

KIC 006611875

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})
006611875-01	OBS	No	91.106737	191.748877	441.1	2.129	9.6	7.0	0.31	3384	0.66	0.16
006611875-02	OBS	No	416.179606	374.892651	874.2	6.582	11.2	7.8	0.31	3384	0.96	0.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006611875-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_KIC_POS
006611875-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

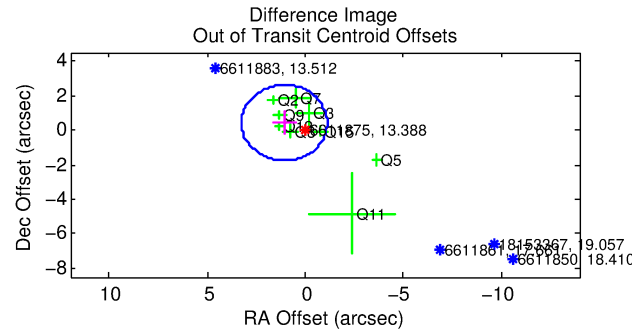
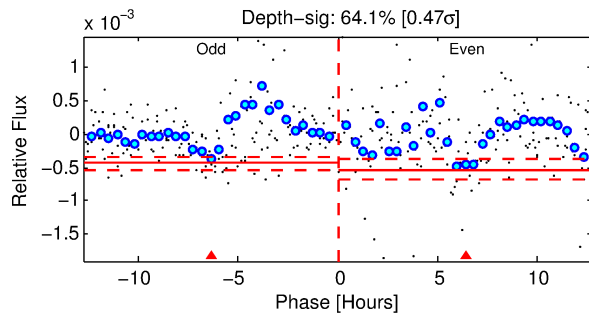
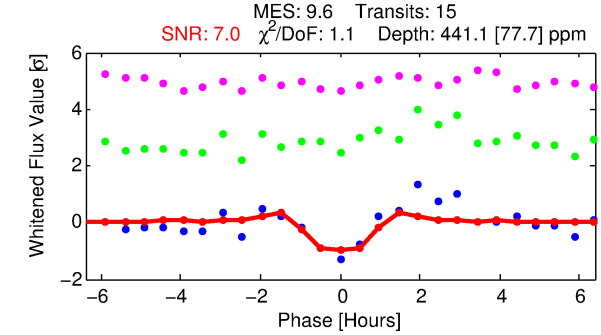
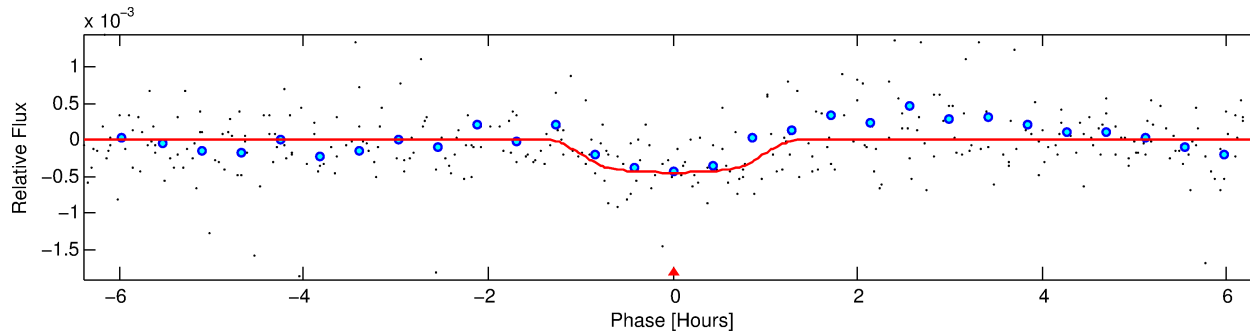
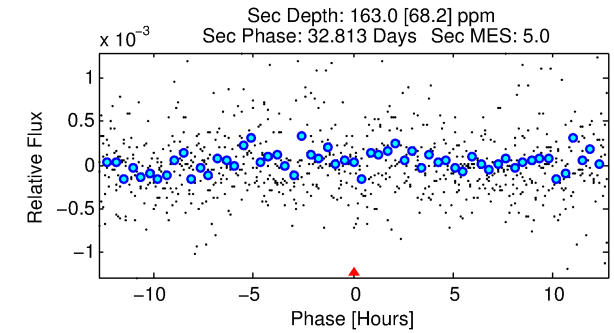
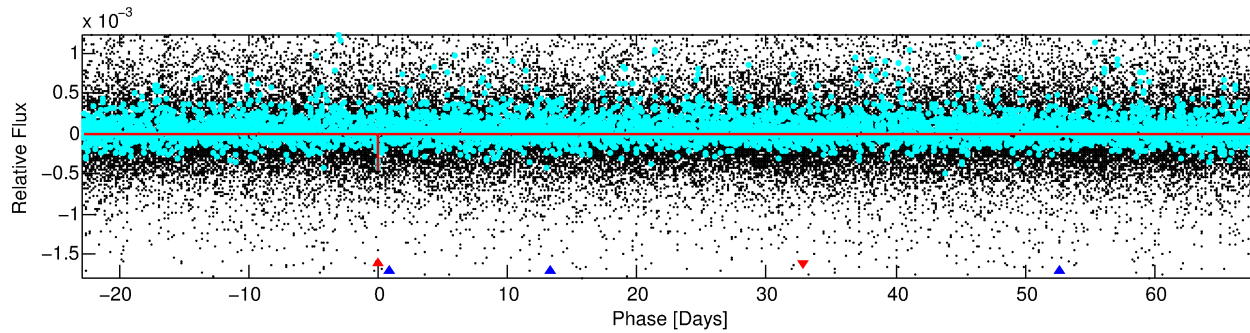
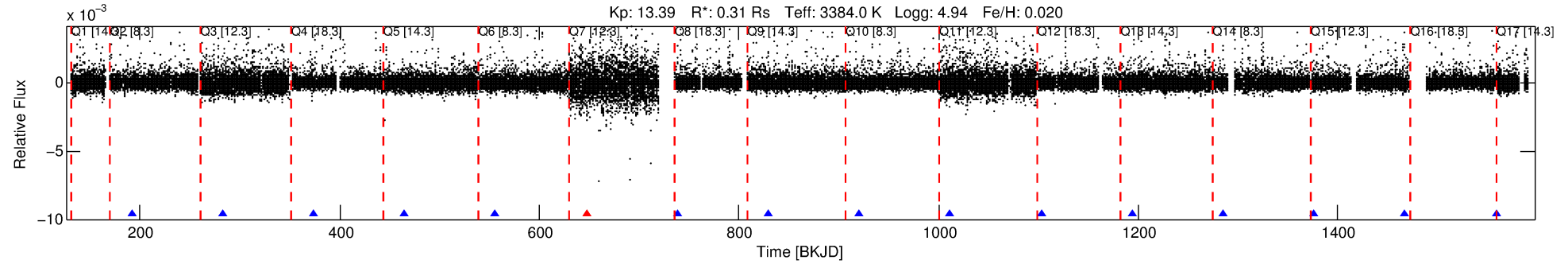
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006611875-01

No Significant Match Found

DV One-Page Summary

KIC: 6611875 Candidate: 1 of 2 Period: 91.107 d



DV Fit Results:

Period = 91.10674 [0.00086] d
Epoch = 191.7489 [0.0072] BKJD
Rp/R* = 0.0195 [0.0356]
a/R* = 298.12 [2316.98]
b = 0.46 [13.53]
Seff = 0.16 [0.02]
Teq = 161 [5] K
Rp = 0.66 [1.21] Re
a = 0.2663 [0.0220] AU
Ag = 14601.01 [53646.83] [0.27σ]
Teffp = 2738 [2514] K [1.02σ]

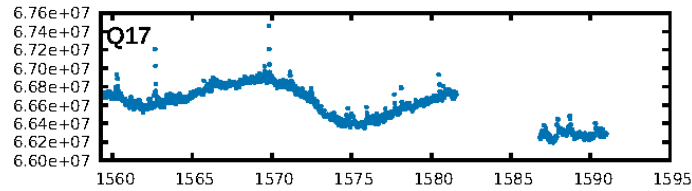
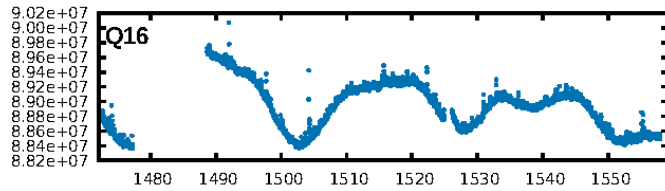
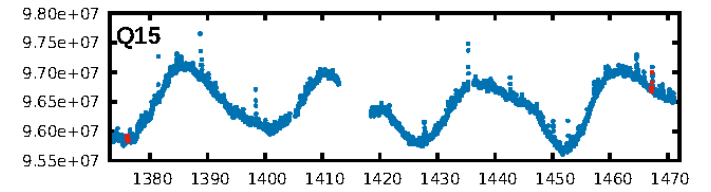
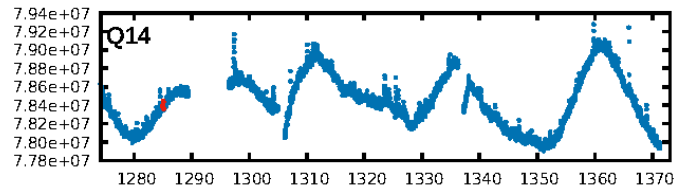
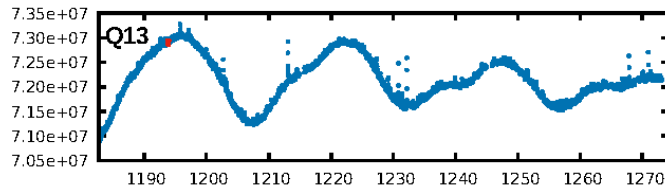
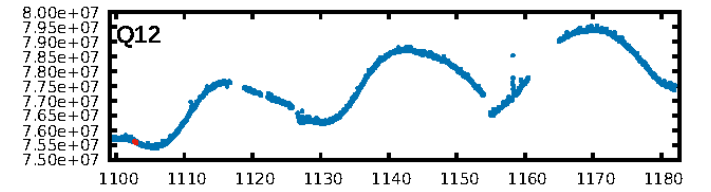
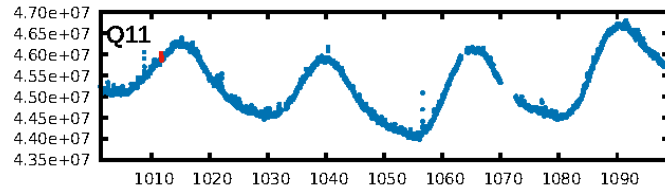
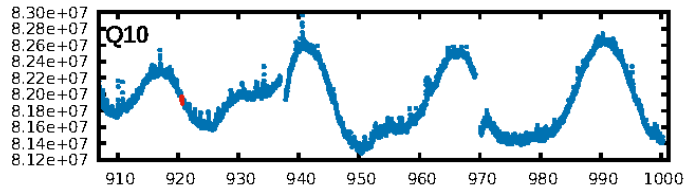
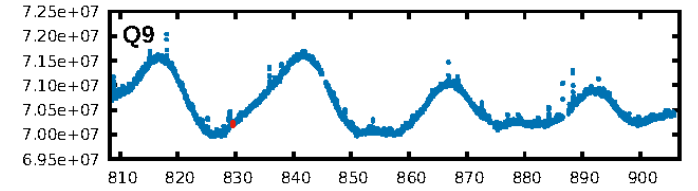
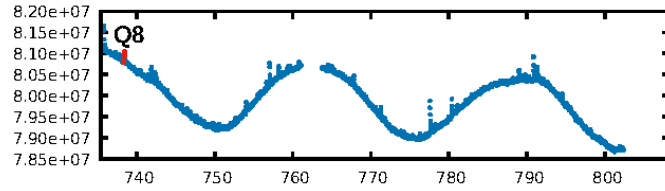
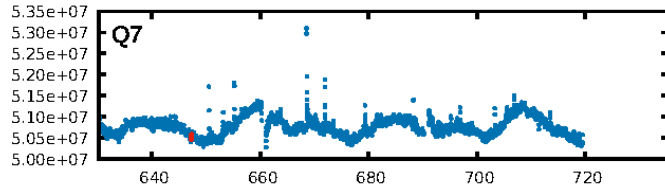
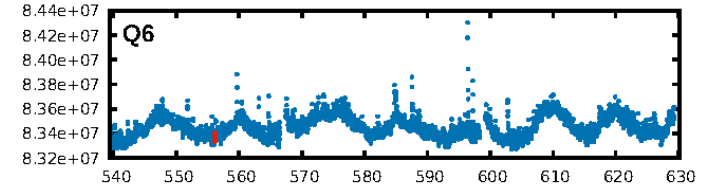
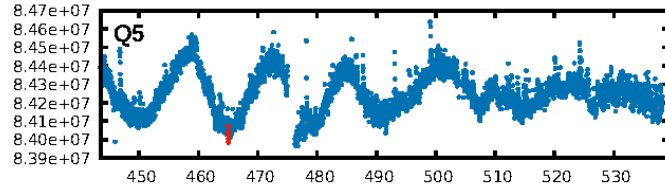
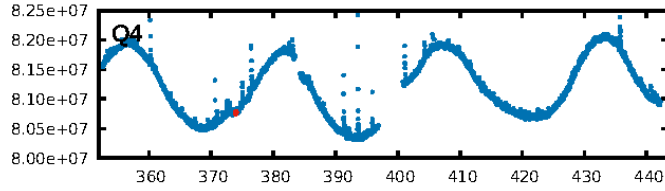
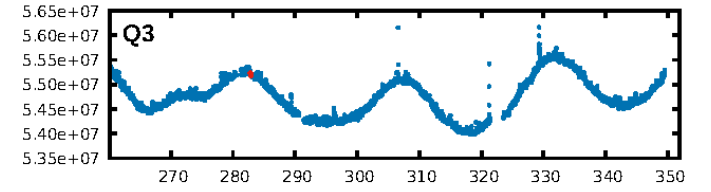
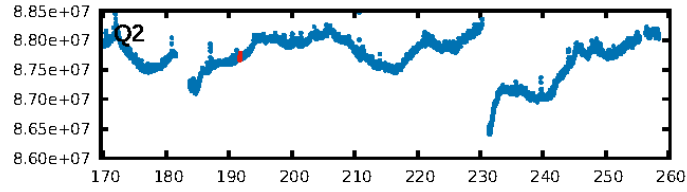
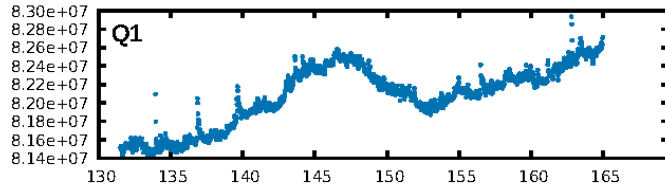
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [1127.84σ]
ModelChiSquare2-sig: 40.5%
ModelChiSquareGof-sig: 99.0%
Bootstrap-pfa: 3.61e-10
RollingBand-fgt: 0.93 [14/15]
GhostDiagnostic-chr: 0.2791
Centroid-sig: 23.1%
Centroid-so: 3.841 arcsec [5.44σ]
OotOffset-rm: 1.164 arcsec [1.59σ]
OotOffset-st: 1/4/2/2 [9]
KicOffset-rm: 5.080 arcsec [6.50σ]
KicOffset-st: 1/4/2/2 [9]
DiffImageQuality-fgm: 0.78 [7/9]
DiffImageOverlap-fno: 1.00 [13/13]

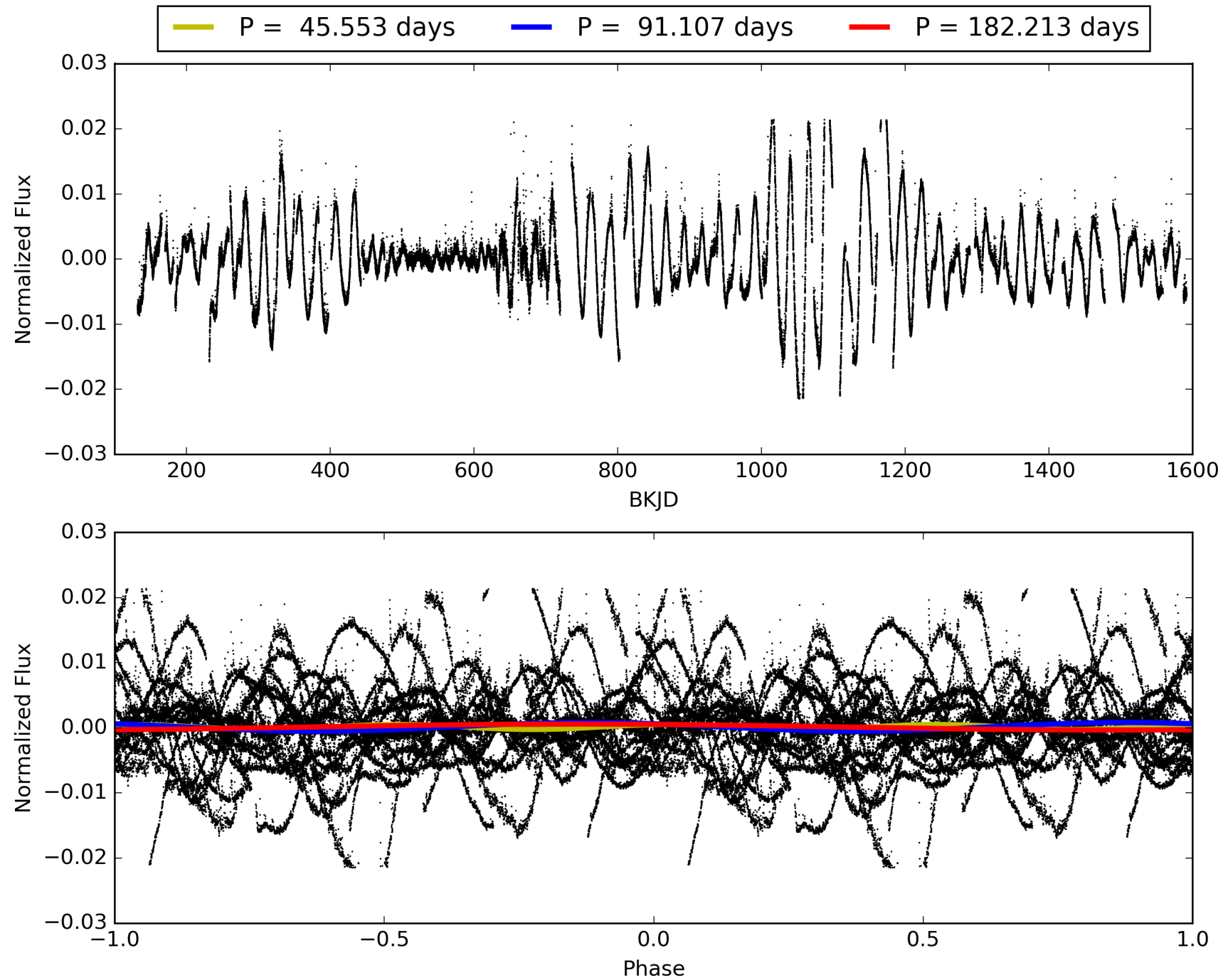
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 10:34:37 Z

