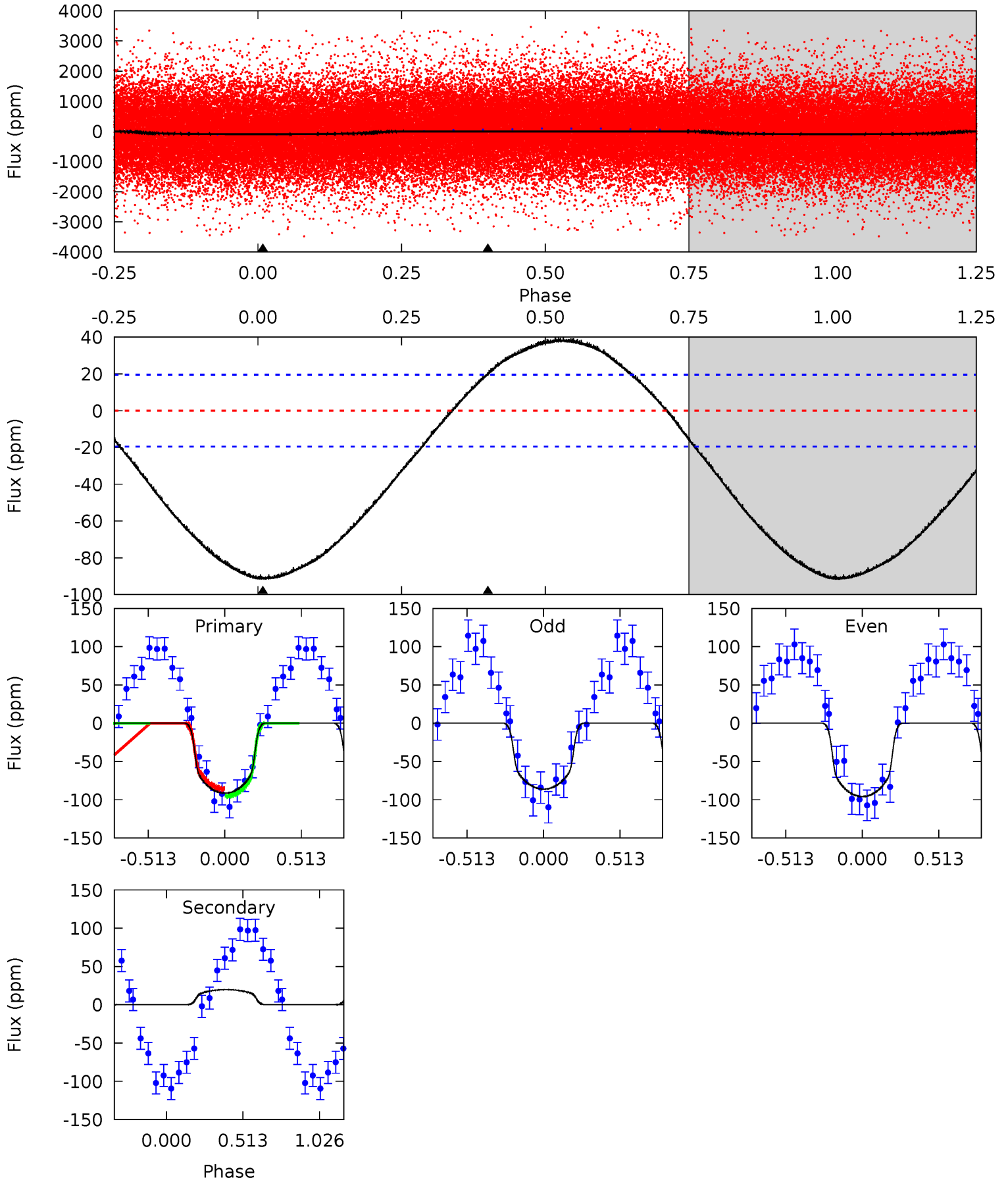
TCE 006629156-01 P= 0.715414 Days $T_0=131.519664$ (BKJD)



DV Model-Shift Uniqueness Test

006629156-01, P = 0.715334 Days, E = 130.867282 Days

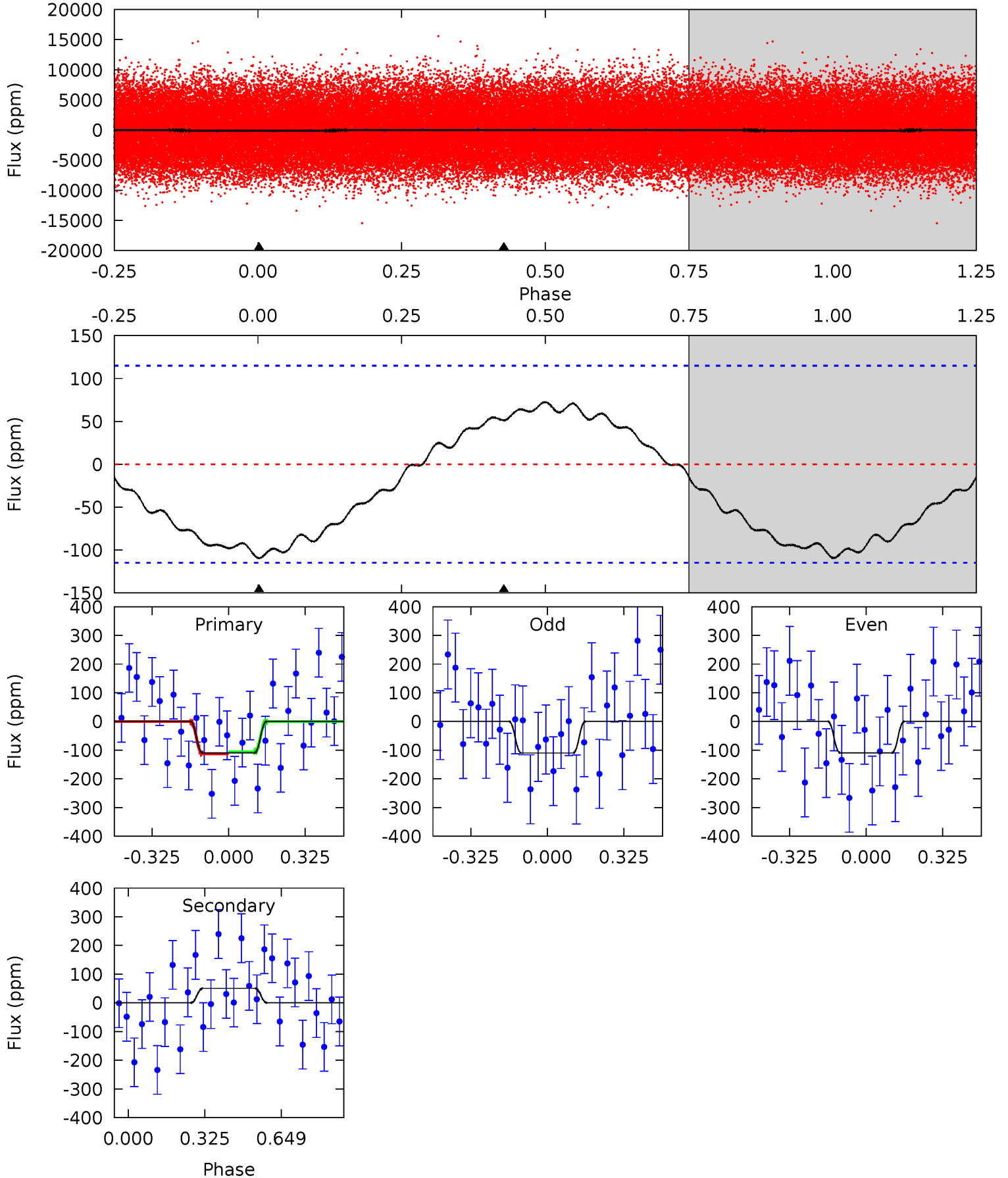
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.7	-4.26	0	0	4.21	0.65	2.33	19.7	19.7	-4.26	-4.26	1.05	1.44	0.30	1.00



