

KIC 011338250

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})
011338250-01	OBS	No	1.204066	132.385815	31.3	5.612	7.7	7.7	1.98	4991	1.15	4758.26
011338250-02	OBS	No	140.545873	215.030246	365.8	8.908	7.6	5.9	1.98	4991	4.23	8.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011338250-01	OBS	FP	0.00	1	0	0	0	LPP_DV
011338250-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—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.

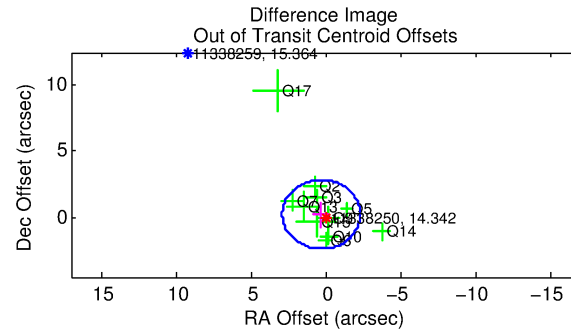
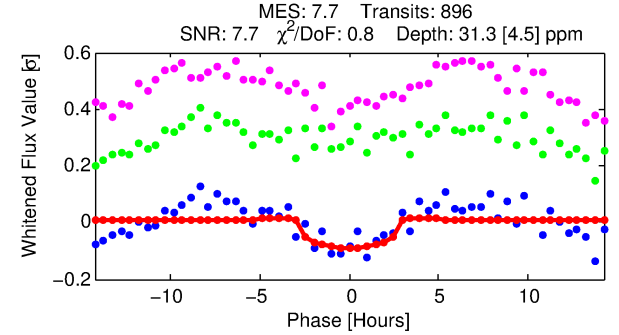
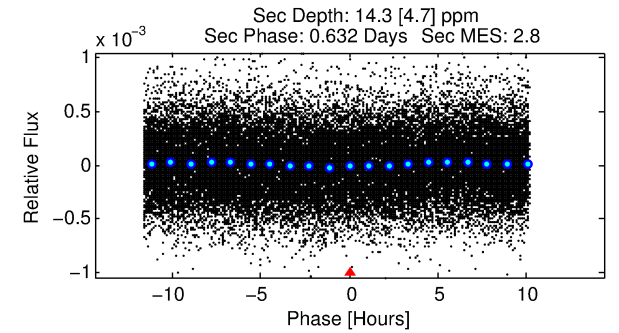
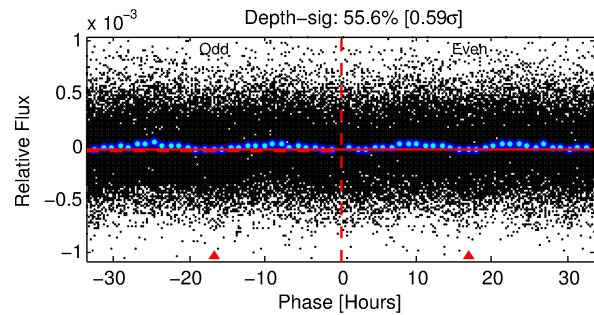
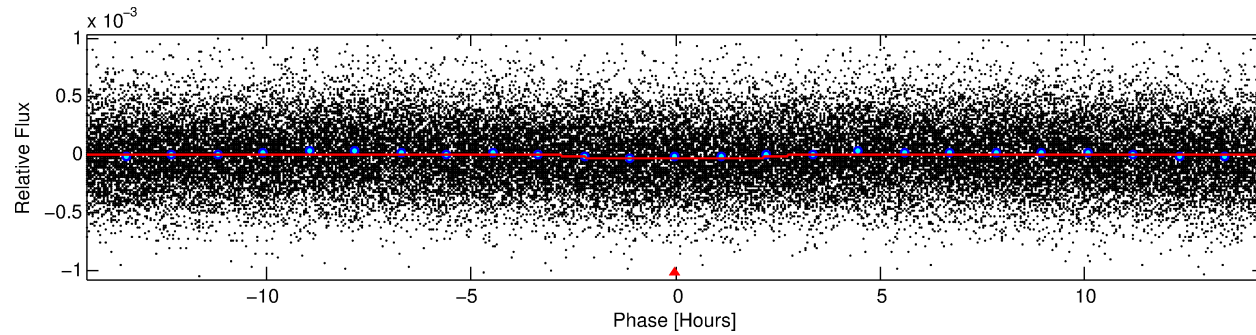
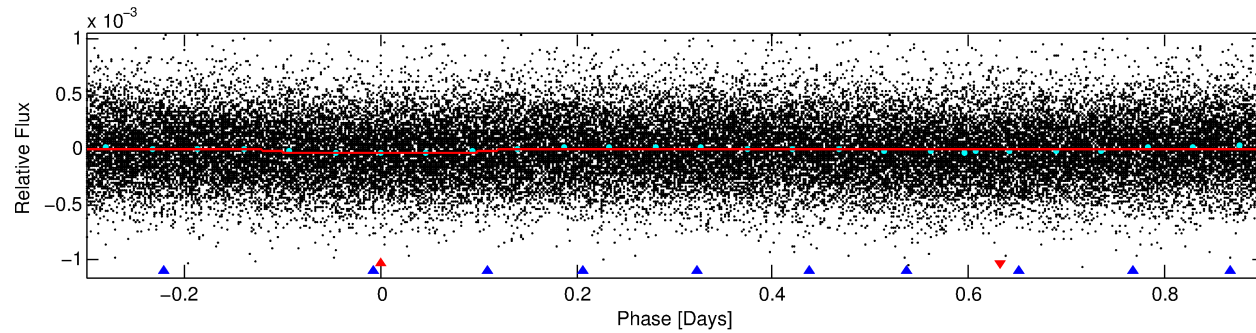
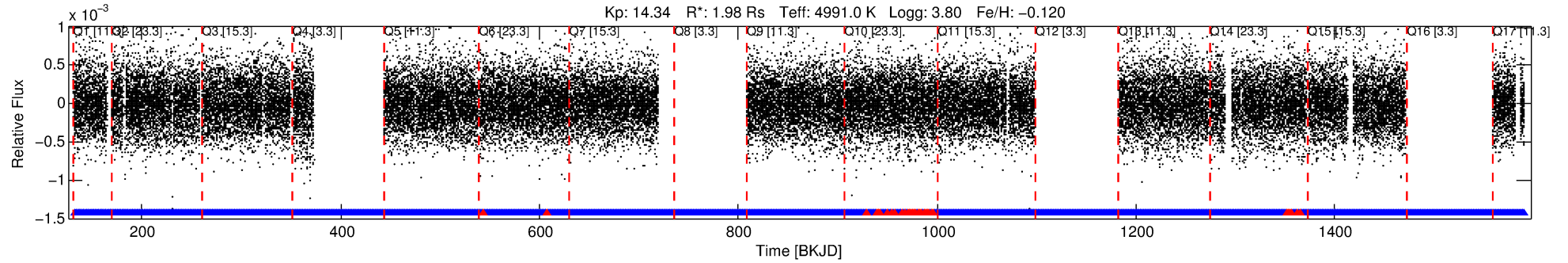
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011338250-01

No Significant Match Found

DV One-Page Summary

KIC: 11338250 Candidate: 1 of 2 Period: 1.204 d



DV Fit Results:

Period = 1.20407 [0.00002] d
Epoch = 132.3858 [0.0075] BKJD
Rp/R* = 0.0053 [0.0049]
a/R* = 1.51 [2.74]
b = 0.62 [3.25]
Seff = 4758.26 [6388.74]
Teq = 2118 [711] K
Rp = 1.15 [1.29] Re
a = 0.0214 [0.0163] AU
Ag = 2.72 [6.23] [0.28 σ]
Teffp = 4203 [1964] K [1.00 σ]

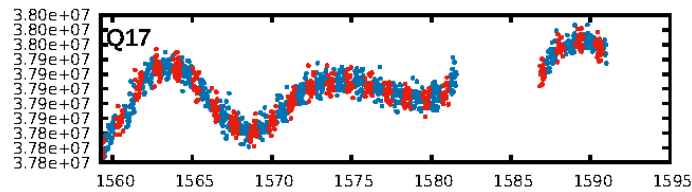
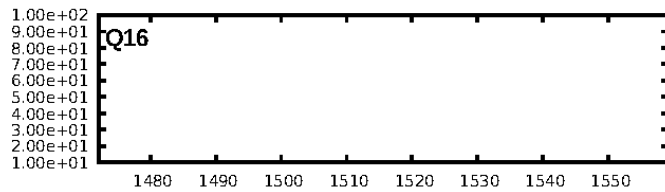
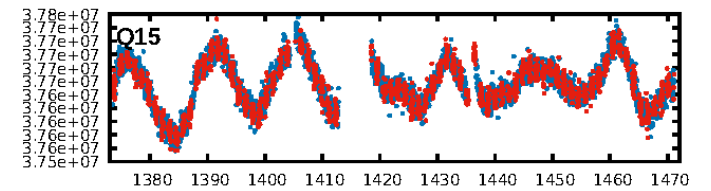
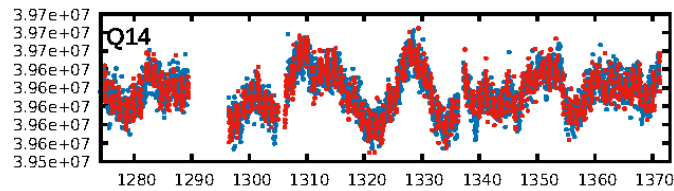
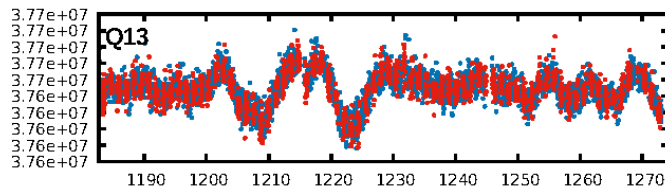
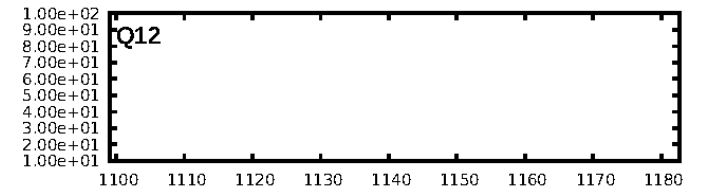
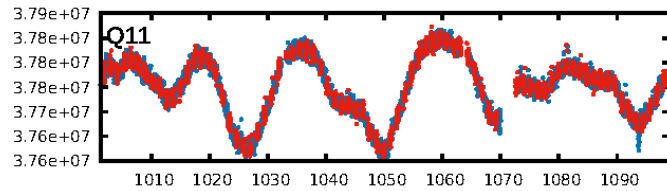
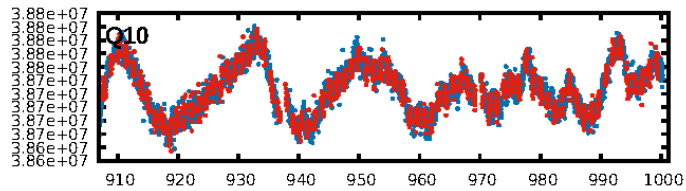
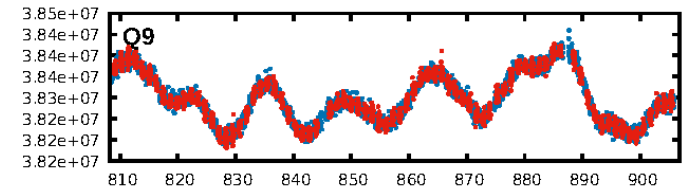
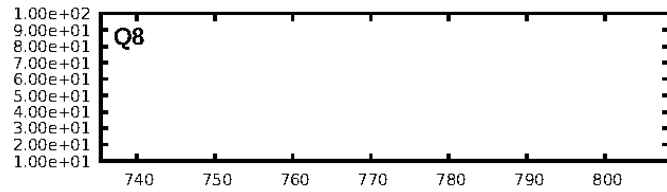
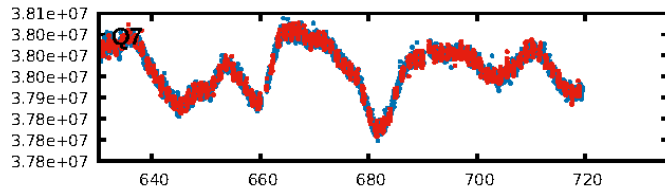
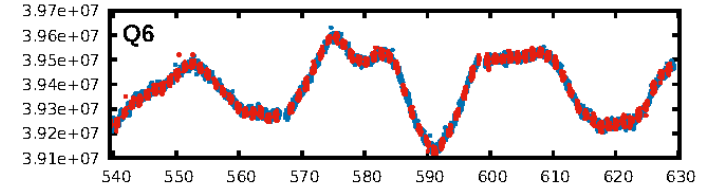
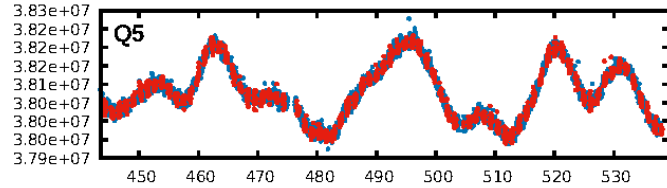
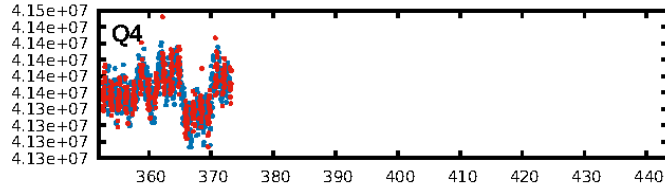
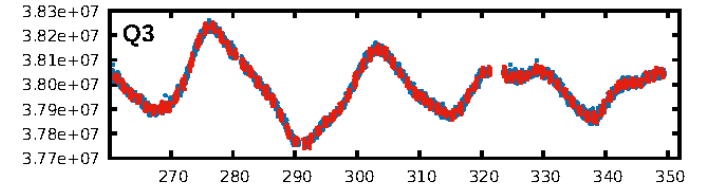
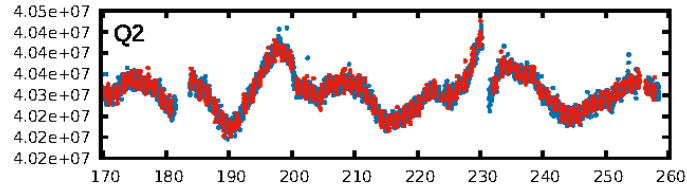
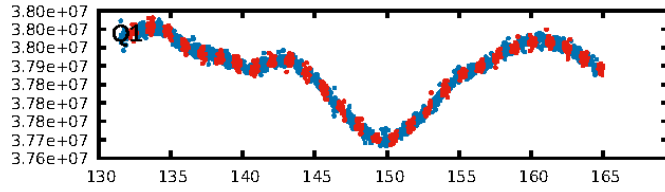
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [317.63 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.03e-12
RollingBand-fgt: 0.96 [793/827]
GhostDiagnostic-chr: -4.552
Centroid-sig: 0.1%
Centroid-so: 3.759 arcsec [2.34 σ]
OotOffset-rm: 0.372 arcsec [0.43 σ]
KicOffset-rm: 0.379 arcsec [0.42 σ]
OotOffset-st: 4/3/0/4 [11]
KicOffset-st: 4/3/0/4 [11]
DiffImageQuality-fgm: 0.64 [7/11]
DiffImageOverlap-fno: 1.00 [14/14]

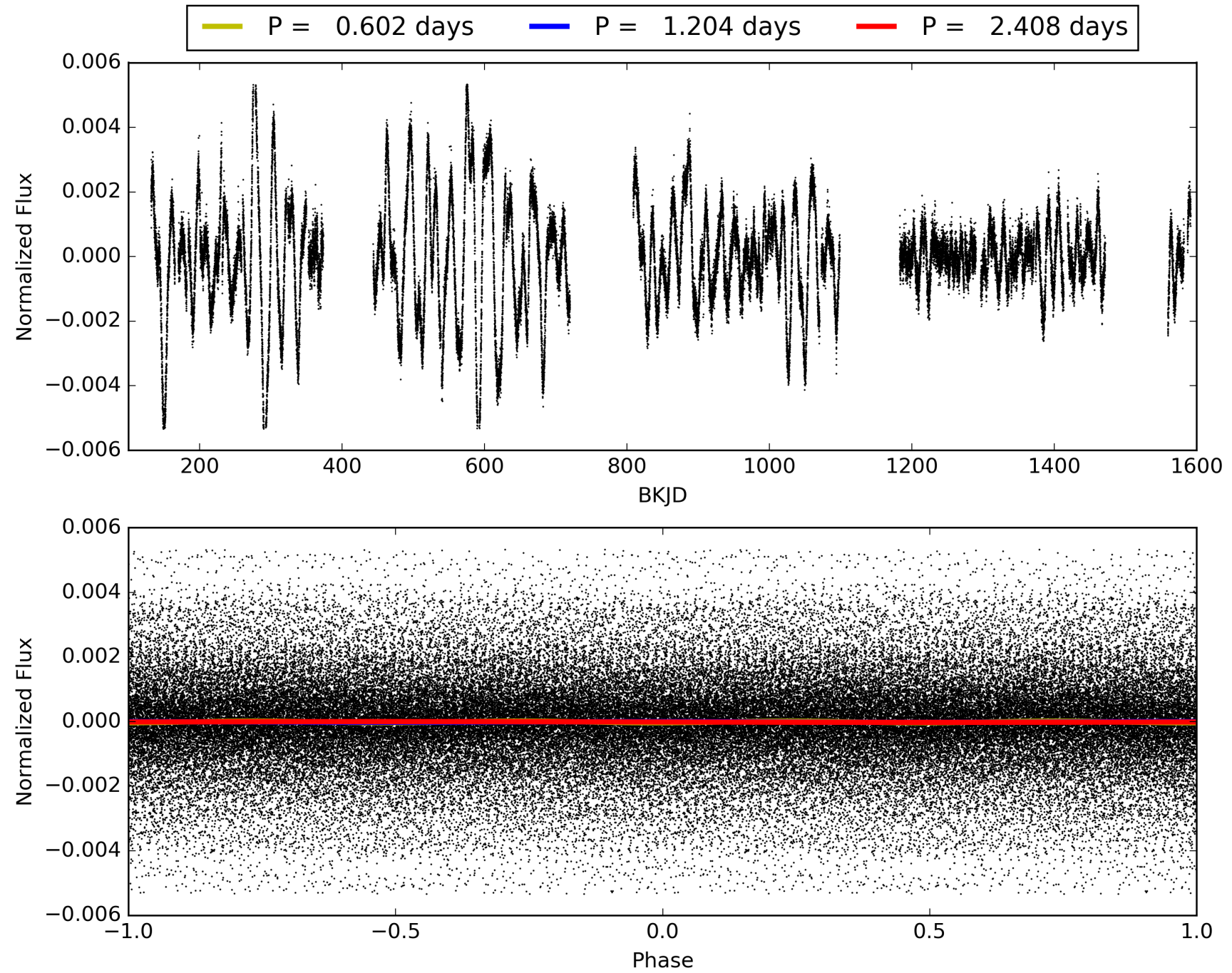
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011338250-01, PDC Light Curves

