

KIC 005289857

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})
005289857-01	OBS	5150.01	26.524673	156.161663	160.4	2.780	7.8	8.9	1.70	4995	2.38	55.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005289857-01	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS

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

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

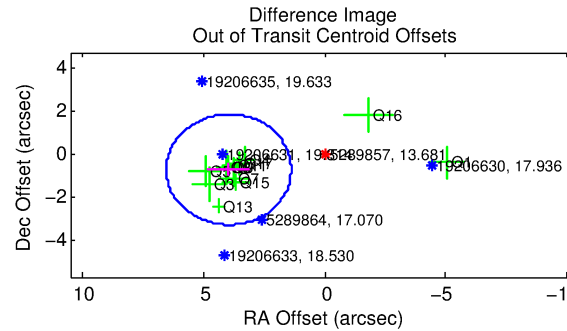
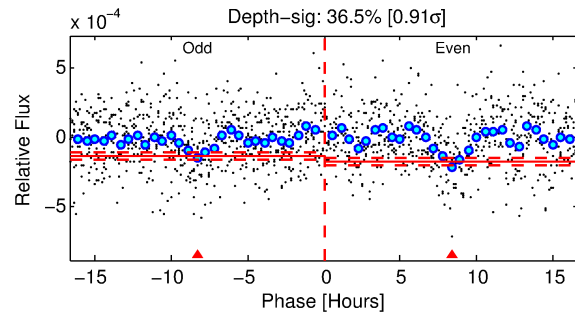
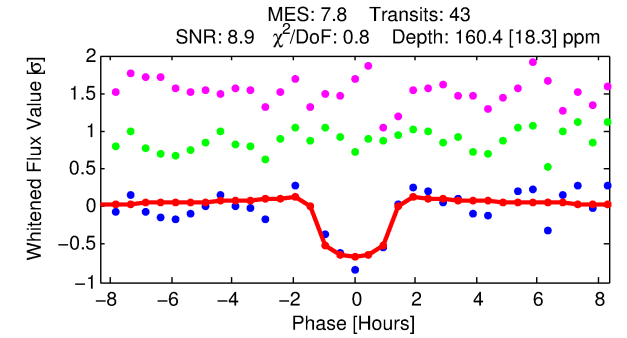
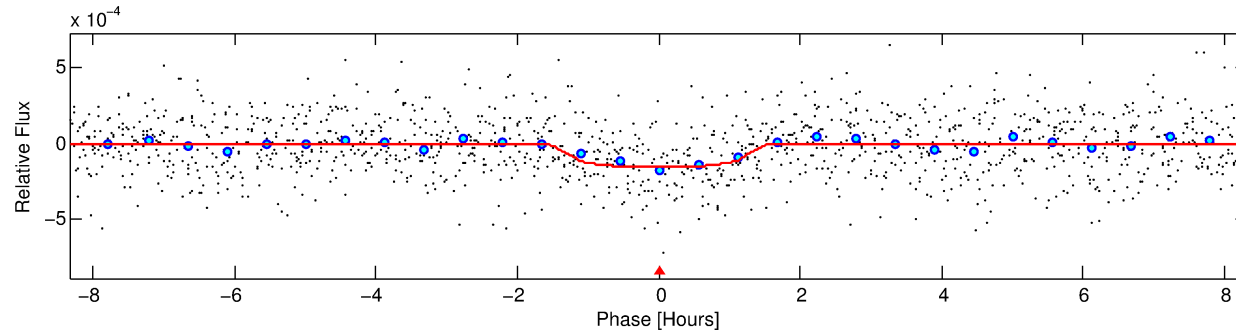
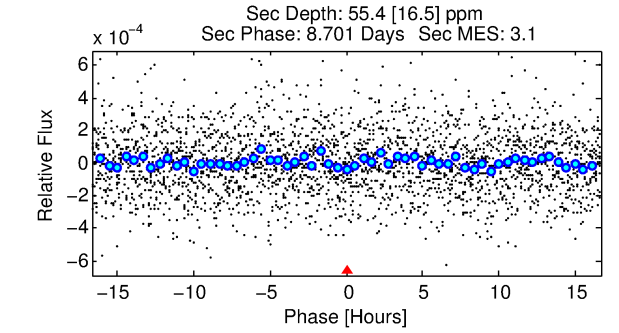
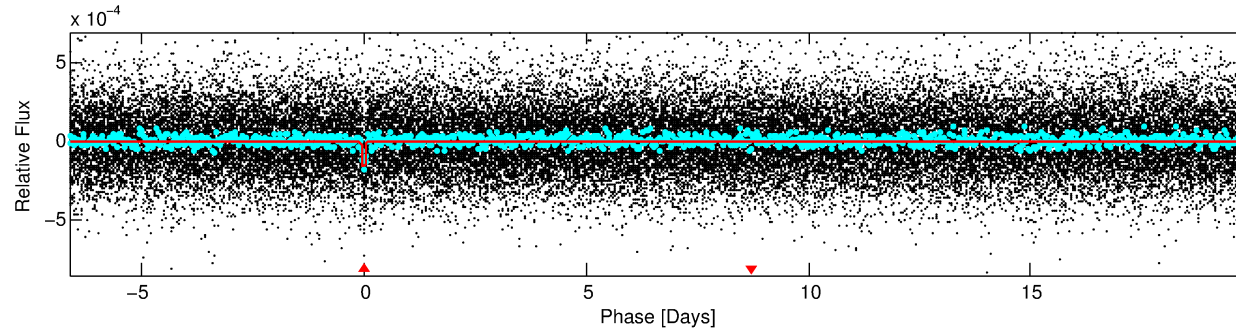
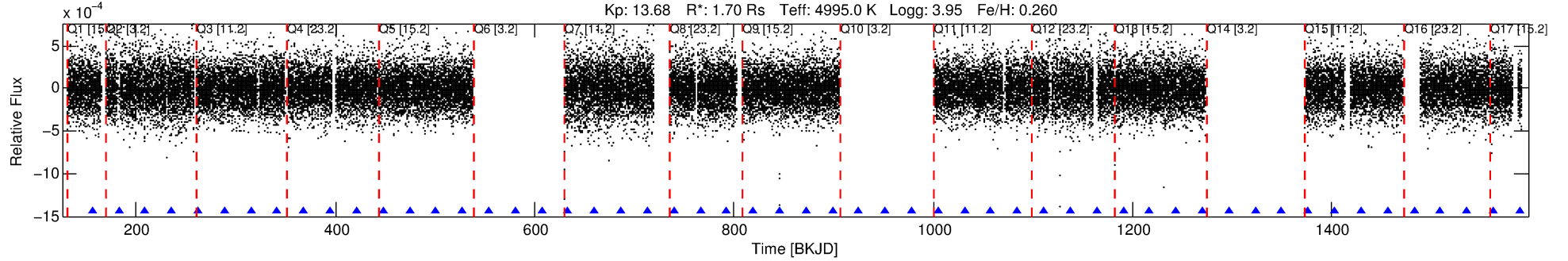
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005289857-01

No Significant Match Found

DV One-Page Summary

KIC: 5289857 Candidate: 1 of 1 Period: 26.525 d
KOI: K05150.01 Corr: 0.901



DV Fit Results:

Period = 26.52467 [0.00020] d
Epoch = 156.1617 [0.0062] BKJD
Rp/R* = 0.0128 [0.0109]
a/R* = 47.94 [142.69]
b = 0.77 [1.62]
Seff = 55.16 [57.56]
Teq = 695 [181] K
Rp = 2.38 [2.52] Re
a = 0.1712 [0.1085] AU
Ag = 157.81 [317.53] [0.49σ]
Teffp = 3808 [1646] K [1.88σ]

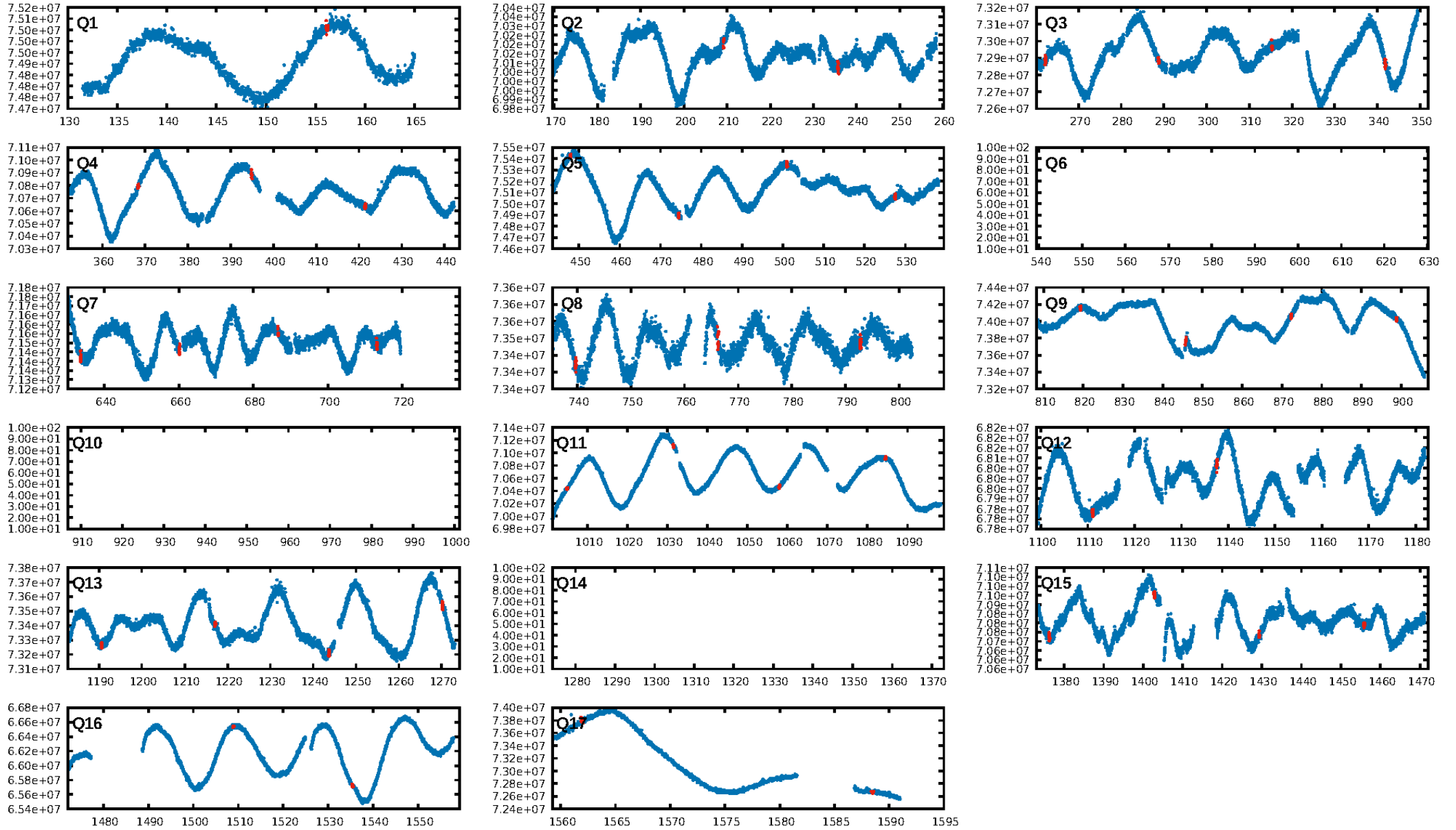
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.05e-14
RollingBand-fgt: 1.00 [40/40]
GhostDiagnostic-chr: 0.6174
Centroid-sig: 0.0%
Centroid-so: 3.736 arcsec [4.02σ]
OotOffset-rm: 4.025 arcsec [4.68σ]
KicOffset-rm: 4.474 arcsec [5.69σ]
OotOffset-st: 0/4/3/5 [12]
KicOffset-st: 0/4/3/5 [12]
DiffImageQuality-fgm: 0.75 [9/12]
DiffImageOverlap-fno: 1.00 [14/14]

