

KIC 011350063

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})
011350063-01	OBS	No	375.091761	462.032396	2475.8	6.390	14.5	6.4	0.25	3418	1.25	0.02
011350063-02	OBS	No	400.961338	163.472321	3006.5	3.679	13.3	7.1	0.25	3418	1.40	0.02
011350063-03	OBS	No	322.281596	382.280994	2574.3	3.762	11.0	6.2	0.25	3418	1.29	0.02
011350063-04	OBS	No	337.256783	439.162503	3879.7	11.675	10.7	7.9	0.25	3418	1.55	0.02
011350063-05	OBS	No	10.920502	131.958784	267.8	4.638	8.3	3.6	0.25	3418	0.41	2.09
011350063-06	OBS	No	263.273996	262.007058	2540.4	3.000	11.8	-1.0	0.25	3418	1.25	0.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011350063-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011350063-04	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-05	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_KIC_POS
011350063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

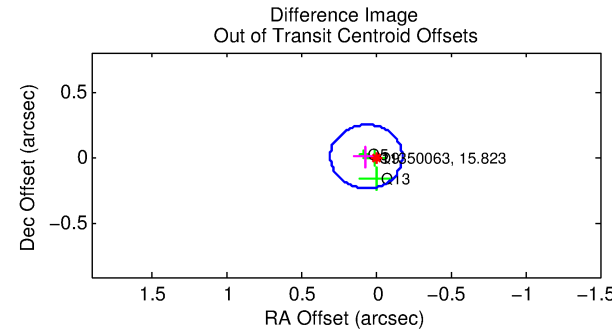
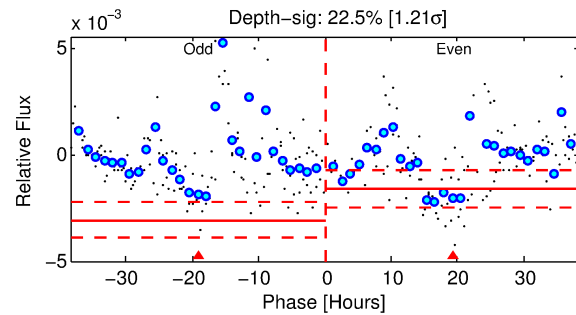
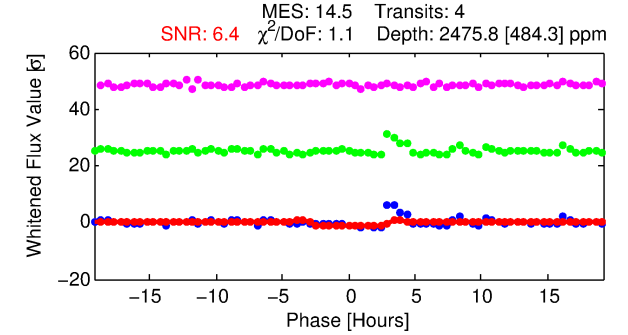
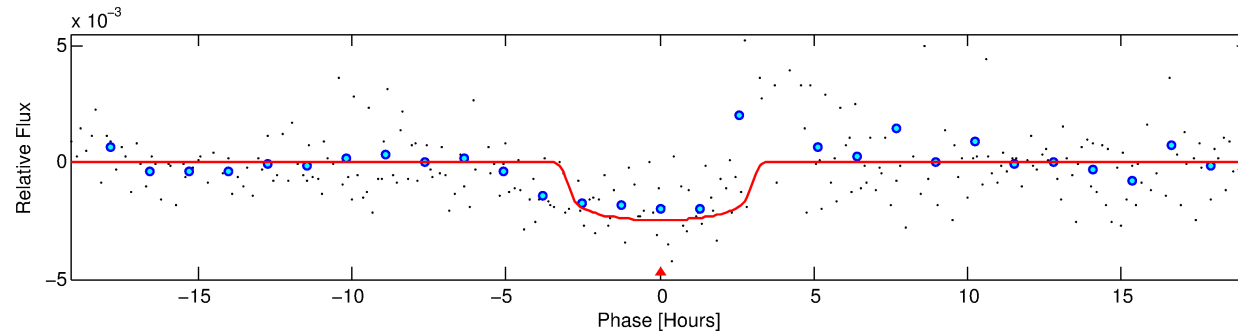
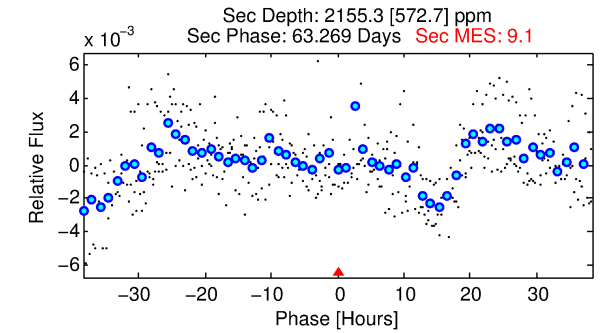
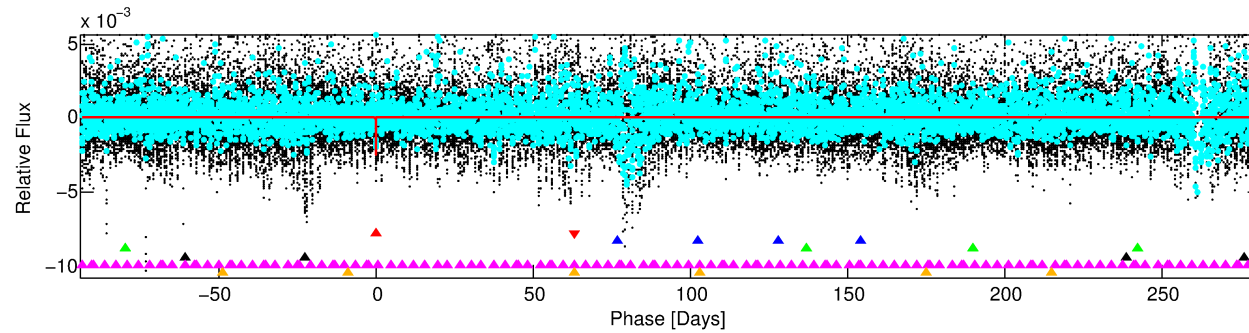
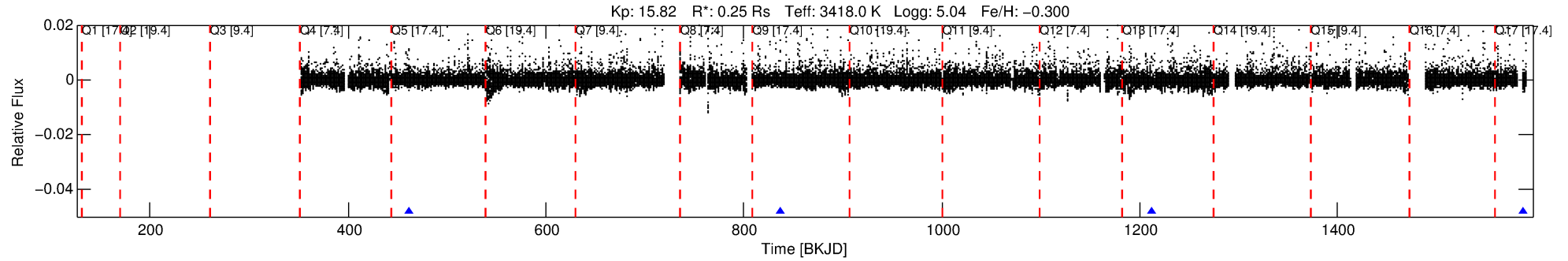
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011350063-01

No Significant Match Found

DV One-Page Summary

KIC: 11350063 Candidate: 1 of 6 Period: 375.092 d



DV Fit Results:

Period = 375.09176 [0.00605] d
Epoch = 462.0324 [0.0123] BKJD
Rp/R* = 0.0456 [0.0257]
a/R* = 452.45 [1143.39]
b = 0.27 [8.50]
Seff = 0.02 [0.00]
Teq = 94 [3] K
Rp = 1.25 [0.72] Re
a = 0.6389 [0.0551] AU
Ag = 312052.18 [362999.51] [0.86σ]
Teffp = 3447 [999] K [3.35σ]

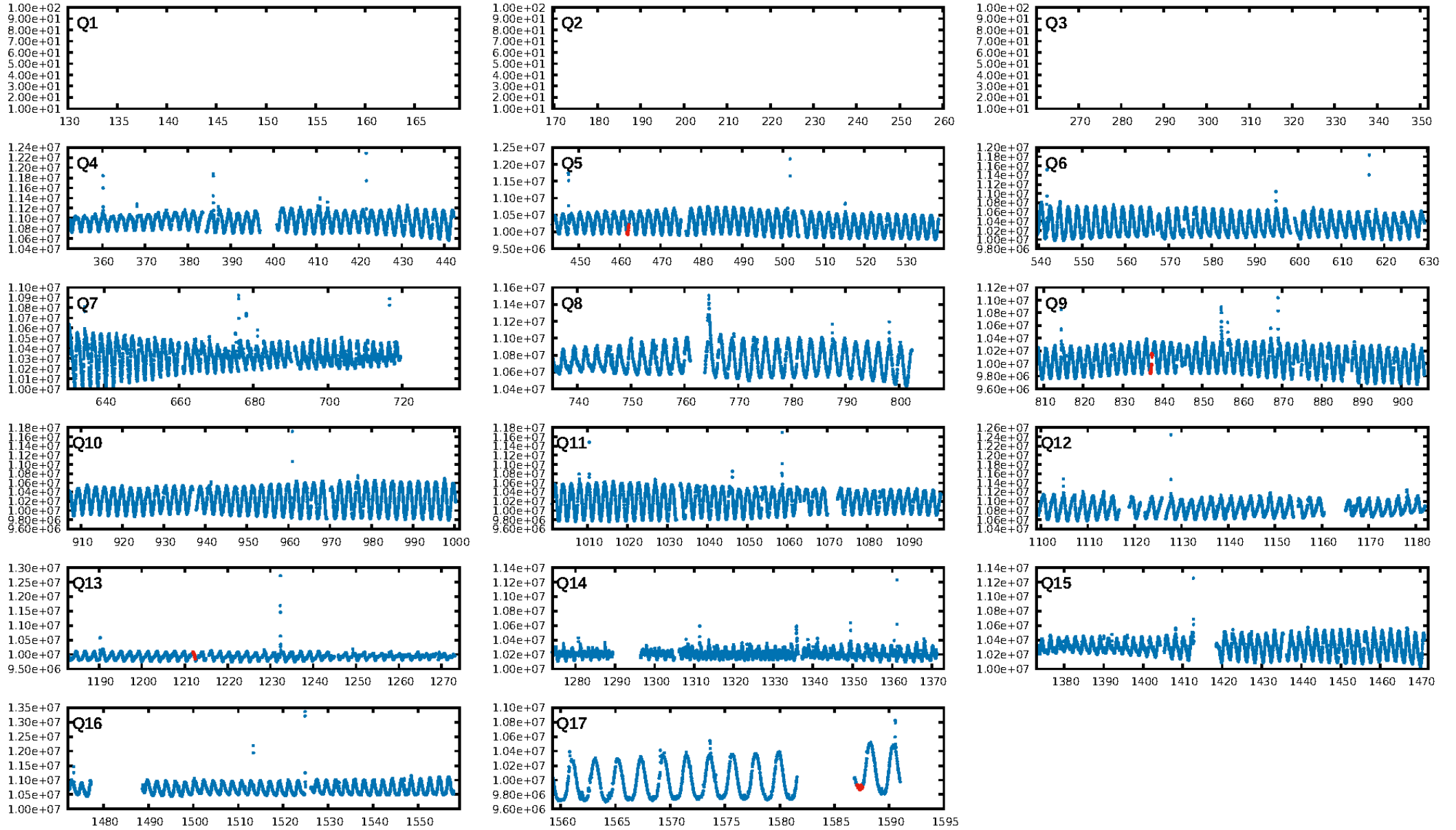
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [68.23σ]
LongPeriod-sig: 100.0% [84.21σ]
ModelChiSquare2-sig: 84.0%
ModelChiSquareGof-sig: 98.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 4.847
Centroid-sig: 69.5%
Centroid-so: 0.625 arcsec [1.09σ]
OotOffset-rm: 0.064 arcsec [0.80σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-rm: 0.833 arcsec [10.92σ]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

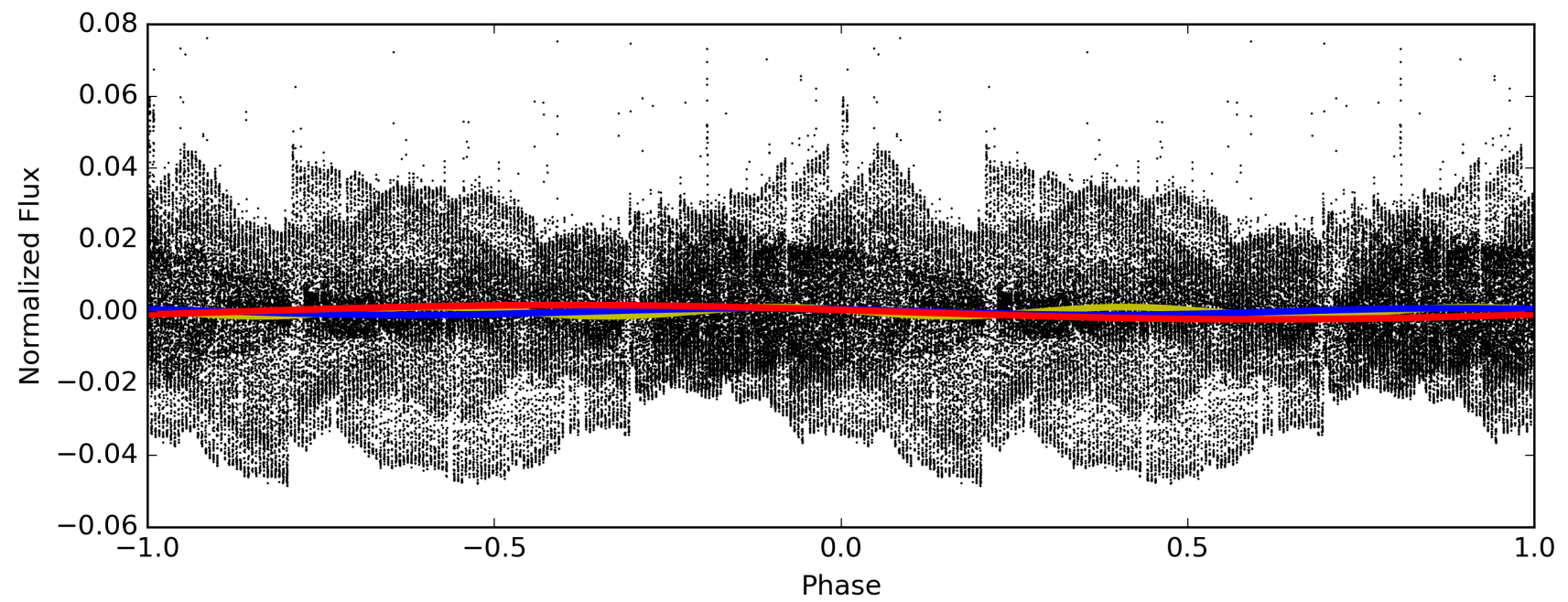
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:55:44 Z

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

TCE 011350063-01, PDC Light Curves

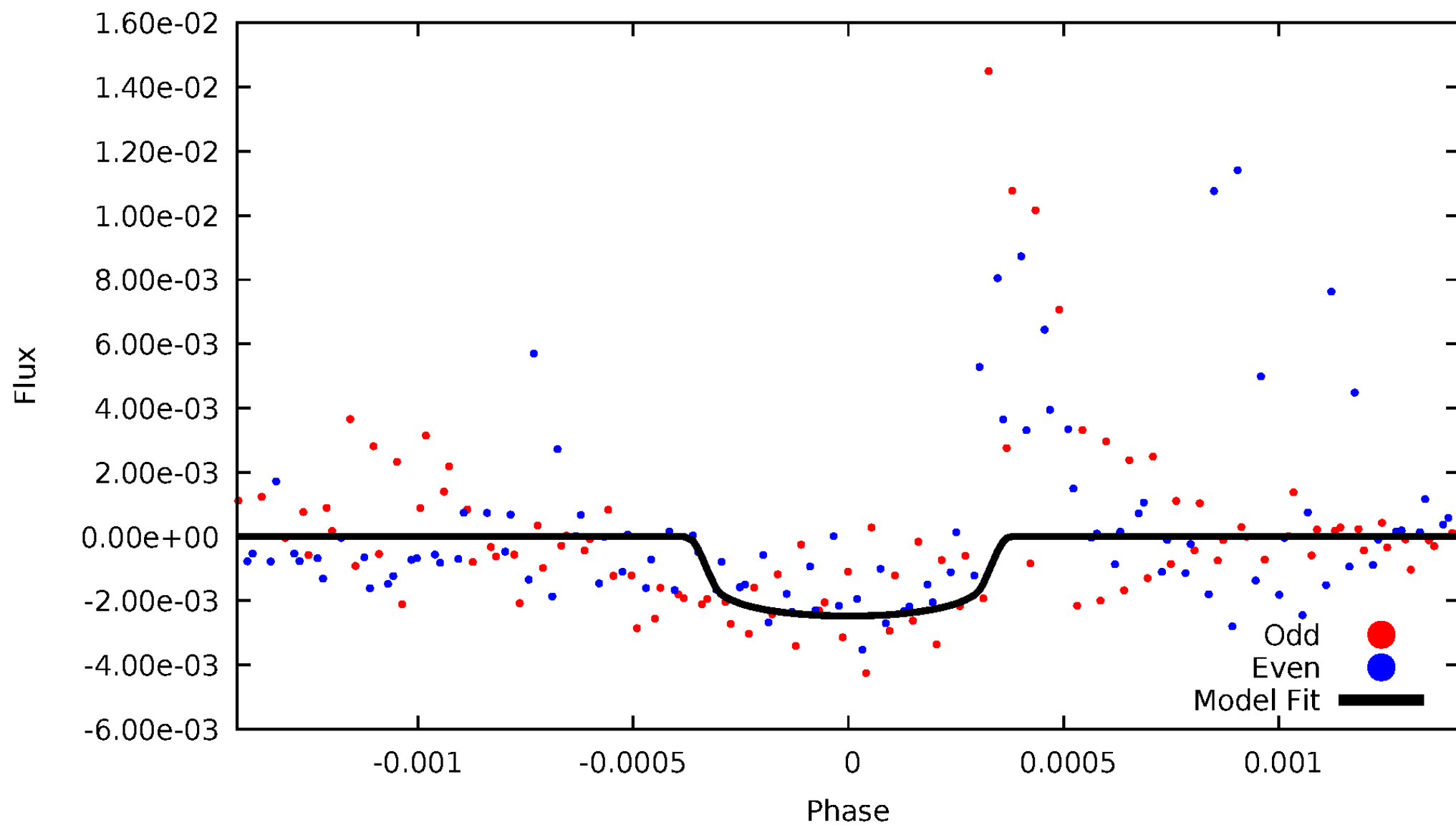


— P = 187.546 days — P = 375.092 days — P = 750.184 days



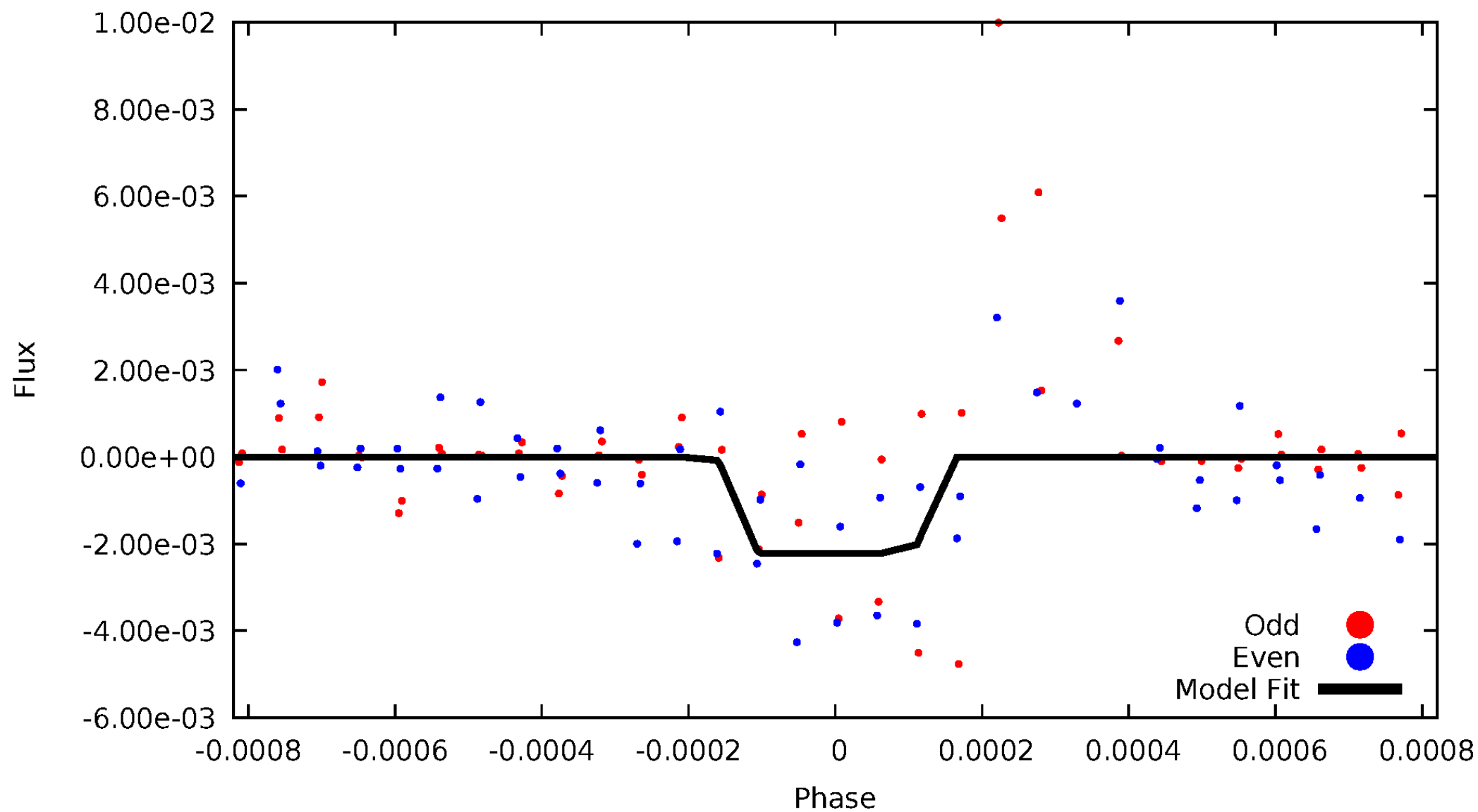
DV Odd/Even

TCE 011350063-01



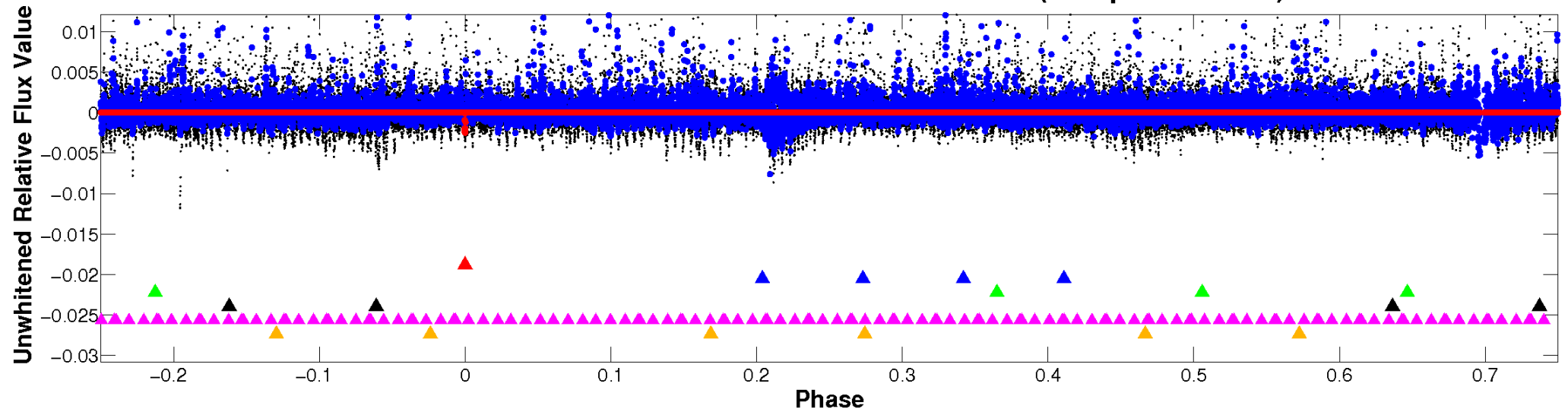
ALT Odd/Even

TCE 011350063-01

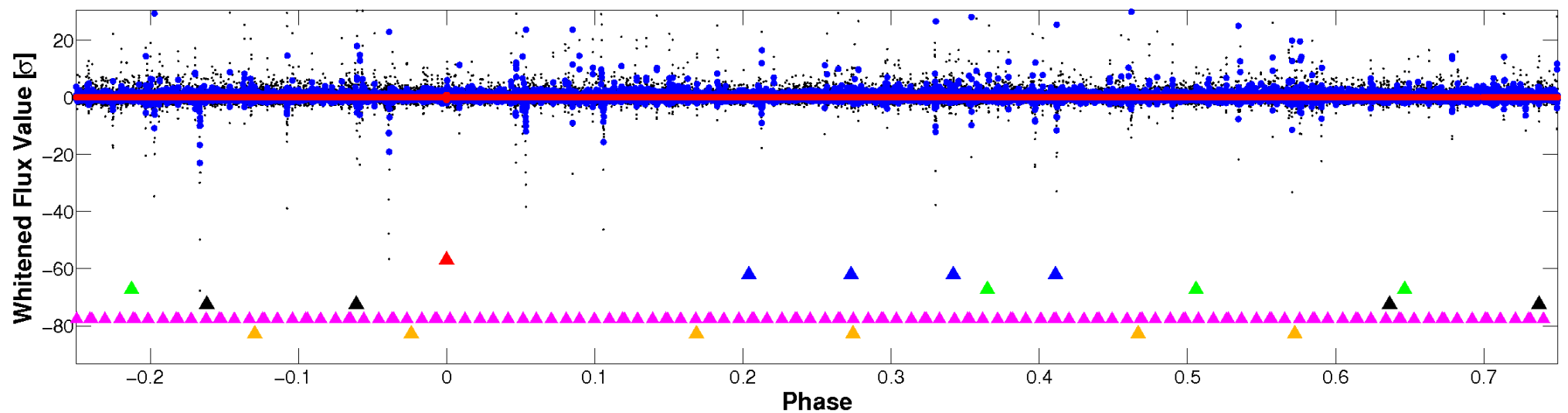


Non-Whitened Vs. Whitened Light Curve

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

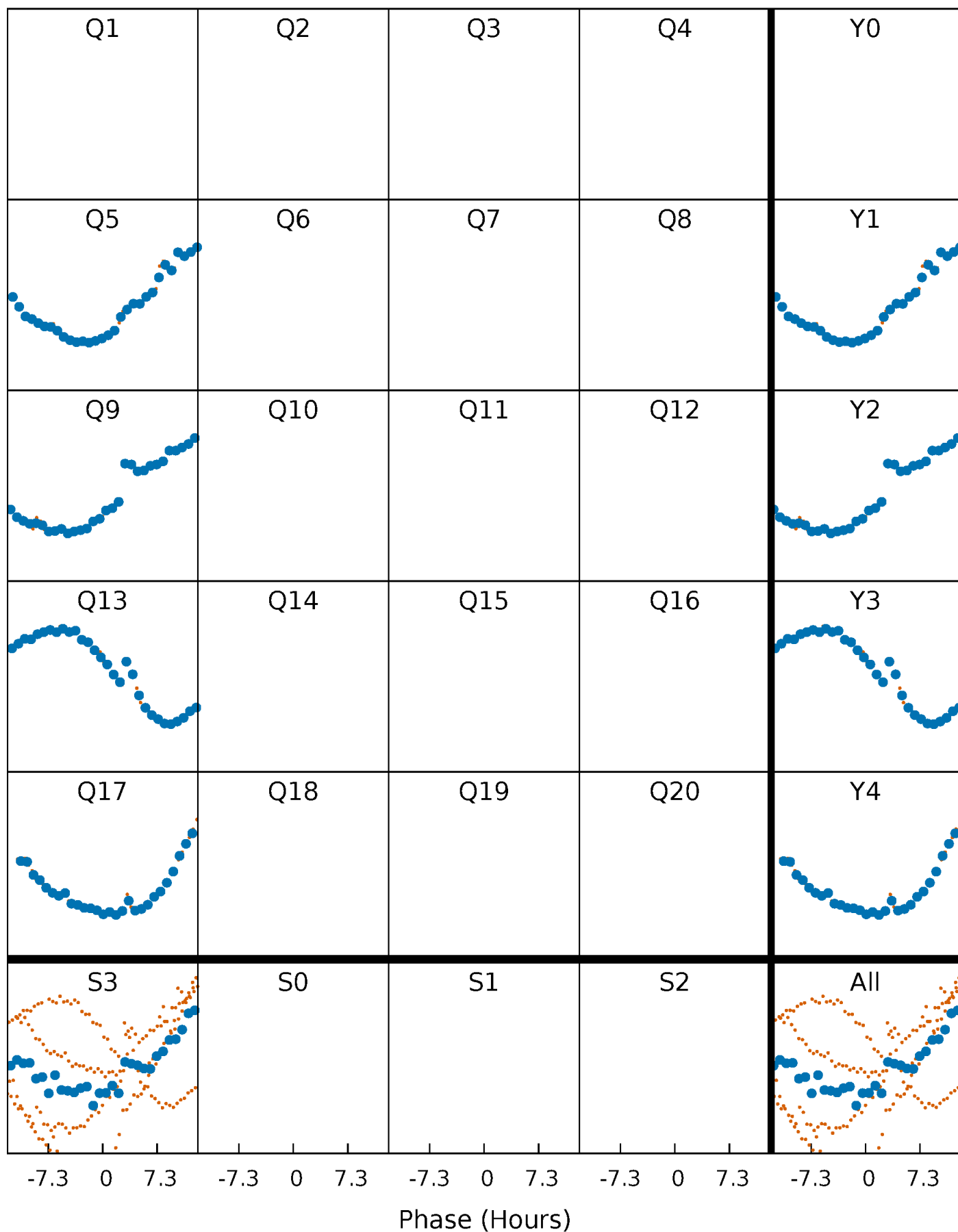


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



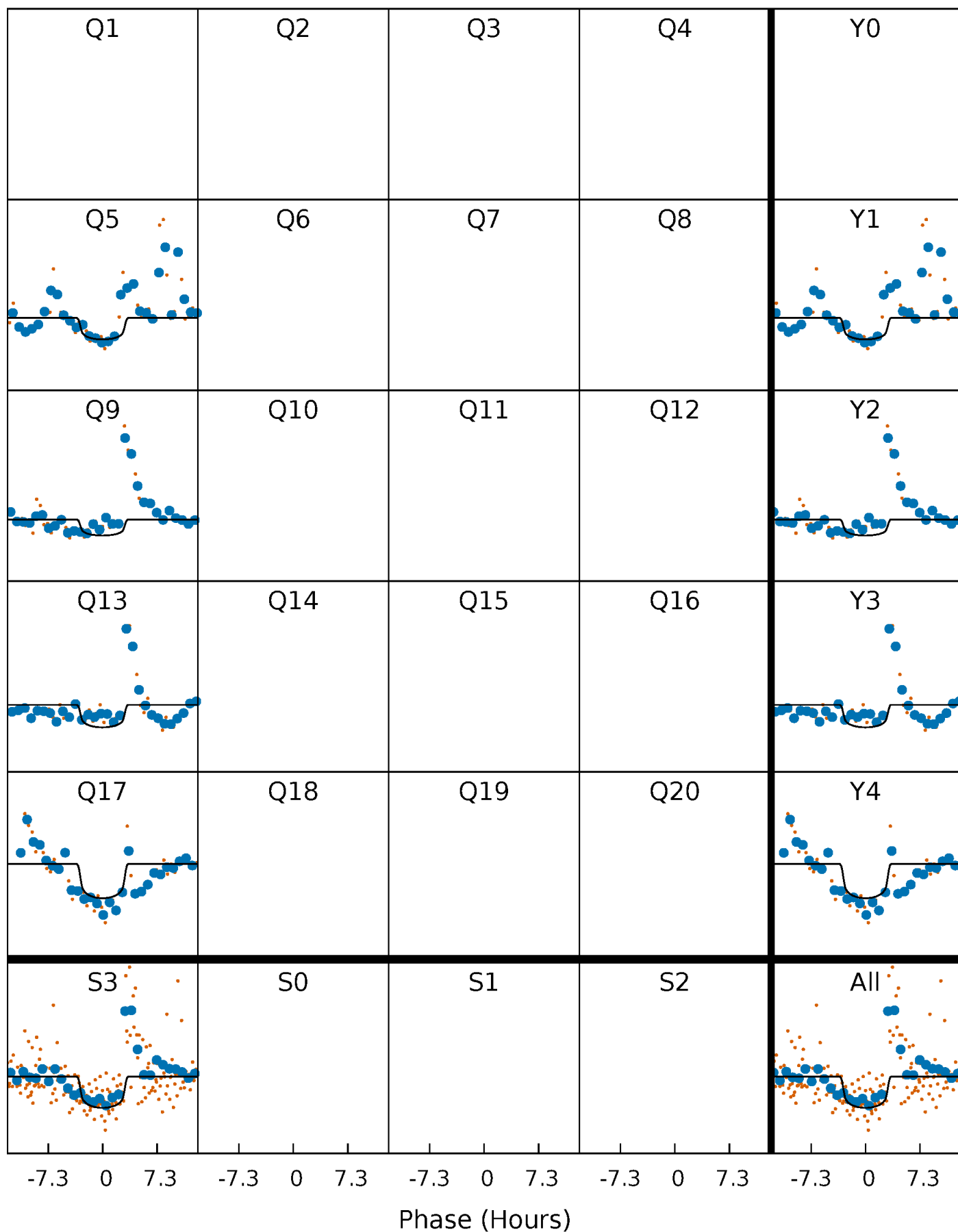
PDC Quarter-Phased Transit Curves

TCE 011350063-01 P=375.091761 Days $T_0=462.032396$ (BKJD)



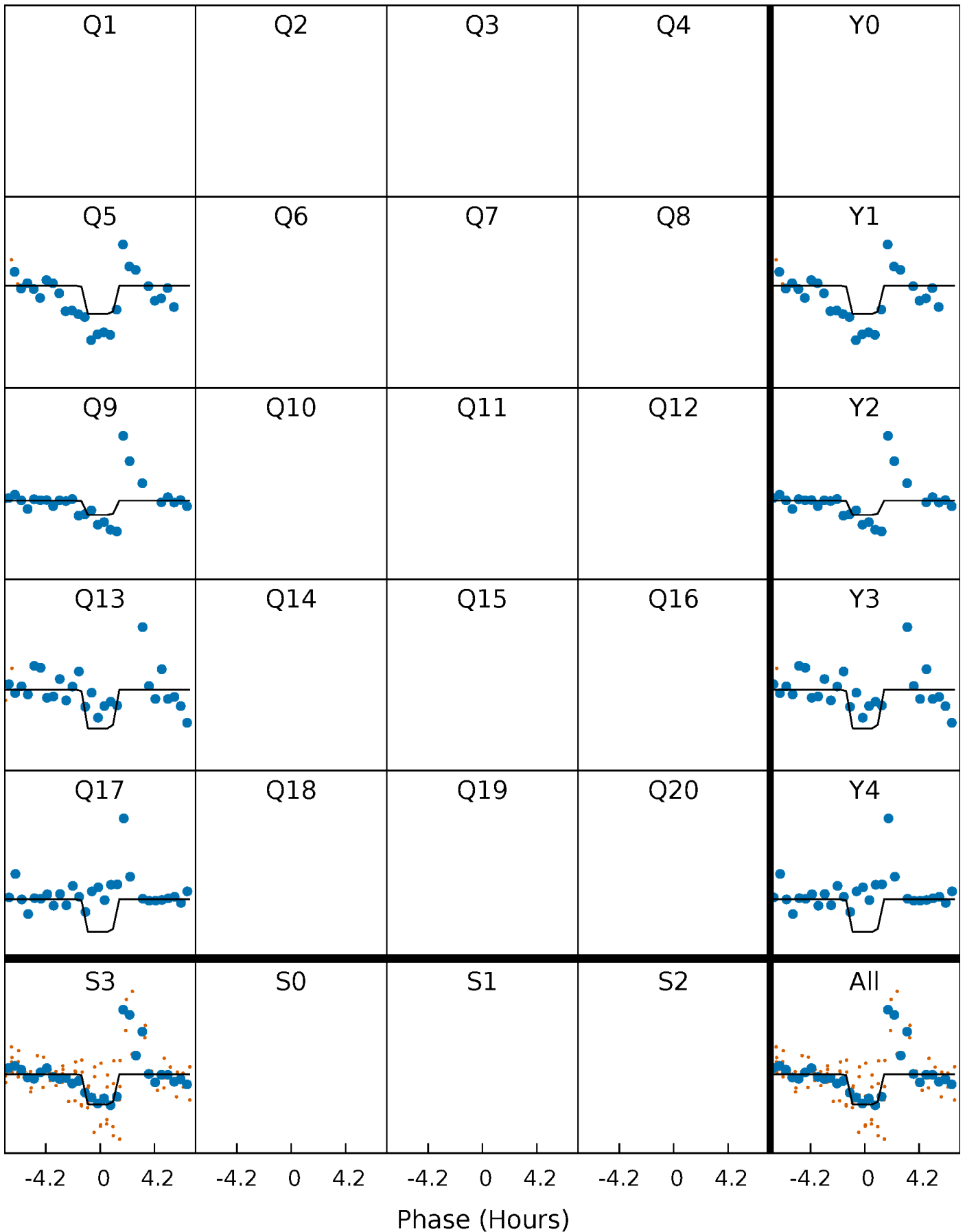
DV Quarter-Phased Transit Curves

TCE 011350063-01 P=375.091761 Days $T_0=462.032396$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

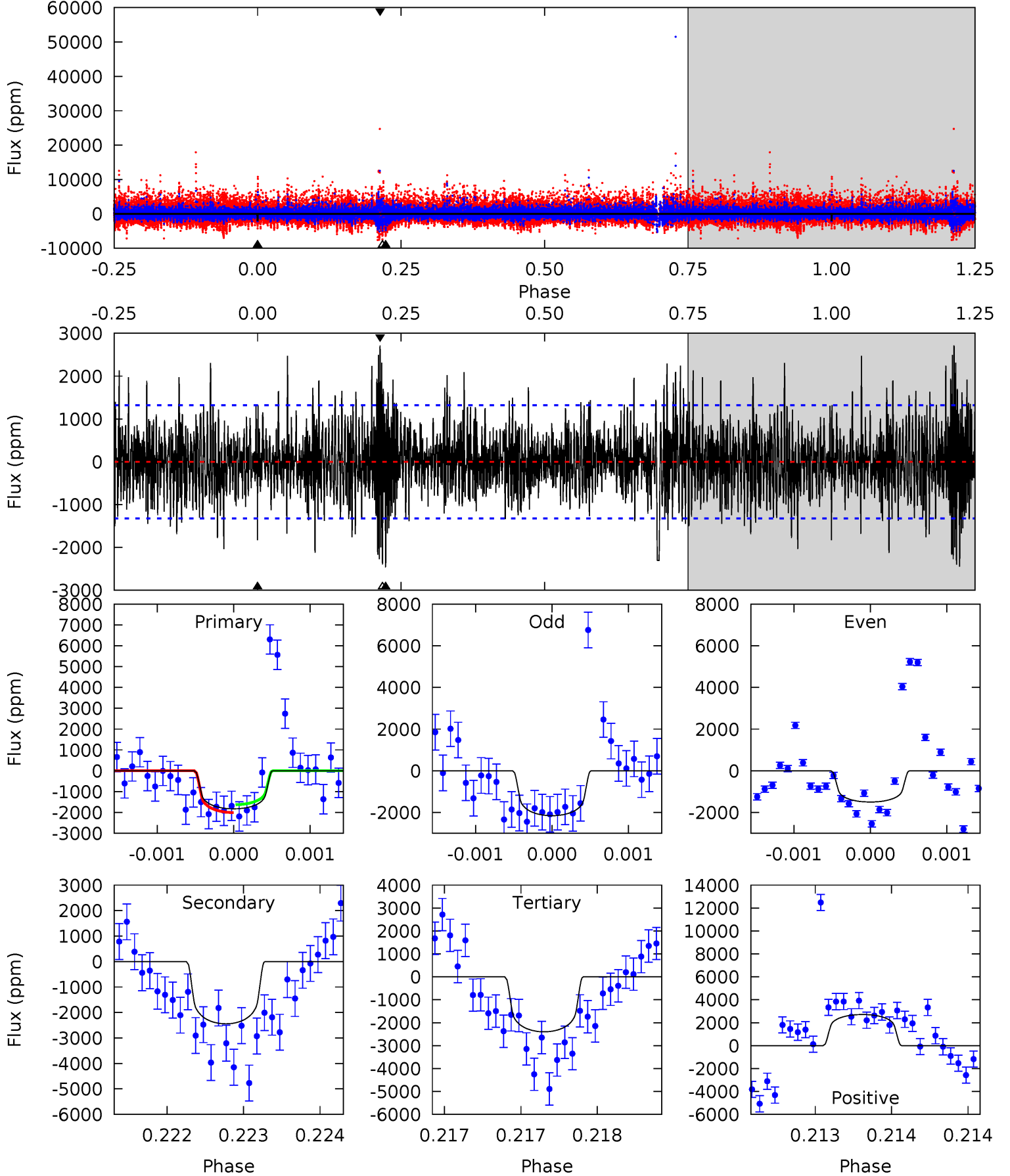
TCE 011350063-01 P=375.098861 Days $T_0=462.064112$ (BKJD)



DV Model-Shift Uniqueness Test

011350063-01, P = 375.091761 Days, E = 86.940635 Days

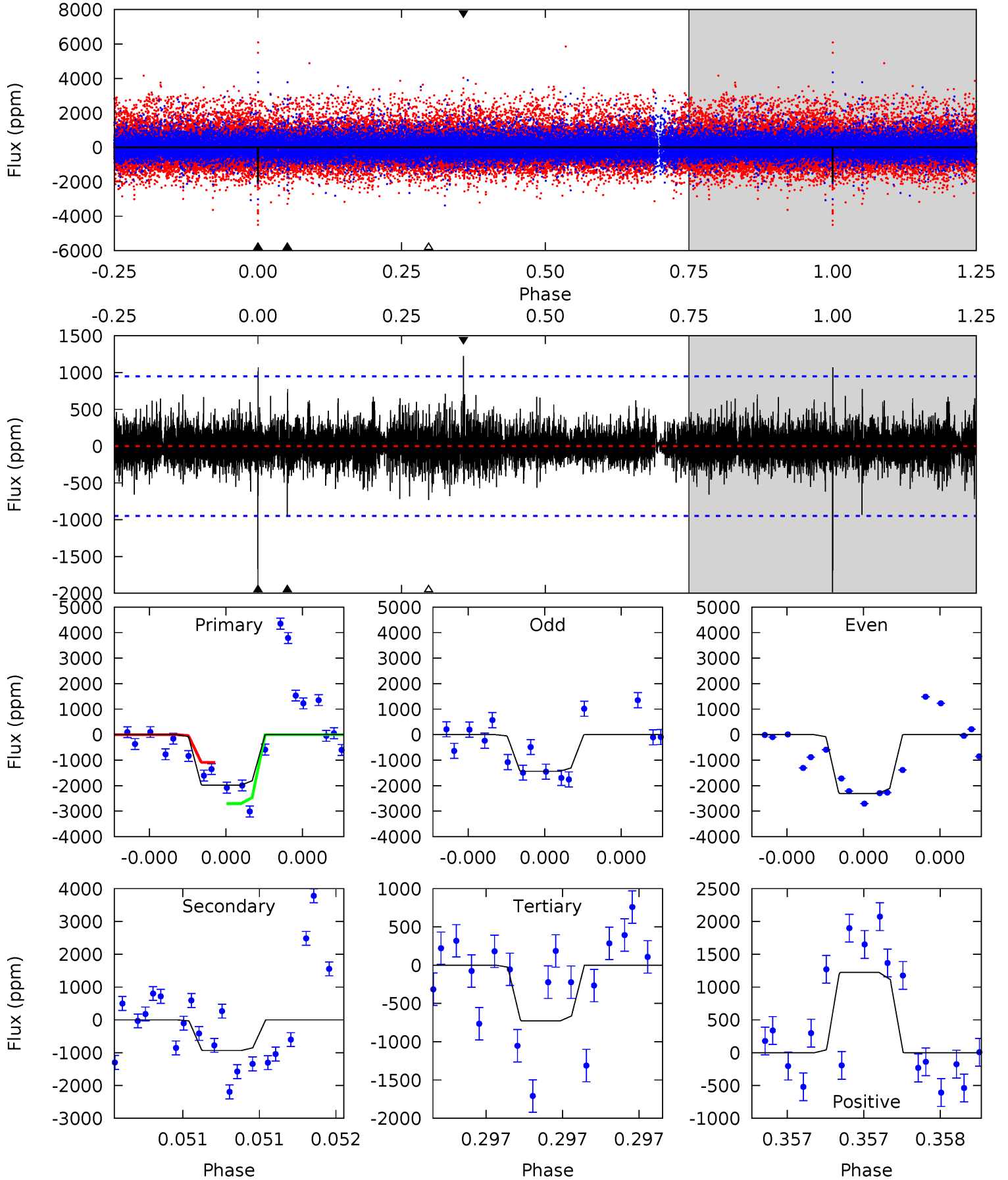
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.60	10.2	9.98	11.3	5.50	3.37	2.57	-2.38	-3.69	0.20	-1.11	1.02	1.10	0.53	0.79



Alt Model-Shift Uniqueness Test

011350063-01, P = 375.098861 Days, E = 86.965251 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	5.57	4.34	7.29	5.65	3.59	1.01	7.47	4.53	1.23	-1.72	2.49	0.93	0.38	4.61



Stellar Parameters For KIC 011350063

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3418^{+40}_{-44}	$5.035^{+0.035}_{-0.042}$	$-0.300^{+0.100}_{-0.100}$	$0.250^{+0.030}_{-0.027}$	$0.248^{+0.034}_{-0.037}$	$22.350^{+4.344}_{-4.368}$
	+1%/-1%	+1%/-1%	+33%/-33%	+12%/-11%	+14%/-15%	+19%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011350063-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2445 ± 240	$1.27^{+0.76}_{-0.67}$	132^{+3}_{-3}	3469^{+1002}_{-430}	$335800^{+1136546}_{-200648}$
Alt.	-935 ± 168	$1.30^{+0.70}_{-0.63}$	132^{+3}_{-3}	2991^{+709}_{-329}	$122562^{+342274}_{-71399}$

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

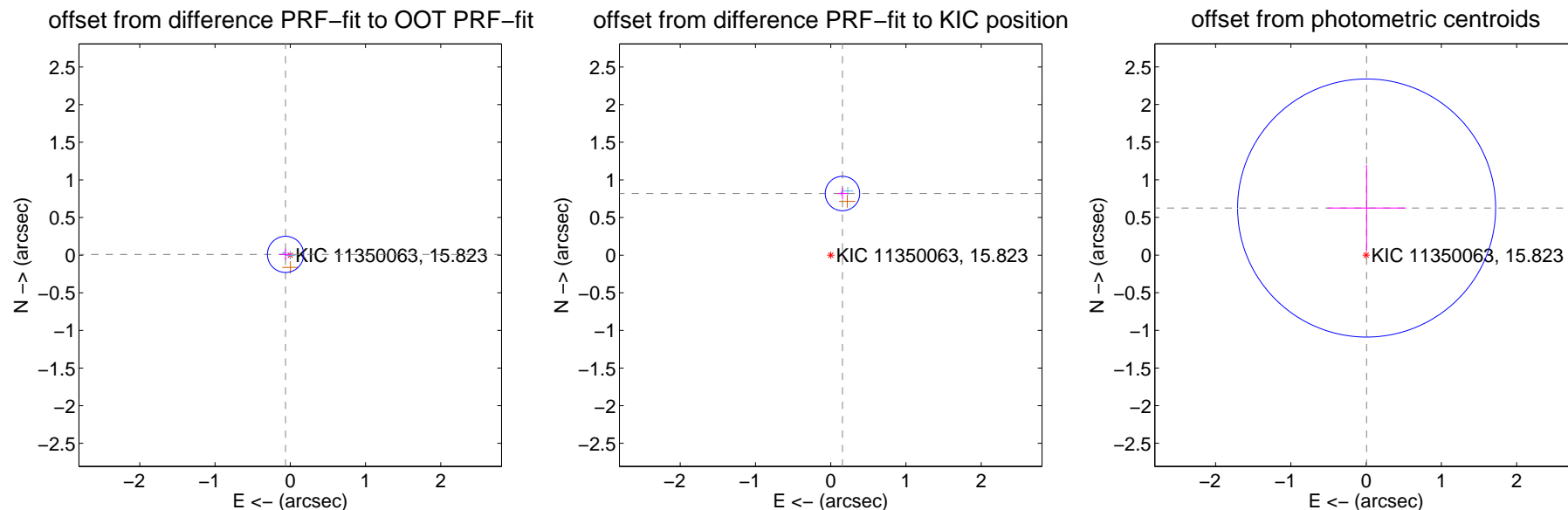
DV Centroid Data

Supplemental centroid analysis for 011350063-01. Kepler magnitude: 15.82. Transit SNR 6.35

