

KIC 011068661

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})
011068661-01	OBS	No	561.338339	380.237742	3821.6	11.650	17.2	9.1	0.68	4679	4.05	0.15
011068661-02	OBS	No	467.954127	213.106161	4462.1	14.496	16.9	8.4	0.68	4679	6.06	0.19
011068661-03	OBS	No	517.528708	485.913975	4105.9	24.190	14.9	7.0	0.68	4679	4.52	0.16
011068661-05	OBS	No	355.779765	372.604707	2024.5	5.232	15.4	5.9	0.68	4679	3.02	0.27
011068661-06	OBS	No	511.782318	337.333193	18627.5	6.579	15.1	21.7	0.68	4679	16.91	0.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011068661-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV

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

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

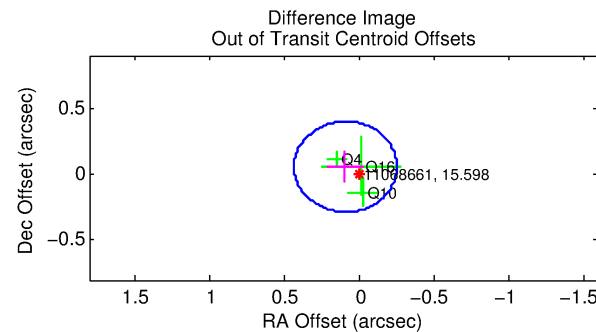
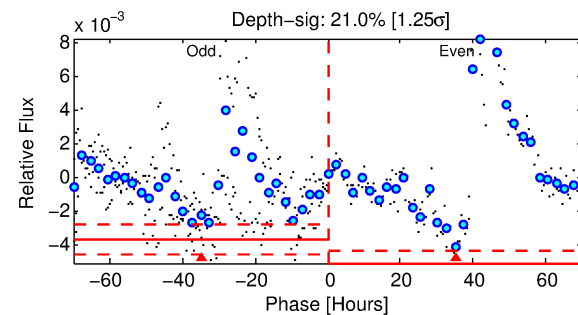
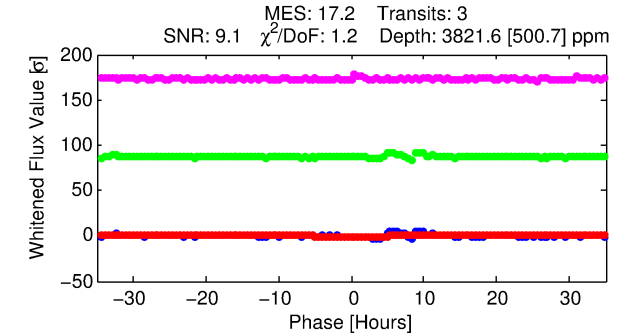
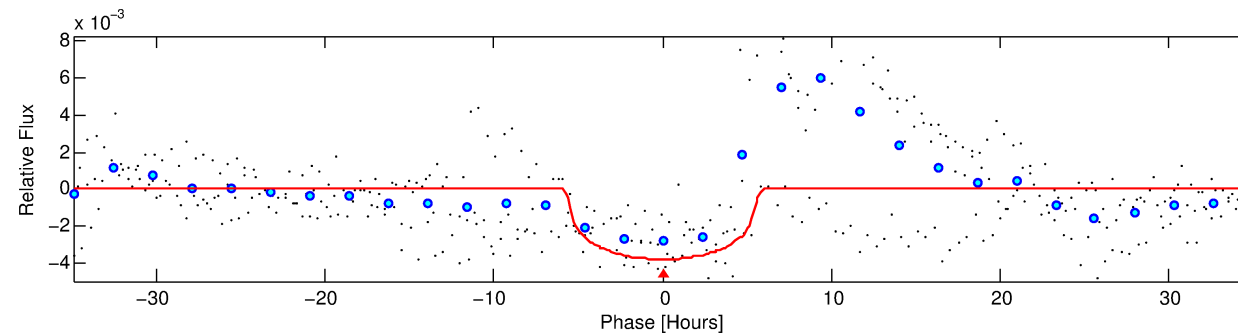
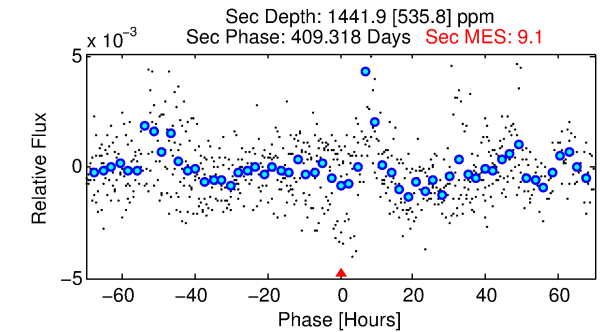
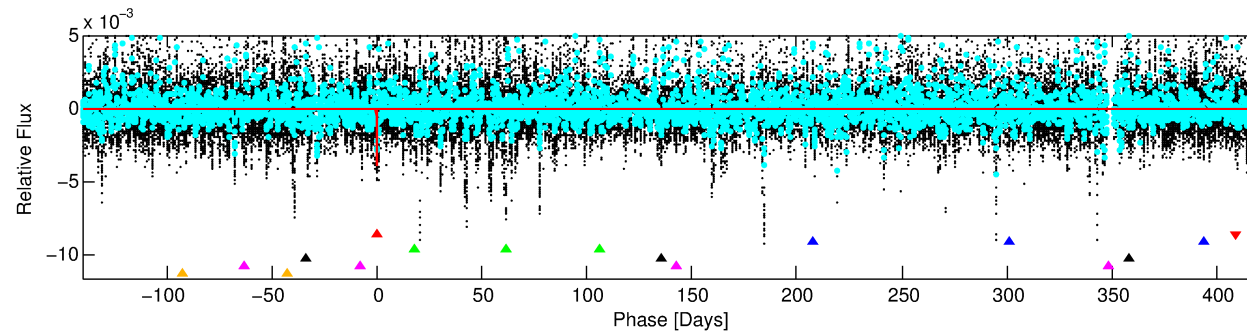
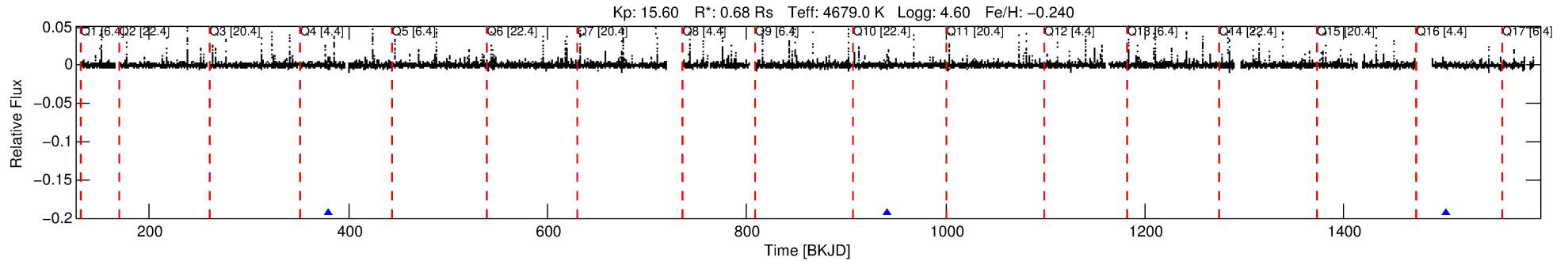
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011068661-01

No Significant Match Found

DV One-Page Summary

KIC: 11068661 Candidate: 1 of 6 Period: 561.338 d



DV Fit Results:

Period = 561.33834 [0.00726] d
Epoch = 380.2377 [0.0098] BKJD
Rp/R* = 0.0547 [0.0151]
a/R* = 382.07 [308.77]
b = 0.19 [4.24]
Seff = 0.15 [0.02]
Teq = 158 [6] K
Rp = 4.05 [1.17] Re
a = 1.1614 [0.0837] AU
Ag = 65363.02 [44047.74] [1.48σ]
Teffp = 3899 [660] K [5.67σ]

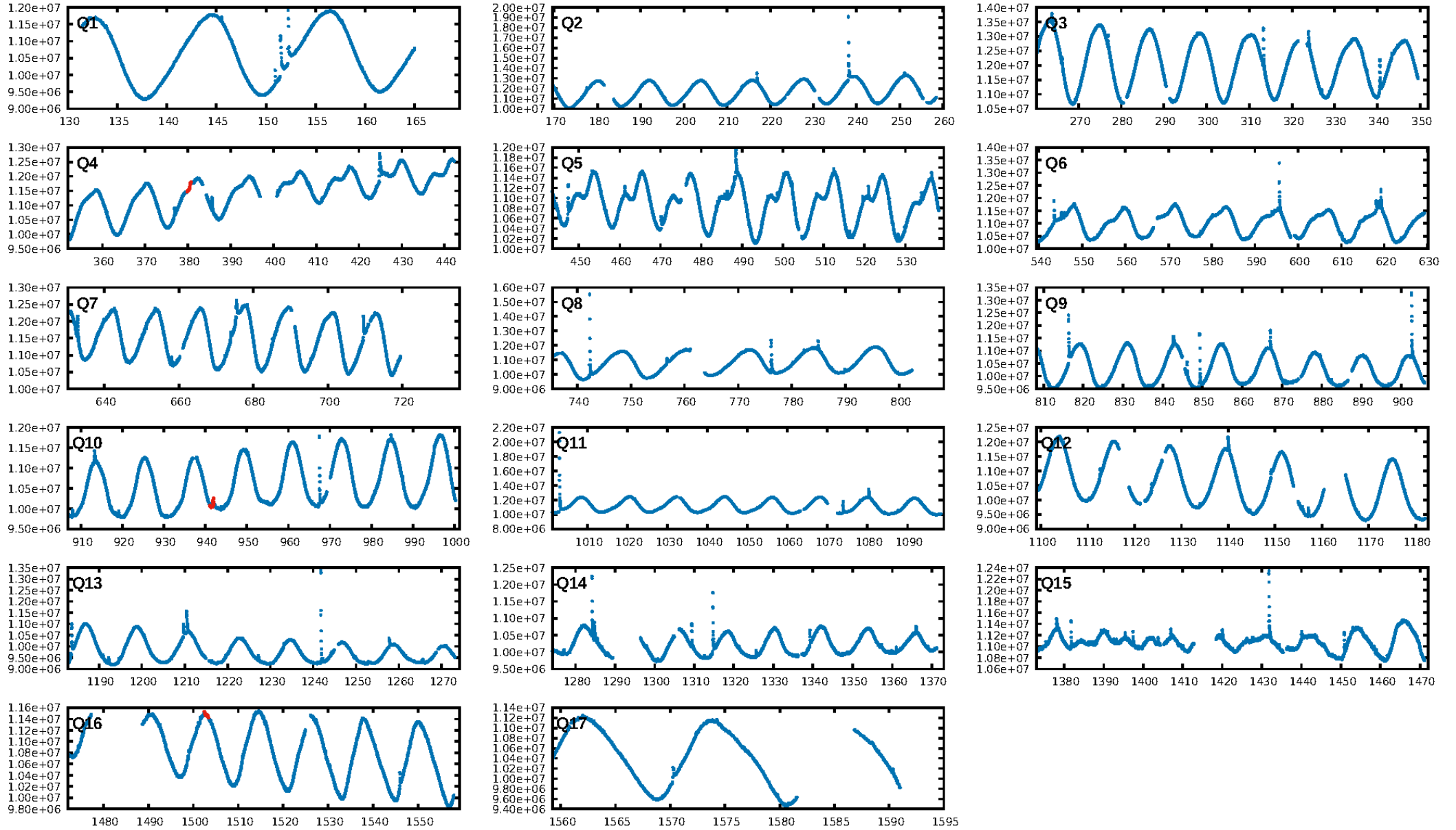
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [39.16σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.6%
ModelChiSquareGof-sig: 93.6%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.6336
Centroid-sig: 19.5%
Centroid-so: 0.939 arcsec [2.23σ]
OotOffset-rm: 0.104 arcsec [0.91σ]
OotOffset-st: 1/0/2/0 [3]
KicOffset-rm: 0.132 arcsec [1.01σ]
KicOffset-st: 1/0/2/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
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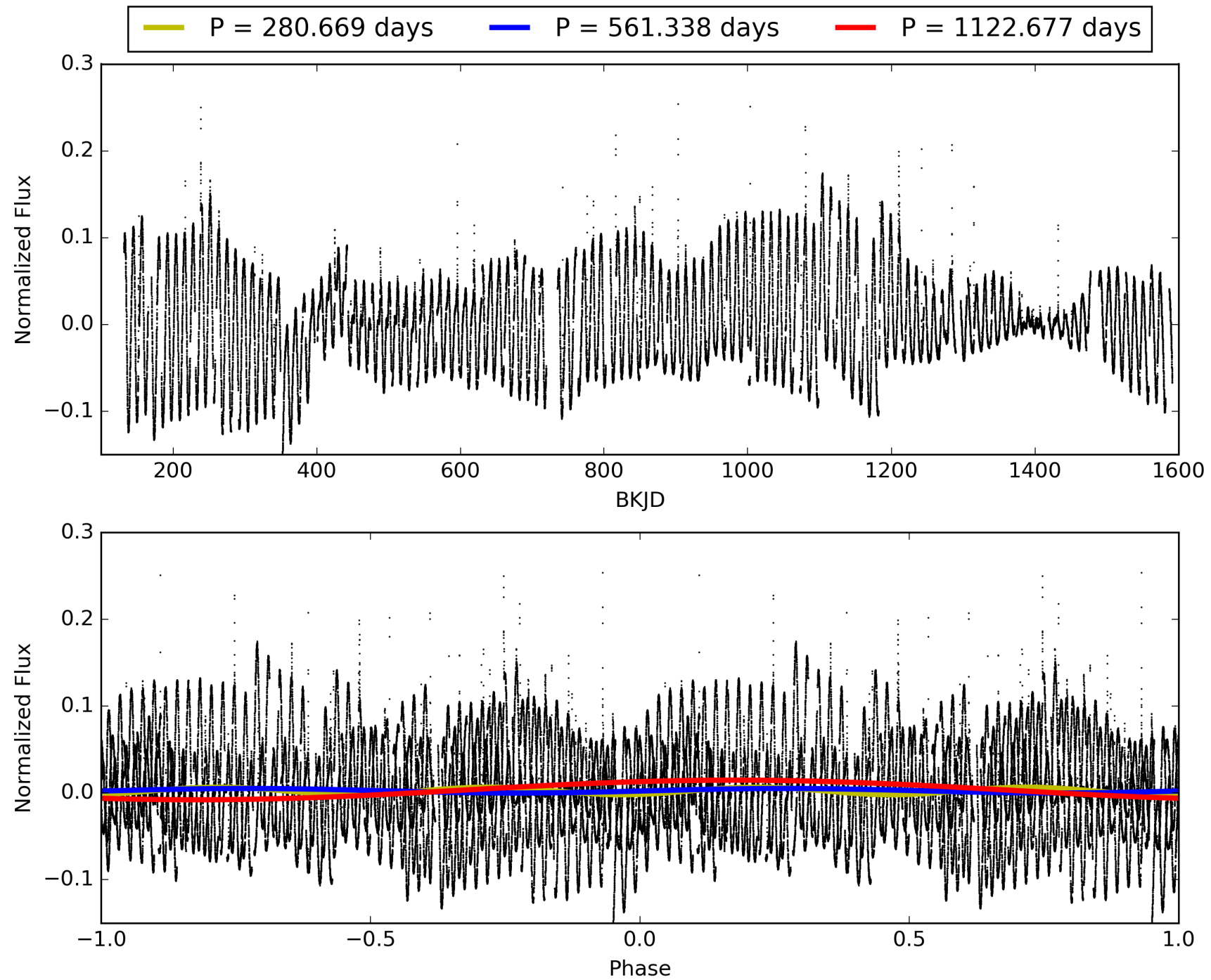
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011068661-01, PDC Light Curves

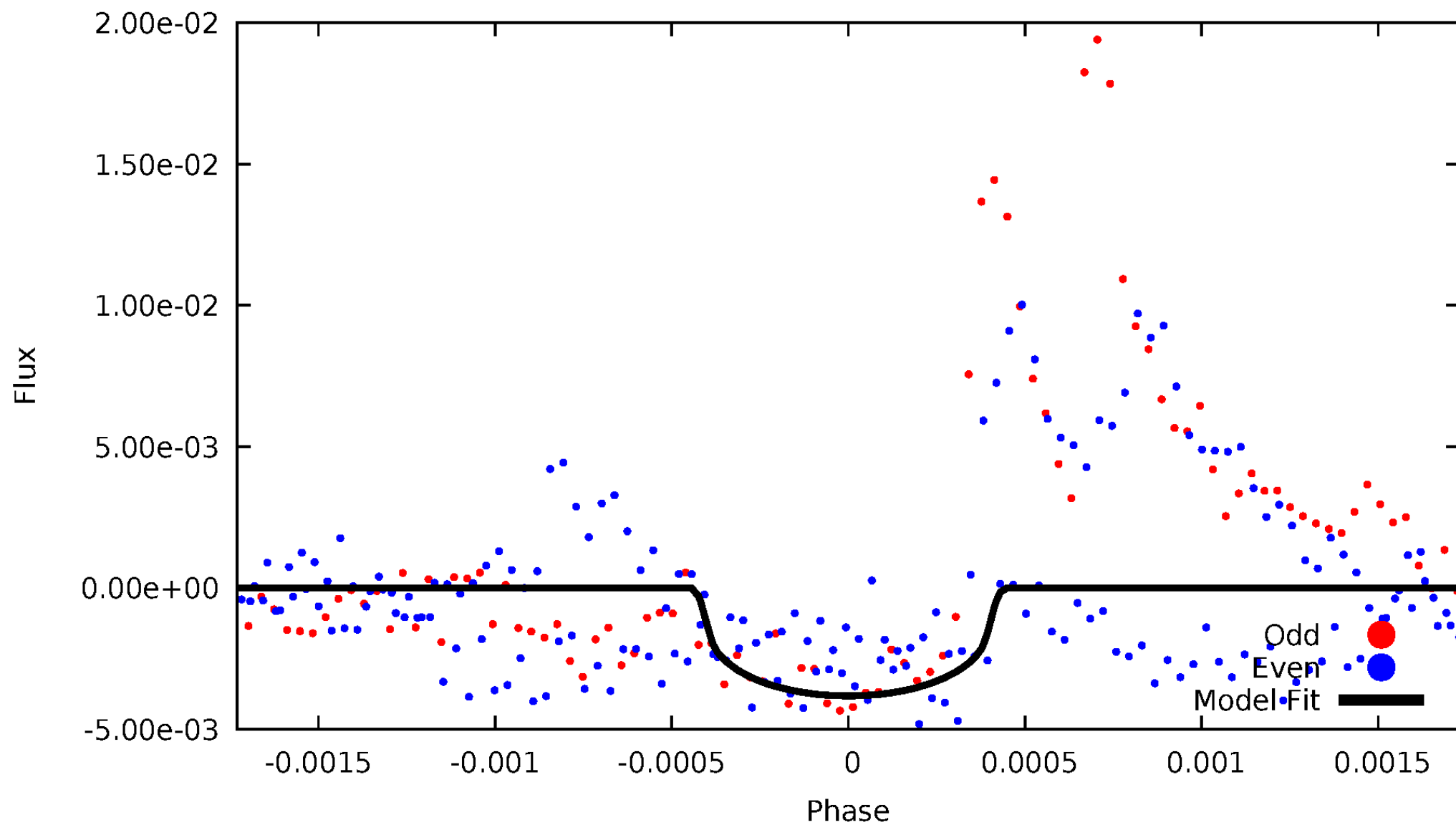


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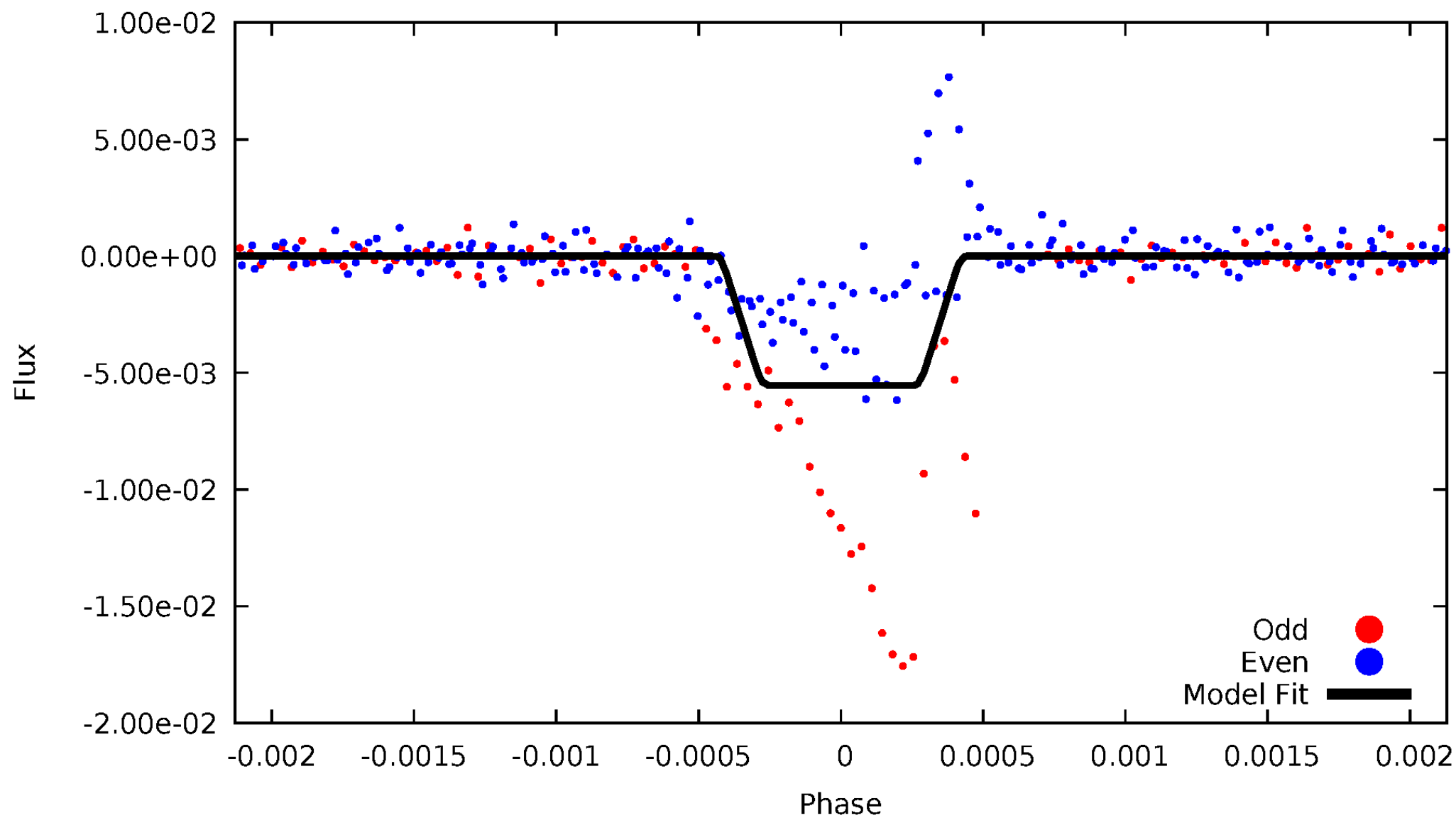
DV Odd/Even

TCE 011068661-01



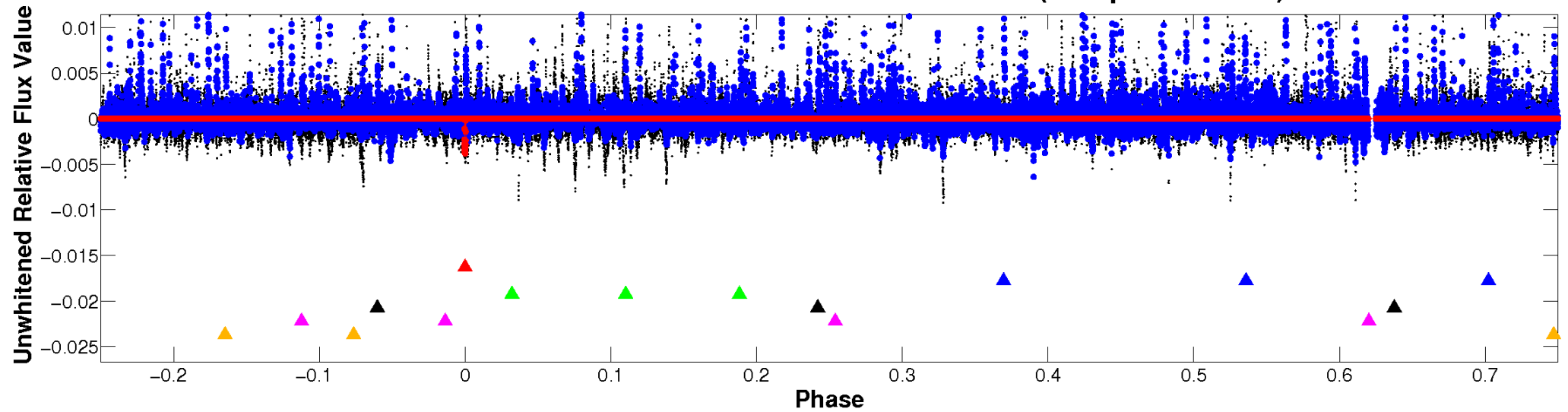
ALT Odd/Even

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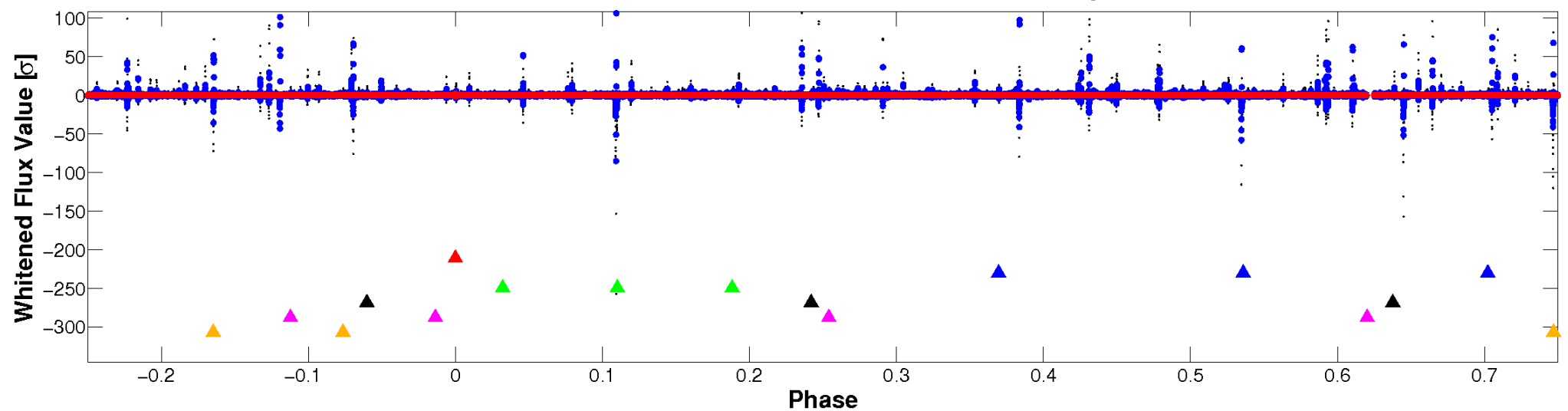


Non-Whitened Vs. Whitened Light Curve

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

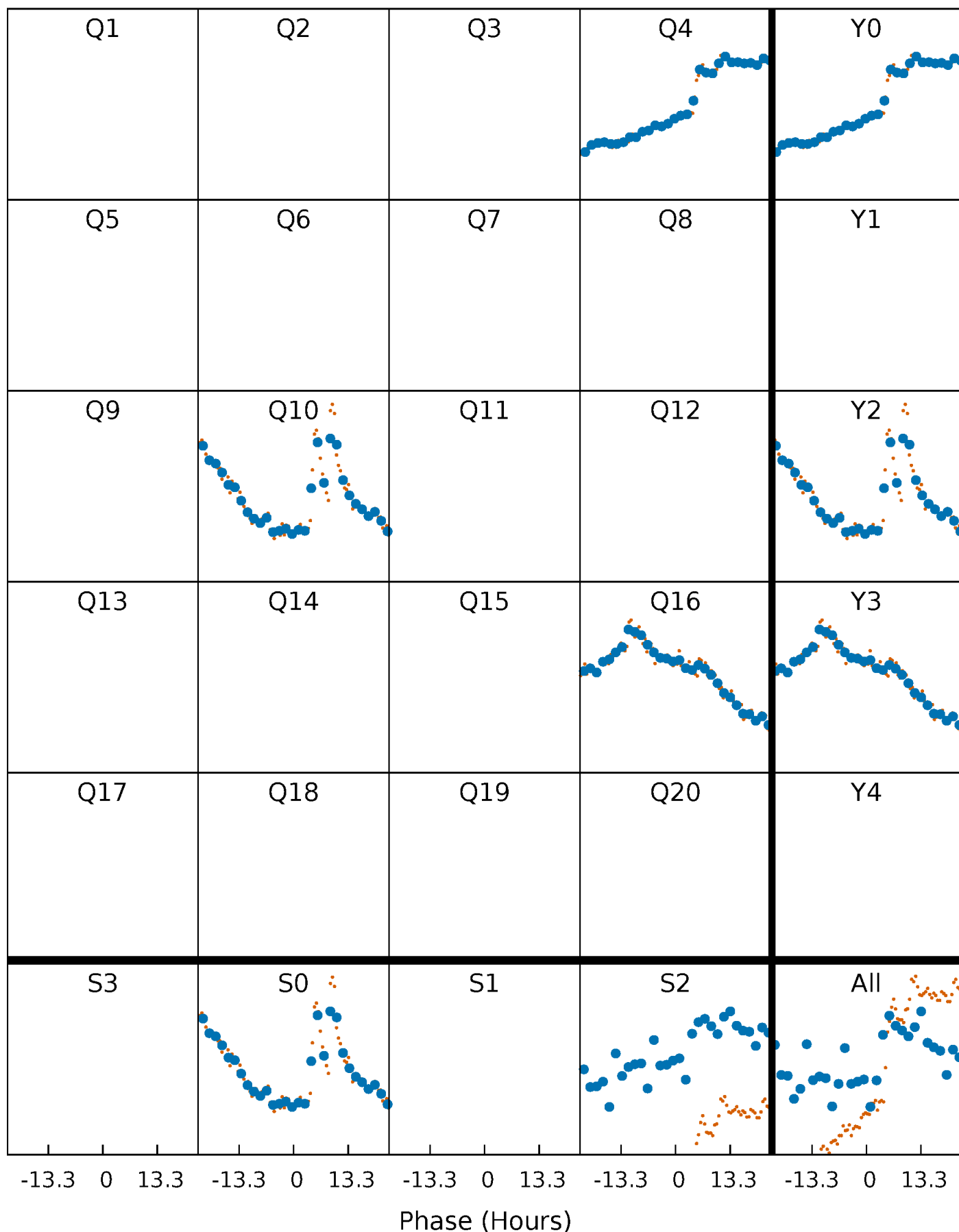


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



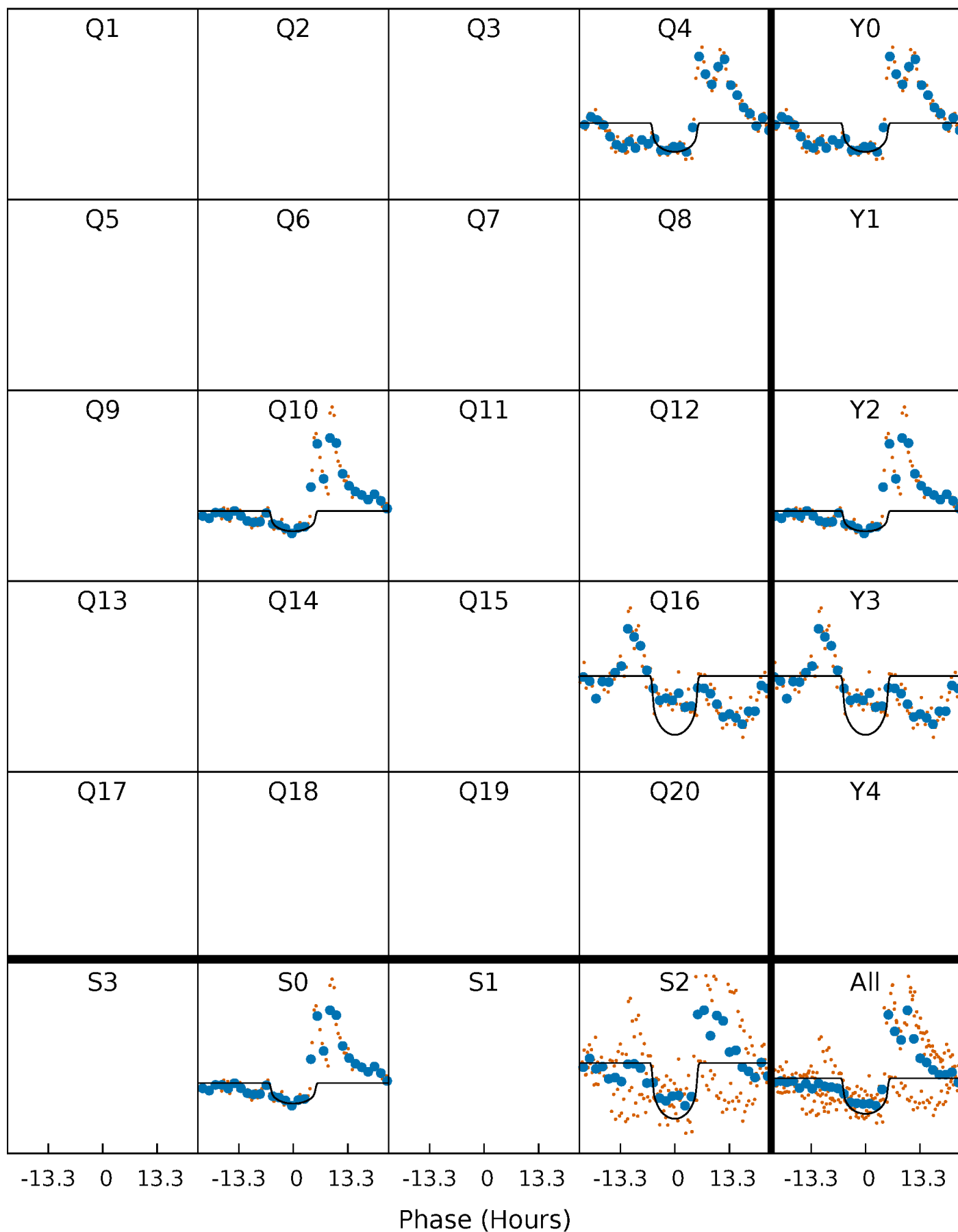
PDC Quarter-Phased Transit Curves

TCE 011068661-01 P=561.338338 Days $T_0=380.237742$ (BKJD)



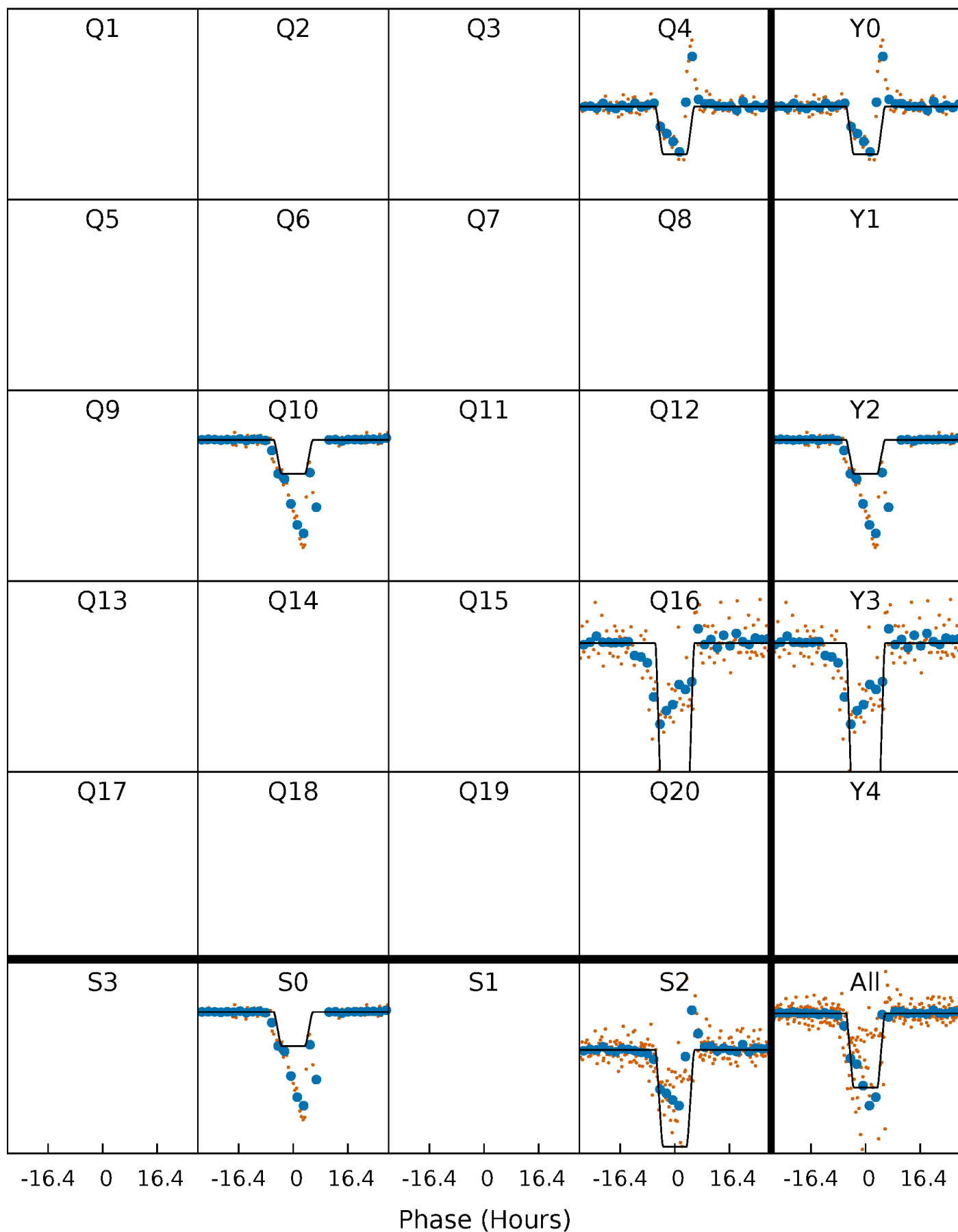
DV Quarter-Phased Transit Curves

TCE 011068661-01 P=561.338338 Days $T_0=380.237742$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

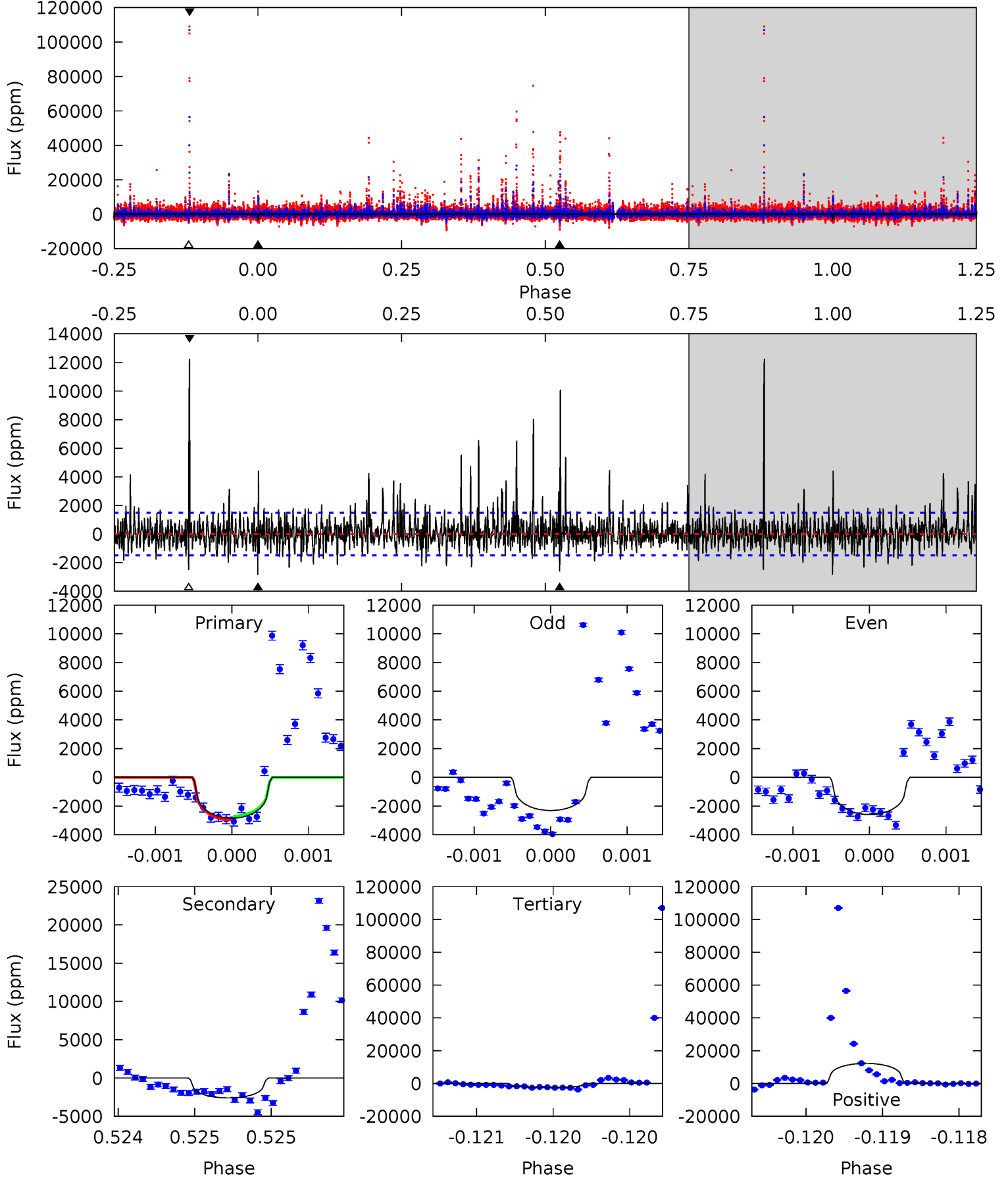
TCE 011068661-01 P=561.303082 Days $T_0=380.300861$ (BKJD)



DV Model-Shift Uniqueness Test

011068661-01, P = 561.338338 Days, E = 380.237742 Days

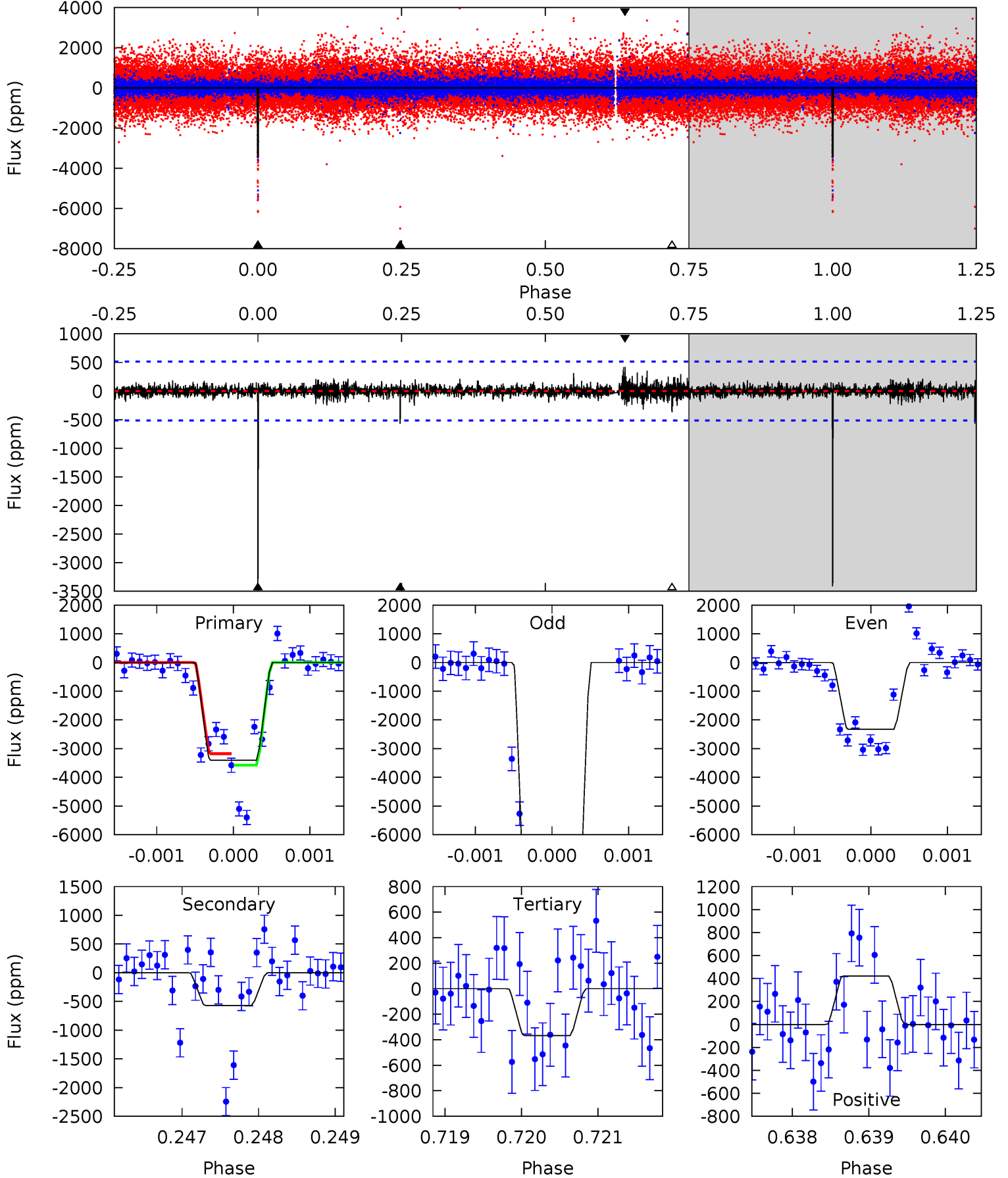
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	9.54	9.22	45.0	5.48	3.33	3.54	1.22	-34.5	0.32	-35.4	0.11	1.08	0.81	0.49



Alt Model-Shift Uniqueness Test

011068661-01, P = 561.303082 Days, E = 380.300861 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.2	6.07	3.90	4.49	5.48	3.33	0.61	32.4	31.8	2.17	1.59	35.4	1.91	0.11	0



Stellar Parameters For KIC 011068661

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4679^{+140}_{-140}	$4.597^{+0.054}_{-0.027}$	$-0.240^{+0.300}_{-0.300}$	$0.678^{+0.054}_{-0.060}$	$0.663^{+0.082}_{-0.048}$	$2.997^{+0.736}_{-0.360}$
	+3%/-3%	+1%/-1%	+125%/-125%	+8%/-9%	+12%/-7%	+25%/-12%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011068661-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2599 ± 272	$3.99^{+1.26}_{-1.10}$	220^{+7}_{-9}	4567^{+678}_{-458}	$123163^{+114808}_{-51503}$
Alt.	-571 ± 94	$5.42^{+1.19}_{-1.07}$	219^{+7}_{-8}	3185^{+243}_{-192}	14798^{+8712}_{-5188}