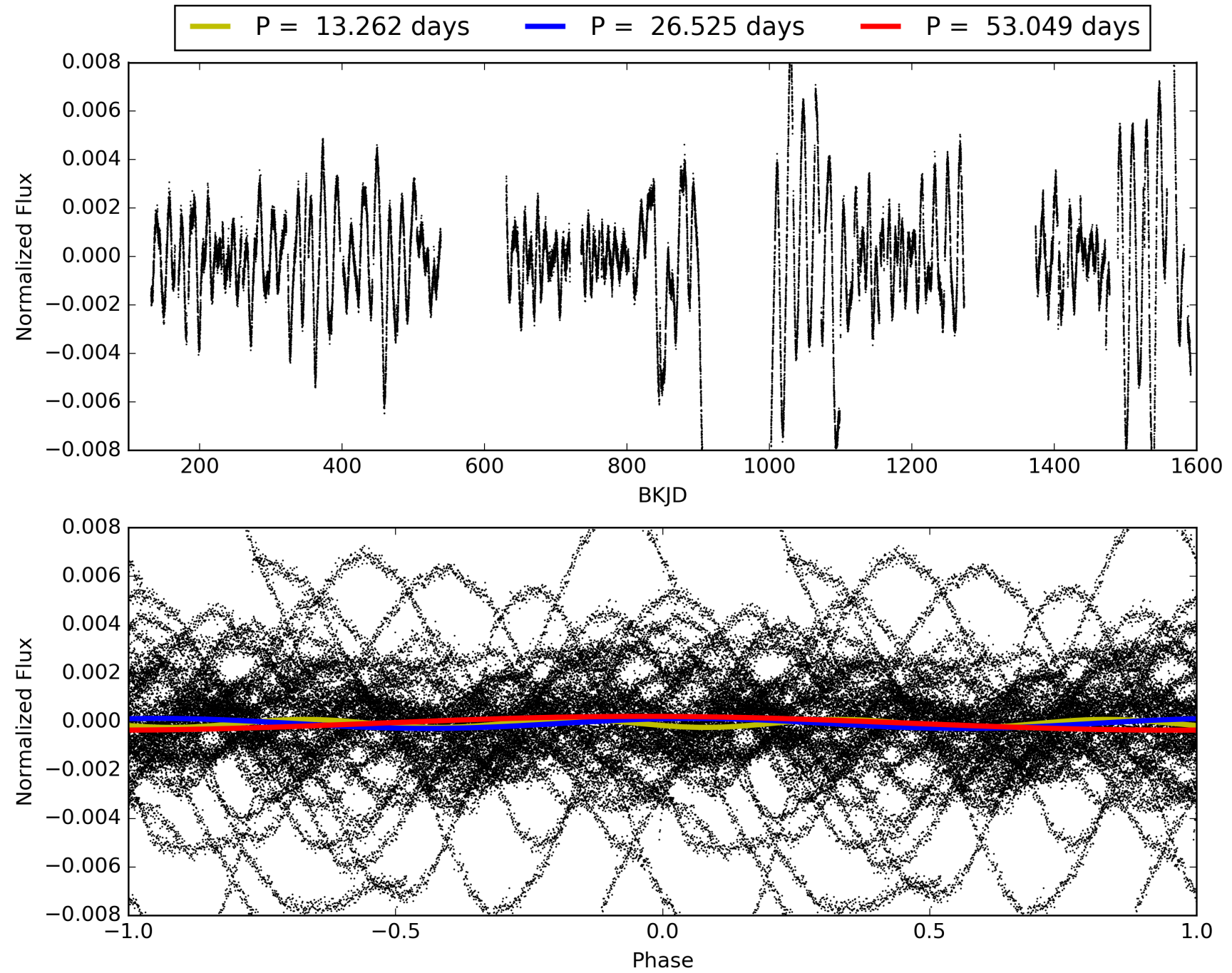
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:15:05 Z