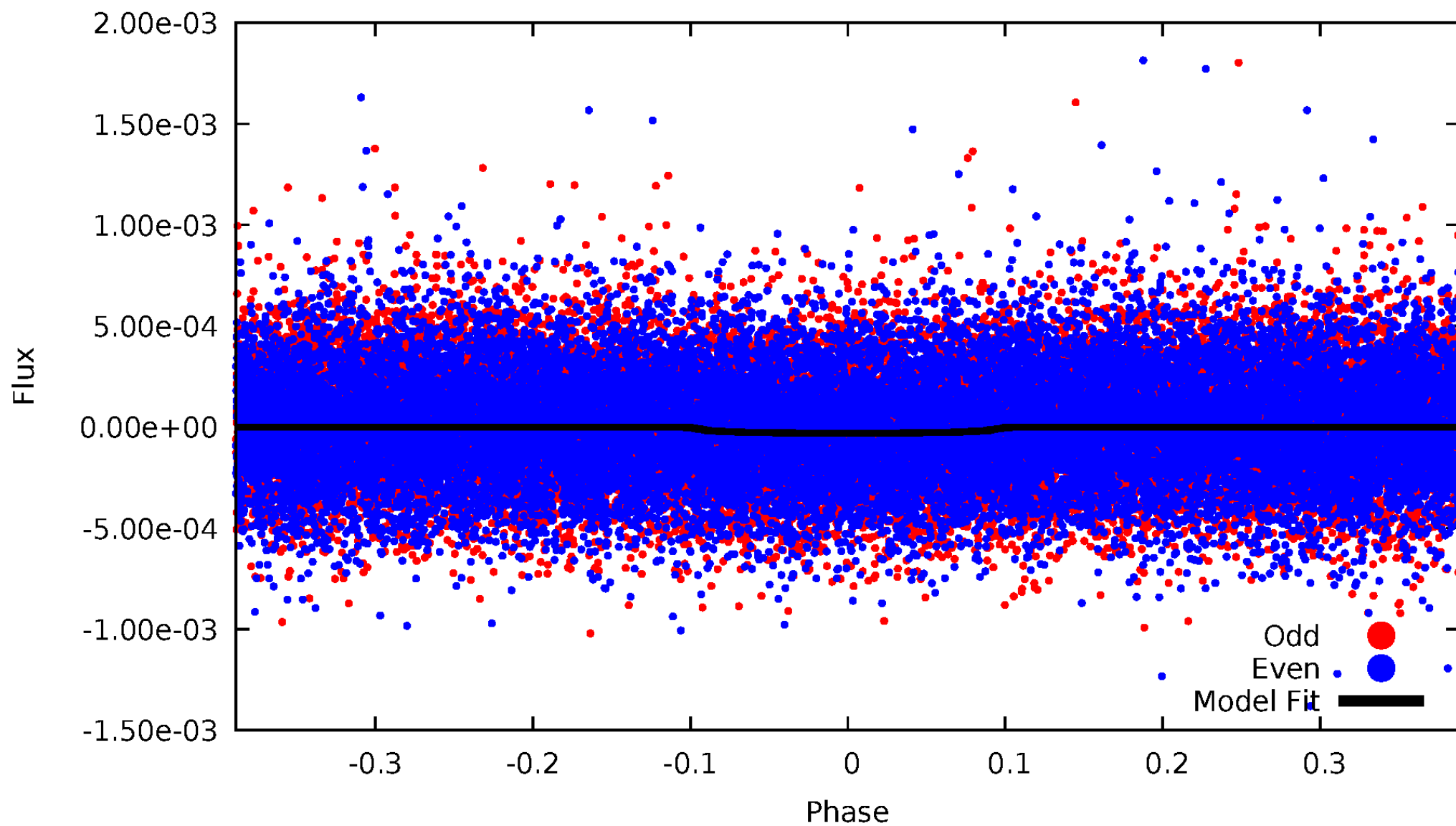


TCE 011338250-01



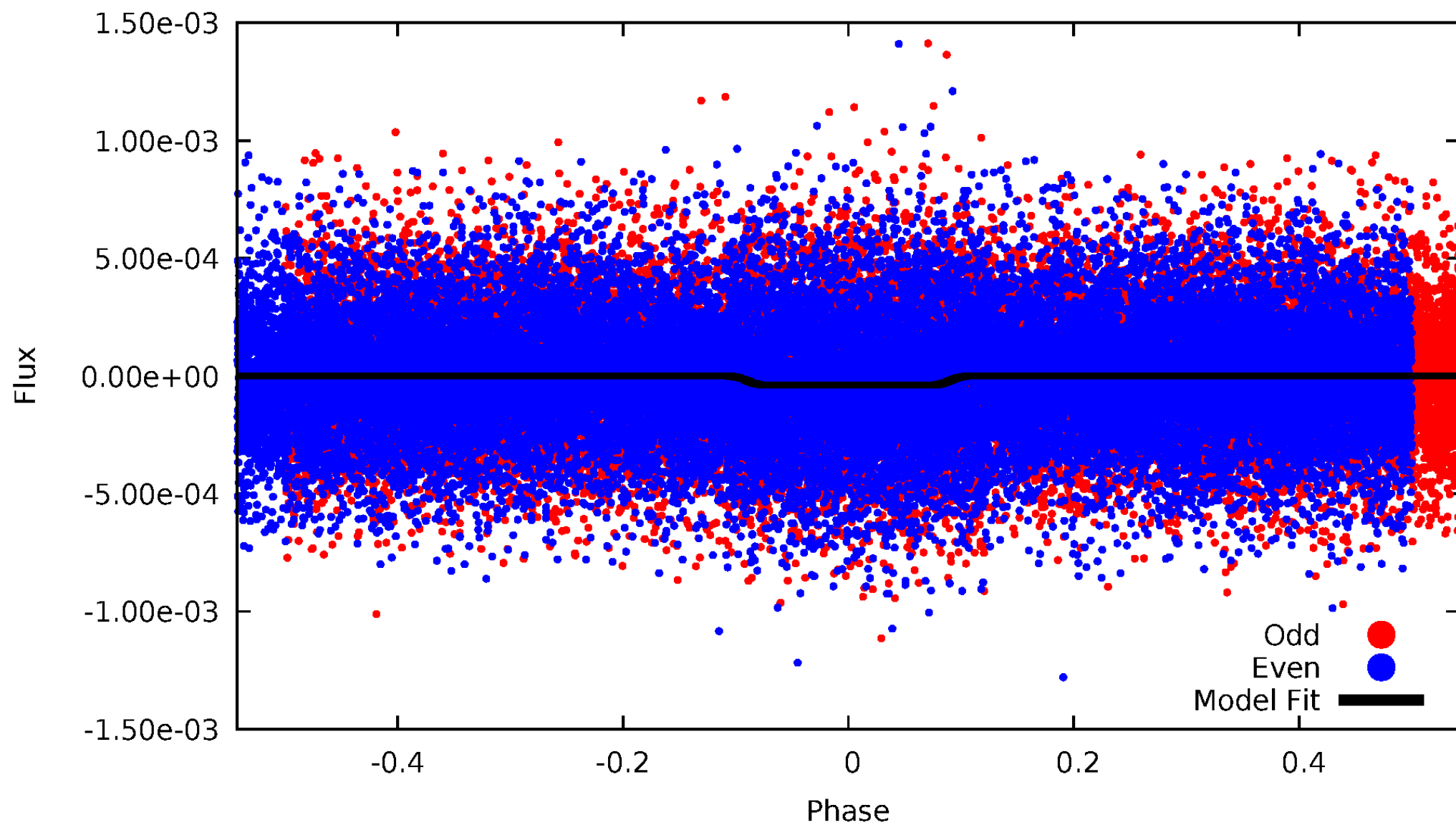
DV Odd/Even

TCE 011338250-01



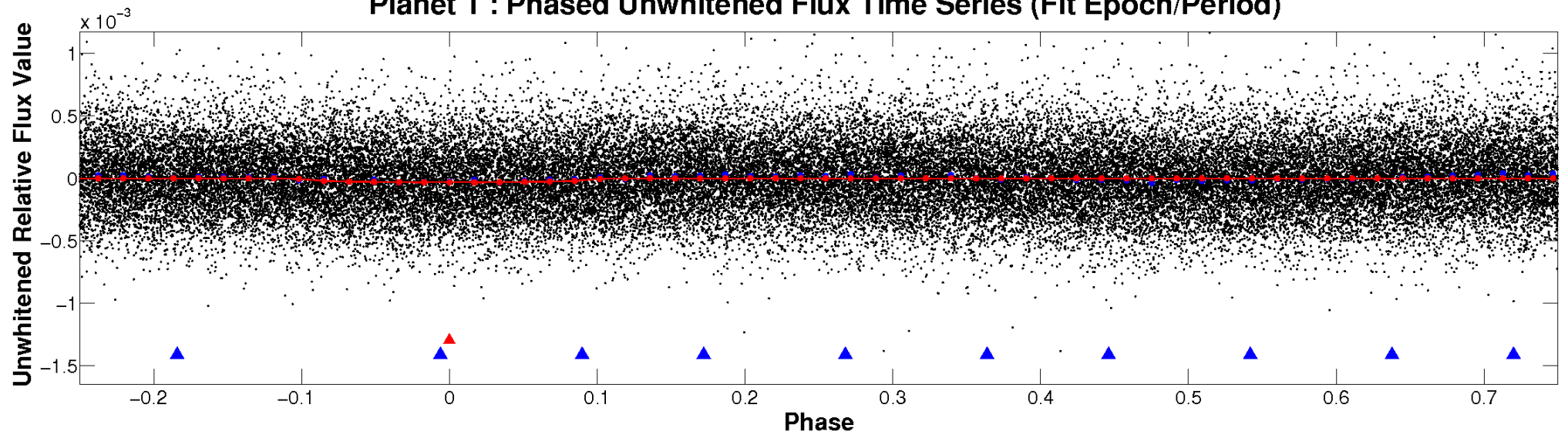
ALT Odd/Even

TCE 011338250-01

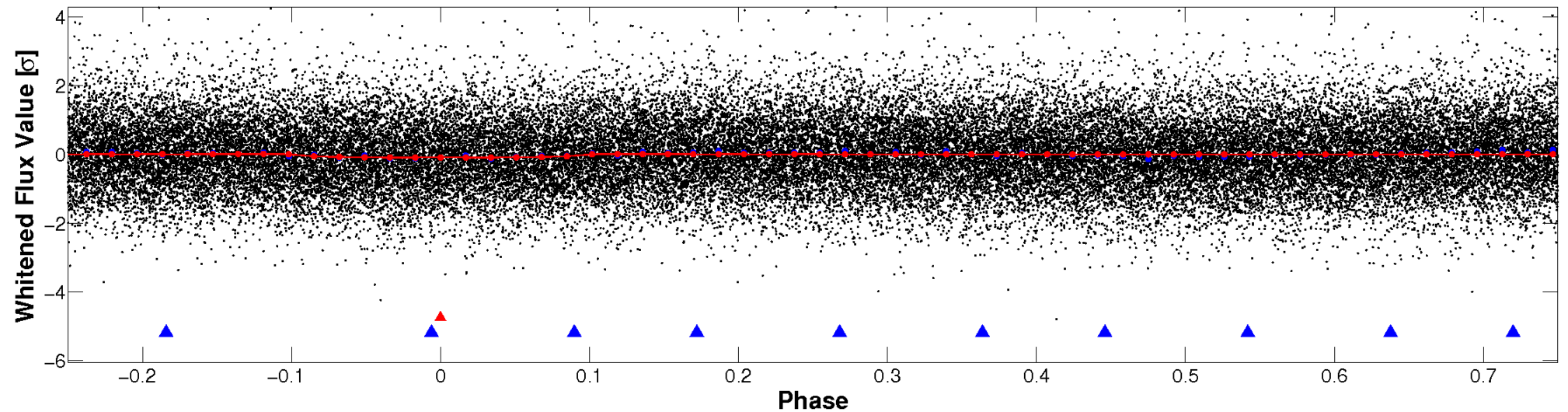


Non-Whitened Vs. Whitened Light Curve

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

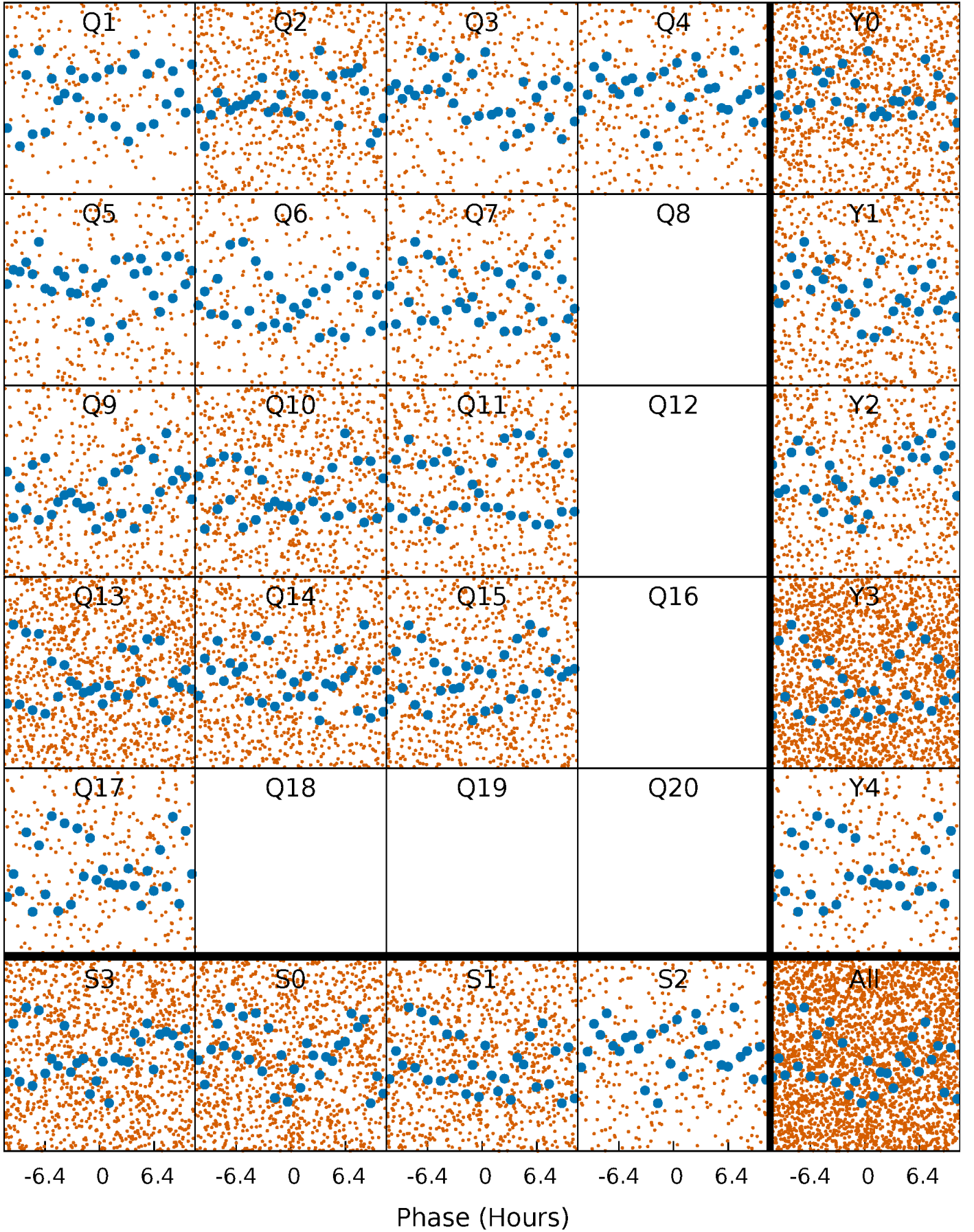


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



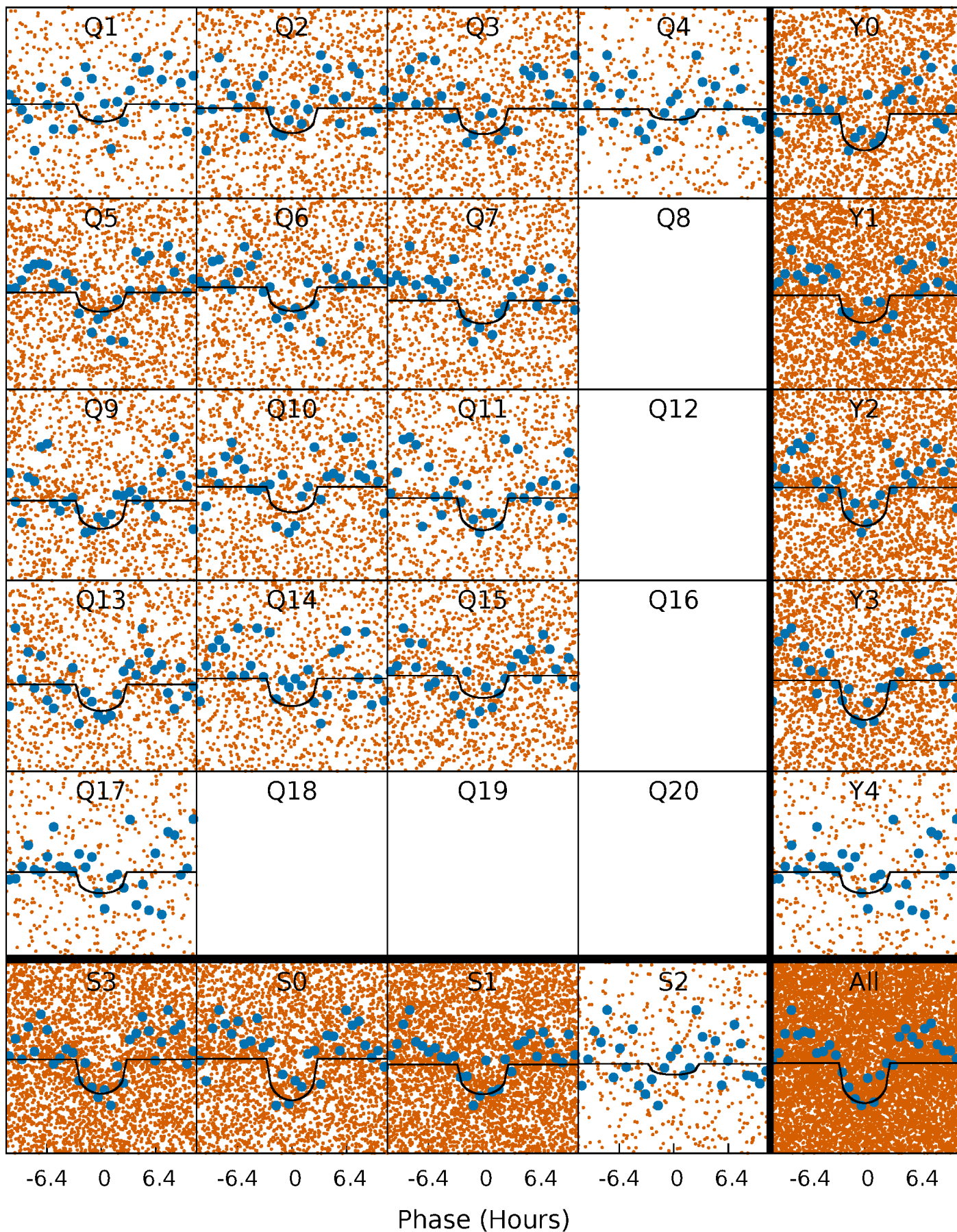
PDC Quarter-Phased Transit Curves

TCE 011338250-01 P= 1.204066 Days $T_0=132.385815$ (BKJD)



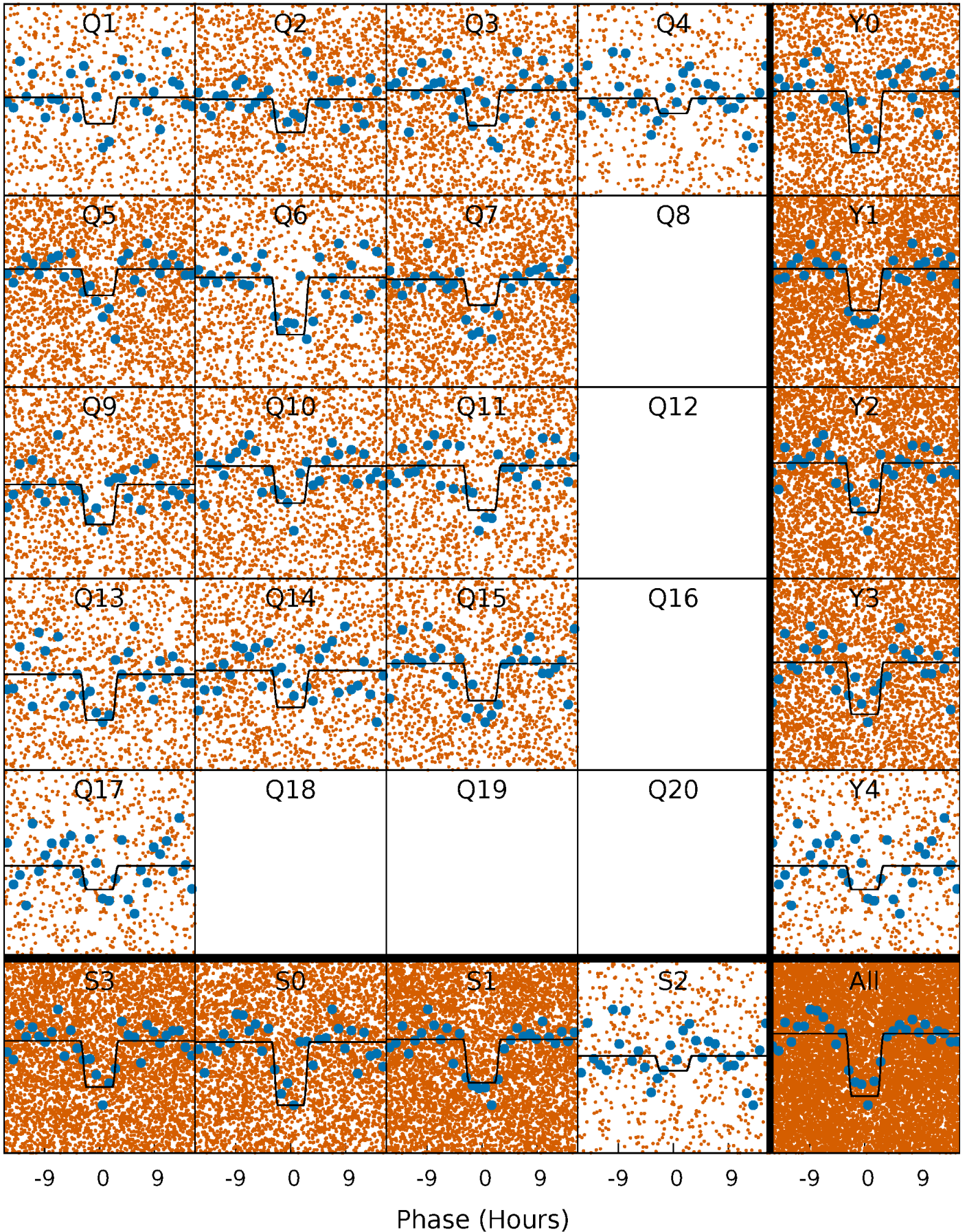
DV Quarter-Phased Transit Curves

TCE 011338250-01 P= 1.204066 Days $T_0=132.385815$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

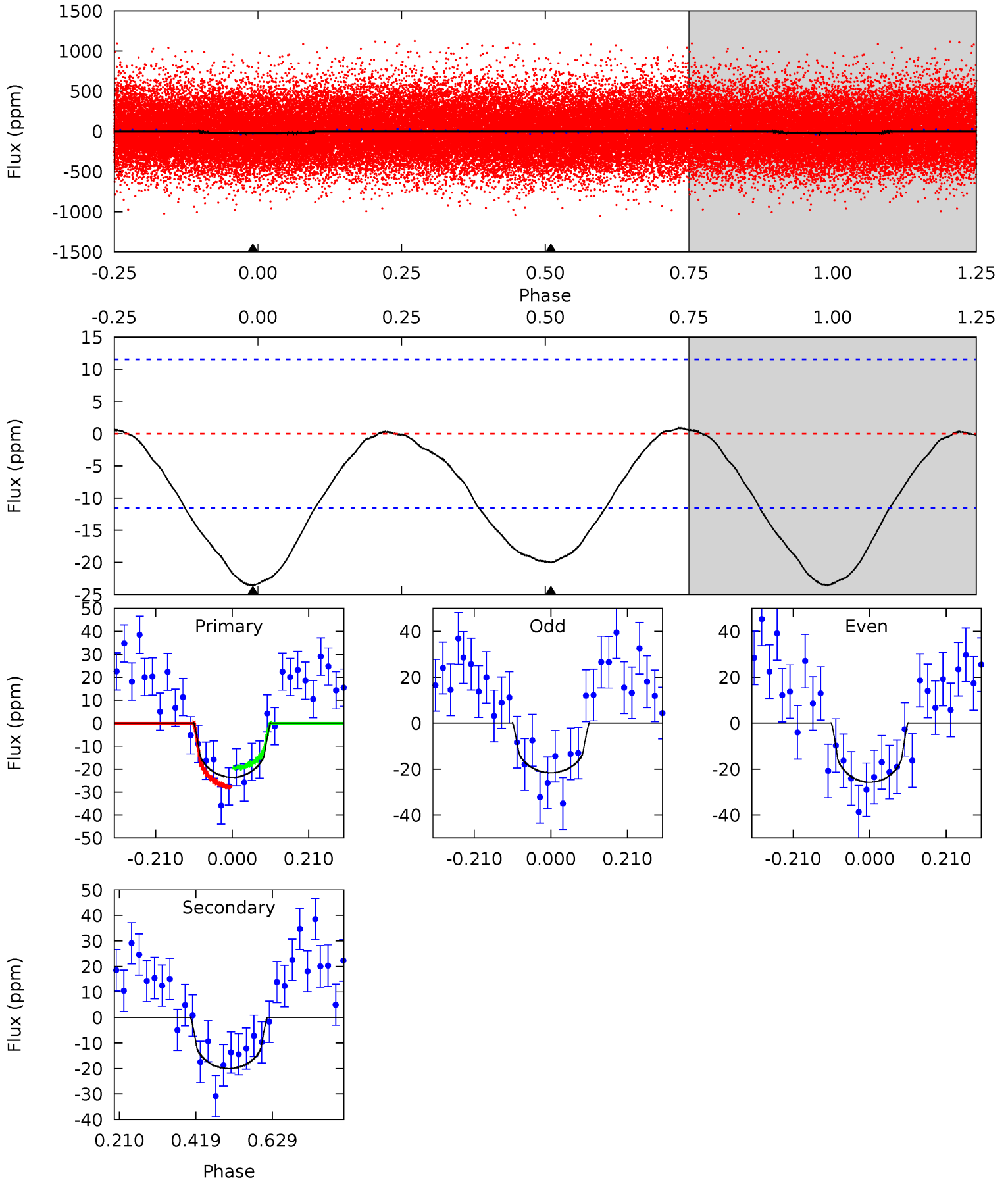
TCE 011338250-01 P= 1.204031 Days $T_0=132.403333$ (BKJD)



