

KIC 006110119

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})
006110119-01	OBS	No	3.989227	135.480588	35.7	19.865	10.1	9.1	3.69	7110	2.62	8440.76
006110119-02	OBS	No	342.814818	333.745352	369.4	14.453	13.2	9.3	3.69	7110	7.51	22.26
006110119-03	OBS	No	2.838401	132.090111	48.6	8.024	11.2	10.3	3.69	7110	3.18	13288.27
006110119-05	OBS	No	698.076145	173.928151	150.7	65.679	8.9	2.2	3.69	7110	5.28	8.62
006110119-06	OBS	No	84.424806	133.574696	146.2	10.626	8.4	5.3	3.69	7110	5.18	144.19
006110119-07	OBS	No	90.121099	158.324243	254.2	7.624	8.2	8.9	3.69	7110	6.54	132.17
006110119-08	OBS	No	88.520065	143.287536	68.4	7.500	8.3	-1.0	3.69	7110	3.07	135.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006110119-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006110119-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV
006110119-03	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
006110119-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006110119-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006110119-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006110119-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

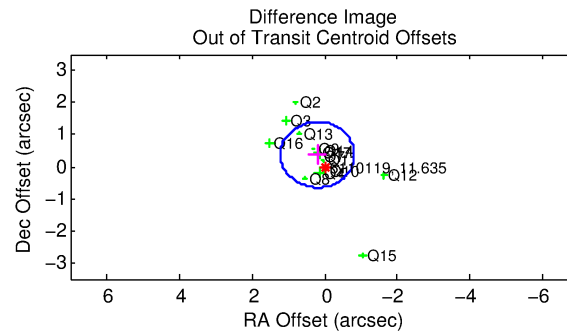
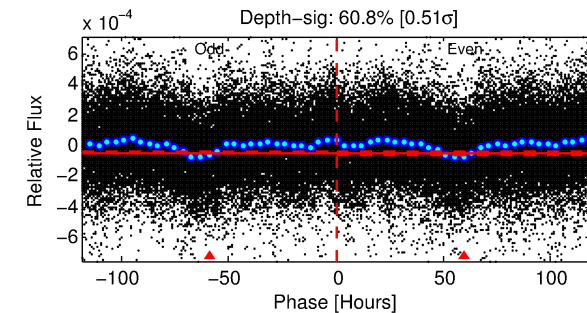
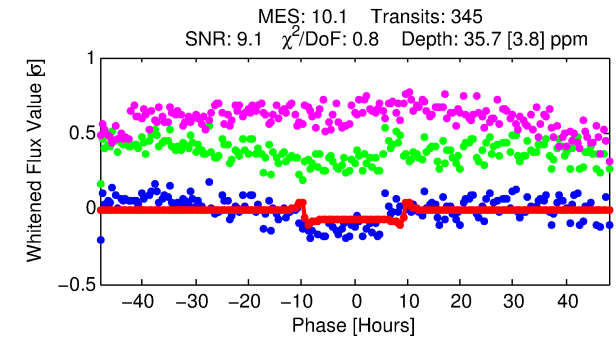
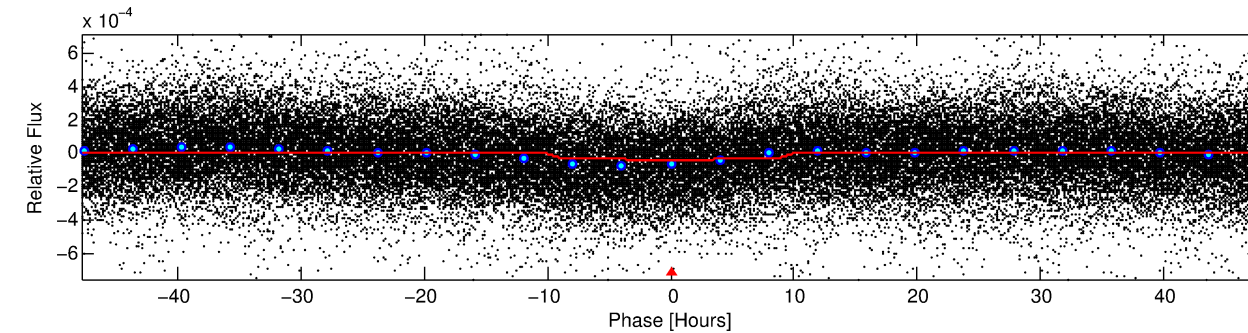
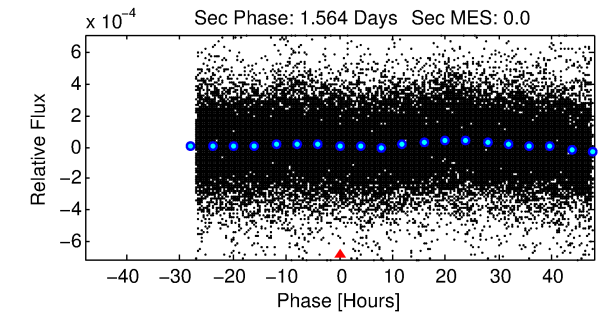
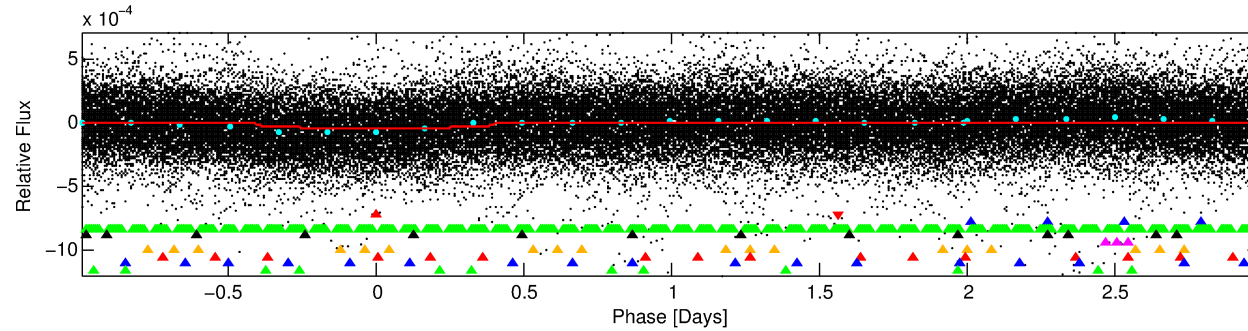
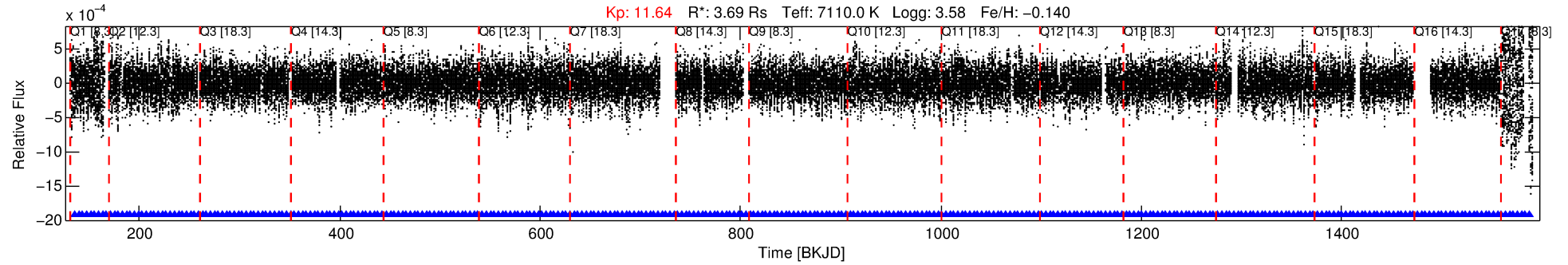
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006110119-01

No Significant Match Found

DV One-Page Summary

KIC: 6110119 Candidate: 1 of 9 Period: 3.989 d



DV Fit Results:

Period = 3.98923 [0.00005] d
Epoch = 135.4806 [0.0082] BKJD
 $R_p/R^* = 0.0065$ [0.0005]
 $a/R^* = 1.14$ [0.07]
 $b = 0.92$ [0.04]
 $S_{\text{eff}} = 8440.76$ [4550.34]
 $T_{\text{eq}} = 2444$ [329] K
 $R_p = 2.62$ [0.93] R_e
 $a = 0.0607$ [0.0201] AU
 $A_g = \text{N/A}$
 $T_{\text{effp}} = \text{N/A}$

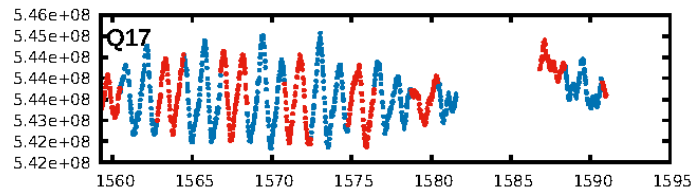
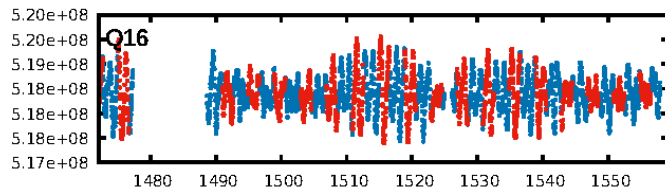
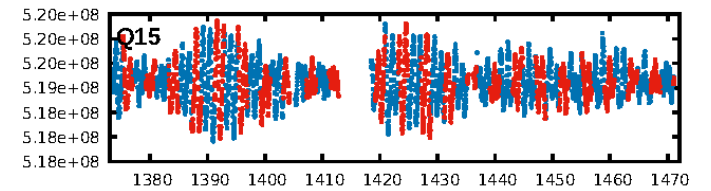
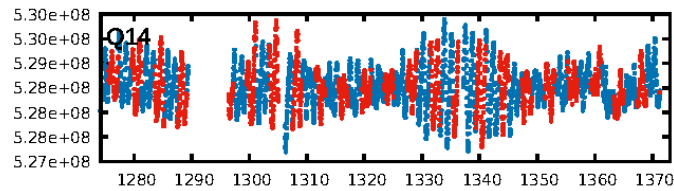
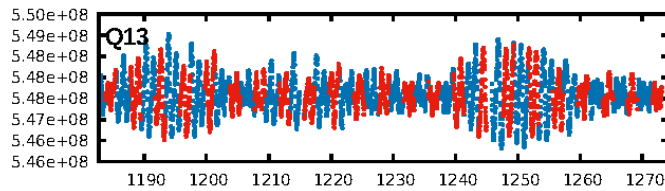
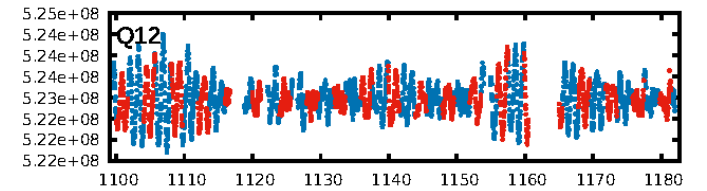
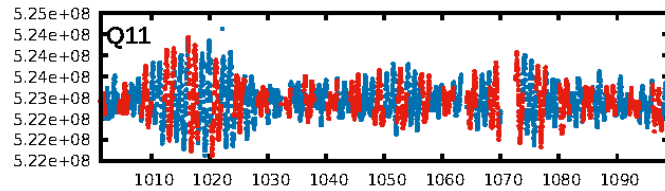
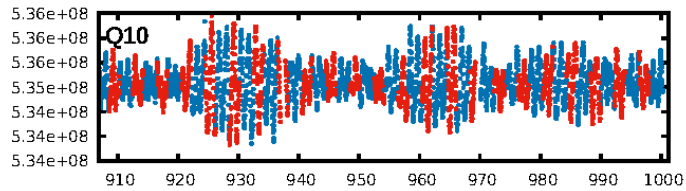
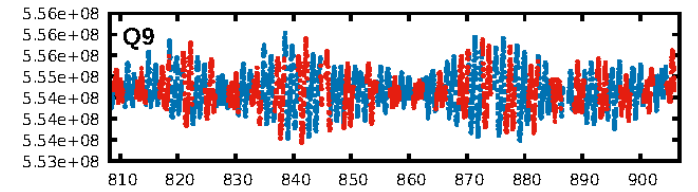
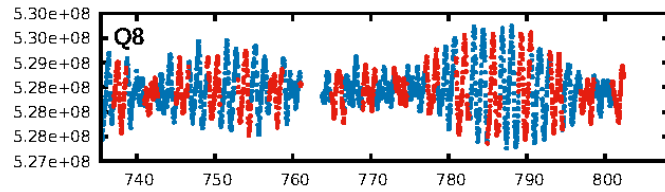
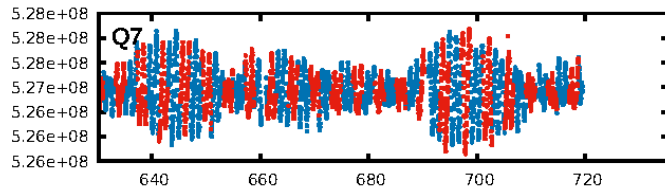
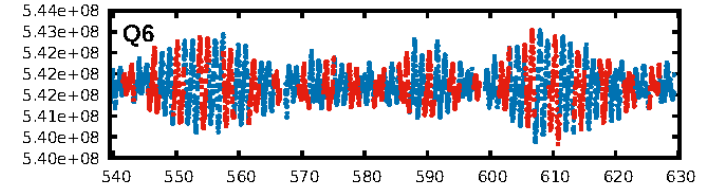
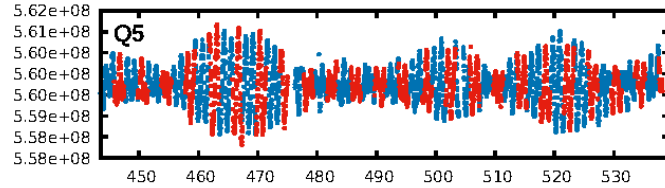
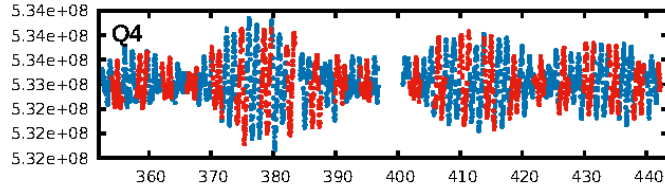
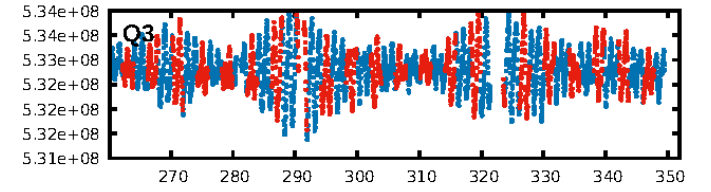
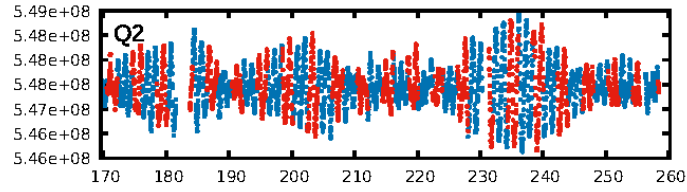
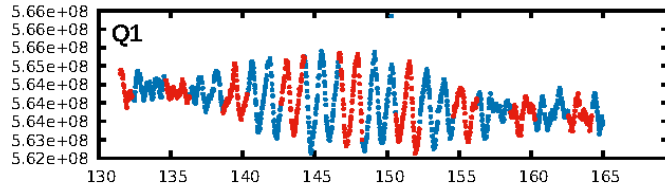
DV Diagnostic Results:

ShortPeriod-sig: 80.3% [1.29σ]
LongPeriod-sig: 100.0% [85.69σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.53e-08
RollingBand-fgt: 1.00 [329/329]
GhostDiagnostic-chr: 1.706
Centroid-sig: 0.3%
Centroid-so: 0.544 arcsec [1.97σ]
OotOffset-rm: 0.423 arcsec [1.24σ]
KicOffset-rm: 0.502 arcsec [1.48σ]
OotOffset-st: 3/4/4/3 [14]
KicOffset-st: 3/4/4/3 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 0.00 [0/17]

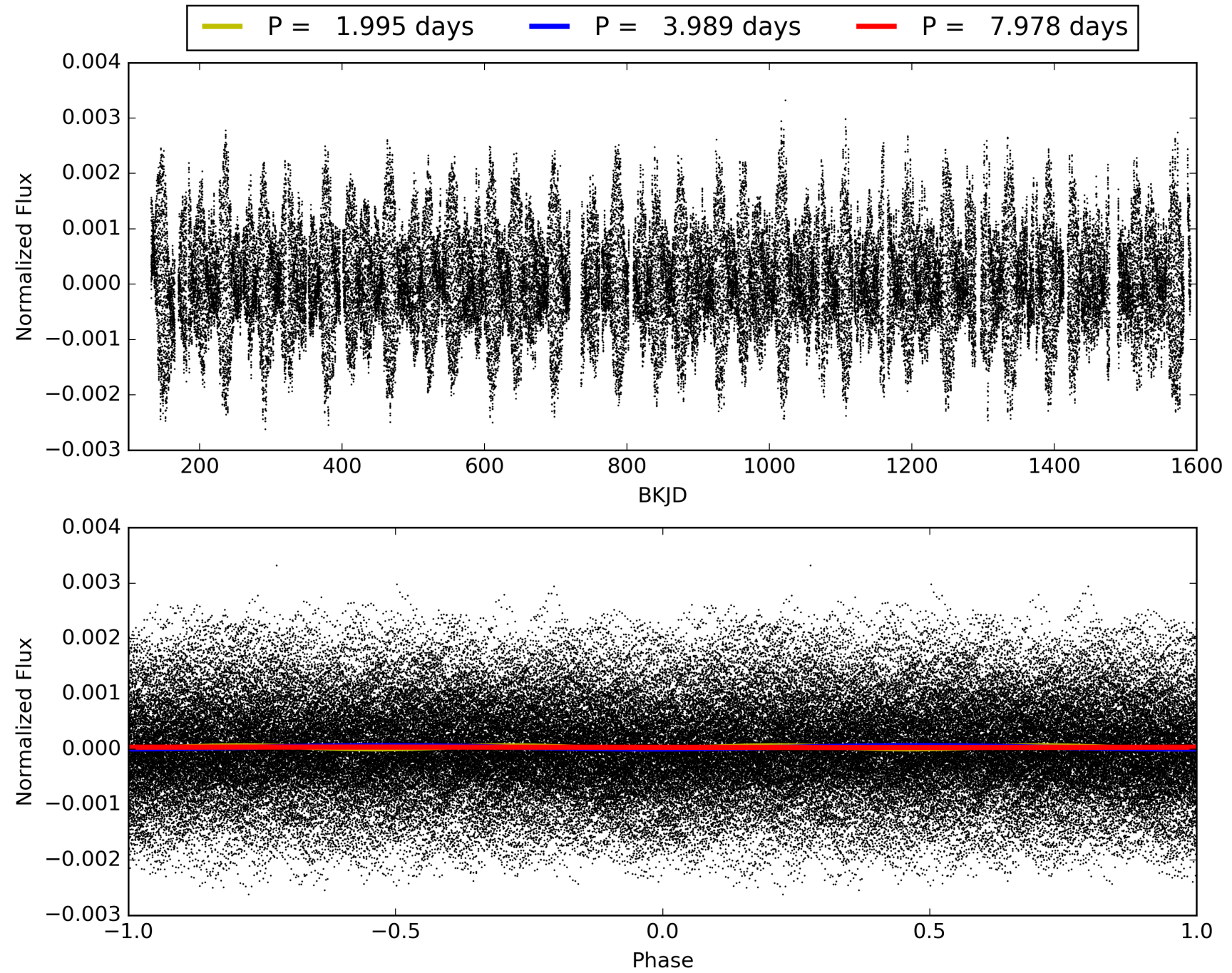
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 18:41:05 Z

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

TCE 006110119-01, PDC Light Curves

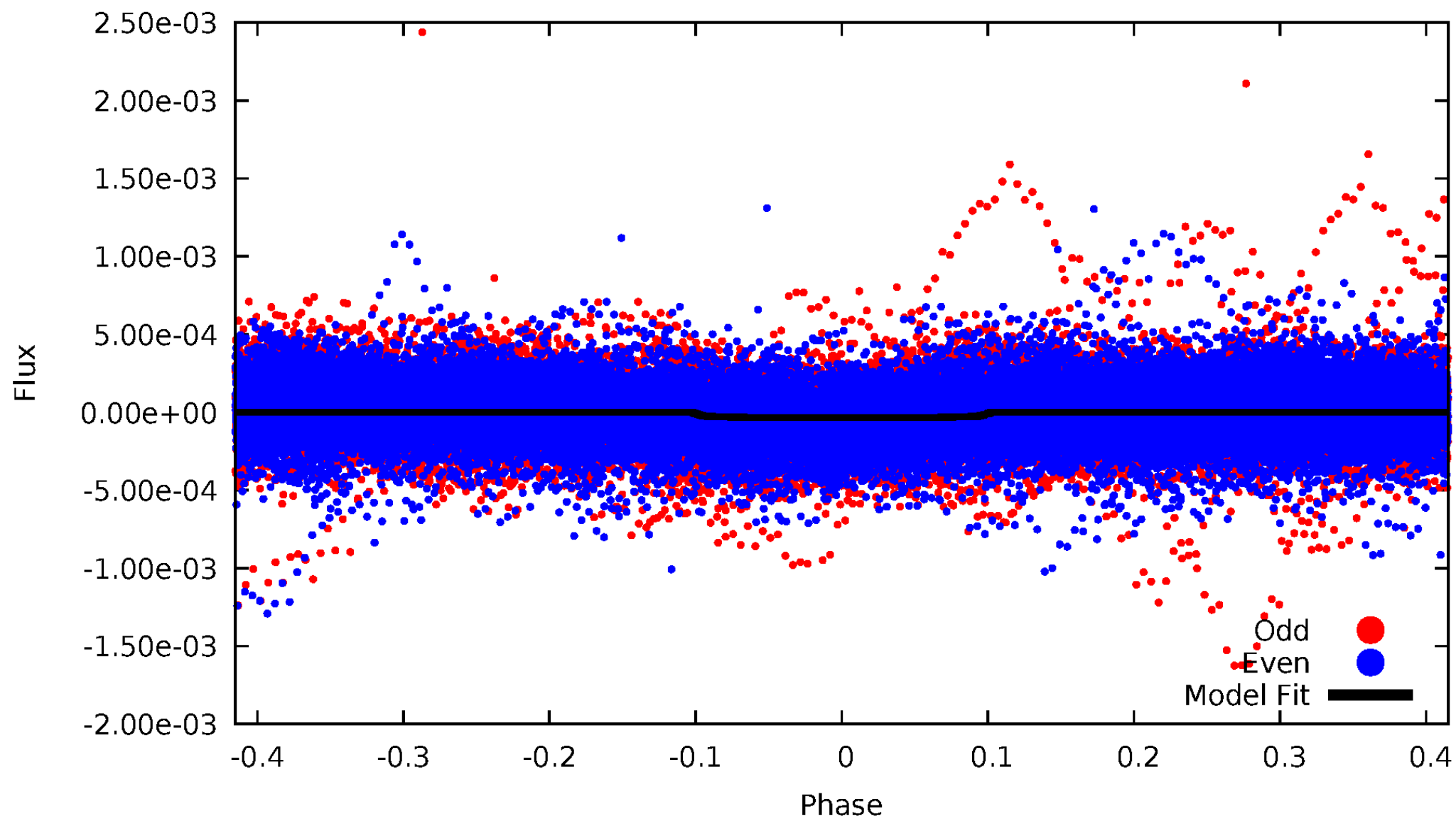


TCE 006110119-01



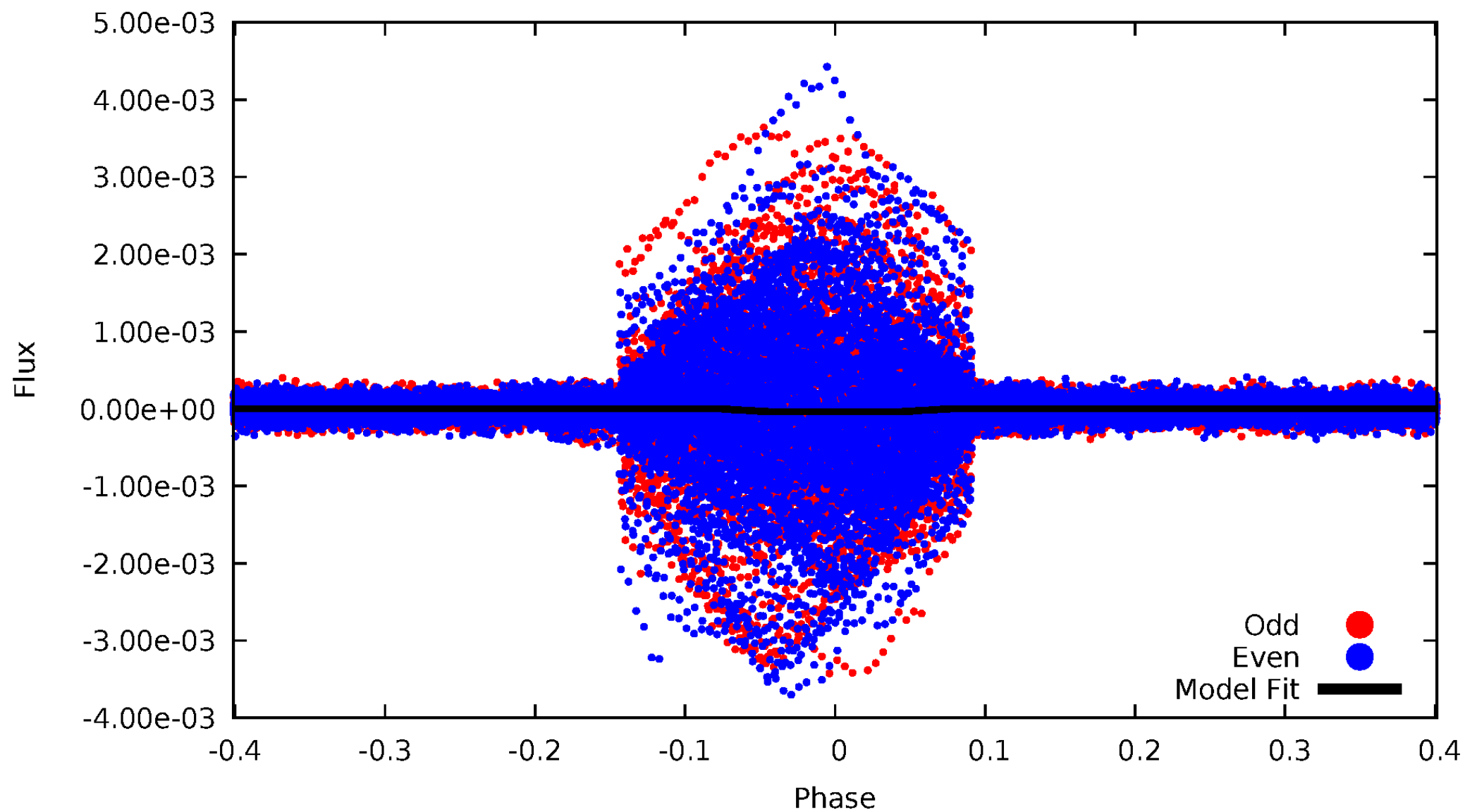
DV Odd/Even

TCE 006110119-01



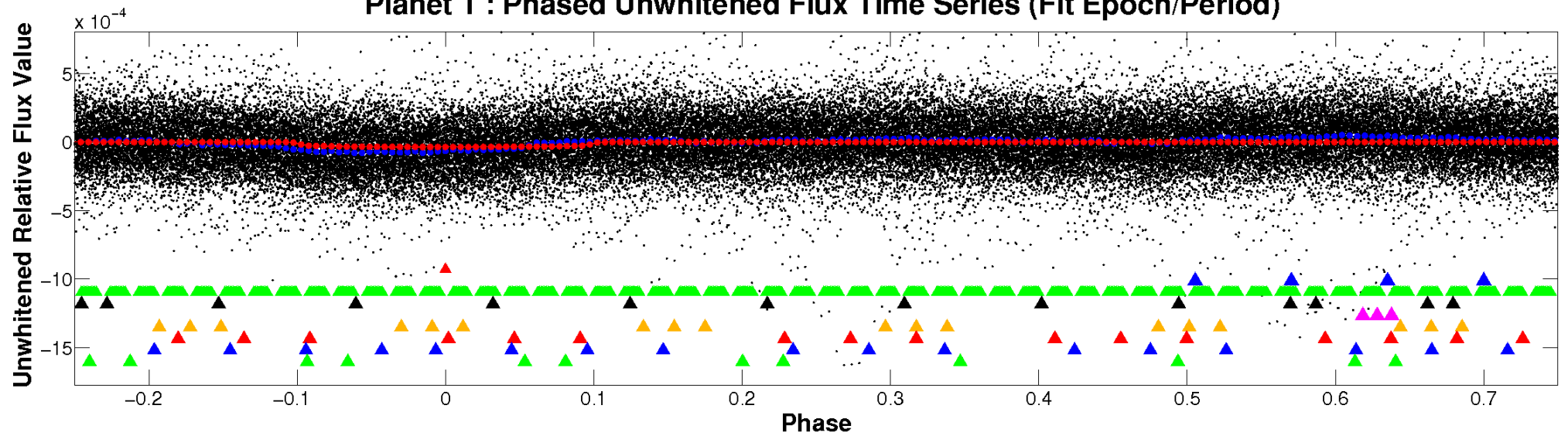
ALT Odd/Even

TCE 006110119-01

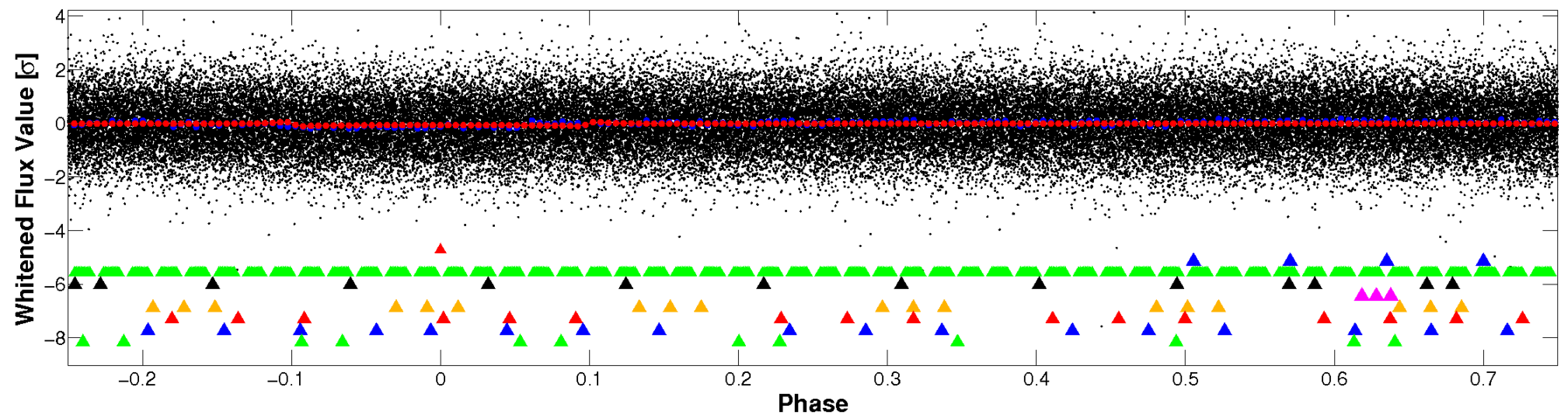


Non-Whitened Vs. Whitened Light Curve

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

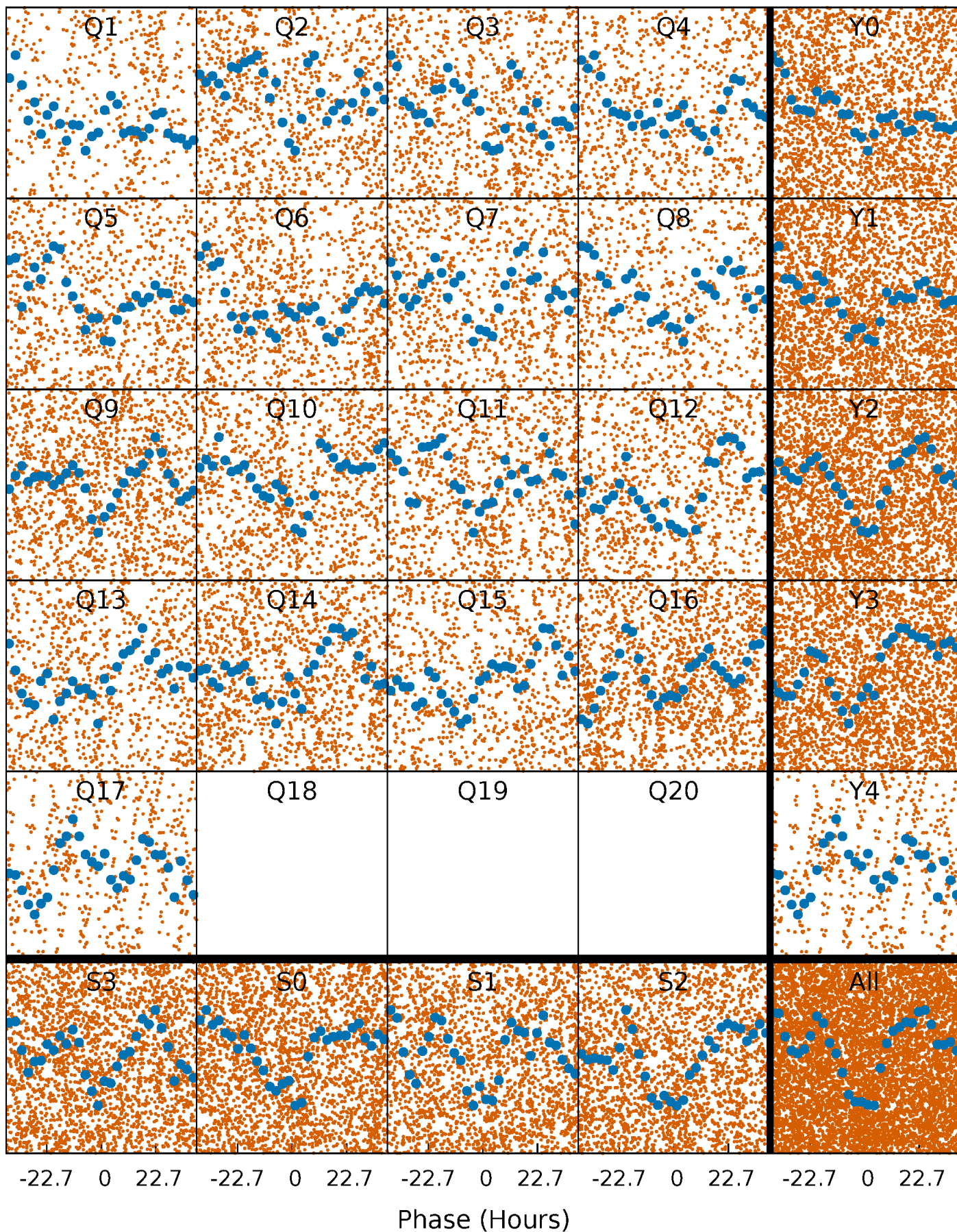


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



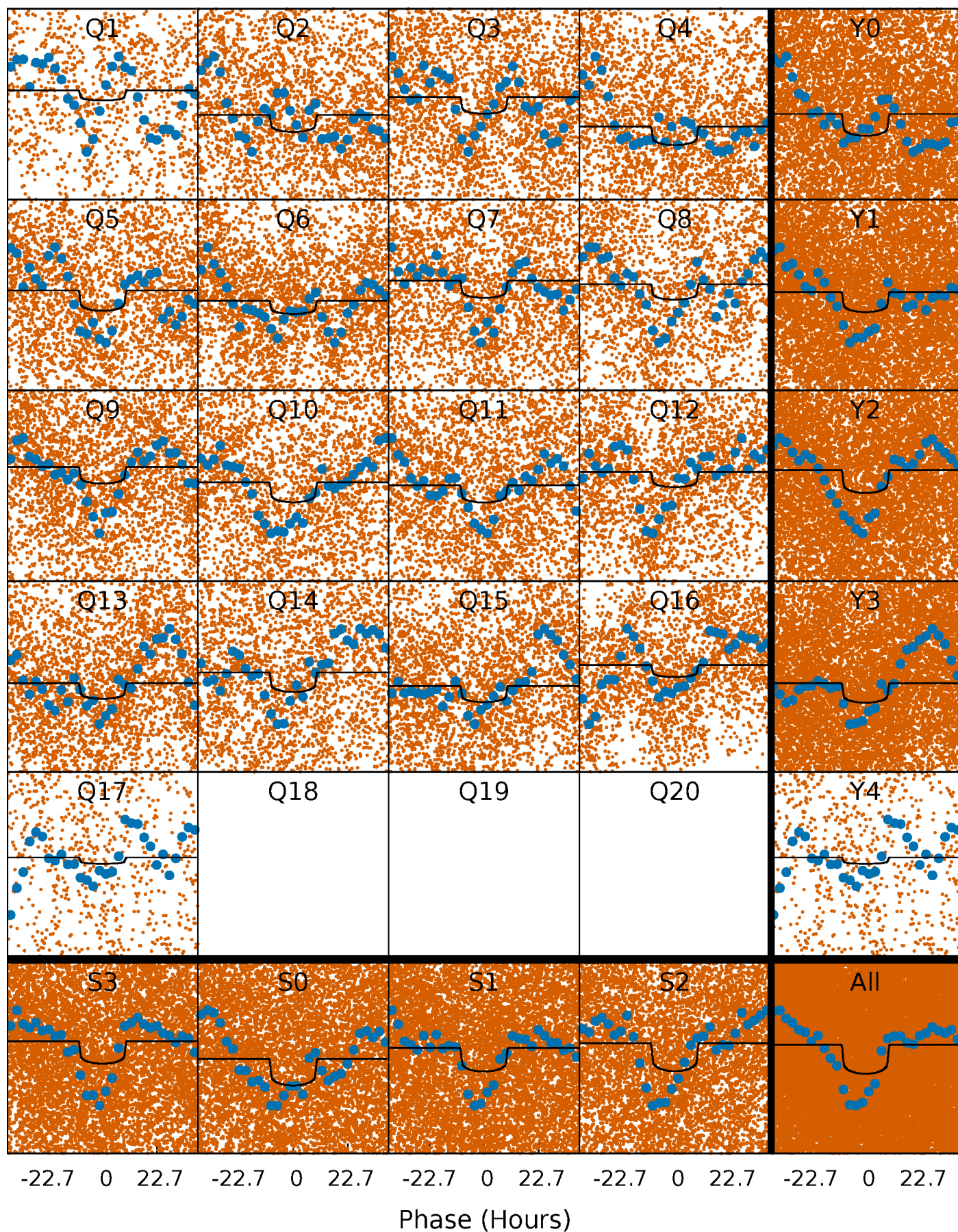
PDC Quarter-Phased Transit Curves

TCE 006110119-01 P= 3.989227 Days $T_0=135.480588$ (BKJD)



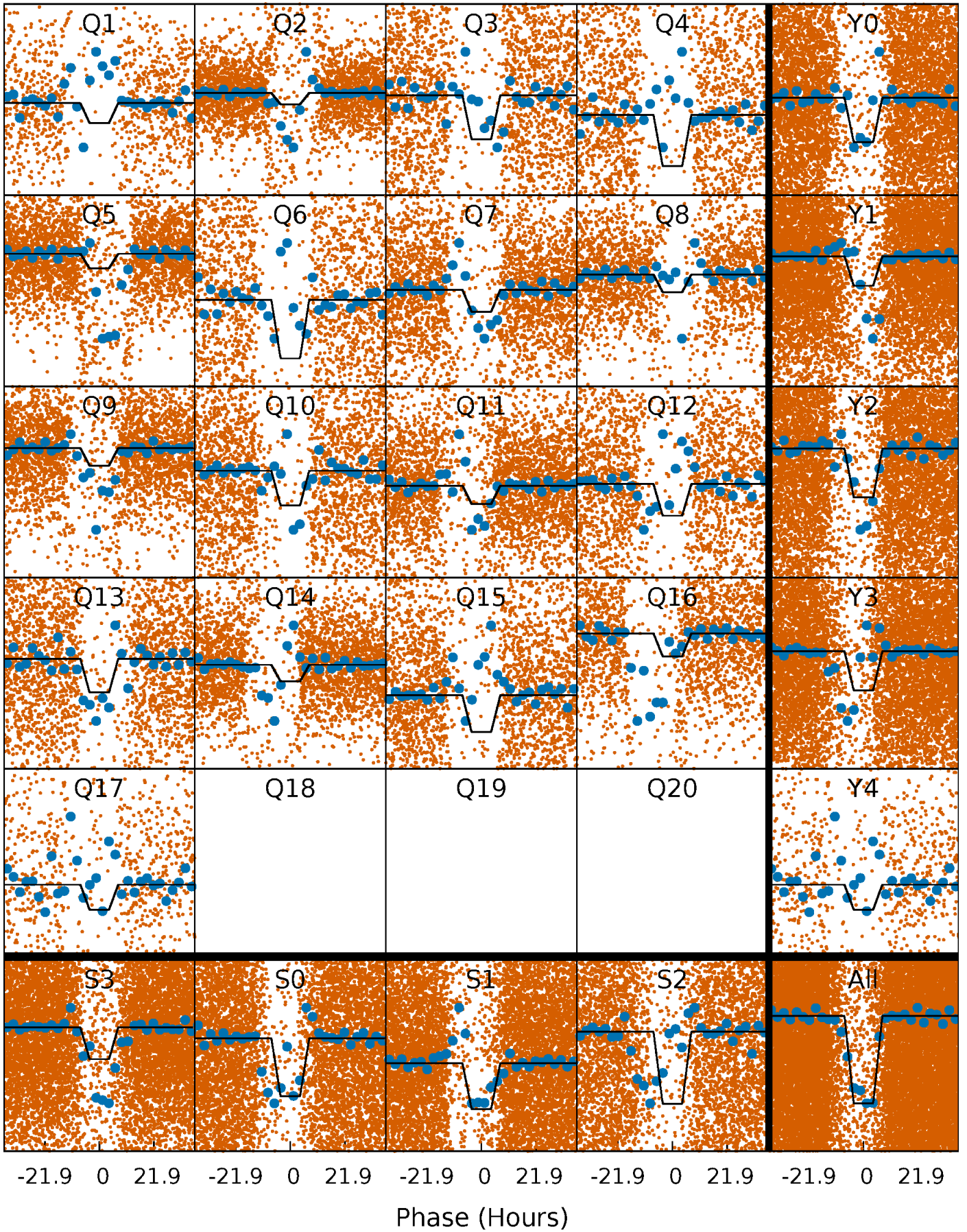
DV Quarter-Phased Transit Curves

TCE 006110119-01 P= 3.989227 Days $T_0=135.480588$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

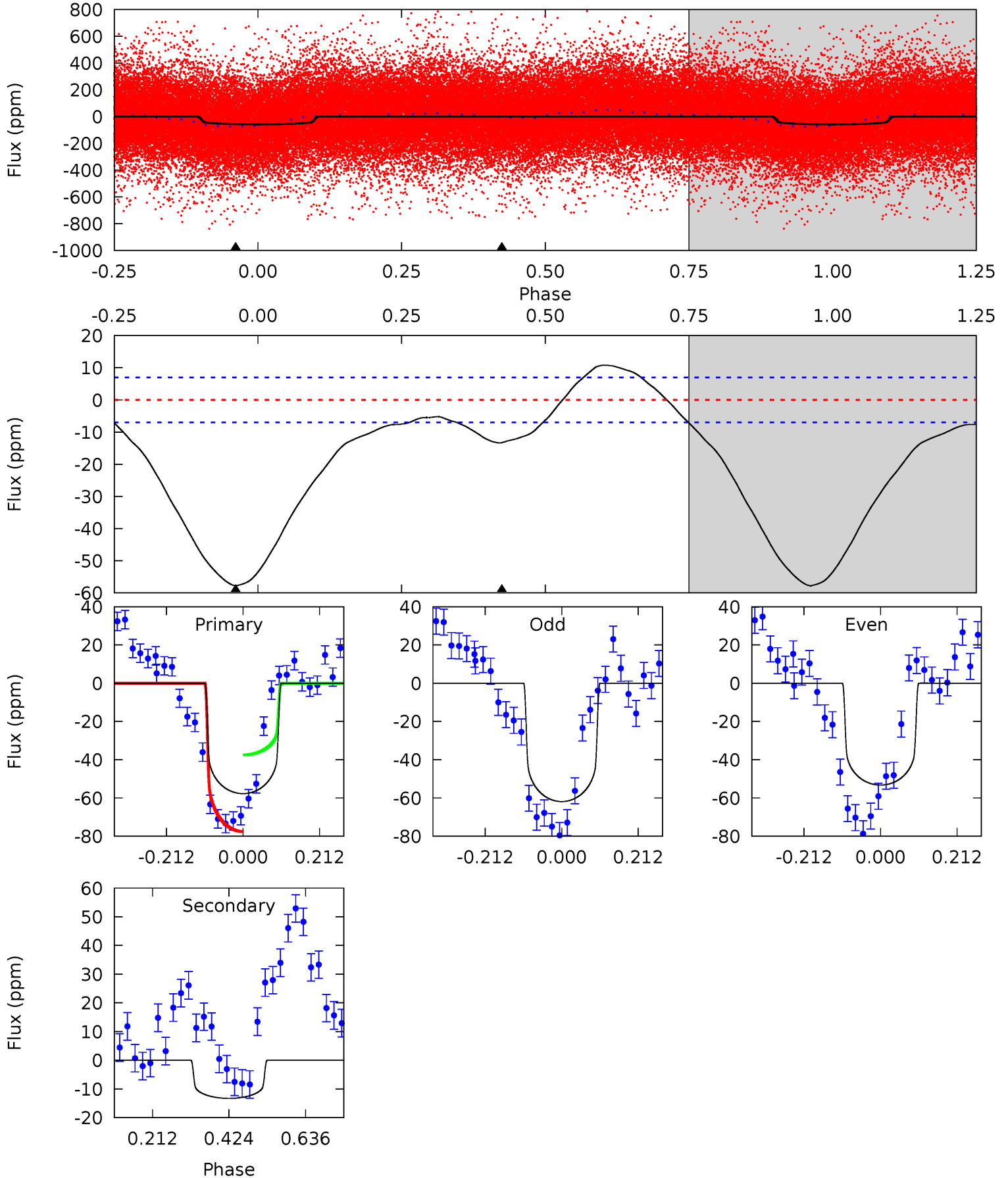
TCE 006110119-01 P= 3.988963 Days $T_0=135.521167$ (BKJD)



DV Model-Shift Uniqueness Test

006110119-01, P = 3.989227 Days, E = 131.491361 Days

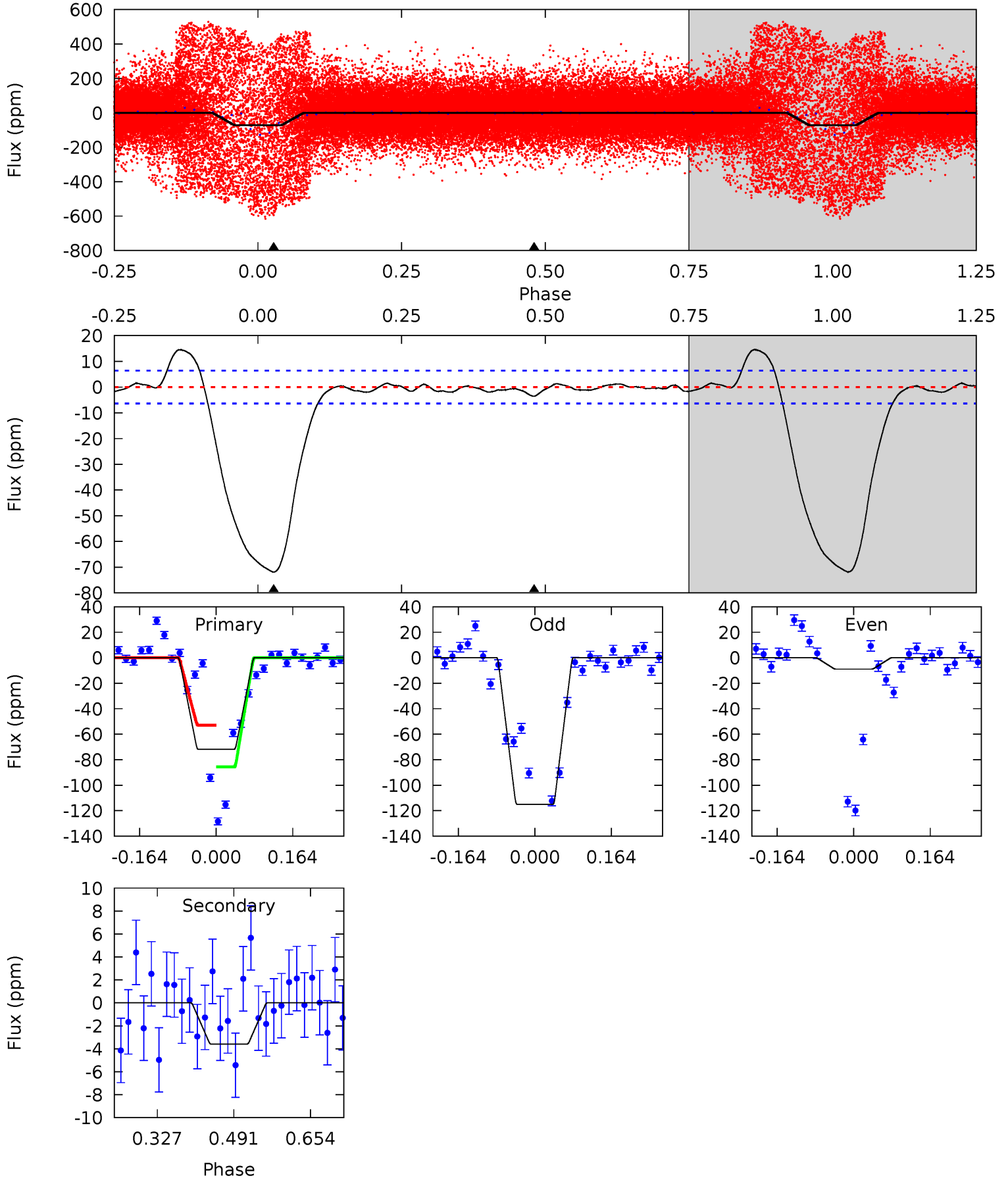
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.4	8.38	0	0	4.40	1.25	4.48	36.4	36.4	8.38	8.38	2.73	0.96	0.16	12.7



Alt Model-Shift Uniqueness Test

006110119-01, P = 3.988963 Days, E = 127.543241 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
50.1	2.50	0	0	4.46	1.39	2.08	50.1	50.1	2.50	2.50	36.1	0.31	0.17	0



Stellar Parameters For KIC 006110119

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7110^{+197}_{-222}	$3.578^{+0.306}_{-0.054}$	$-0.140^{+0.250}_{-0.250}$	$3.688^{+0.303}_{-1.290}$	$1.878^{+0.191}_{-0.310}$	$0.053^{+0.105}_{-0.009}$
	+3%/-3%	+9%/-2%	+179%/-179%	+8%/-35%	+10%/-17%	+200%/-17%
Source	PHO1	FLK73	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 006110119-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-13 ± 2	$2.52^{+0.30}_{-0.45}$	3332^{+176}_{-274}	5235^{+275}_{-269}	$4.384^{+1.983}_{-1.032}$
Alt.	-4 ± 1	$2.48^{+0.31}_{-0.42}$	3349^{+163}_{-271}	3910^{+354}_{-435}	$1.222^{+0.731}_{-0.499}$

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

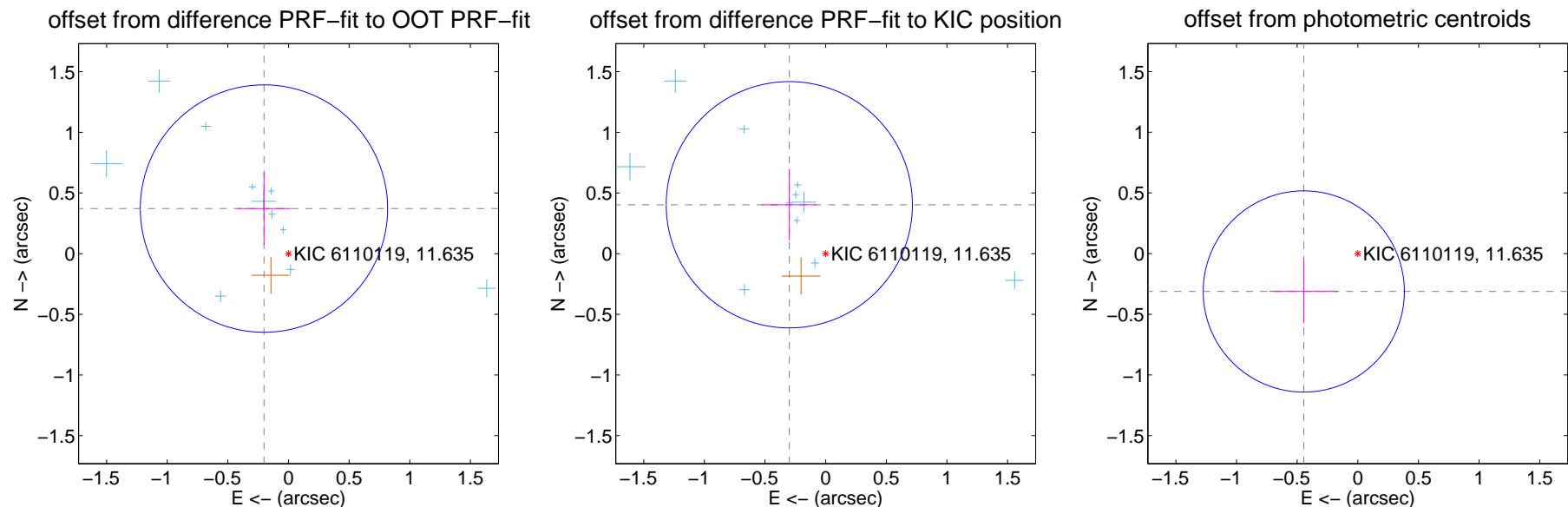
DV Centroid Data

Supplemental centroid analysis for 006110119-01. **Kepler magnitude: 11.63.** Transit SNR 9.08

There are 13 quarters with good PRF difference image offsets

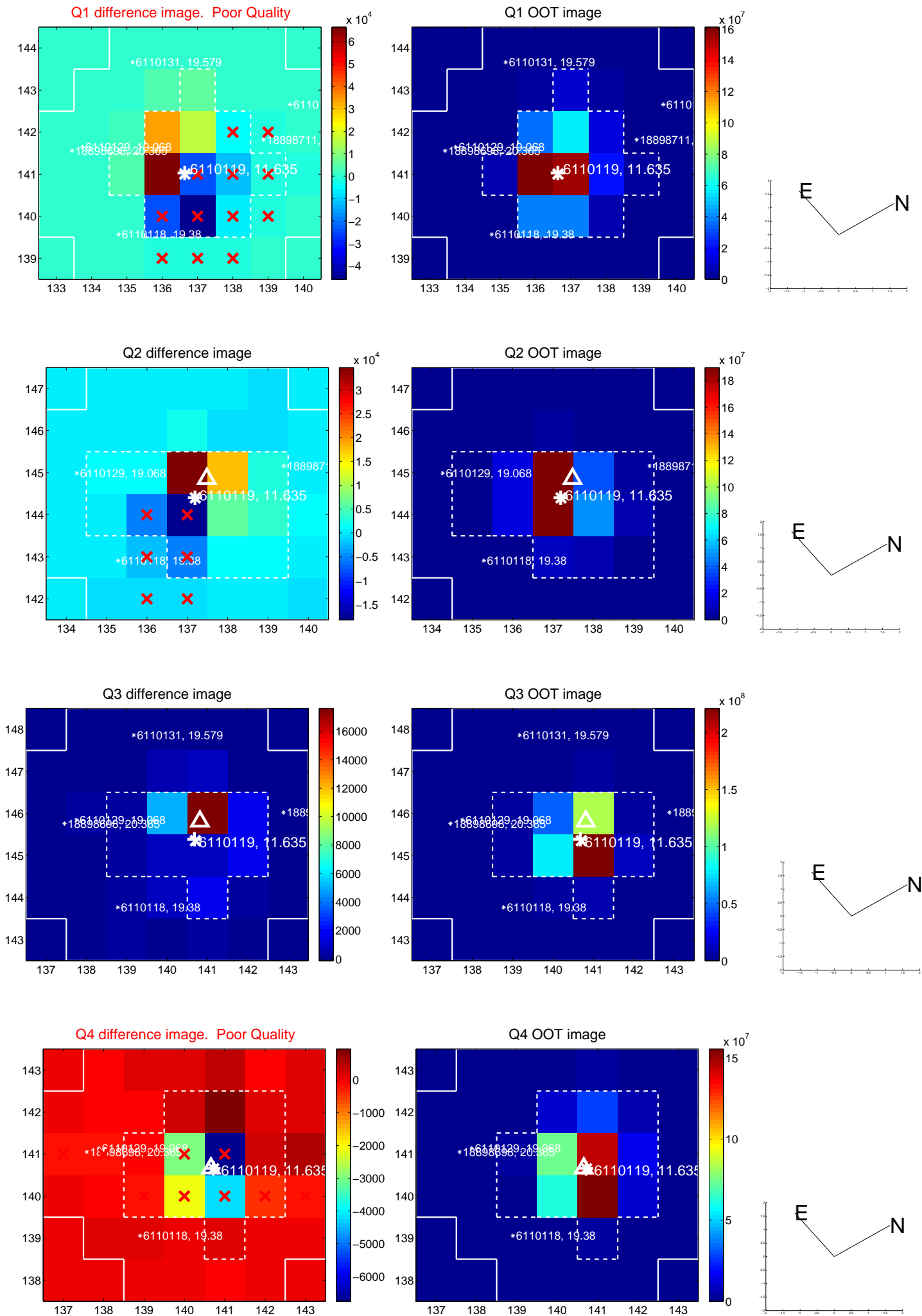
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.423 ± 0.340	1.24	0.202 ± 0.218	0.372 ± 0.298
PRF-fit source offset from KIC position	0.502 ± 0.338	1.48	0.300 ± 0.228	0.403 ± 0.294
photometric centroid source offset	0.54 ± 0.28	1.97	0.45 ± 0.28	-0.31 ± 0.26

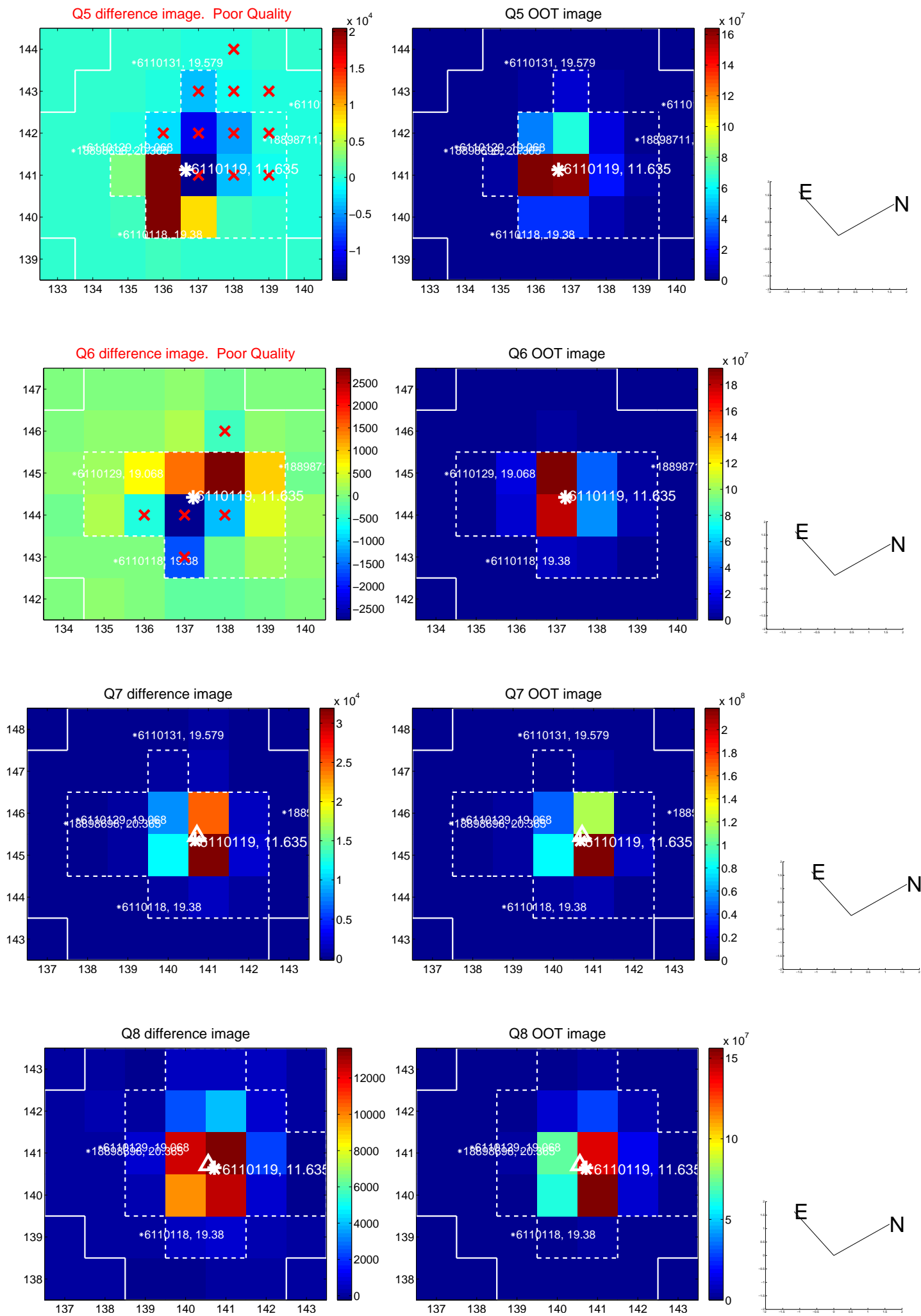


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

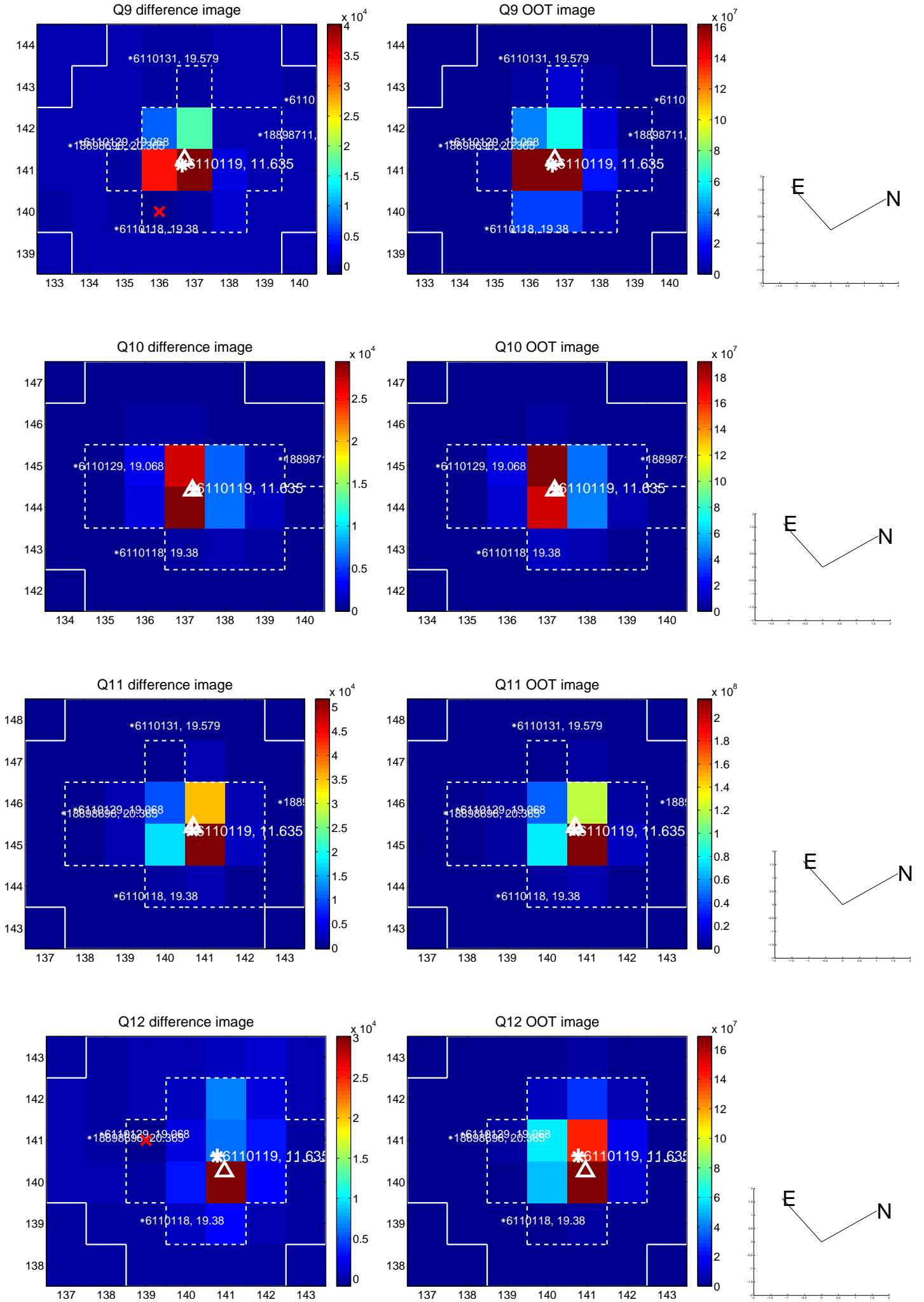
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



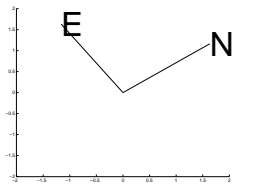
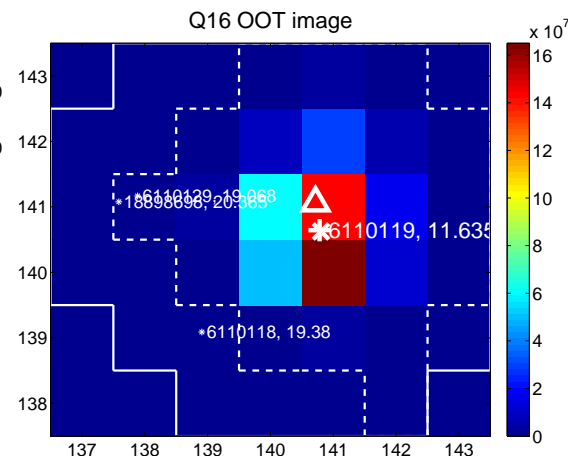
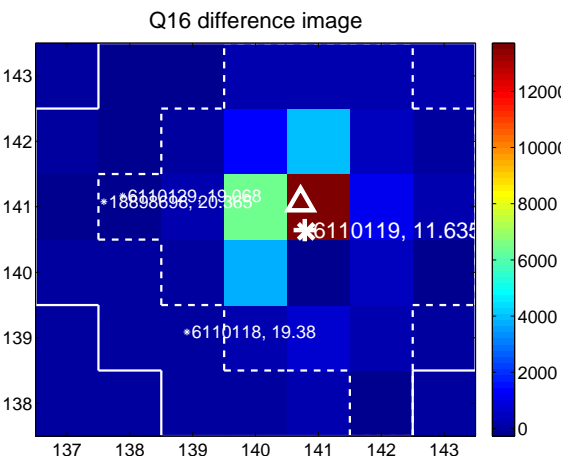
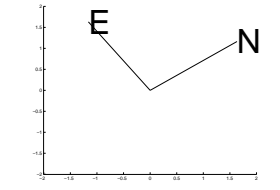
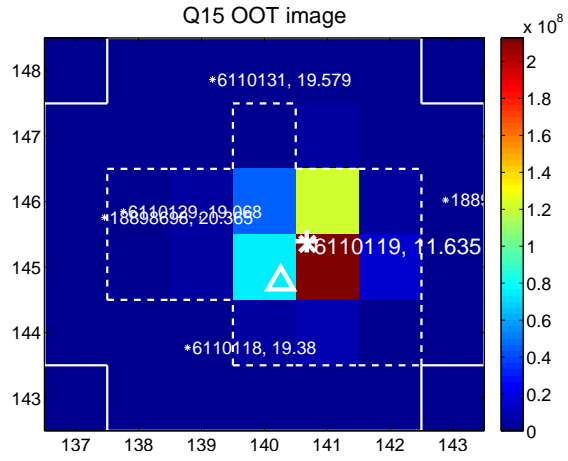
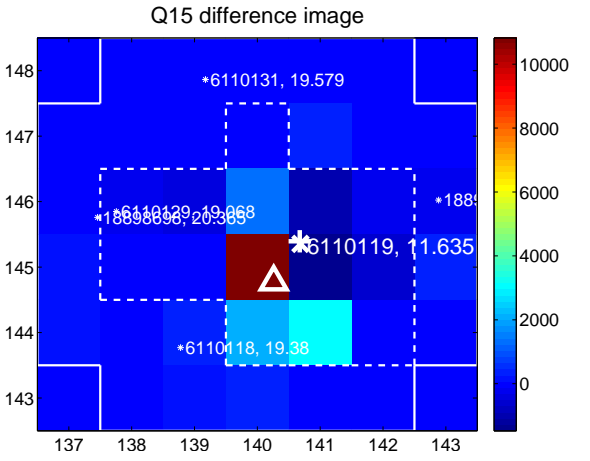
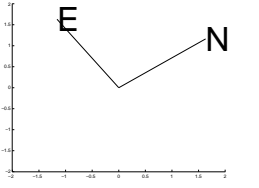
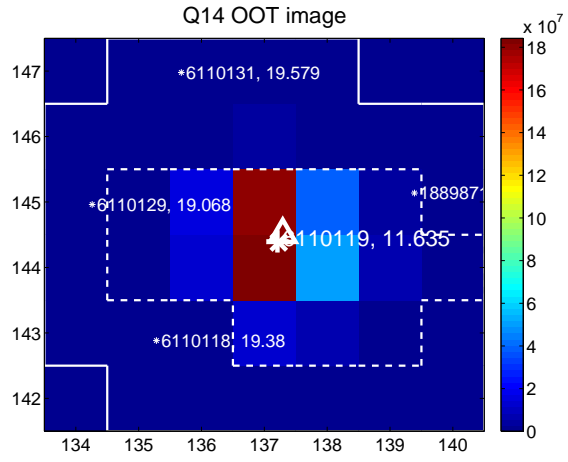
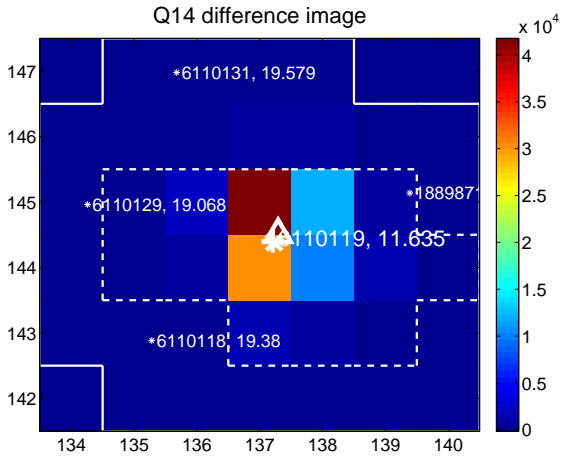
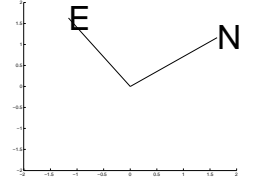
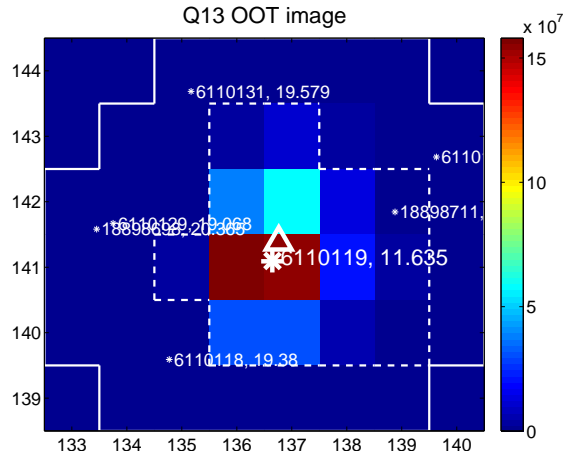
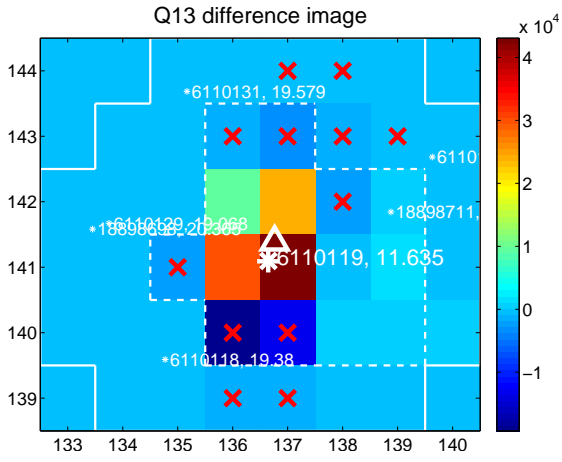
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