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

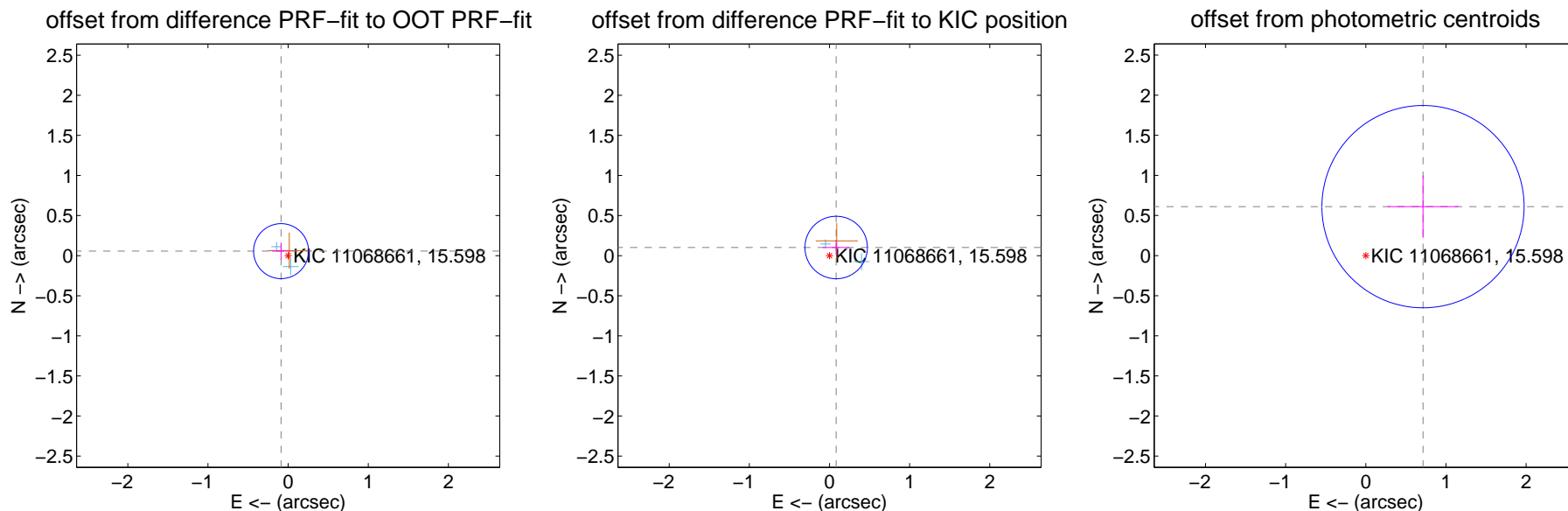
DV Centroid Data

Supplemental centroid analysis for 011068661-01. Kepler magnitude: 15.60. Transit SNR 9.13

There are 2 quarters with good PRF difference image offsets

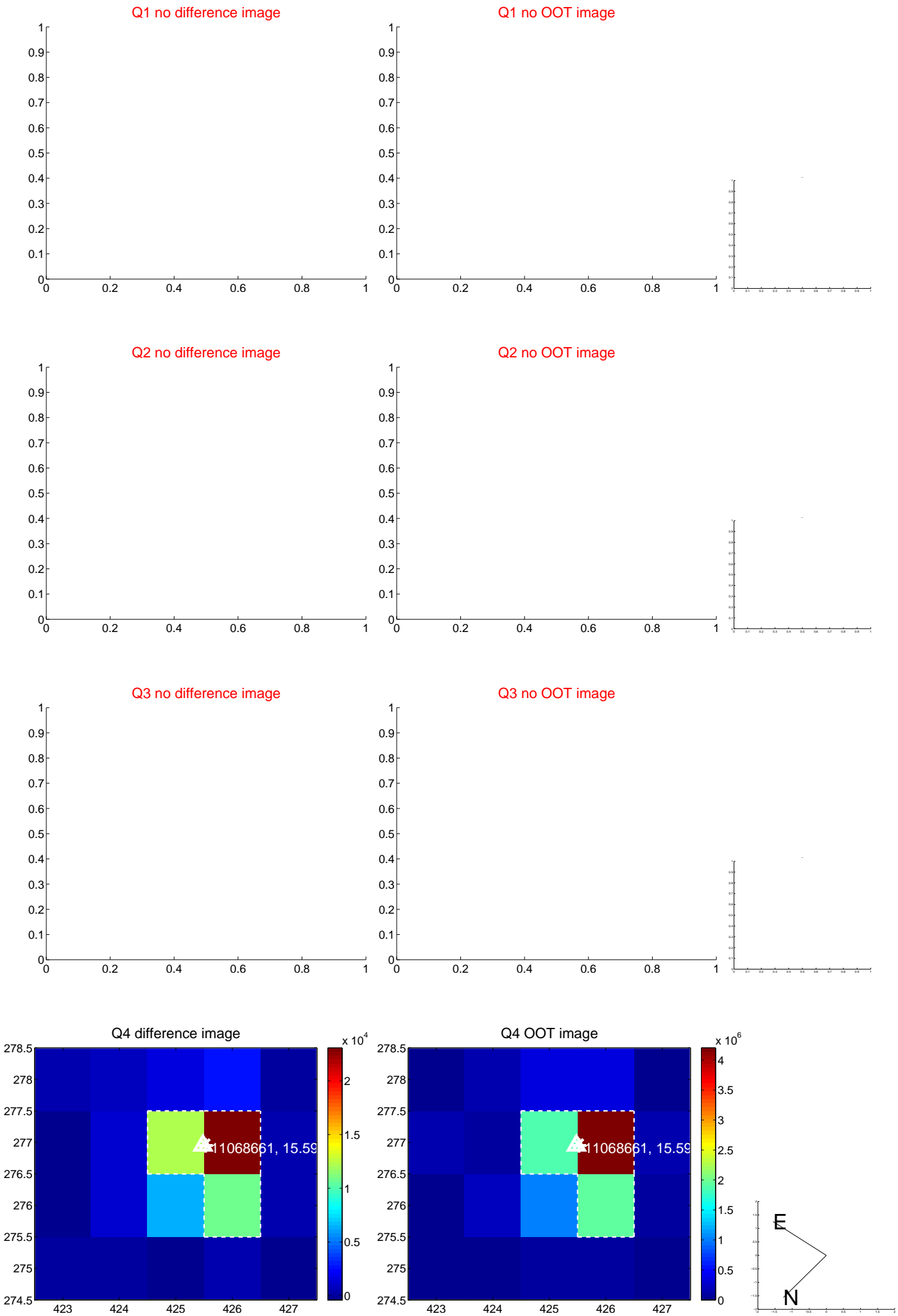
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.104 ± 0.114	0.91	0.088 ± 0.117	0.056 ± 0.108
PRF-fit source offset from KIC position	0.132 ± 0.130	1.01	-0.083 ± 0.167	0.102 ± 0.097
photometric centroid source offset	0.94 ± 0.42	2.23	-0.71 ± 0.44	0.61 ± 0.39

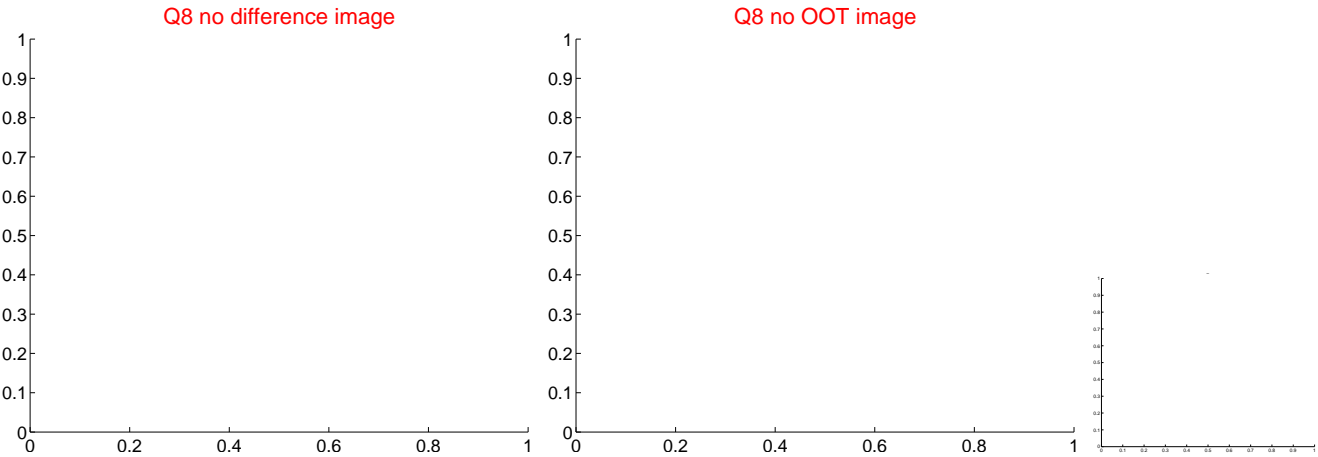
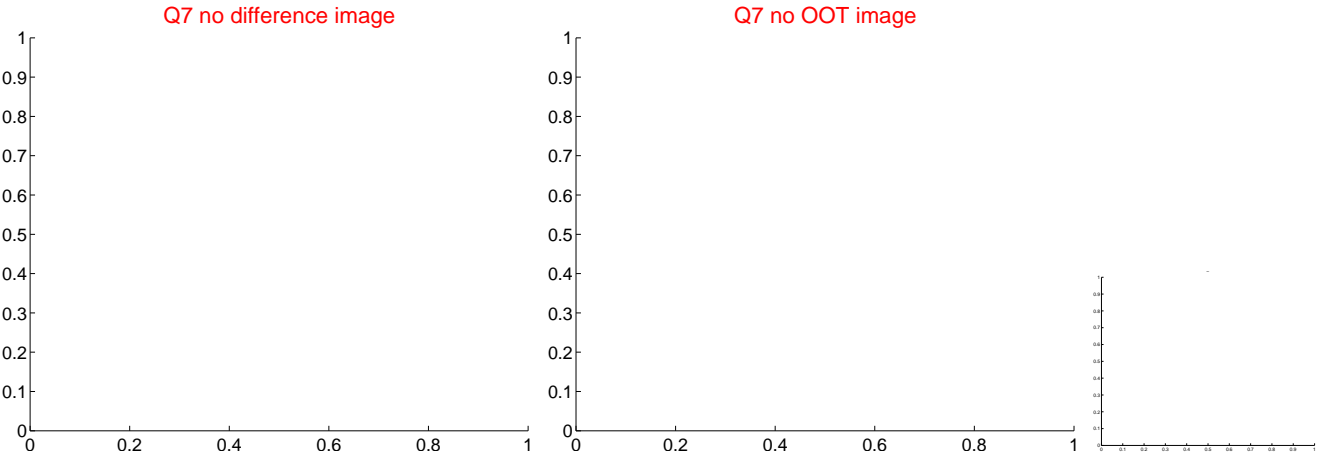
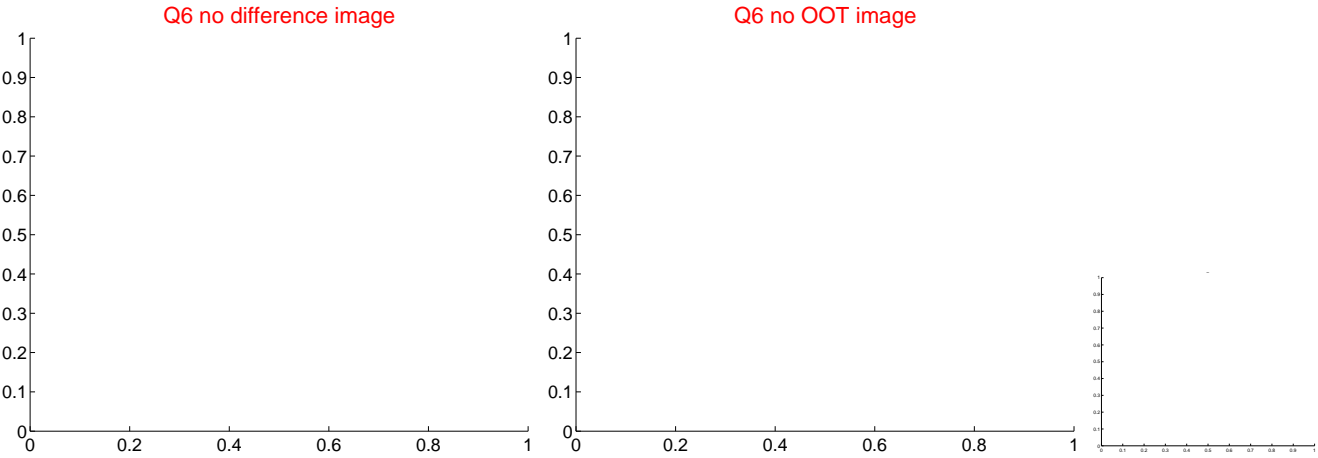
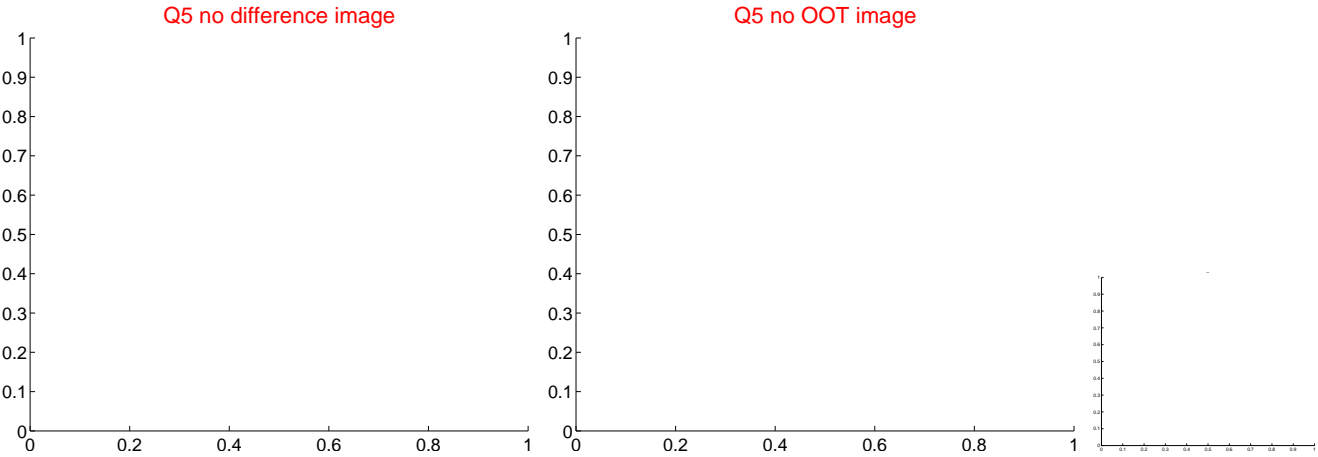


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

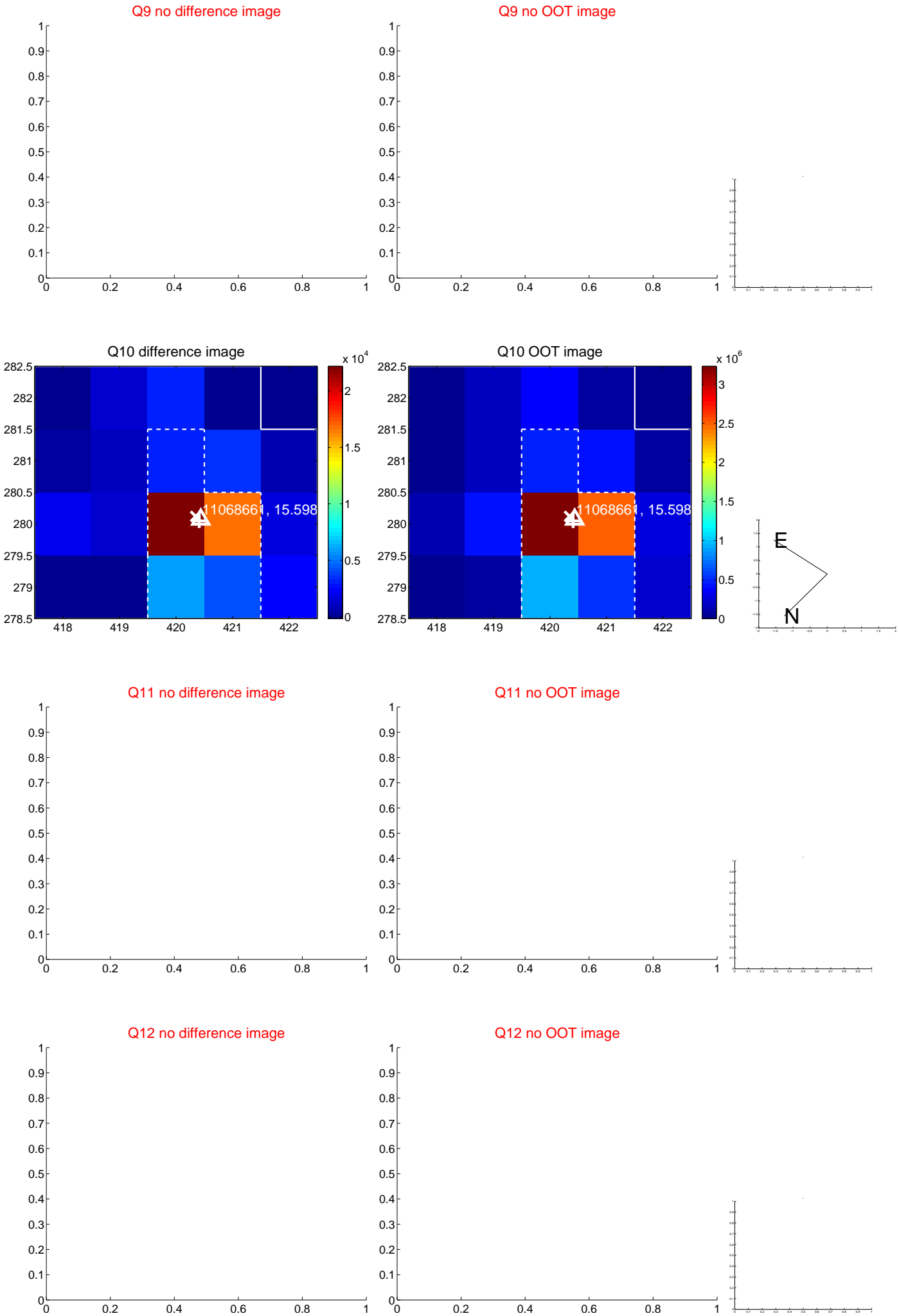
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



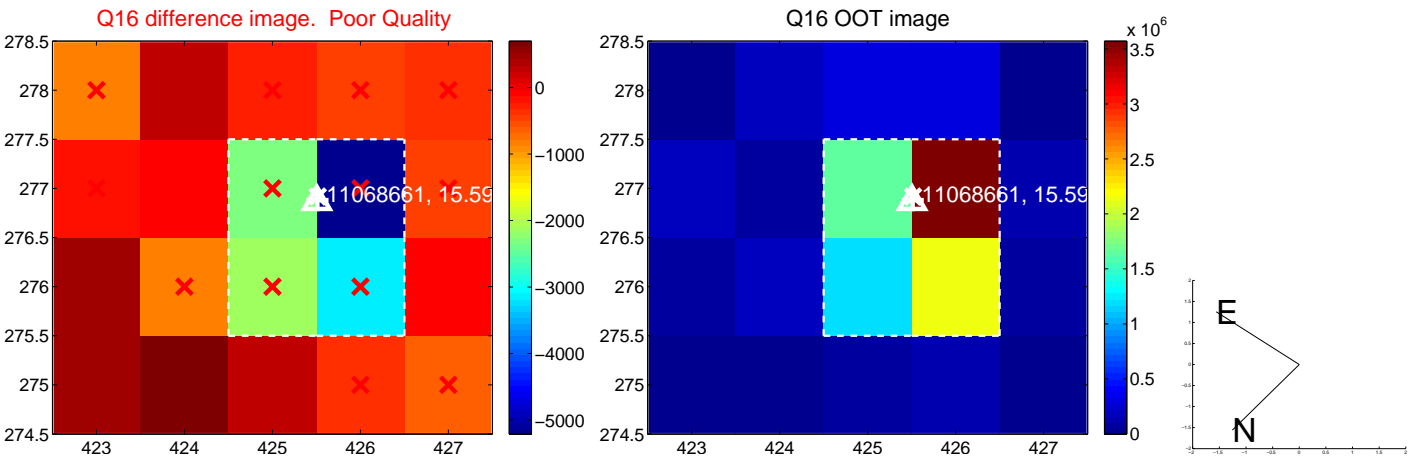
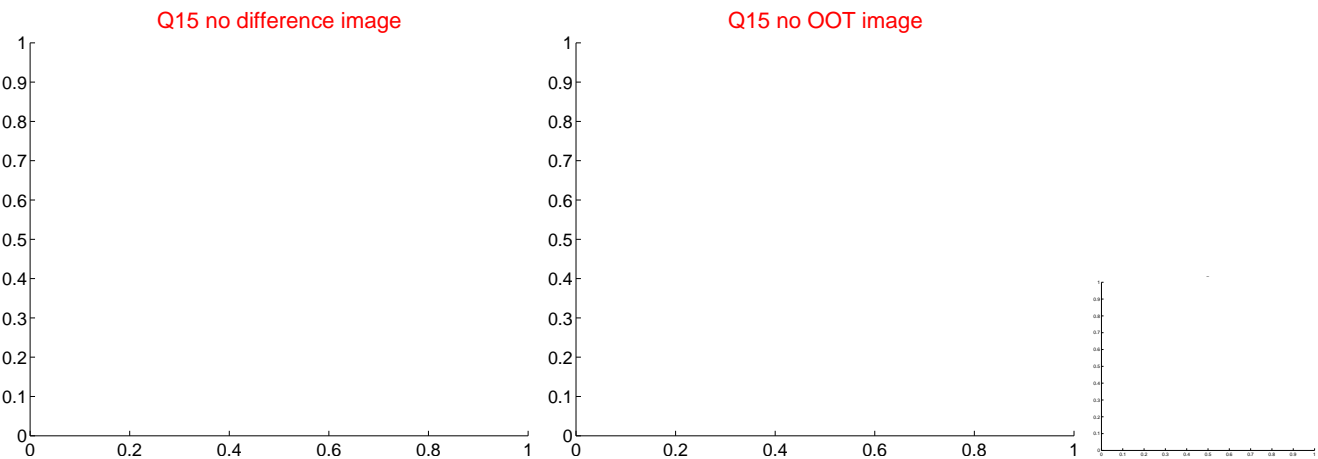
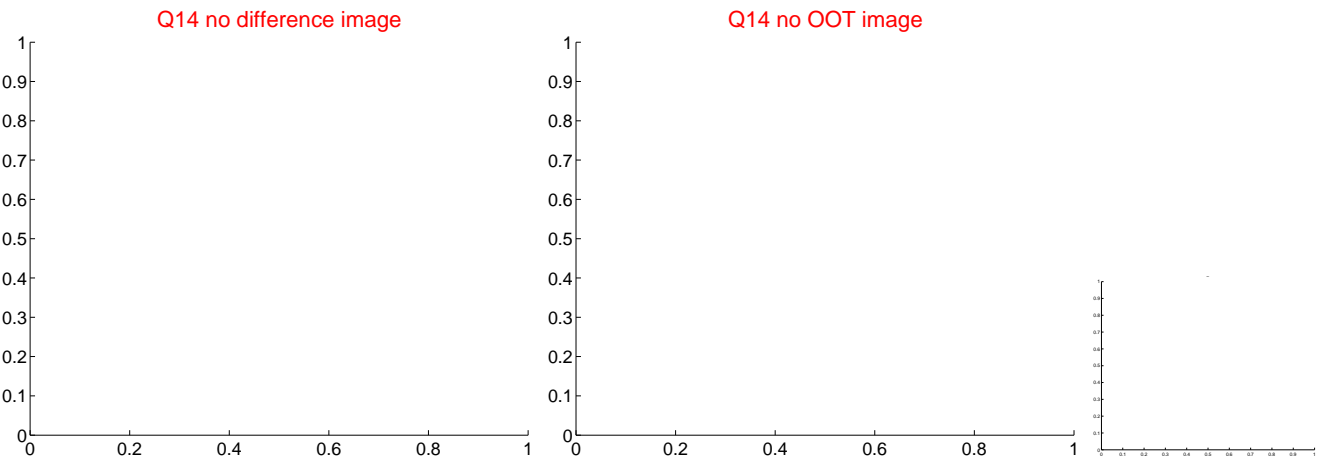
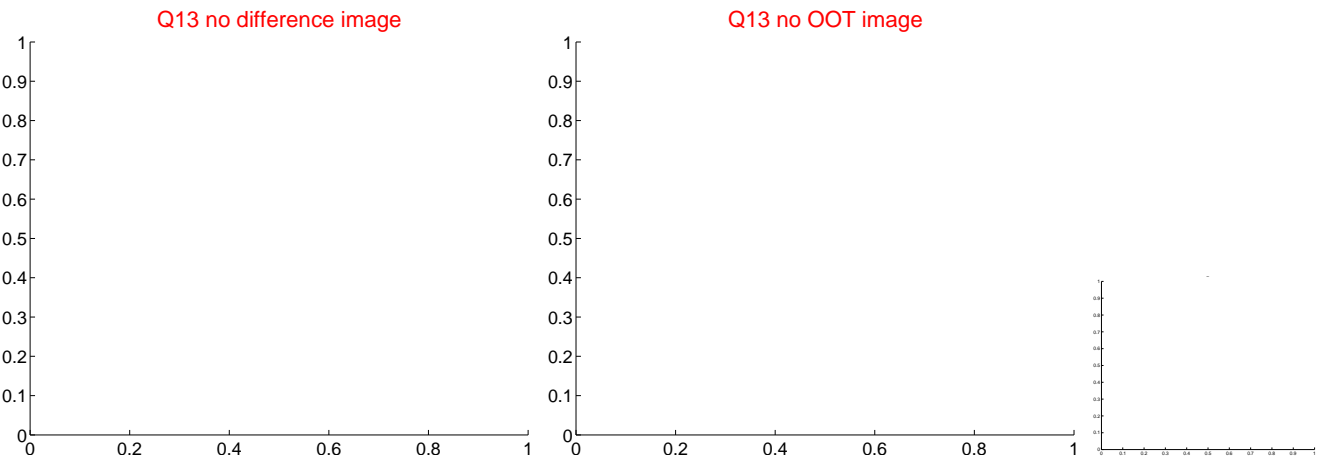
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



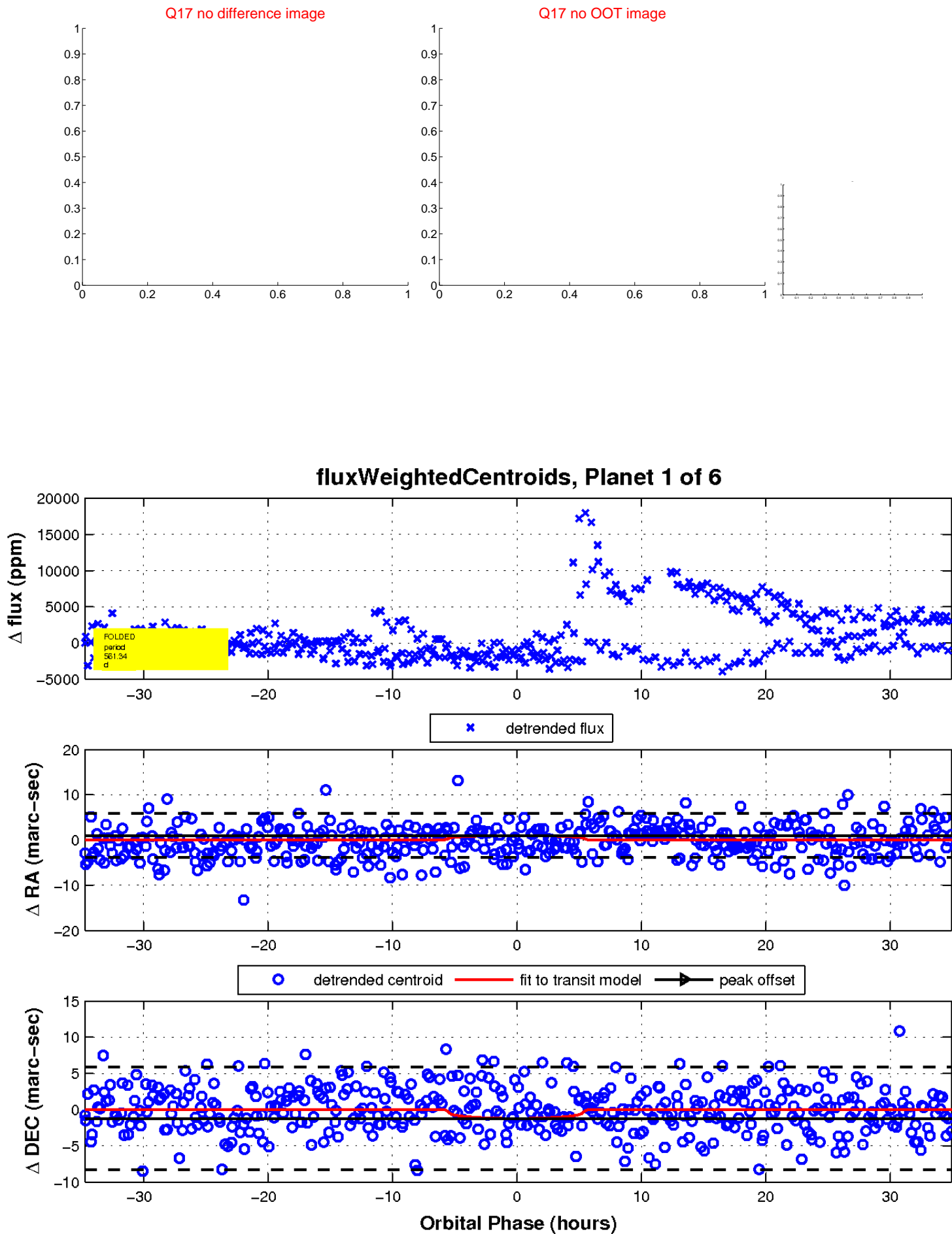
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white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

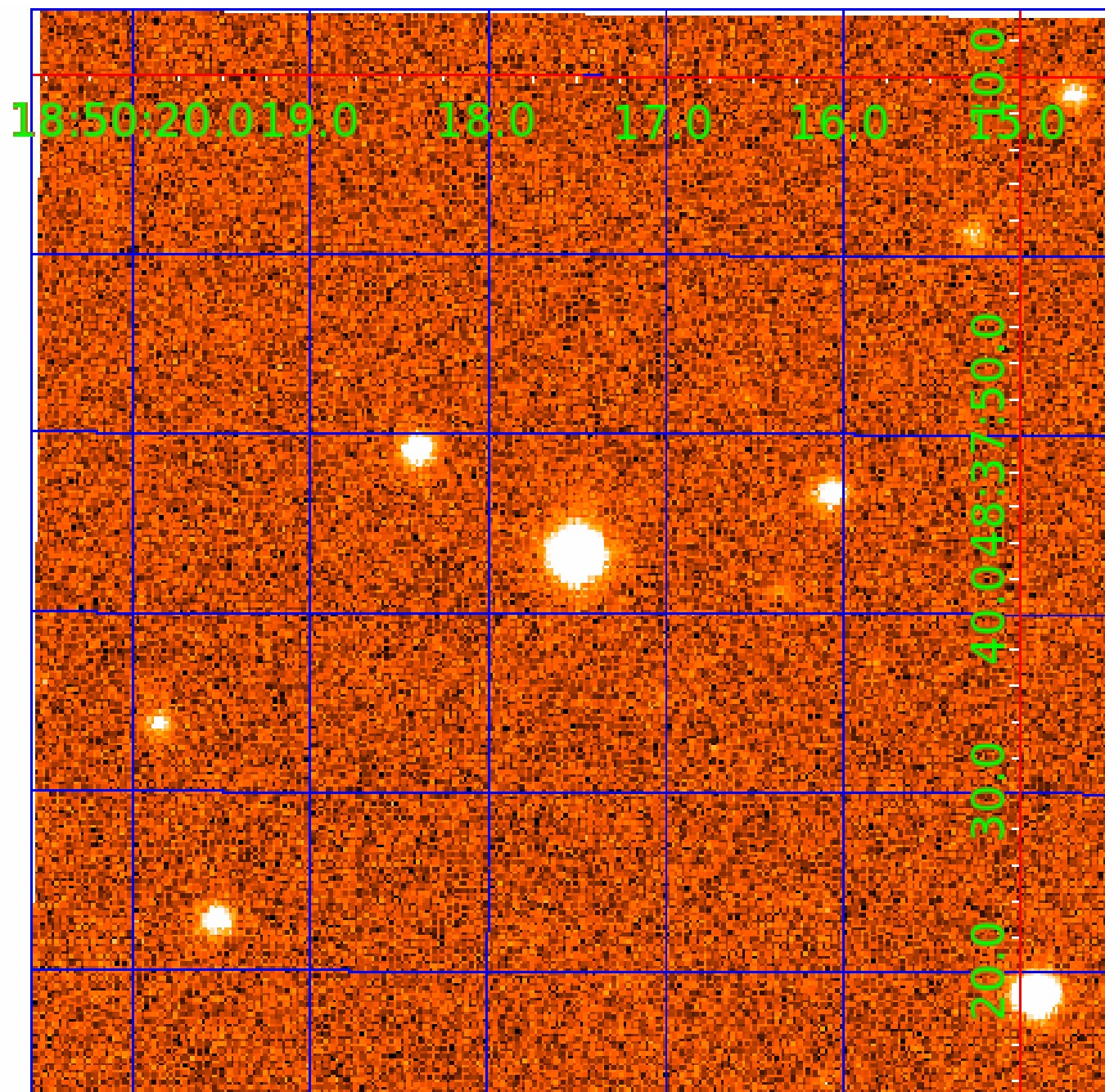


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011068661

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})
011068661-01	OBS	No	561.338339	380.237742	3821.6	11.650	17.2	9.1	0.68	4679	4.05	0.15
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011068661-03	OBS	No	517.528708	485.913975	4105.9	24.190	14.9	7.0	0.68	4679	4.52	0.16
011068661-05	OBS	No	355.779765	372.604707	2024.5	5.232	15.4	5.9	0.68	4679	3.02	0.27
011068661-06	OBS	No	511.782318	337.333193	18627.5	6.579	15.1	21.7	0.68	4679	16.91	0.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011068661-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV

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

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

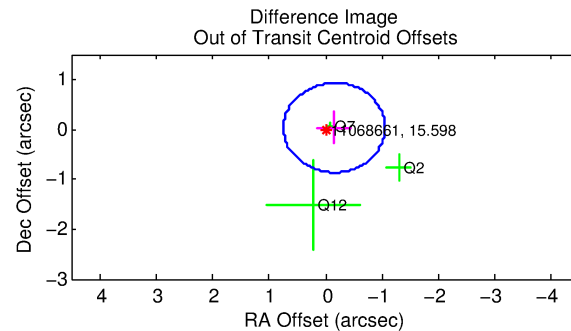
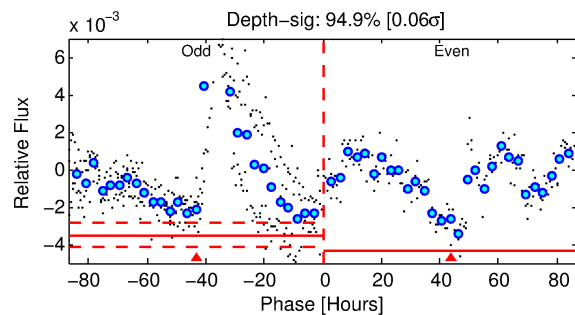
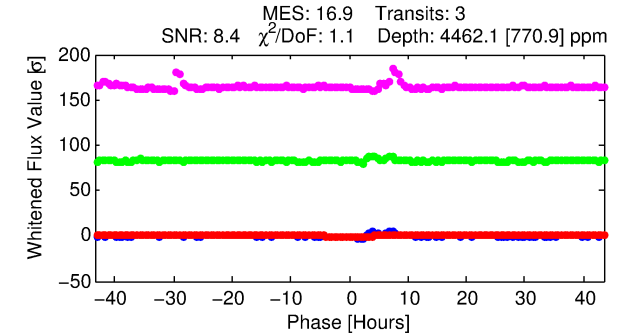
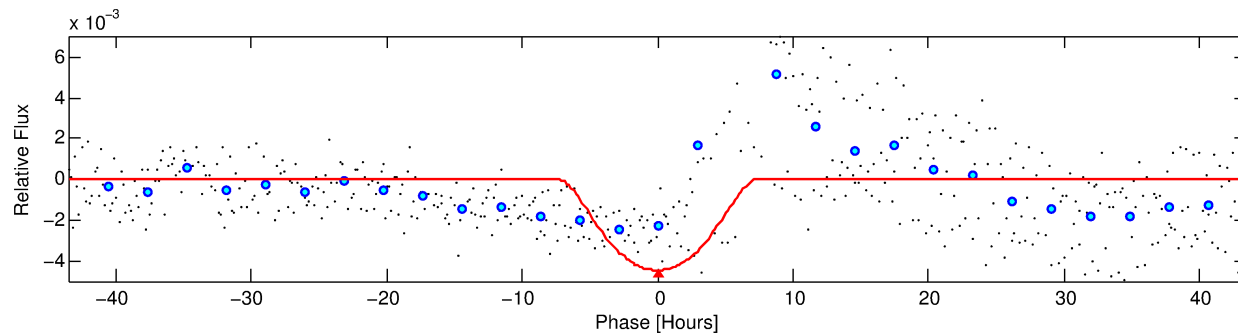
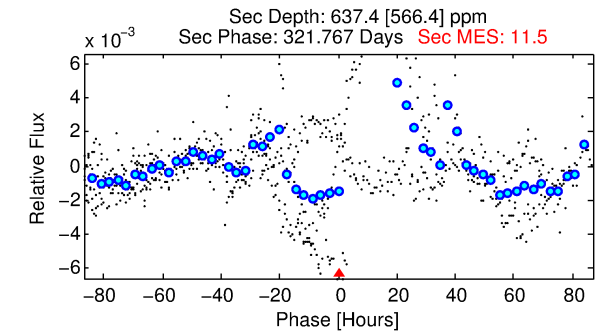
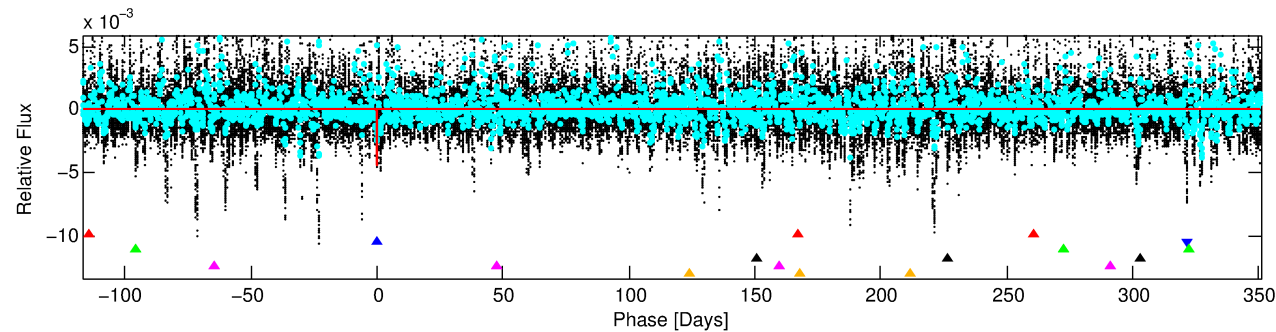
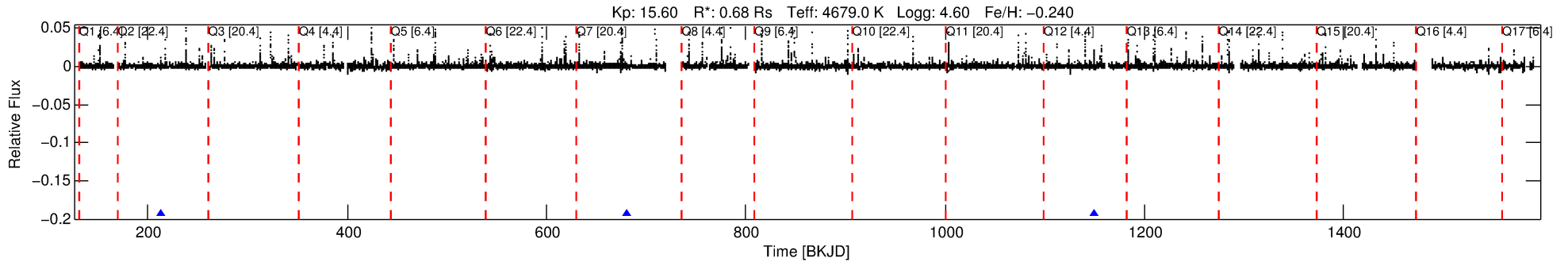
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011068661-02

No Significant Match Found

DV One-Page Summary

KIC: 11068661 Candidate: 2 of 6 Period: 467.954 d



DV Fit Results:

Period = 467.95413 [0.01776] d
Epoch = 213.1062 [0.0222] BKJD
Rp/R* = 0.0819 [0.0270]
a/R* = 134.42 [23.77]
b = 0.93 [0.07]
Seff = 0.19 [0.03]
Teff = 168 [7] K
Rp = 6.06 [2.07] Re
a = 1.0288 [0.0742] AU
Ag = 10118.99 [11245.42] [0.90σ]
Teffp = 2599 [723] K [3.36σ]

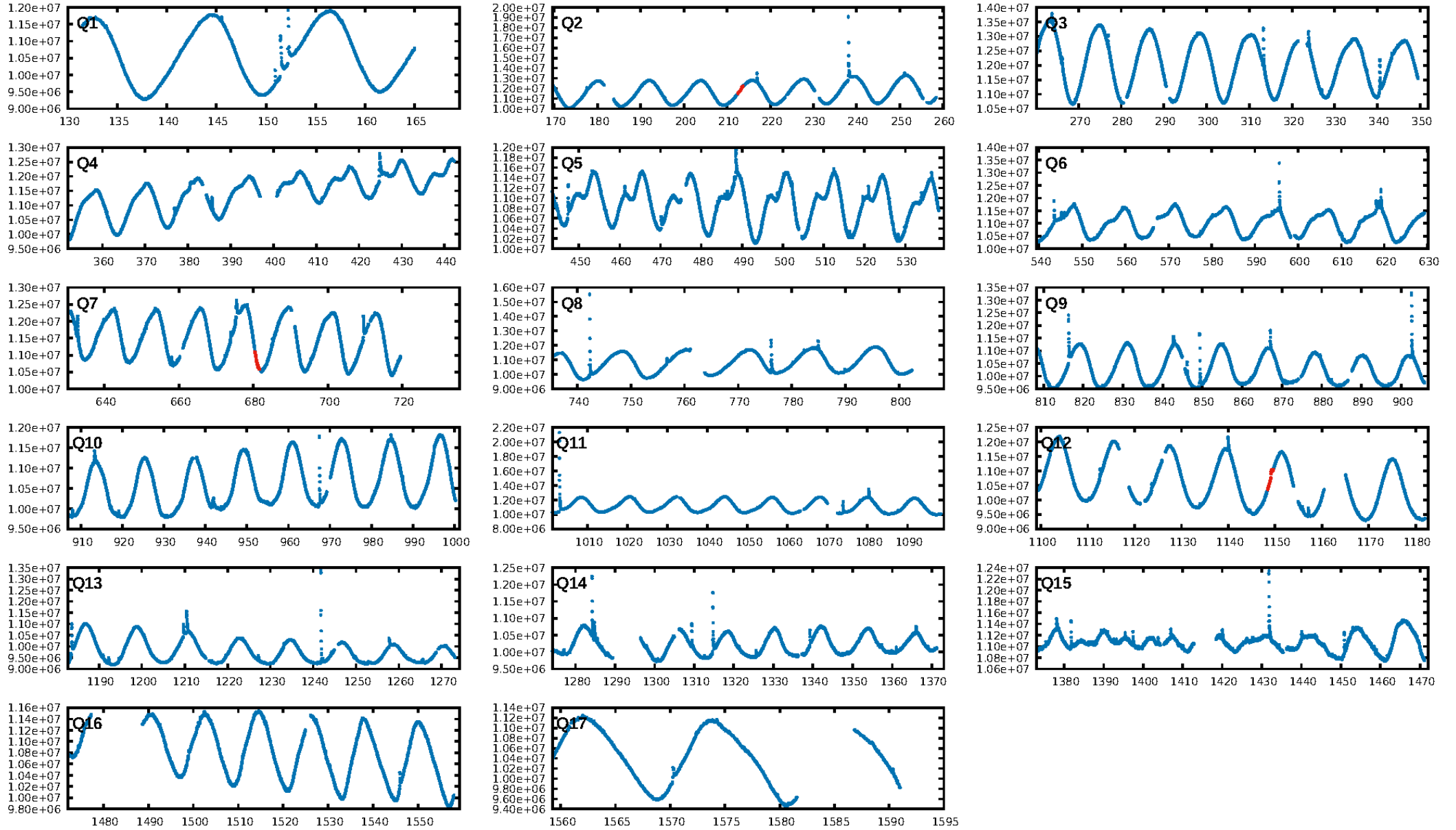
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [109.84σ]
LongPeriod-sig: 100.0% [66.07σ]
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 97.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 3.989
Centroid-sig: 2.3%
Centroid-so: 1.254 arcsec [2.76σ]
OotOffset-rm: 0.156 arcsec [0.52σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-rm: 0.259 arcsec [0.58σ]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