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

TCE 005289857-01, PDC Light Curves

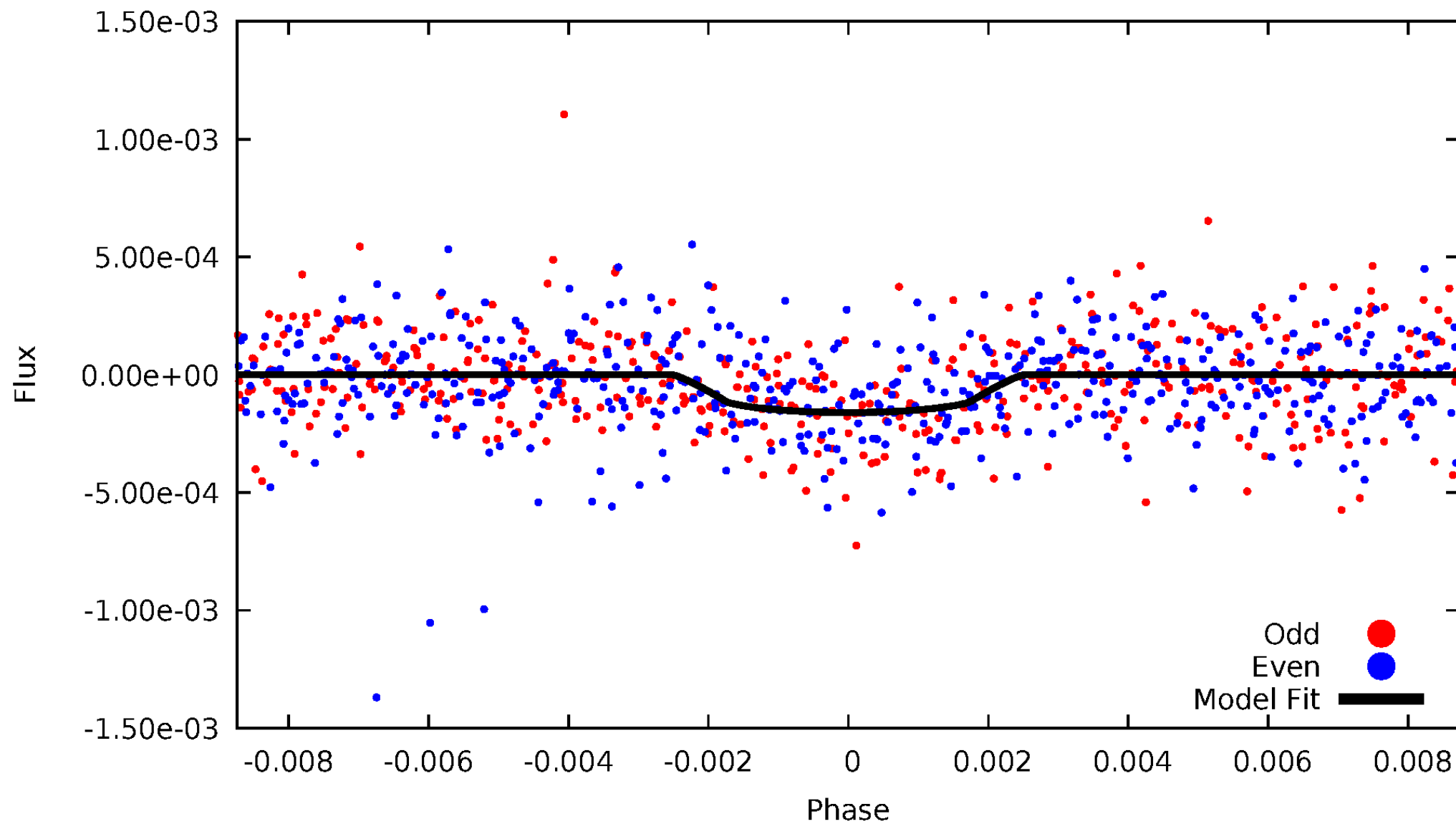


TCE 005289857-01



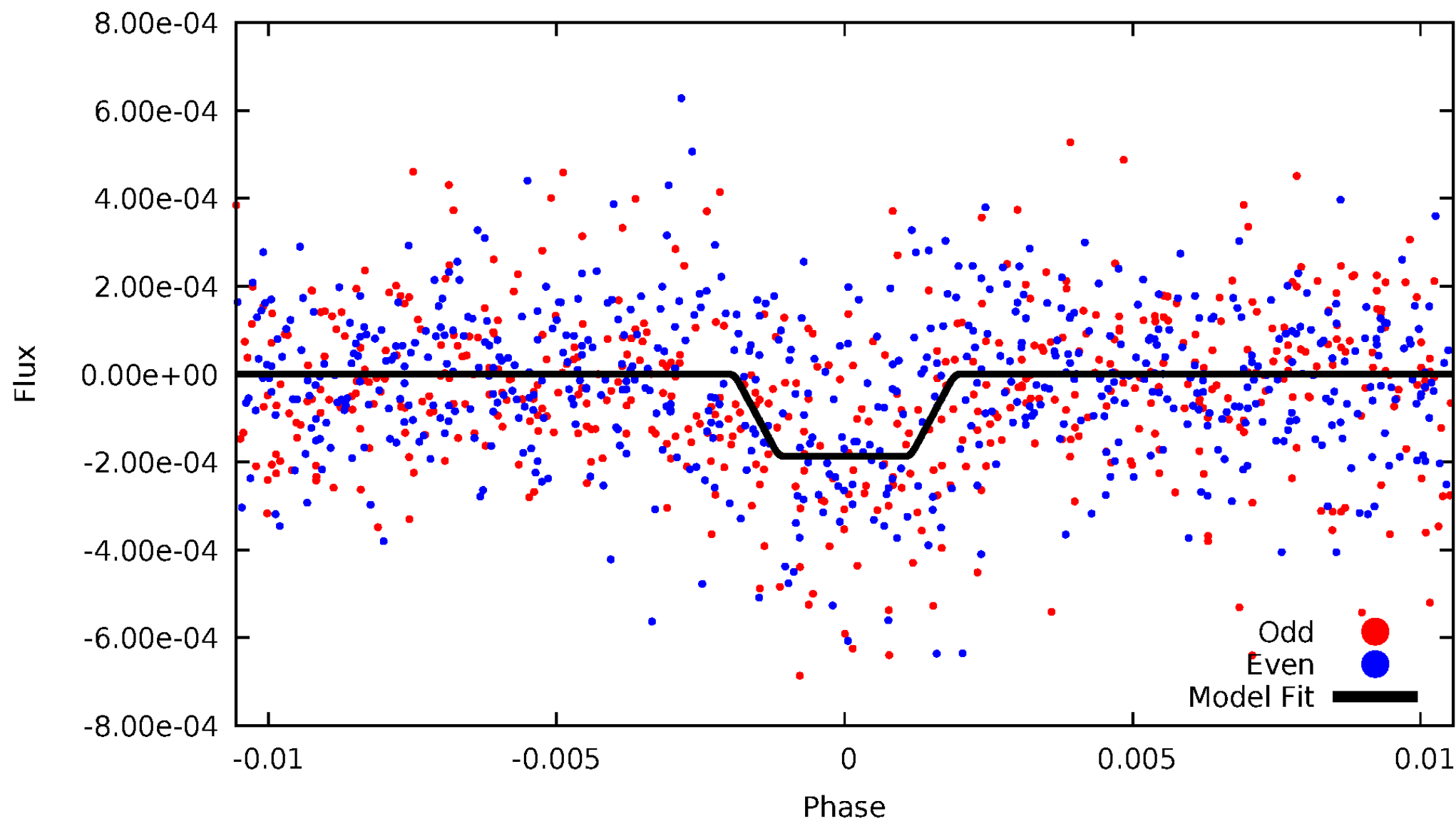
DV Odd/Even

TCE 005289857-01

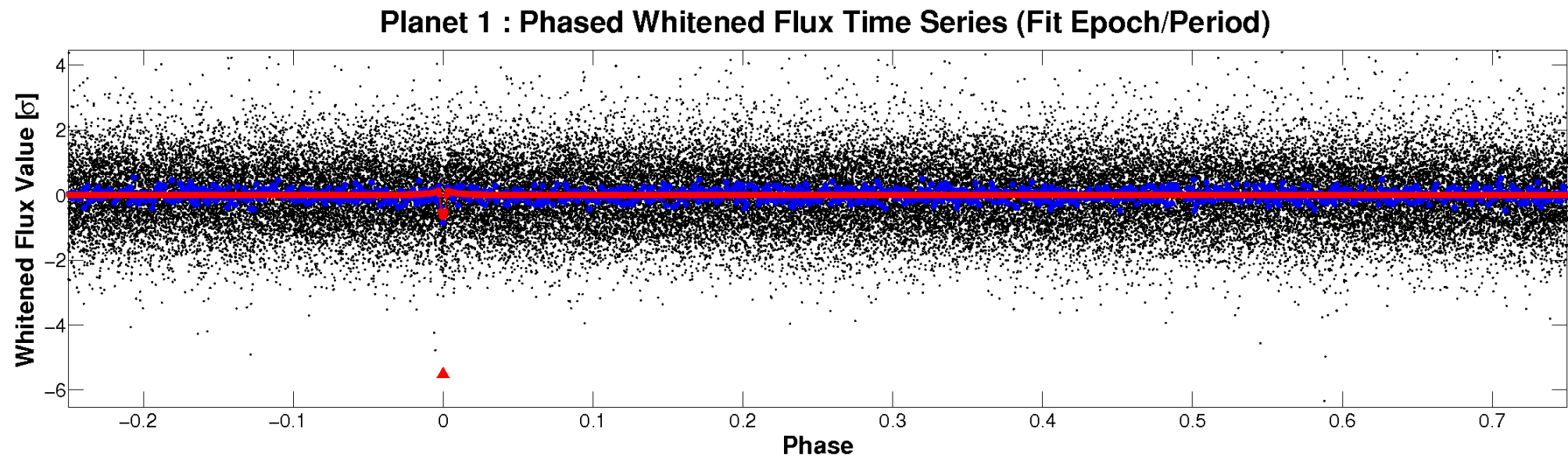
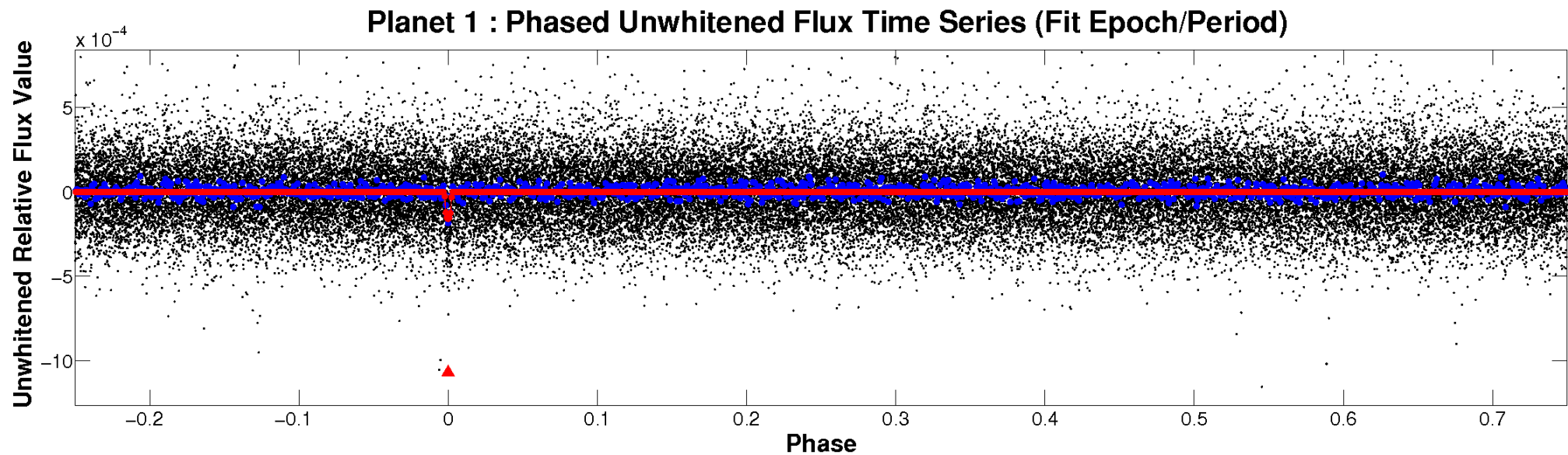