Alt Model-Shift Uniqueness Test

006629156-01, P = 0.715414 Days, E = 130.804250 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.11	-1.91	0	0	4.31	0.98	0.58	4.11	4.11	-1.91	-1.91	0.01	0.89	0.40	0.14



Stellar Parameters For KIC 006629156

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6442^{+179}_{-246}	$4.388^{+0.052}_{-0.208}$	$0.070^{+0.250}_{-0.300}$	$1.183^{+0.369}_{-0.132}$	$1.250^{+0.167}_{-0.184}$	$1.062^{+0.298}_{-0.556}$
	+3%/-4%	+1%/-5%	+357%/-429%	+31%/-11%	+13%/-15%	+28%/-52%
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 006629156-01 / KOI 6747.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	20 ± 5	$1.27^{+0.21}_{-0.17}$	3394^{+236}_{-176}	-4725^{+288}_{-267}	$-1.851^{+0.620}_{-0.748}$
Alt.	51 ± 27	$1.43^{+0.23}_{-0.18}$	3399^{+254}_{-168}	-5415^{+787}_{-607}	$-3.720^{+2.031}_{-2.333}$

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

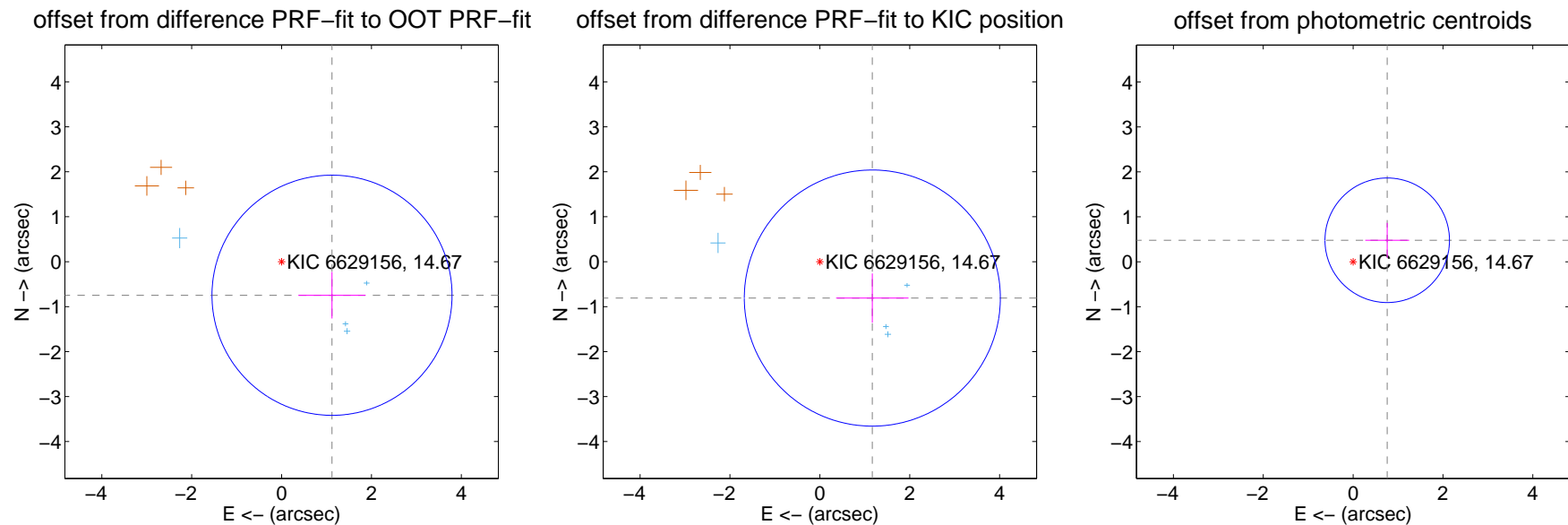
DV Centroid Data

Supplemental centroid analysis for 006629156-01. Kepler magnitude: 14.67. Transit SNR 16.06