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.90 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.064 ± 0.080	0.80	0.063 ± 0.080	0.010 ± 0.075
PRF-fit source offset from KIC position	0.833 ± 0.076	10.92	-0.156 ± 0.072	0.819 ± 0.078
photometric centroid source offset	0.63 ± 0.57	1.09	-0.01 ± 0.52	0.63 ± 0.57

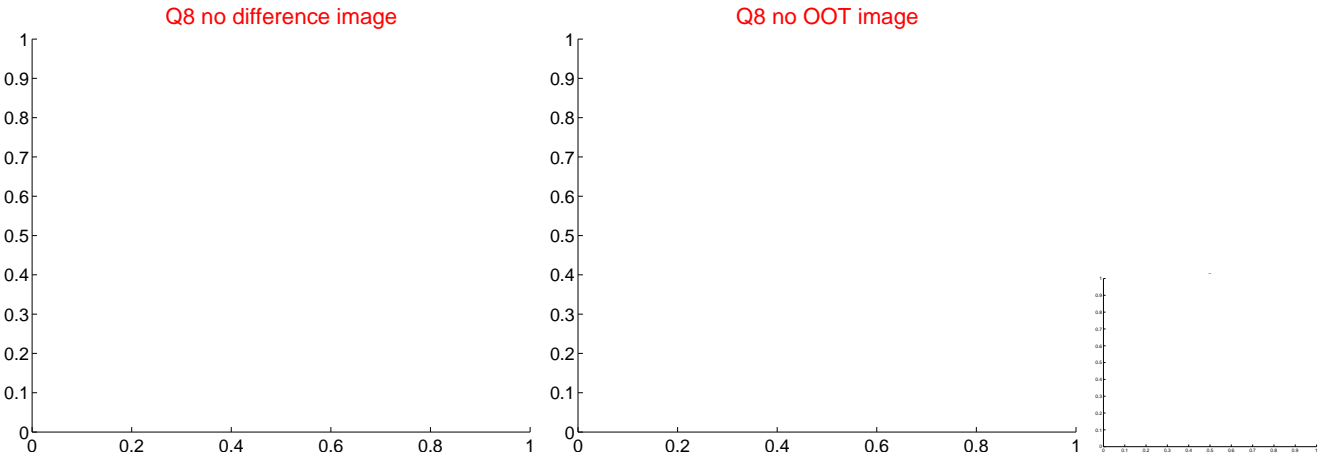
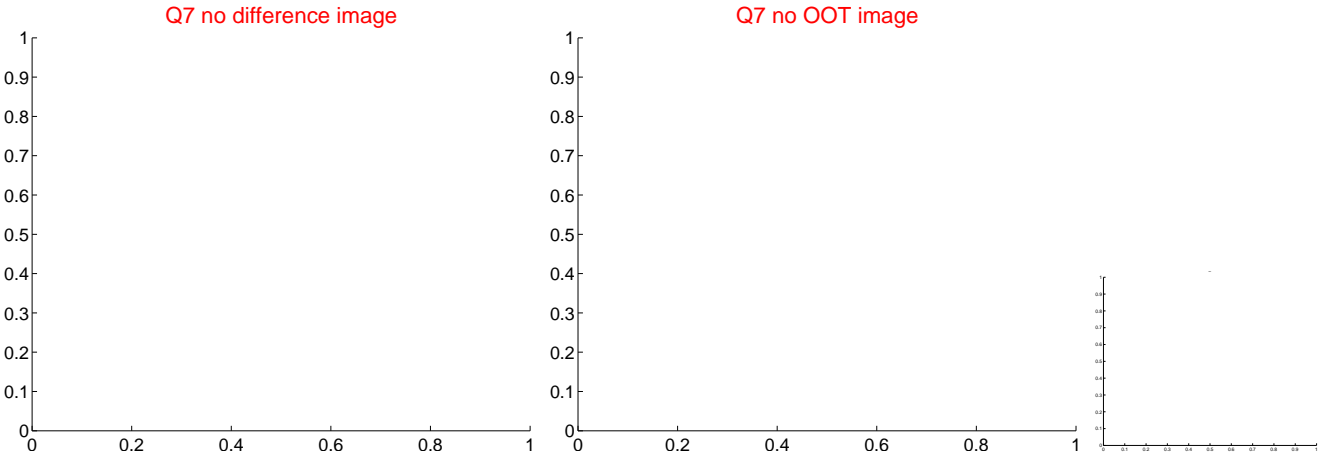
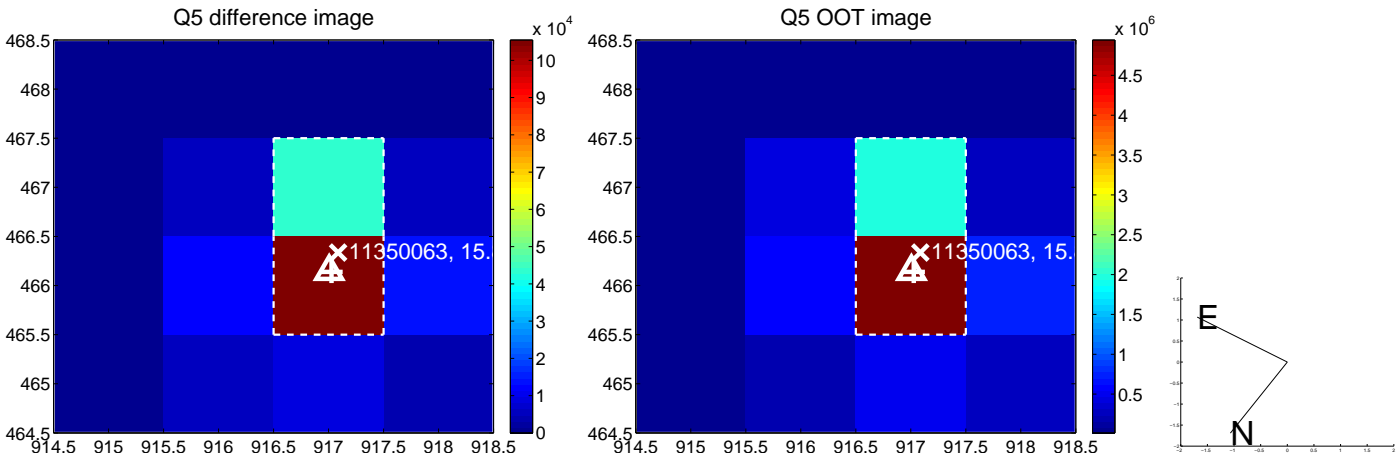


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

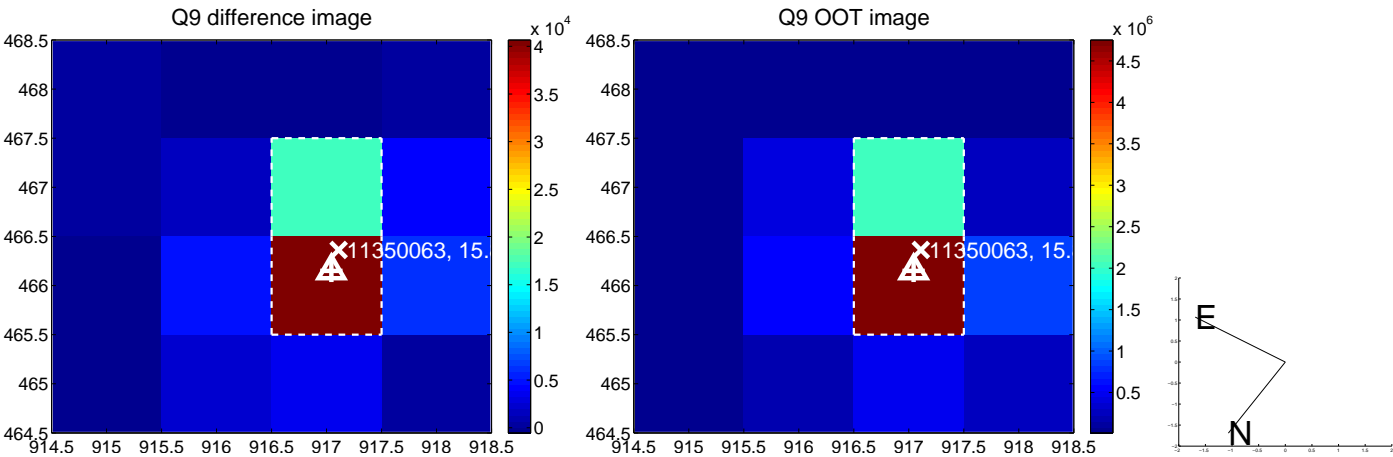
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



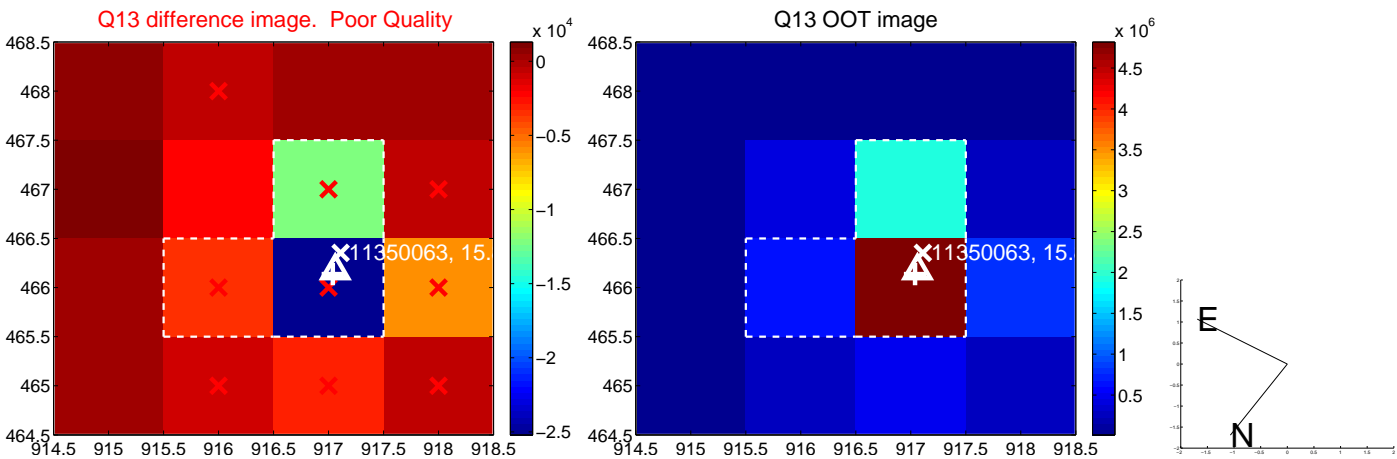
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



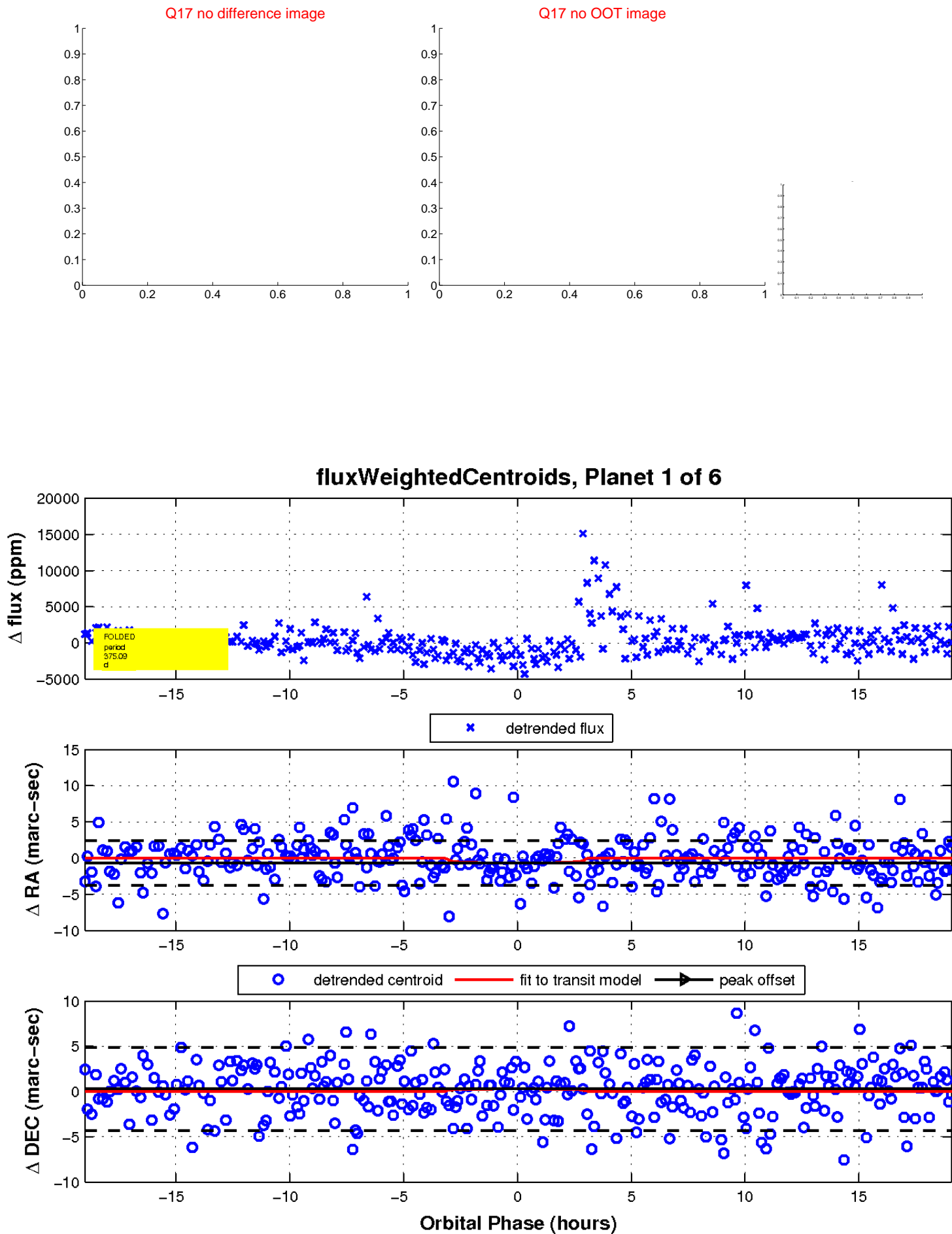
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

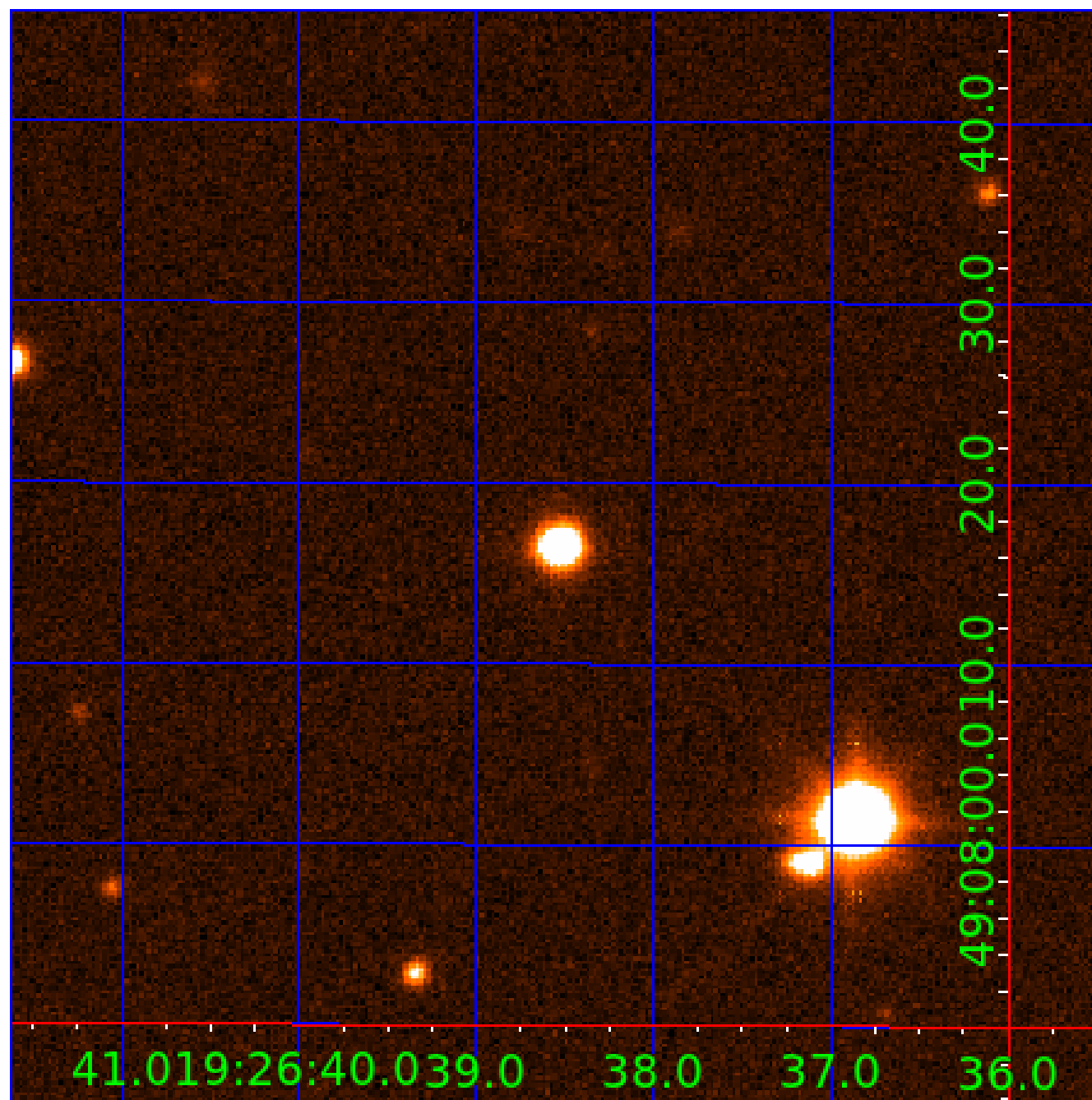


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011350063

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})
011350063-01	OBS	No	375.091761	462.032396	2475.8	6.390	14.5	6.4	0.25	3418	1.25	0.02
011350063-02	OBS	No	400.961338	163.472321	3006.5	3.679	13.3	7.1	0.25	3418	1.40	0.02
011350063-03	OBS	No	322.281596	382.280994	2574.3	3.762	11.0	6.2	0.25	3418	1.29	0.02
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011350063-06	OBS	No	263.273996	262.007058	2540.4	3.000	11.8	-1.0	0.25	3418	1.25	0.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011350063-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011350063-04	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-05	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_KIC_POS
011350063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

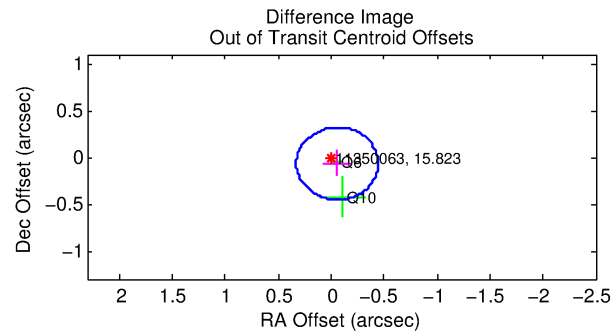
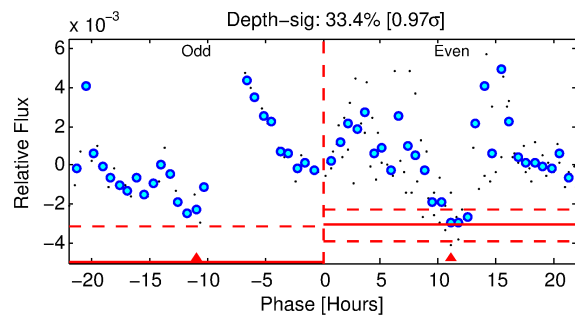
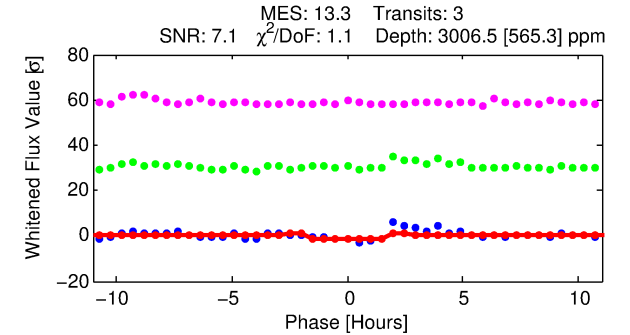
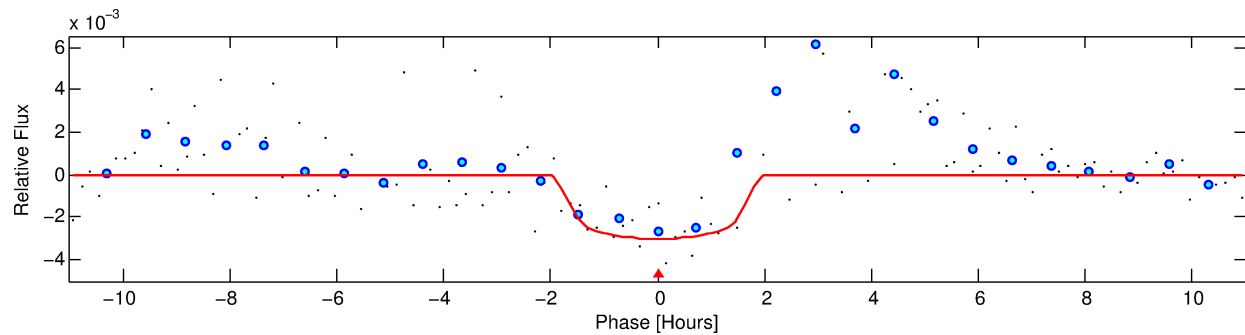
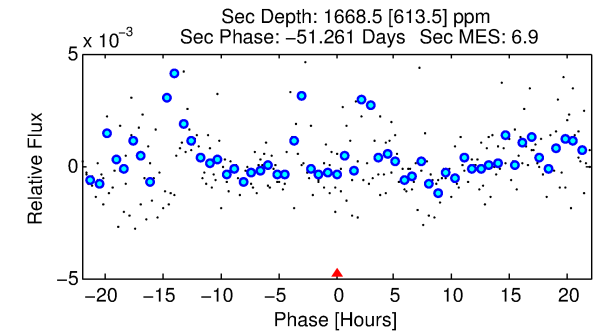
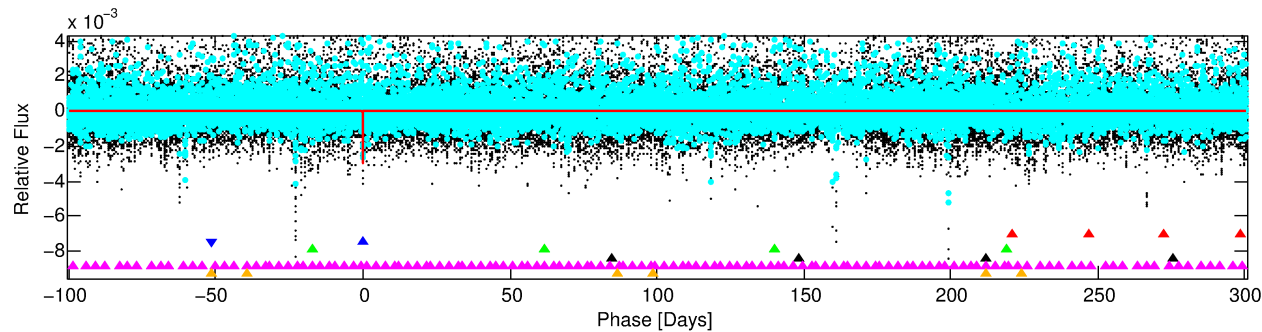
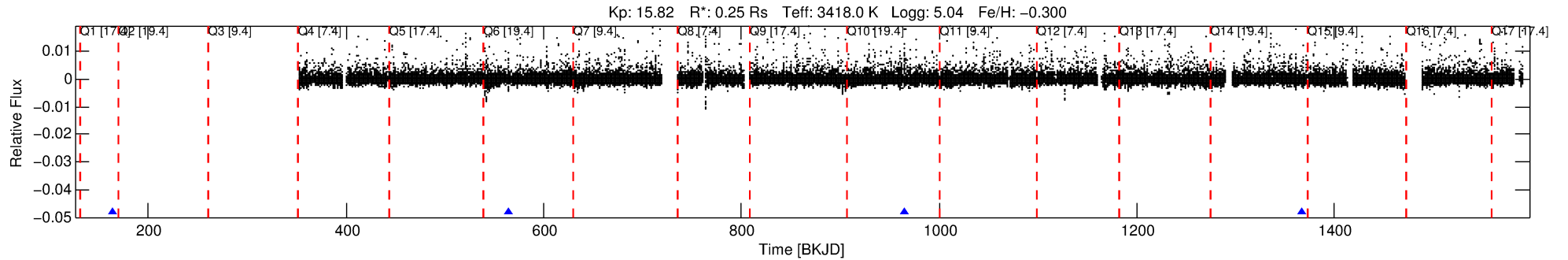
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011350063-02

No Significant Match Found

DV One-Page Summary

KIC: 11350063 Candidate: 2 of 6 Period: 400.961 d



DV Fit Results:

Period = 400.96134 [0.00788] d
Epoch = 163.4723 [0.0177] BKJD
Rp/R* = 0.0514 [0.0349]
a/R* = 773.07 [2391.61]
b = 0.49 [4.76]
Seff = 0.02 [0.00]
Teq = 92 [3] K
Rp = 1.40 [0.97] Re
a = 0.6679 [0.0576] AU
Ag = 208278.91 [294065.50] [0.71σ]
Teffp = 3047 [1073] K [2.75σ]

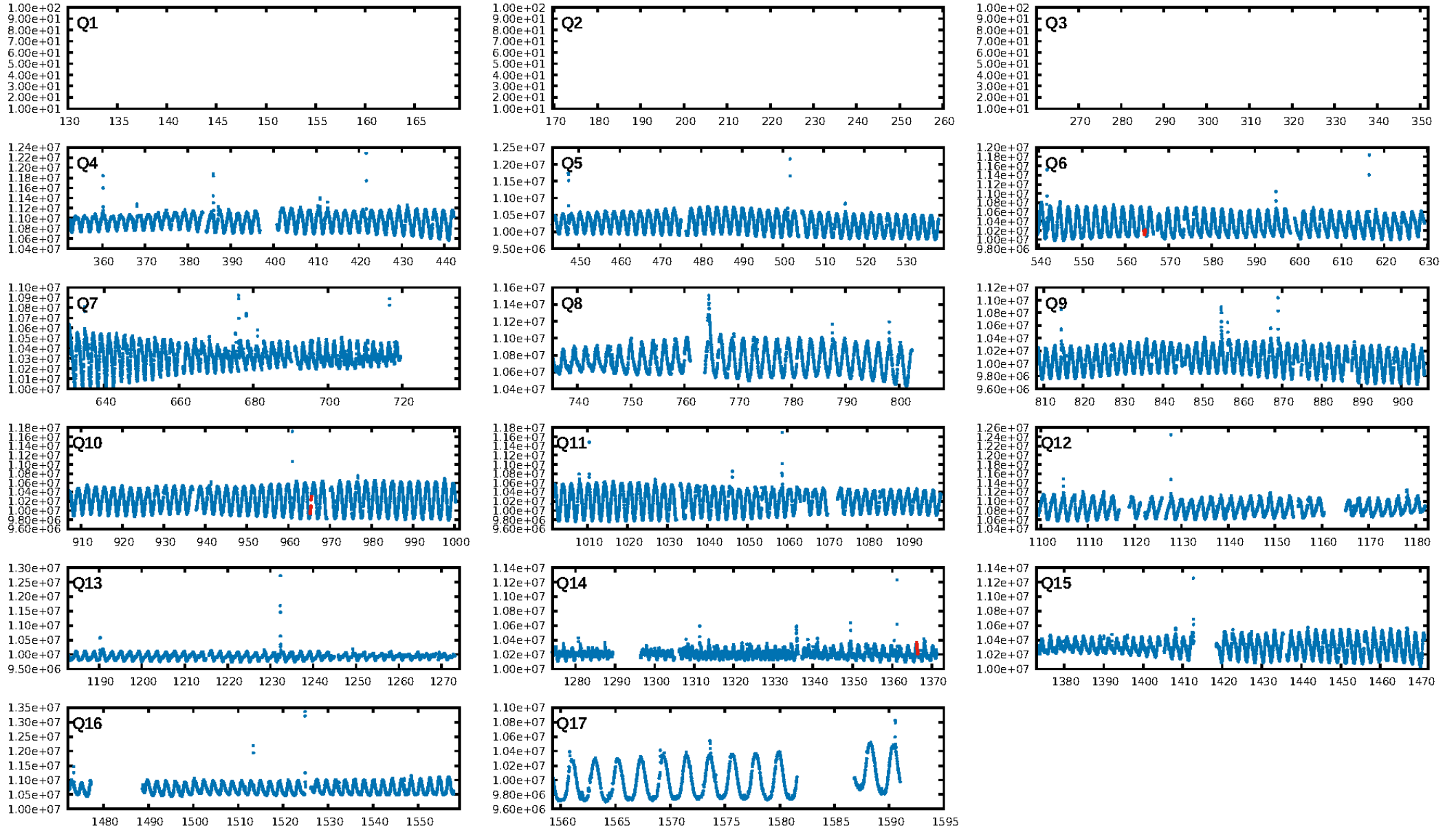
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [84.21σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 27.2%
ModelChiSquareGof-sig: 94.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.207
Centroid-sig: 13.9%
Centroid-so: 0.475 arcsec [0.56σ]
OotOffset-rm: 0.090 arcsec [0.70σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-rm: 0.605 arcsec [4.69σ]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.67 [2/3]

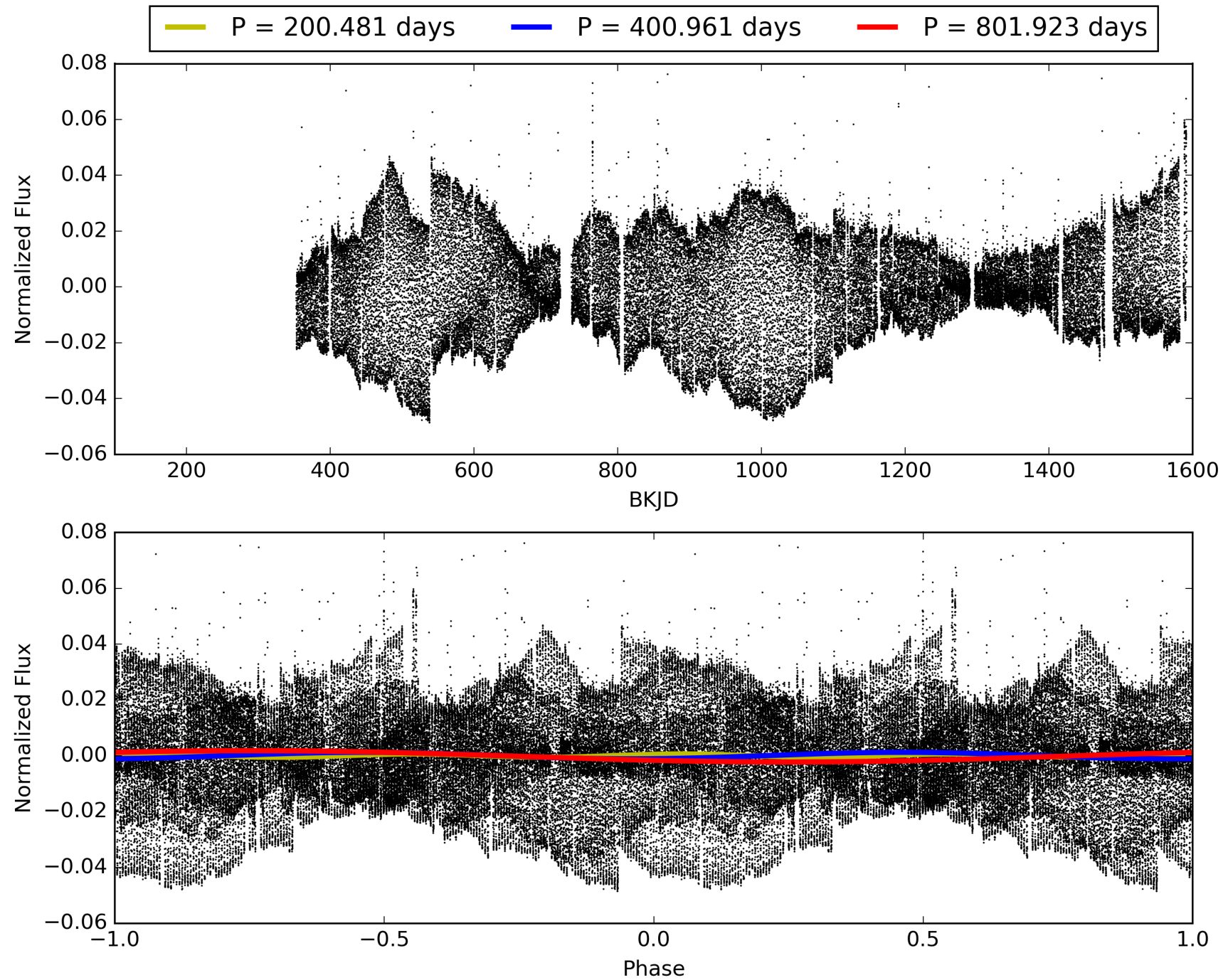
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:55:58 Z

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

TCE 011350063-02, PDC Light Curves

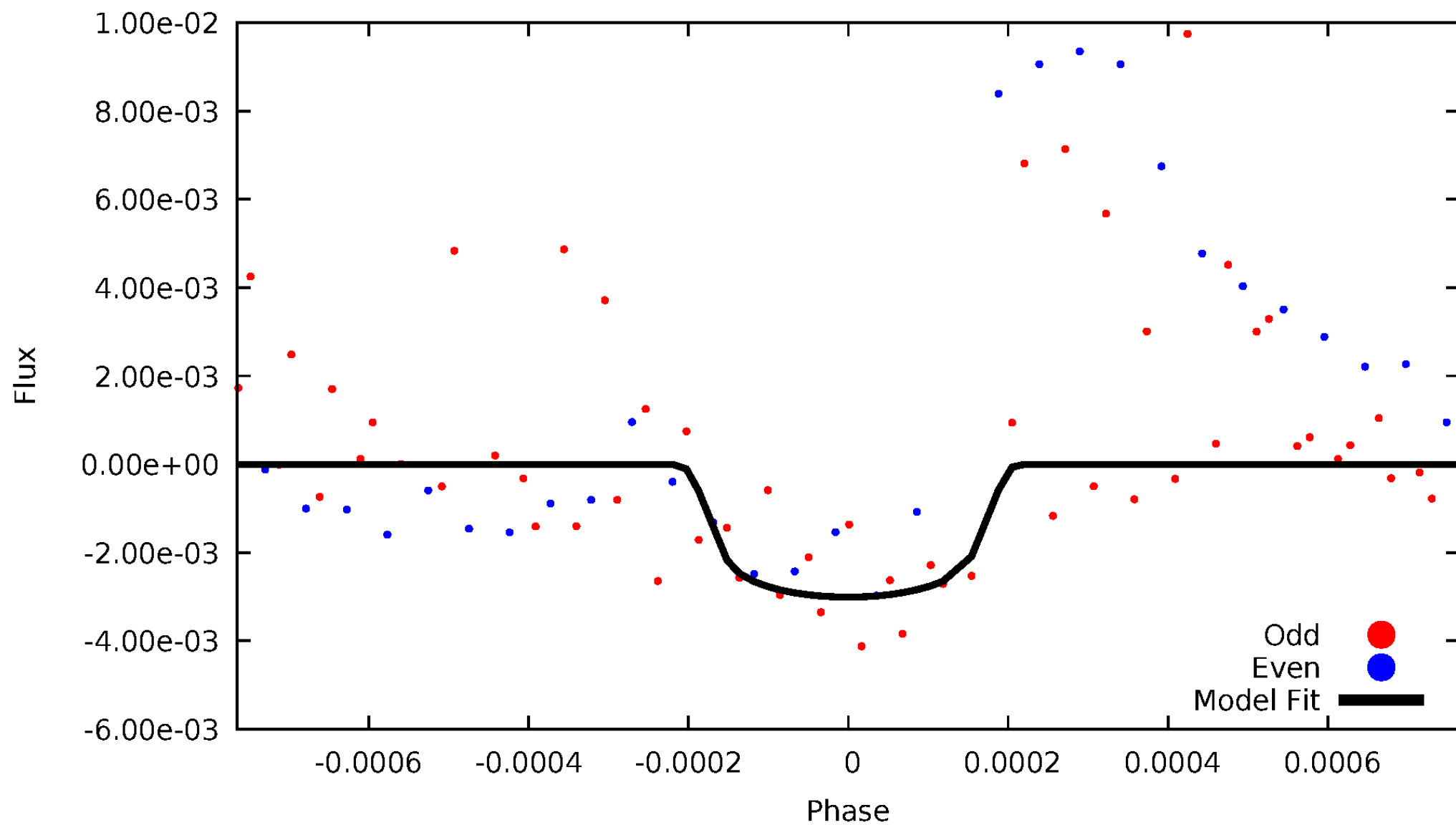


TCE 011350063-02



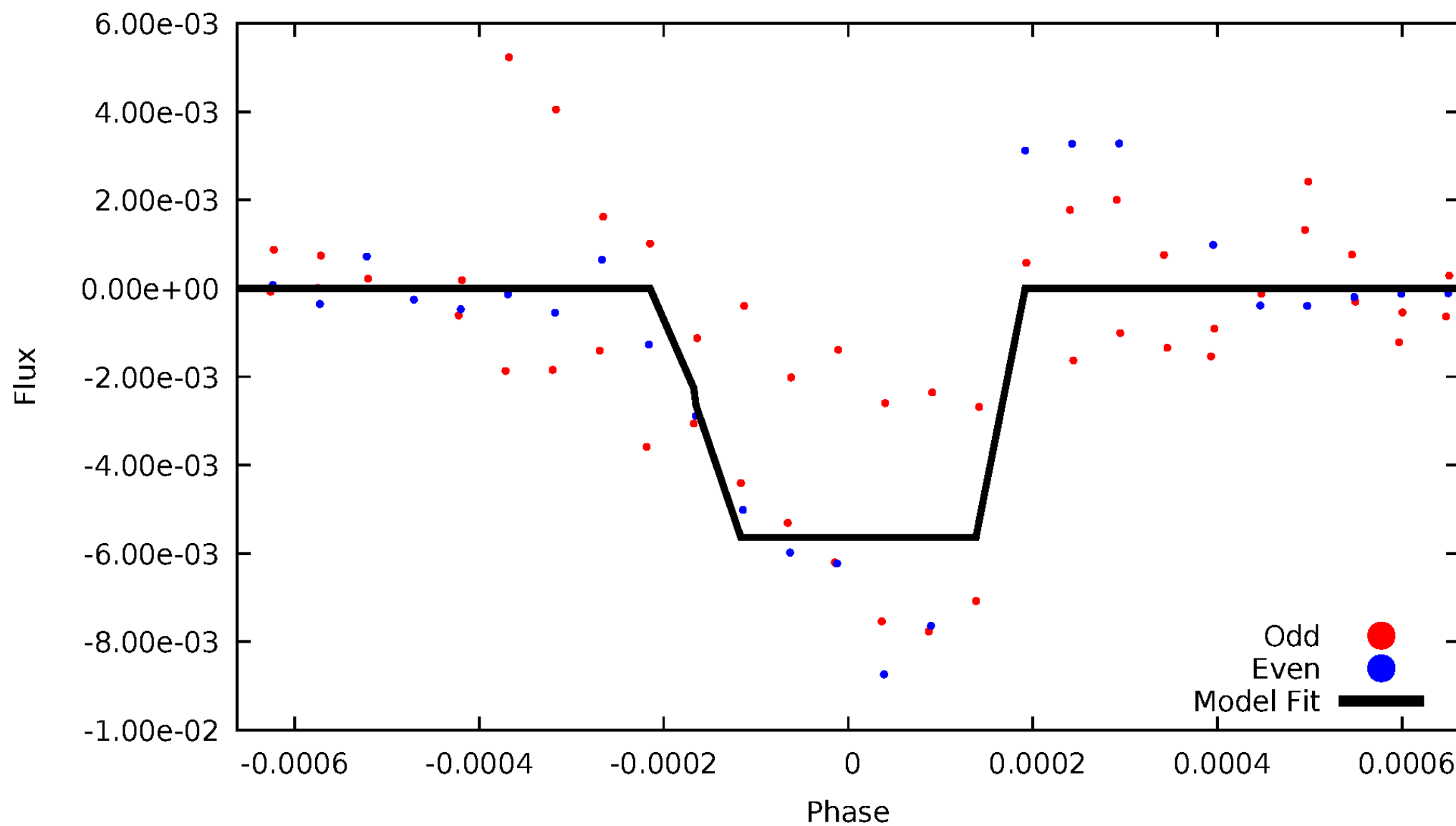
DV Odd/Even

TCE 011350063-02



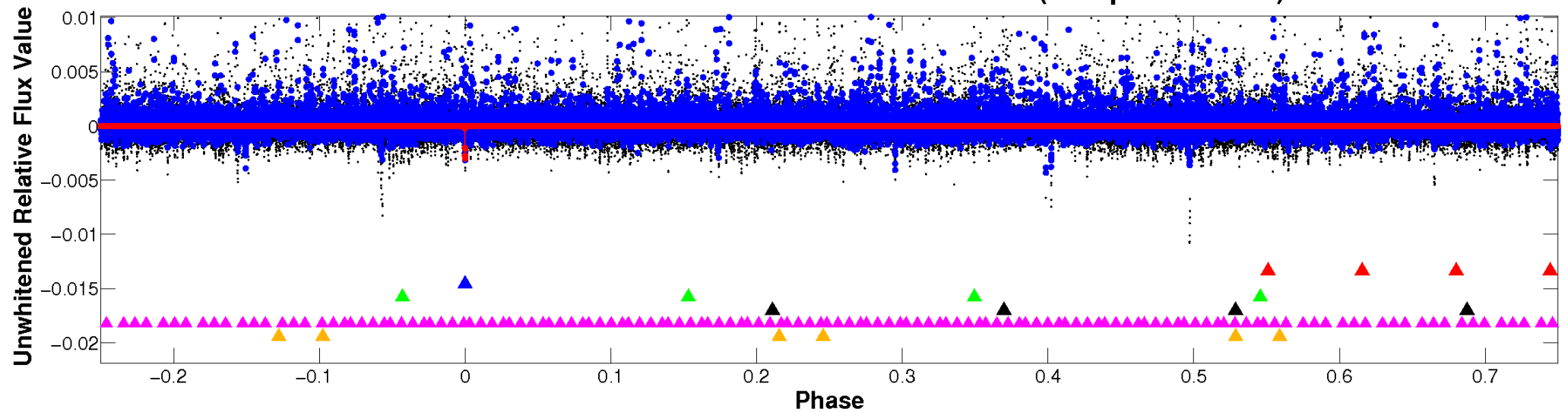
ALT Odd/Even

TCE 011350063-02

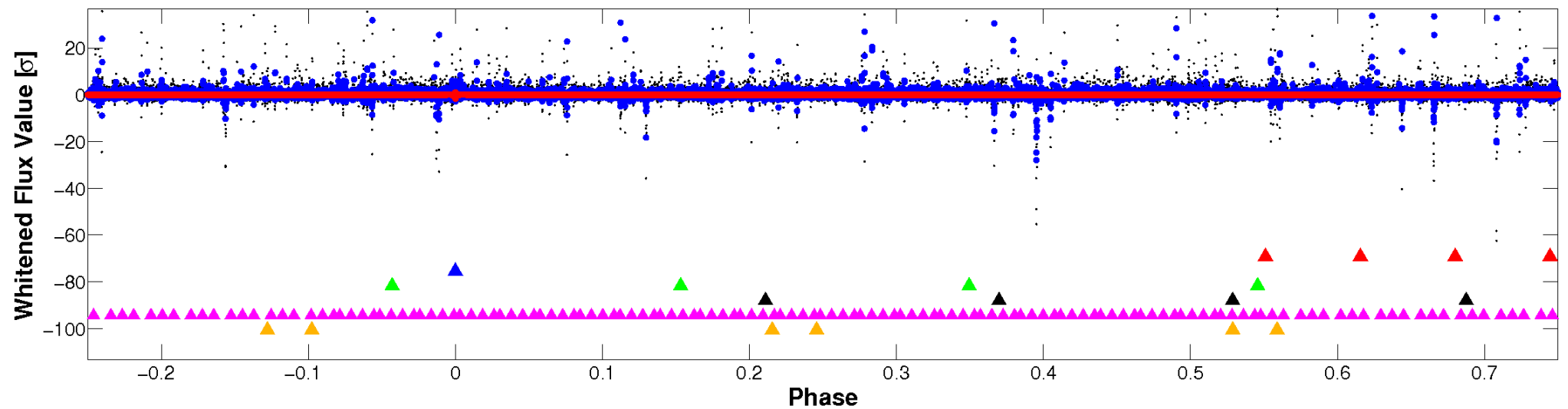


Non-Whitened Vs. Whitened Light Curve

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

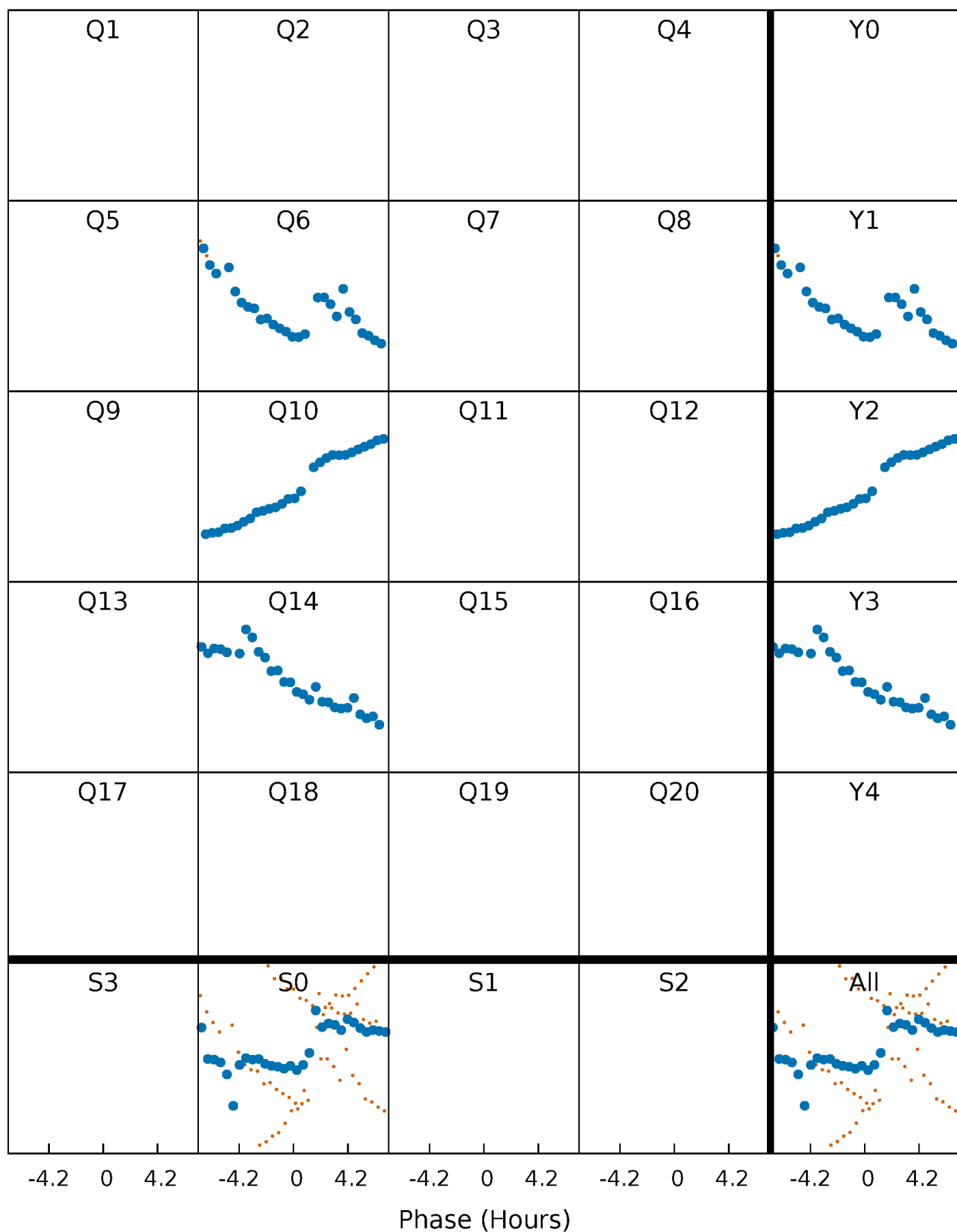


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



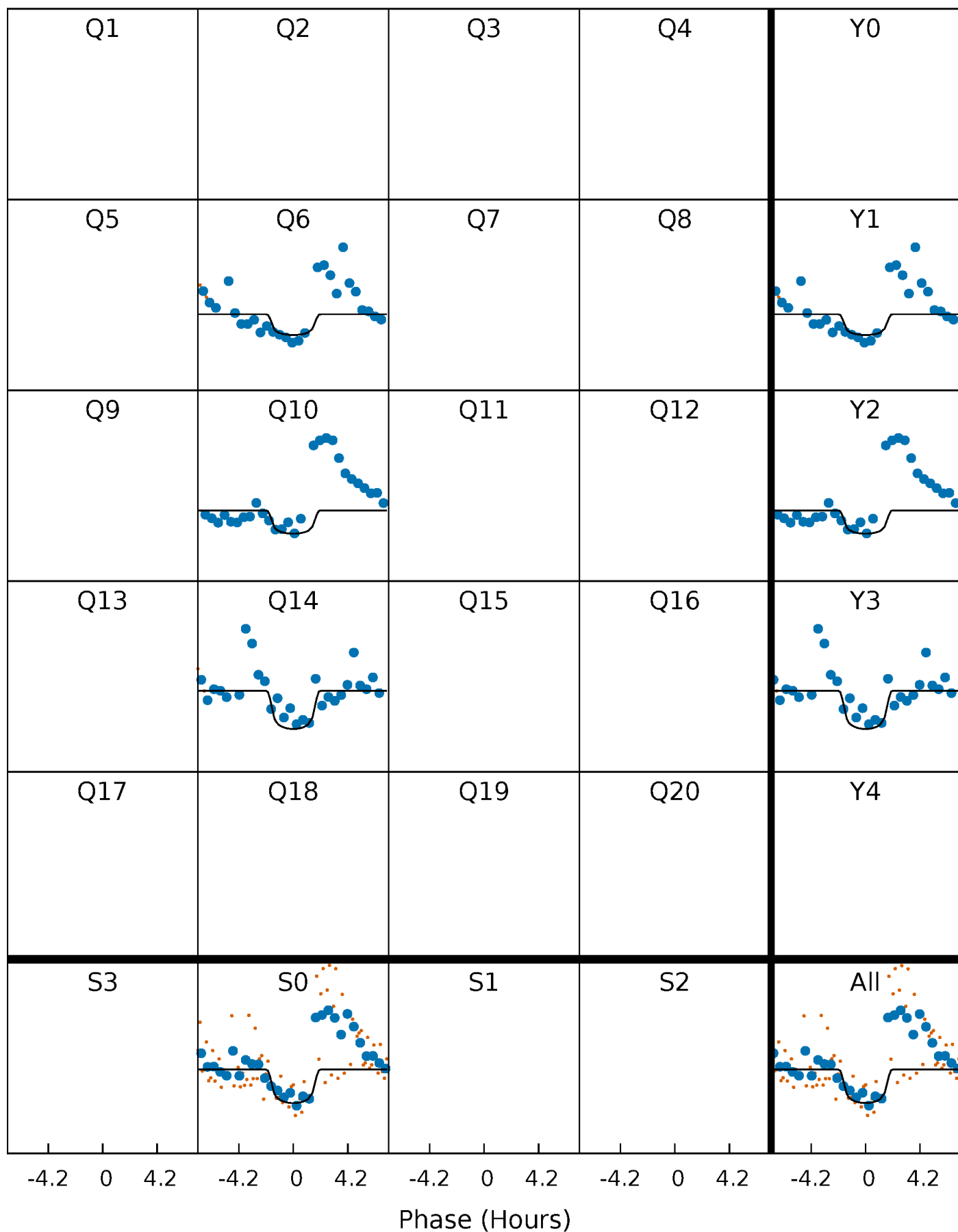
PDC Quarter-Phased Transit Curves

TCE 011350063-02 P=400.961338 Days $T_0=163.472321$ (BKJD)