ALT Odd/Even

TCE 005289857-01

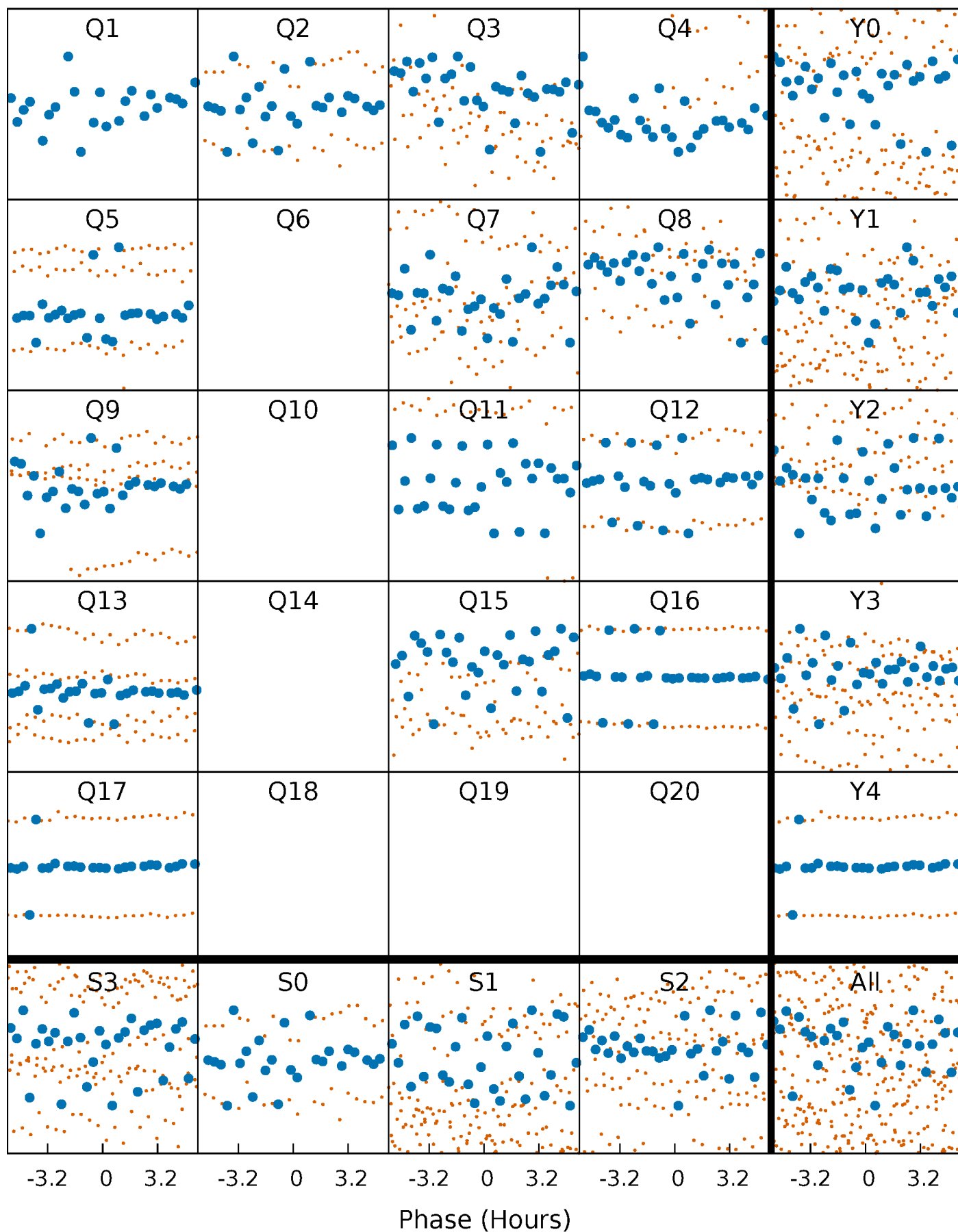


Non-Whitened Vs. Whitened Light Curve



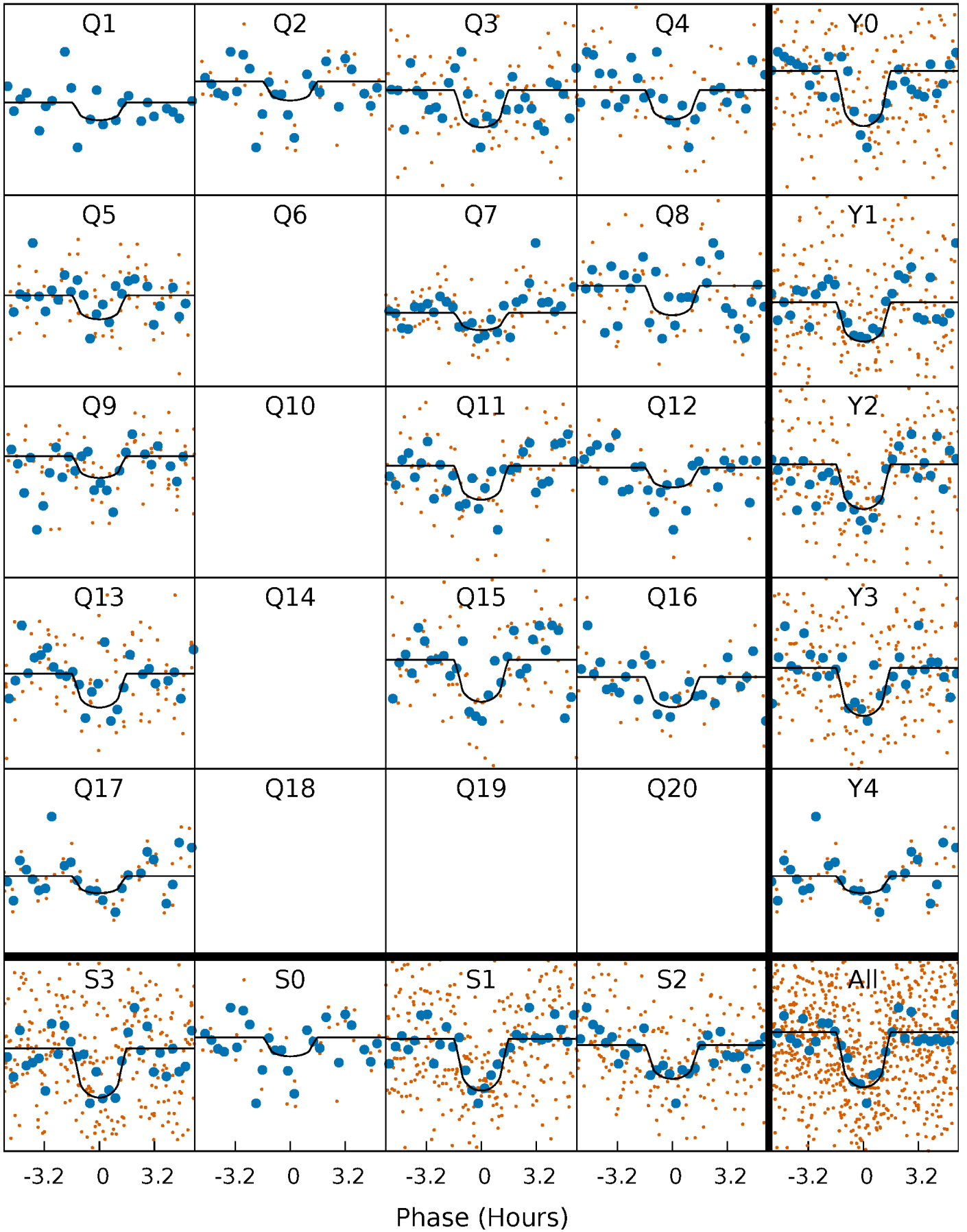
PDC Quarter-Phased Transit Curves

TCE 005289857-01 P= 26.524673 Days $T_0=156.161663$ (BKJD)



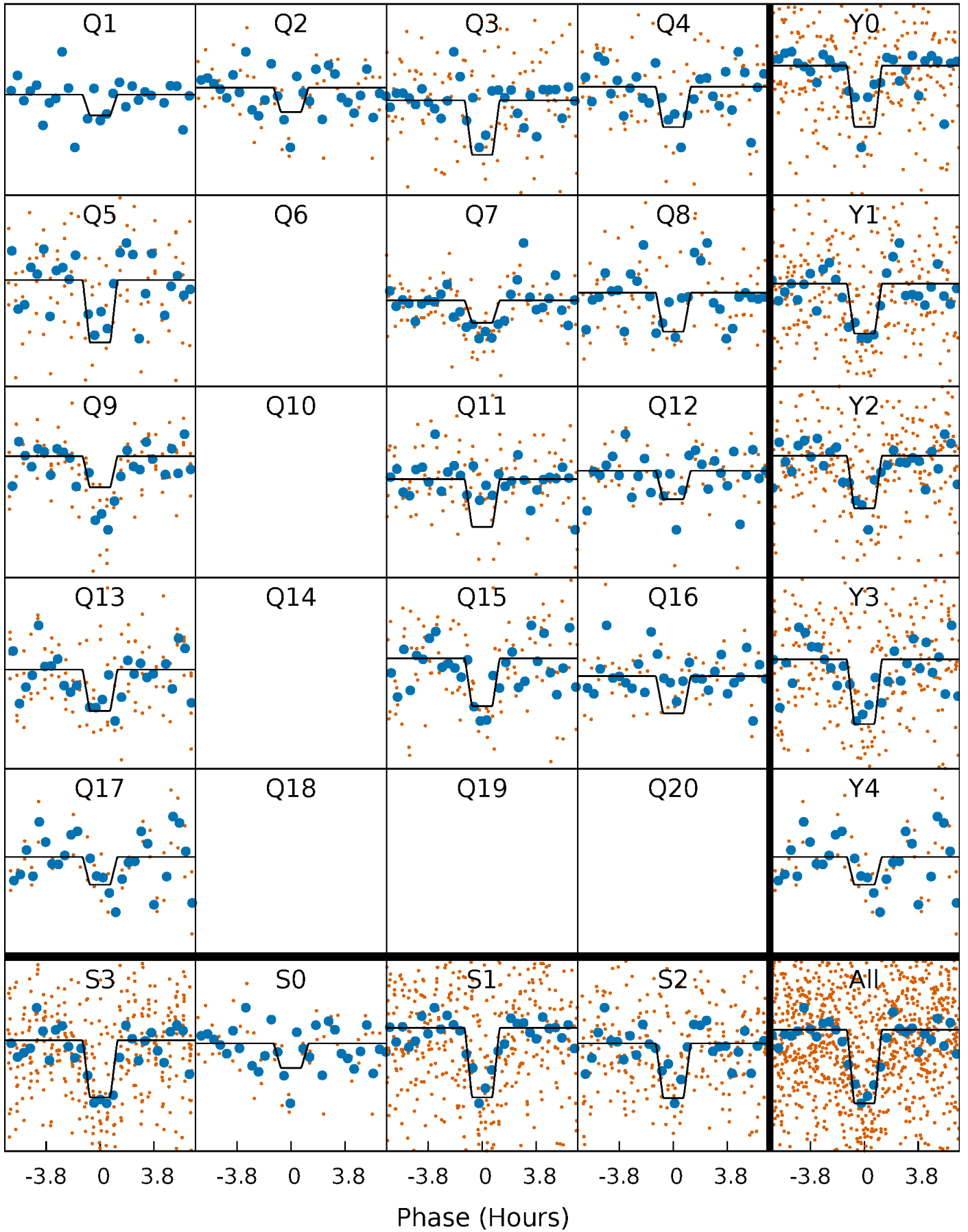
DV Quarter-Phased Transit Curves

TCE 005289857-01 P= 26.524673 Days $T_0=156.161663$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

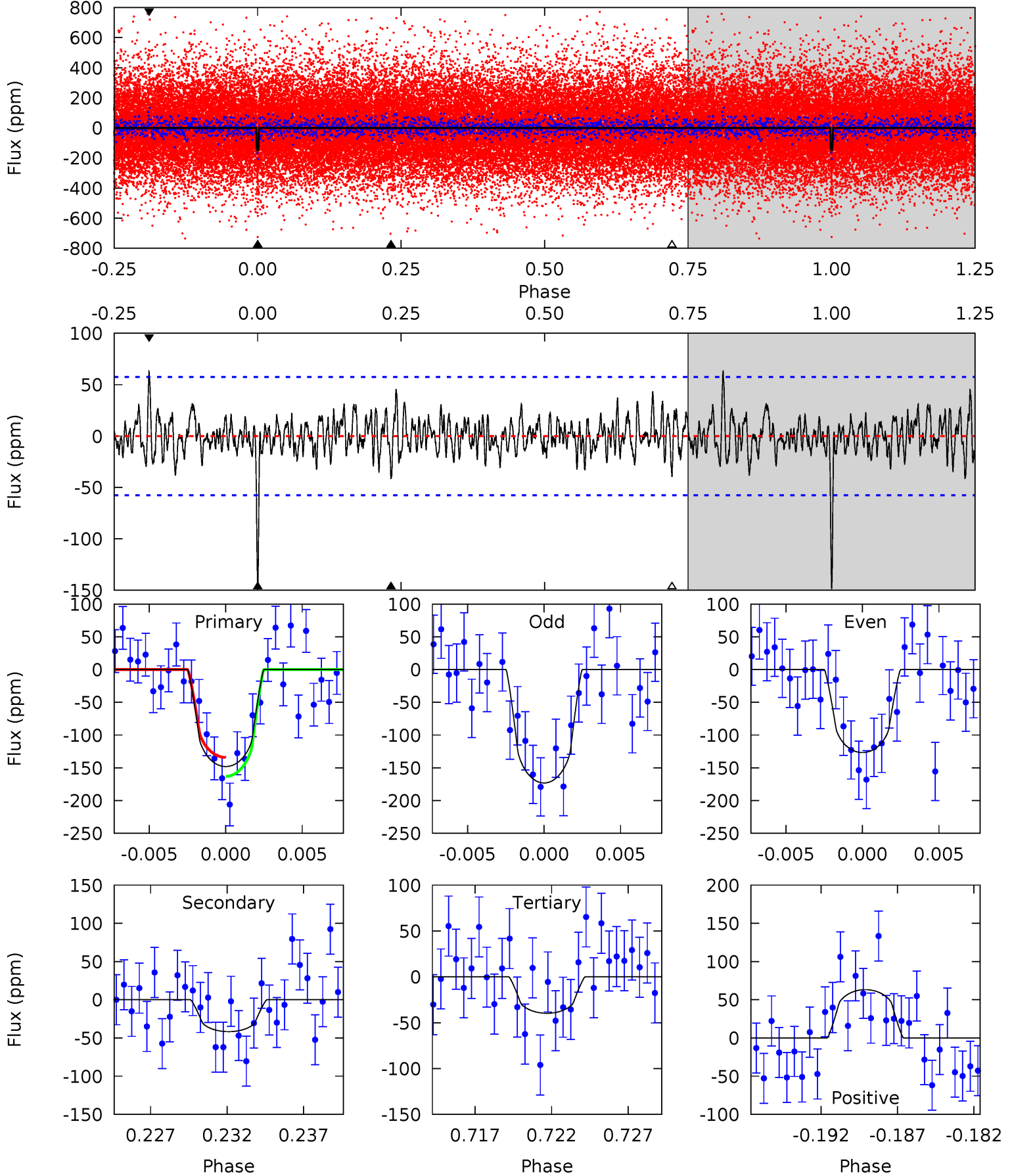
TCE 005289857-01 P= 26.524132 Days $T_0=156.180888$ (BKJD)