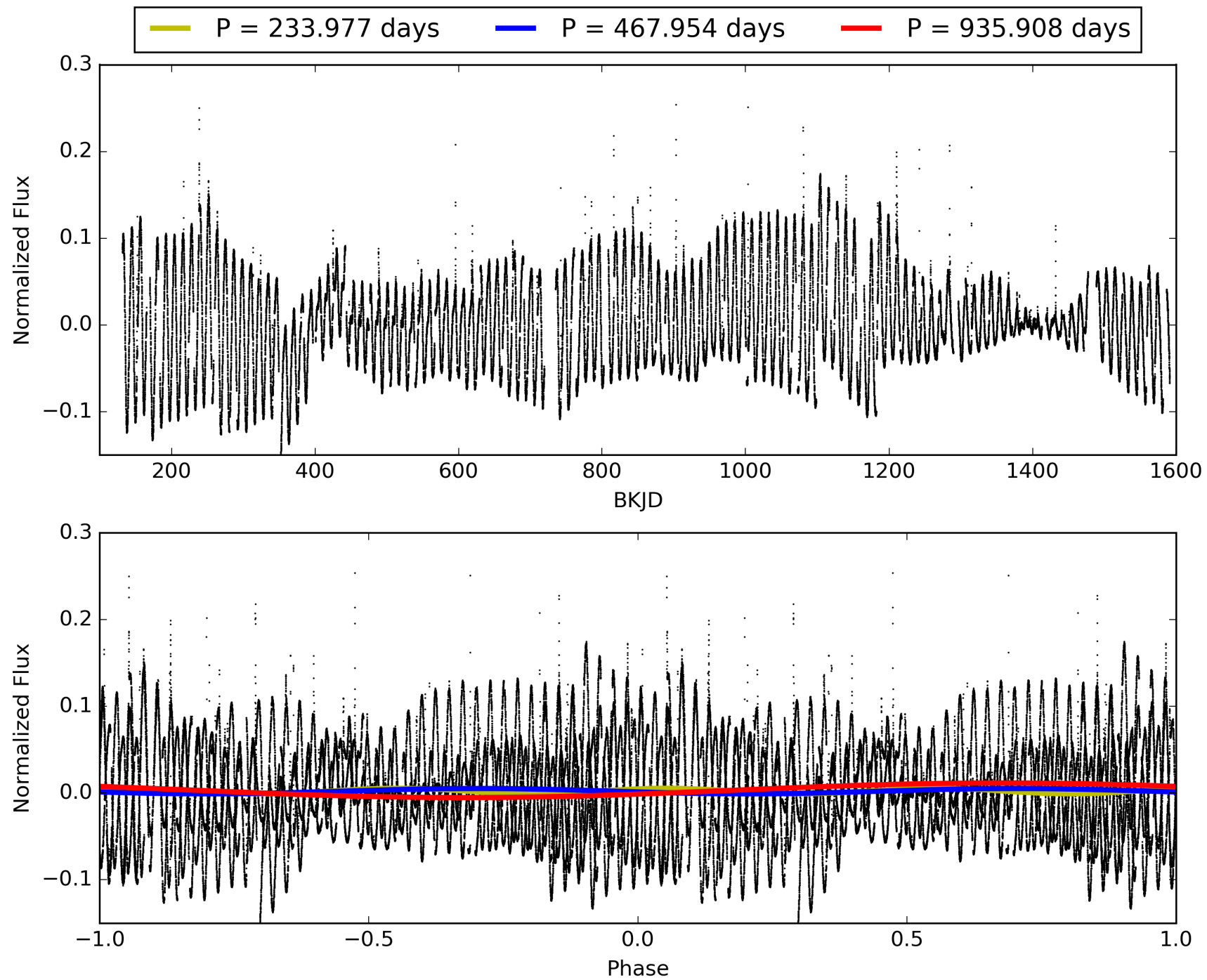
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TCE 011068661-02, PDC Light Curves

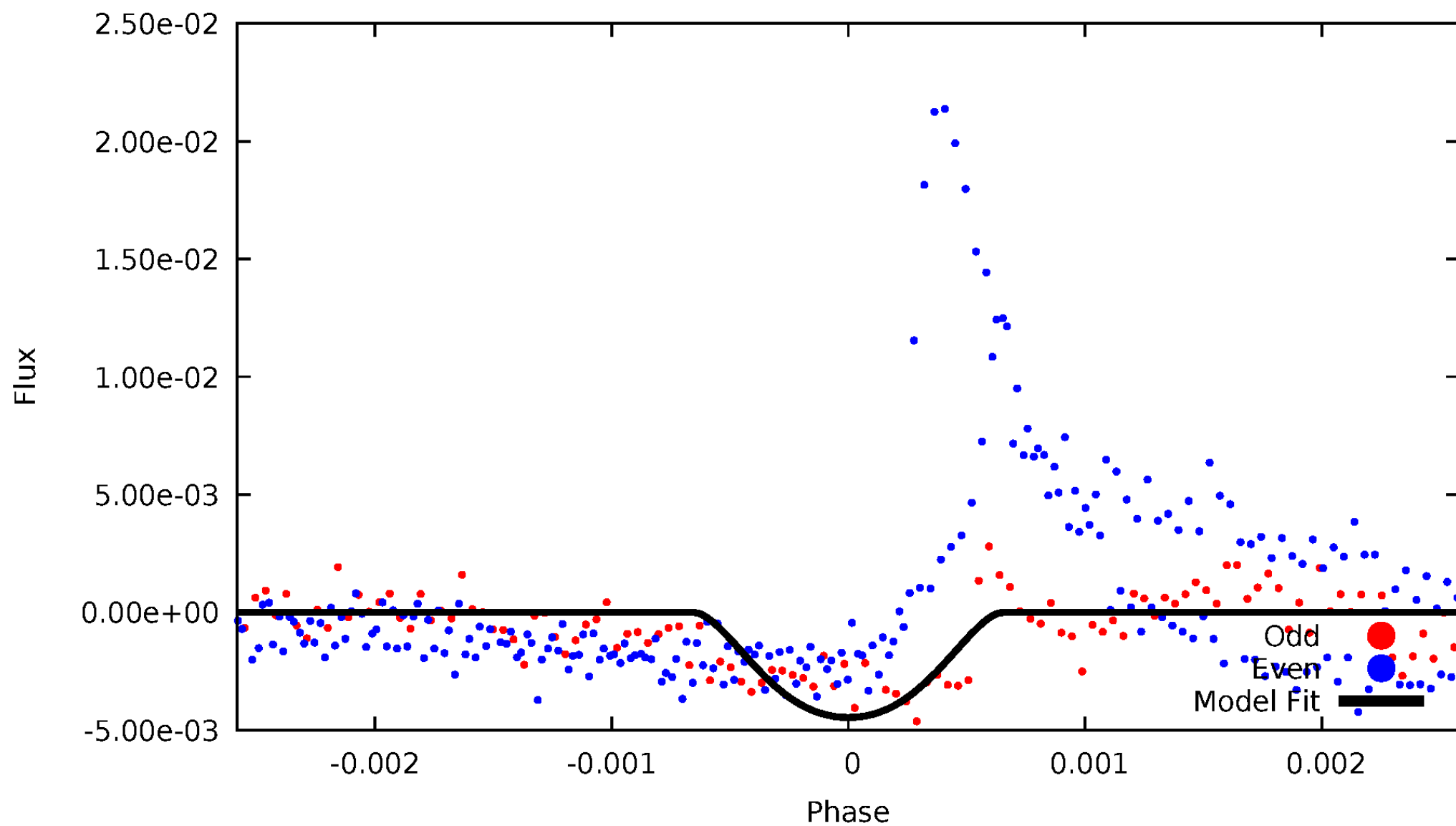


TCE 011068661-02



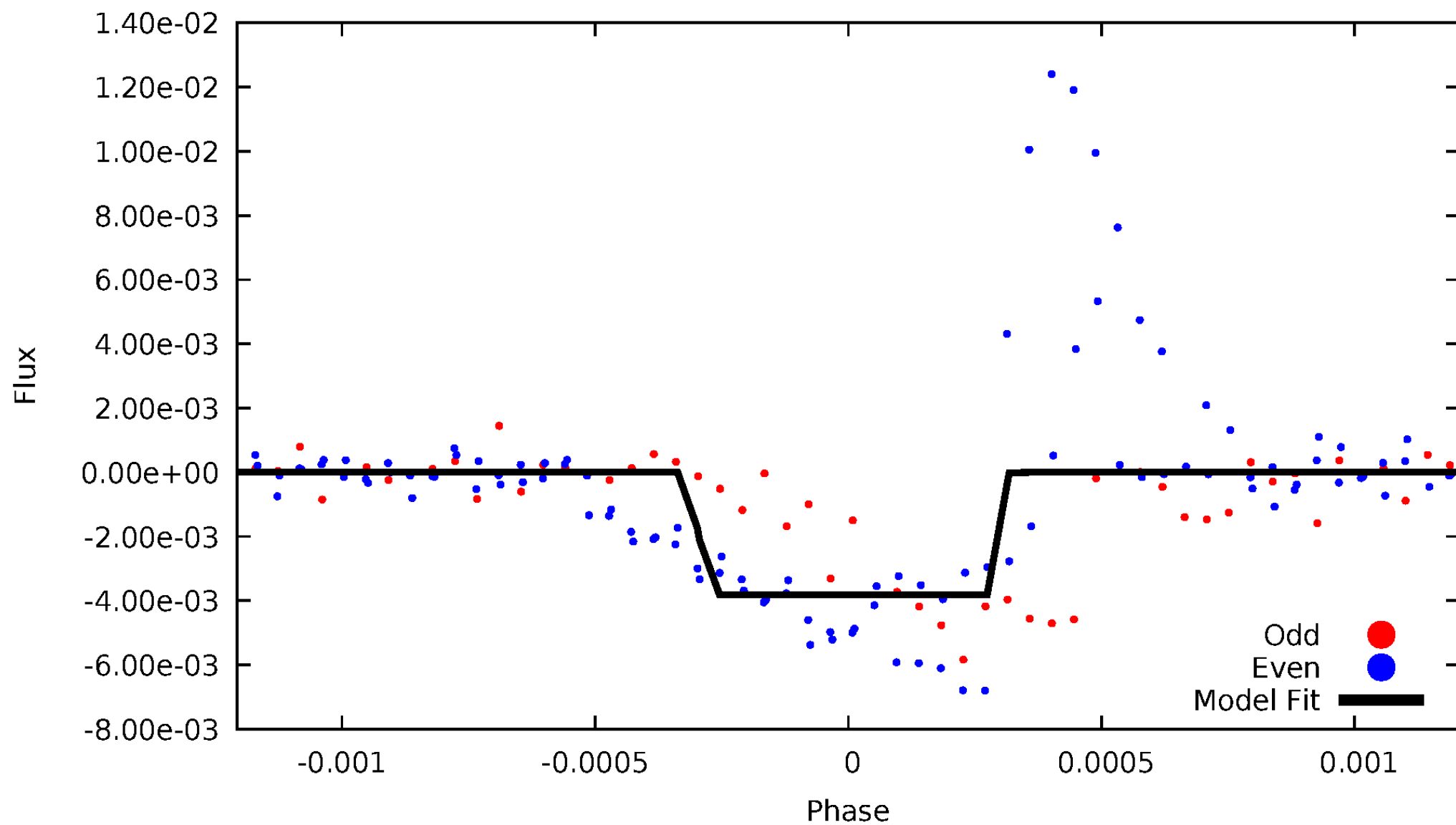
DV Odd/Even

TCE 011068661-02



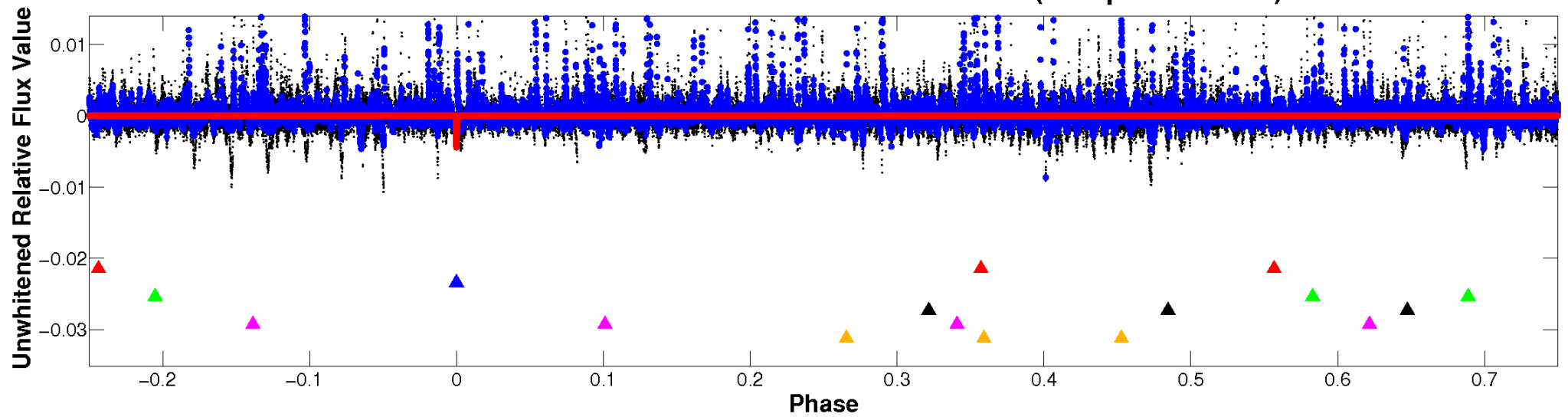
ALT Odd/Even

TCE 011068661-02

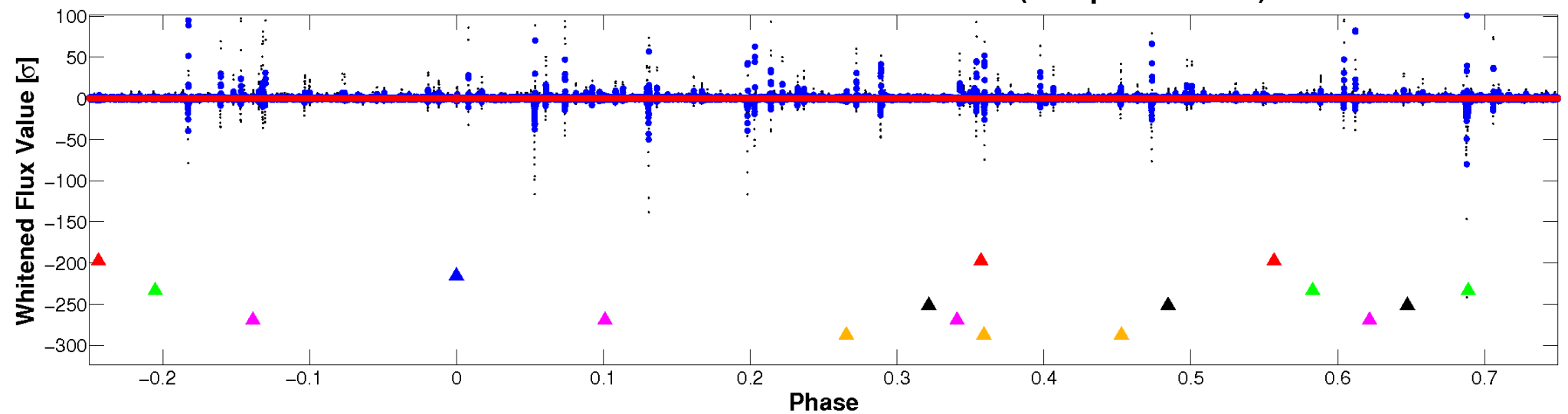


Non-Whitened Vs. Whitened Light Curve

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

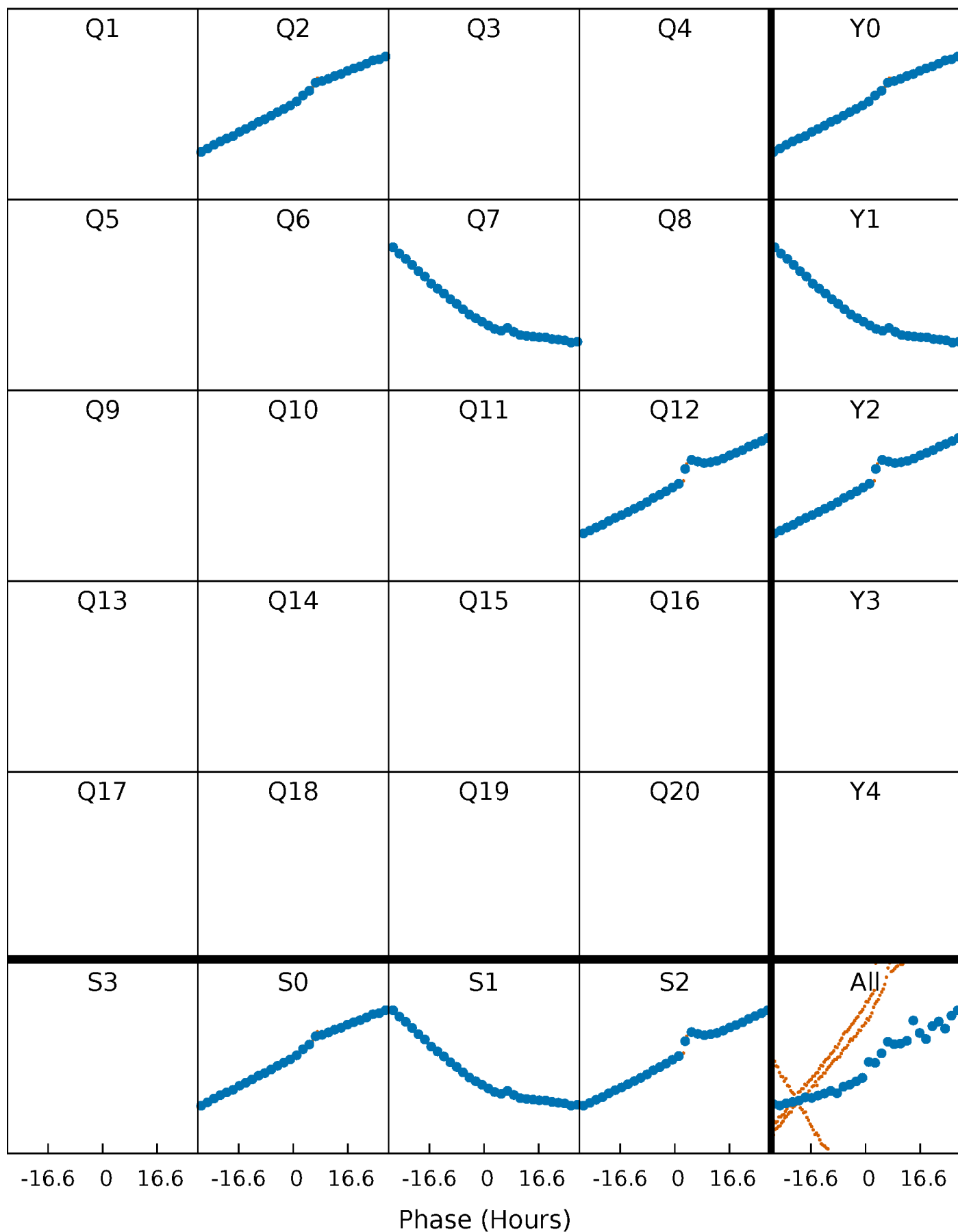


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



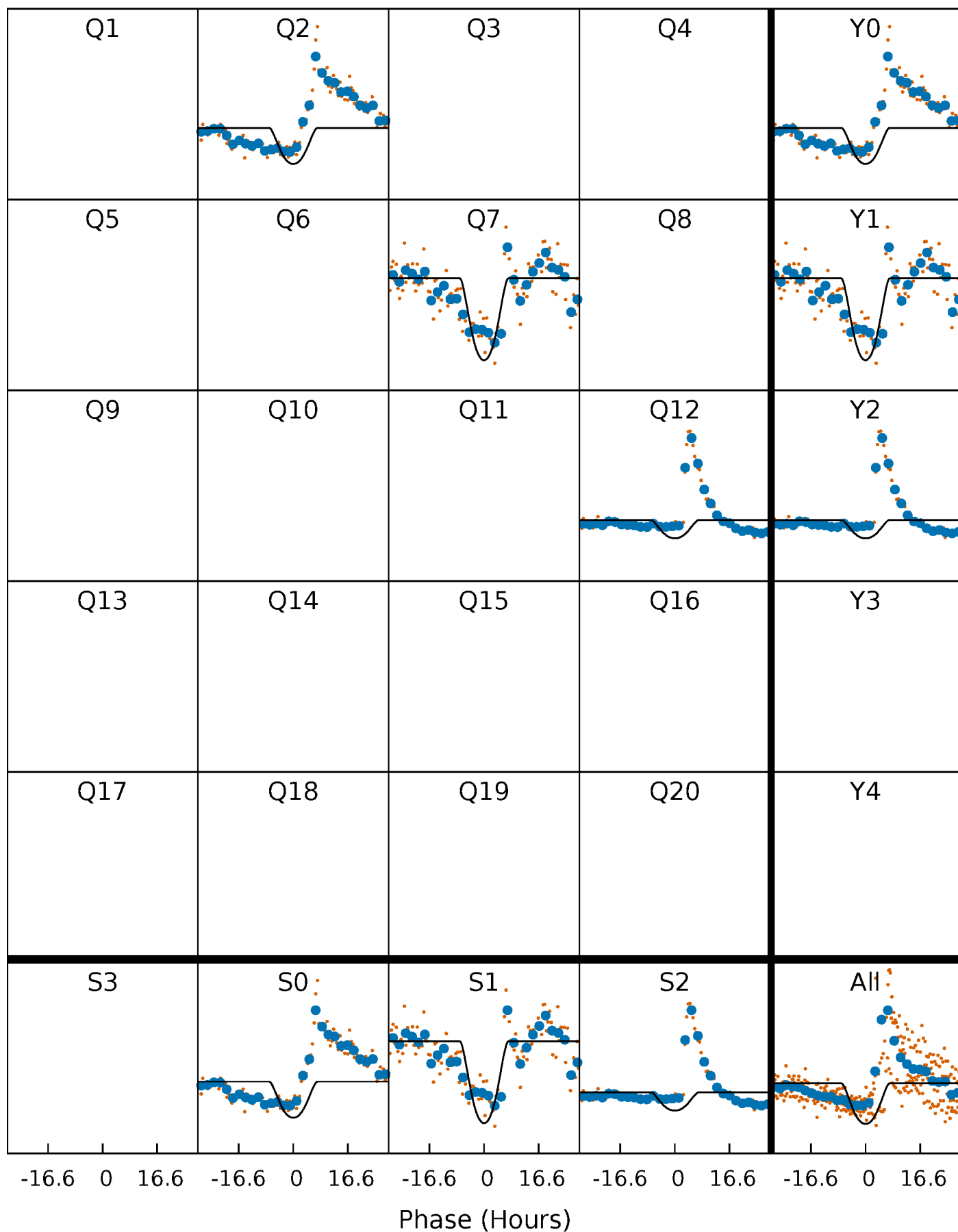
PDC Quarter-Phased Transit Curves

TCE 011068661-02 P=467.954127 Days $T_0=213.106160$ (BKJD)



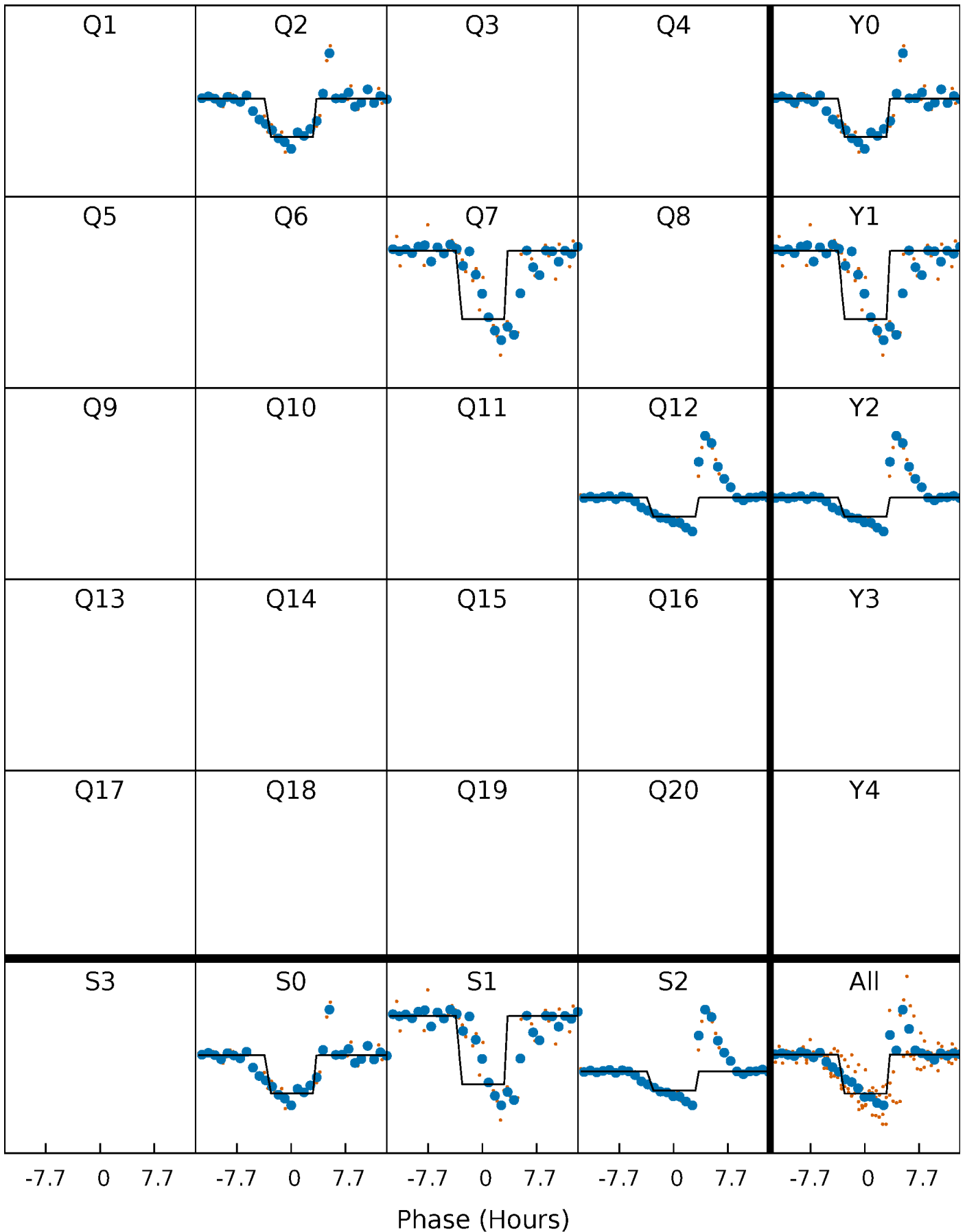
DV Quarter-Phased Transit Curves

TCE 011068661-02 P=467.954127 Days $T_0=213.106160$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

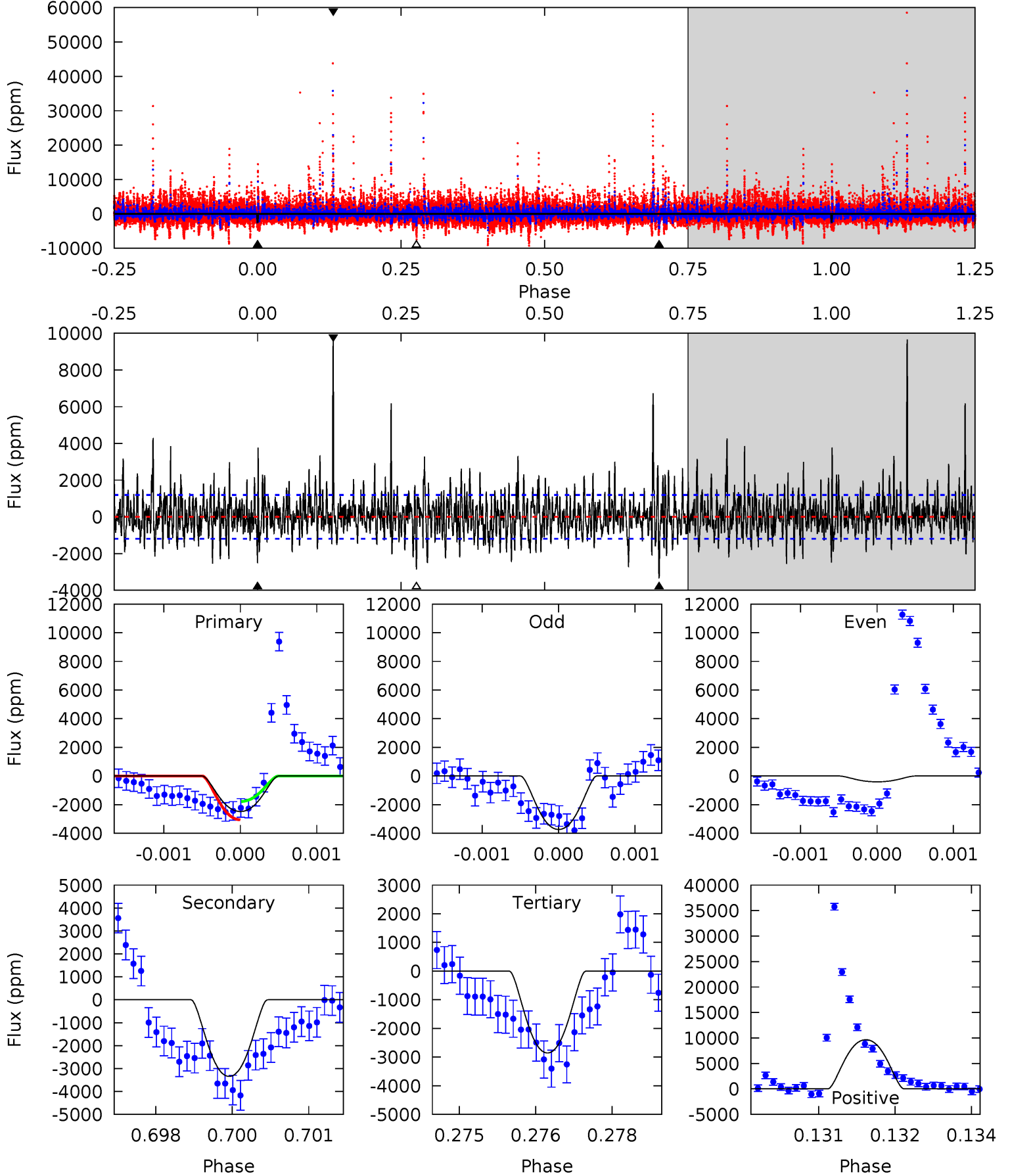
TCE 011068661-02 P=467.908090 Days $T_0=213.181122$ (BKJD)



DV Model-Shift Uniqueness Test

011068661-02, P = 467.954127 Days, E = 213.106160 Days

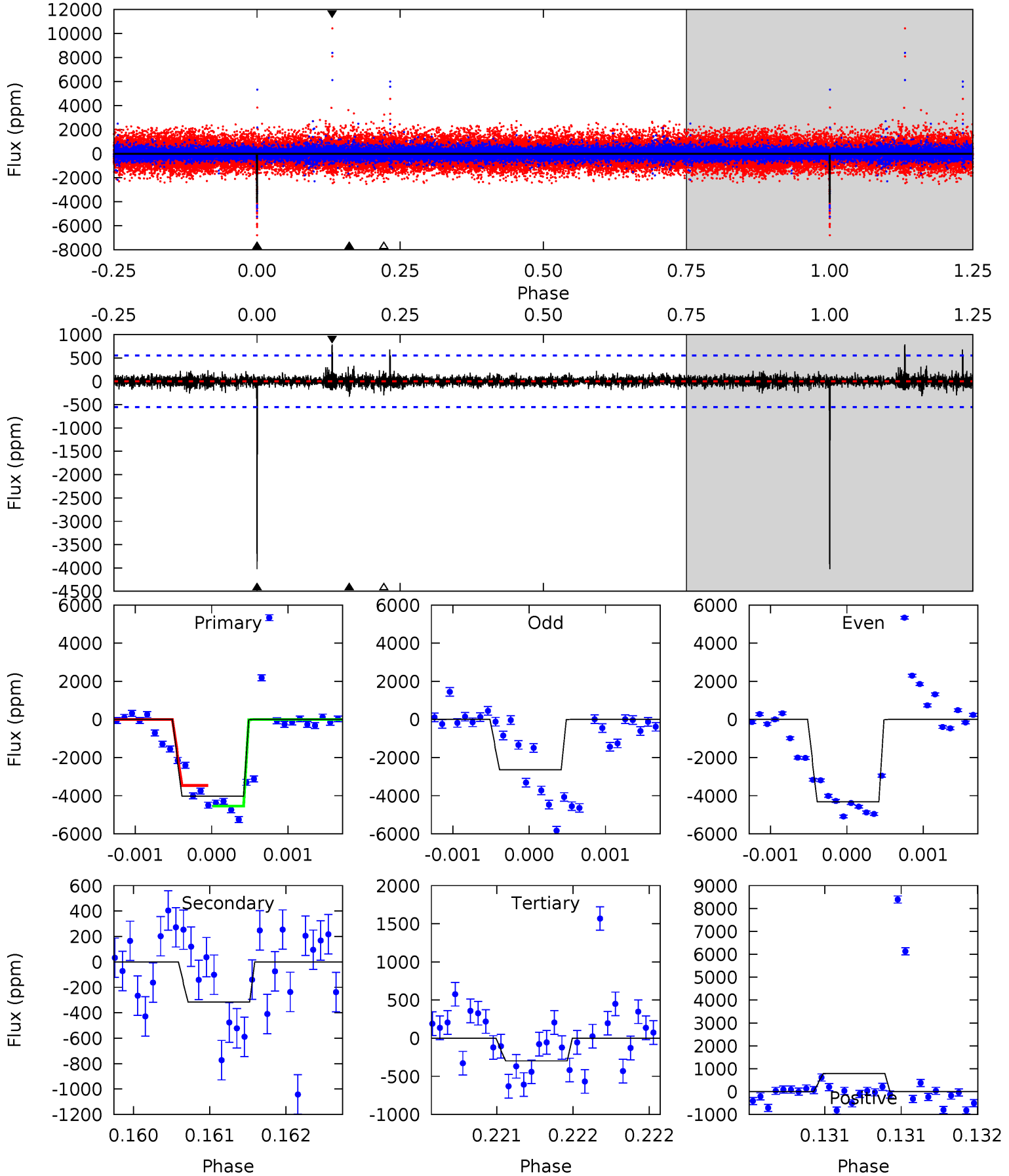
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	15.1	12.9	43.7	5.40	3.21	4.32	-1.71	-32.5	2.21	-28.6	1.98	0.50	0.74	2.85



Alt Model-Shift Uniqueness Test

011068661-02, P = 467.908090 Days, E = 213.181122 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.2	3.15	2.97	7.87	5.53	3.41	0.59	37.2	32.3	0.18	-4.72	7.70	0.99	0.16	5.42



Stellar Parameters For KIC 011068661

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4679^{+140}_{-140}	$4.597^{+0.054}_{-0.027}$	$-0.240^{+0.300}_{-0.300}$	$0.678^{+0.054}_{-0.060}$	$0.663^{+0.082}_{-0.048}$	$2.997^{+0.736}_{-0.360}$
	+3%/-3%	+1%/-1%	+125%/-125%	+8%/-9%	+12%/-7%	+25%/-12%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011068661-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3344 ± 221	$6.11^{+1.90}_{-1.93}$	233^{+8}_{-8}	4075^{+679}_{-369}	53161^{+59067}_{-22554}
Alt.	-315 ± 100	$4.71^{+1.89}_{-1.96}$	233^{+8}_{-8}	3052^{+552}_{-324}	8402^{+17768}_{-4519}

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 $A_{obs} \gg 1.0$

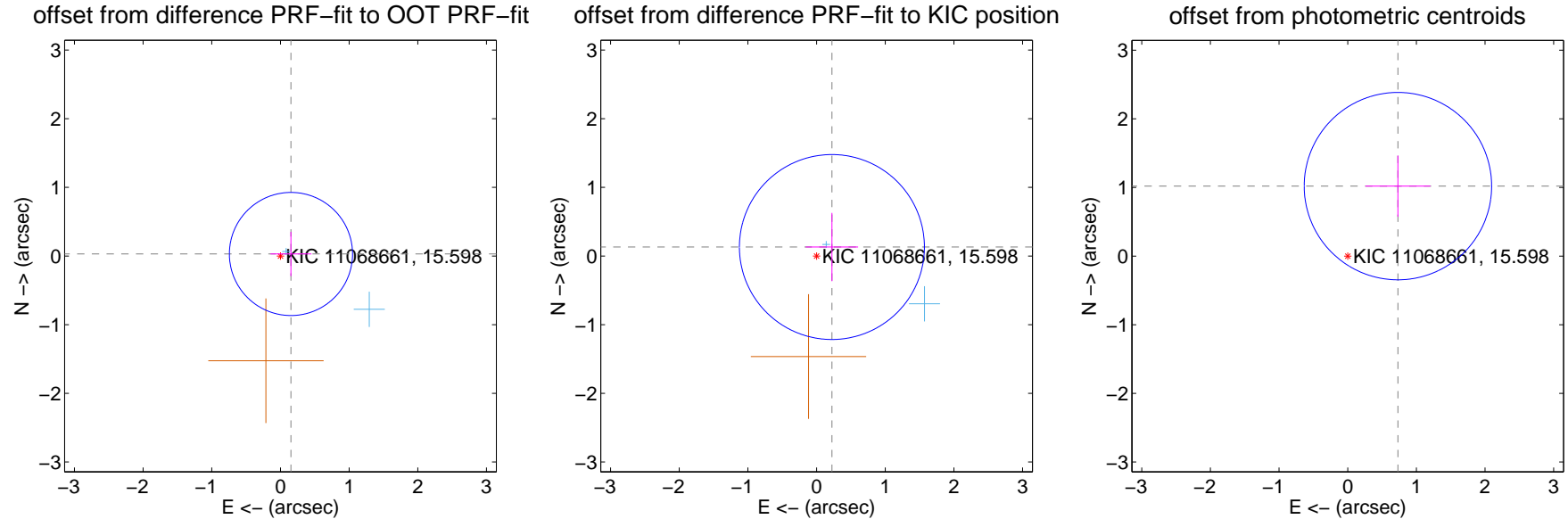
DV Centroid Data

Supplemental centroid analysis for 011068661-02. Kepler magnitude: 15.60. Transit SNR 8.42

There are 2 quarters with good PRF difference image offsets

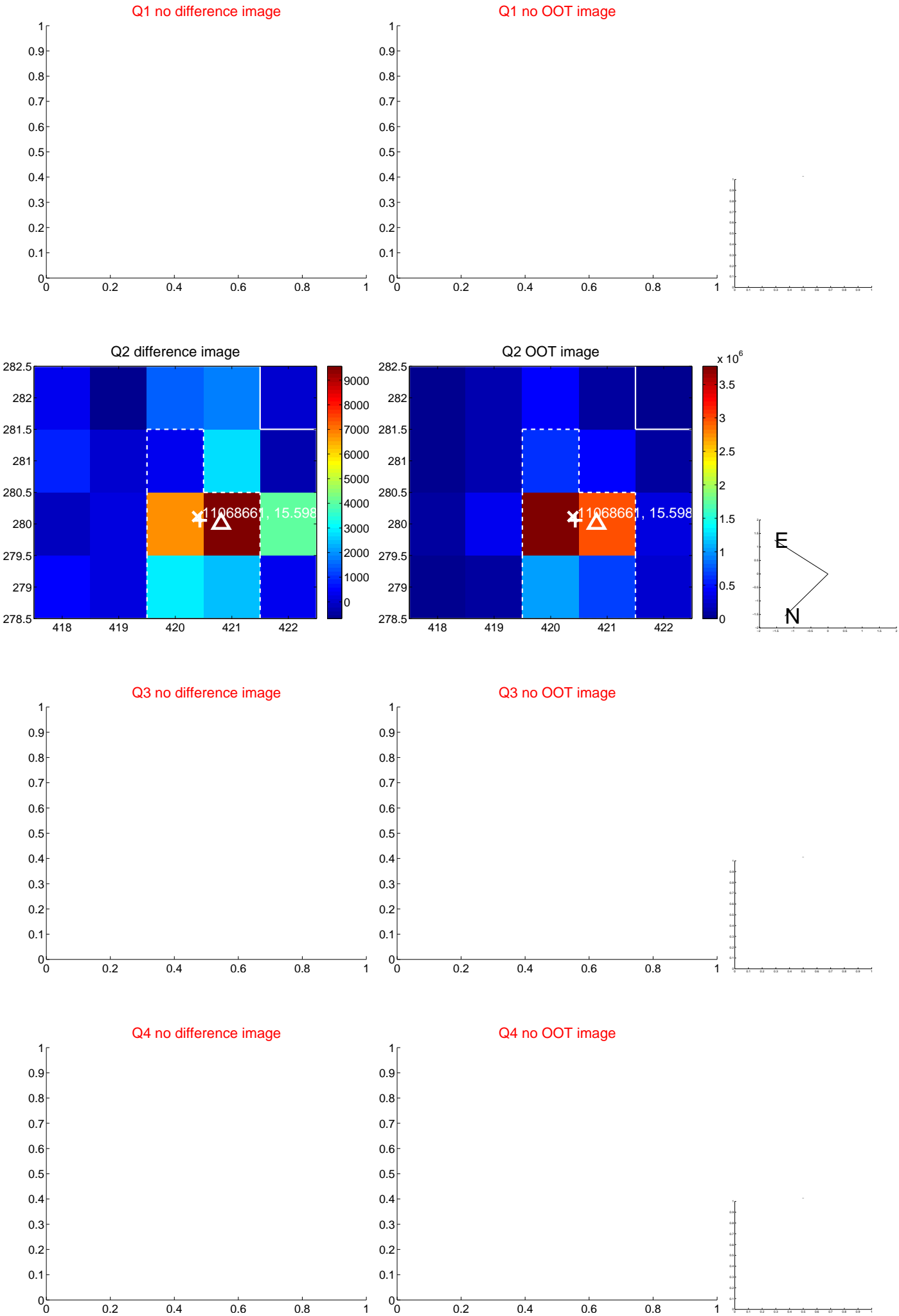
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.156 ± 0.299	0.52	-0.153 ± 0.298	0.030 ± 0.322
PRF-fit source offset from KIC position	0.259 ± 0.449	0.58	-0.223 ± 0.382	0.131 ± 0.497
photometric centroid source offset	1.25 ± 0.45	2.76	-0.73 ± 0.47	1.02 ± 0.45



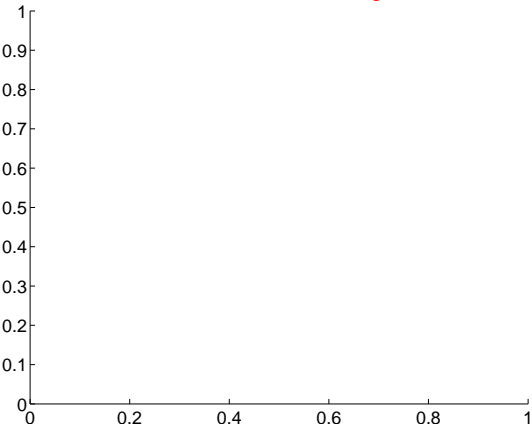
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