DV Model-Shift Uniqueness Test

011338250-01, P = 1.204066 Days, E = 131.181749 Days

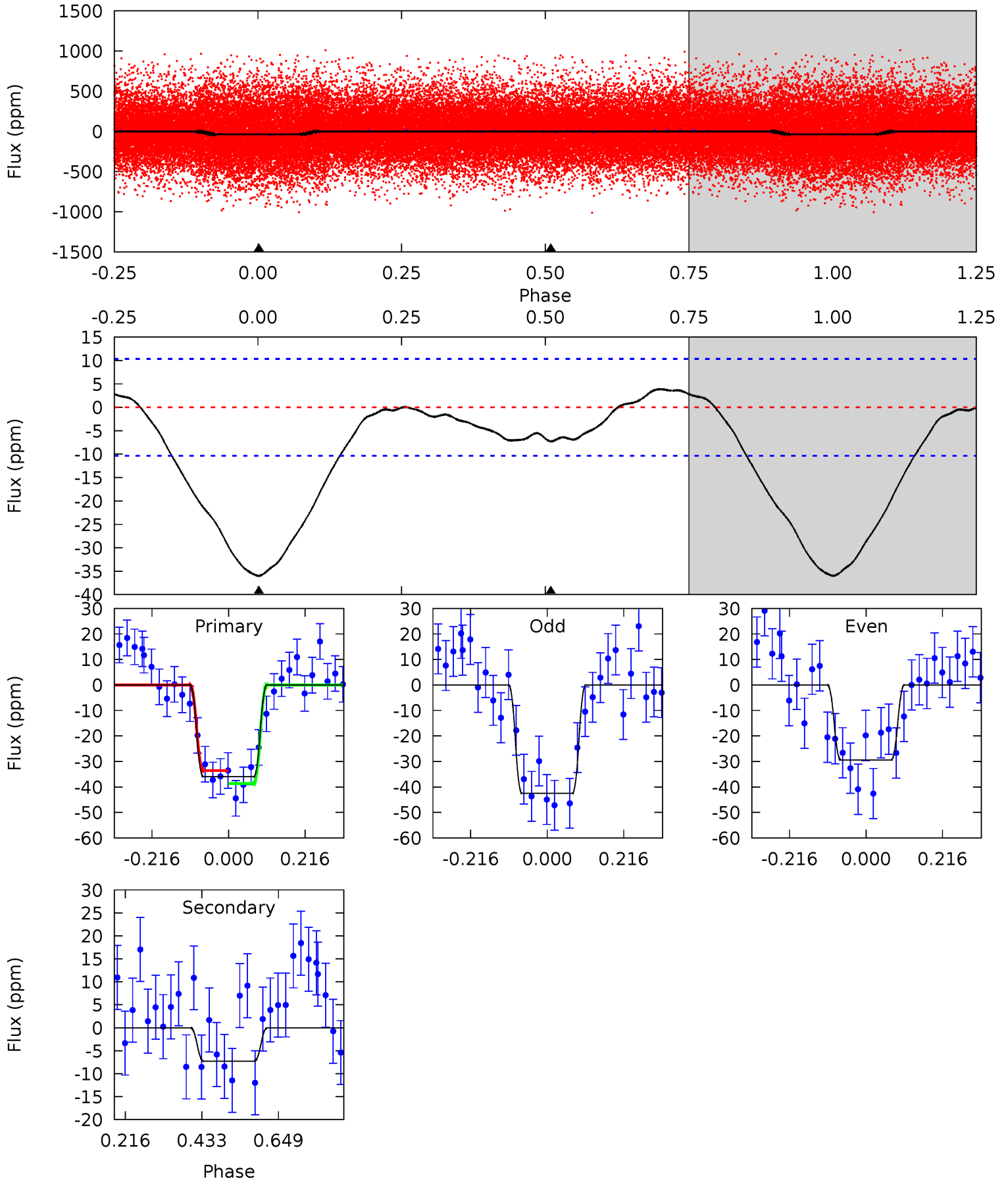
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.97	7.62	0	0	4.41	1.25	0.37	8.97	8.97	7.62	7.62	0.79	0.79	0.04	1.55



Alt Model-Shift Uniqueness Test

011338250-01, P = 1.204031 Days, E = 131.199302 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	3.09	0	0	4.40	1.24	0.70	15.3	15.3	3.09	3.09	2.78	1.04	0.10	1.08



Stellar Parameters For KIC 011338250

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4991^{+136}_{-151}	$3.799^{+0.825}_{-0.330}$	$-0.120^{+0.300}_{-0.300}$	$1.977^{+1.042}_{-1.273}$	$0.896^{+0.198}_{-0.178}$	$0.164^{+3.089}_{-0.103}$
	+3%/-3%	+22%/-9%	+250%/-250%	+53%/-64%	+22%/-20%	+1889%/-63%
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 011338250-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-20 ± 3	$1.21^{+1.21}_{-0.79}$	2909^{+441}_{-515}	4277^{+2183}_{-948}	$3.650^{+24.122}_{-2.811}$
Alt.	-7 ± 2	$1.35^{+1.12}_{-0.86}$	2907^{+447}_{-530}	3275^{+1514}_{-5614}	$0.930^{+6.347}_{-0.672}$

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

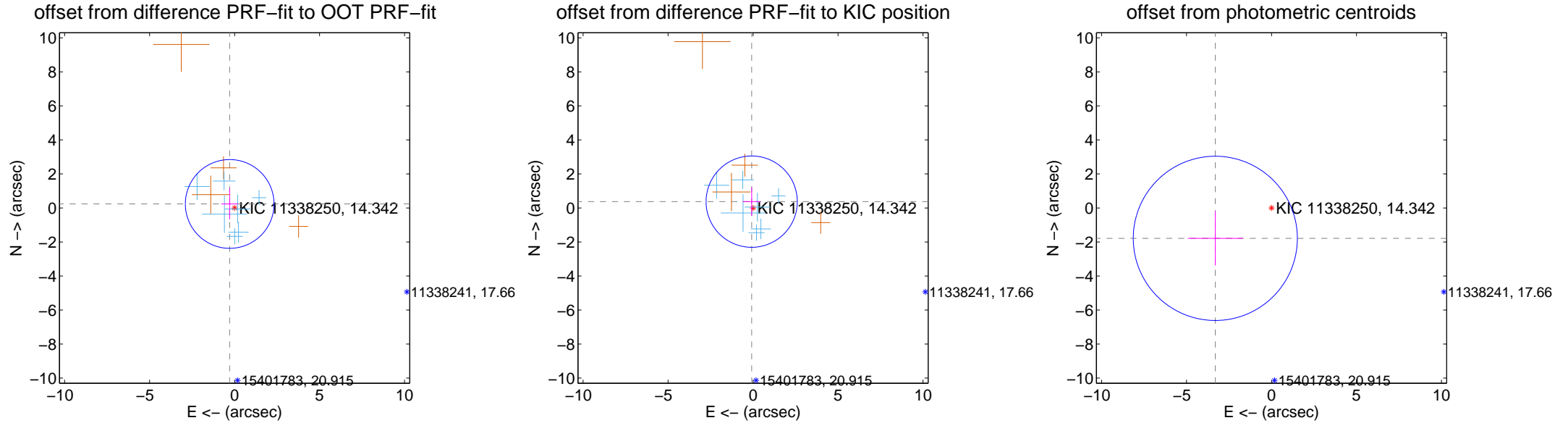
DV Centroid Data

Supplemental centroid analysis for 011338250-01. Kepler magnitude: 14.34. Transit SNR 7.69

There are 7 quarters with good PRF difference image offsets

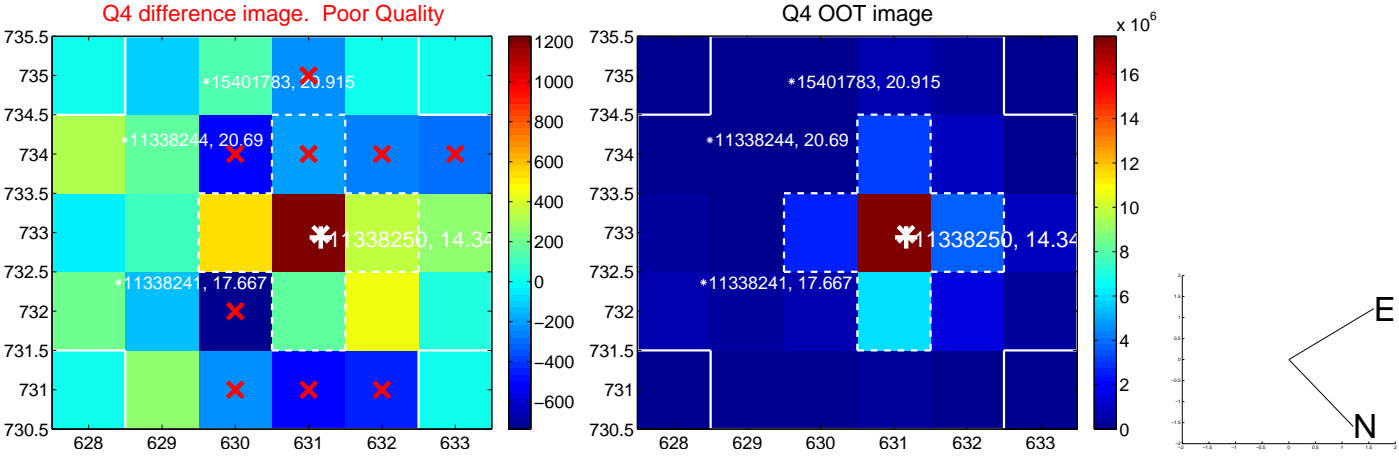
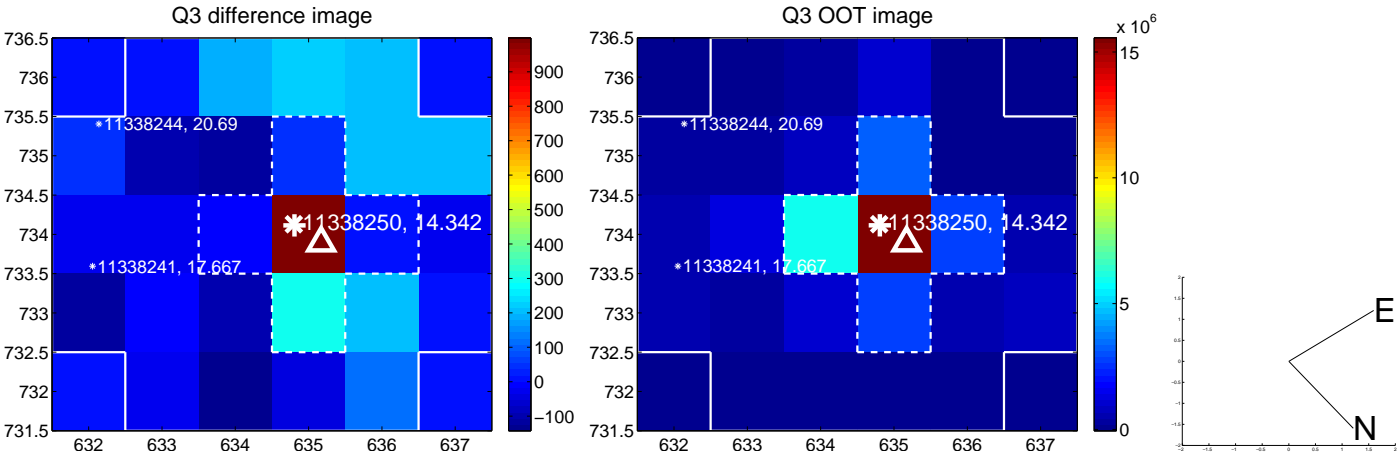
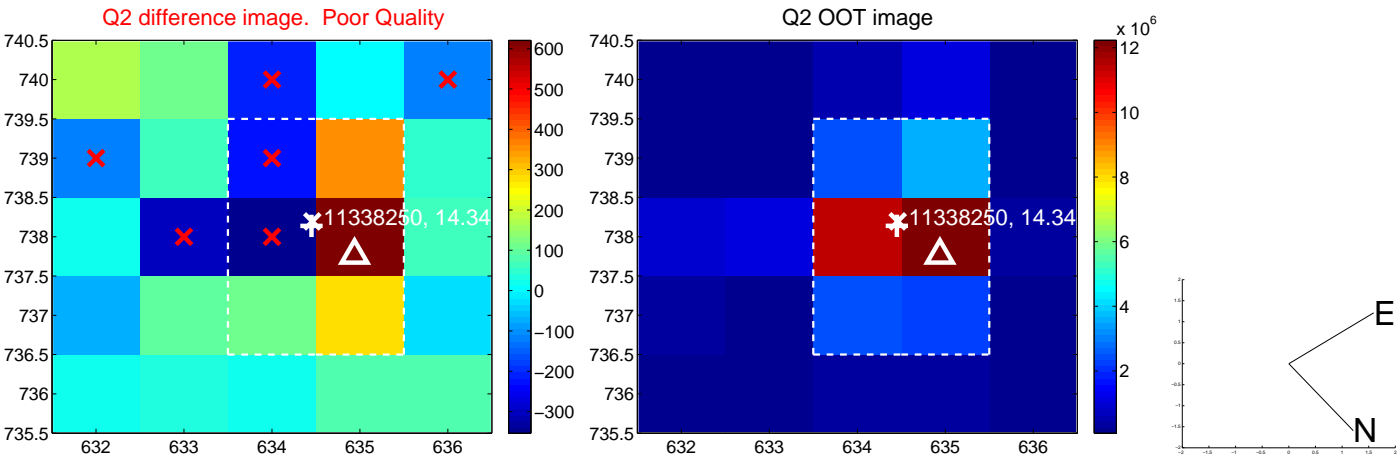
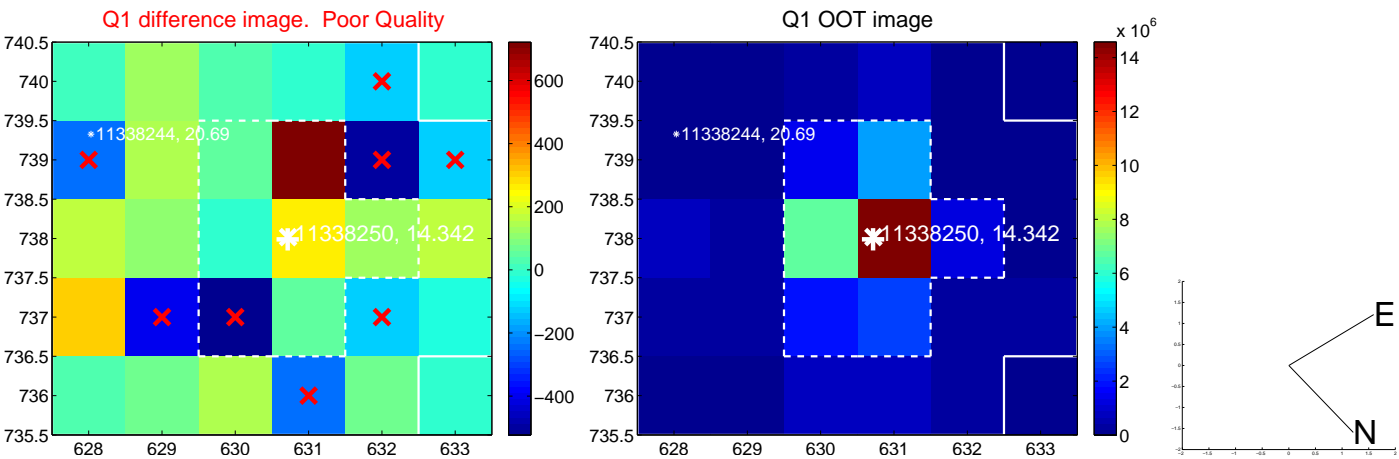
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.372 ± 0.870	0.43	0.288 ± 0.493	0.235 ± 0.912
PRF-fit source offset from KIC position	0.379 ± 0.895	0.42	0.080 ± 0.532	0.371 ± 0.838
photometric centroid source offset	3.76 ± 1.61	2.34	3.31 ± 1.61	-1.79 ± 1.59

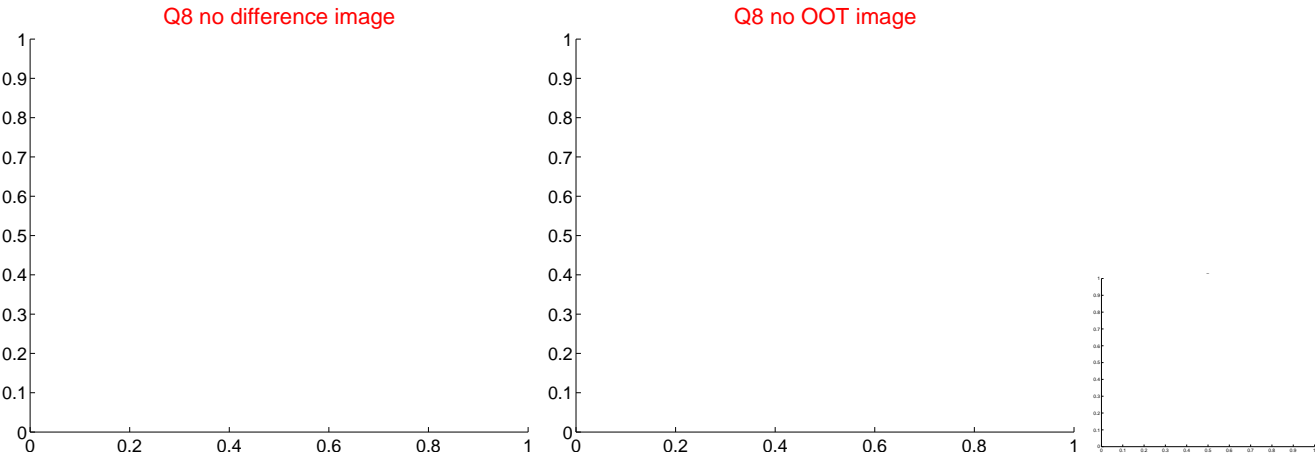
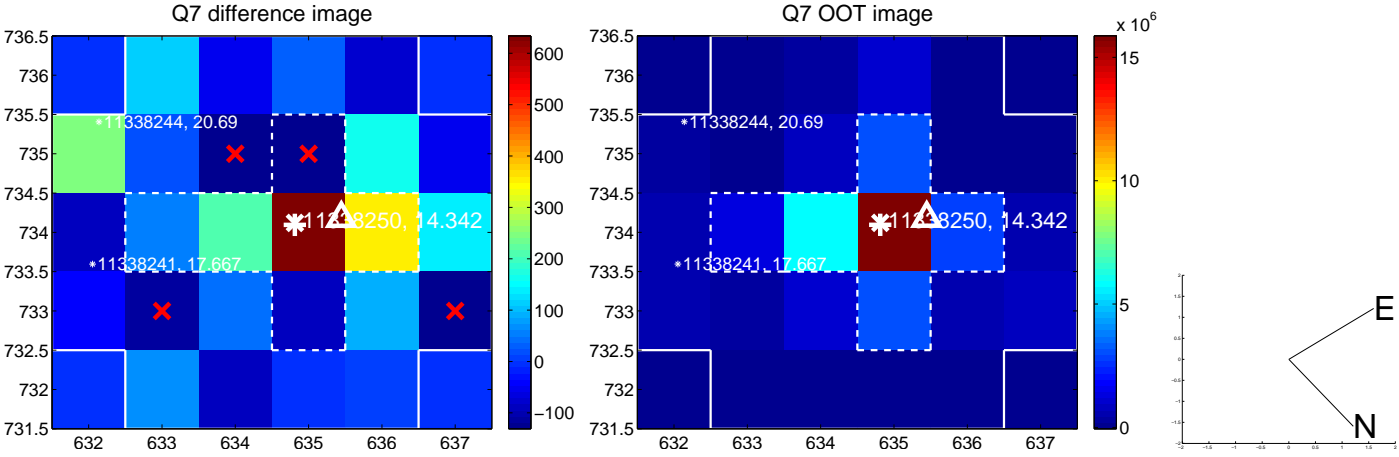
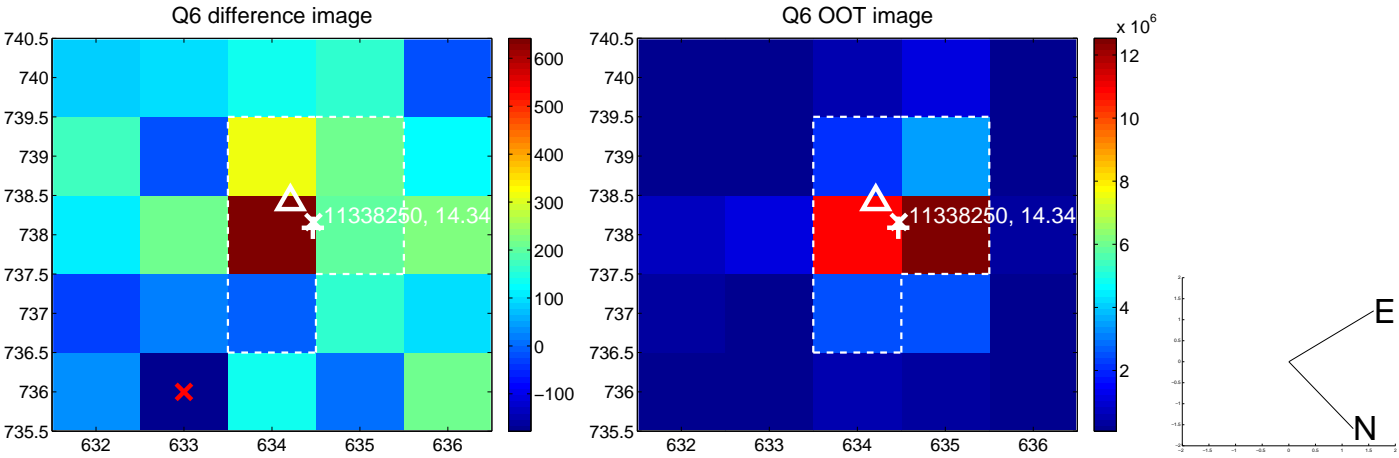
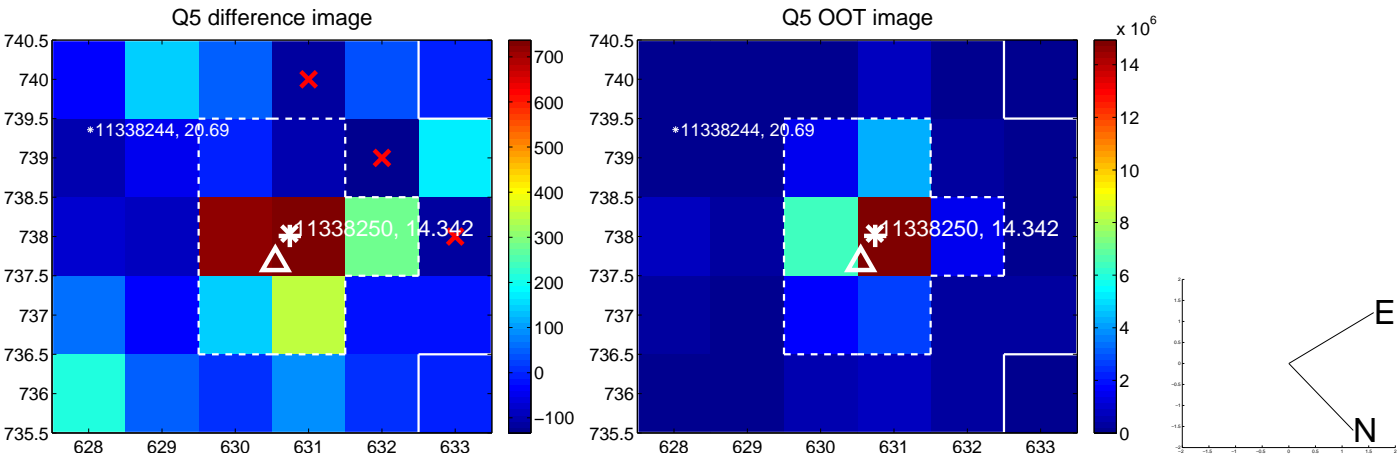