DV Model-Shift Uniqueness Test

005289857-01, P = 26.524673 Days, E = 129.636990 Days

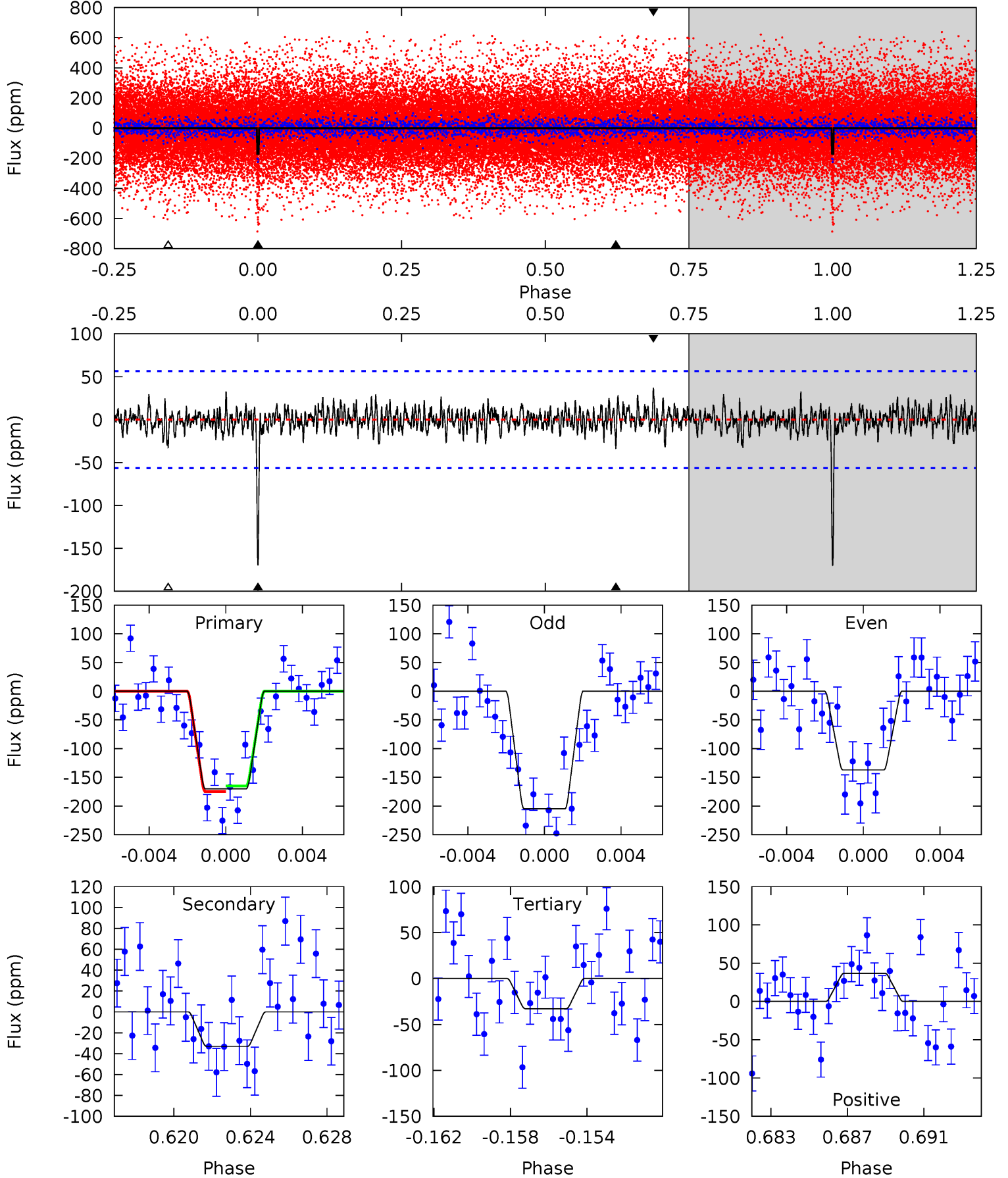
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	3.74	3.56	5.66	5.16	2.80	1.26	9.71	7.61	0.18	-1.92	2.08	0.89	0.30	1.30



Alt Model-Shift Uniqueness Test

005289857-01, P = 26.524132 Days, E = 129.656756 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	3.04	3.03	3.39	5.20	2.88	0.91	12.6	12.2	0.01	-0.35	3.10	1.01	0.18	0.45



Stellar Parameters For KIC 005289857

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4995^{+149}_{-149}	$3.954^{+0.617}_{-0.332}$	$0.260^{+0.200}_{-0.250}$	$1.703^{+1.076}_{-0.880}$	$0.950^{+0.211}_{-0.141}$	$0.271^{+2.136}_{-0.177}$
	+3%/-3%	+16%/-8%	+77%/-96%	+63%/-52%	+22%/-15%	+789%/-66%
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 005289857-01 / KOI 5150.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-42 ± 11	$2.41^{+2.33}_{-1.51}$	949^{+155}_{-141}	3702^{+1479}_{-615}	107^{+675}_{-78}
Alt.	-33 ± 11	$2.56^{+2.25}_{-1.51}$	952^{+144}_{-161}	3519^{+1201}_{-556}	80^{+416}_{-59}

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 $A_{obs} \gg 1.0$

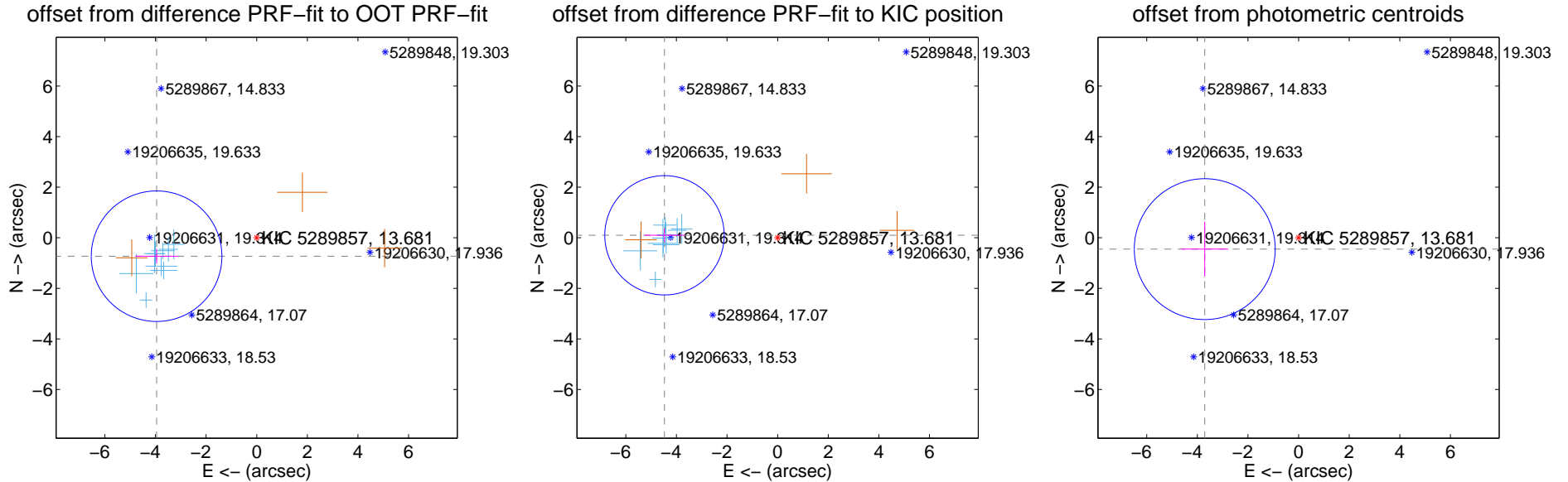
DV Centroid Data

Supplemental centroid analysis for 005289857-01. Kepler magnitude: 13.68. Transit SNR 8.90