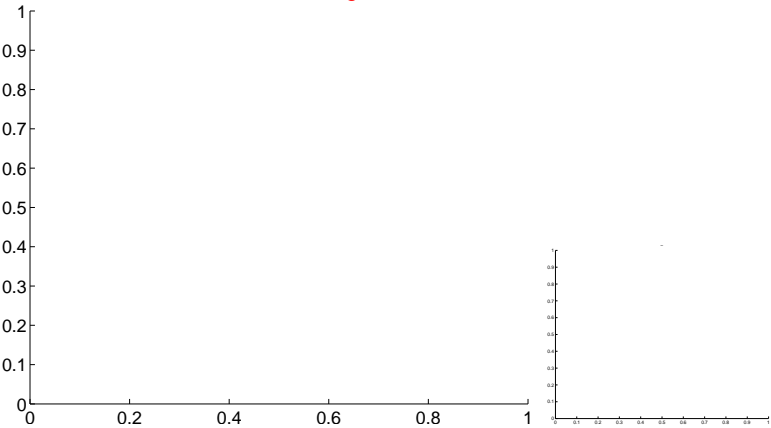


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

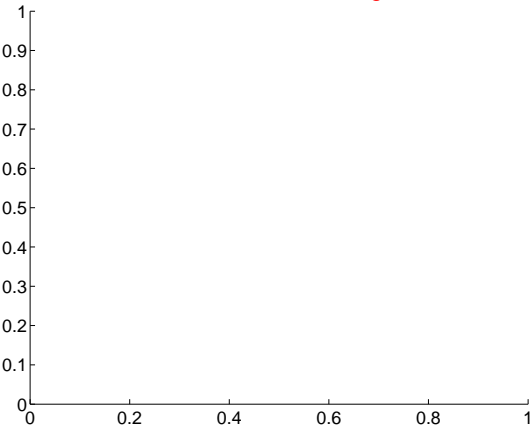
Q5 no difference image



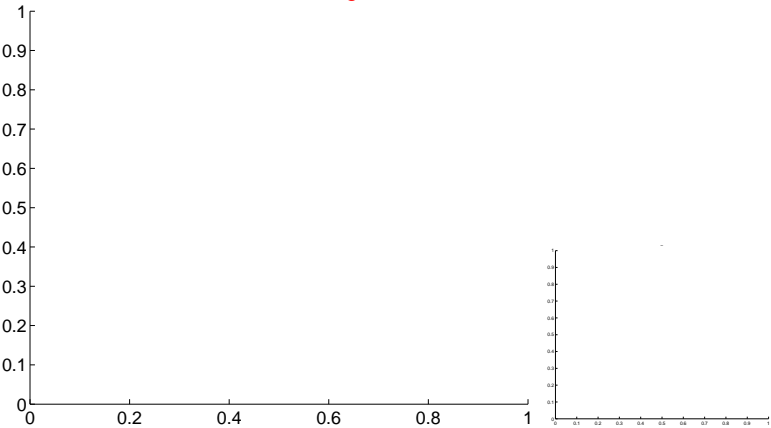
Q5 no OOT image



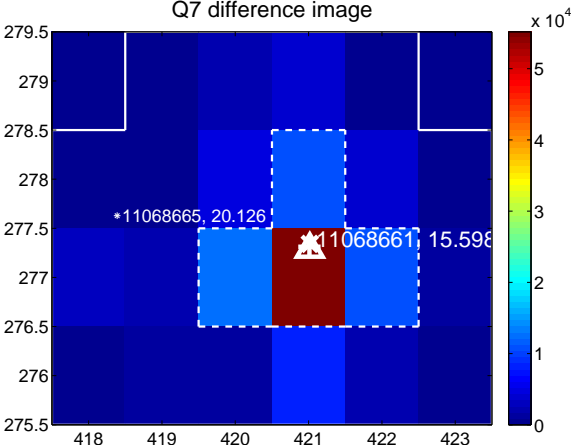
Q6 no difference image



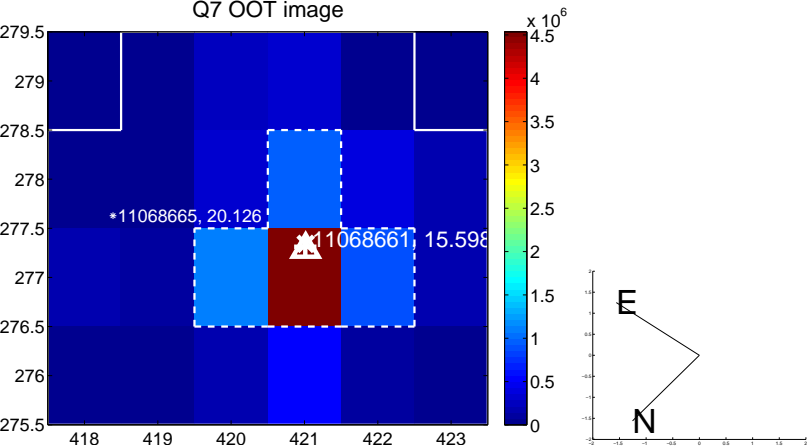
Q6 no OOT image



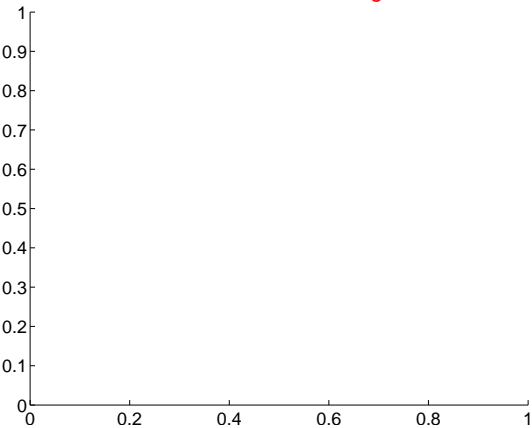
Q7 difference image



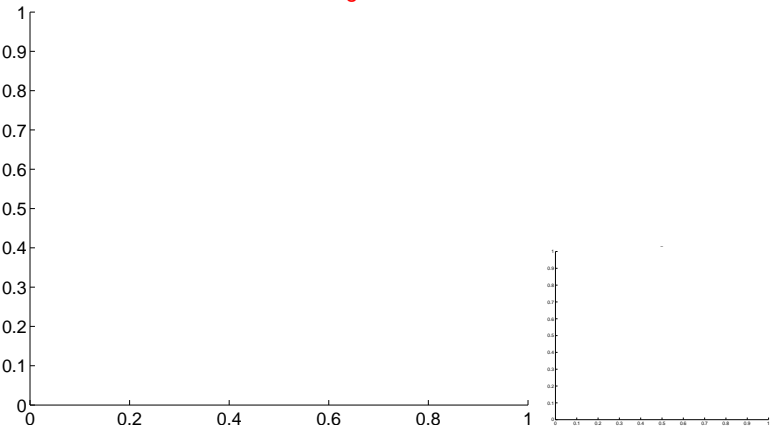
Q7 OOT image



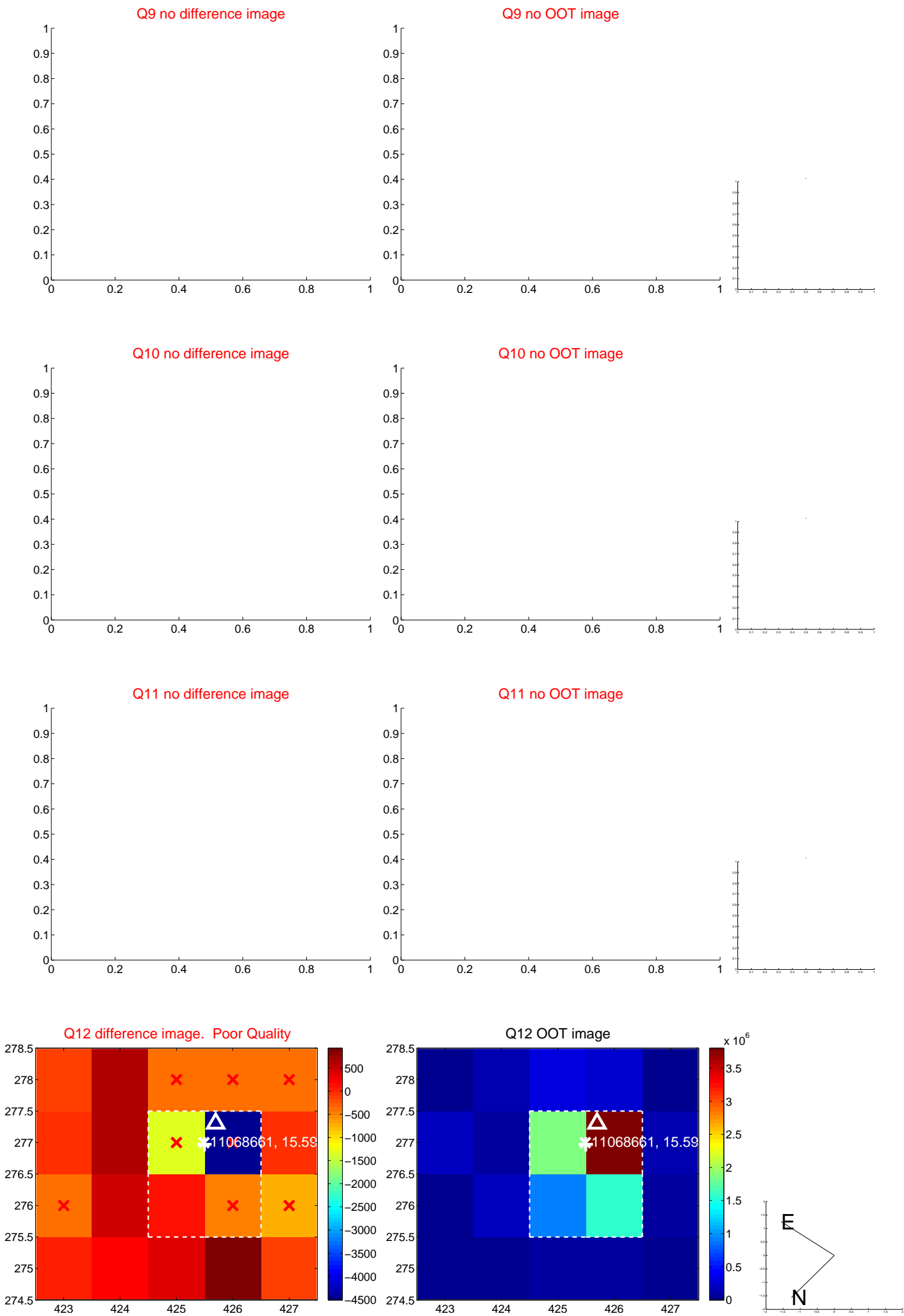
Q8 no difference image



Q8 no OOT image



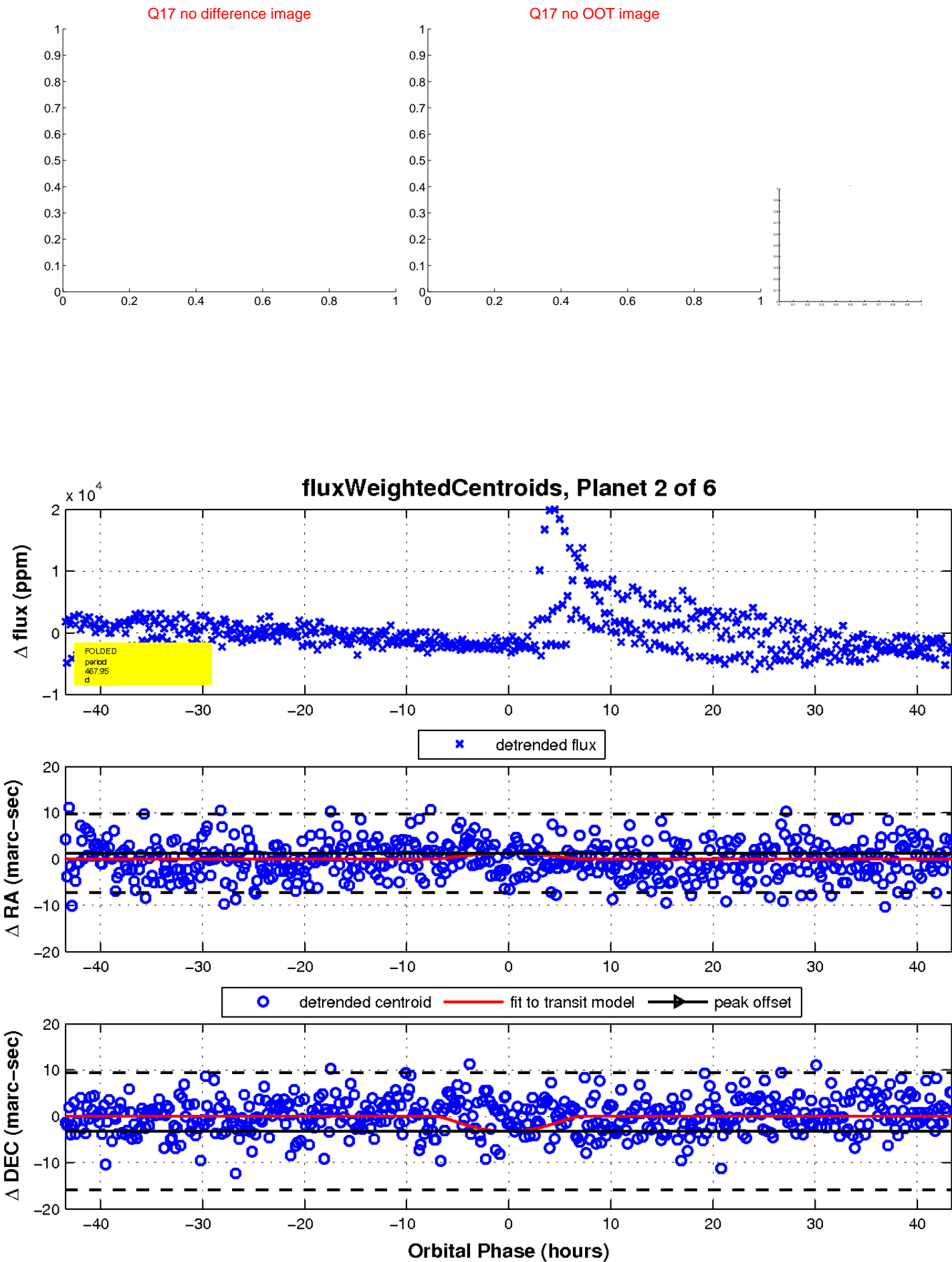
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

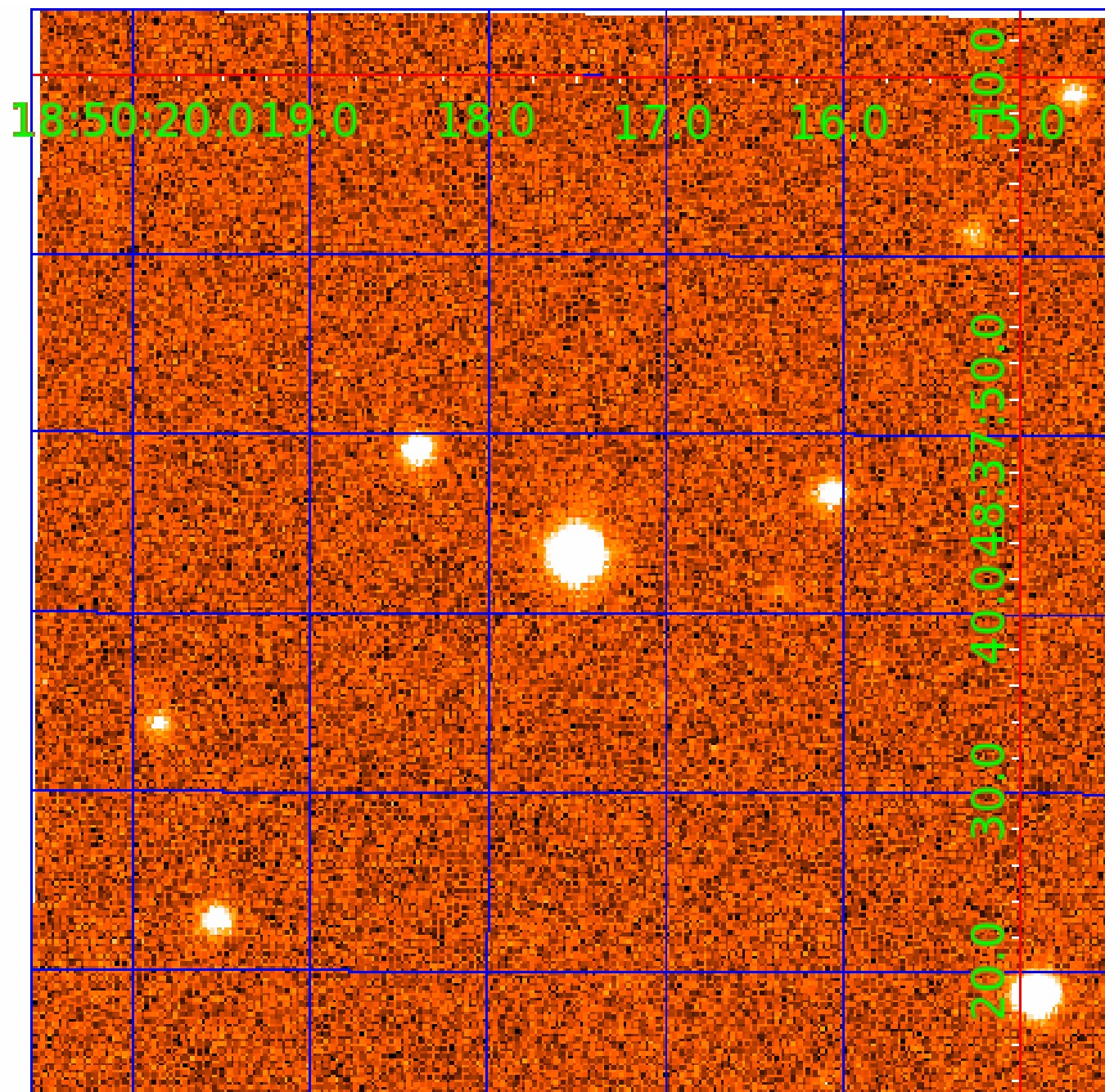


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011068661

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})
011068661-01	OBS	No	561.338339	380.237742	3821.6	11.650	17.2	9.1	0.68	4679	4.05	0.15
011068661-02	OBS	No	467.954127	213.106161	4462.1	14.496	16.9	8.4	0.68	4679	6.06	0.19
011068661-03	OBS	No	517.528708	485.913975	4105.9	24.190	14.9	7.0	0.68	4679	4.52	0.16
011068661-05	OBS	No	355.779765	372.604707	2024.5	5.232	15.4	5.9	0.68	4679	3.02	0.27
011068661-06	OBS	No	511.782318	337.333193	18627.5	6.579	15.1	21.7	0.68	4679	16.91	0.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011068661-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV

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

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

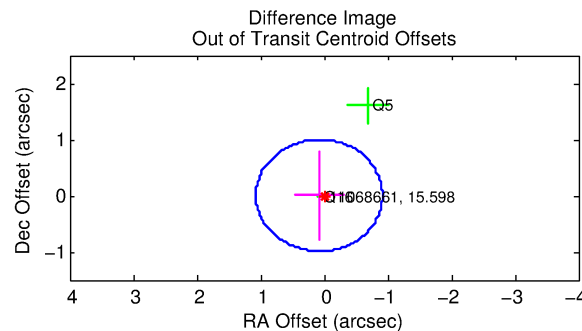
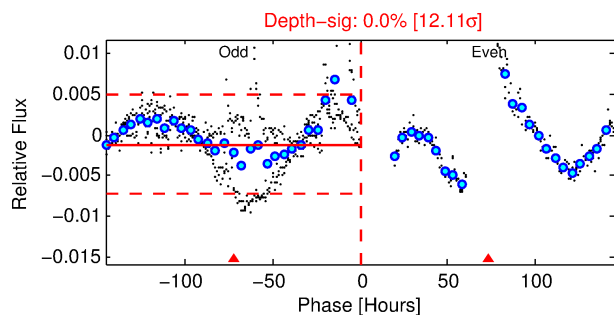
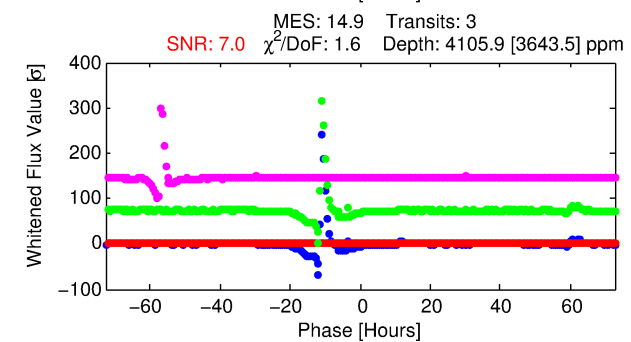
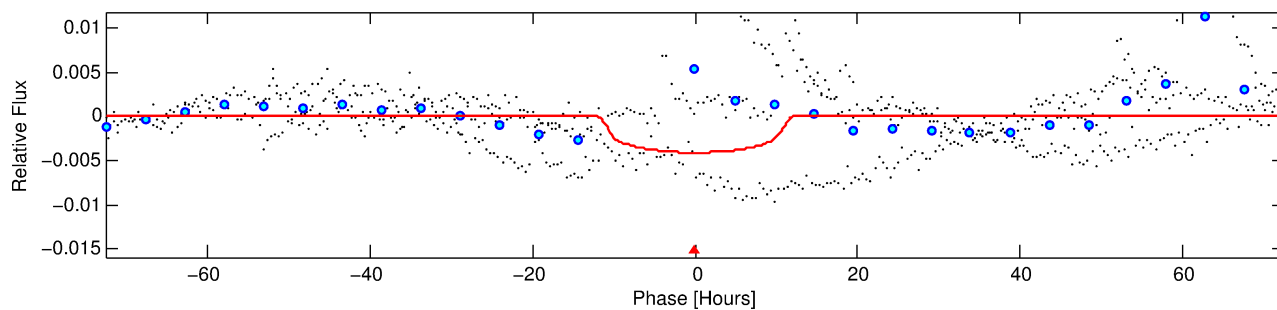
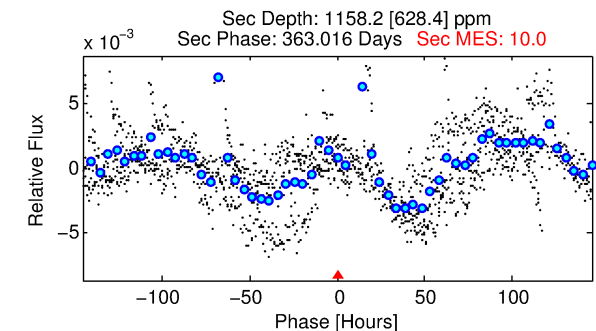
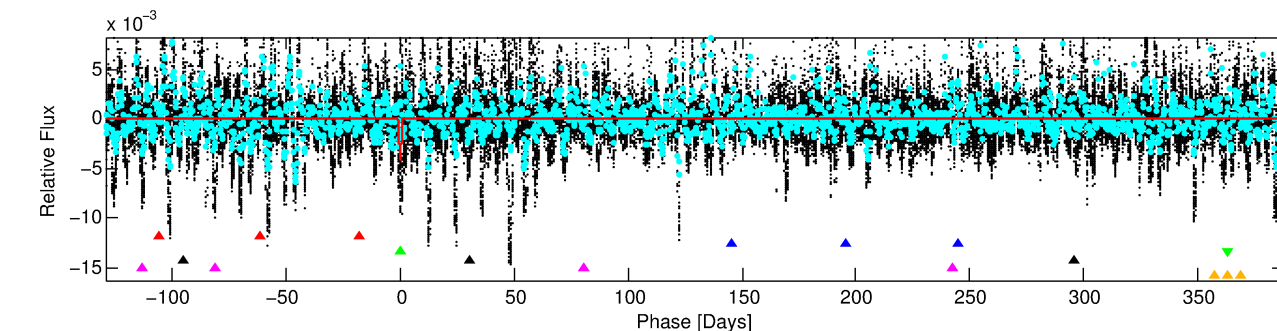
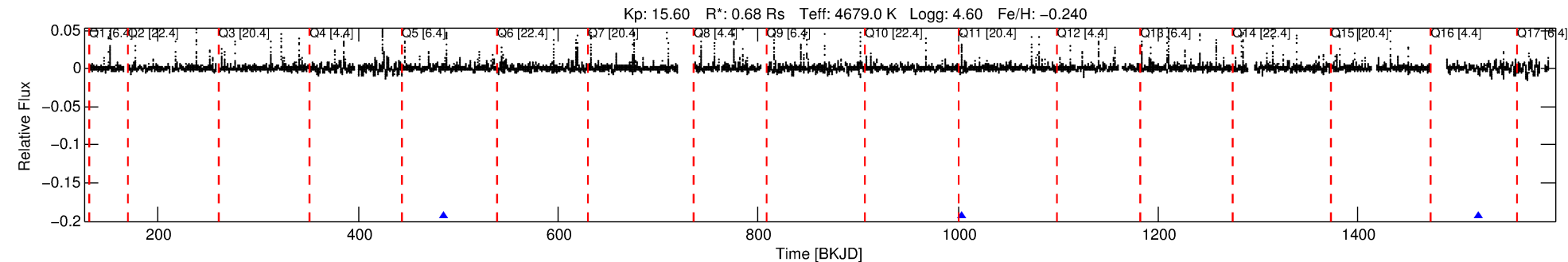
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011068661-03

No Significant Match Found

DV One-Page Summary

KIC: 11068661 Candidate: 3 of 6 Period: 517.529 d



DV Fit Results:

Period = 517.52871 [0.06760] d
Epoch = 485.9140 [0.0924] BKJD
Rp/R* = 0.0611 [0.0376]
a/R* = 139.32 [163.15]
b = 0.63 [1.13]
Seff = 0.16 [0.03]
Teq = 162 [6] K
Rp = 4.52 [2.81] Re
a = 1.1002 [0.0793] AU
Ag = 37771.69 [50966.59] [0.74σ]
Teff = 3493 [1179] K [2.82σ]

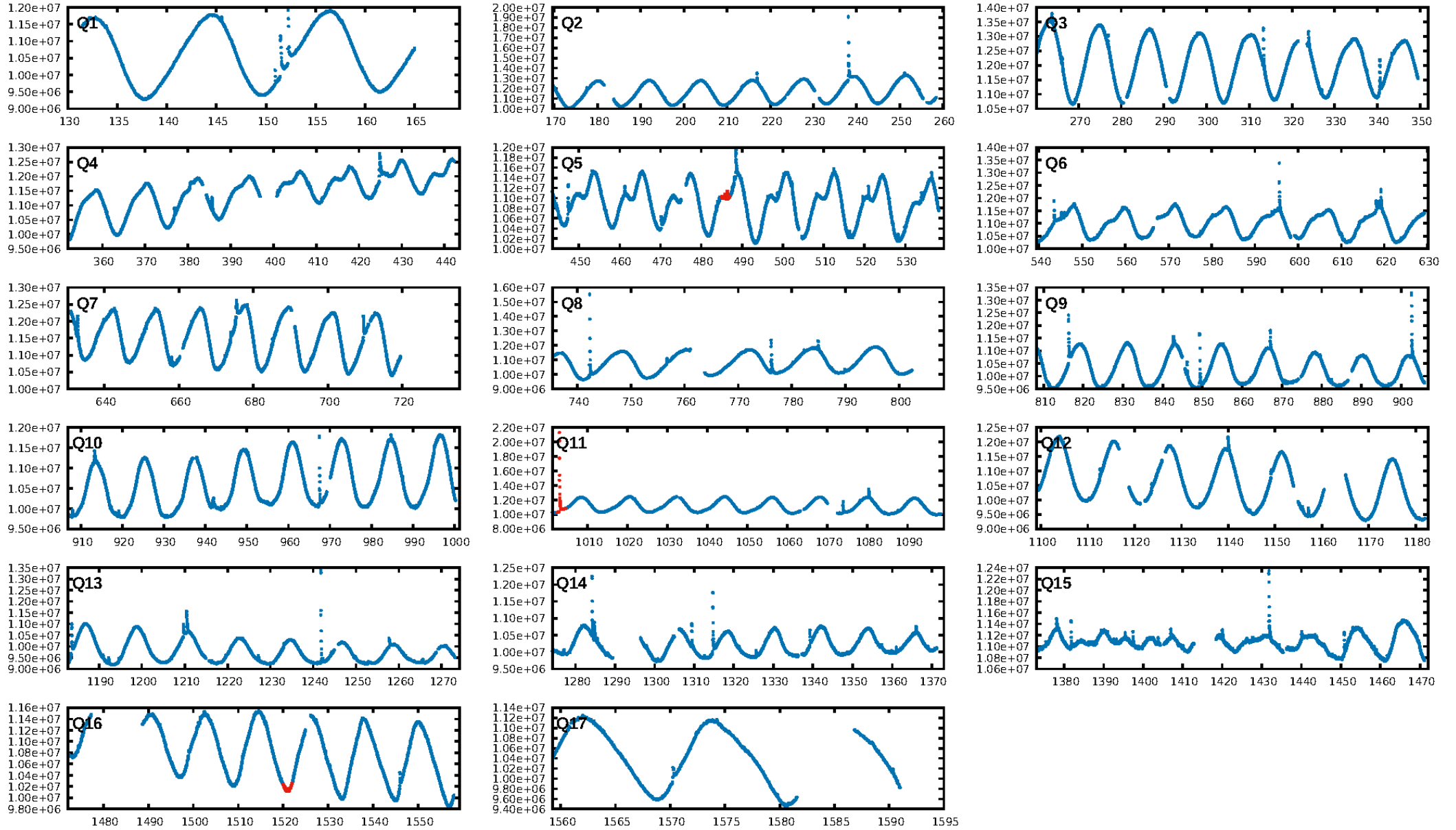
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [5.50σ]
LongPeriod-sig: 100.0% [39.16σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 96.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 45.17
Centroid-sig: 2.5%
Centroid-so: 0.919 arcsec [2.28σ]
OotOffset-rm: 0.078 arcsec [0.24σ]
KicOffset-rm: 0.101 arcsec [0.23σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

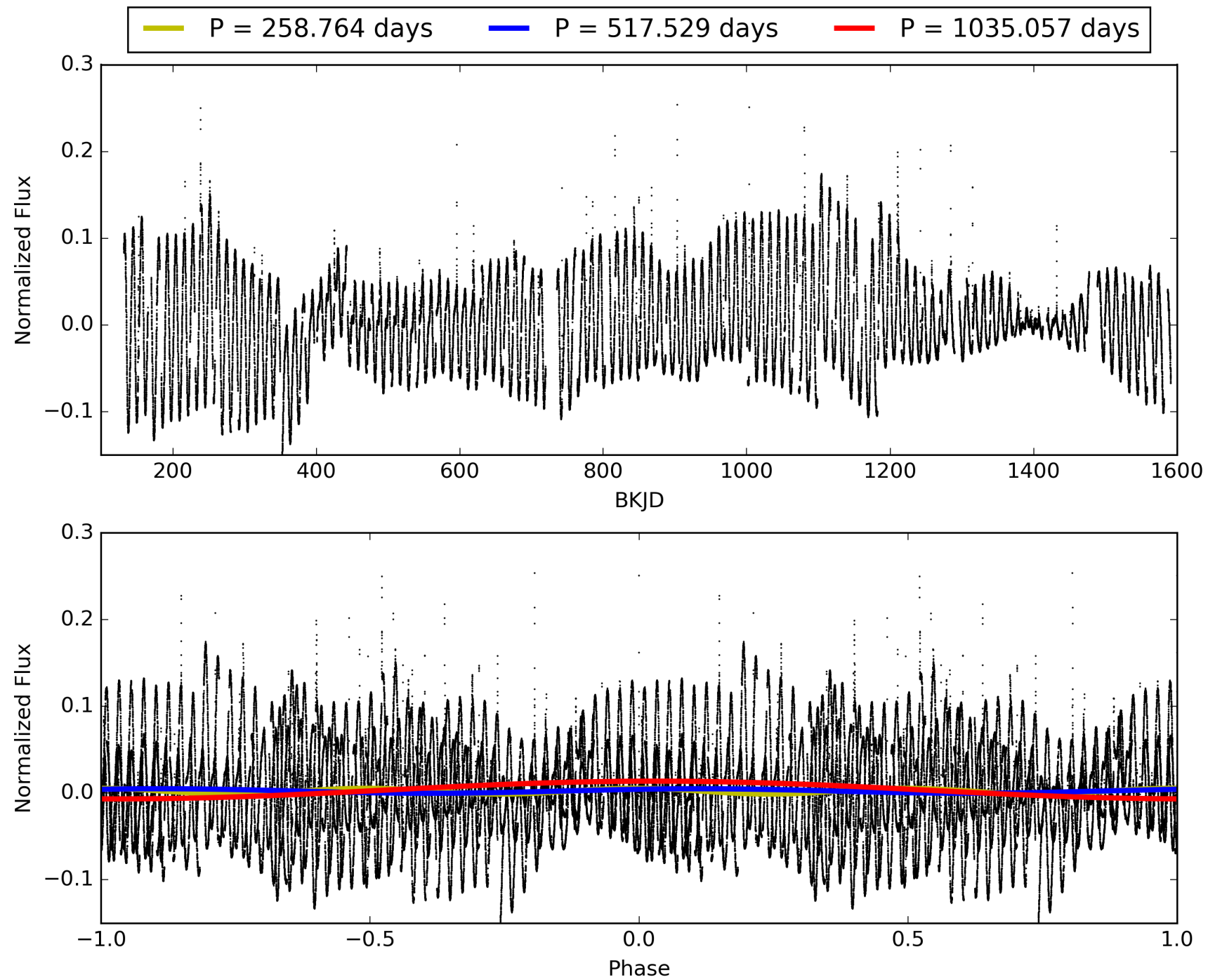
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:00:37 Z

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

TCE 011068661-03, PDC Light Curves

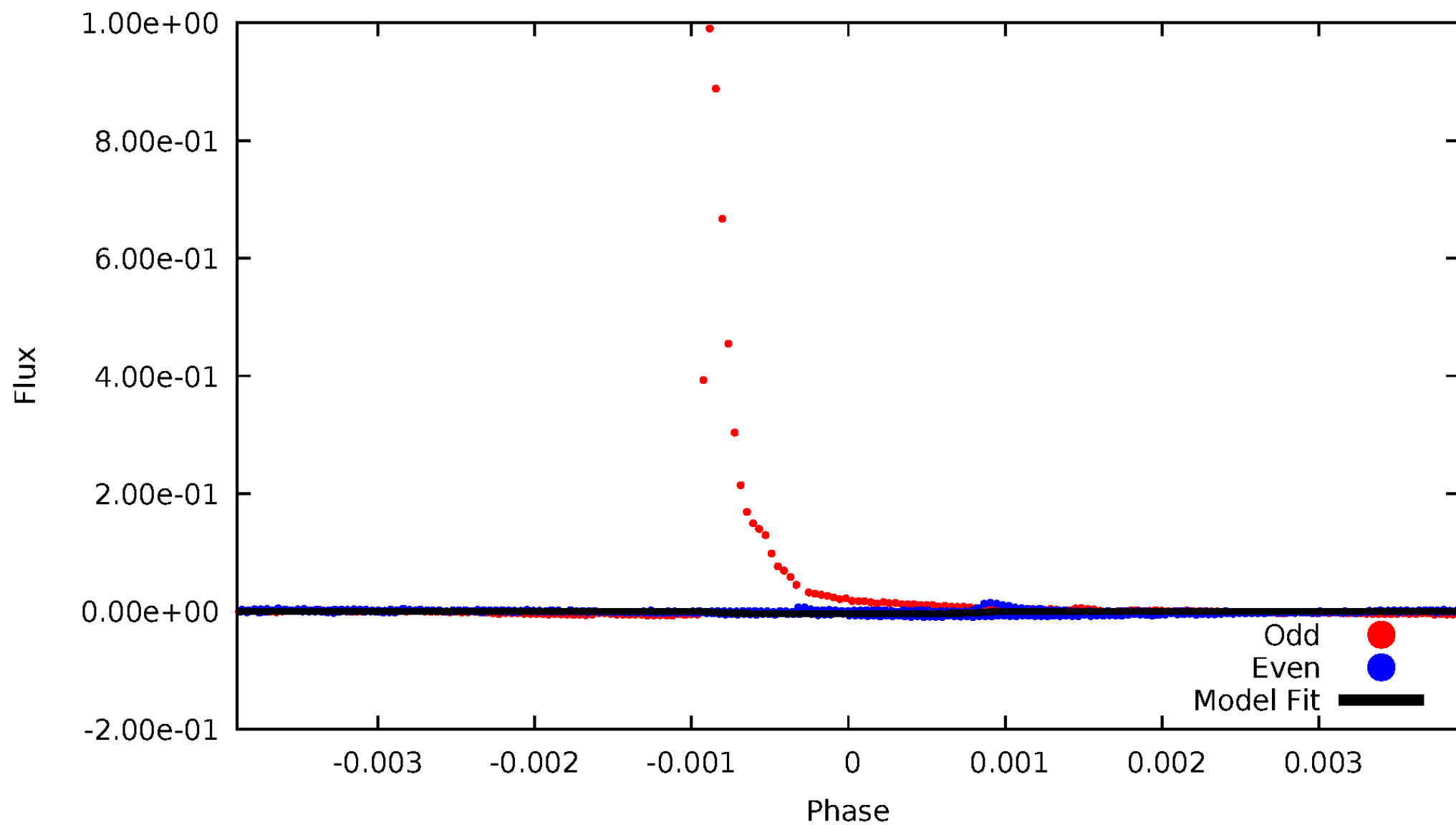


TCE 011068661-03



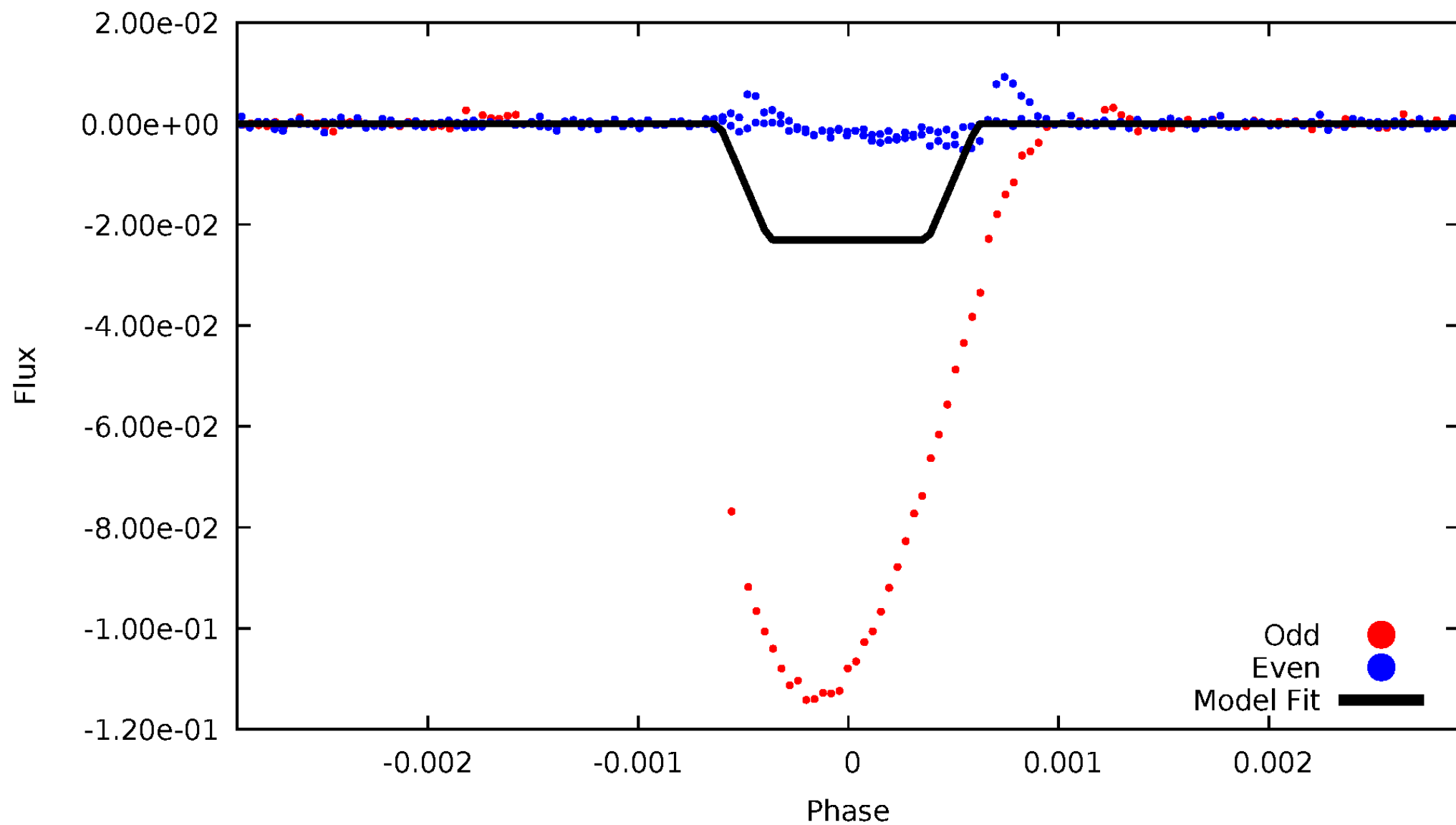
DV Odd/Even

TCE 011068661-03



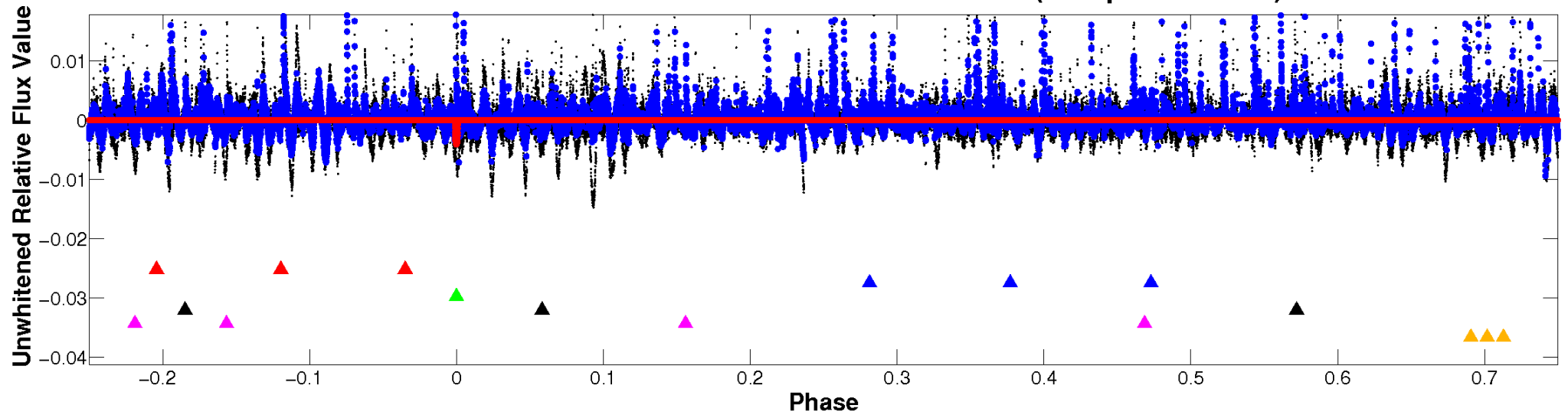
ALT Odd/Even

TCE 011068661-03

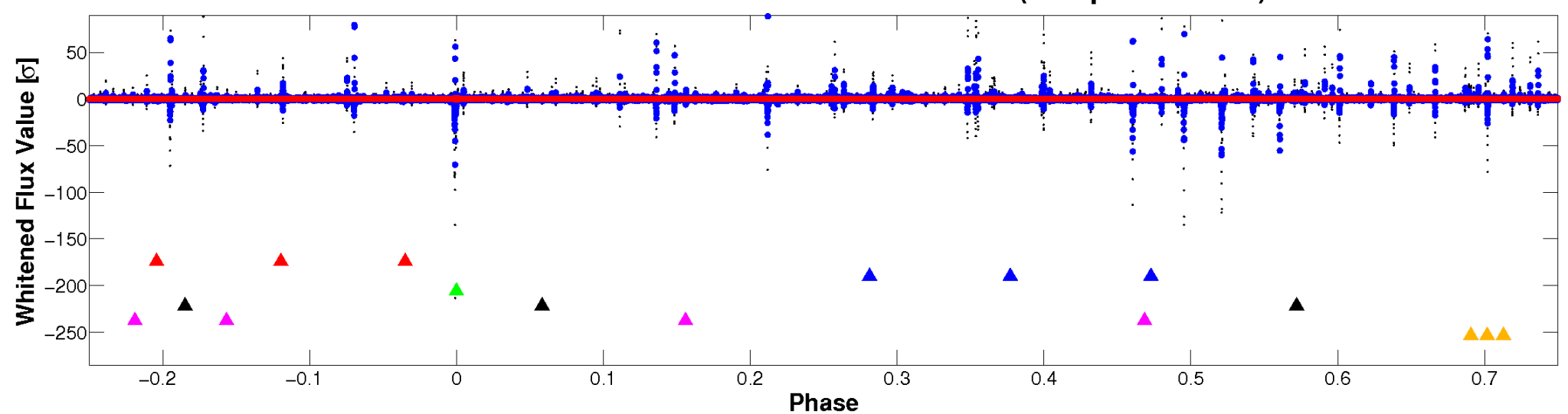


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

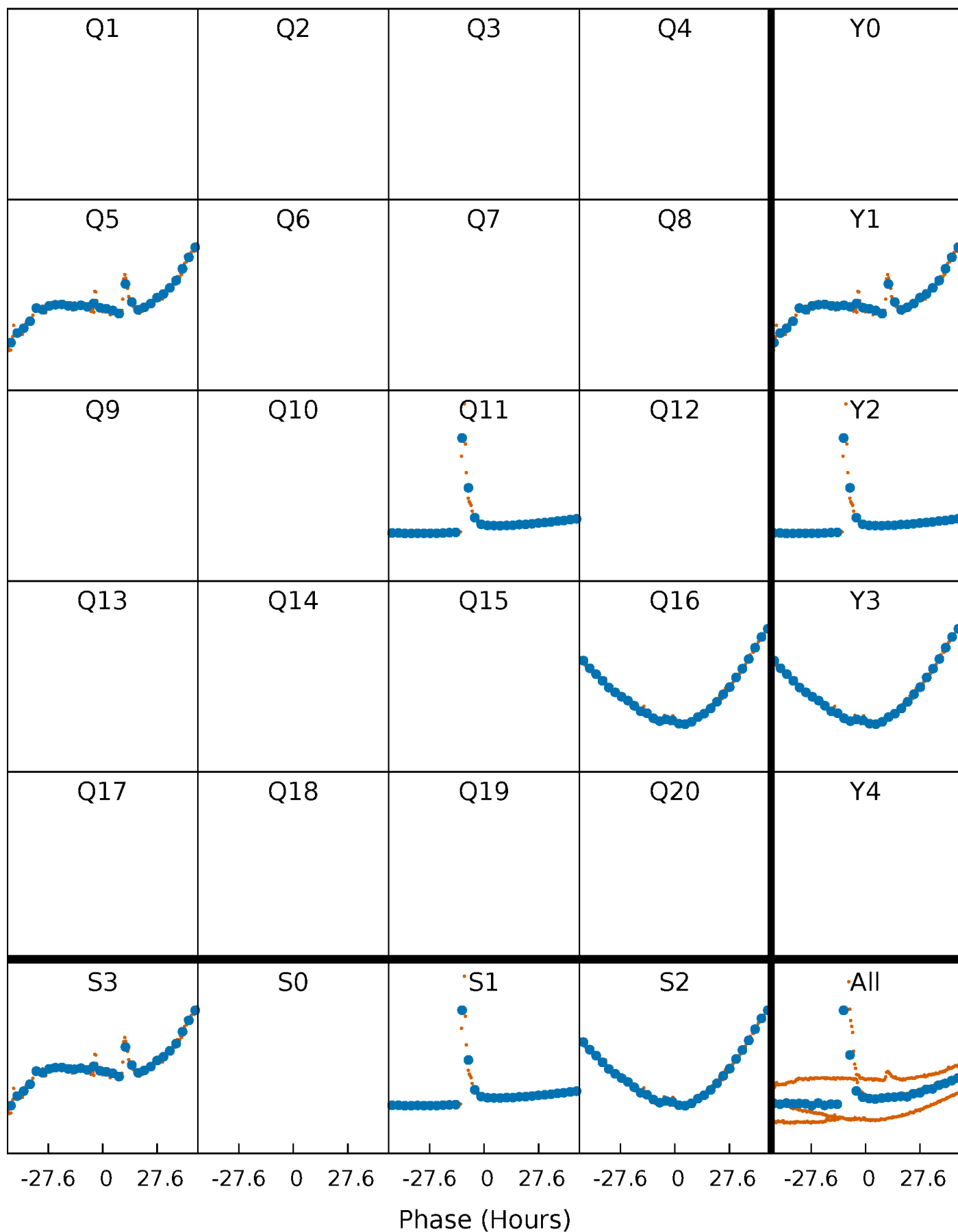


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



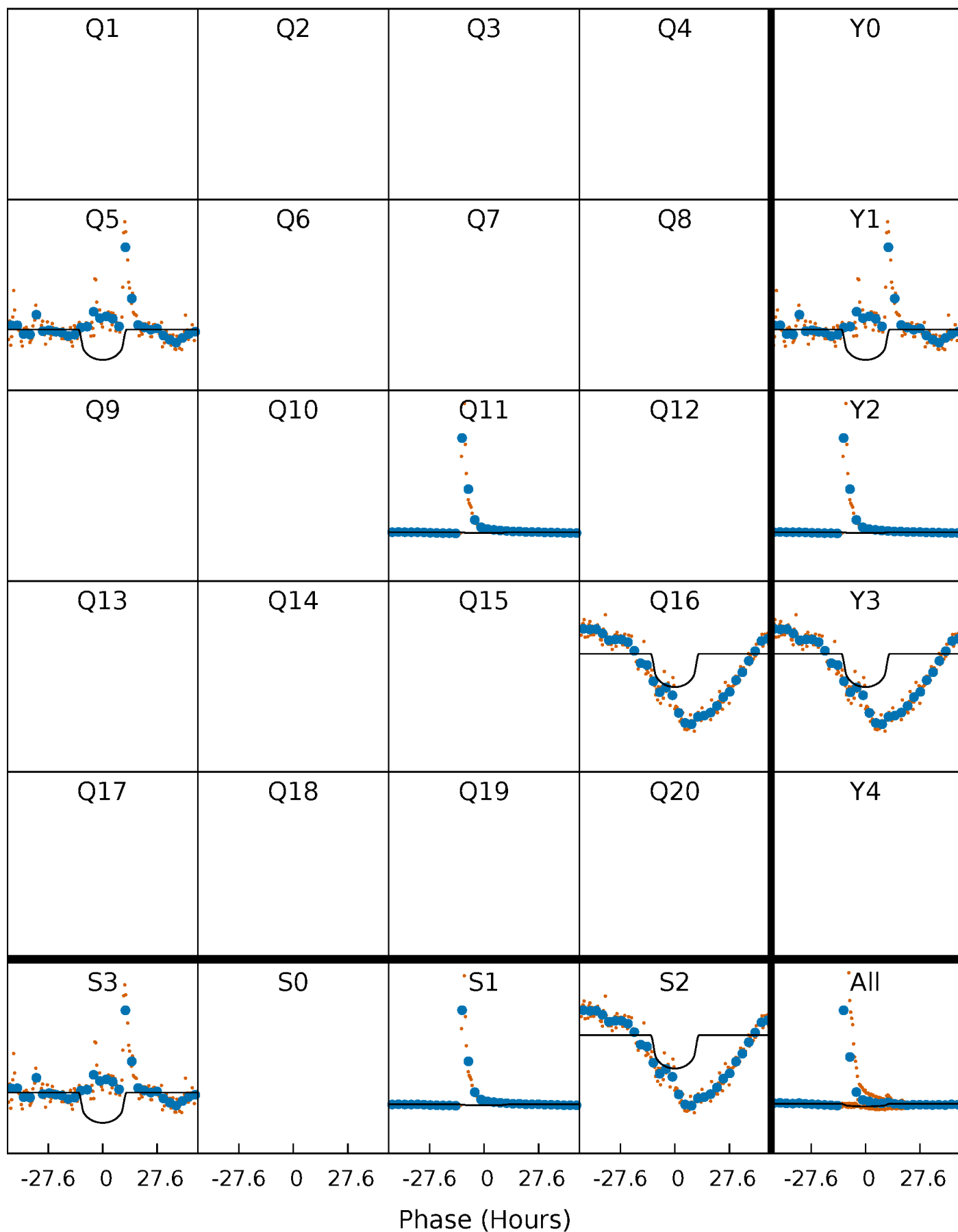
PDC Quarter-Phased Transit Curves

TCE 011068661-03 P=517.528708 Days $T_0=485.913975$ (BKJD)