There are 4 quarters with good PRF difference image offsets

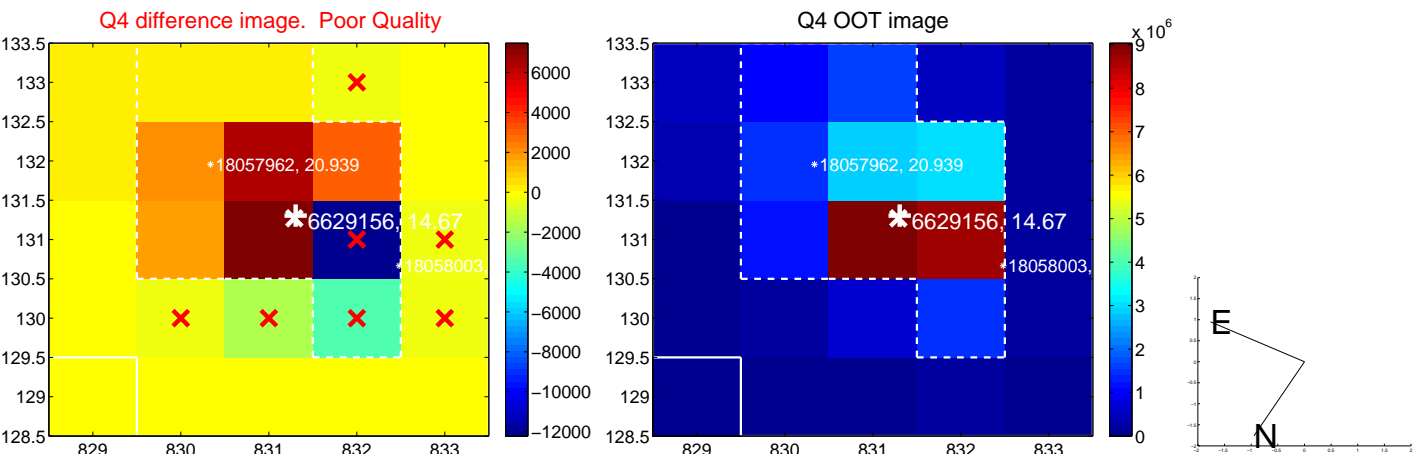
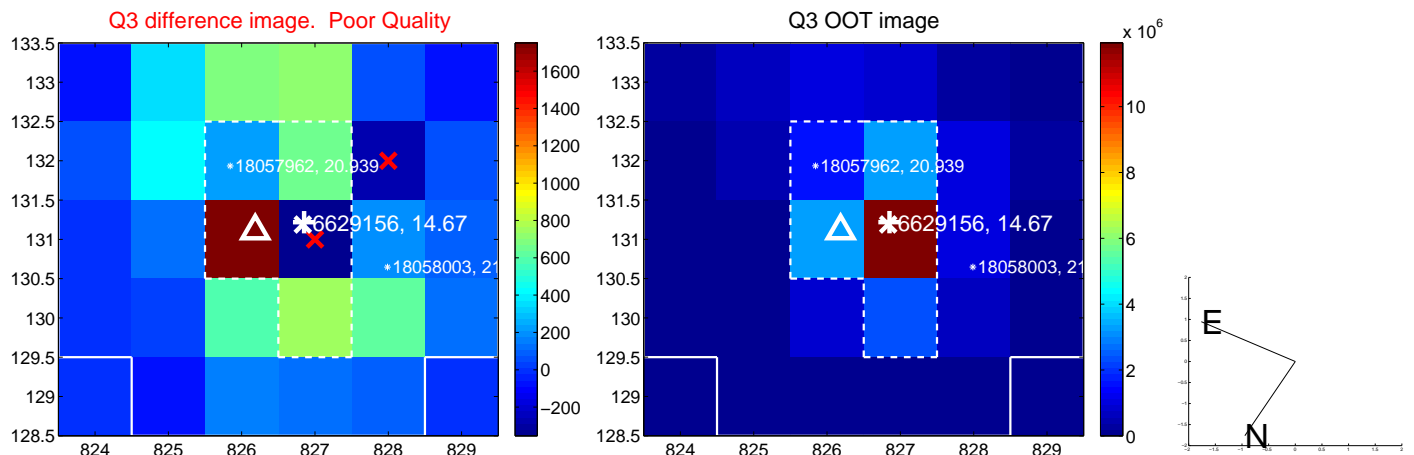
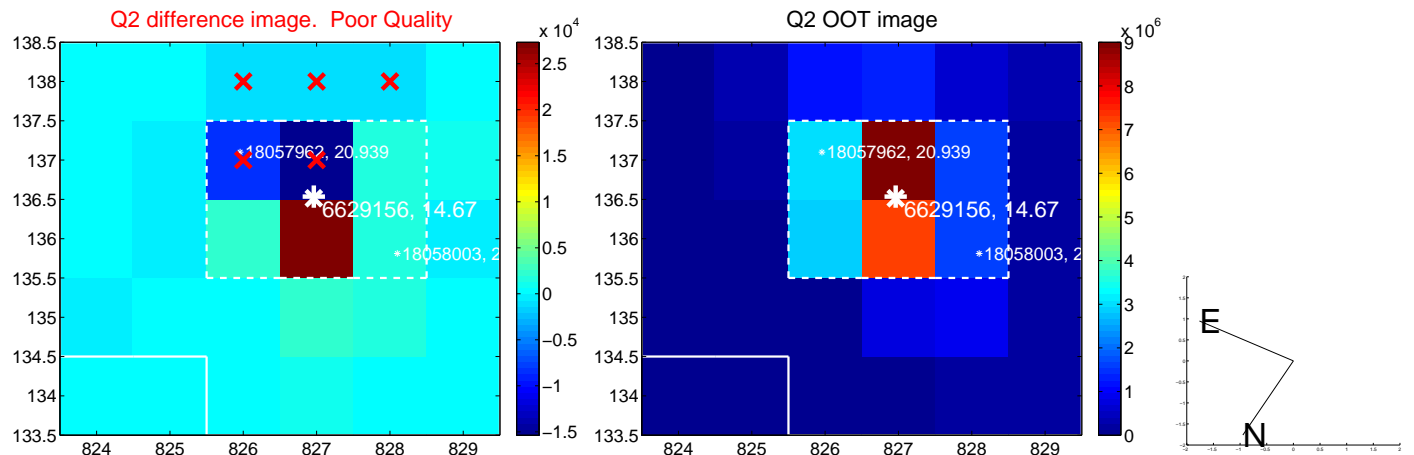
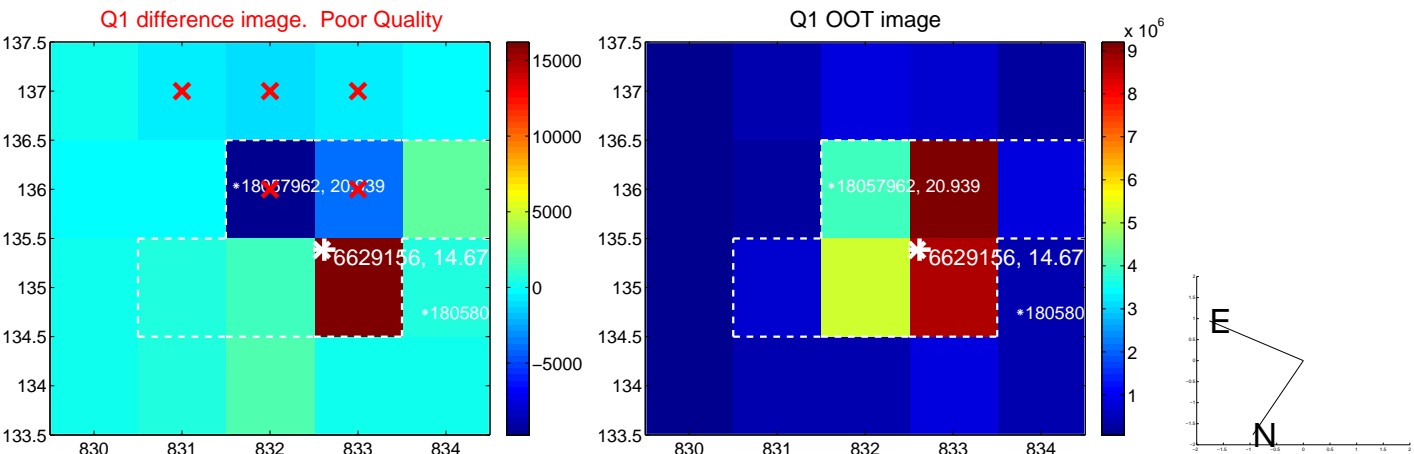
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.348 ± 0.890	1.51	-1.122 ± 0.749	-0.747 ± 0.517
PRF-fit source offset from KIC position	1.421 ± 0.950	1.50	-1.168 ± 0.806	-0.809 ± 0.548
photometric centroid source offset	0.90 ± 0.46	1.94	-0.76 ± 0.49	0.48 ± 0.39