There are 9 quarters with good PRF difference image offsets

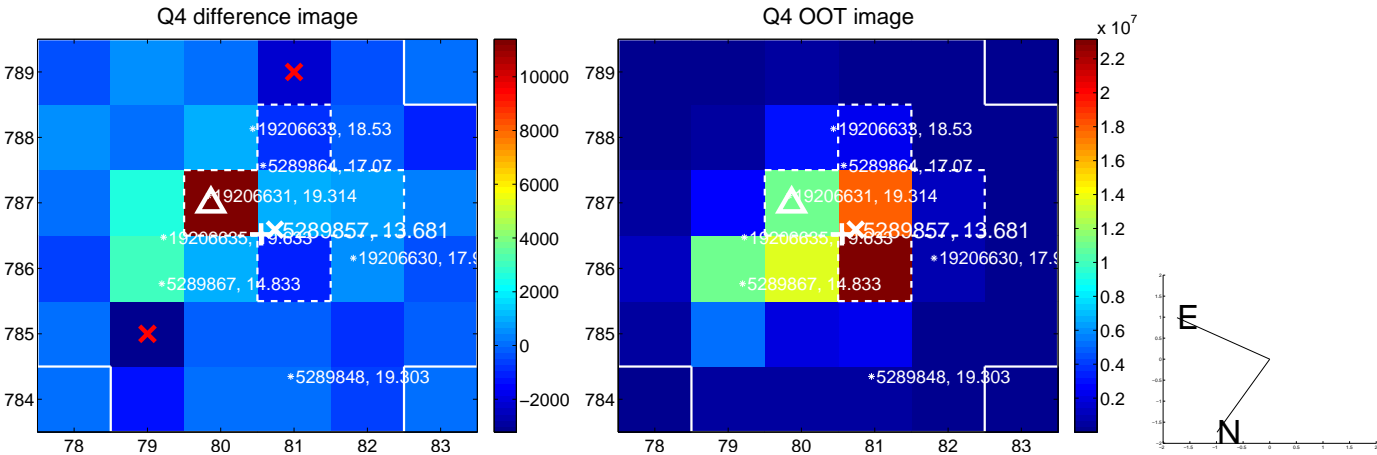
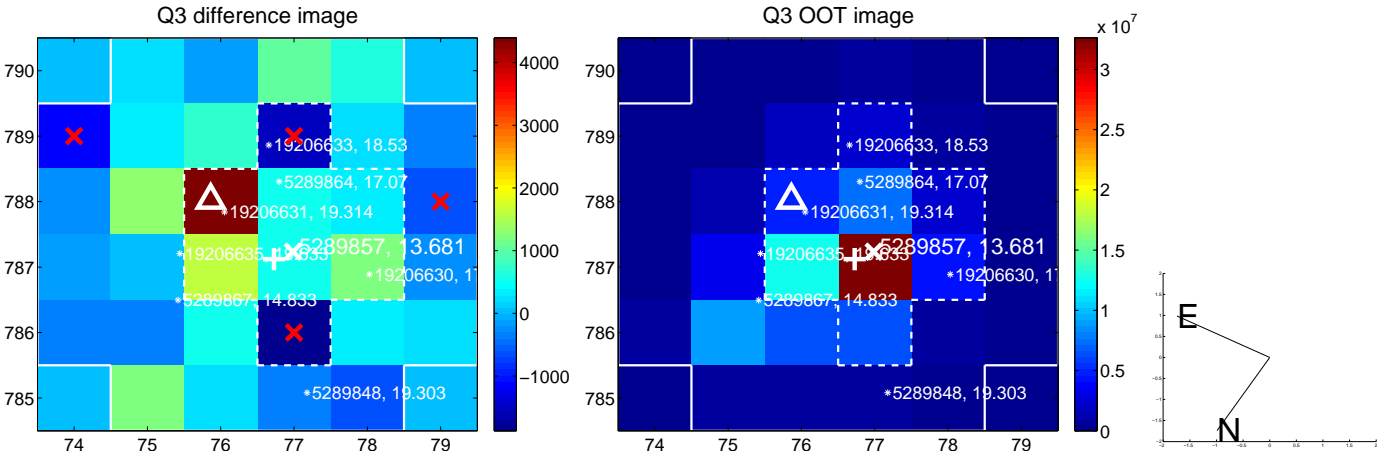
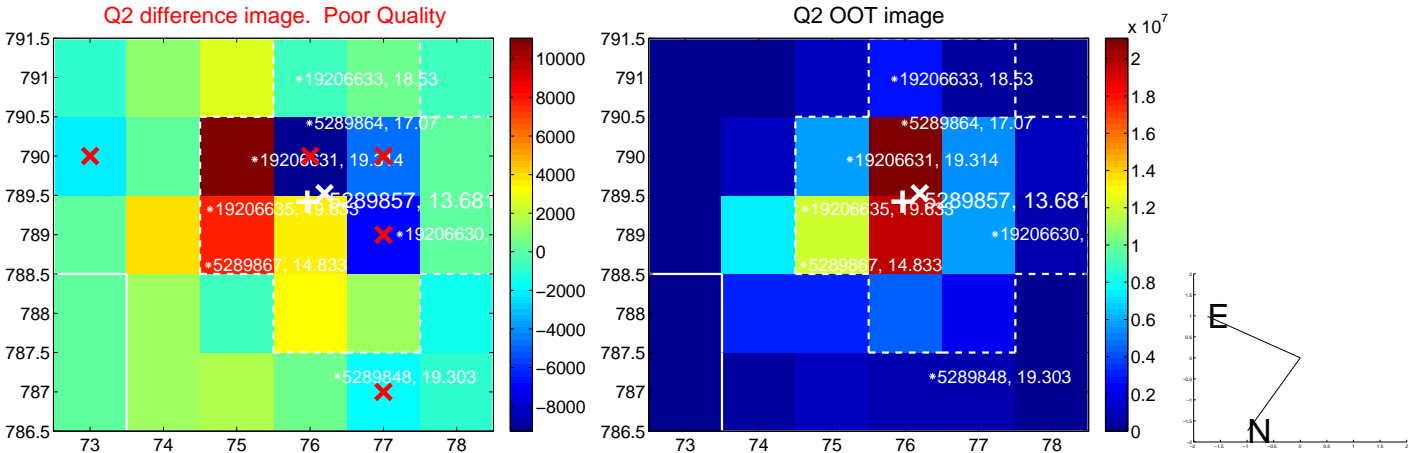
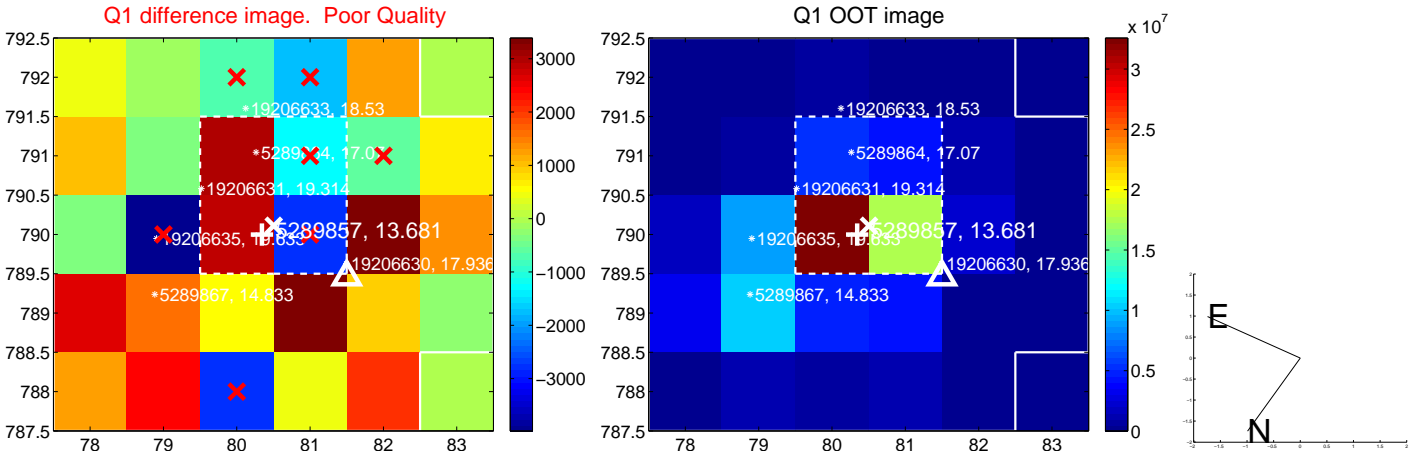
The direct PRF centroid is offset from the target star catalog position by about 0.89 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.025 ± 0.861	4.68	3.958 ± 0.843	-0.729 ± 0.294
PRF-fit source offset from KIC position	4.474 ± 0.787	5.69	4.473 ± 0.790	0.098 ± 0.265
photometric centroid source offset	3.74 ± 0.93	4.02	3.71 ± 0.93	-0.45 ± 1.09

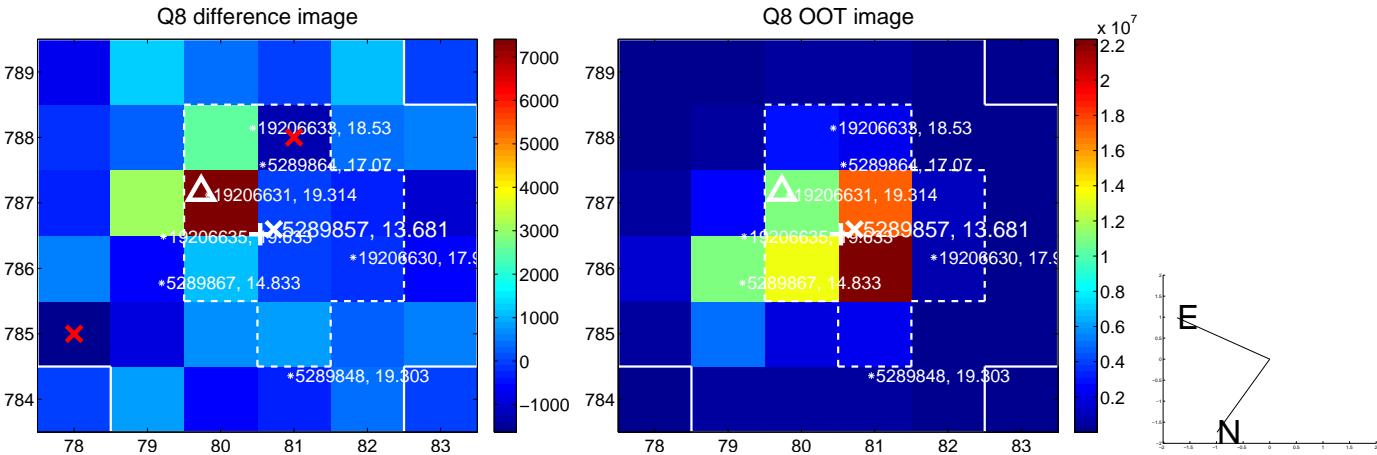
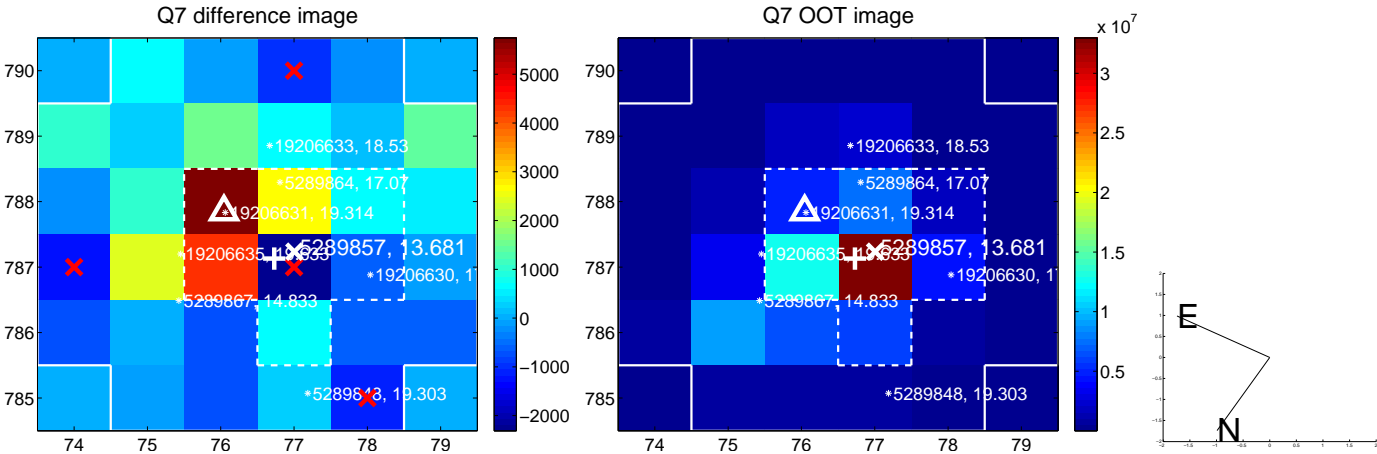
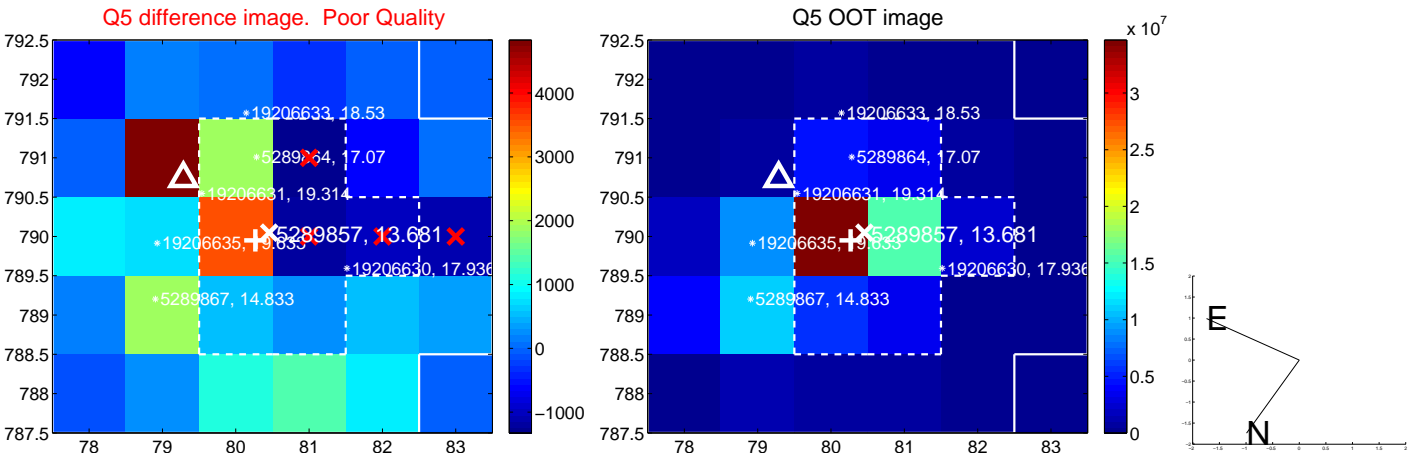