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

TCE 006611875-01, PDC Light Curves

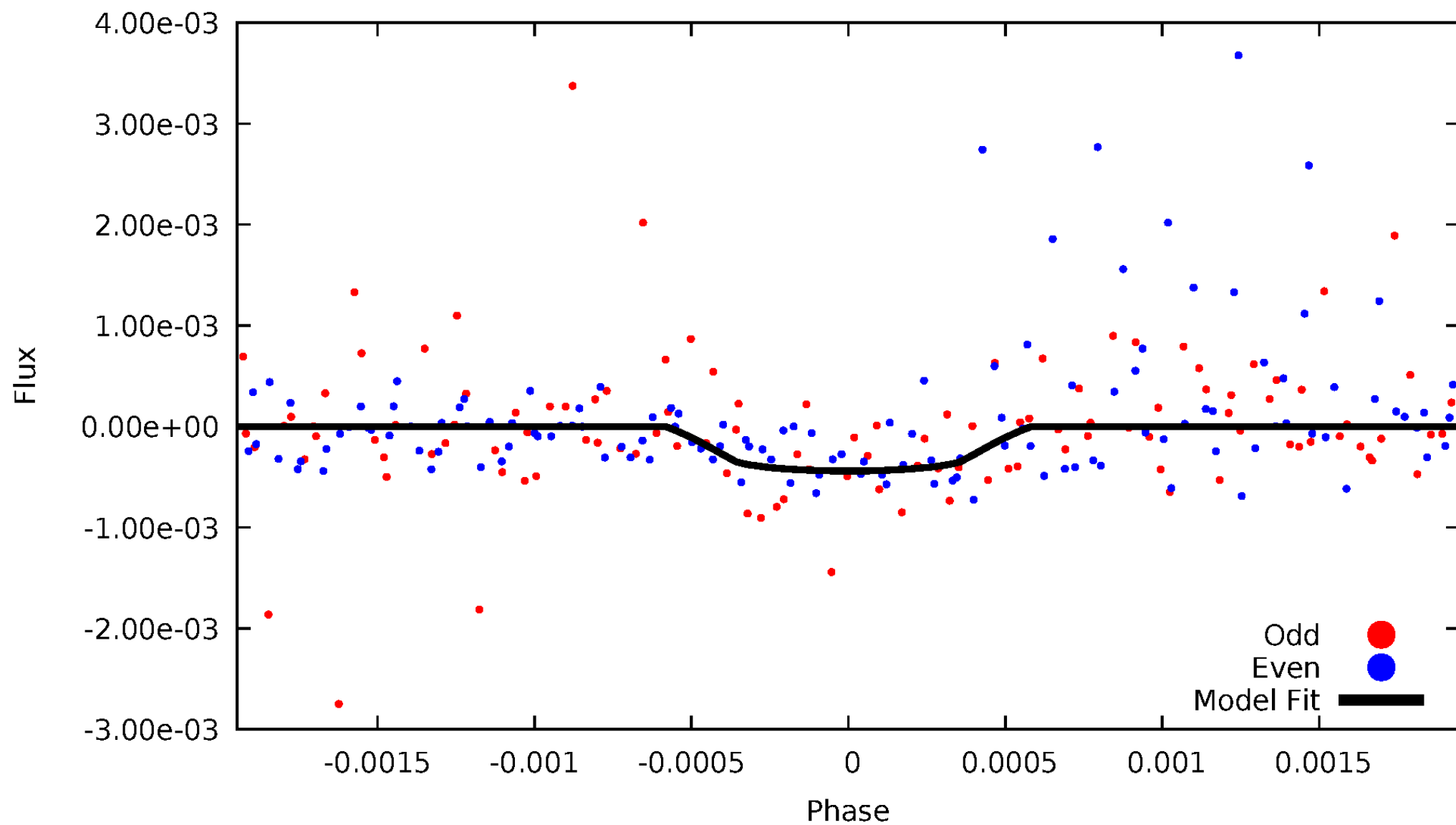


TCE 006611875-01



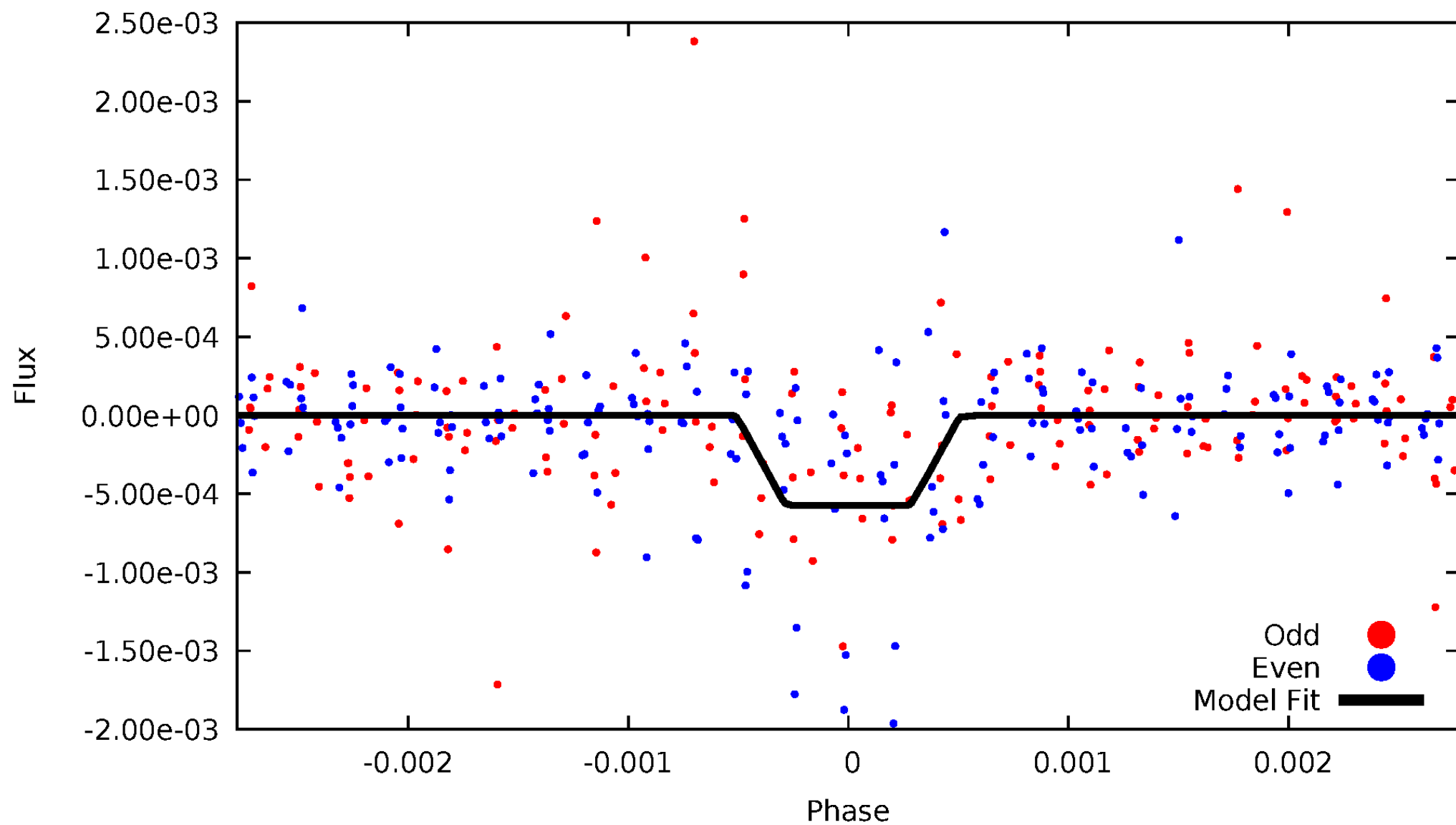
DV Odd/Even

TCE 006611875-01



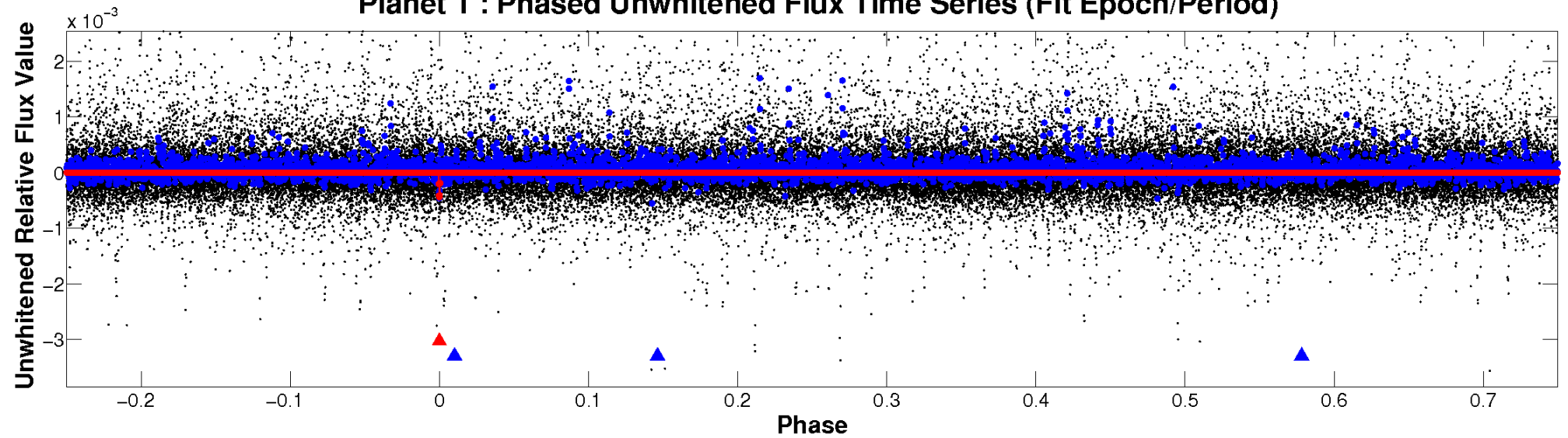
ALT Odd/Even

TCE 006611875-01

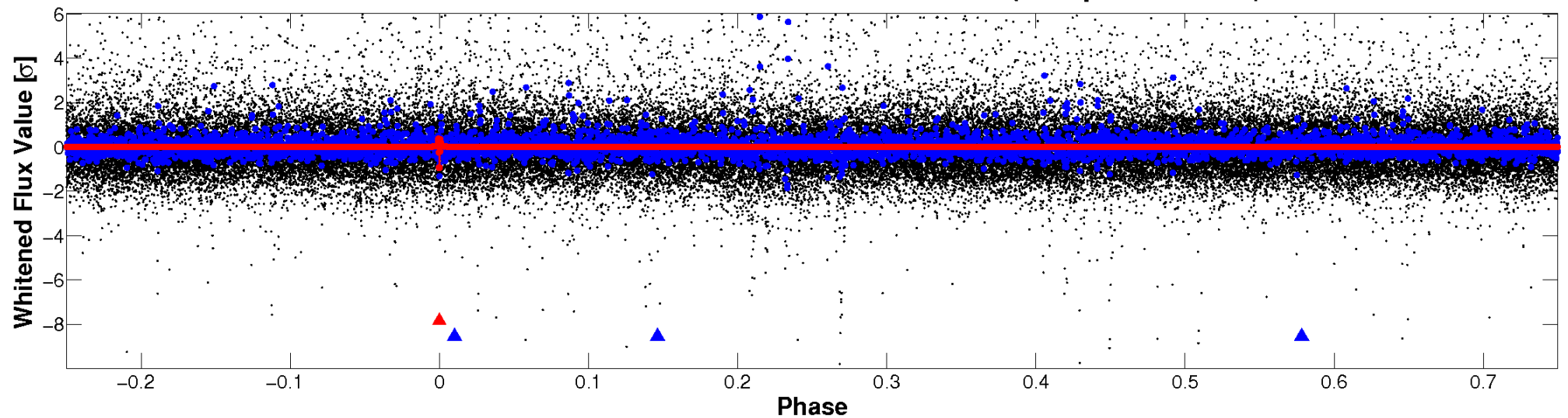


Non-Whitened Vs. Whitened Light Curve

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

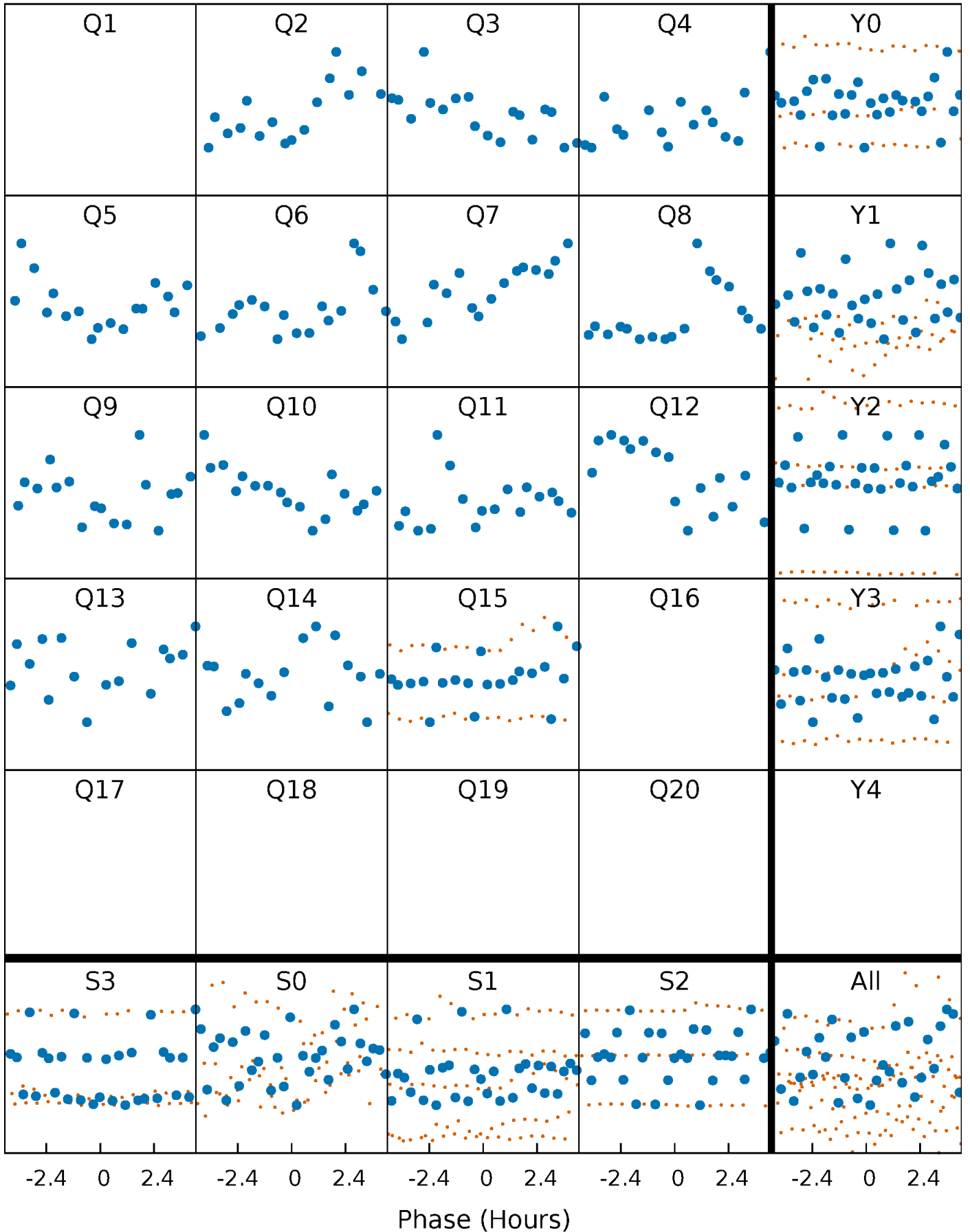


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



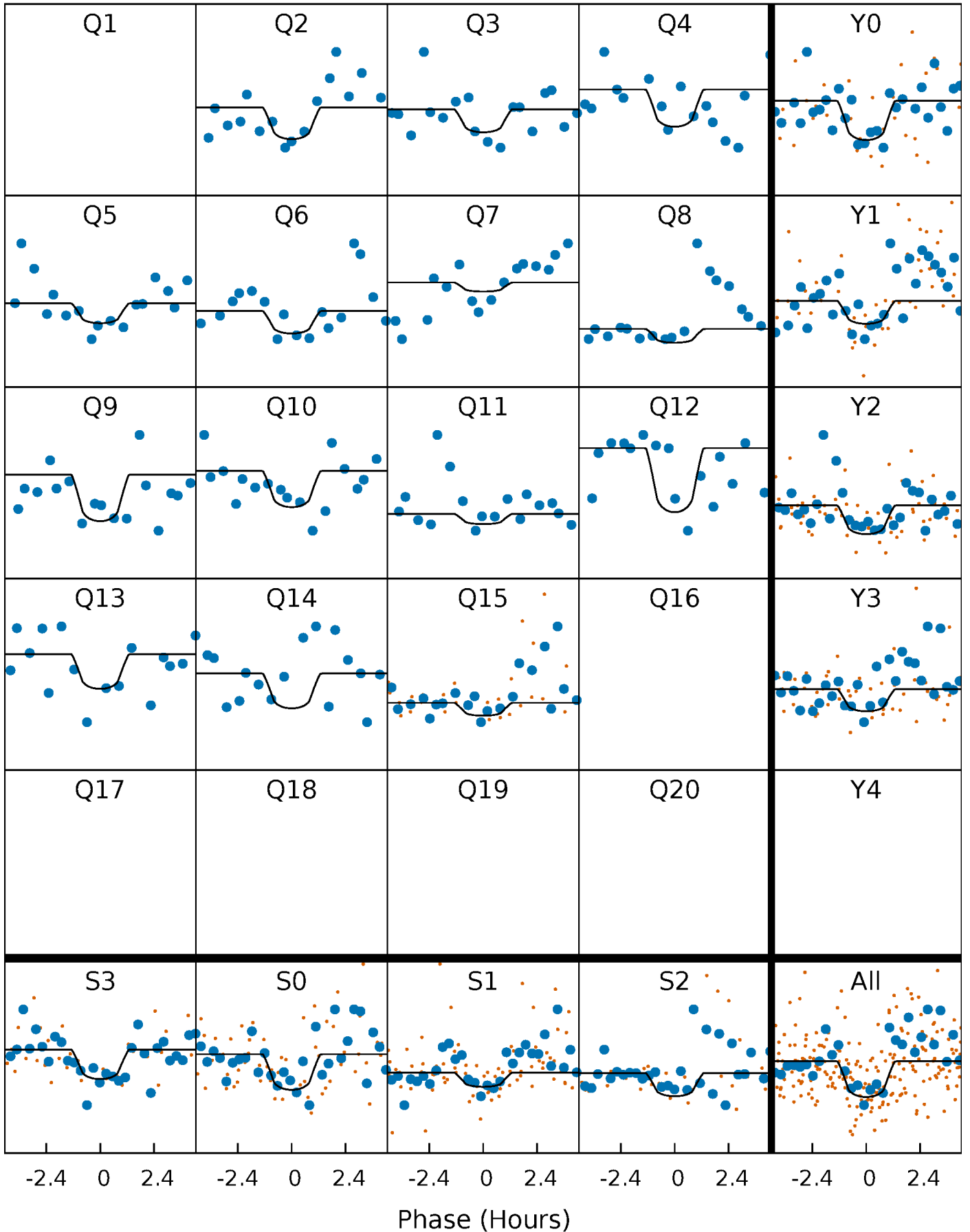
PDC Quarter-Phased Transit Curves

TCE 006611875-01 P= 91.106737 Days $T_0=191.748877$ (BKJD)