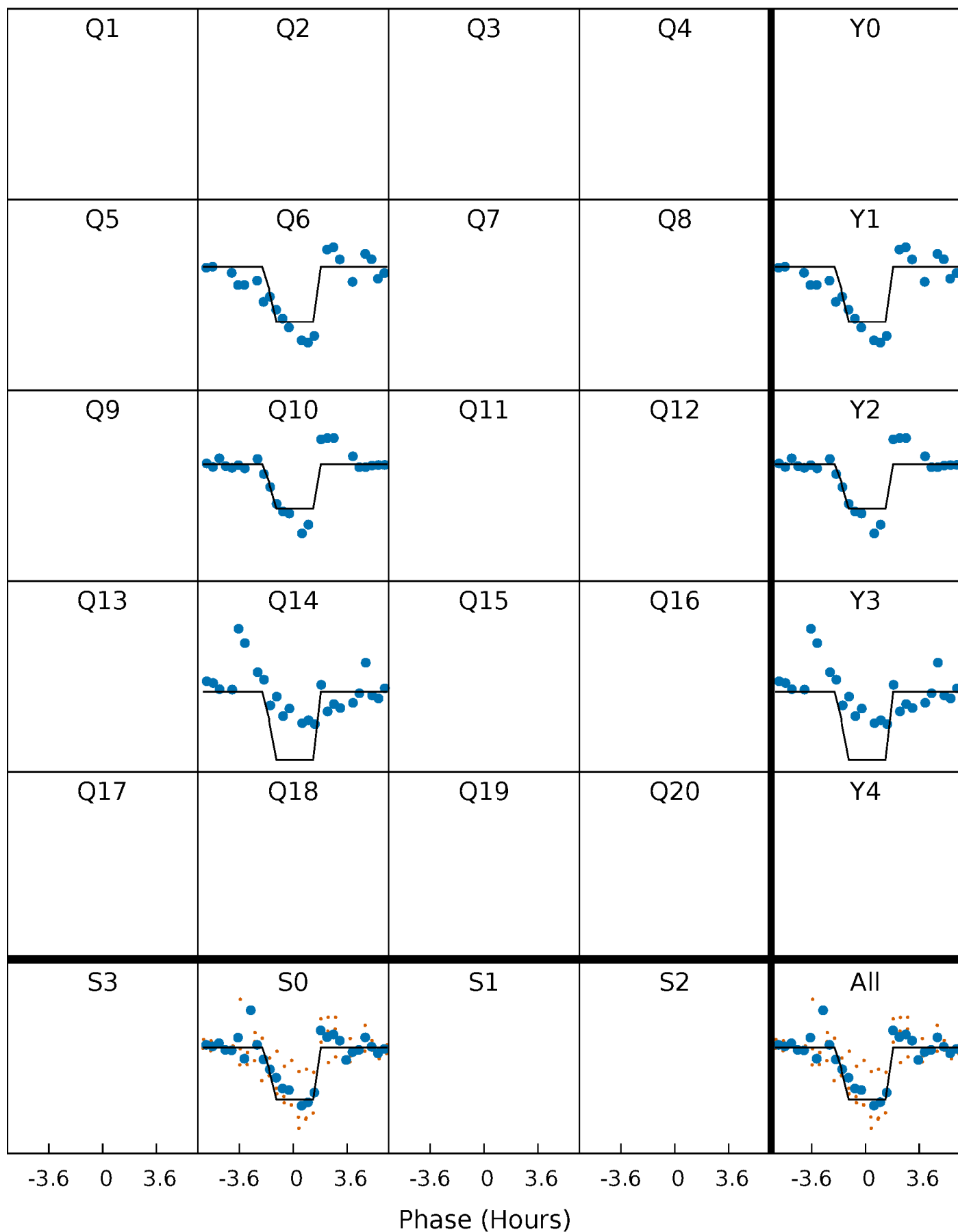
DV Quarter-Phased Transit Curves

TCE 011350063-02 $P=400.961338$ Days $T_0=163.472321$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

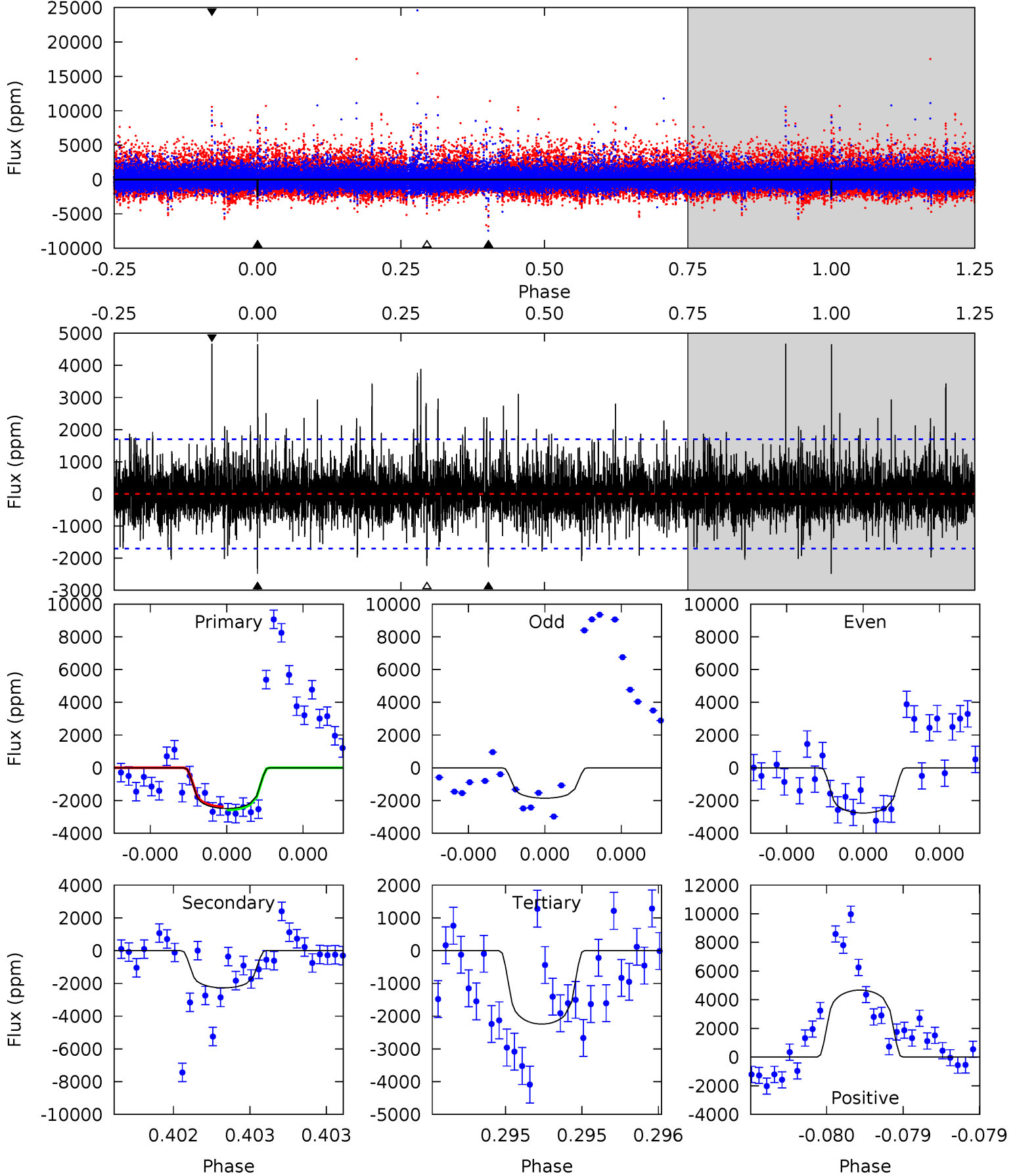
TCE 011350063-02 P=400.967748 Days $T_0=163.457983$ (BKJD)



DV Model-Shift Uniqueness Test

011350063-02, P = 400.961338 Days, E = 163.472321 Days

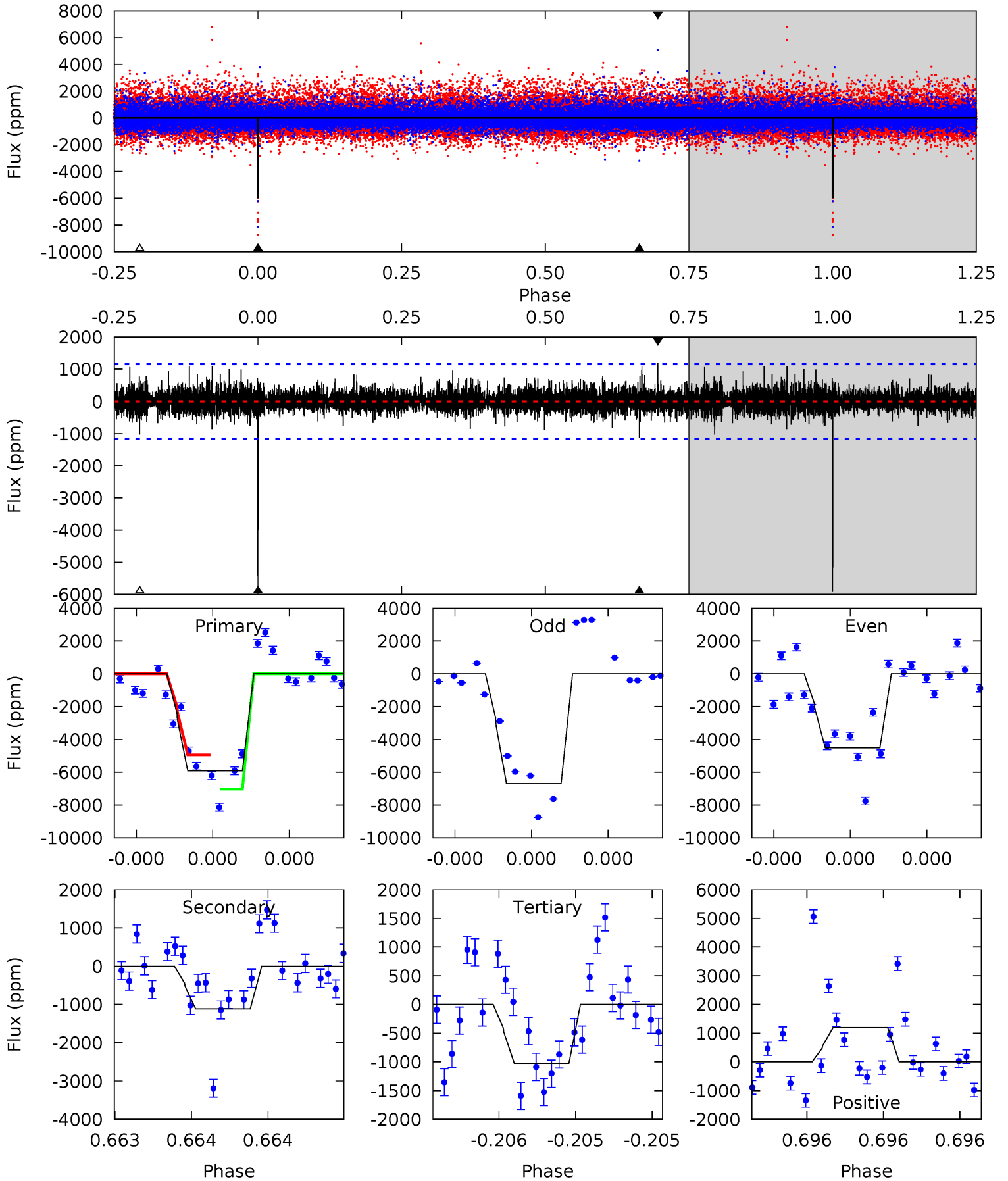
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.20	7.51	7.40	15.4	5.62	3.55	1.92	0.80	-7.22	0.10	-7.92	0.83	1.22	0.65	0.29



Alt Model-Shift Uniqueness Test

011350063-02, P = 400.967748 Days, E = 163.457983 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.8	5.42	4.99	5.81	5.63	3.57	0.99	23.9	23.0	0.43	-0.39	5.07	0.78	0.17	5.07



Stellar Parameters For KIC 011350063

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3418^{+40}_{-44}	$5.035^{+0.035}_{-0.042}$	$-0.300^{+0.100}_{-0.100}$	$0.250^{+0.030}_{-0.027}$	$0.248^{+0.034}_{-0.037}$	$22.350^{+4.344}_{-4.368}$
	+1%/-1%	+1%/-1%	+33%/-33%	+12%/-11%	+14%/-15%	+19%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011350063-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2275 ± 303	$1.45^{+0.95}_{-0.81}$	129^{+3}_{-3}	3311^{+1065}_{-443}	$265650^{+1128732}_{-168399}$
Alt.	-1113 ± 205	$2.04^{+0.89}_{-0.88}$	129^{+3}_{-3}	2711^{+487}_{-237}	$64703^{+141729}_{-33989}$

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

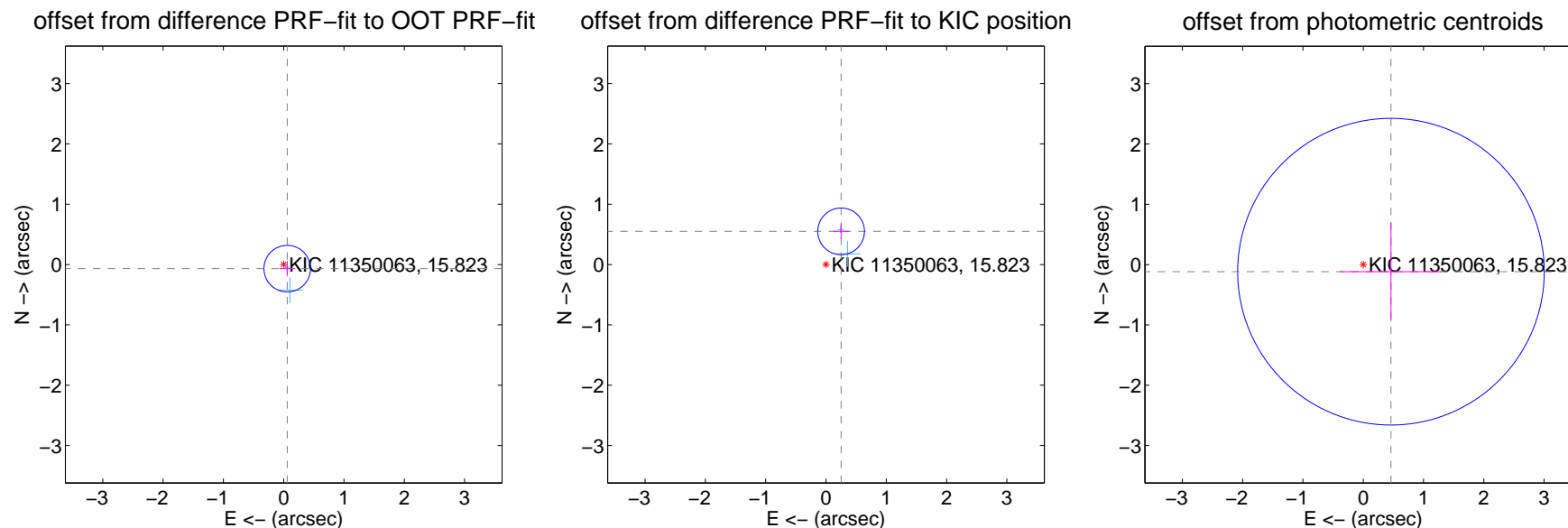
DV Centroid Data

Supplemental centroid analysis for 011350063-02. Kepler magnitude: 15.82. Transit SNR 7.12

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.65 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.090 ± 0.129	0.70	-0.059 ± 0.128	-0.068 ± 0.129
PRF-fit source offset from KIC position	0.605 ± 0.129	4.69	-0.251 ± 0.128	0.550 ± 0.129
photometric centroid source offset	0.47 ± 0.85	0.56	-0.46 ± 0.85	-0.12 ± 0.82



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.

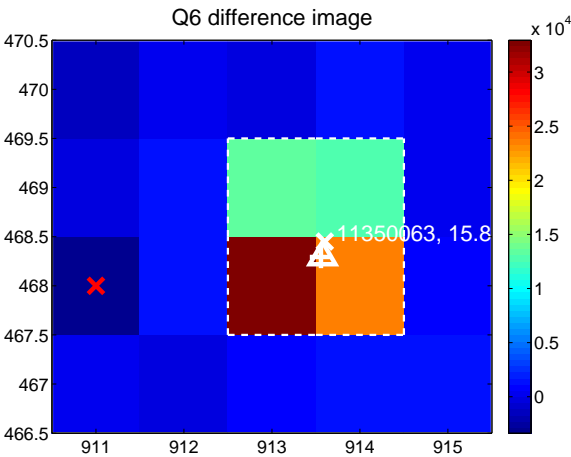
Q5 no difference image



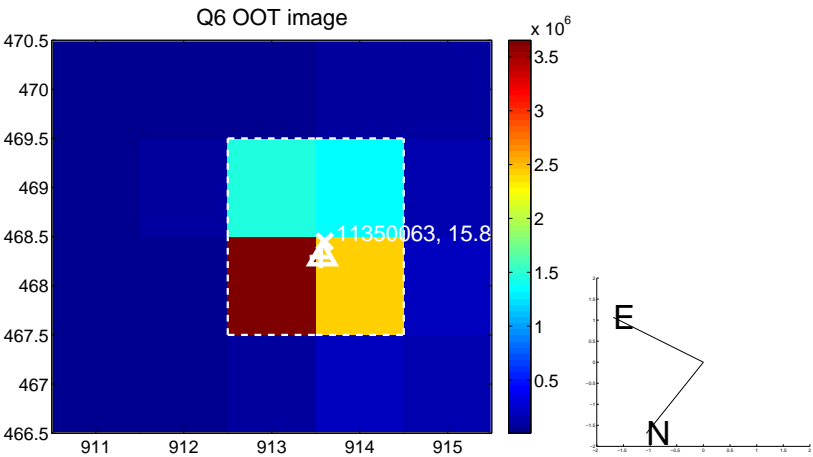
Q5 no OOT image



Q6 difference image



Q6 OOT image



Q7 no difference image



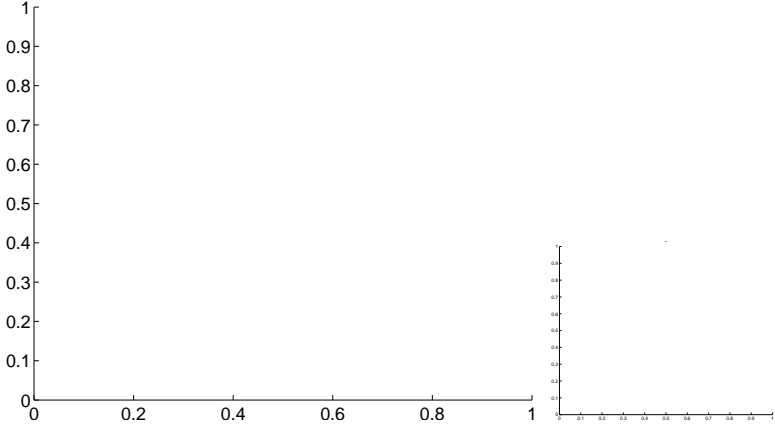
Q7 no OOT image



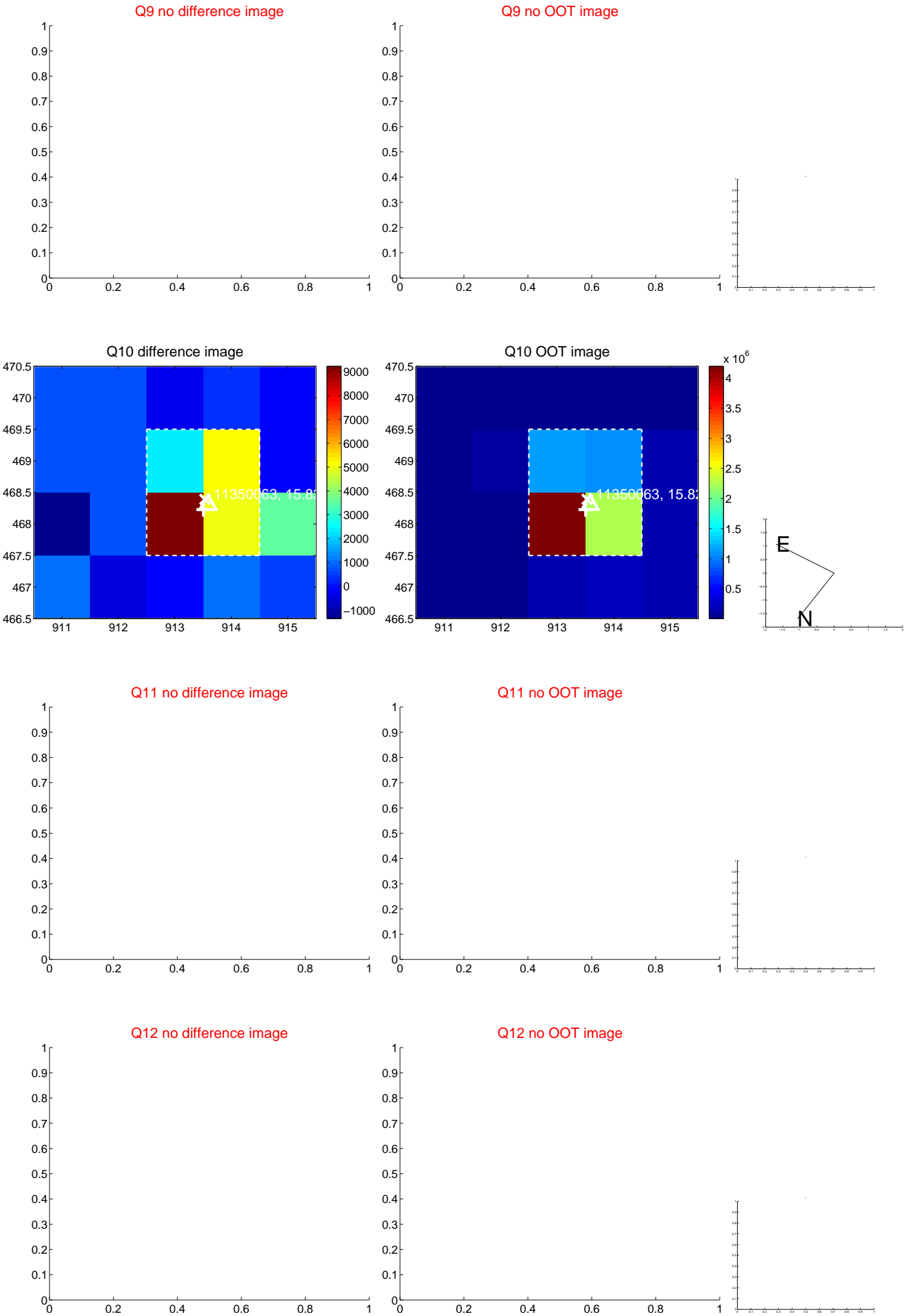
Q8 no difference image



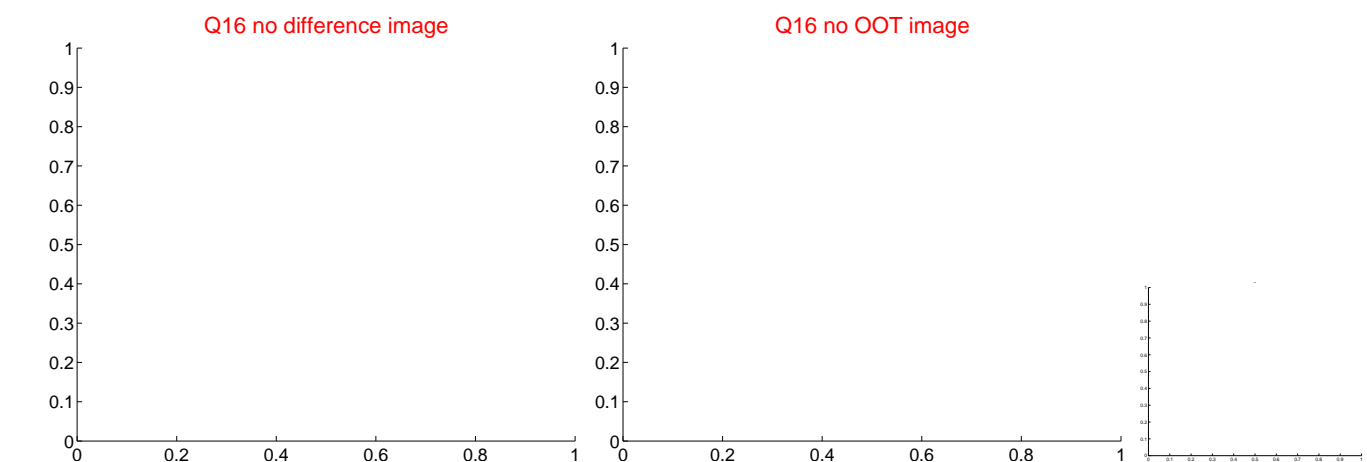
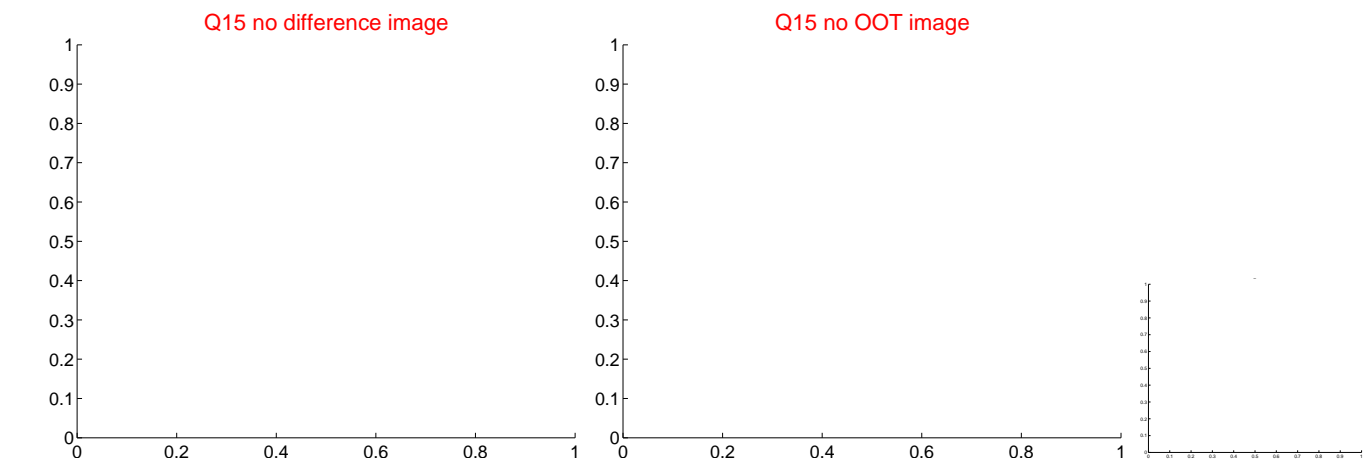
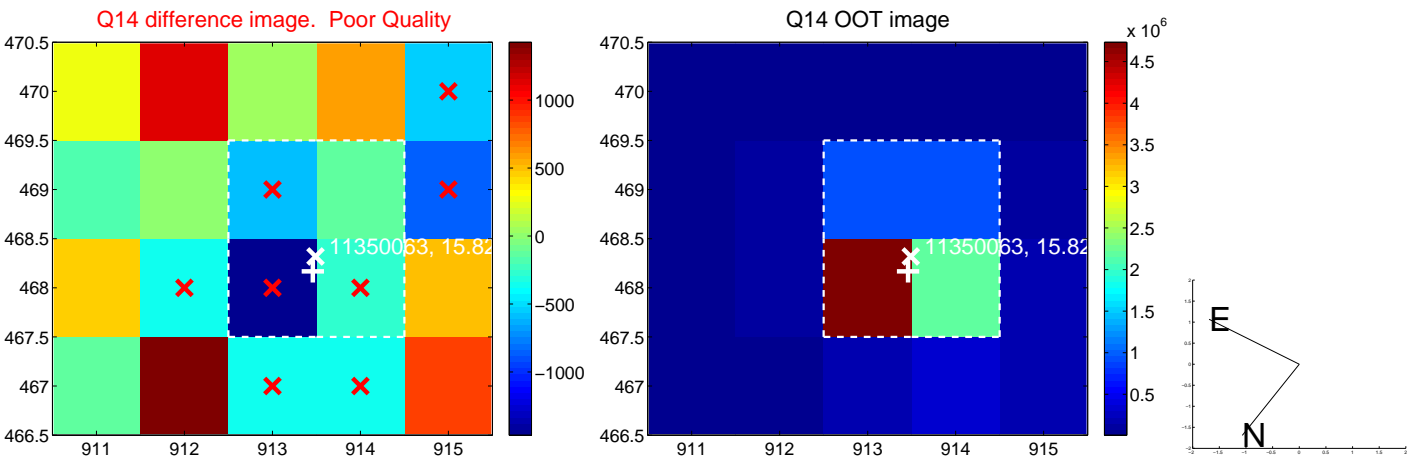
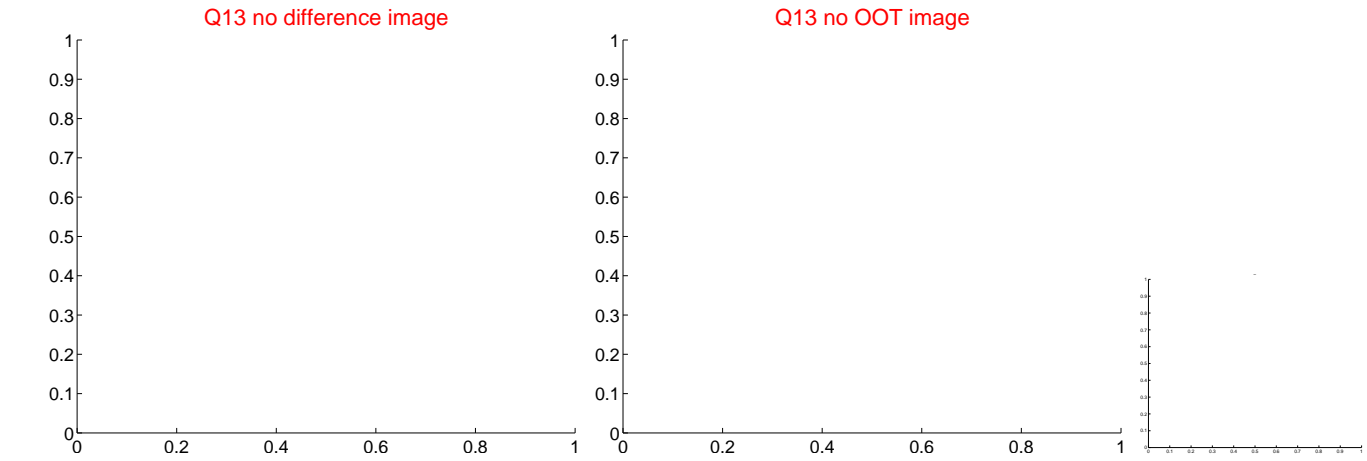
Q8 no OOT image



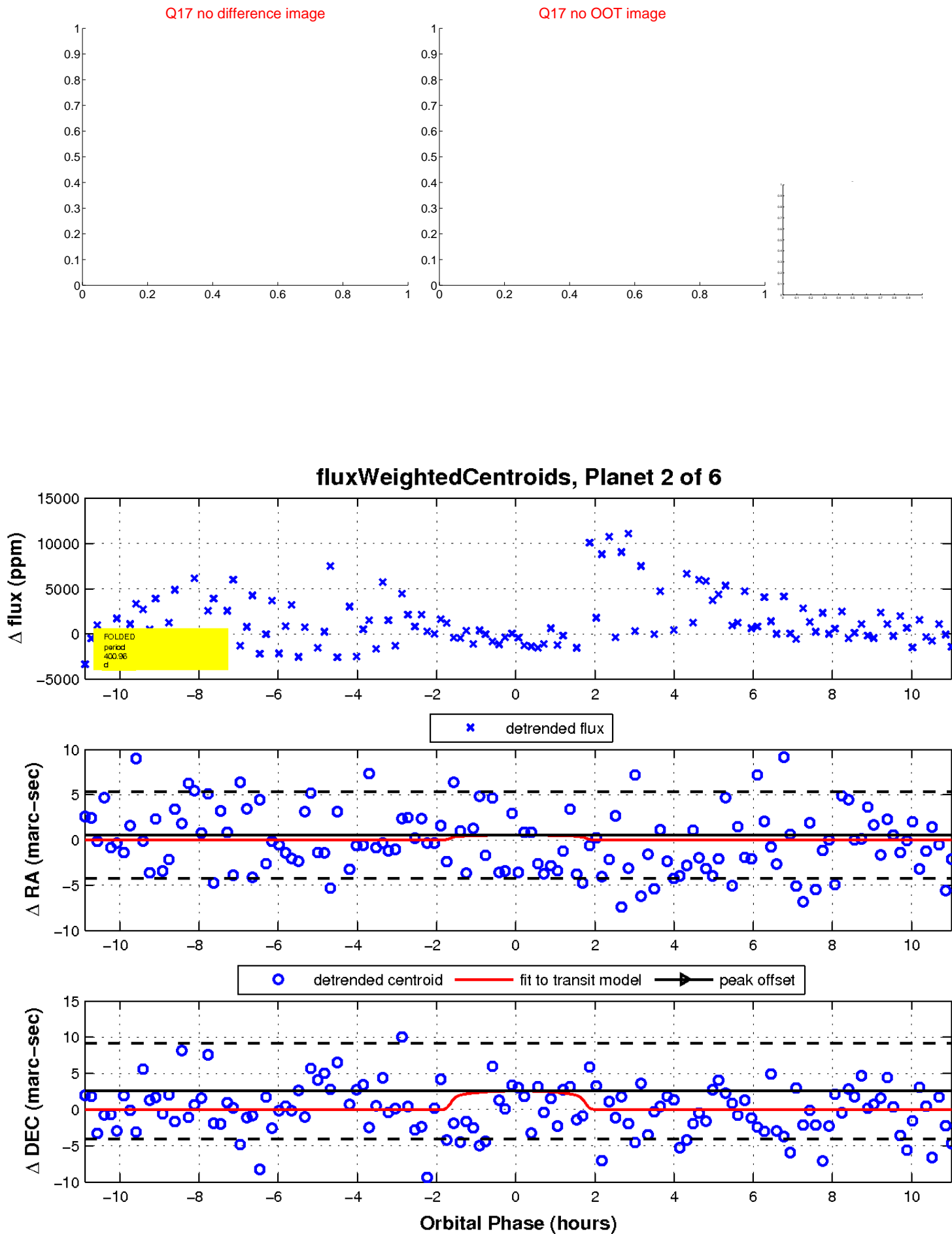
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

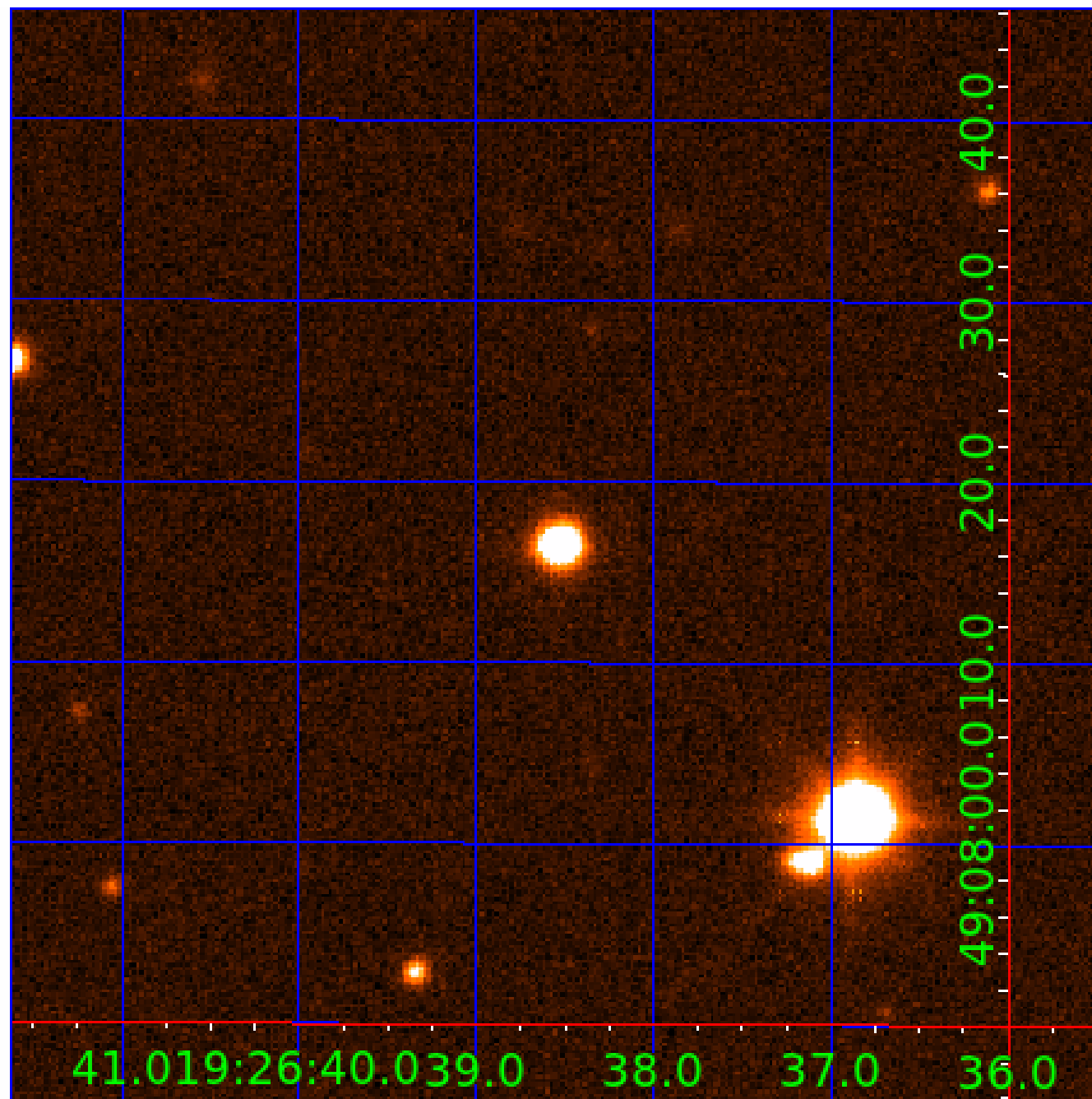


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011350063

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})
011350063-01	OBS	No	375.091761	462.032396	2475.8	6.390	14.5	6.4	0.25	3418	1.25	0.02
011350063-02	OBS	No	400.961338	163.472321	3006.5	3.679	13.3	7.1	0.25	3418	1.40	0.02
011350063-03	OBS	No	322.281596	382.280994	2574.3	3.762	11.0	6.2	0.25	3418	1.29	0.02
011350063-04	OBS	No	337.256783	439.162503	3879.7	11.675	10.7	7.9	0.25	3418	1.55	0.02
011350063-05	OBS	No	10.920502	131.958784	267.8	4.638	8.3	3.6	0.25	3418	0.41	2.09
011350063-06	OBS	No	263.273996	262.007058	2540.4	3.000	11.8	-1.0	0.25	3418	1.25	0.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011350063-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011350063-04	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-05	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_KIC_POS
011350063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

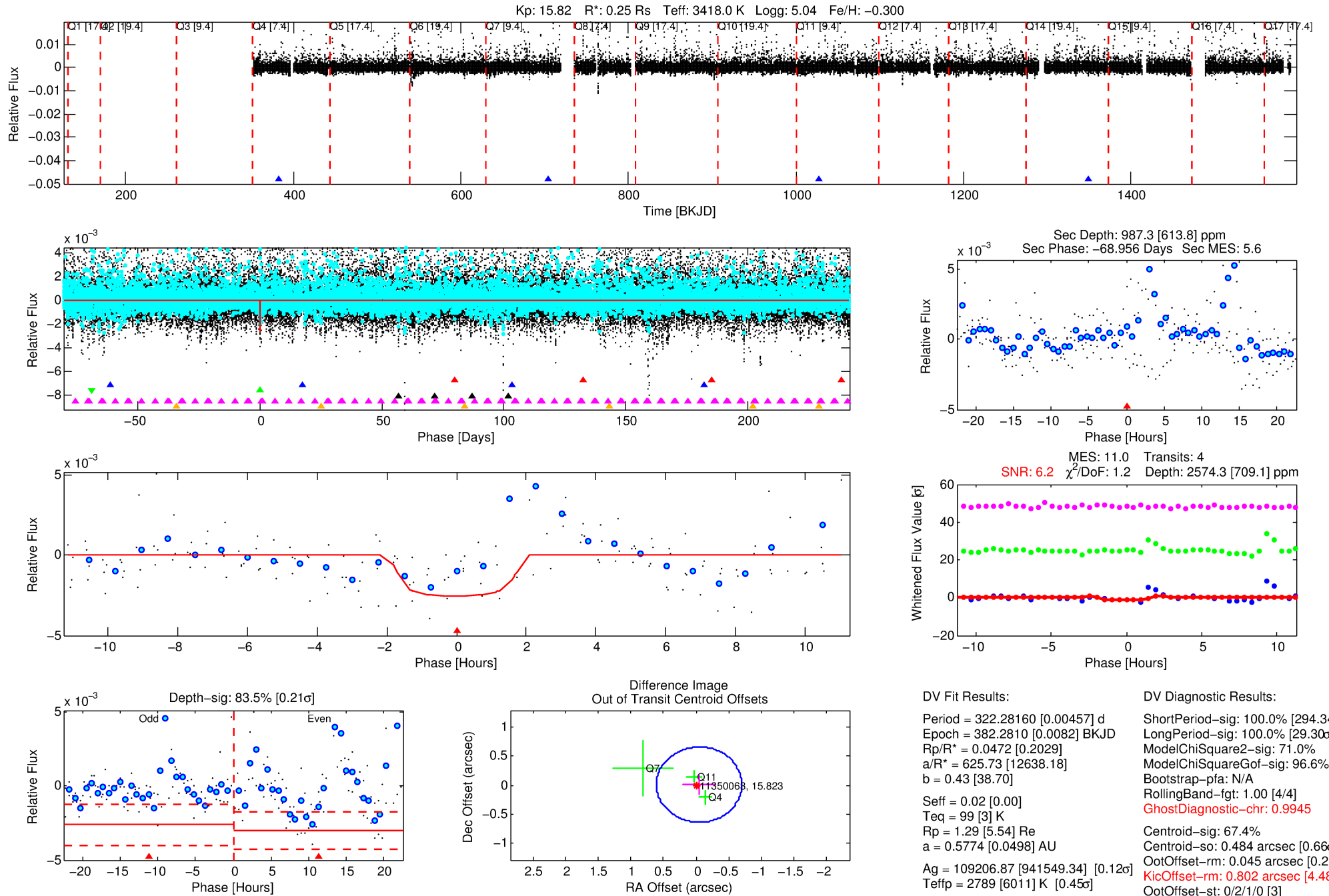
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011350063-03

No Significant Match Found

DV One-Page Summary

KIC: 11350063 Candidate: 3 of 6 Period: 322.282 d



DV Fit Results:

Period = 322.28160 [0.00457] d
Epoch = 382.2810 [0.0082] BKJD
Rp/R* = 0.0472 [0.2029]
a/R* = 625.73 [12638.18]
b = 0.43 [38.70]
Seff = 0.02 [0.00]
Teq = 99 [3] K
Rp = 1.29 [5.54] Re
a = 0.5774 [0.0498] AU
Ag = 109206.87 [941549.34] [0.12σ]
Teffp = 2789 [6011] K [0.45σ]