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

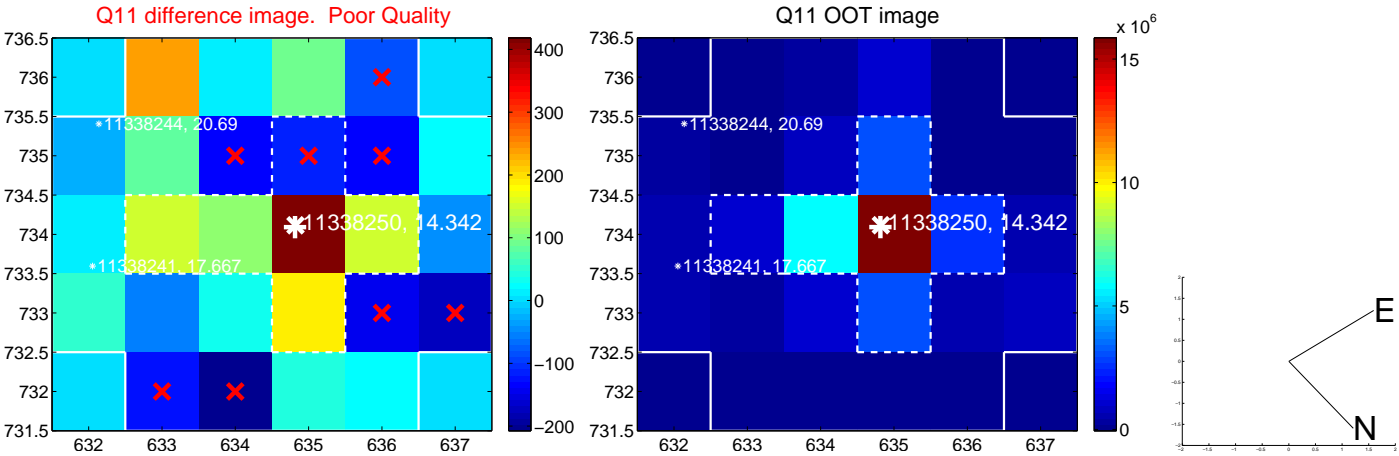
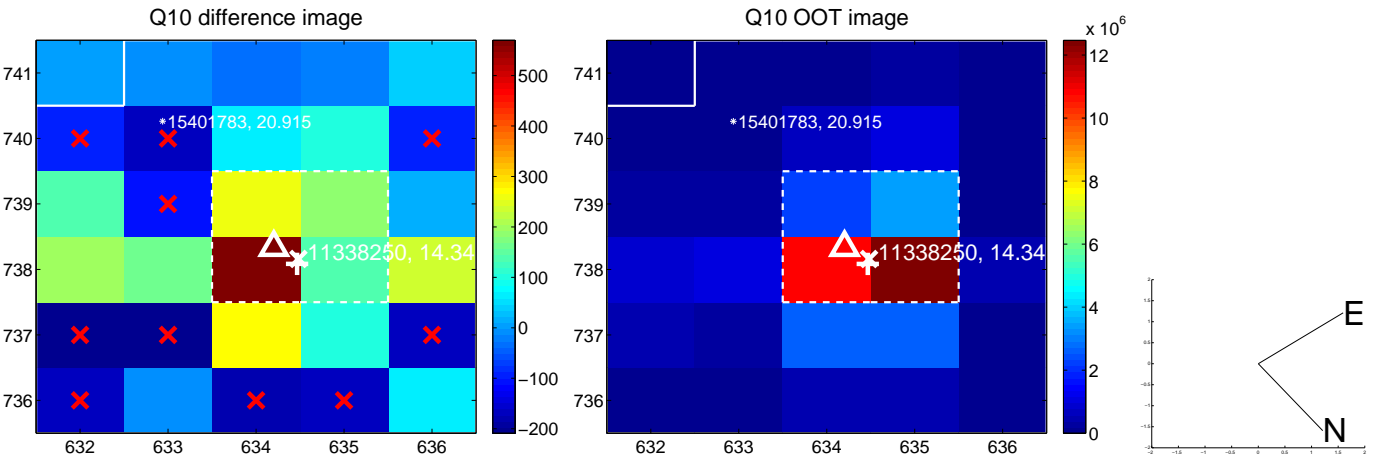
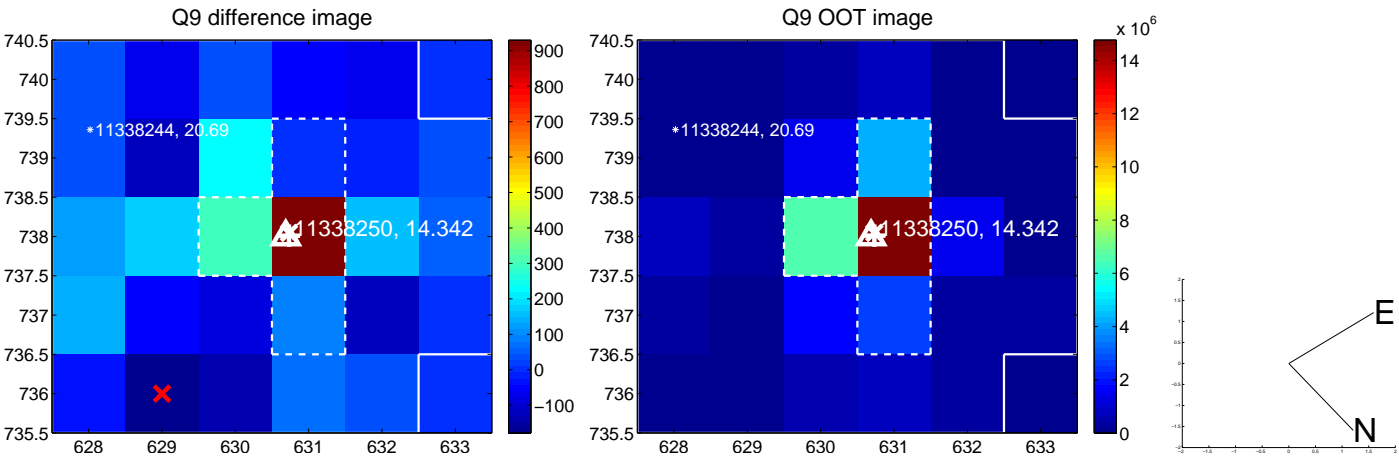
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



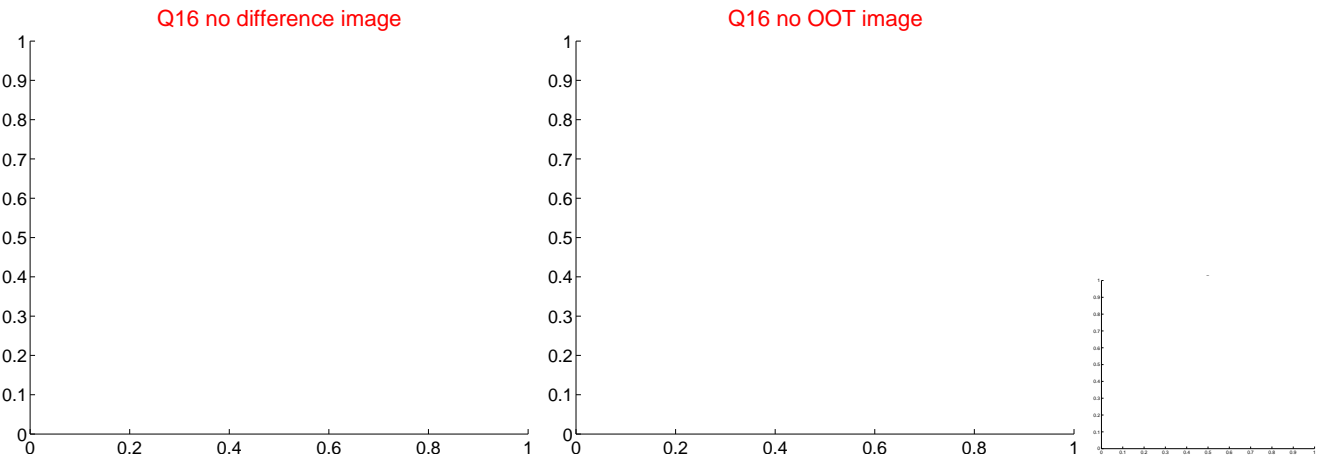
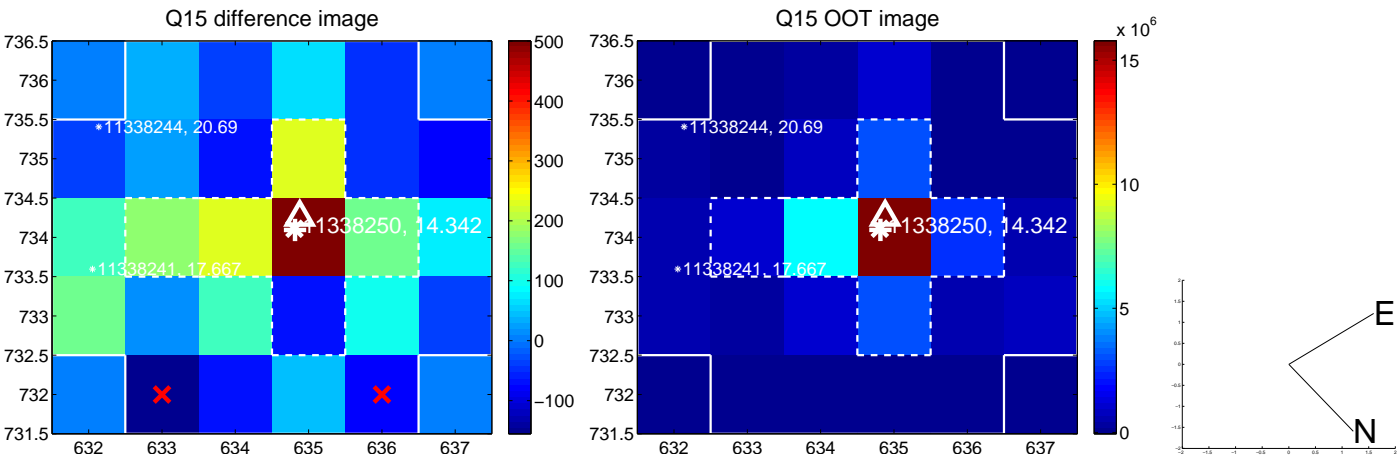
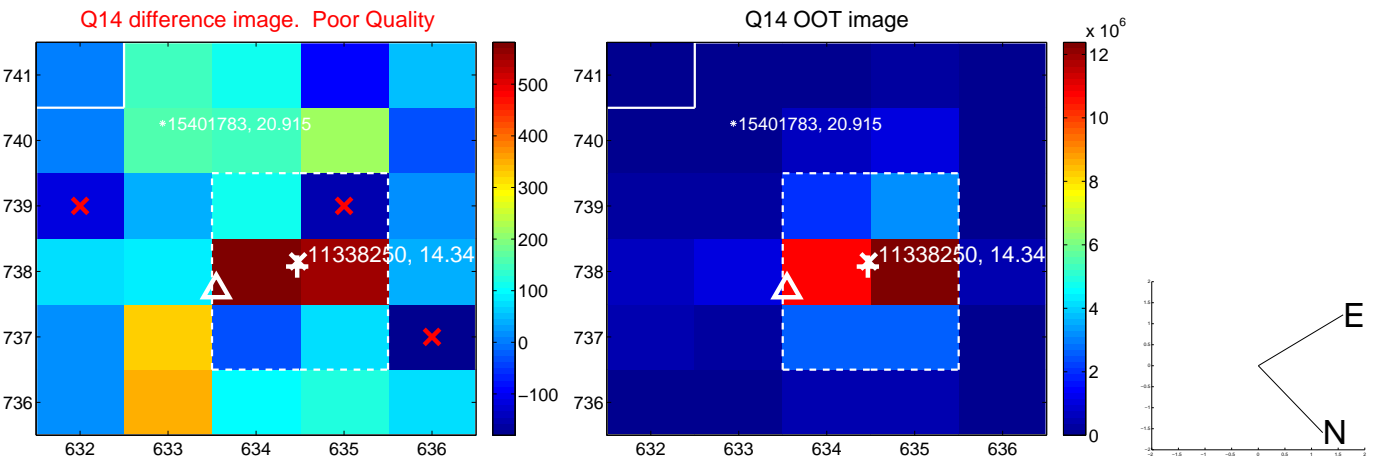
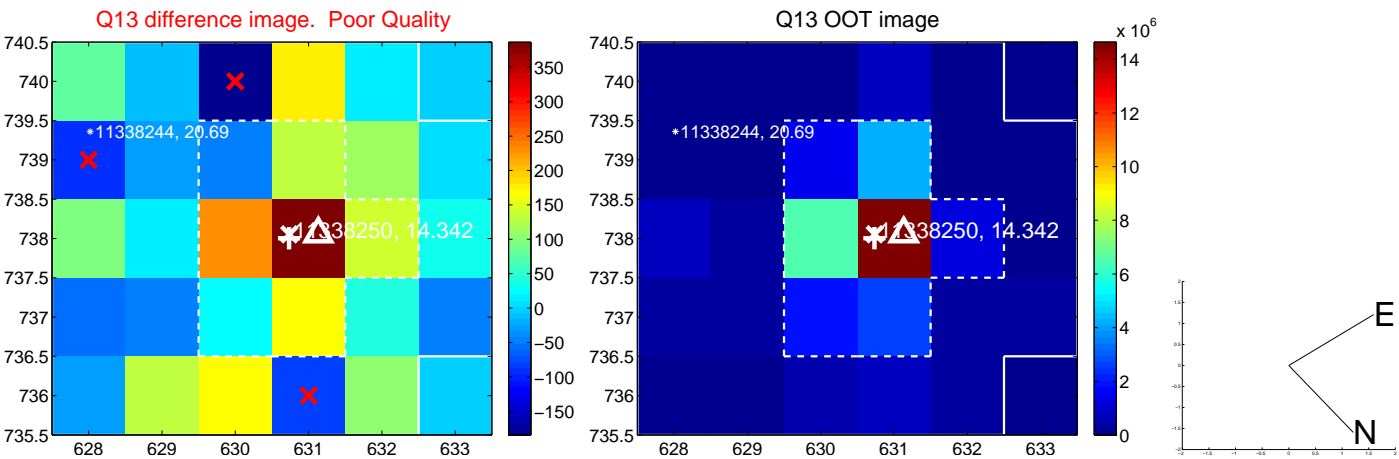
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



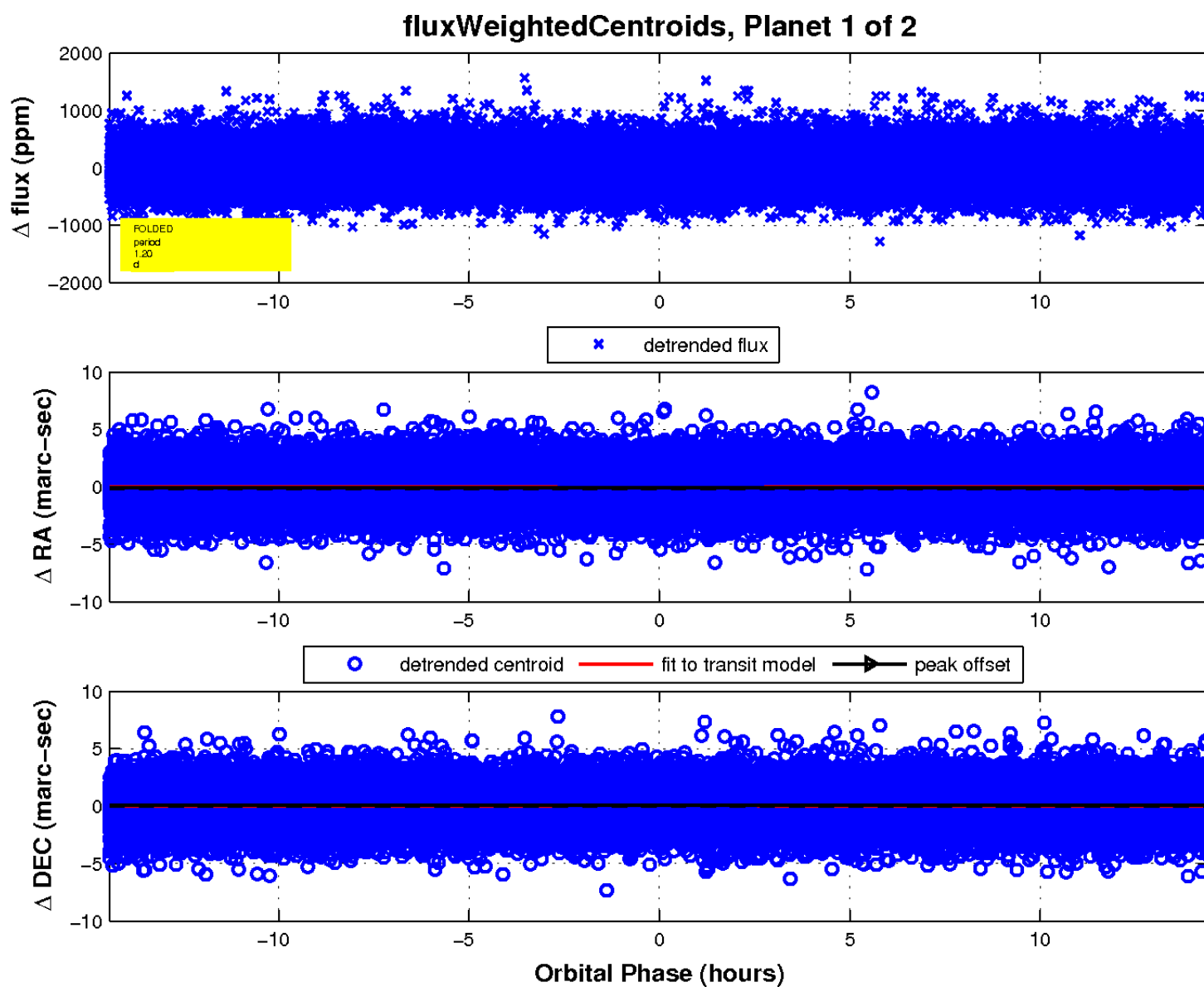
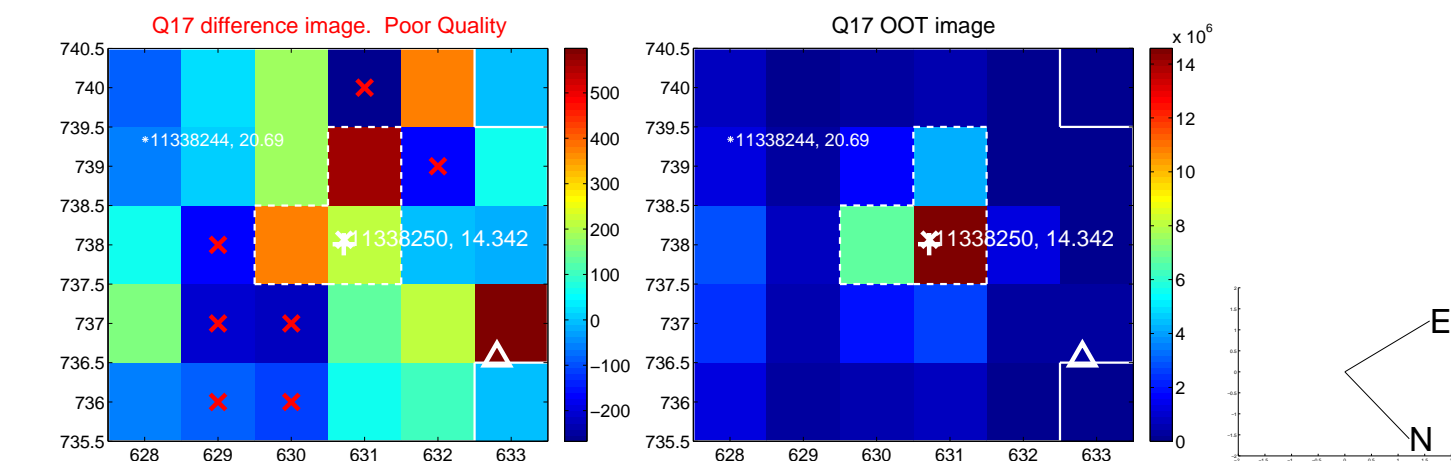
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