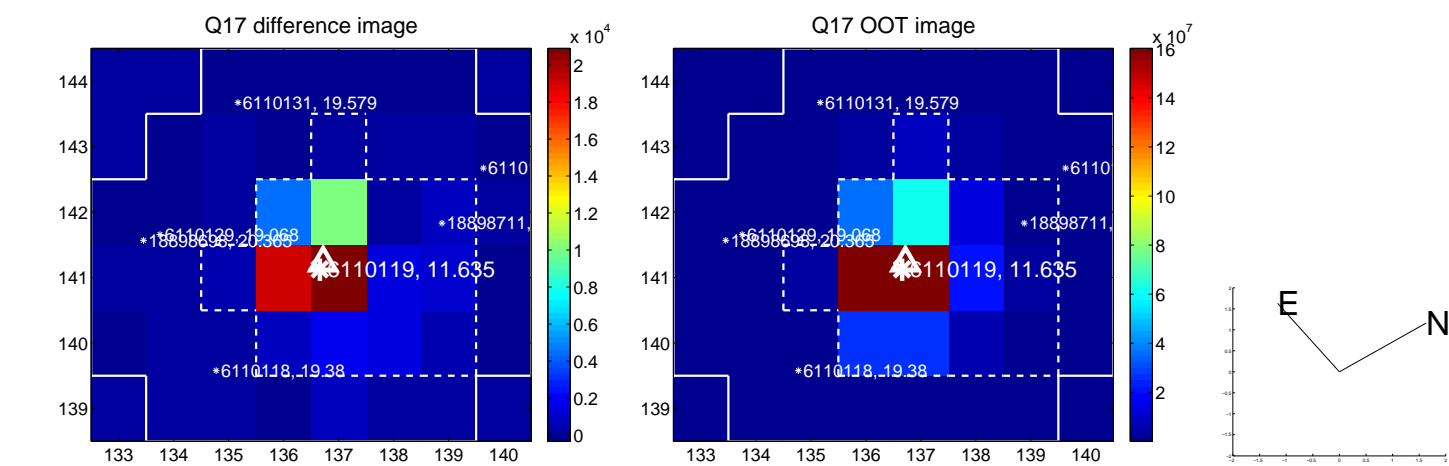
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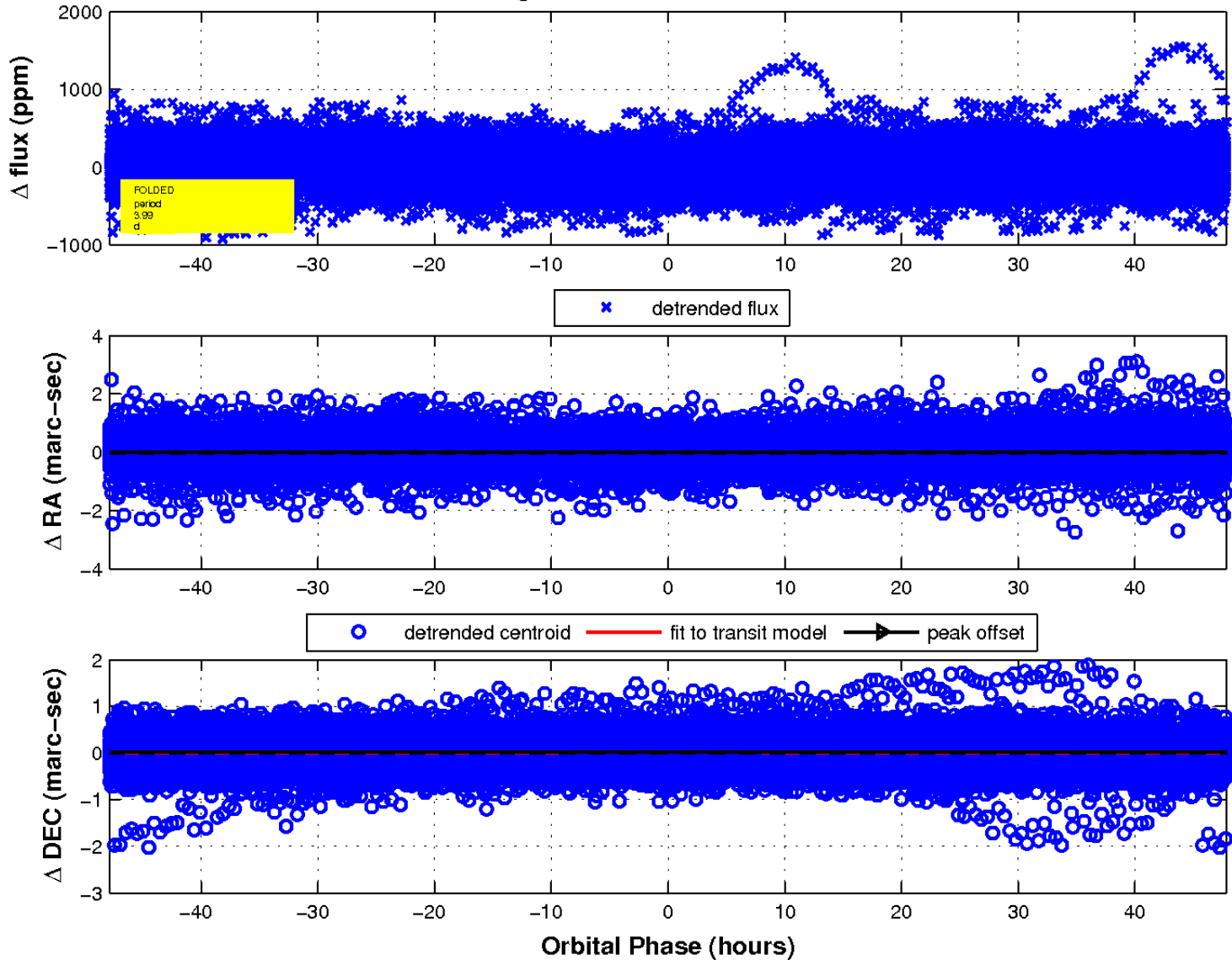
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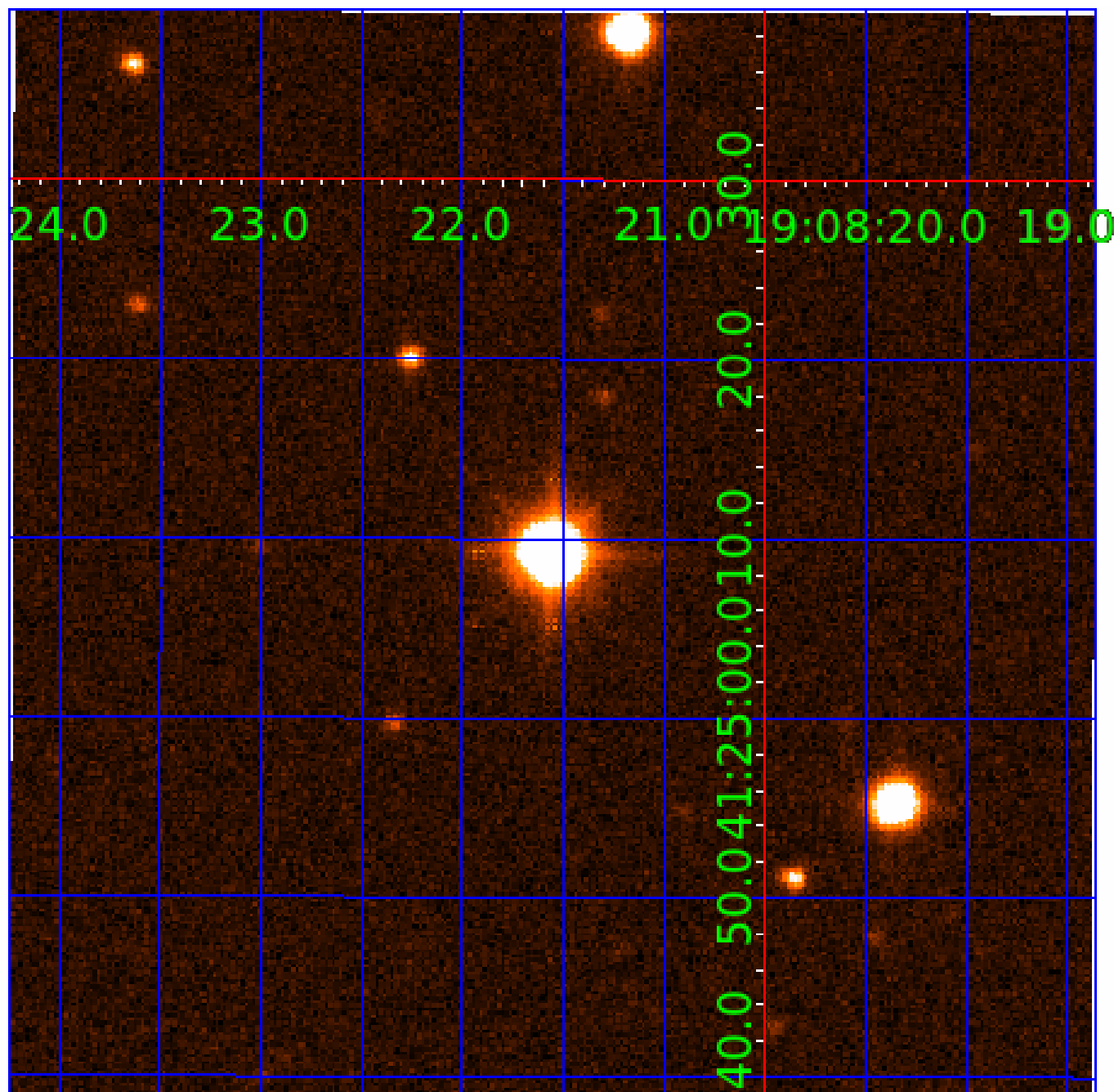


fluxWeightedCentroids, Planet 1 of 9



UKIRT Image

Declination



KIC 006110119

Q1-17 DR25 TCE Parameters

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006110119-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV
006110119-03	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
006110119-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006110119-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006110119-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006110119-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

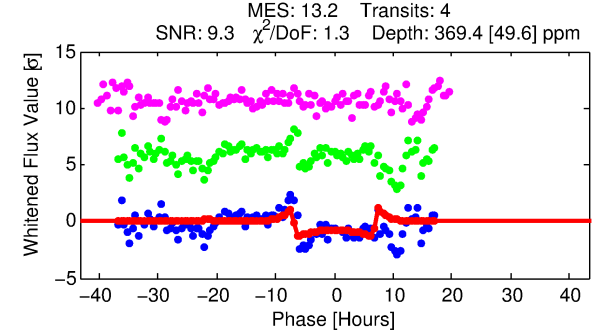
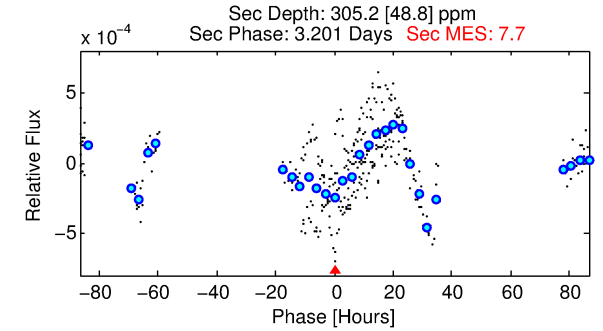
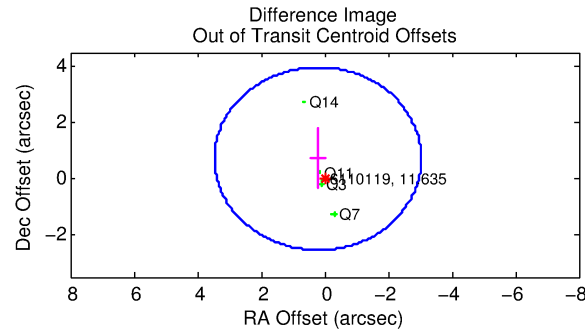
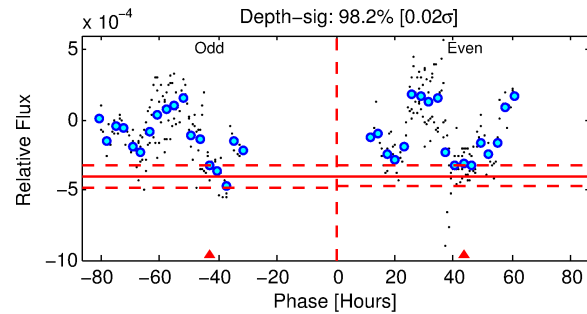
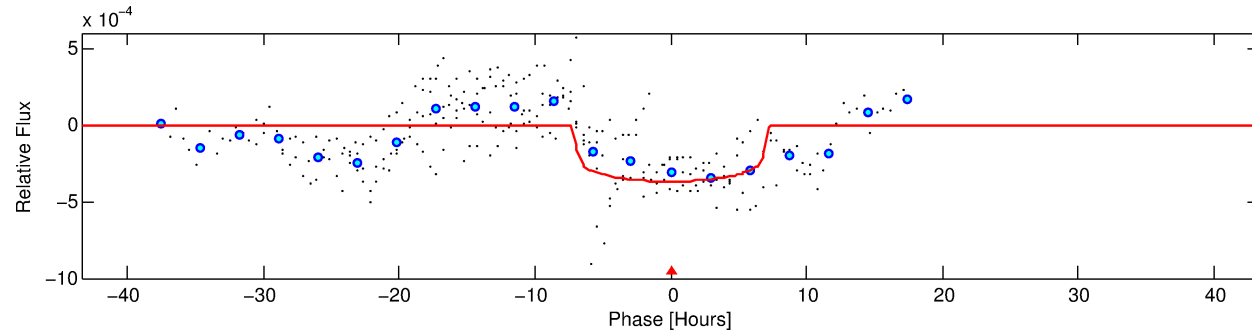
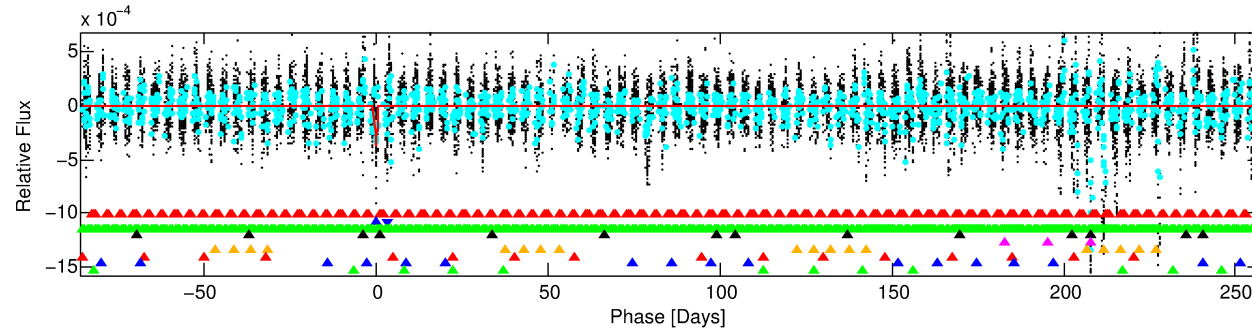
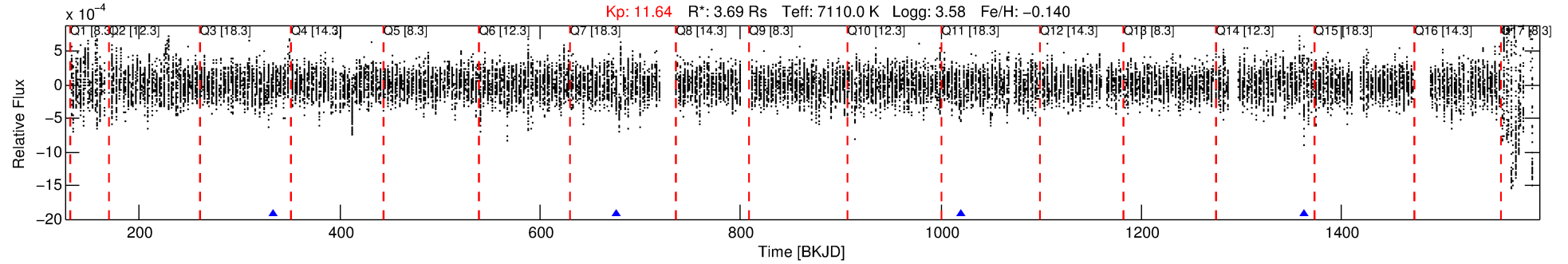
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006110119-02

No Significant Match Found

DV One-Page Summary

KIC: 6110119 Candidate: 2 of 9 Period: 342.815 d



DV Fit Results:

Period = 342.81482 [0.00521] d
Epoch = 333.7454 [0.0121] BKJD
Rp/R* = 0.0187 [0.0040]
a/R* = 140.89 [148.51]
b = 0.66 [0.91]
Seff = 22.26 [12.00]
Teq = 554 [75] K
Rp = 7.51 [3.07] Re
a = 1.1829 [0.3915] AU
Ag = 4162.69 [2886.07] [1.44σ]
Teffp = 6878 [809] K [7.79σ]

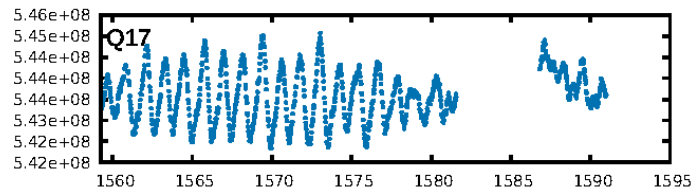
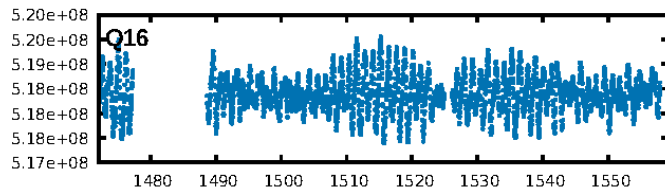
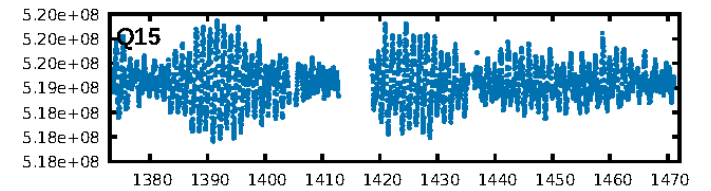
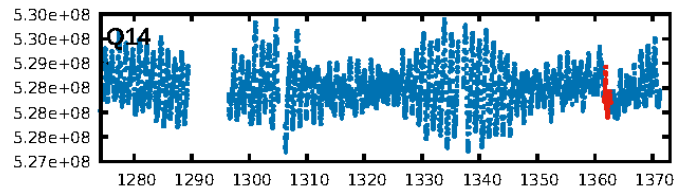
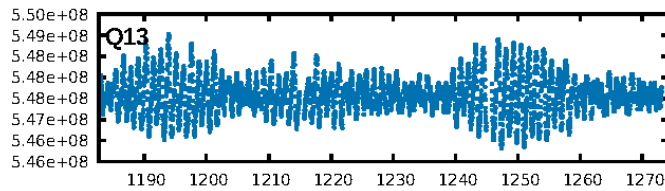
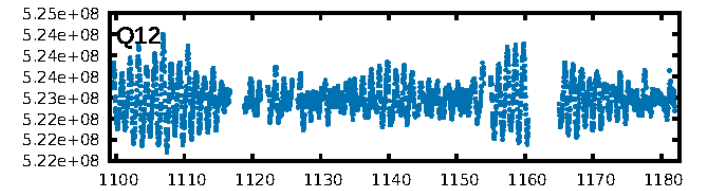
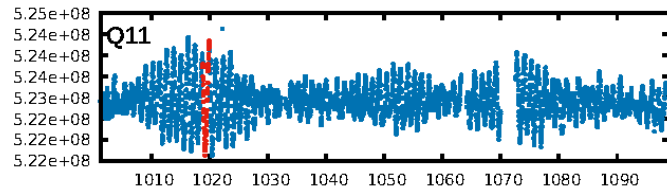
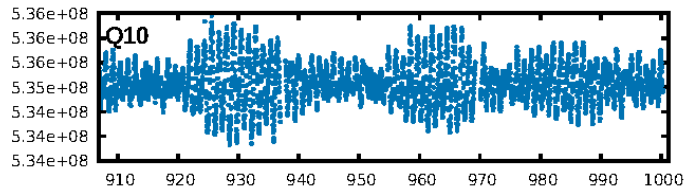
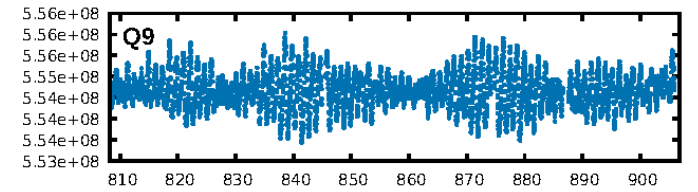
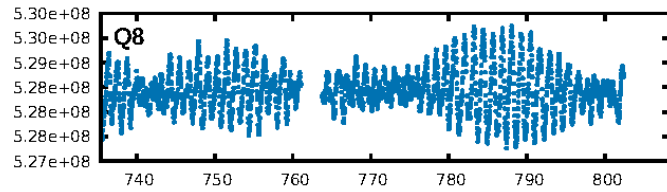
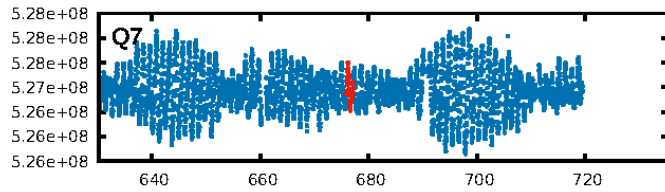
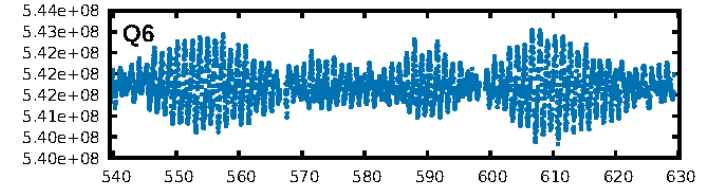
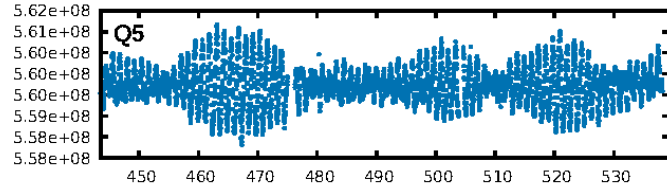
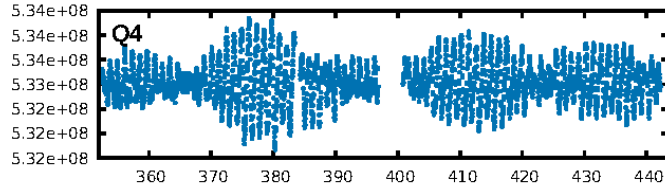
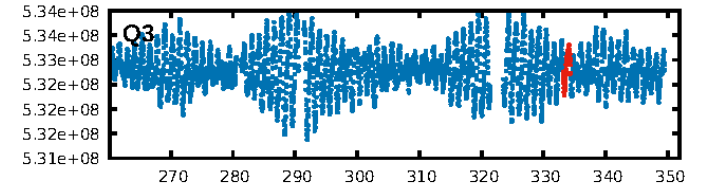
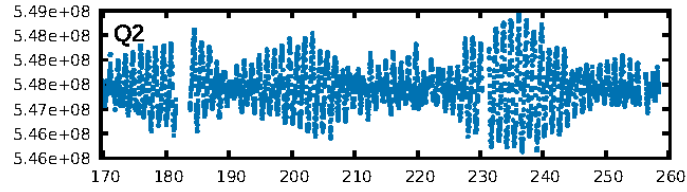
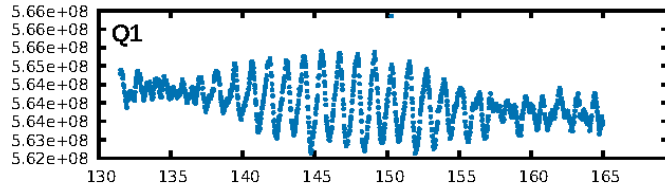
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [326.68σ]
LongPeriod-sig: 100.0% [126.78σ]
ModelChiSquare2-sig: 2.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.99e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.4513
Centroid-sig: 28.2%
Centroid-so: 0.182 arcsec [0.62σ]
OotOffset-rm: 0.741 arcsec [0.68σ]
KicOffset-rm: 0.888 arcsec [1.14σ]
OotOffset-st: 1/3/0/0 [4]
KicOffset-st: 1/3/0/0 [4]
DiffImageQuality-fgm: 0.75 [3/4]
DiffImageOverlap-fno: 0.00 [0/4]

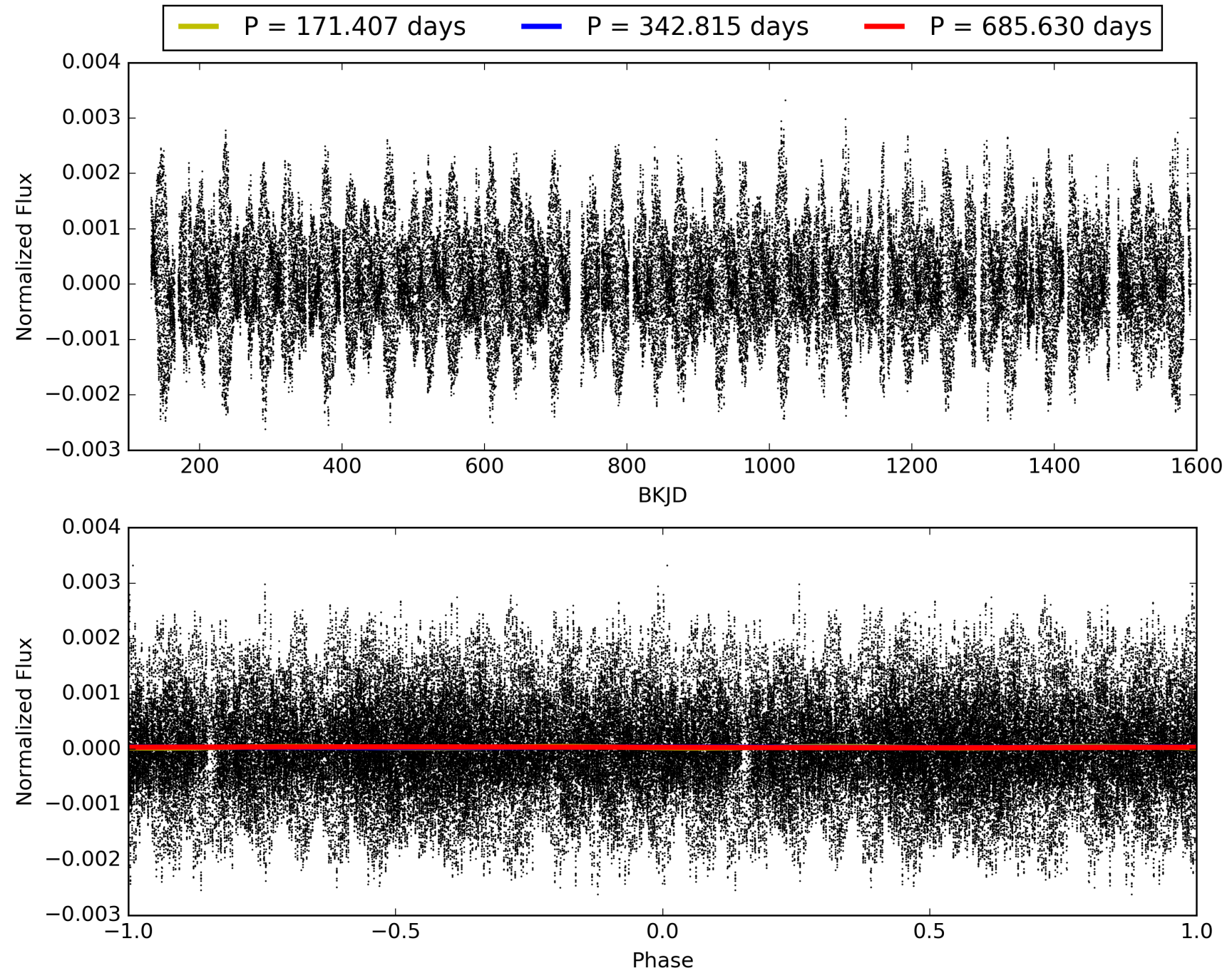
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 18:41:16 Z

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

TCE 006110119-02, PDC Light Curves

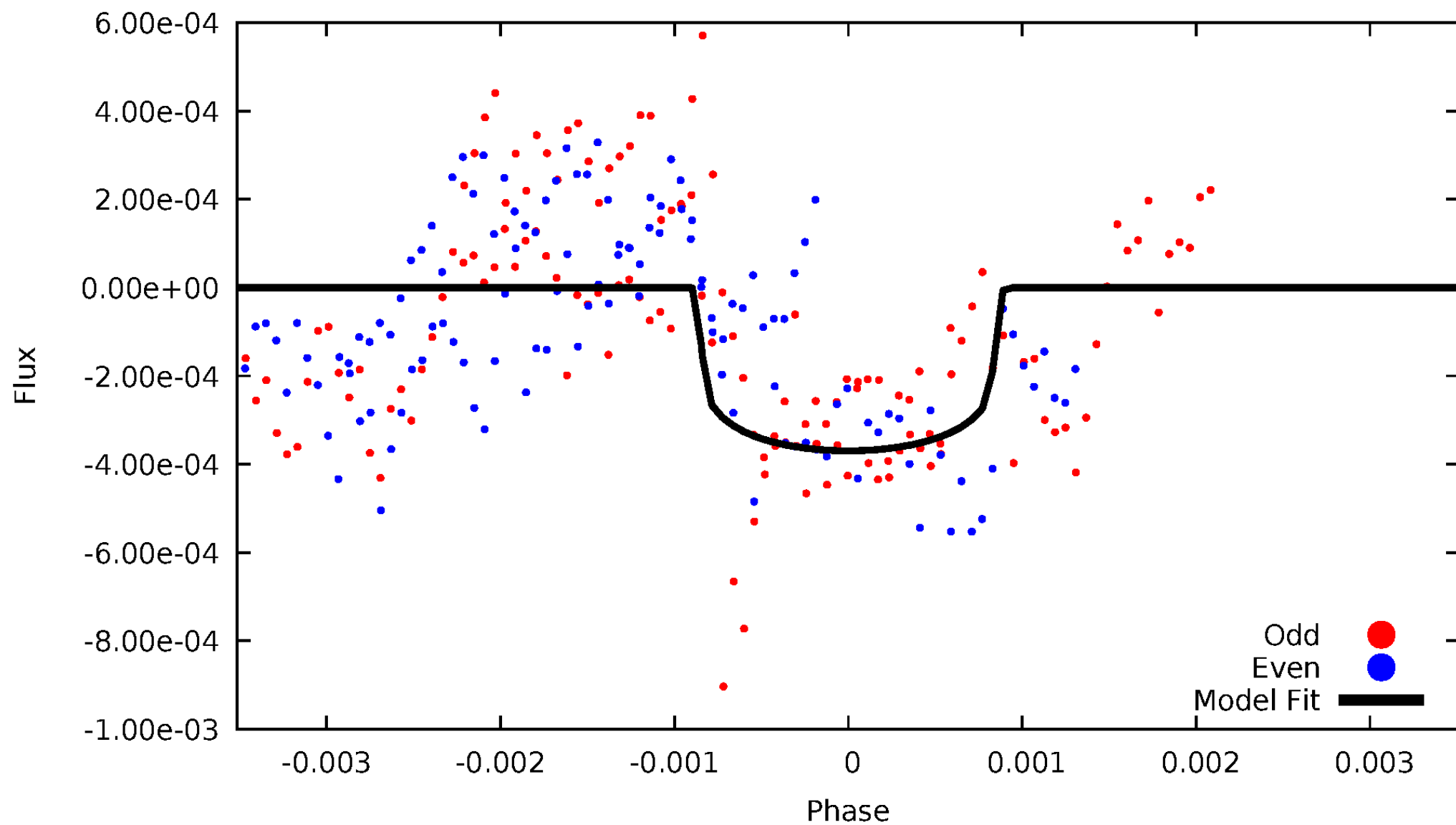


TCE 006110119-02



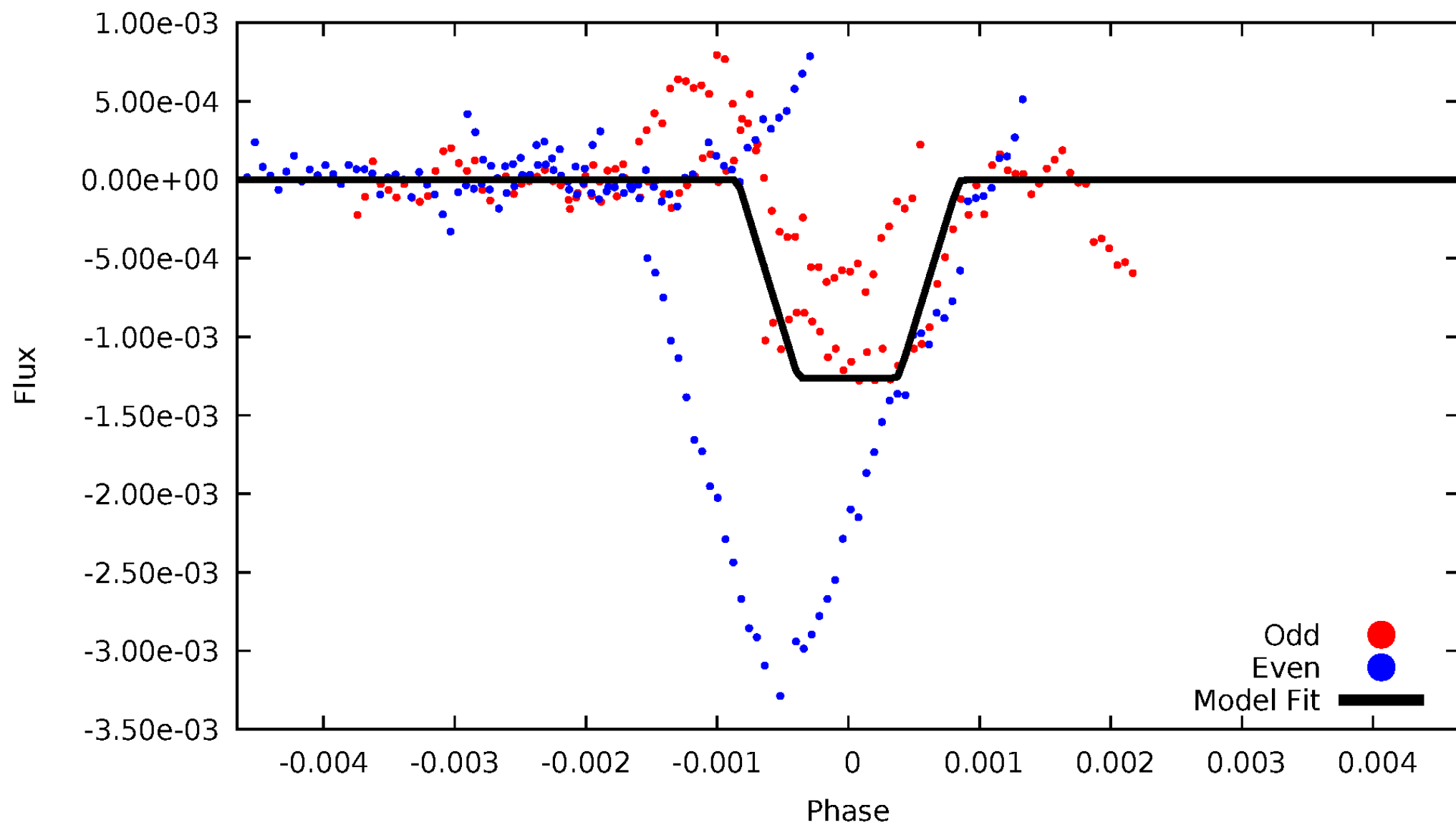
DV Odd/Even

TCE 006110119-02



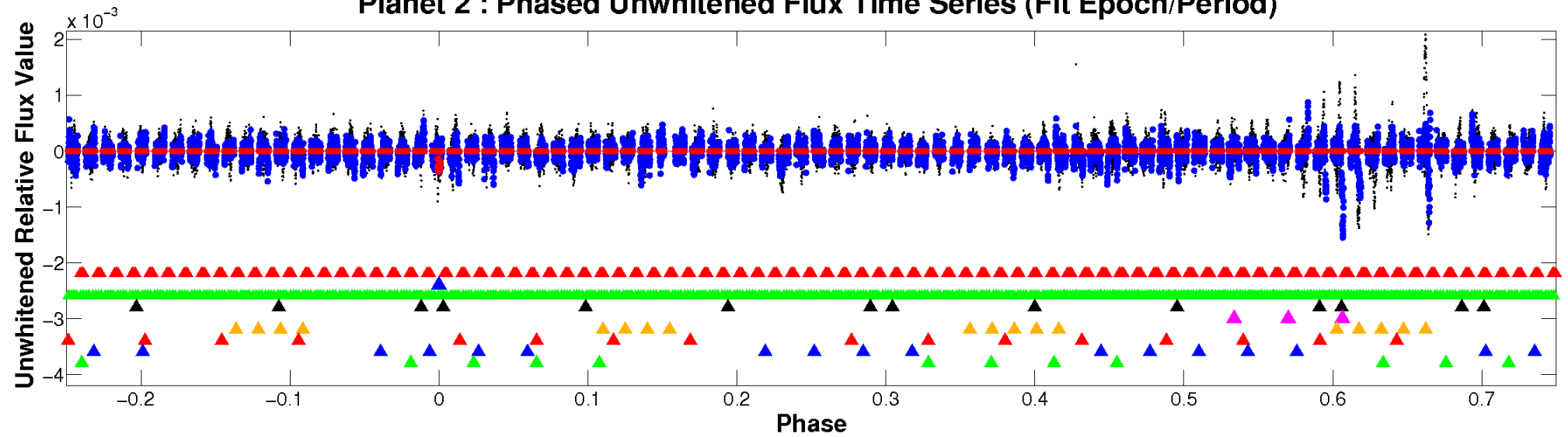
ALT Odd/Even

TCE 006110119-02

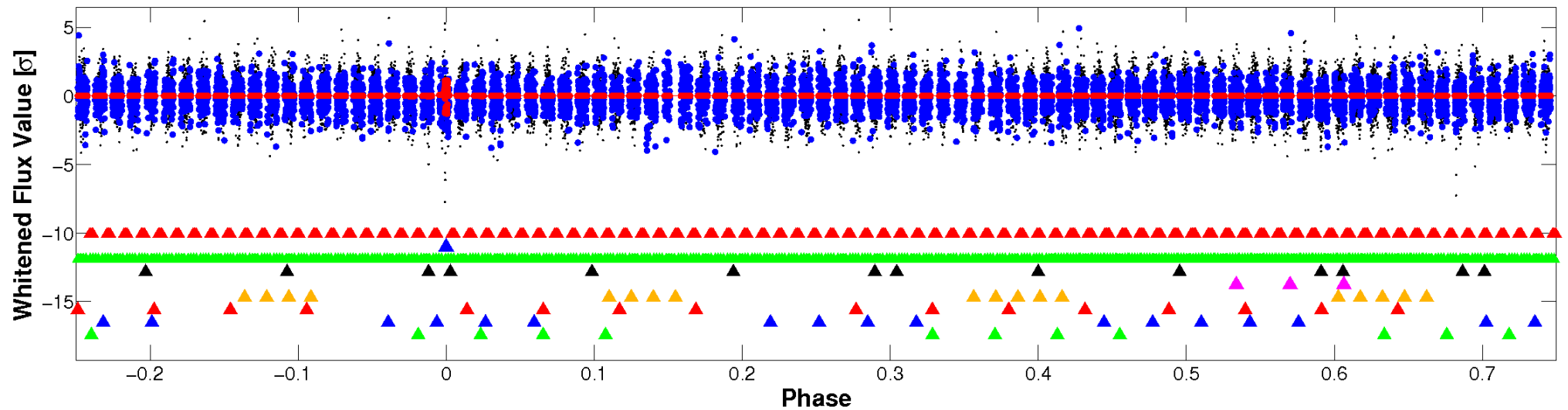


Non-Whitened Vs. Whitened Light Curve

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

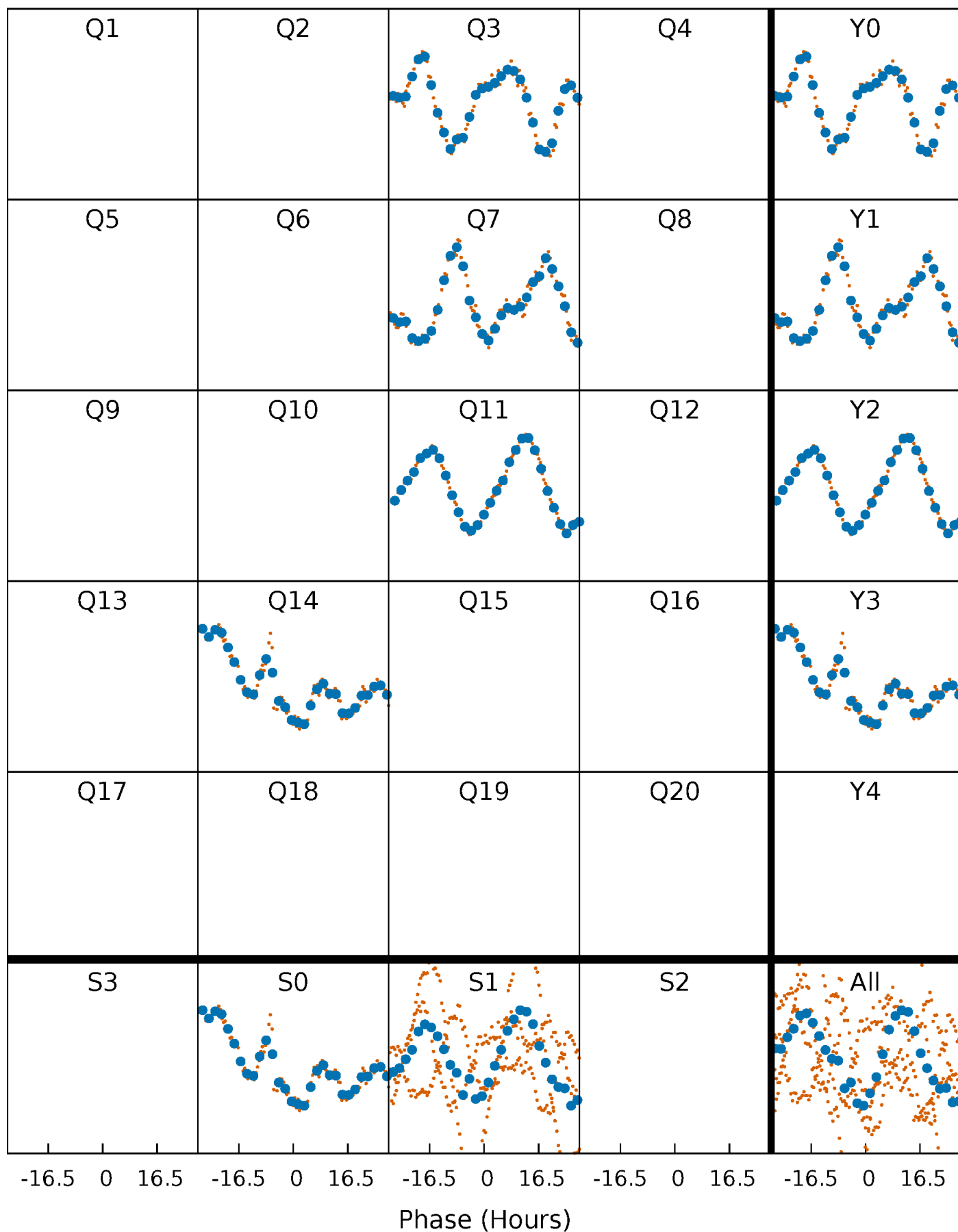


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



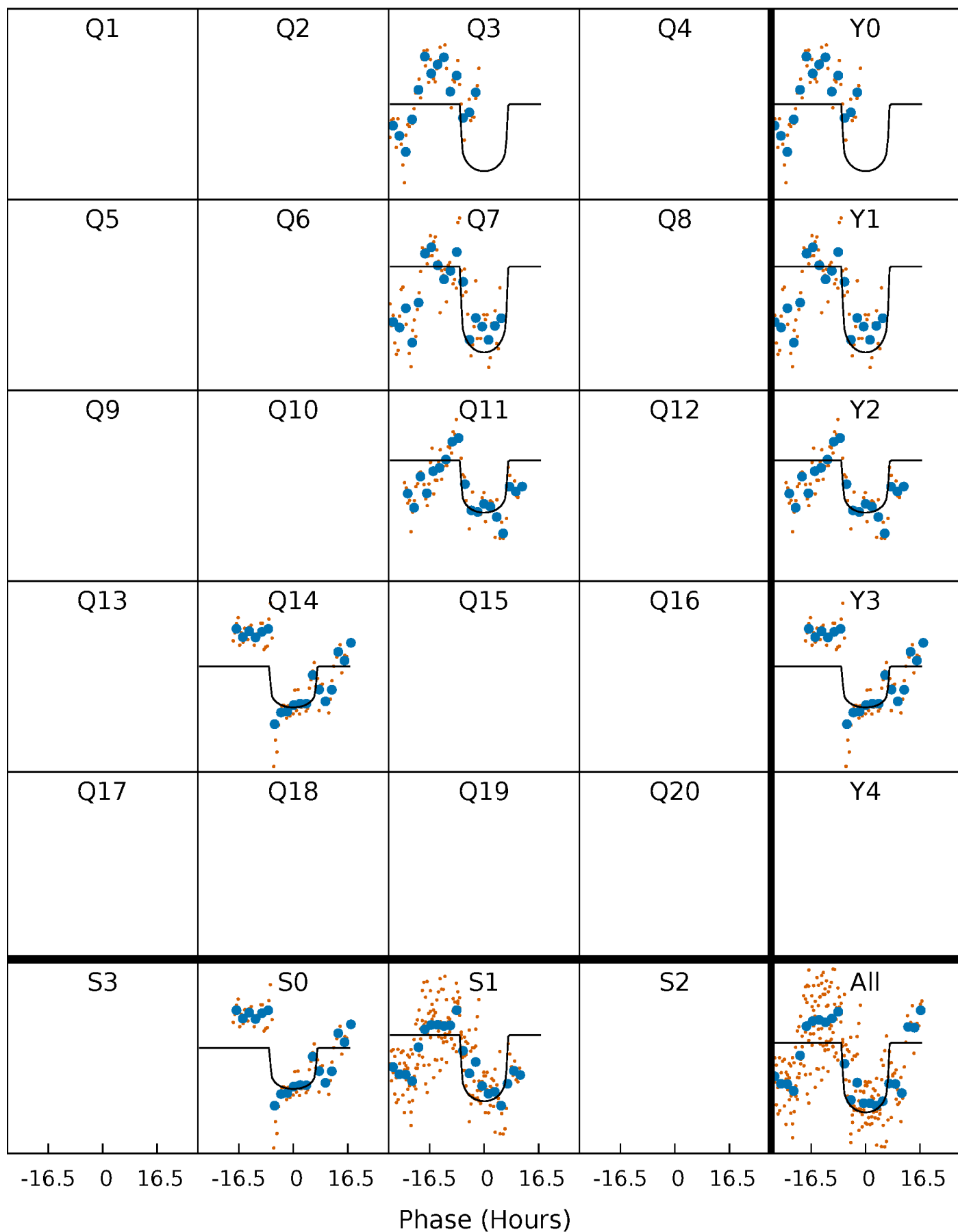
PDC Quarter-Phased Transit Curves

TCE 006110119-02 P=342.814818 Days $T_0=333.745352$ (BKJD)



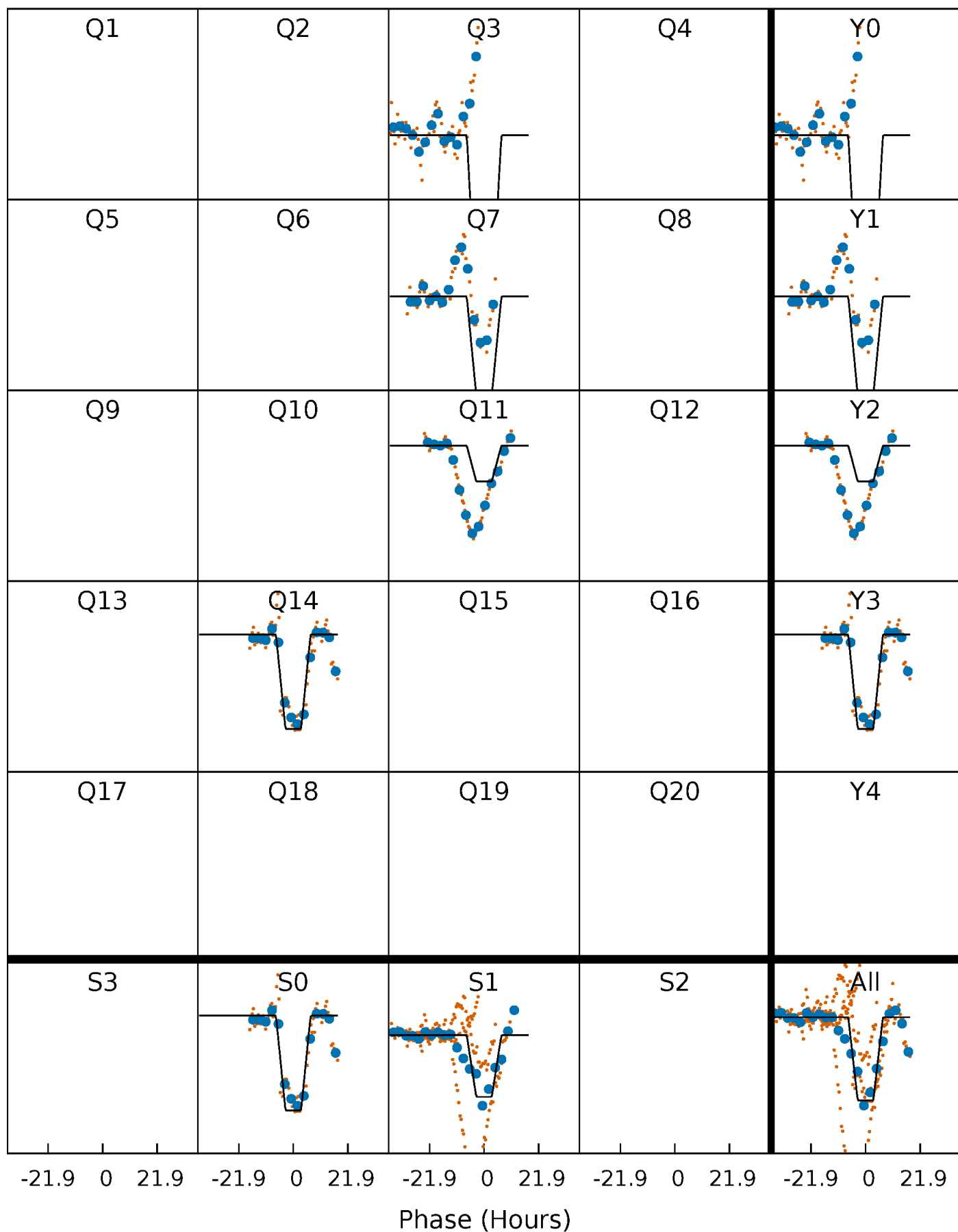
DV Quarter-Phased Transit Curves

TCE 006110119-02 P=342.814818 Days $T_0=333.745352$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

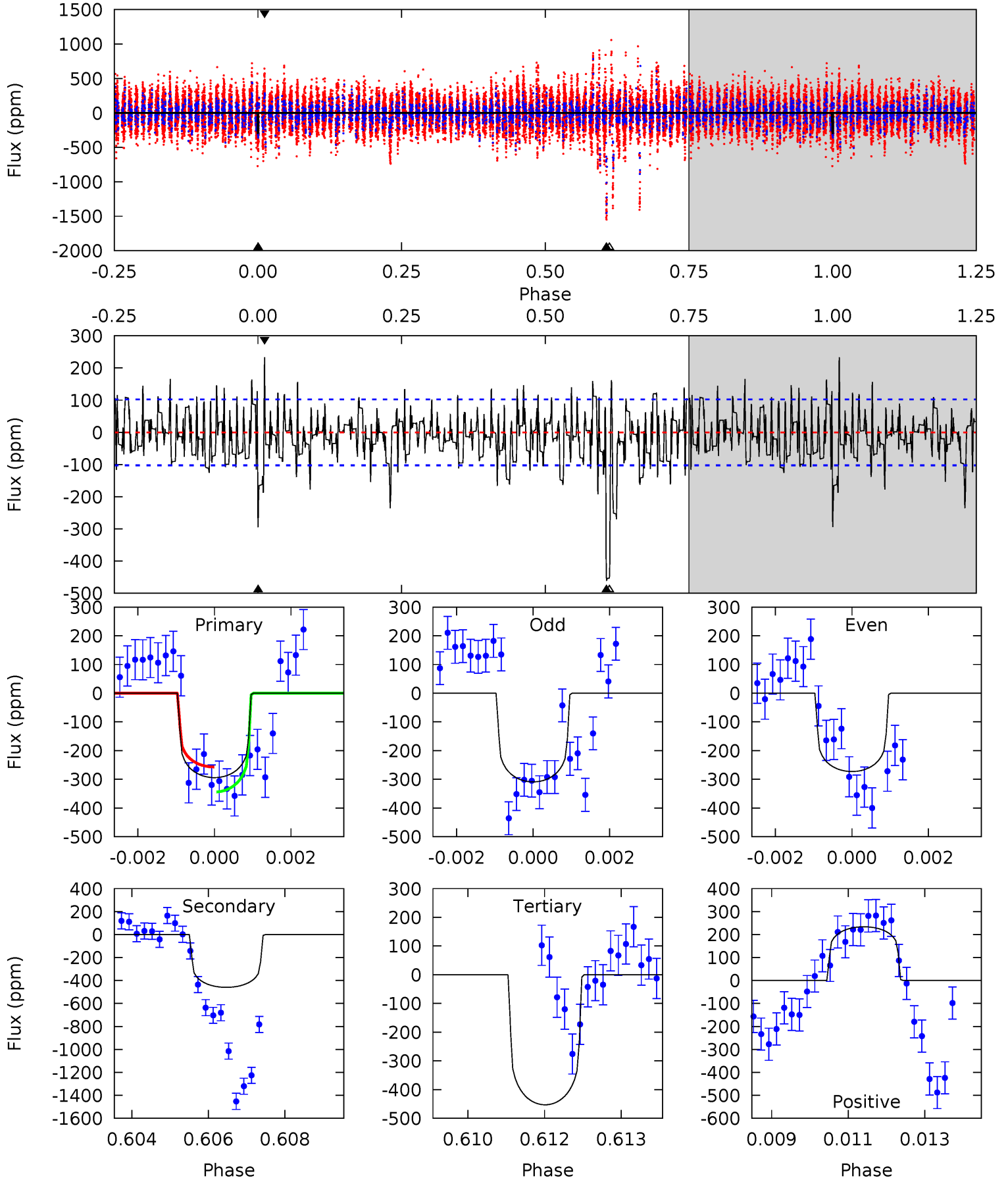
TCE 006110119-02 P=342.793403 Days $T_0=333.780148$ (BKJD)



DV Model-Shift Uniqueness Test

006110119-02, P = 342.814818 Days, E = 333.745352 Days

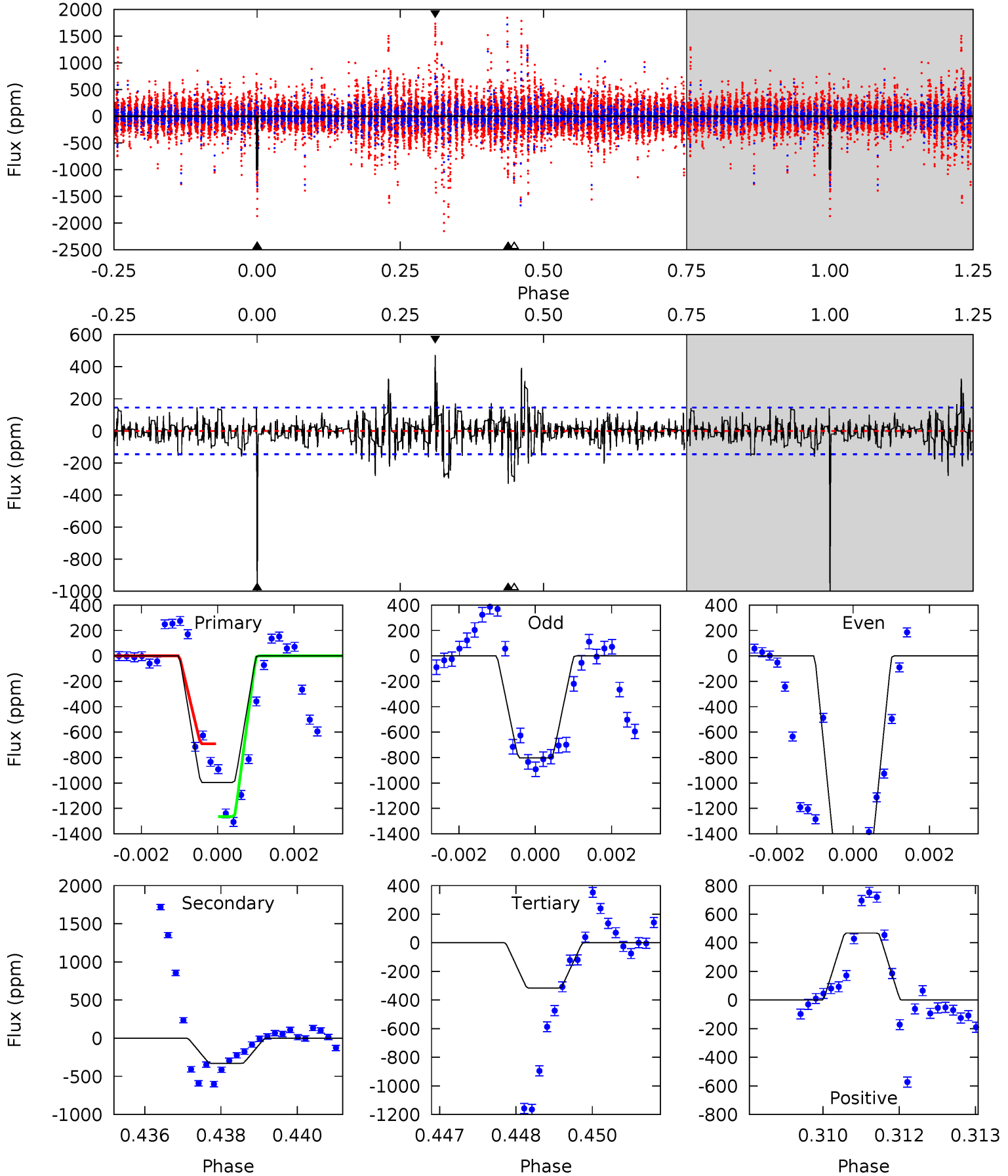
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	24.0	23.6	12.2	5.34	3.11	3.40	-8.27	3.14	0.36	11.8	0.87	0.81	0.34	2.26



Alt Model-Shift Uniqueness Test

006110119-02, P = 342.793403 Days, E = 333.780148 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.6	12.1	11.6	17.2	5.36	3.14	2.28	25.0	19.4	0.48	-5.11	15.6	1.04	0.32	10.2



Stellar Parameters For KIC 006110119

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7110^{+197}_{-222}	$3.578^{+0.306}_{-0.054}$	$-0.140^{+0.250}_{-0.250}$	$3.688^{+0.303}_{-1.290}$	$1.878^{+0.191}_{-0.310}$	$0.053^{+0.105}_{-0.009}$
	+3%/-3%	+9%/-2%	+179%/-179%	+8%/-35%	+10%/-17%	+200%/-17%
Source	PHO1	FLK73	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 006110119-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-460 ± 19	$7.02^{+1.73}_{-1.96}$	753^{+40}_{-65}	7684^{+1241}_{-839}	7284^{+5867}_{-2644}
Alt.	-329 ± 27	$13.65^{+2.34}_{-2.66}$	758^{+37}_{-63}	5128^{+311}_{-292}	1400^{+693}_{-383}

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 $A_{obs} \gg 1.0$

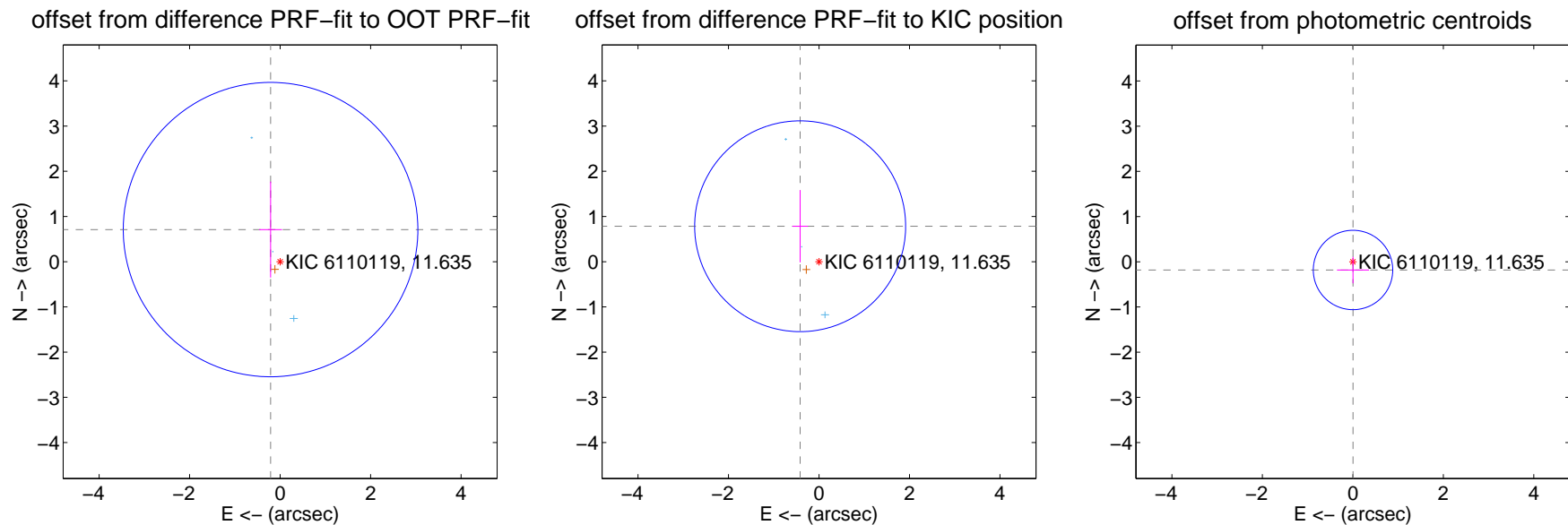
DV Centroid Data

Supplemental centroid analysis for 006110119-02. **Kepler magnitude: 11.63.** Transit SNR 9.28