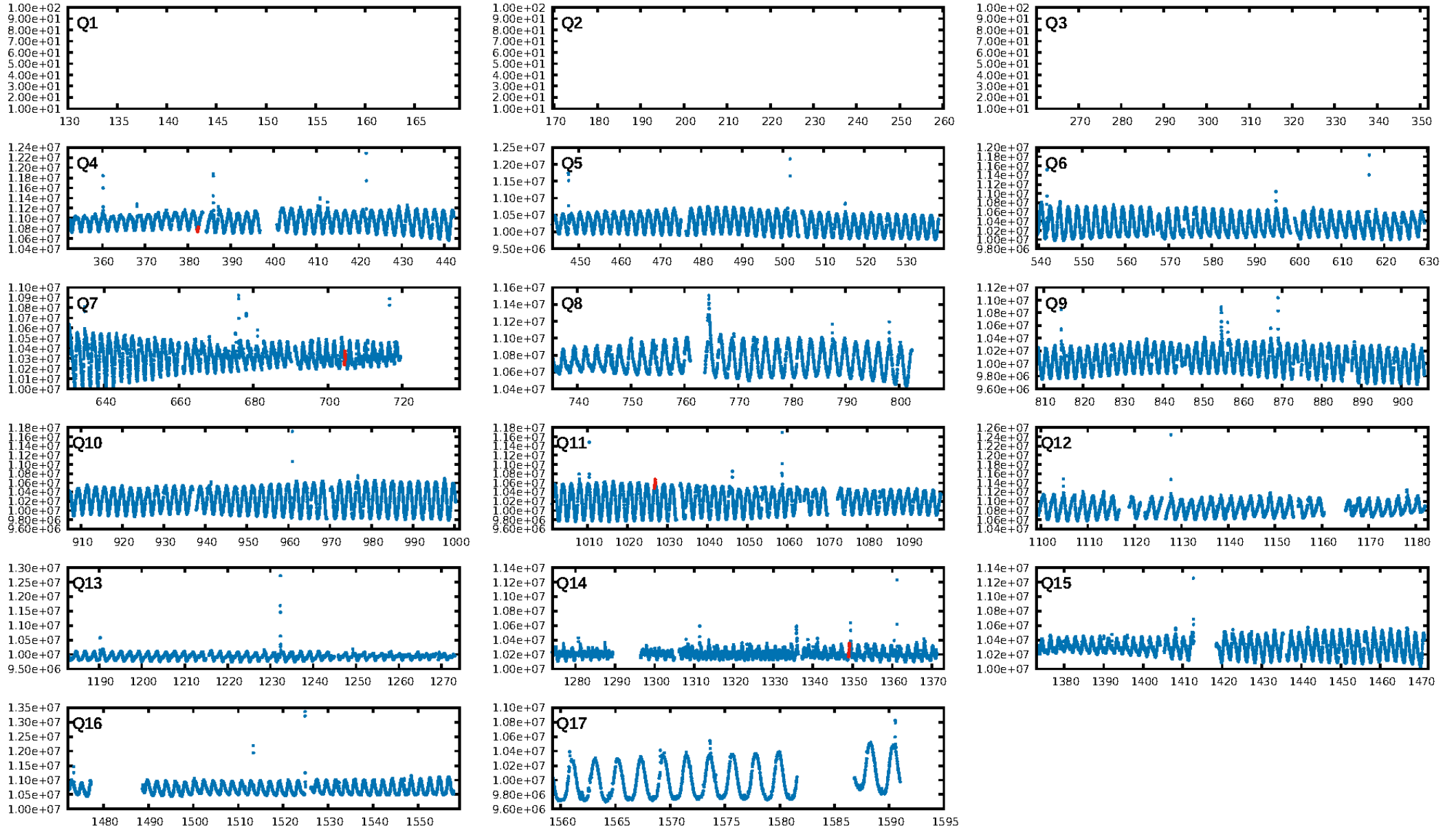
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [294.34σ]
LongPeriod-sig: 100.0% [29.30σ]
ModelChiSquare2-sig: 71.0%
ModelChiSquareGof-sig: 96.6%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.9945
Centroid-sig: 67.4%
Centroid-so: 0.484 arcsec [0.66σ]
OotOffset-rm: 0.045 arcsec [0.21σ]
OotOffset-st: 0/2/1/0 [3]
KicOffset-rm: 0.802 arcsec [4.48σ]
KicOffset-st: 0/2/1/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [4/4]

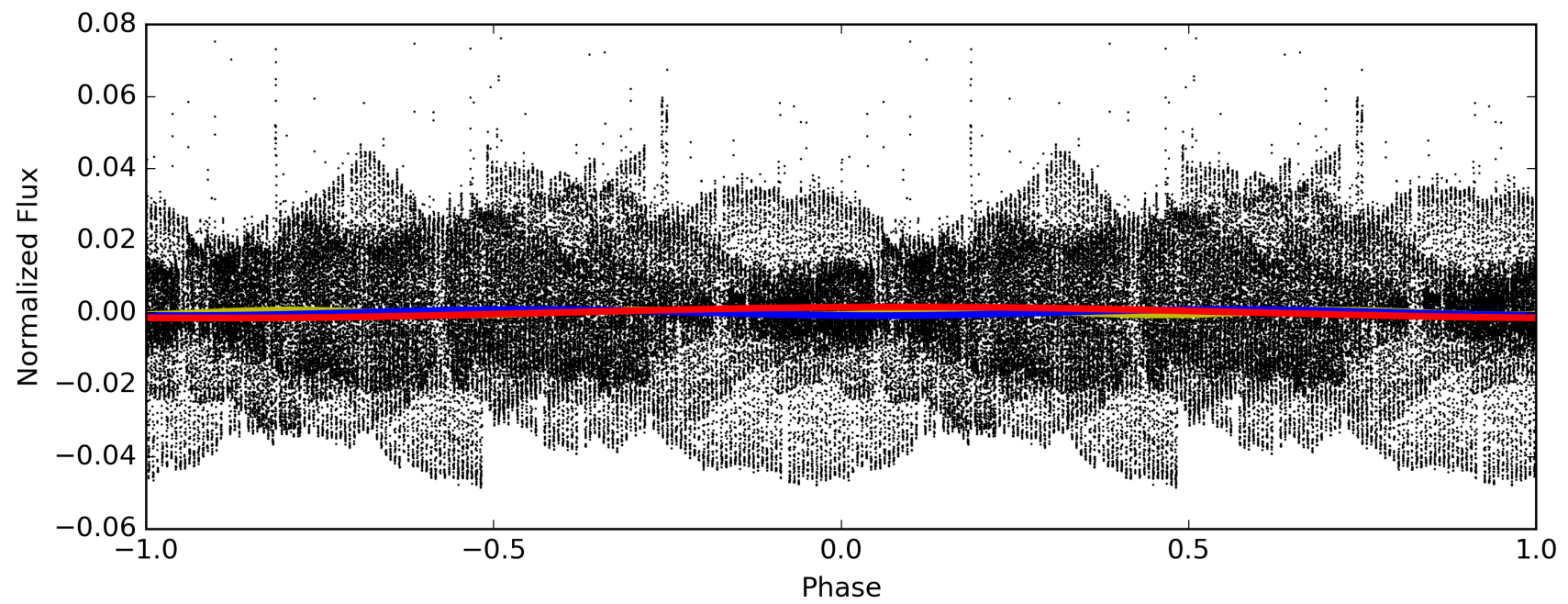
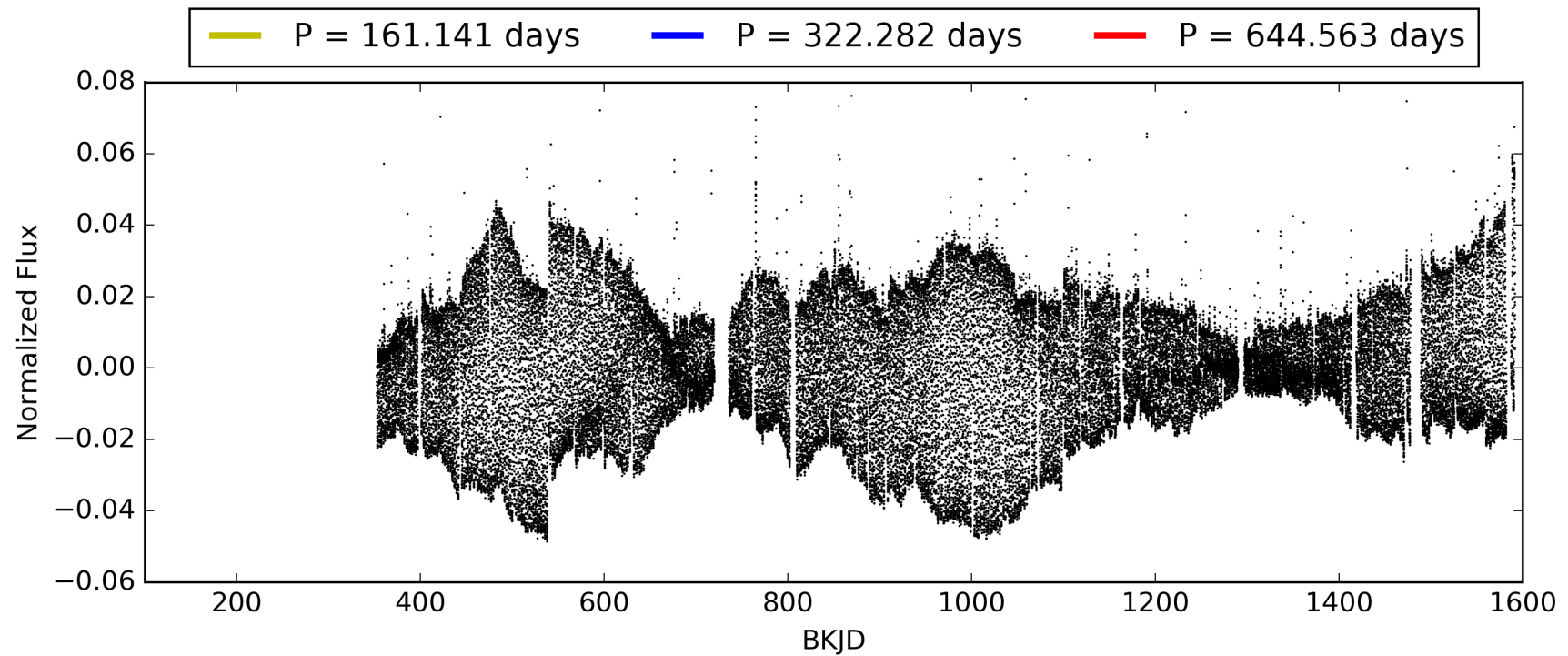
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:56:11 Z

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

TCE 011350063-03, PDC Light Curves

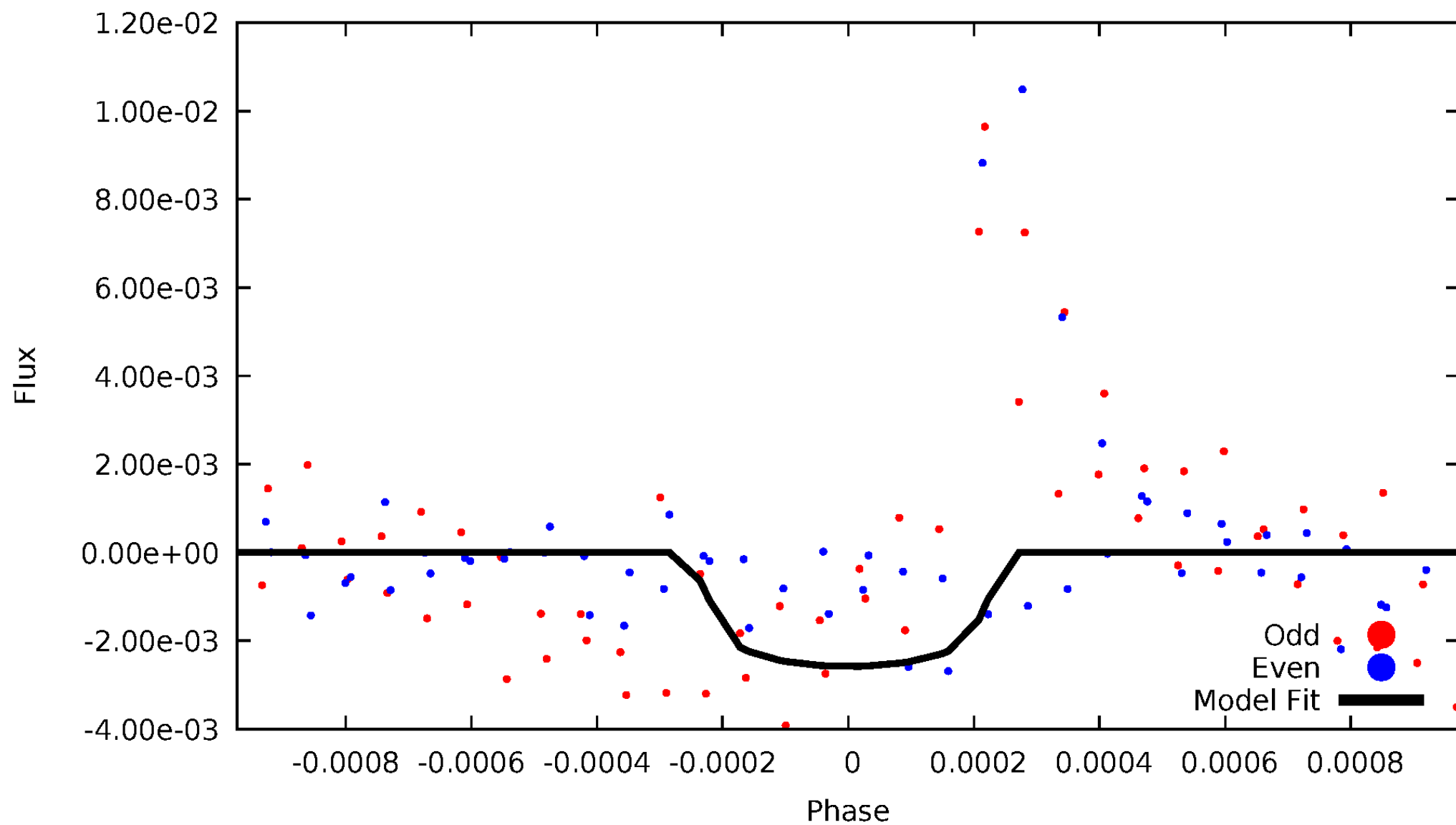


TCE 011350063-03



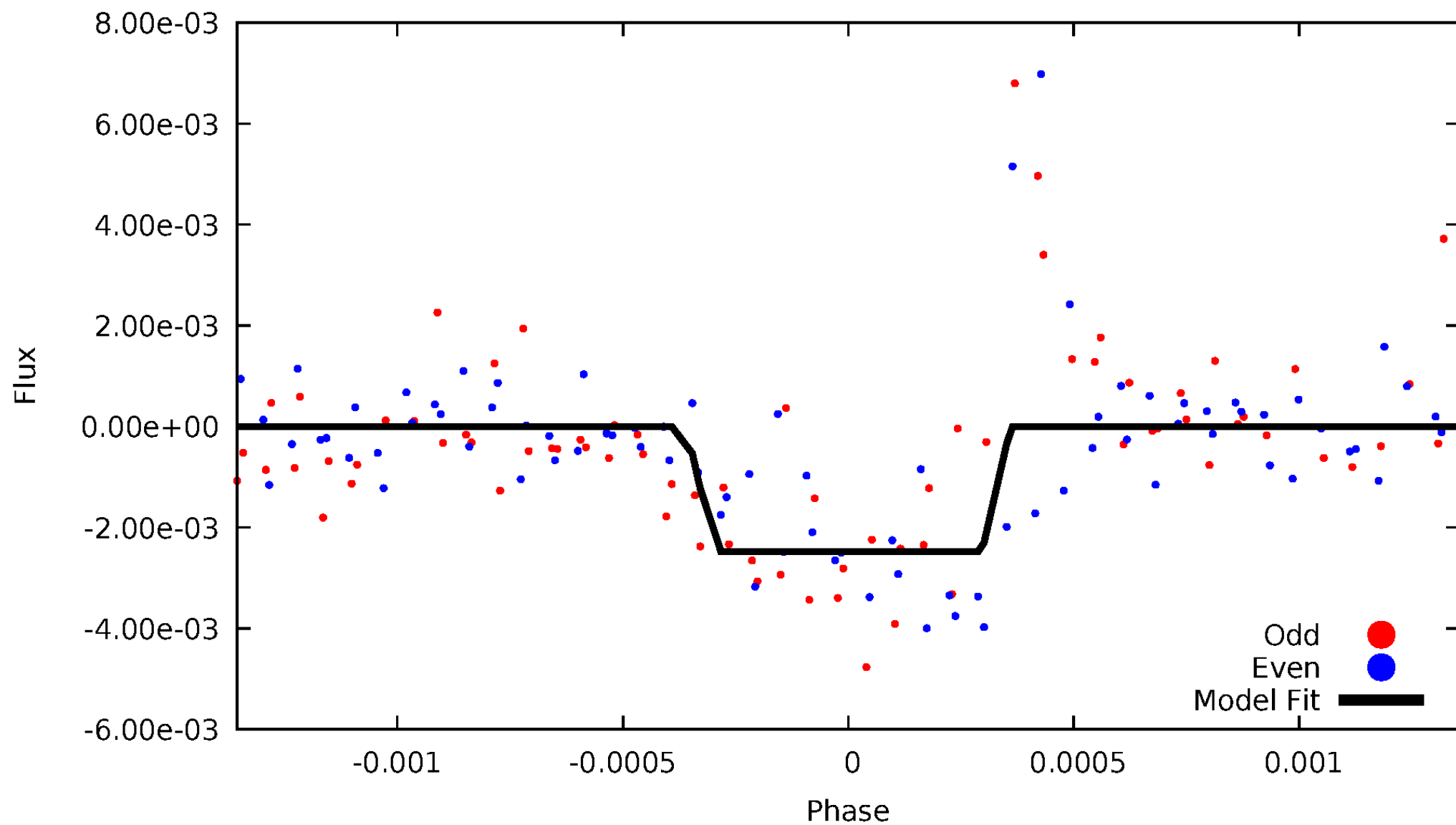
DV Odd/Even

TCE 011350063-03



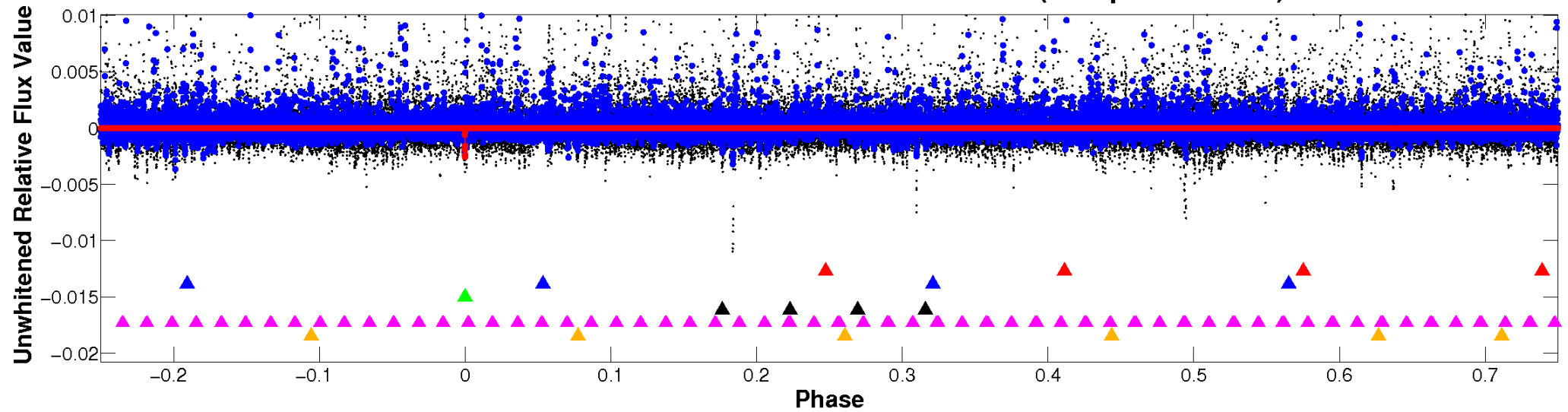
ALT Odd/Even

TCE 011350063-03

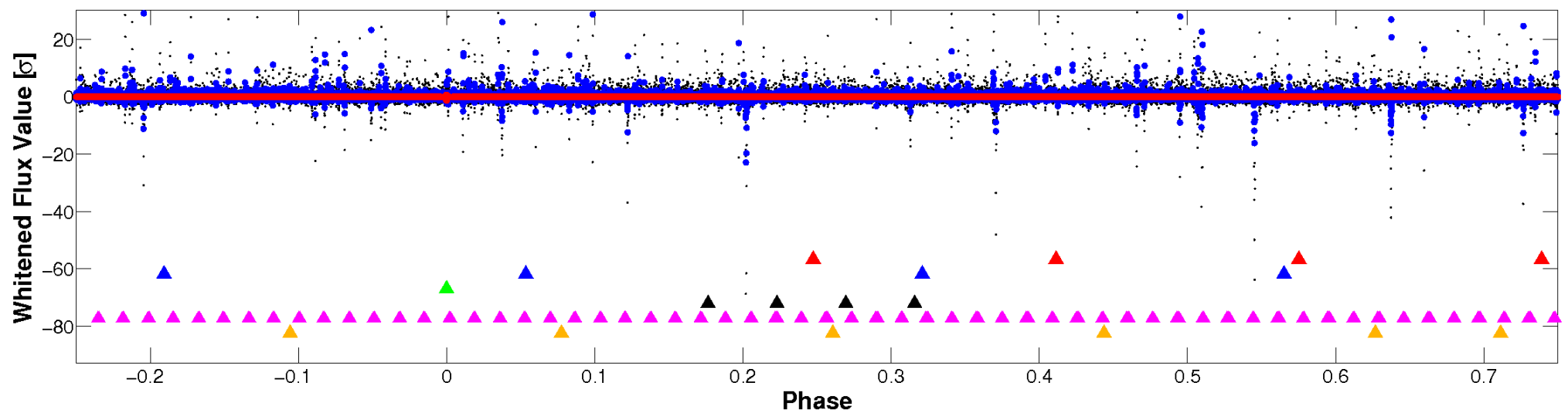


Non-Whitened Vs. Whitened Light Curve

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

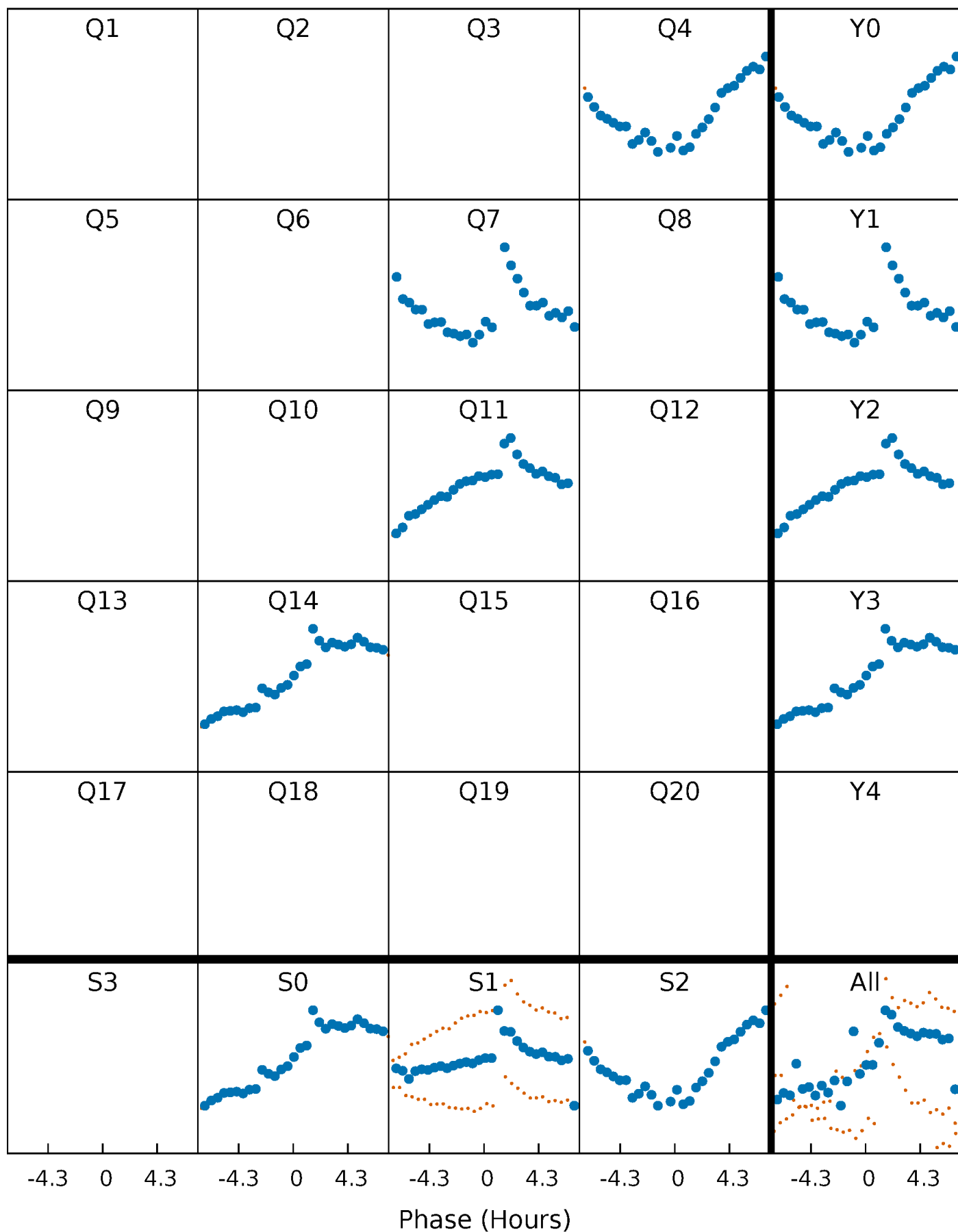


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



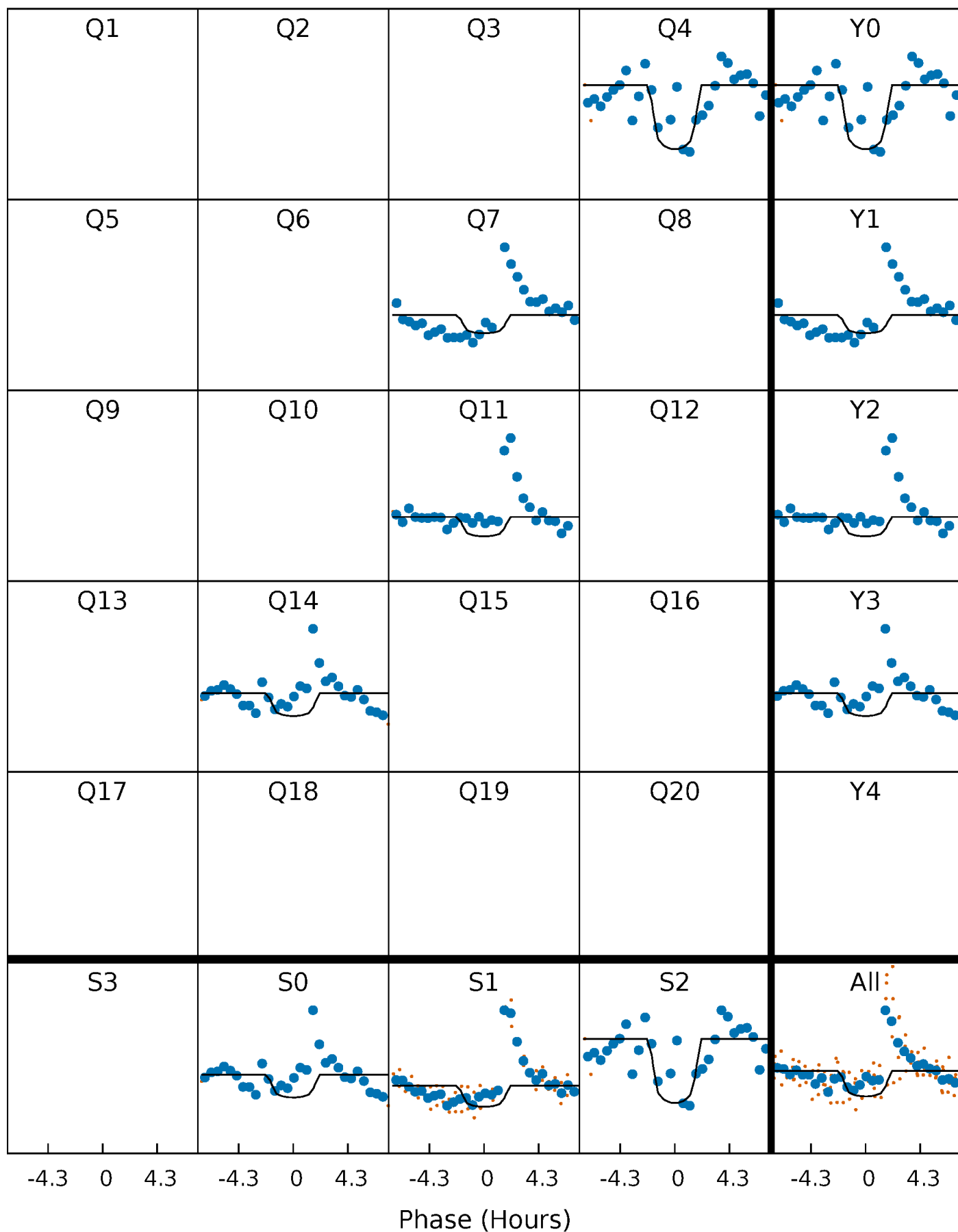
PDC Quarter-Phased Transit Curves

TCE 011350063-03 $P=322.281596$ Days $T_0=382.280994$ (BKJD)



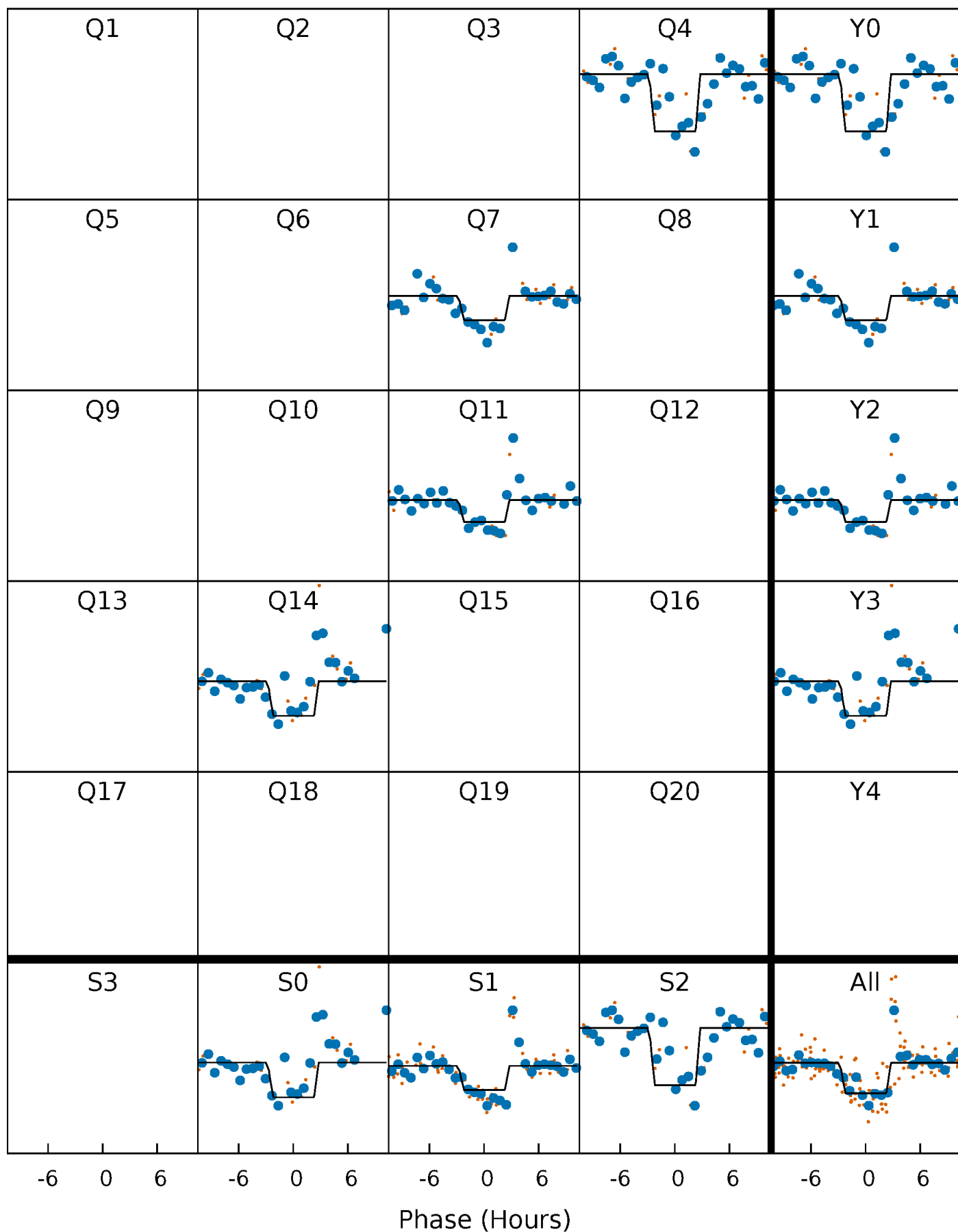
DV Quarter-Phased Transit Curves

TCE 011350063-03 $P=322.281596$ Days $T_0=382.280994$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

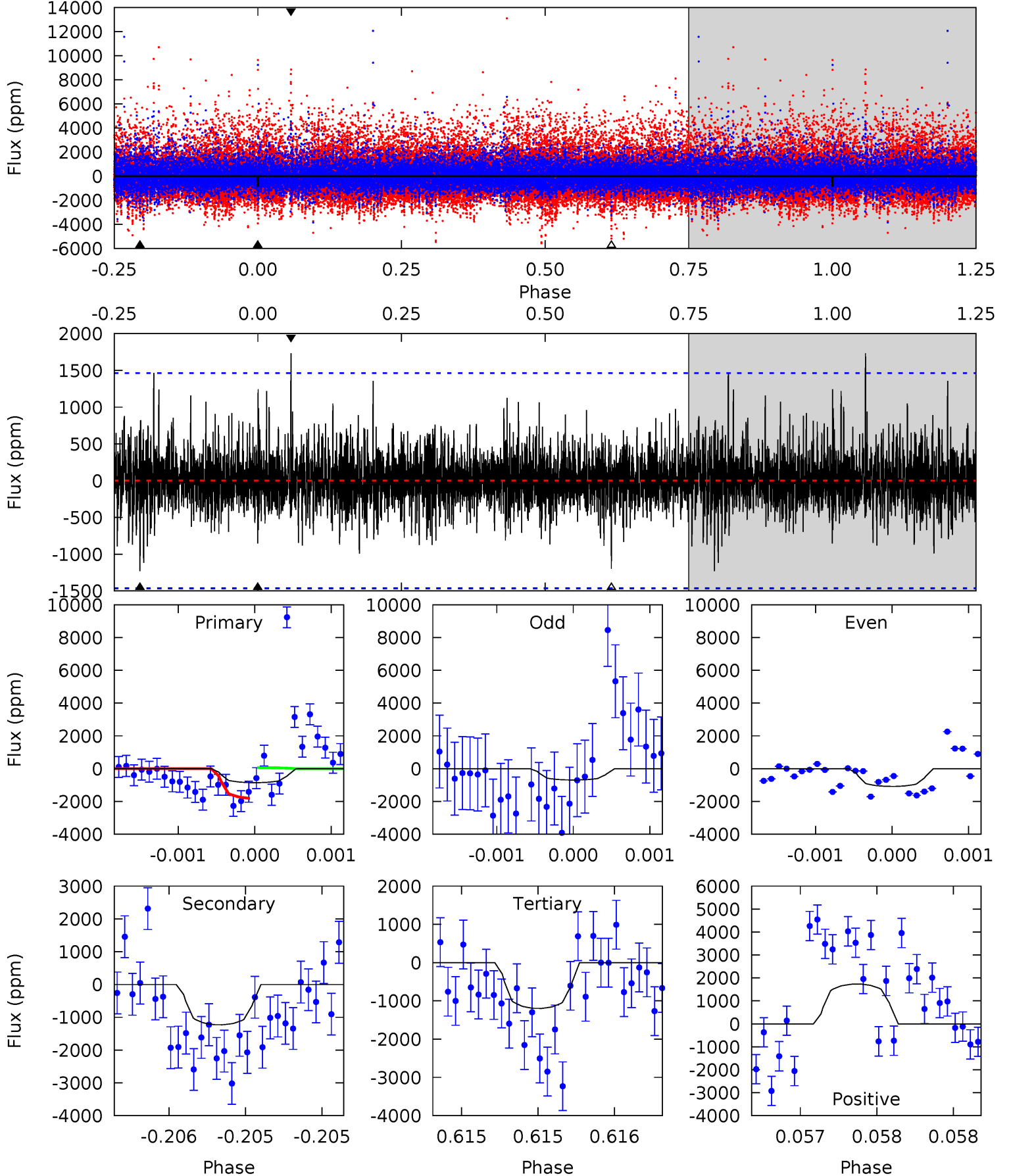
TCE 011350063-03 $P=322.278108$ Days $T_0=382.239481$ (BKJD)



DV Model-Shift Uniqueness Test

011350063-03, P = 322.281596 Days, E = 59.999398 Days

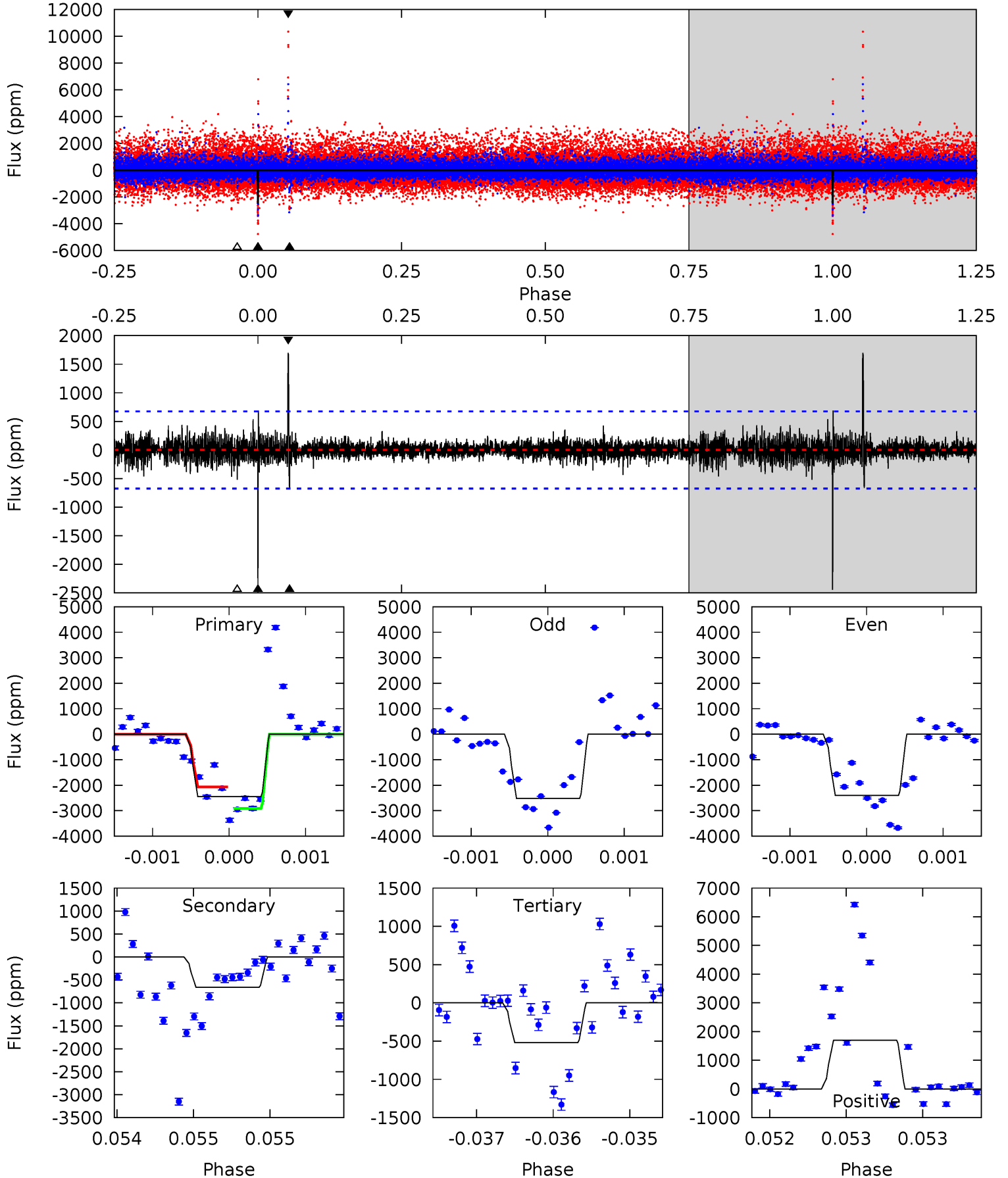
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.25	4.68	4.56	6.59	5.57	3.48	1.10	-1.30	-3.34	0.12	-1.91	0.61	0.97	0.58	3.38



Alt Model-Shift Uniqueness Test

011350063-03, P = 322.278108 Days, E = 59.961373 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.0	5.42	4.23	13.9	5.52	3.39	0.90	15.8	6.12	1.18	-8.46	0.45	1.01	0.41	3.44



Stellar Parameters For KIC 011350063

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3418^{+40}_{-44}	$5.035^{+0.035}_{-0.042}$	$-0.300^{+0.100}_{-0.100}$	$0.250^{+0.030}_{-0.027}$	$0.248^{+0.034}_{-0.037}$	$22.350^{+4.344}_{-4.368}$
	+1%/-1%	+1%/-1%	+33%/-33%	+12%/-11%	+14%/-15%	+19%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011350063-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1228 ± 263	$4.25^{+4.18}_{-2.95}$	139^{+3}_{-3}	2288^{+772}_{-314}	$11823^{+102152}_{-8788}$
Alt.	-662 ± 122	$4.38^{+4.55}_{-3.04}$	139^{+3}_{-3}	2136^{+703}_{-301}	6105^{+61442}_{-4675}

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

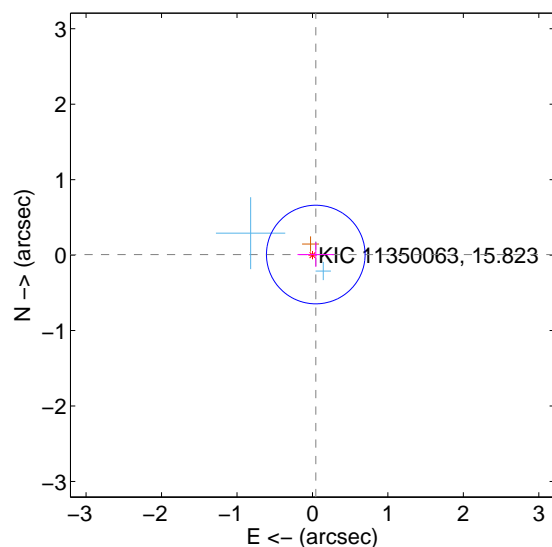
Supplemental centroid analysis for 011350063-03. Kepler magnitude: 15.82. Transit SNR 6.21

There are 2 quarters with good PRF difference image offsets

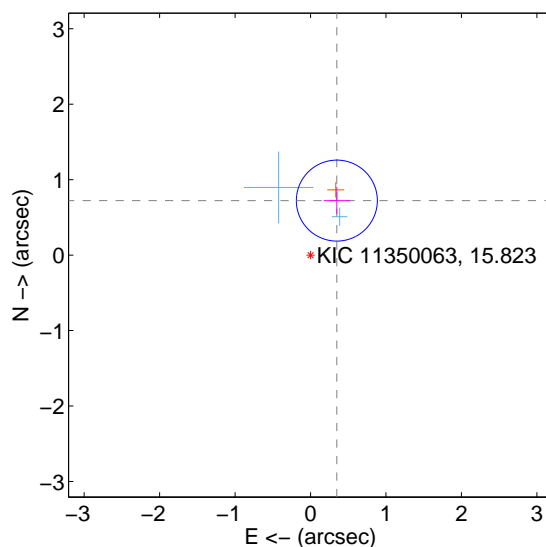
The direct PRF centroid is offset from the target star catalog position by about 0.80 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.045 ± 0.218	0.21	-0.044 ± 0.243	0.008 ± 0.163
PRF-fit source offset from KIC position	0.802 ± 0.179	4.48	-0.349 ± 0.174	0.722 ± 0.180
photometric centroid source offset	0.48 ± 0.73	0.66	0.12 ± 0.78	0.47 ± 0.73

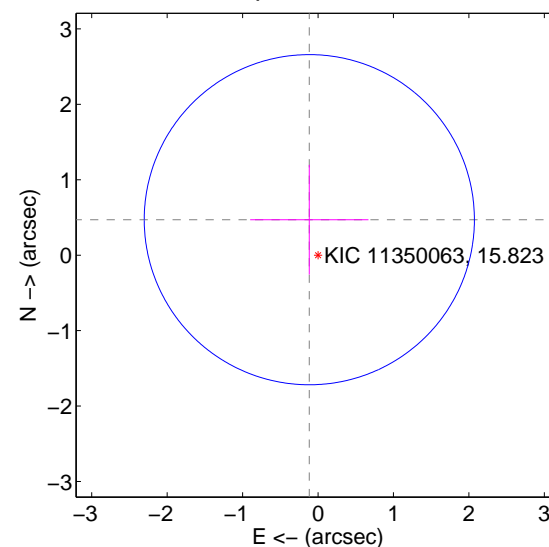
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