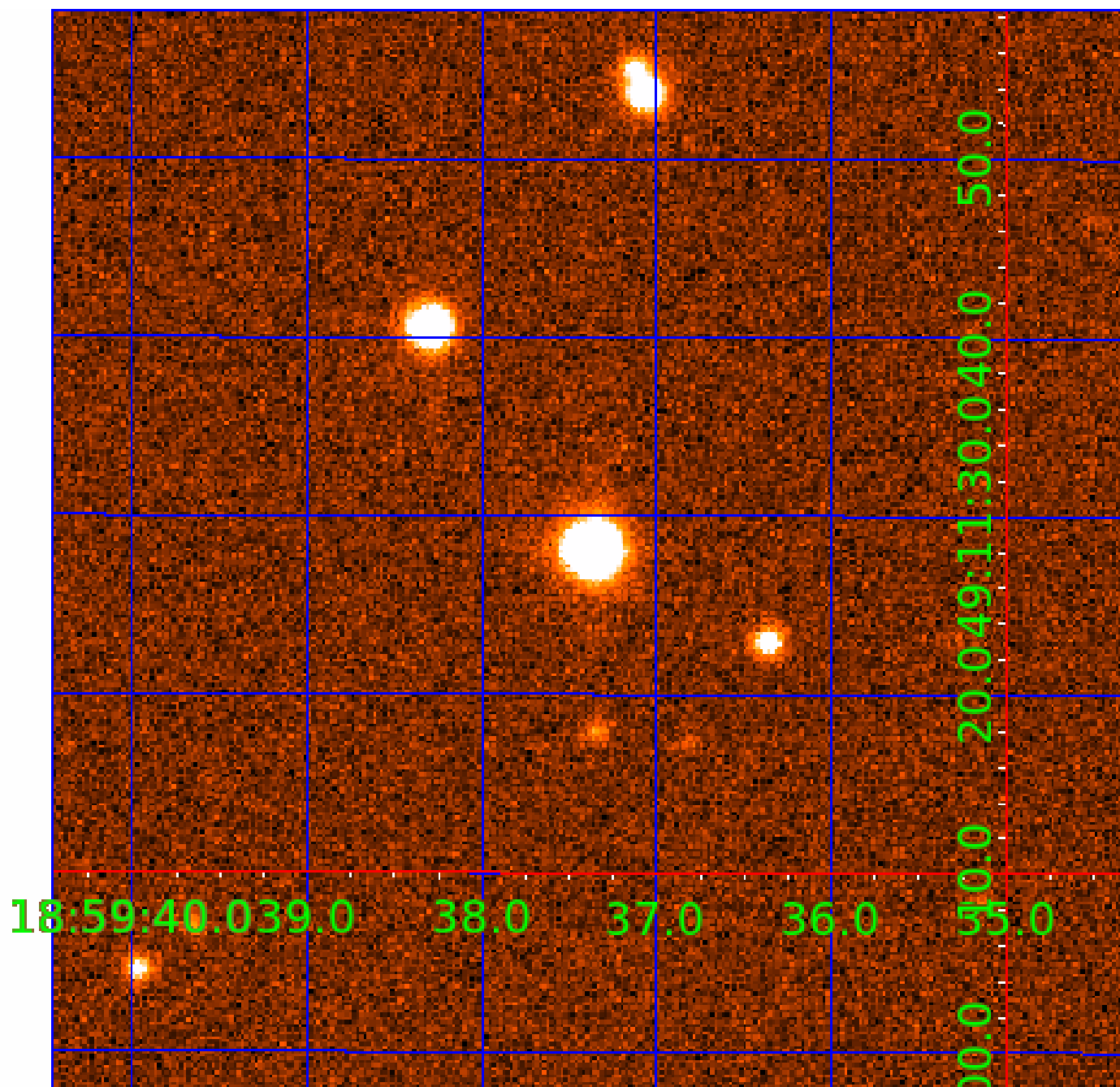


white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011338250

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})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011338250-01	OBS	FP	0.00	1	0	0	0	LPP_DV
011338250-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—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.

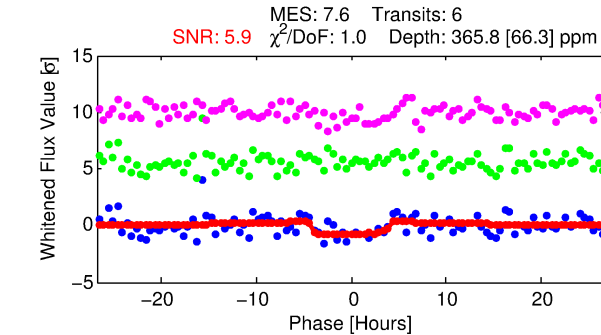
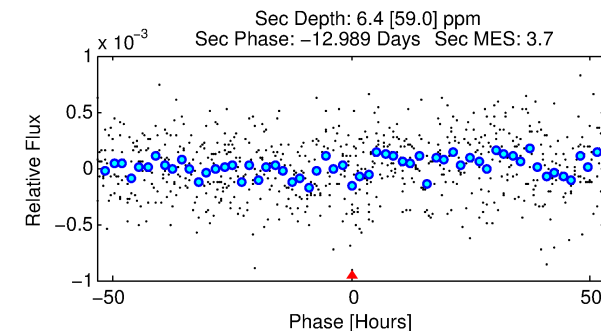
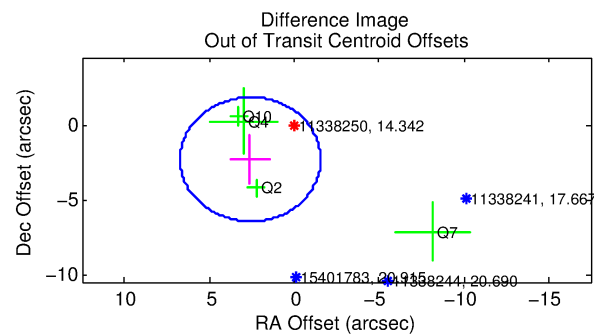
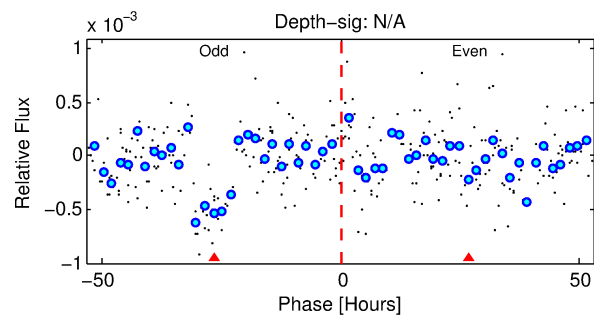
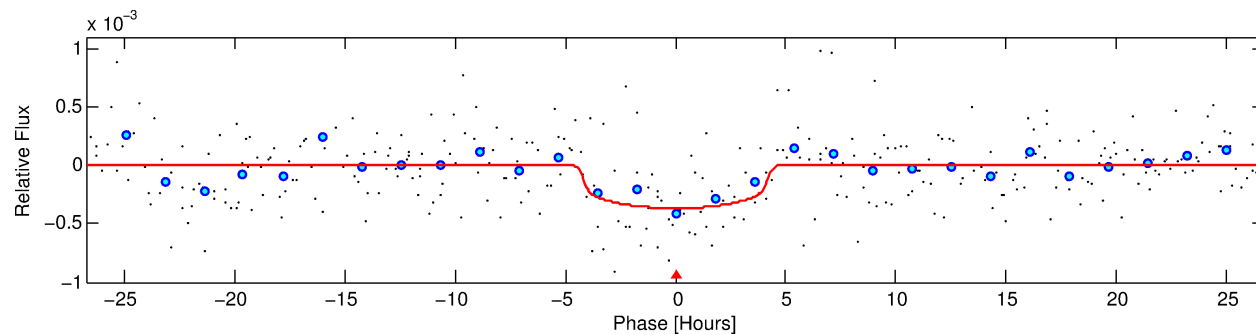
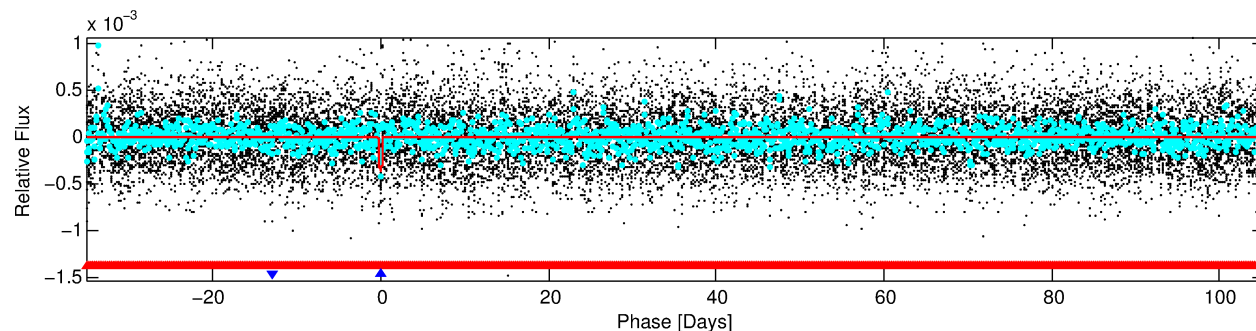
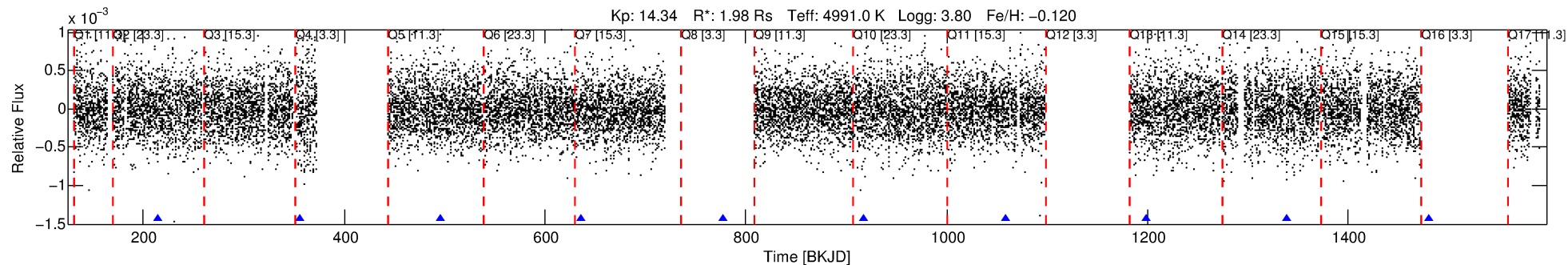
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011338250-02

No Significant Match Found

DV One-Page Summary

KIC: 11338250 Candidate: 2 of 2 Period: 140.546 d



DV Fit Results:

Period = 140.54587 [0.00368] d
Epoch = 215.0302 [0.0202] BKJD
Rp/R* = 0.0196 [0.0135]
a/R* = 76.26 [191.53]
b = 0.80 [1.16]
Seff = 8.34 [11.20]
Teff = 433 [145] K
Rp = 4.23 [3.99] Re
a = 0.5104 [0.3905] AU
Ag = 50.98 [482.68] [0.10] σ
Teffp = 1790 [4196] K [0.32] σ

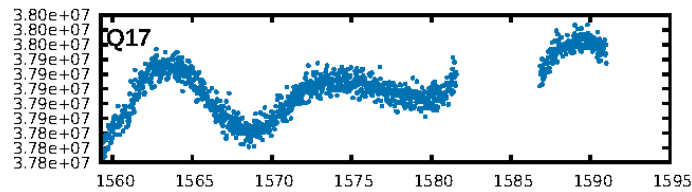
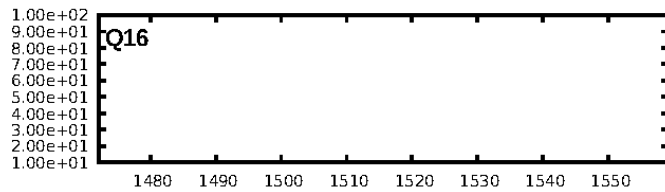
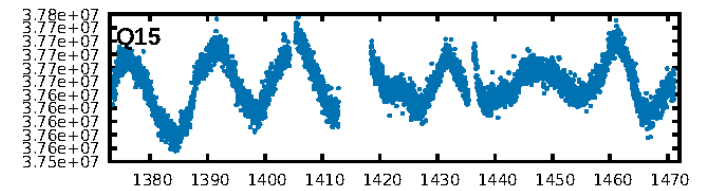
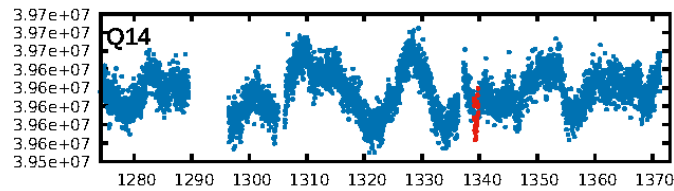
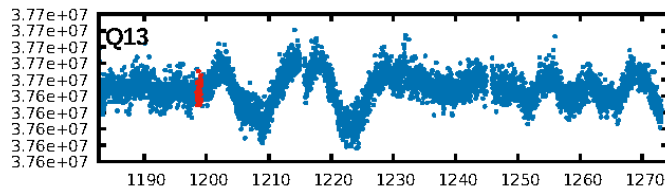
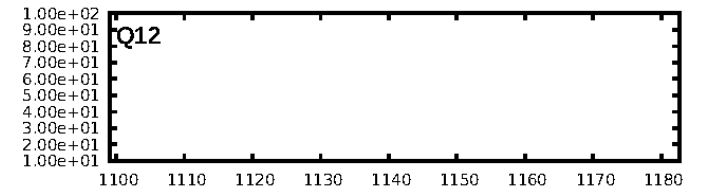
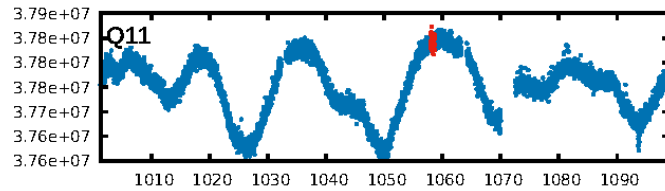
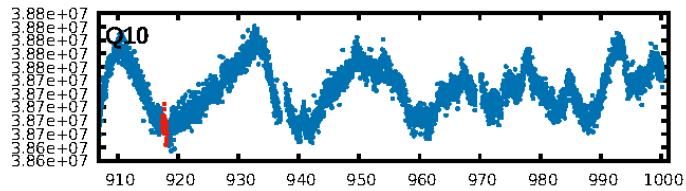
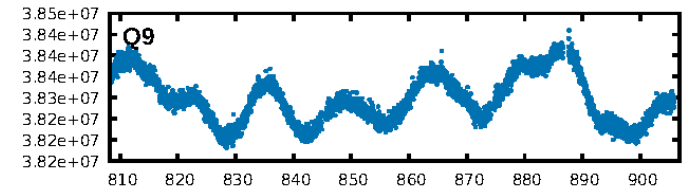
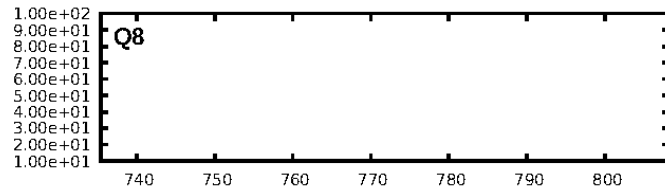
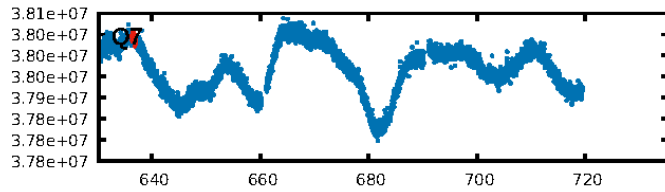
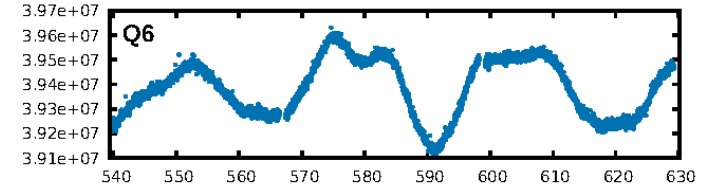
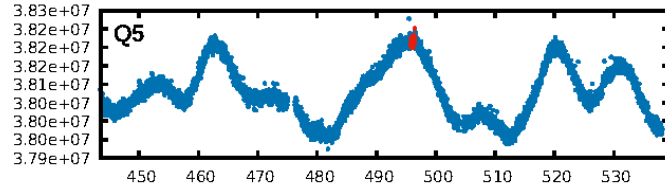
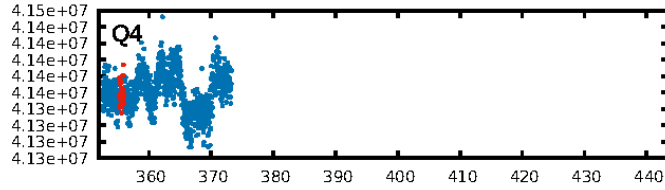
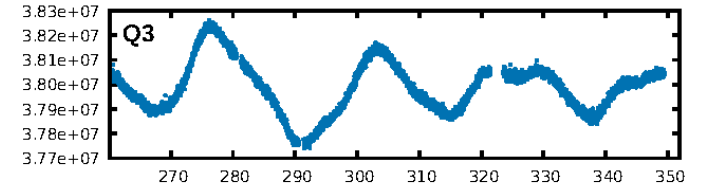
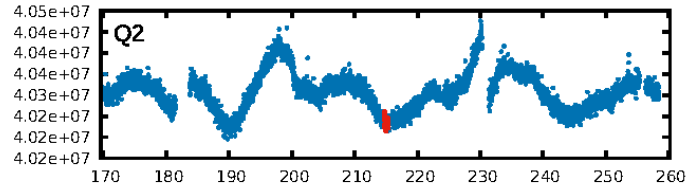
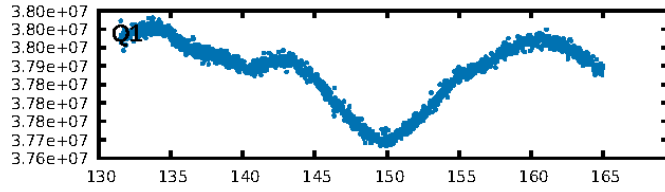
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [317.63] σ
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.77e-09
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 0.6672
Centroid-sig: 83.7%
Centroid-so: 0.590 arcsec [0.45] σ
OotOffset-rm: 3.466 arcsec [2.51] σ
KicOffset-rm: 3.212 arcsec [2.33] σ
OotOffset-st: 2/1/1/0 [4]
KicOffset-st: 2/1/1/0 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.00 [0/8]

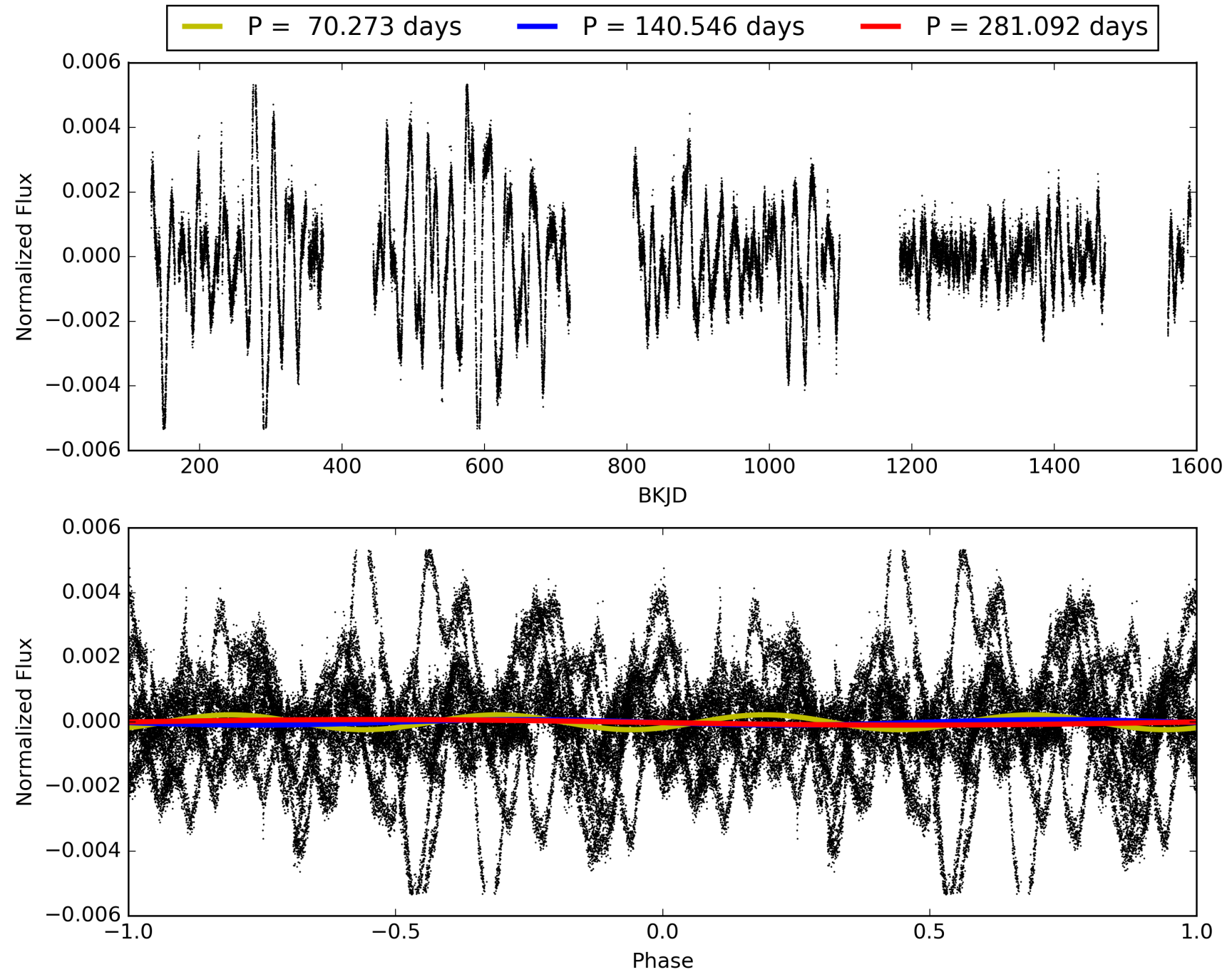
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:05:48 Z