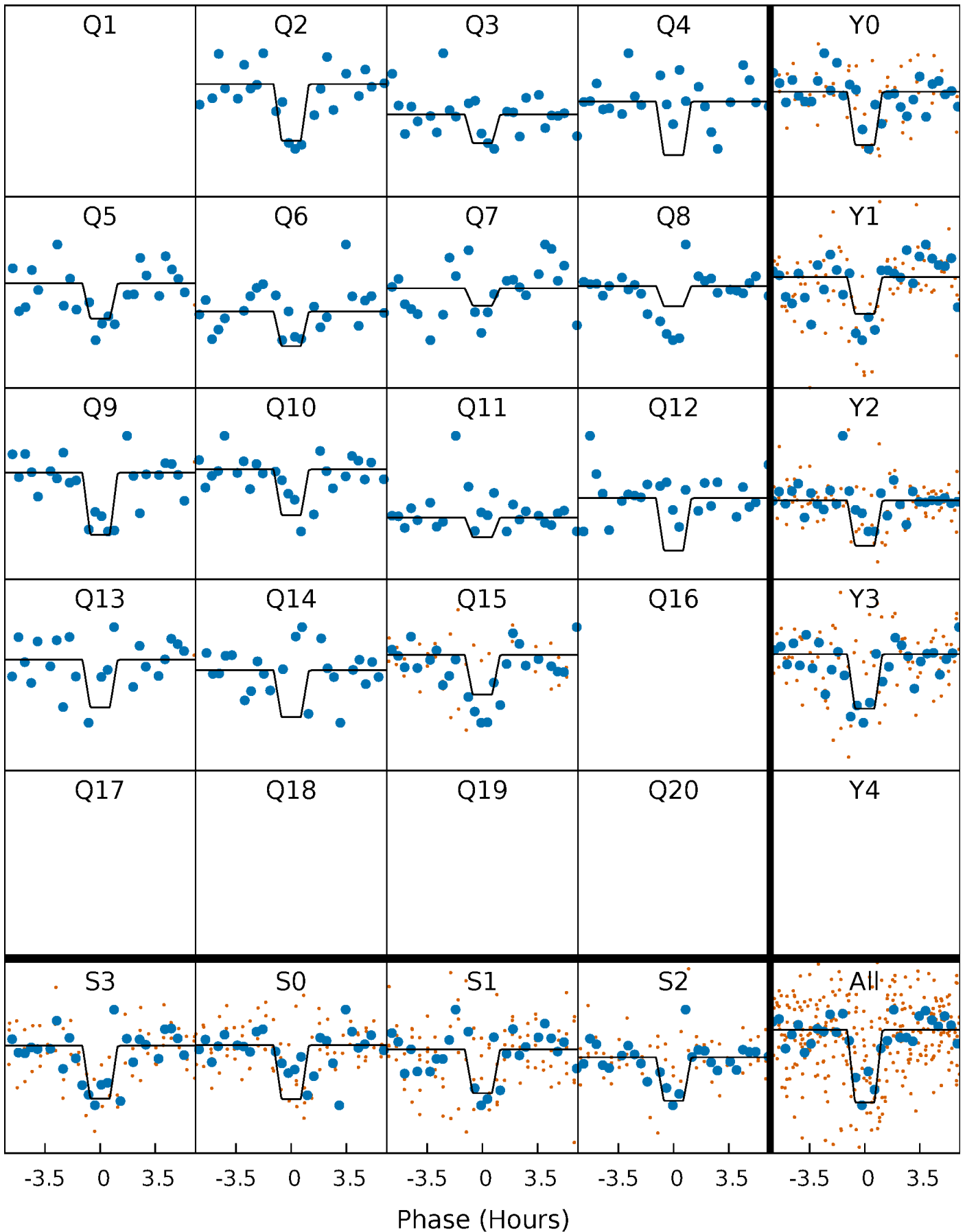
DV Quarter-Phased Transit Curves

TCE 006611875-01 P= 91.106737 Days $T_0=191.748877$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

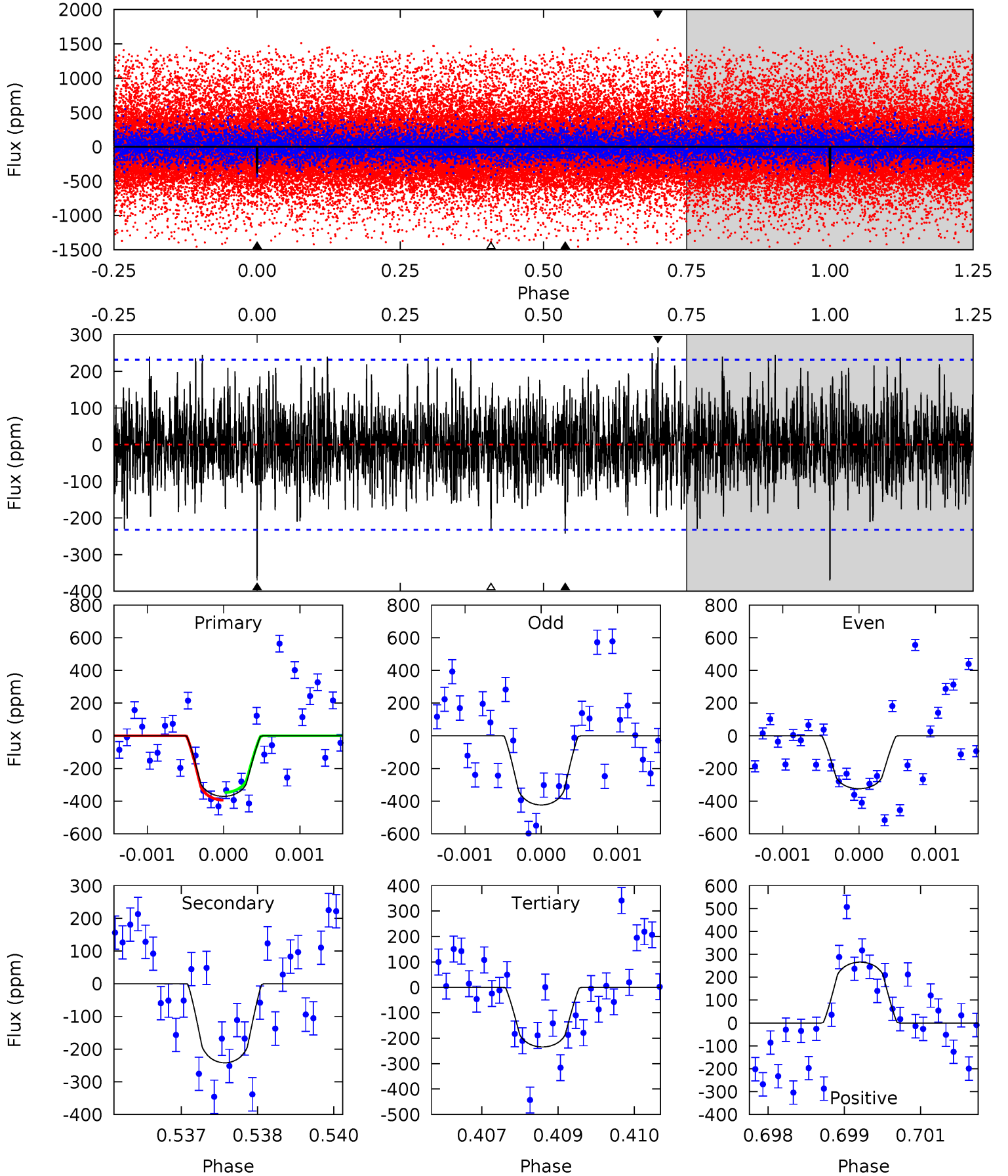
TCE 006611875-01 P= 91.108454 Days $T_0=191.737650$ (BKJD)



DV Model-Shift Uniqueness Test

006611875-01, $P = 91.106737$ Days, $E = 100.642140$ Days

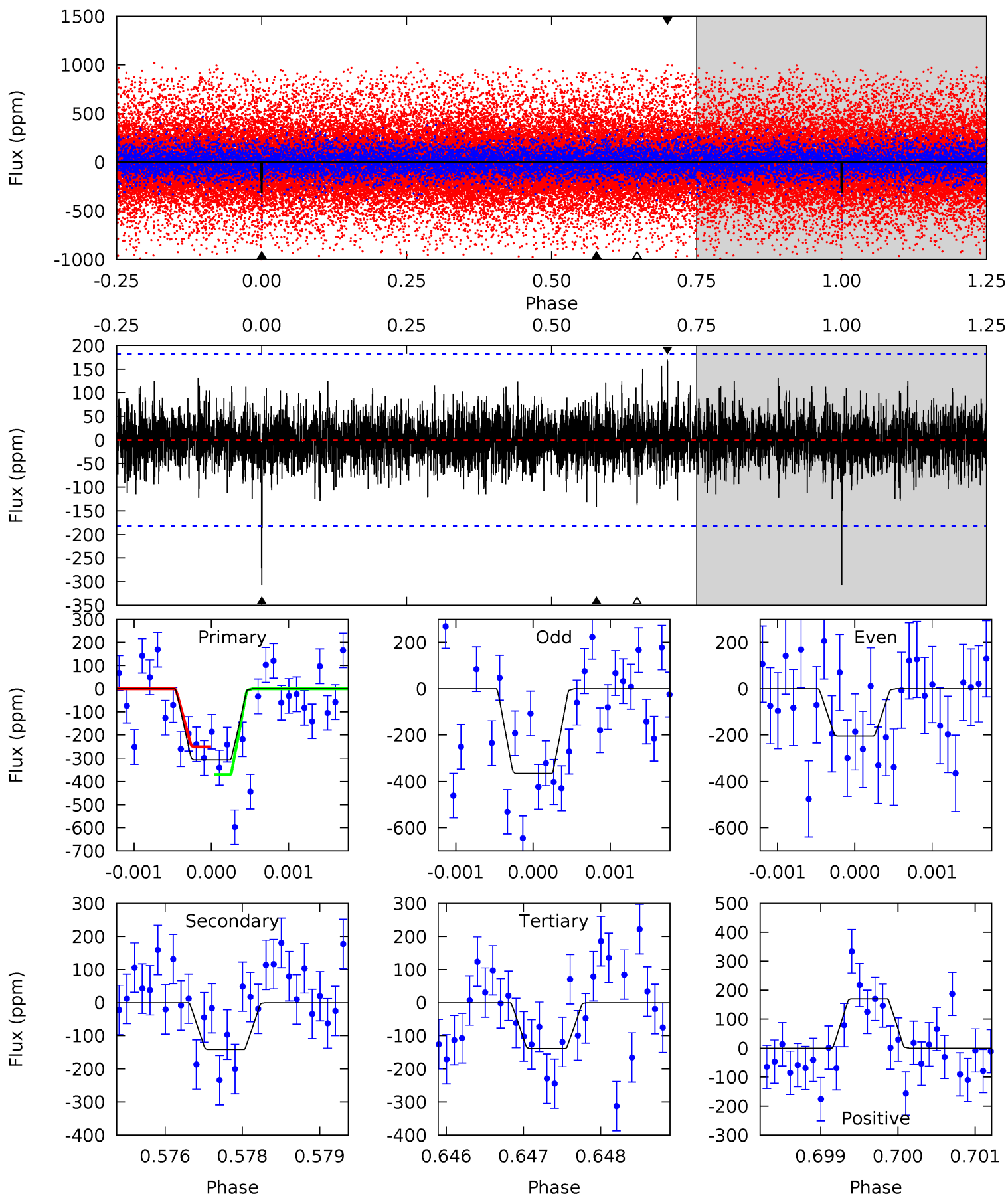
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.65	5.65	5.47	6.20	5.42	3.24	1.75	3.18	2.45	0.17	-0.55	1.15	0.77	0.42	0.55



Alt Model-Shift Uniqueness Test

006611875-01, P = 91.108454 Days, E = 100.629196 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.13	4.22	4.12	5.06	5.43	3.26	1.12	5.01	4.07	0.10	-0.84	2.40	1.32	0.36	1.79



Stellar Parameters For KIC 006611875

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3384^{+44}_{-37}	$4.937^{+0.044}_{-0.032}$	$0.020^{+0.100}_{-0.100}$	$0.310^{+0.035}_{-0.035}$	$0.302^{+0.044}_{-0.036}$	$14.330^{+3.328}_{-2.459}$
	+1%/-1%	+1%/-1%	+500%/-500%	+11%/-11%	+15%/-12%	+23%/-17%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006611875-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-242 ± 43	$1.06^{+1.08}_{-0.73}$	225^{+5}_{-5}	2768^{+1137}_{-449}	8493^{+74290}_{-6447}
Alt.	-142 ± 34	$1.20^{+1.02}_{-0.78}$	225^{+5}_{-5}	2487^{+840}_{-314}	3563^{+25421}_{-2486}

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

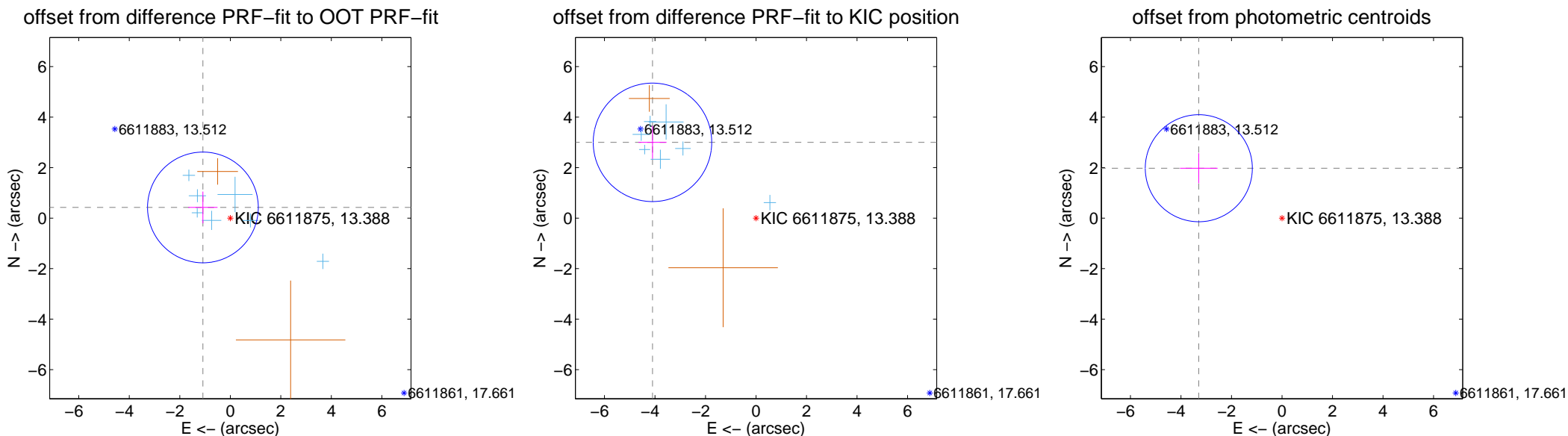
DV Centroid Data

Supplemental centroid analysis for 006611875-01. Kepler magnitude: 13.39. Transit SNR 6.98

There are 7 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 4.66 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.164 ± 0.731	1.59	1.084 ± 0.579	0.423 ± 0.628
PRF-fit source offset from KIC position	5.080 ± 0.782	6.50	4.099 ± 0.558	3.001 ± 0.652
photometric centroid source offset	3.84 ± 0.71	5.44	3.29 ± 0.74	1.98 ± 0.60



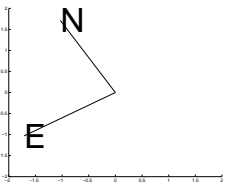
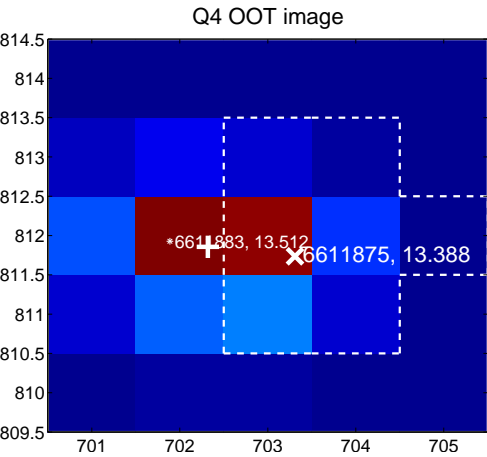
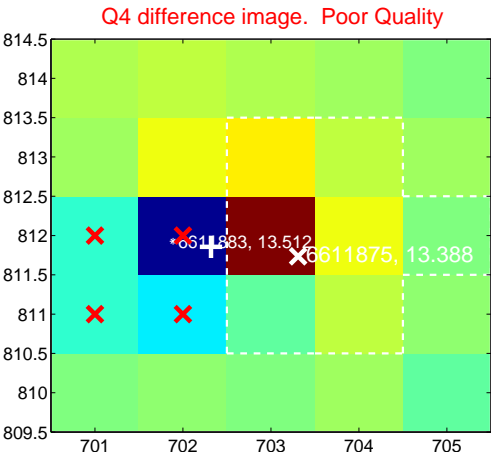
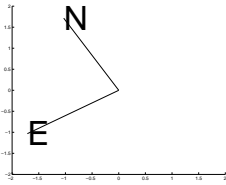
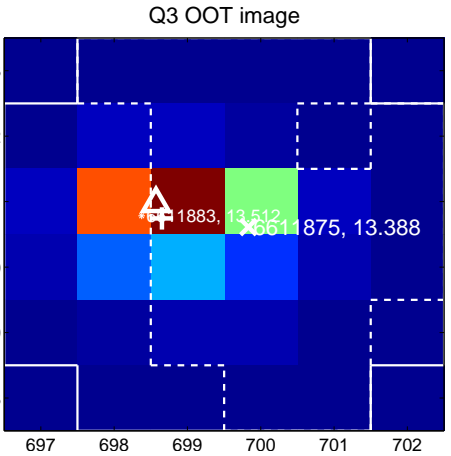
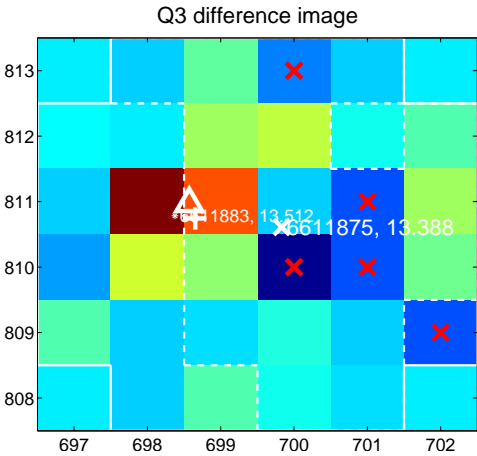
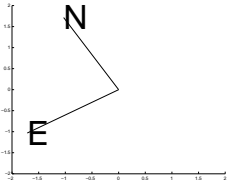
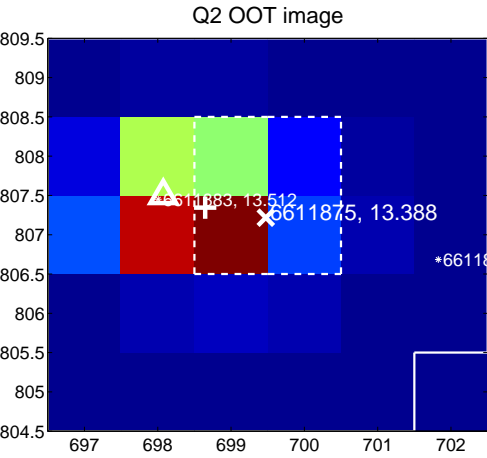
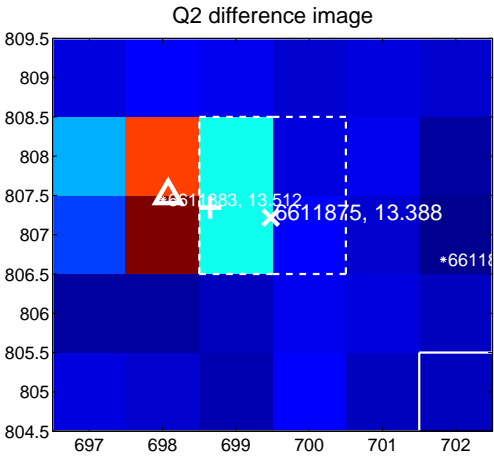
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