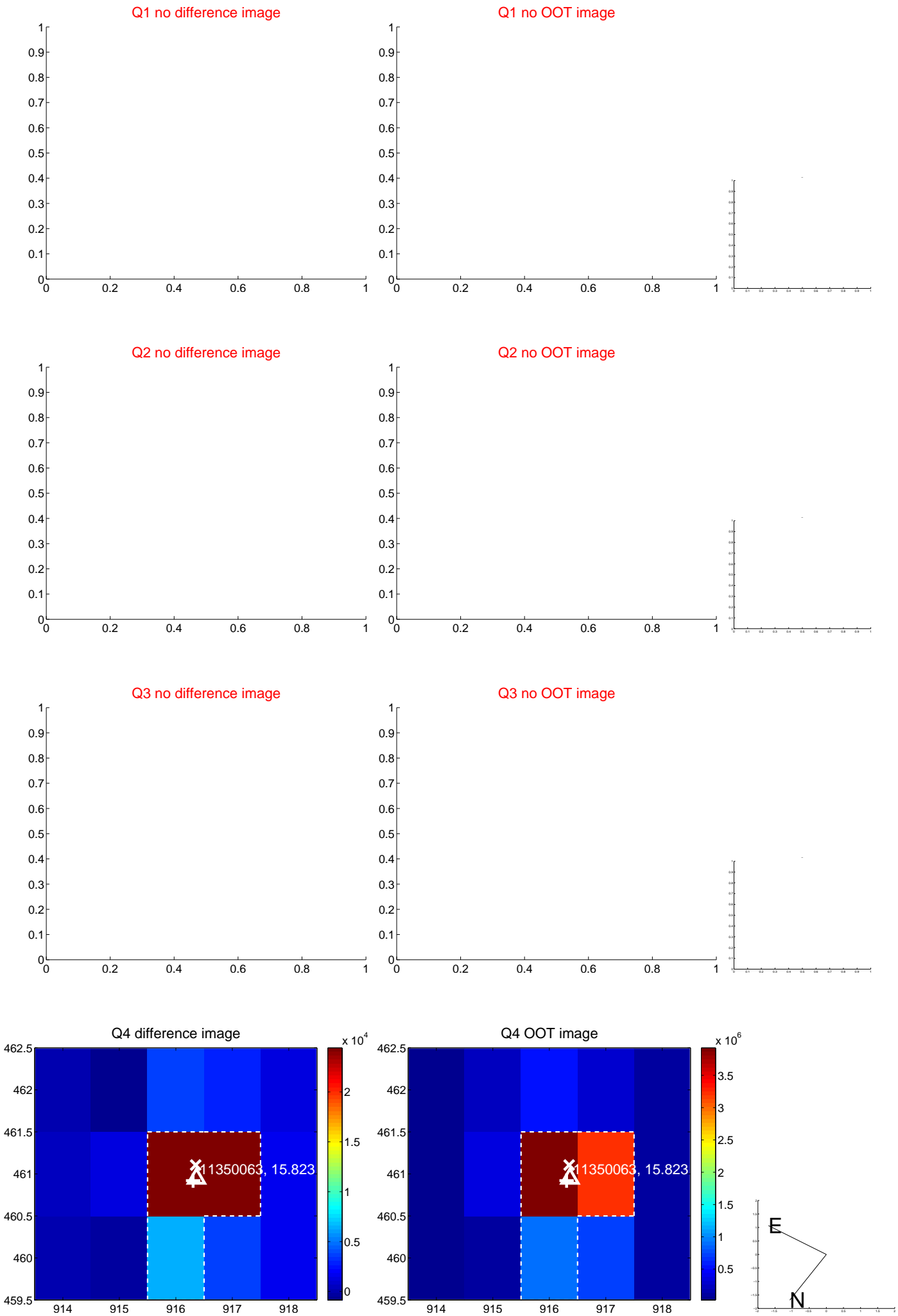


offset from photometric centroids

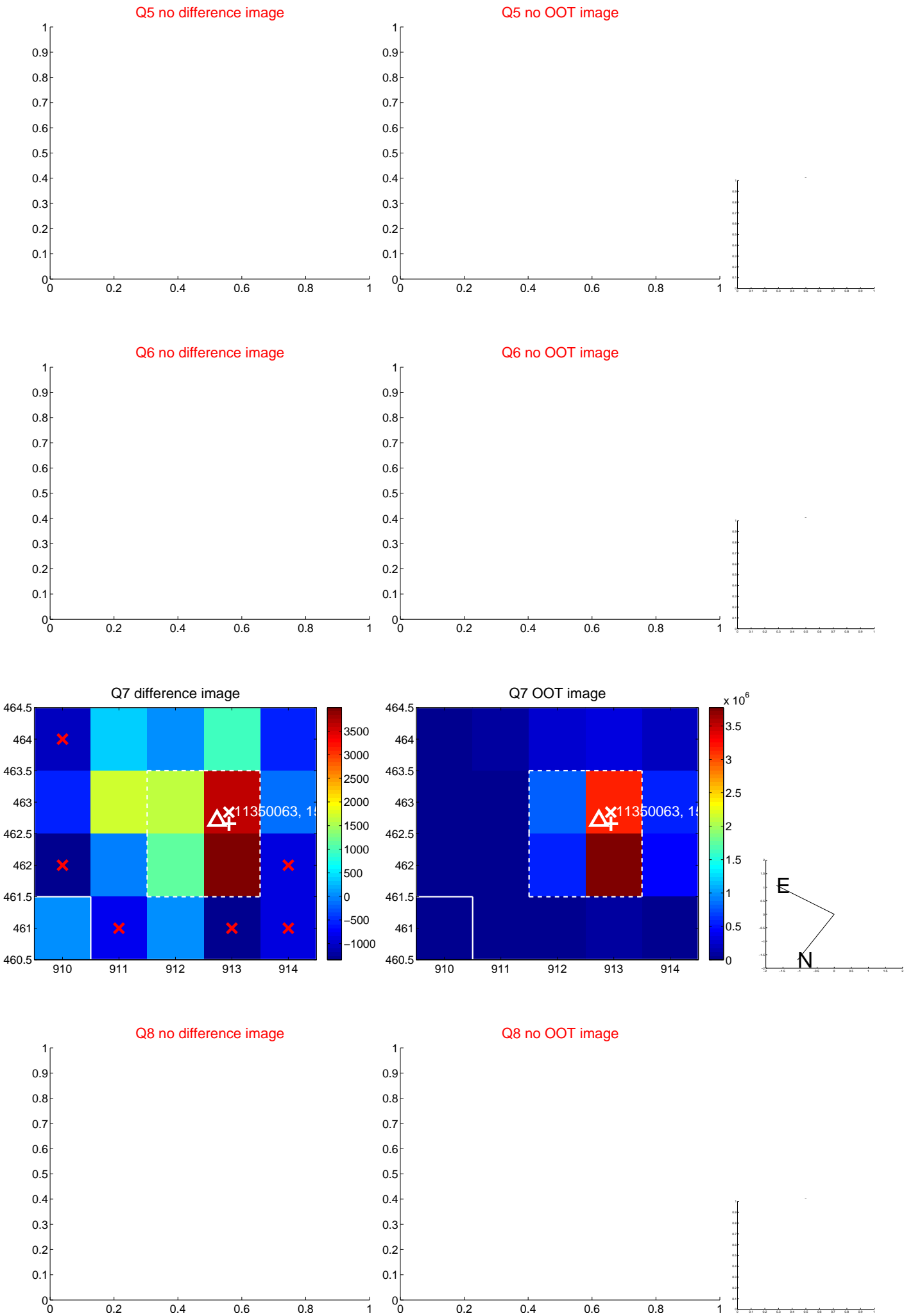


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

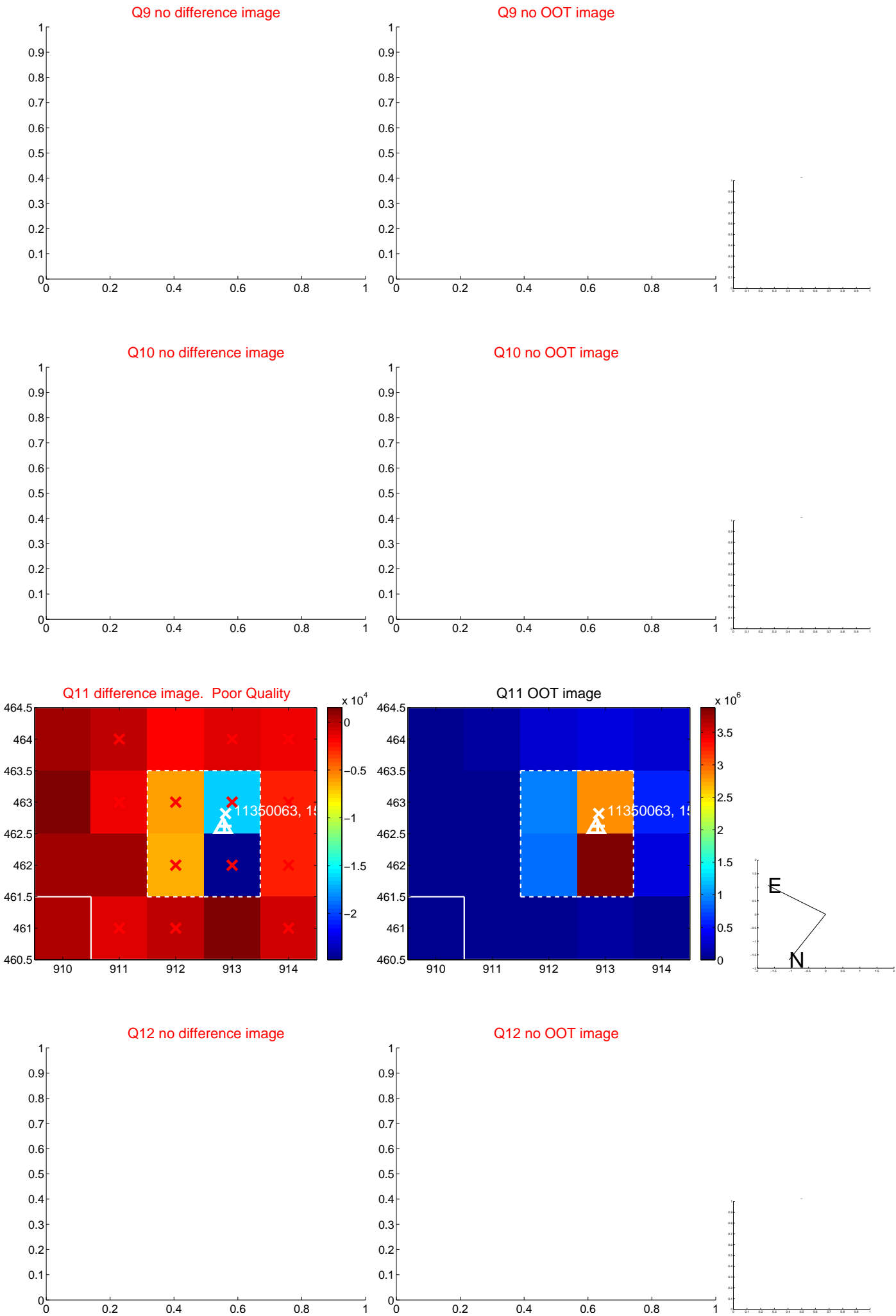
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



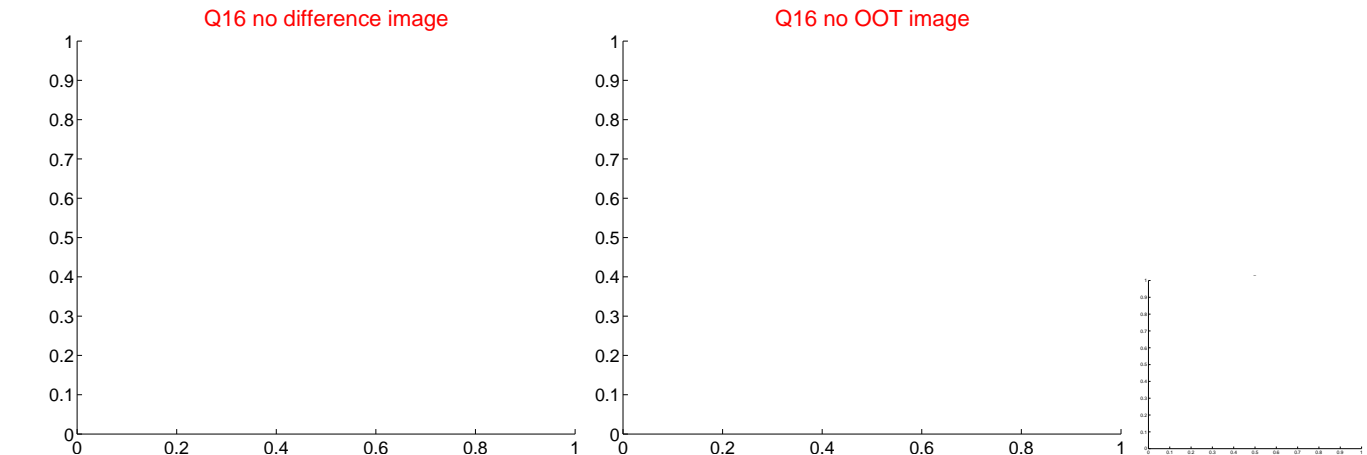
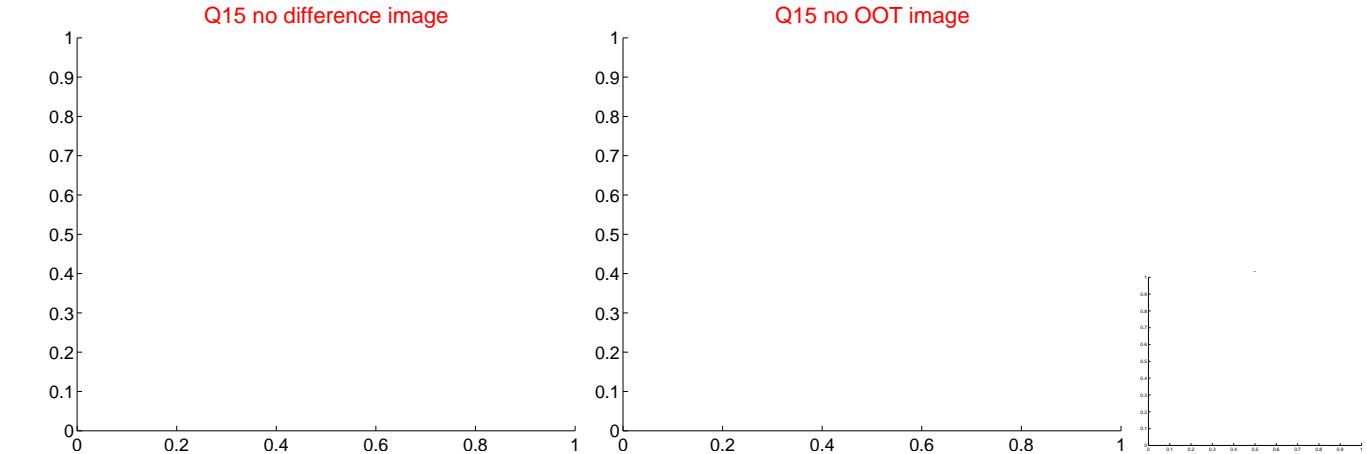
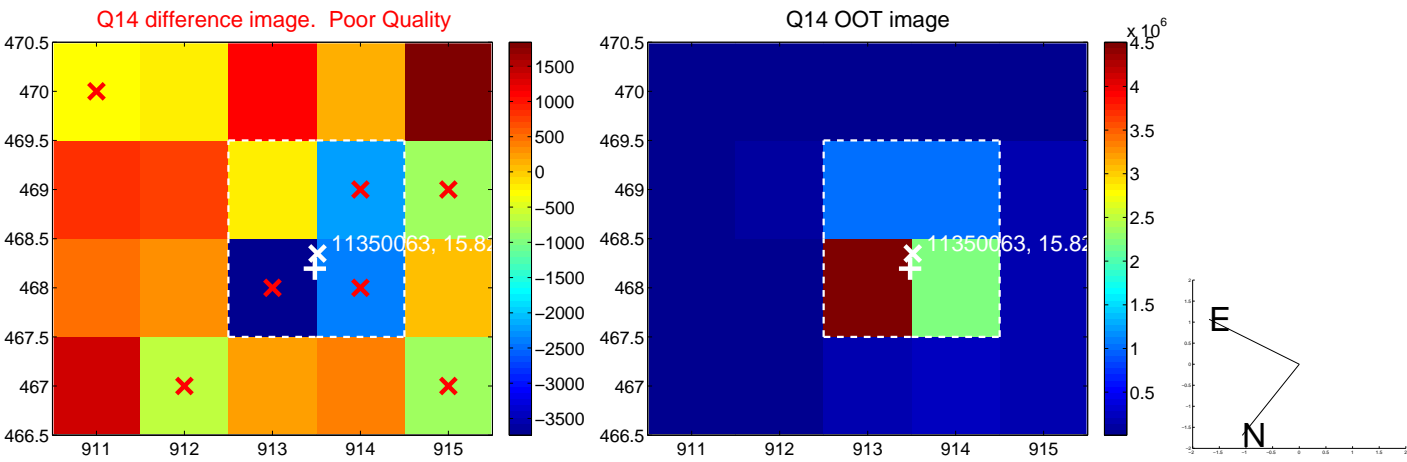
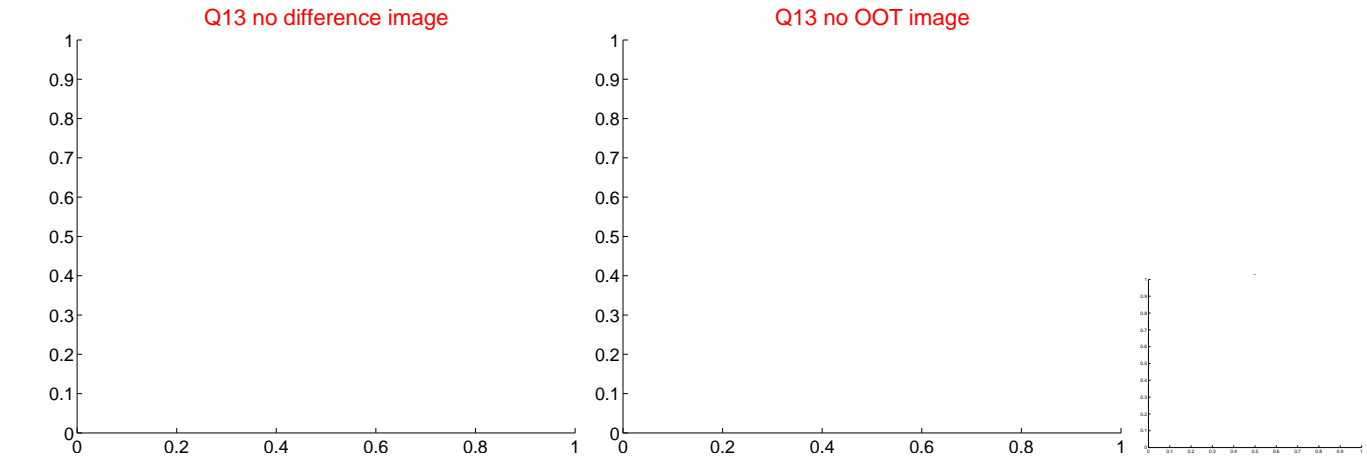
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



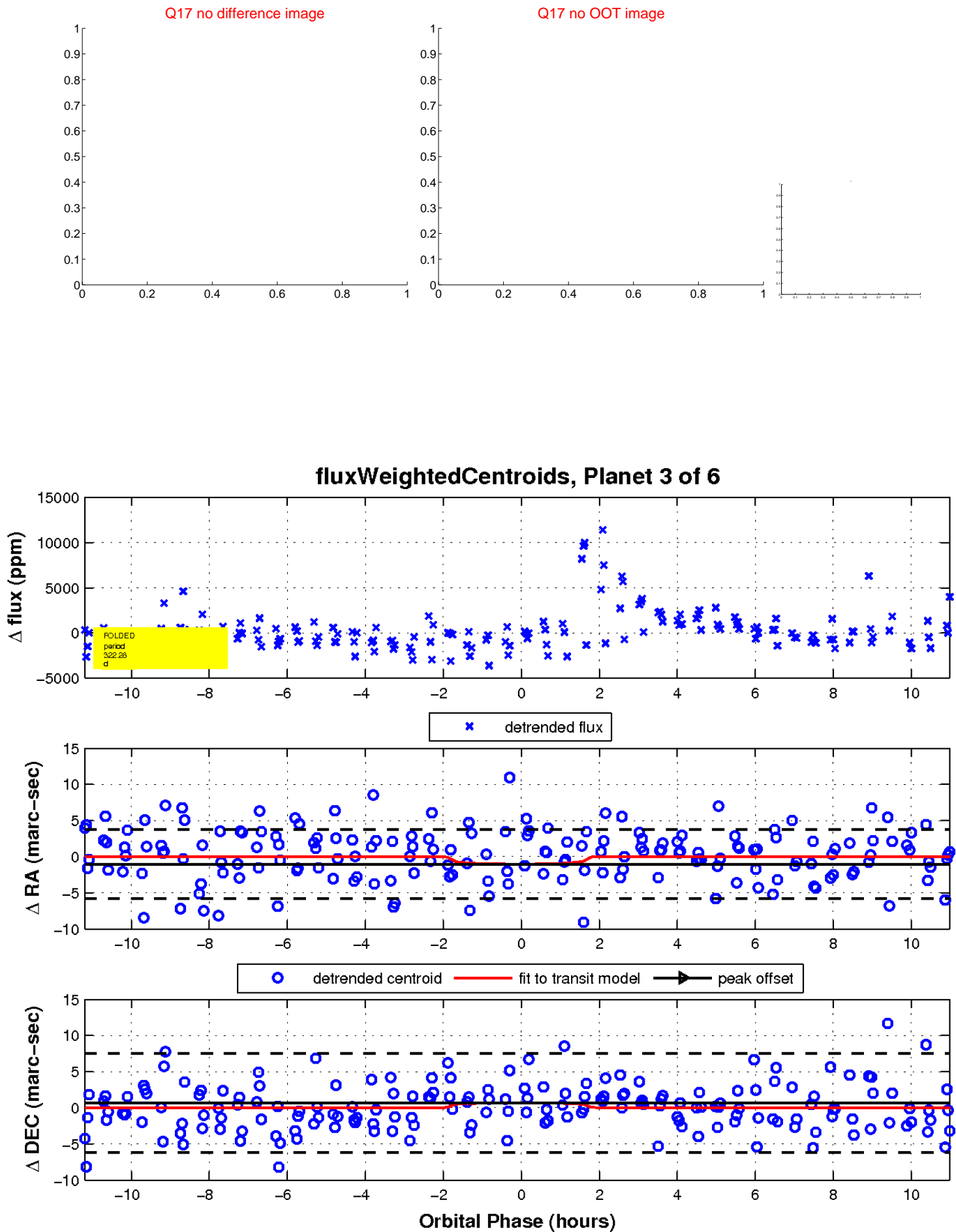
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

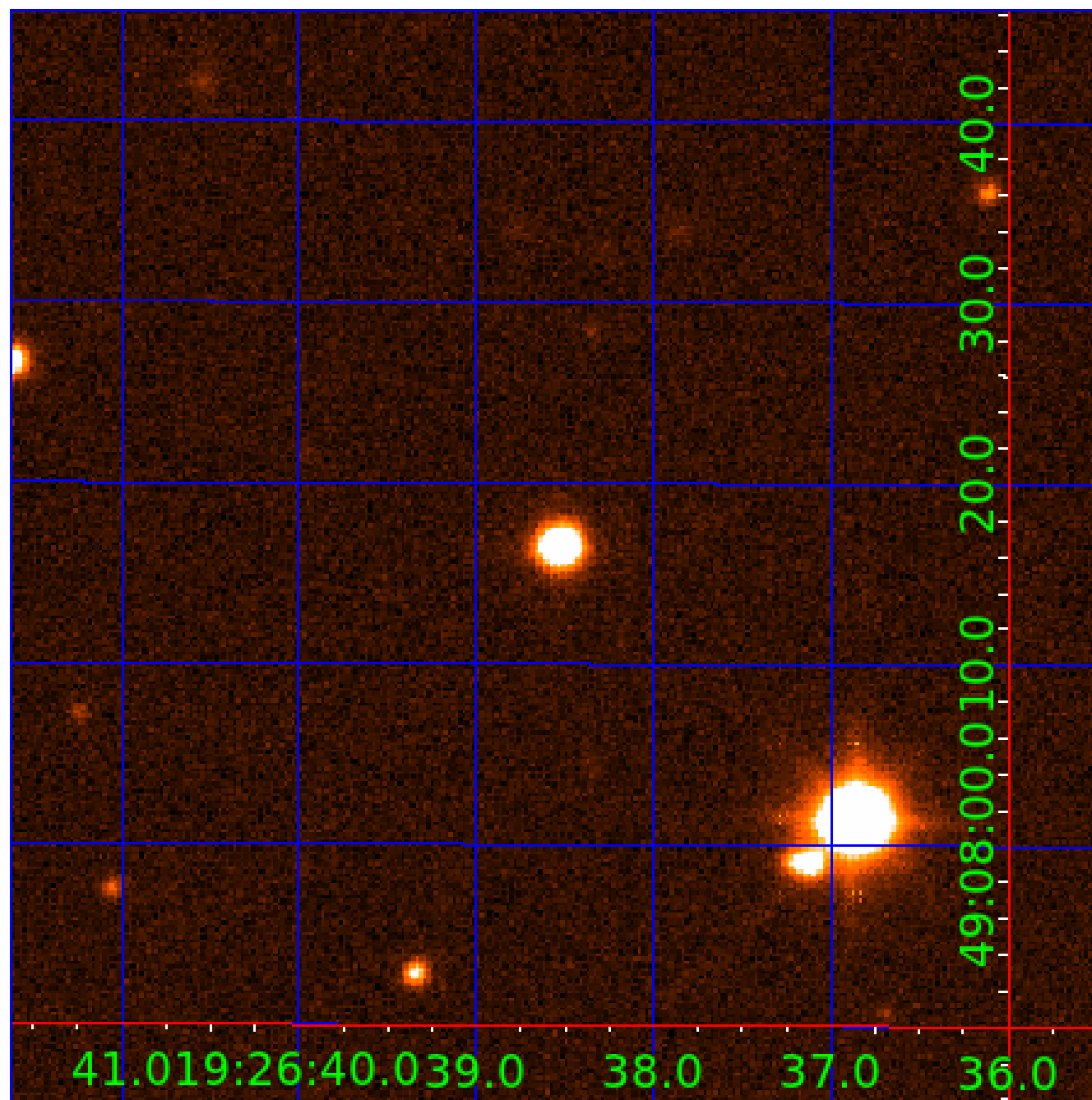


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011350063

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})
011350063-01	OBS	No	375.091761	462.032396	2475.8	6.390	14.5	6.4	0.25	3418	1.25	0.02
011350063-02	OBS	No	400.961338	163.472321	3006.5	3.679	13.3	7.1	0.25	3418	1.40	0.02
011350063-03	OBS	No	322.281596	382.280994	2574.3	3.762	11.0	6.2	0.25	3418	1.29	0.02
011350063-04	OBS	No	337.256783	439.162503	3879.7	11.675	10.7	7.9	0.25	3418	1.55	0.02
011350063-05	OBS	No	10.920502	131.958784	267.8	4.638	8.3	3.6	0.25	3418	0.41	2.09
011350063-06	OBS	No	263.273996	262.007058	2540.4	3.000	11.8	-1.0	0.25	3418	1.25	0.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011350063-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011350063-04	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-05	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_KIC_POS
011350063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

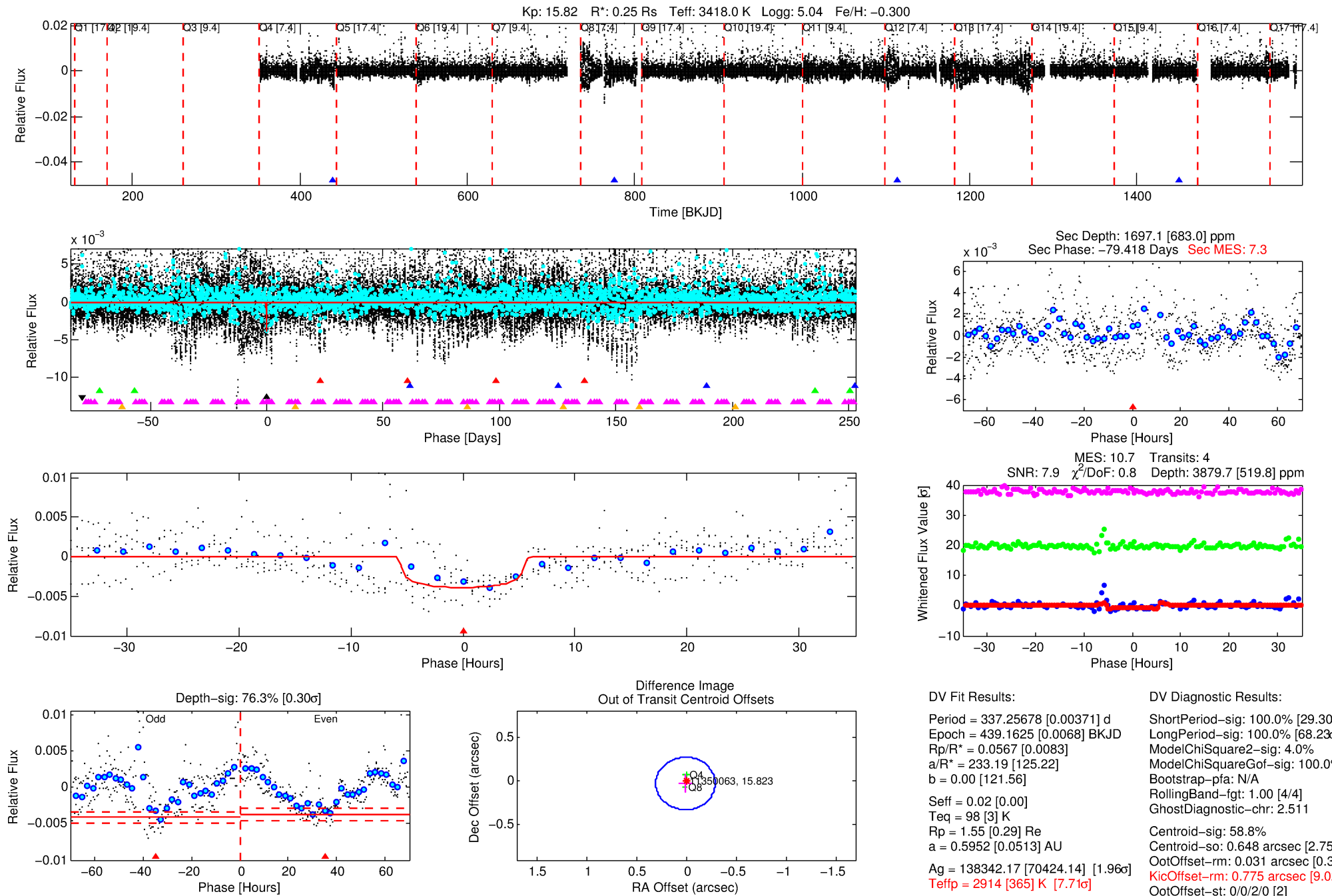
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011350063-04

No Significant Match Found

DV One-Page Summary

KIC: 11350063 Candidate: 4 of 6 Period: 337.257 d



DV Fit Results:

Period = 337.25678 [0.00371] d
Epoch = 439.1625 [0.0068] BKJD
Rp/R* = 0.0567 [0.0083]
a/R* = 233.19 [125.22]
b = 0.00 [121.56]
Seff = 0.02 [0.00]
Teq = 98 [3] K
Rp = 1.55 [0.29] Re
a = 0.5952 [0.0513] AU
Ag = 138342.17 [70424.14] [1.96σ]
Teff = 2914 [365] K [7.71σ]

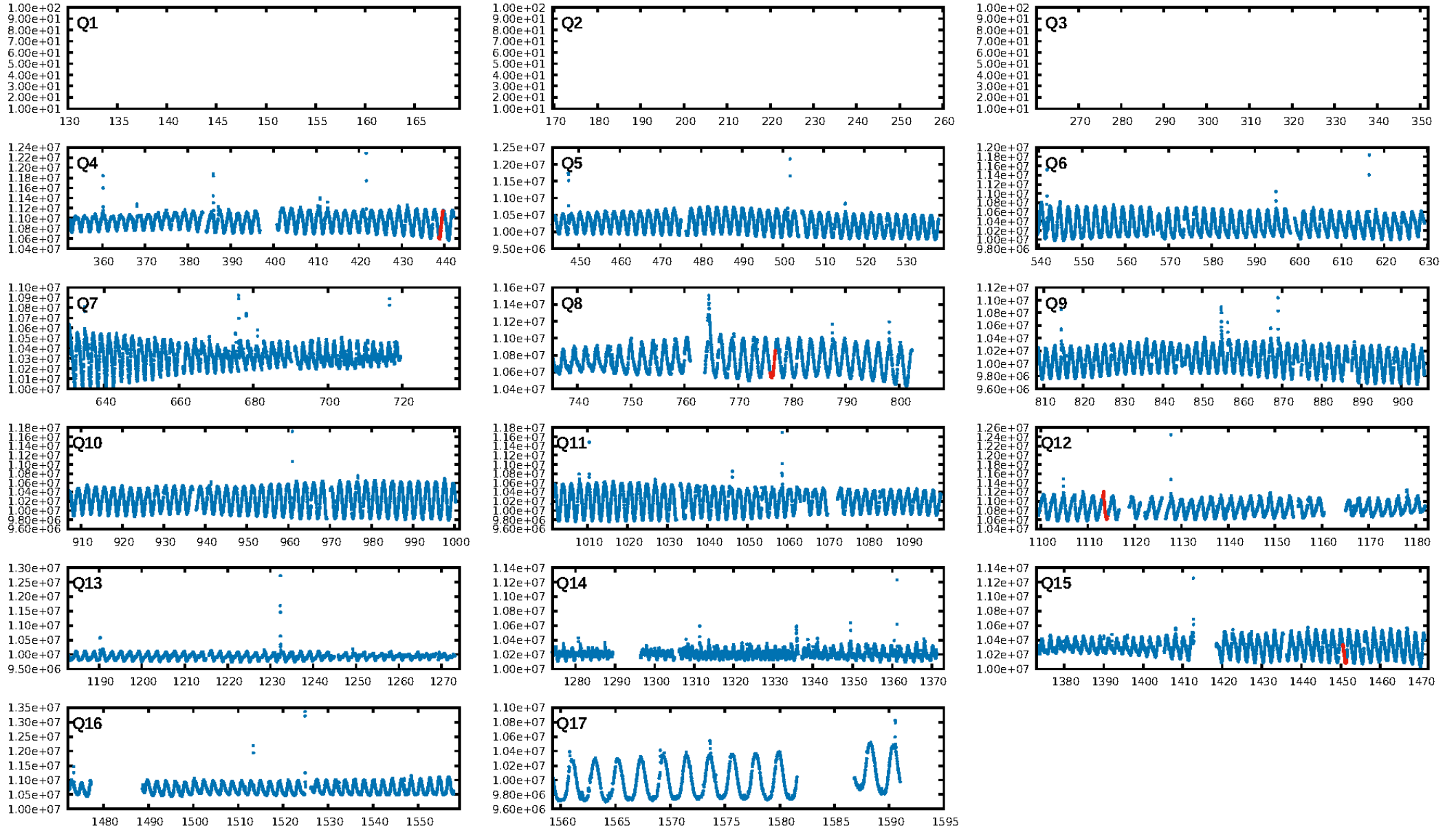
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [29.30σ]
LongPeriod-sig: 100.0% [68.23σ]
ModelChiSquare2-sig: 4.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 2.511
Centroid-sig: 58.8%
Centroid-so: 0.648 arcsec [2.75σ]
OotOffset-rm: 0.031 arcsec [0.31σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-st: 0/0/2/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.50 [1/2]

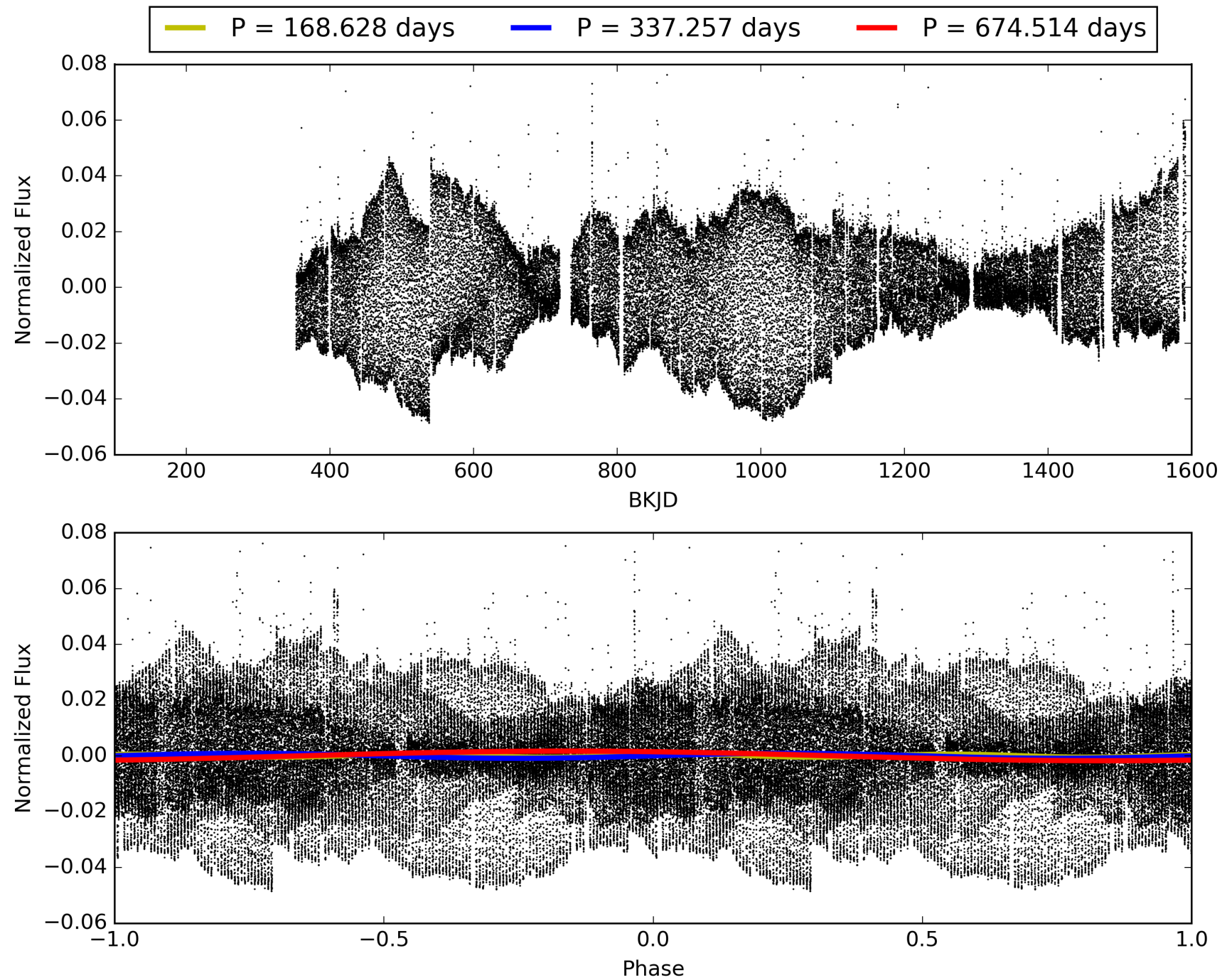
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:56:19 Z

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

TCE 011350063-04, PDC Light Curves

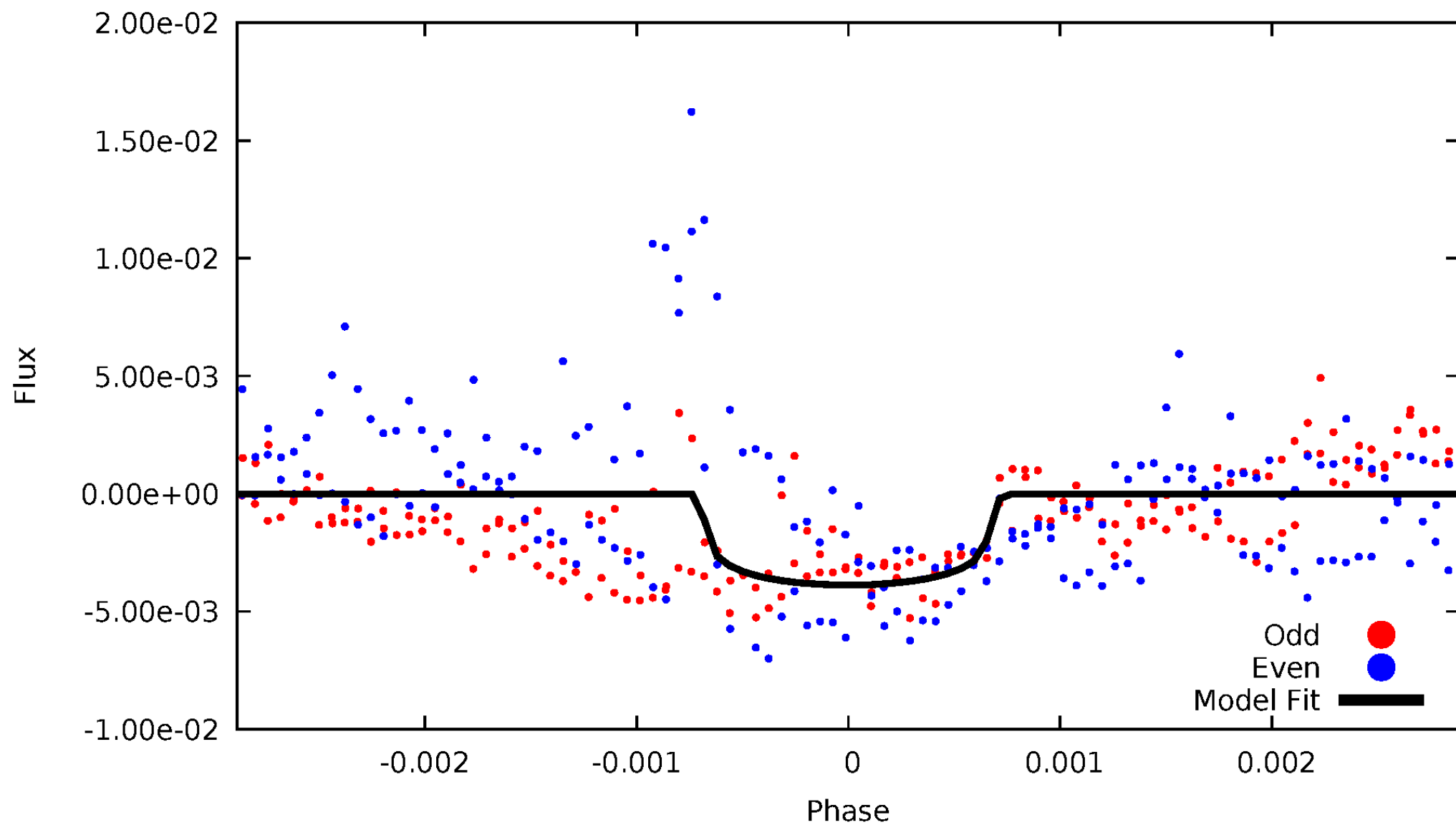


TCE 011350063-04



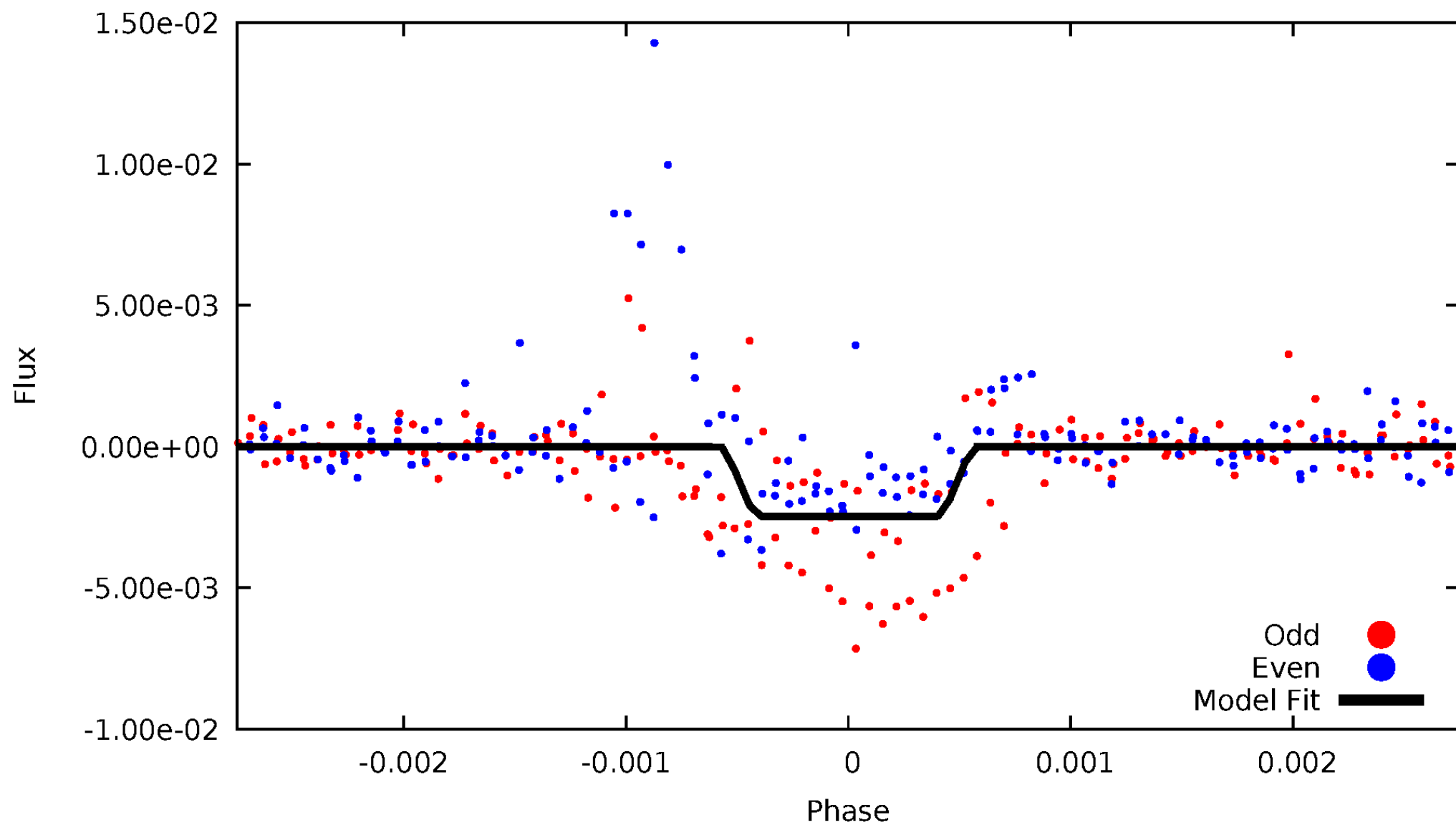
DV Odd/Even

TCE 011350063-04



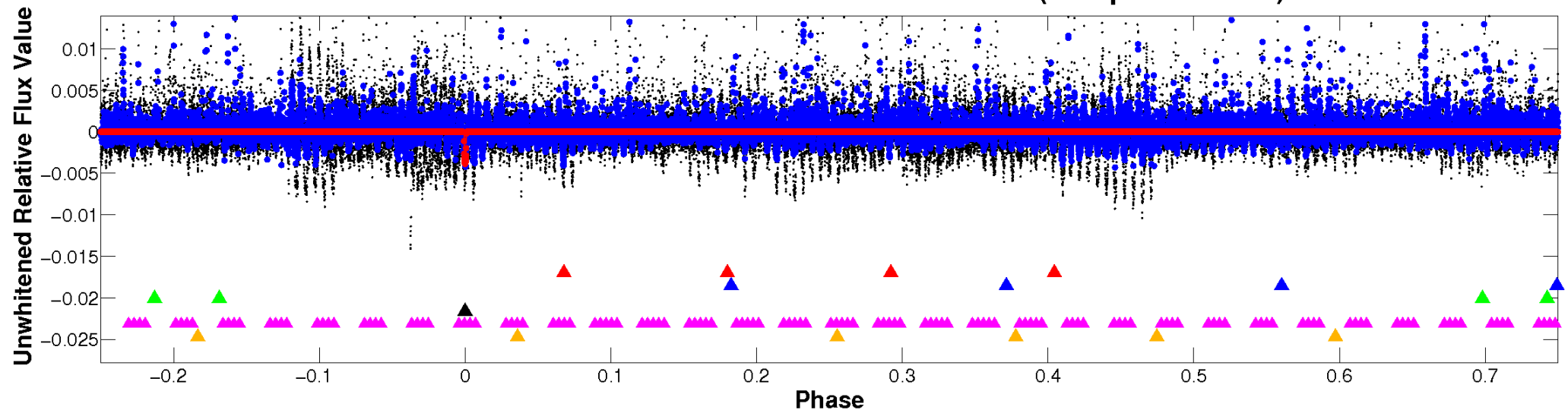
ALT Odd/Even

TCE 011350063-04

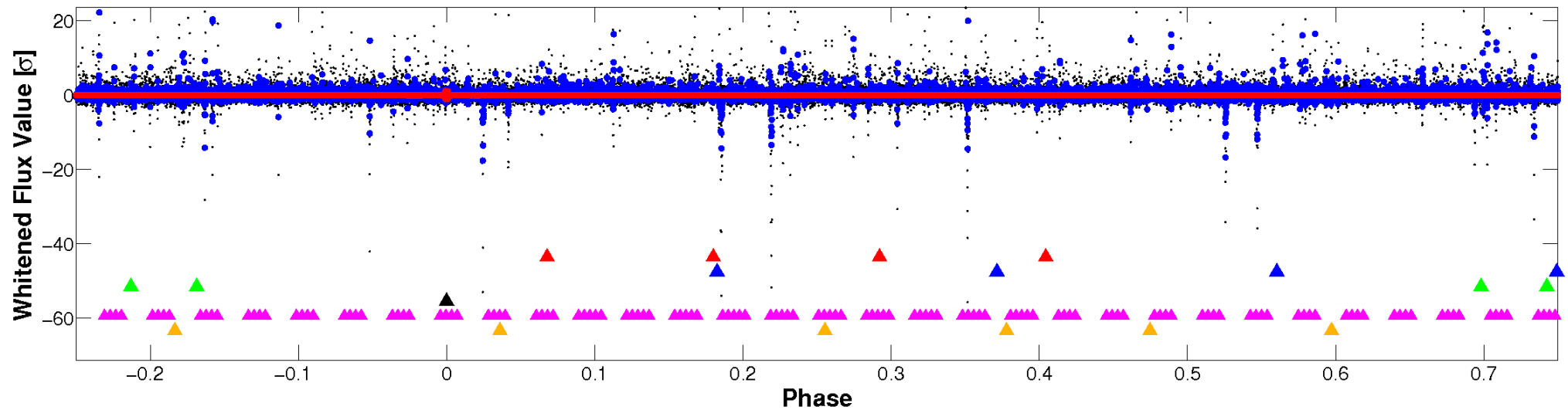


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

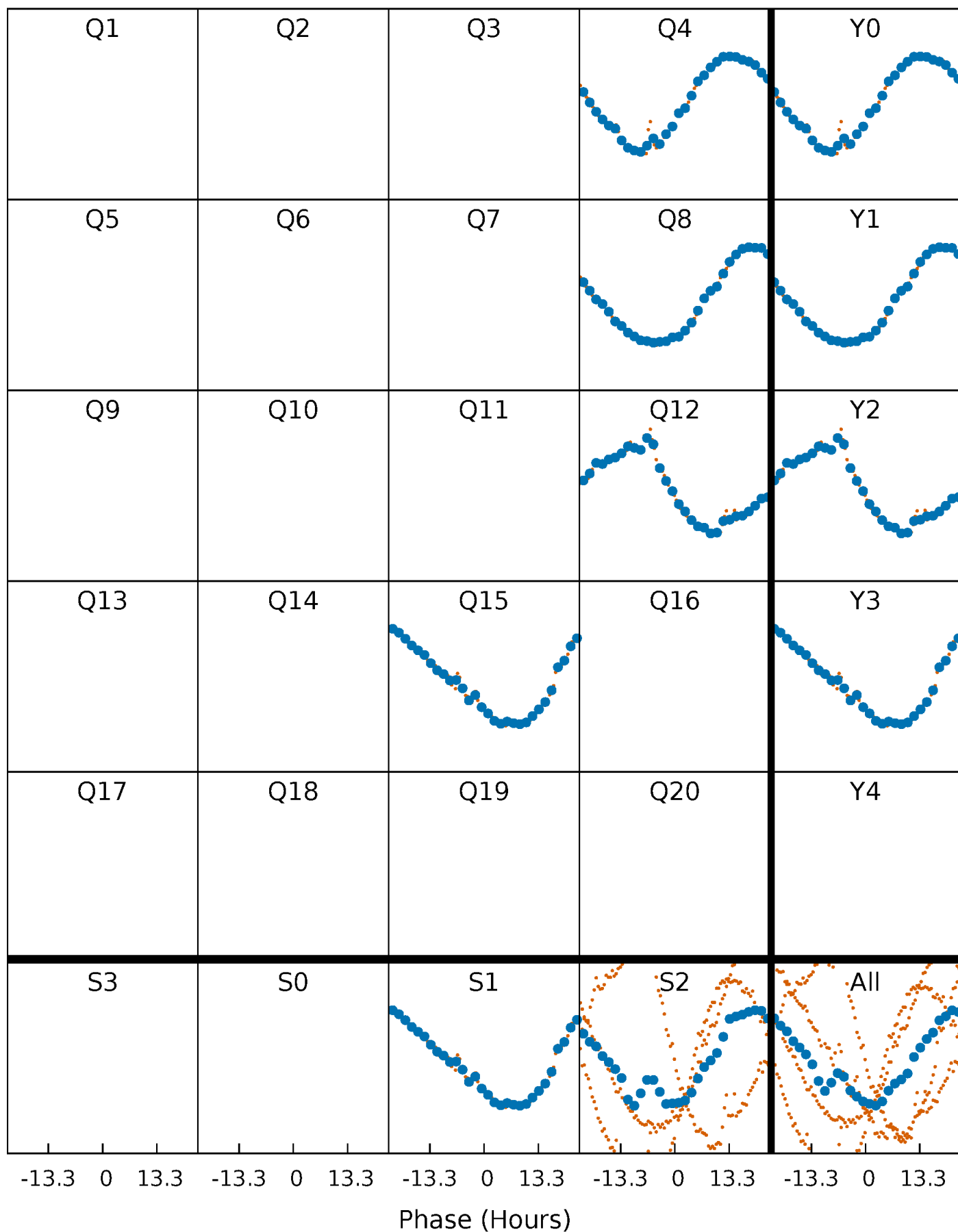


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



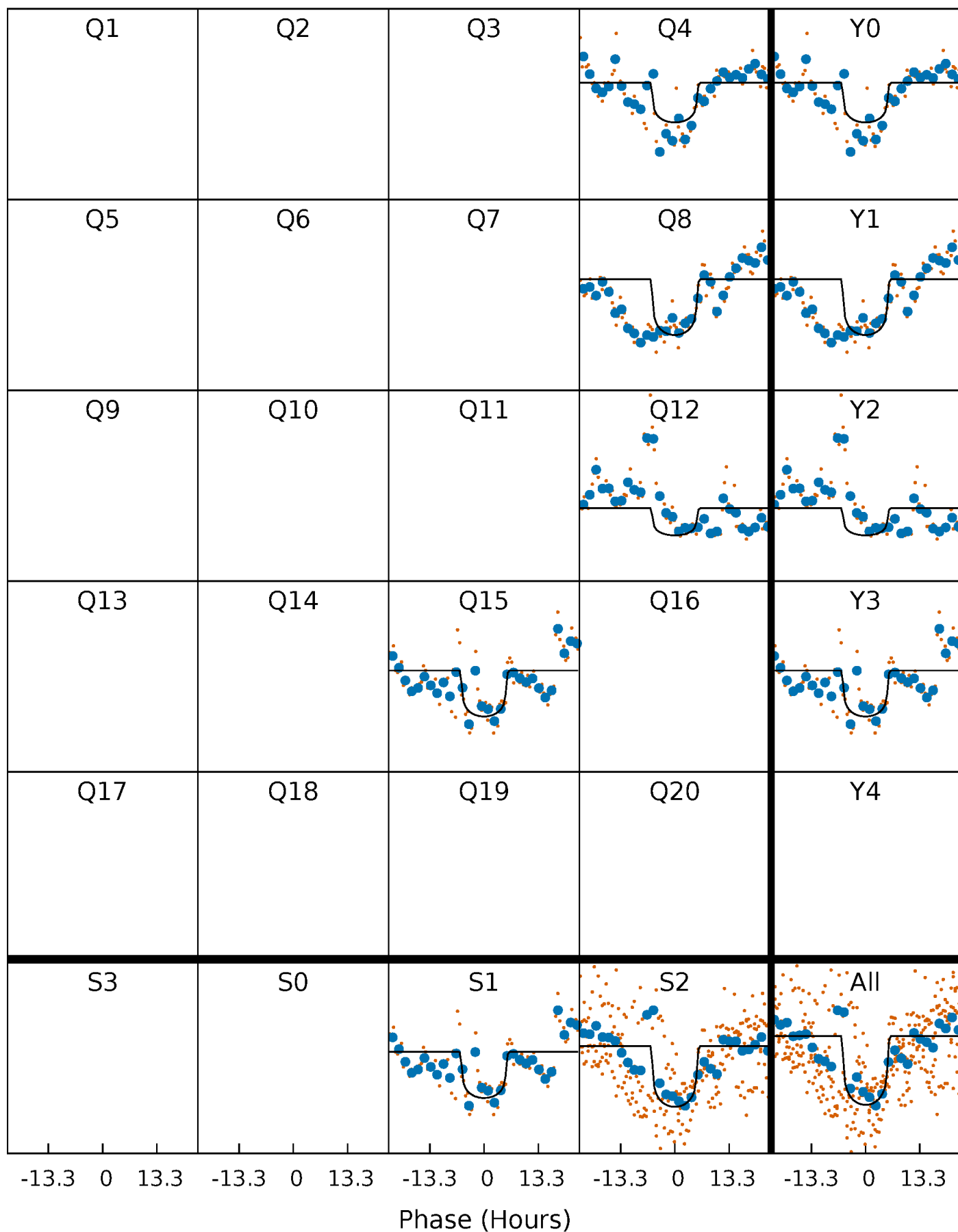
PDC Quarter-Phased Transit Curves

TCE 011350063-04 P=337.256783 Days $T_0=439.162503$ (BKJD)