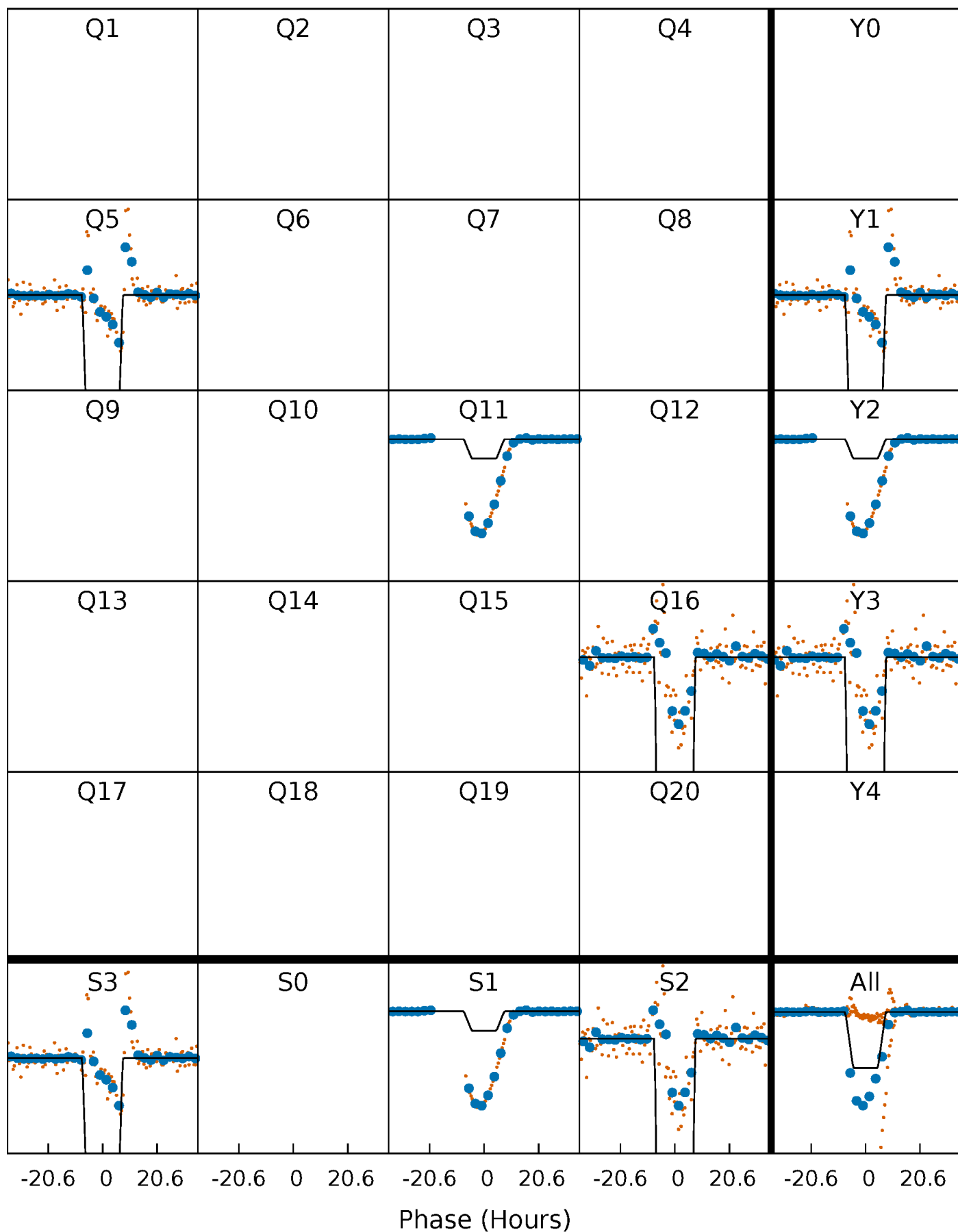
DV Quarter-Phased Transit Curves

TCE 011068661-03 $P=517.528708$ Days $T_0=485.913975$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

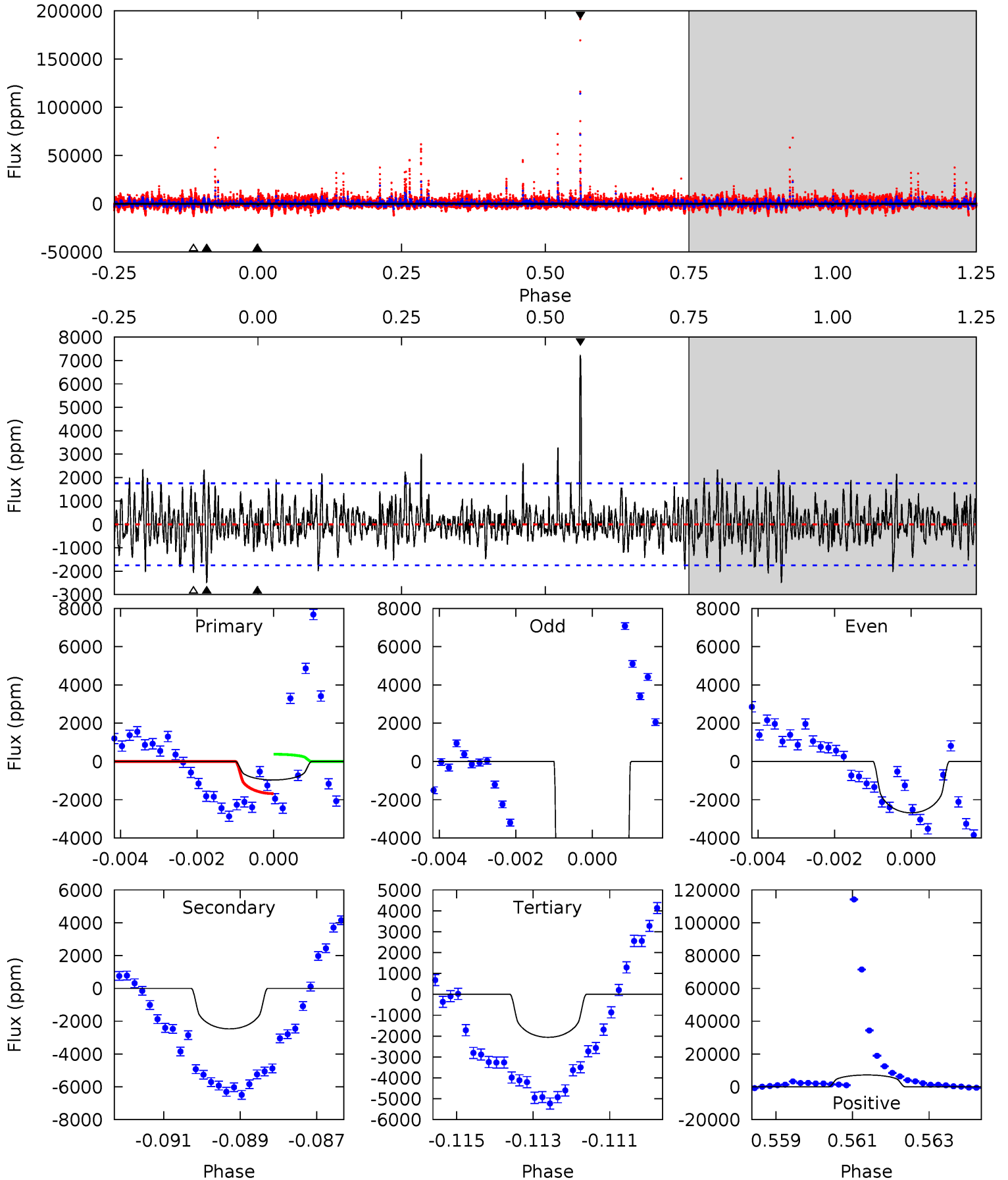
TCE 011068661-03 P=517.561641 Days $T_0=485.997366$ (BKJD)



DV Model-Shift Uniqueness Test

011068661-03, P = 517.528708 Days, E = 485.913975 Days

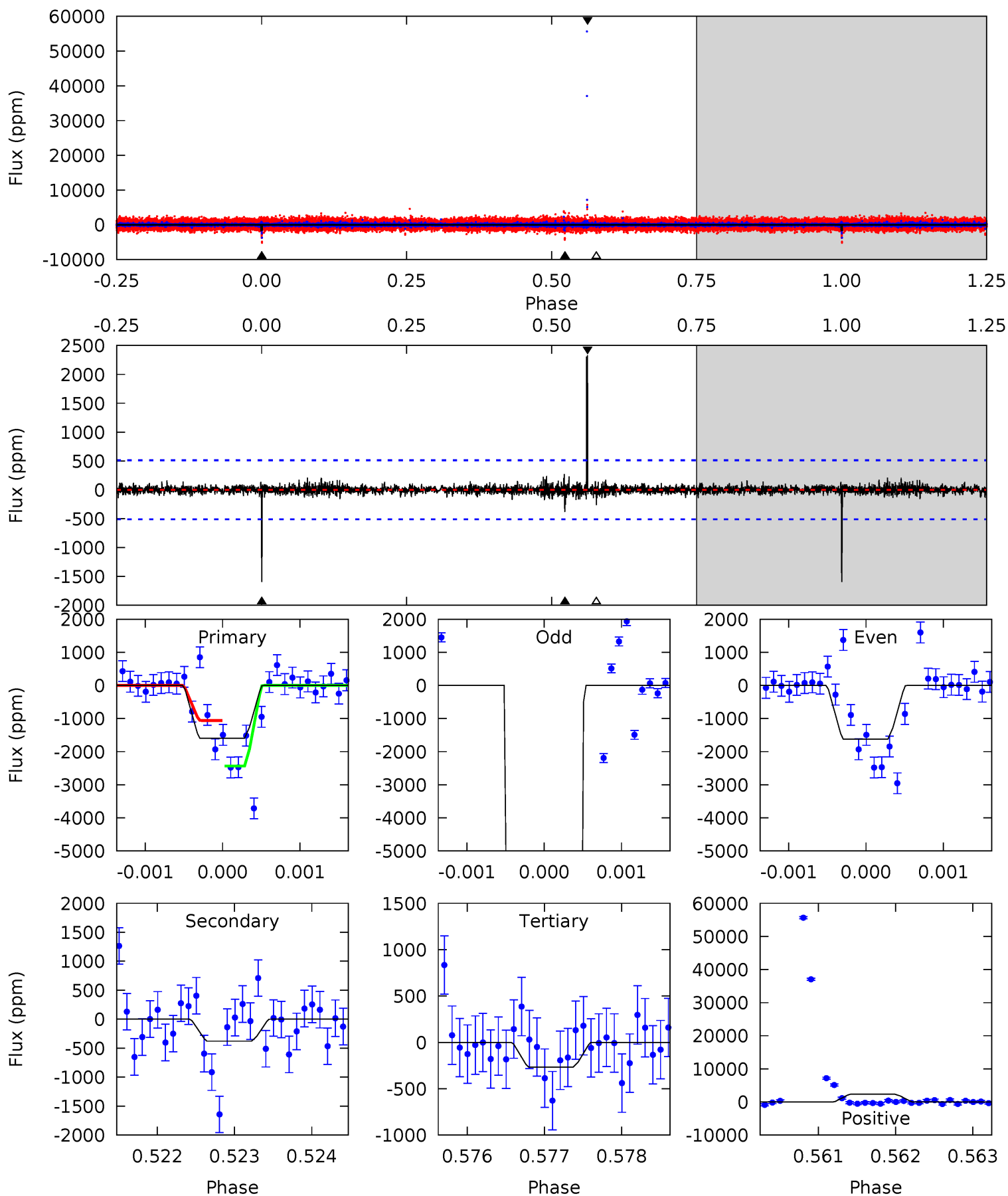
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.94	7.52	6.27	22.0	5.33	3.09	2.07	-3.33	-19.0	1.25	-14.4	71.7	15.8	0.74	2.02



Alt Model-Shift Uniqueness Test

011068661-03, P = 517.561641 Days, E = 485.997366 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	4.00	2.82	24.6	5.41	3.23	0.75	14.1	-7.75	1.19	-20.6	558.3	23.7	0.59	0



Stellar Parameters For KIC 011068661

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4679^{+140}_{-140}	$4.597^{+0.054}_{-0.027}$	$-0.240^{+0.300}_{-0.300}$	$0.678^{+0.054}_{-0.060}$	$0.663^{+0.082}_{-0.048}$	$2.997^{+0.736}_{-0.360}$
	+3%/-3%	+1%/-1%	+125%/-125%	+8%/-9%	+12%/-7%	+25%/-12%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011068661-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2470 ± 328	$4.44^{+2.93}_{-2.39}$	226^{+7}_{-7}	4331^{+1692}_{-684}	$83572^{+300944}_{-53425}$
Alt.	-379 ± 95	$11.07^{+2.85}_{-2.78}$	226^{+8}_{-8}	2489^{+200}_{-157}	2045^{+1774}_{-838}

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

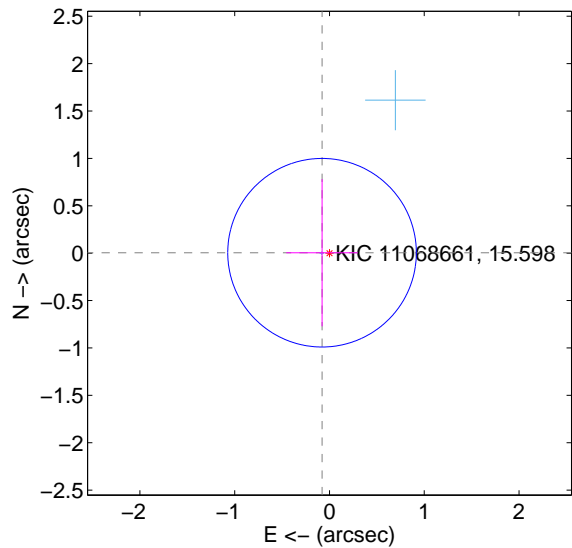
Supplemental centroid analysis for 011068661-03. Kepler magnitude: 15.60. Transit SNR 6.95

There are 2 quarters with good PRF difference image offsets

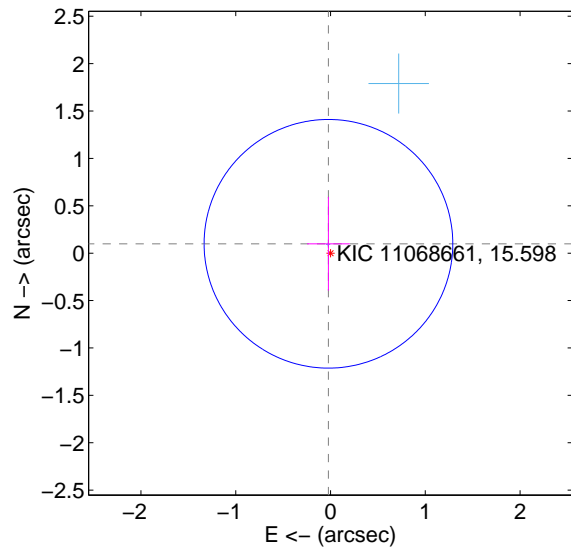
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.078 ± 0.332	0.24	0.078 ± 0.378	0.005 ± 0.776
PRF-fit source offset from KIC position	0.101 ± 0.437	0.23	0.022 ± 0.225	0.099 ± 0.494
photometric centroid source offset	0.92 ± 0.40	2.28	-0.22 ± 0.36	0.89 ± 0.40

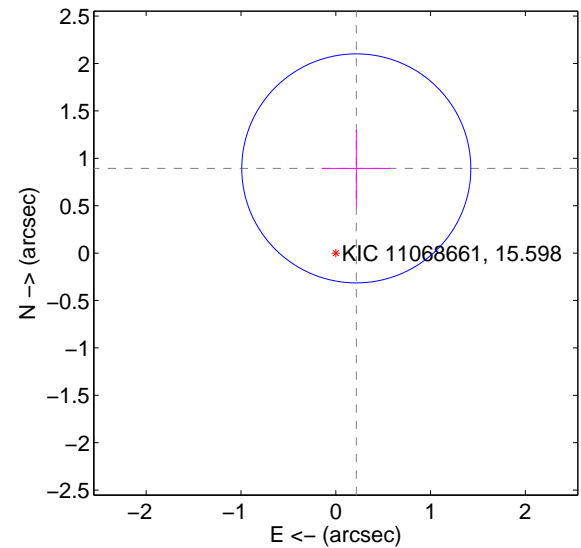
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

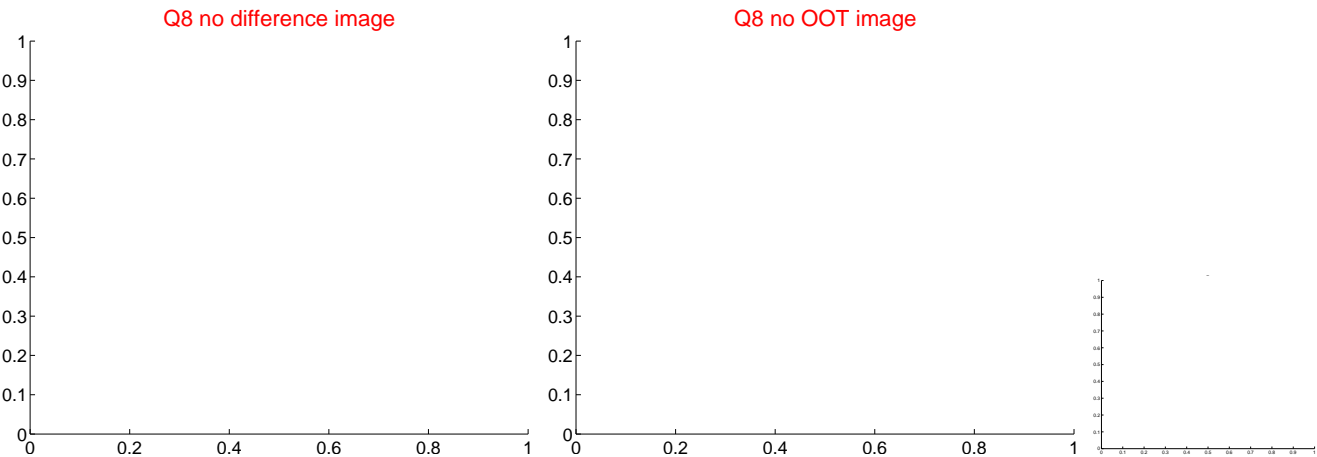
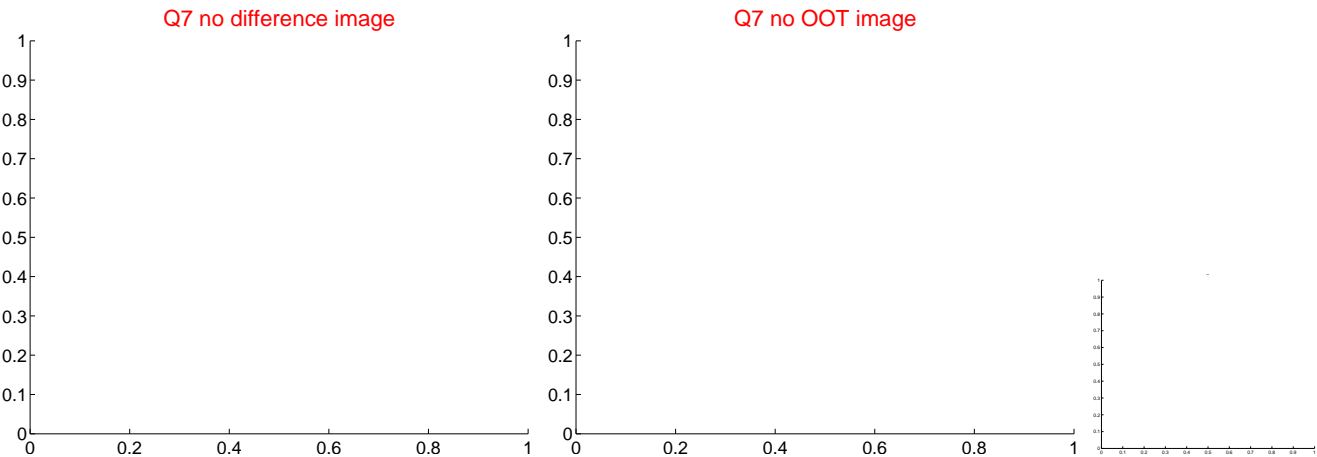
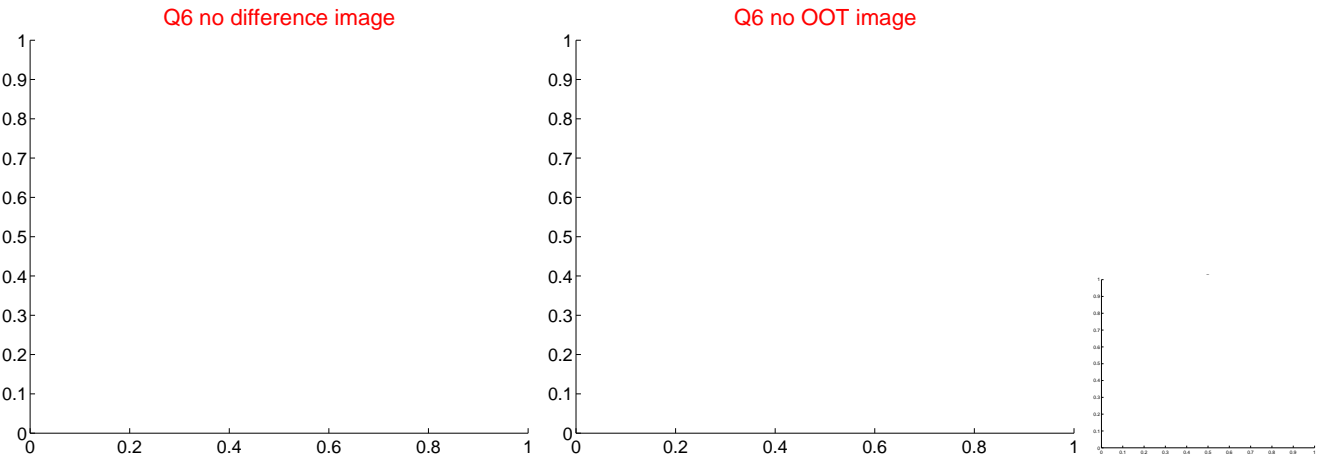
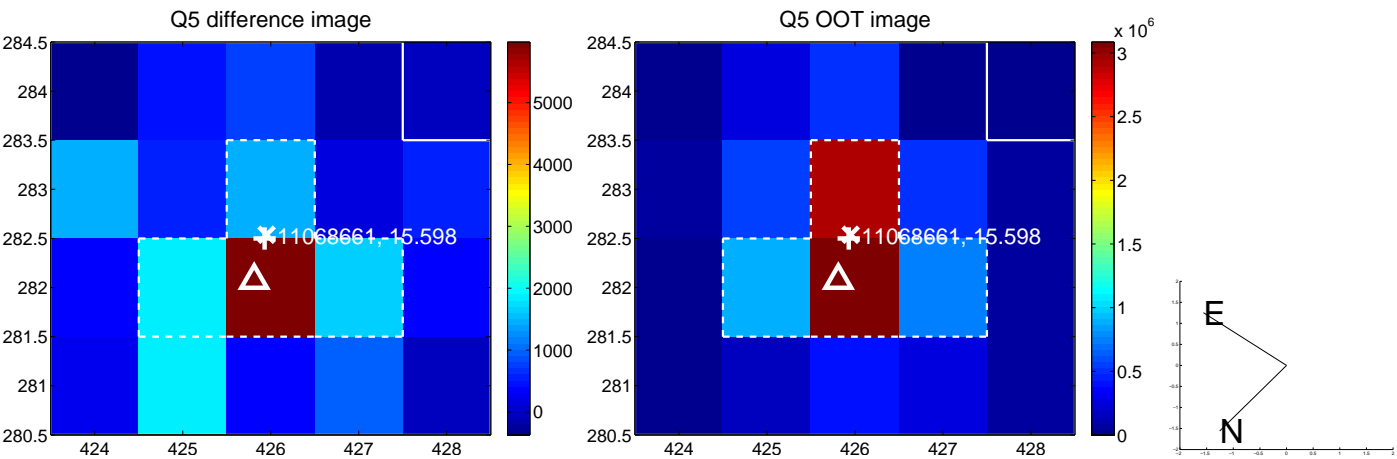


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



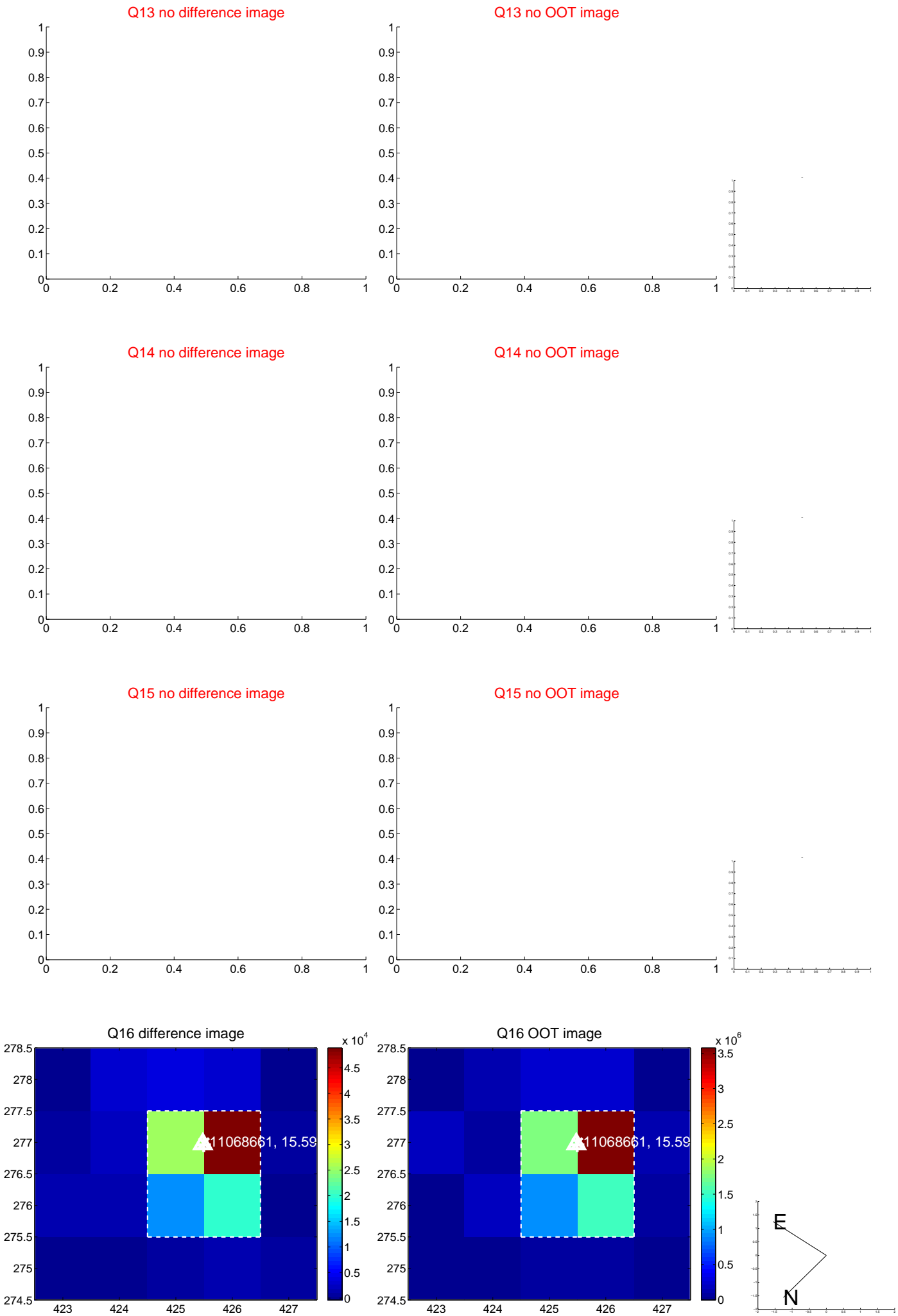
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



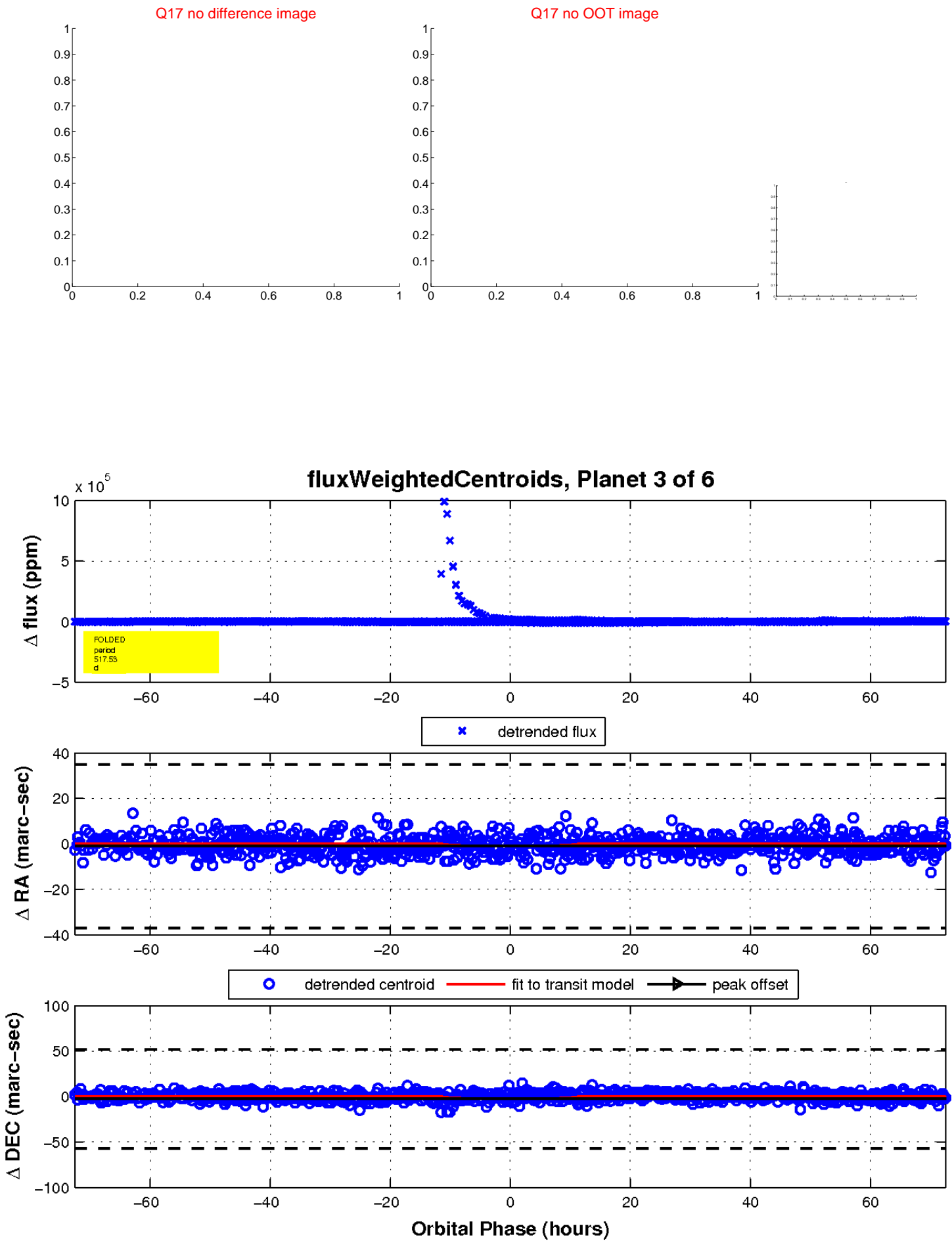
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

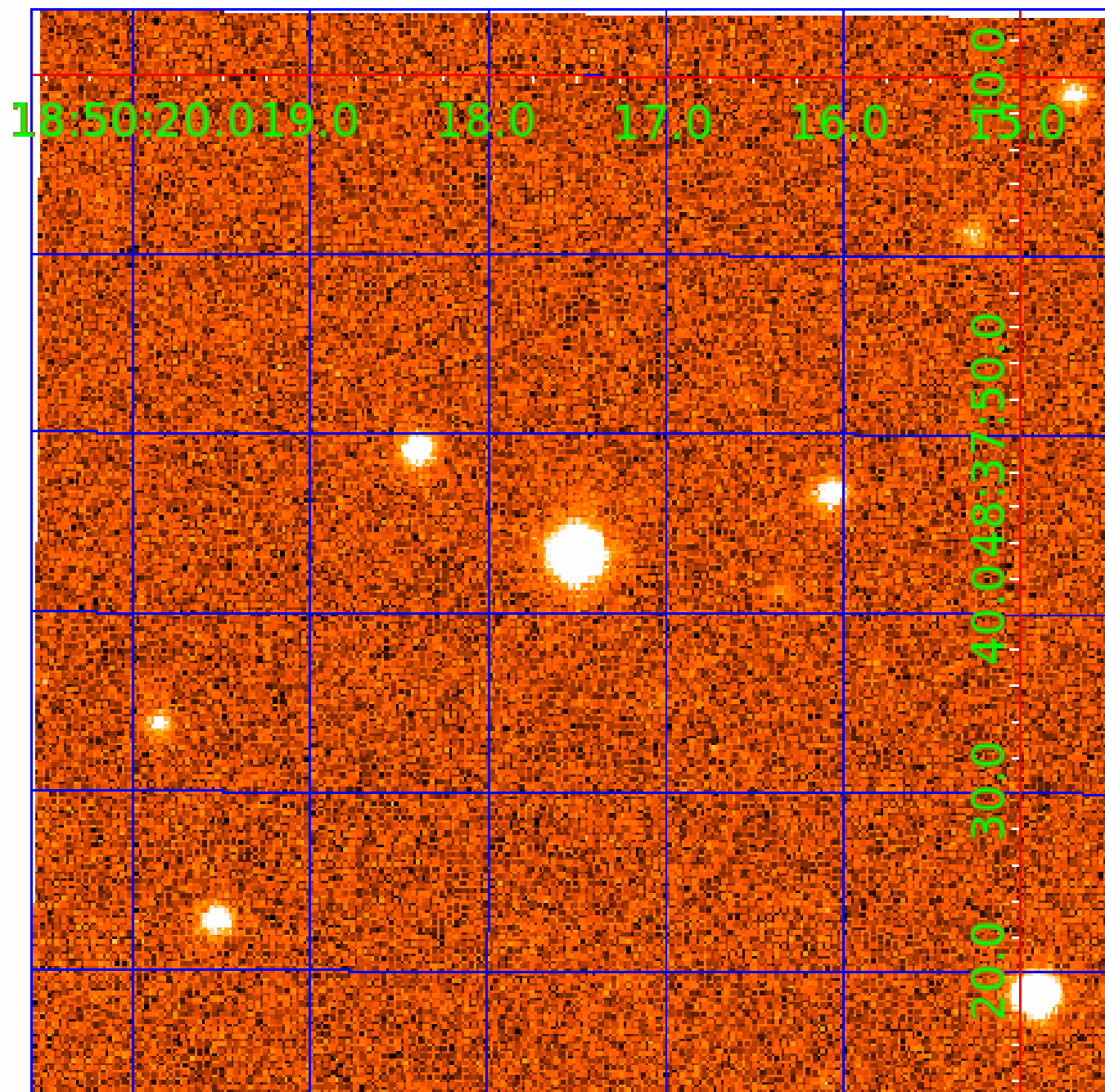


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011068661

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})
011068661-01	OBS	No	561.338339	380.237742	3821.6	11.650	17.2	9.1	0.68	4679	4.05	0.15
011068661-02	OBS	No	467.954127	213.106161	4462.1	14.496	16.9	8.4	0.68	4679	6.06	0.19
011068661-03	OBS	No	517.528708	485.913975	4105.9	24.190	14.9	7.0	0.68	4679	4.52	0.16
011068661-05	OBS	No	355.779765	372.604707	2024.5	5.232	15.4	5.9	0.68	4679	3.02	0.27
011068661-06	OBS	No	511.782318	337.333193	18627.5	6.579	15.1	21.7	0.68	4679	16.91	0.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011068661-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV

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

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

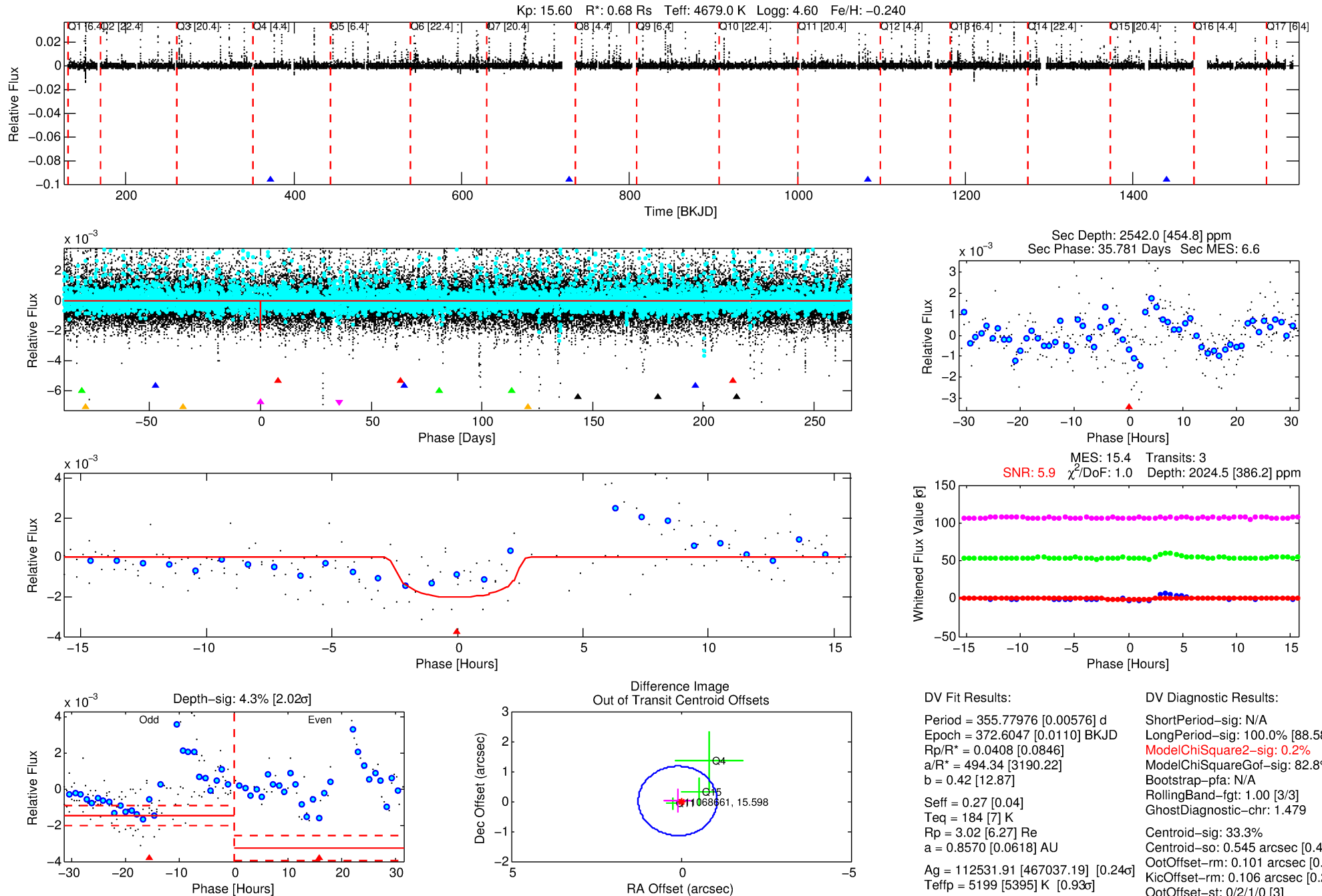
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011068661-05

No Significant Match Found

DV One-Page Summary

KIC: 11068661 Candidate: 5 of 6 Period: 355.780 d



DV Fit Results:

Period = 355.77976 [0.00576] d
Epoch = 372.6047 [0.0110] BKJD
Rp/R* = 0.0408 [0.0846]
a/R* = 494.34 [3190.22]
b = 0.42 [12.87]
Seff = 0.27 [0.04]
Teq = 184 [7] K
Rp = 3.02 [6.27] Re
a = 0.8570 [0.0618] AU
Ag = 112531.91 [467037.19] [0.24σ]
Teffp = 5199 [5395] K [0.93σ]

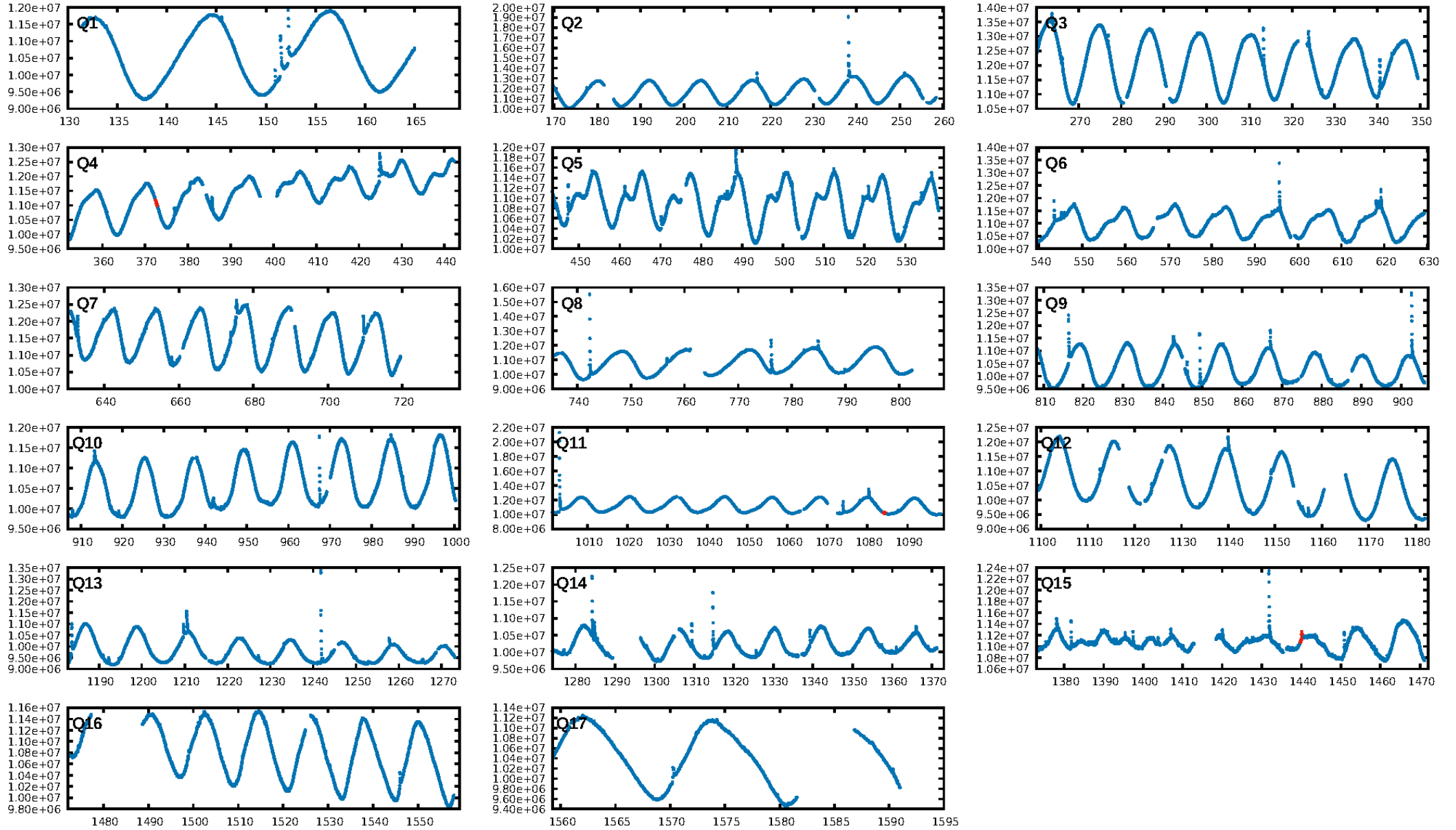
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [88.58σ]
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 82.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.479
Centroid-sig: 33.3%
Centroid-so: 0.545 arcsec [0.46σ]
OotOffset-rm: 0.101 arcsec [0.26σ]
KicOffset-rm: 0.106 arcsec [0.29σ]
OotOffset-st: 0/2/1/0 [3]
KicOffset-st: 0/2/1/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

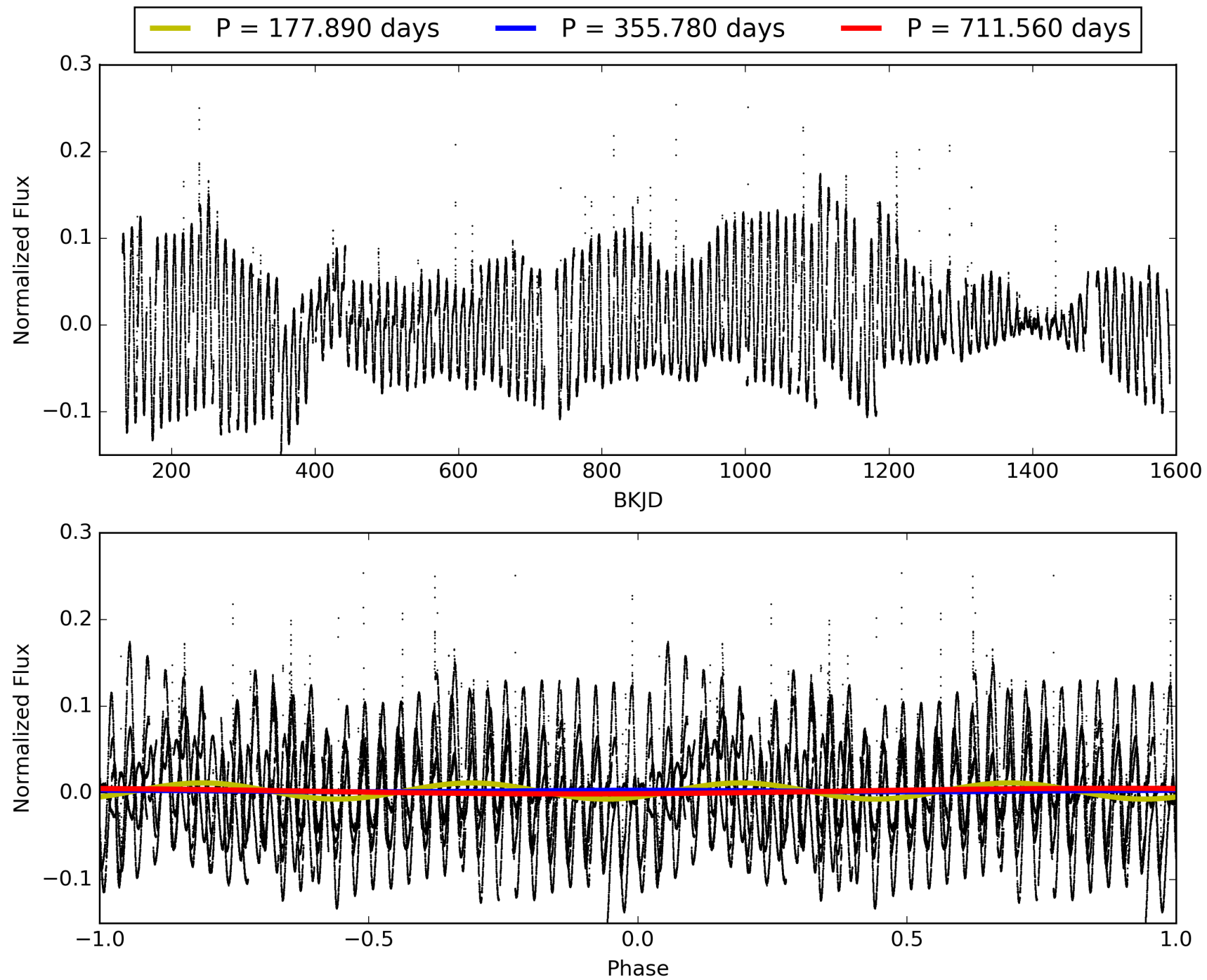
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:00:58 Z