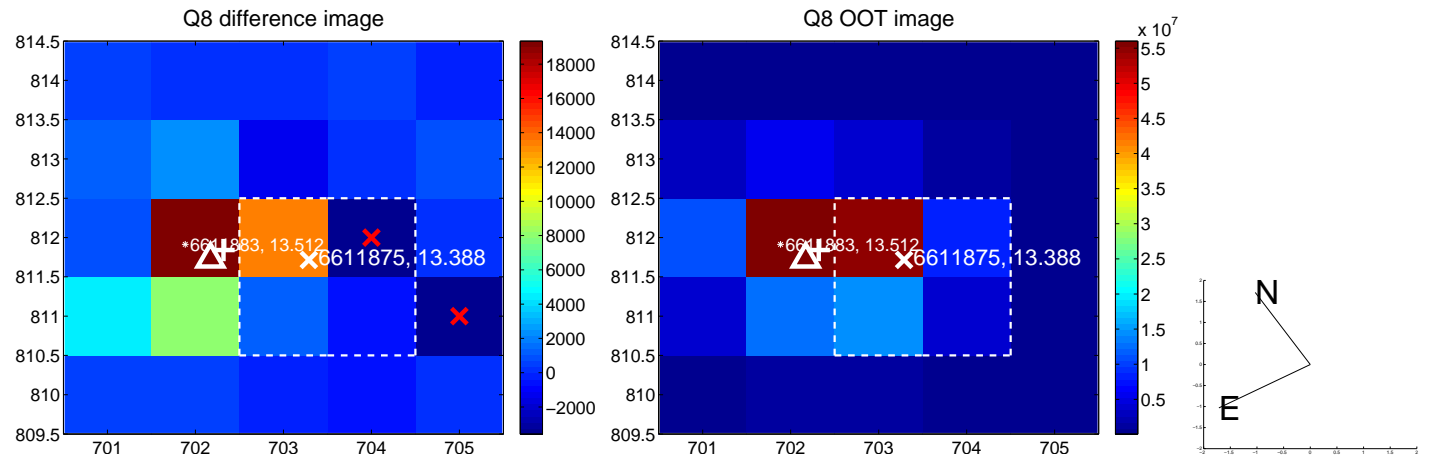
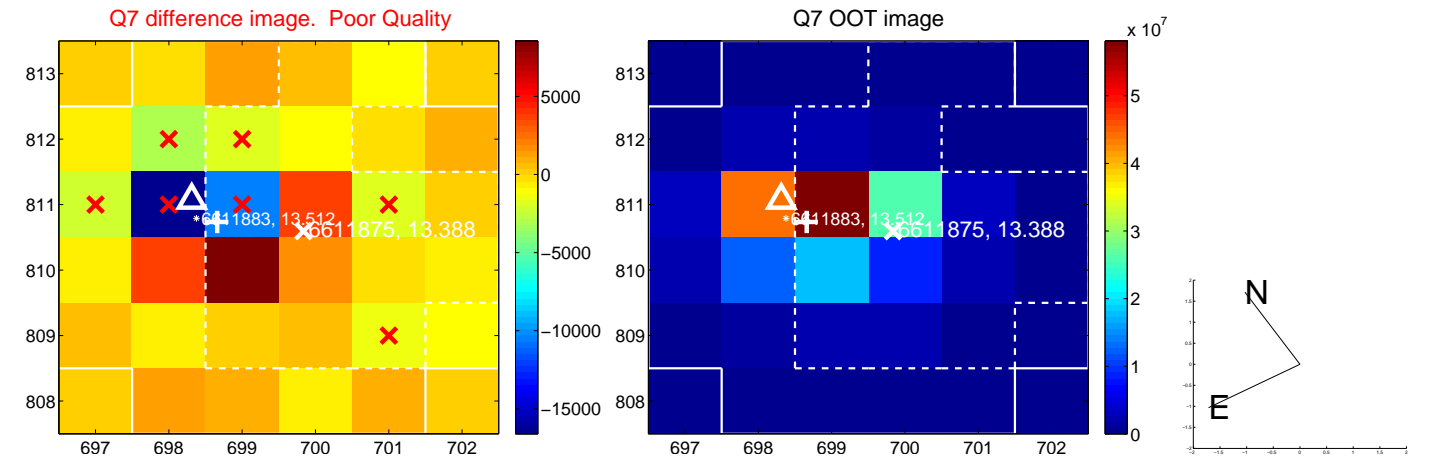
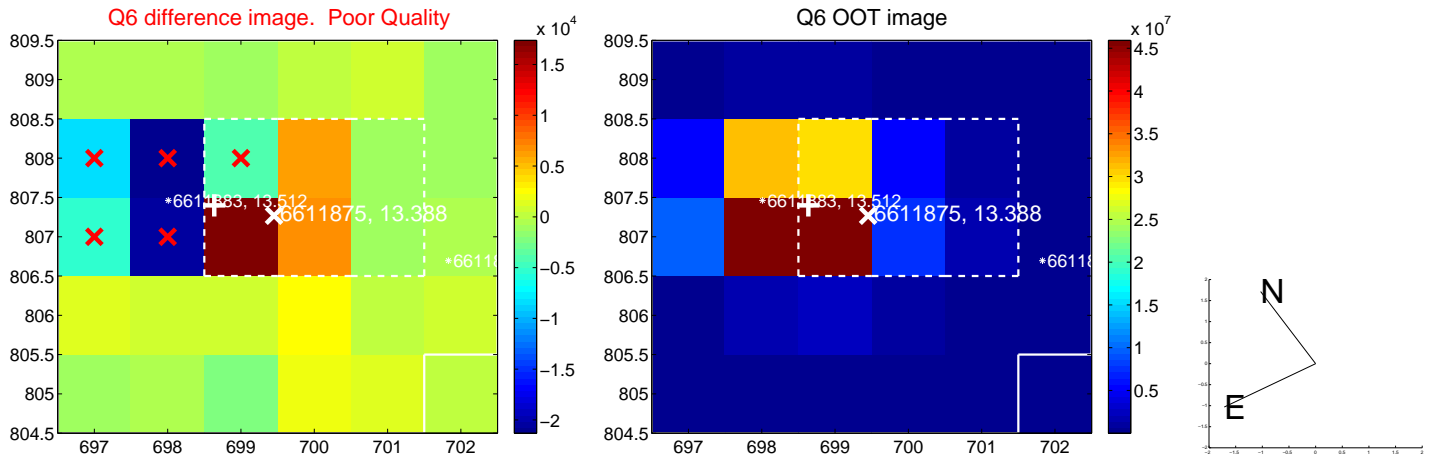
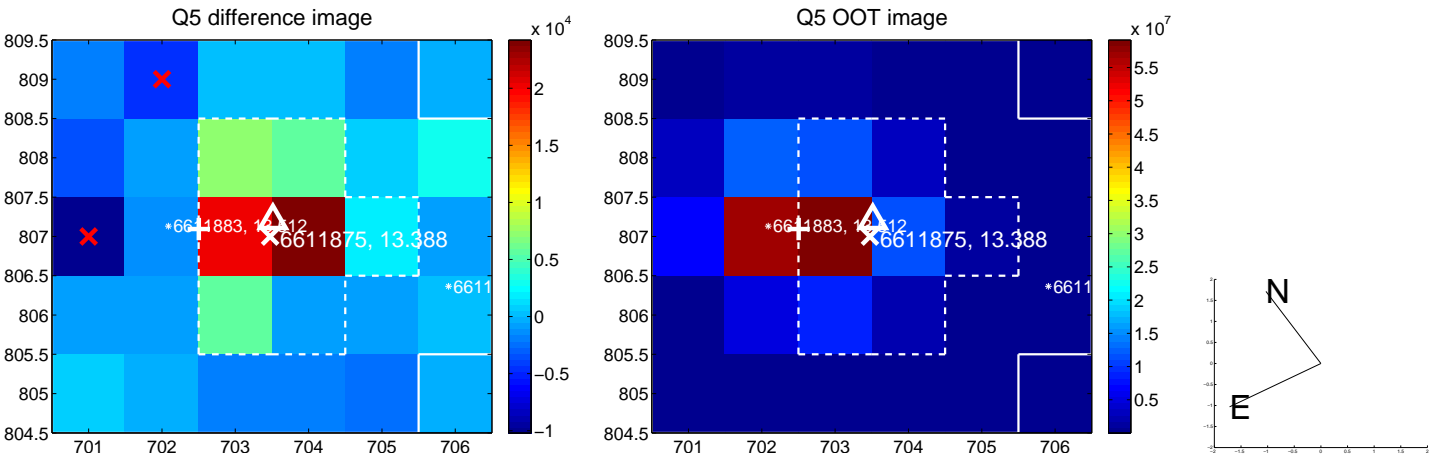
Q1 no difference image



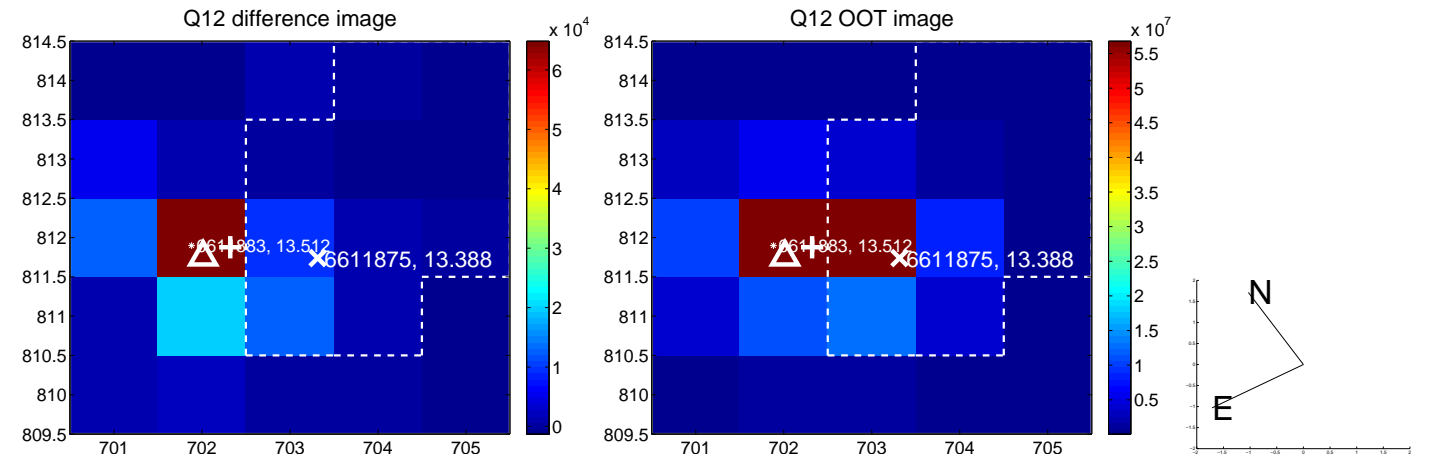
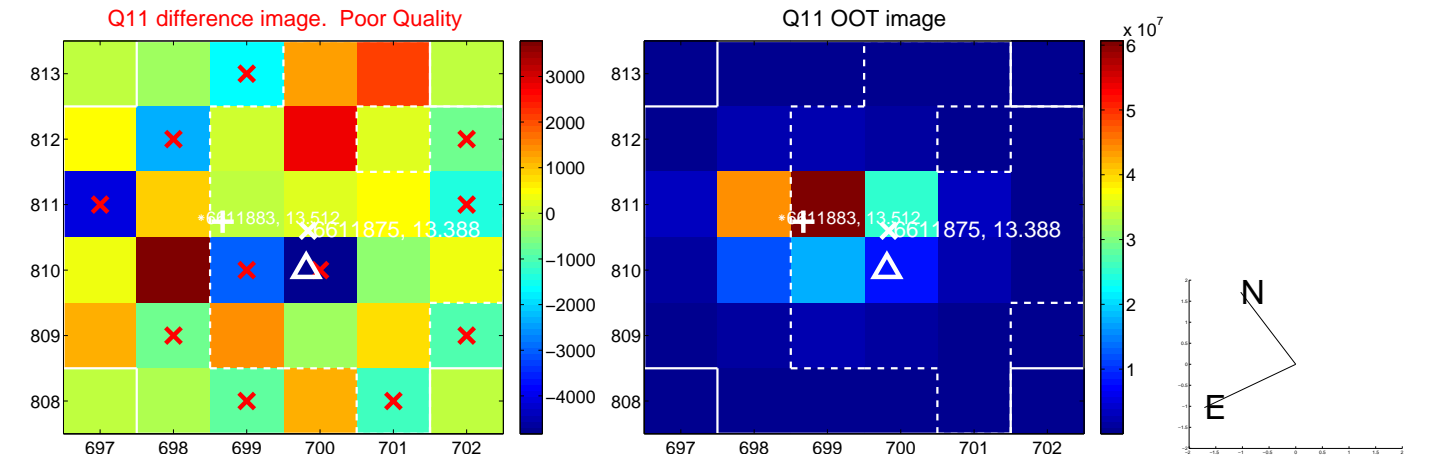
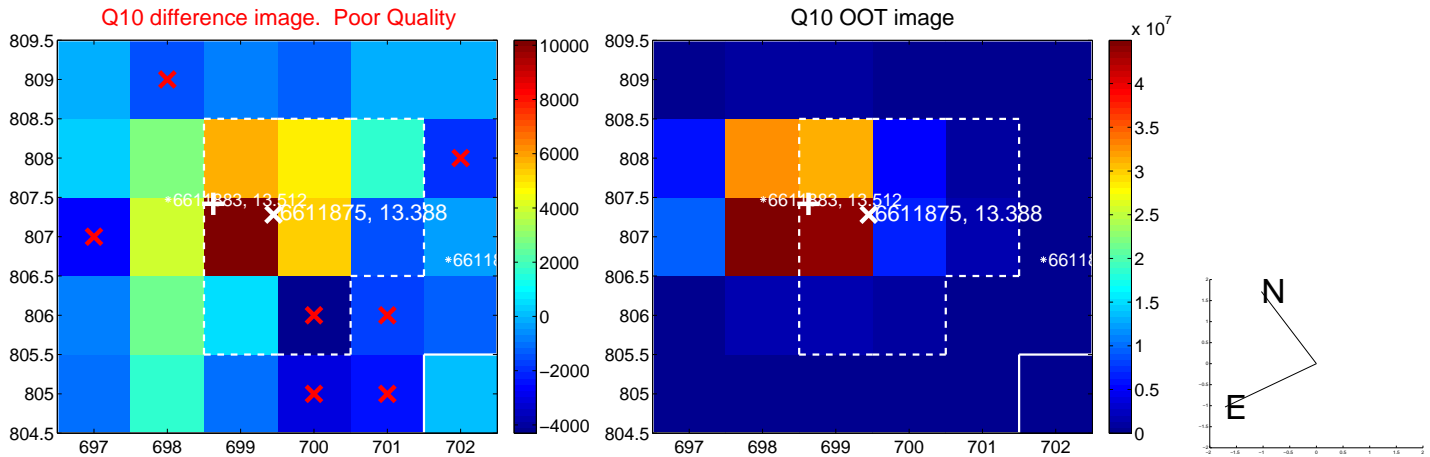
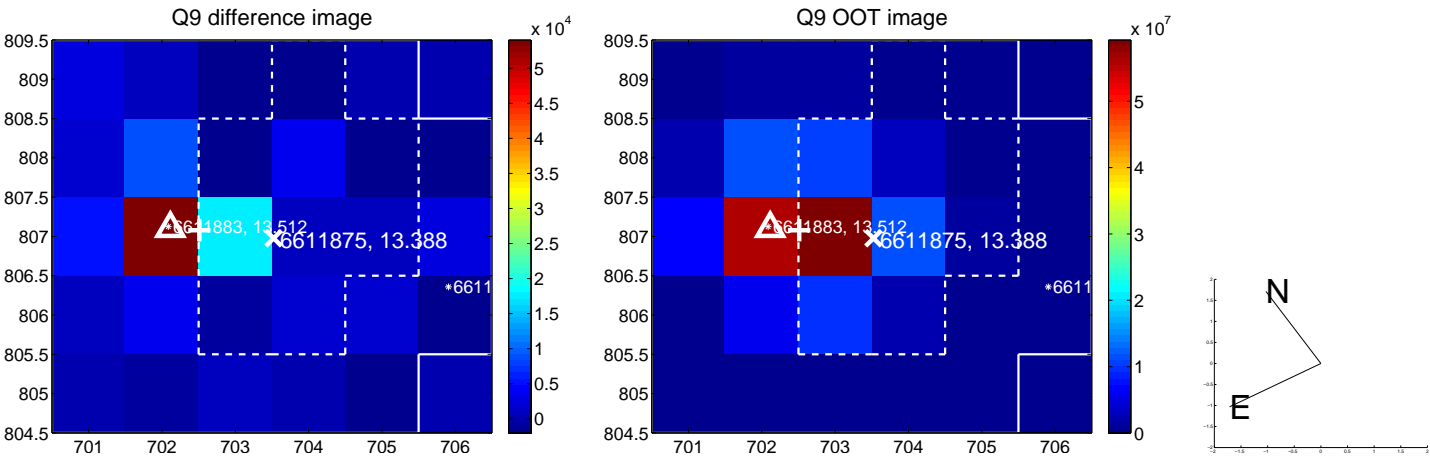
Q1 no OOT image



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



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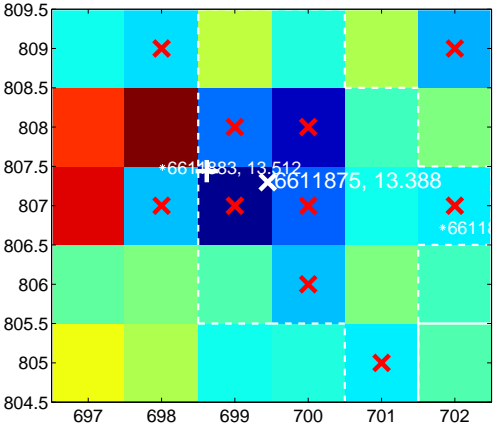
Q13 no difference image