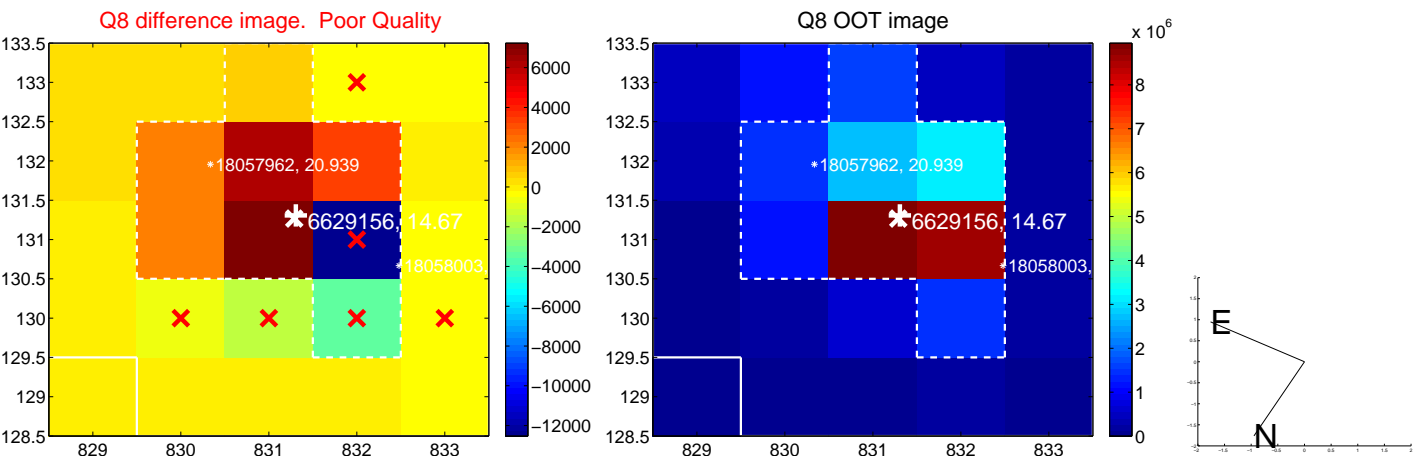
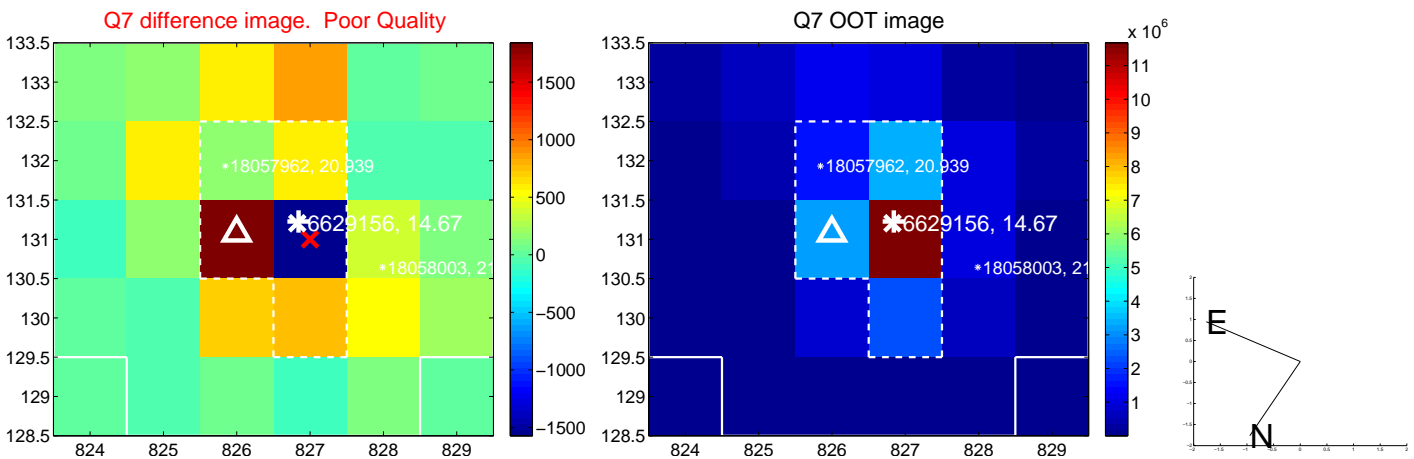
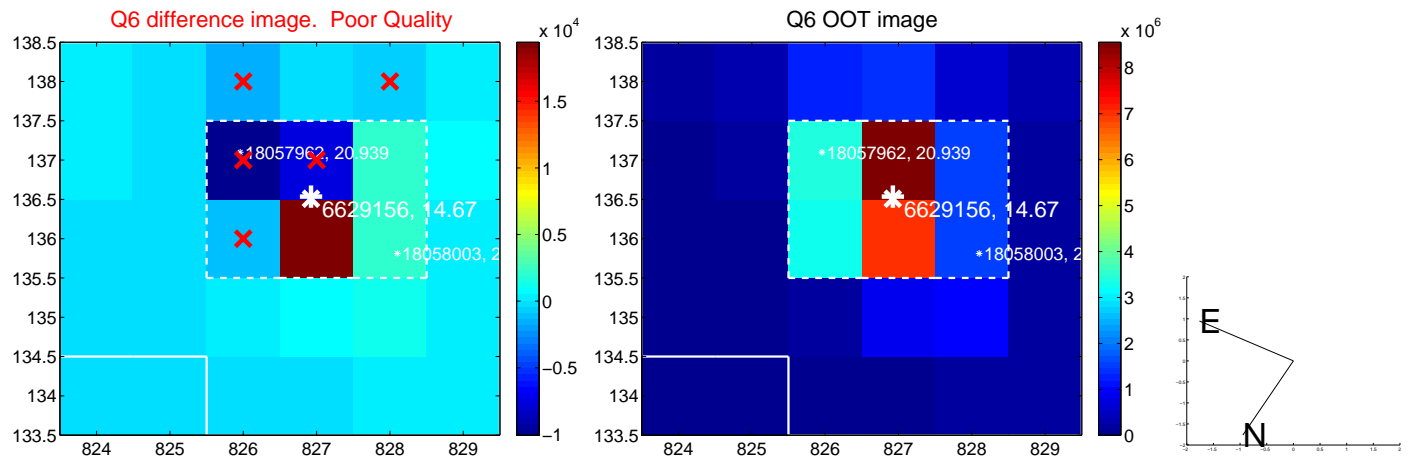
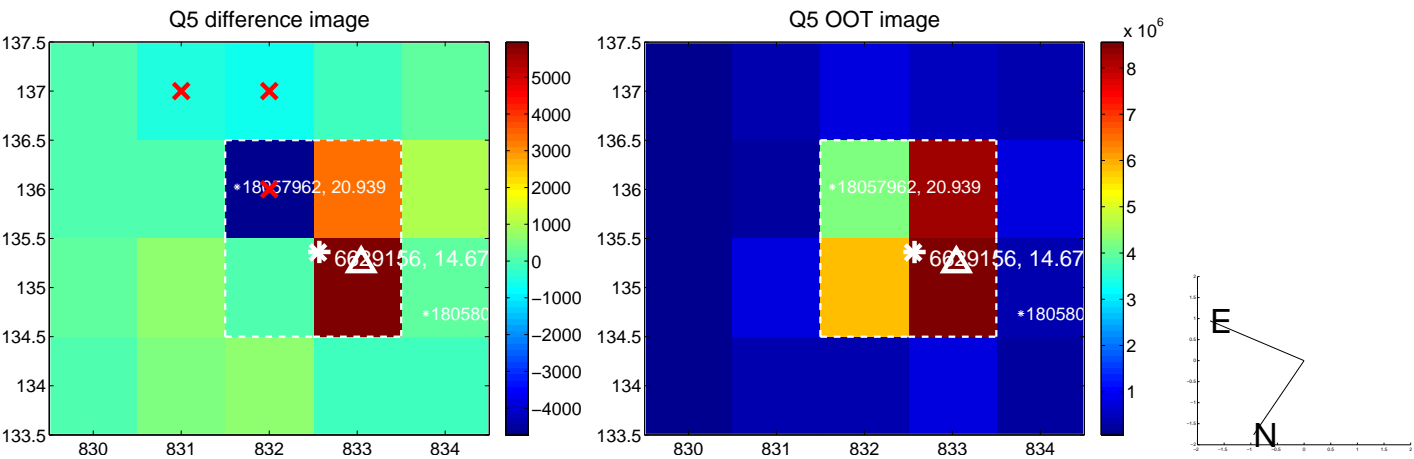