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

TCE 011068661-05, PDC Light Curves

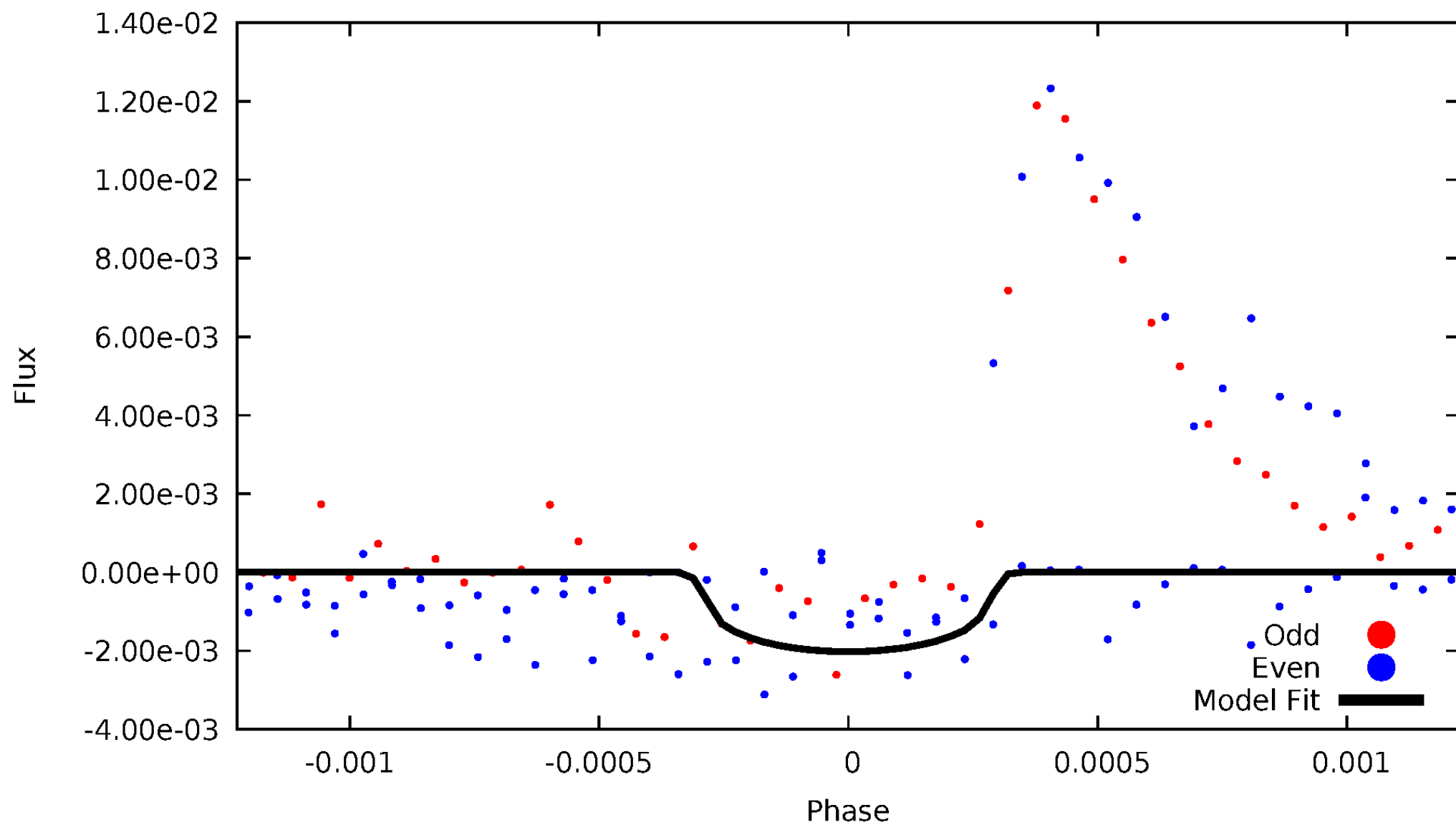


TCE 011068661-05



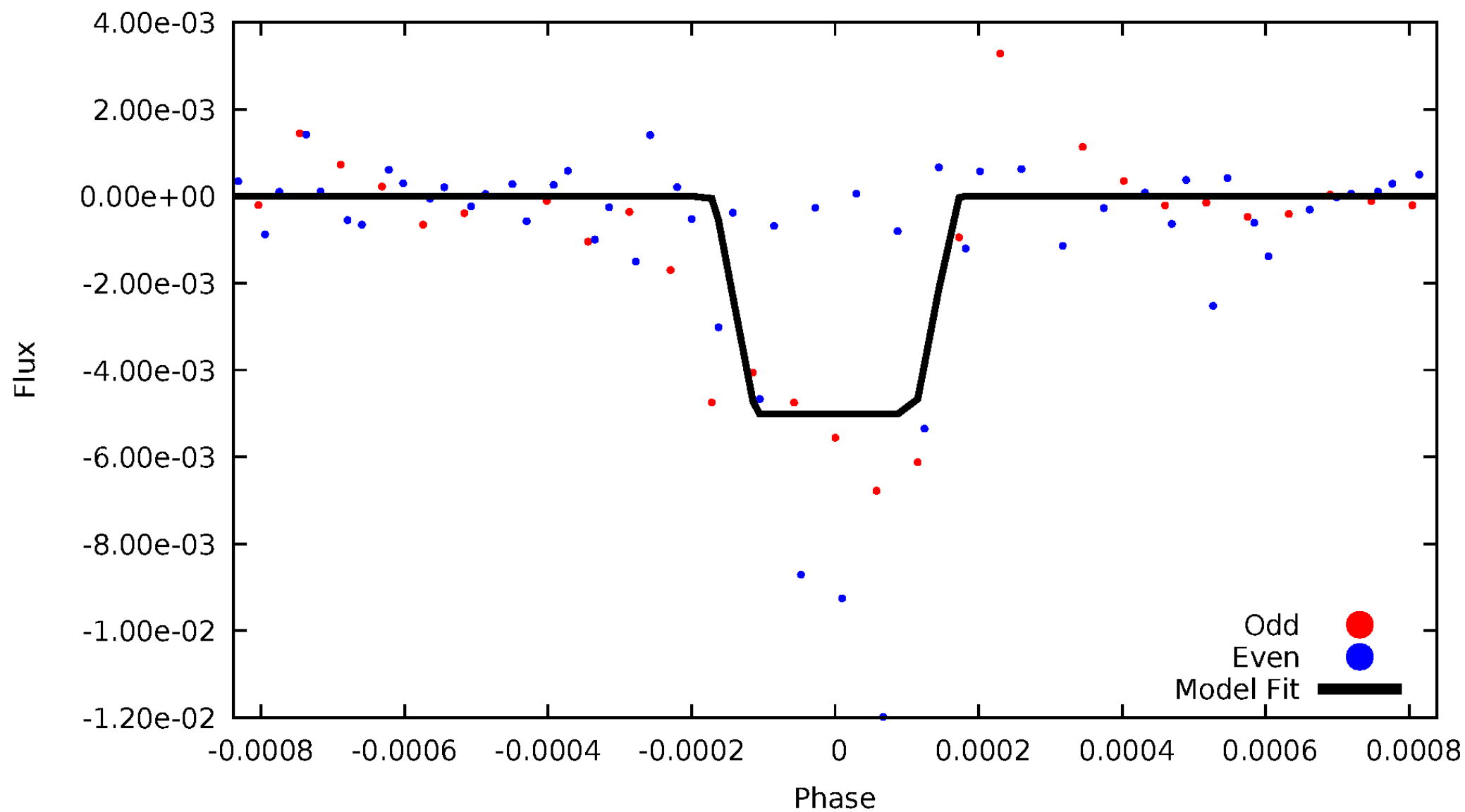
DV Odd/Even

TCE 011068661-05



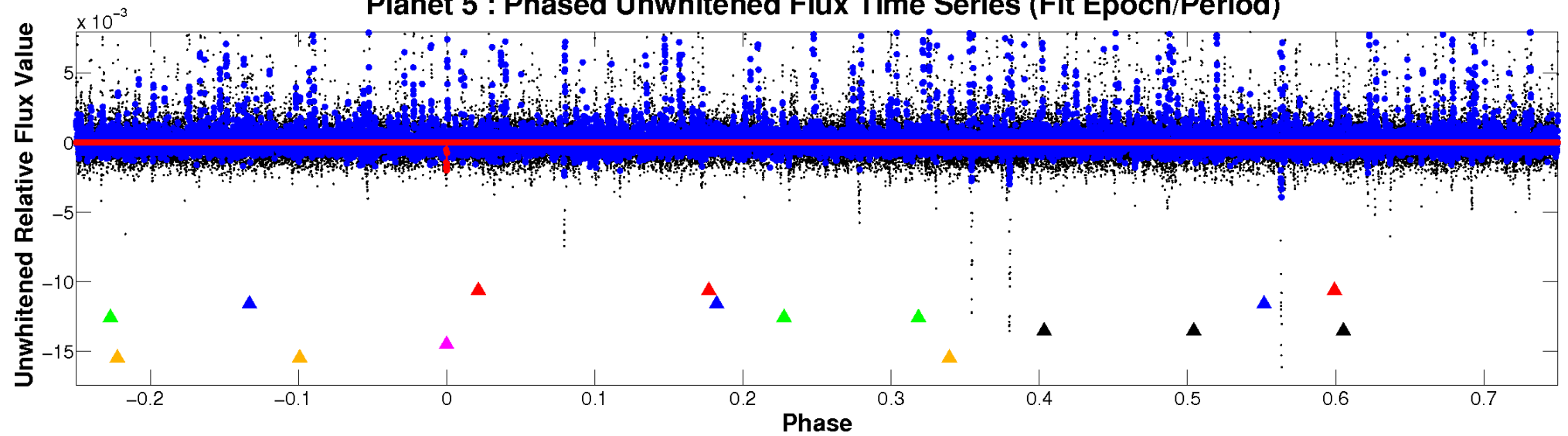
ALT Odd/Even

TCE 011068661-05

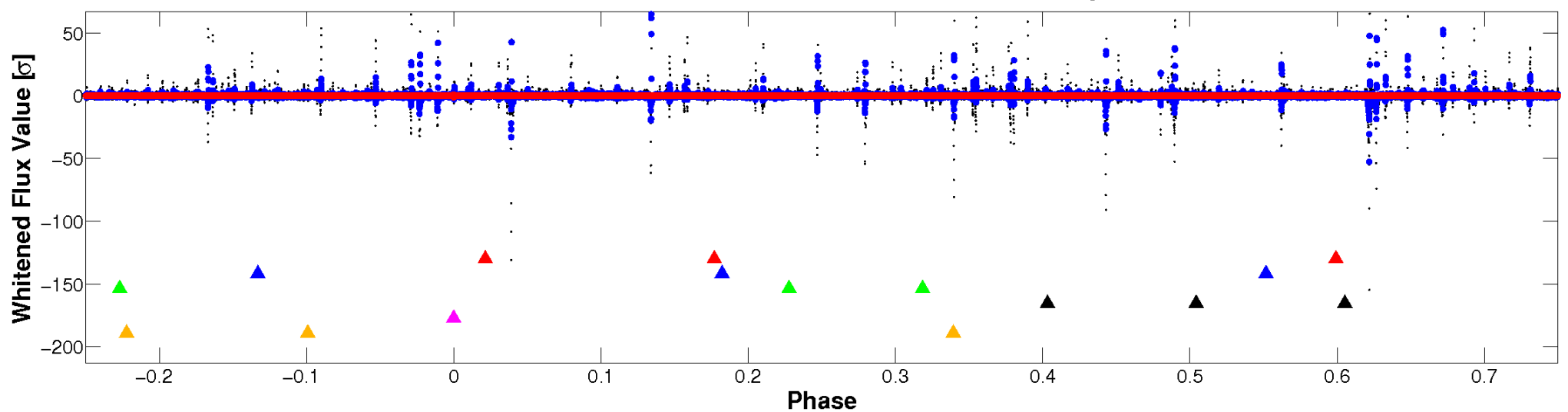


Non-Whitened Vs. Whitened Light Curve

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

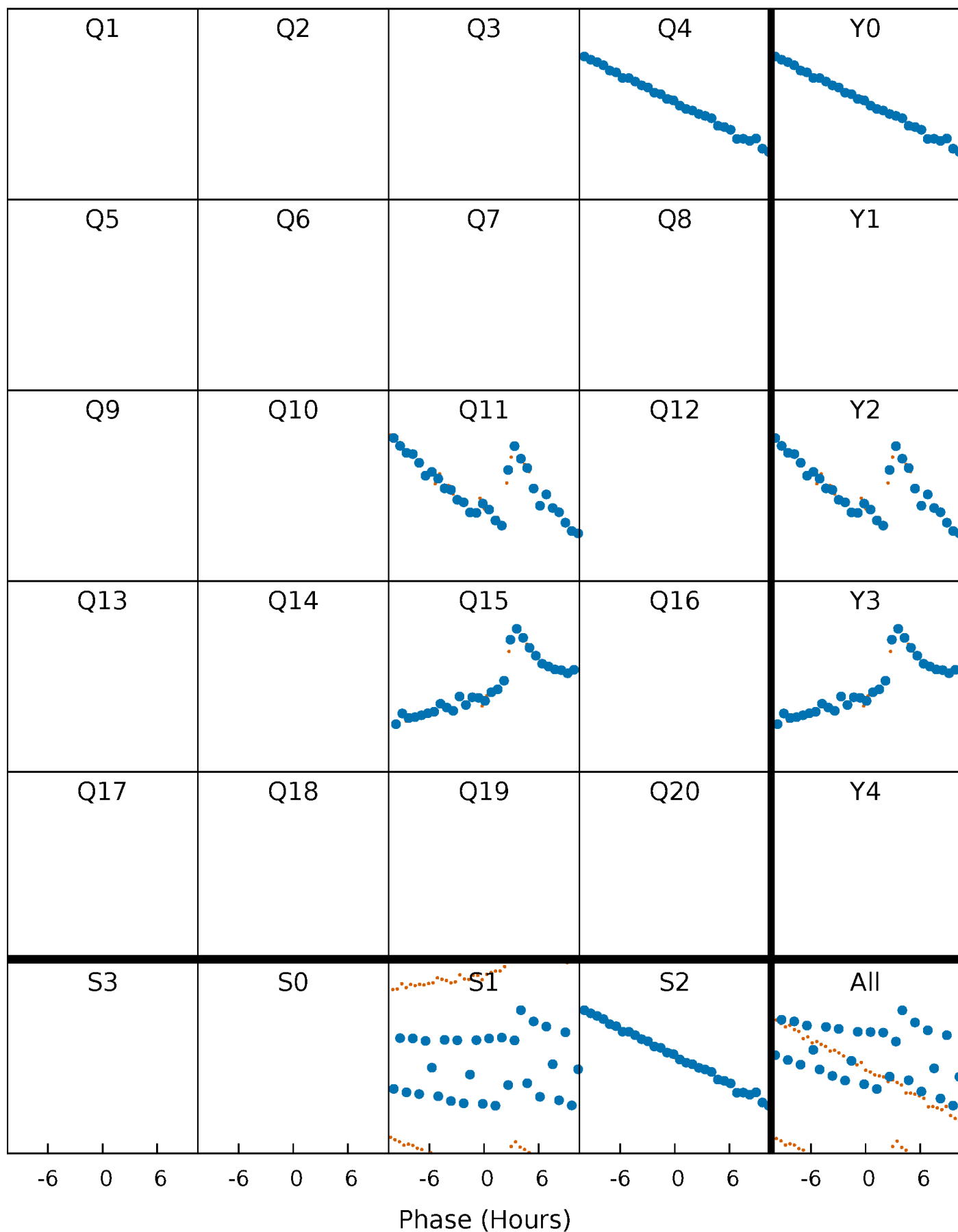


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



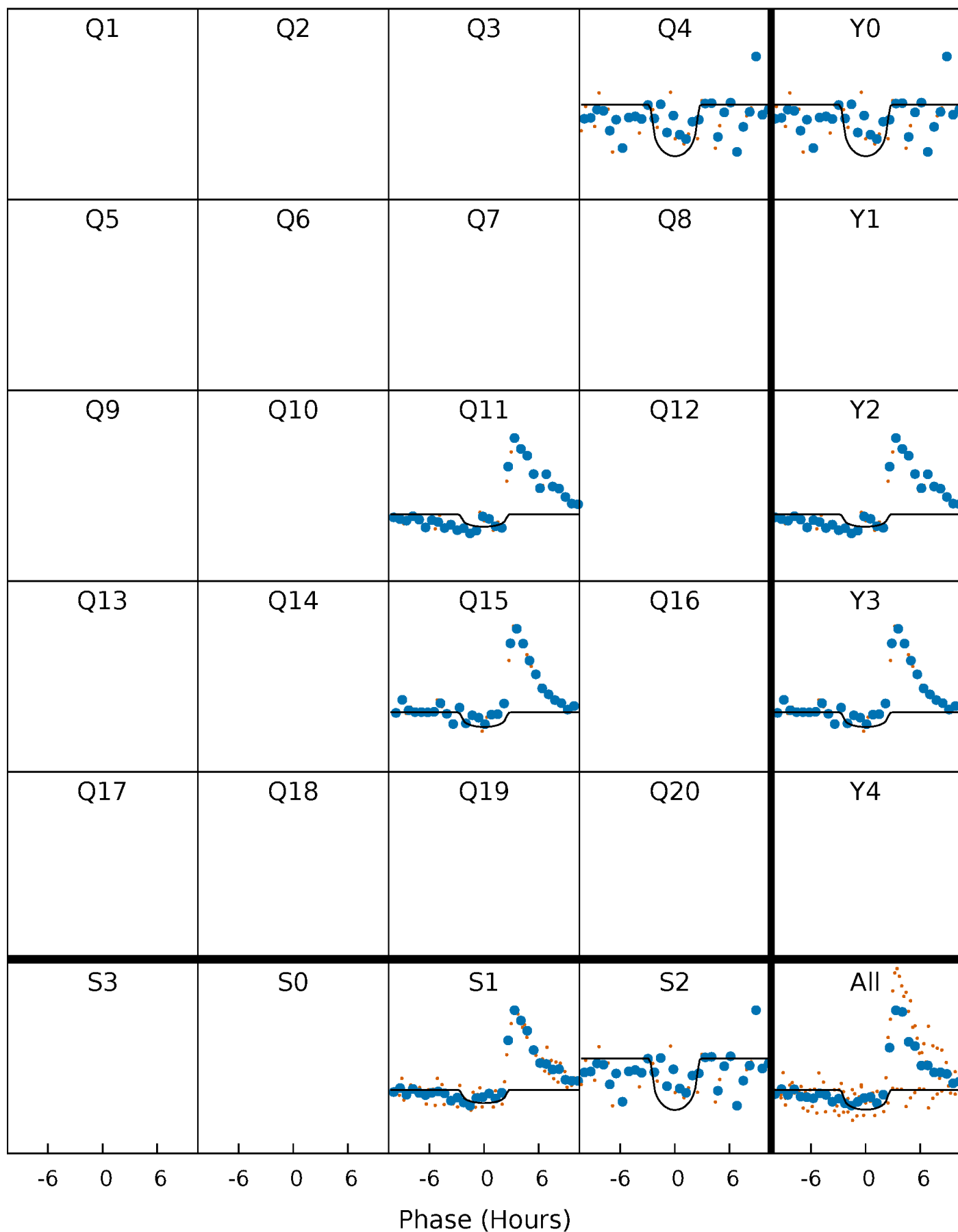
PDC Quarter-Phased Transit Curves

TCE 011068661-05 $P=355.779765$ Days $T_0=372.604707$ (BKJD)



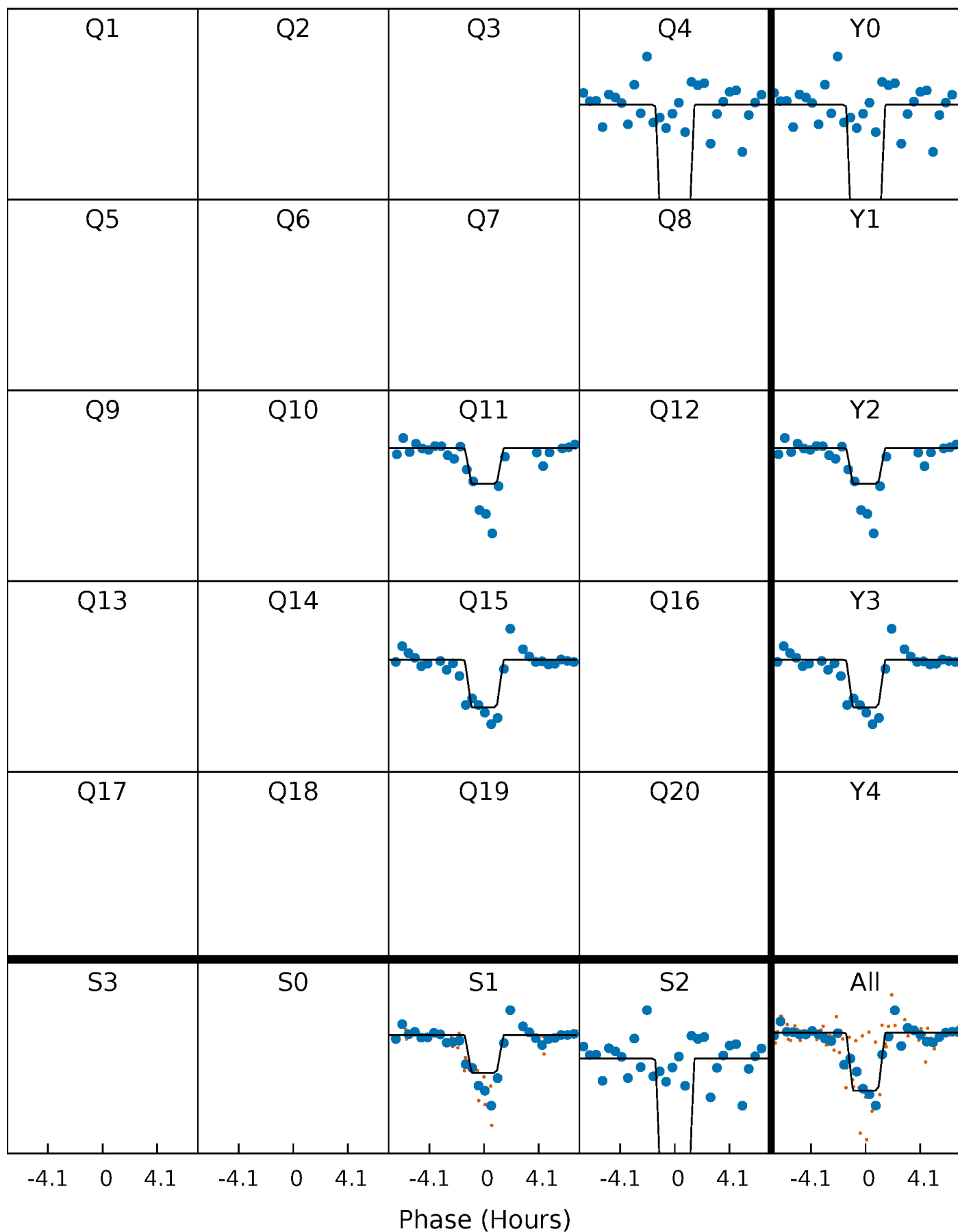
DV Quarter-Phased Transit Curves

TCE 011068661-05 $P=355.779765$ Days $T_0=372.604707$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

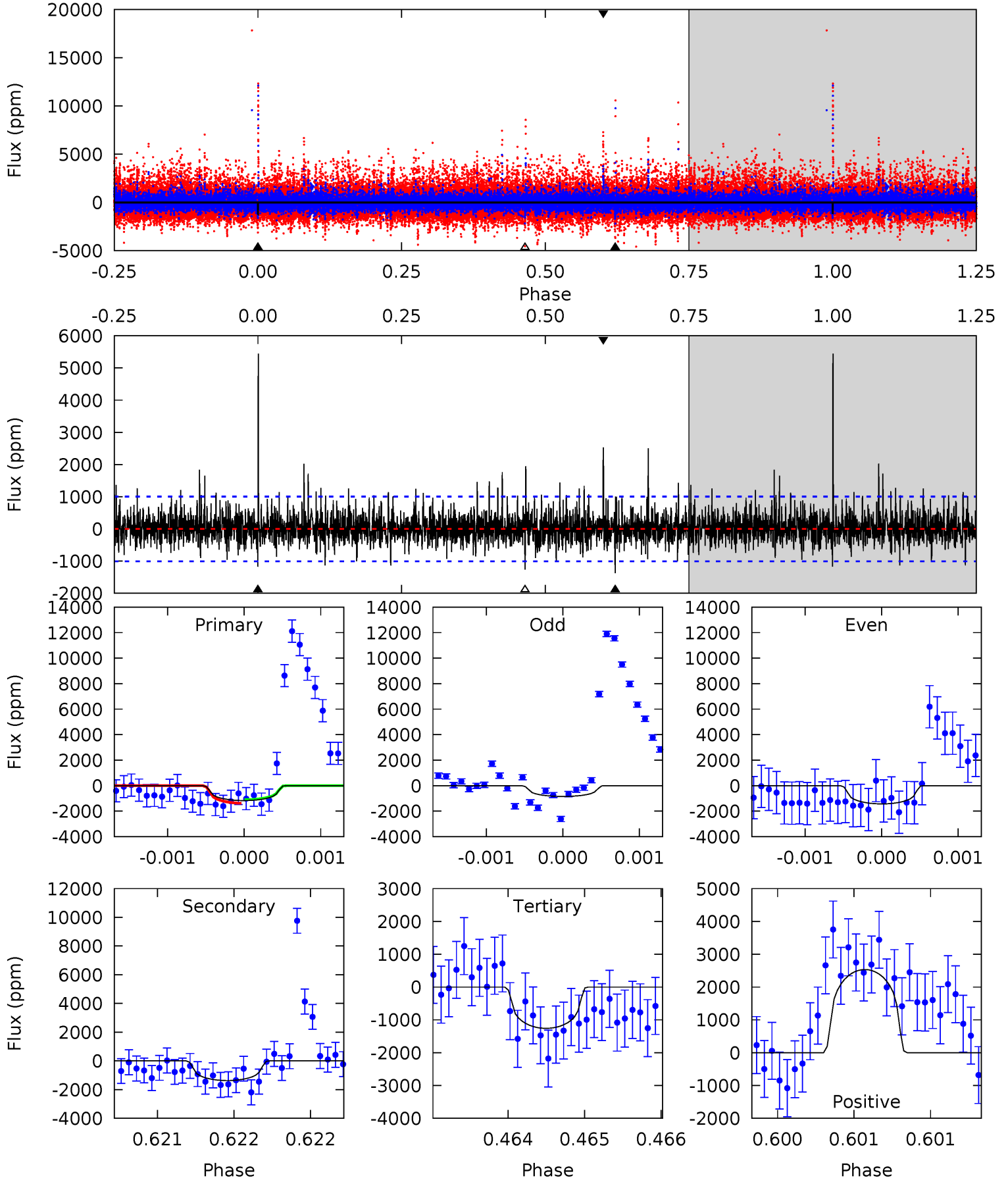
TCE 011068661-05 $P=355.773185$ Days $T_0=372.677070$ (BKJD)



DV Model-Shift Uniqueness Test

011068661-05, $P = 355.779765$ Days, $E = 16.824942$ Days

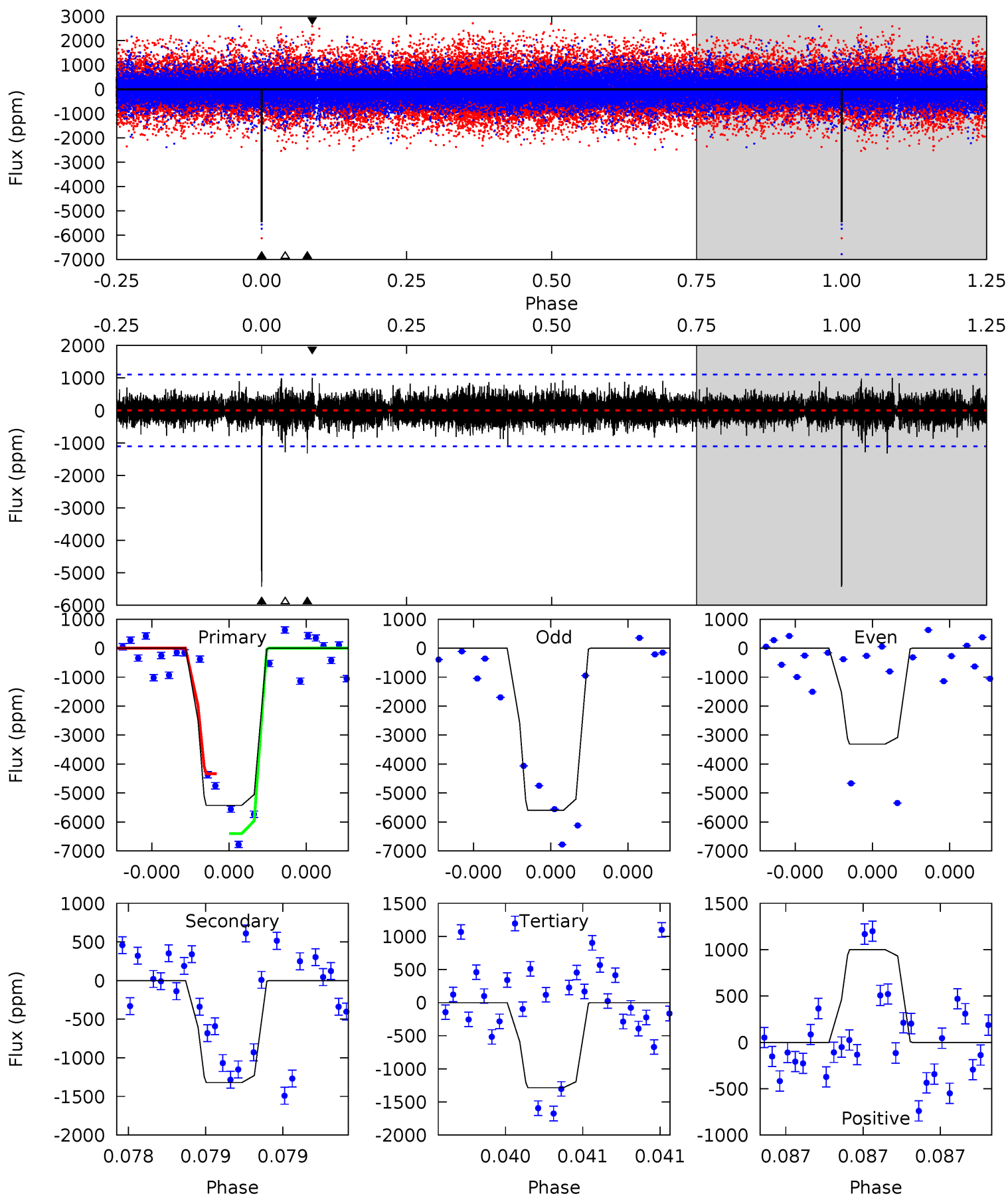
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.42	7.54	6.93	13.9	5.53	3.42	1.94	-0.50	-7.51	0.62	-6.39	0.58	1.25	0.80	0.77



Alt Model-Shift Uniqueness Test

011068661-05, $P = 355.773185$ Days, $E = 16.903885$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.6	6.73	6.54	5.10	5.63	3.57	1.06	21.1	22.5	0.19	1.63	6.80	0.86	0.16	0



Stellar Parameters For KIC 011068661

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4679^{+140}_{-140}	$4.597^{+0.054}_{-0.027}$	$-0.240^{+0.300}_{-0.300}$	$0.678^{+0.054}_{-0.060}$	$0.663^{+0.082}_{-0.048}$	$2.997^{+0.736}_{-0.360}$
	+3%/-3%	+1%/-1%	+125%/-125%	+8%/-9%	+12%/-7%	+25%/-12%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011068661-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1371 ± 182	$5.63^{+5.55}_{-3.71}$	255^{+9}_{-9}	3625^{+1801}_{-680}	$17854^{+137749}_{-13321}$
Alt.	-1320 ± 196	$6.92^{+5.46}_{-4.58}$	255^{+9}_{-9}	3394^{+1485}_{-557}	11761^{+90772}_{-8312}

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 $A_{obs} \gg 1.0$

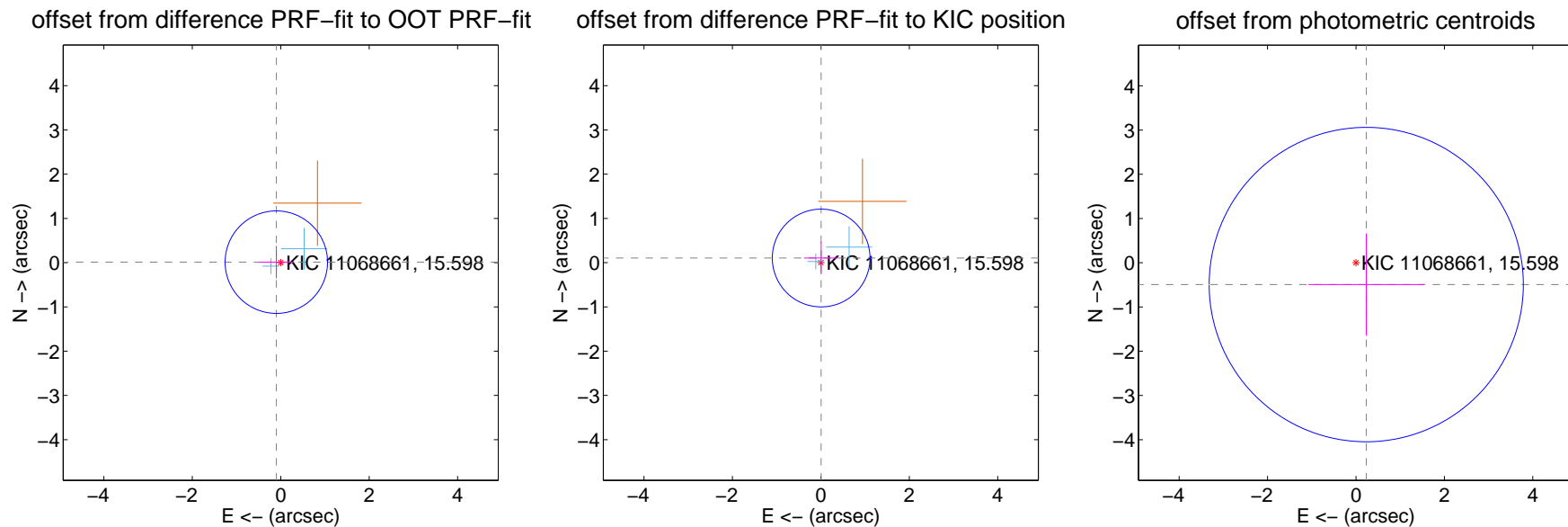
DV Centroid Data

Supplemental centroid analysis for 011068661-05. Kepler magnitude: 15.60. Transit SNR 5.85

There are 2 quarters with good PRF difference image offsets

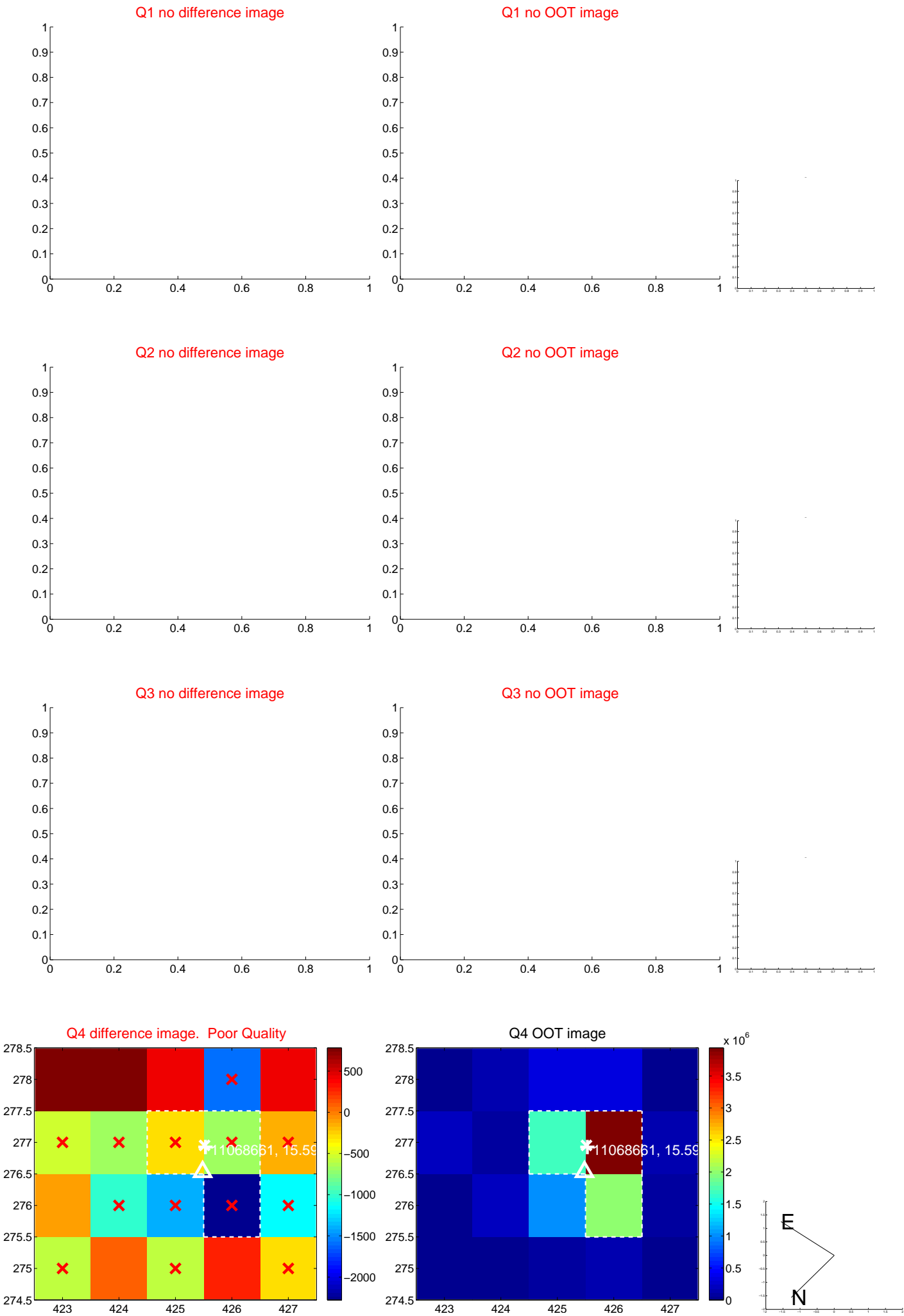
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.101 ± 0.386	0.26	0.100 ± 0.386	0.012 ± 0.368
PRF-fit source offset from KIC position	0.106 ± 0.368	0.29	-0.007 ± 0.386	0.106 ± 0.368
photometric centroid source offset	0.55 ± 1.18	0.46	-0.23 ± 1.31	-0.49 ± 1.16



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.

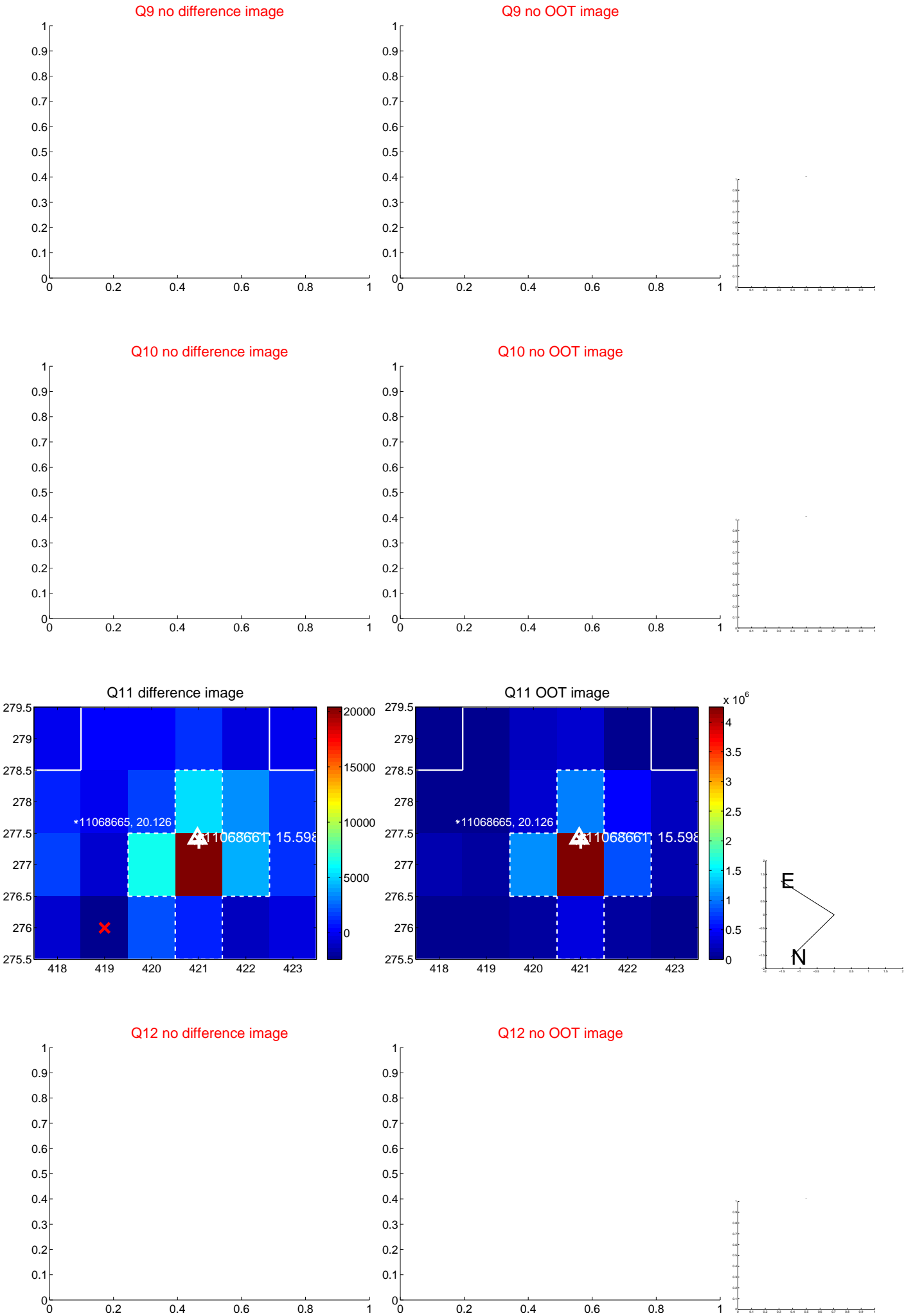
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



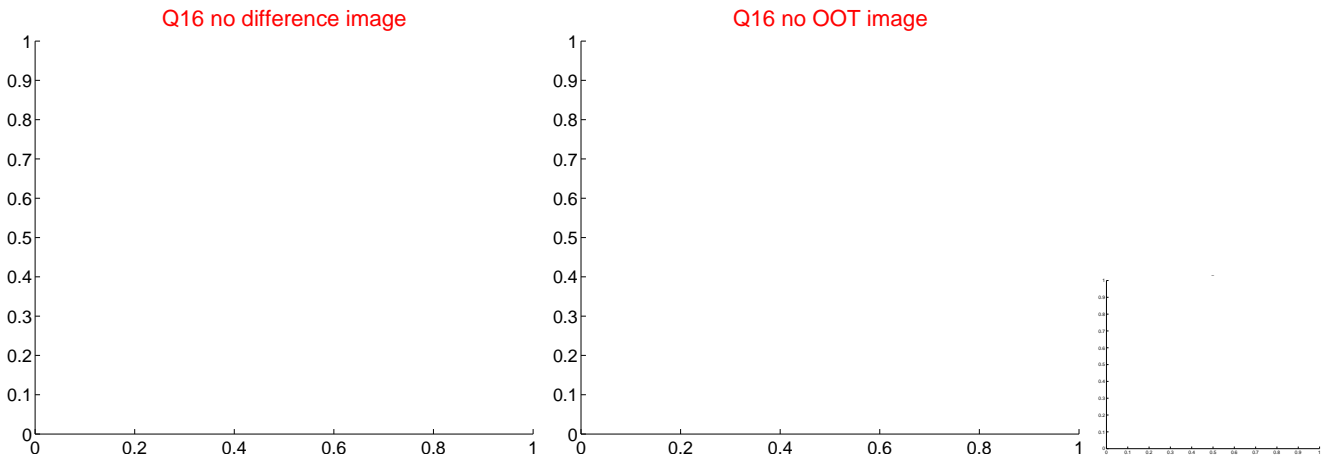
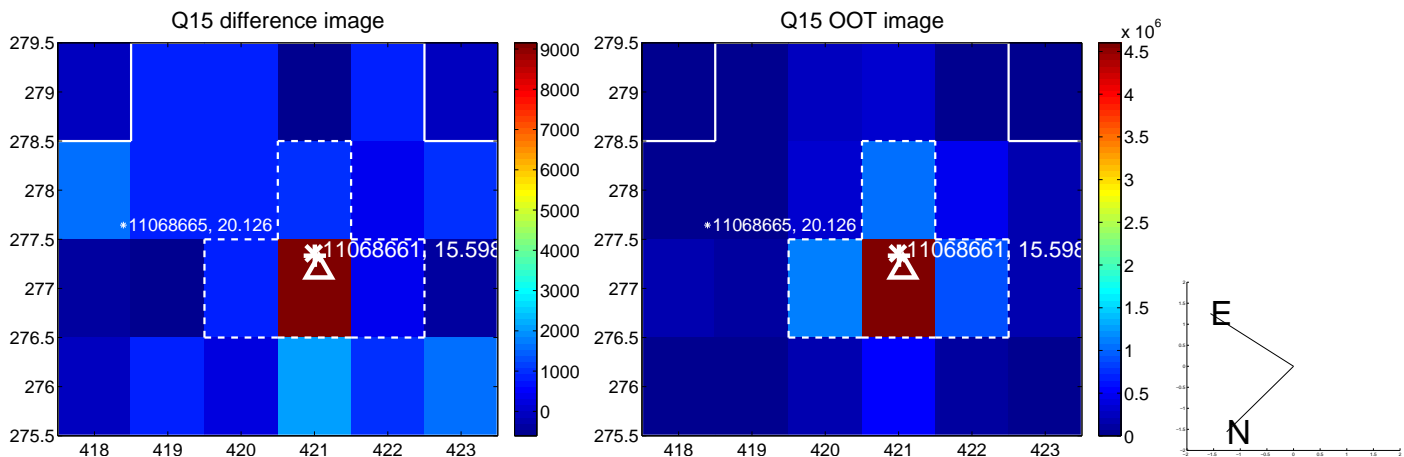
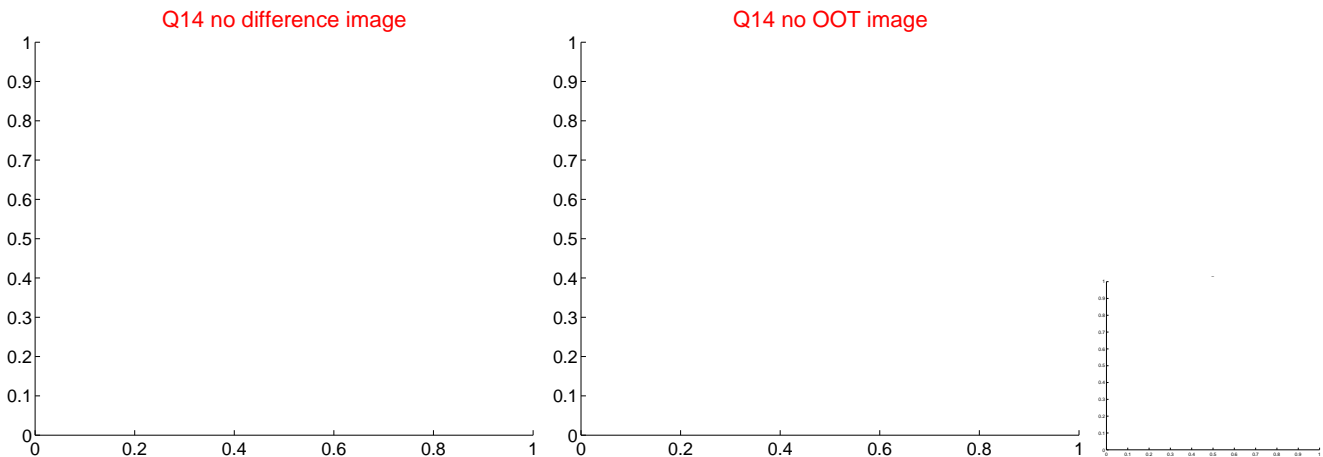
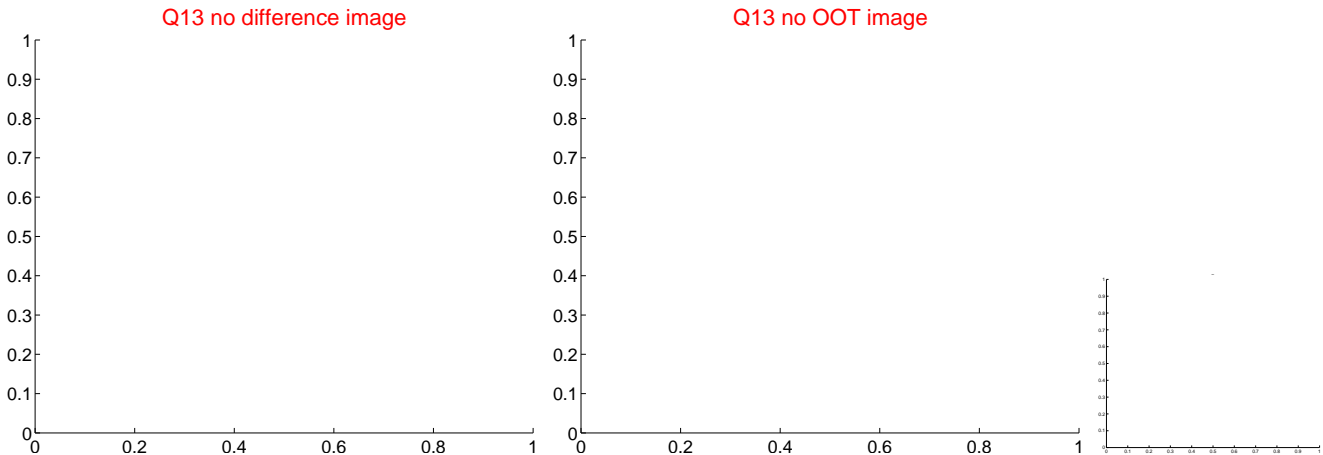
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