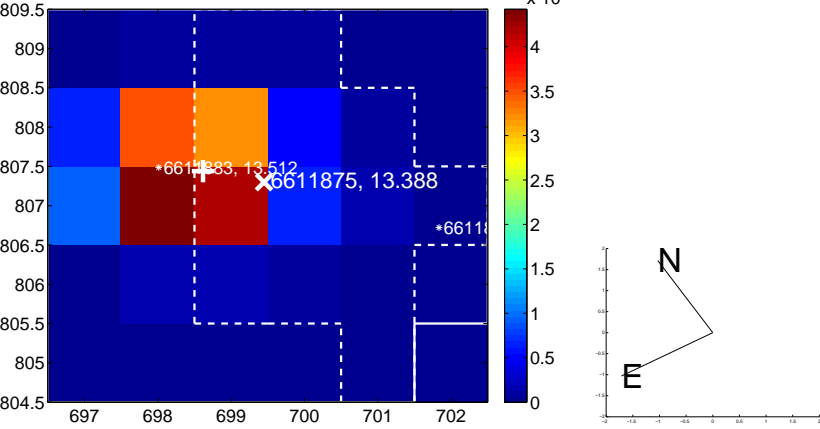
Q13 no OOT image



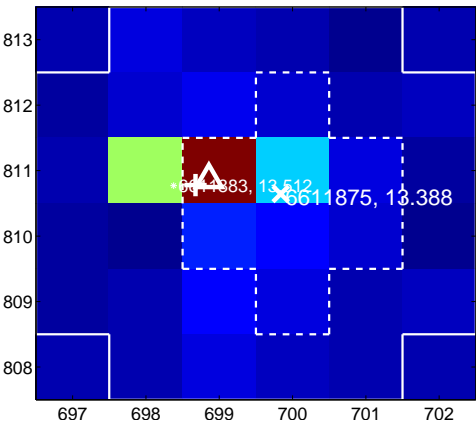
Q14 difference image. Poor Quality



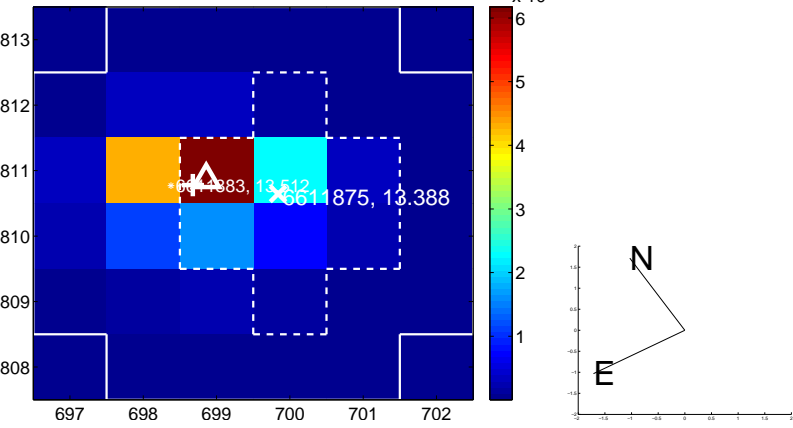
Q14 OOT image



Q15 difference image



Q15 OOT image



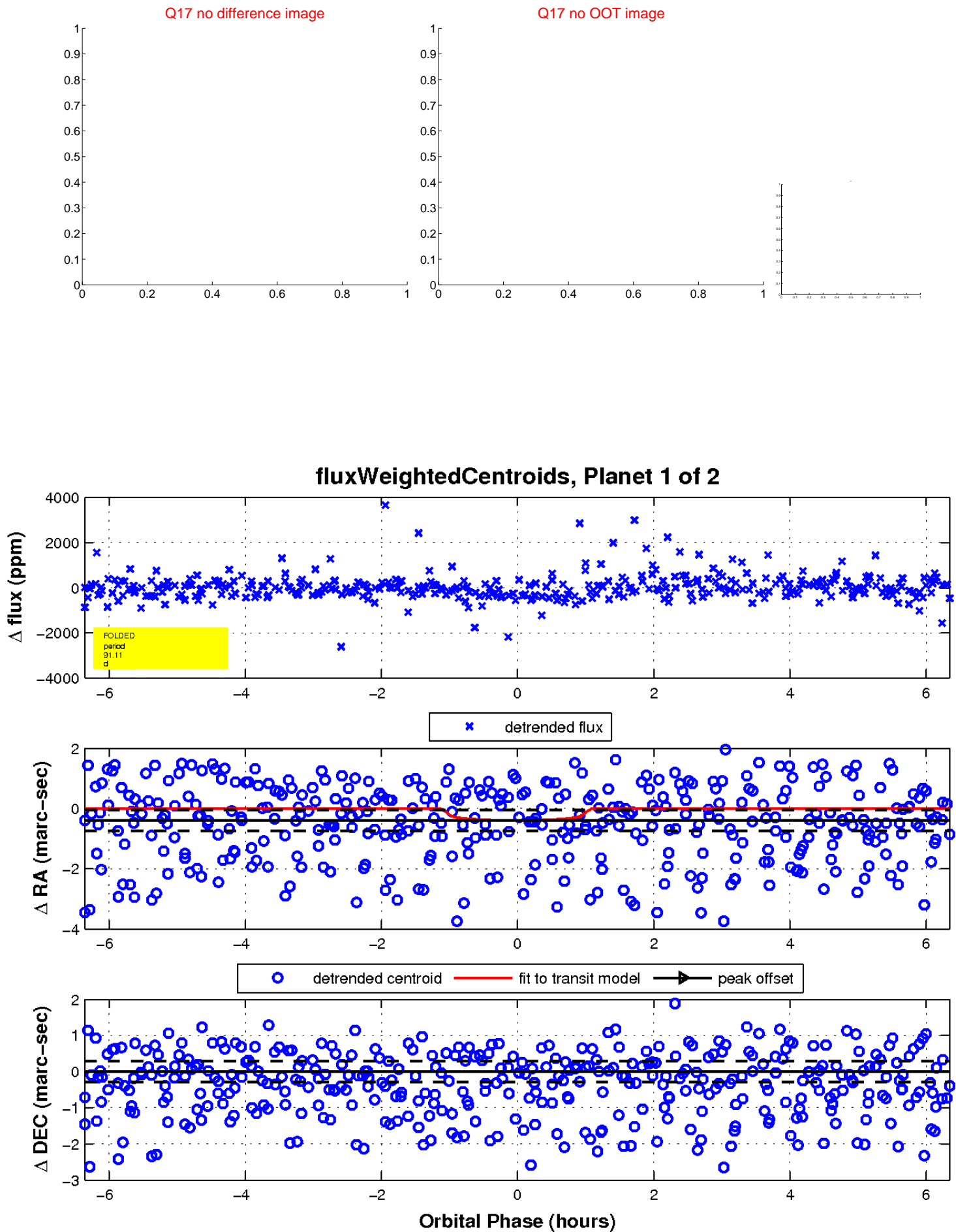
Q16 no difference image



Q16 no OOT image

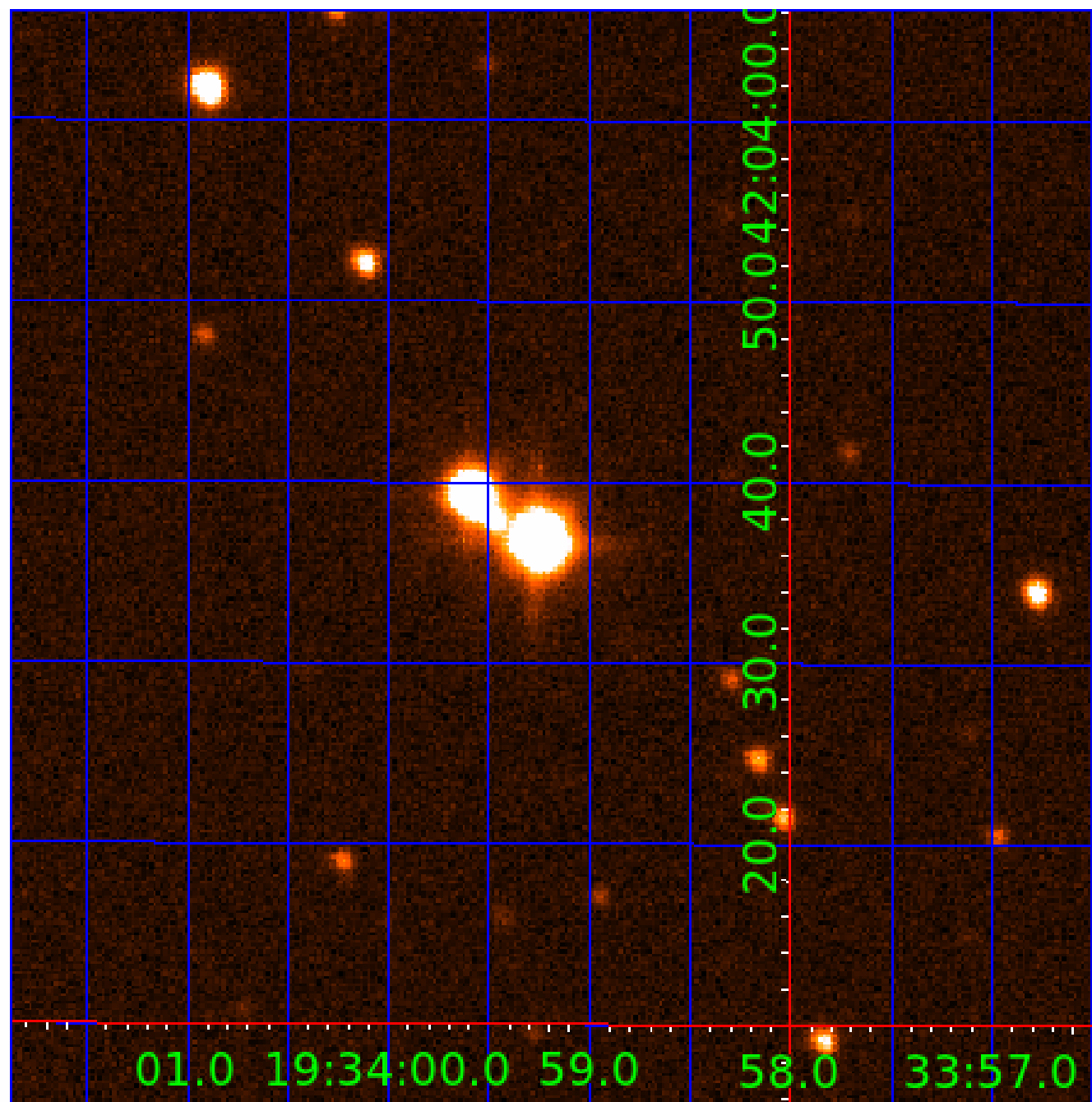


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006611875

Q1-17 DR25 TCE Parameters

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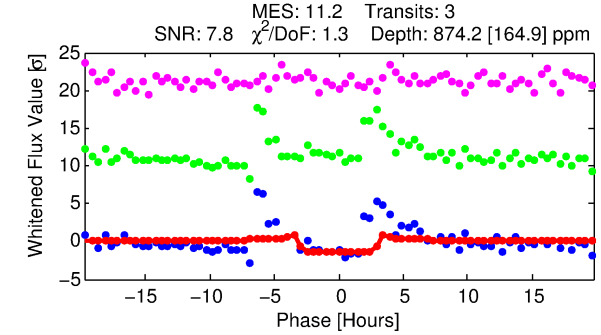
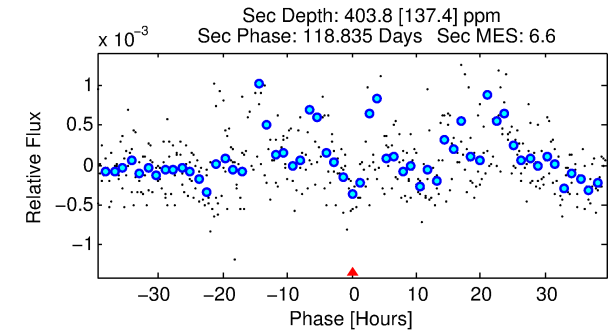
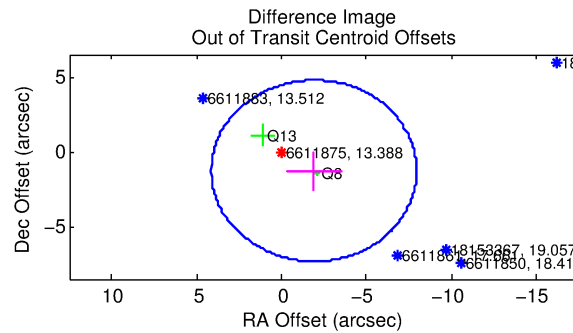
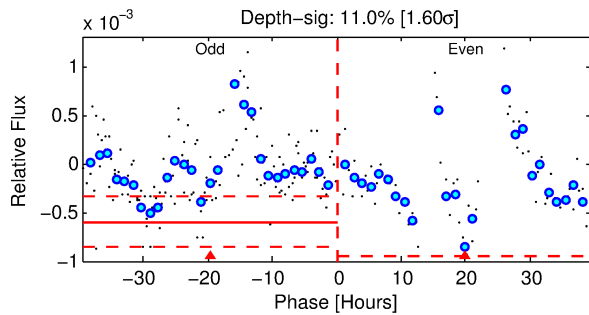
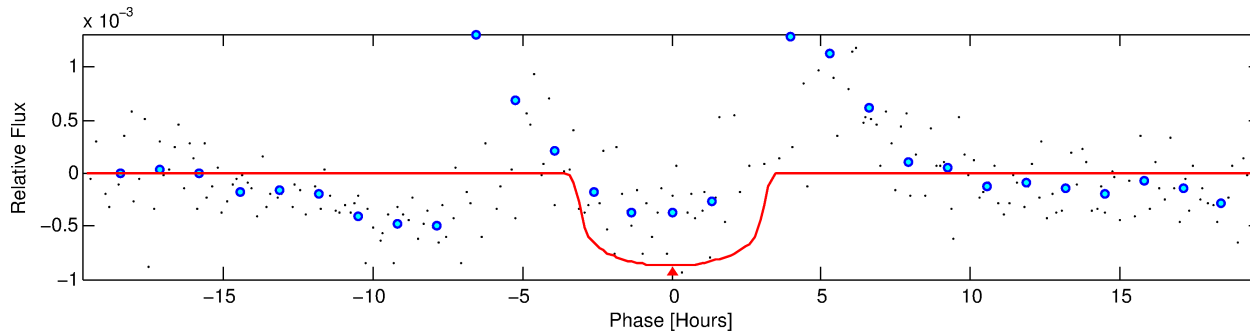
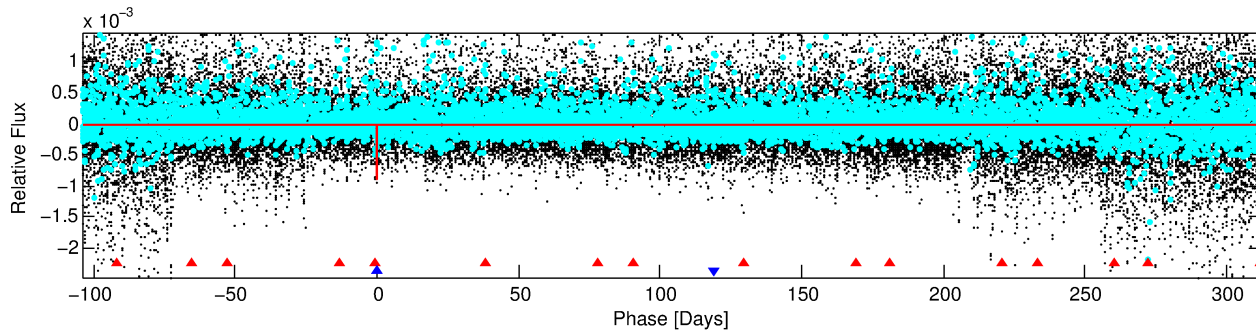
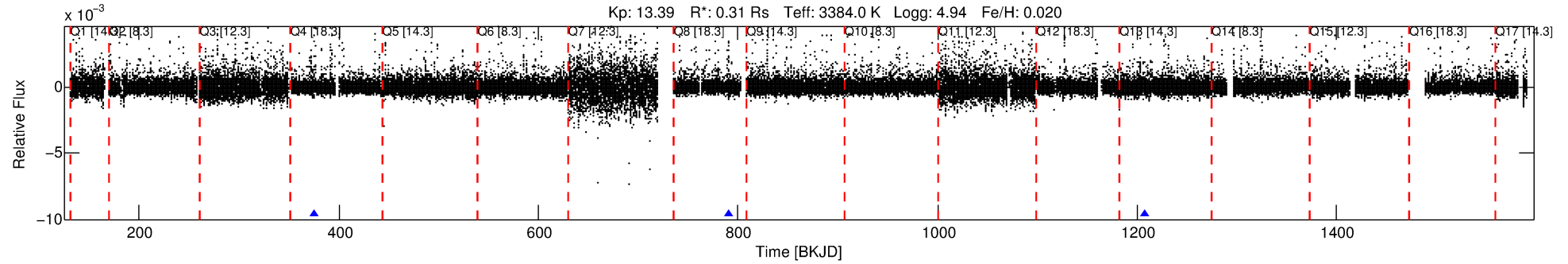
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006611875-02

No Significant Match Found

DV One-Page Summary

KIC: 6611875 Candidate: 2 of 2 Period: 416.180 d



DV Fit Results:

Period = 416.17961 [0.00859] d
Epoch = 374.8927 [0.0114] BKJD
Rp/R* = 0.0283 [0.0201]
a/R* = 389.53 [1131.77]
b = 0.64 [2.71]
Seff = 0.02 [0.00]
Teq = 97 [3] K
Rp = 0.96 [0.69] Re
a = 0.7330 [0.0605] AU
Ag = 129800.06 [189825.44] [0.68 σ]
Teffp = 2849 [1040] K [2.65 σ]