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

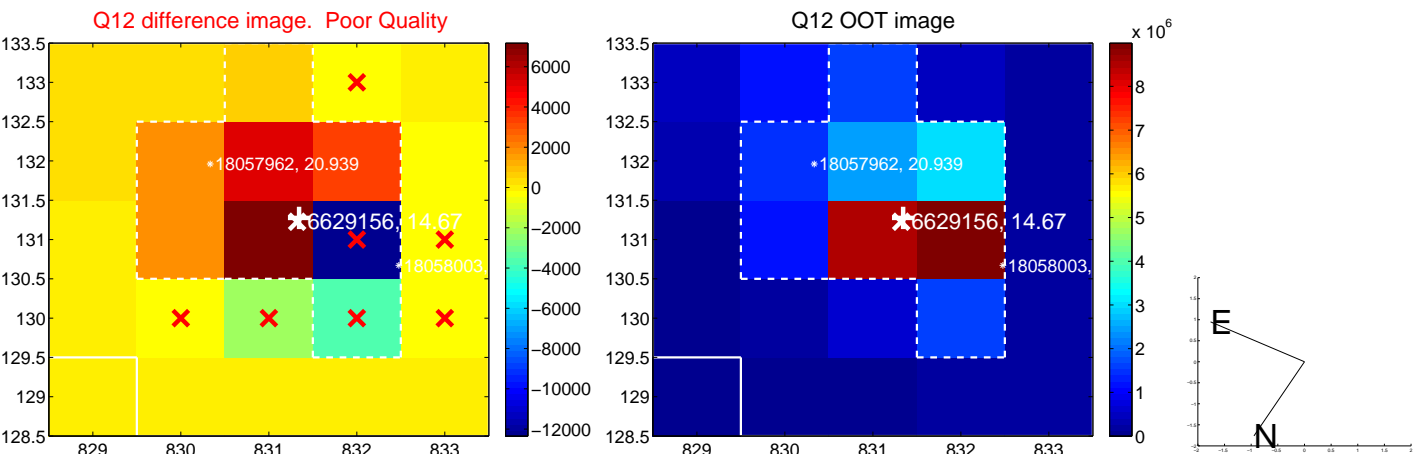
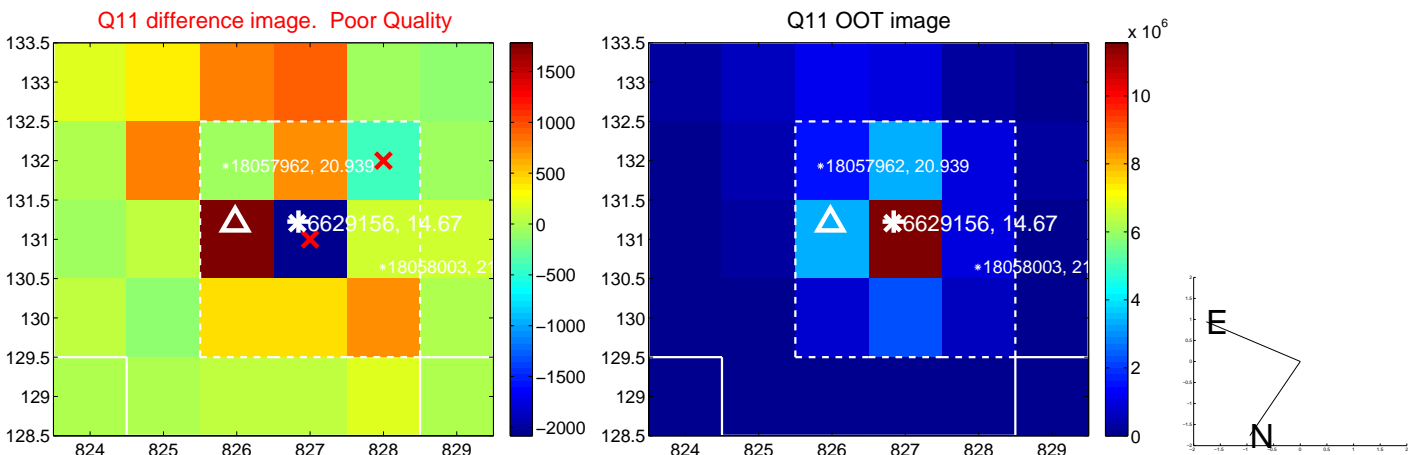
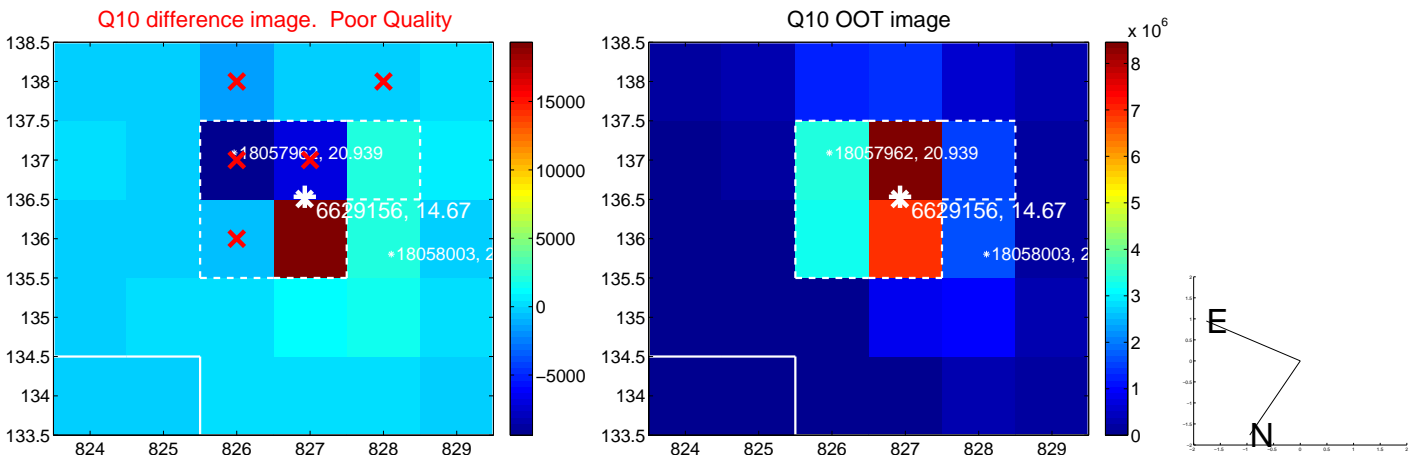
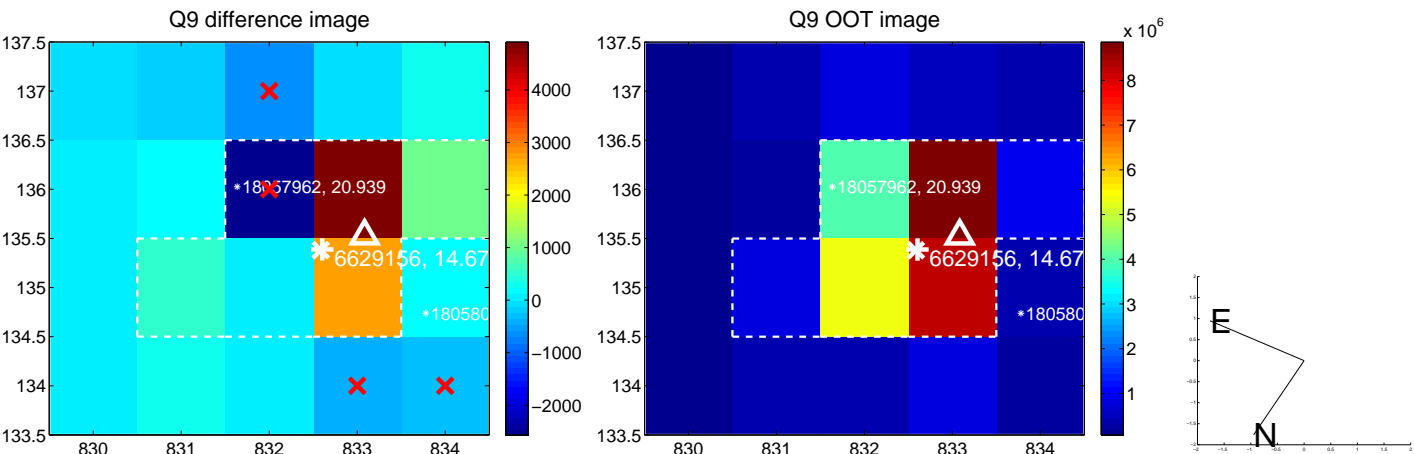
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