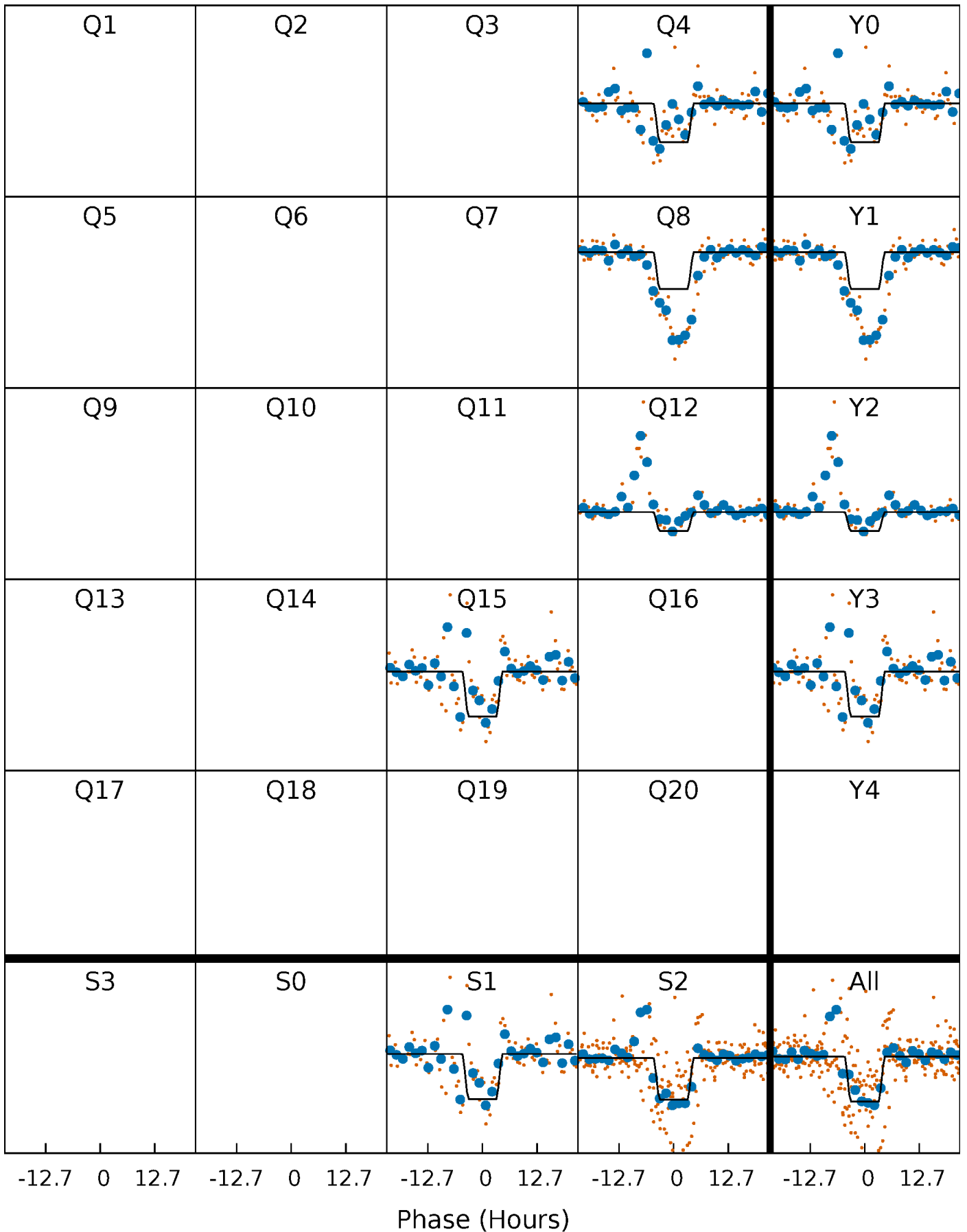
DV Quarter-Phased Transit Curves

TCE 011350063-04 $P=337.256783$ Days $T_0=439.162503$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

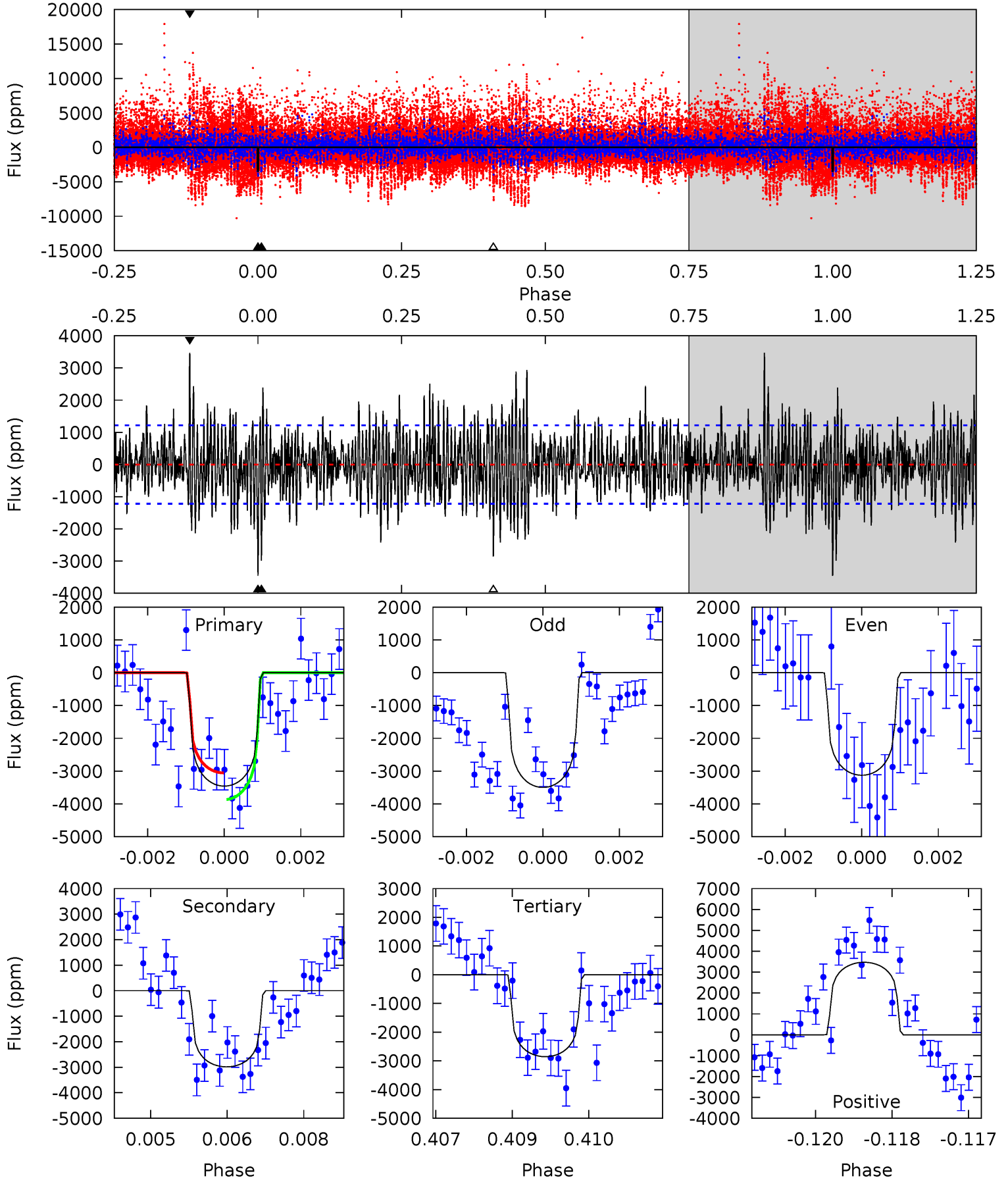
TCE 011350063-04 P=337.276341 Days $T_0=439.167575$ (BKJD)



DV Model-Shift Uniqueness Test

011350063-04, P = 337.256783 Days, E = 101.905720 Days

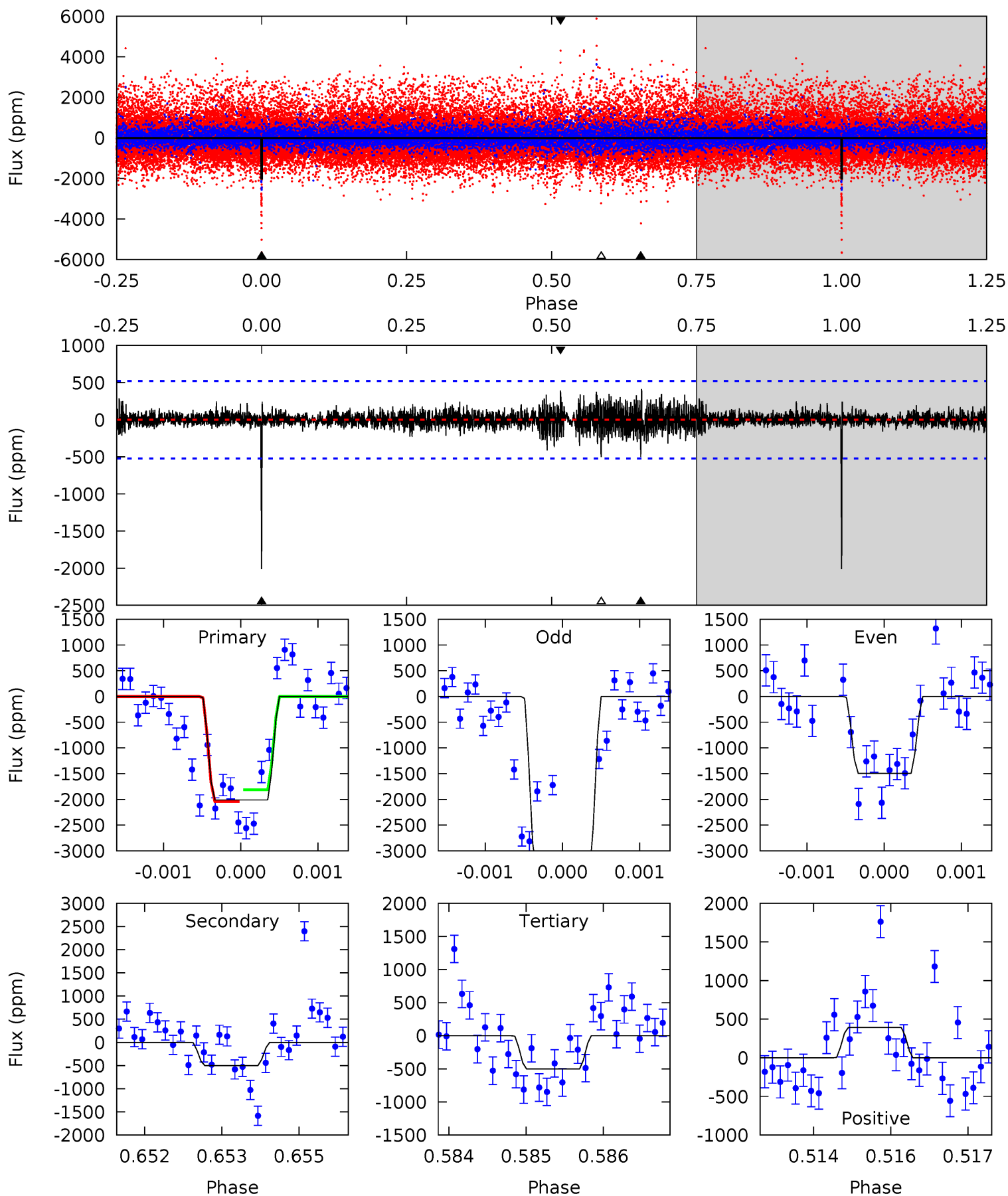
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	13.2	12.6	15.3	5.38	3.17	3.58	2.67	-0.06	0.57	-2.15	0.63	0.95	0.50	1.80



Alt Model-Shift Uniqueness Test

011350063-04, P = 337.276341 Days, E = 101.891234 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	5.22	5.22	4.07	5.43	3.25	0.91	15.7	16.8	0.00	1.15	10.5	1.63	0.17	1.18



Stellar Parameters For KIC 011350063

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3418^{+40}_{-44}	$5.035^{+0.035}_{-0.042}$	$-0.300^{+0.100}_{-0.100}$	$0.250^{+0.030}_{-0.027}$	$0.248^{+0.034}_{-0.037}$	$22.350^{+4.344}_{-4.368}$
	+1%/-1%	+1%/-1%	+33%/-33%	+12%/-11%	+14%/-15%	+19%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011350063-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2984 ± 226	$1.56^{+0.25}_{-0.25}$	137^{+3}_{-3}	3374^{+180}_{-149}	239232^{+91206}_{-58847}
Alt.	-503 ± 96	$1.37^{+0.25}_{-0.24}$	137^{+3}_{-3}	2714^{+149}_{-133}	51352^{+27521}_{-16122}

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 $A_{obs} \gg 1.0$

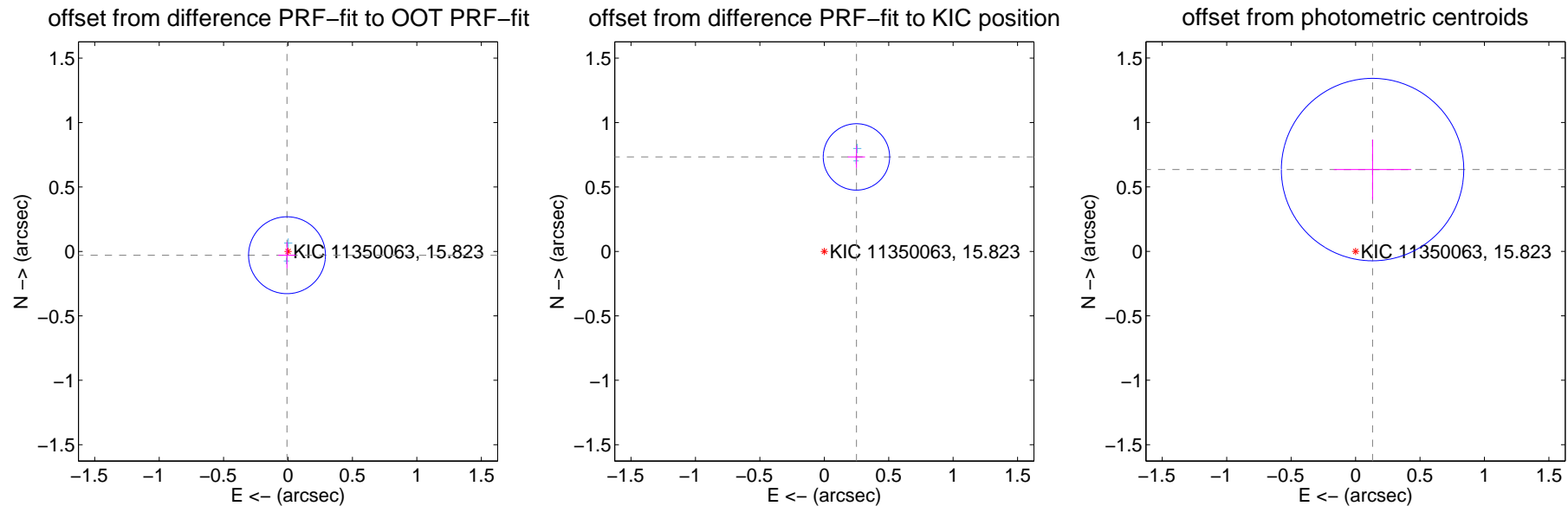
DV Centroid Data

Supplemental centroid analysis for 011350063-04. Kepler magnitude: 15.82. Transit SNR 7.86

There are 2 quarters with good PRF difference image offsets

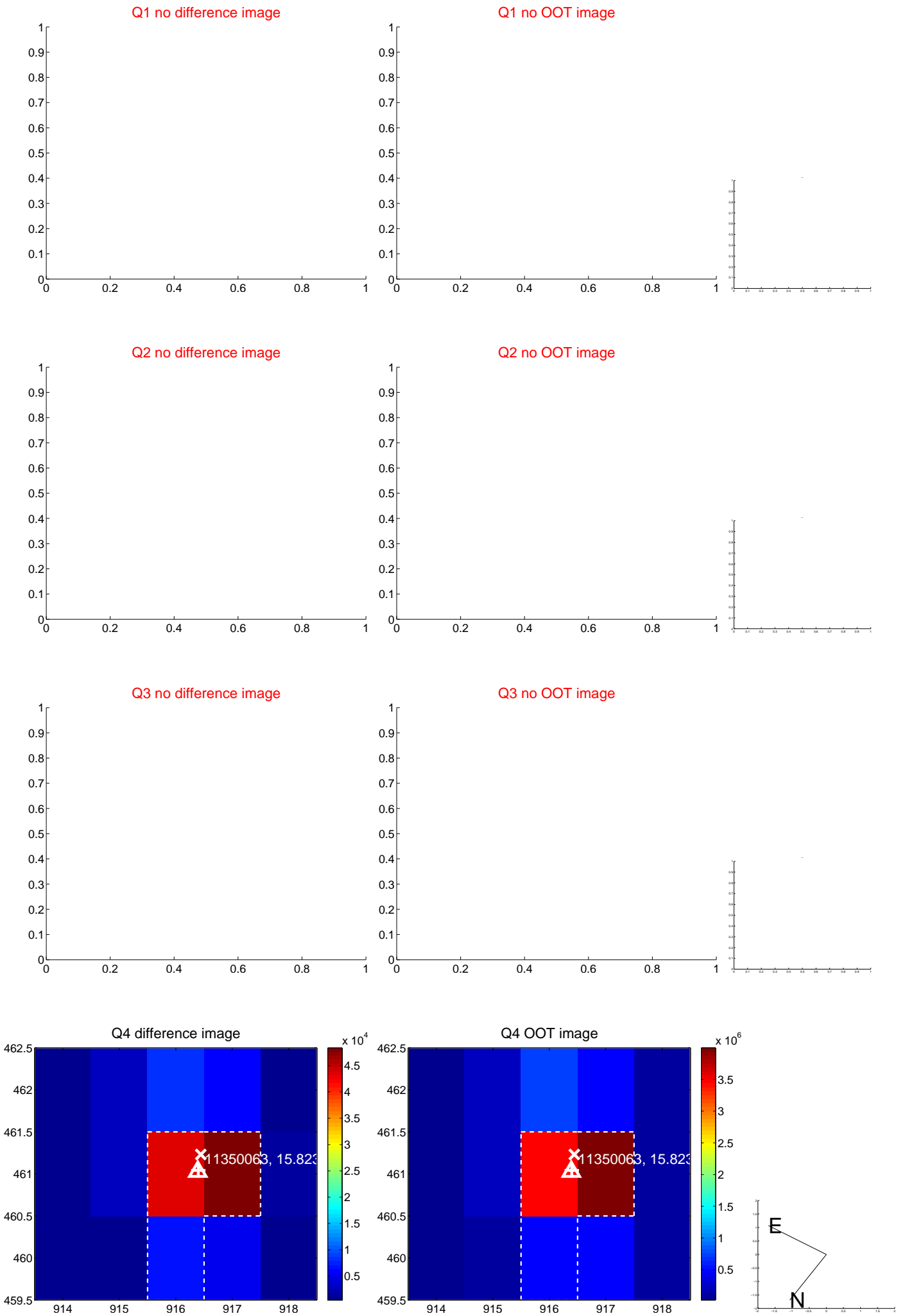
The direct PRF centroid is offset from the target star catalog position by about 0.82 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.031 ± 0.099	0.31	0.008 ± 0.067	-0.030 ± 0.101
PRF-fit source offset from KIC position	0.775 ± 0.086	9.02	-0.249 ± 0.067	0.733 ± 0.087
photometric centroid source offset	0.65 ± 0.24	2.75	-0.13 ± 0.30	0.63 ± 0.23

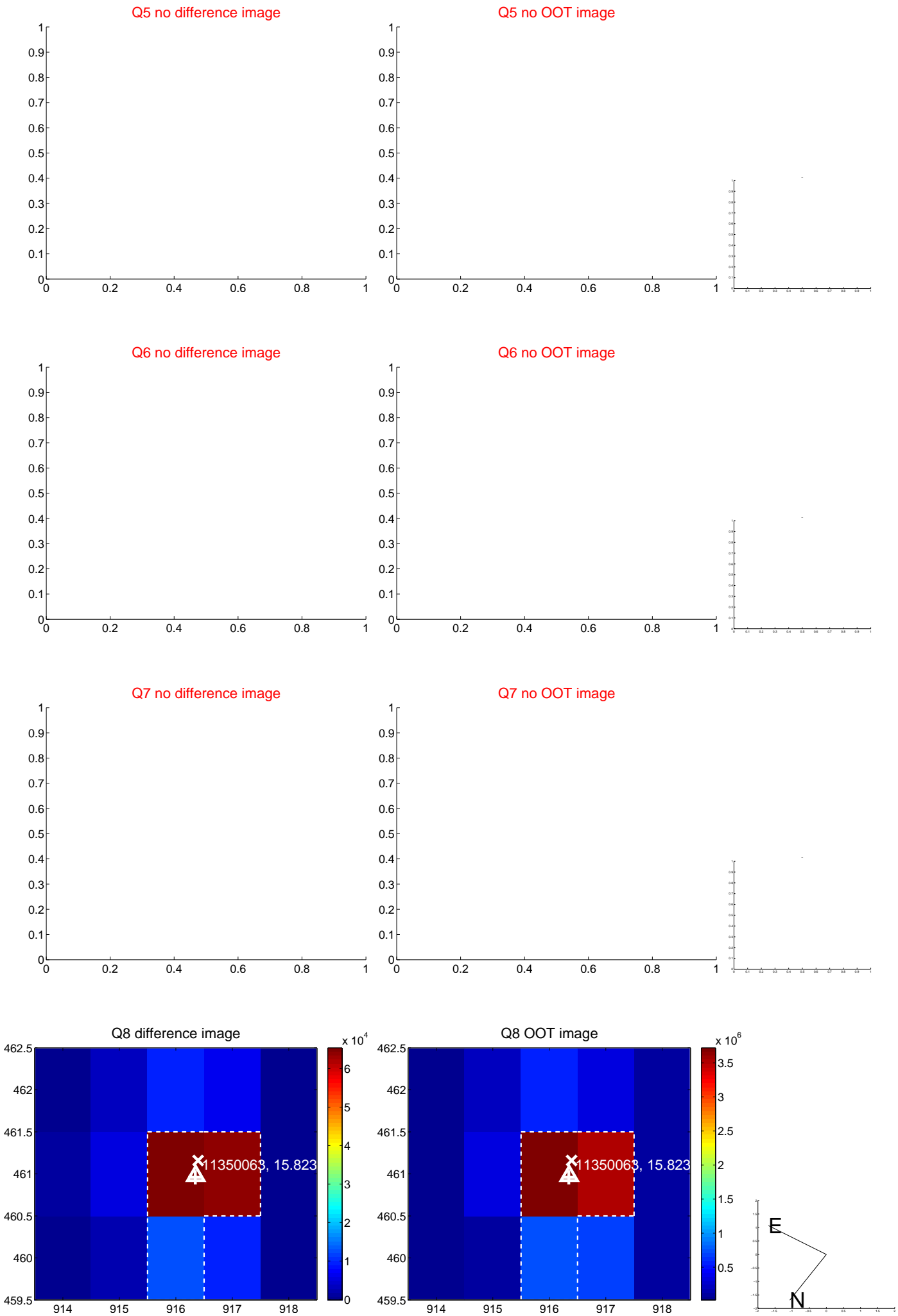


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



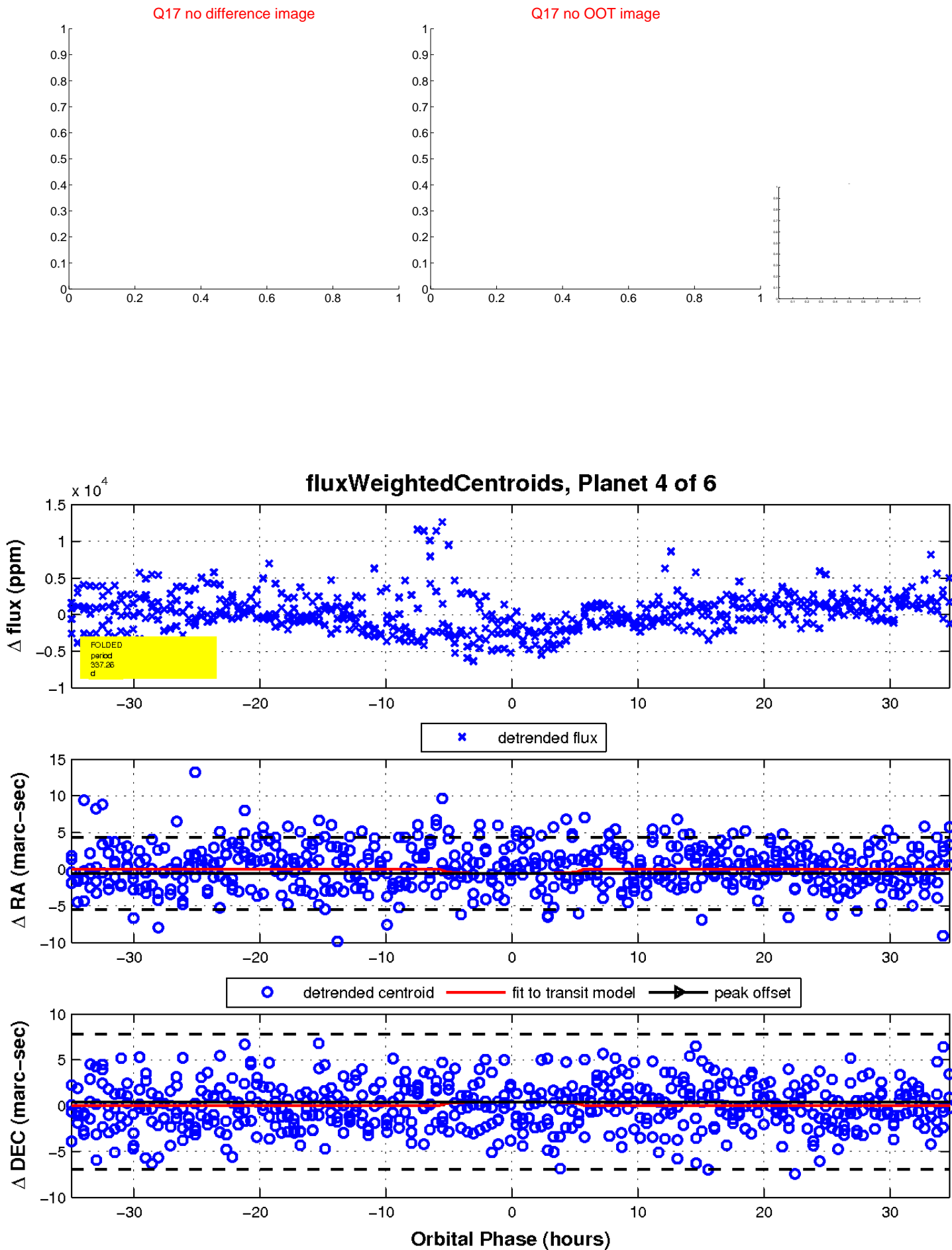
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

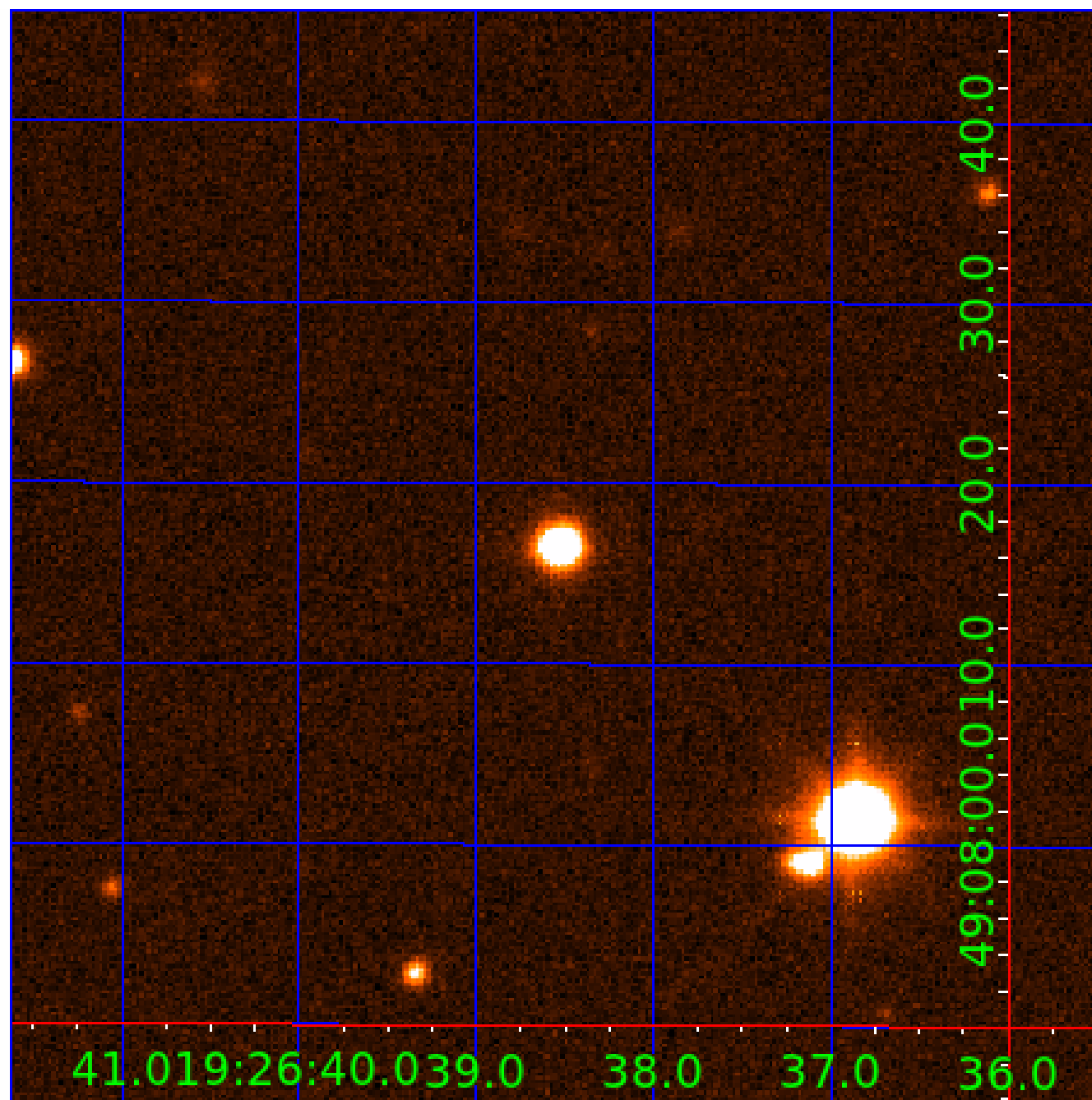


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011350063

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})
011350063-01	OBS	No	375.091761	462.032396	2475.8	6.390	14.5	6.4	0.25	3418	1.25	0.02
011350063-02	OBS	No	400.961338	163.472321	3006.5	3.679	13.3	7.1	0.25	3418	1.40	0.02
011350063-03	OBS	No	322.281596	382.280994	2574.3	3.762	11.0	6.2	0.25	3418	1.29	0.02
011350063-04	OBS	No	337.256783	439.162503	3879.7	11.675	10.7	7.9	0.25	3418	1.55	0.02
011350063-05	OBS	No	10.920502	131.958784	267.8	4.638	8.3	3.6	0.25	3418	0.41	2.09
011350063-06	OBS	No	263.273996	262.007058	2540.4	3.000	11.8	-1.0	0.25	3418	1.25	0.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011350063-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011350063-04	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-05	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_KIC_POS
011350063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

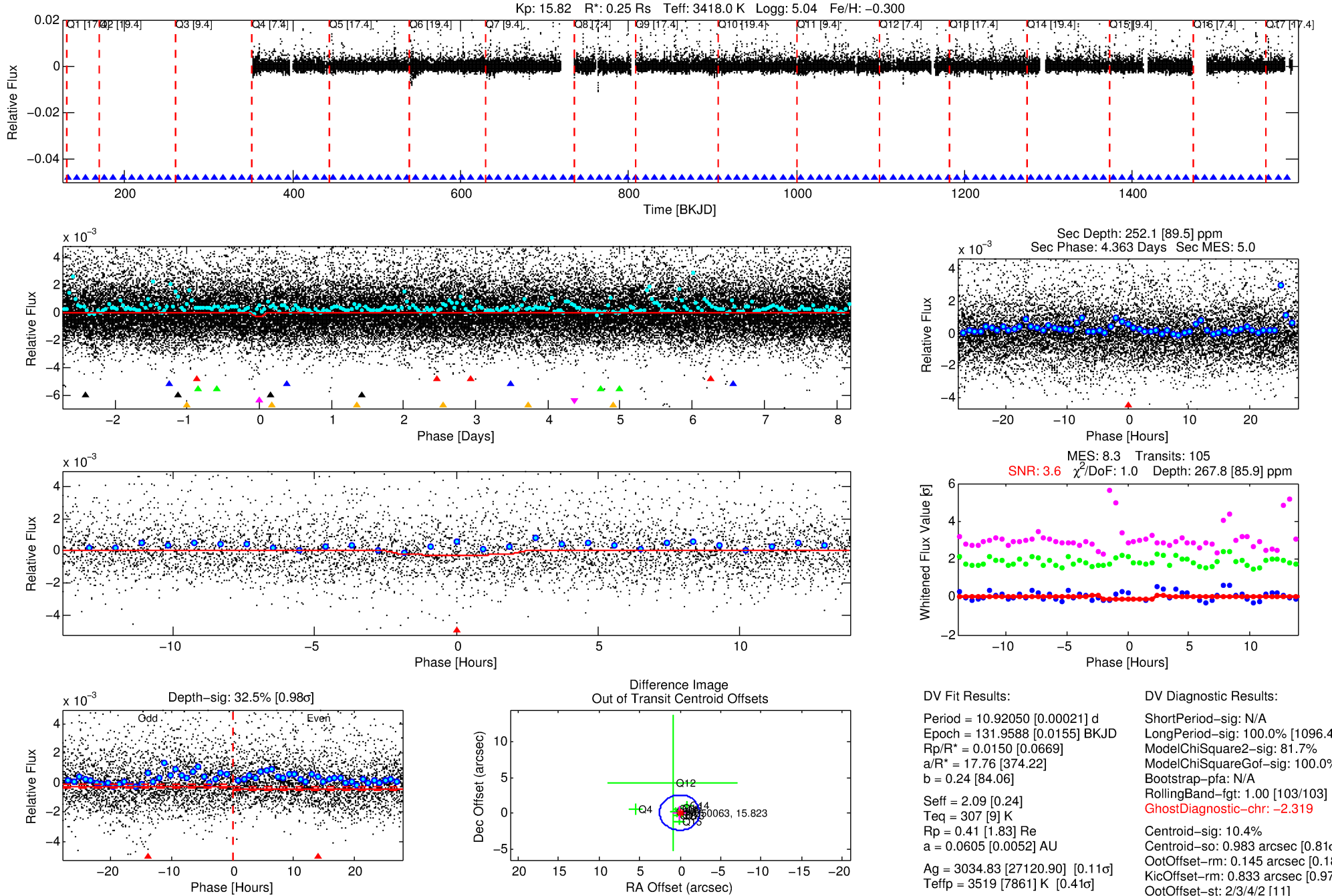
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011350063-05

No Significant Match Found

DV One-Page Summary

KIC: 11350063 Candidate: 5 of 6 Period: 10.921 d



DV Fit Results:

Period = 10.92050 [0.00021] d
Epoch = 131.9588 [0.0155] BKJD
Rp/R* = 0.0150 [0.0669]
a/R* = 17.76 [374.22]
b = 0.24 [84.06]
Seff = 2.09 [0.24]
Teq = 307 [9] K
Rp = 0.41 [1.83] Re
a = 0.0605 [0.0052] AU
Ag = 3034.83 [27120.90] [0.11σ]
Teffp = 3519 [7861] K [0.41σ]

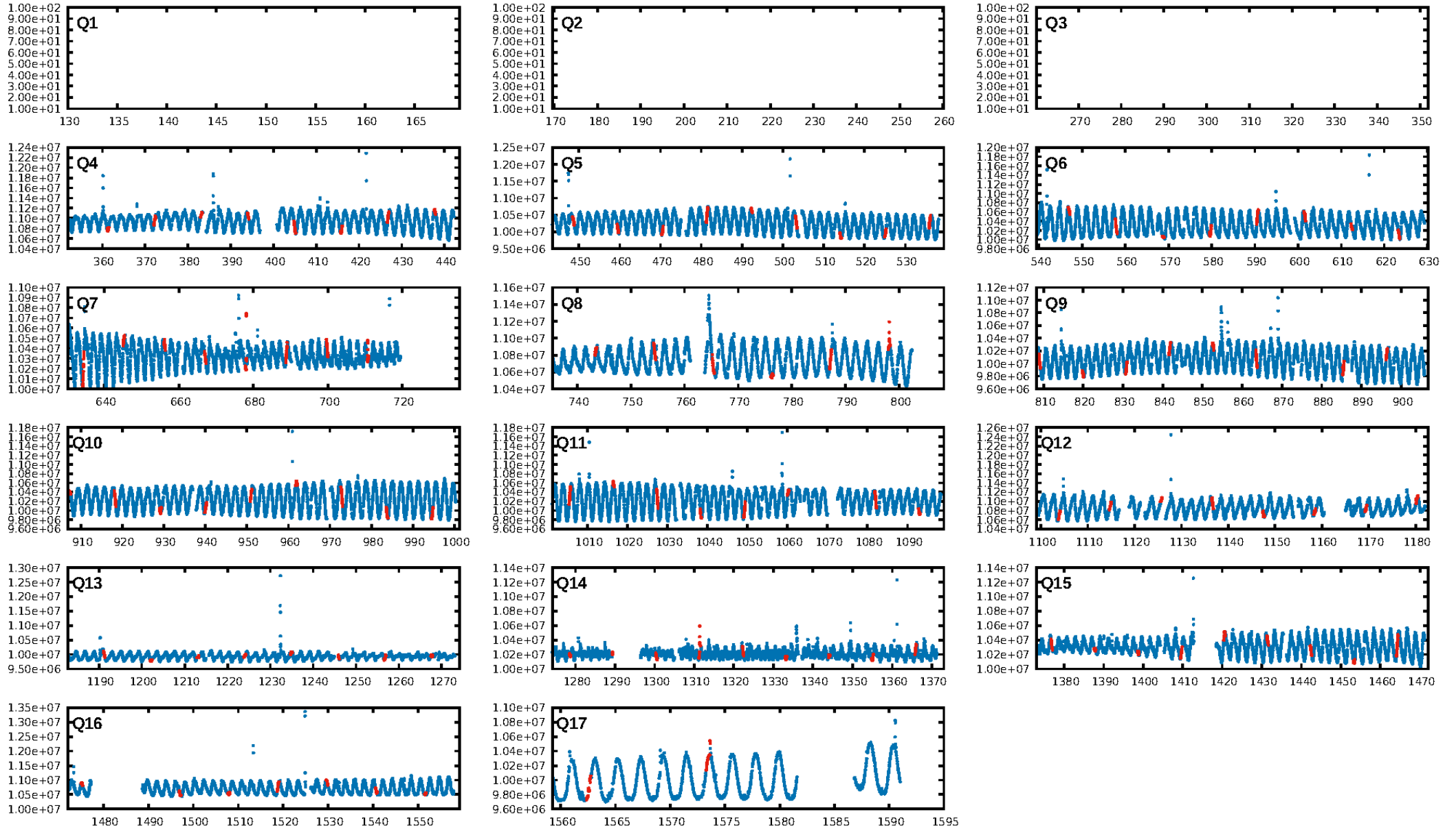
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [1096.48σ]
ModelChiSquare2-sig: 81.7%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [103/103]
GhostDiagnostic-chr: -2.319
Centroid-sig: 10.4%
Centroid-so: 0.983 arcsec [0.81σ]
OotOffset-rm: 0.145 arcsec [0.18σ]
KicOffset-rm: 0.833 arcsec [0.97σ]
OotOffset-st: 2/3/4/2 [11]
KicOffset-st: 2/3/4/2 [11]
DiffImageQuality-fgm: 0.45 [5/11]
DiffImageOverlap-fno: 1.00 [14/14]

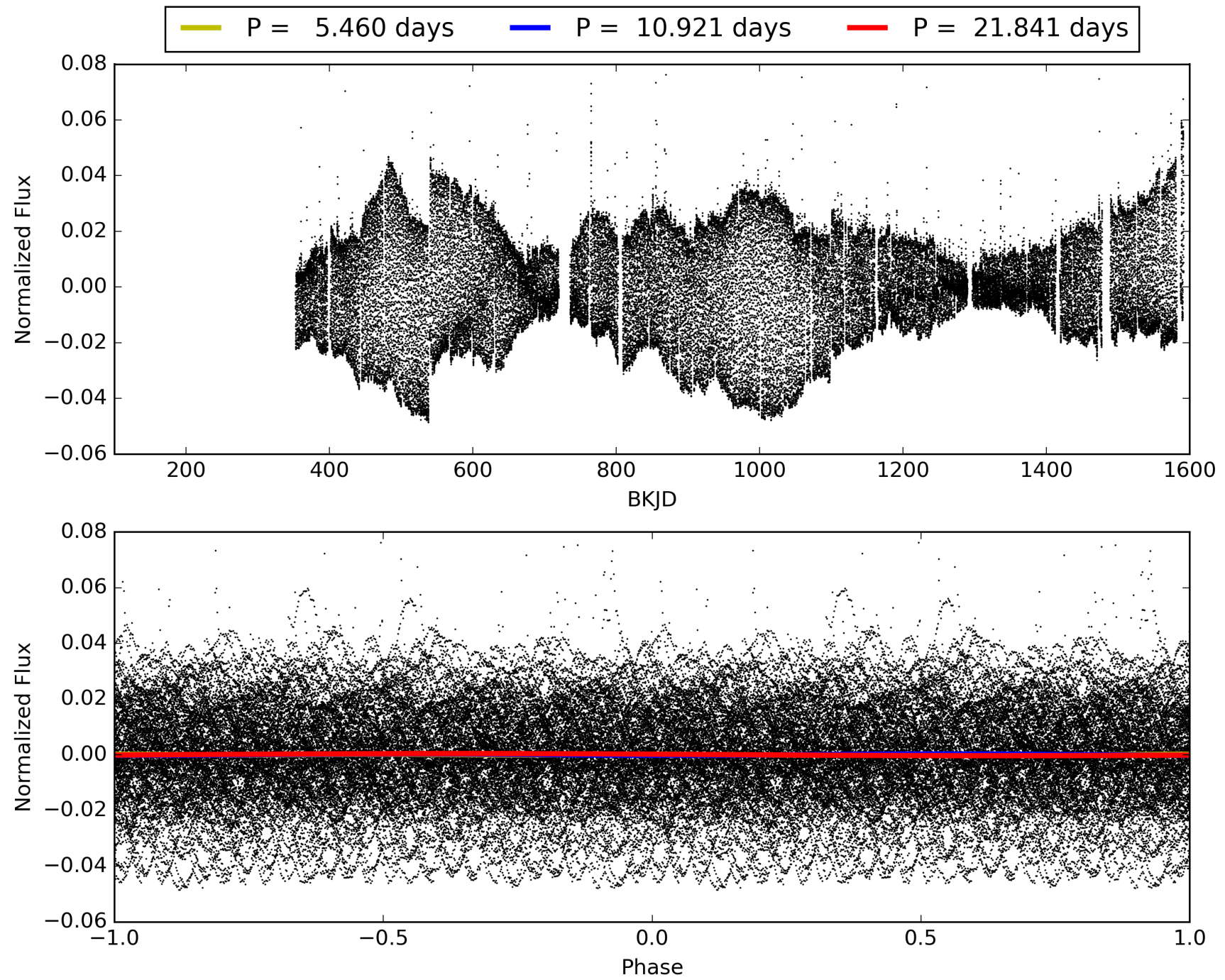
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:56:24 Z