There are 3 quarters with good PRF difference image offsets

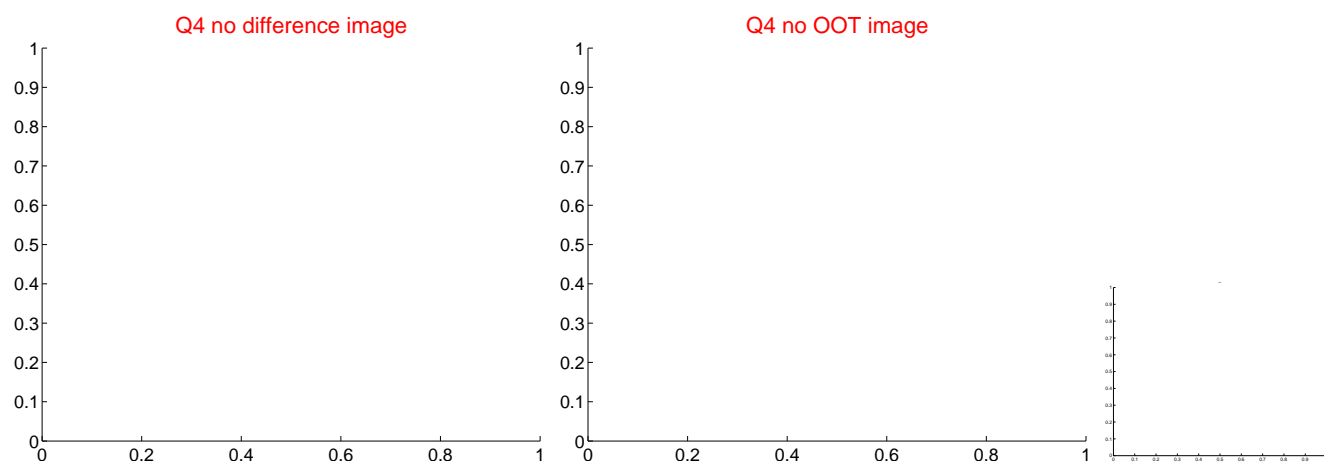
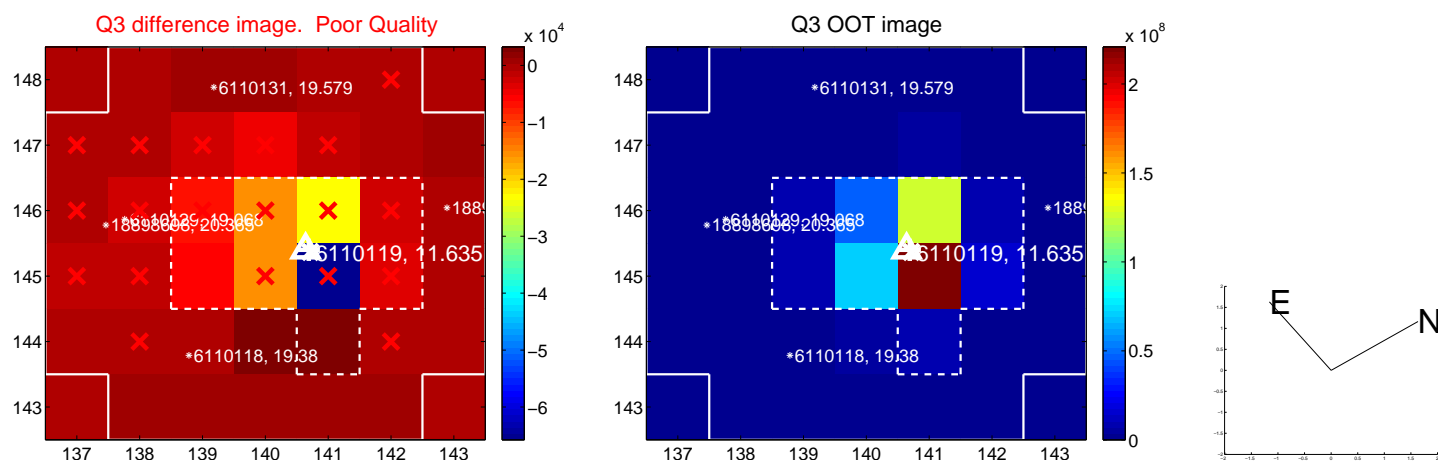
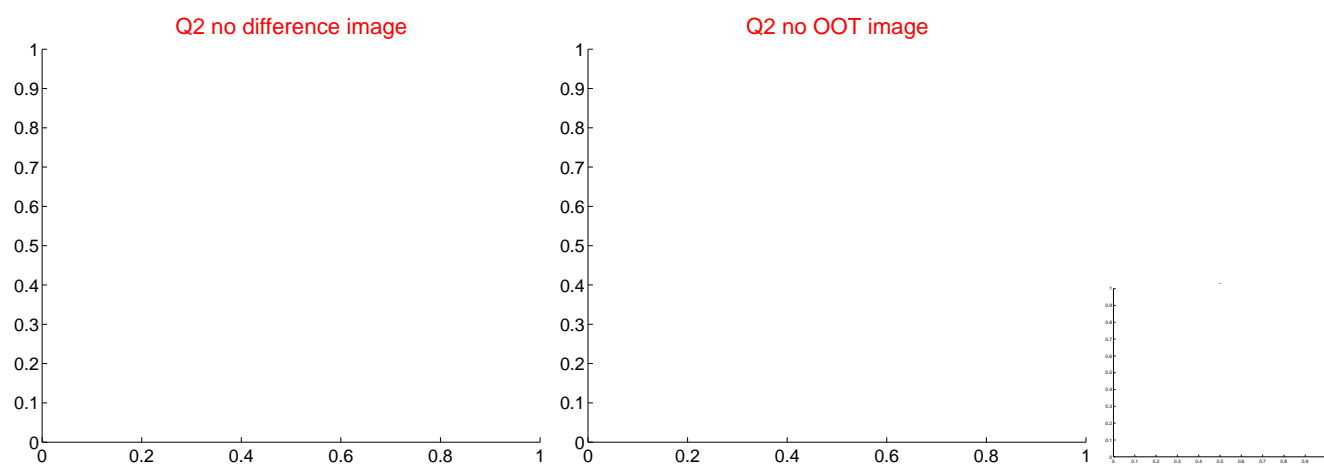
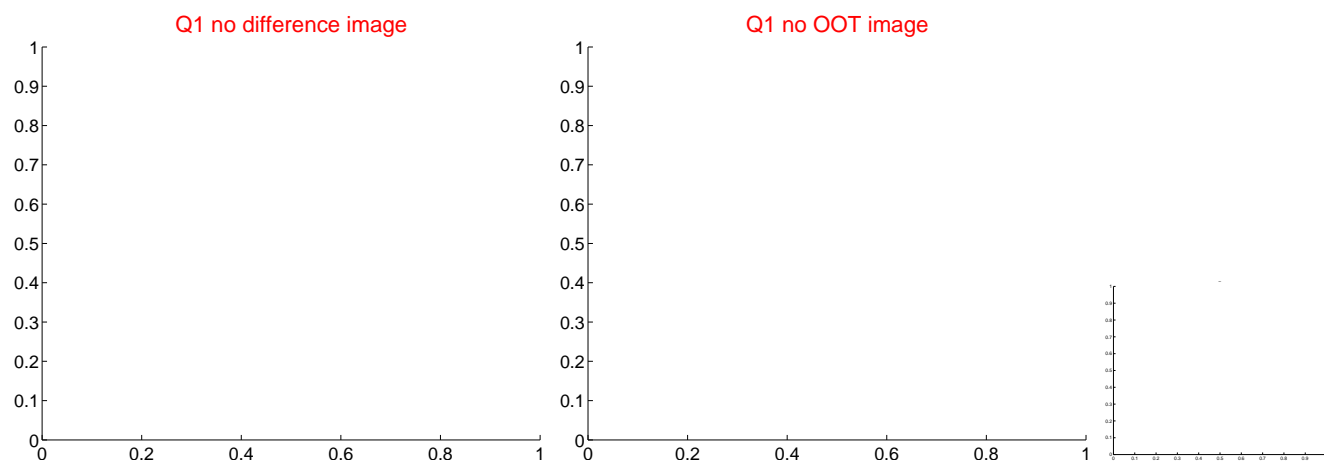
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.741 ± 1.085	0.68	0.211 ± 0.252	0.710 ± 1.060
PRF-fit source offset from KIC position	0.888 ± 0.777	1.14	0.416 ± 0.171	0.784 ± 0.799
photometric centroid source offset	0.18 ± 0.29	0.62	-0.00 ± 0.35	-0.18 ± 0.29

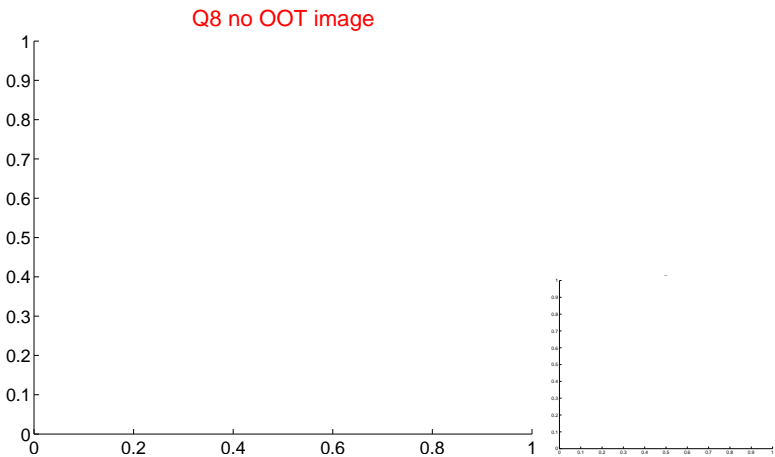
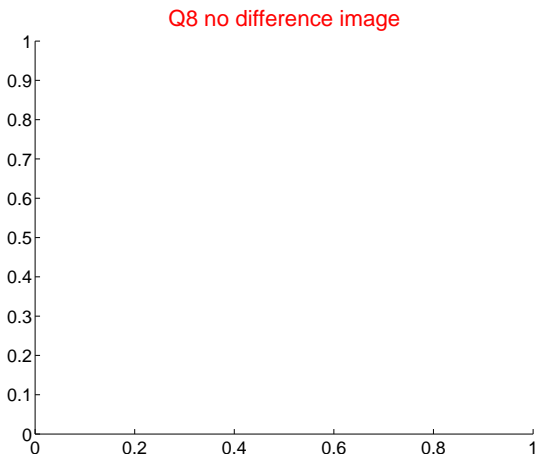
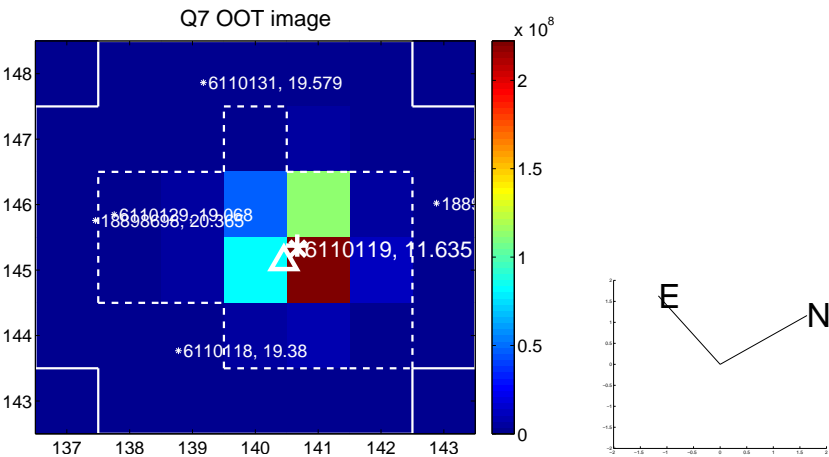
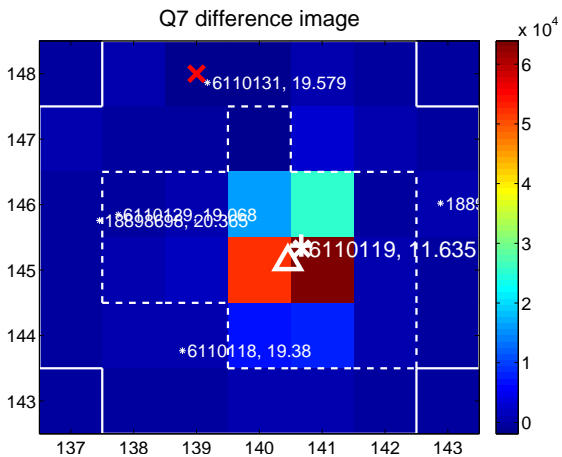
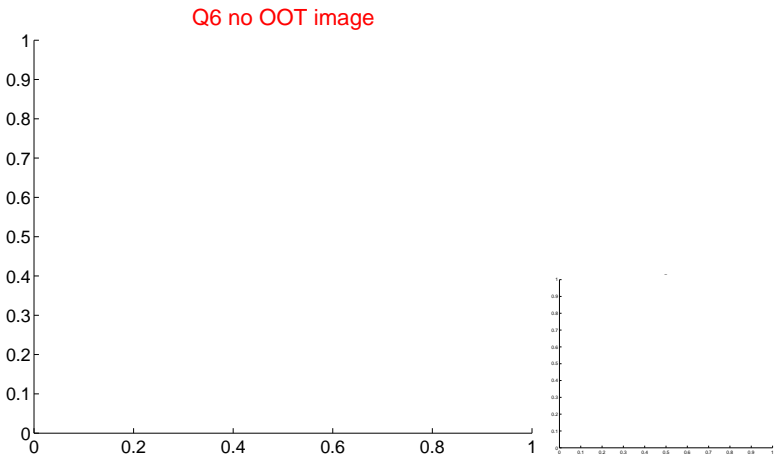
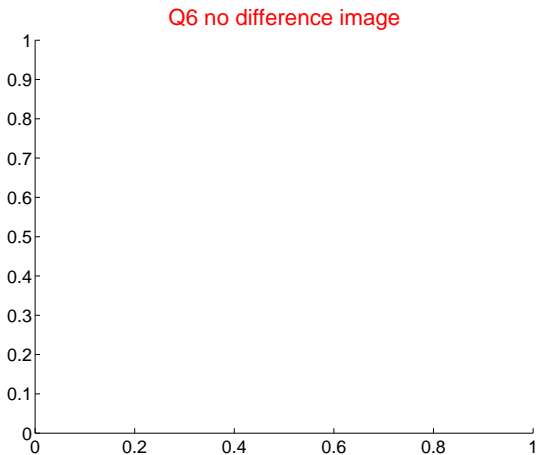
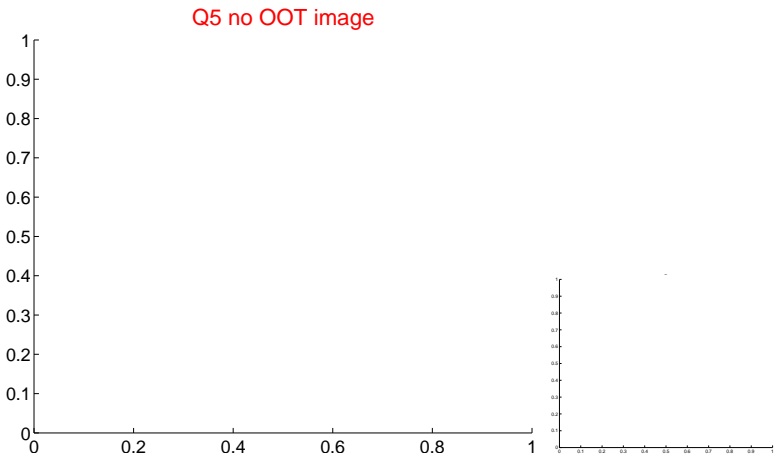
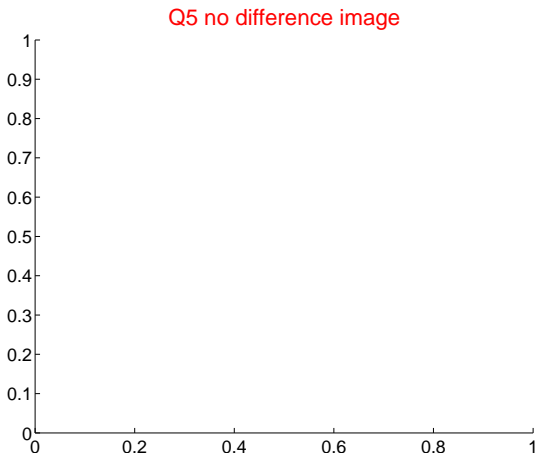


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

Q9 no difference image



Q9 no OOT image



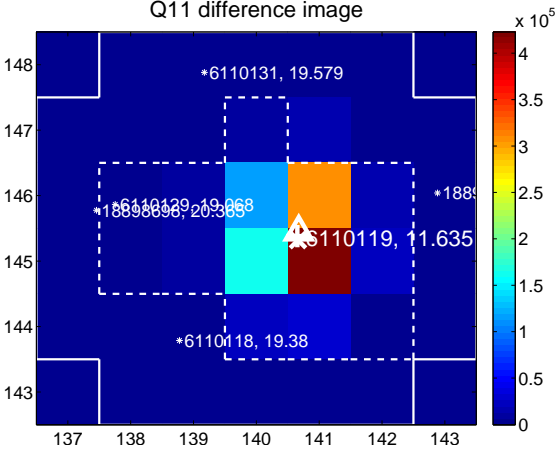
Q10 no difference image



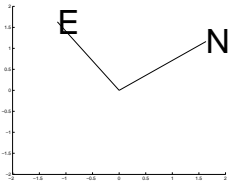
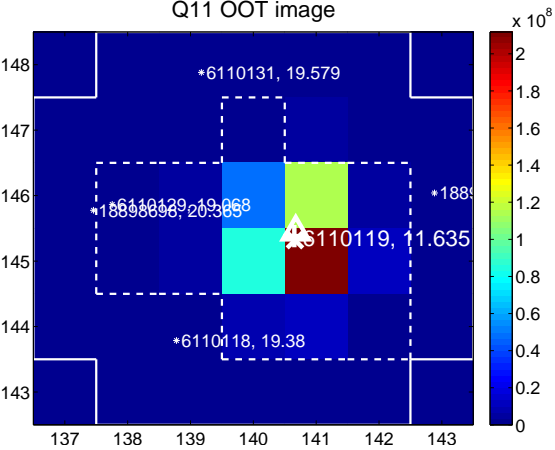
Q10 no OOT image



Q11 difference image



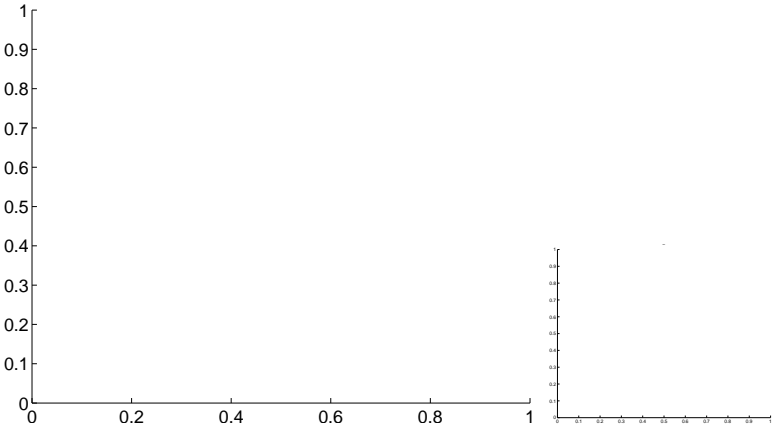
Q11 OOT image



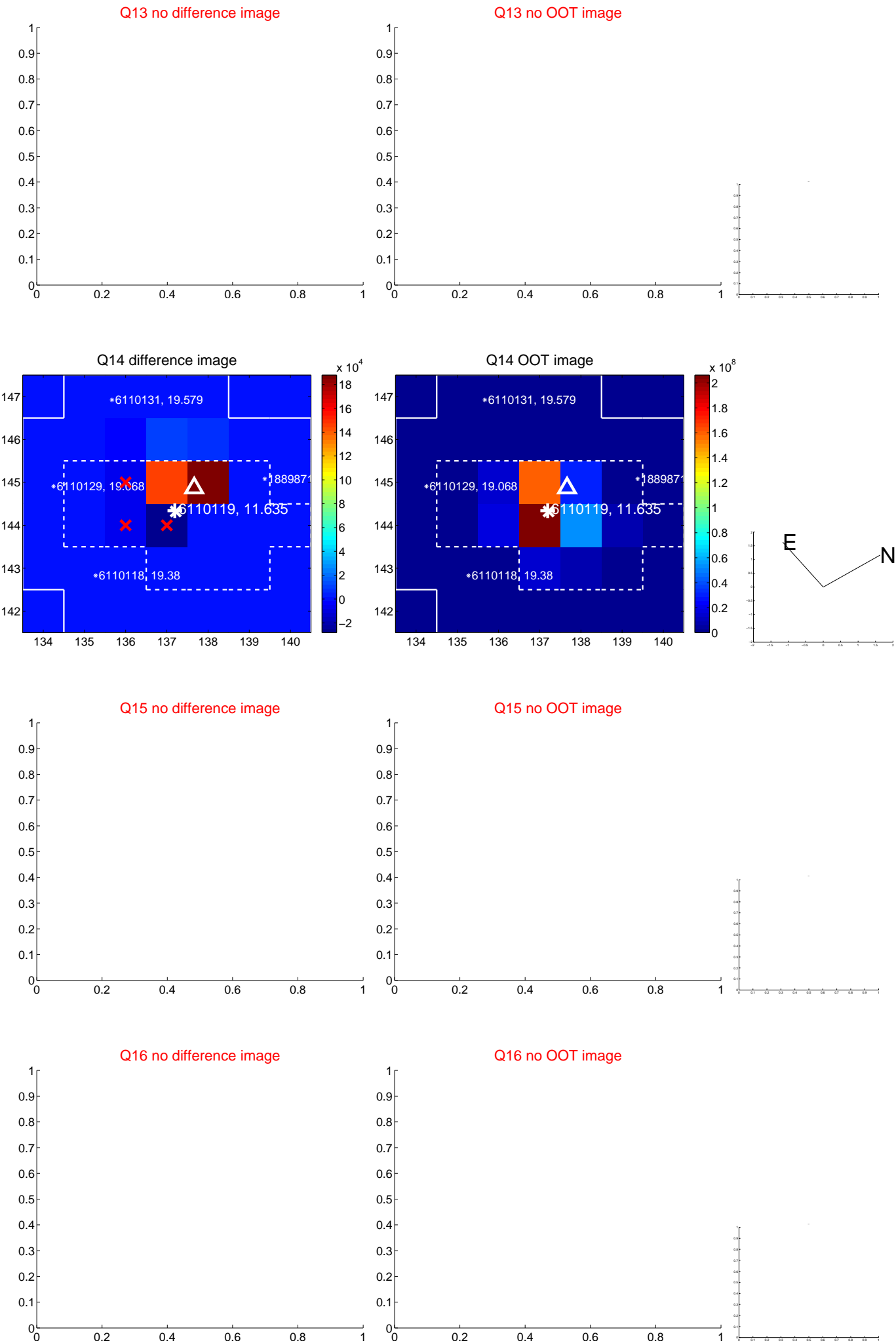
Q12 no difference image



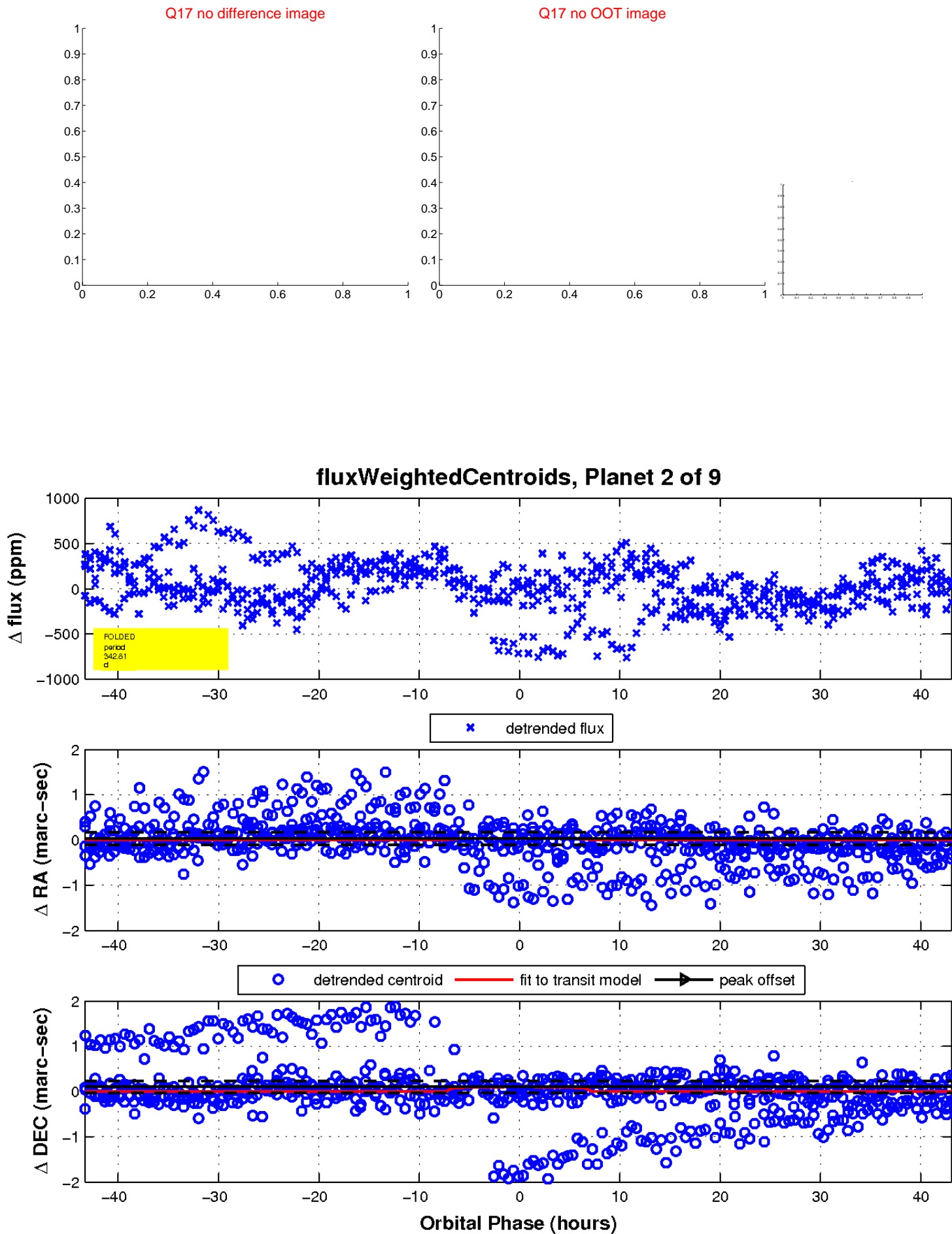
Q12 no OOT image



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

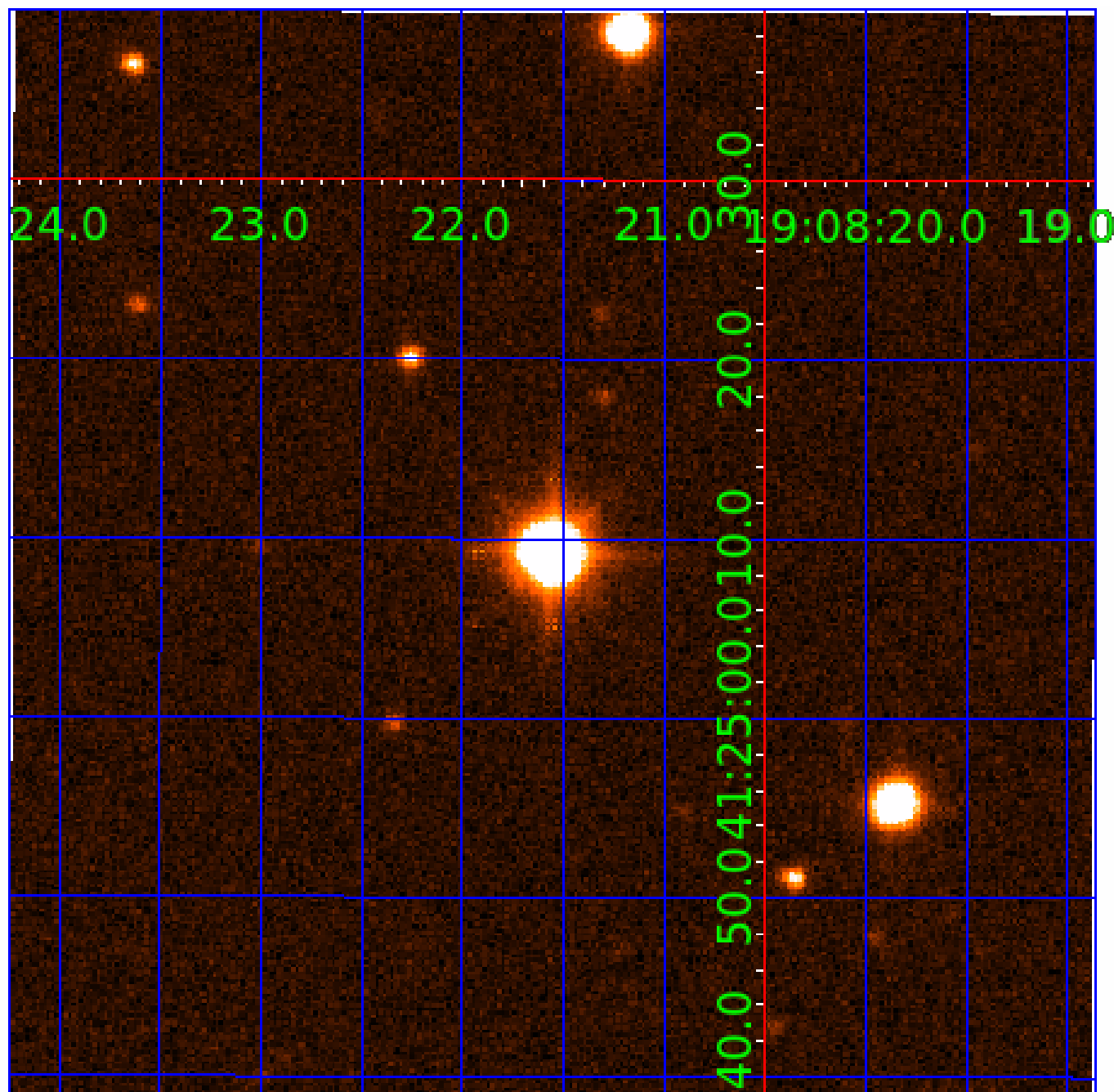


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006110119

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})
006110119-01	OBS	No	3.989227	135.480588	35.7	19.865	10.1	9.1	3.69	7110	2.62	8440.76
006110119-02	OBS	No	342.814818	333.745352	369.4	14.453	13.2	9.3	3.69	7110	7.51	22.26
006110119-03	OBS	No	2.838401	132.090111	48.6	8.024	11.2	10.3	3.69	7110	3.18	13288.27
006110119-05	OBS	No	698.076145	173.928151	150.7	65.679	8.9	2.2	3.69	7110	5.28	8.62
006110119-06	OBS	No	84.424806	133.574696	146.2	10.626	8.4	5.3	3.69	7110	5.18	144.19
006110119-07	OBS	No	90.121099	158.324243	254.2	7.624	8.2	8.9	3.69	7110	6.54	132.17
006110119-08	OBS	No	88.520065	143.287536	68.4	7.500	8.3	-1.0	3.69	7110	3.07	135.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006110119-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006110119-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV
006110119-03	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
006110119-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006110119-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006110119-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006110119-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

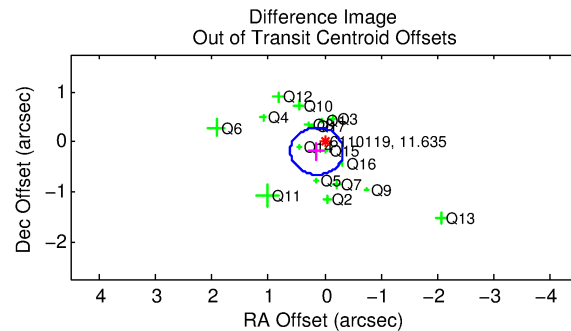
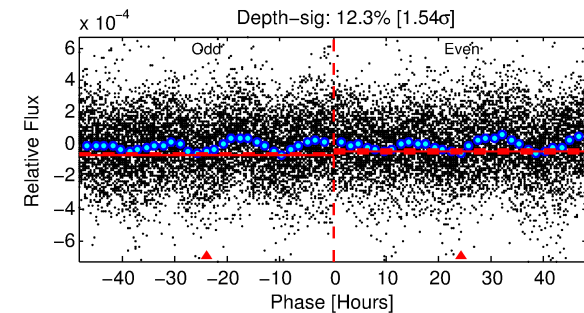
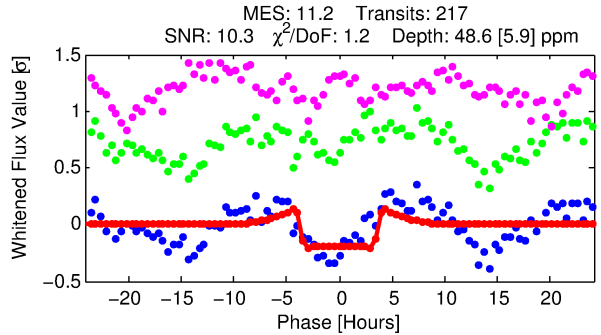
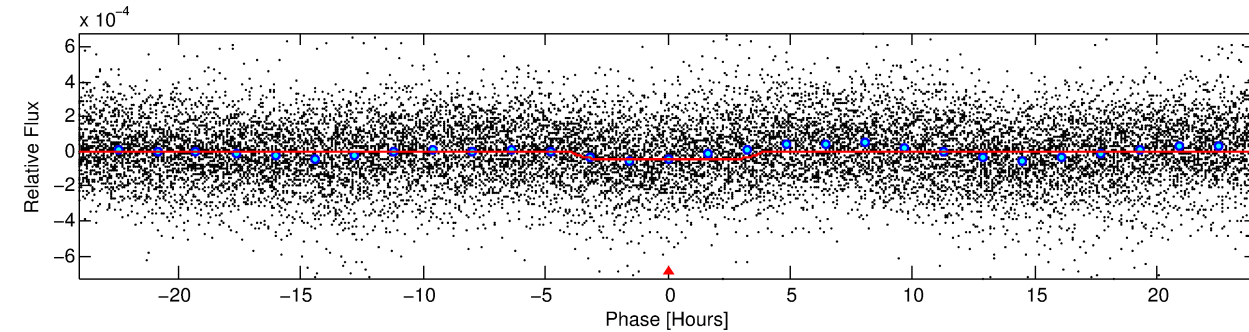
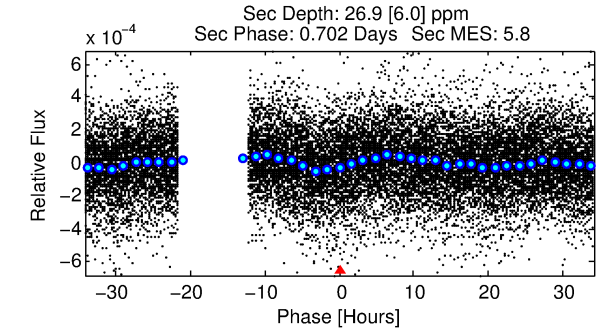
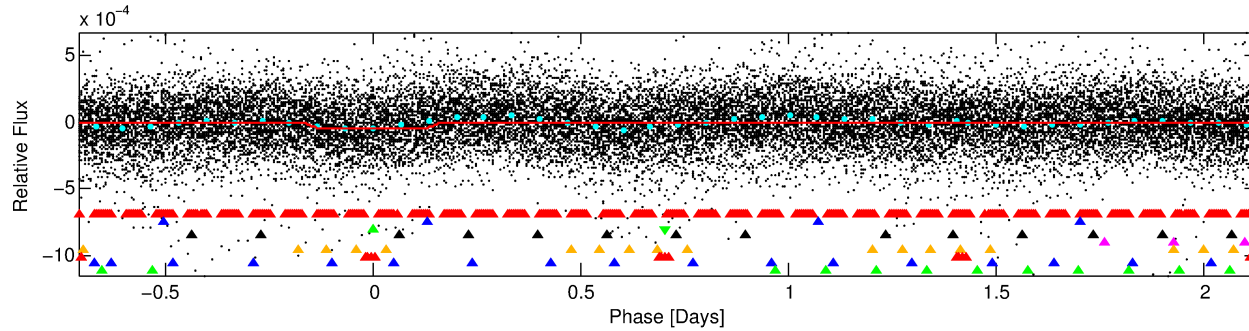
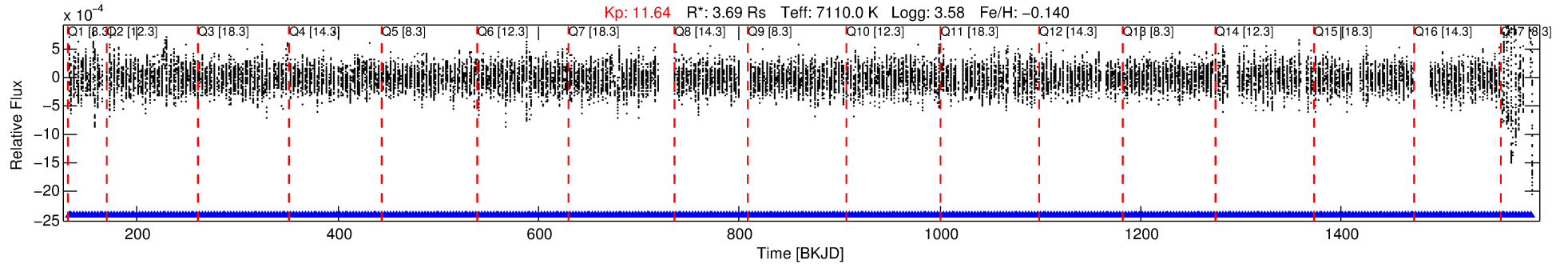
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006110119-03

No Significant Match Found

DV One-Page Summary

KIC: 6110119 Candidate: 3 of 9 Period: 2.838 d



DV Fit Results:

Period = 2.83840 [0.00003] d
Epoch = 132.0901 [0.0057] BKJD
 $R_p/R^* = 0.0079$ [0.0007]
 $a/R^* = 1.32$ [0.24]
 $b = 0.95$ [0.04]
 $S_{\text{eff}} = 13288.27$ [7163.59]
 $T_{\text{eq}} = 2738$ [369] K
 $R_p = 3.18$ [1.15] R_e
 $a = 0.0484$ [0.0160] AU
 $A_g = 3.42$ [2.05] [1.18σ]
 $T_{\text{eff}} = 5755$ [455] K [5.15σ]

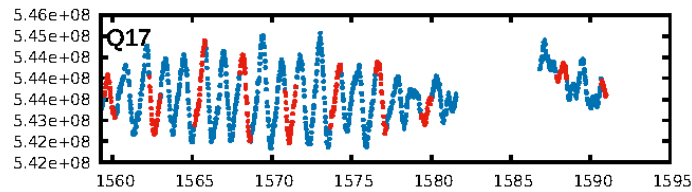
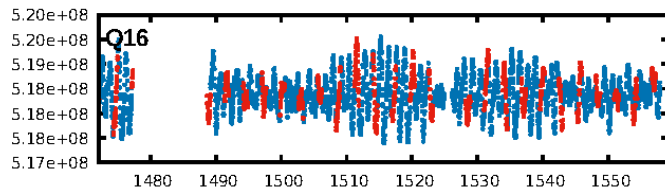
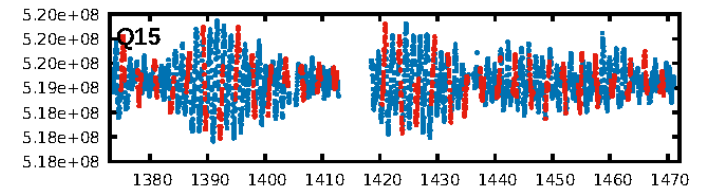
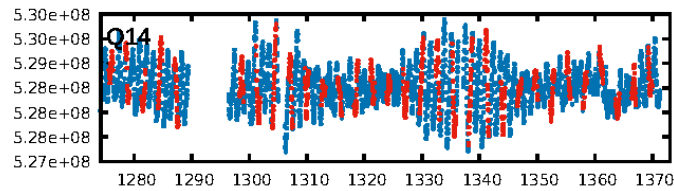
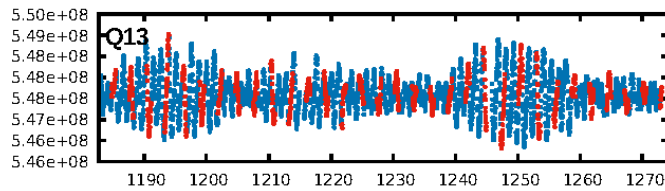
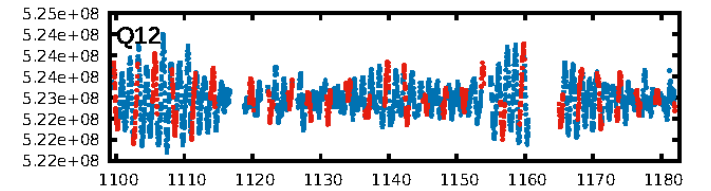
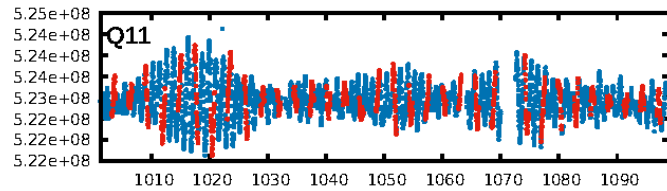
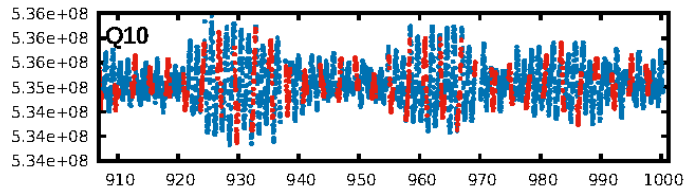
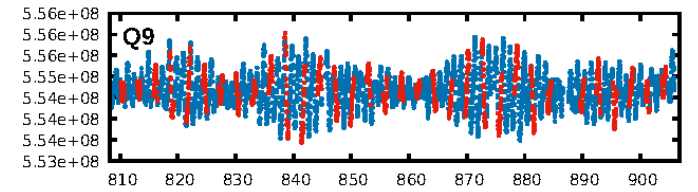
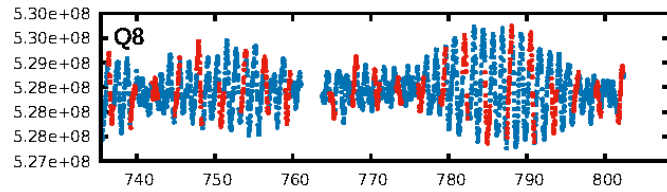
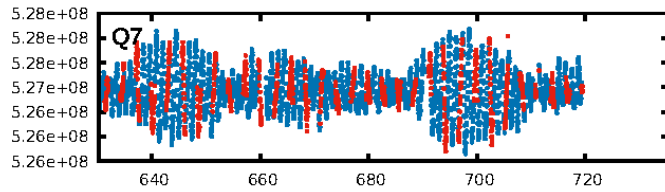
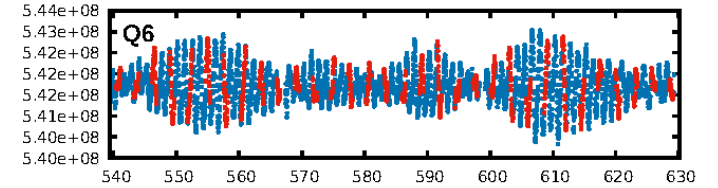
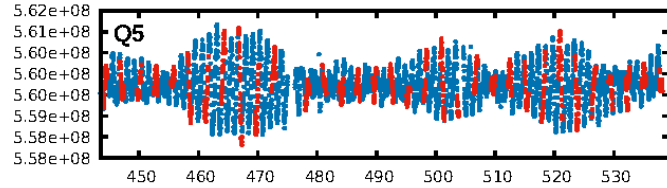
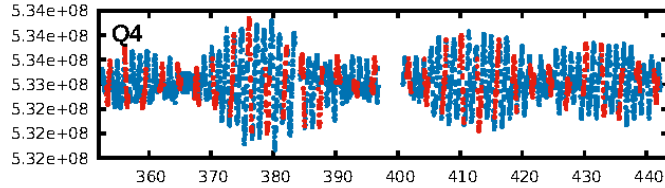
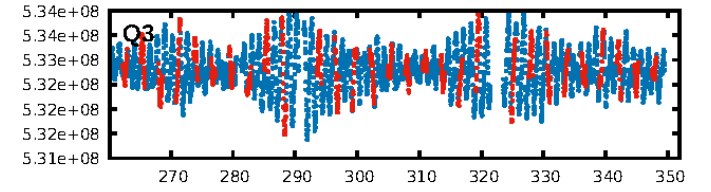
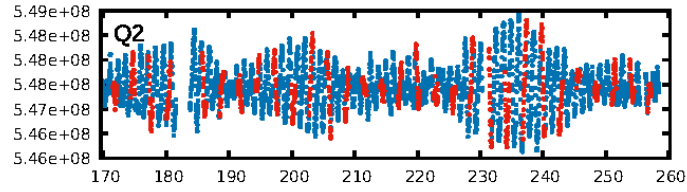
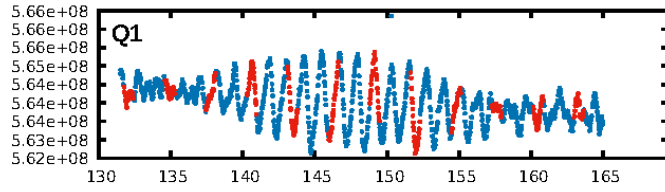
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 80.3% [1.29σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.18e-08
RollingBand-fgt: 1.00 [209/209]
GhostDiagnostic-chr: 0.02895
Centroid-sig: 47.7%
Centroid-so: 0.178 arcsec [0.80σ]
OotOffset-rm: 0.236 arcsec [1.51σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.274 arcsec [1.85σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.53 [9/17]
DiffImageOverlap-fno: 1.00 [17/17]

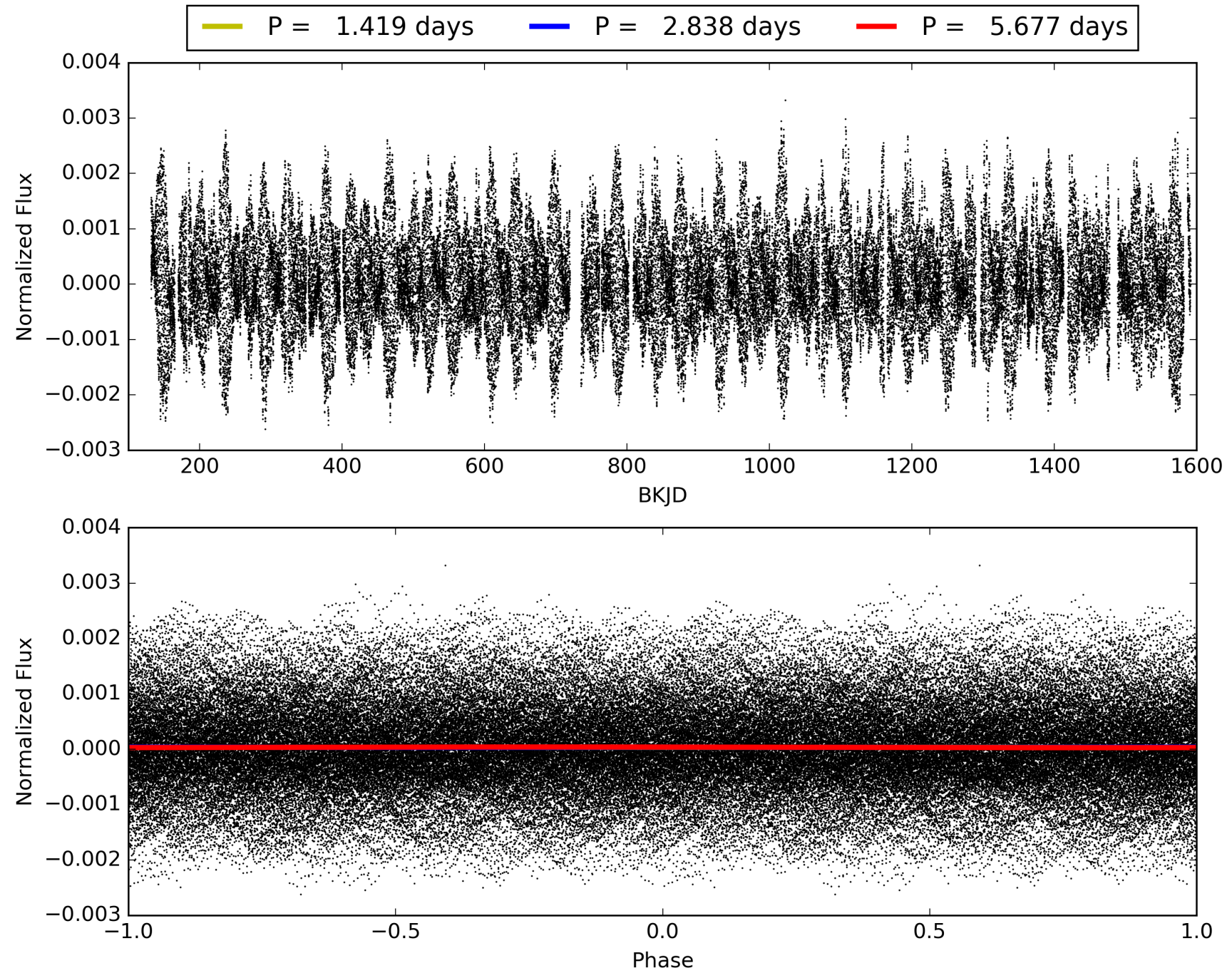
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 18:41:22 Z

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

TCE 006110119-03, PDC Light Curves

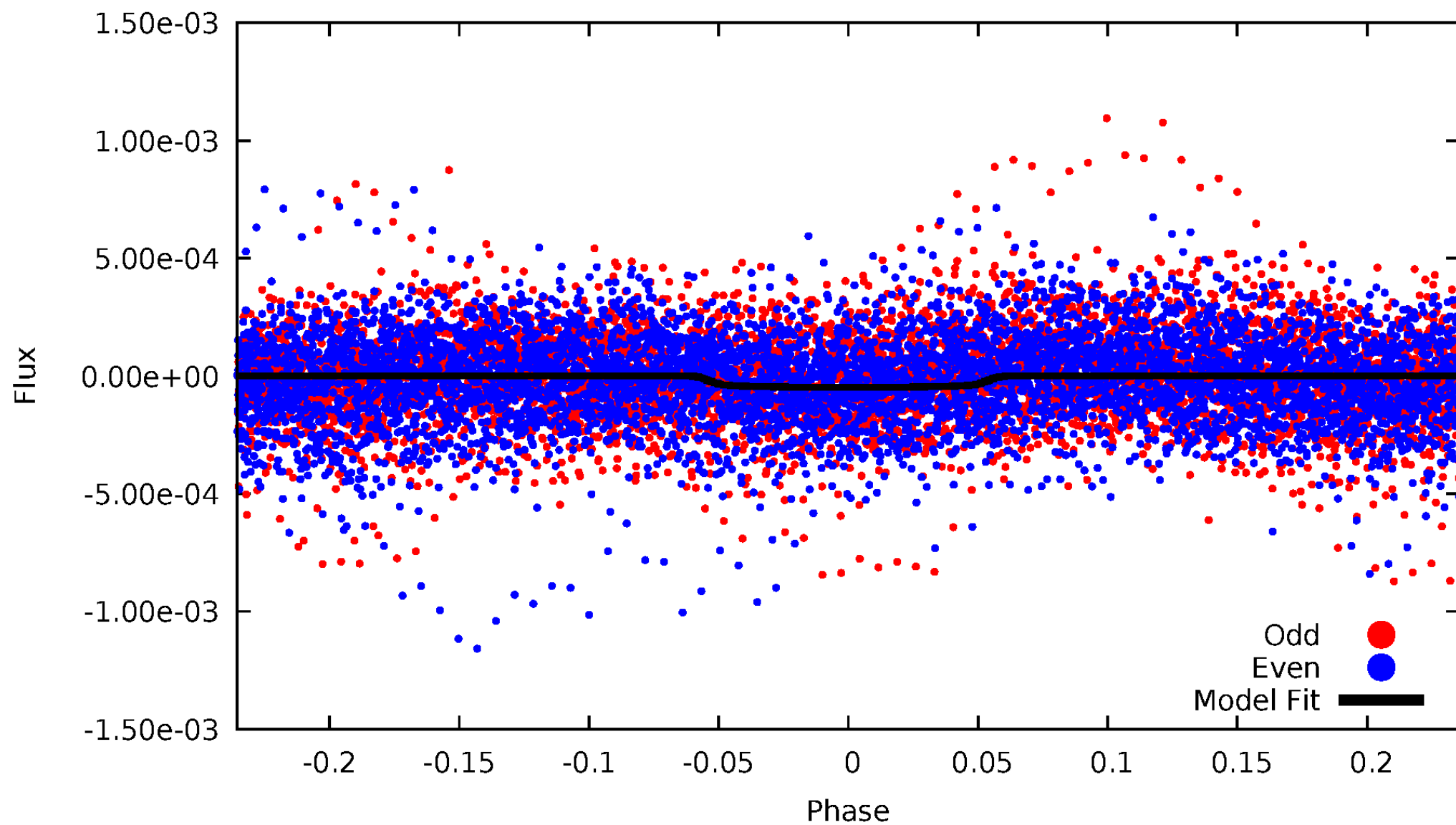


TCE 006110119-03



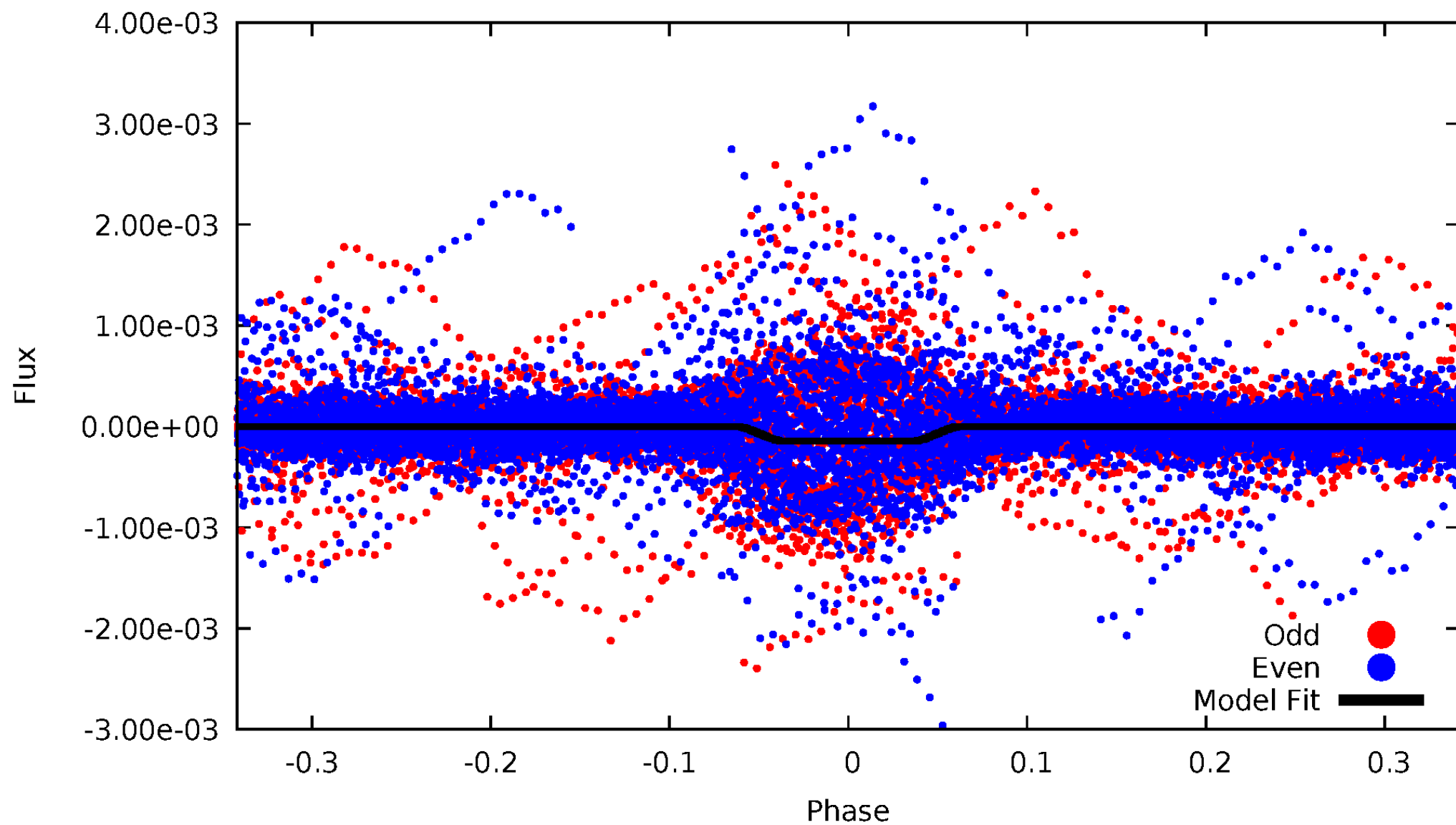
DV Odd/Even

TCE 006110119-03

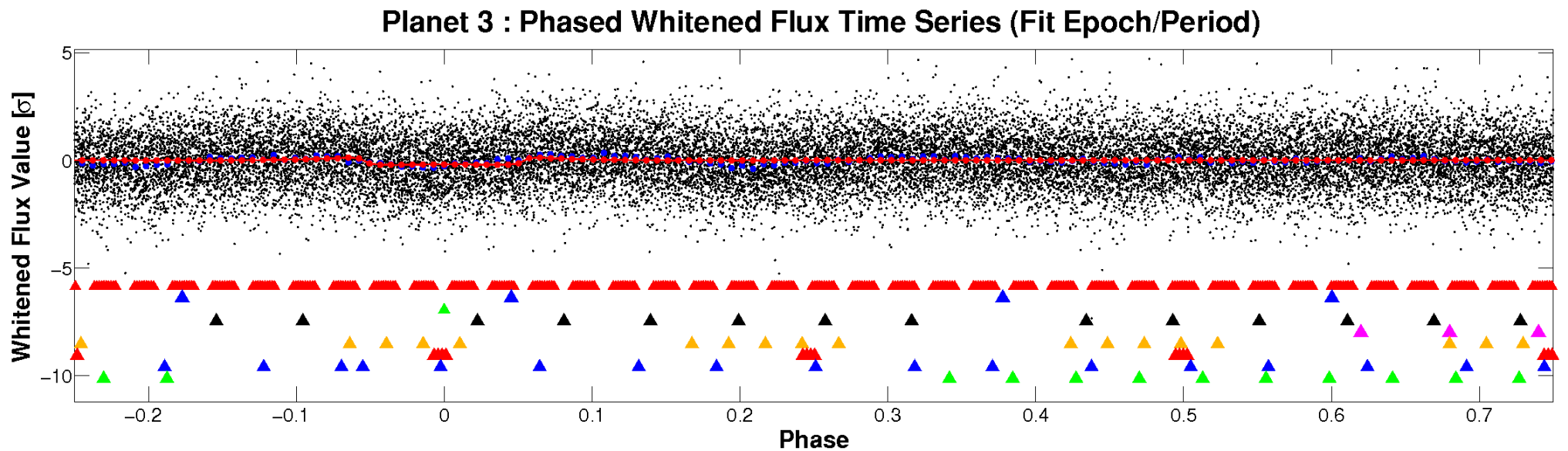
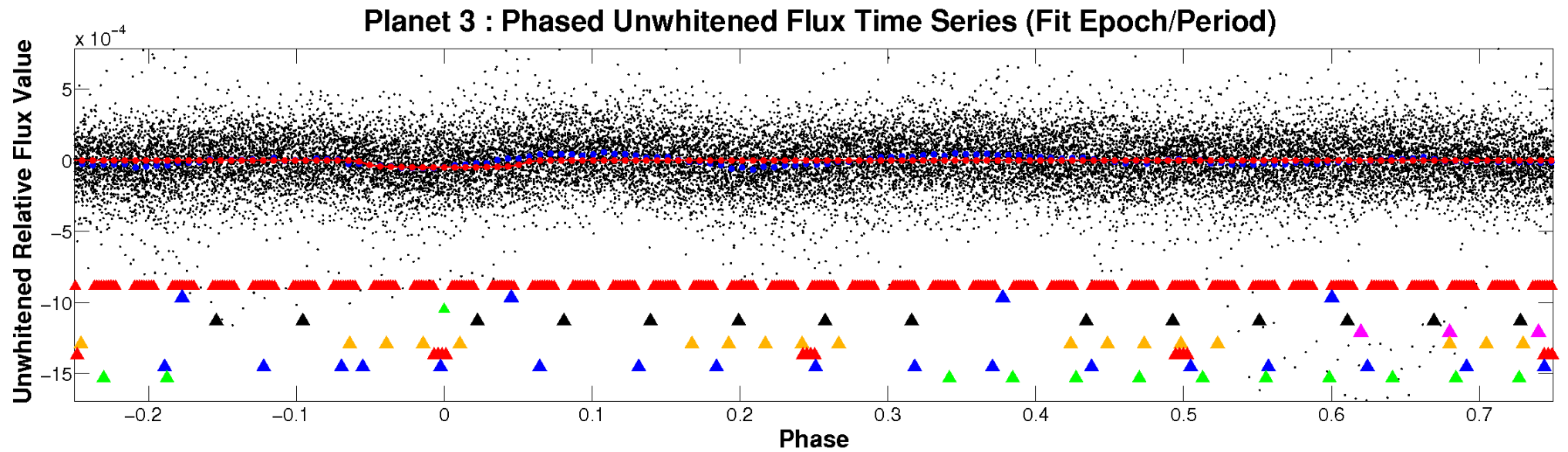


ALT Odd/Even

TCE 006110119-03

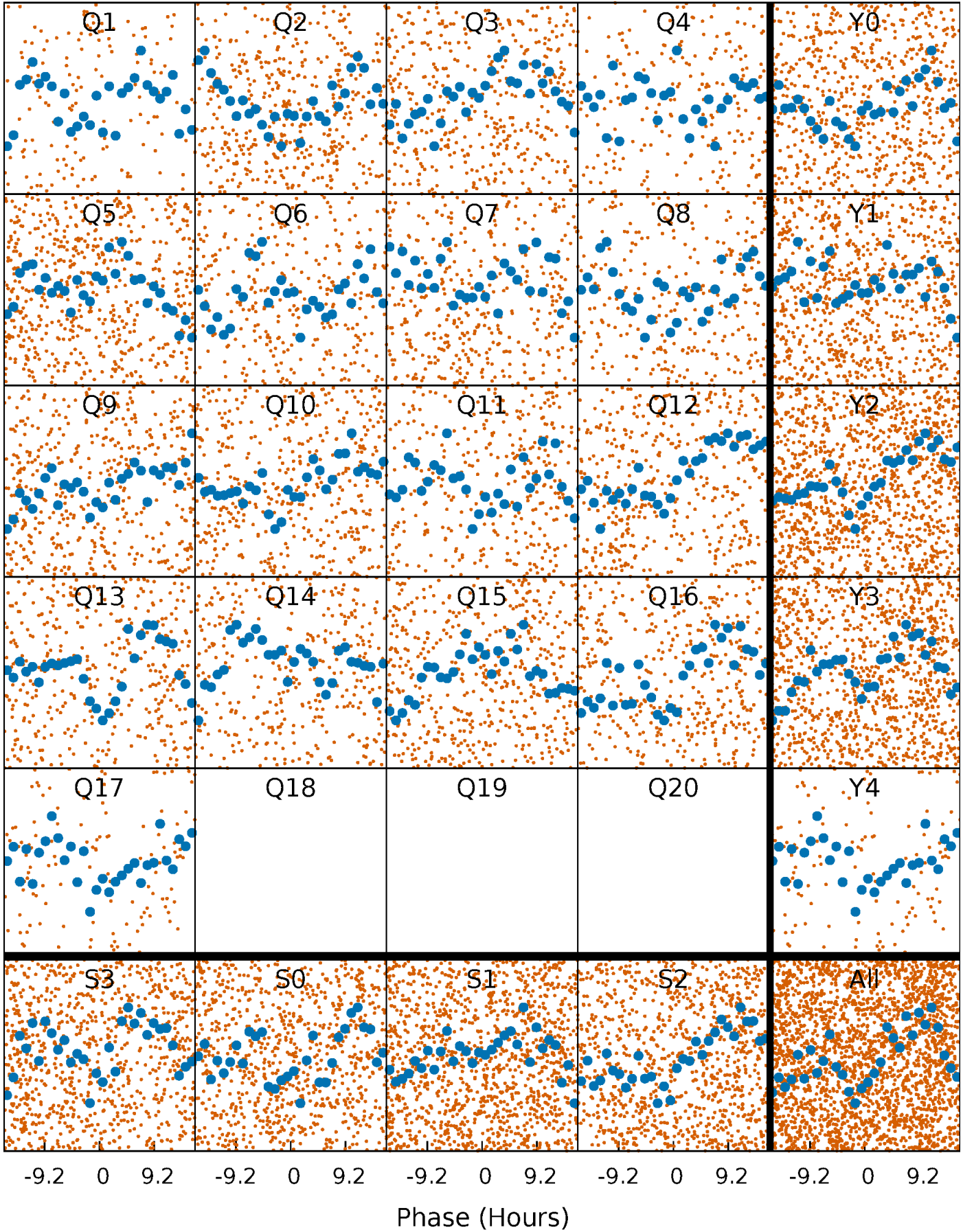


Non-Whitened Vs. Whitened Light Curve



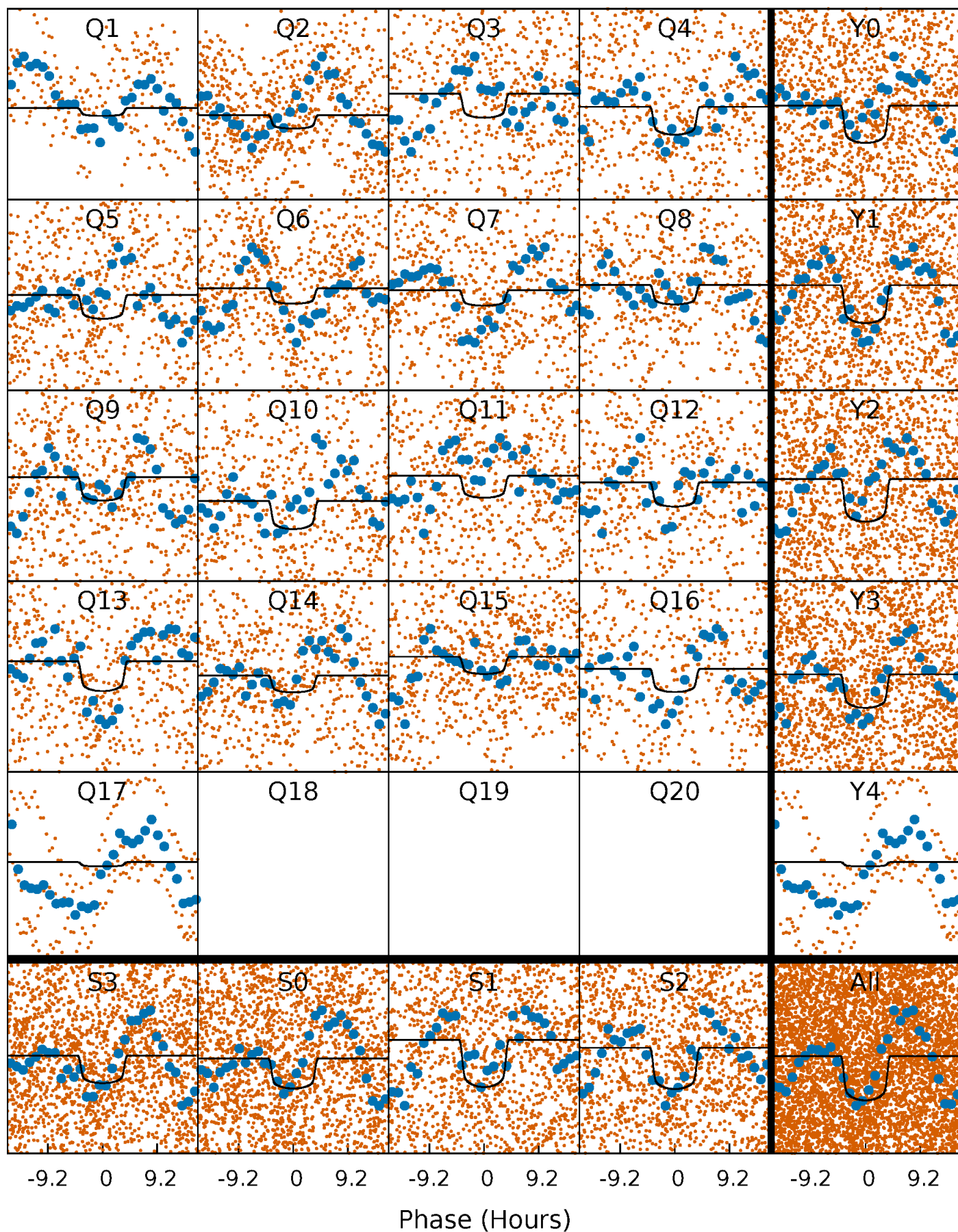
PDC Quarter-Phased Transit Curves

TCE 006110119-03 P= 2.838401 Days $T_0=132.090111$ (BKJD)



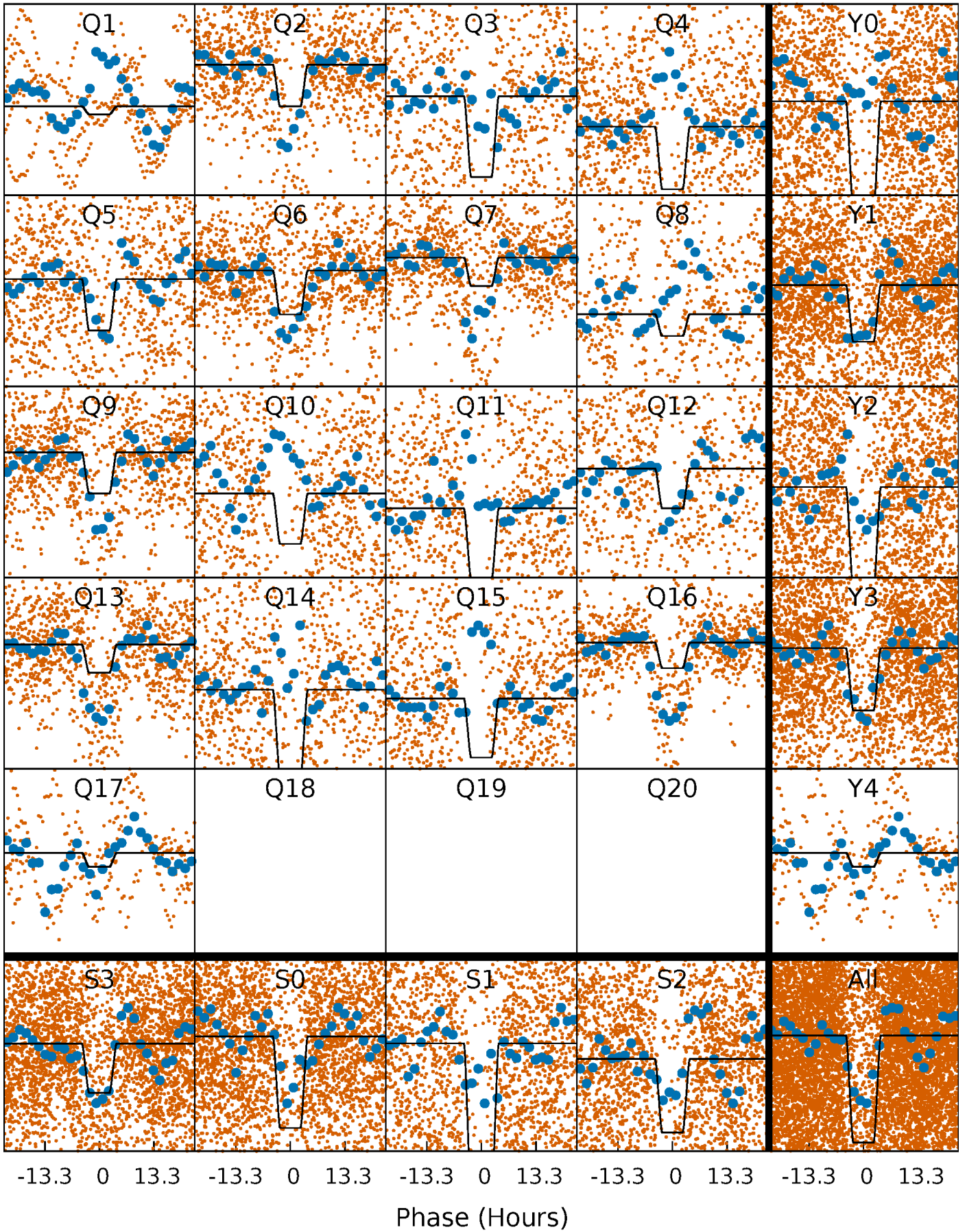
DV Quarter-Phased Transit Curves

TCE 006110119-03 P= 2.838401 Days $T_0=132.090111$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