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

TCE 011338250-02, PDC Light Curves

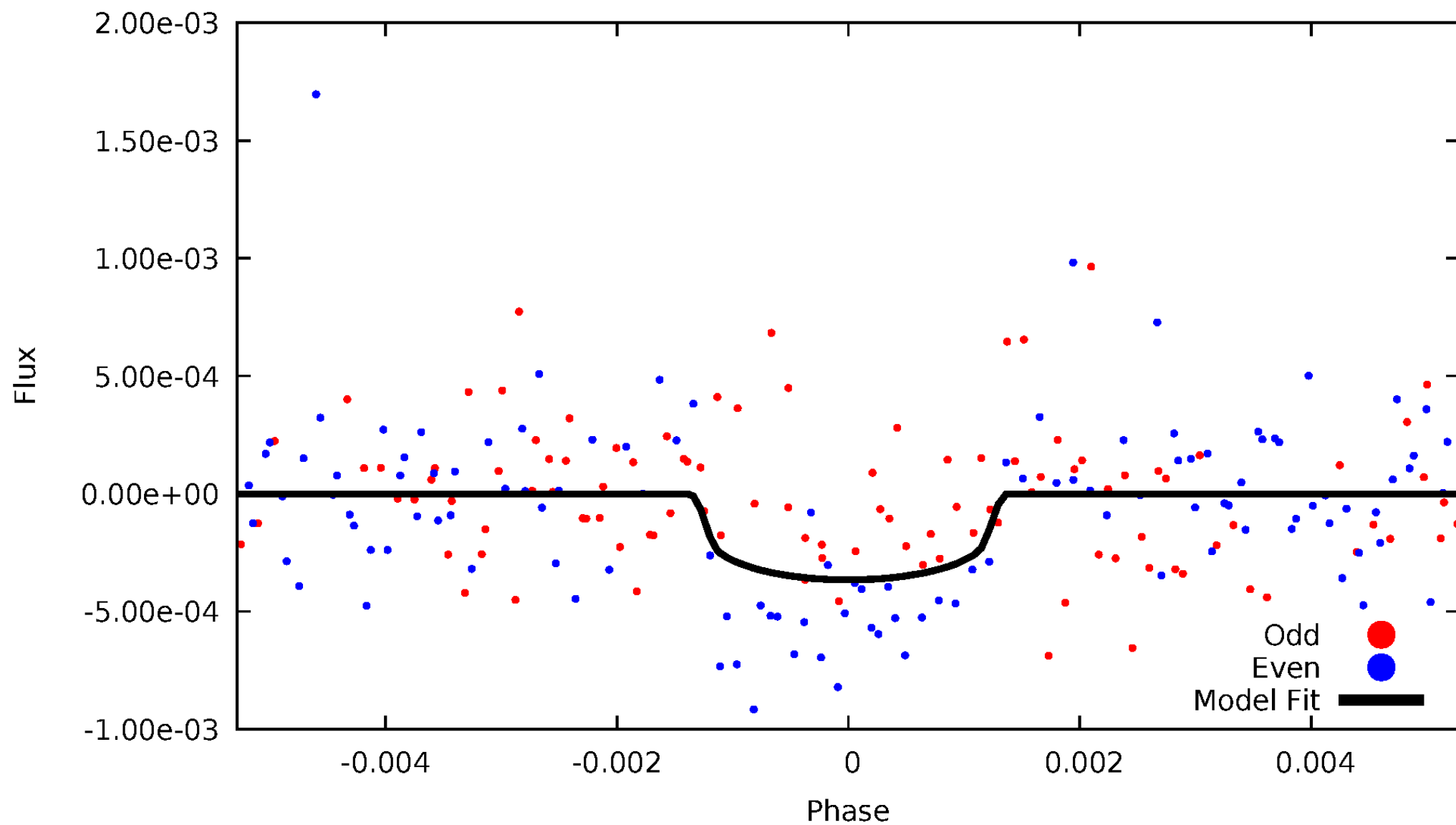


TCE 011338250-02



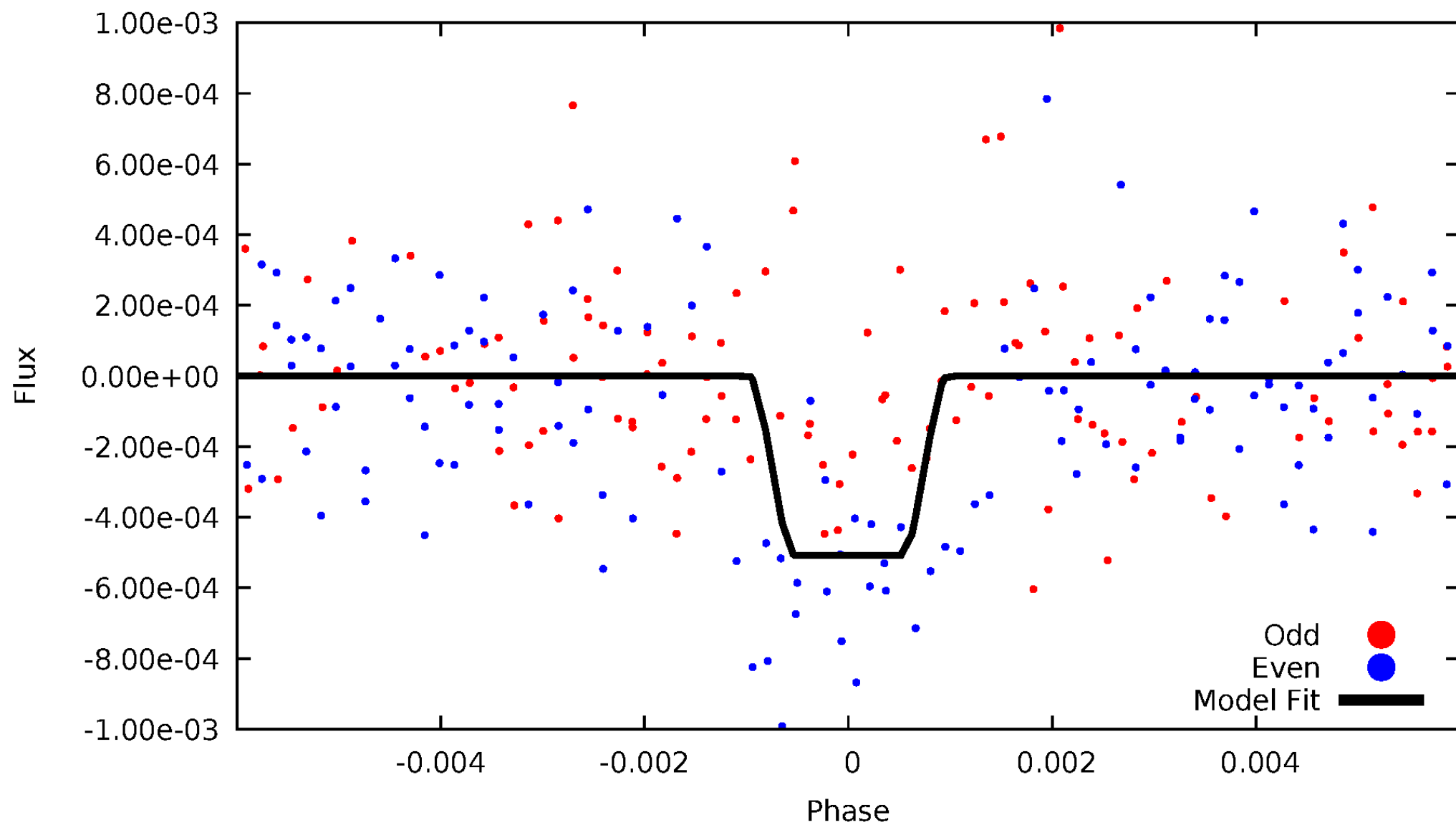
DV Odd/Even

TCE 011338250-02



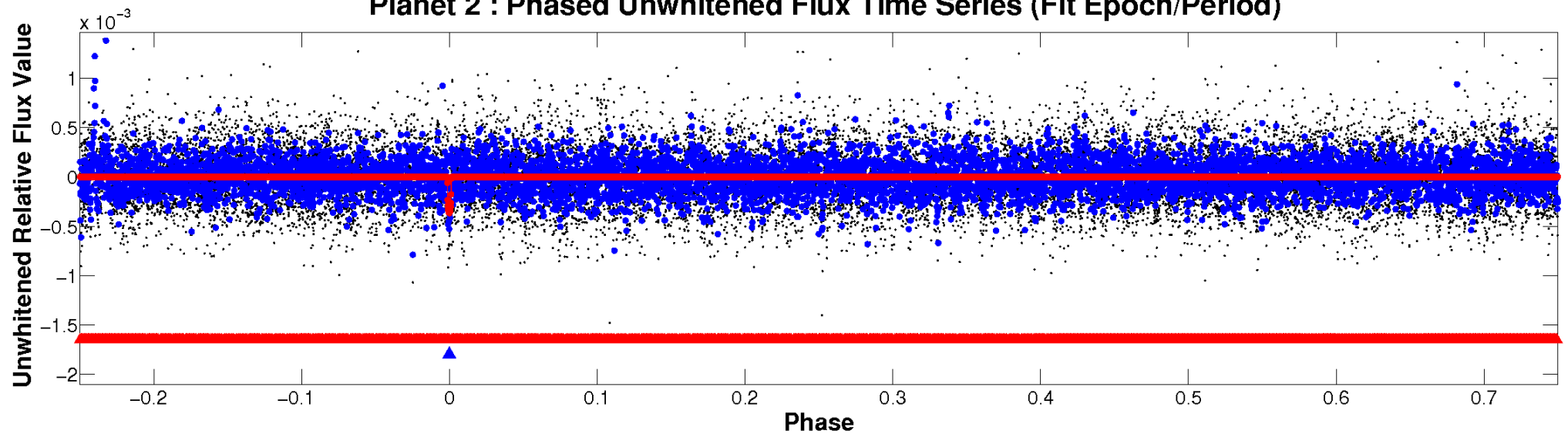
ALT Odd/Even

TCE 011338250-02

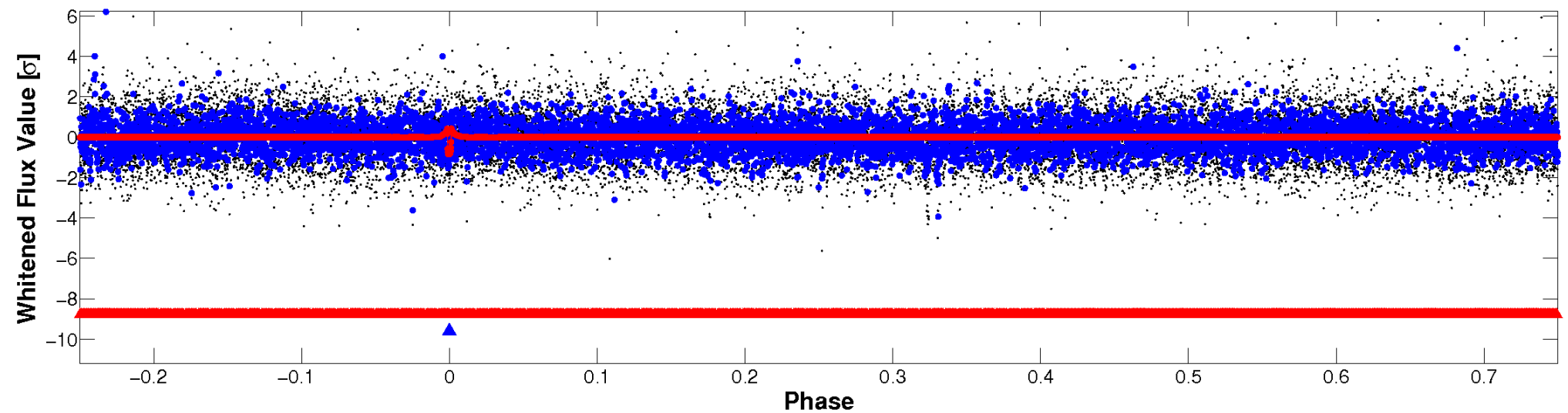


Non-Whitened Vs. Whitened Light Curve

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

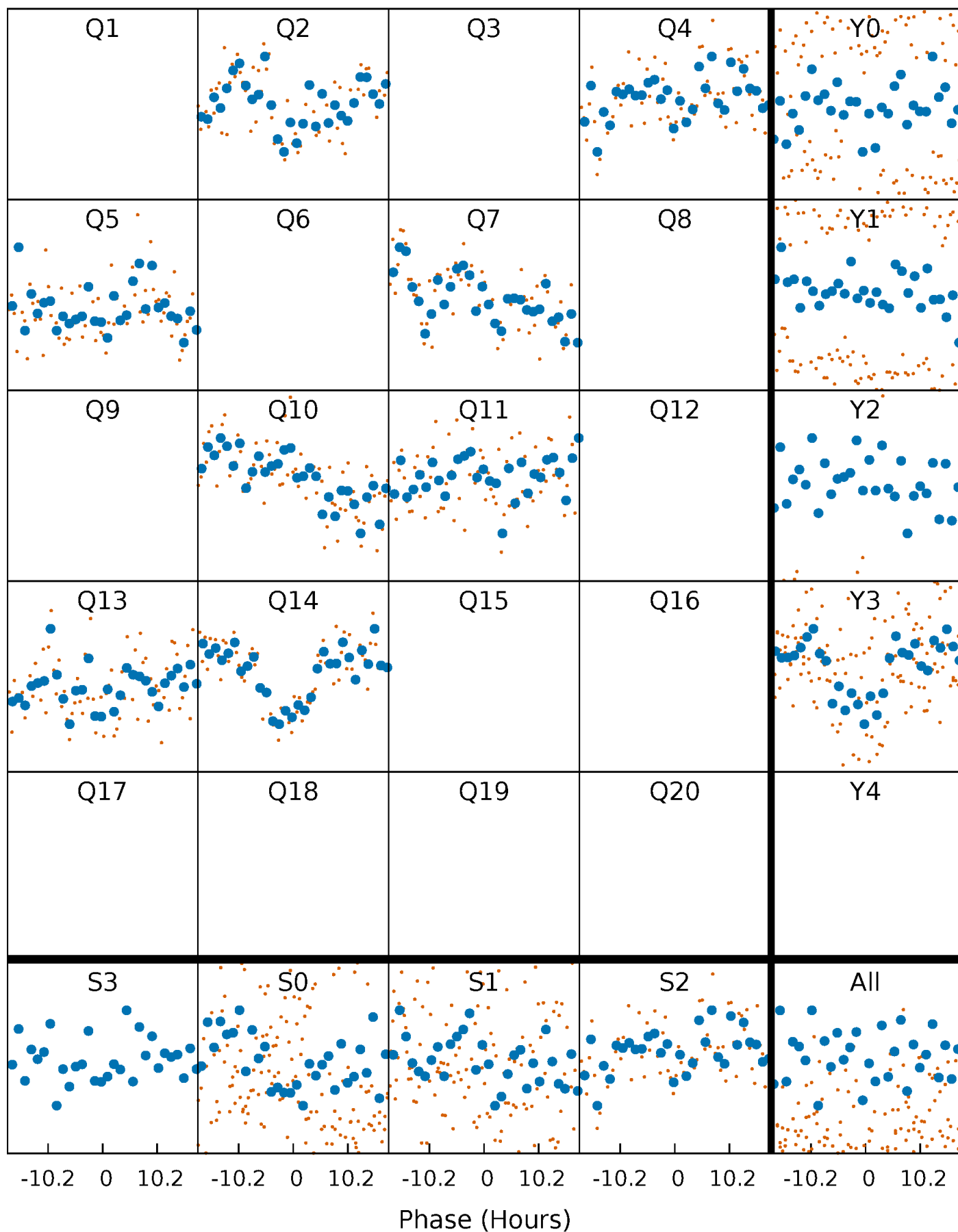


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



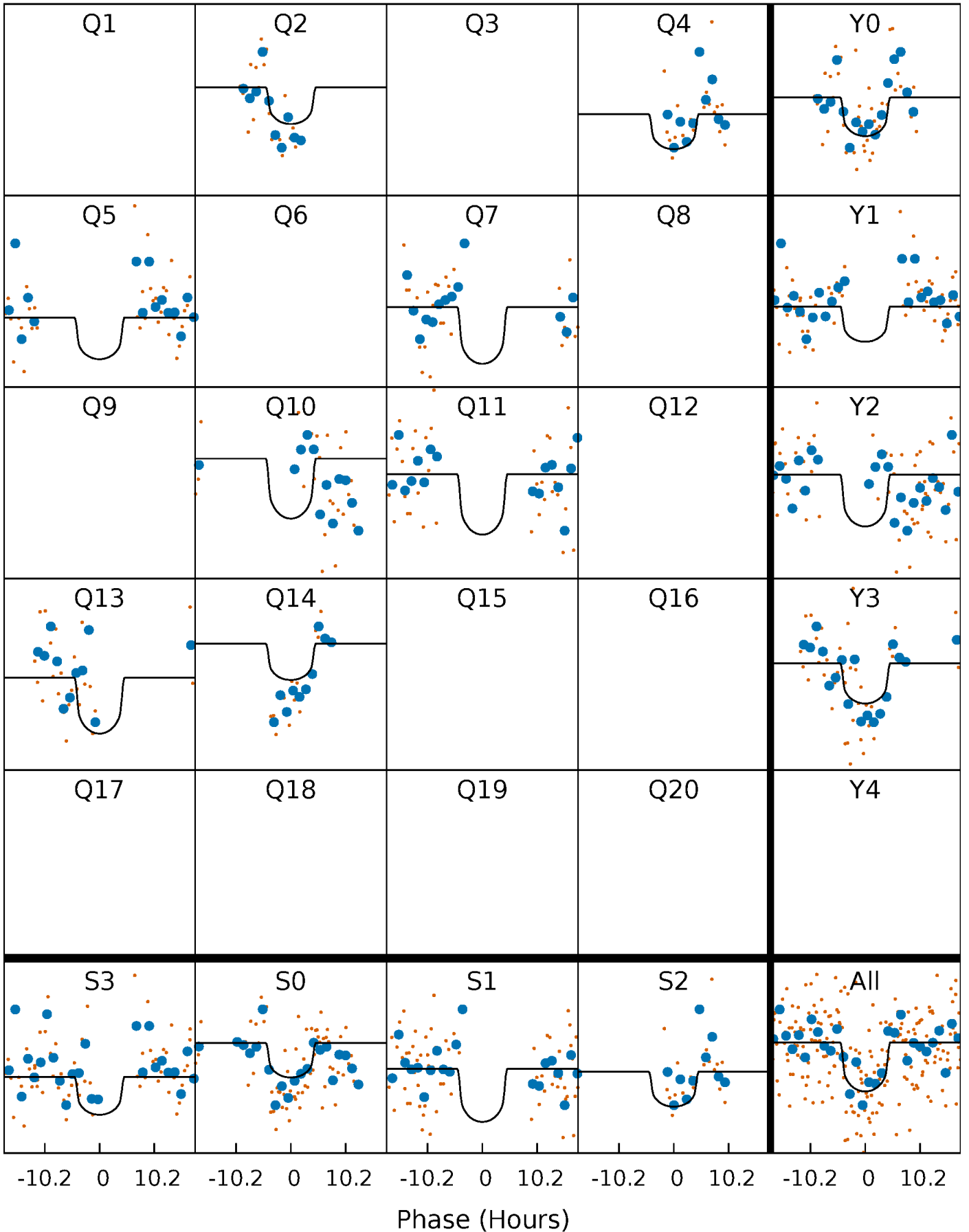
PDC Quarter-Phased Transit Curves

TCE 011338250-02 P=140.545873 Days $T_0=215.030246$ (BKJD)