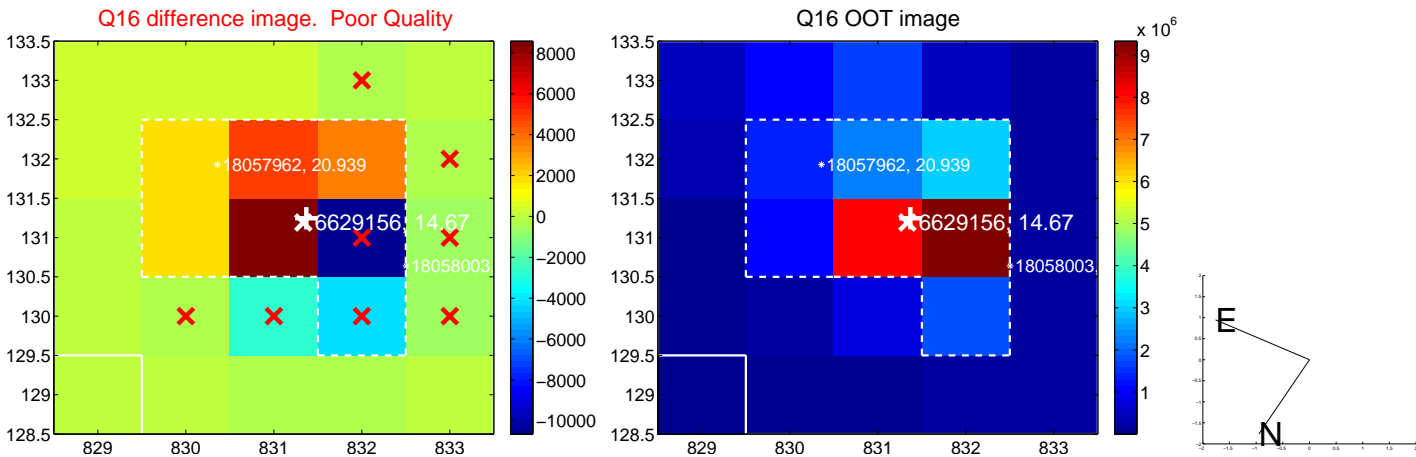
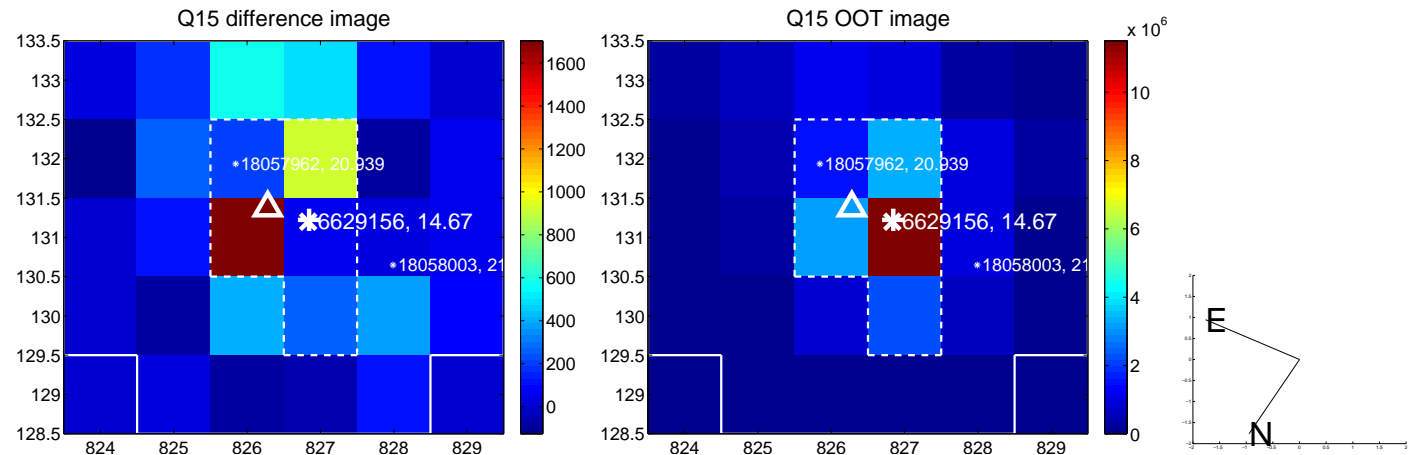
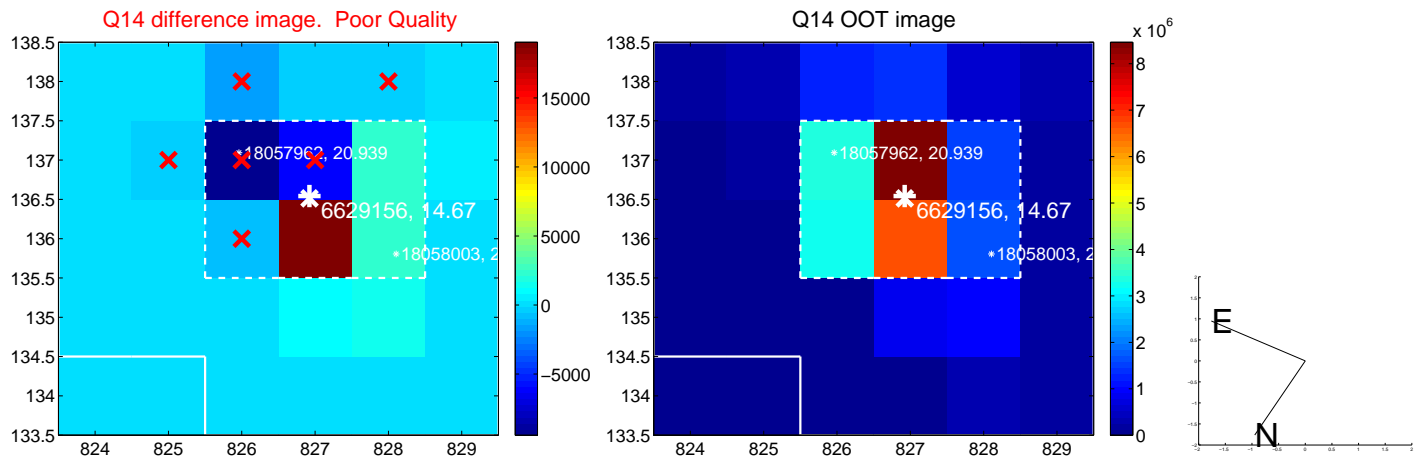
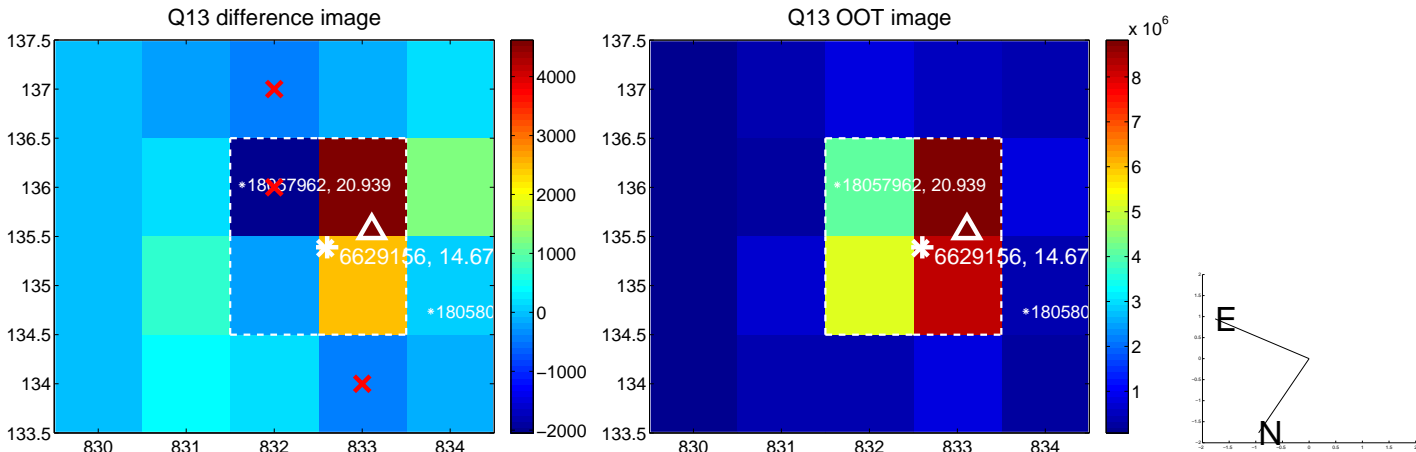
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