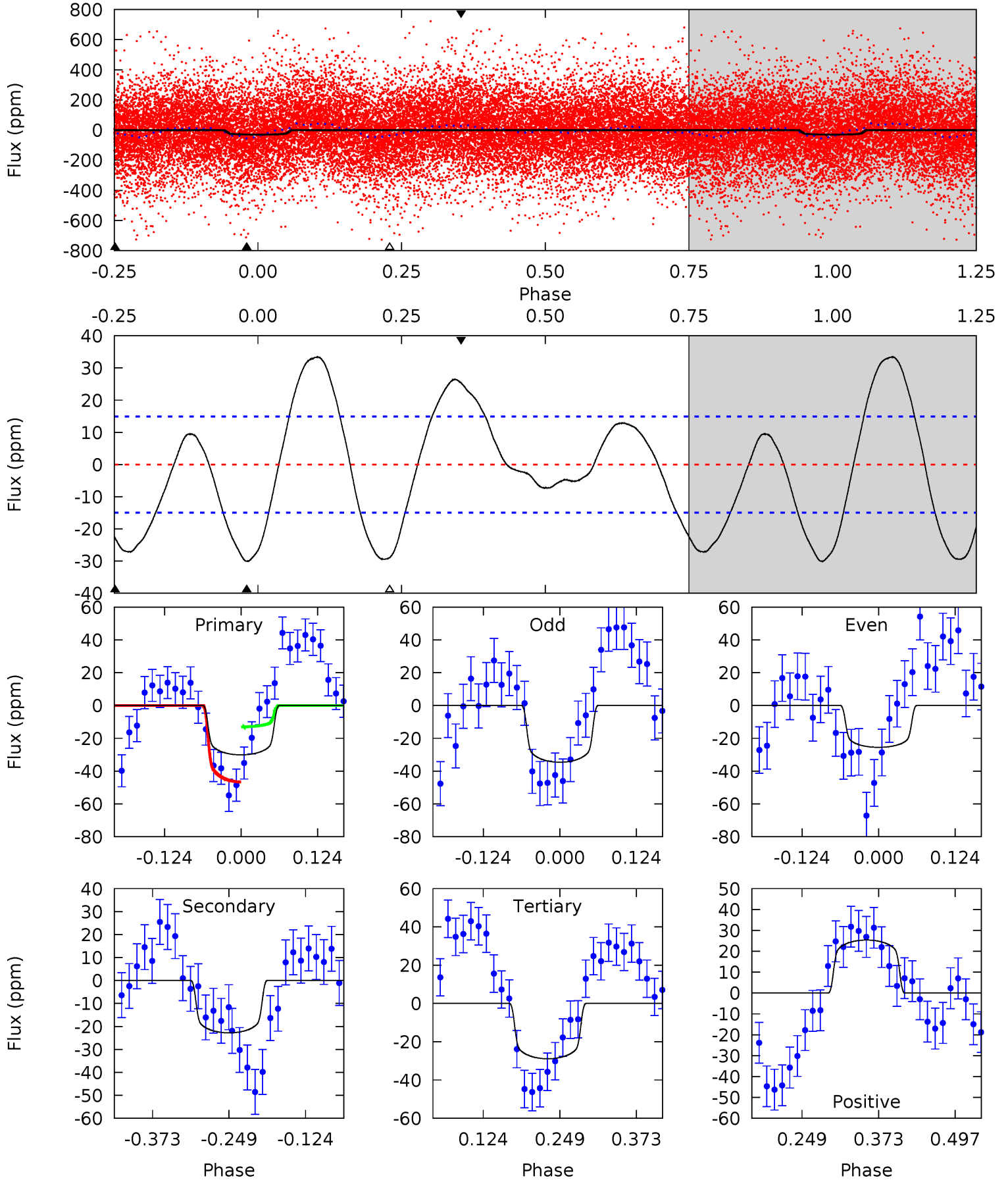
TCE 006110119-03 P= 2.838379 Days $T_0=132.078423$ (BKJD)



DV Model-Shift Uniqueness Test

006110119-03, P = 2.838401 Days, E = 132.090111 Days

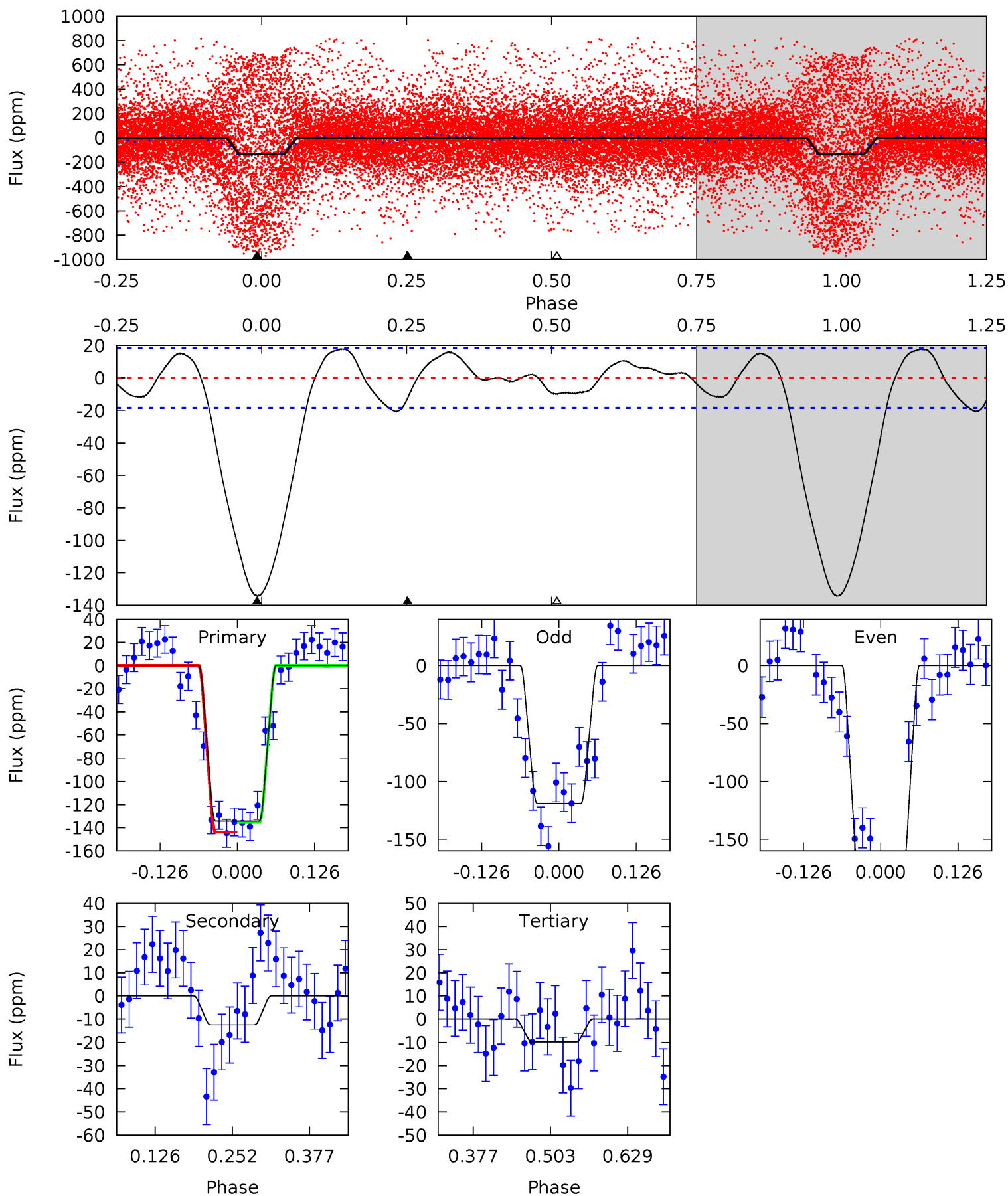
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.11	6.90	8.74	7.68	4.52	1.54	4.66	0.37	1.44	-1.84	-0.78	1.39	1.37	0.53	5.10



Alt Model-Shift Uniqueness Test

006110119-03, P = 2.838379 Days, E = 132.078423 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.8	3.05	2.40	0	4.52	1.53	1.78	30.4	32.8	0.65	3.05	7.28	0.57	0.12	1.02



Stellar Parameters For KIC 006110119

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7110^{+197}_{-222}	$3.578^{+0.306}_{-0.054}$	$-0.140^{+0.250}_{-0.250}$	$3.688^{+0.303}_{-1.290}$	$1.878^{+0.191}_{-0.310}$	$0.053^{+0.105}_{-0.009}$
	+3%/-3%	+9%/-2%	+179%/-179%	+8%/-35%	+10%/-17%	+200%/-17%
Source	PHO1	FLK73	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 006110119-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-23 ± 3	$3.01^{+0.45}_{-0.58}$	3743^{+184}_{-335}	5359^{+404}_{-317}	$3.247^{+1.558}_{-0.898}$
Alt.	-12 ± 4	$4.67^{+0.50}_{-0.80}$	3733^{+184}_{-300}	3765^{+331}_{-493}	$0.767^{+0.404}_{-0.280}$

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

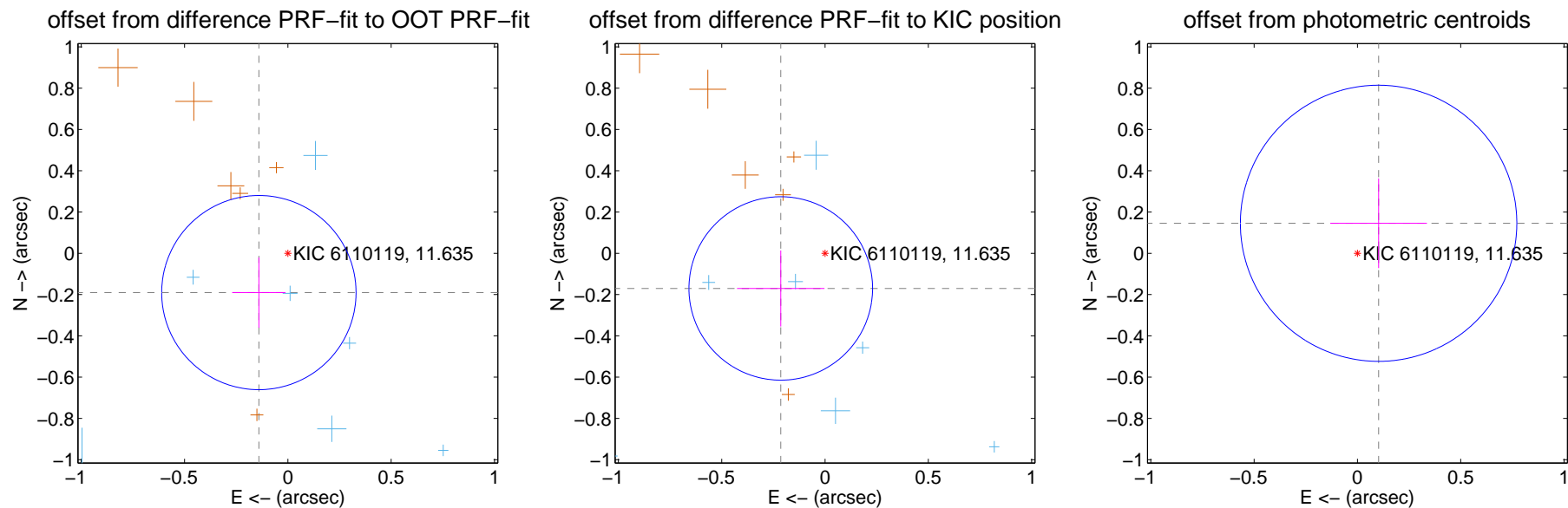
DV Centroid Data

Supplemental centroid analysis for 006110119-03. **Kepler magnitude: 11.63.** Transit SNR 10.32

There are 9 quarters with good PRF difference image offsets

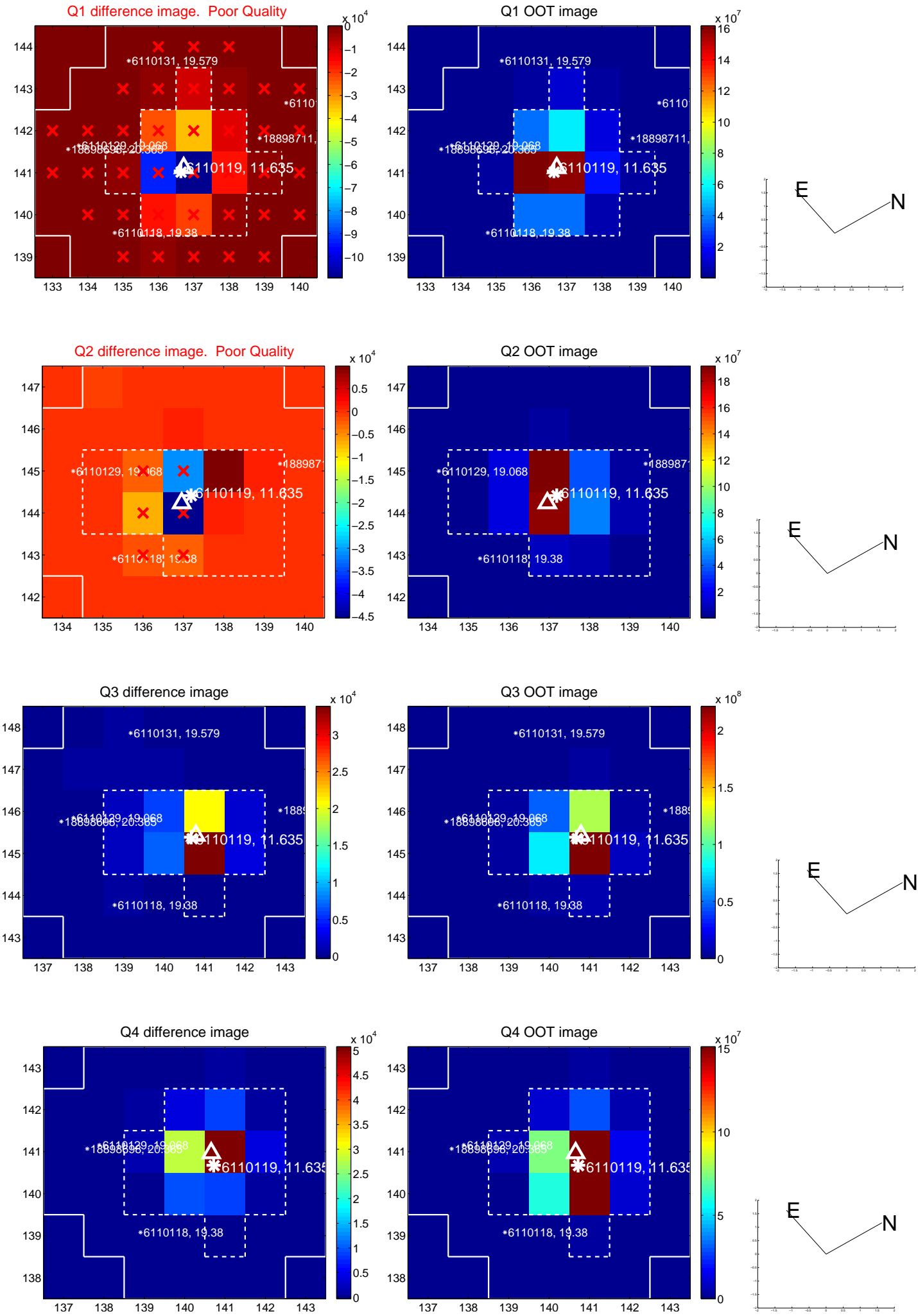
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.236 ± 0.157	1.51	0.140 ± 0.129	-0.190 ± 0.170
PRF-fit source offset from KIC position	0.274 ± 0.148	1.85	0.214 ± 0.212	-0.170 ± 0.184
photometric centroid source offset	0.18 ± 0.22	0.80	-0.10 ± 0.23	0.15 ± 0.22

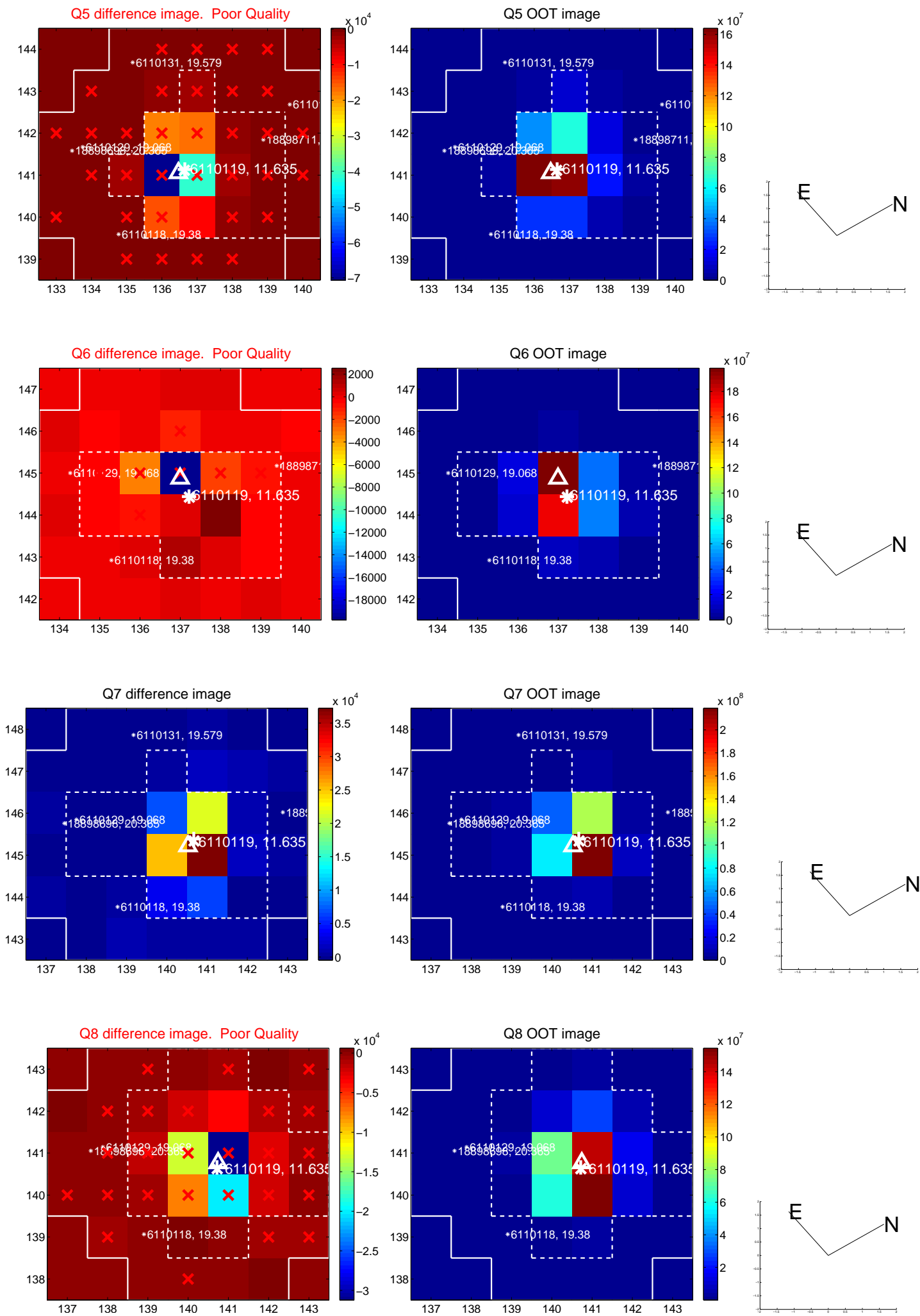


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

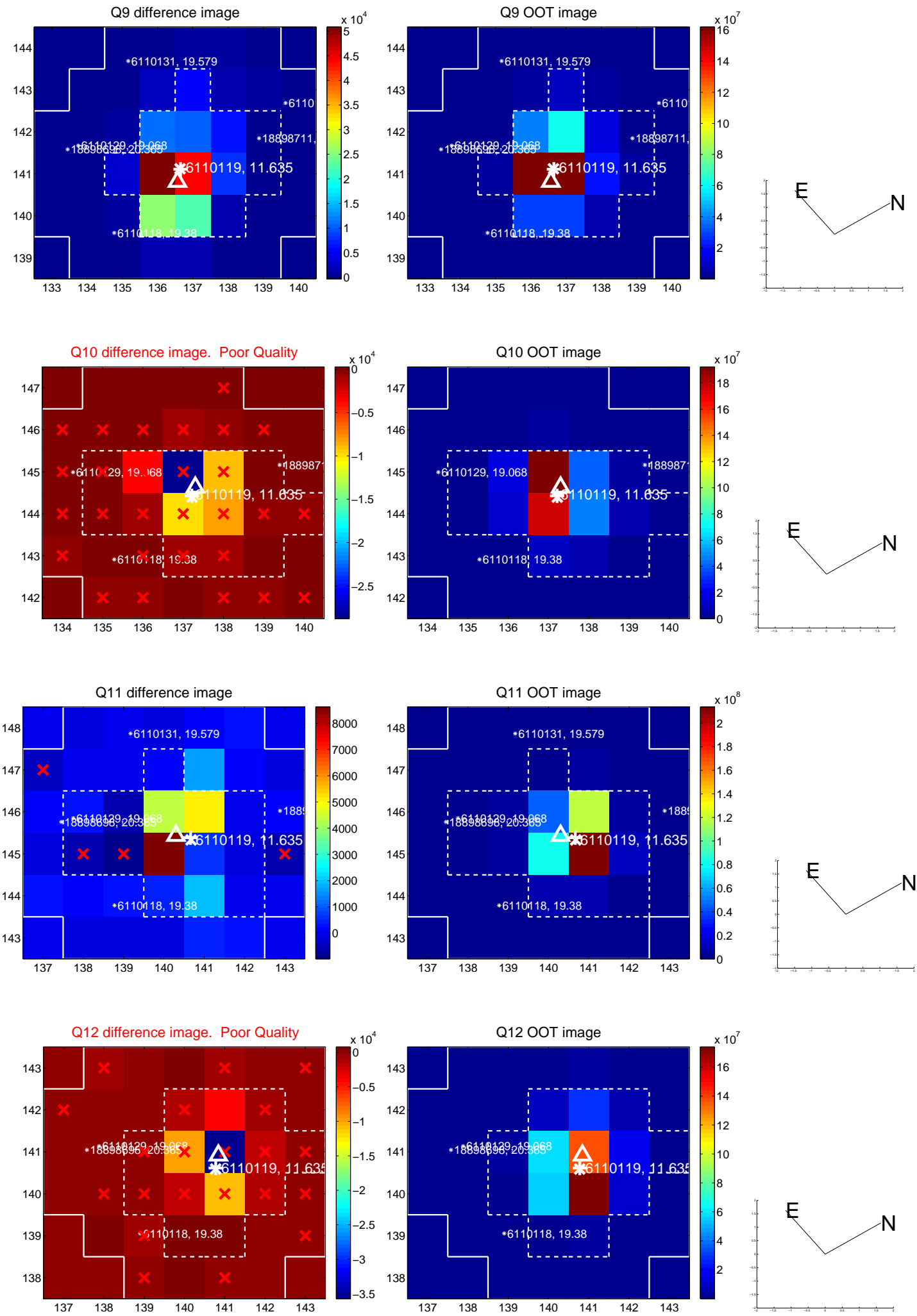
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



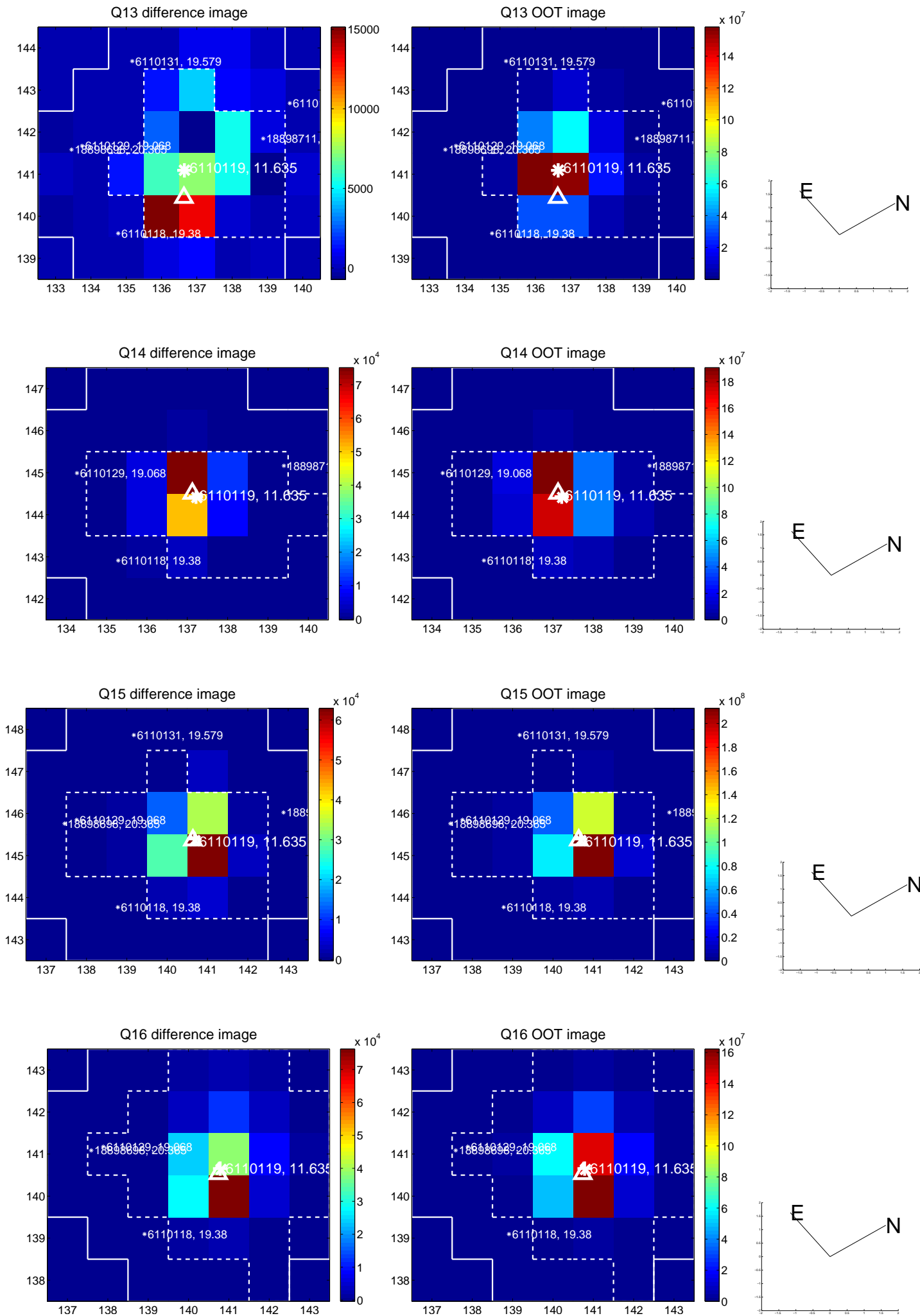
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



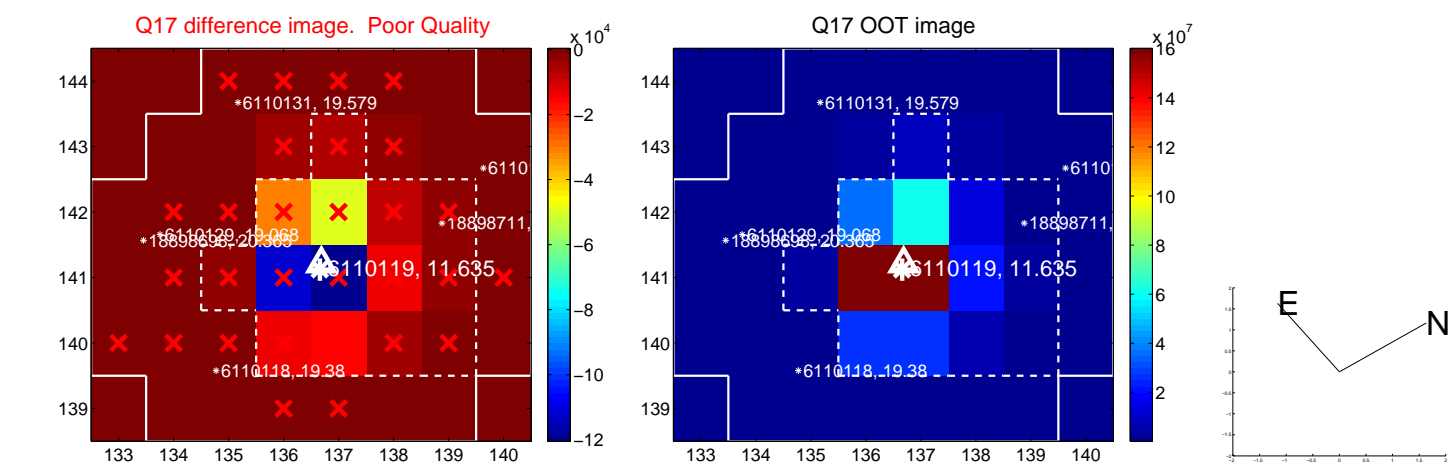
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



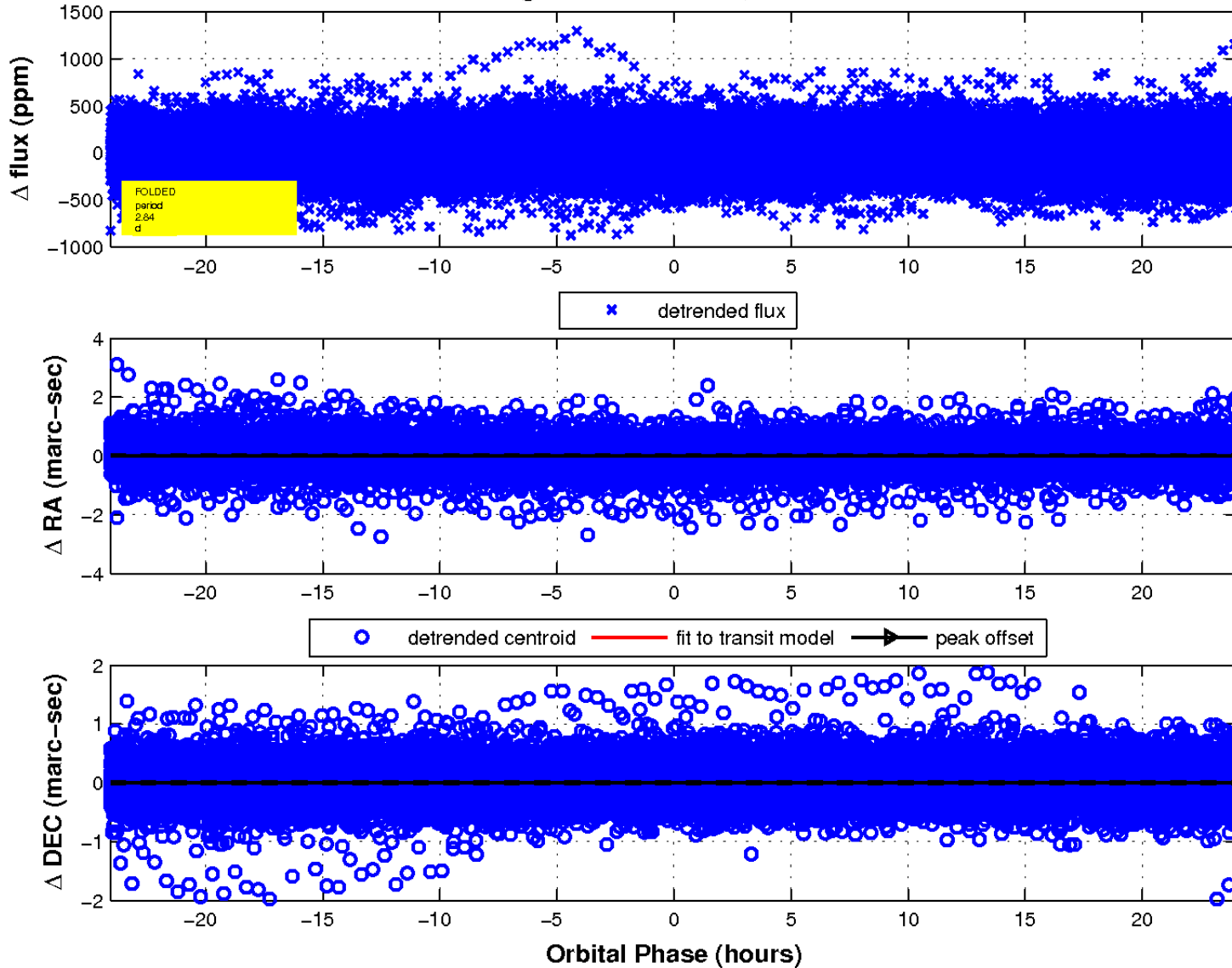
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

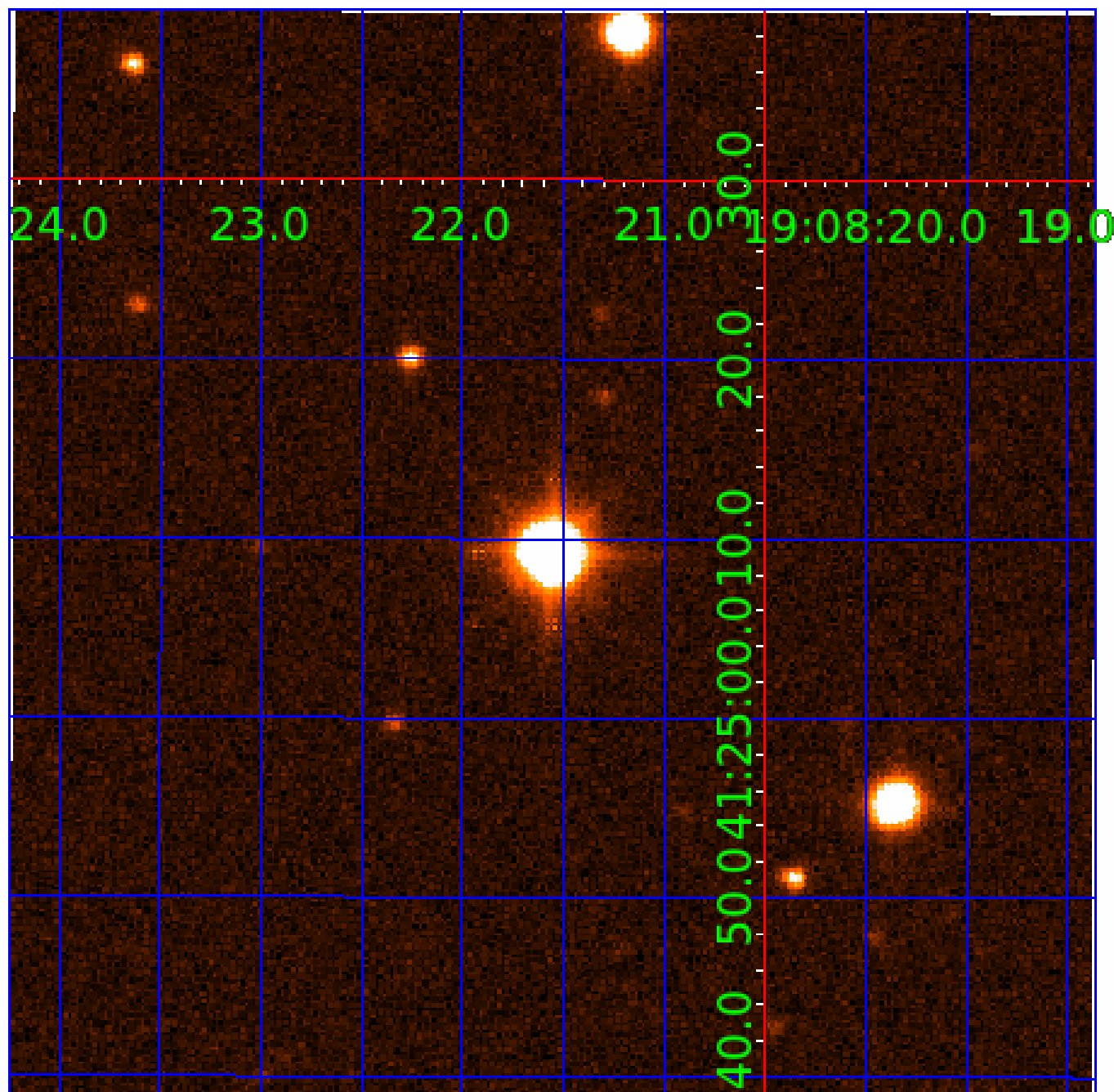


fluxWeightedCentroids, Planet 3 of 9



UKIRT Image

Declination



KIC 006110119

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})
006110119-01	OBS	No	3.989227	135.480588	35.7	19.865	10.1	9.1	3.69	7110	2.62	8440.76
006110119-02	OBS	No	342.814818	333.745352	369.4	14.453	13.2	9.3	3.69	7110	7.51	22.26
006110119-03	OBS	No	2.838401	132.090111	48.6	8.024	11.2	10.3	3.69	7110	3.18	13288.27
006110119-05	OBS	No	698.076145	173.928151	150.7	65.679	8.9	2.2	3.69	7110	5.28	8.62
006110119-06	OBS	No	84.424806	133.574696	146.2	10.626	8.4	5.3	3.69	7110	5.18	144.19
006110119-07	OBS	No	90.121099	158.324243	254.2	7.624	8.2	8.9	3.69	7110	6.54	132.17
006110119-08	OBS	No	88.520065	143.287536	68.4	7.500	8.3	-1.0	3.69	7110	3.07	135.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006110119-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006110119-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV
006110119-03	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
006110119-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006110119-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006110119-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006110119-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

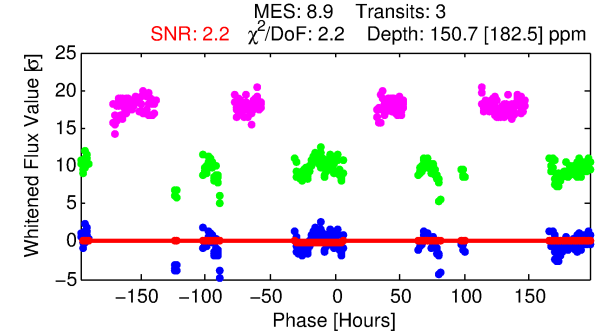
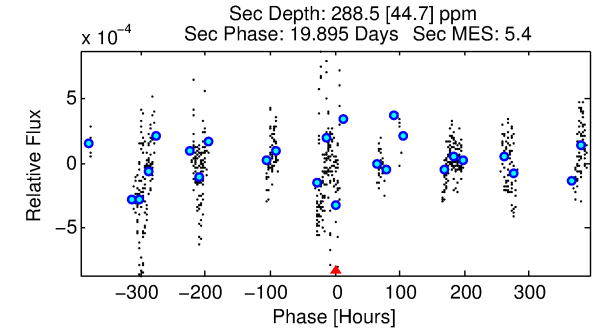
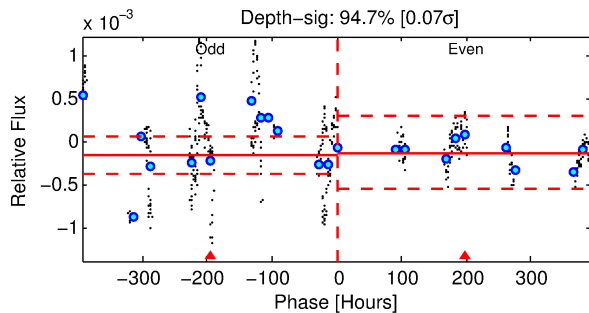
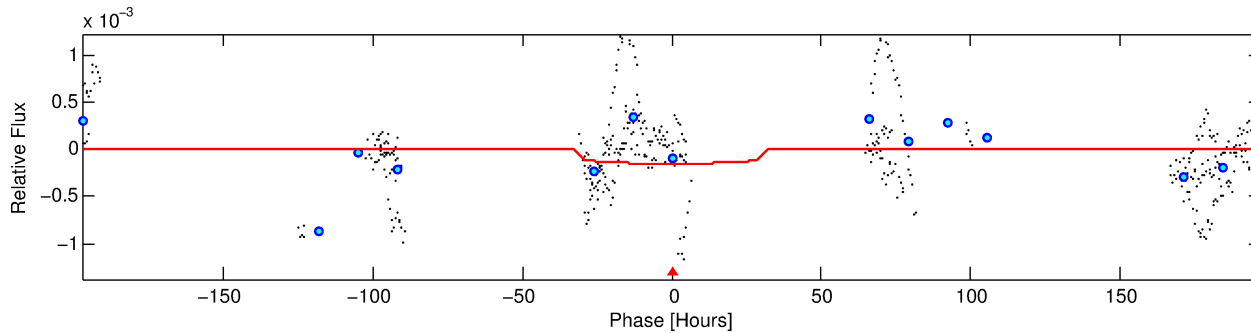
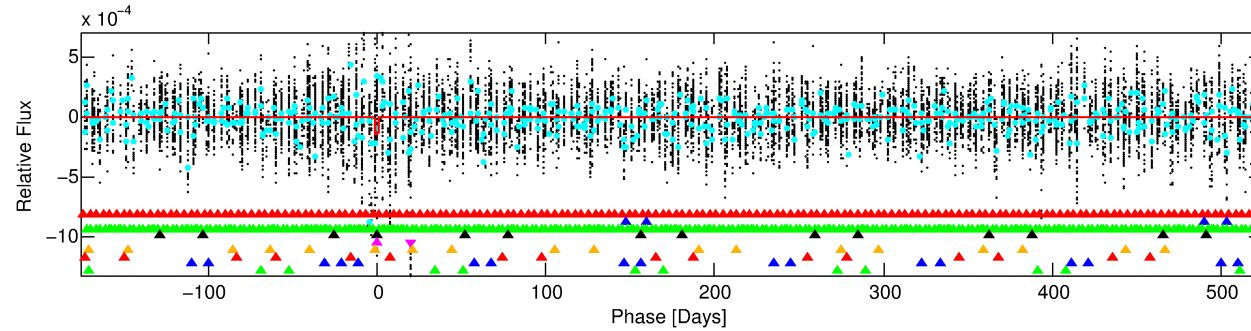
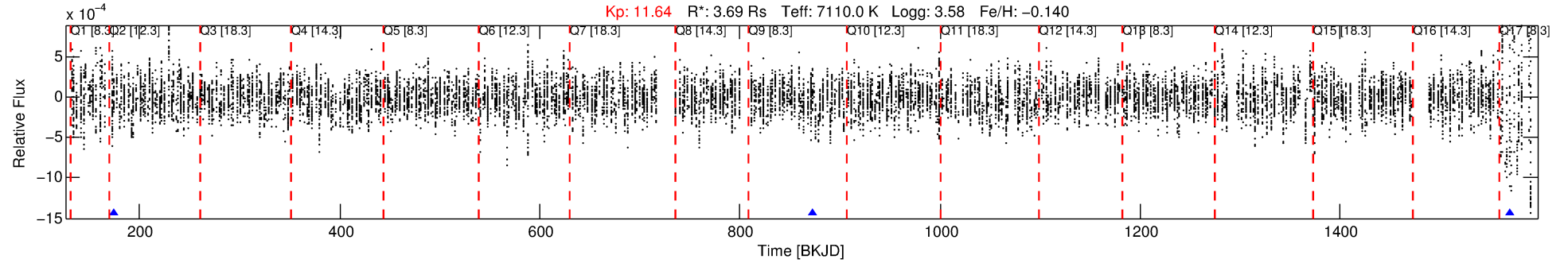
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006110119-05

No Significant Match Found

DV One-Page Summary

KIC: 6110119 Candidate: 5 of 9 Period: 698.076 d



DV Fit Results:

Period = 698.07615 [0.24833] d
Epoch = 173.9282 [2.9503] BKJD
Rp/R* = 0.0131 [0.0072]
a/R* = 37.98 [62.43]
b = 0.90 [0.48]
Seff = 8.62 [4.65]
Teq = 437 [59] K
Rp = 5.28 [3.42] Re
a = 1.9003 [0.6289] AU
Ag = 20529.78 [25048.22] [0.82 σ]
Teffp = 8087 [2241] K [3.41 σ]

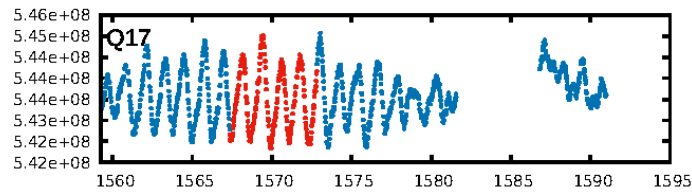
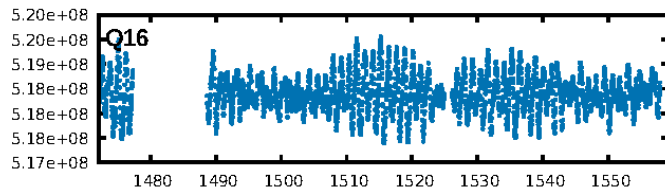
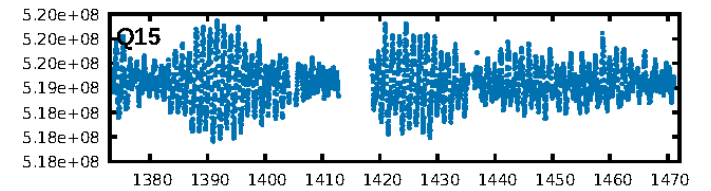
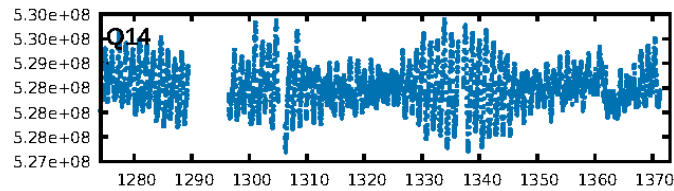
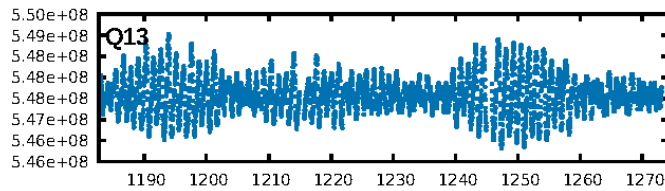
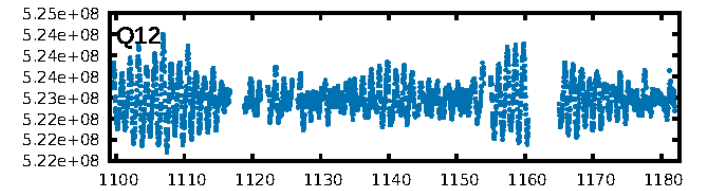
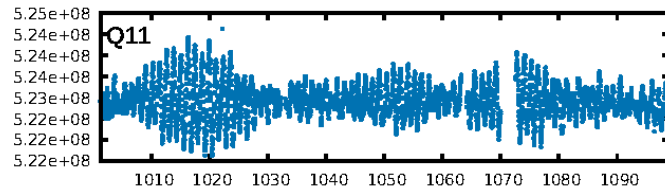
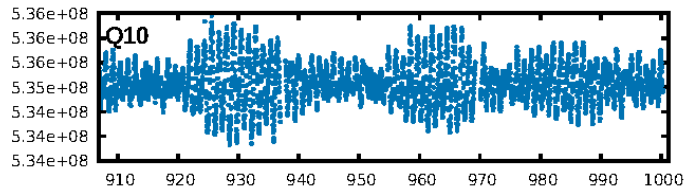
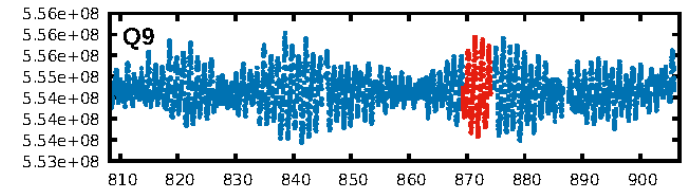
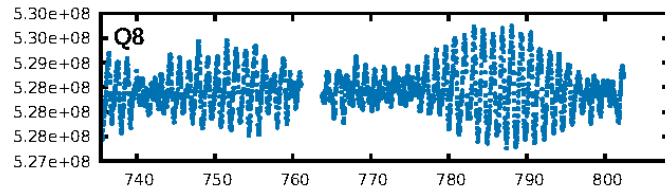
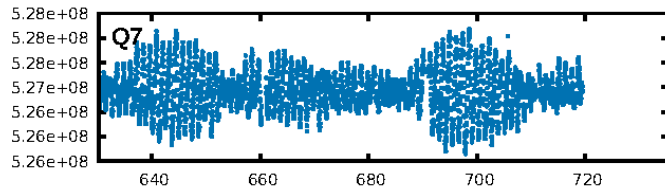
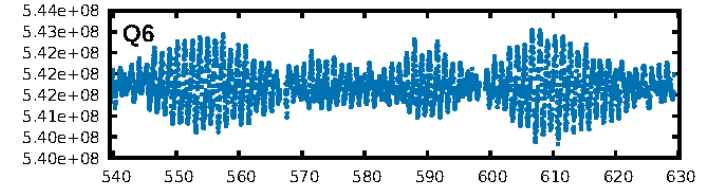
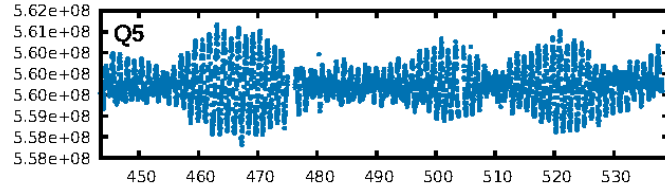
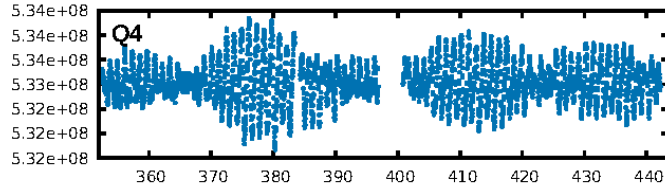
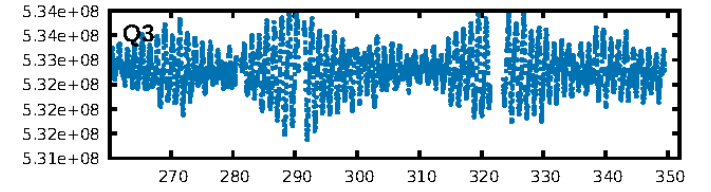
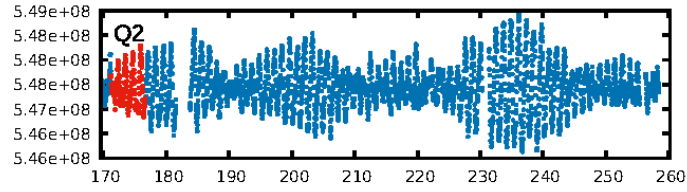
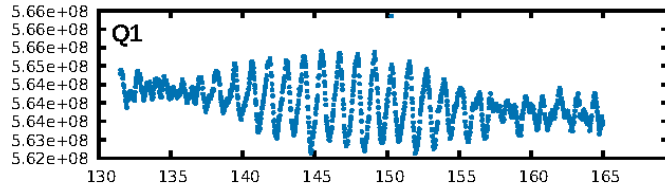
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [126.78 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.92e-06
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 0.4135
Centroid-sig: 4.6%
Centroid-so: 0.668 arcsec [1.46 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 0.00 [0/1]

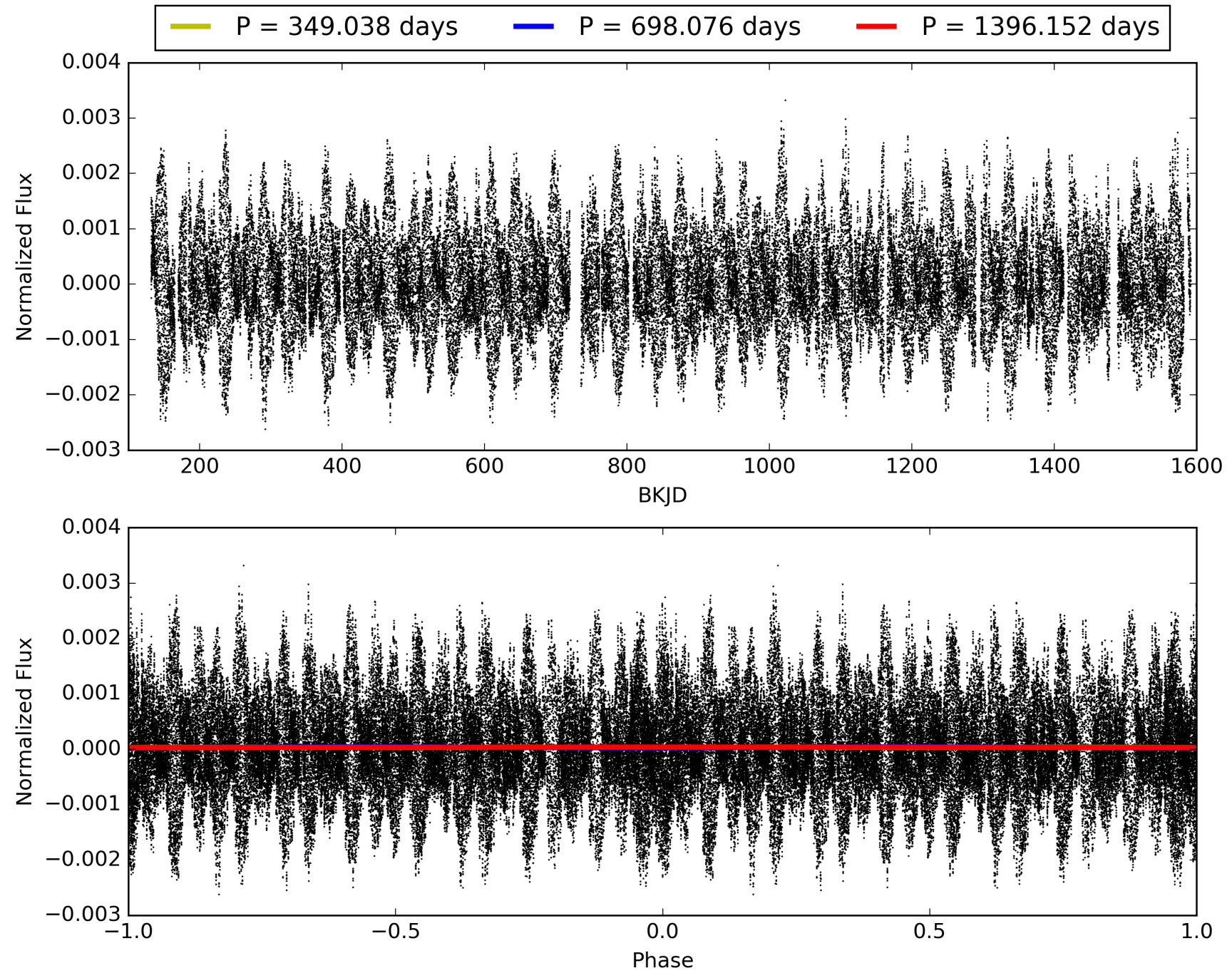
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 18:41:34 Z

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

TCE 006110119-05, PDC Light Curves

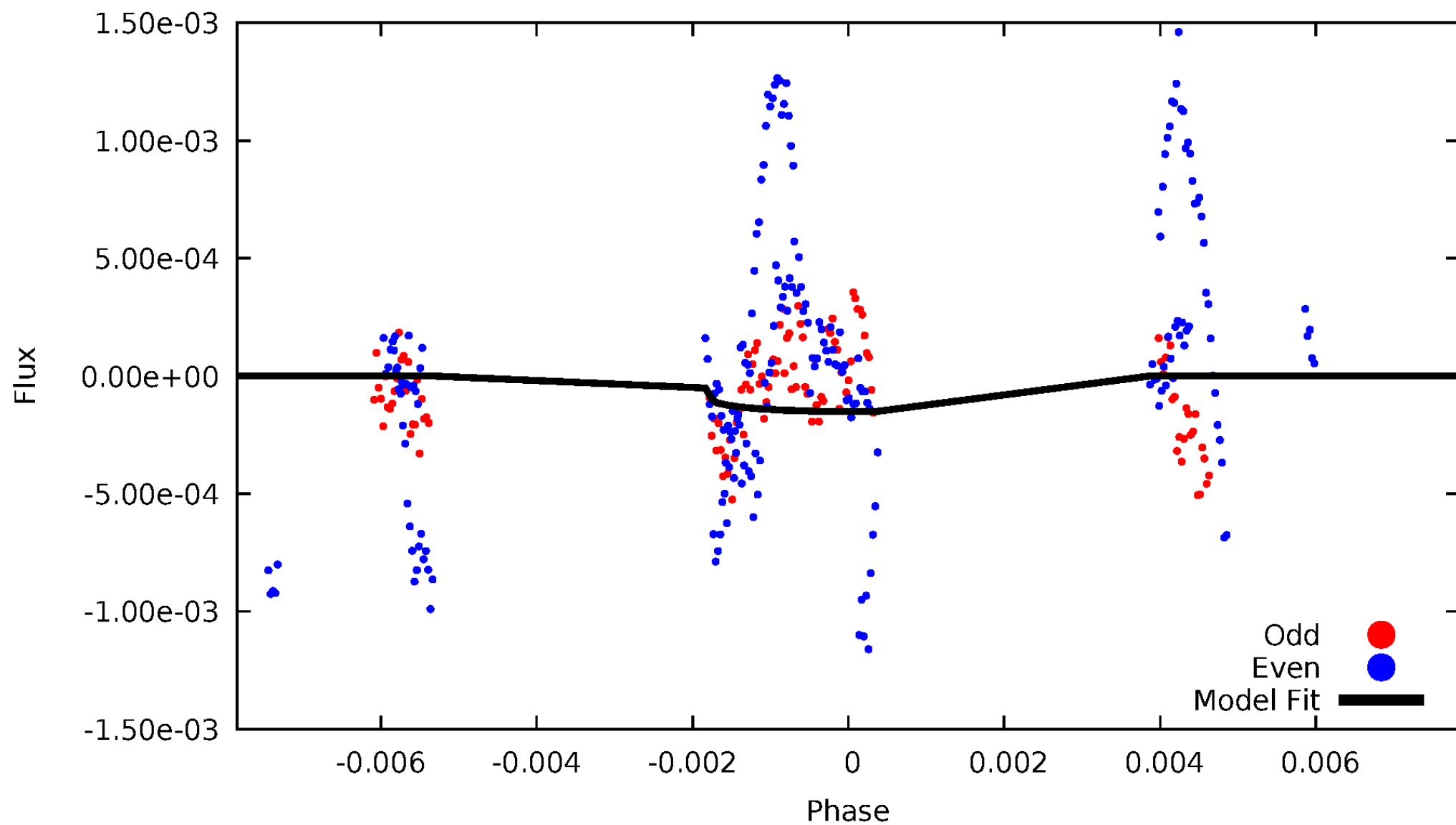


TCE 006110119-05



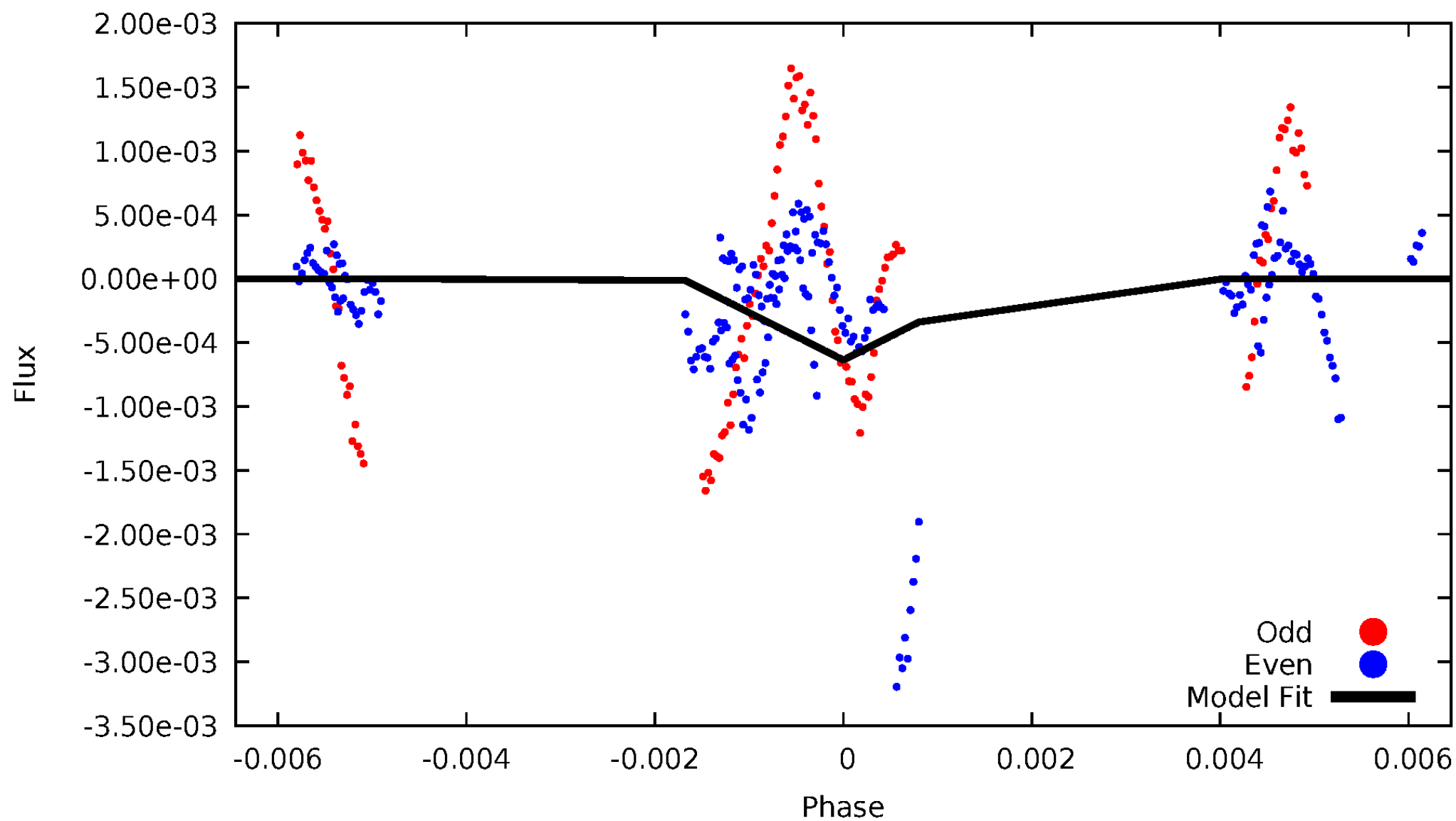
DV Odd/Even

TCE 006110119-05



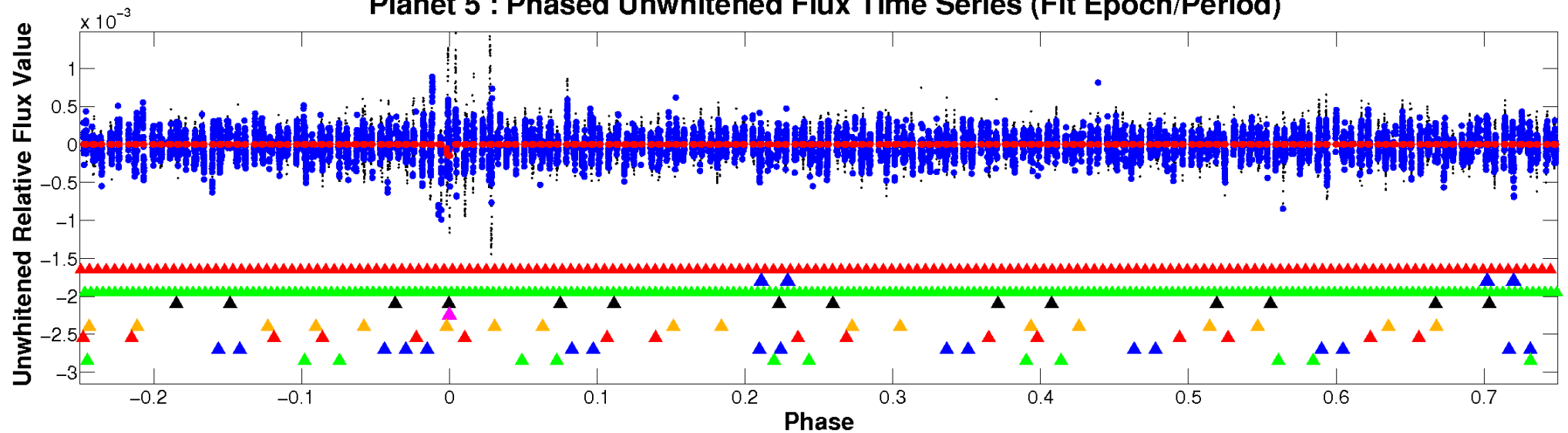
ALT Odd/Even

TCE 006110119-05

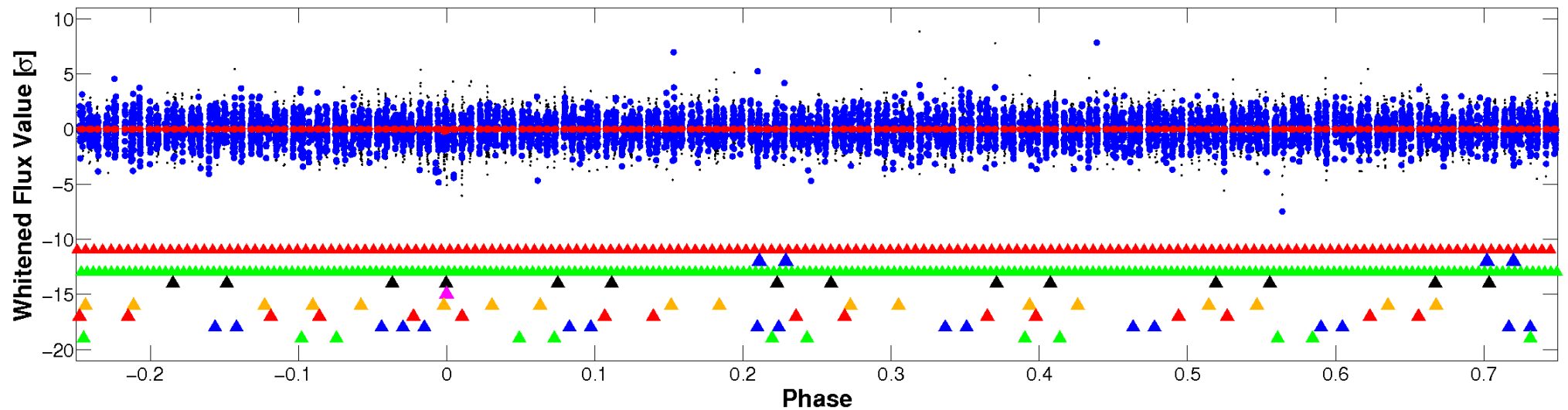


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

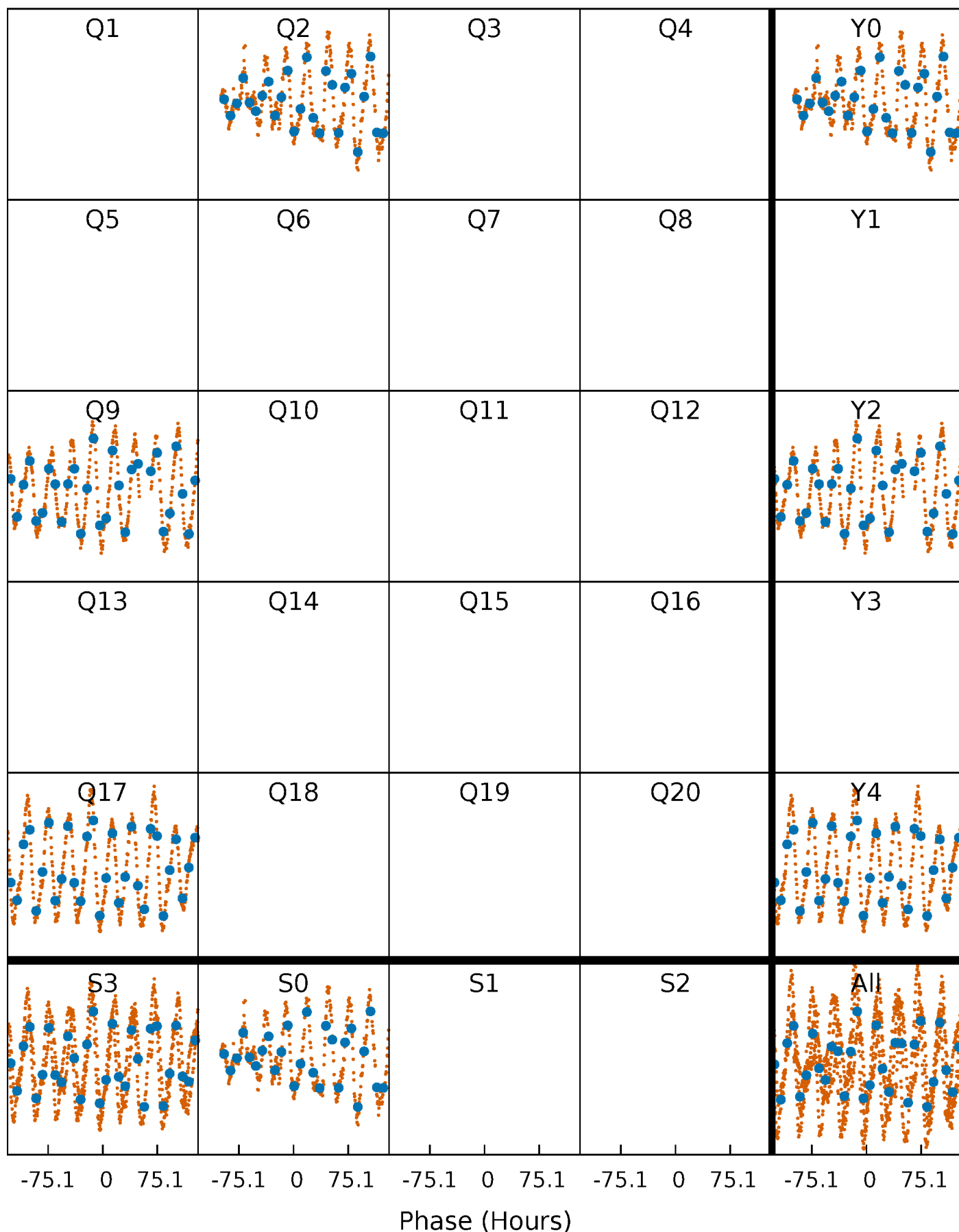


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



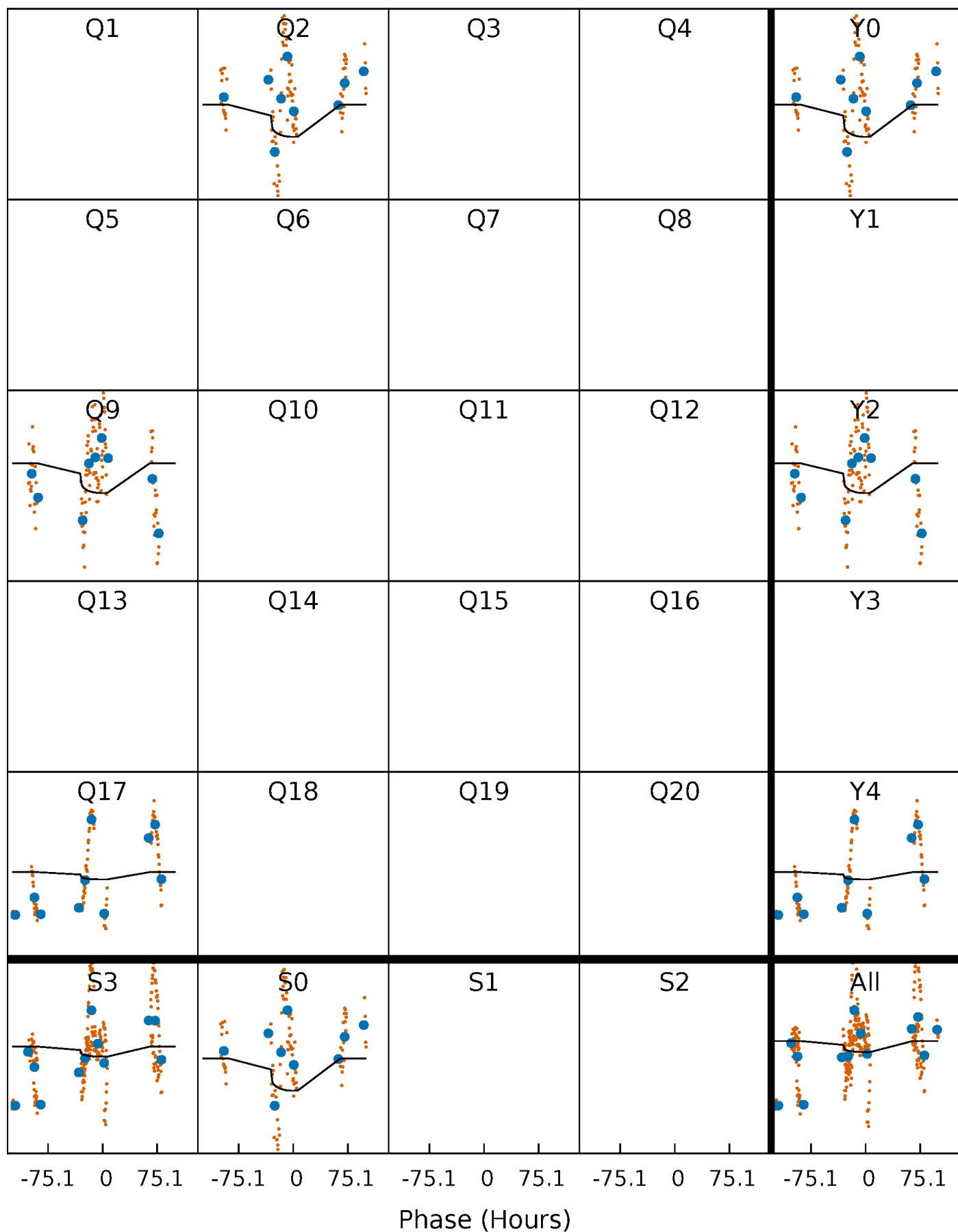
PDC Quarter-Phased Transit Curves

TCE 006110119-05 P=698.076145 Days $T_0=173.928151$ (BKJD)