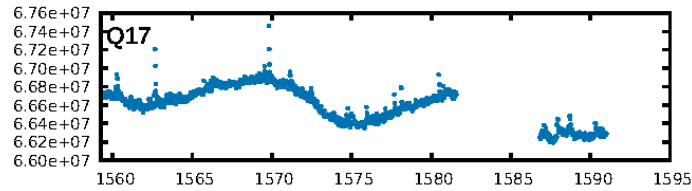
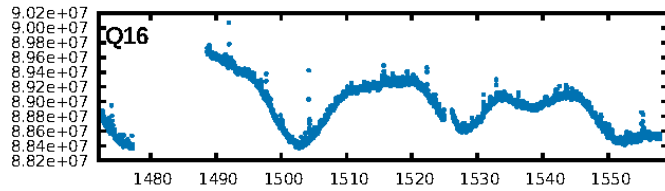
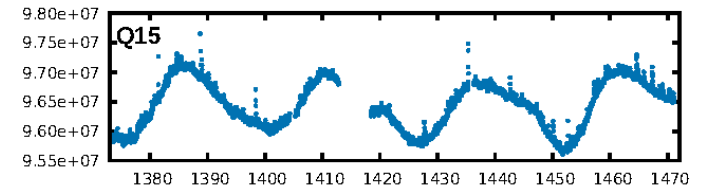
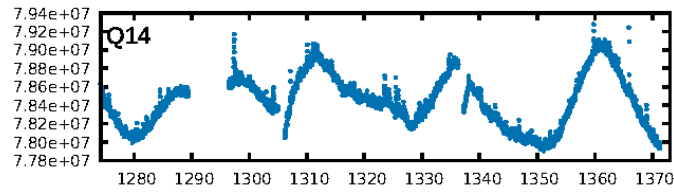
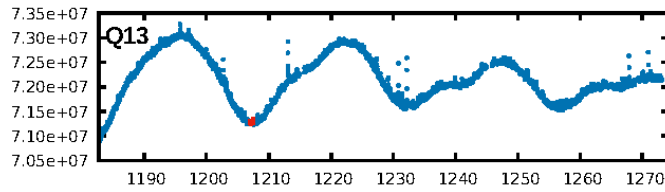
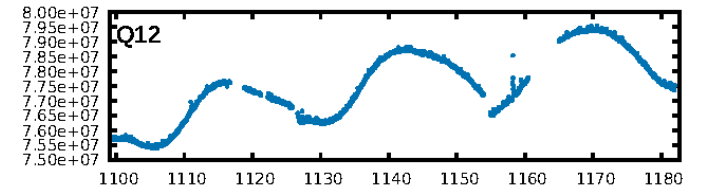
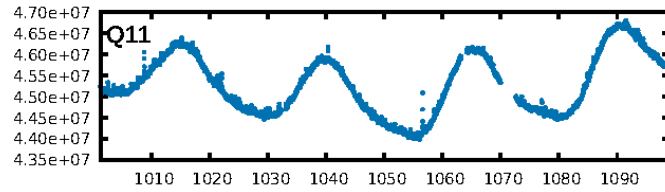
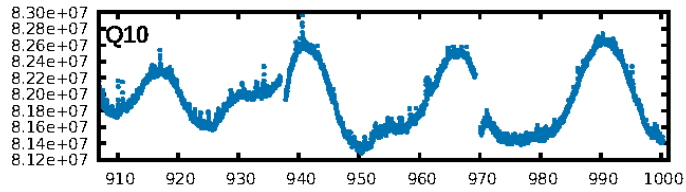
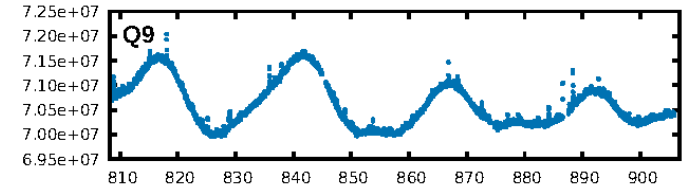
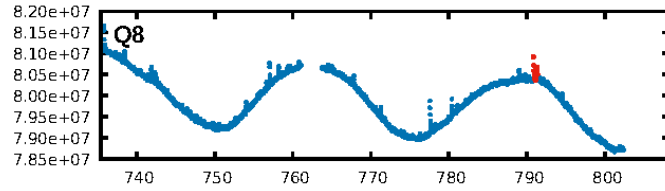
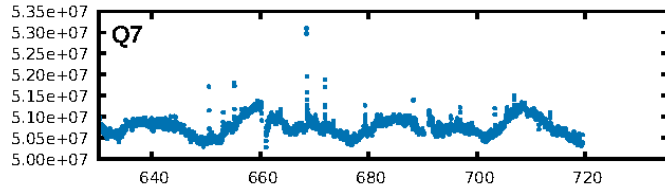
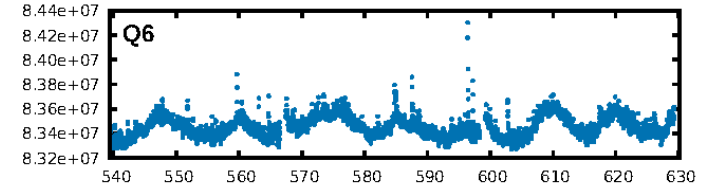
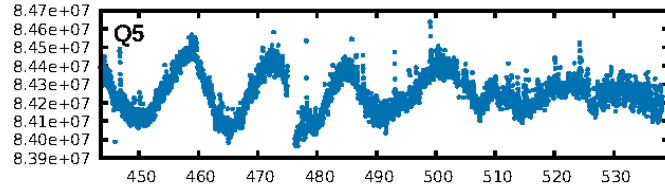
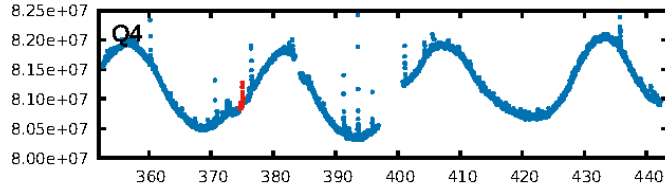
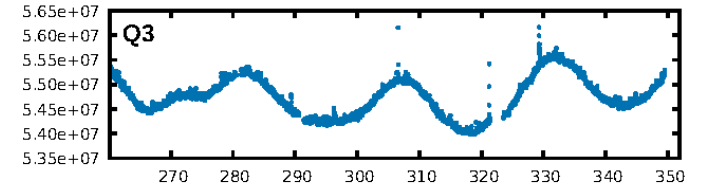
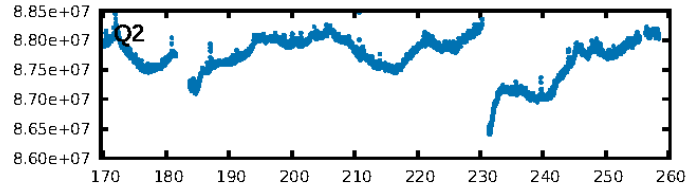
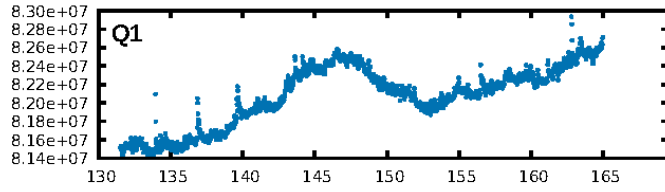
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1127.84 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 69.8%
Bootstrap-pfa: 6.67e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -15.01
Centroid-sig: 19.4%
Centroid-so: 2.307 arcsec [2.99 σ]
OotOffset-rm: 2.307 arcsec [1.14 σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-rm: 1.697 arcsec [1.66 σ]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

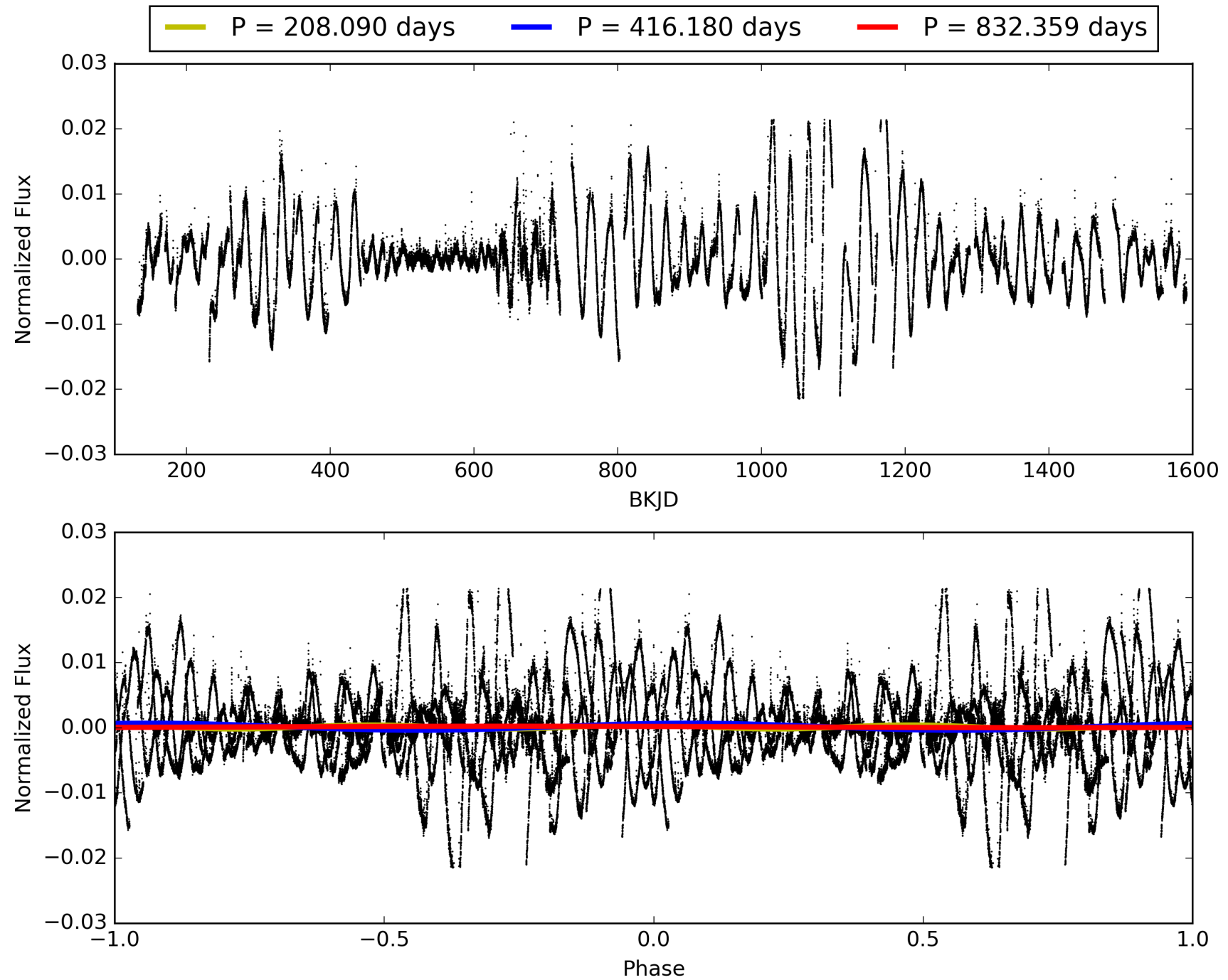
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 10:34:49 Z