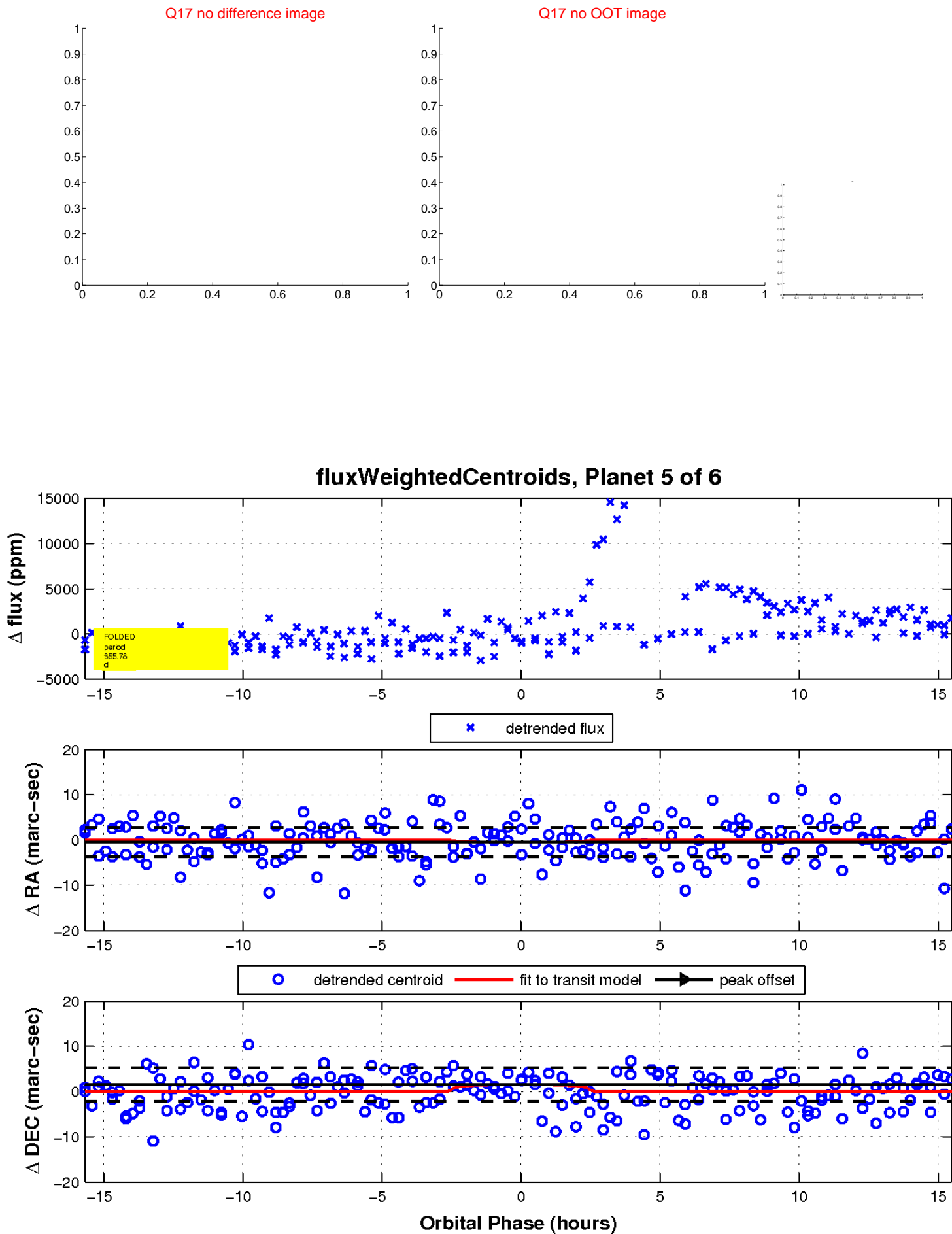
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

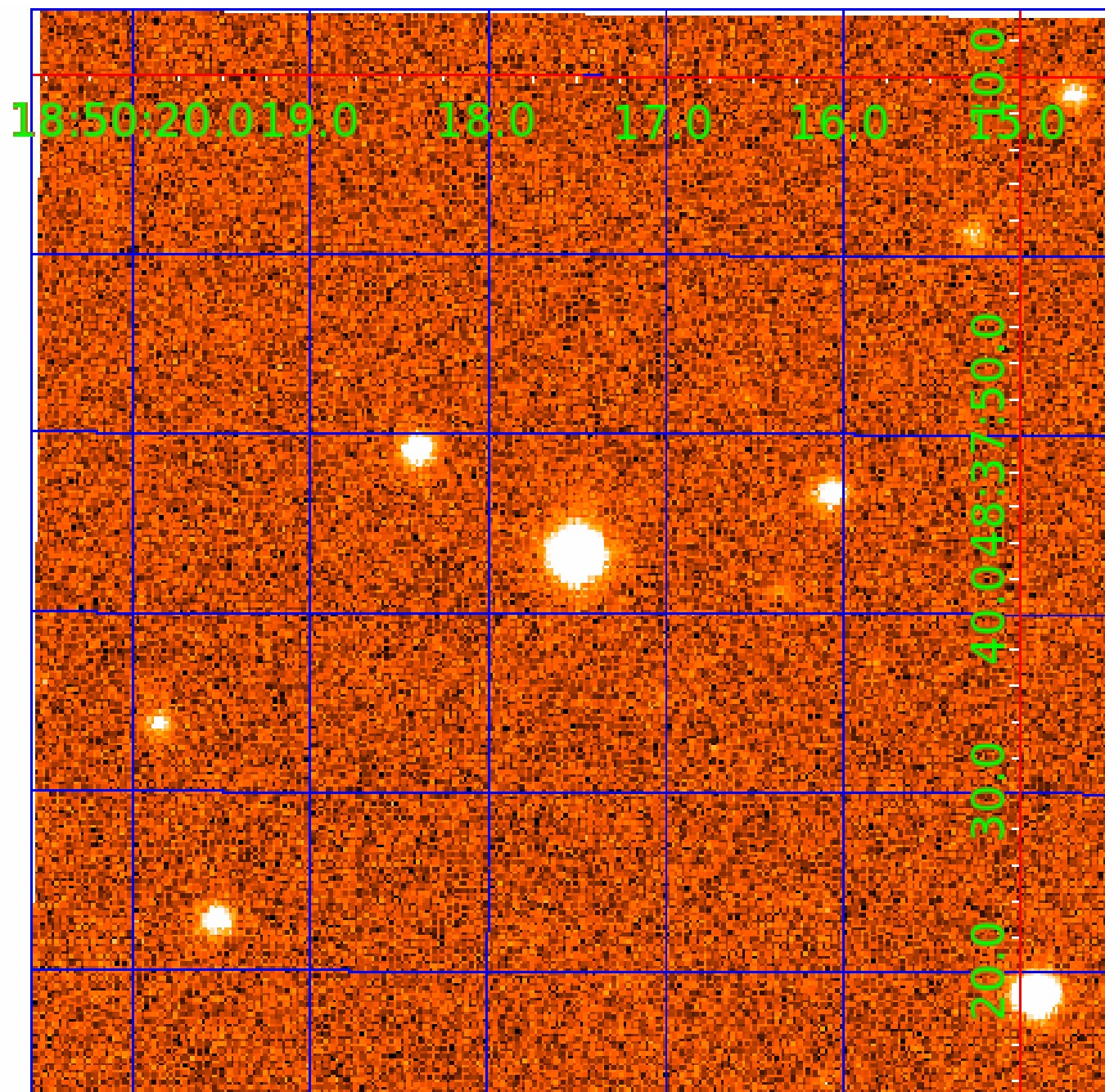


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011068661

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})
011068661-01	OBS	No	561.338339	380.237742	3821.6	11.650	17.2	9.1	0.68	4679	4.05	0.15
011068661-02	OBS	No	467.954127	213.106161	4462.1	14.496	16.9	8.4	0.68	4679	6.06	0.19
011068661-03	OBS	No	517.528708	485.913975	4105.9	24.190	14.9	7.0	0.68	4679	4.52	0.16
011068661-05	OBS	No	355.779765	372.604707	2024.5	5.232	15.4	5.9	0.68	4679	3.02	0.27
011068661-06	OBS	No	511.782318	337.333193	18627.5	6.579	15.1	21.7	0.68	4679	16.91	0.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011068661-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011068661-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV

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

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

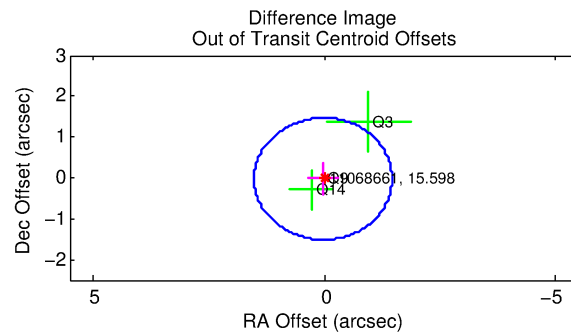
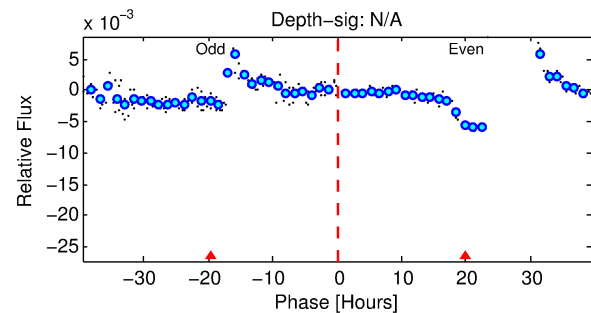
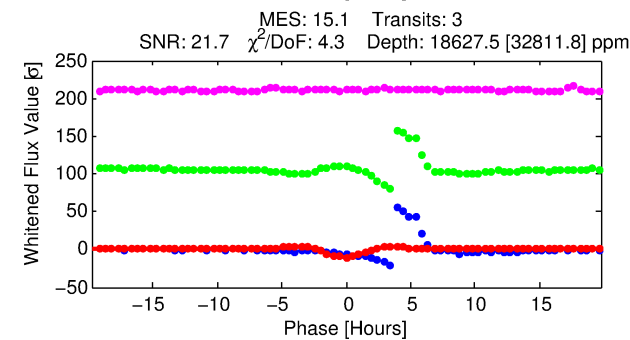
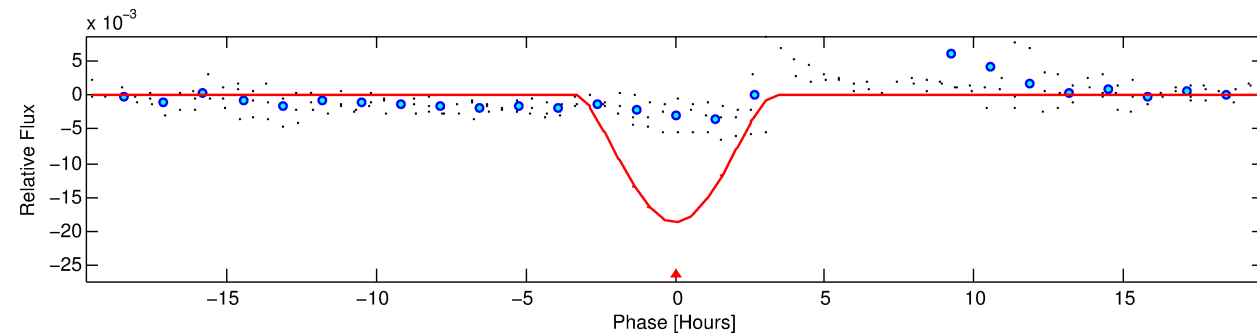
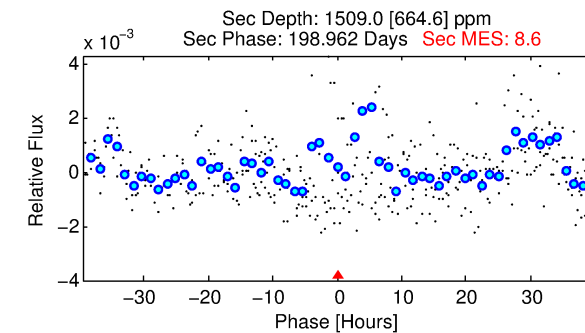
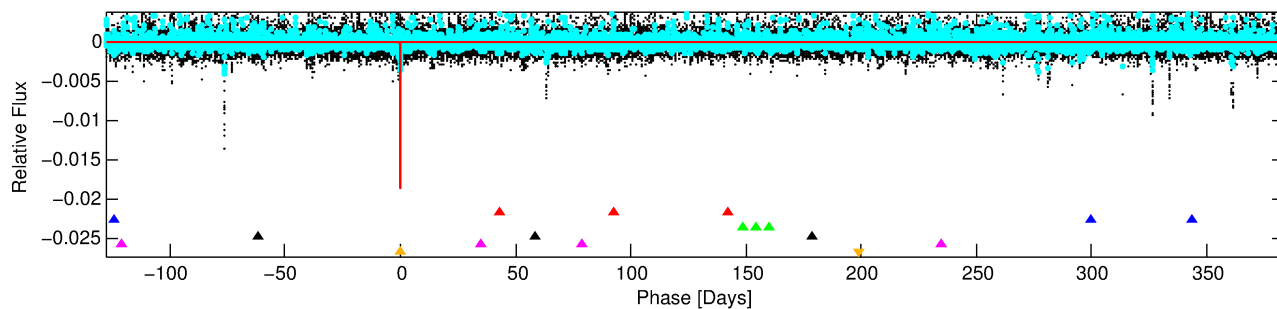
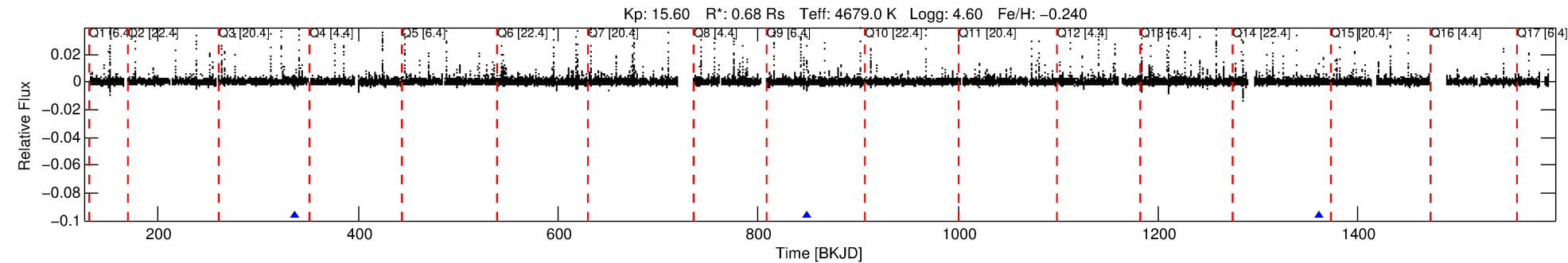
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011068661-06

No Significant Match Found

DV One-Page Summary

KIC: 11068661 Candidate: 6 of 6 Period: 511.782 d



DV Fit Results:

Period = 511.78232 [0.00936] d
Epoch = 337.3332 [0.0121] BKJD
Rp/R* = 0.2286 [1.2097]
a/R* = 424.21 [197.49]
b = 1.00 [1.89]
Seff = 0.17 [0.03]
Teq = 163 [6] K
Rp = 16.92 [89.52] Re
a = 1.0920 [0.0787] AU
Ag = 3460.09 [36649.94] [0.09σ]
Teffp = 1929 [5107] K [0.35σ]

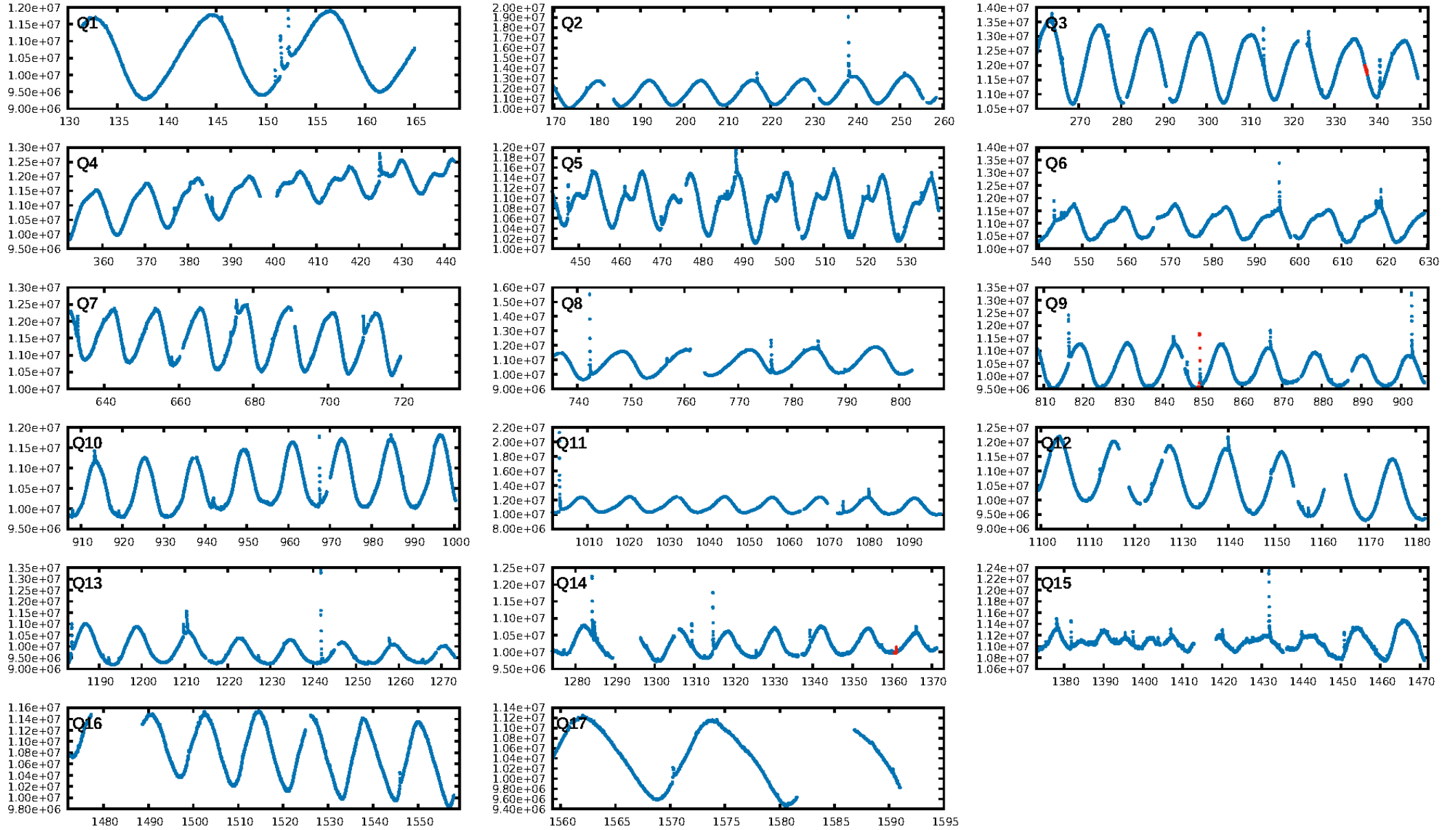
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [66.07σ]
LongPeriod-sig: 100.0% [5.50σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.5062
Centroid-sig: 23.4%
Centroid-so: 0.524 arcsec [3.69σ]
OotOffset-rm: 0.034 arcsec [0.07σ]
KicOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

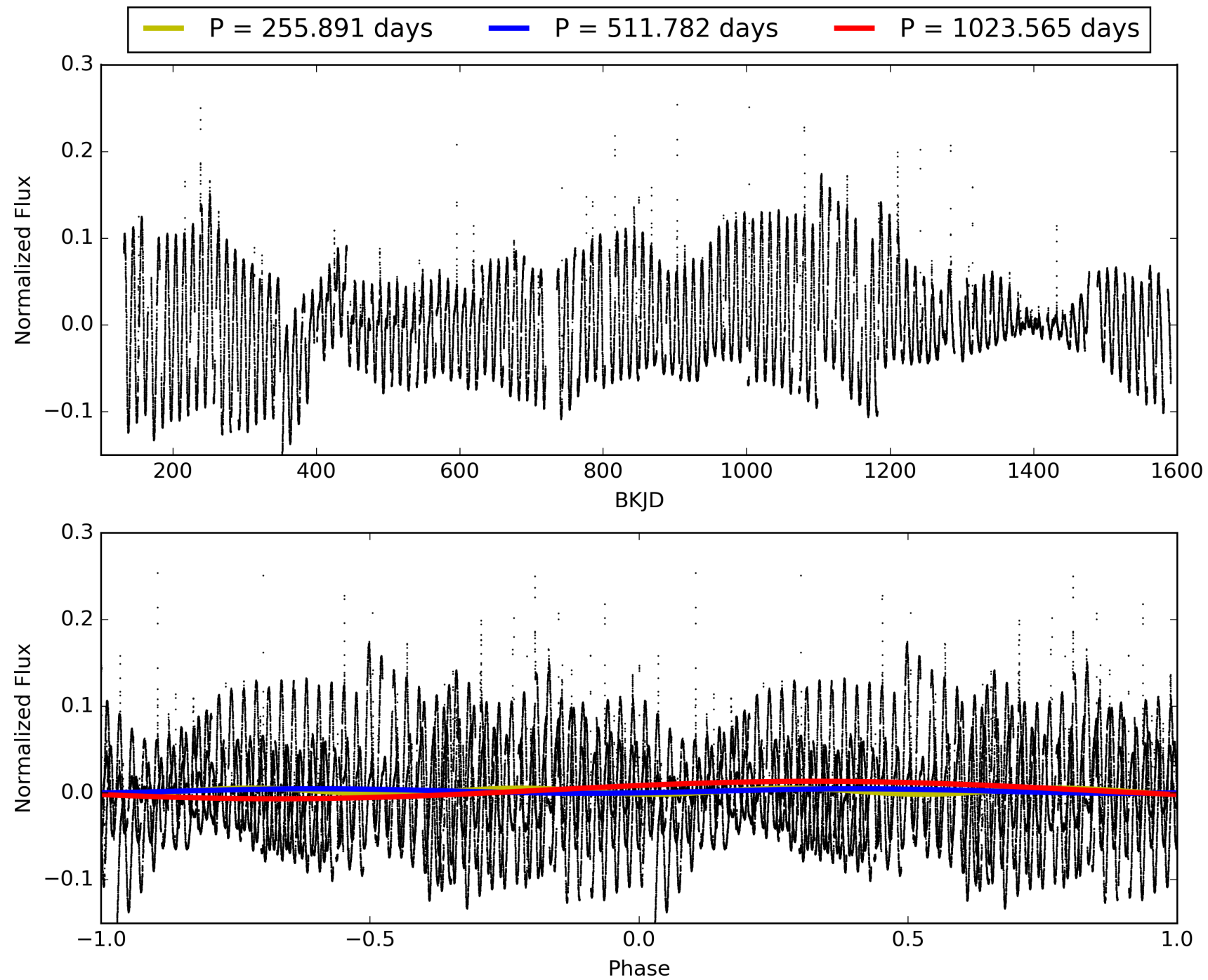
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:01:11 Z

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

TCE 011068661-06, PDC Light Curves

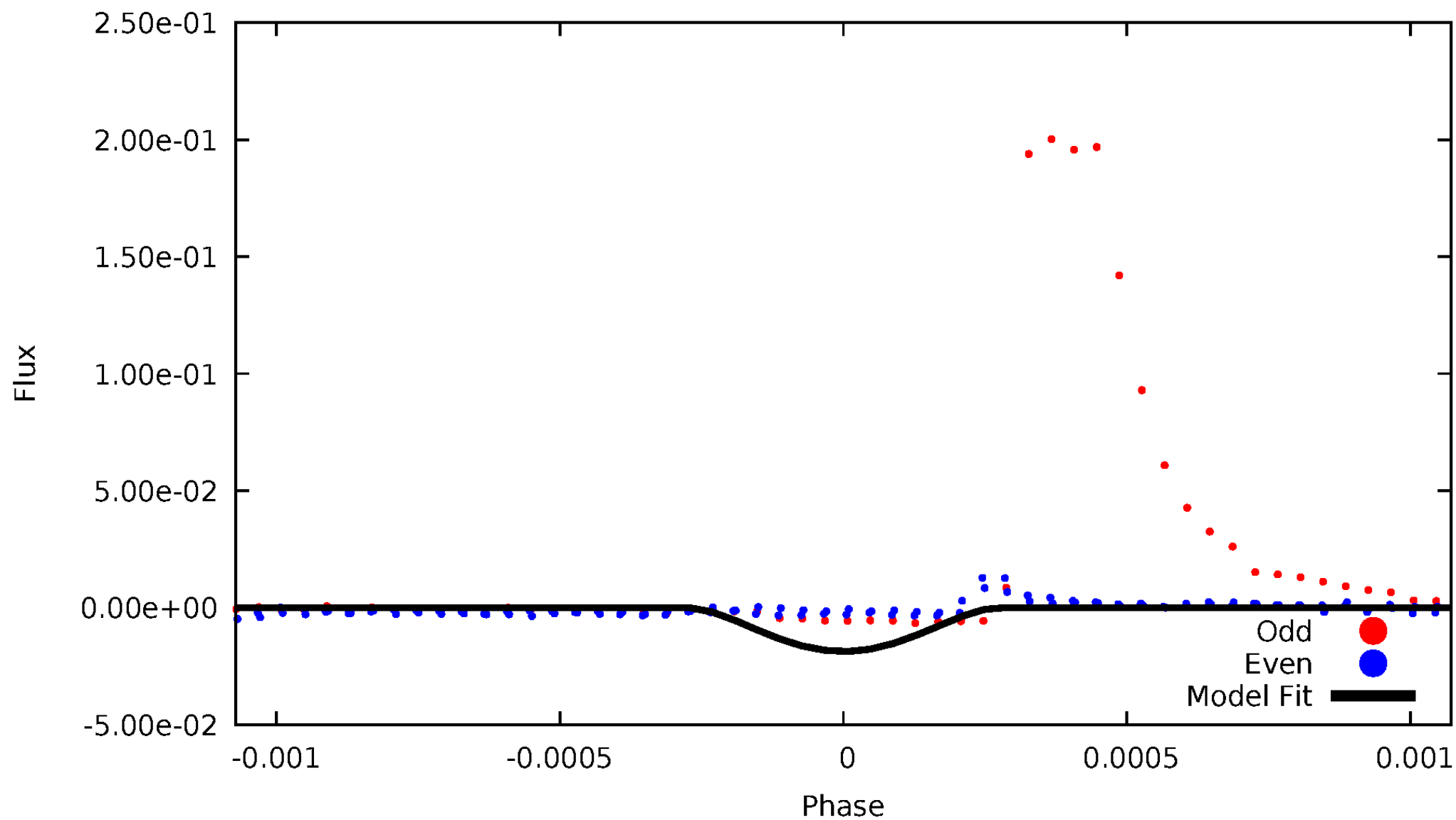


TCE 011068661-06



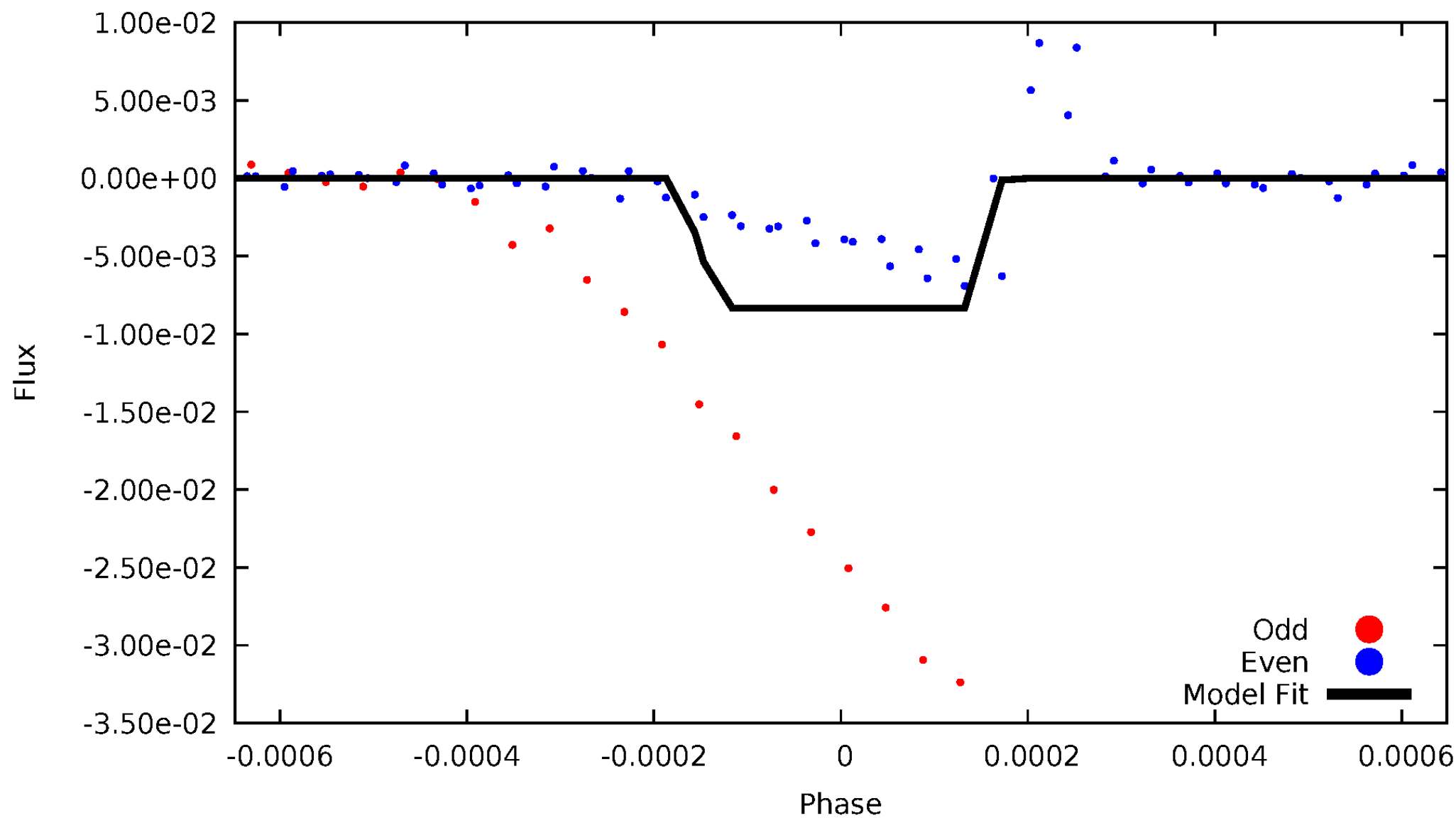
DV Odd/Even

TCE 011068661-06



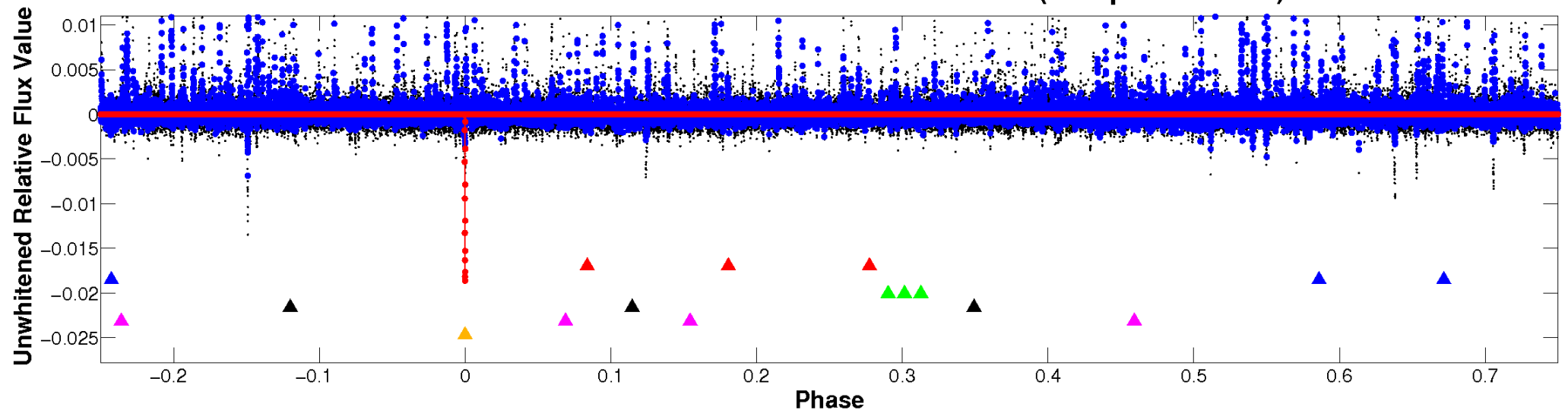
ALT Odd/Even

TCE 011068661-06

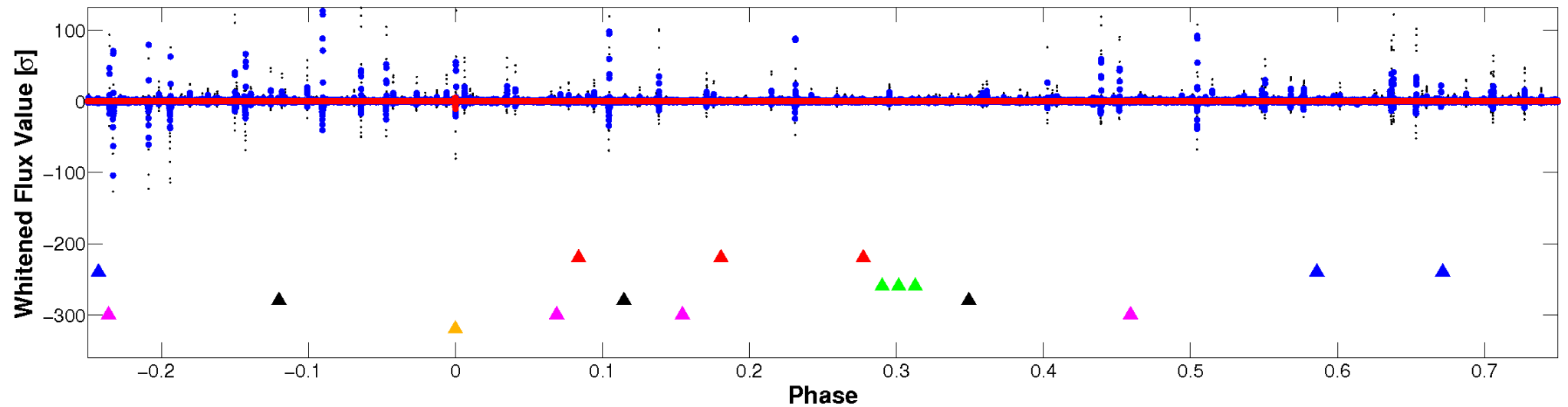


Non-Whitened Vs. Whitened Light Curve

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

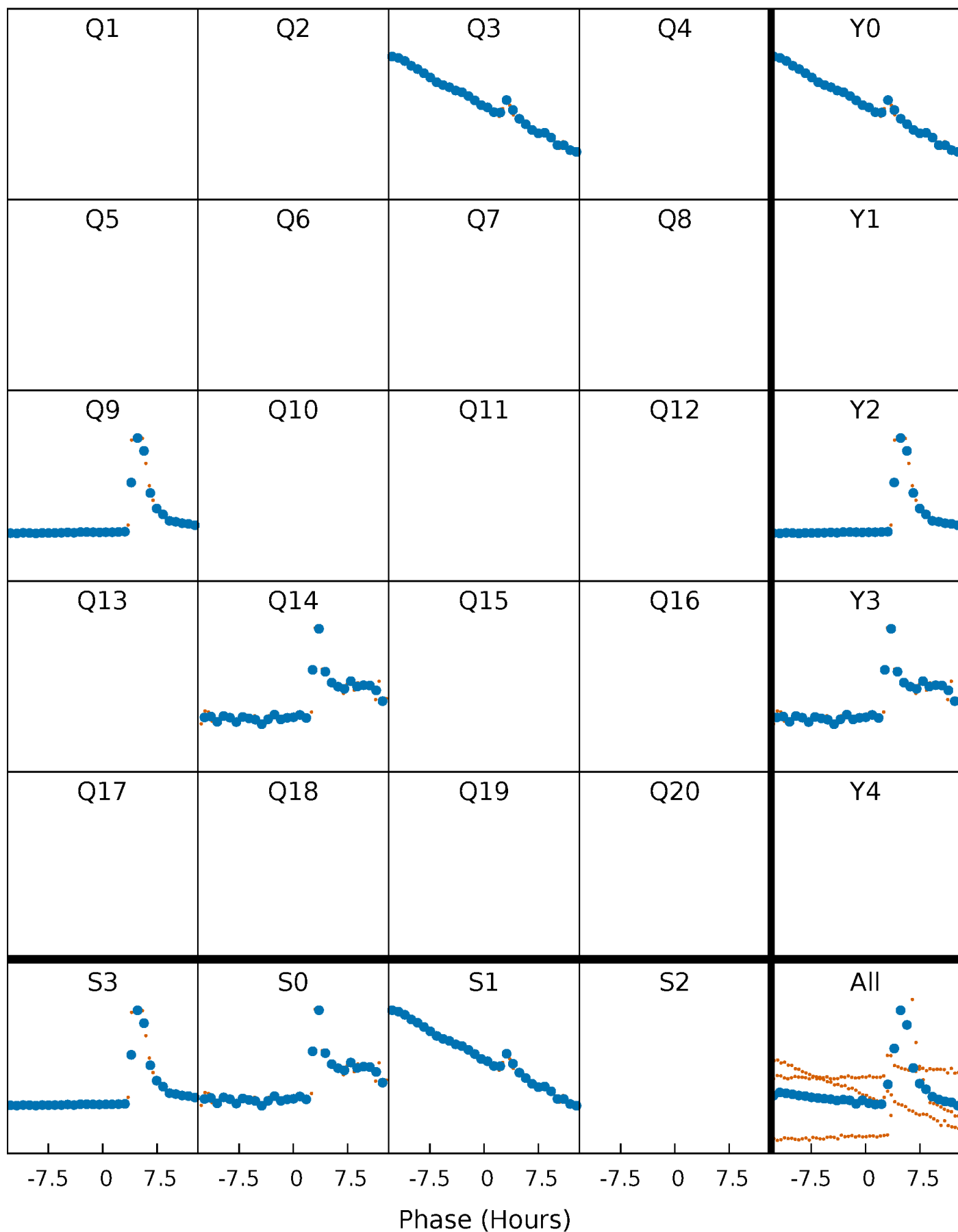


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



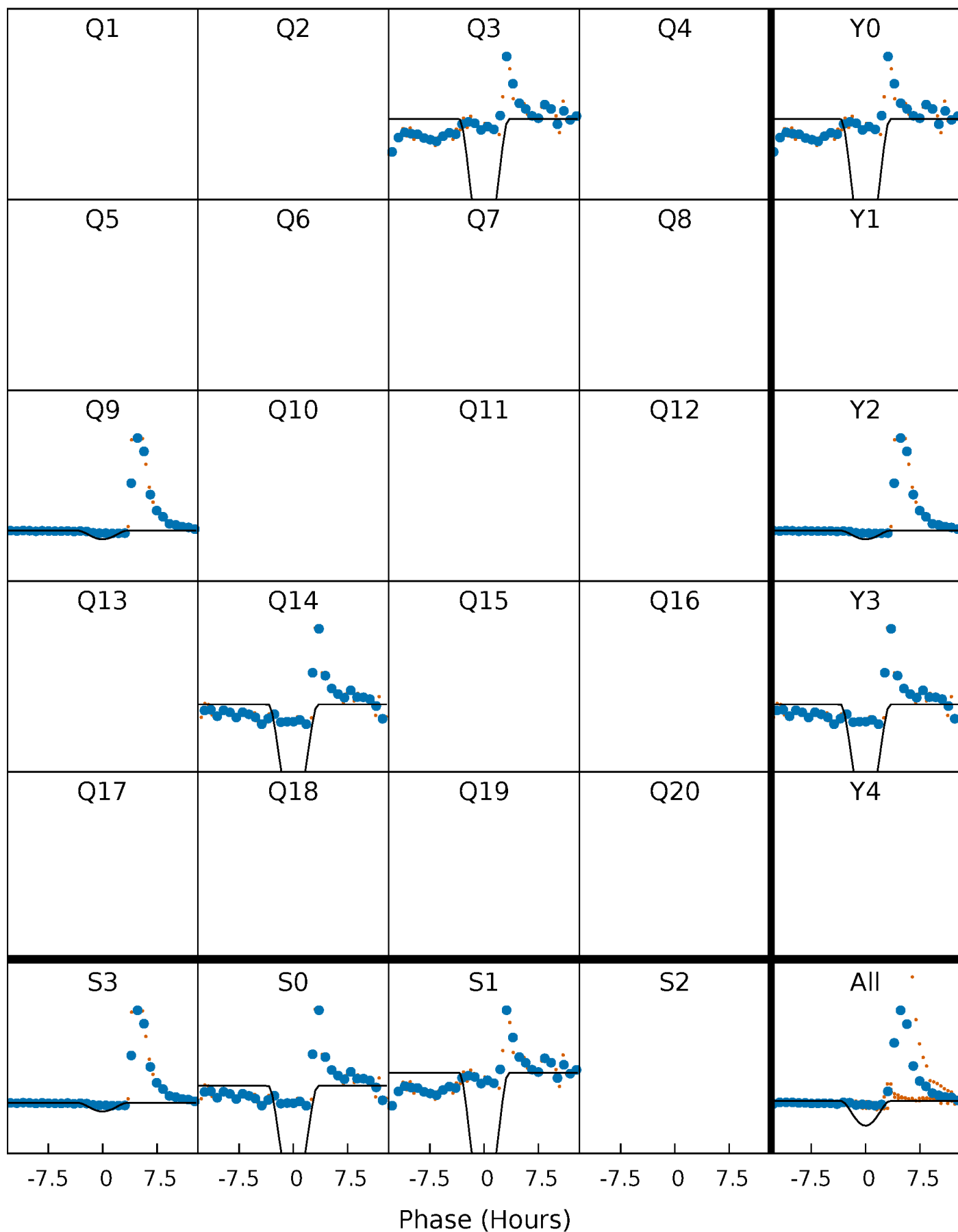
PDC Quarter-Phased Transit Curves

TCE 011068661-06 P=511.782318 Days $T_0=337.333193$ (BKJD)