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

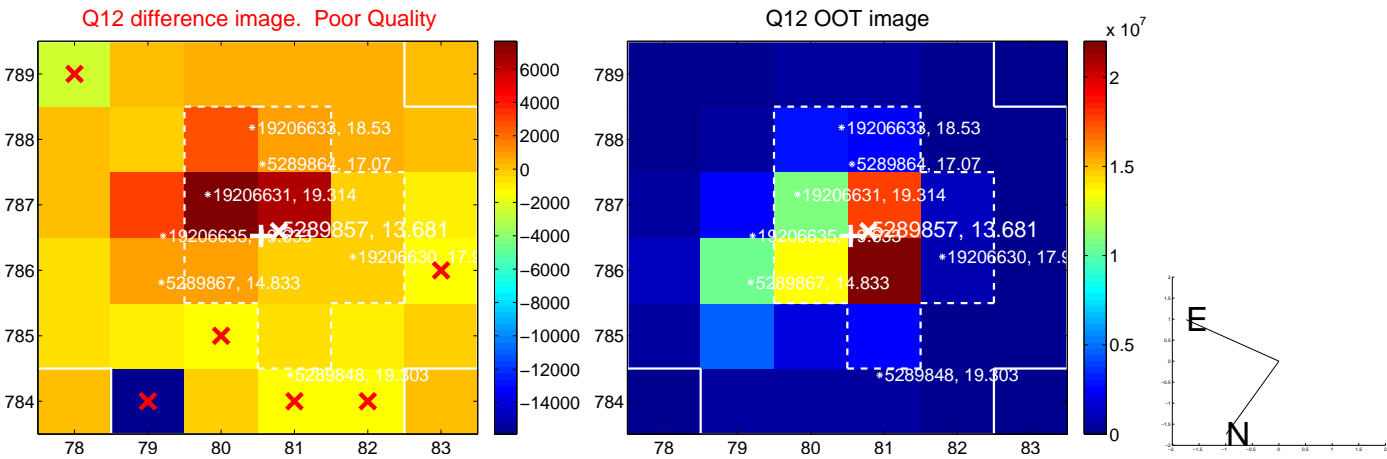
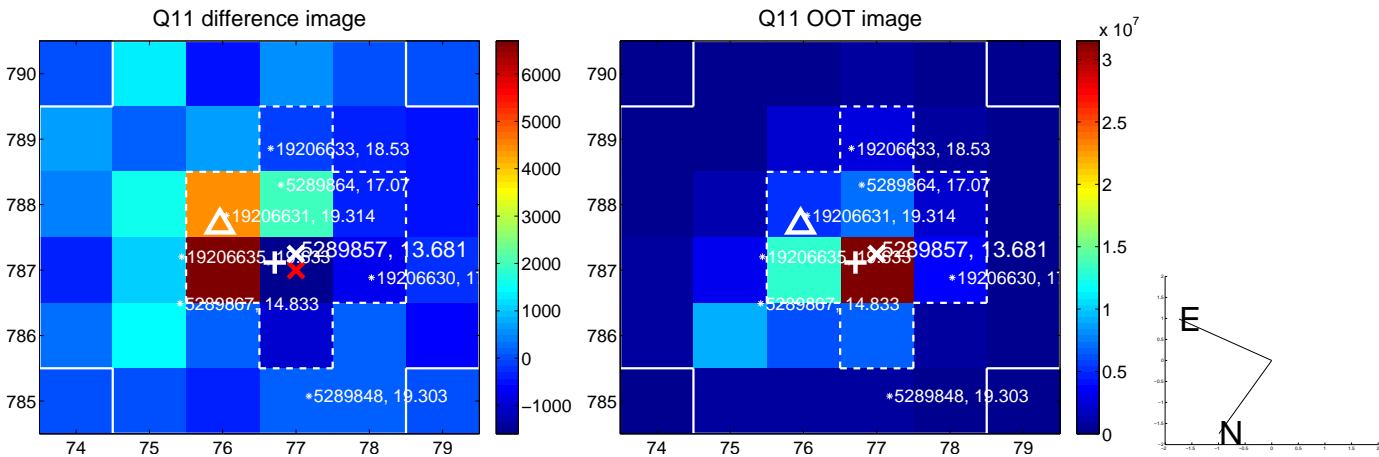
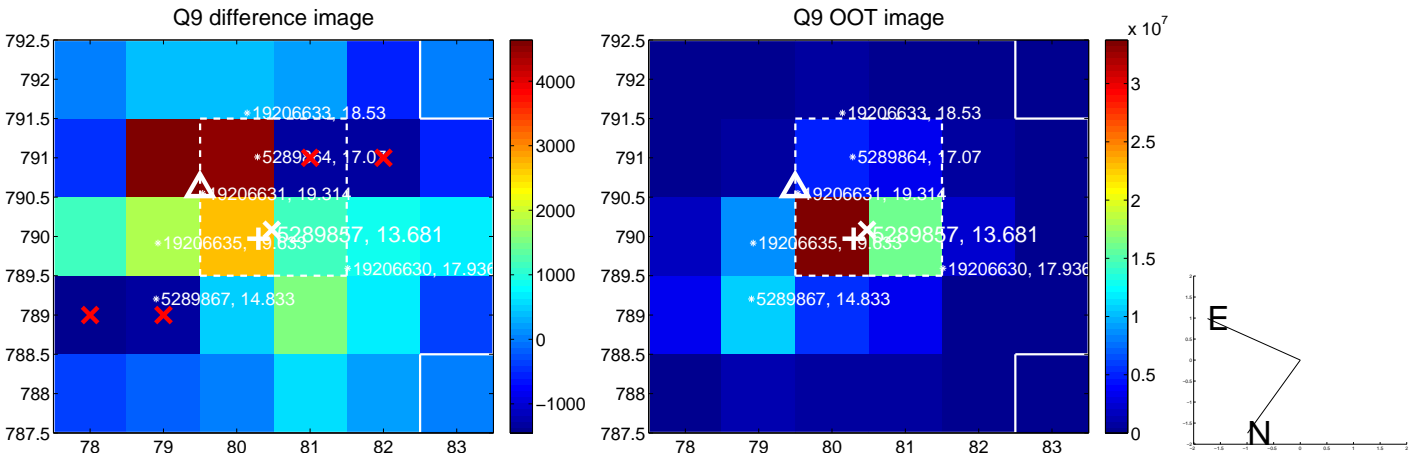
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