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

TCE 006611875-02, PDC Light Curves

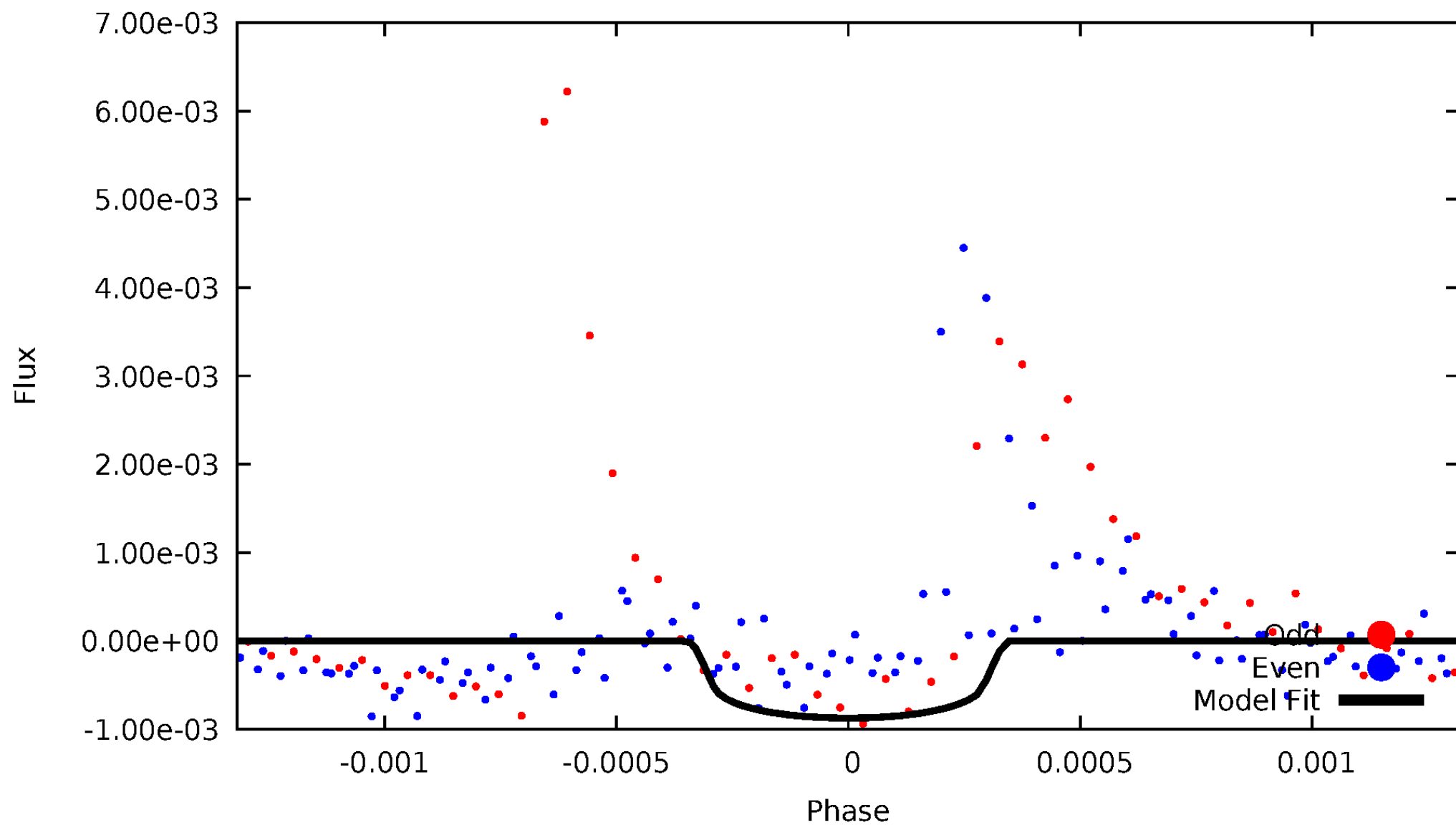


TCE 006611875-02



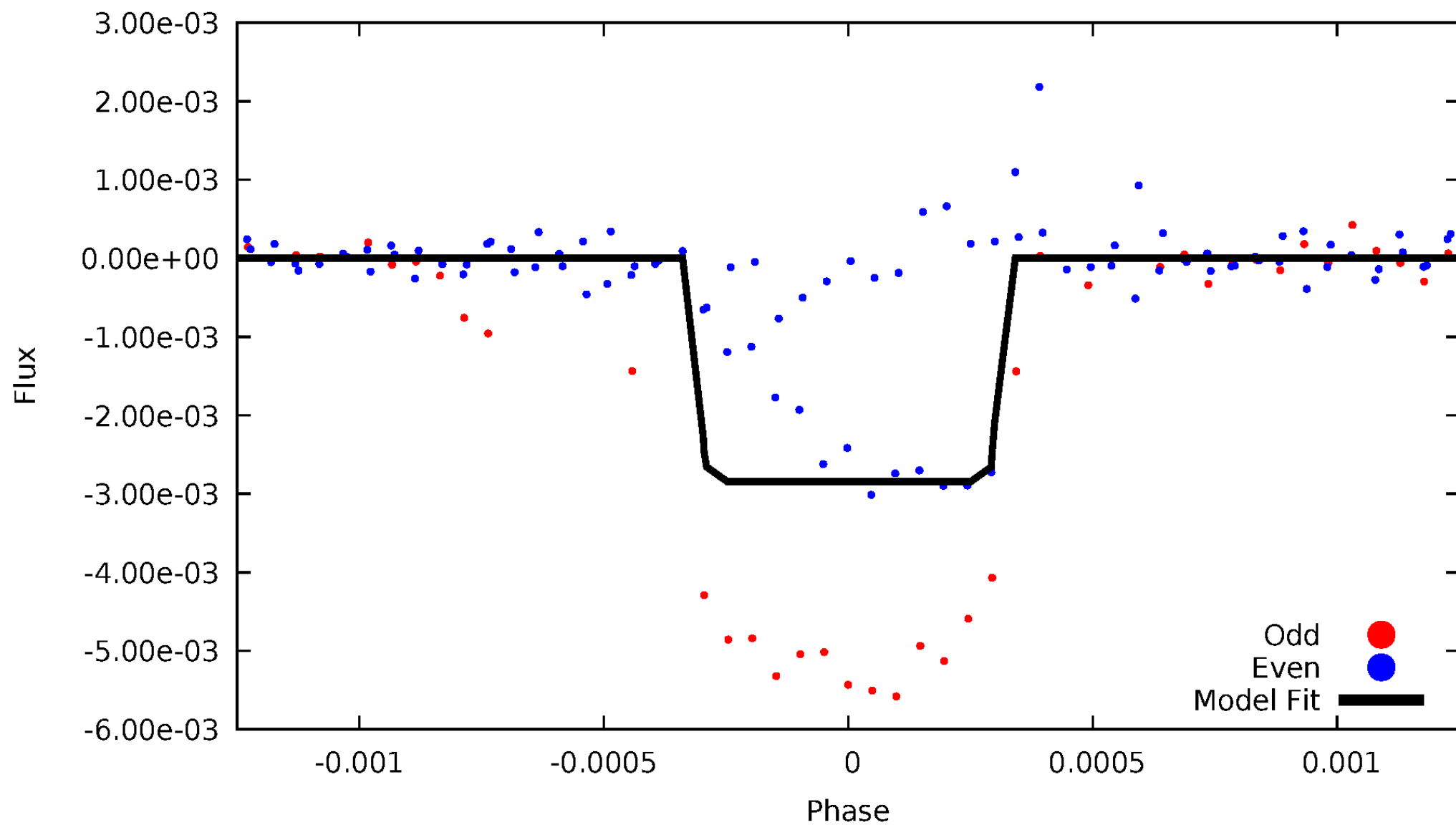
DV Odd/Even

TCE 006611875-02



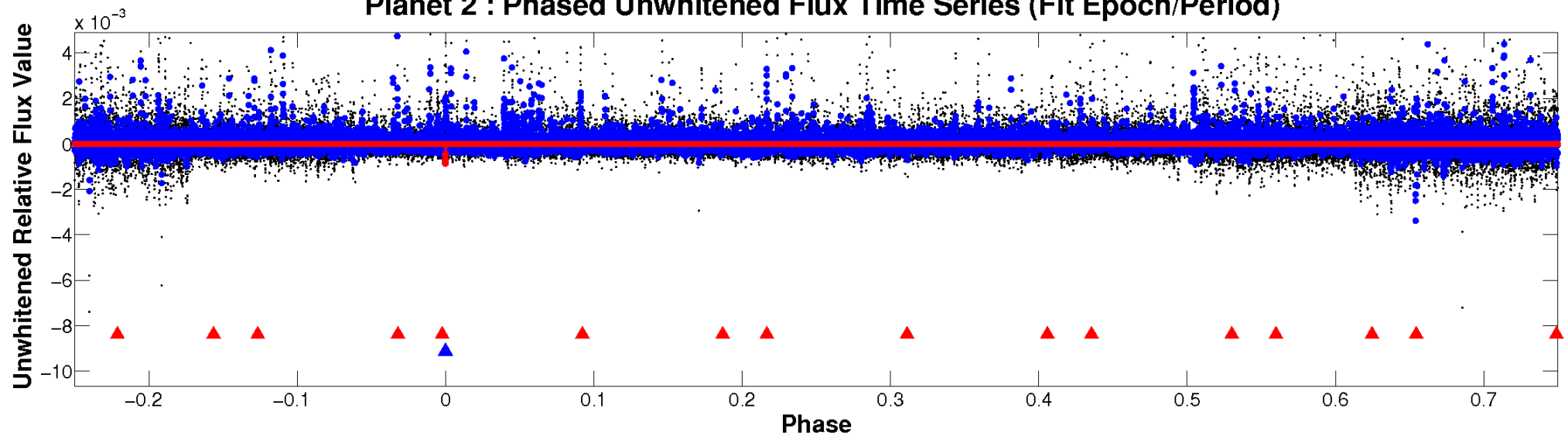
ALT Odd/Even

TCE 006611875-02

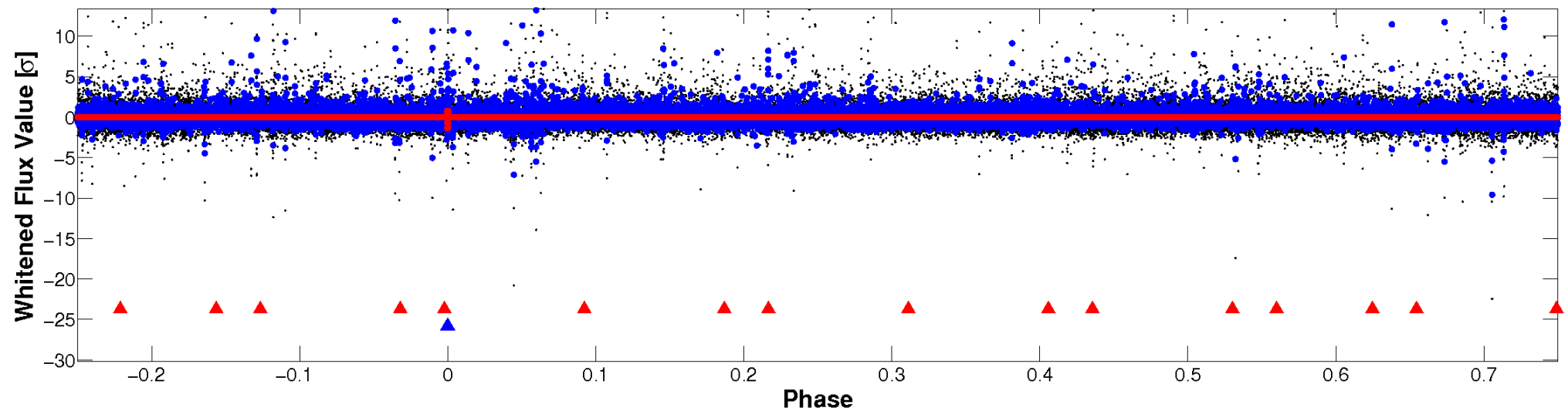


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

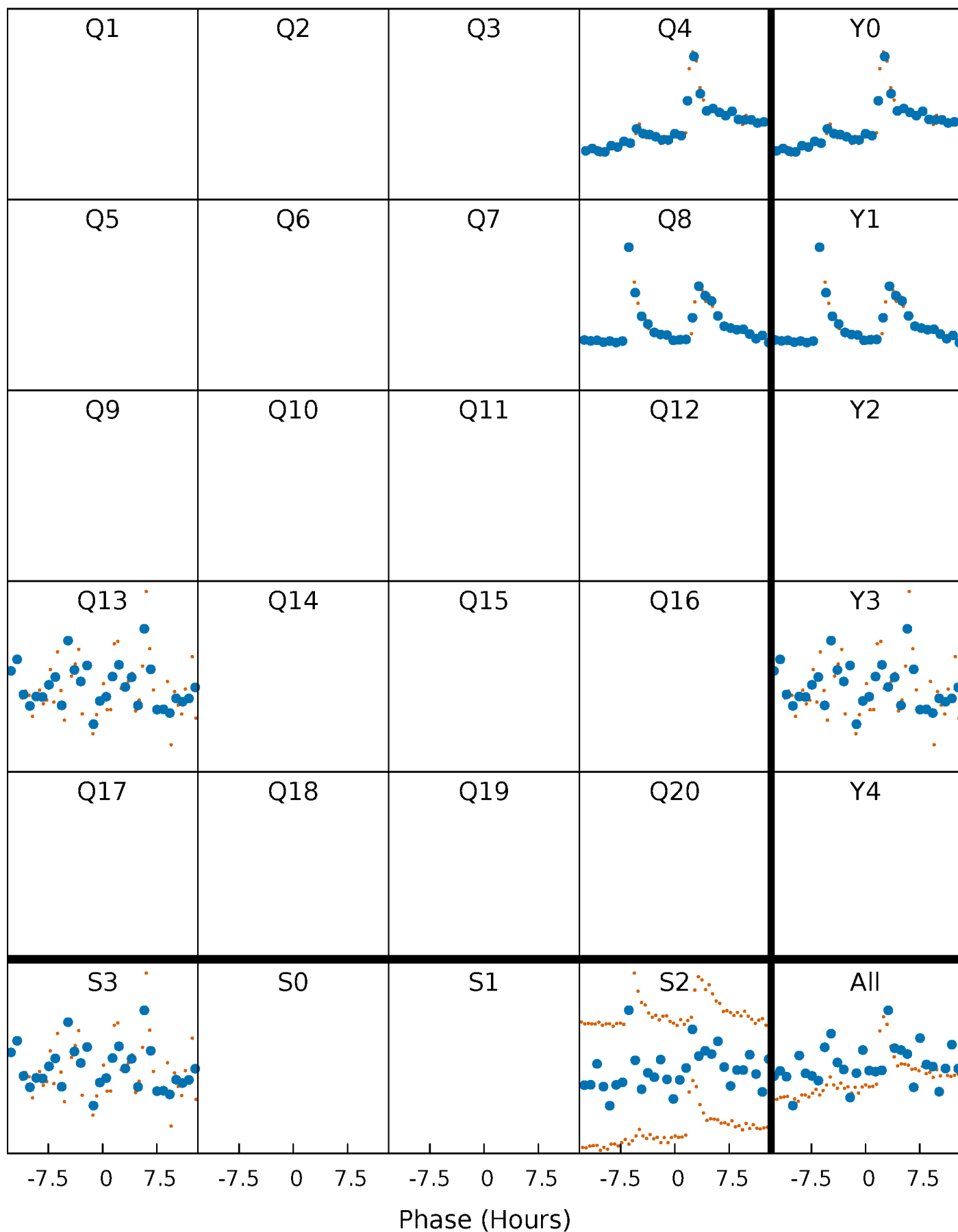


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



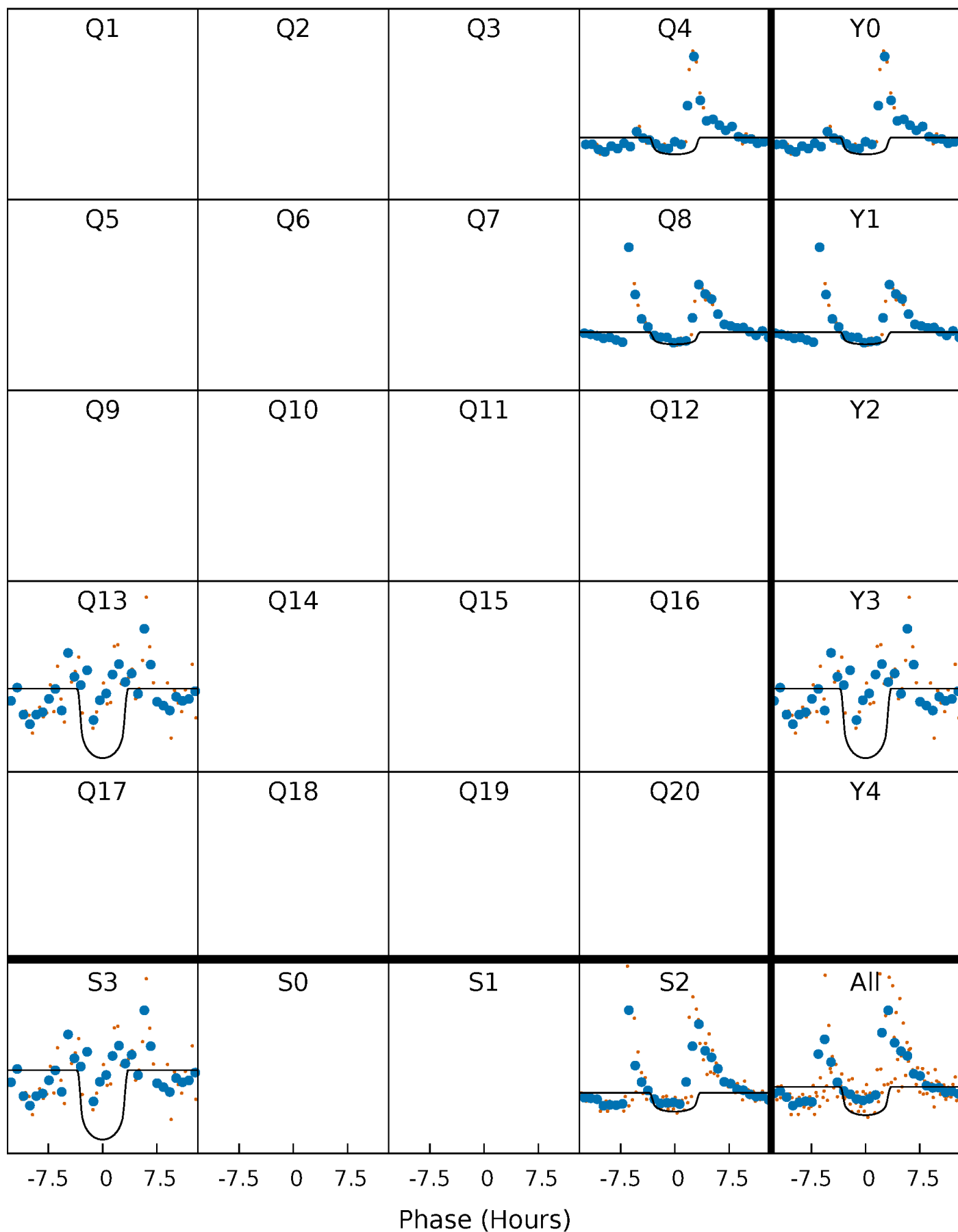
PDC Quarter-Phased Transit Curves

TCE 006611875-02 $P=416.179606$ Days $T_0=374.892651$ (BKJD)



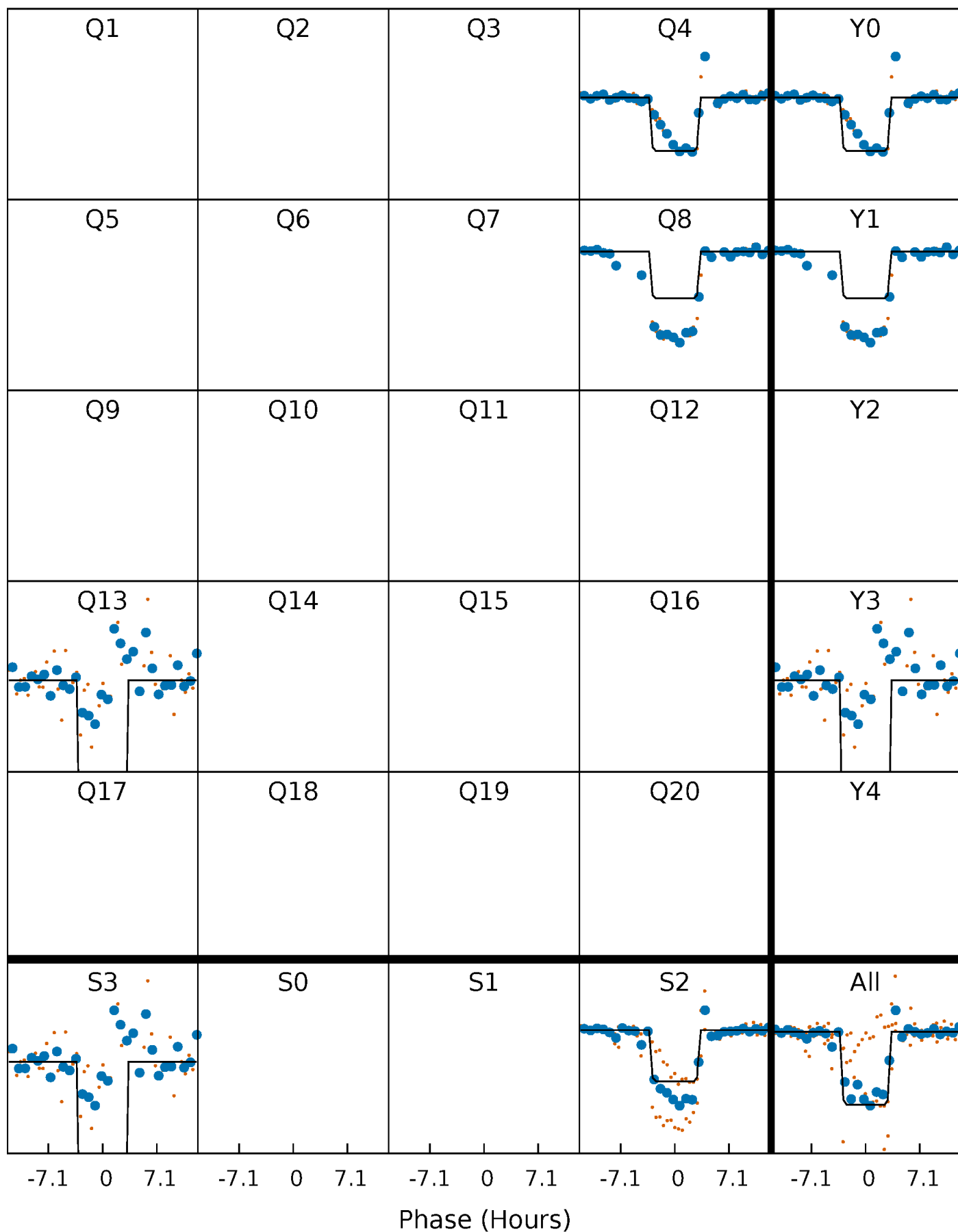
DV Quarter-Phased Transit Curves

TCE 006611875-02 $P=416.179606$ Days $T_0=374.892651$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

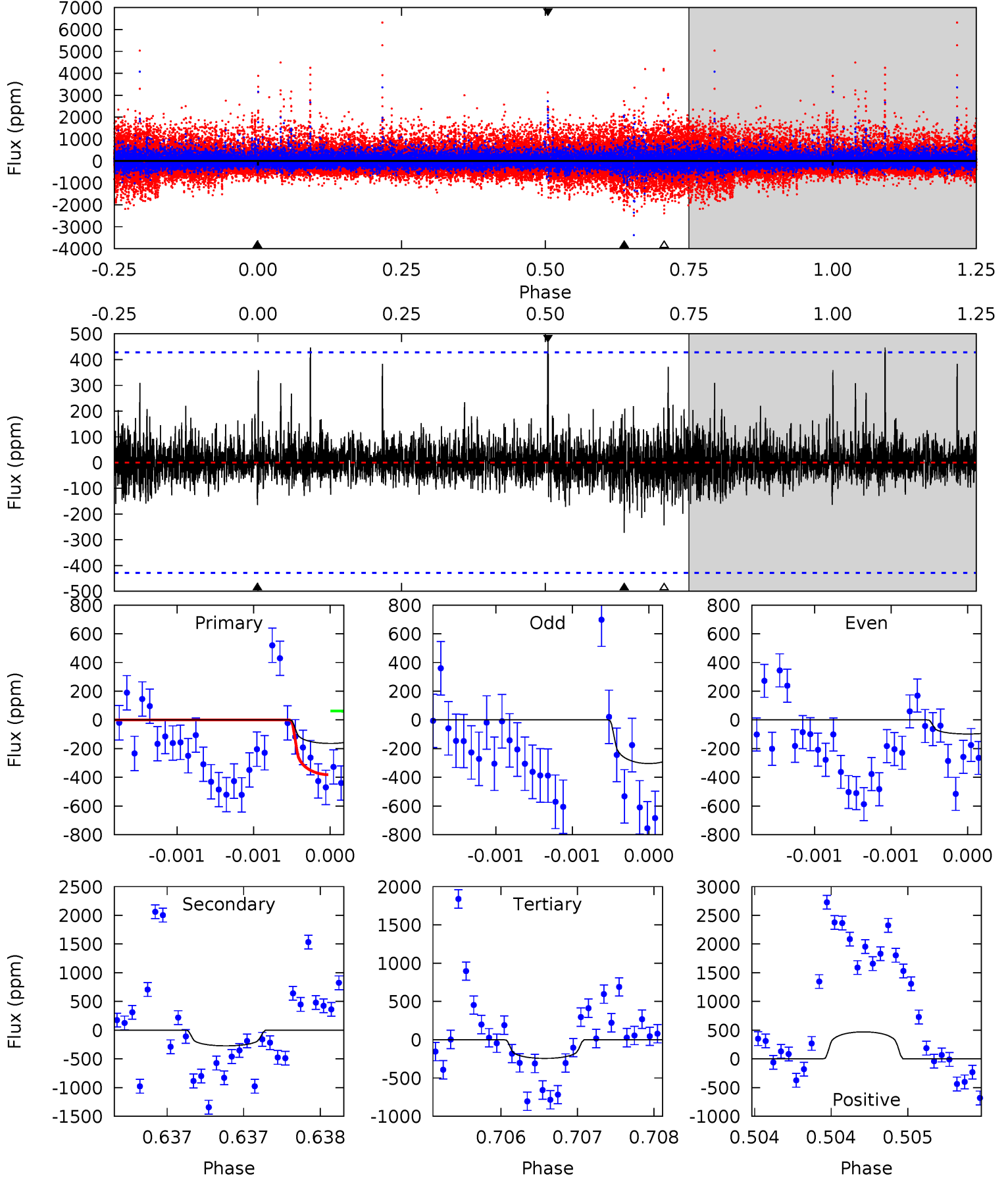
TCE 006611875-02 P=416.211184 Days $T_0=374.833451$ (BKJD)