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

TCE 011350063-05, PDC Light Curves

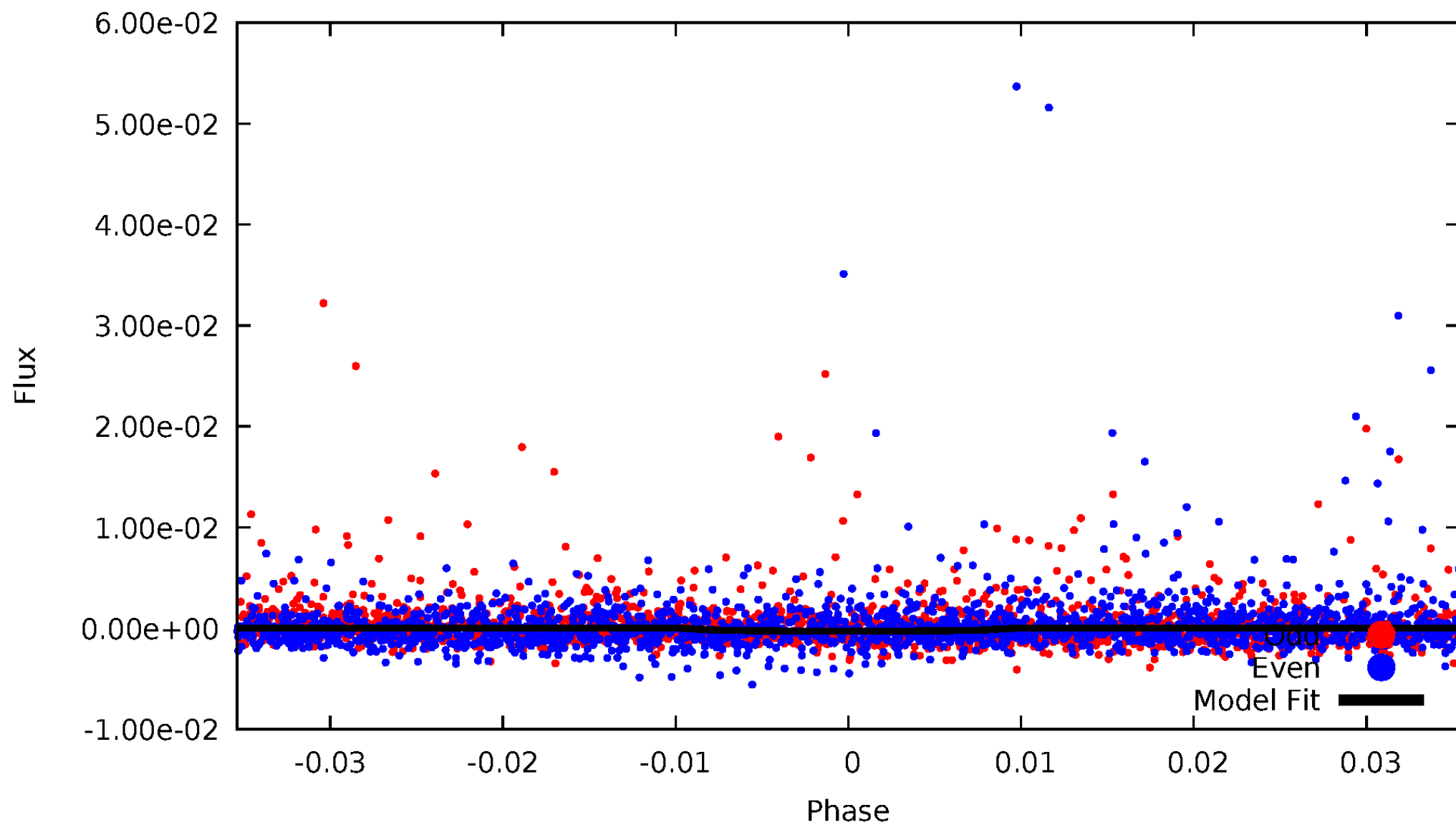


TCE 011350063-05



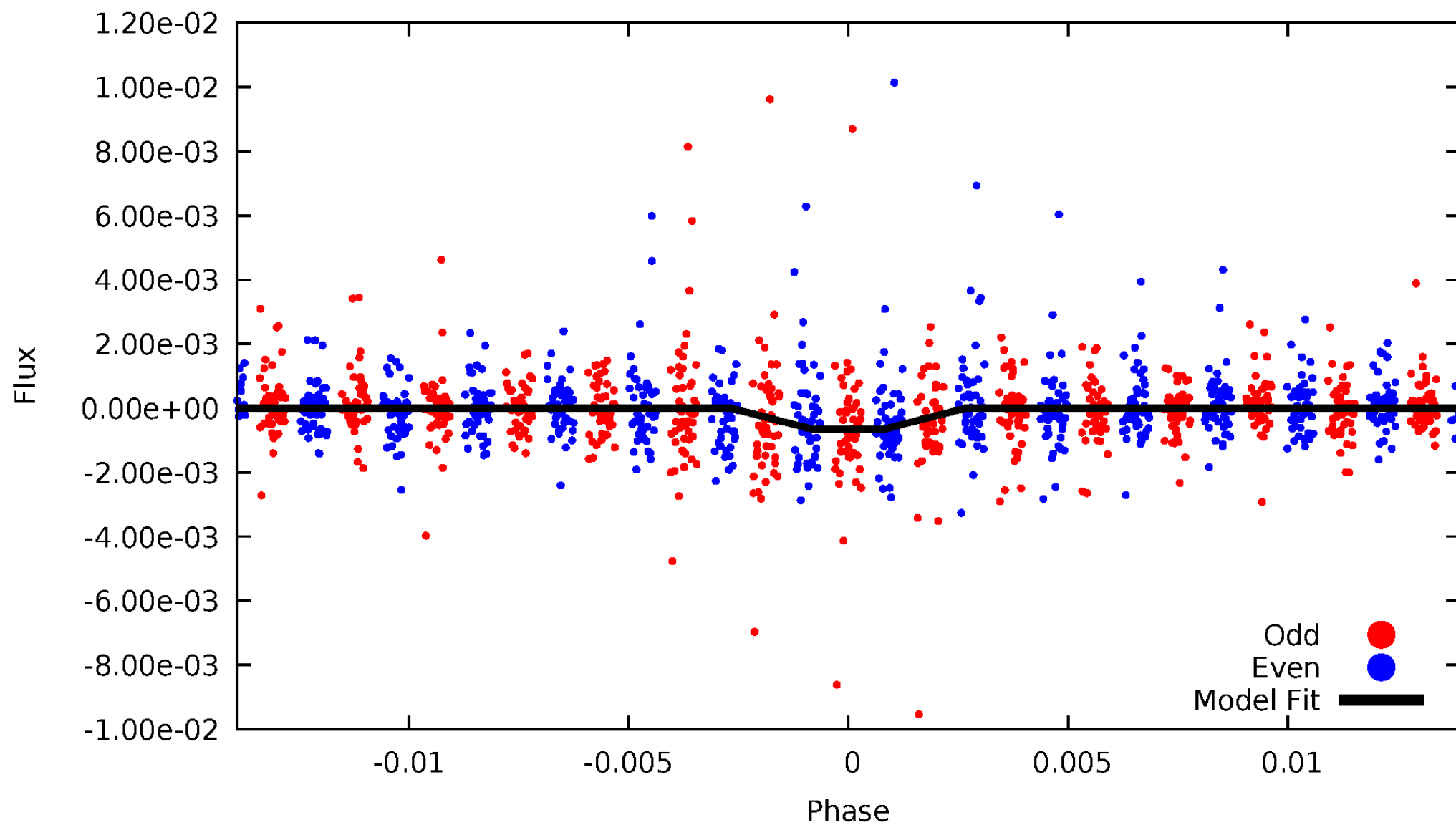
DV Odd/Even

TCE 011350063-05



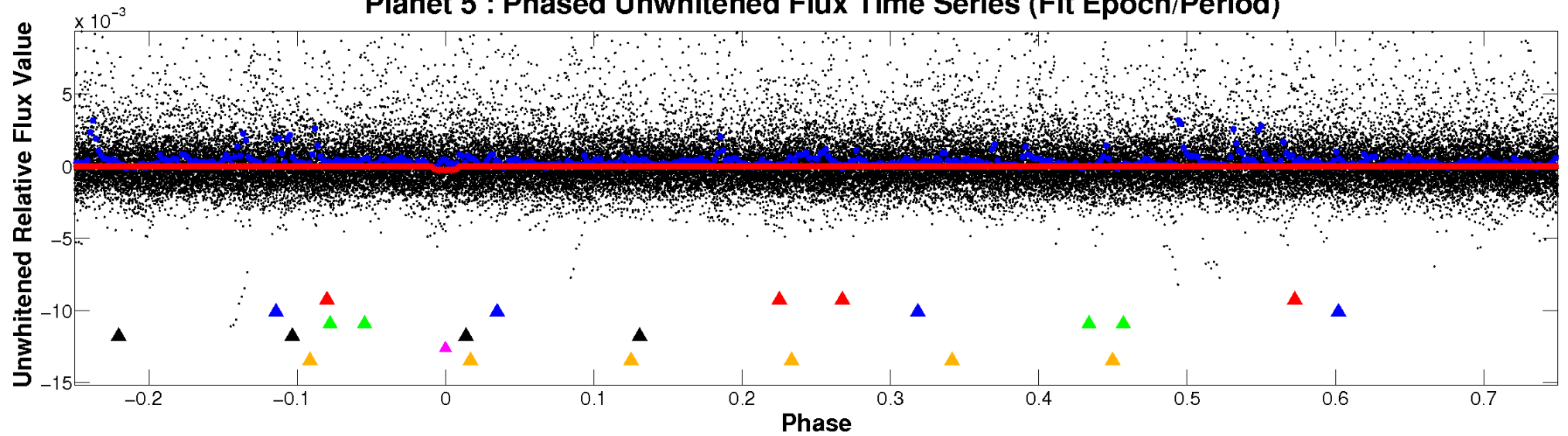
ALT Odd/Even

TCE 011350063-05

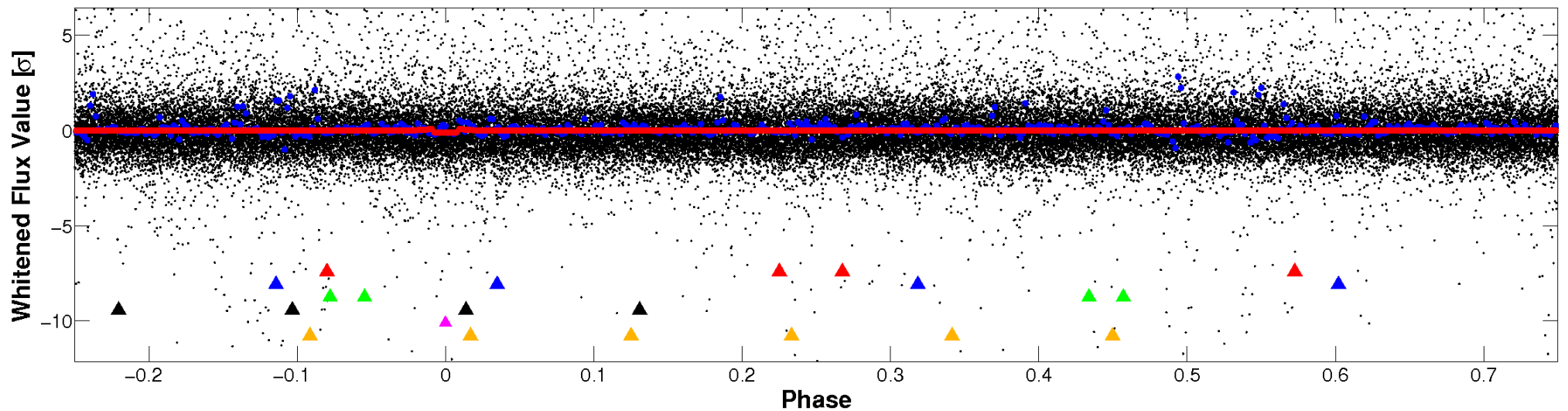


Non-Whitened Vs. Whitened Light Curve

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

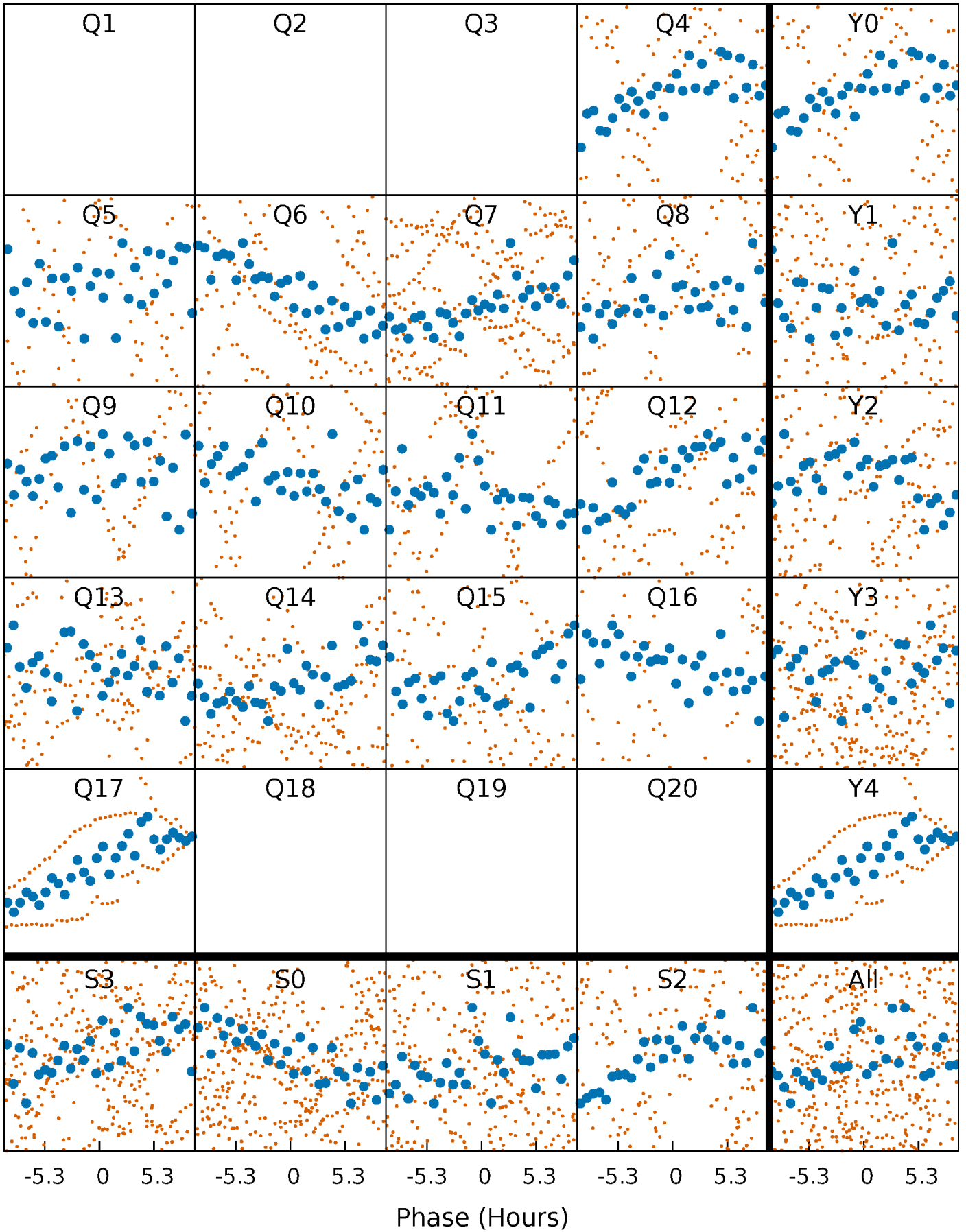


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



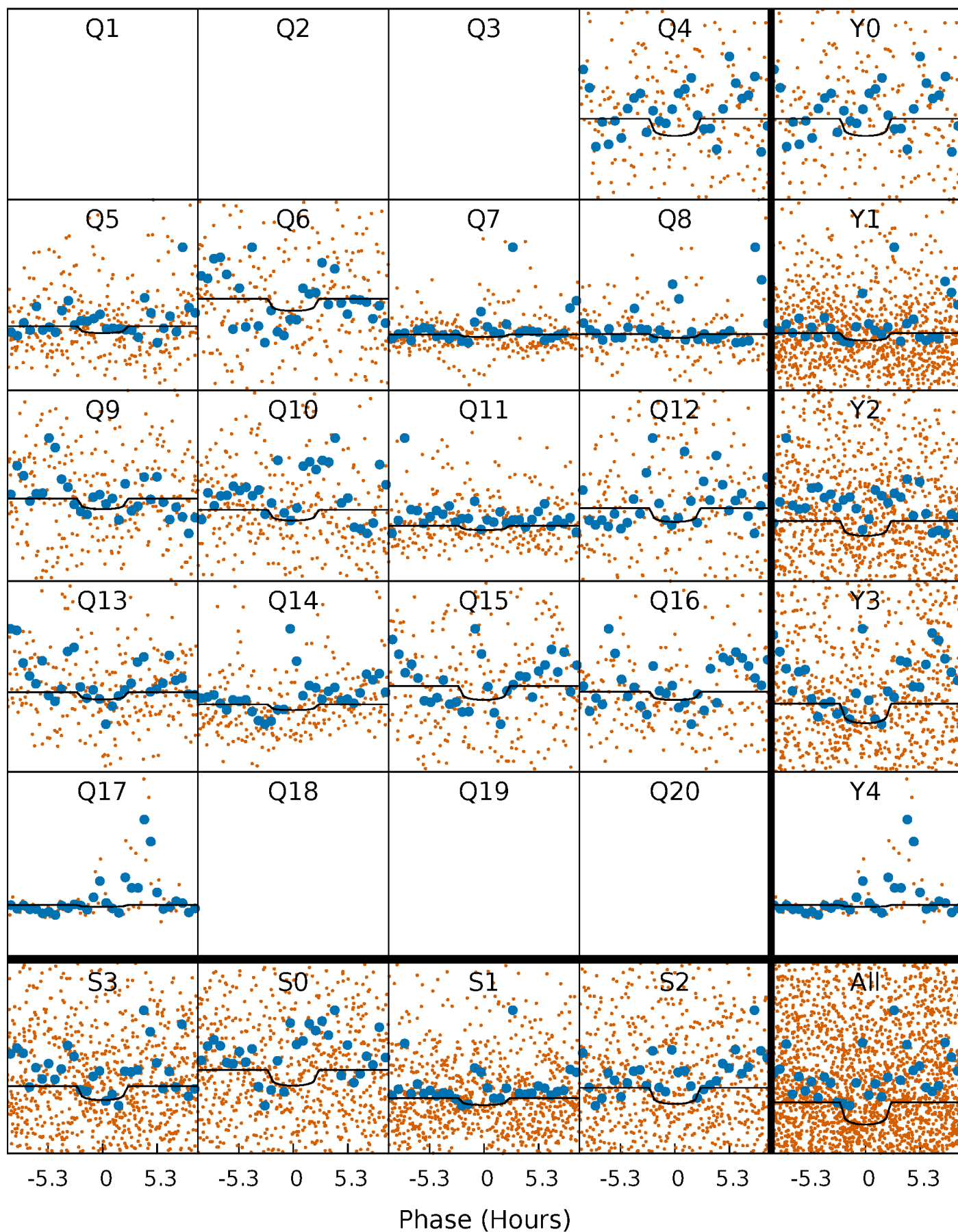
PDC Quarter-Phased Transit Curves

TCE 011350063-05 P= 10.920502 Days $T_0=131.958784$ (BKJD)



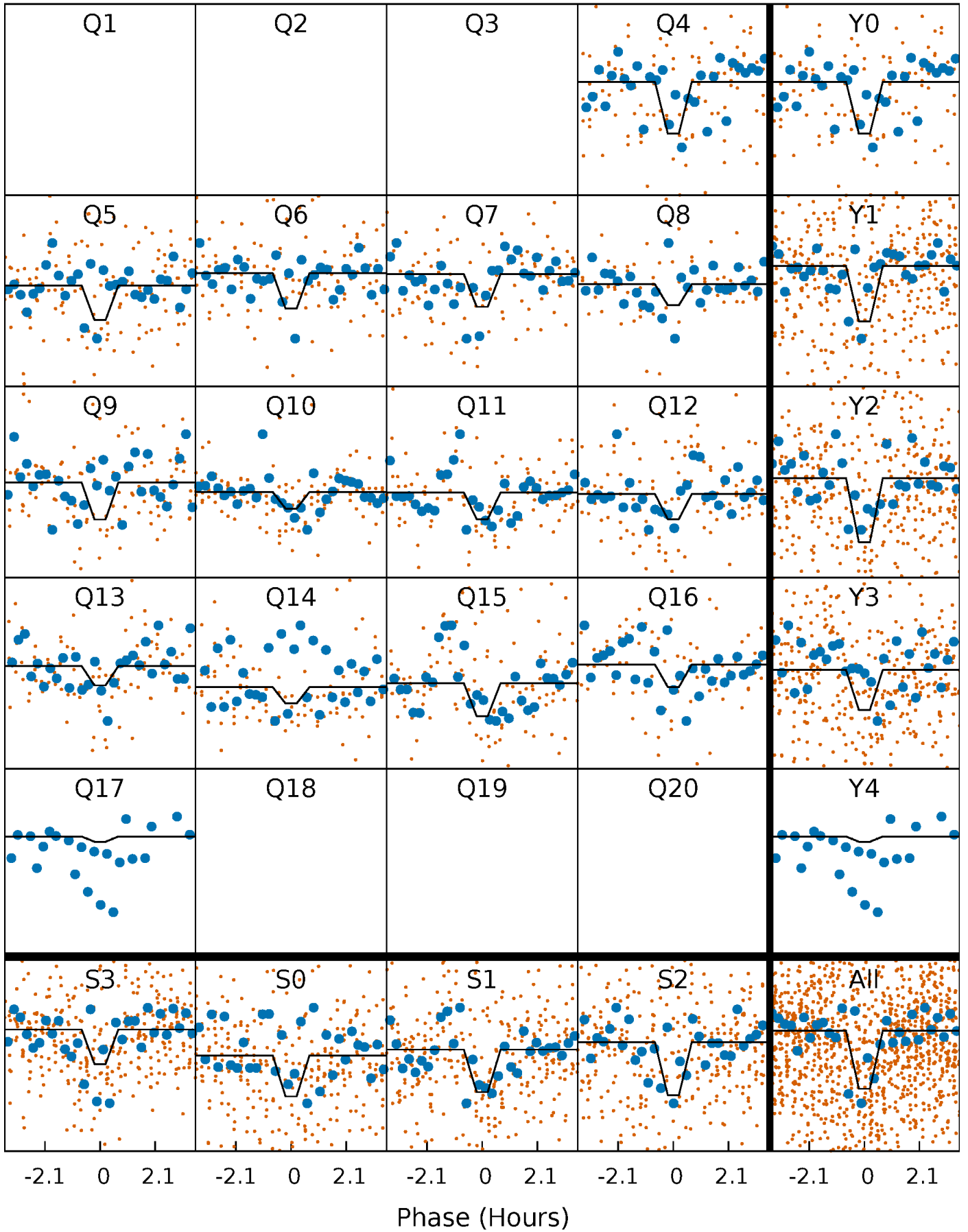
DV Quarter-Phased Transit Curves

TCE 011350063-05 P= 10.920502 Days $T_0=131.958784$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

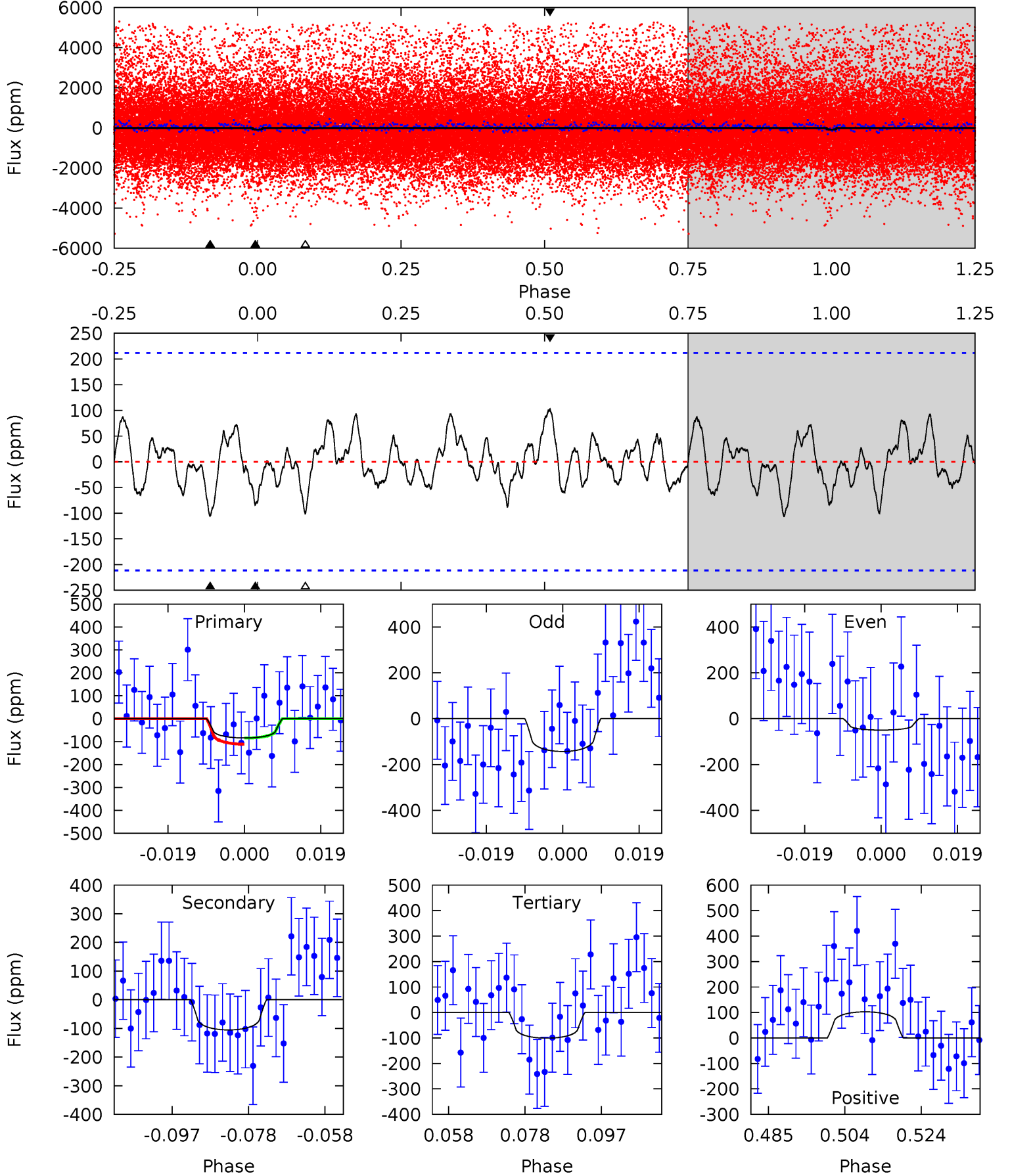
TCE 011350063-05 $P = 10.921786$ Days $T_0 = 131.846603$ (BKJD)



DV Model-Shift Uniqueness Test

011350063-05, P = 10.920502 Days, E = 131.958784 Days

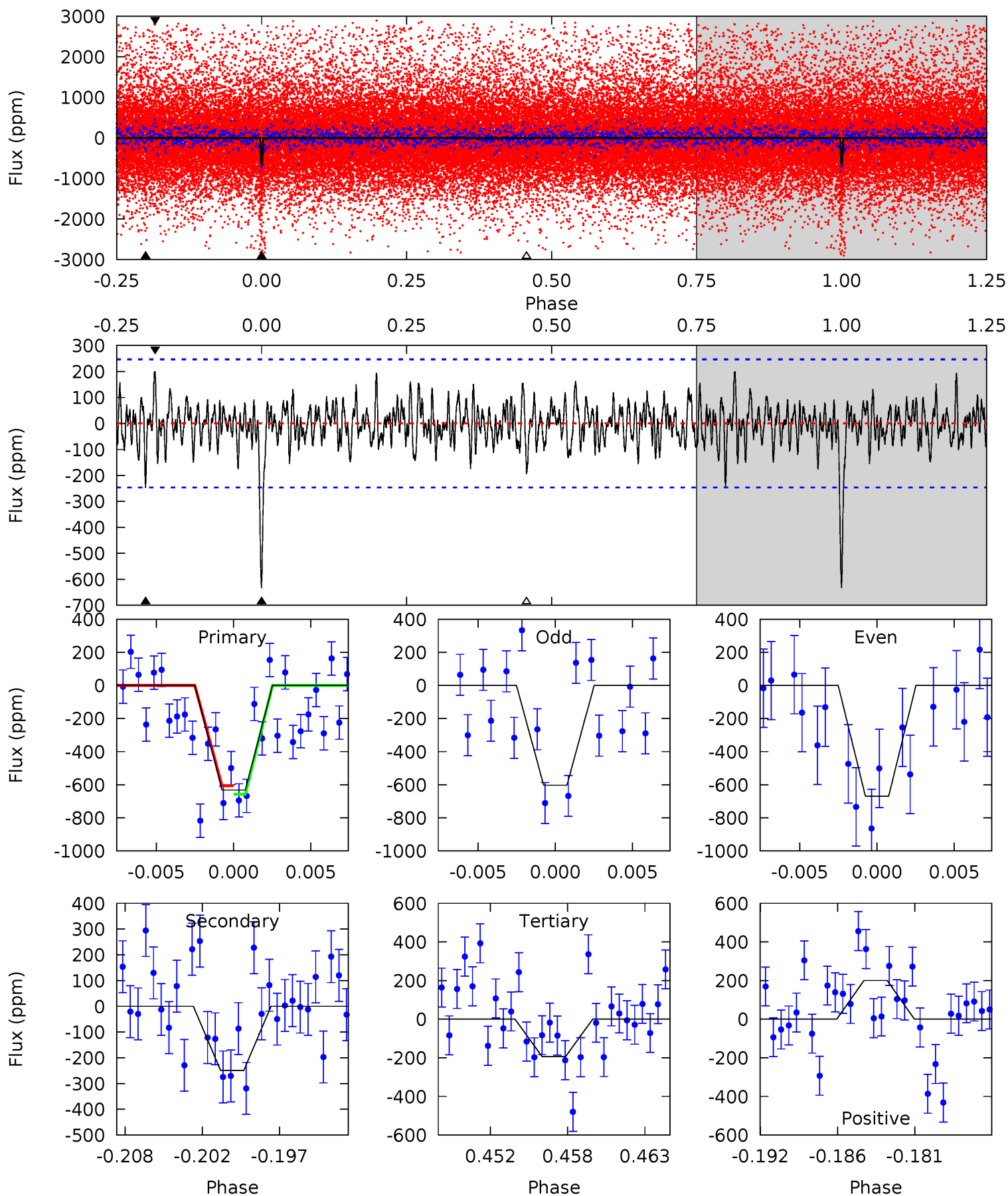
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.95	2.44	2.33	2.38	4.90	2.34	0.91	-0.39	-0.43	0.10	0.06	1.09	-1.49	0.49	0.31



Alt Model-Shift Uniqueness Test

011350063-05, P = 10.921786 Days, E = 131.846603 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	5.20	4.06	4.18	5.15	2.79	1.31	9.16	9.03	1.13	1.01	0.69	0.92	0.24	0.55



Stellar Parameters For KIC 011350063

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3418^{+40}_{-44}	$5.035^{+0.035}_{-0.042}$	$-0.300^{+0.100}_{-0.100}$	$0.250^{+0.030}_{-0.027}$	$0.248^{+0.034}_{-0.037}$	$22.350^{+4.344}_{-4.368}$
	+1%/-1%	+1%/-1%	+33%/-33%	+12%/-11%	+14%/-15%	+19%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011350063-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-105 ± 43	$1.38^{+1.38}_{-0.98}$	429^{+9}_{-9}	2220^{+803}_{-324}	99^{+1121}_{-77}
Alt.	-249 ± 48	$1.55^{+1.50}_{-1.07}$	429^{+10}_{-9}	2422^{+880}_{-354}	207^{+1952}_{-155}

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

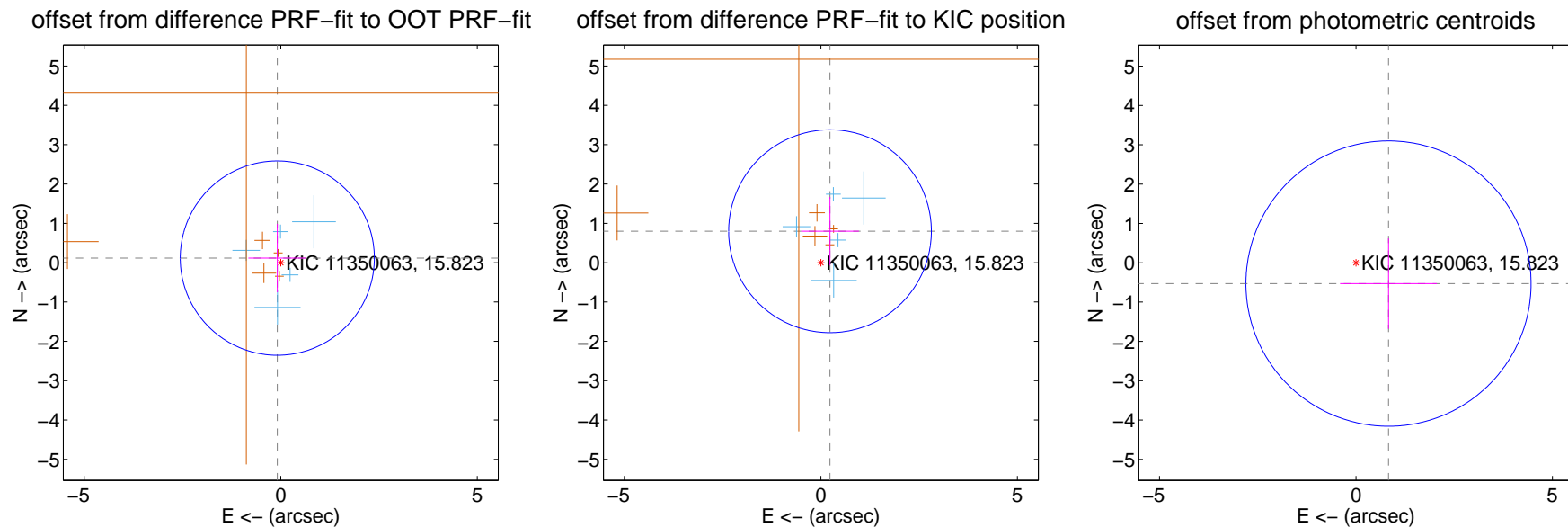
DV Centroid Data

Supplemental centroid analysis for 011350063-05. Kepler magnitude: 15.82. Transit SNR 3.58

There are 5 quarters with good PRF difference image offsets

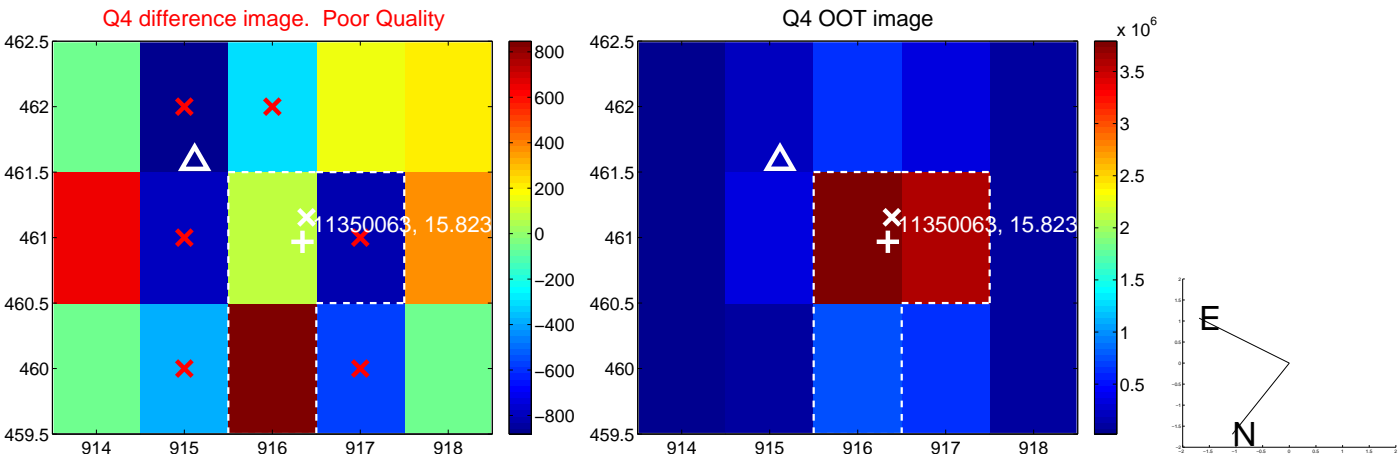
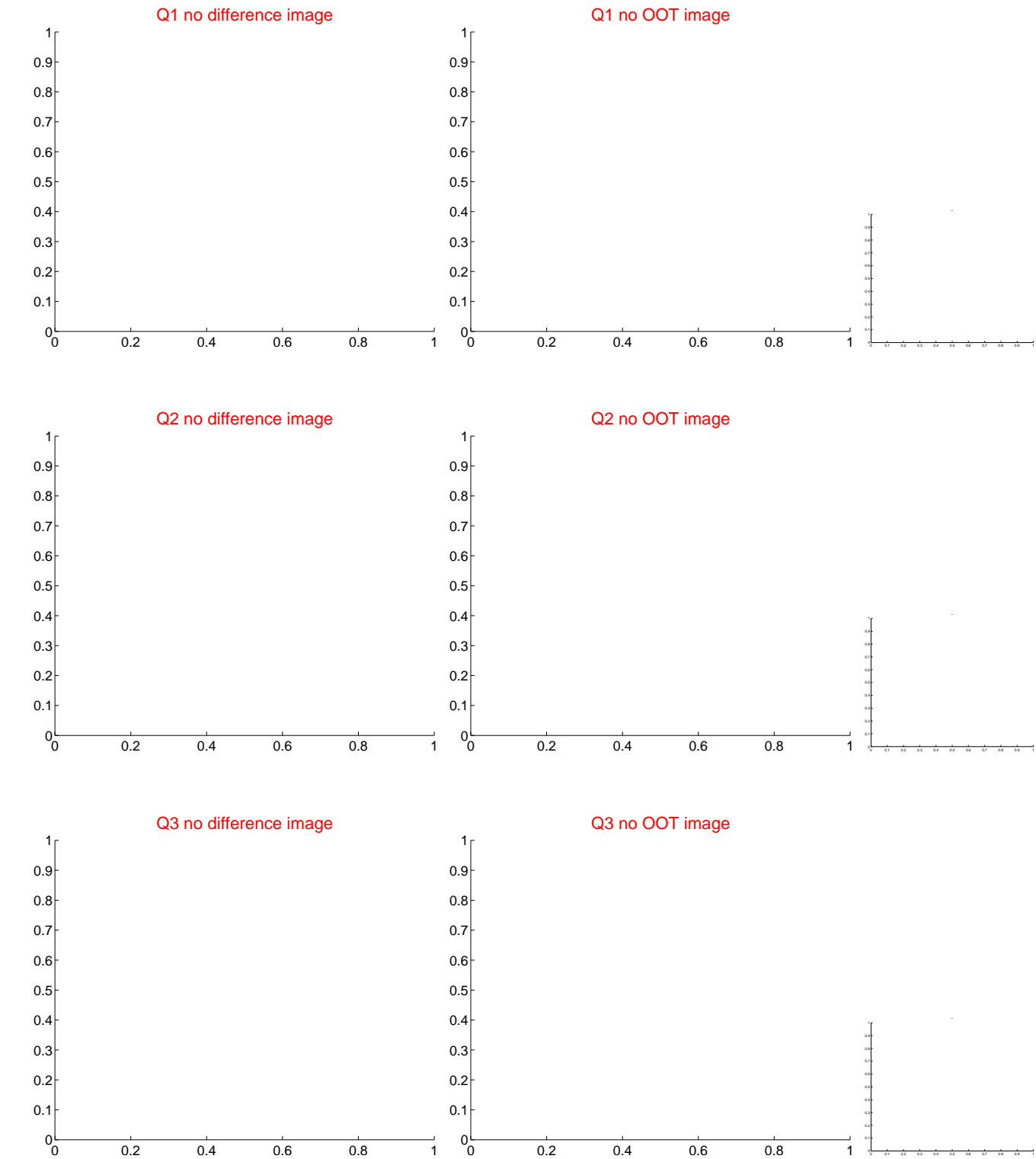
The direct PRF centroid is offset from the target star catalog position by about 0.98 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.145 ± 0.823	0.18	0.088 ± 0.735	0.116 ± 0.869
PRF-fit source offset from KIC position	0.833 ± 0.860	0.97	-0.233 ± 0.735	0.800 ± 0.869
photometric centroid source offset	0.98 ± 1.21	0.81	-0.83 ± 1.23	-0.53 ± 1.15

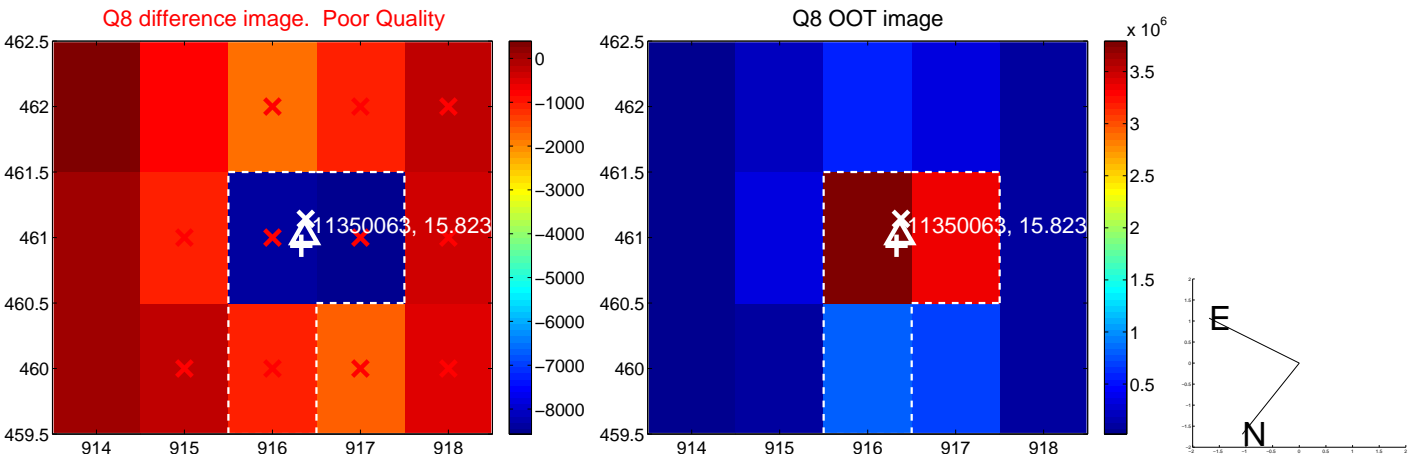
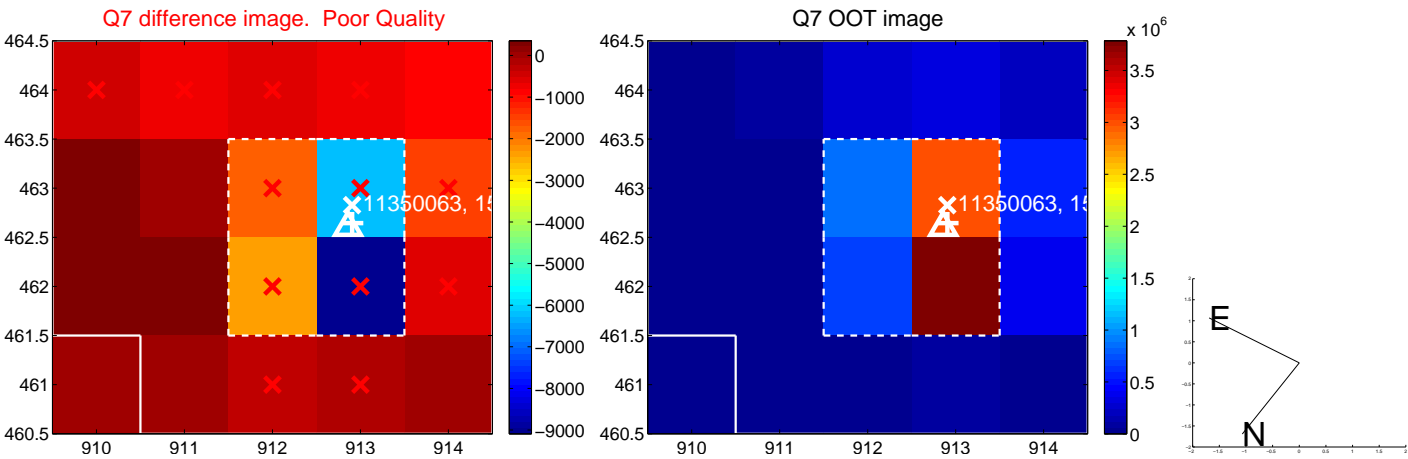
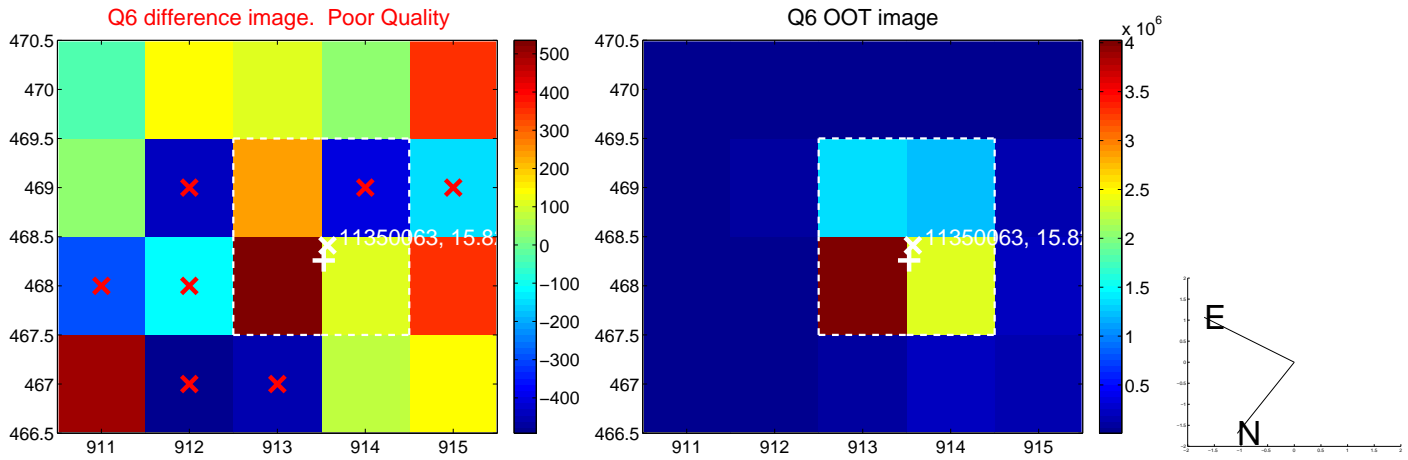
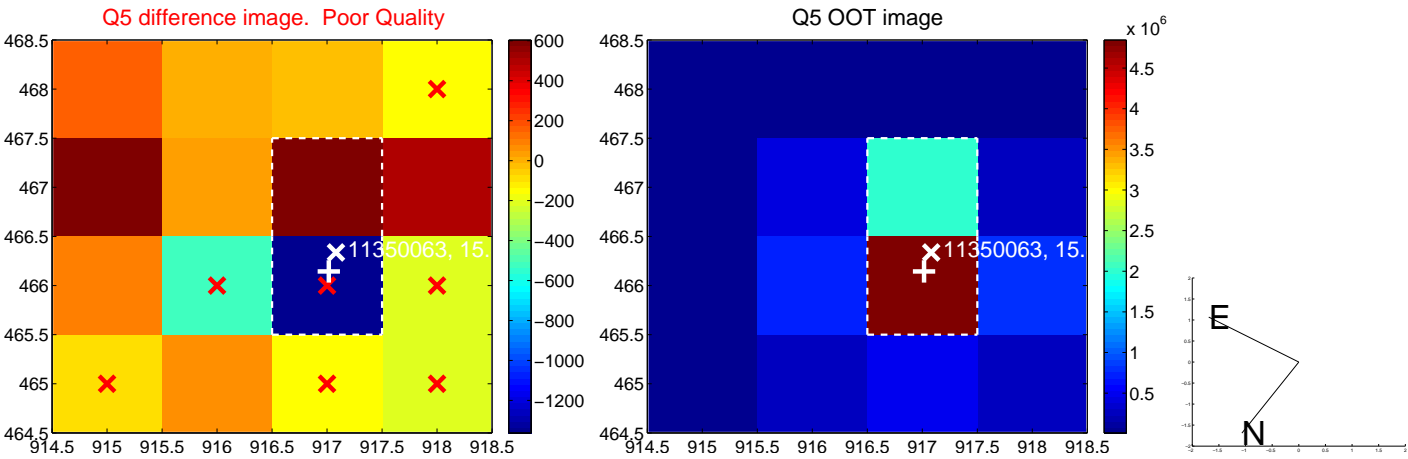