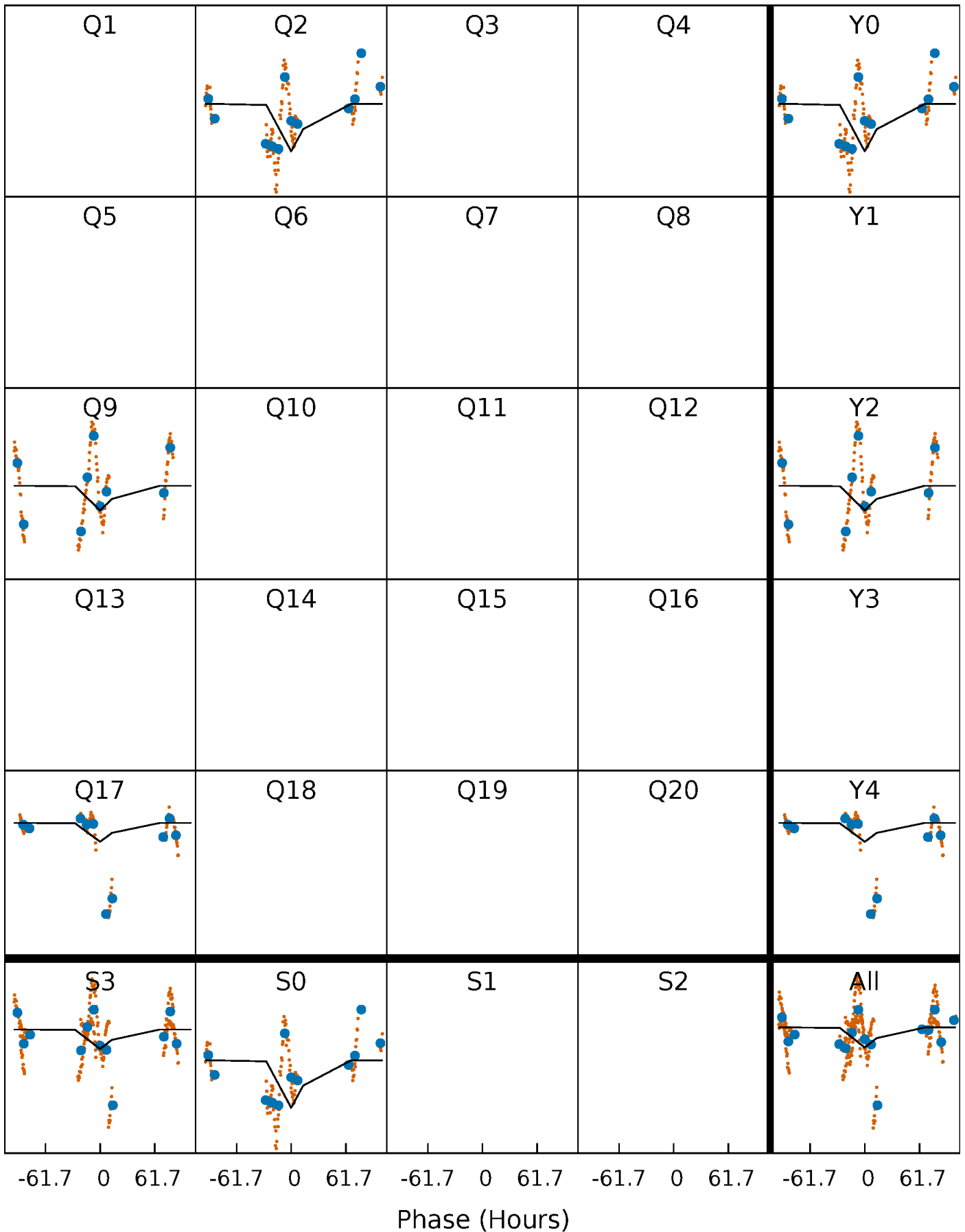
DV Quarter-Phased Transit Curves

TCE 006110119-05 P=698.076145 Days $T_0=173.928151$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

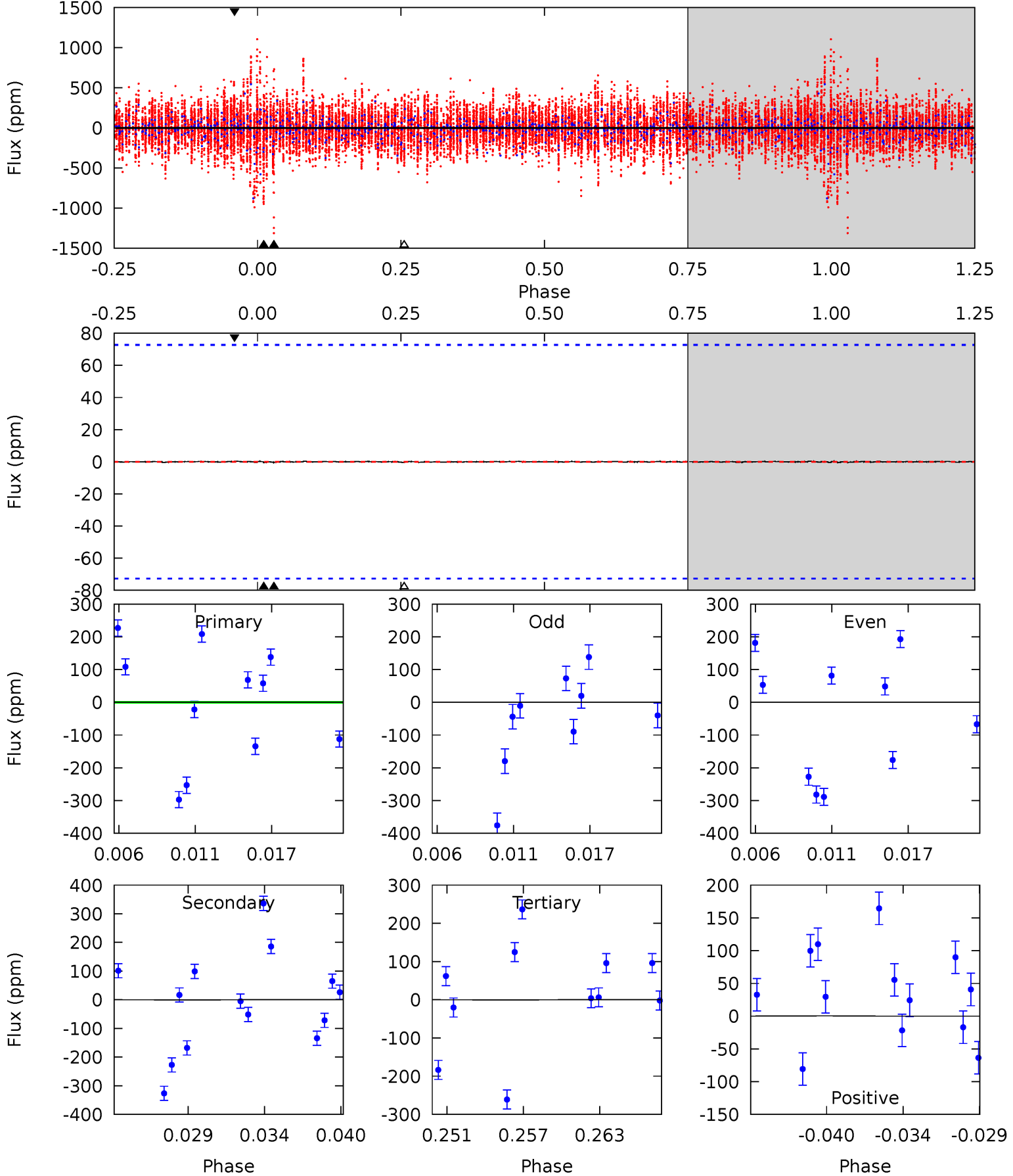
TCE 006110119-05 P=697.983165 Days $T_0=173.817074$ (BKJD)



DV Model-Shift Uniqueness Test

006110119-05, P = 698.076145 Days, E = 173.928151 Days

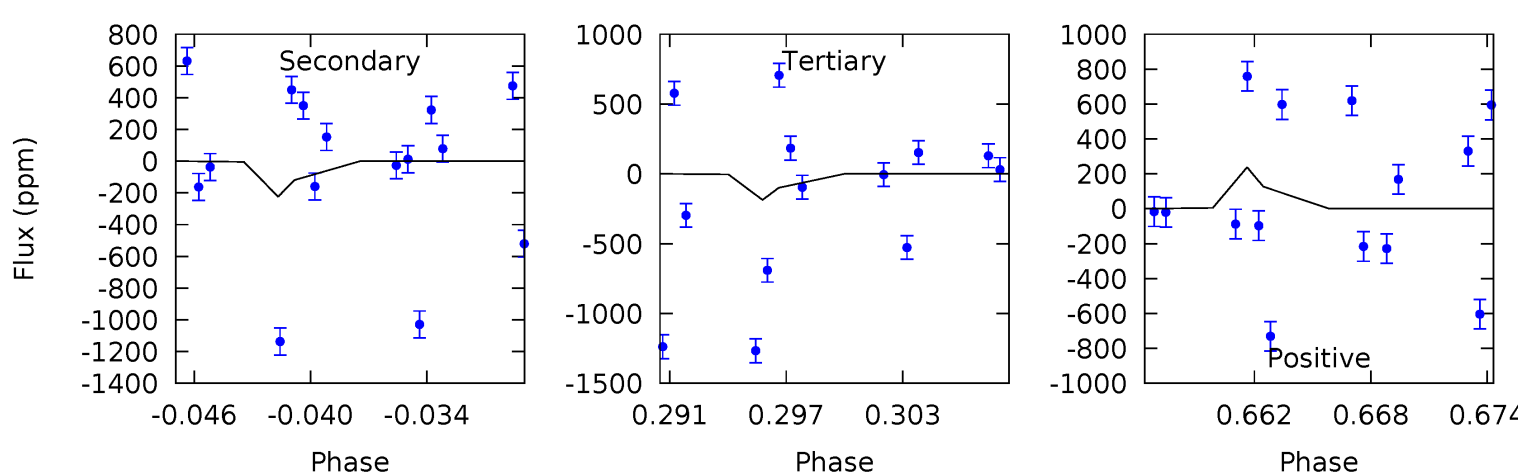
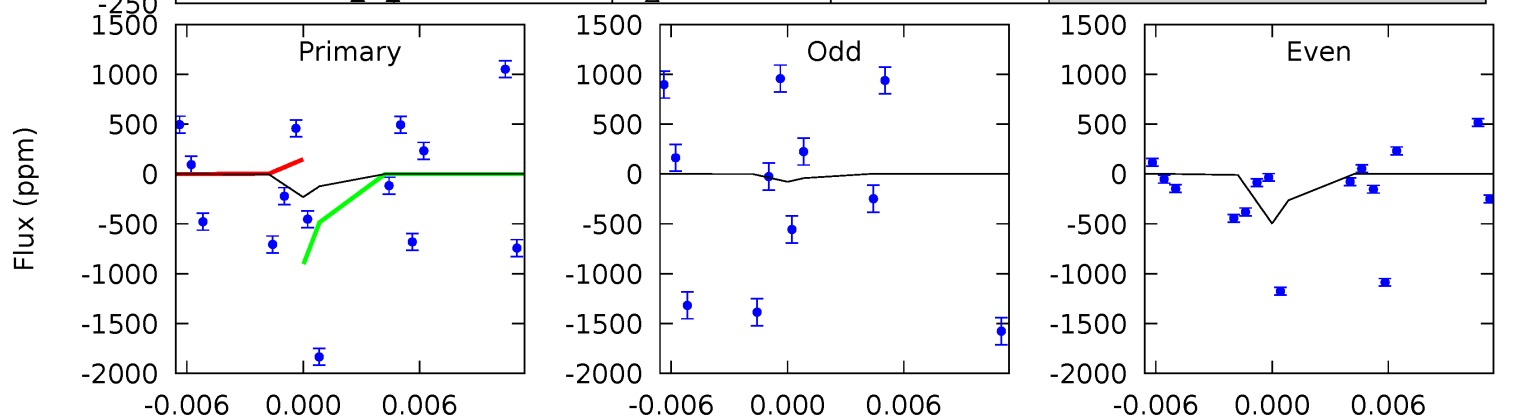
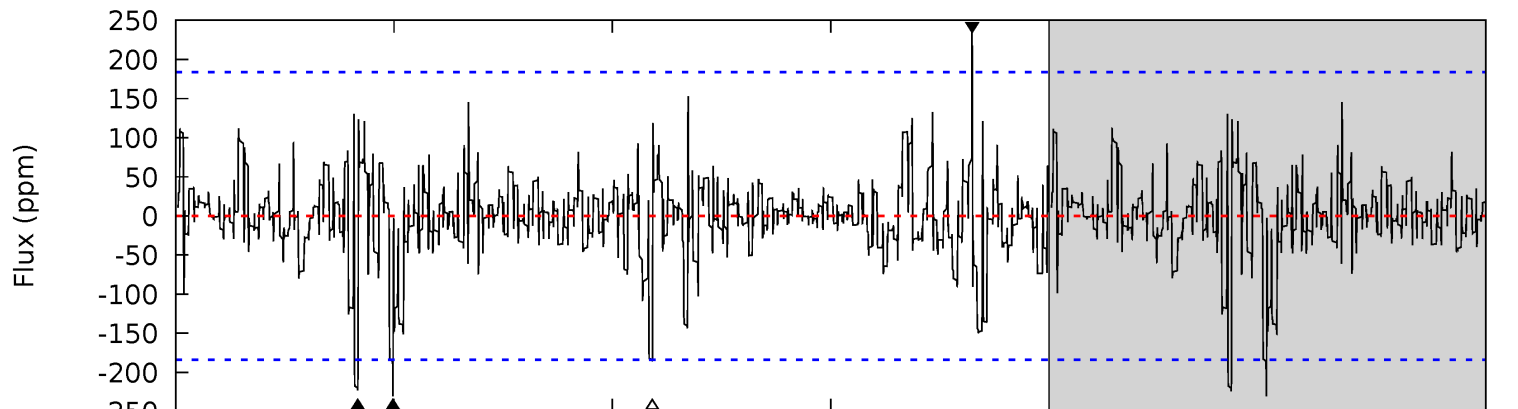
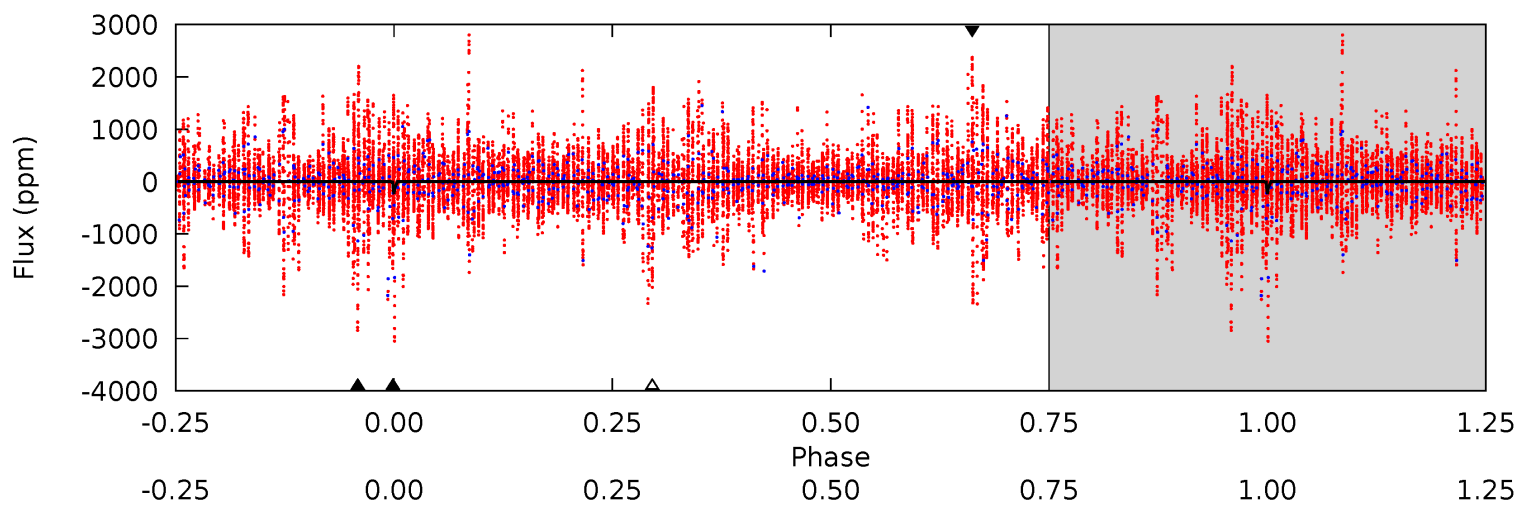
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.04	0.04	0.03	0.03	5.13	2.76	0.01	0.01	0.02	0.01	0.01	2.09	3.84	0.39	1.27



Alt Model-Shift Uniqueness Test

006110119-05, P = 697.983165 Days, E = 173.817074 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.44	6.23	5.19	6.60	5.13	2.76	1.19	1.26	-0.16	1.04	-0.37	5.72	1.68	0.51	9.44



Stellar Parameters For KIC 006110119

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7110^{+197}_{-222}	$3.578^{+0.306}_{-0.054}$	$-0.140^{+0.250}_{-0.250}$	$3.688^{+0.303}_{-1.290}$	$1.878^{+0.191}_{-0.310}$	$0.053^{+0.105}_{-0.009}$
	+3%/-3%	+9%/-2%	+179%/-179%	+8%/-35%	+10%/-17%	+200%/-17%
Source	PHO1	FLK73	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 006110119-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1 ± 14	$4.95^{+2.83}_{-2.42}$	598^{+28}_{-50}	2714^{+1618}_{-6897}	73^{+1624}_{-1489}
Alt.	-223 ± 36	$9.79^{+3.13}_{-2.99}$	597^{+31}_{-49}	5353^{+908}_{-538}	4592^{+4911}_{-2001}

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

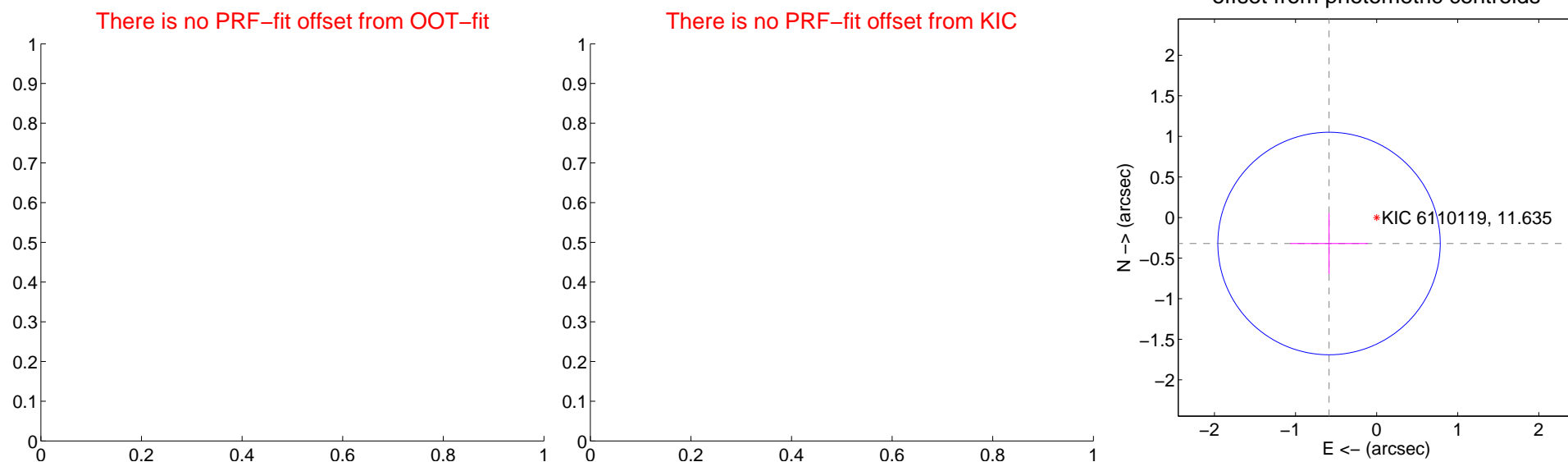
DV Centroid Data

Supplemental centroid analysis for 006110119-05. **Kepler magnitude: 11.63.** Transit SNR 2.16

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	0.67 ± 0.46	1.46	0.59 ± 0.48	-0.32 ± 0.38



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.



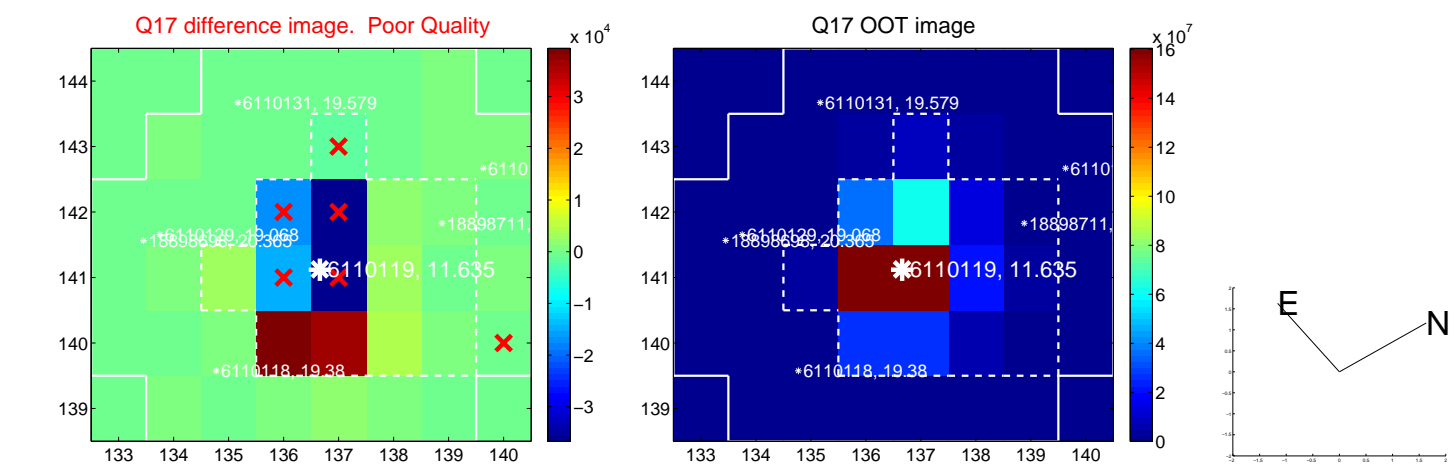
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



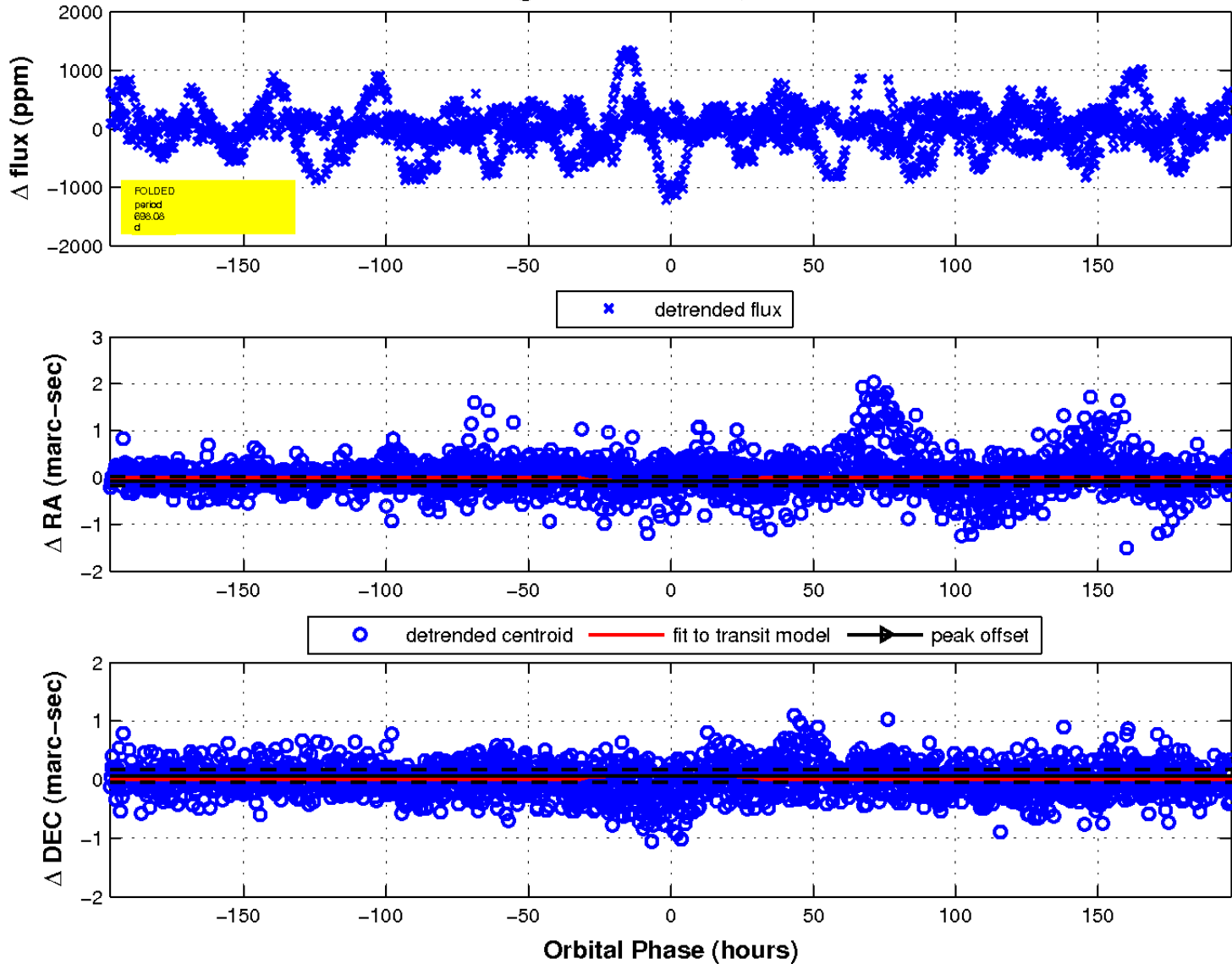
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

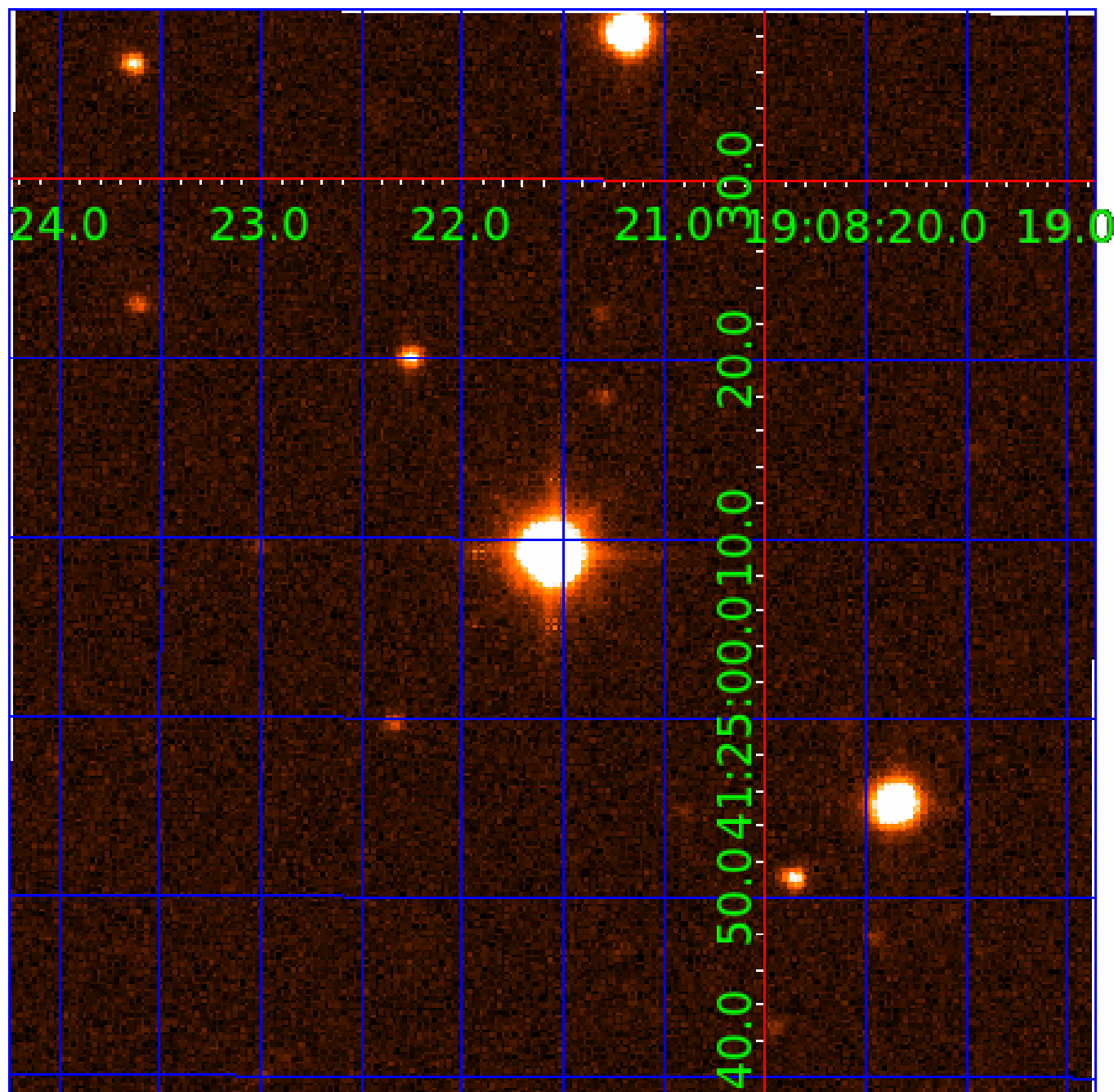


fluxWeightedCentroids, Planet 5 of 9



UKIRT Image

Declination



KIC 006110119

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})
006110119-01	OBS	No	3.989227	135.480588	35.7	19.865	10.1	9.1	3.69	7110	2.62	8440.76
006110119-02	OBS	No	342.814818	333.745352	369.4	14.453	13.2	9.3	3.69	7110	7.51	22.26
006110119-03	OBS	No	2.838401	132.090111	48.6	8.024	11.2	10.3	3.69	7110	3.18	13288.27
006110119-05	OBS	No	698.076145	173.928151	150.7	65.679	8.9	2.2	3.69	7110	5.28	8.62
006110119-06	OBS	No	84.424806	133.574696	146.2	10.626	8.4	5.3	3.69	7110	5.18	144.19
006110119-07	OBS	No	90.121099	158.324243	254.2	7.624	8.2	8.9	3.69	7110	6.54	132.17
006110119-08	OBS	No	88.520065	143.287536	68.4	7.500	8.3	-1.0	3.69	7110	3.07	135.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006110119-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006110119-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV
006110119-03	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
006110119-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006110119-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006110119-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006110119-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

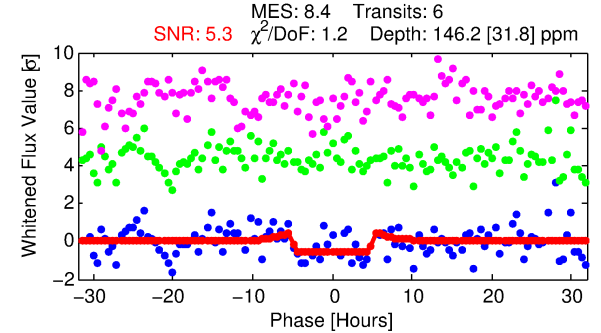
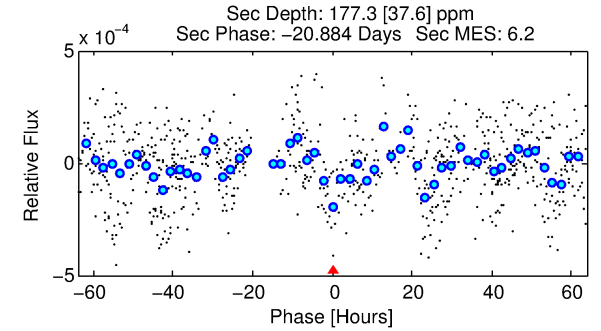
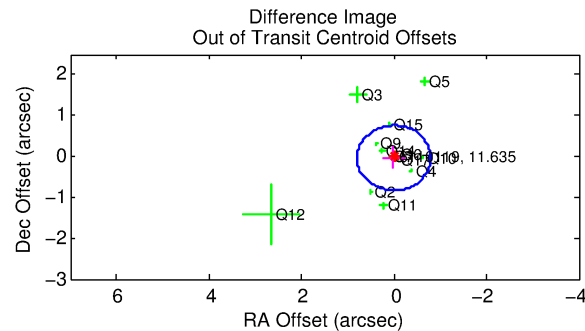
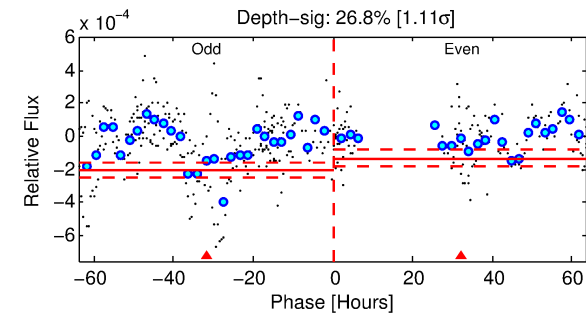
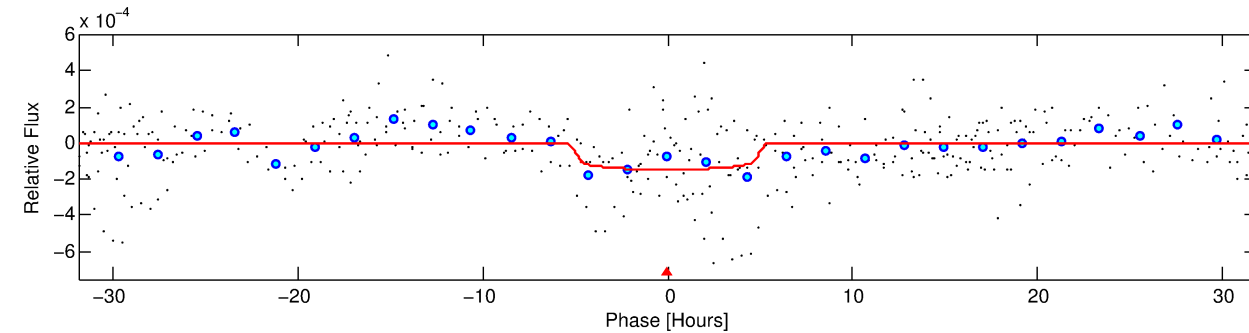
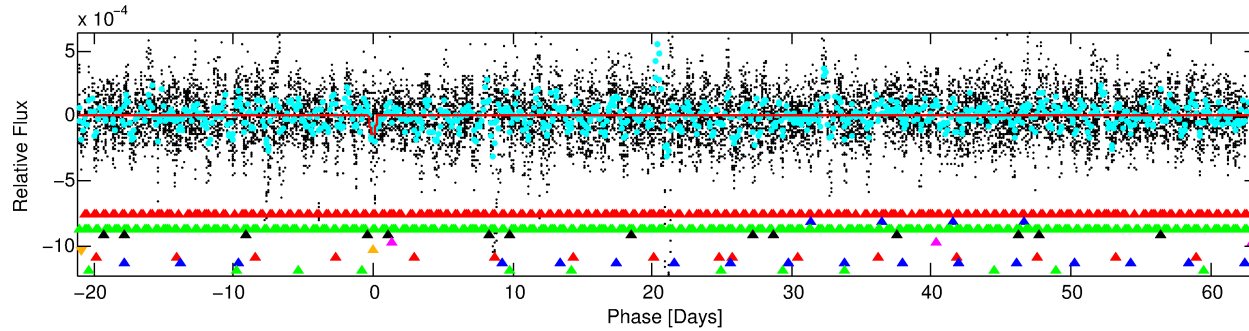
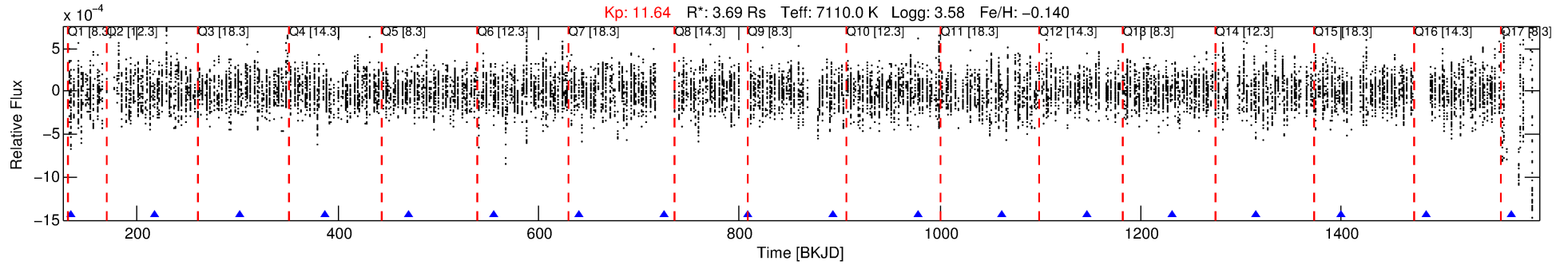
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006110119-06

No Significant Match Found

DV One-Page Summary

KIC: 6110119 Candidate: 6 of 9 Period: 84.425 d



DV Fit Results:

Period = 84.42481 [0.00206] d
Epoch = 133.5747 [0.0181] BKJD
Rp/R* = 0.0129 [0.0030]
a/R* = 29.08 [33.70]
b = 0.89 [0.26]
Seff = 144.19 [77.73]
Teq = 884 [119] K
Rp = 5.18 [2.19] Re
a = 0.4647 [0.1538] AU
Ag = 785.64 [578.70] [1.36 σ]
Teffp = 7233 [962] K [6.55 σ]

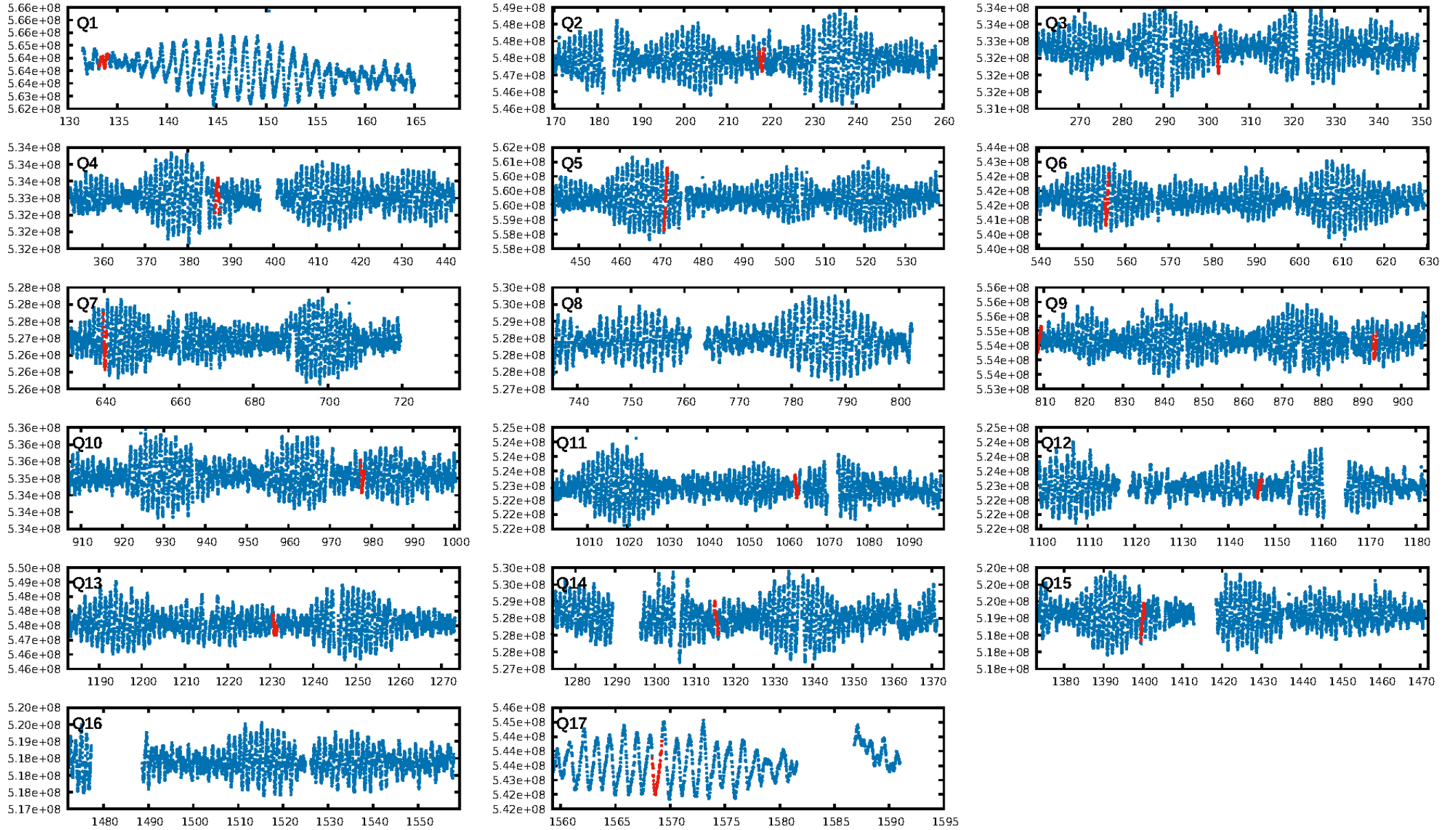
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [85.69 σ]
LongPeriod-sig: 100.0% [7.56 σ]
ModelChiSquare2-sig: 3.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.06e-06
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 1.5
Centroid-sig: 0.0%
Centroid-so: 0.989 arcsec [2.65 σ]
OotOffset-rm: 0.037 arcsec [0.14 σ]
KicOffset-rm: 0.052 arcsec [0.21 σ]
OotOffset-st: 4/4/2/3 [13]
KicOffset-st: 4/4/2/3 [13]
DiffImageQuality-fgm: 0.54 [7/13]
DiffImageOverlap-fno: 0.14 [2/14]

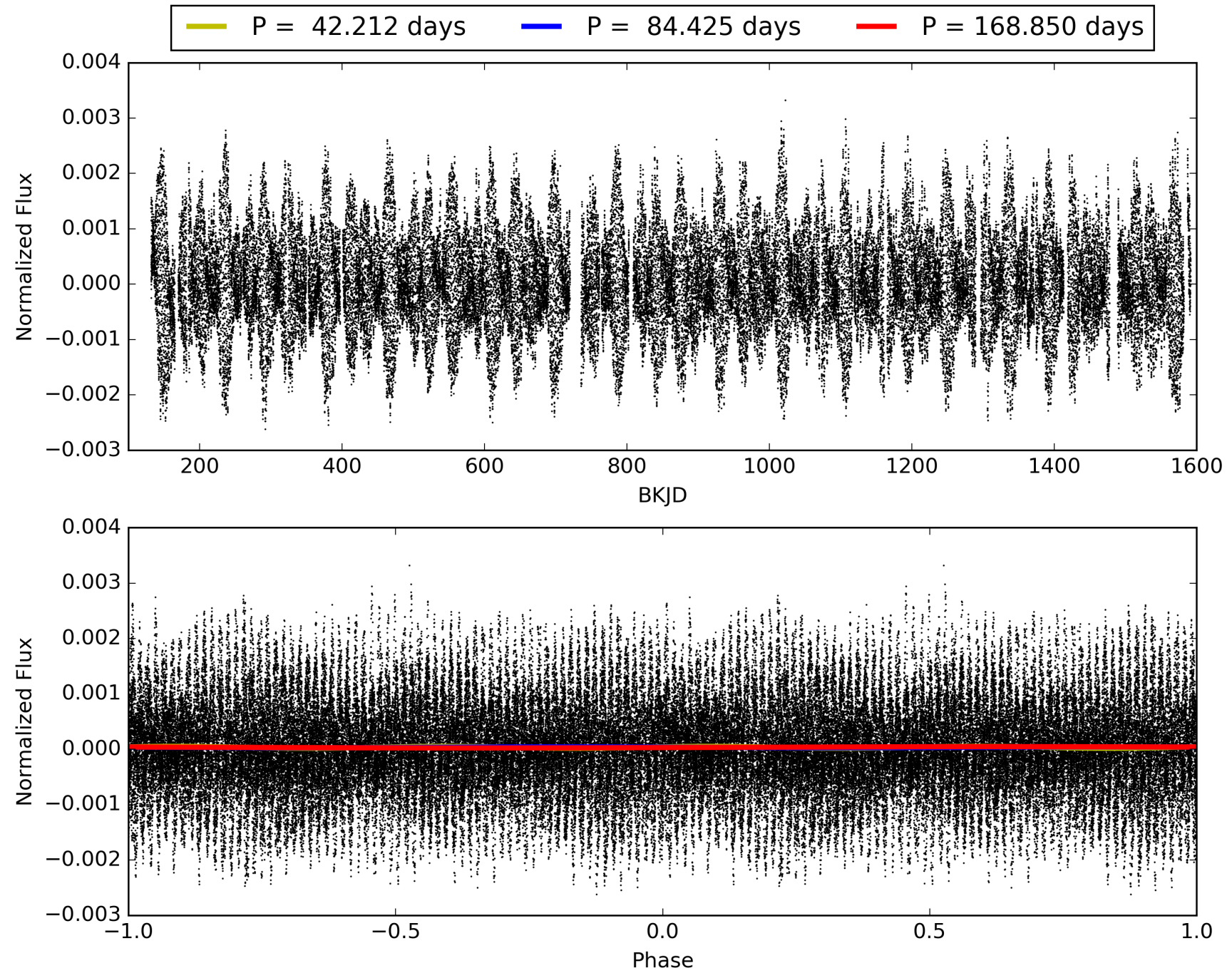
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 18:41:38 Z

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

TCE 006110119-06, PDC Light Curves

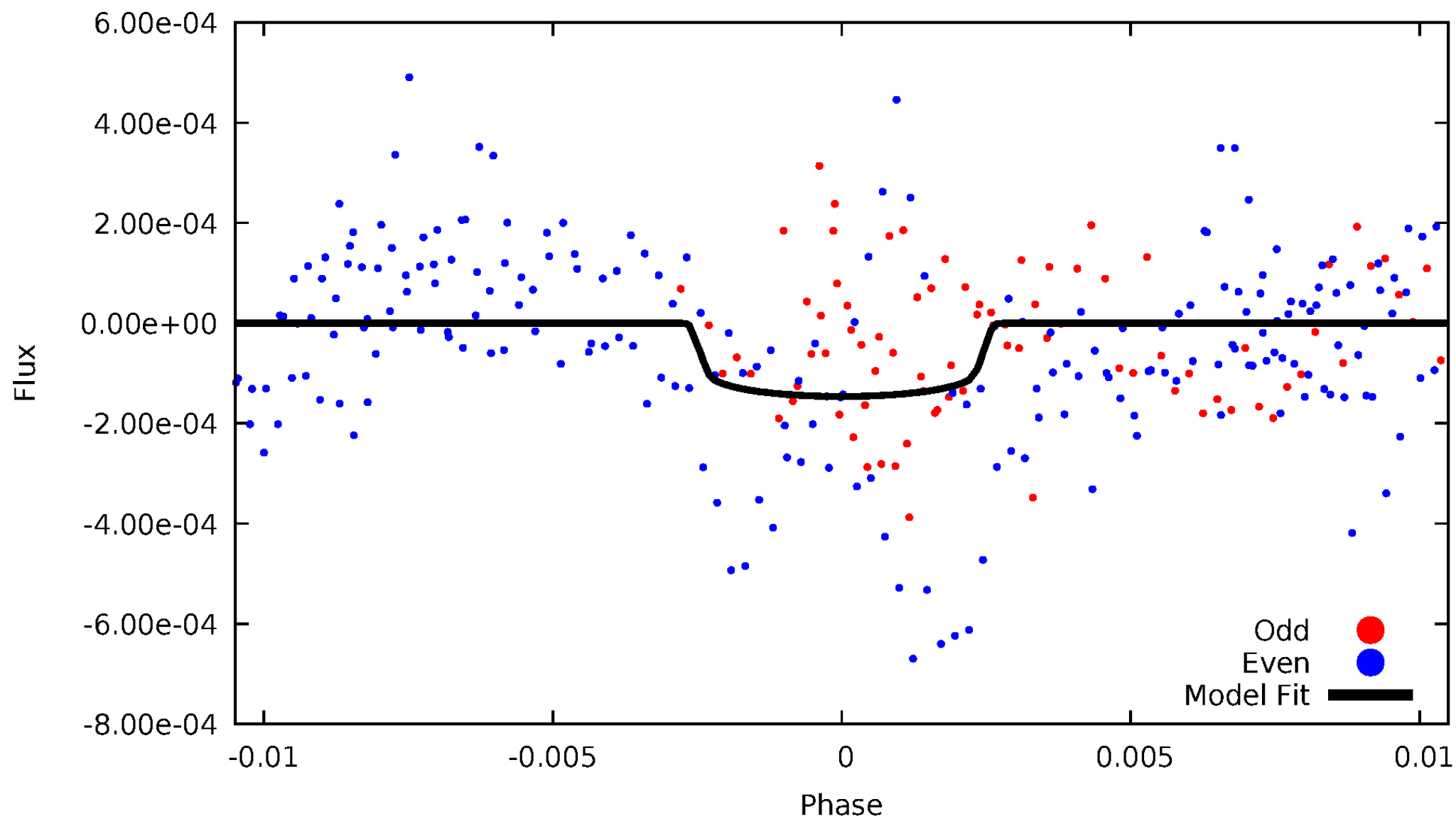


TCE 006110119-06



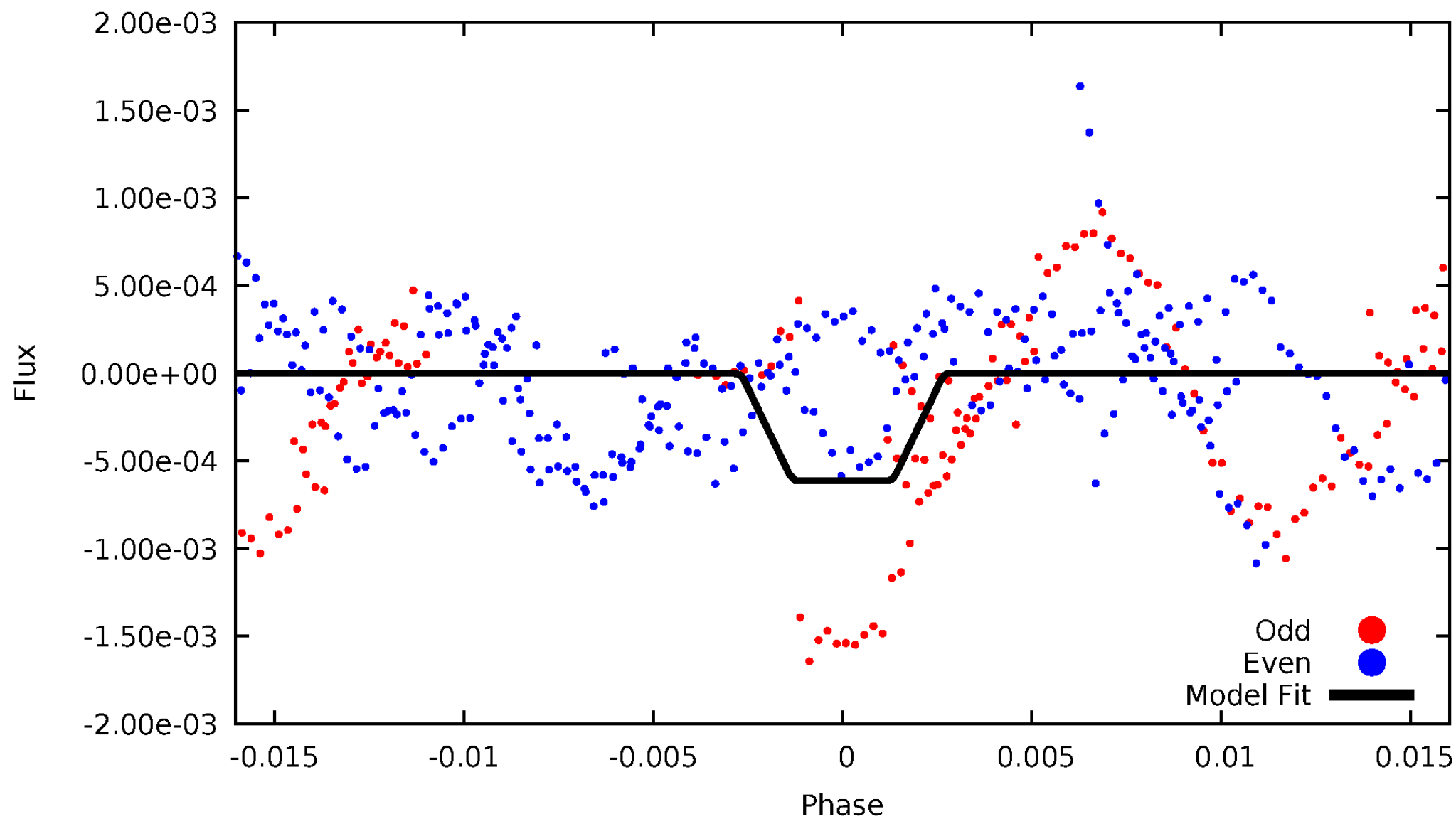
DV Odd/Even

TCE 006110119-06



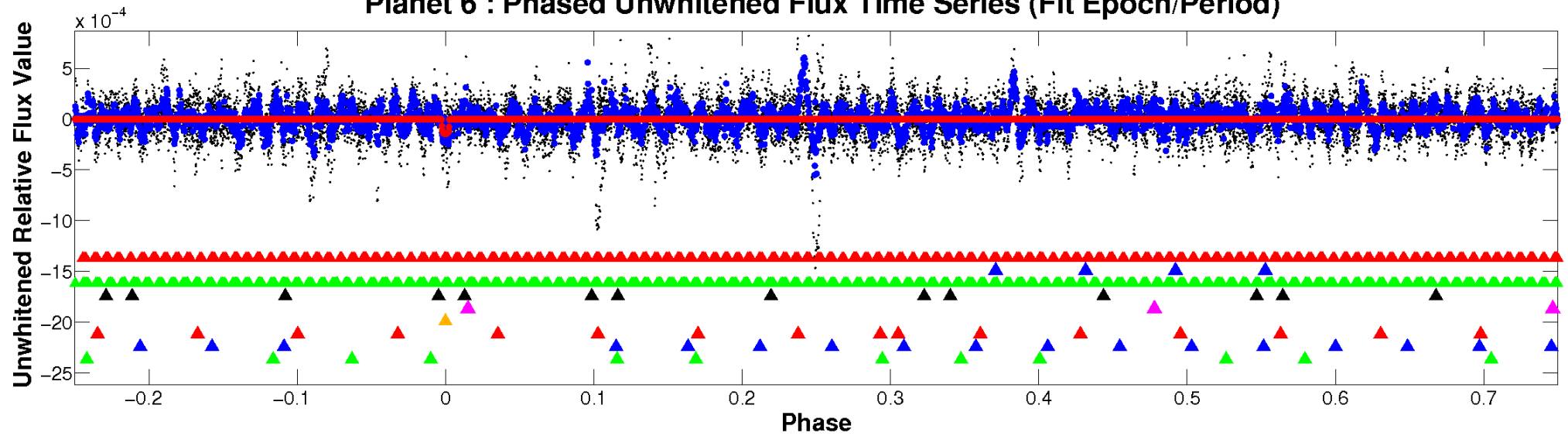
ALT Odd/Even

TCE 006110119-06

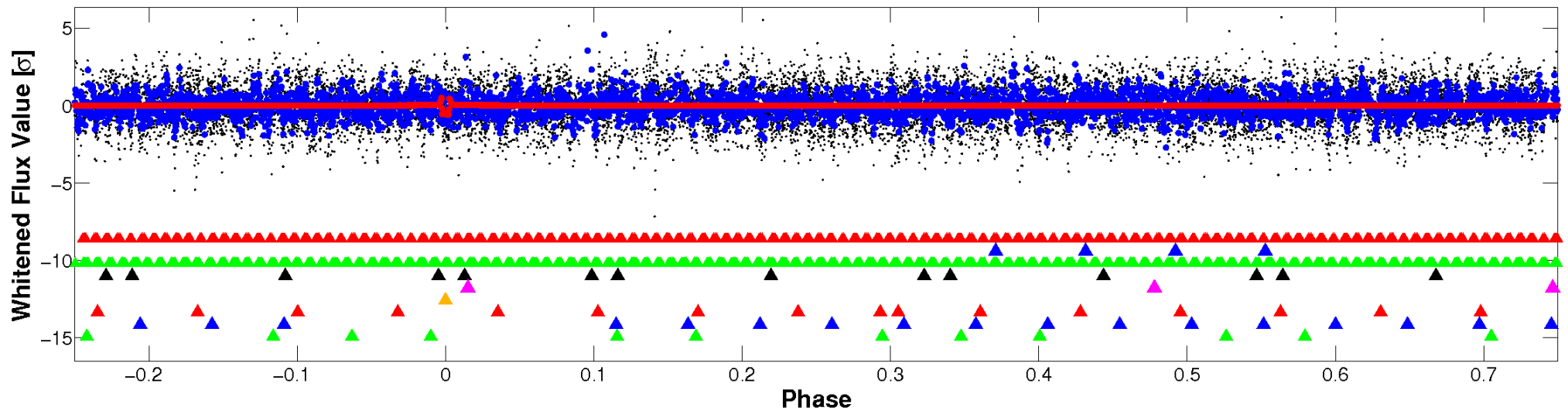


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

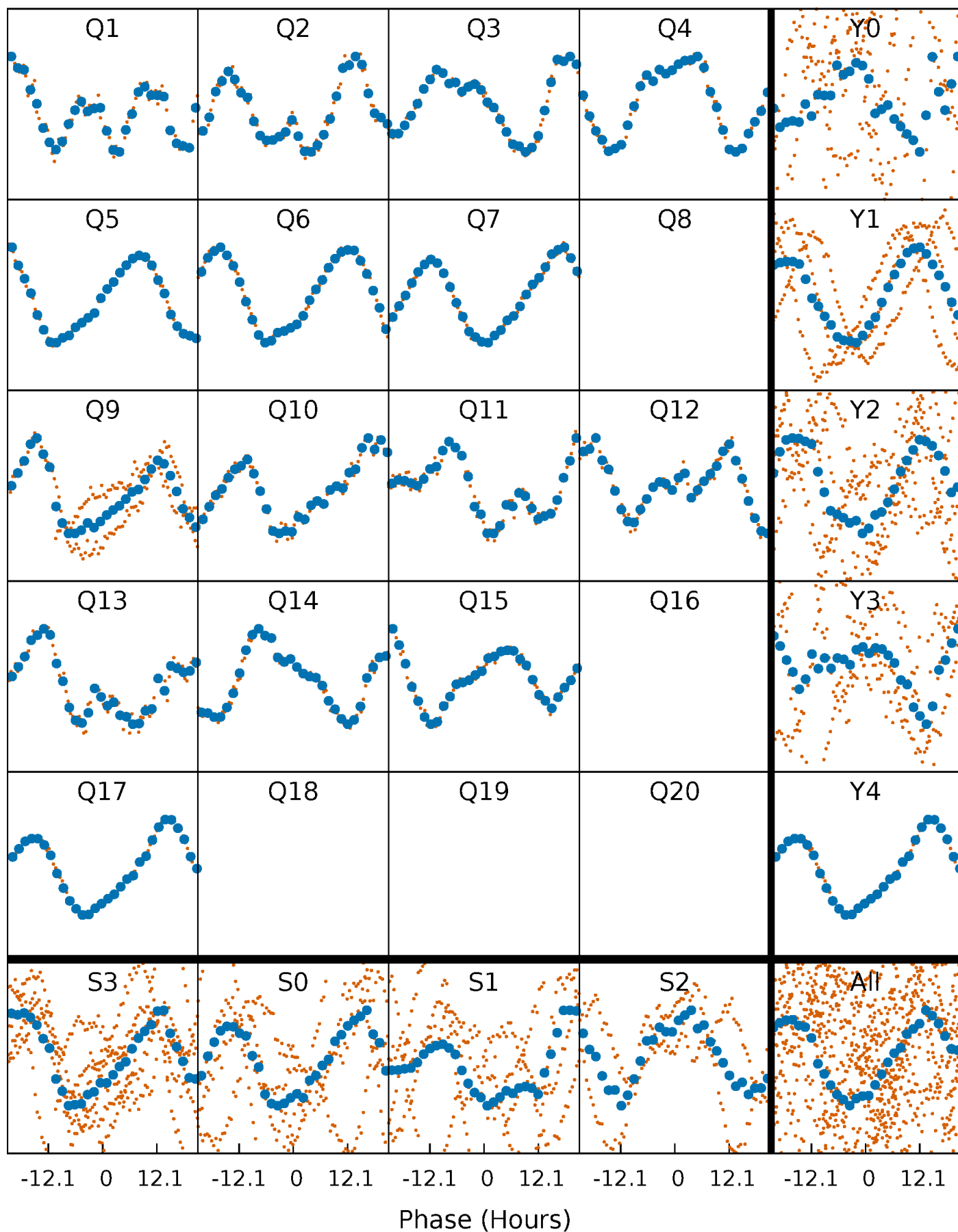


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



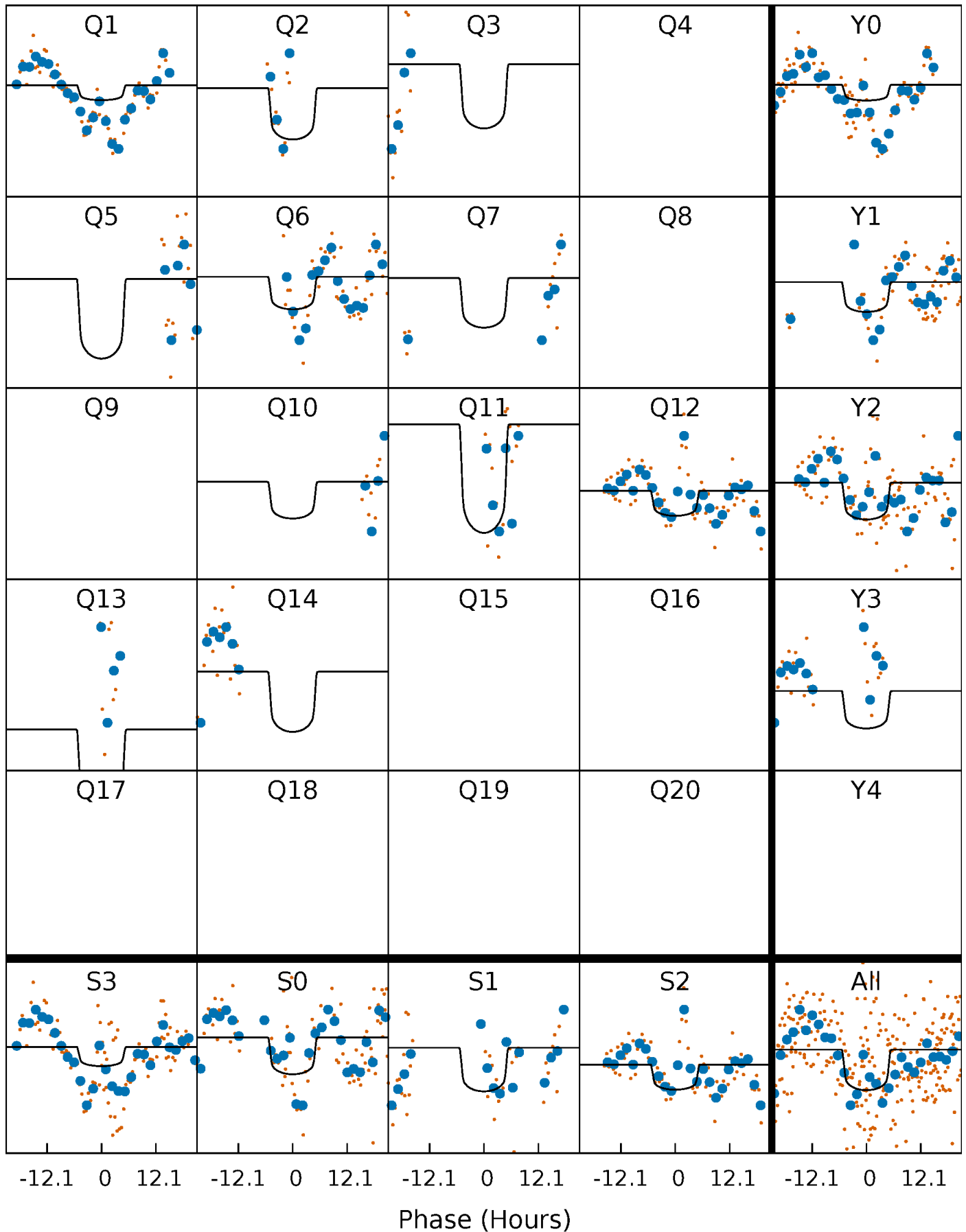
PDC Quarter-Phased Transit Curves

TCE 006110119-06 P= 84.424806 Days $T_0=133.574696$ (BKJD)