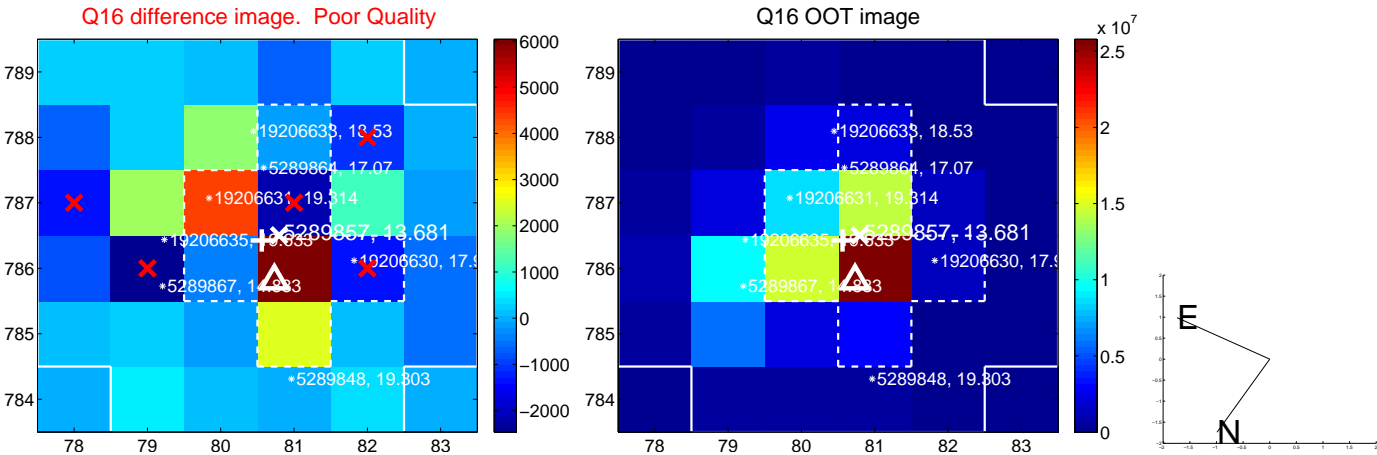
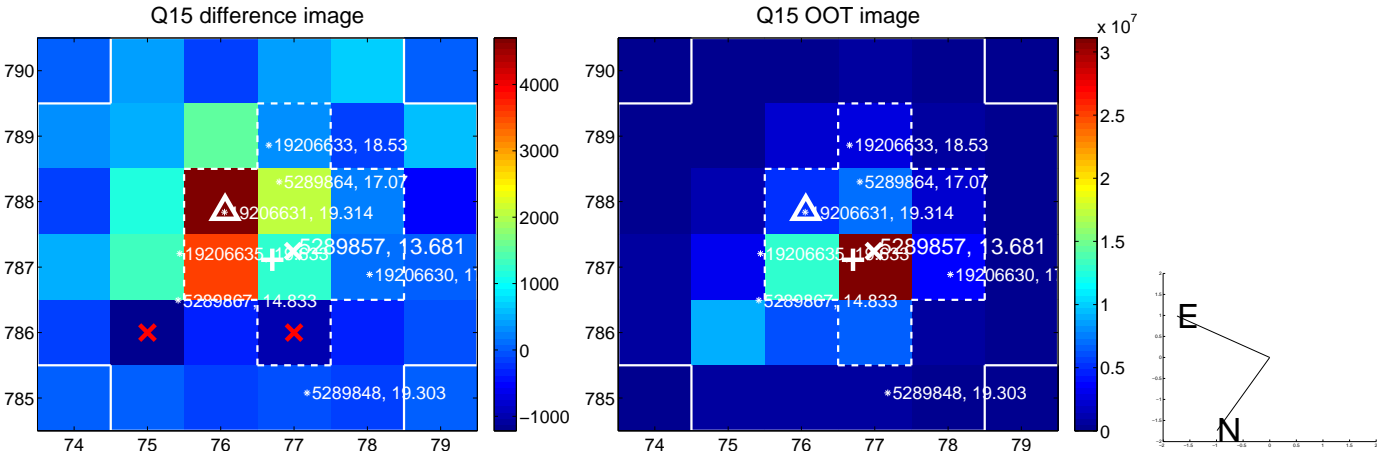
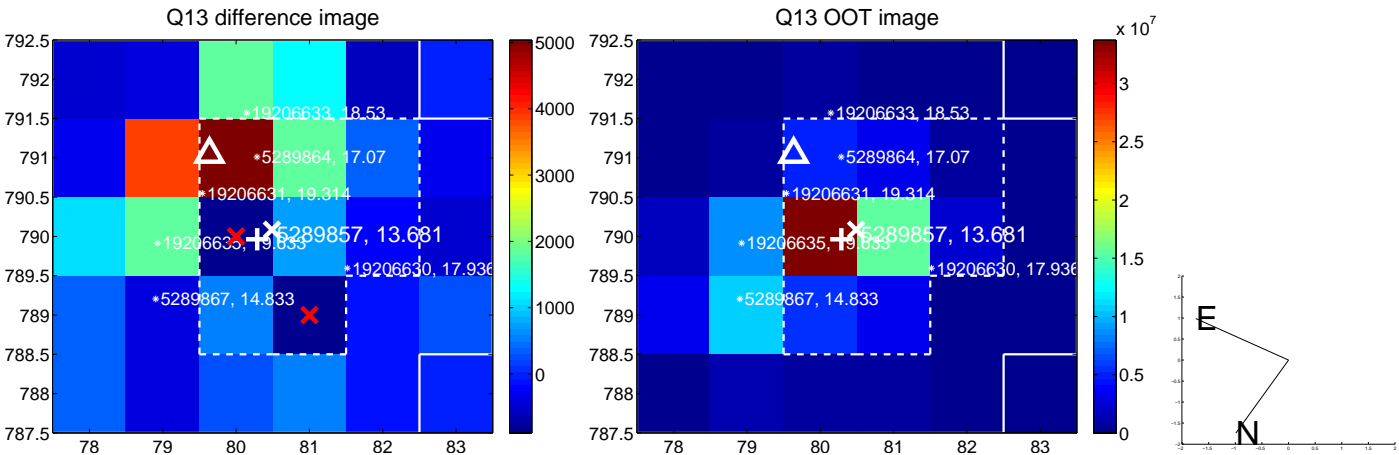
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



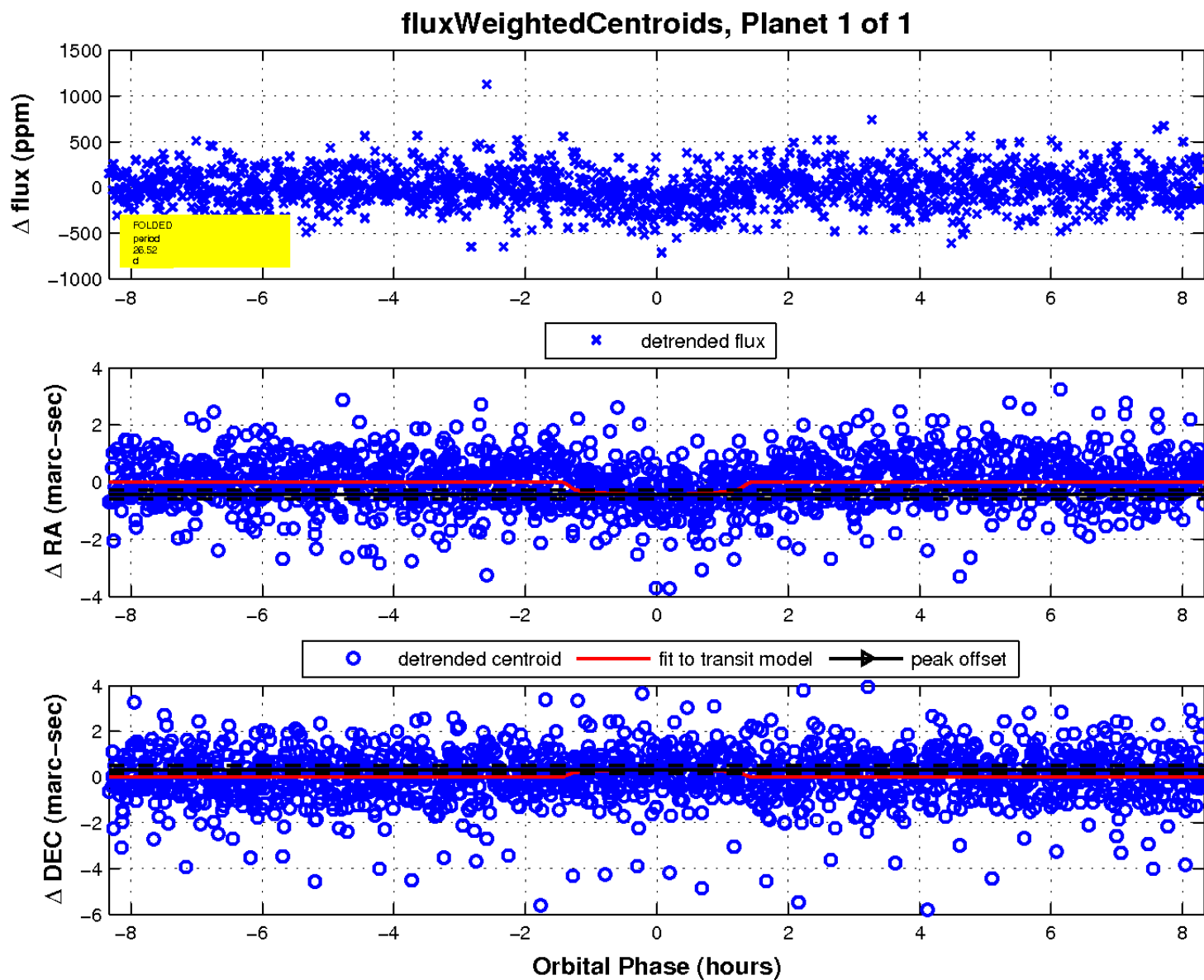
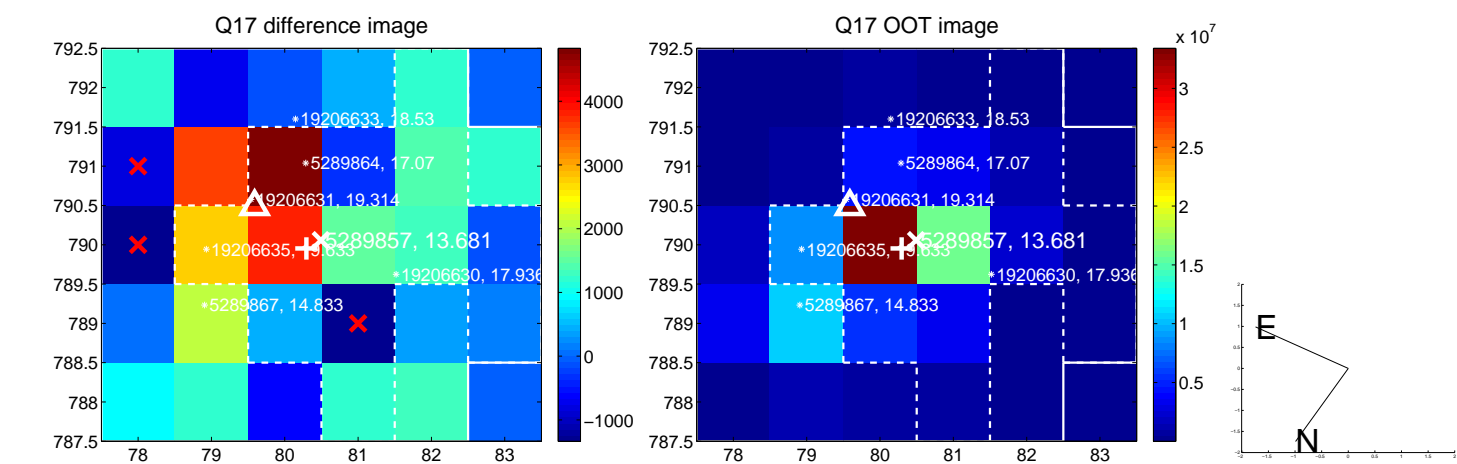
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