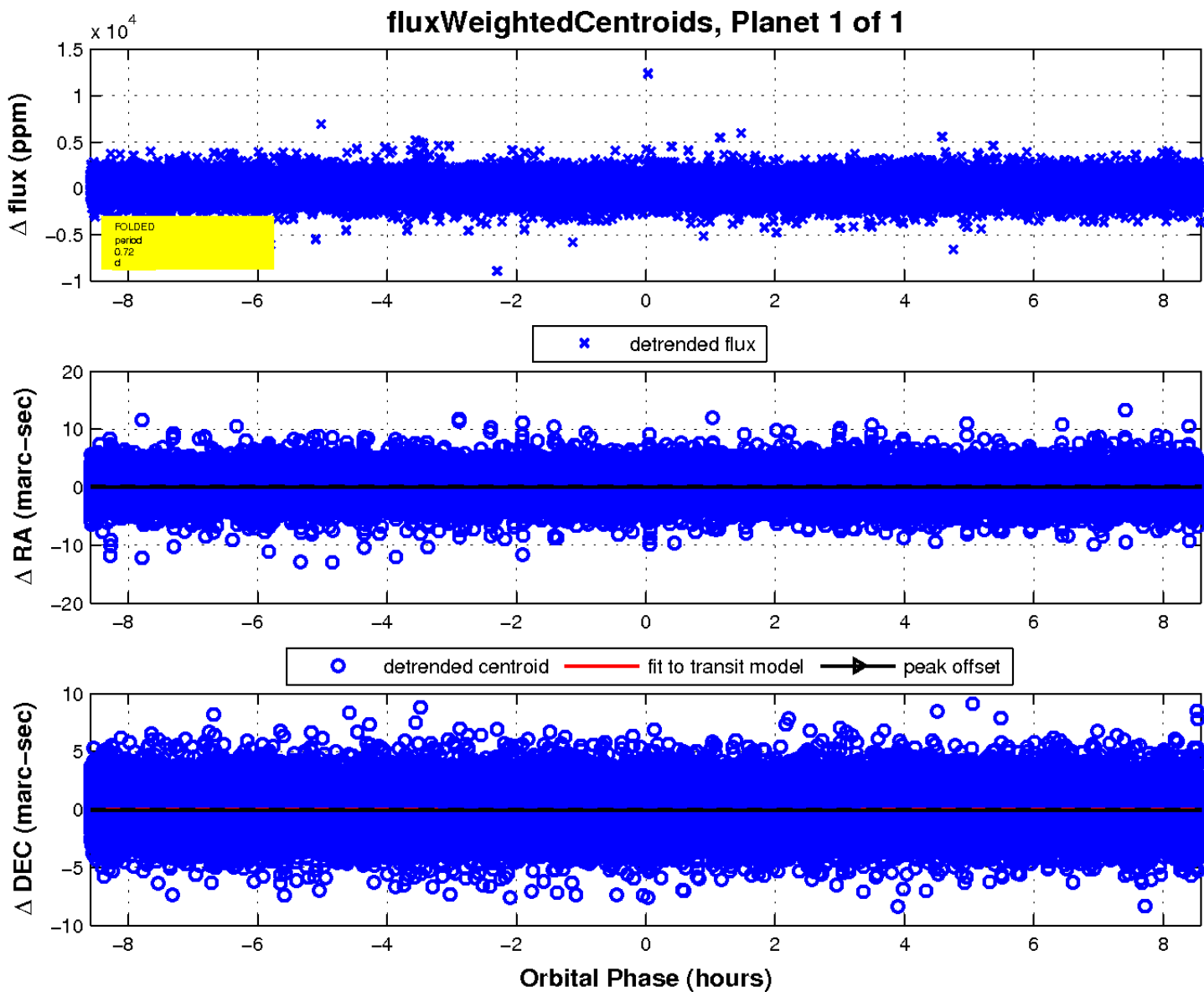
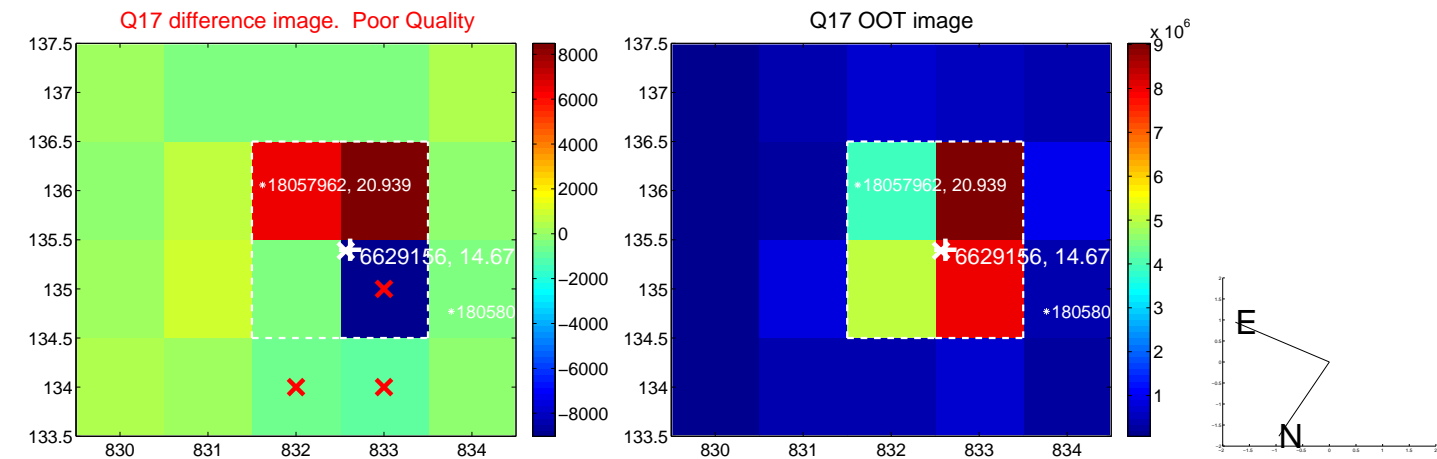
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UKIRT Image

Declination