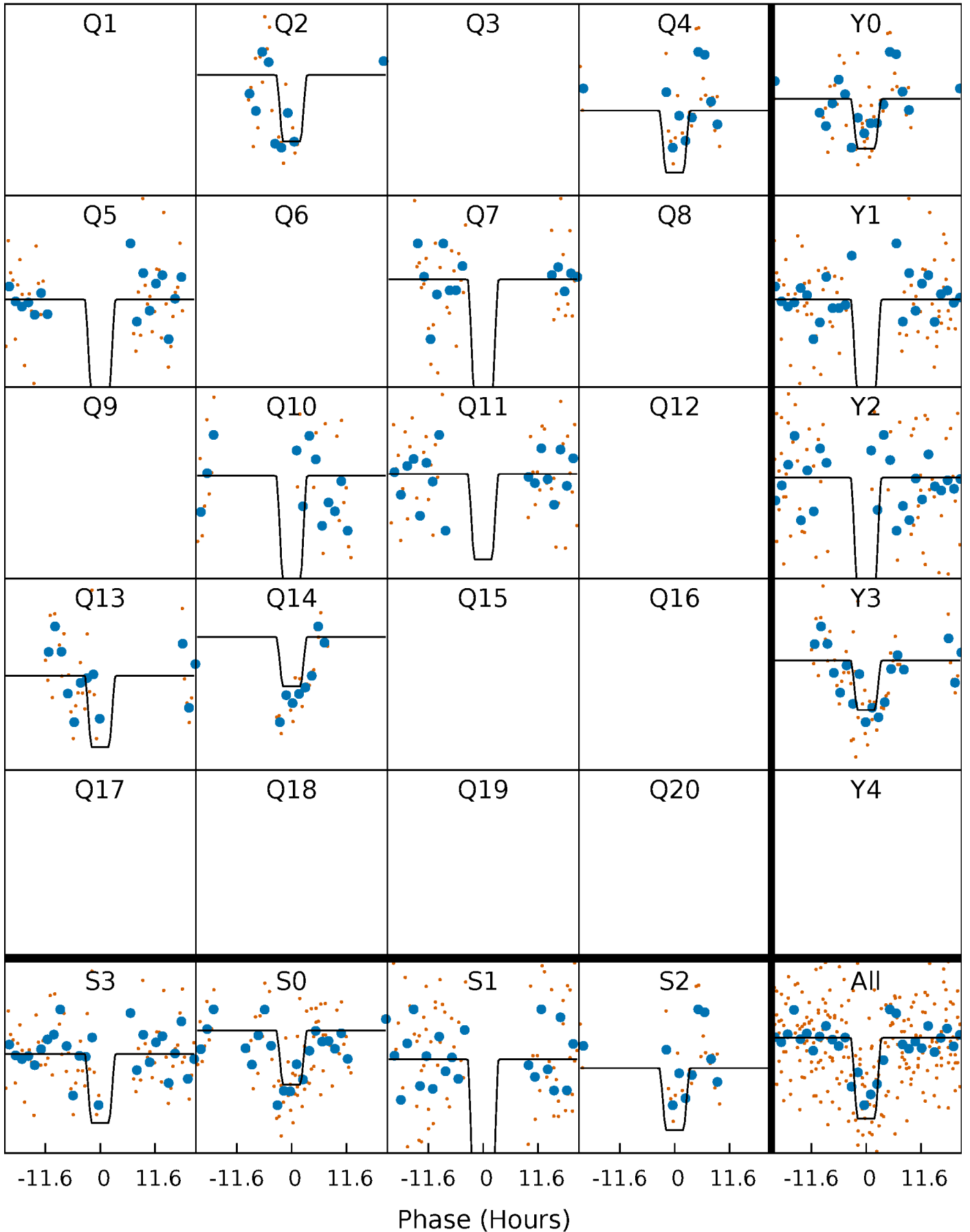
DV Quarter-Phased Transit Curves

TCE 011338250-02 P=140.545873 Days $T_0=215.030246$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

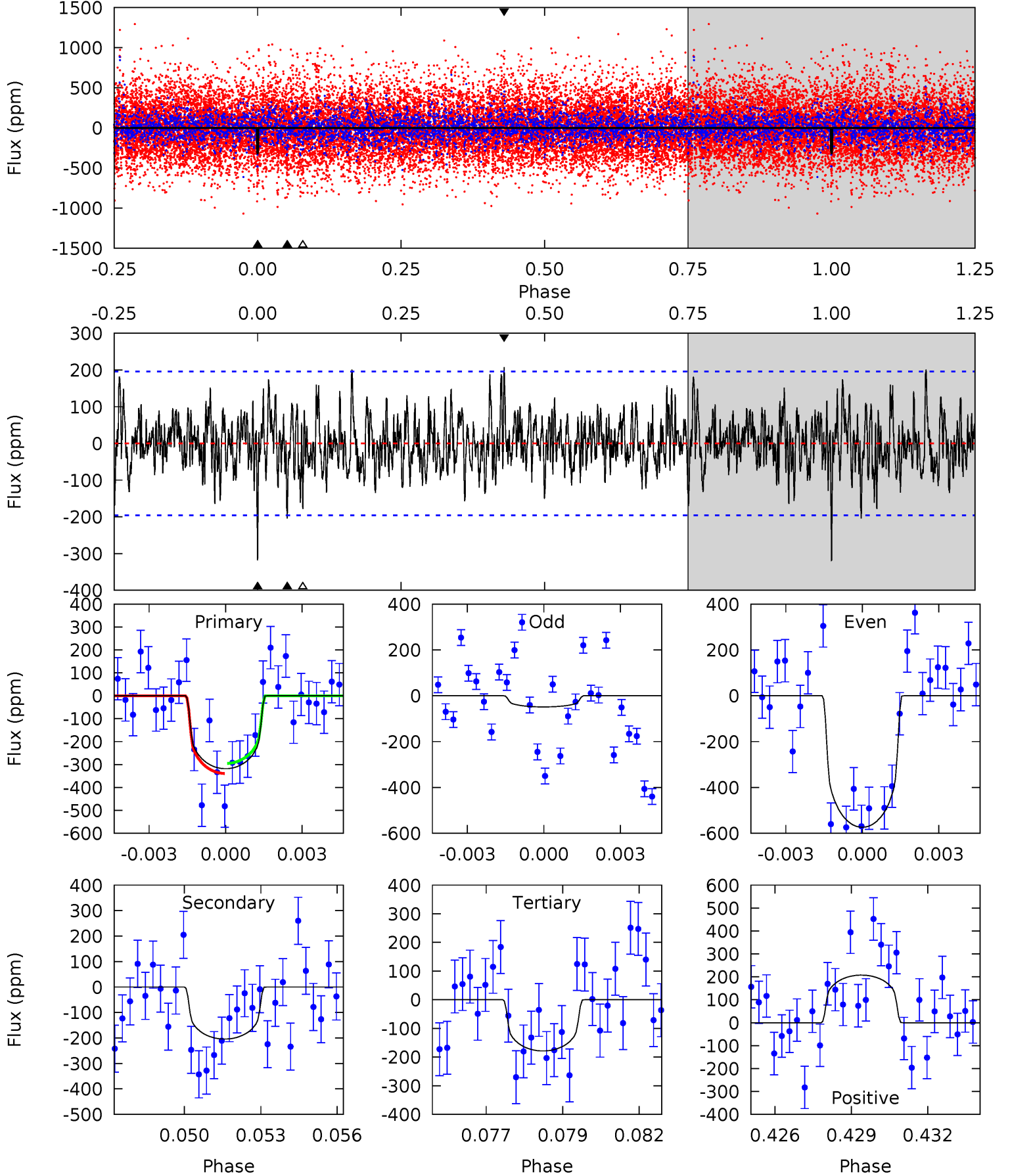
TCE 011338250-02 P=140.542026 Days $T_0=215.037160$ (BKJD)



DV Model-Shift Uniqueness Test

011338250-02, P = 140.545873 Days, E = 74.484373 Days

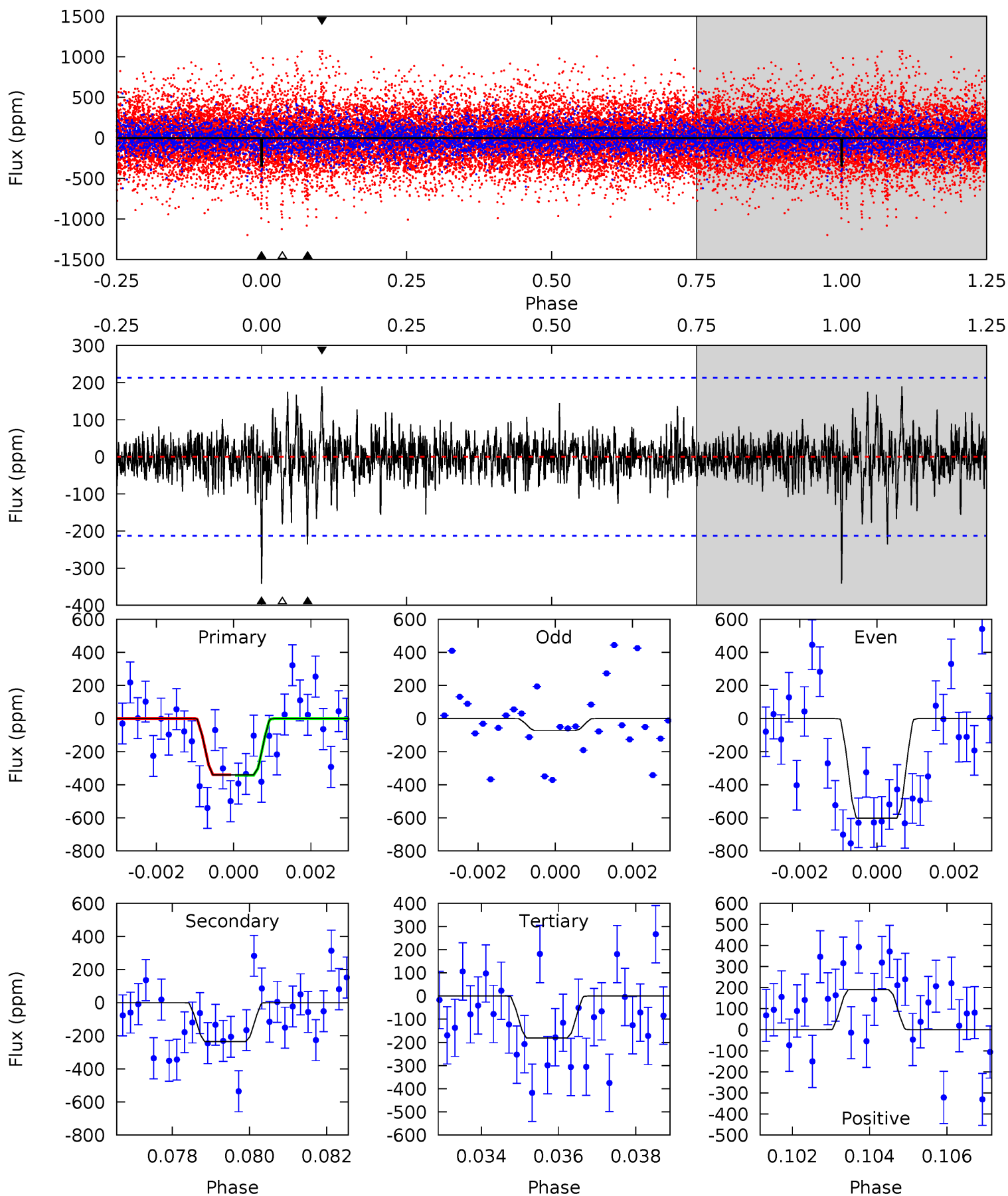
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.57	5.50	4.81	5.59	5.28	3.01	1.59	3.76	2.98	0.69	-0.09	7.06	1.39	0.39	0.59



Alt Model-Shift Uniqueness Test

011338250-02, P = 140.542026 Days, E = 74.495134 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.54	5.91	4.54	4.75	5.33	3.09	1.05	4.01	3.79	1.37	1.16	6.69	2.13	0.36	0.04



Stellar Parameters For KIC 011338250

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4991^{+136}_{-151}	$3.799^{+0.825}_{-0.330}$	$-0.120^{+0.300}_{-0.300}$	$1.977^{+1.042}_{-1.273}$	$0.896^{+0.198}_{-0.178}$	$0.164^{+3.089}_{-0.103}$
	+3%/-3%	+22%/-9%	+250%/-250%	+53%/-64%	+22%/-20%	+1889%/-63%
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 011338250-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-204 ± 37	$3.99^{+3.31}_{-2.53}$	596^{+100}_{-109}	4312^{+1937}_{-669}	1866^{+11905}_{-1329}
Alt.	-236 ± 40	$4.69^{+3.70}_{-2.69}$	599^{+89}_{-115}	4167^{+1515}_{-607}	1535^{+7364}_{-1057}

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 $A_{obs} \gg 1.0$

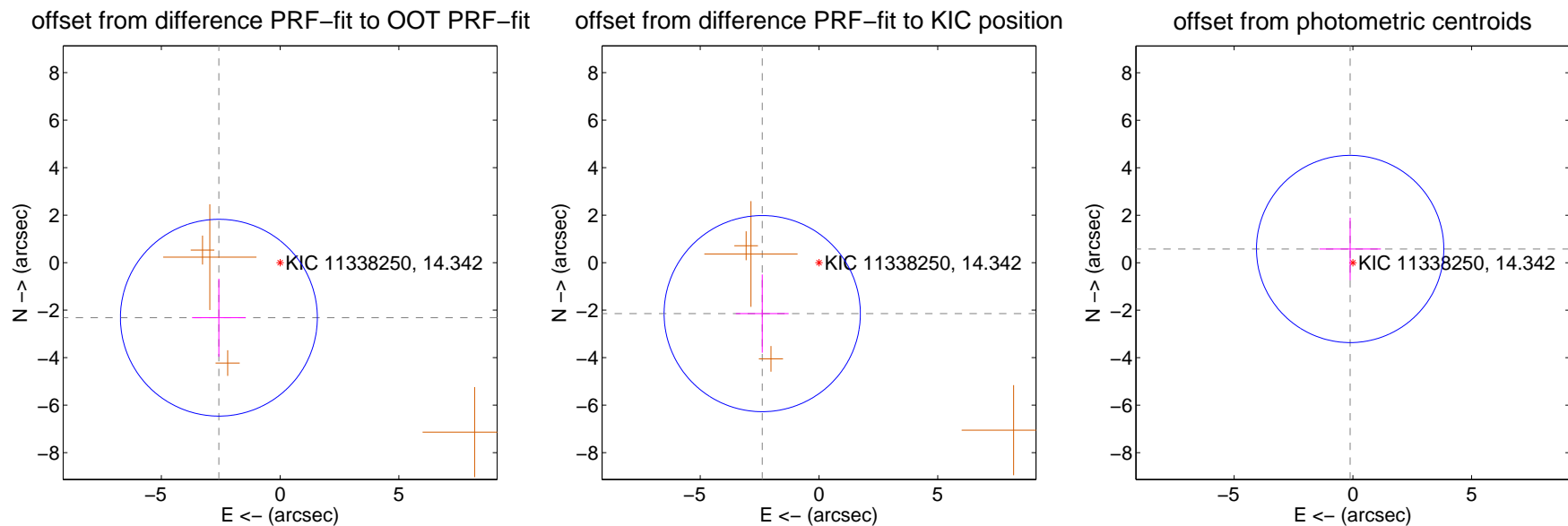
DV Centroid Data

Supplemental centroid analysis for 011338250-02. Kepler magnitude: 14.34. Transit SNR 5.87

There are 0 quarters with good PRF difference image offsets

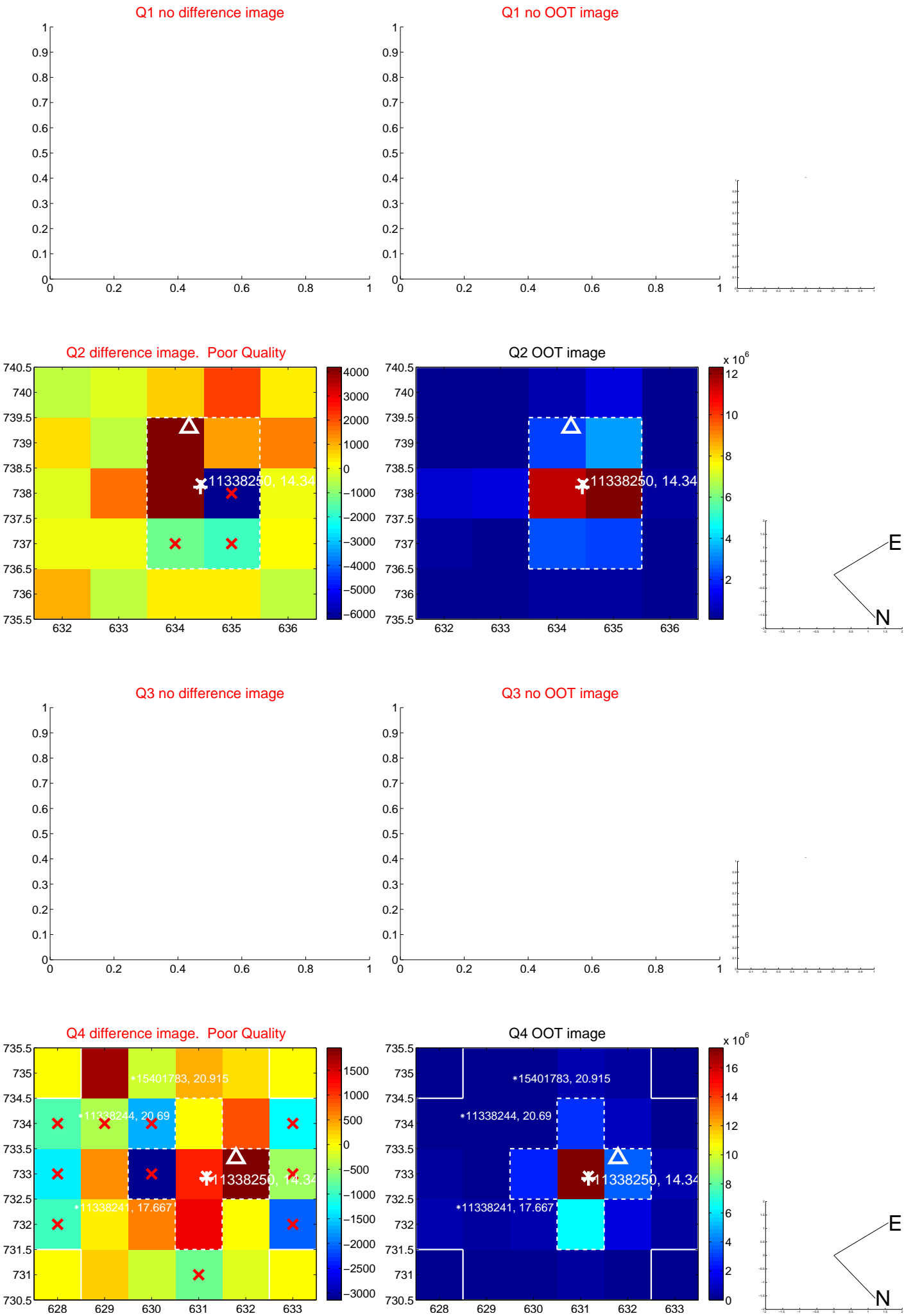
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.466 ± 1.381	2.51	2.577 ± 1.128	-2.319 ± 1.641
PRF-fit source offset from KIC position	3.212 ± 1.377	2.33	2.389 ± 1.112	-2.147 ± 1.646
photometric centroid source offset	0.59 ± 1.31	0.45	0.11 ± 1.29	0.58 ± 1.32