DV Model-Shift Uniqueness Test

006611875-02, P = 416.179606 Days, E = 374.892651 Days

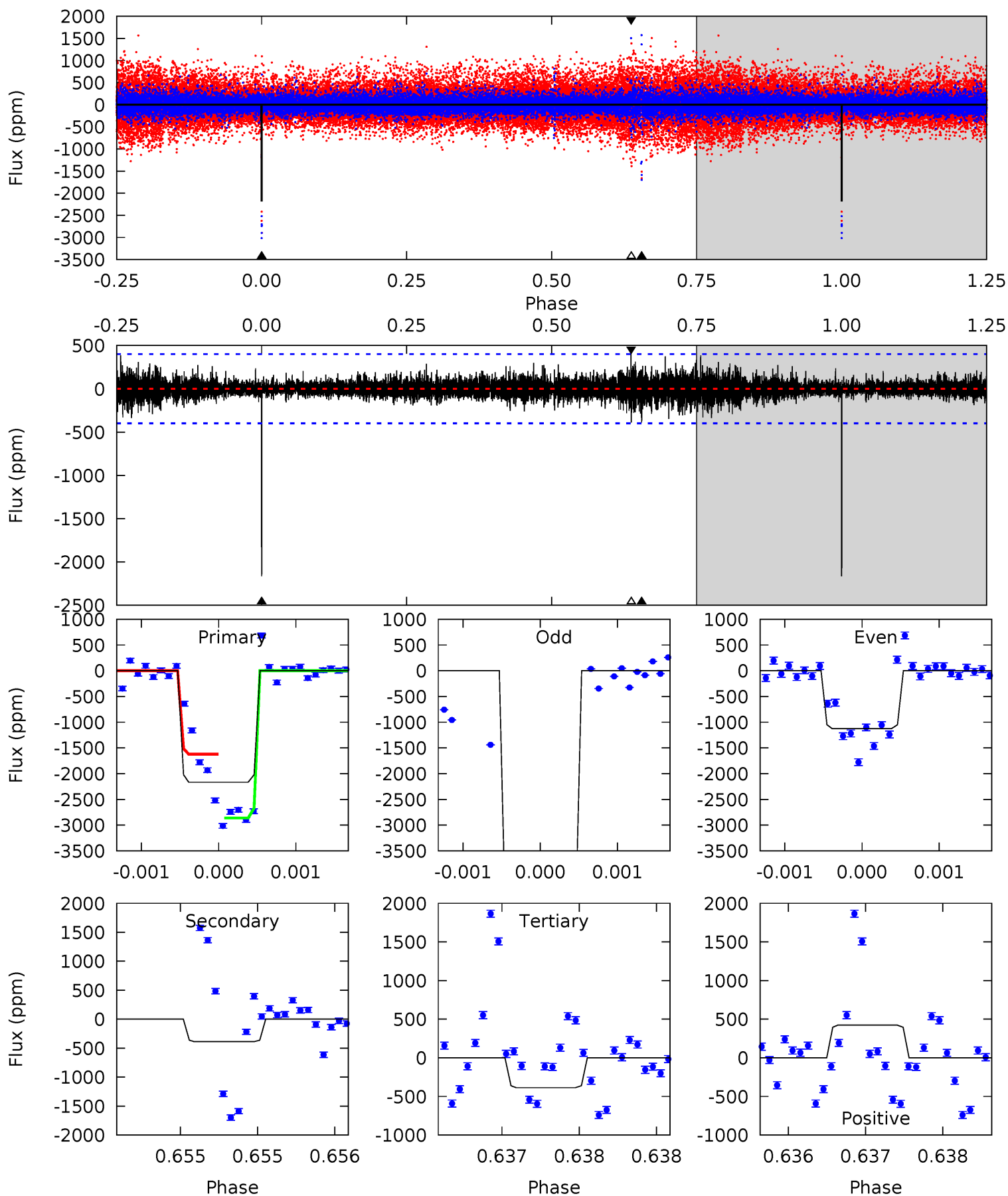
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.11	3.52	3.15	6.07	5.52	3.40	0.77	-1.03	-3.95	0.37	-2.55	1.06	6.37	0.63	2.09



Alt Model-Shift Uniqueness Test

006611875-02, P = 416.211184 Days, E = 374.833451 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.9	5.38	5.35	5.85	5.53	3.41	0.95	24.6	24.1	0.03	-0.47	39.9	1.09	0.16	0



Stellar Parameters For KIC 006611875

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3384^{+44}_{-37}	$4.937^{+0.044}_{-0.032}$	$0.020^{+0.100}_{-0.100}$	$0.310^{+0.035}_{-0.035}$	$0.302^{+0.044}_{-0.036}$	$14.330^{+3.328}_{-2.459}$
	+1%/-1%	+1%/-1%	+500%/-500%	+11%/-11%	+15%/-12%	+23%/-17%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006611875-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-273 ± 78	$1.03^{+0.65}_{-0.58}$	135^{+3}_{-3}	2833^{+811}_{-346}	$75648^{+337675}_{-47386}$
Alt.	-389 ± 72	$1.84^{+0.69}_{-0.73}$	135^{+3}_{-3}	2558^{+358}_{-200}	35048^{+59209}_{-17620}

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 $A_{obs} \gg 1.0$

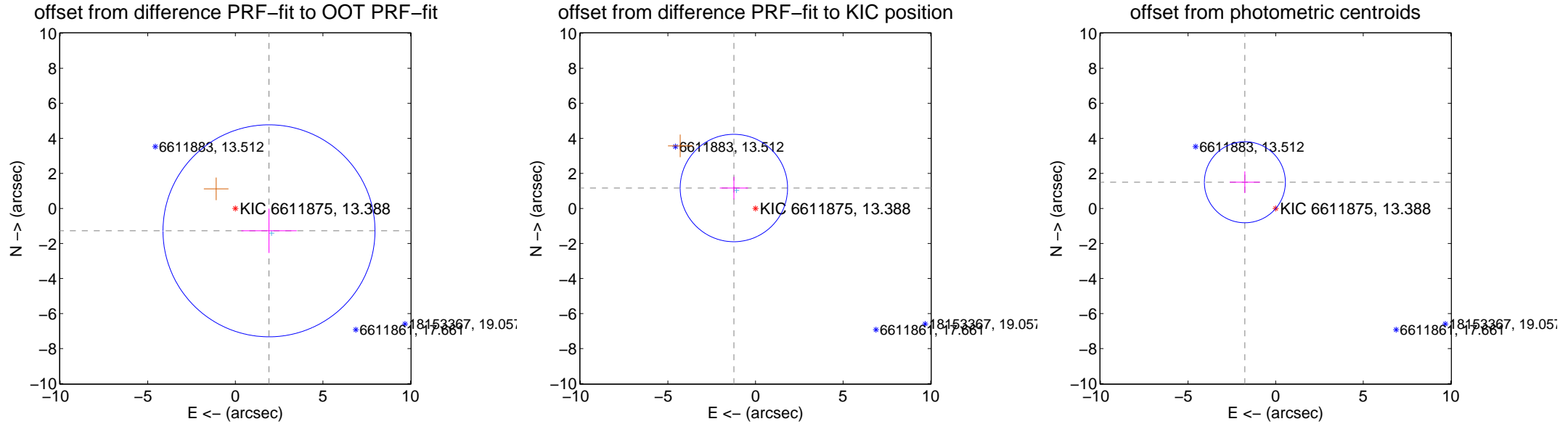
DV Centroid Data

Supplemental centroid analysis for 006611875-02. Kepler magnitude: 13.39. Transit SNR 7.81

There are 1 quarters with good PRF difference image offsets

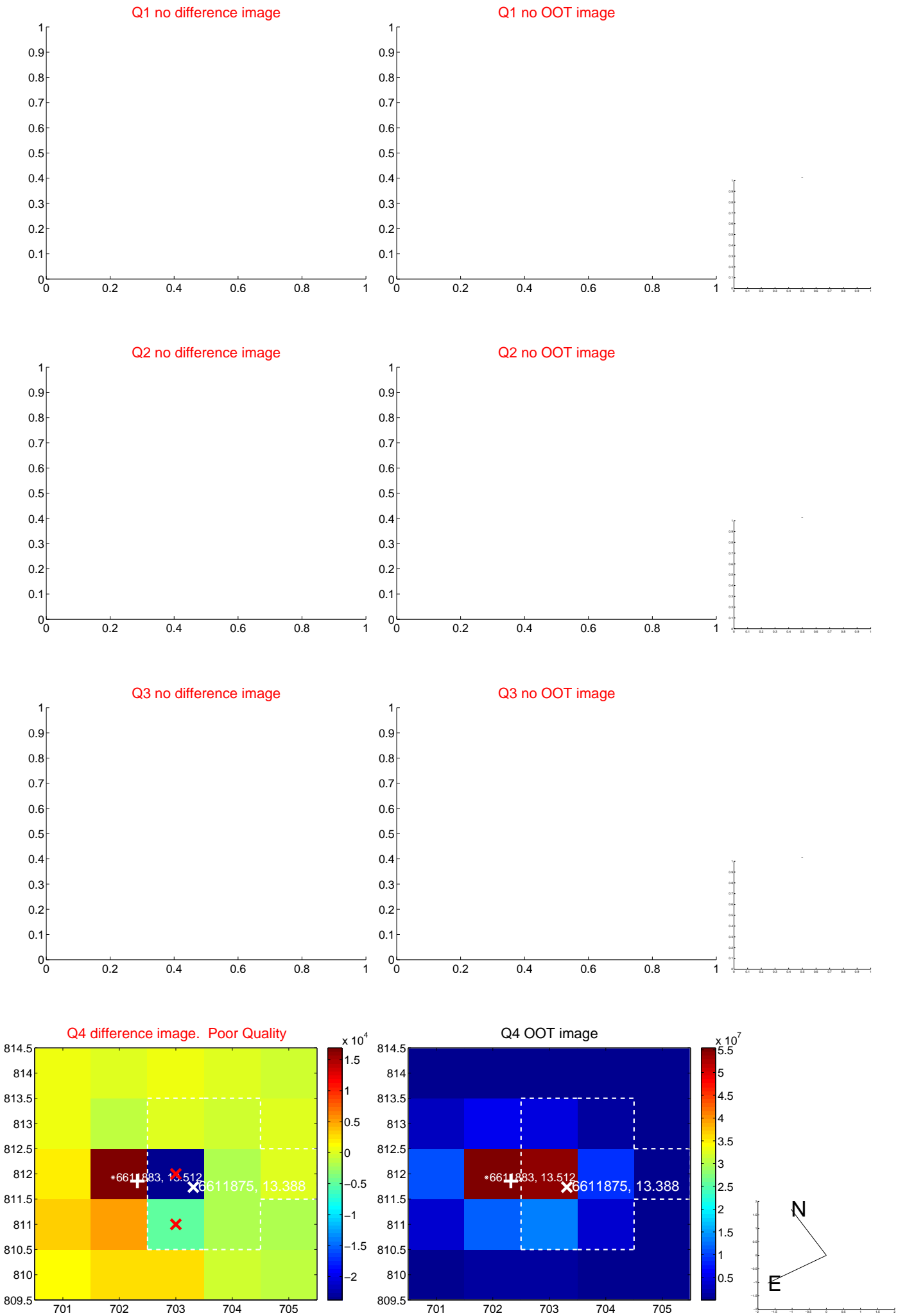
The OOT PRF centroid is offset from the target star catalog position by about 4.03 arcsec so the offset from difference PRF-fit to OOT-PRF-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.307 ± 2.017	1.14	-1.921 ± 1.582	-1.277 ± 1.266
PRF-fit source offset from KIC position	1.697 ± 1.022	1.66	1.234 ± 0.805	1.165 ± 0.639
photometric centroid source offset	2.31 ± 0.77	2.99	1.76 ± 0.86	1.50 ± 0.62

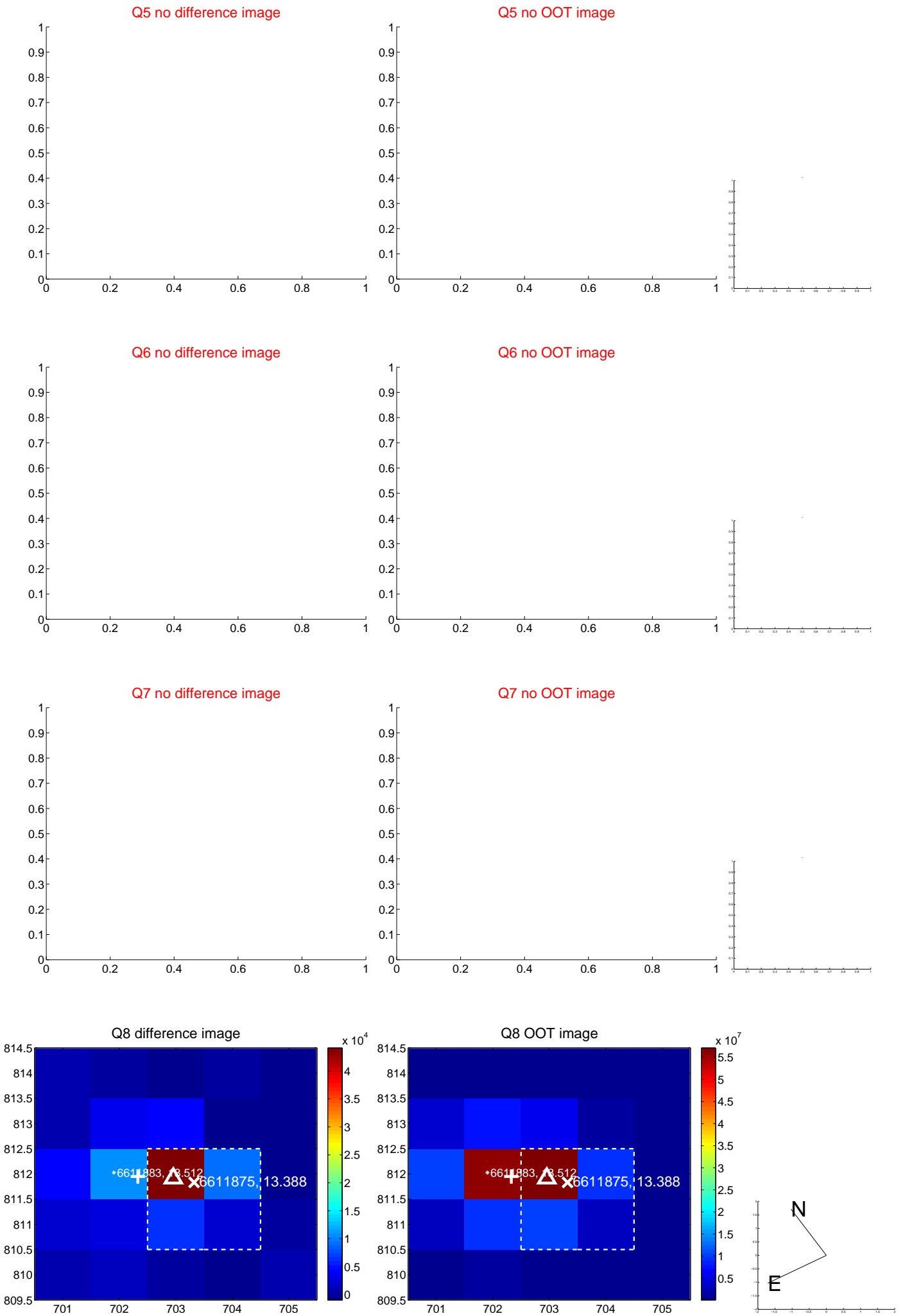


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



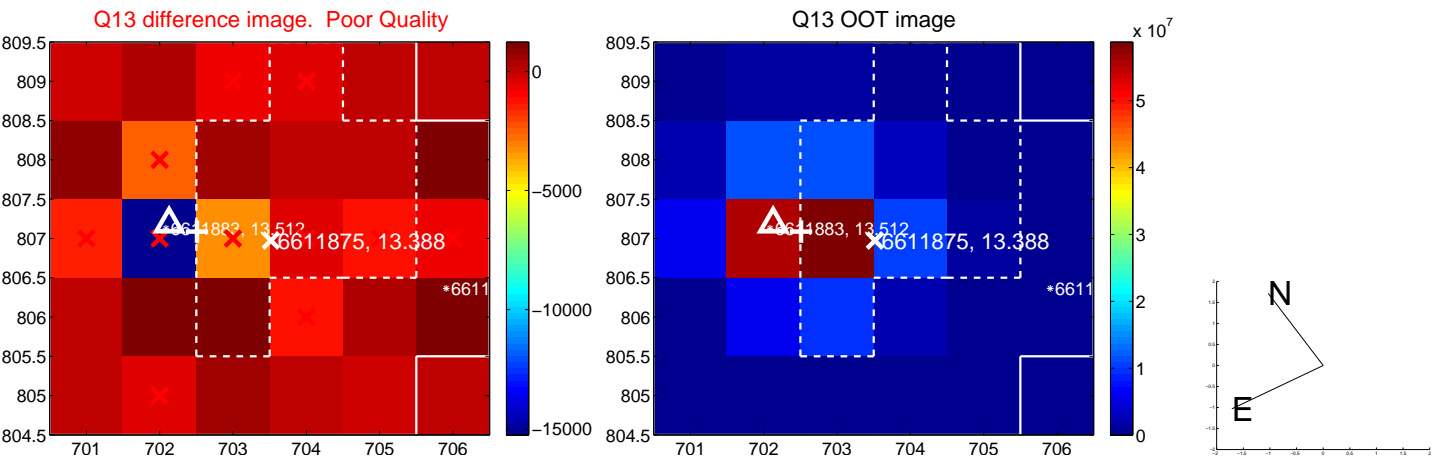
white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



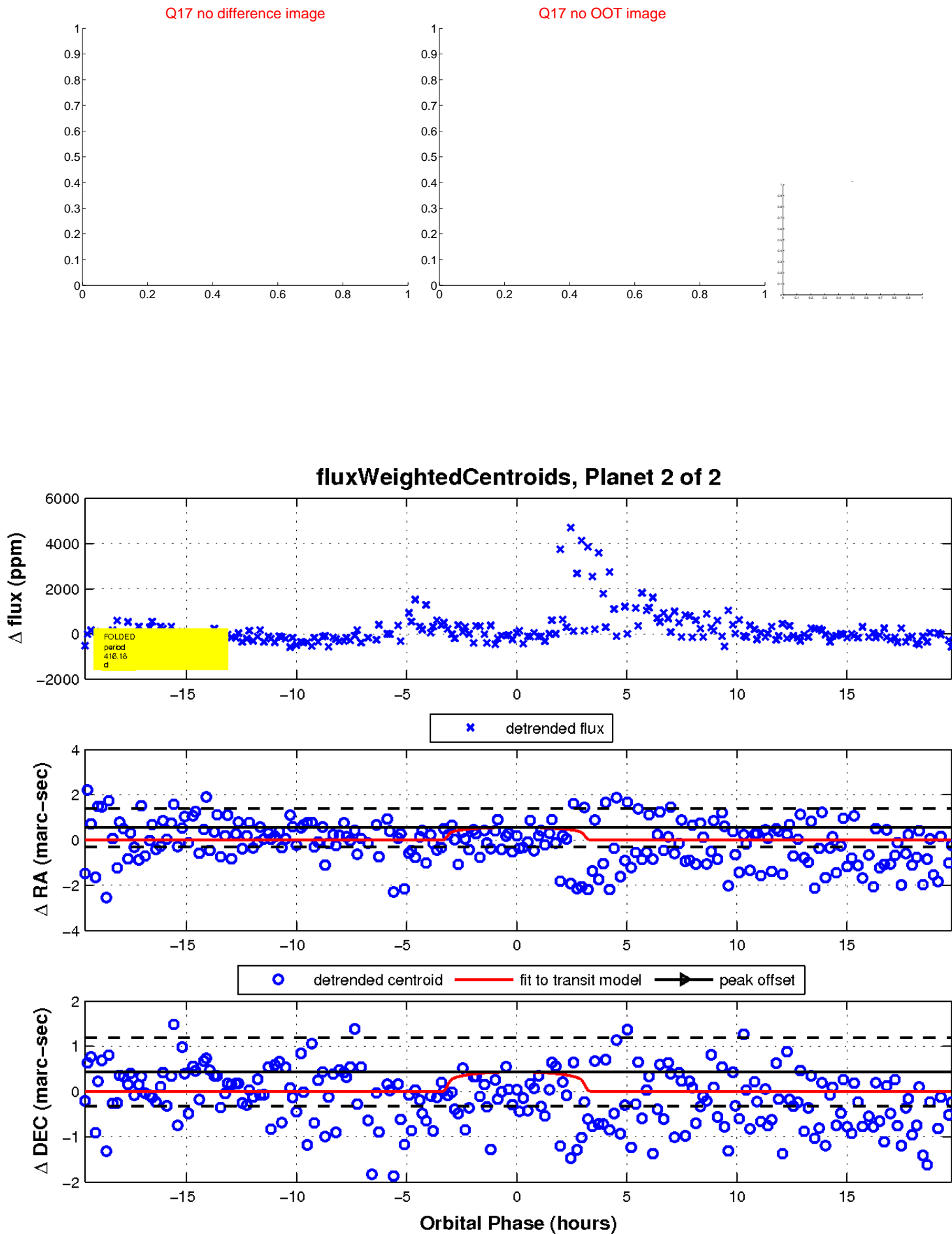
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