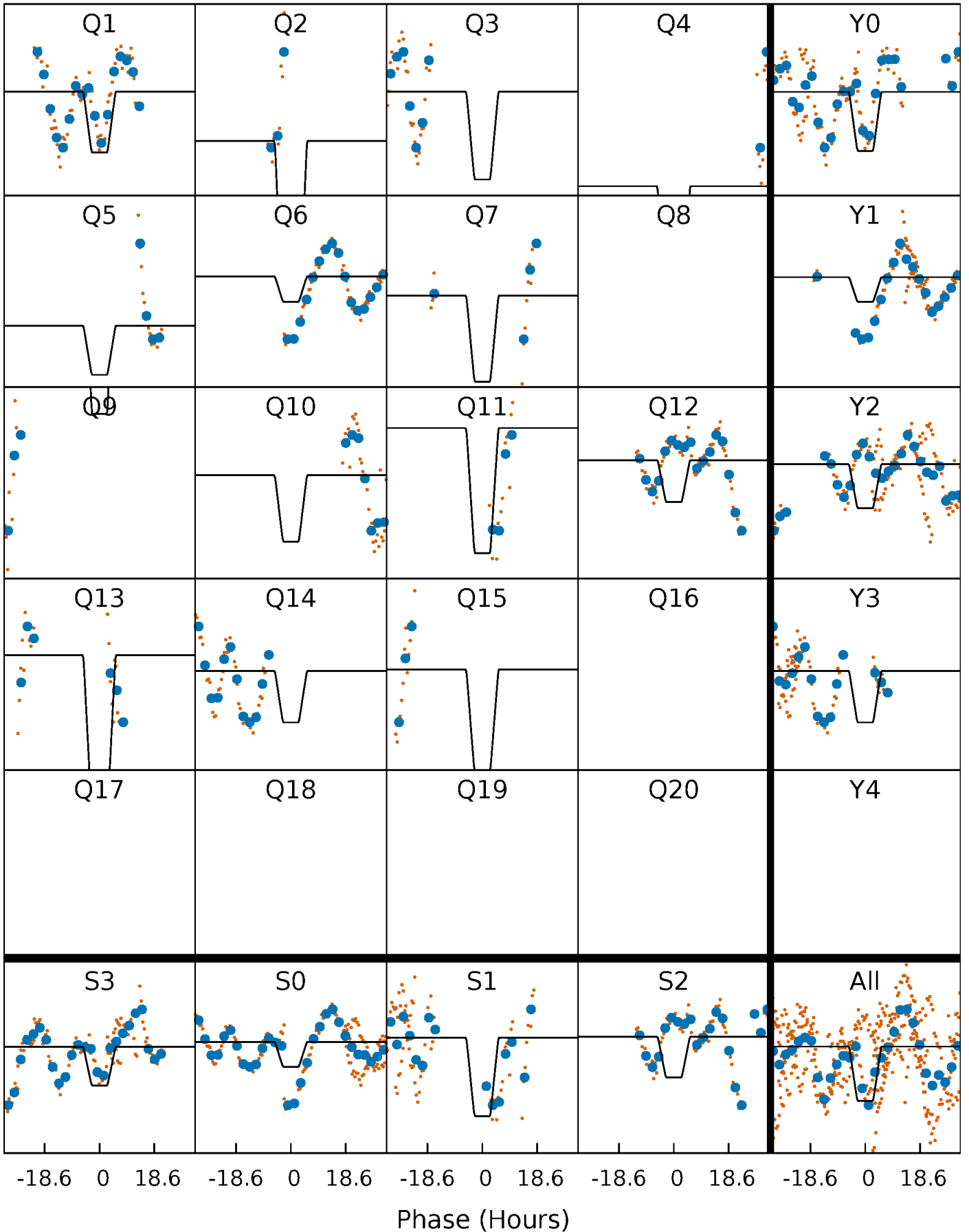
DV Quarter-Phased Transit Curves

TCE 006110119-06 P= 84.424806 Days $T_0=133.574696$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

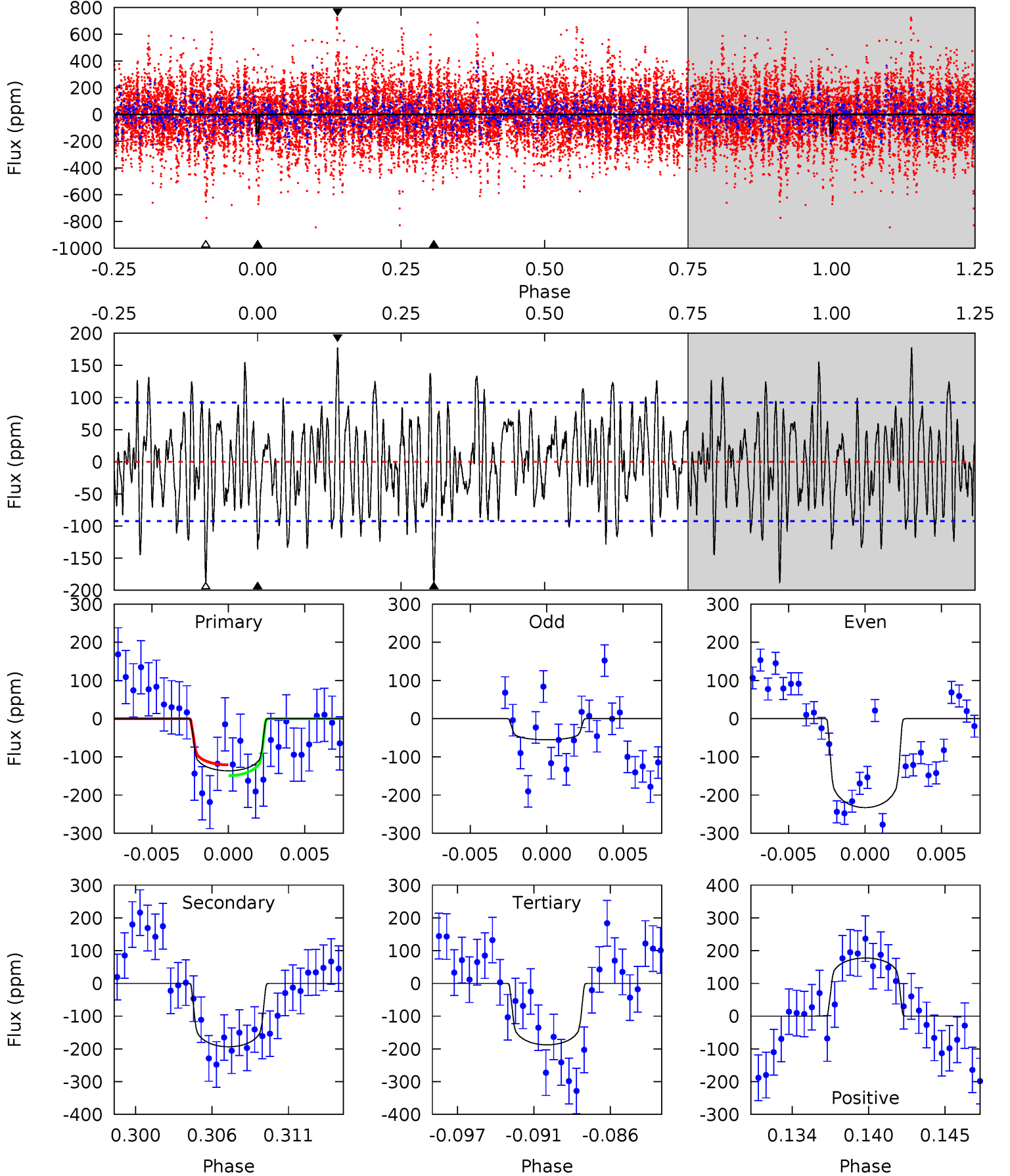
TCE 006110119-06 P= 84.405326 Days $T_0=133.681623$ (BKJD)



DV Model-Shift Uniqueness Test

006110119-06, P = 84.424806 Days, E = 49.149890 Days

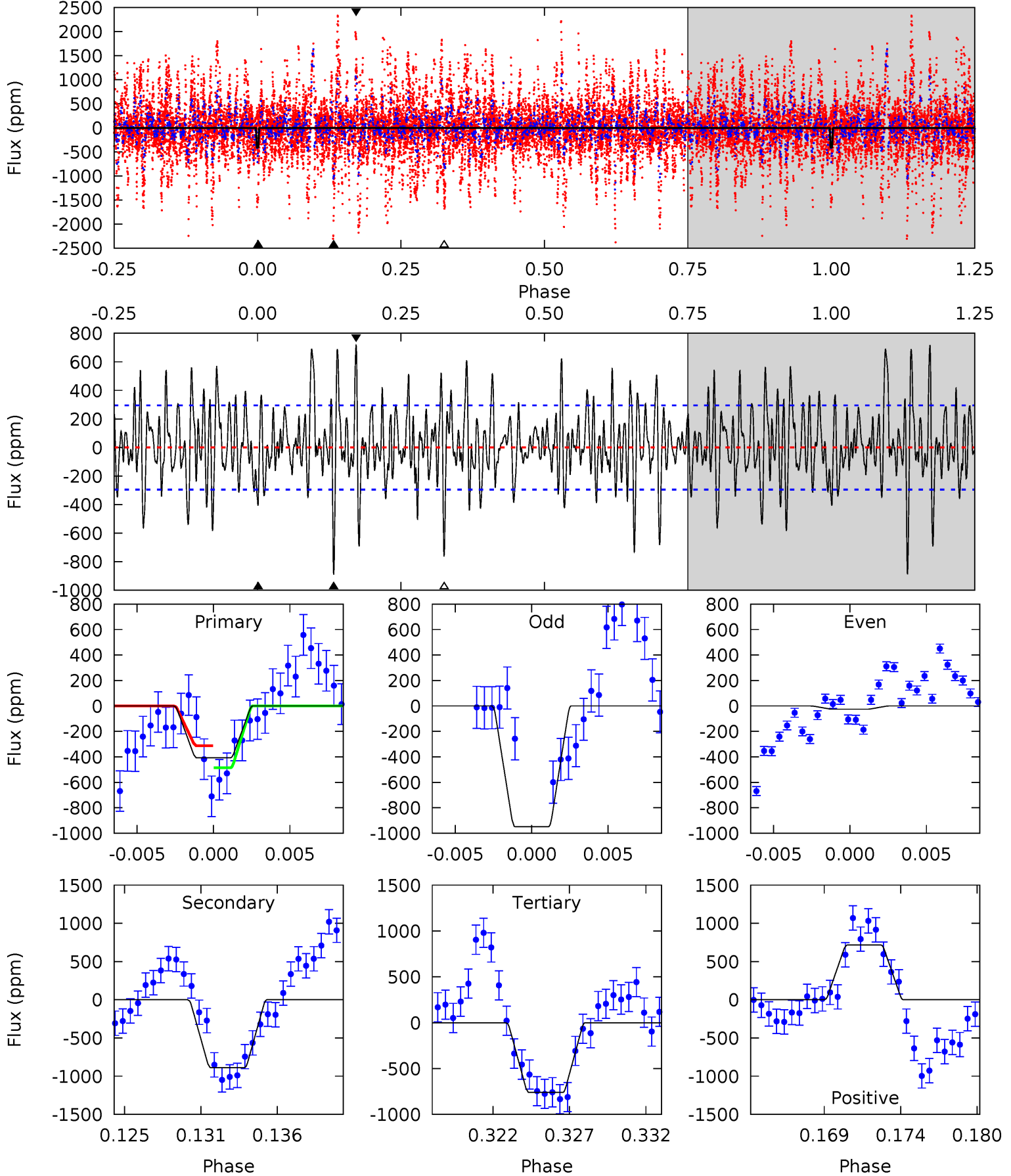
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.61	10.8	10.5	9.90	5.14	2.78	3.17	-2.85	-2.29	0.33	0.90	4.55	1.59	0.48	0.79



Alt Model-Shift Uniqueness Test

006110119-06, P = 84.405326 Days, E = 49.276297 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.08	15.5	13.2	12.5	5.14	2.78	3.78	-6.15	-5.38	2.22	2.99	7.80	2.24	0.45	1.49



Stellar Parameters For KIC 006110119

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7110^{+197}_{-222}	$3.578^{+0.306}_{-0.054}$	$-0.140^{+0.250}_{-0.250}$	$3.688^{+0.303}_{-1.290}$	$1.878^{+0.191}_{-0.310}$	$0.053^{+0.105}_{-0.009}$
	+3%/-3%	+9%/-2%	+179%/-179%	+8%/-35%	+10%/-17%	+200%/-17%
Source	PHO1	FLK73	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 006110119-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-194 ± 18	$4.84^{+1.40}_{-1.32}$	1213^{+54}_{-104}	7427^{+1360}_{-872}	979^{+868}_{-393}
Alt.	-888 ± 57	$9.45^{+1.67}_{-1.76}$	1210^{+56}_{-106}	7889^{+788}_{-593}	1184^{+572}_{-308}

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 $A_{obs} \gg 1.0$

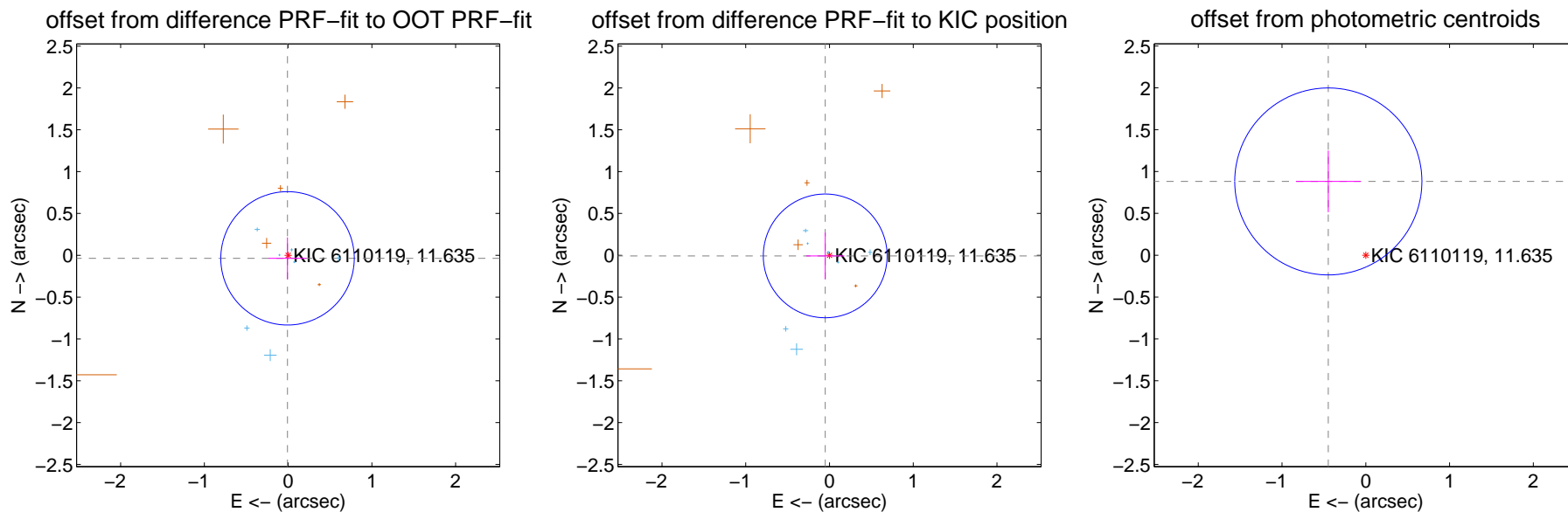
DV Centroid Data

Supplemental centroid analysis for 006110119-06. **Kepler magnitude: 11.63.** Transit SNR 5.28

There are 7 quarters with good PRF difference image offsets

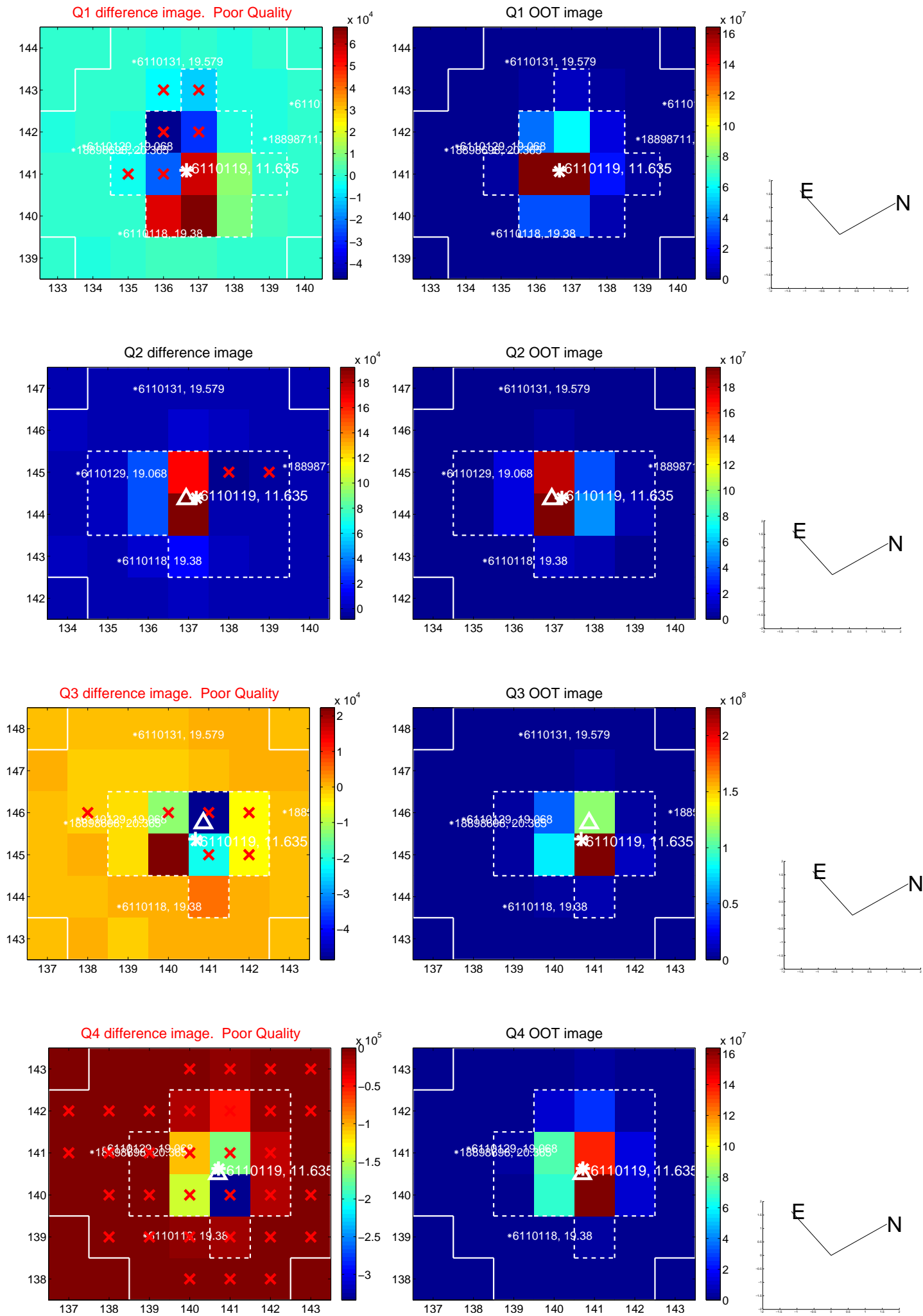
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.037 ± 0.266	0.14	0.007 ± 0.225	-0.037 ± 0.250
PRF-fit source offset from KIC position	0.052 ± 0.246	0.21	0.051 ± 0.228	-0.007 ± 0.278
photometric centroid source offset	0.99 ± 0.37	2.65	0.45 ± 0.39	0.88 ± 0.37

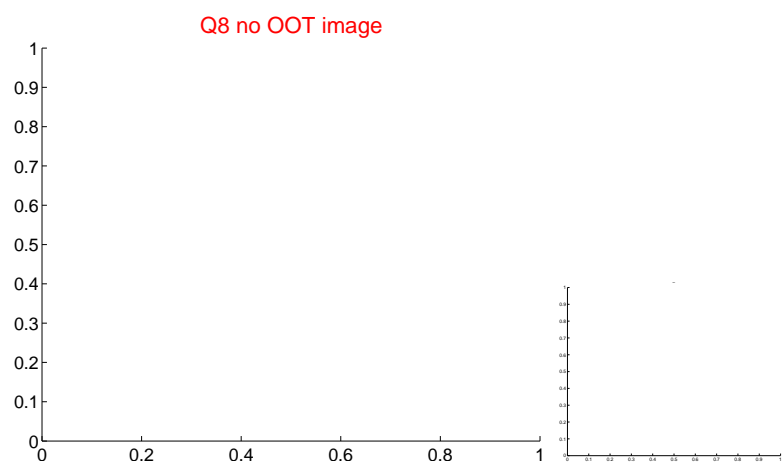
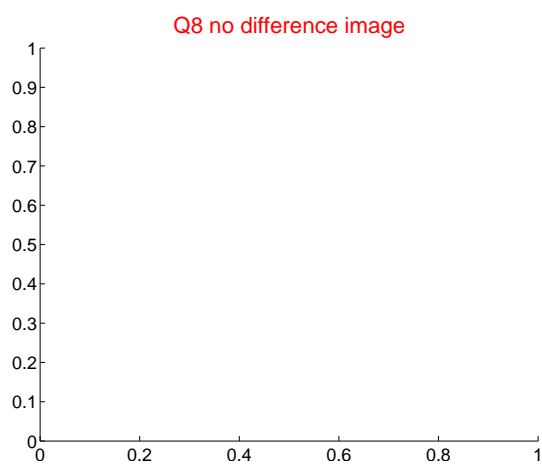
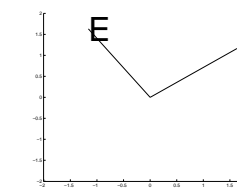
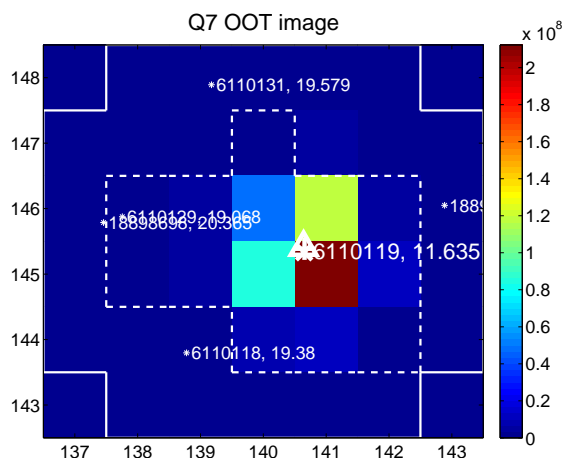
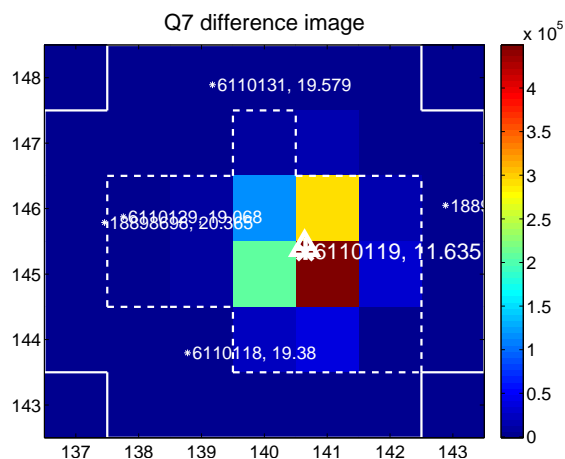
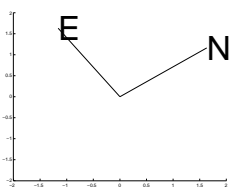
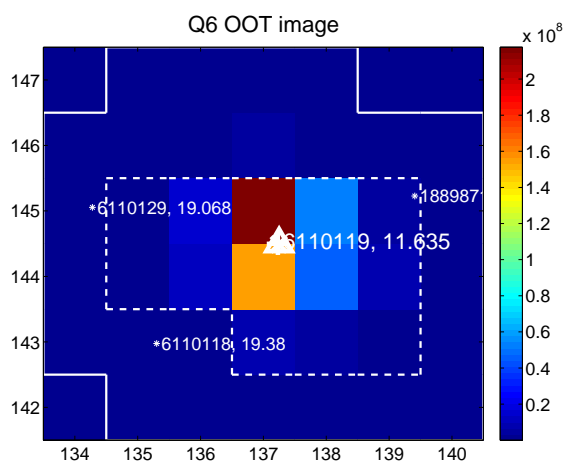
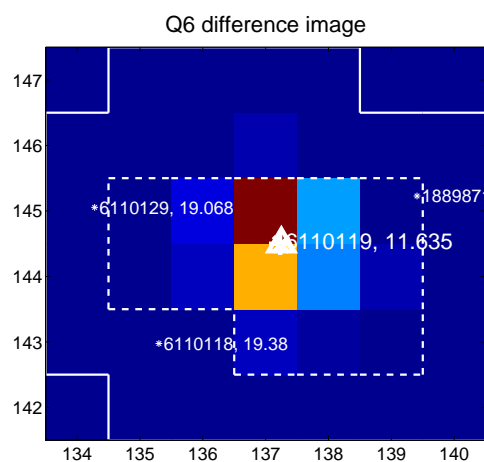
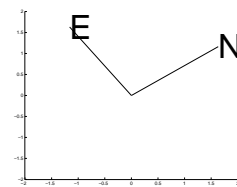
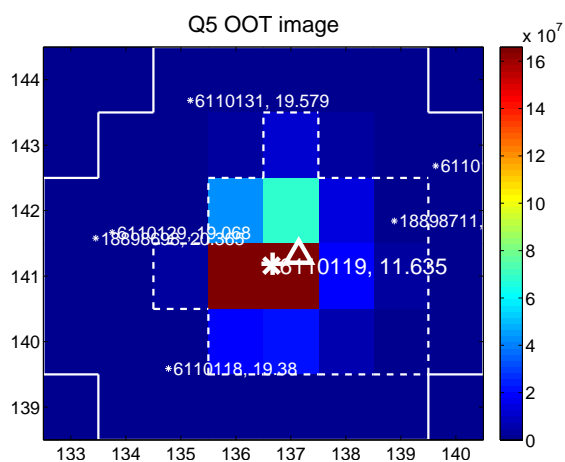
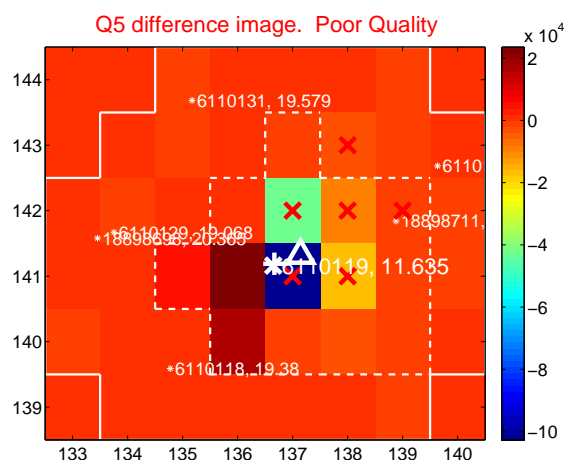


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

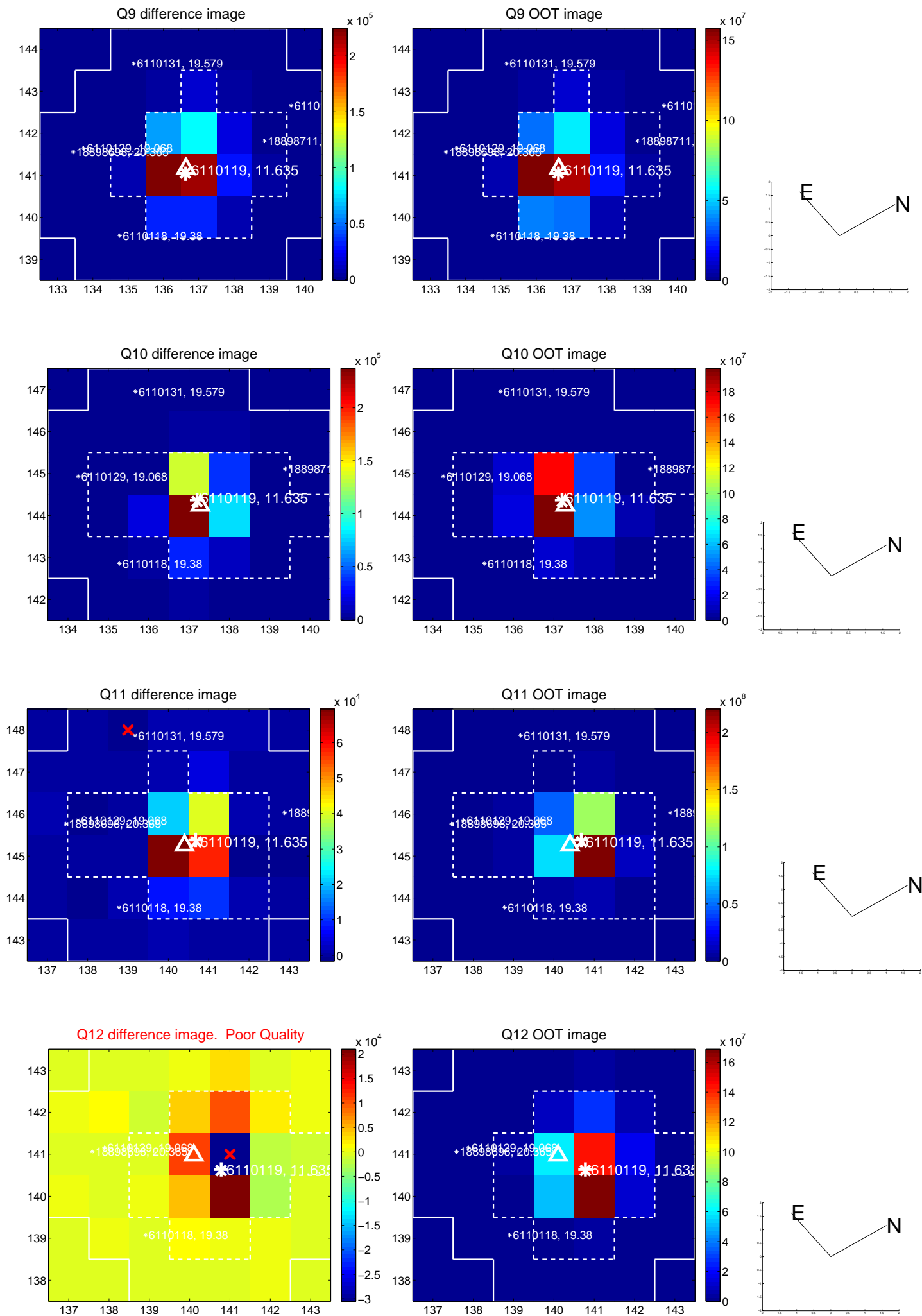
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

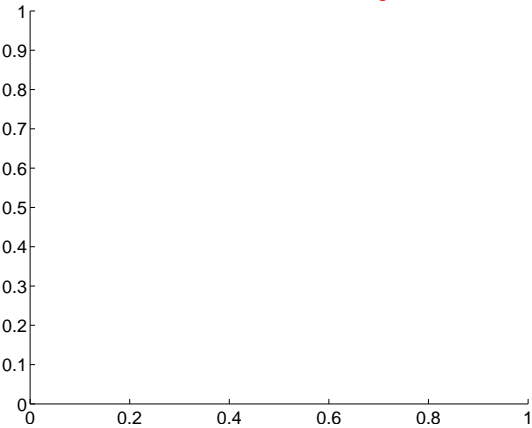


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

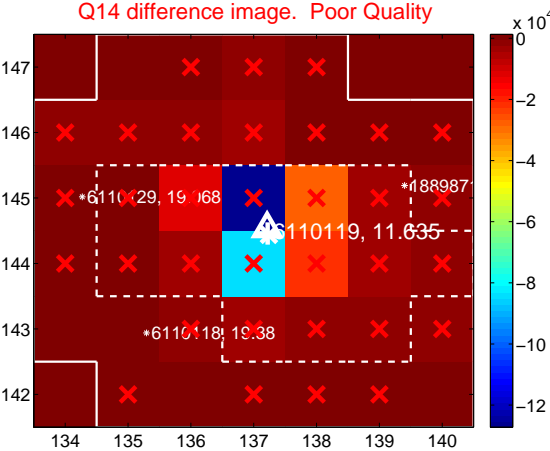
Q13 no difference image



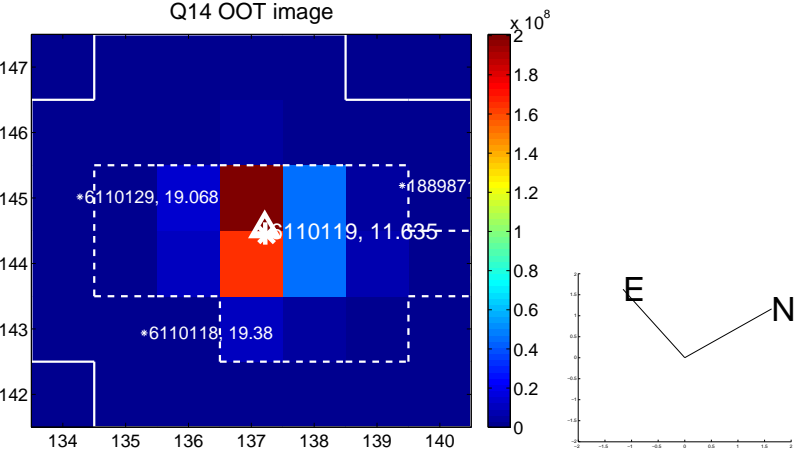
Q13 no OOT image



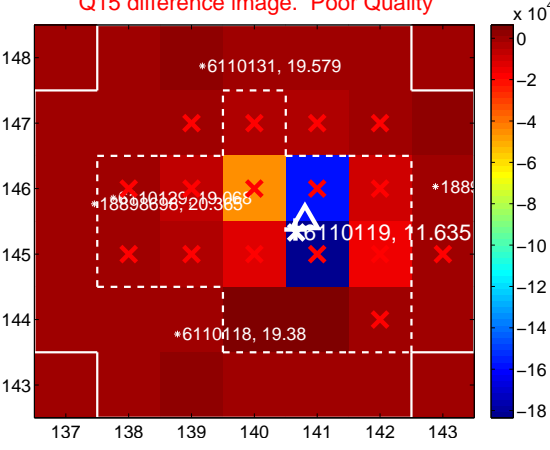
Q14 difference image. Poor Quality



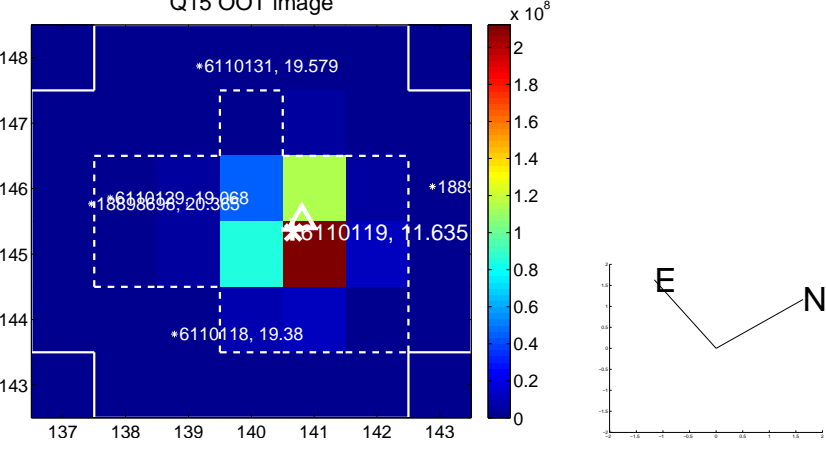
Q14 OOT image



Q15 difference image. Poor Quality



Q15 OOT image



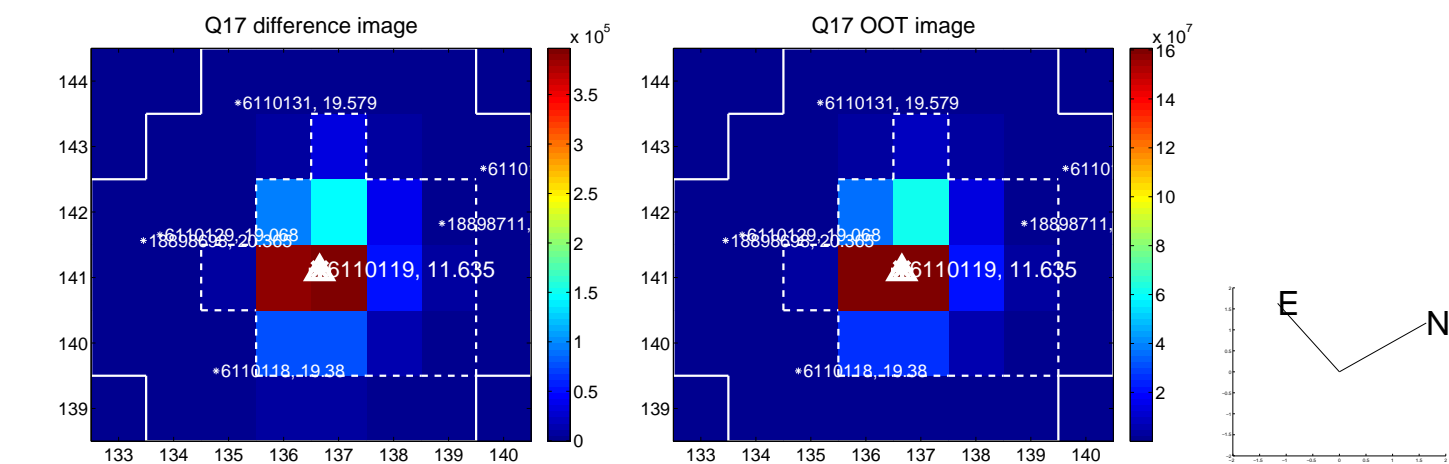
Q16 no difference image



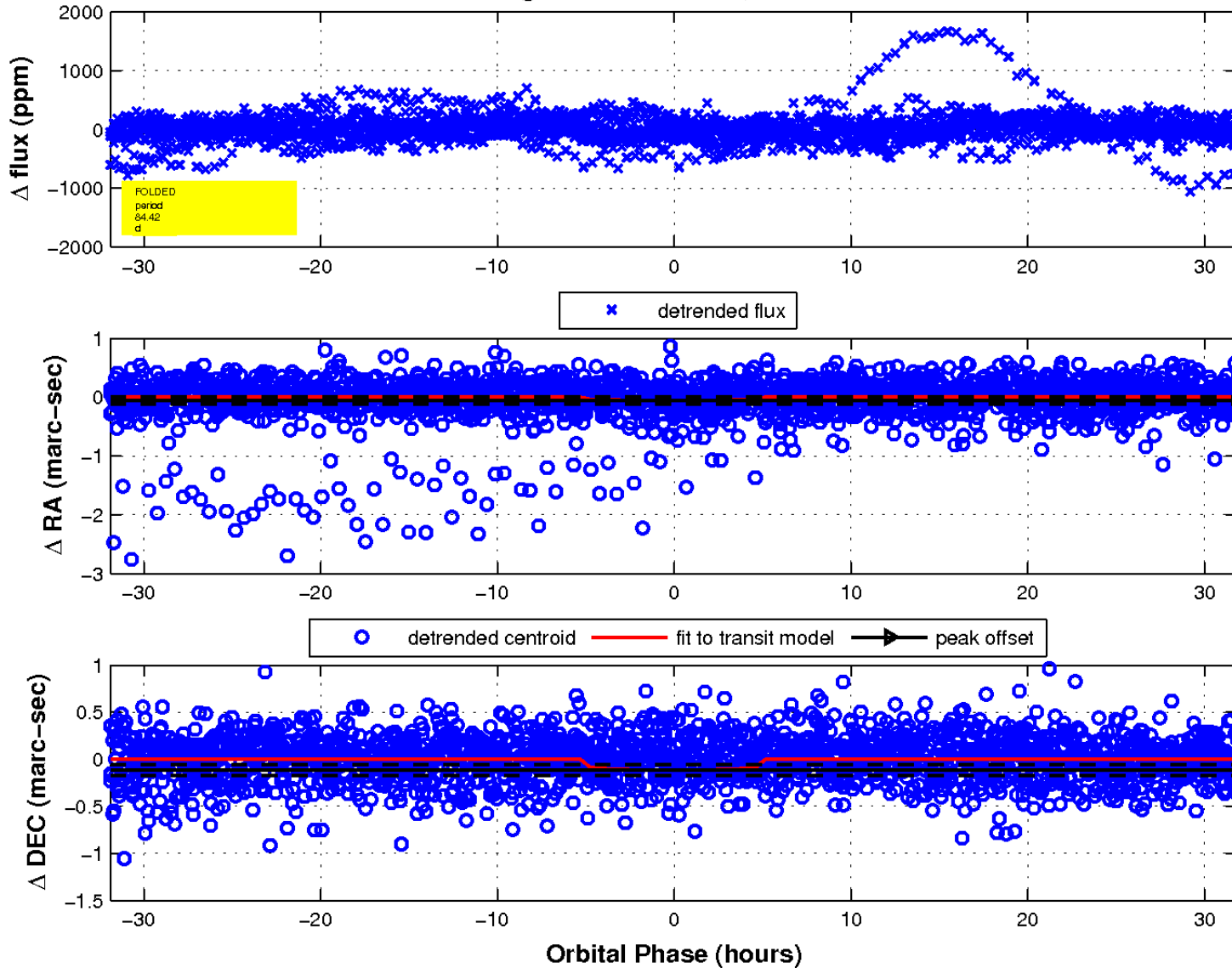
Q16 no OOT image



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

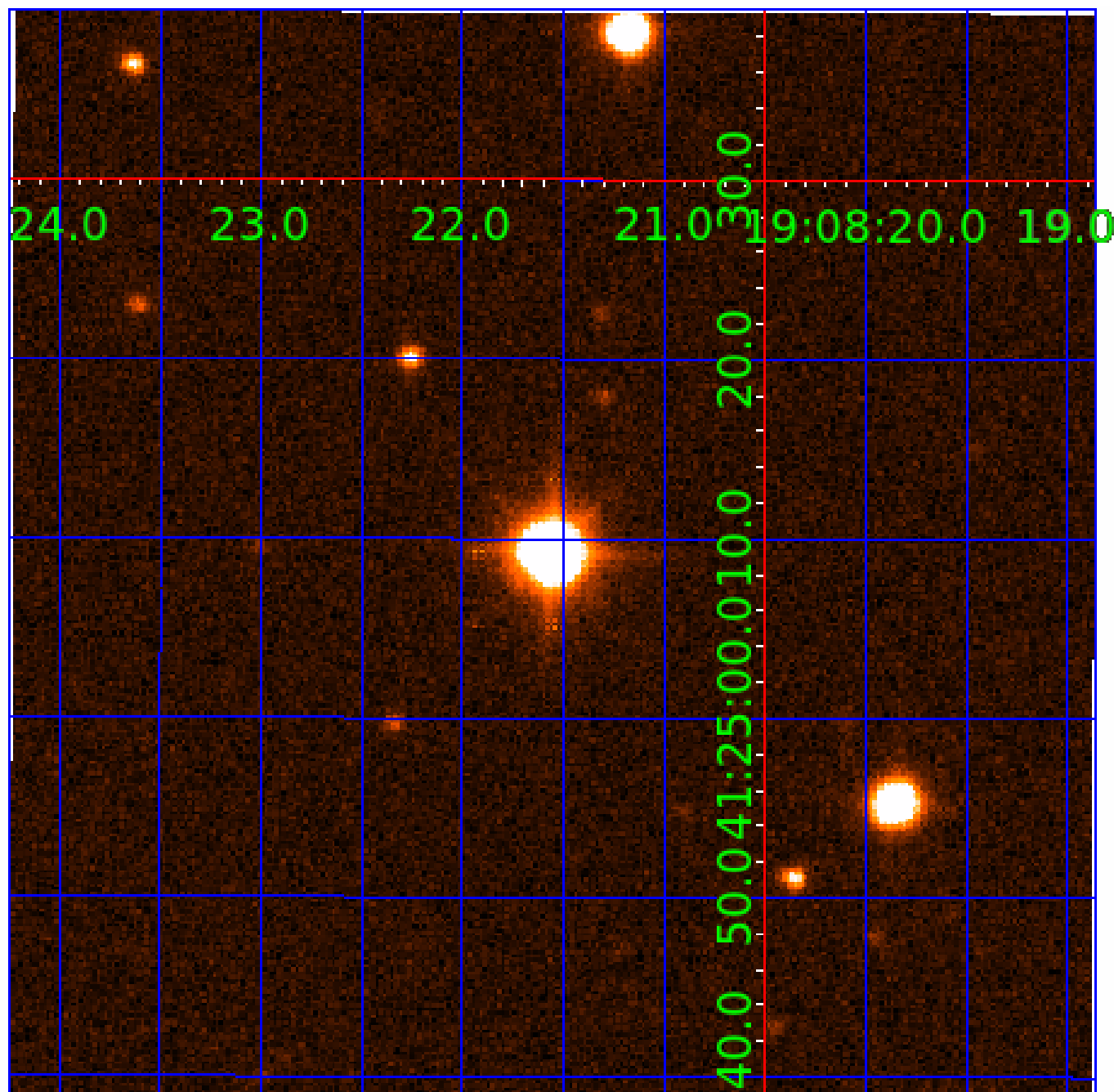


fluxWeightedCentroids, Planet 6 of 9



UKIRT Image

Declination



KIC 006110119

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})
006110119-01	OBS	No	3.989227	135.480588	35.7	19.865	10.1	9.1	3.69	7110	2.62	8440.76
006110119-02	OBS	No	342.814818	333.745352	369.4	14.453	13.2	9.3	3.69	7110	7.51	22.26
006110119-03	OBS	No	2.838401	132.090111	48.6	8.024	11.2	10.3	3.69	7110	3.18	13288.27
006110119-05	OBS	No	698.076145	173.928151	150.7	65.679	8.9	2.2	3.69	7110	5.28	8.62
006110119-06	OBS	No	84.424806	133.574696	146.2	10.626	8.4	5.3	3.69	7110	5.18	144.19
006110119-07	OBS	No	90.121099	158.324243	254.2	7.624	8.2	8.9	3.69	7110	6.54	132.17
006110119-08	OBS	No	88.520065	143.287536	68.4	7.500	8.3	-1.0	3.69	7110	3.07	135.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006110119-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006110119-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV
006110119-03	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
006110119-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006110119-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006110119-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006110119-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

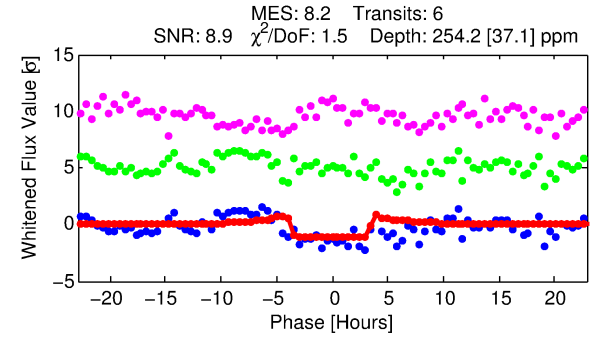
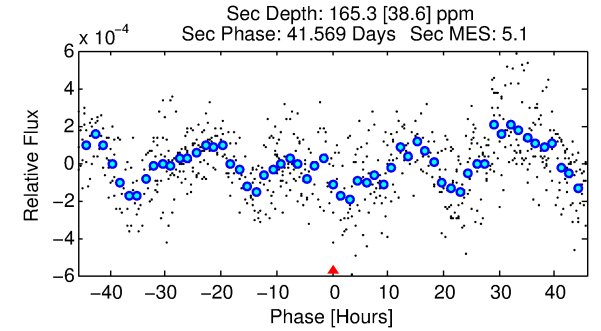
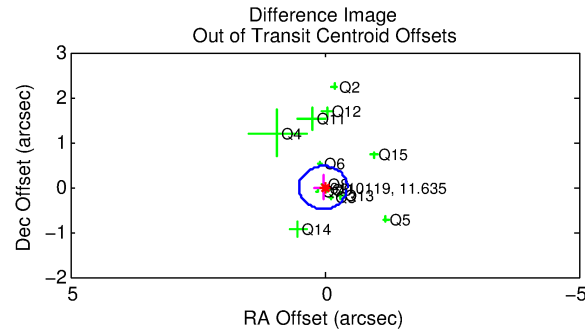
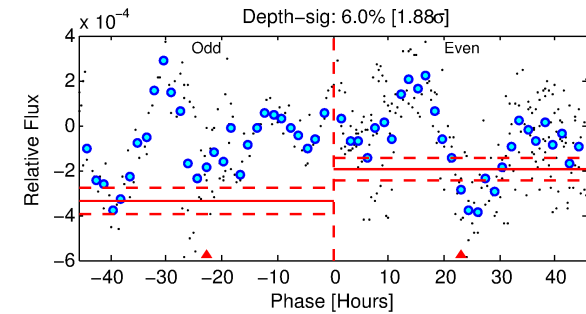
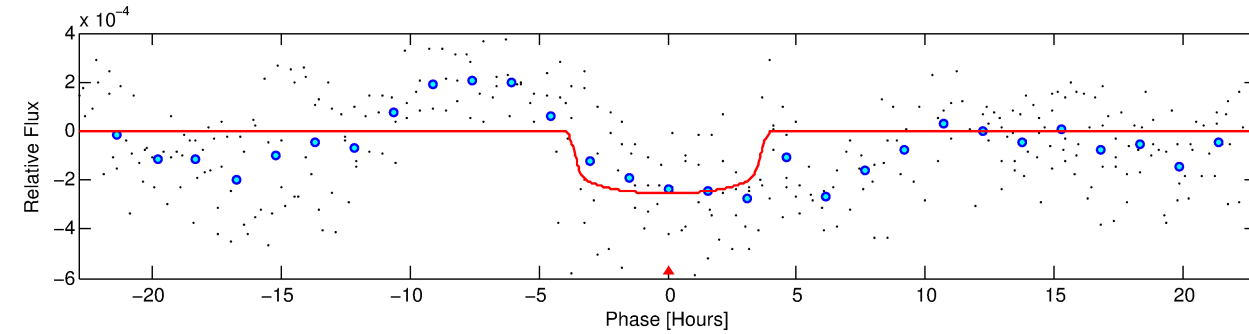
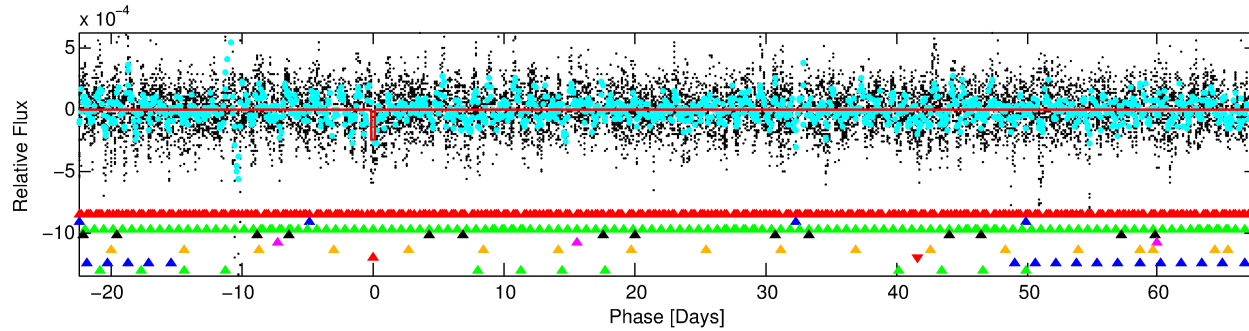
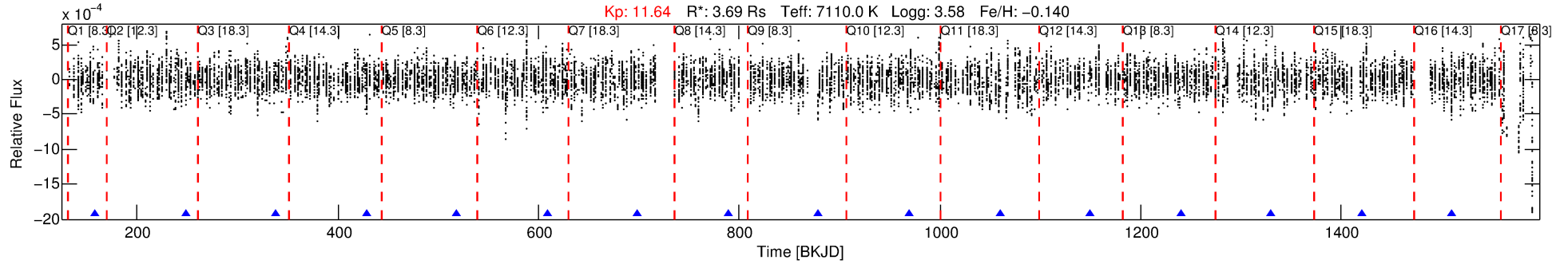
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006110119-07

No Significant Match Found

DV One-Page Summary

KIC: 6110119 Candidate: 7 of 9 Period: 90.121 d



DV Fit Results:

Period = 90.12110 [0.00132] d
Epoch = 158.3242 [0.0128] BKJD
 R_p/R^* = 0.0163 [0.0053]
 a/R^* = 54.73 [95.10]
 b = 0.82 [0.72]
 S_{eff} = 132.17 [71.25]
 T_{eq} = 865 [117] K
 R_p = 6.54 [3.13] R_e
 a = 0.4854 [0.1607] AU
 A_g = 501.03 [435.14] [1.15 σ]
 T_{effp} = 6324 [1112] K [4.88 σ]

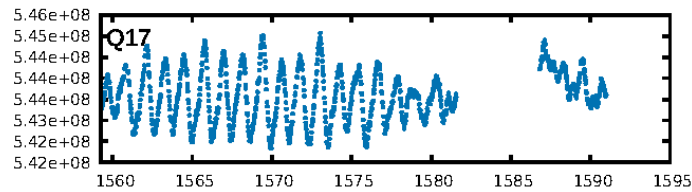
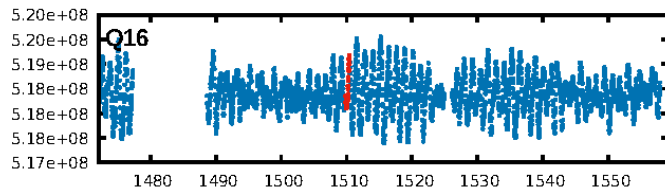
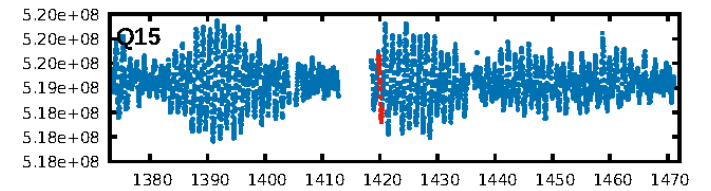
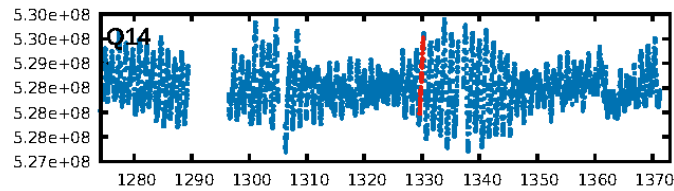
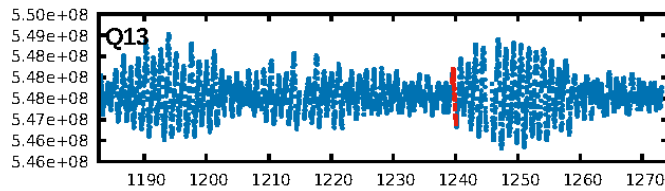
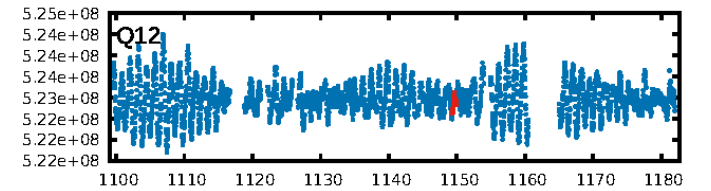
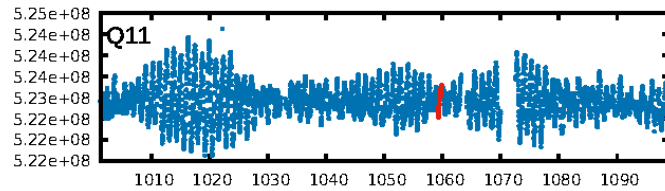
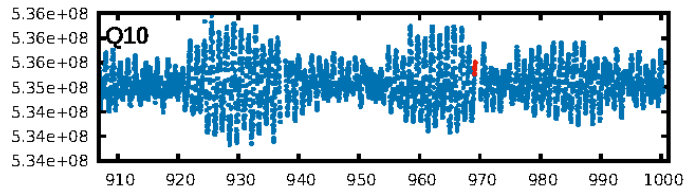
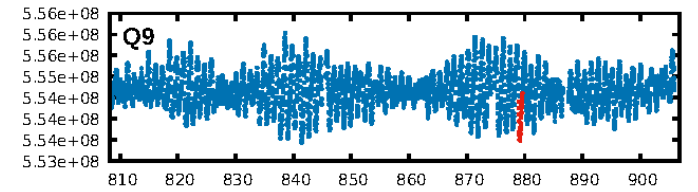
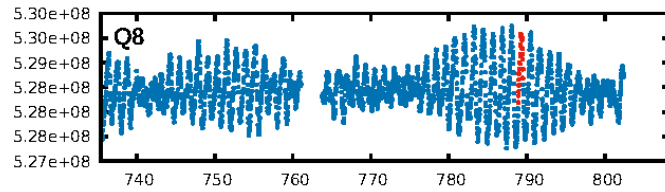
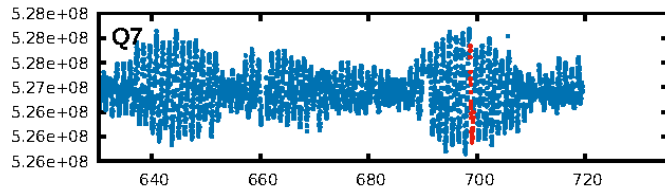
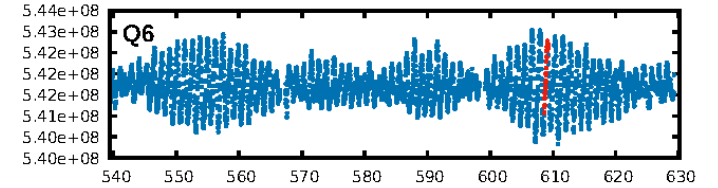
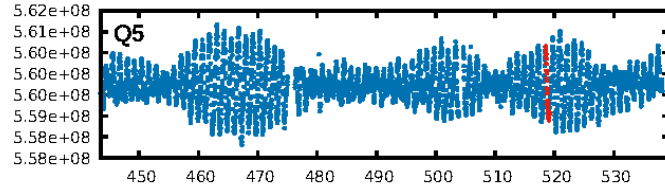
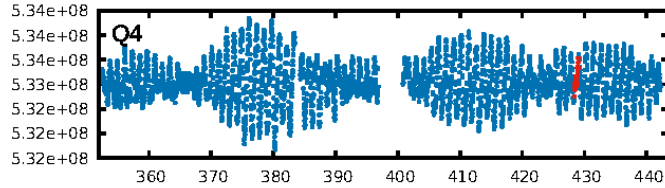
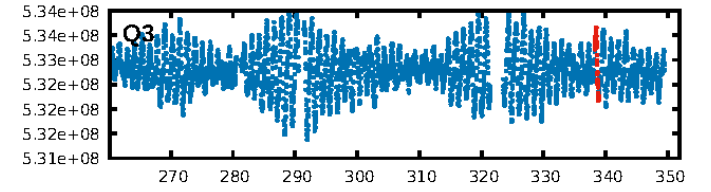
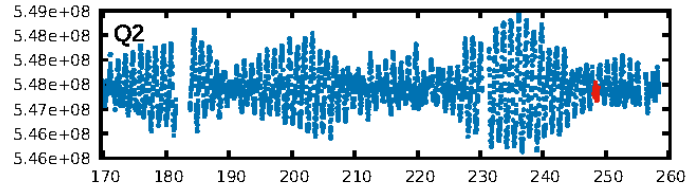
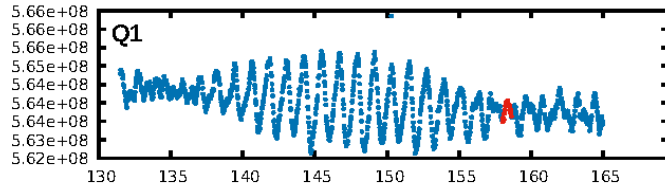
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [3.59 σ]
LongPeriod-sig: 100.0% [36.27 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 85.3%
Bootstrap-pfa: 1.57e-05
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -0.2361
Centroid-sig: 1.8%
Centroid-so: 0.484 arcsec [2.00 σ]
OotOffset-rm: 0.032 arcsec [0.20 σ]
KicOffset-rm: 0.136 arcsec [0.76 σ]
OotOffset-st: 3/4/3/3 [13]
KicOffset-st: 3/4/3/3 [13]
DiffImageQuality-fgm: 0.46 [6/13]
DiffImageOverlap-fno: 0.07 [1/14]

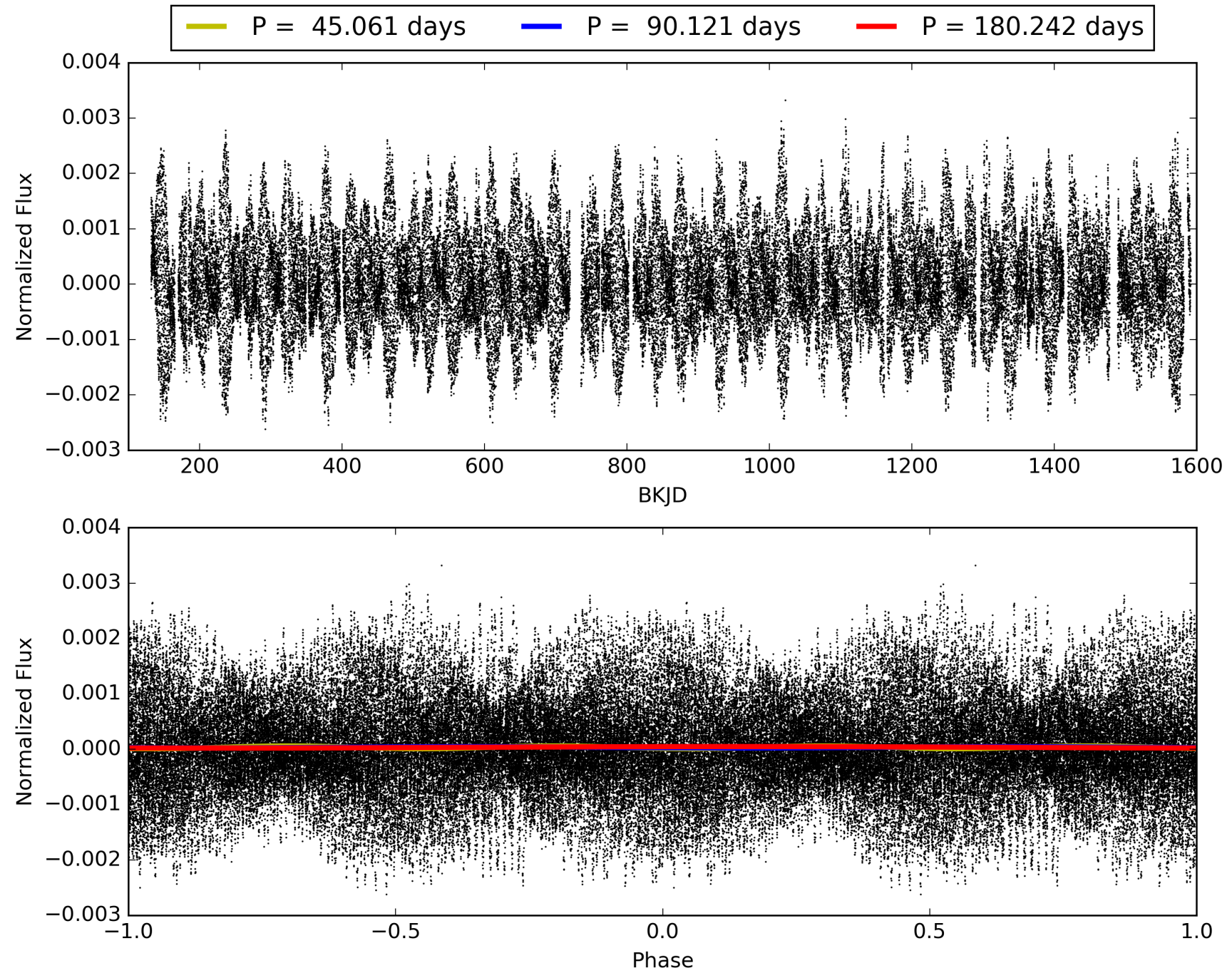
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 18:41:42 Z