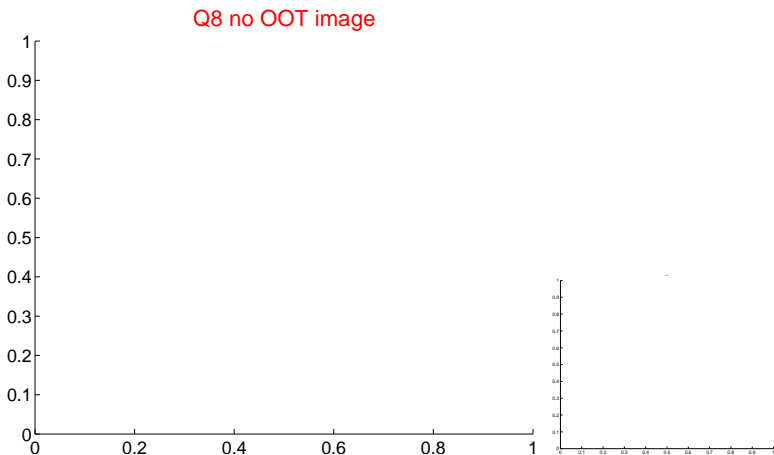
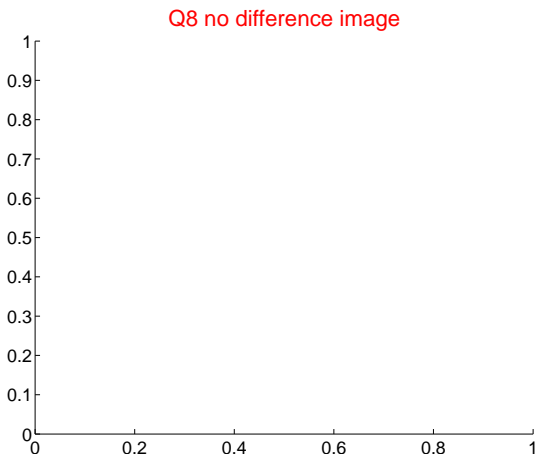
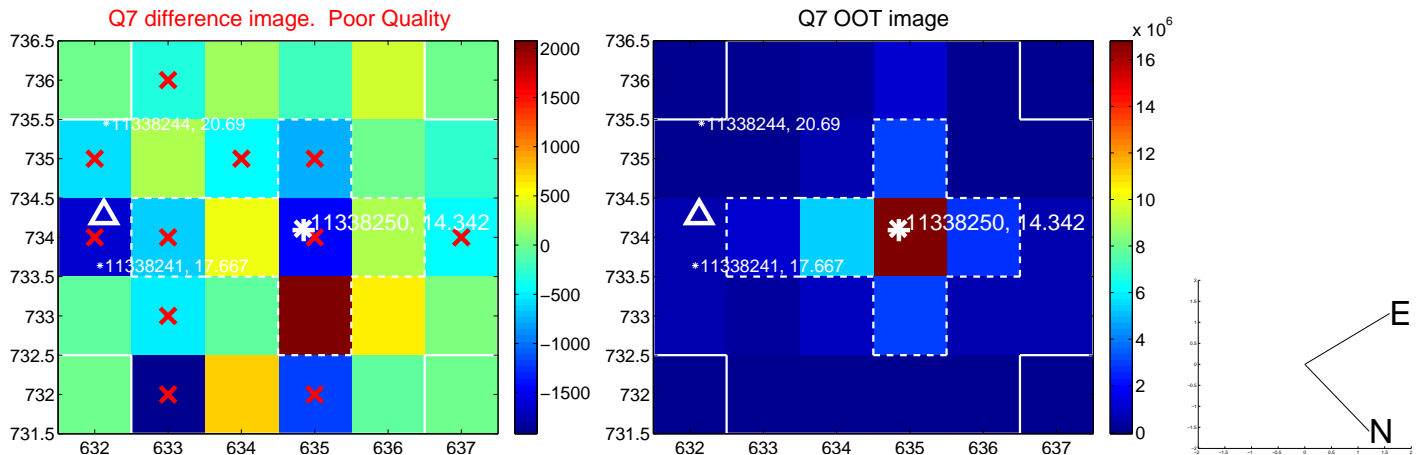
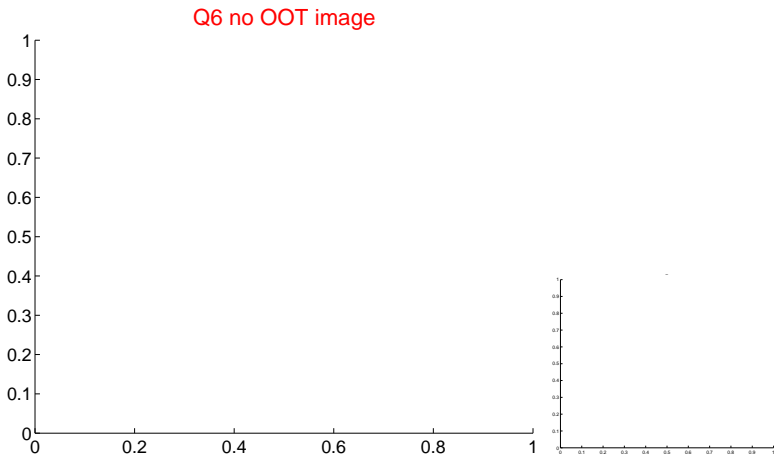
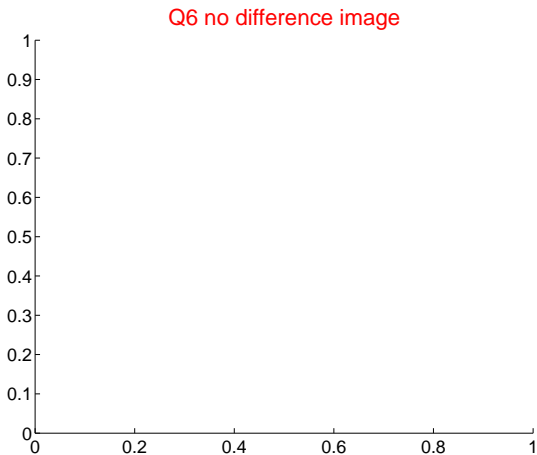
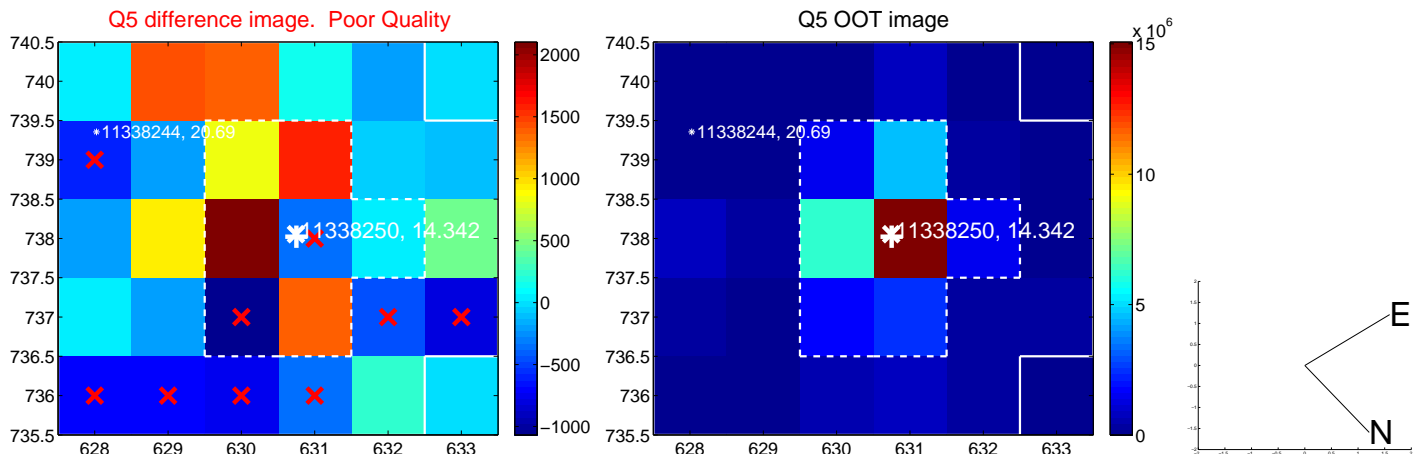


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

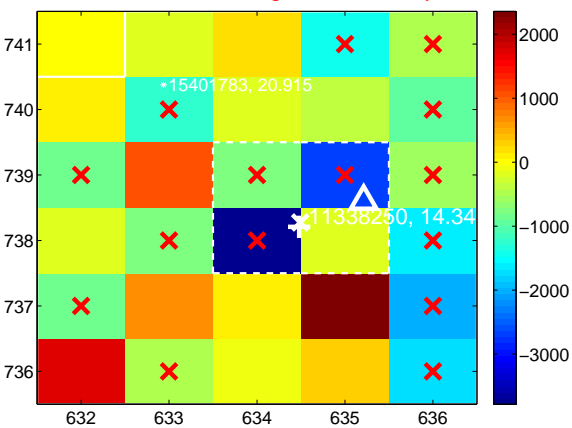
Q9 no difference image



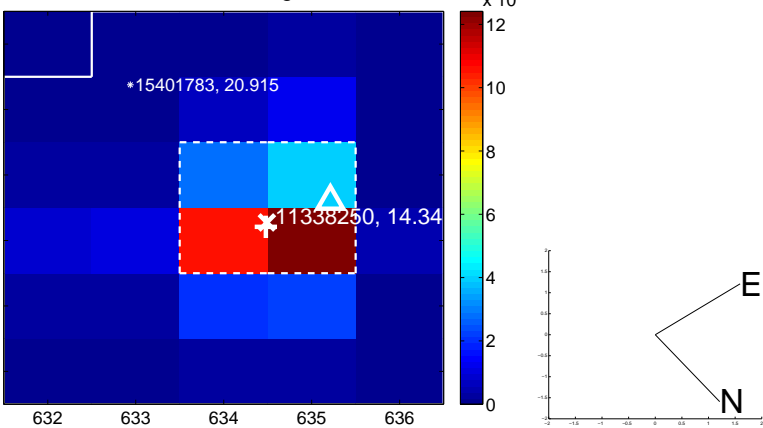
Q9 no OOT image



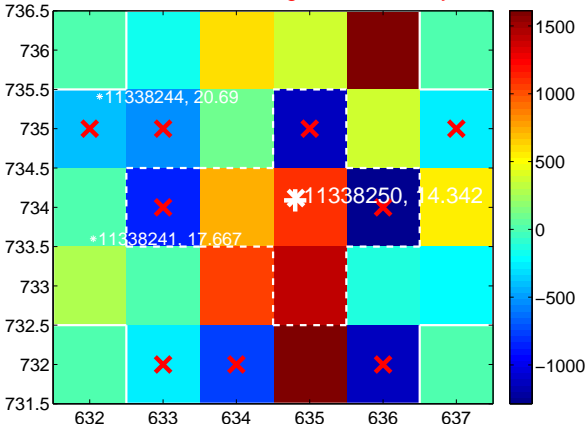
Q10 difference image. Poor Quality



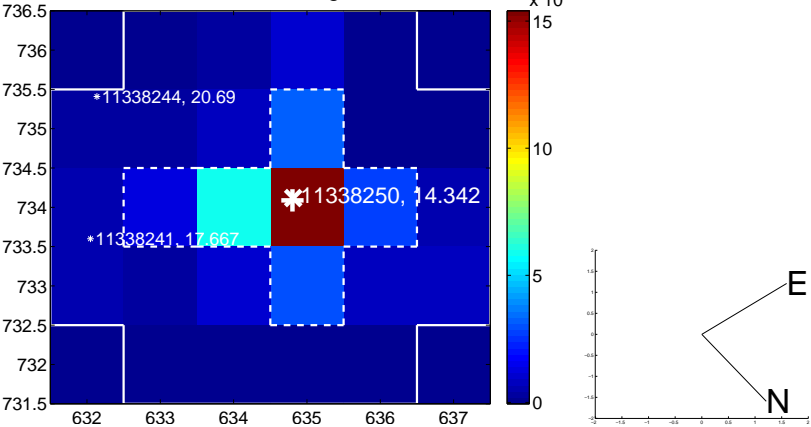
Q10 OOT image



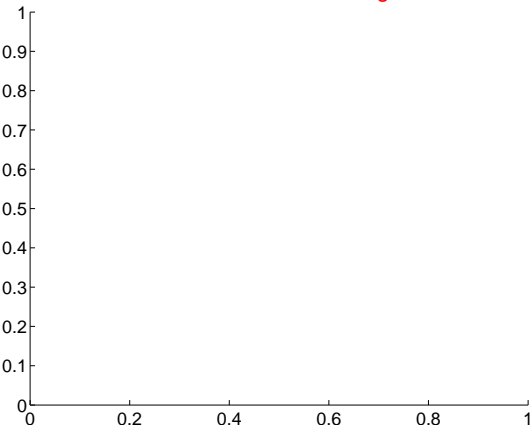
Q11 difference image. Poor Quality



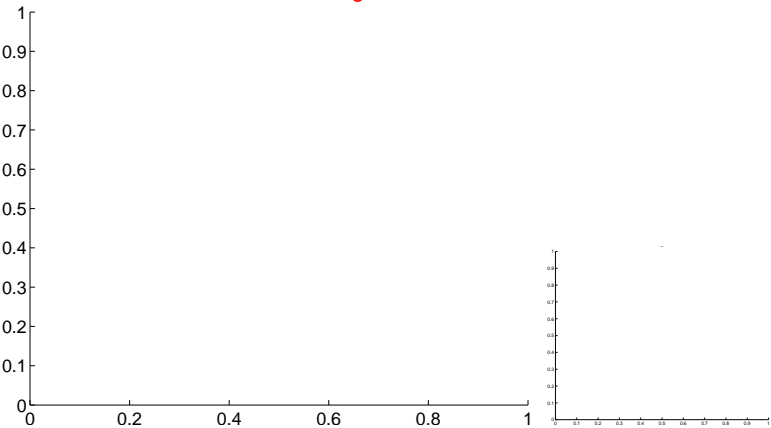
Q11 OOT image



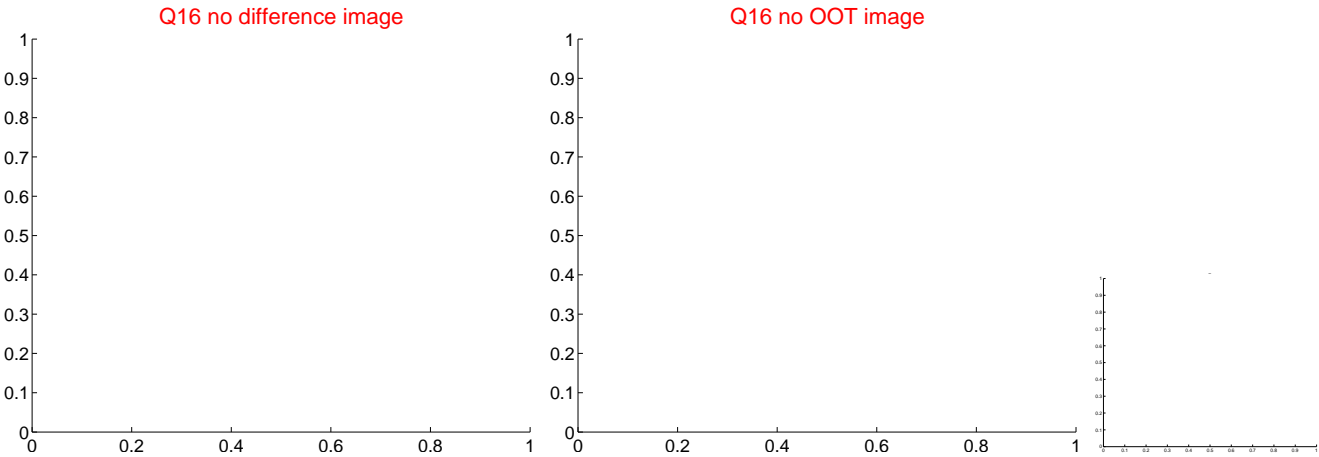
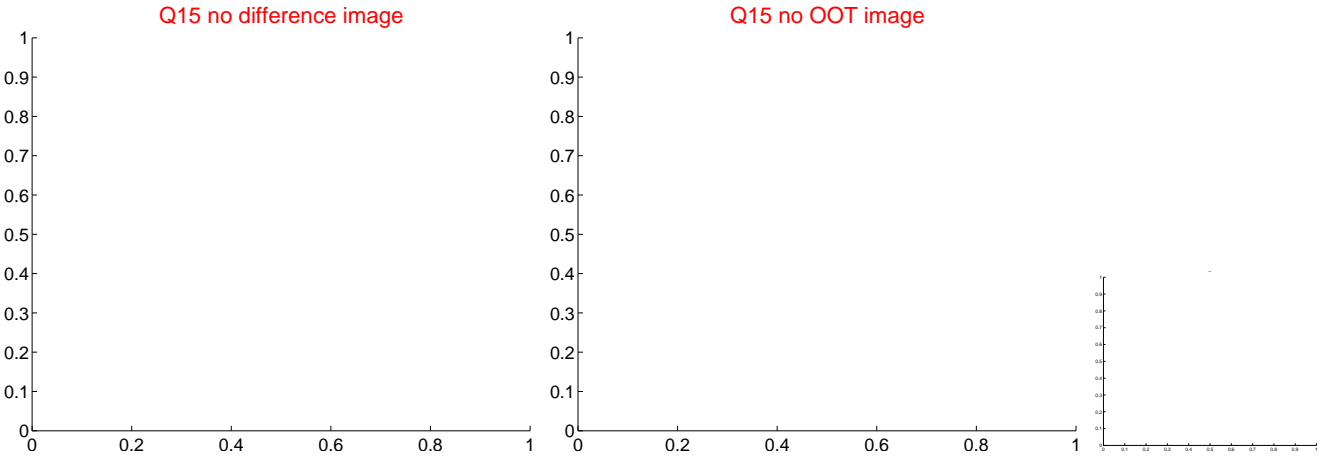
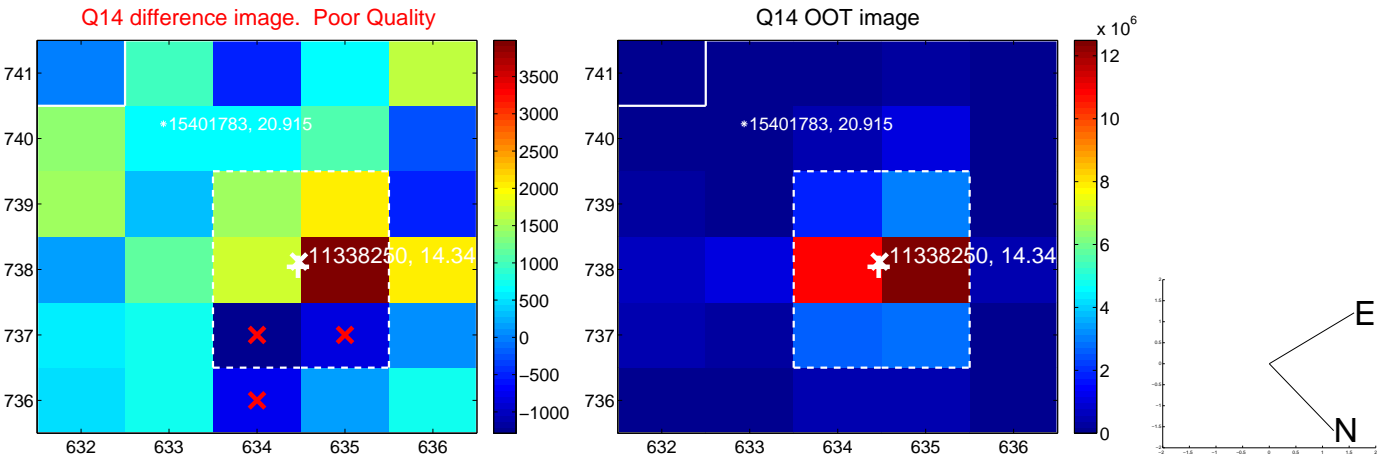
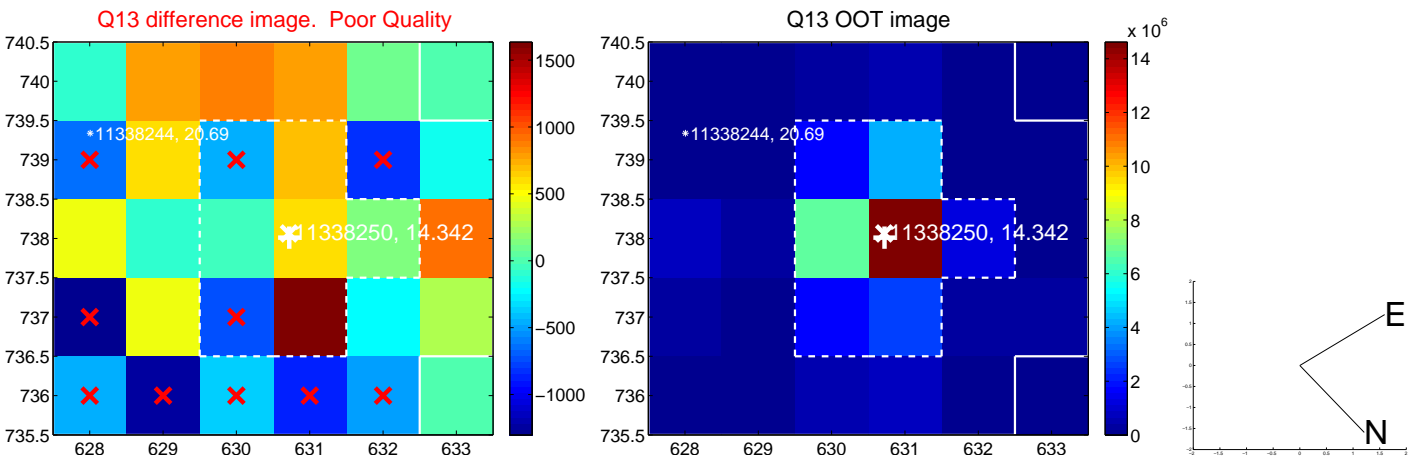
Q12 no difference image



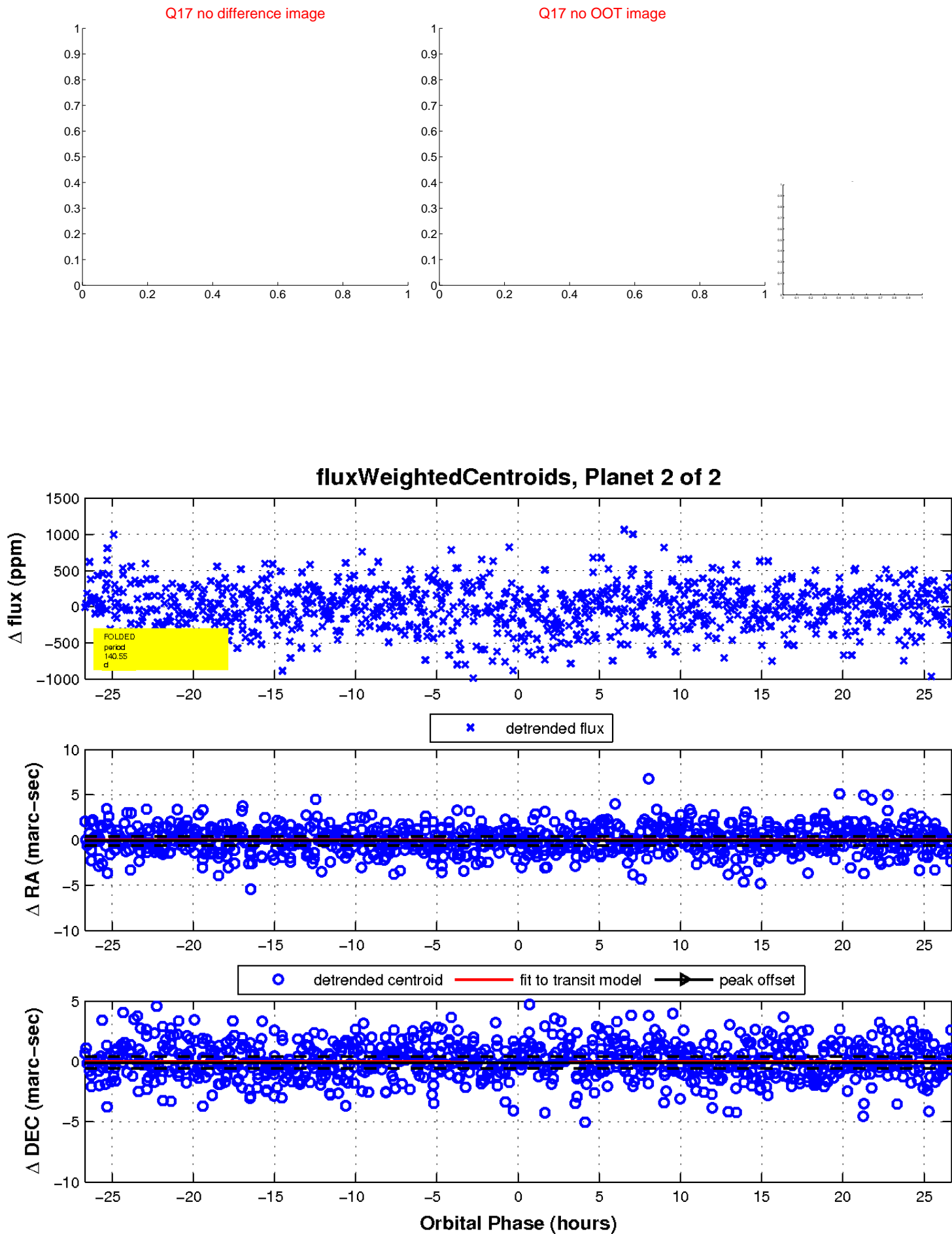
Q12 no OOT image



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