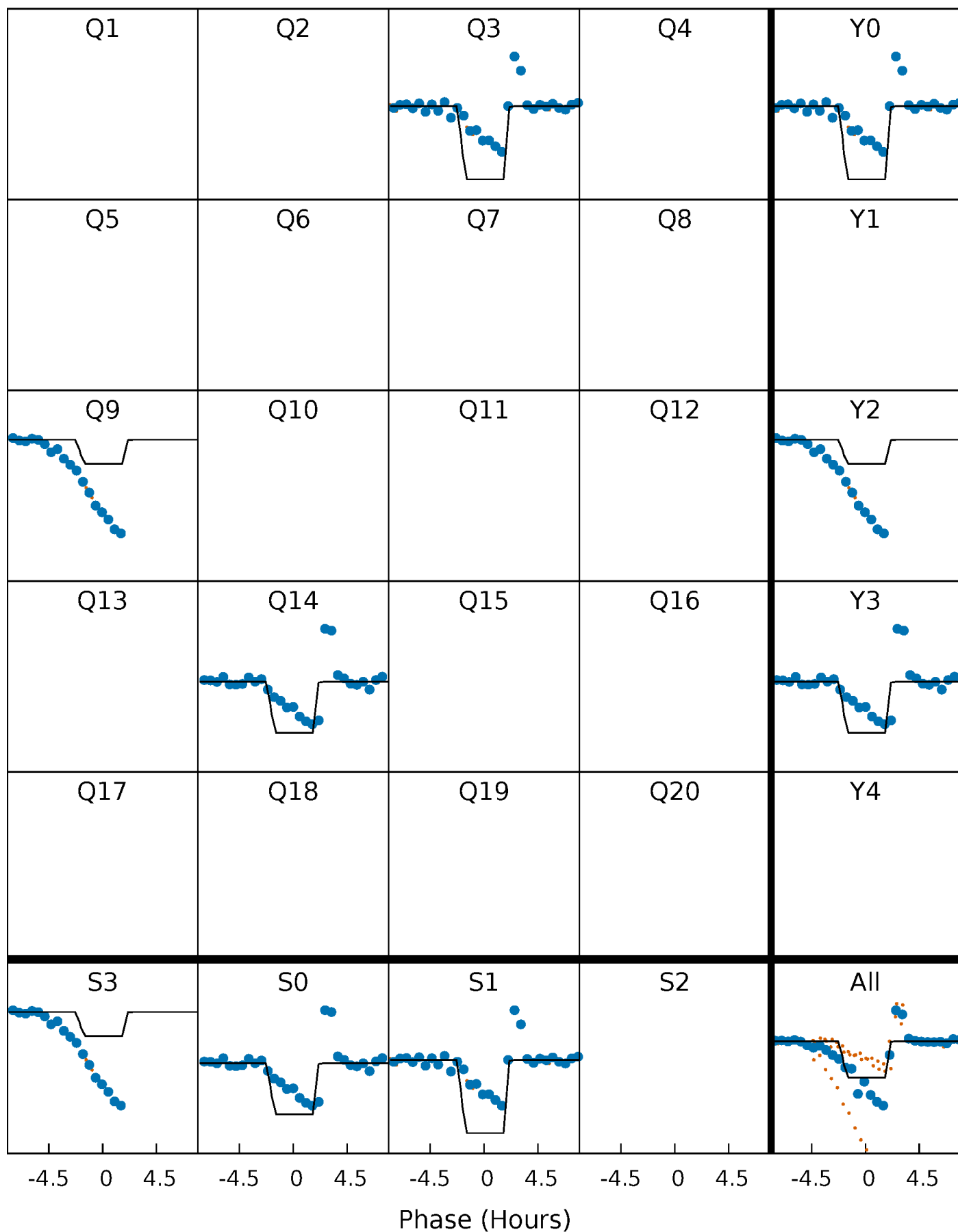
DV Quarter-Phased Transit Curves

TCE 011068661-06 P=511.782318 Days $T_0=337.333193$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

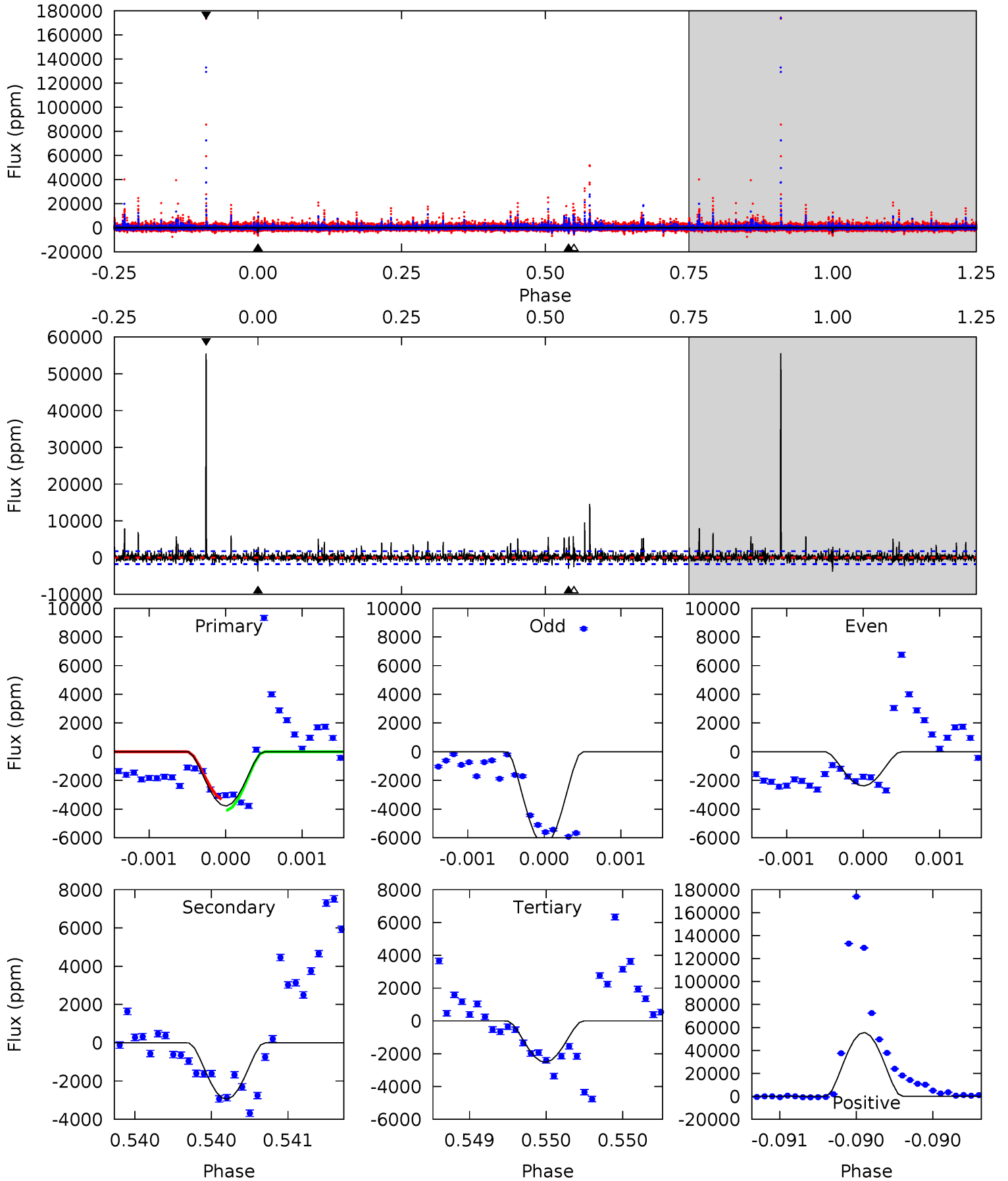
TCE 011068661-06 P=511.778944 Days $T_0=337.356769$ (BKJD)



DV Model-Shift Uniqueness Test

011068661-06, P = 511.782318 Days, E = 337.333193 Days

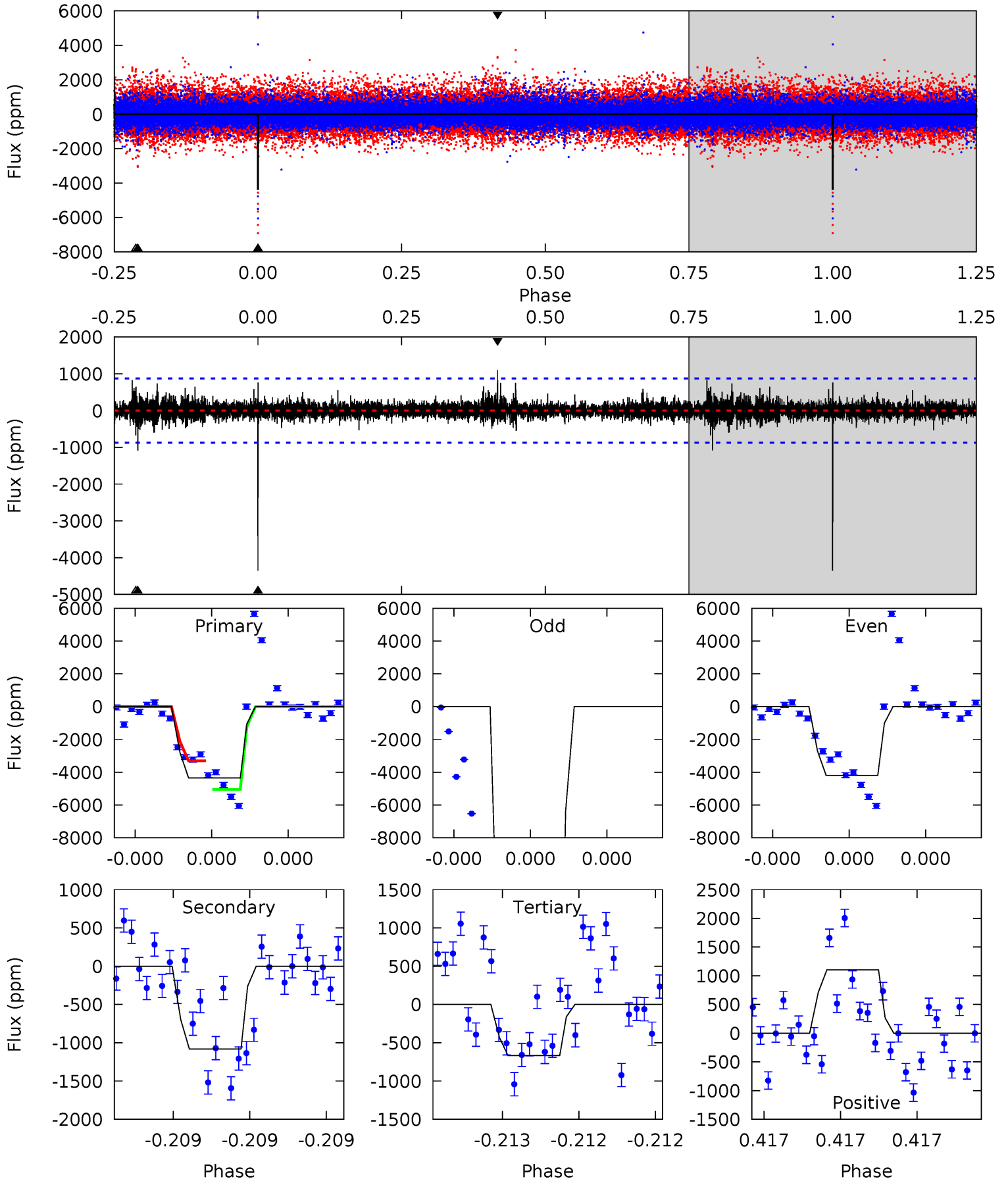
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	9.28	7.93	175.1	5.55	3.45	3.85	3.99	-163.2	1.36	-165.8	1.89	1.05	0.94	1.23



Alt Model-Shift Uniqueness Test

011068661-06, P = 511.778944 Days, E = 337.356769 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.1	6.98	4.31	7.11	5.63	3.57	0.74	23.8	21.0	2.67	-0.13	56.4	2.36	0.20	5.49



Stellar Parameters For KIC 011068661

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4679^{+140}_{-140}	$4.597^{+0.054}_{-0.027}$	$-0.240^{+0.300}_{-0.300}$	$0.678^{+0.054}_{-0.060}$	$0.663^{+0.082}_{-0.048}$	$2.997^{+0.736}_{-0.360}$
	+3%/-3%	+1%/-1%	+125%/-125%	+8%/-9%	+12%/-7%	+25%/-12%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011068661-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2946 ± 317	$67.72^{+70.28}_{-47.66}$	226^{+8}_{-8}	2085^{+707}_{-274}	440^{+4848}_{-338}
Alt.	-1081 ± 155	$63.62^{+71.20}_{-45.04}$	226^{+8}_{-8}	1911^{+593}_{-261}	177^{+2010}_{-139}

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

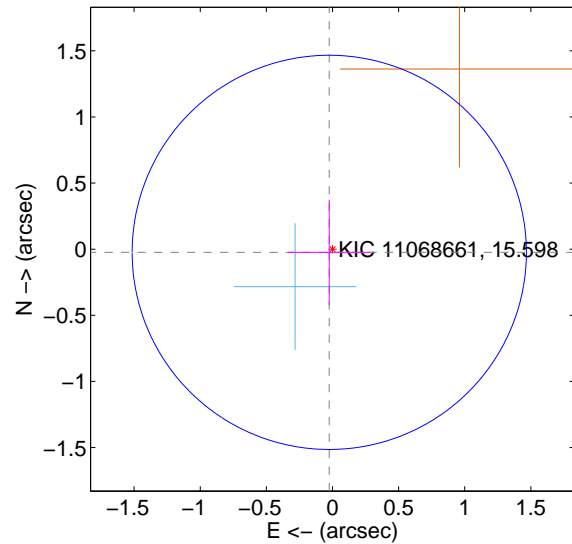
Supplemental centroid analysis for 011068661-06. Kepler magnitude: 15.60. Transit SNR 21.73

There are 2 quarters with good PRF difference image offsets

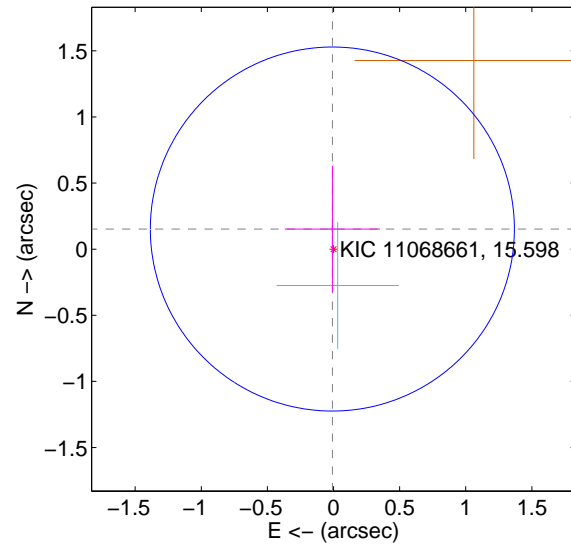
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.034 ± 0.497	0.07	0.024 ± 0.311	-0.024 ± 0.398
PRF-fit source offset from KIC position	0.153 ± 0.459	0.33	0.009 ± 0.360	0.152 ± 0.479
photometric centroid source offset	0.52 ± 0.14	3.69	-0.35 ± 0.15	0.39 ± 0.13

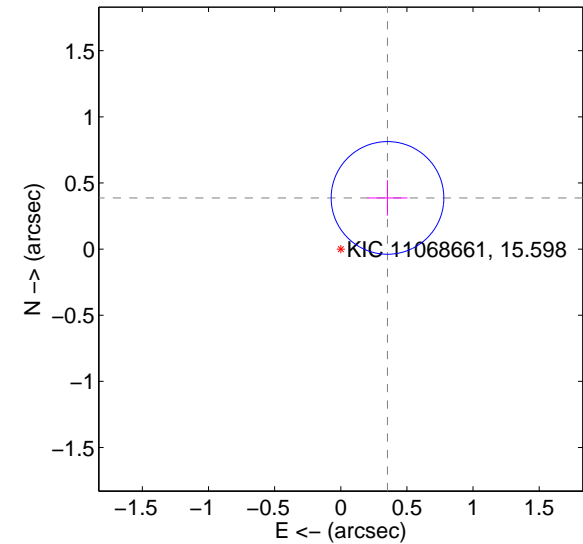
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



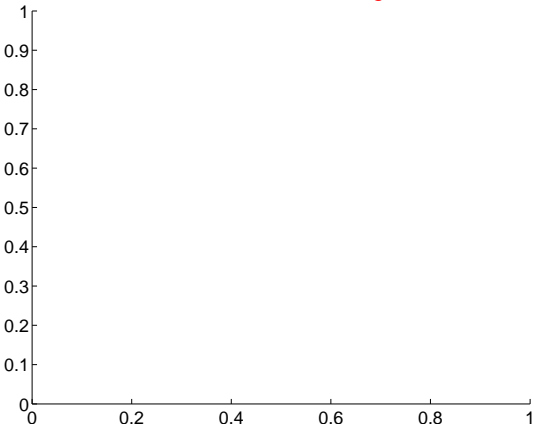
offset from photometric centroids



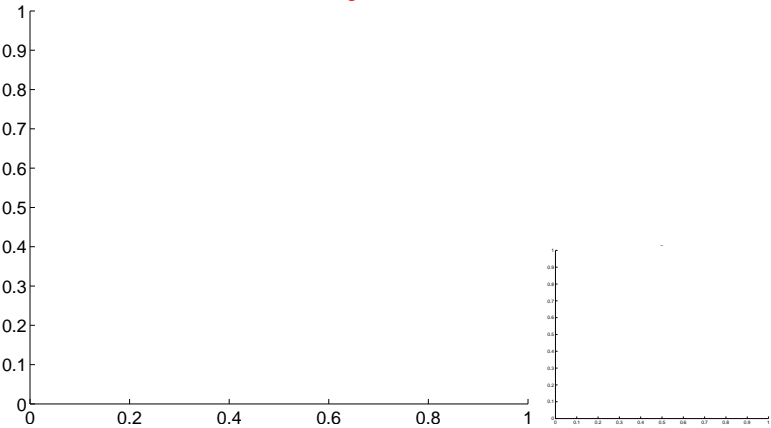
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

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

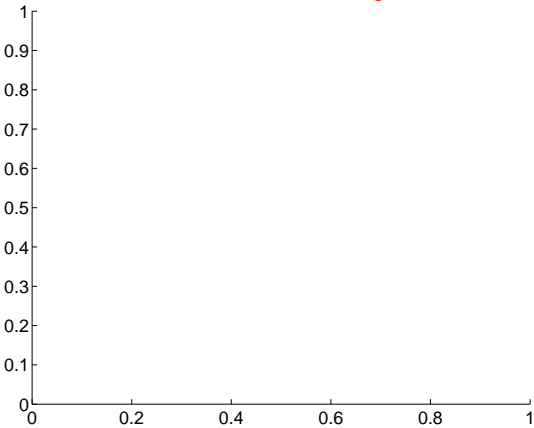
Q1 no difference image



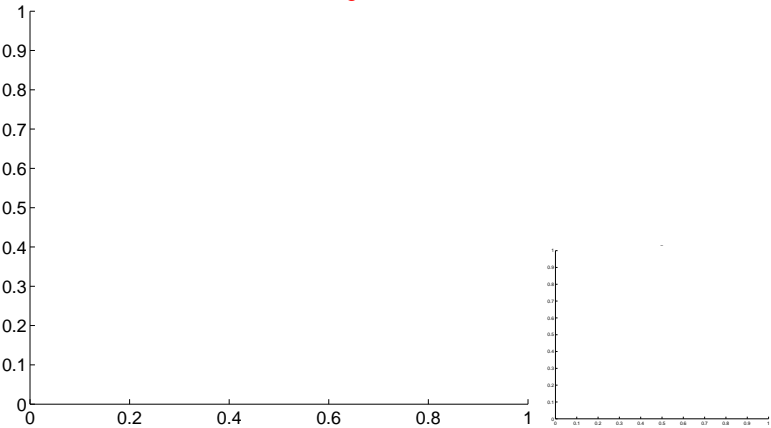
Q1 no OOT image



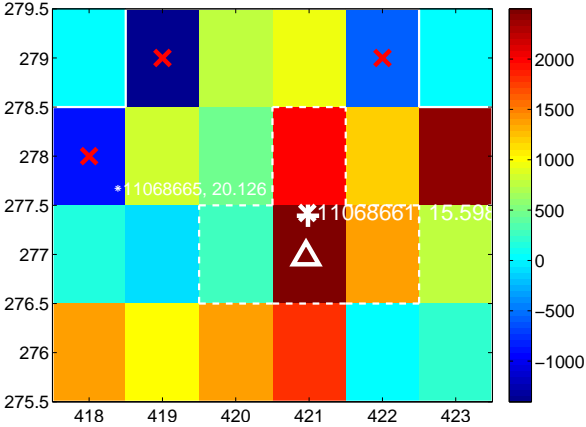
Q2 no difference image



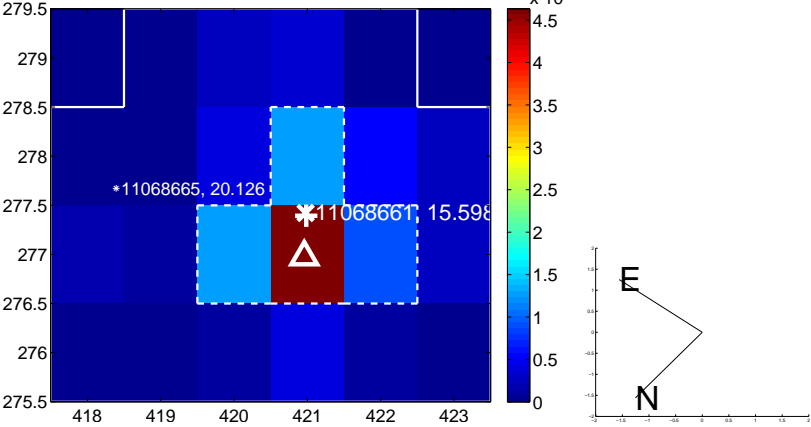
Q2 no OOT image



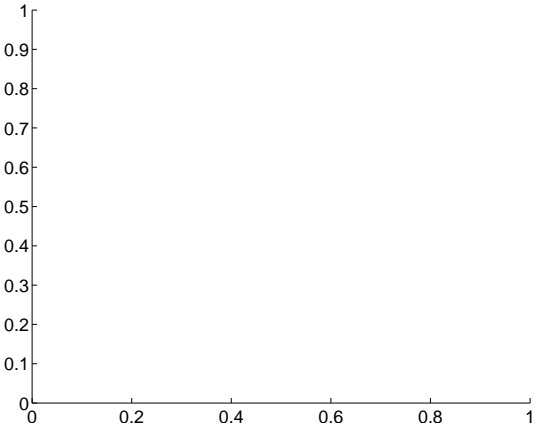
Q3 difference image. Poor Quality



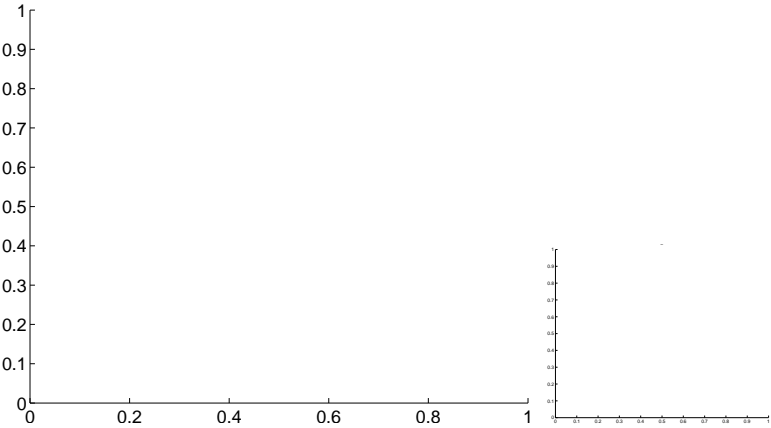
Q3 OOT image



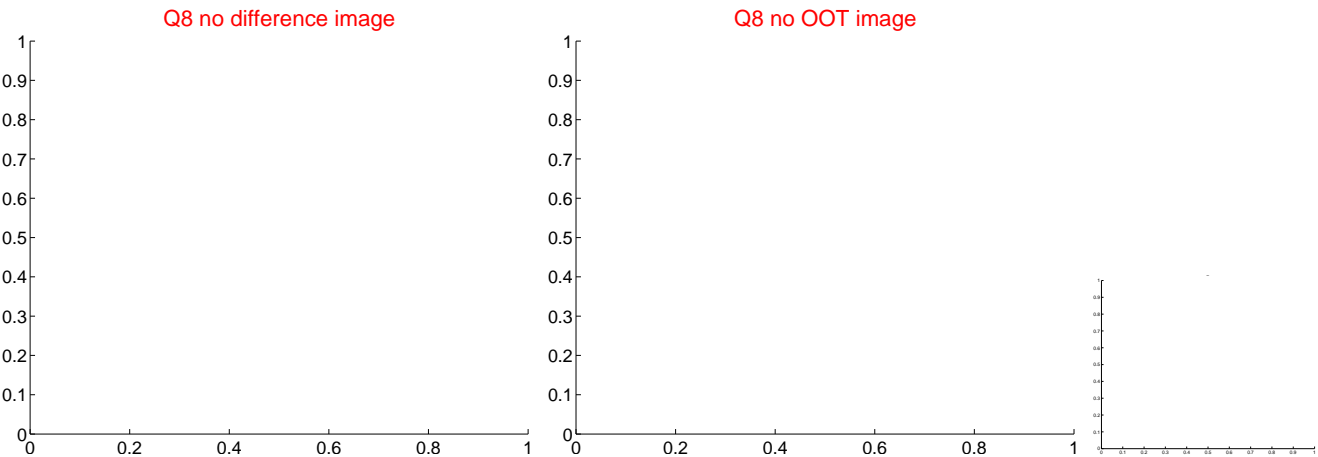
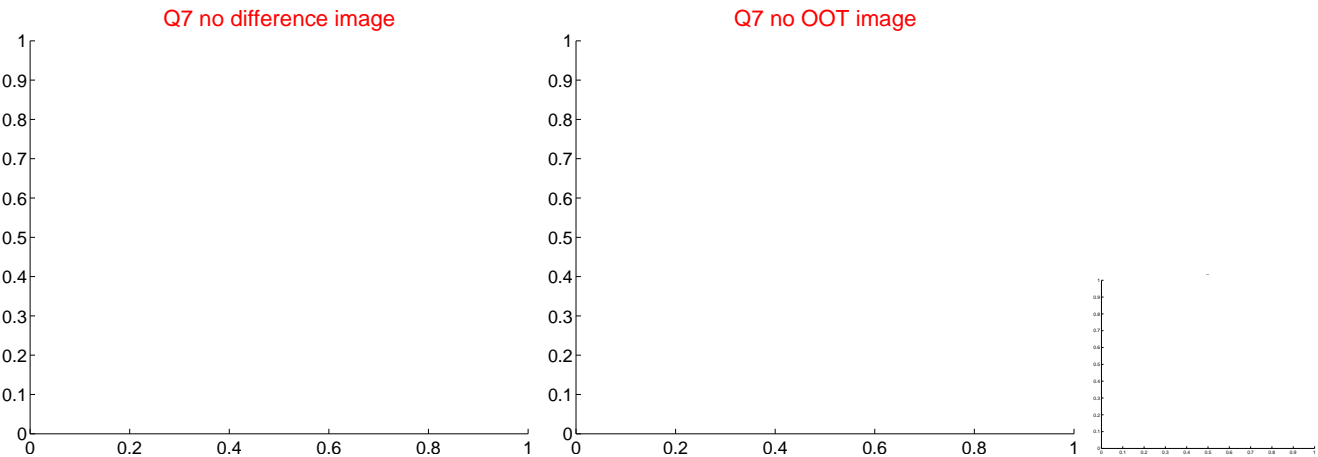
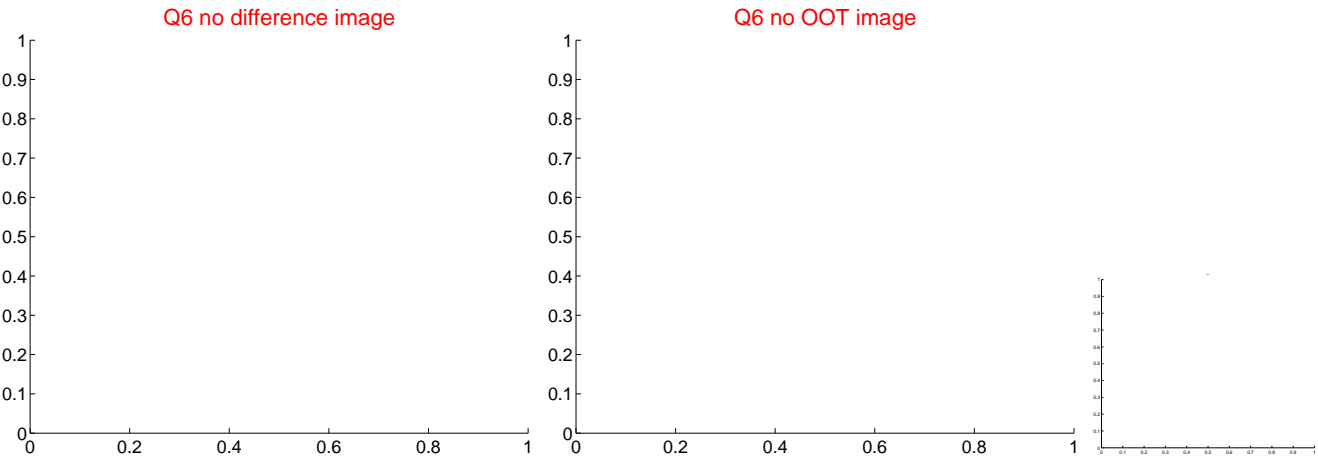
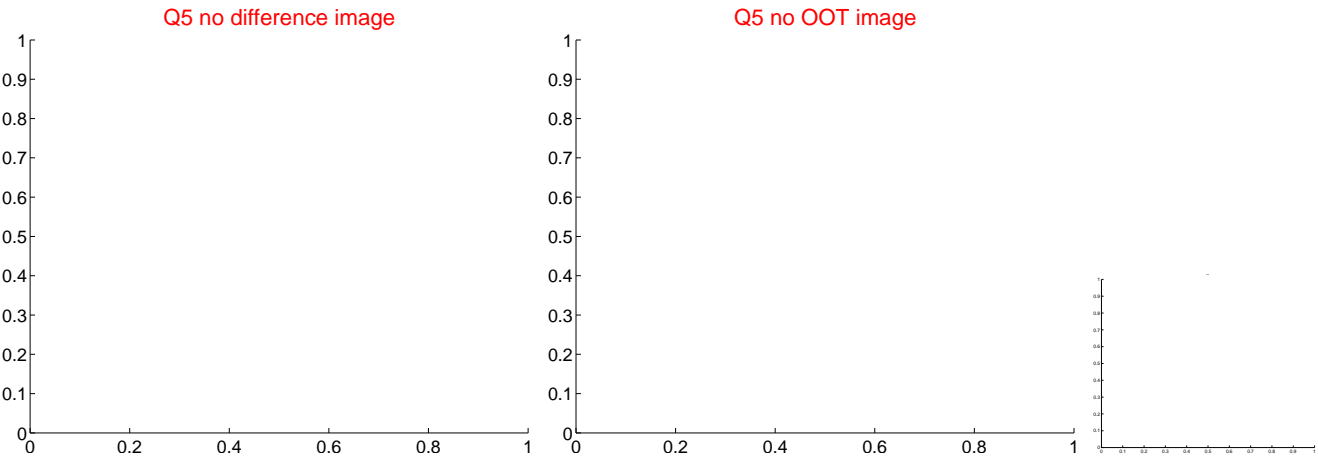
Q4 no difference image



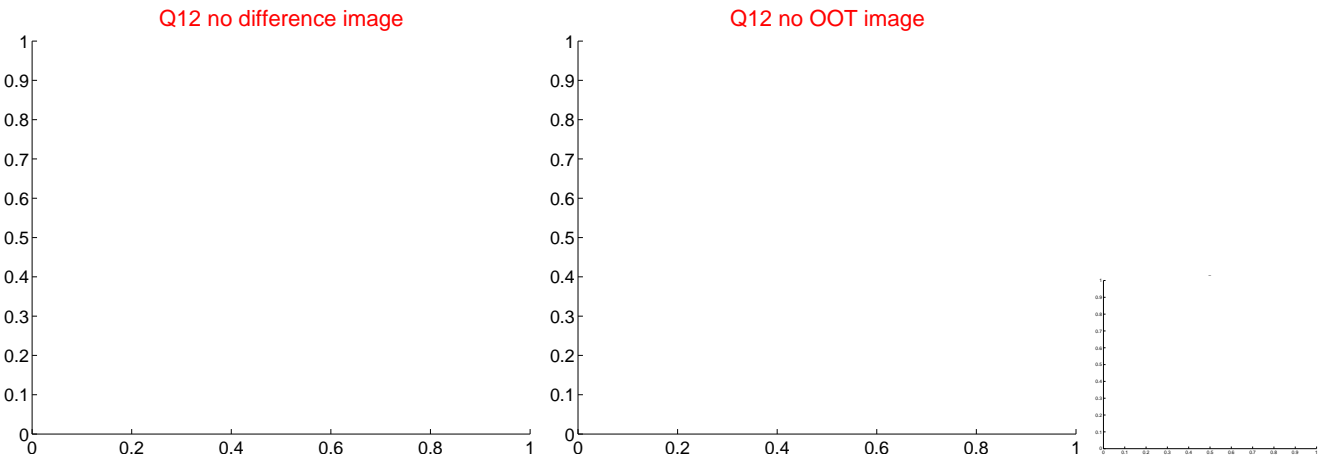
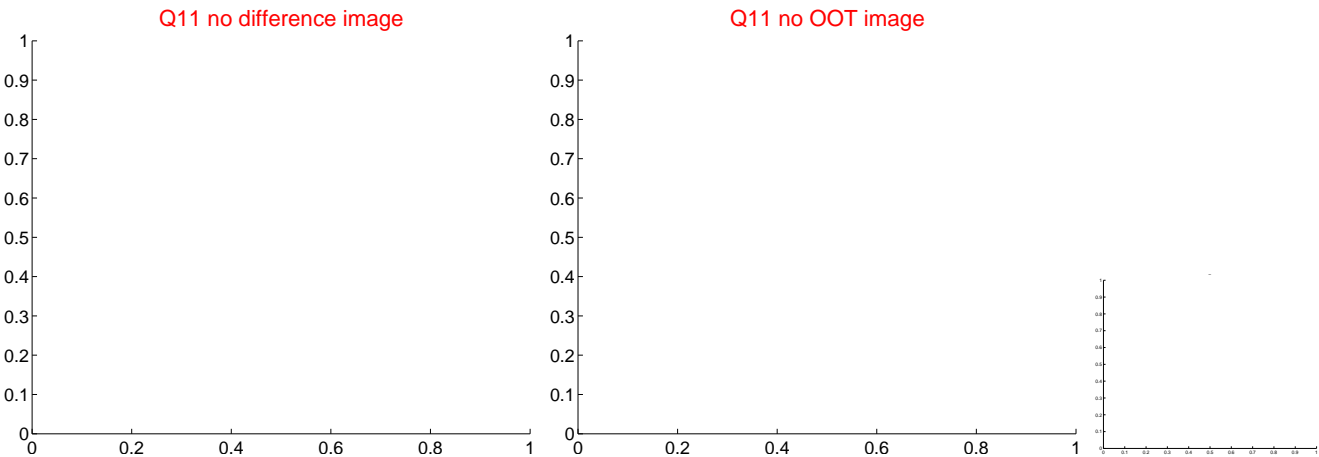
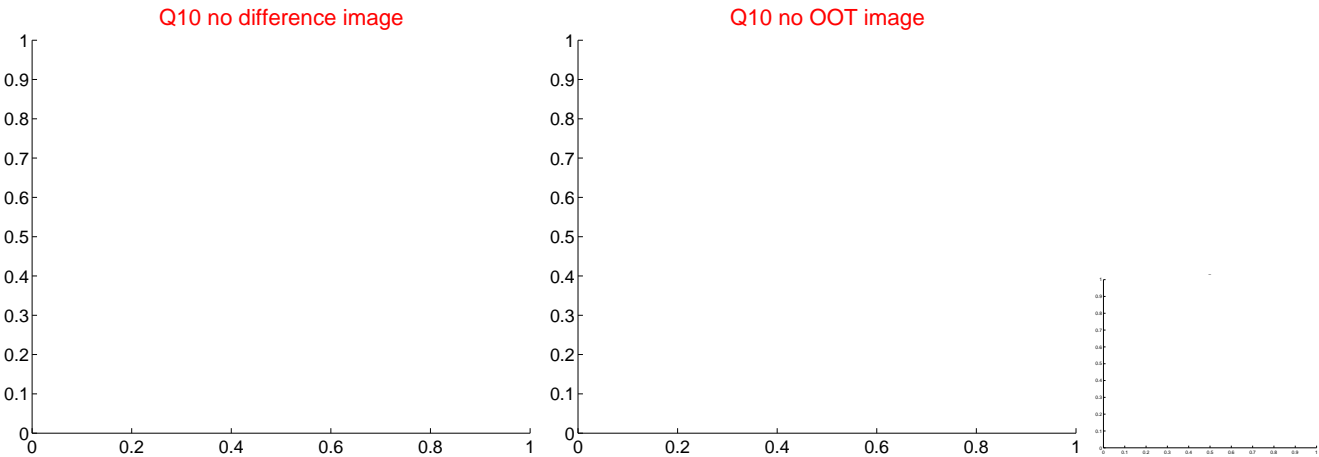
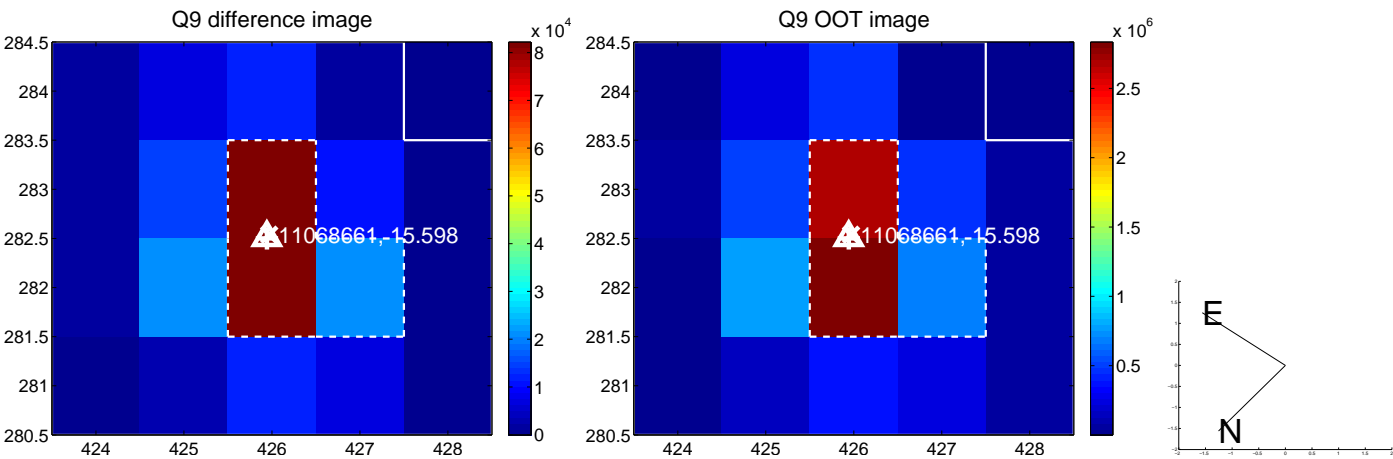
Q4 no OOT image



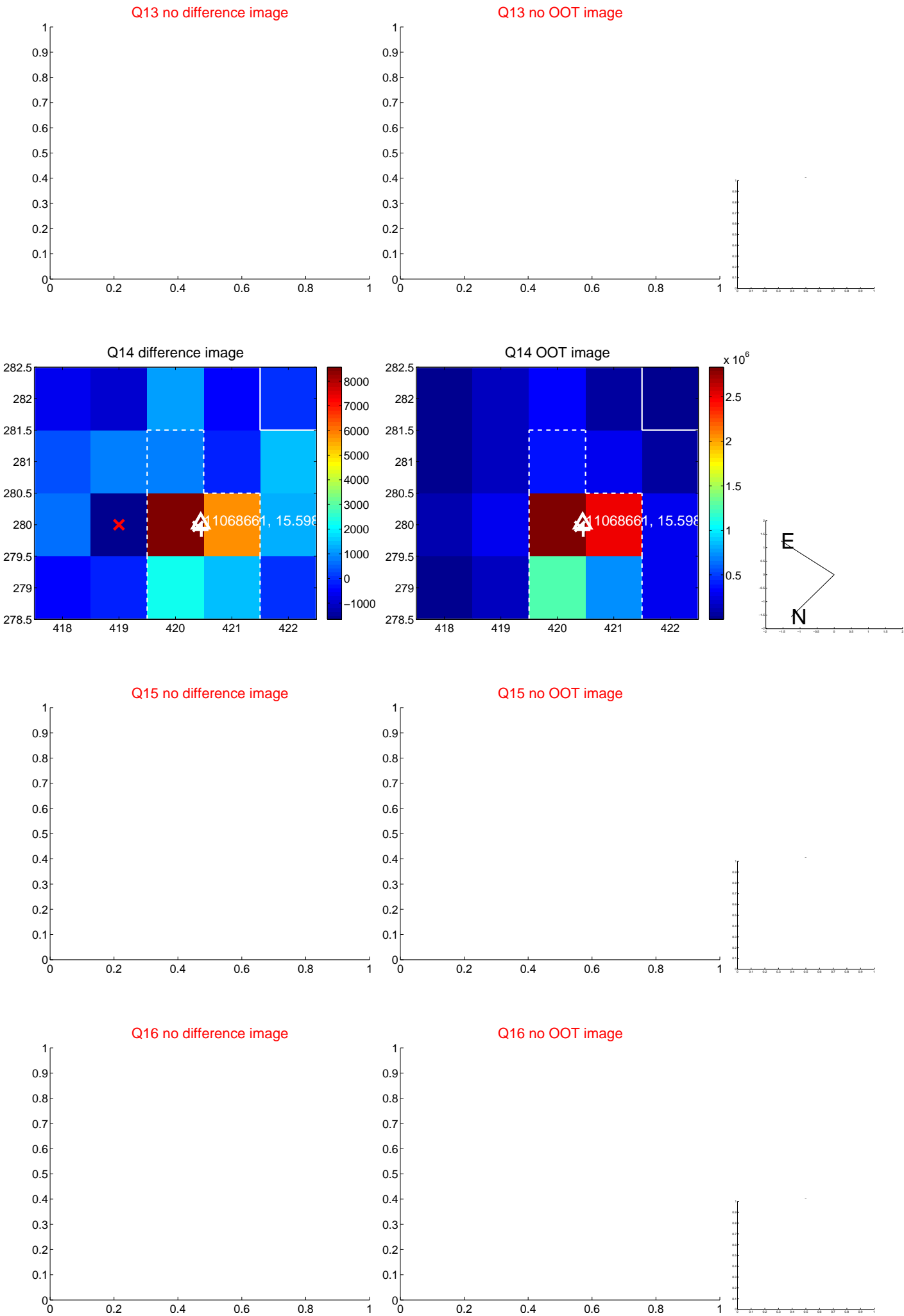
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



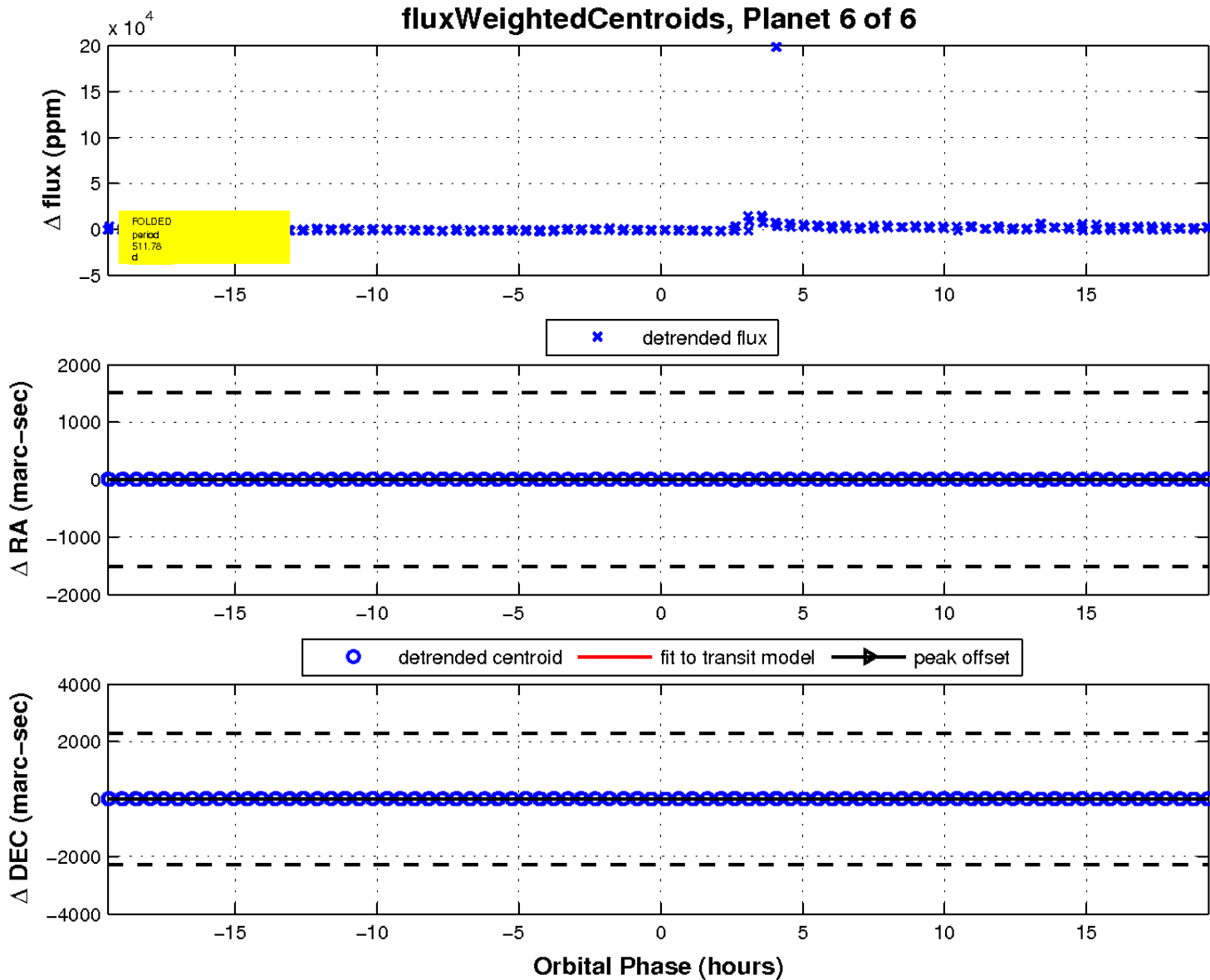
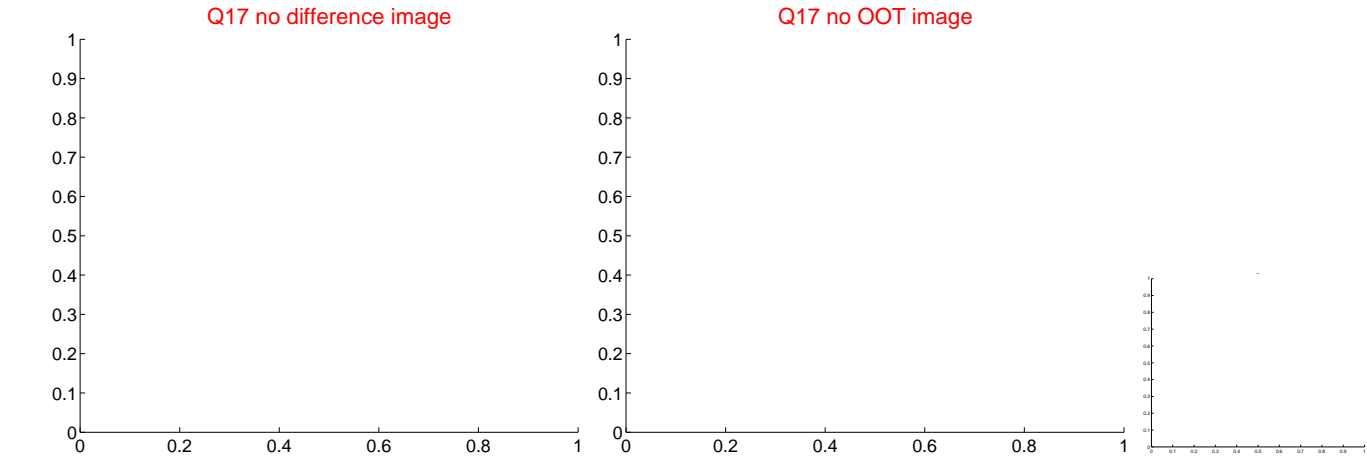
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