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

TCE 006110119-07, PDC Light Curves

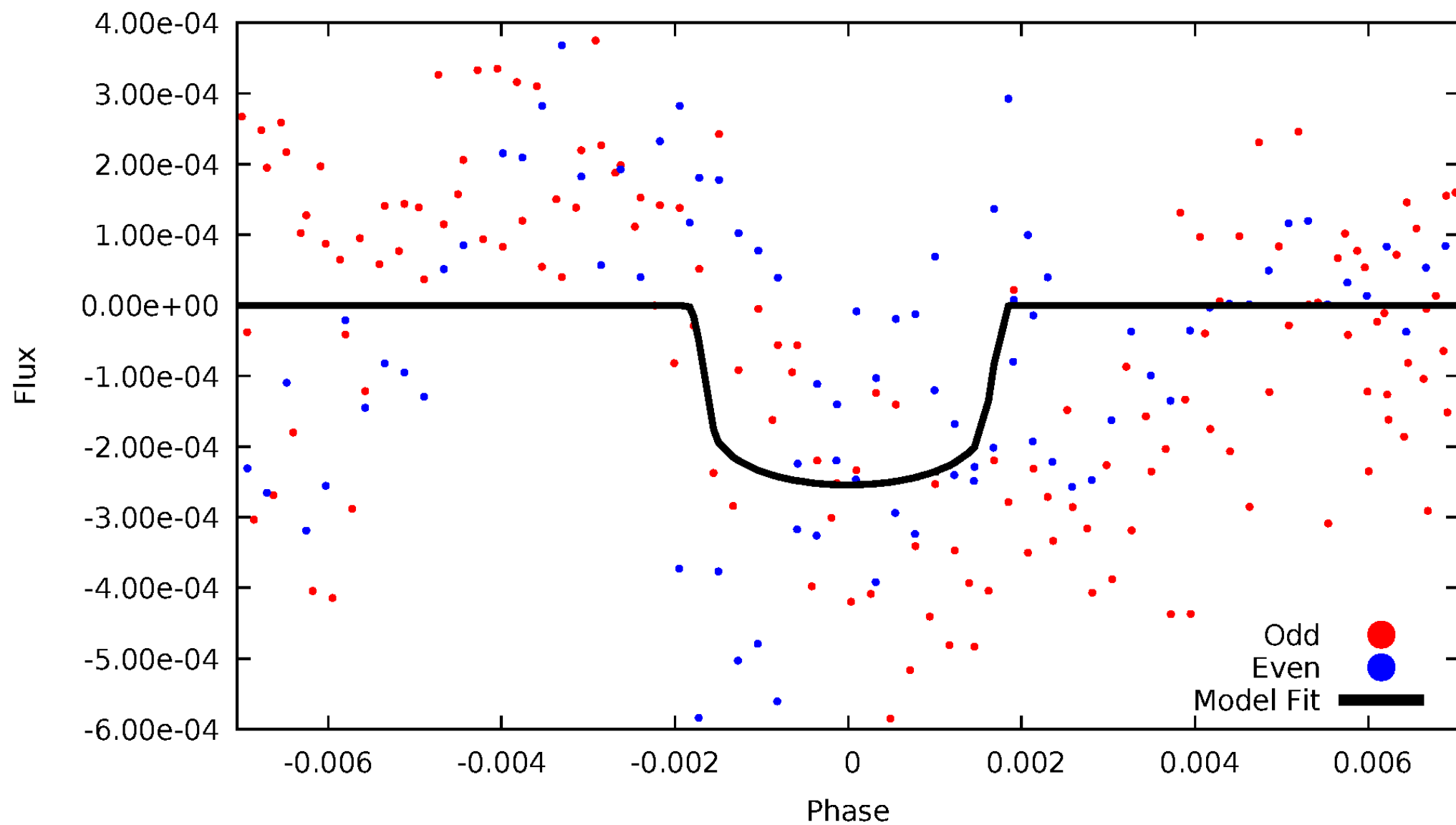


TCE 006110119-07



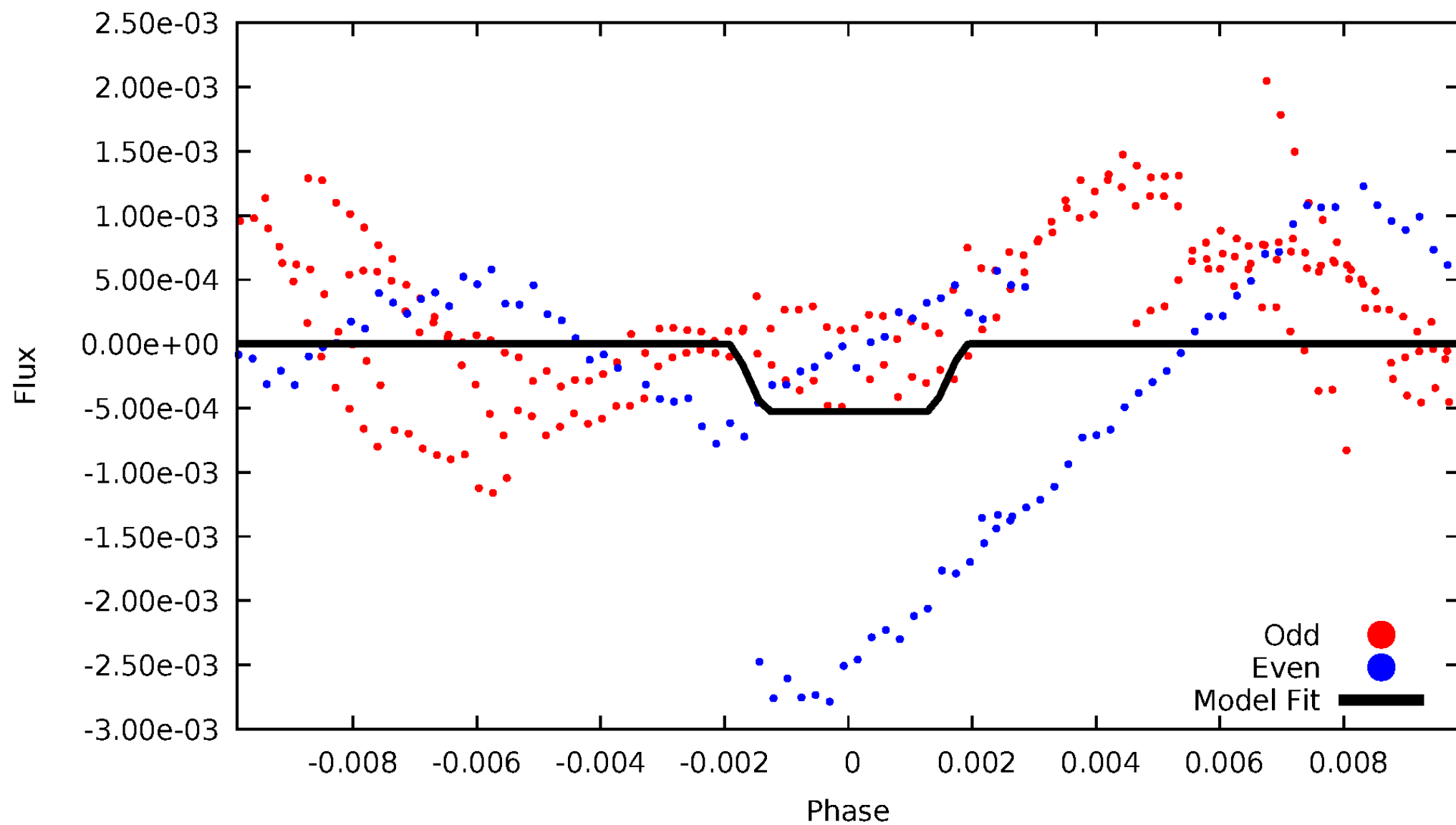
DV Odd/Even

TCE 006110119-07



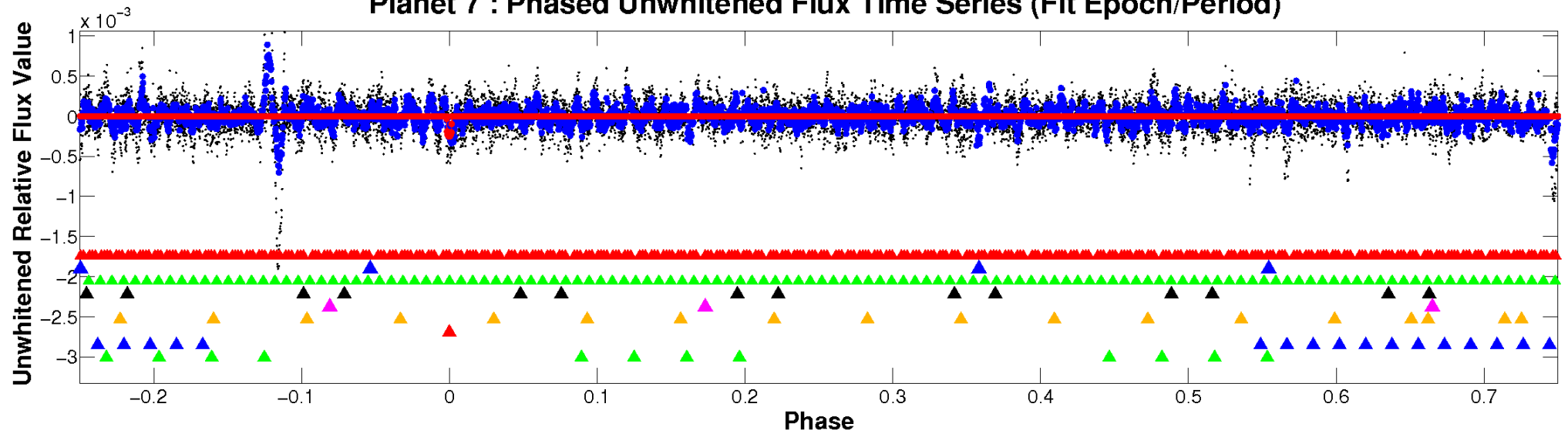
ALT Odd/Even

TCE 006110119-07

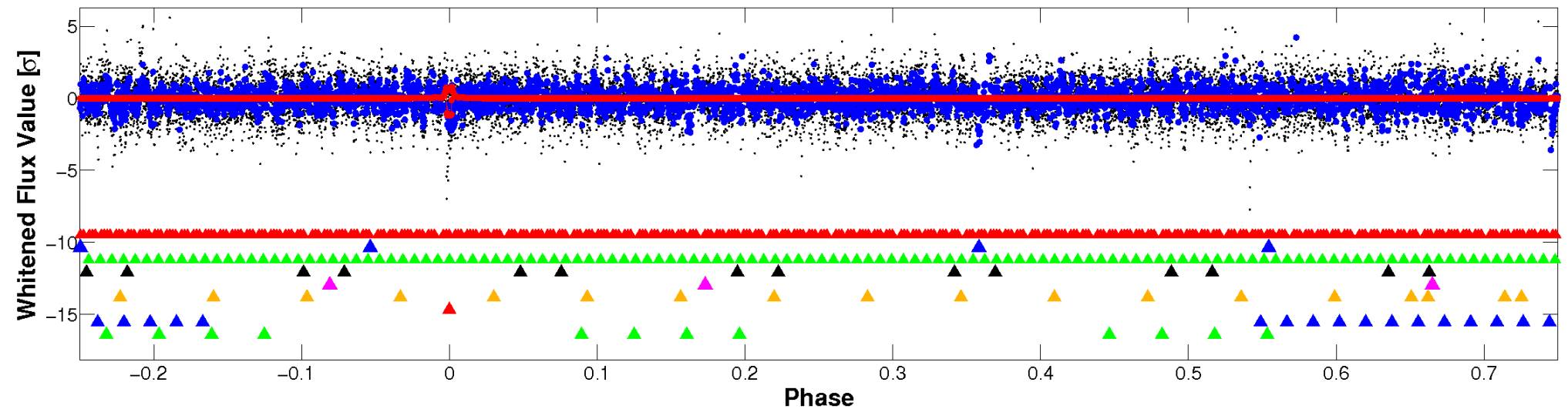


Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

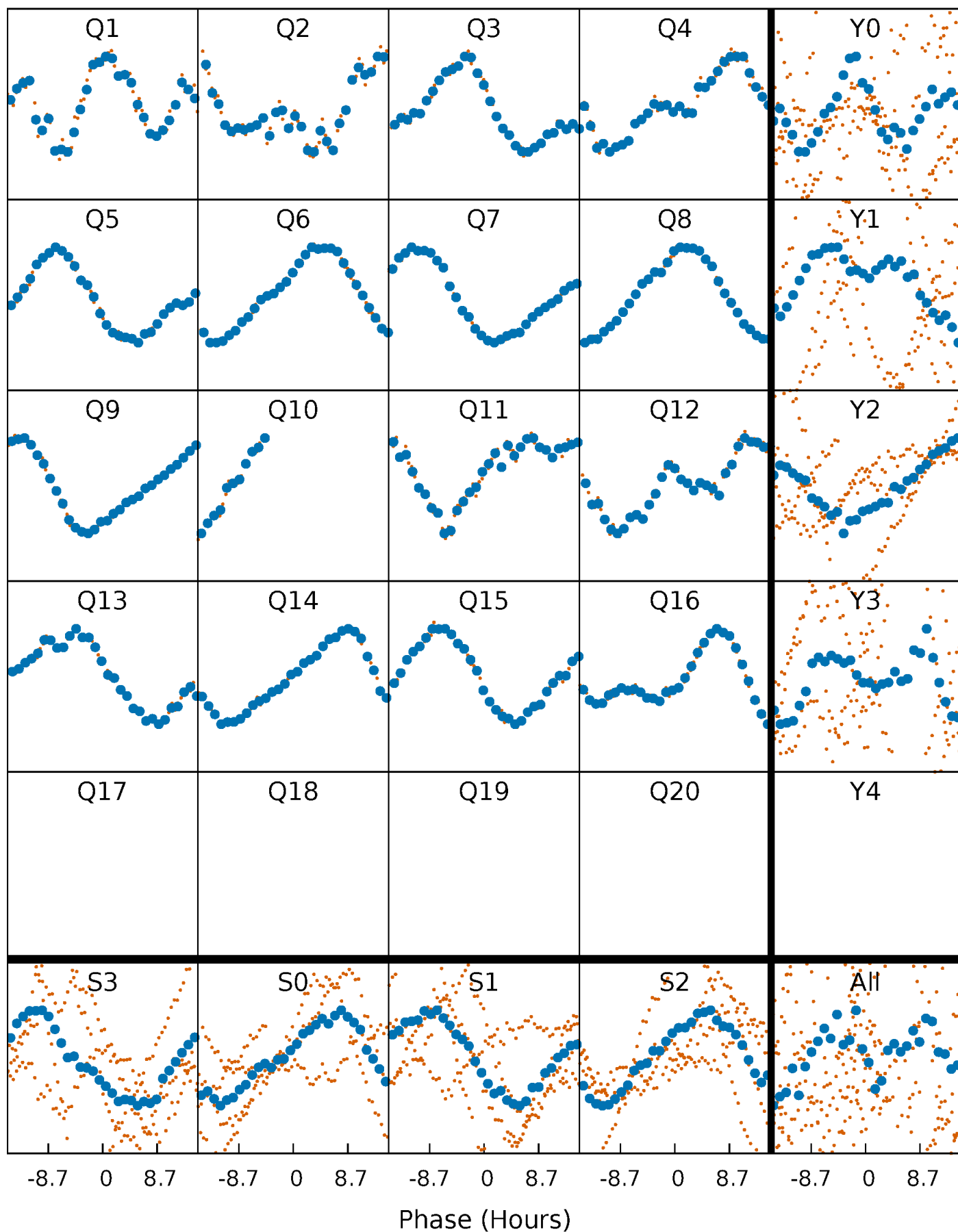


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



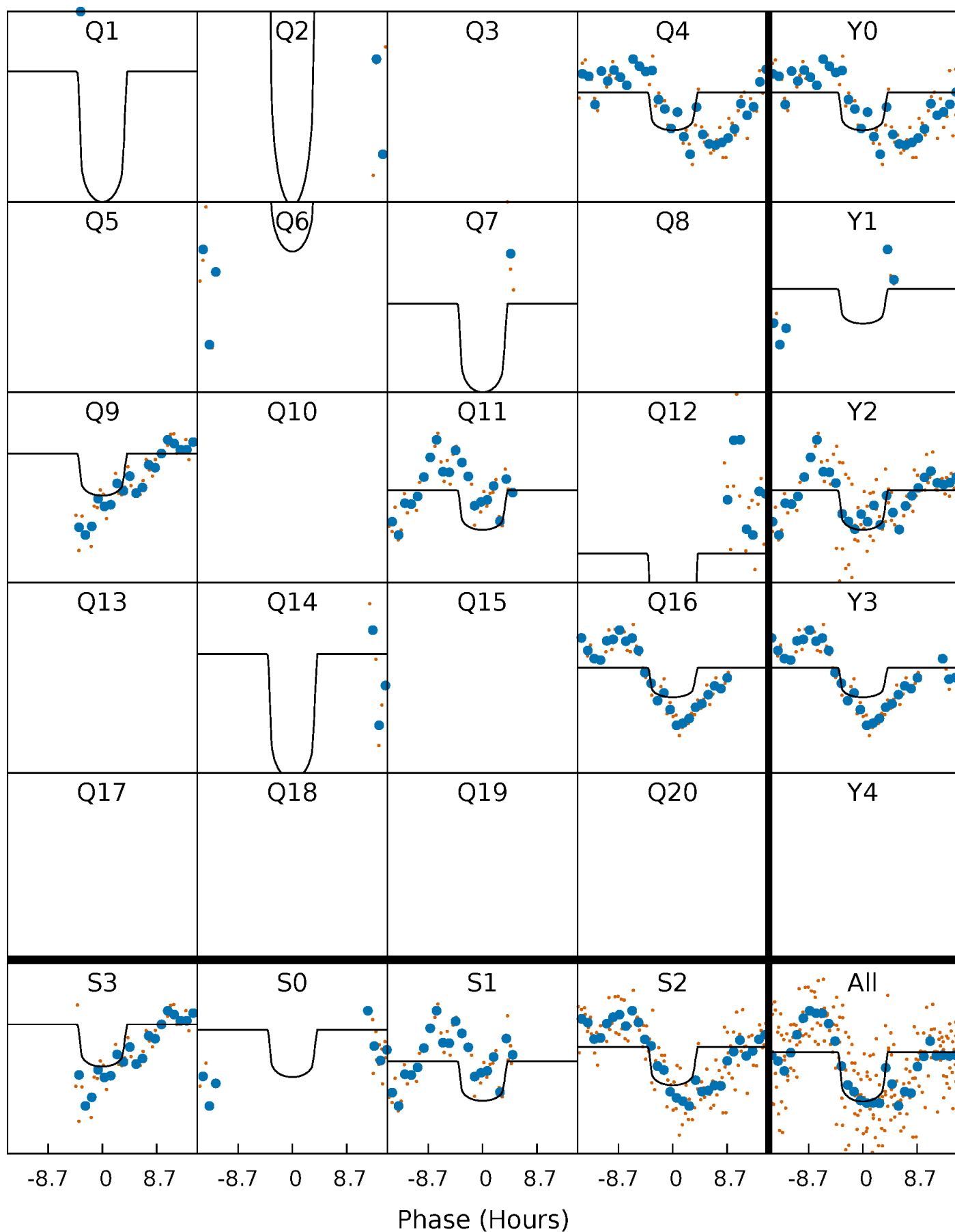
PDC Quarter-Phased Transit Curves

TCE 006110119-07 P= 90.121099 Days $T_0=158.324243$ (BKJD)



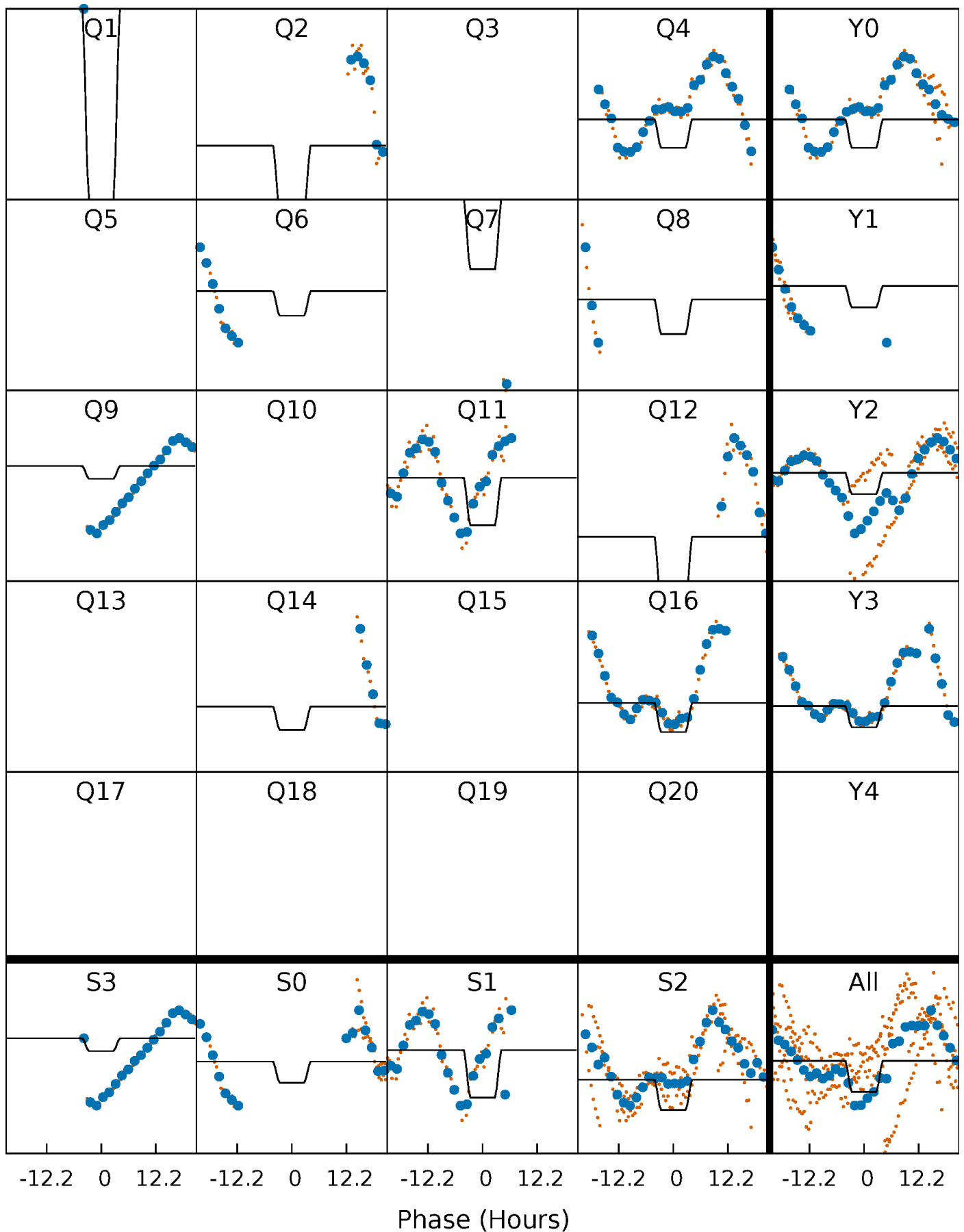
DV Quarter-Phased Transit Curves

TCE 006110119-07 $P = 90.121099$ Days $T_0 = 158.324243$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

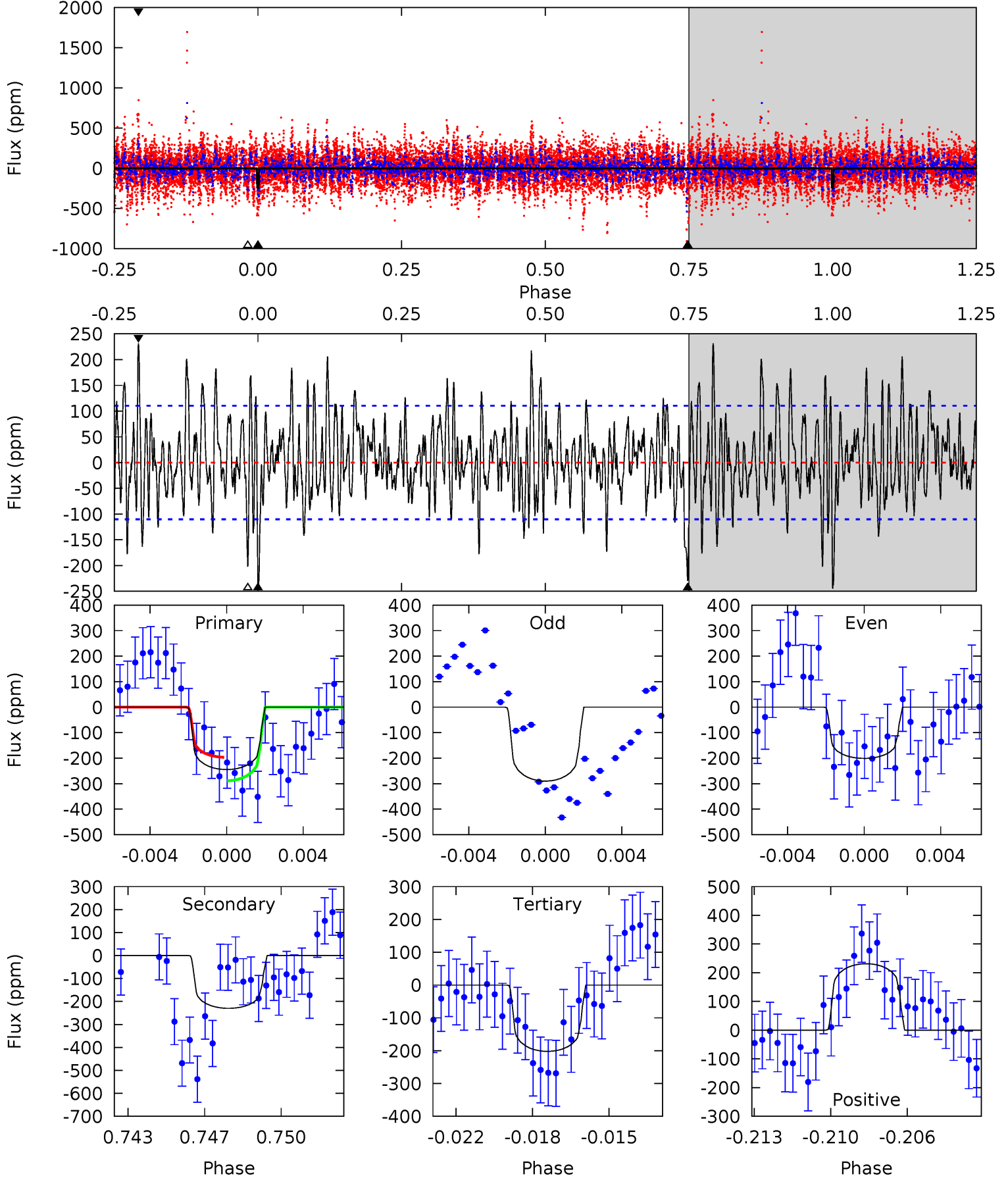
TCE 006110119-07 $P = 90.112000$ Days $T_0 = 158.350482$ (BKJD)



DV Model-Shift Uniqueness Test

006110119-07, P = 90.121099 Days, E = 68.203144 Days

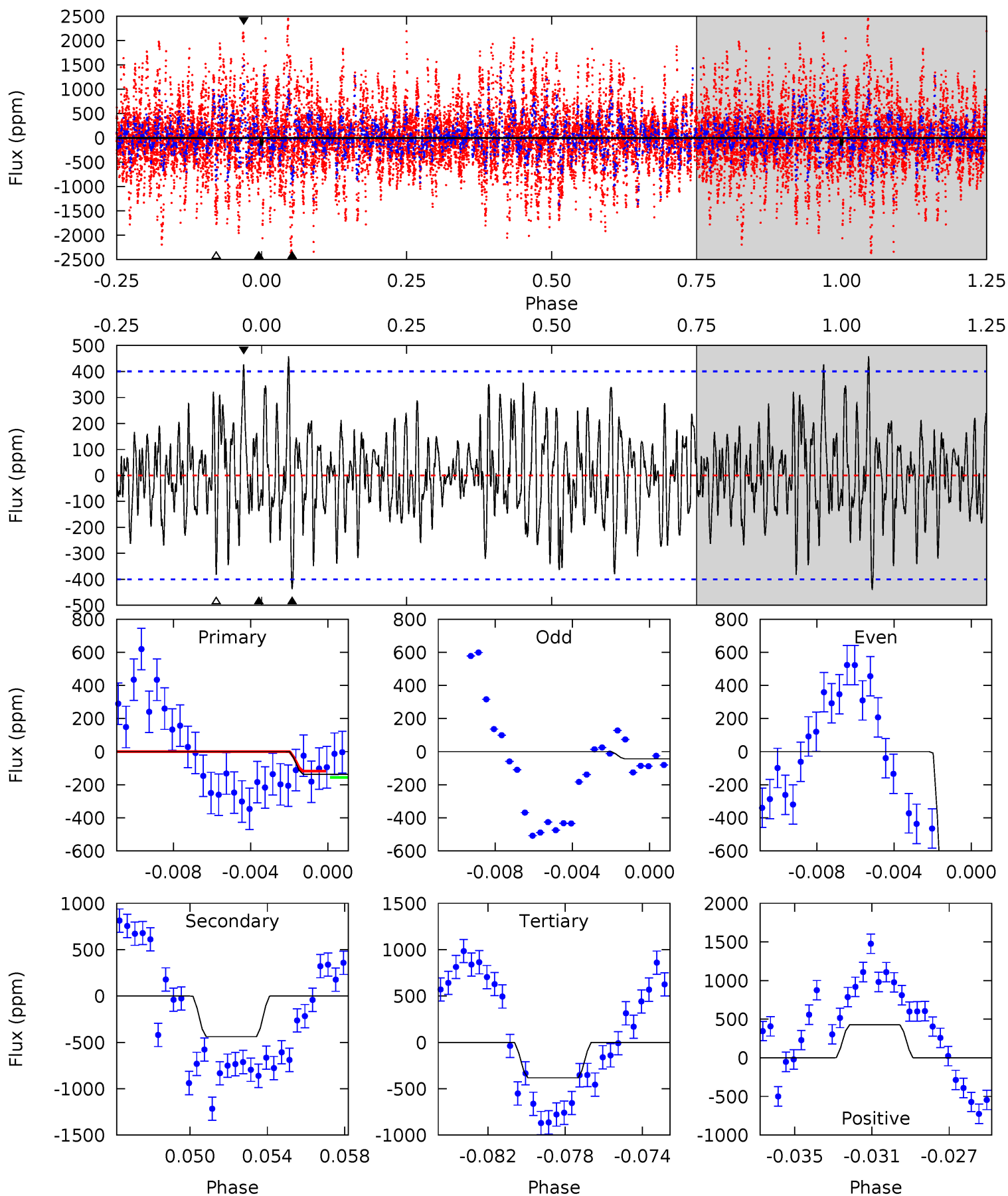
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	10.9	9.55	10.9	5.21	2.90	3.11	2.02	0.63	1.32	-0.07	1.97	0.90	0.49	2.18



Alt Model-Shift Uniqueness Test

006110119-07, P = 90.112000 Days, E = 68.238482 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.78	5.69	4.97	5.54	5.20	2.89	1.80	-3.18	-3.76	0.73	0.15	8.77	3.75	0.51	0



Stellar Parameters For KIC 006110119

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7110^{+197}_{-222}	$3.578^{+0.306}_{-0.054}$	$-0.140^{+0.250}_{-0.250}$	$3.688^{+0.303}_{-1.290}$	$1.878^{+0.191}_{-0.310}$	$0.053^{+0.105}_{-0.009}$
	+3%/-3%	+9%/-2%	+179%/-179%	+8%/-35%	+10%/-17%	+200%/-17%
Source	PHO1	FLK73	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 006110119-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-230 ± 21	$5.99^{+2.26}_{-2.09}$	1176^{+63}_{-99}	6850^{+1801}_{-976}	830^{+1051}_{-399}
Alt.	-438 ± 77	$8.46^{+2.47}_{-2.32}$	1180^{+60}_{-99}	6769^{+1264}_{-812}	781^{+726}_{-332}

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

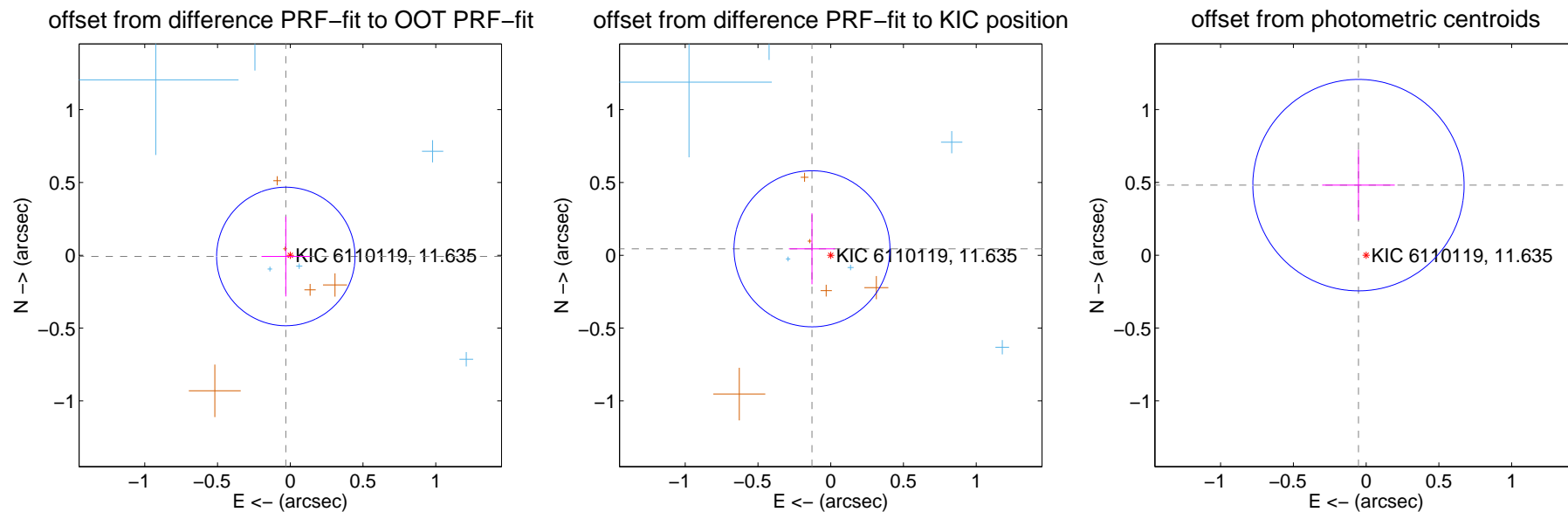
DV Centroid Data

Supplemental centroid analysis for 006110119-07. **Kepler magnitude: 11.63.** Transit SNR 8.88

There are 6 quarters with good PRF difference image offsets

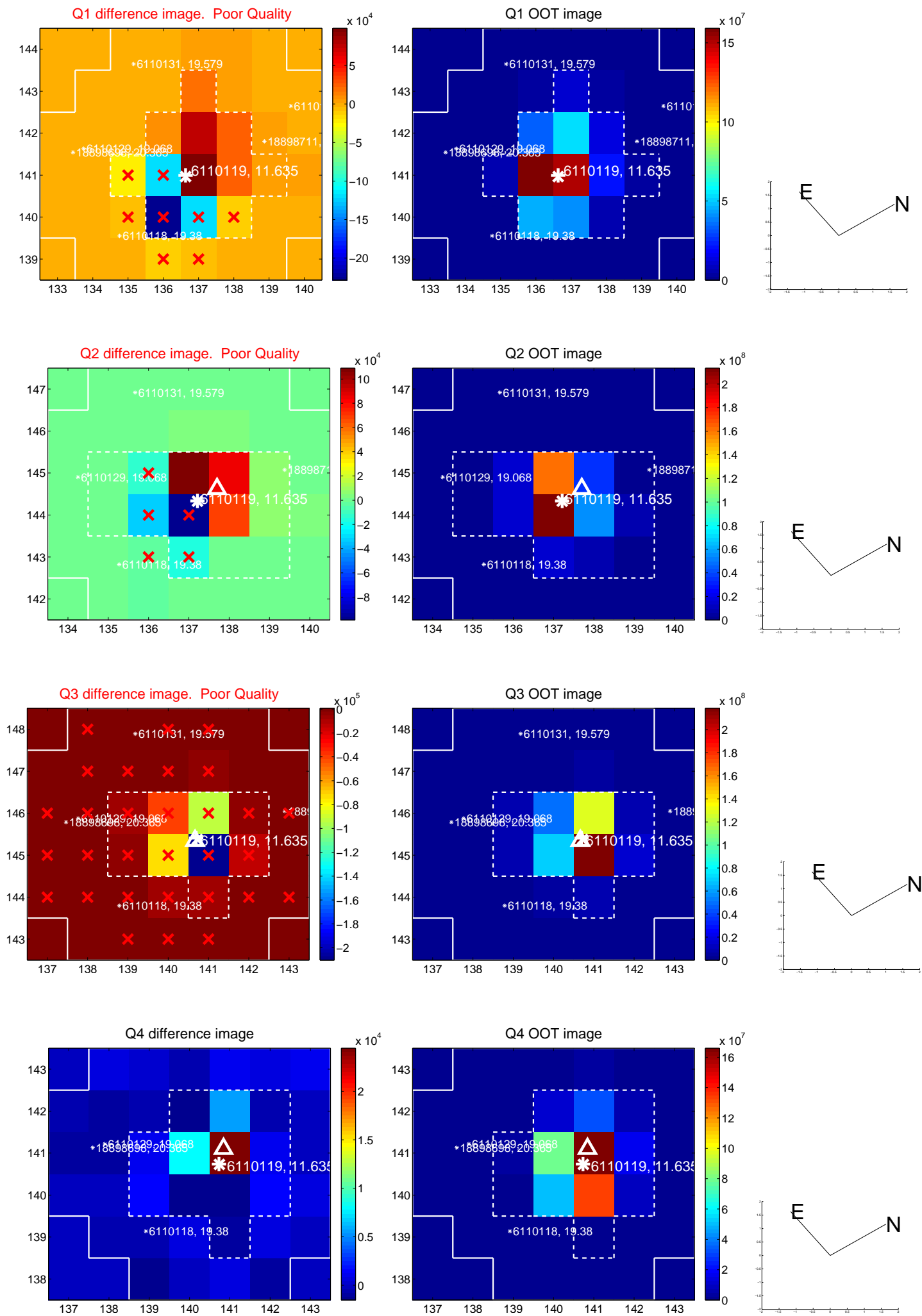
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.032 ± 0.159	0.20	0.031 ± 0.167	-0.008 ± 0.275
PRF-fit source offset from KIC position	0.136 ± 0.179	0.76	0.129 ± 0.159	0.045 ± 0.244
photometric centroid source offset	0.48 ± 0.24	2.00	0.05 ± 0.25	0.48 ± 0.24

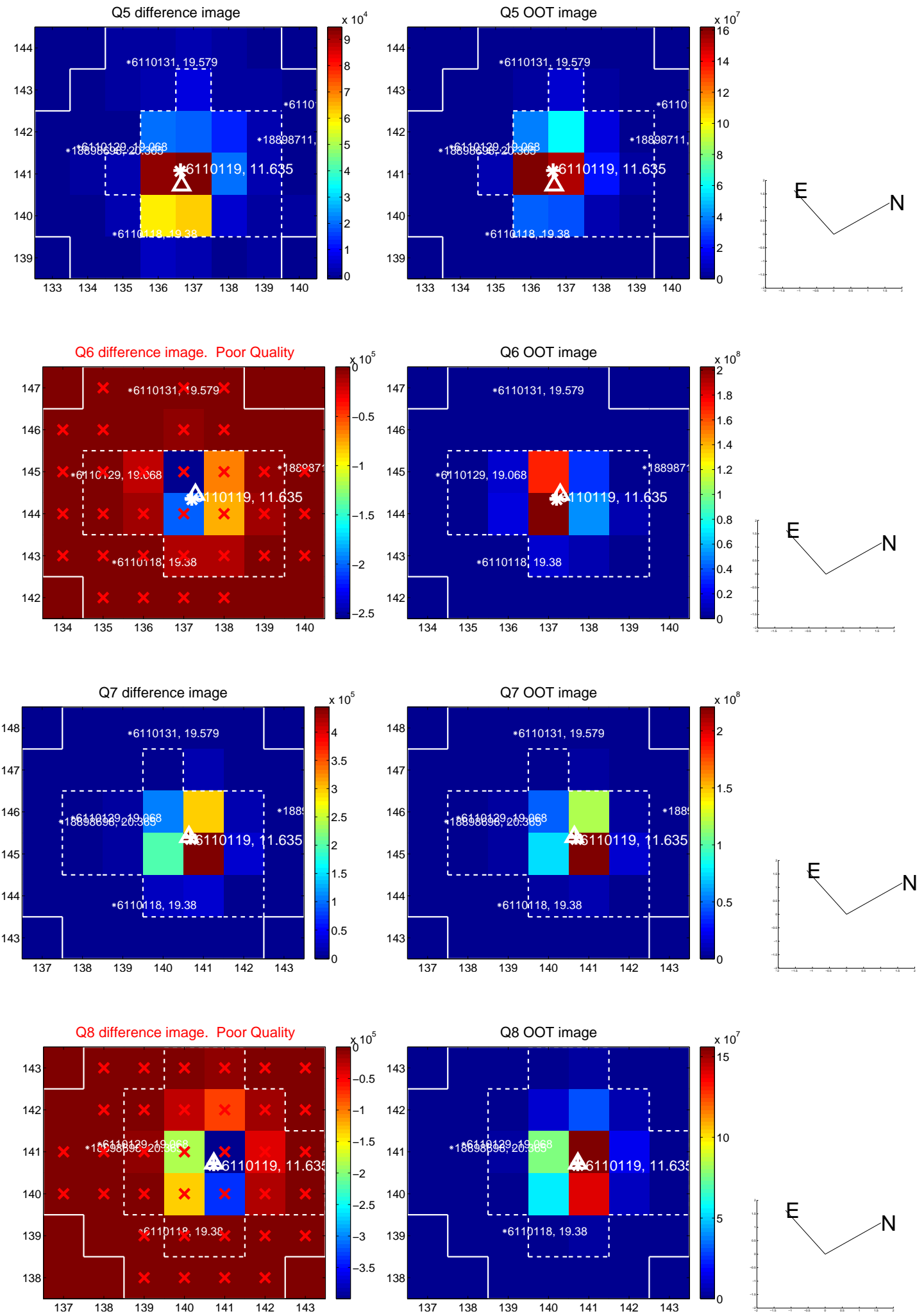


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

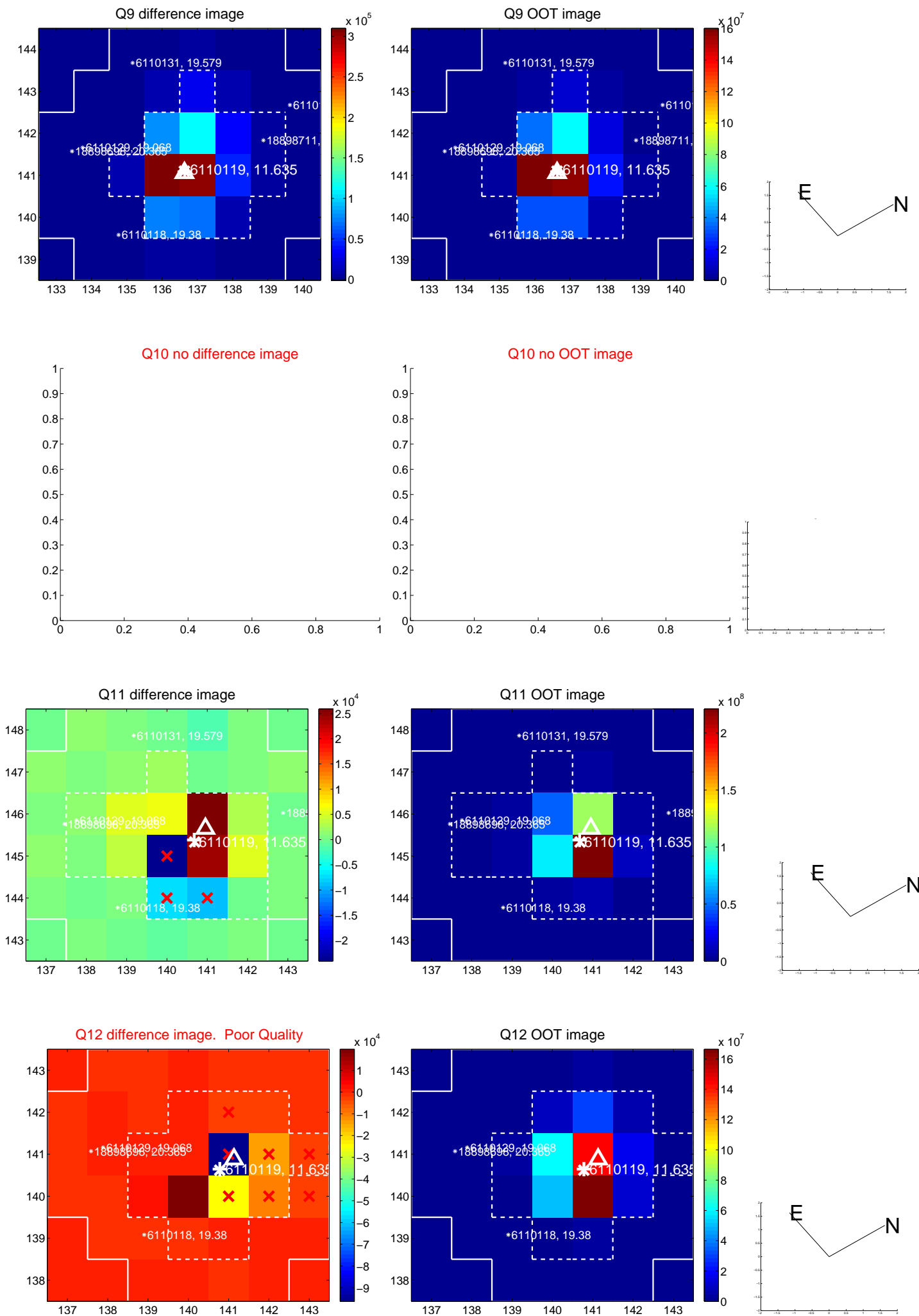
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



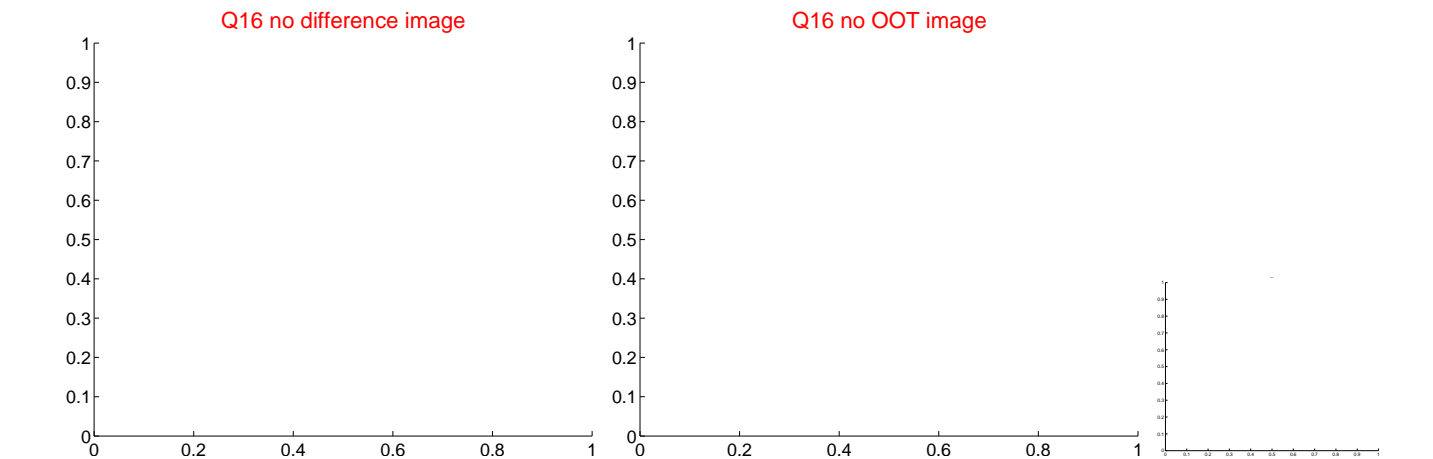
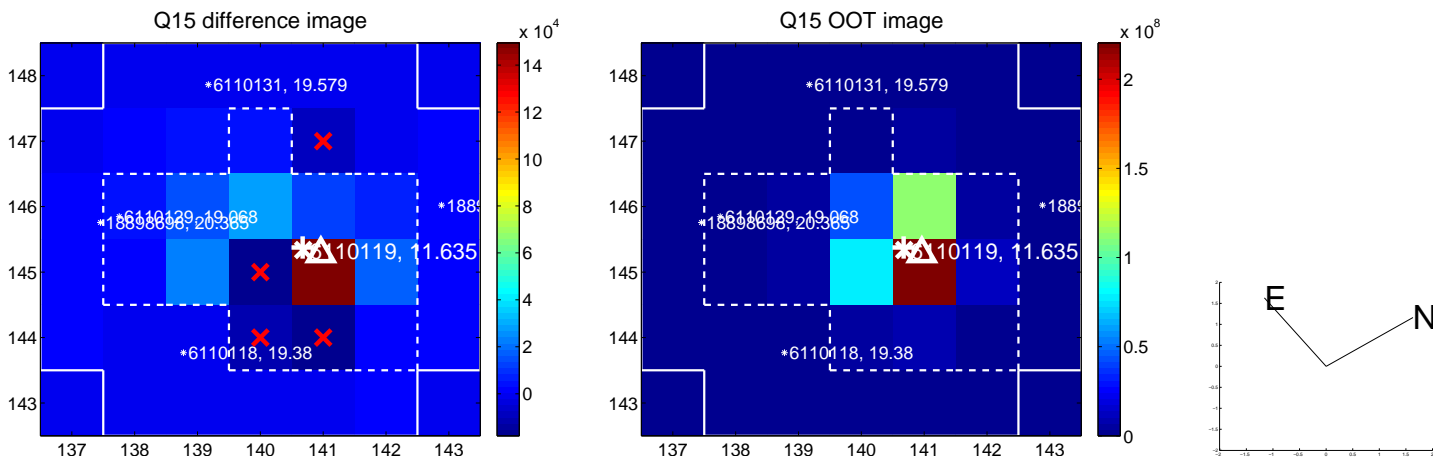
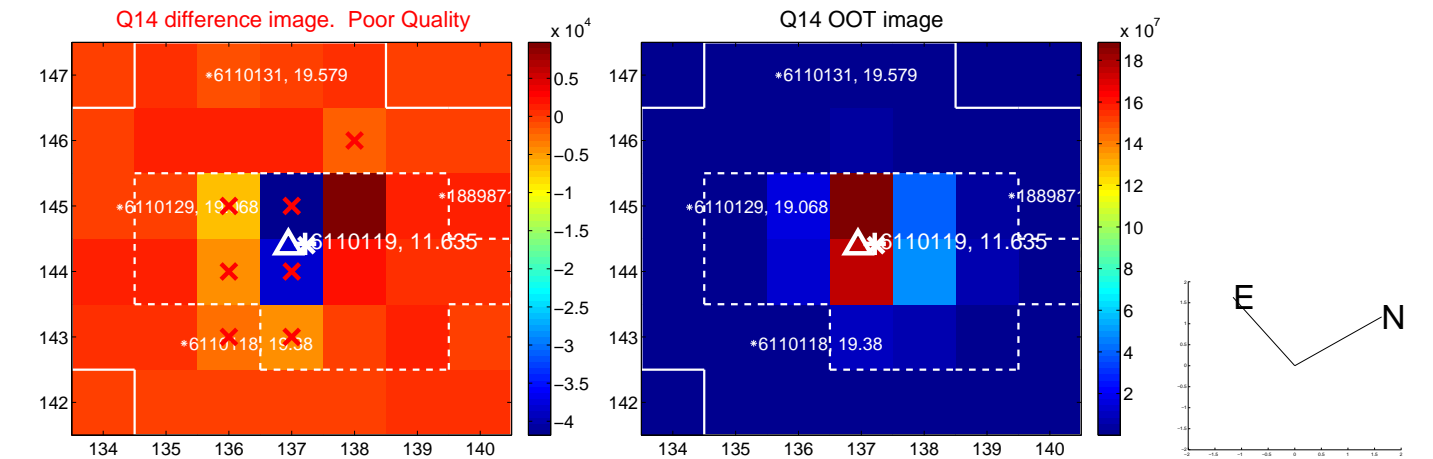
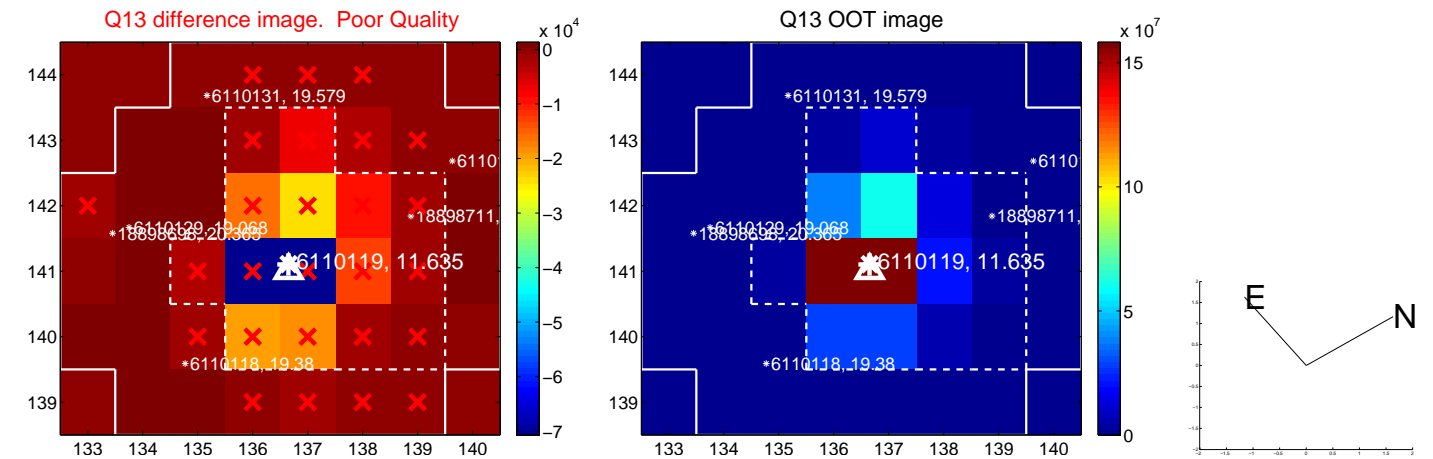
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



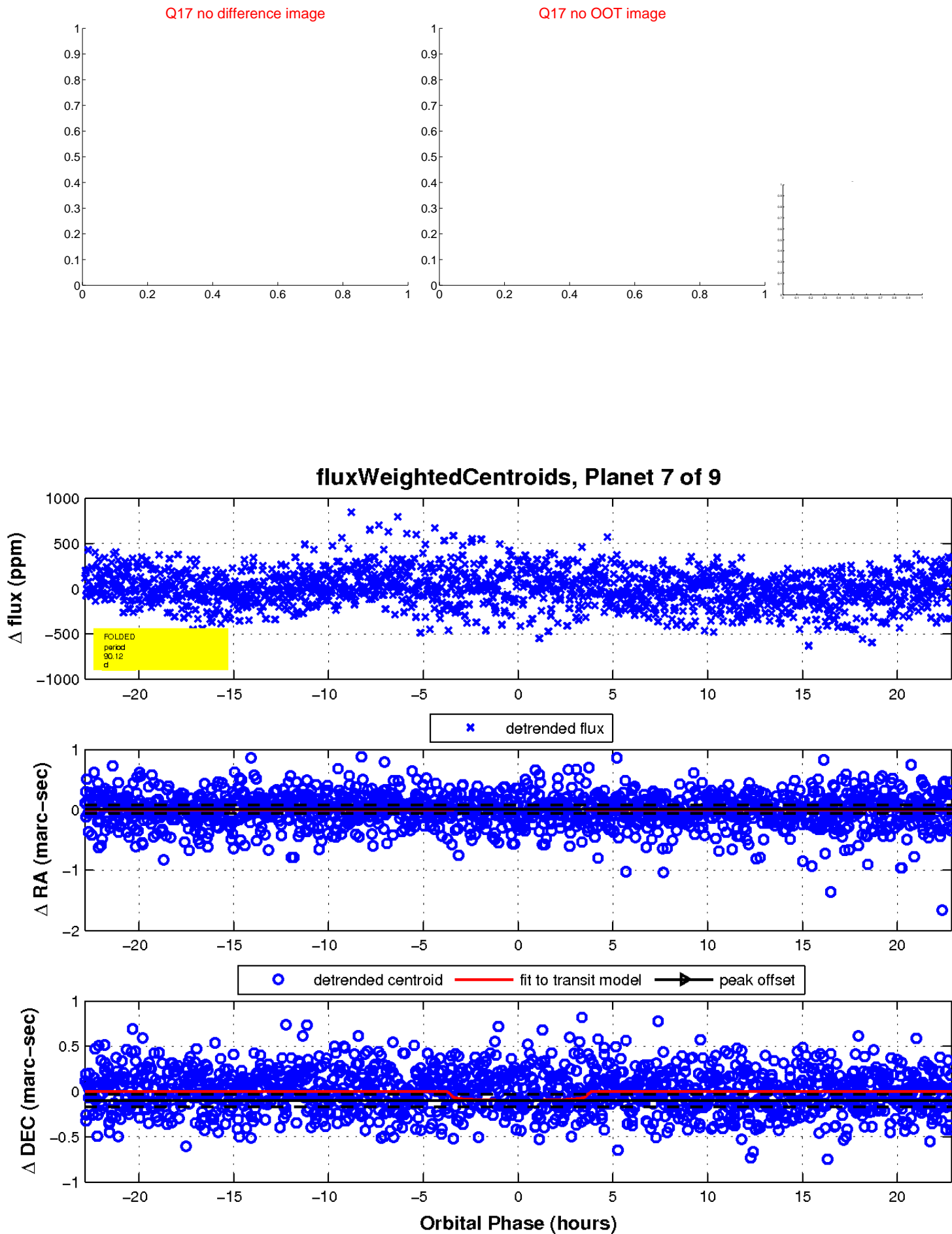
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

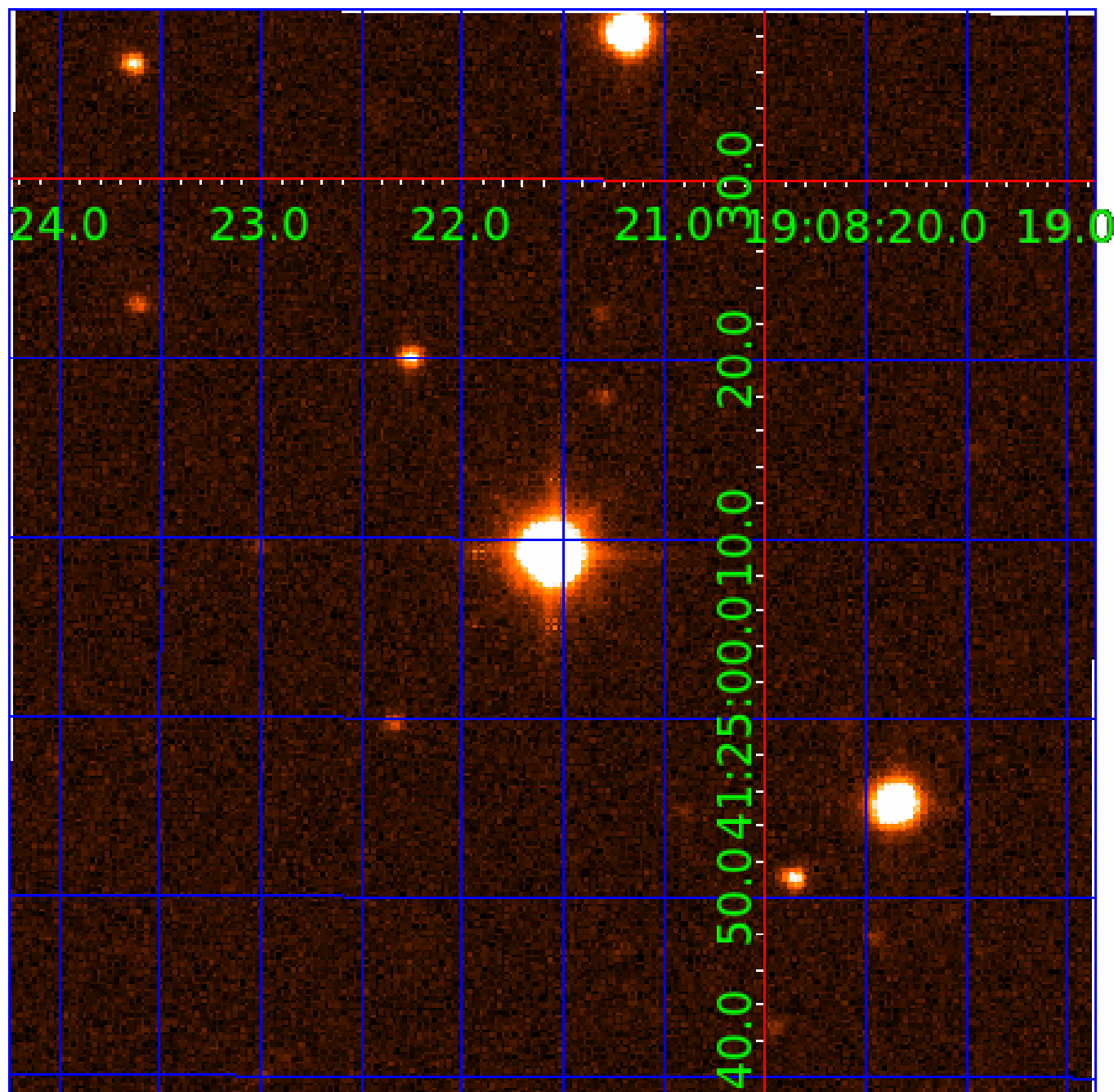


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006110119

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})
006110119-01	OBS	No	3.989227	135.480588	35.7	19.865	10.1	9.1	3.69	7110	2.62	8440.76
006110119-02	OBS	No	342.814818	333.745352	369.4	14.453	13.2	9.3	3.69	7110	7.51	22.26
006110119-03	OBS	No	2.838401	132.090111	48.6	8.024	11.2	10.3	3.69	7110	3.18	13288.27
006110119-05	OBS	No	698.076145	173.928151	150.7	65.679	8.9	2.2	3.69	7110	5.28	8.62
006110119-06	OBS	No	84.424806	133.574696	146.2	10.626	8.4	5.3	3.69	7110	5.18	144.19
006110119-07	OBS	No	90.121099	158.324243	254.2	7.624	8.2	8.9	3.69	7110	6.54	132.17
006110119-08	OBS	No	88.520065	143.287536	68.4	7.500	8.3	-1.0	3.69	7110	3.07	135.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006110119-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006110119-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV
006110119-03	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
006110119-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006110119-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006110119-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006110119-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

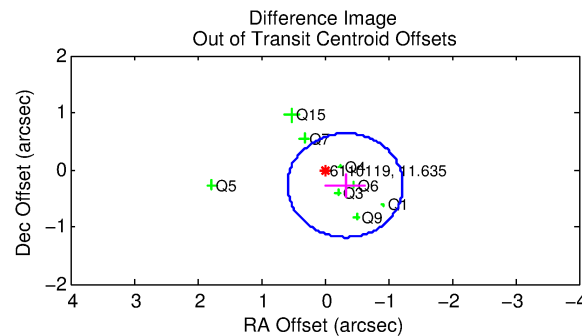
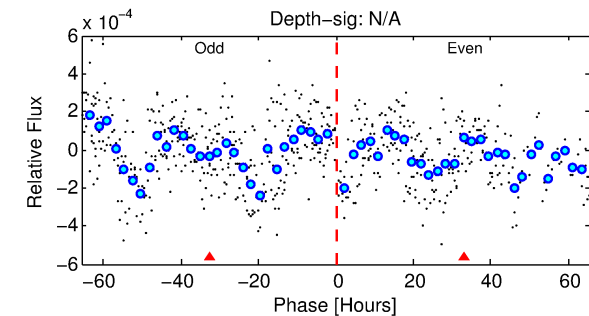
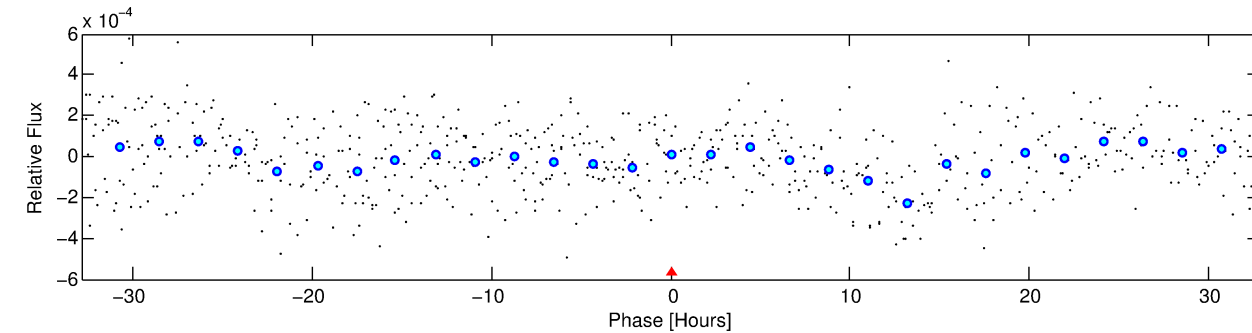
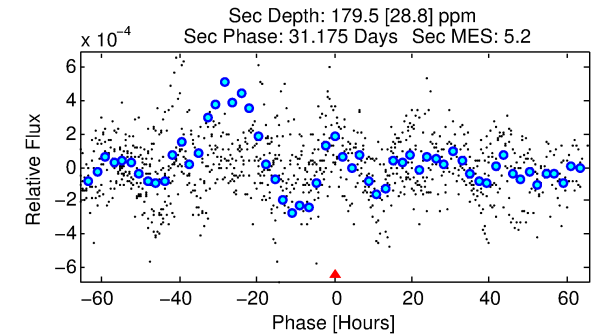
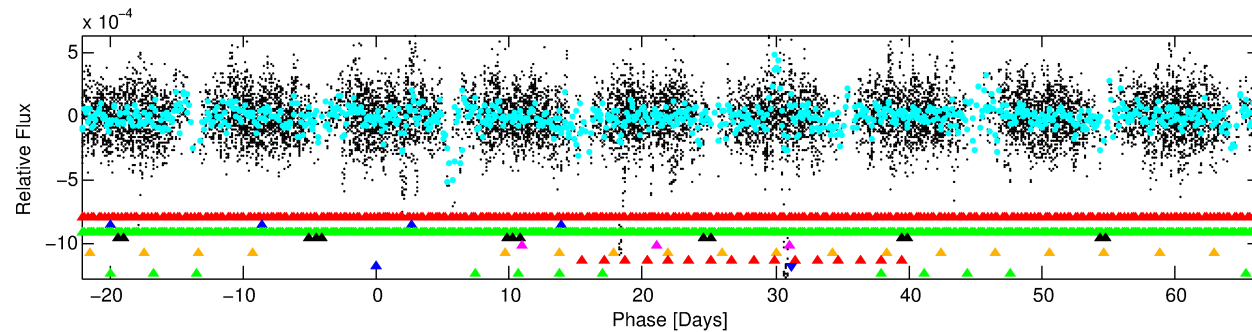
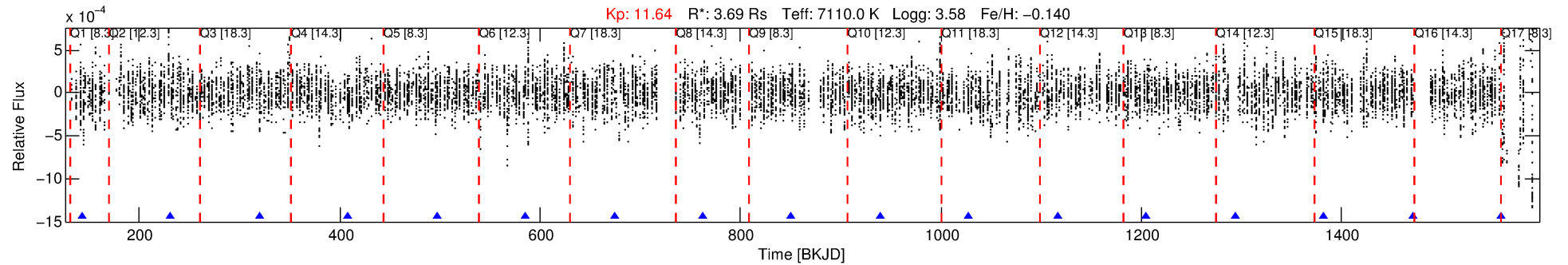
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006110119-08

No Significant Match Found

DV One-Page Summary

KIC: 6110119 Candidate: 8 of 9 Period: 88.520 d



TPS TCE Results:

Period = 88.52006 d
Epoch = 143.2875 BKJD

DV fit results are unavailable

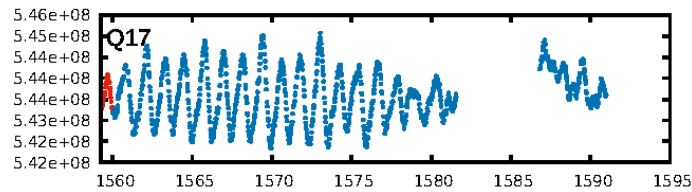
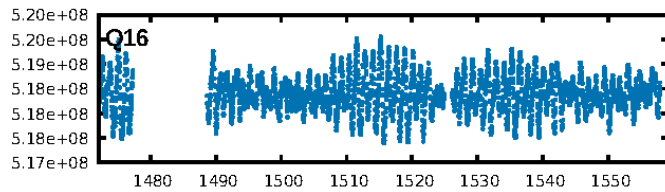
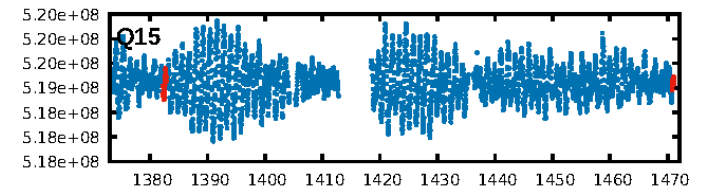
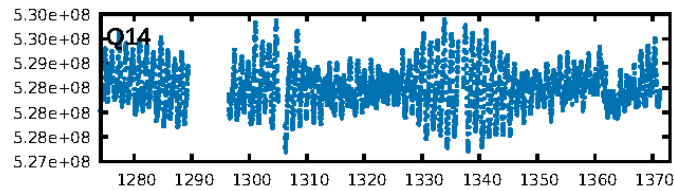
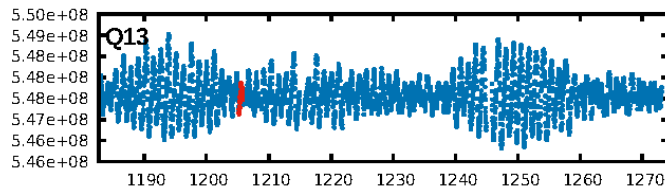
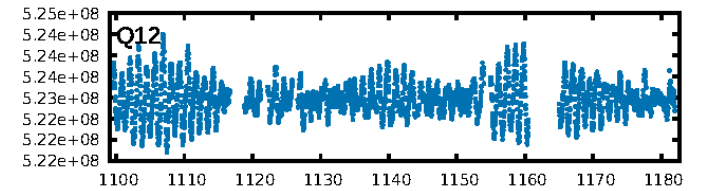
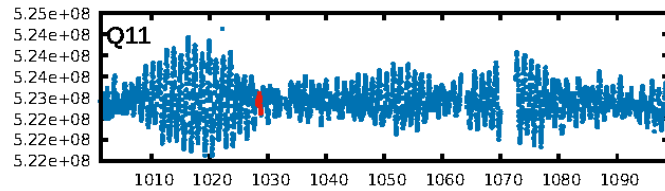
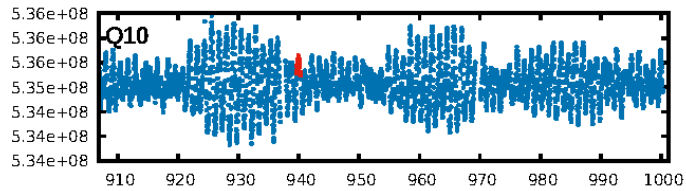
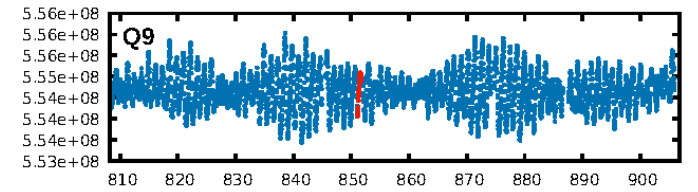
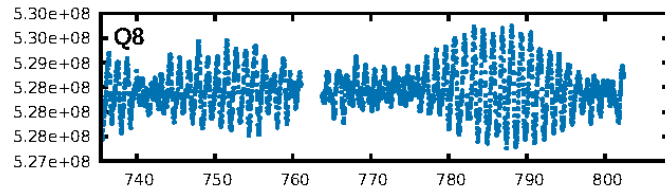
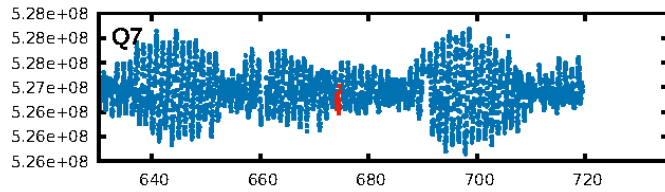
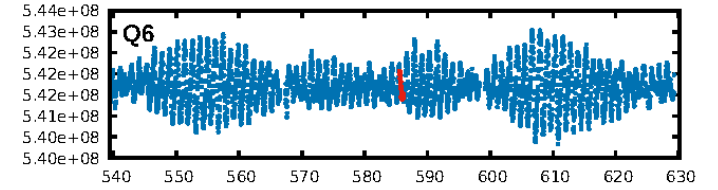
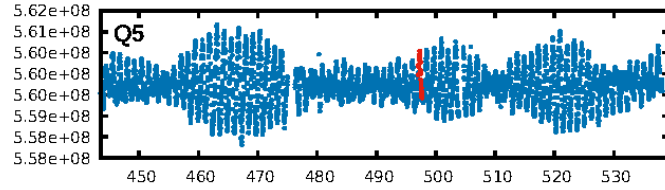
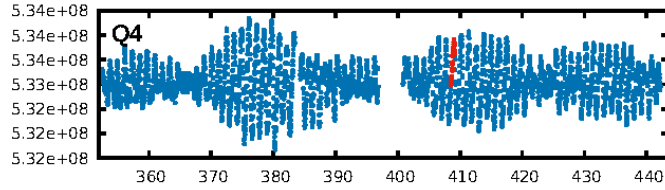
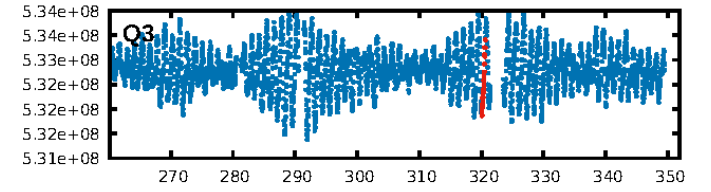
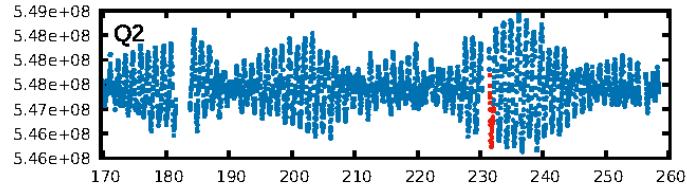
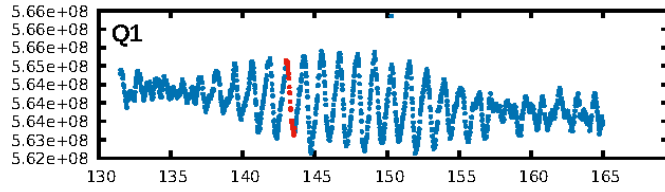
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [7.56 σ]
LongPeriod-sig: 100.0% [3.59 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.16e-05
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: -1.377
Centroid-sig: 0.0%
Centroid-so: 0.949 arcsec [2.63 σ]
OotOffset-rm: 0.424 arcsec [1.40 σ]
KicOffset-rm: 0.399 arcsec [1.38 σ]
OotOffset-st: 1/3/1/3 [8]
KicOffset-st: 1/3/1/3 [8]
DiffImageQuality-fgm: 0.50 [4/8]
DiffImageOverlap-fno: 0.22 [2/9]

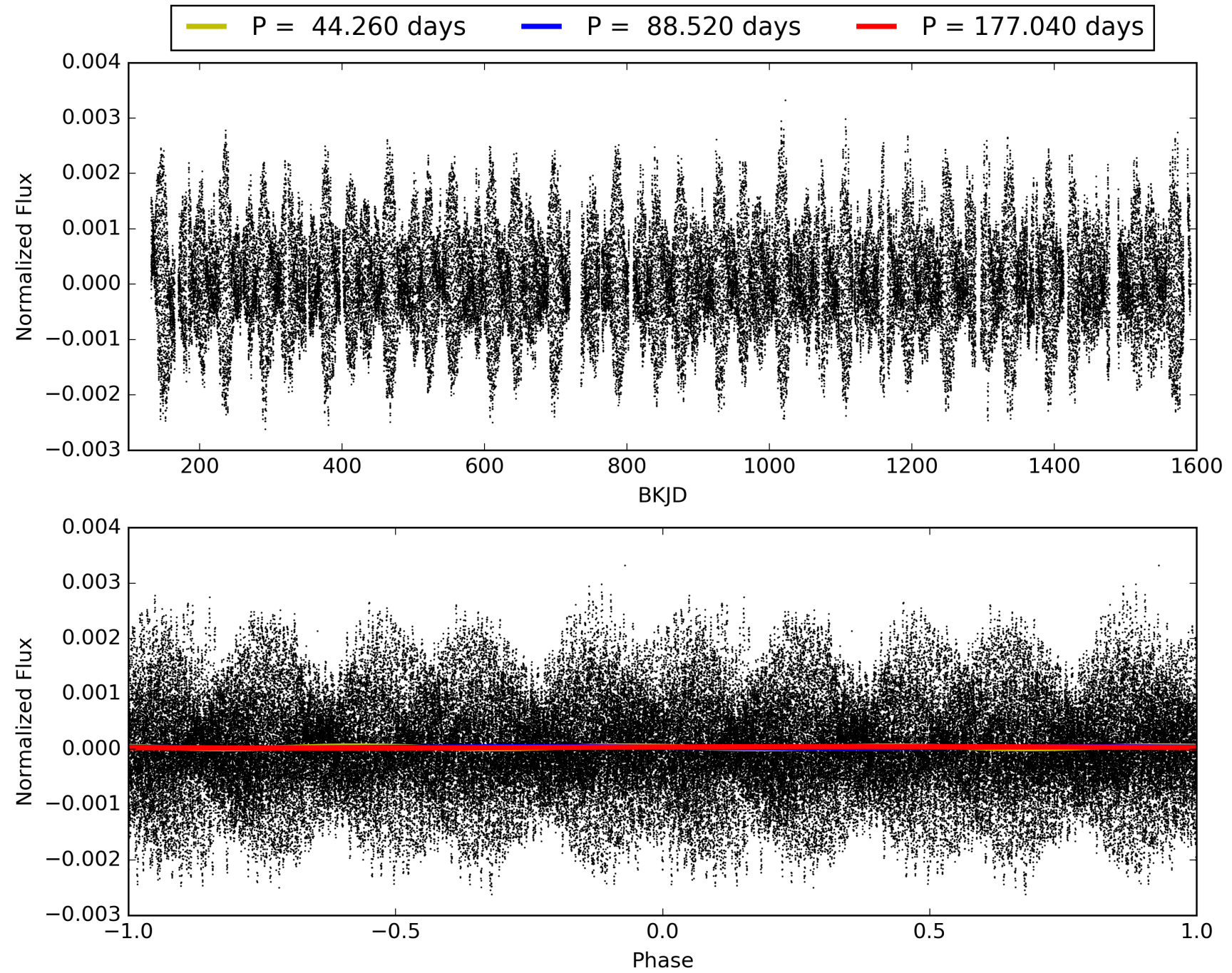
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 18:41:46 Z

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

TCE 006110119-08, PDC Light Curves

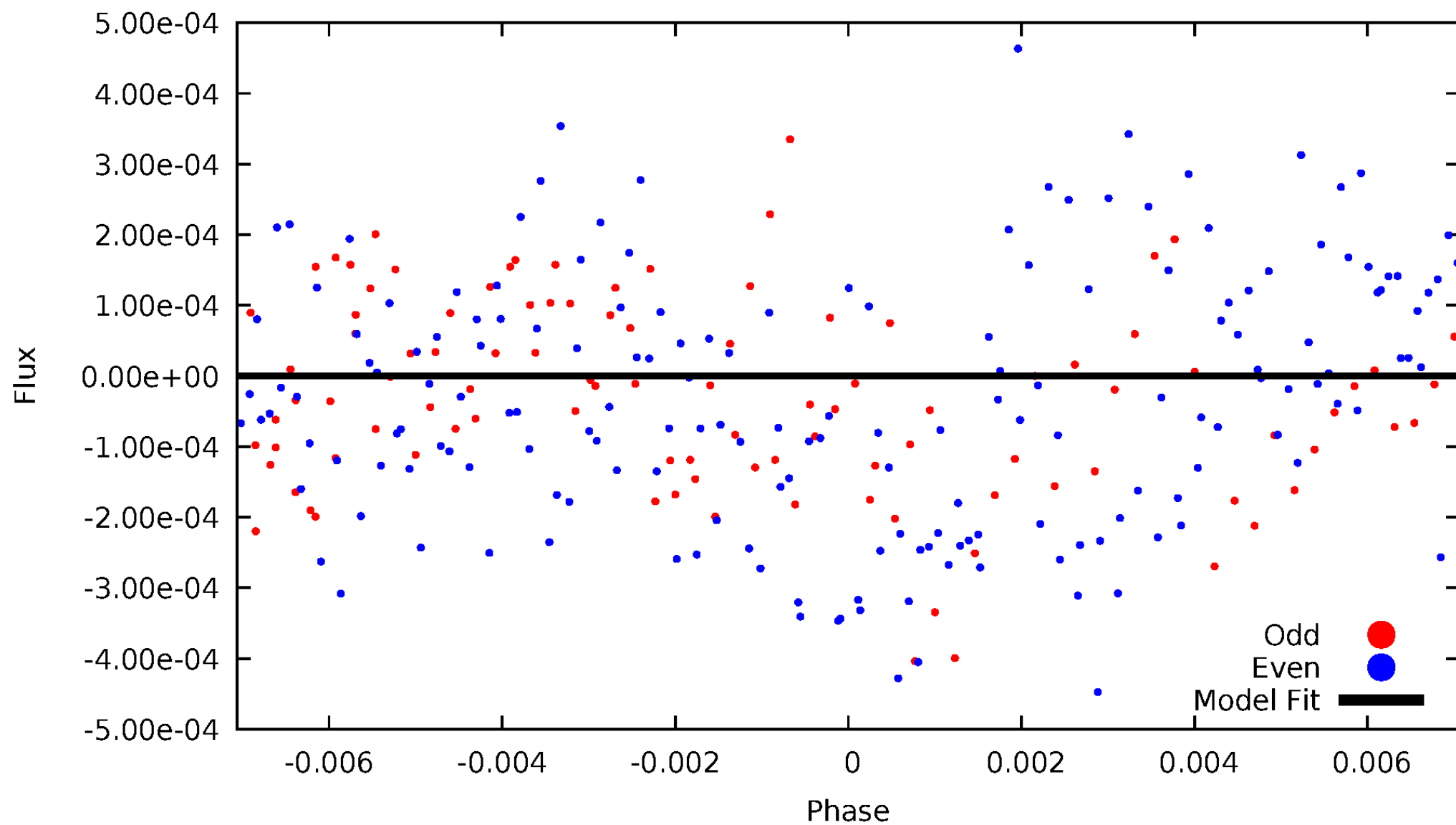


TCE 006110119-08



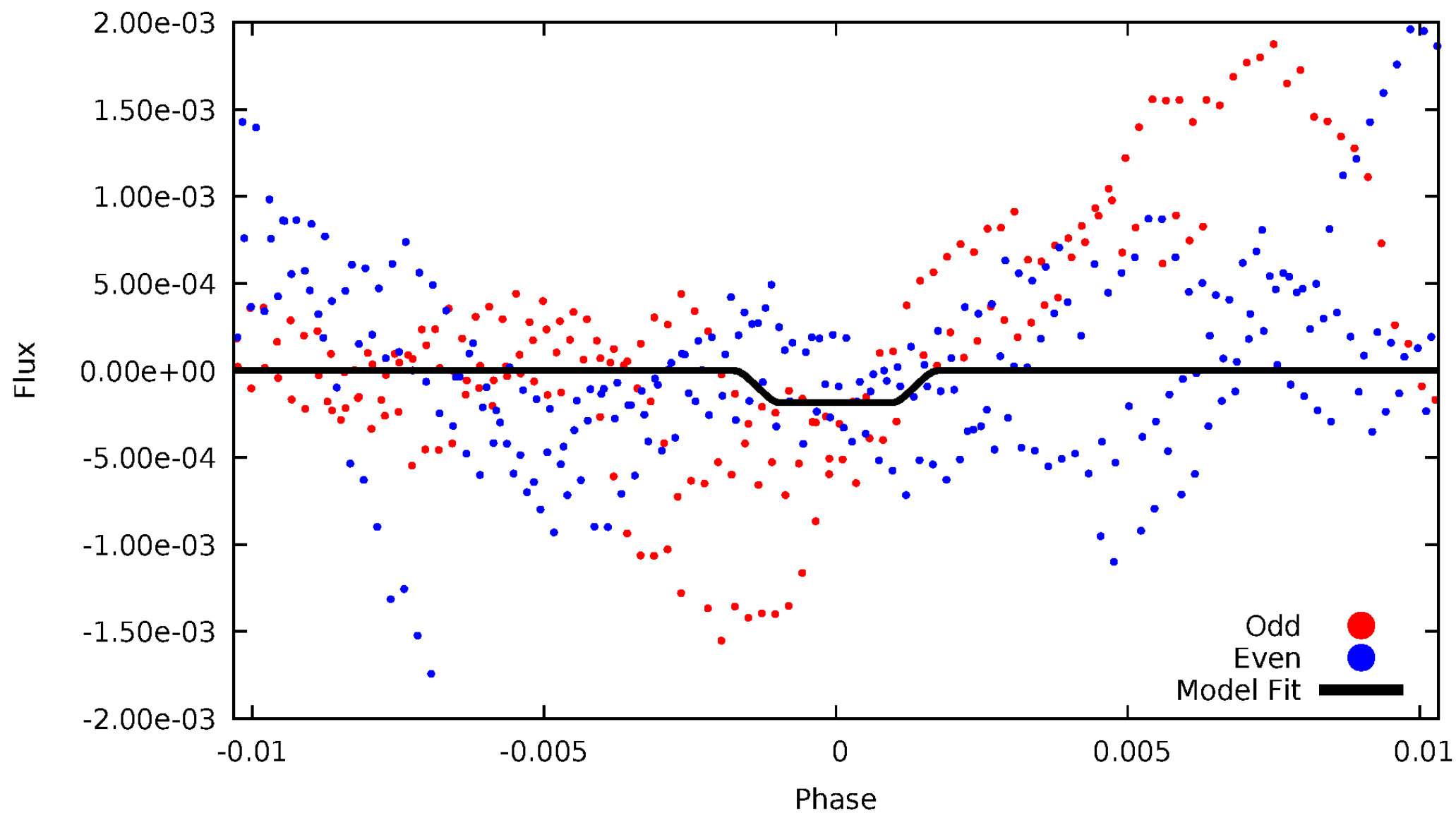
DV Odd/Even

TCE 006110119-08



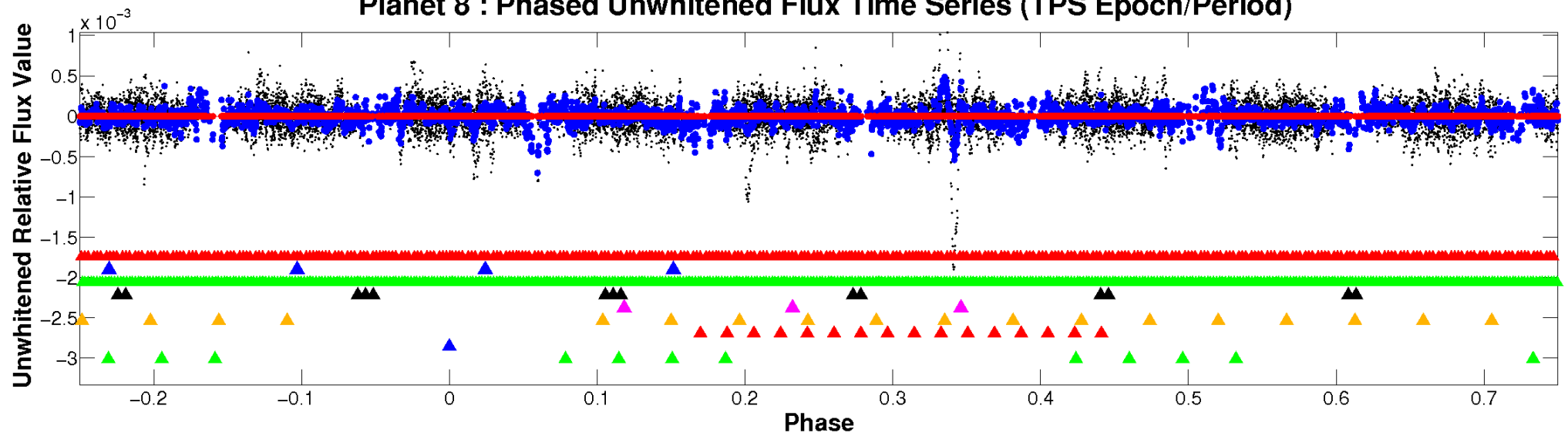
ALT Odd/Even

TCE 006110119-08

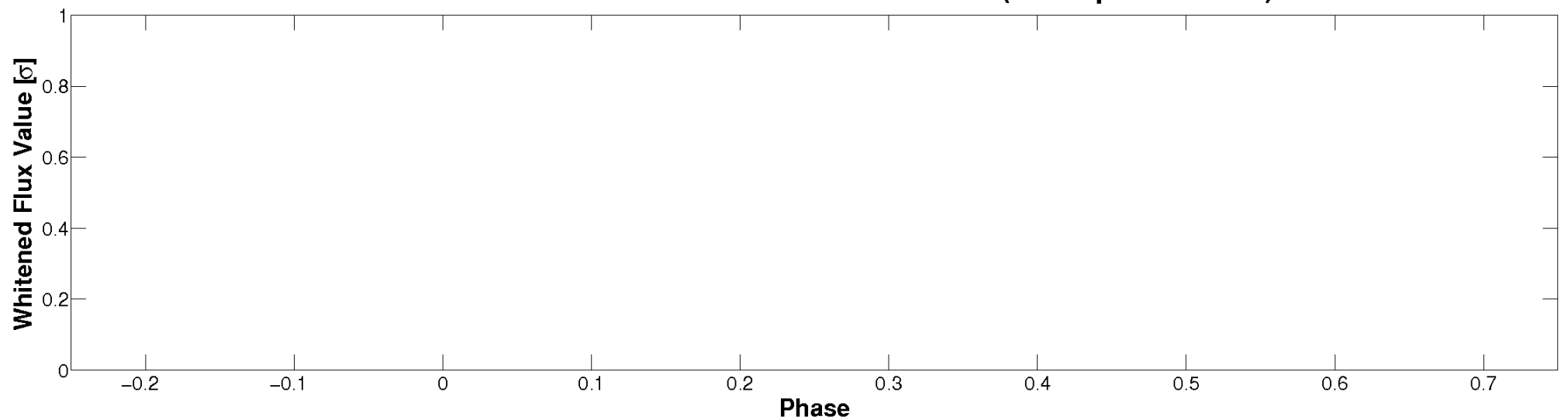


Non-Whitened Vs. Whitened Light Curve

Planet 8 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

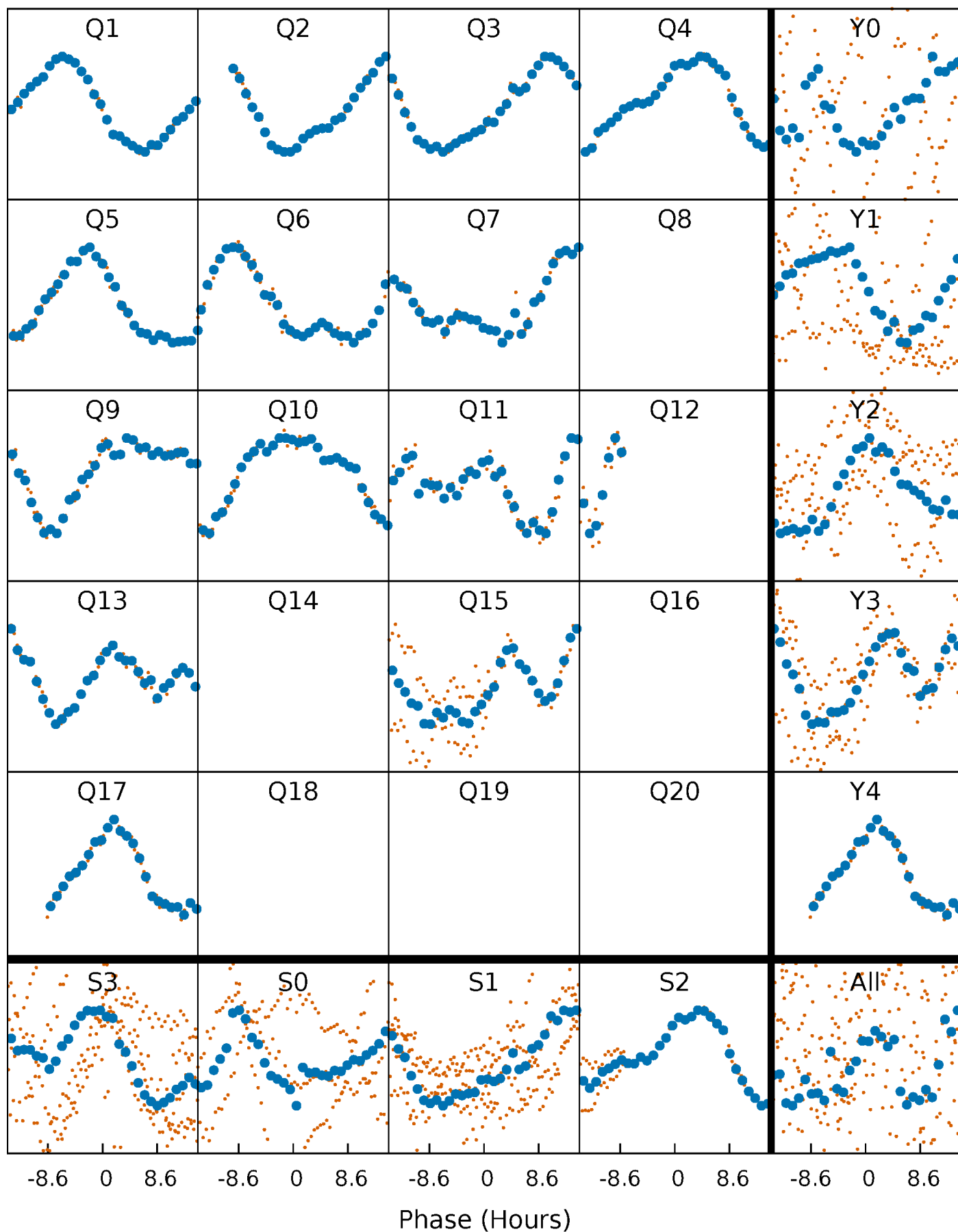


Planet 8 : Phased Whitened Flux Time Series (TPS Epoch/Period)



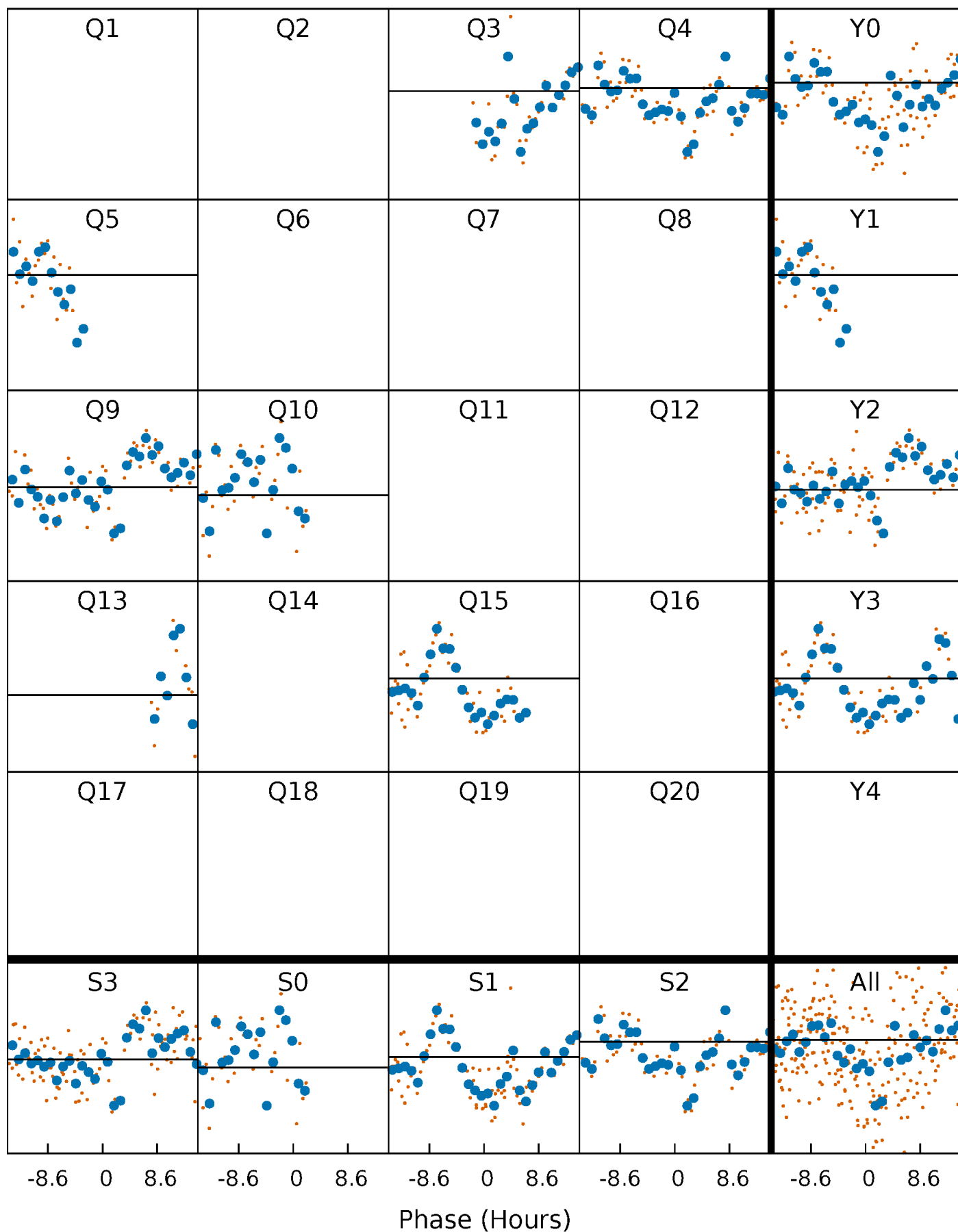
PDC Quarter-Phased Transit Curves

TCE 006110119-08 P= 88.520065 Days $T_0=143.287536$ (BKJD)



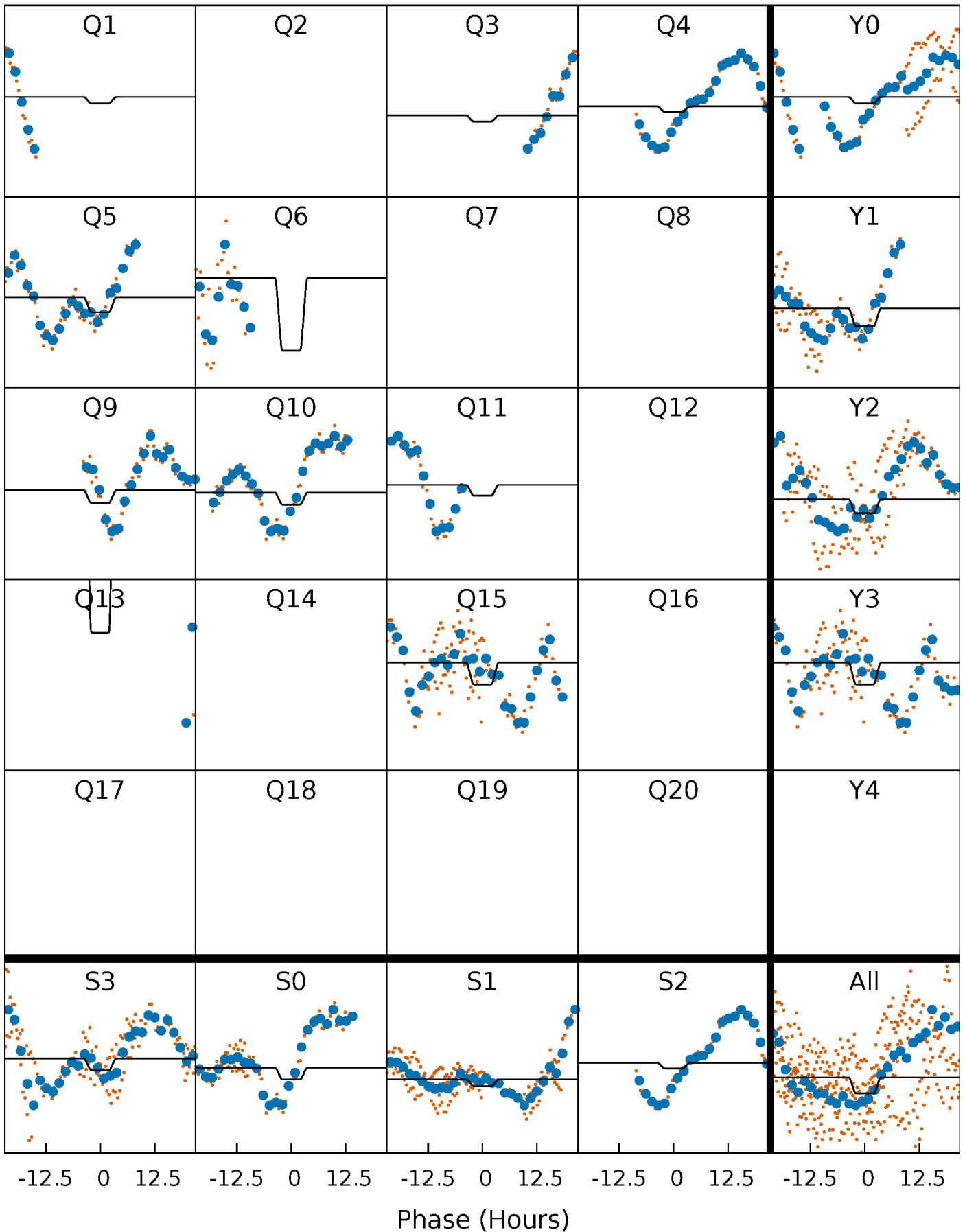
DV Quarter-Phased Transit Curves

TCE 006110119-08 P= 88.520065 Days $T_0=143.287536$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

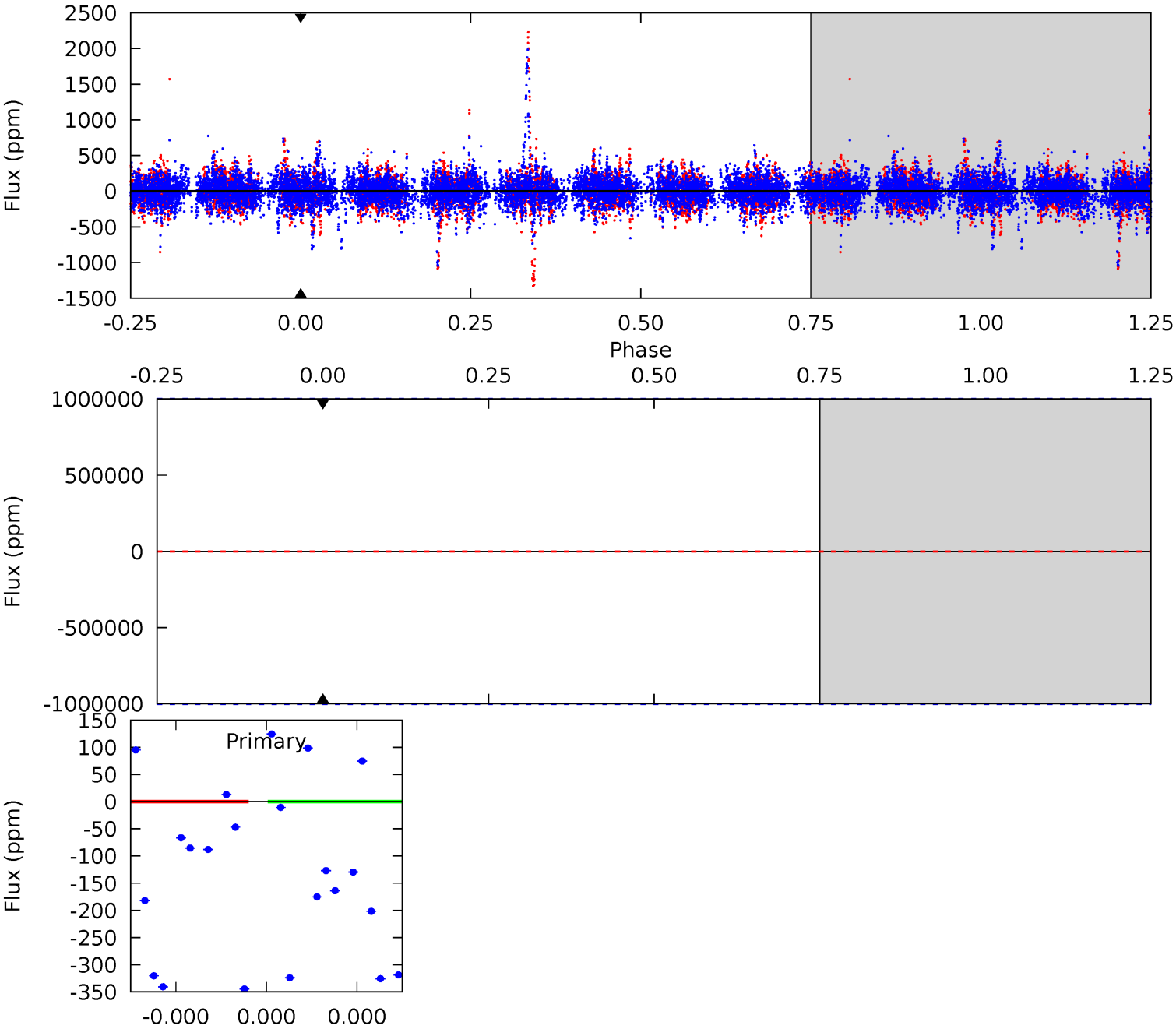
TCE 006110119-08 P= 88.520065 Days $T_0=142.814199$ (BKJD)



DV Model-Shift Uniqueness Test

006110119-08, P = 88.520065 Days, E = 54.767471 Days

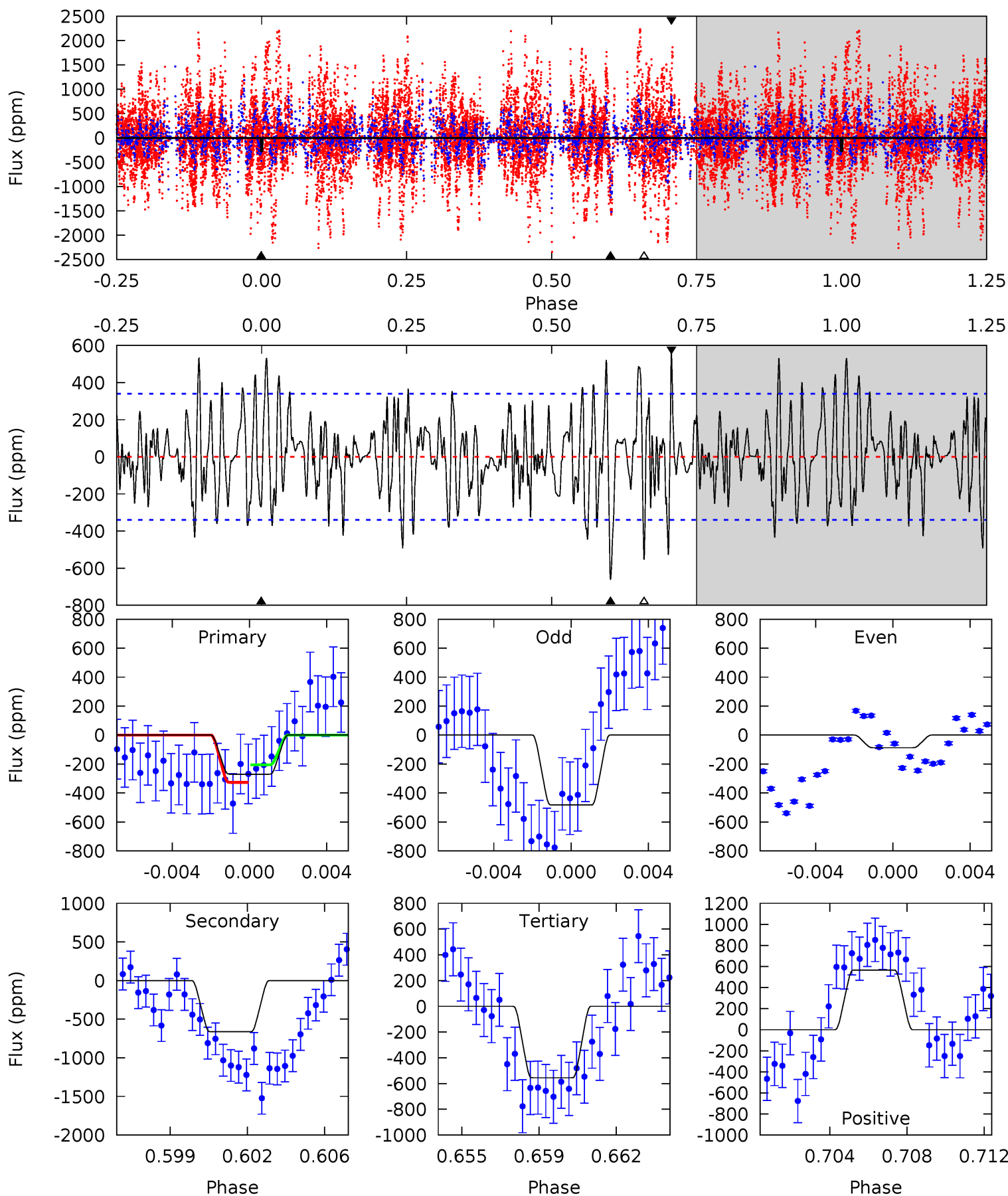
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

006110119-08, P = 88.520065 Days, E = 54.294134 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.15	10.2	8.52	8.71	5.22	2.92	3.04	-4.37	-4.56	1.66	1.47	3.01	1.24	0.46	0.94



Stellar Parameters For KIC 006110119

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7110^{+197}_{-222}	$3.578^{+0.306}_{-0.054}$	$-0.140^{+0.250}_{-0.250}$	$3.688^{+0.303}_{-1.290}$	$1.878^{+0.191}_{-0.310}$	$0.053^{+0.105}_{-0.009}$
	+3%/-3%	+9%/-2%	+179%/-179%	+8%/-35%	+10%/-17%	+200%/-17%
Source	PHO1	FLK73	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 006110119-08 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$26.77^{+27.11}_{-19.53}$	1187^{+59}_{-91}	-5268^{+43052}_{-30303}	$-290.453^{+35778.619}_{-32427.255}$
Alt.	-663 ± 65	$26.19^{+30.77}_{-17.95}$	1189^{+59}_{-95}	4442^{+3249}_{-1017}	122^{+1091}_{-95}

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

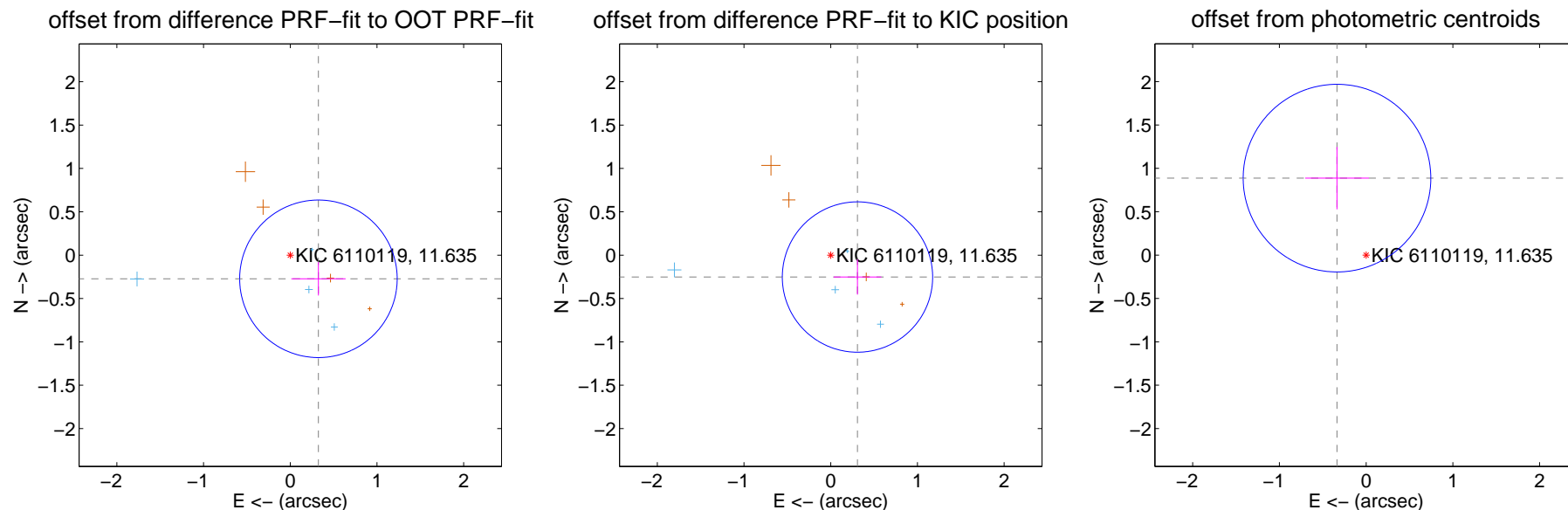
DV Centroid Data

Supplemental centroid analysis for 006110119-08. **Kepler magnitude: 11.63.** Transit SNR -1.00

There are 4 quarters with good PRF difference image offsets

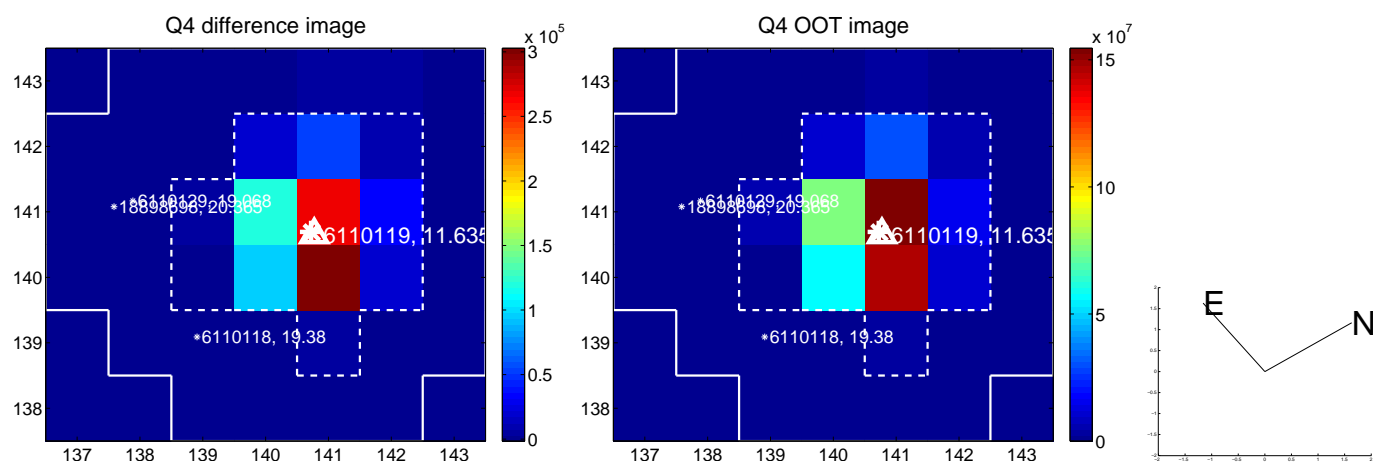
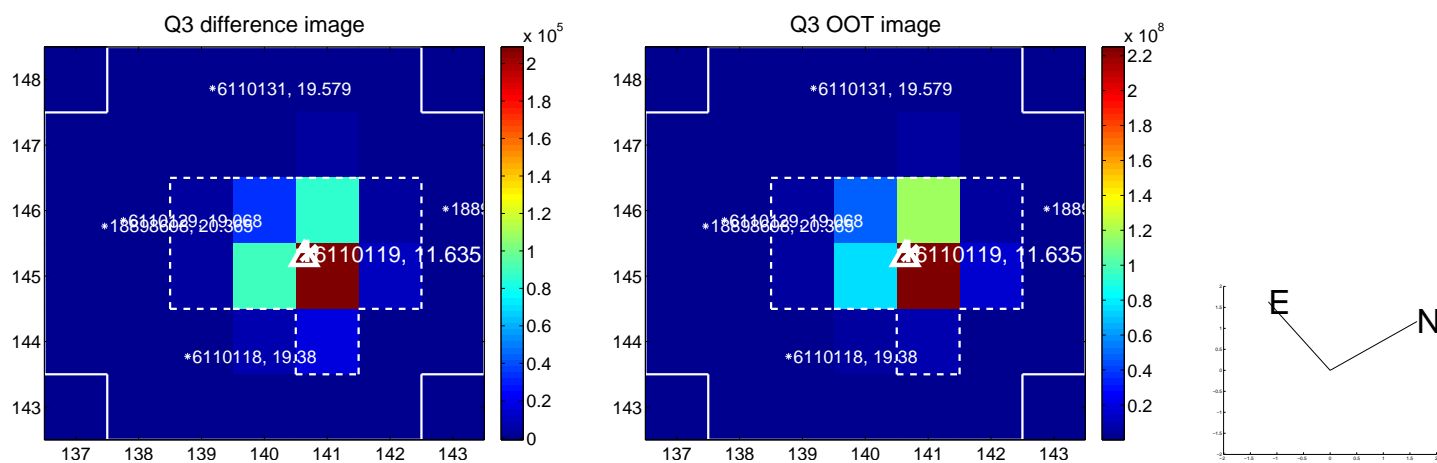
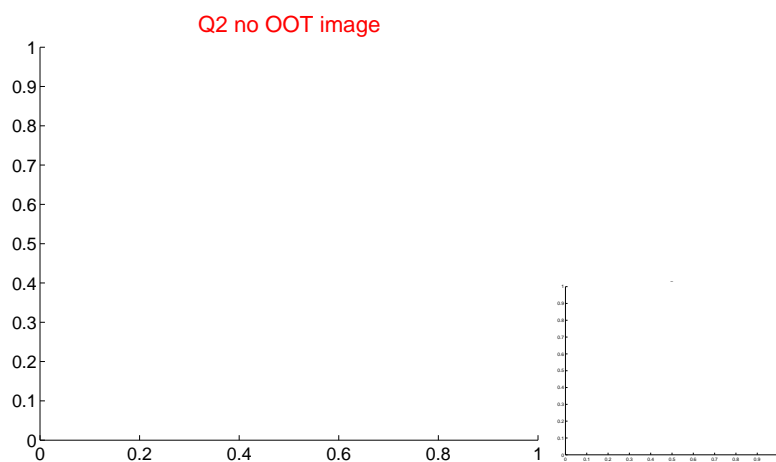
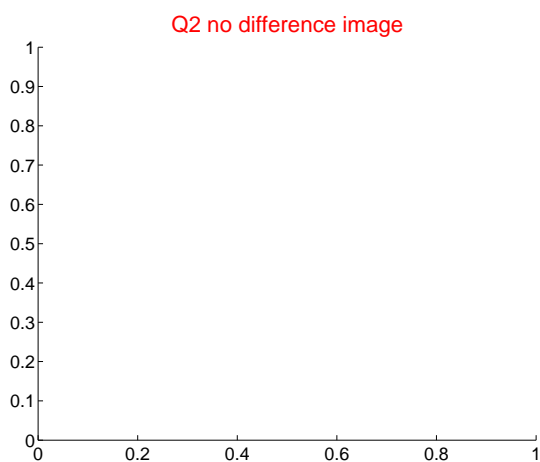
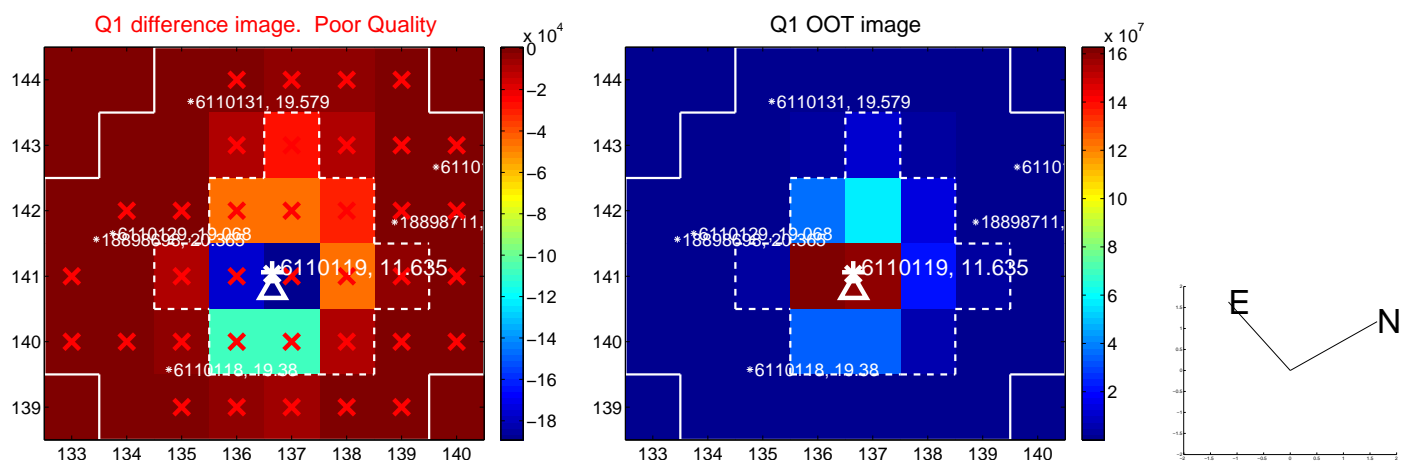
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.424 ± 0.303	1.40	-0.325 ± 0.313	-0.273 ± 0.193
PRF-fit source offset from KIC position	0.399 ± 0.289	1.38	-0.309 ± 0.275	-0.252 ± 0.203
photometric centroid source offset	0.95 ± 0.36	2.63	0.34 ± 0.37	0.89 ± 0.36

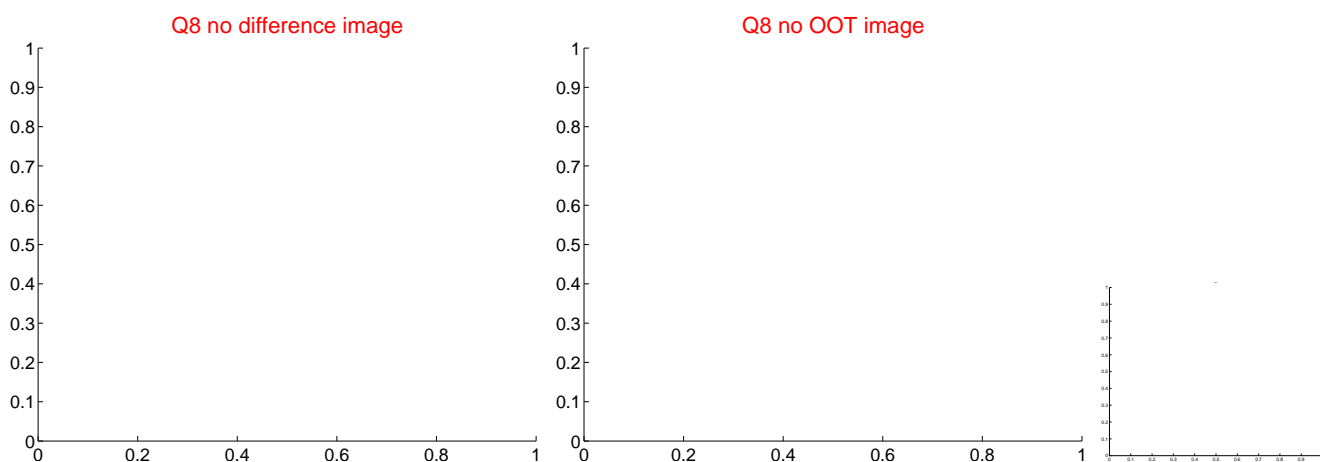
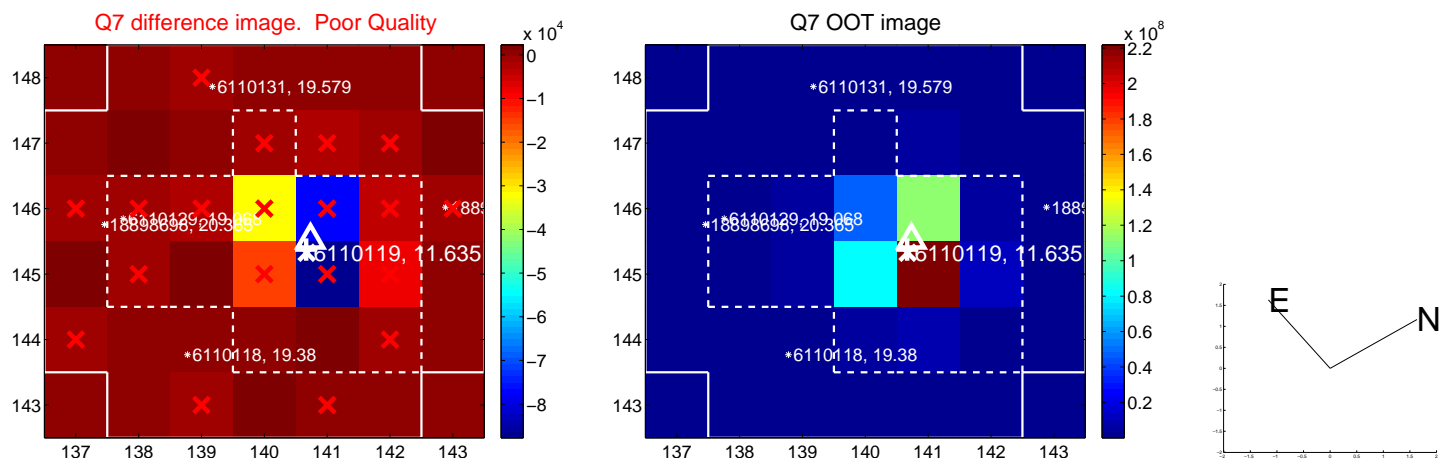
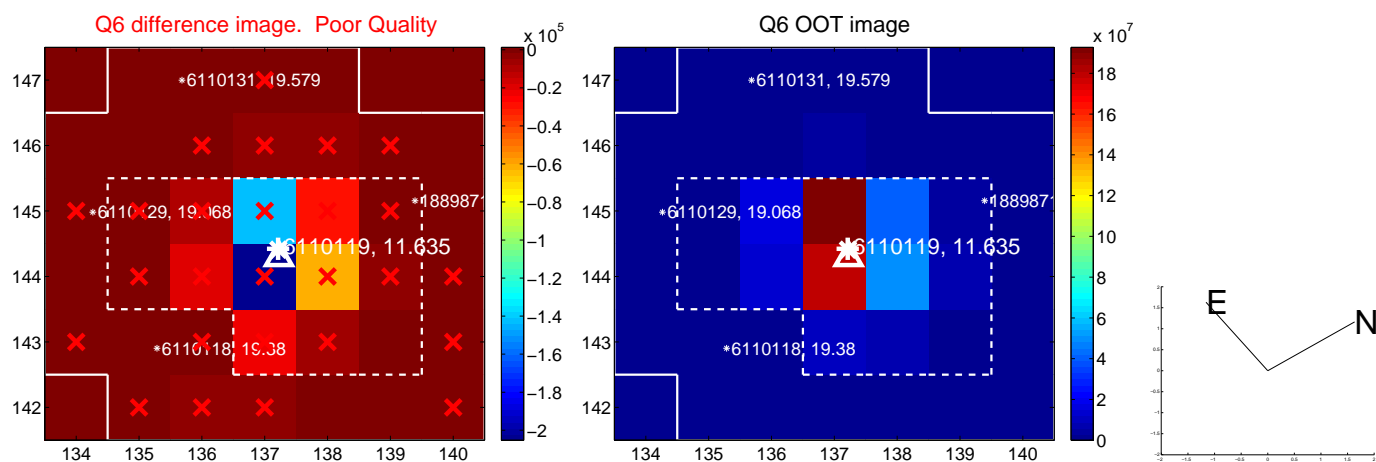
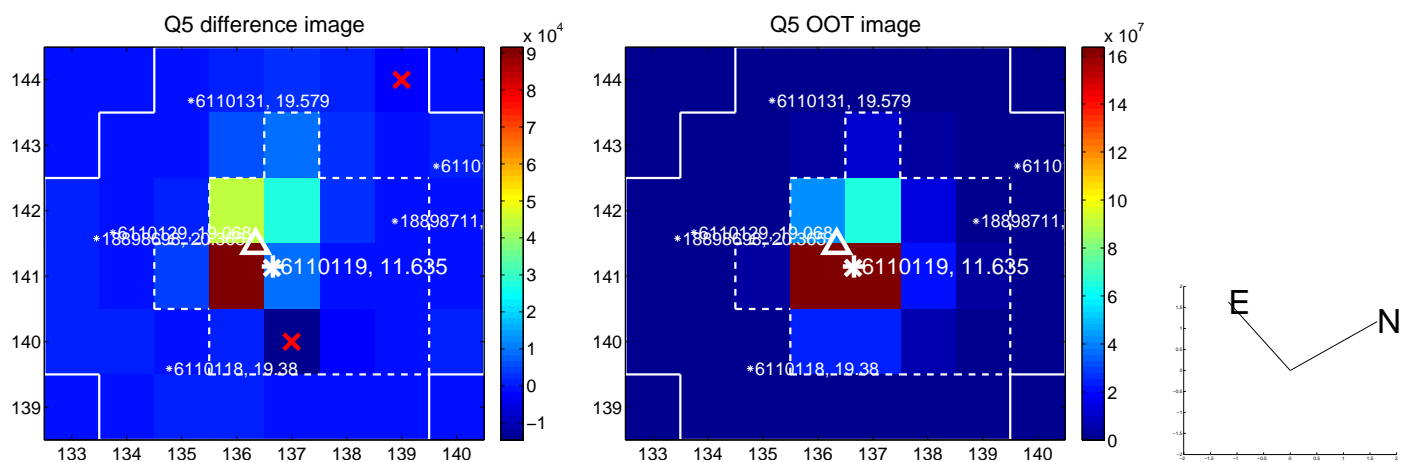


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

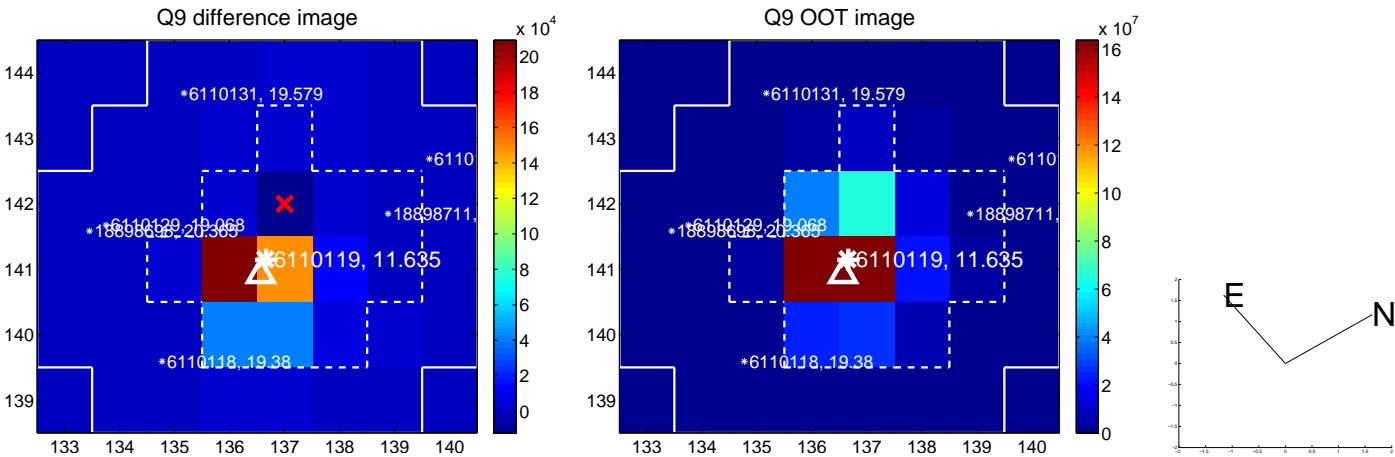
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



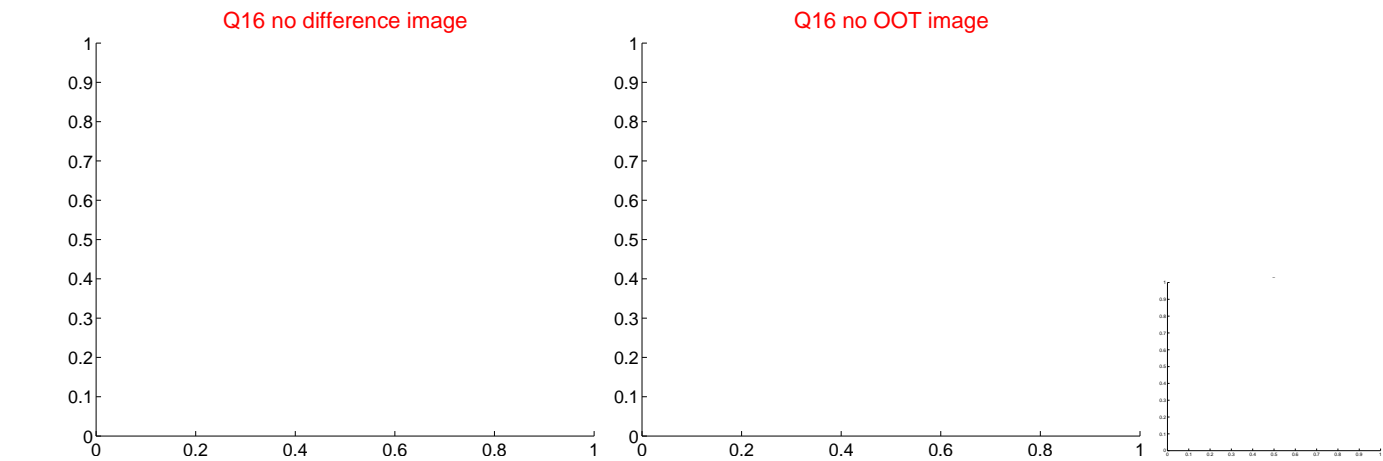
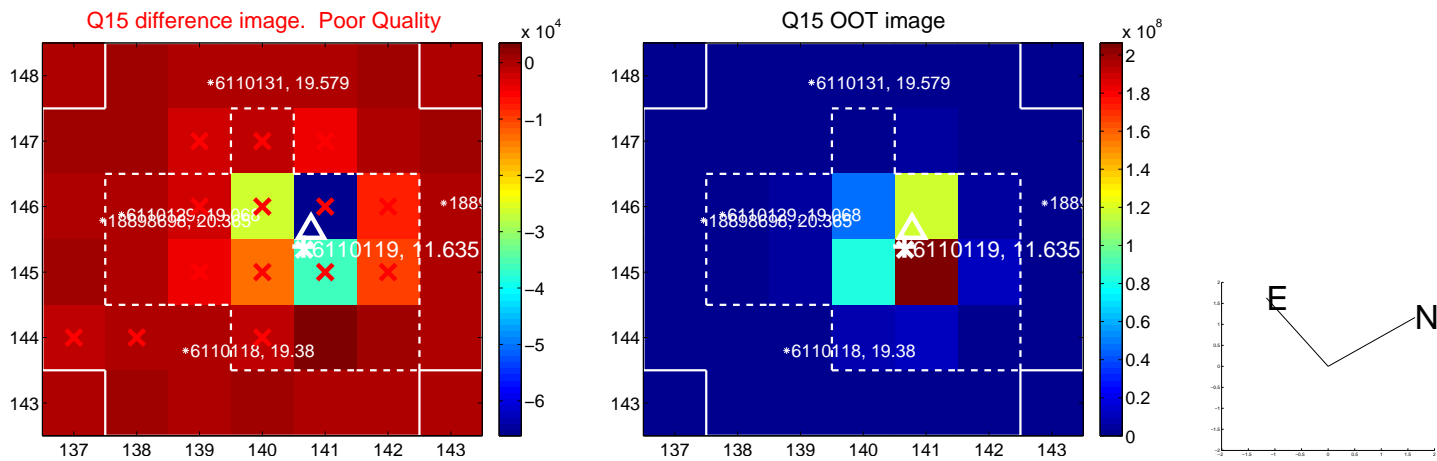
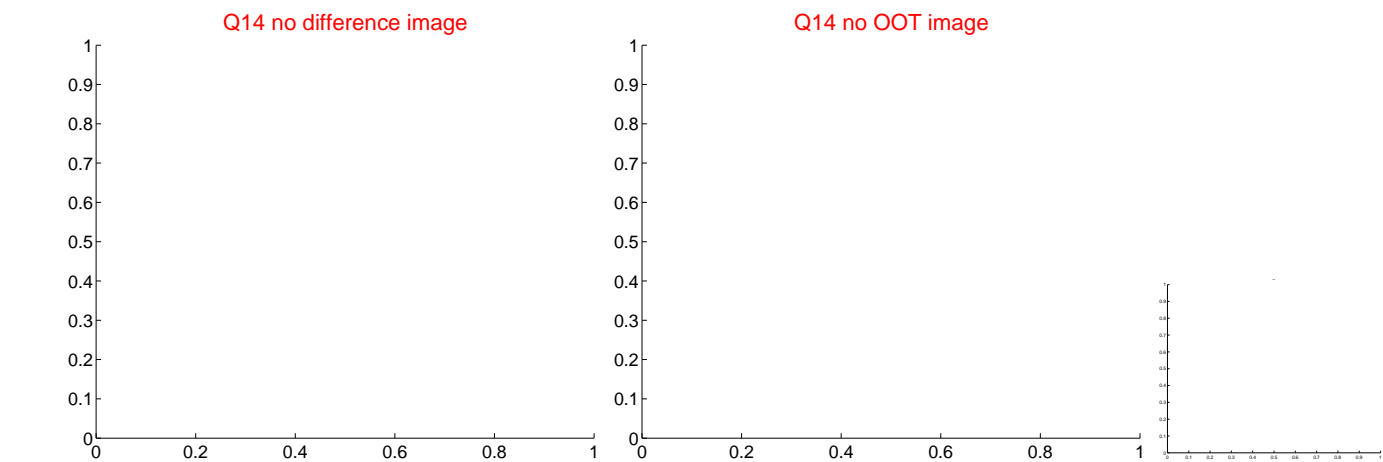
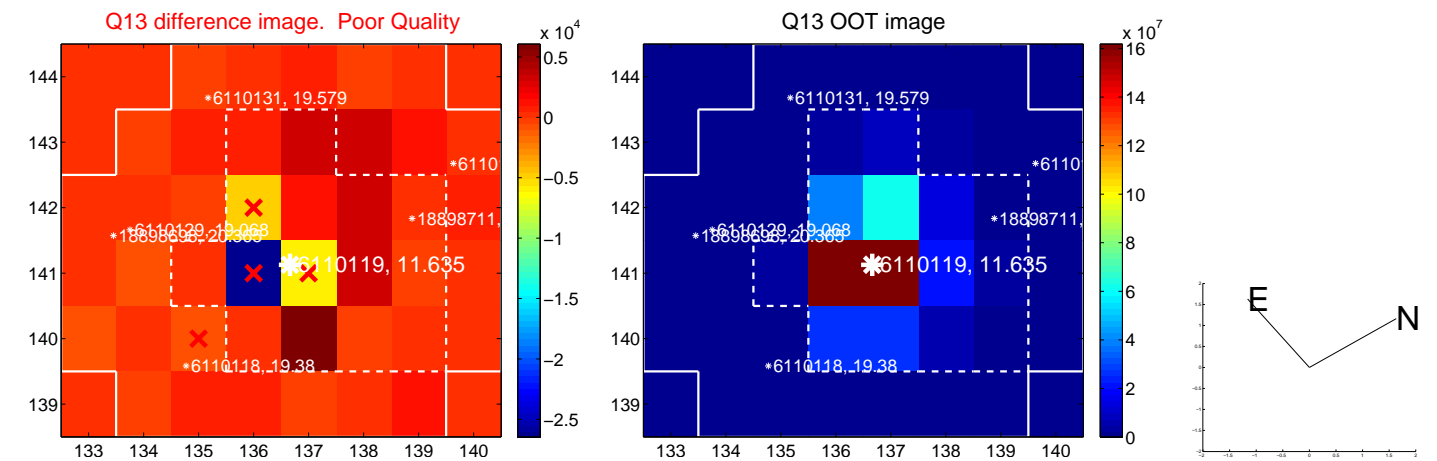
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



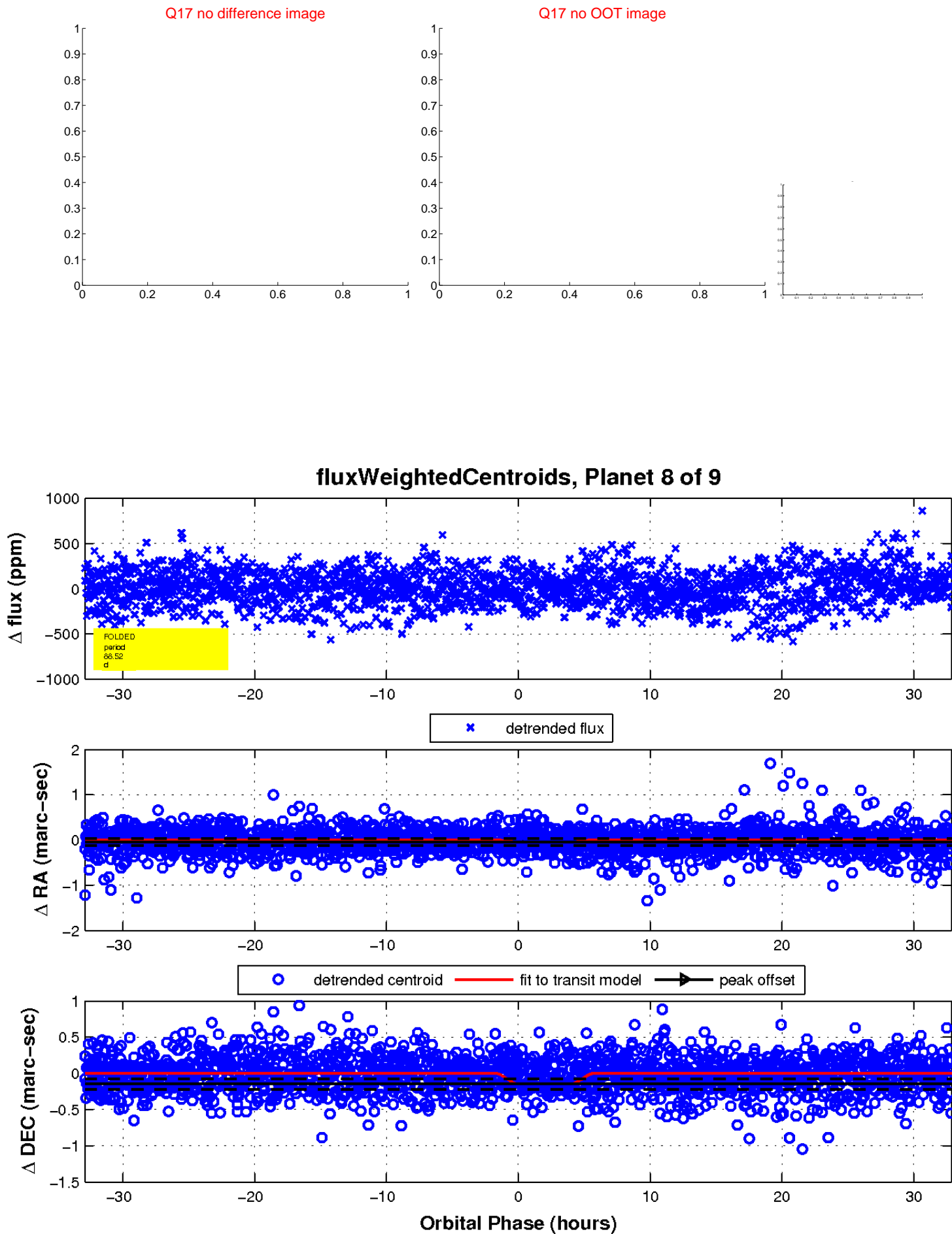
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