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

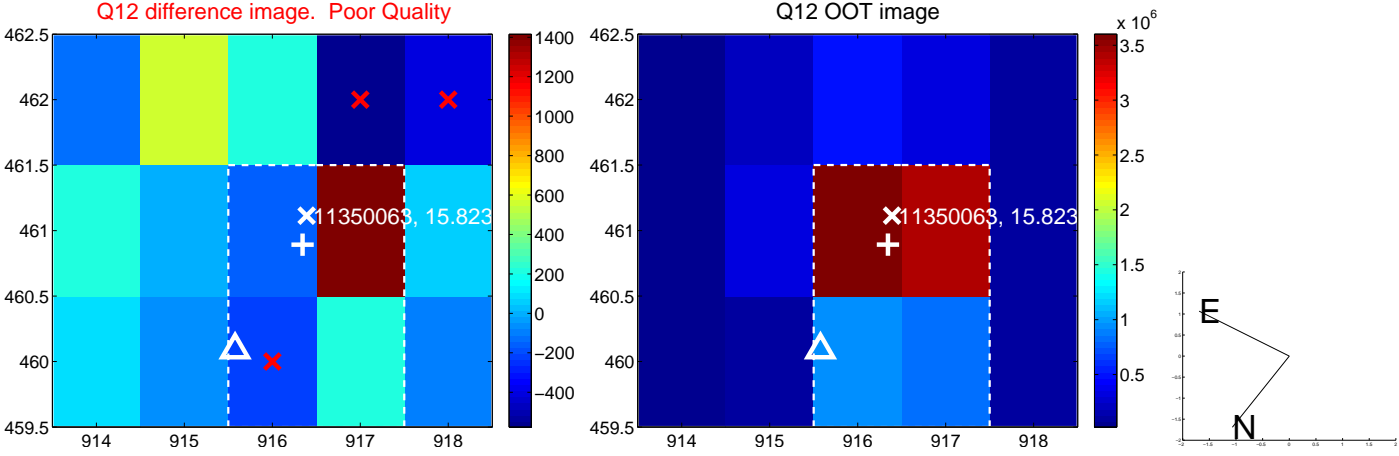
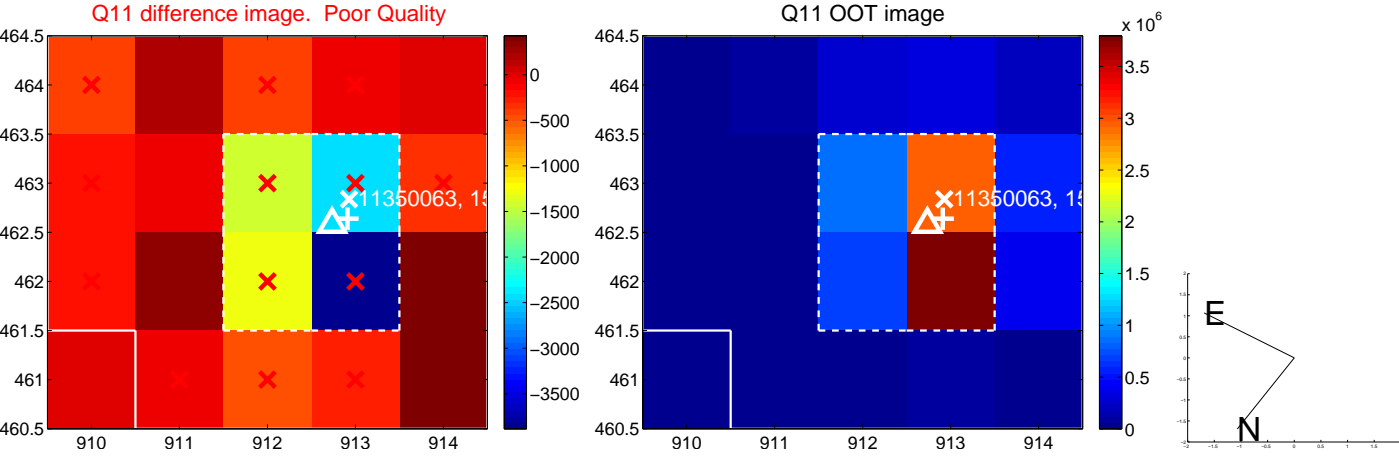
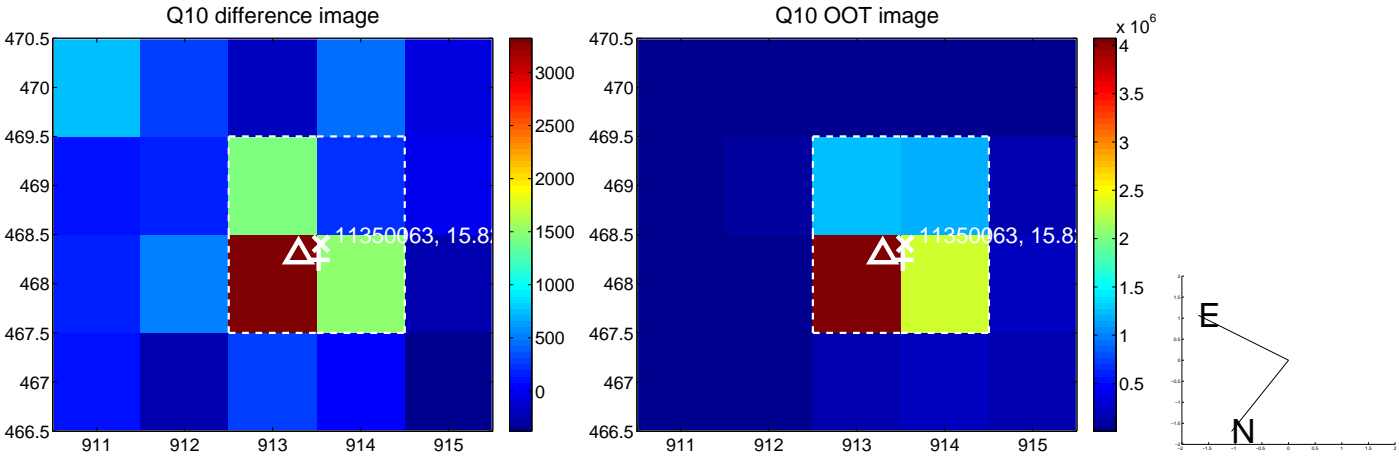
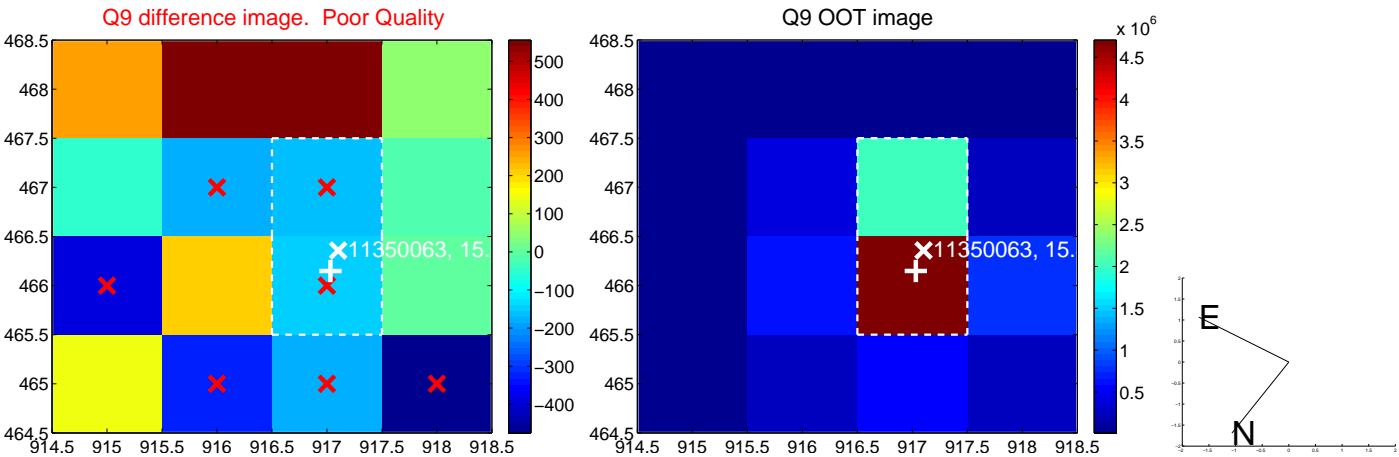
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



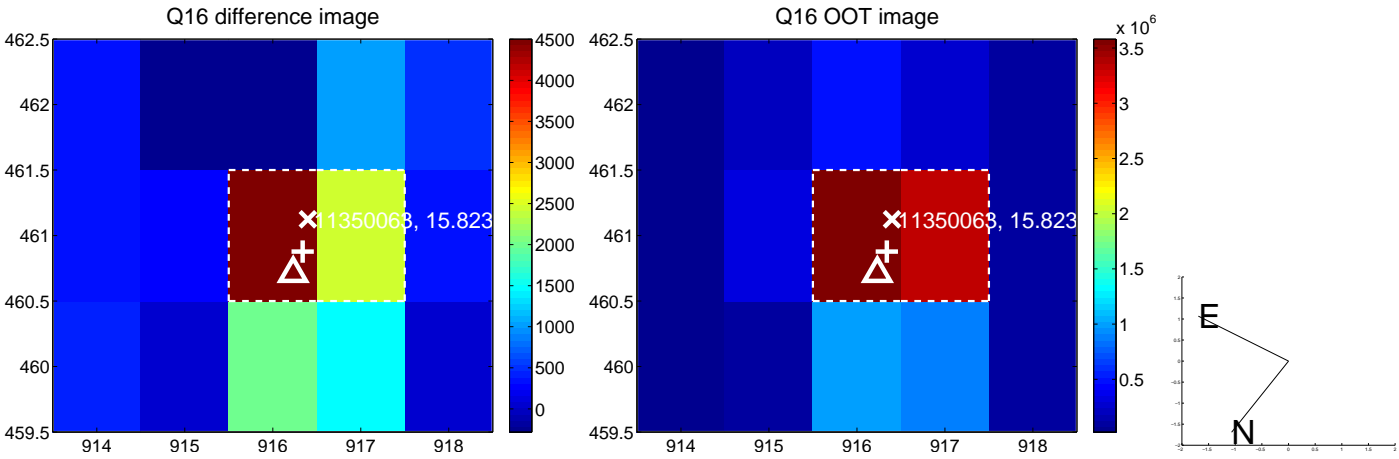
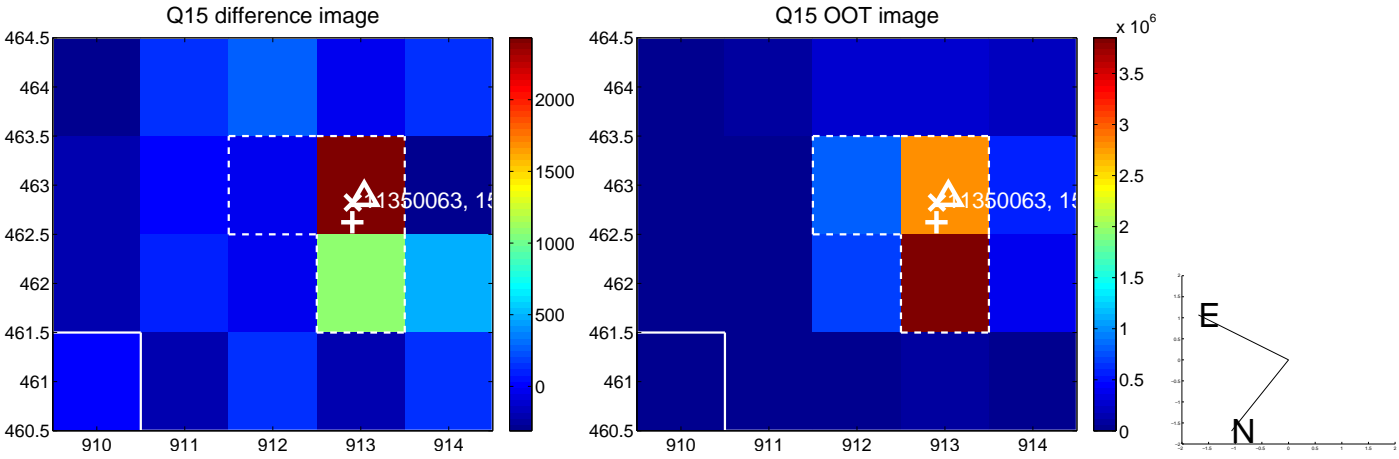
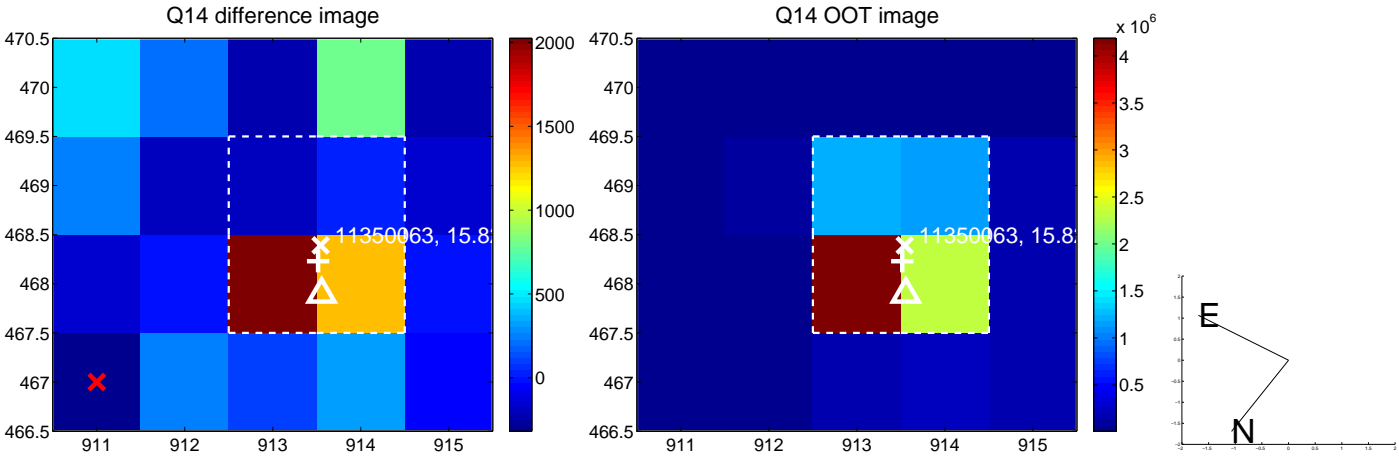
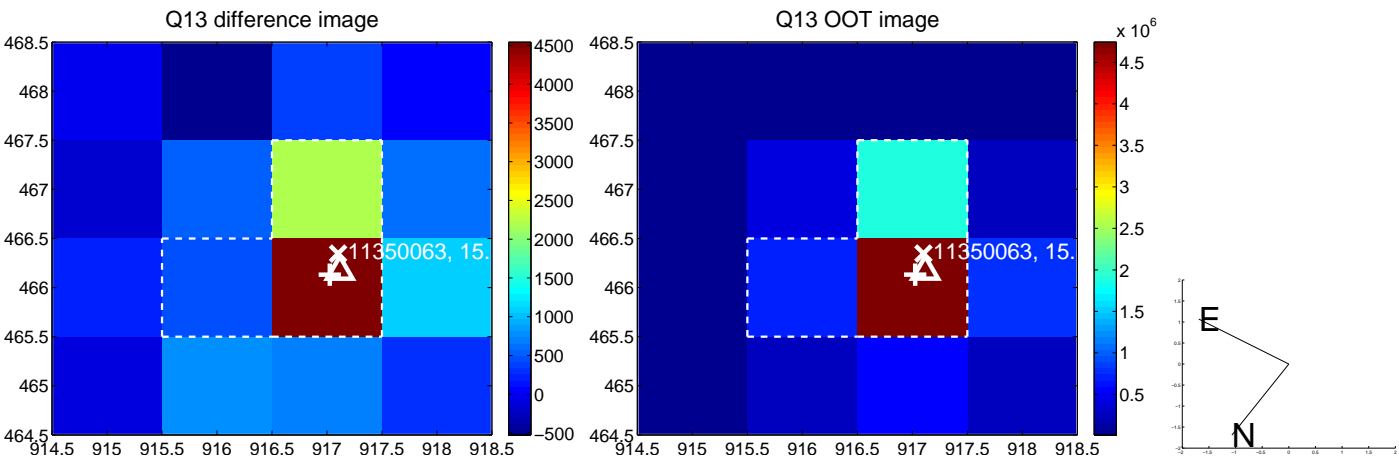
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



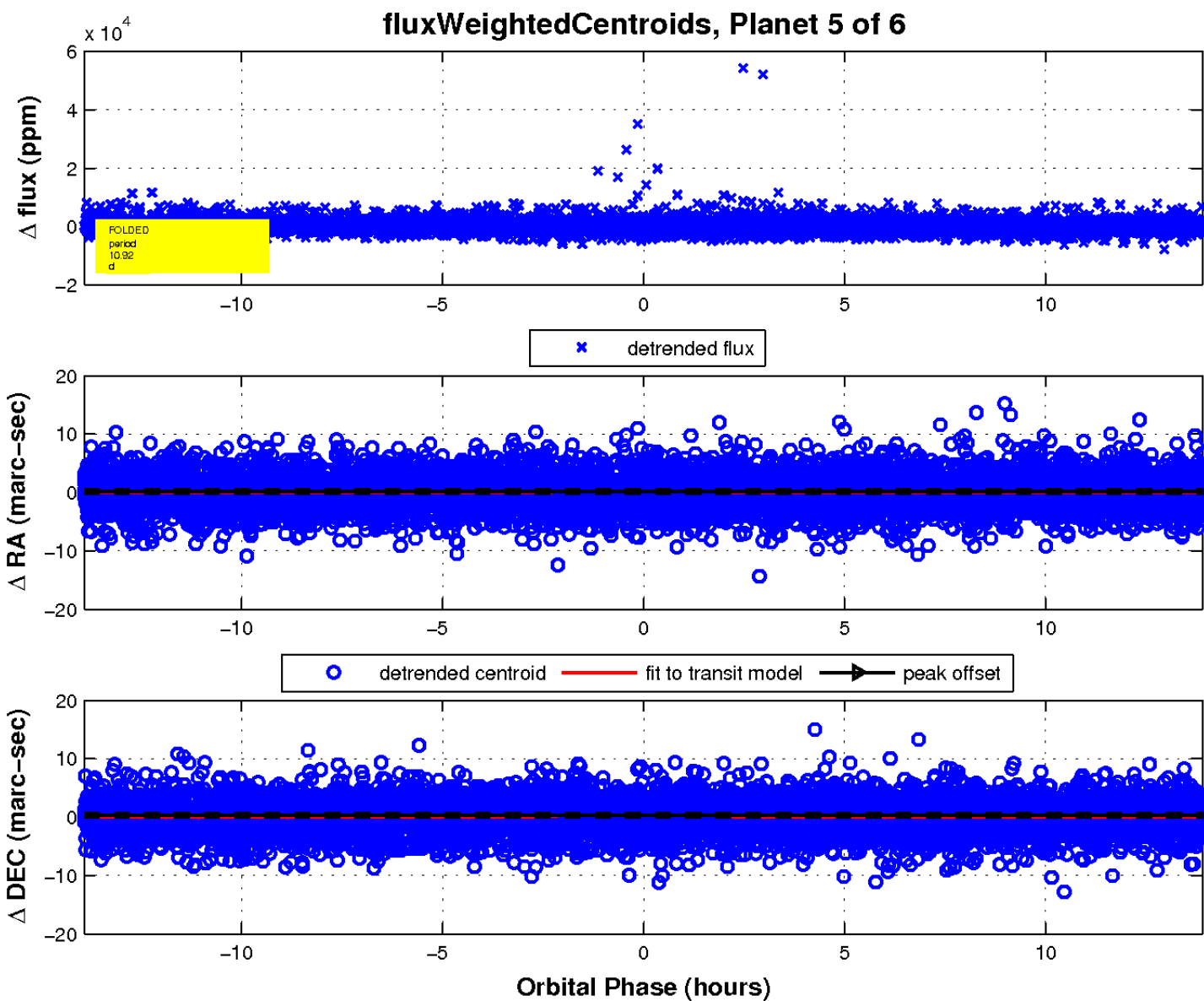
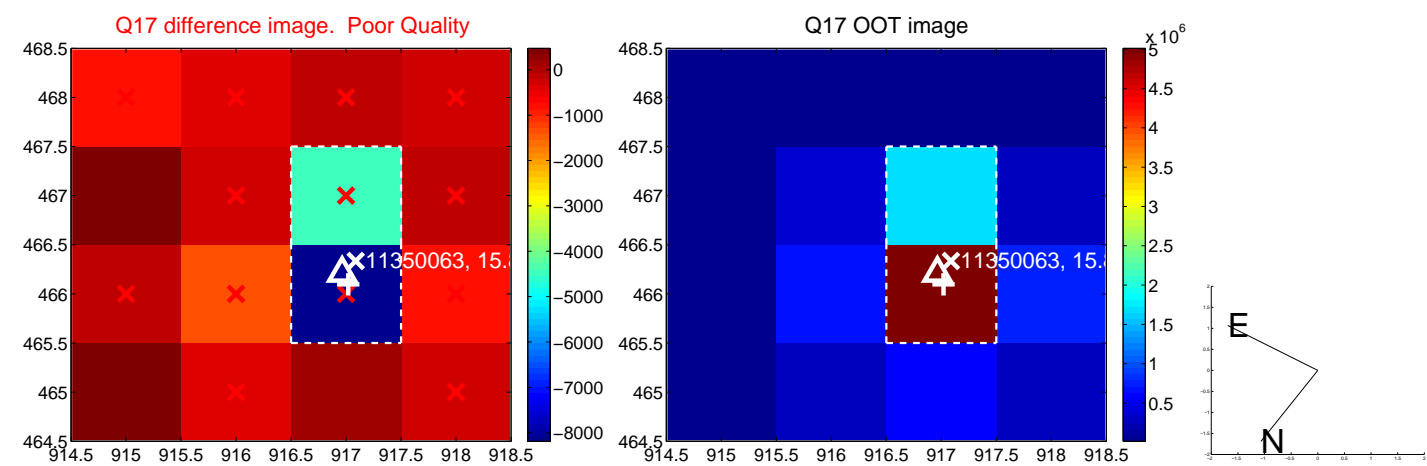
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

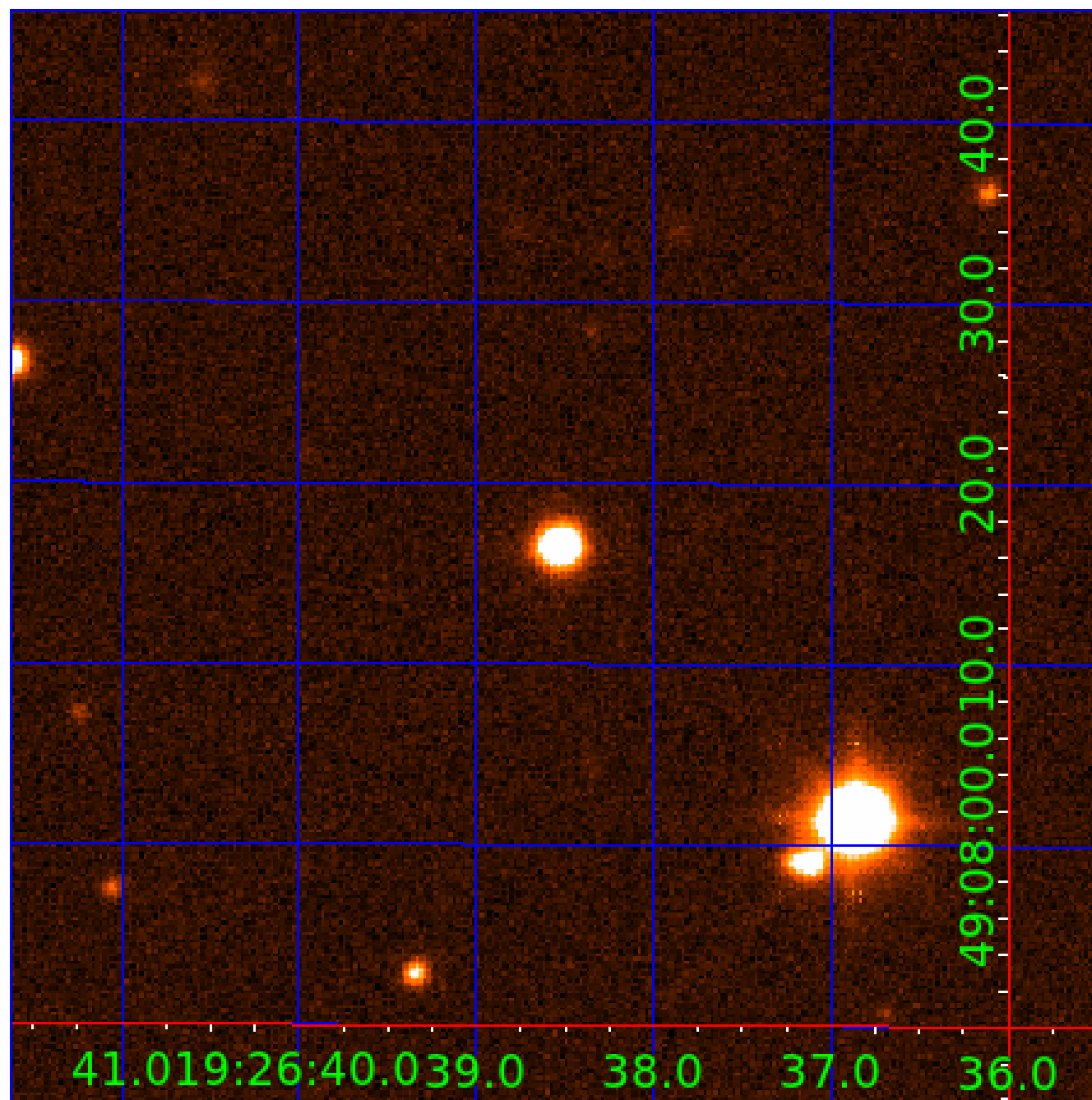


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011350063

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})
011350063-01	OBS	No	375.091761	462.032396	2475.8	6.390	14.5	6.4	0.25	3418	1.25	0.02
011350063-02	OBS	No	400.961338	163.472321	3006.5	3.679	13.3	7.1	0.25	3418	1.40	0.02
011350063-03	OBS	No	322.281596	382.280994	2574.3	3.762	11.0	6.2	0.25	3418	1.29	0.02
011350063-04	OBS	No	337.256783	439.162503	3879.7	11.675	10.7	7.9	0.25	3418	1.55	0.02
011350063-05	OBS	No	10.920502	131.958784	267.8	4.638	8.3	3.6	0.25	3418	0.41	2.09
011350063-06	OBS	No	263.273996	262.007058	2540.4	3.000	11.8	-1.0	0.25	3418	1.25	0.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011350063-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011350063-04	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011350063-05	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_KIC_POS
011350063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

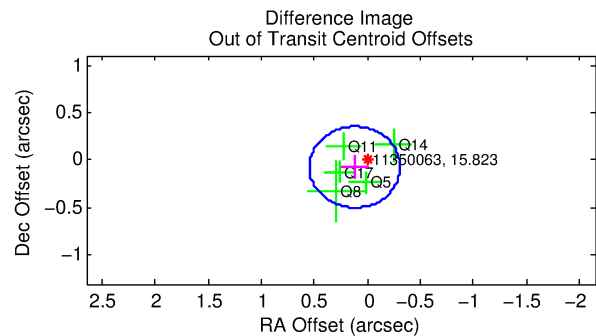
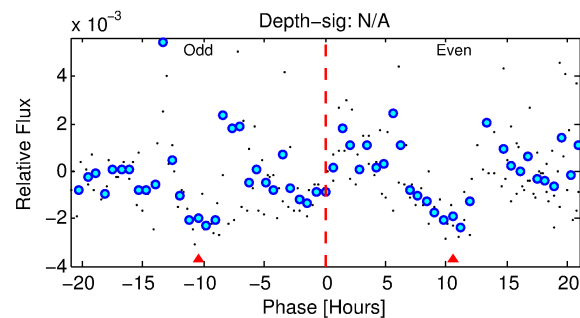
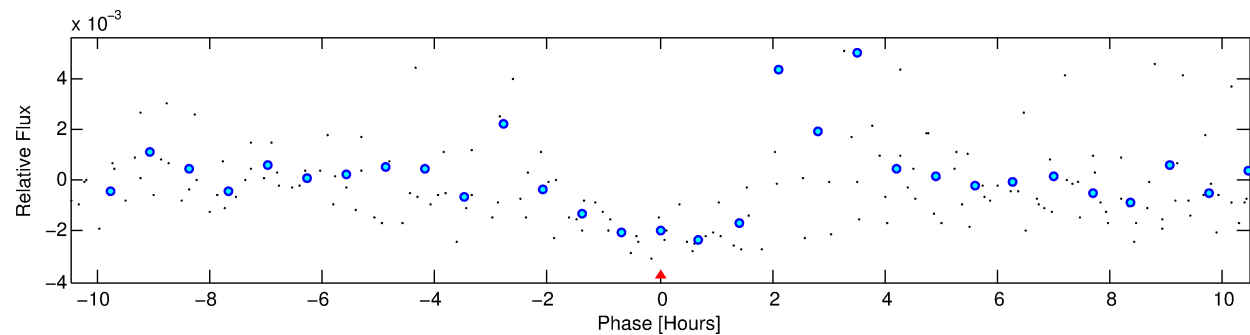
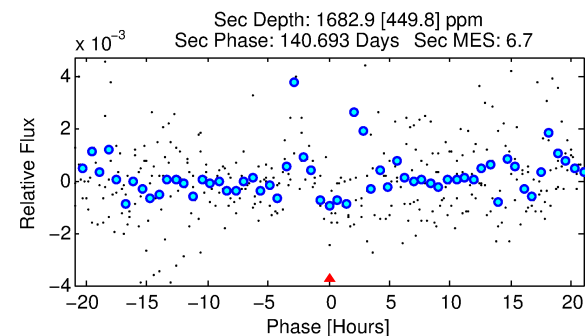
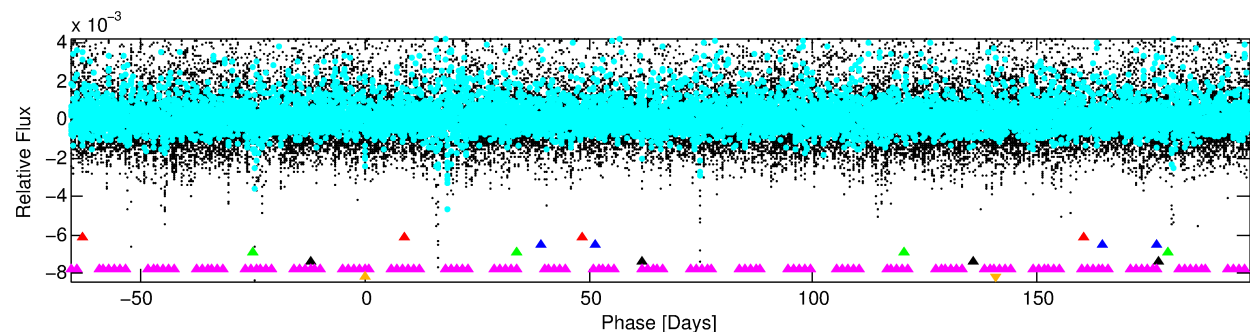
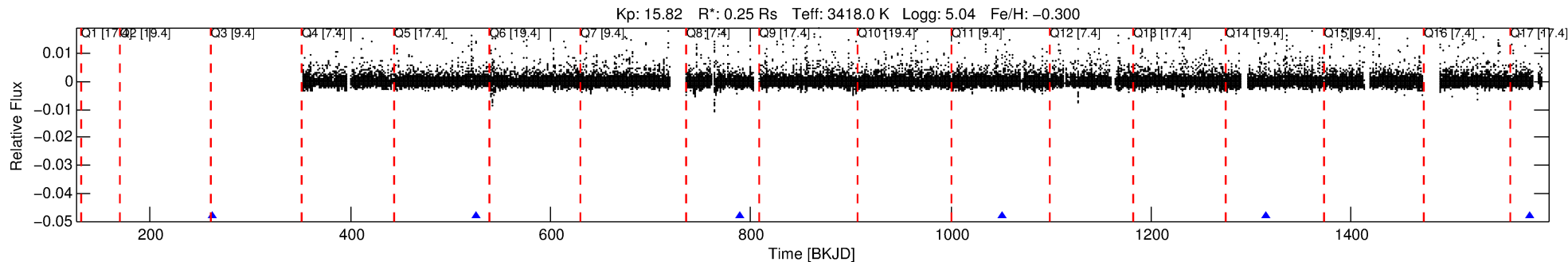
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011350063-06

No Significant Match Found

DV One-Page Summary

KIC: 11350063 Candidate: 6 of 6 Period: 263.274 d



TPS TCE Results:

Period = 263.27400 d
Epoch = 262.0071 BKJD

DV fit results are unavailable

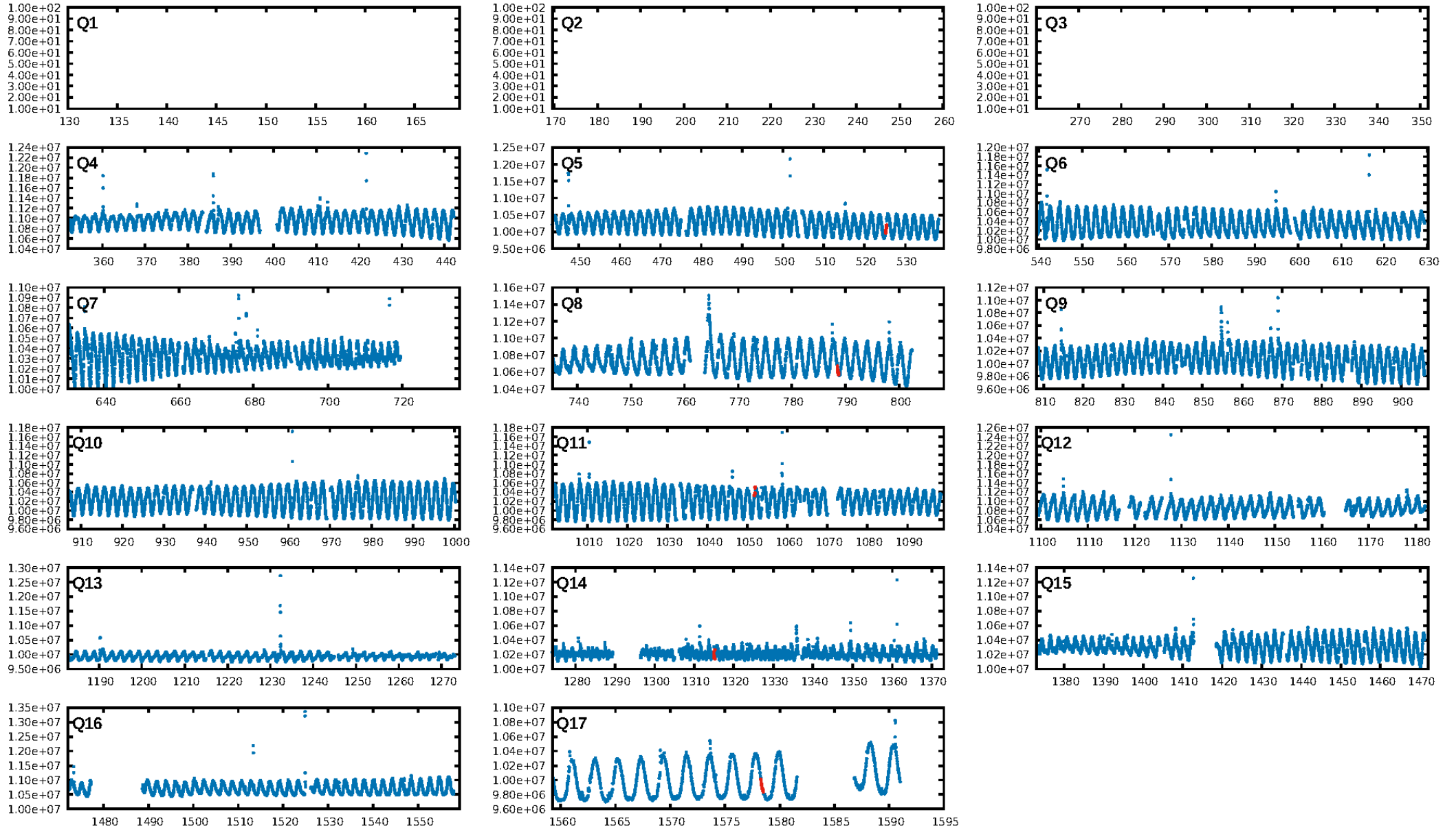
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1096.48 σ]
LongPeriod-sig: 100.0% [294.34 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.7186
Centroid-sig: 70.5%
Centroid-so: 0.628 arcsec [0.88 σ]
OotOffset-rm: 0.140 arcsec [0.99 σ]
KicOffset-rm: 0.738 arcsec [6.90 σ]
OotOffset-st: 1/1/1/2 [5]
KicOffset-st: 1/1/1/2 [5]
DiffImageQuality-fgm: 0.80 [4/5]
DiffImageOverlap-fno: 0.80 [4/5]

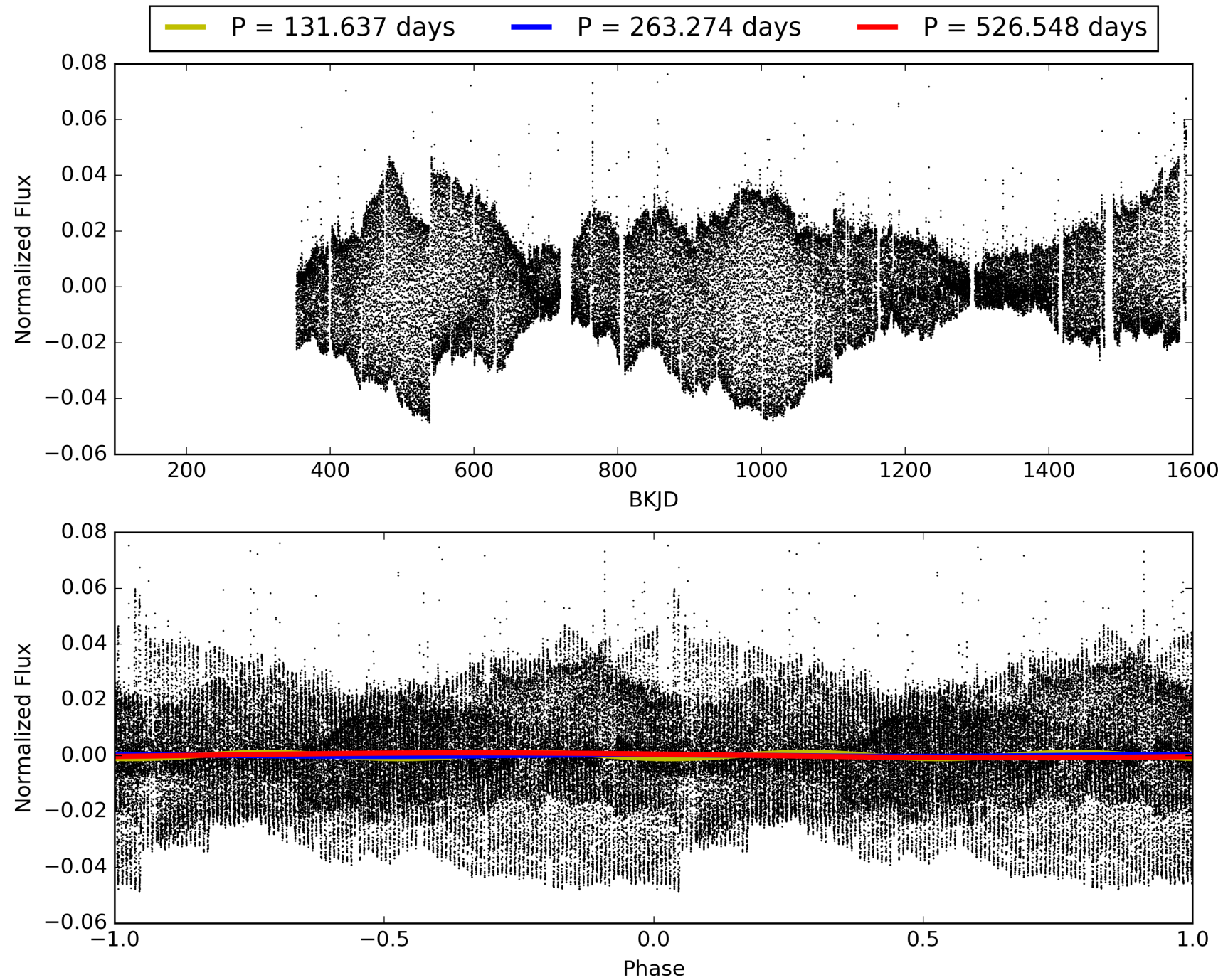
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:56:36 Z

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

TCE 011350063-06, PDC Light Curves

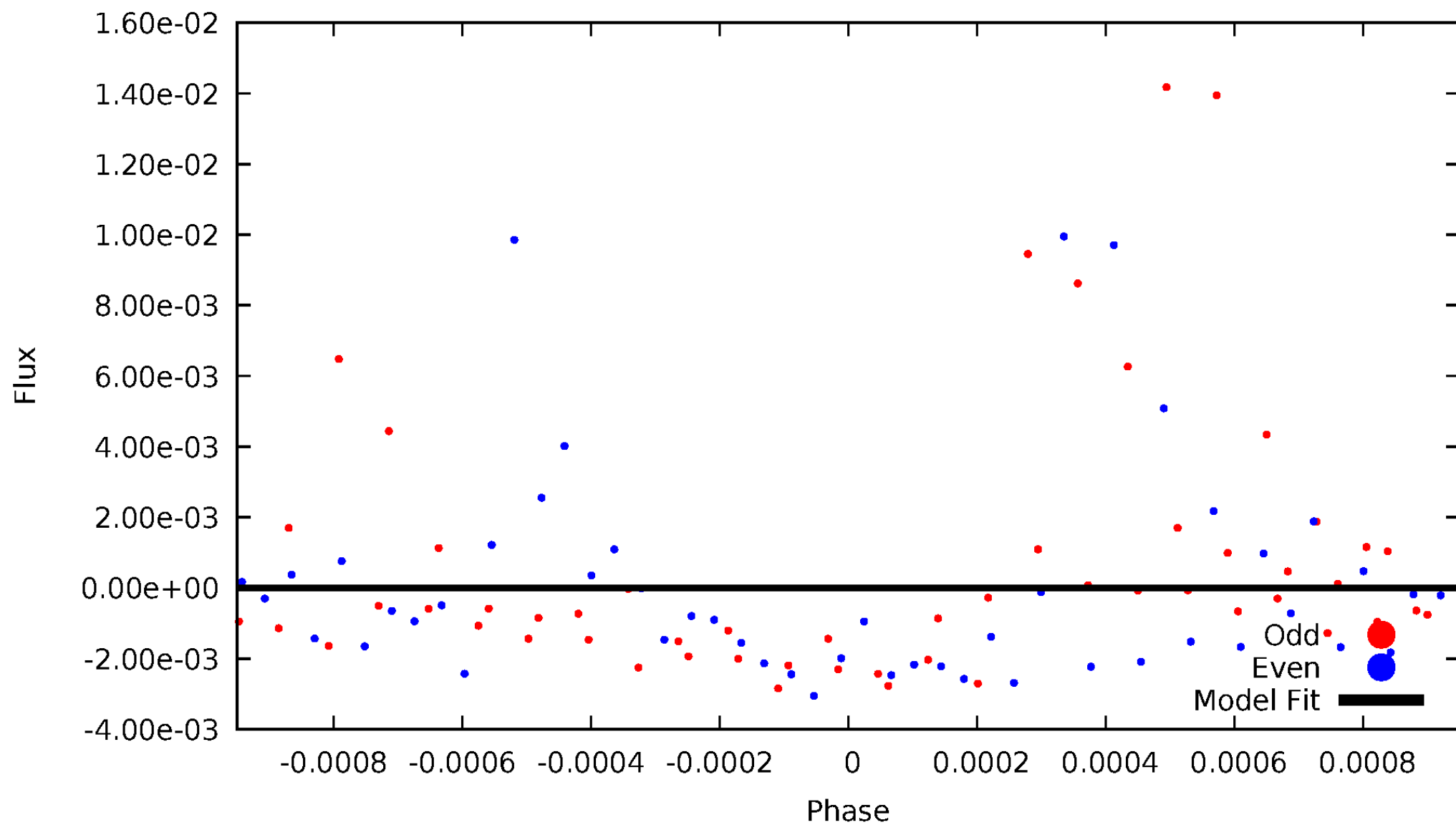


TCE 011350063-06



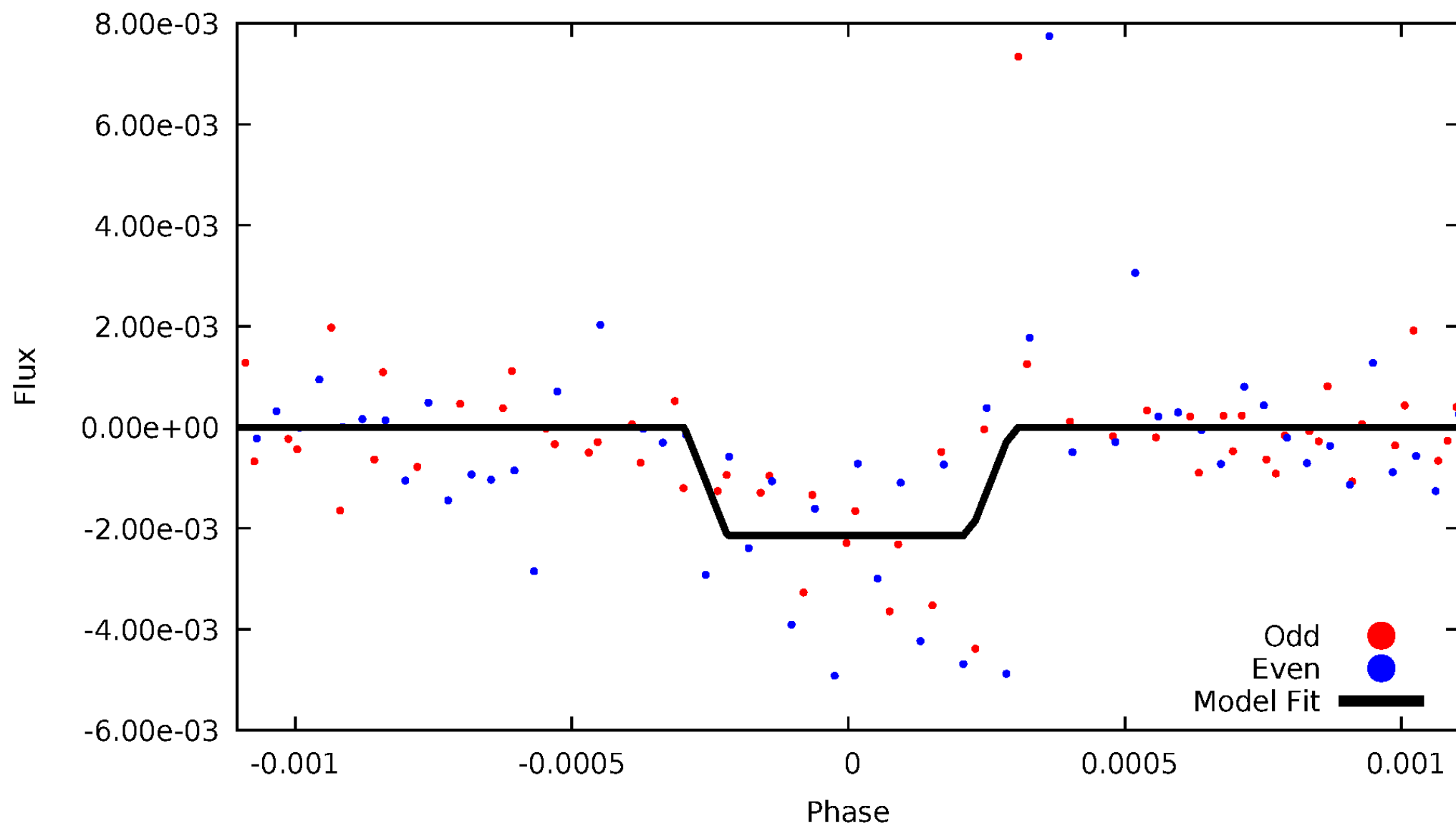
DV Odd/Even

TCE 011350063-06



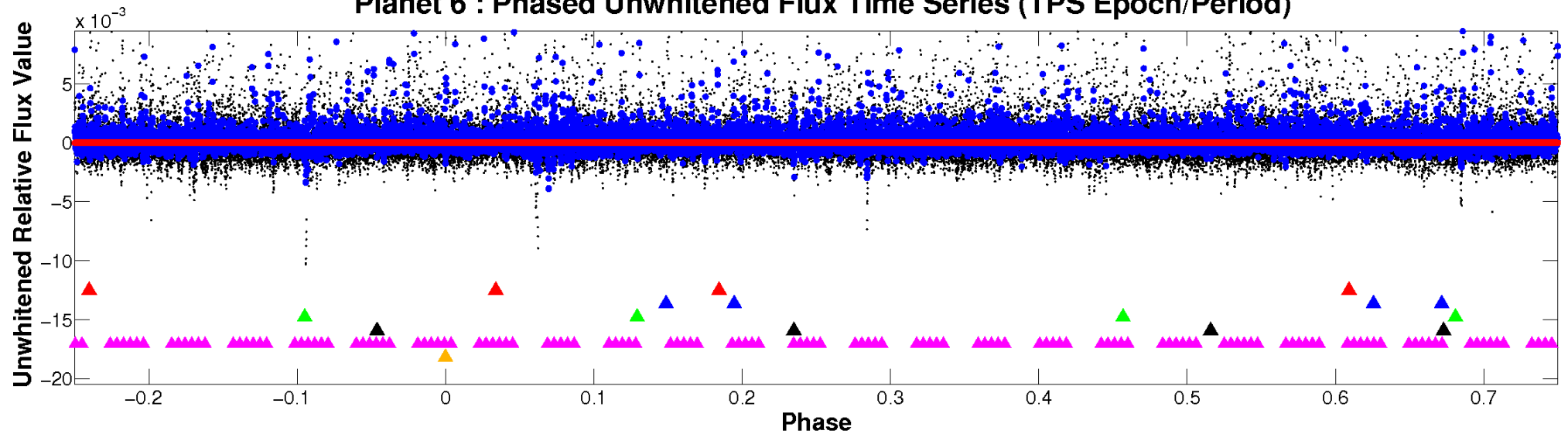
ALT Odd/Even

TCE 011350063-06



Non-Whitened Vs. Whitened Light Curve

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

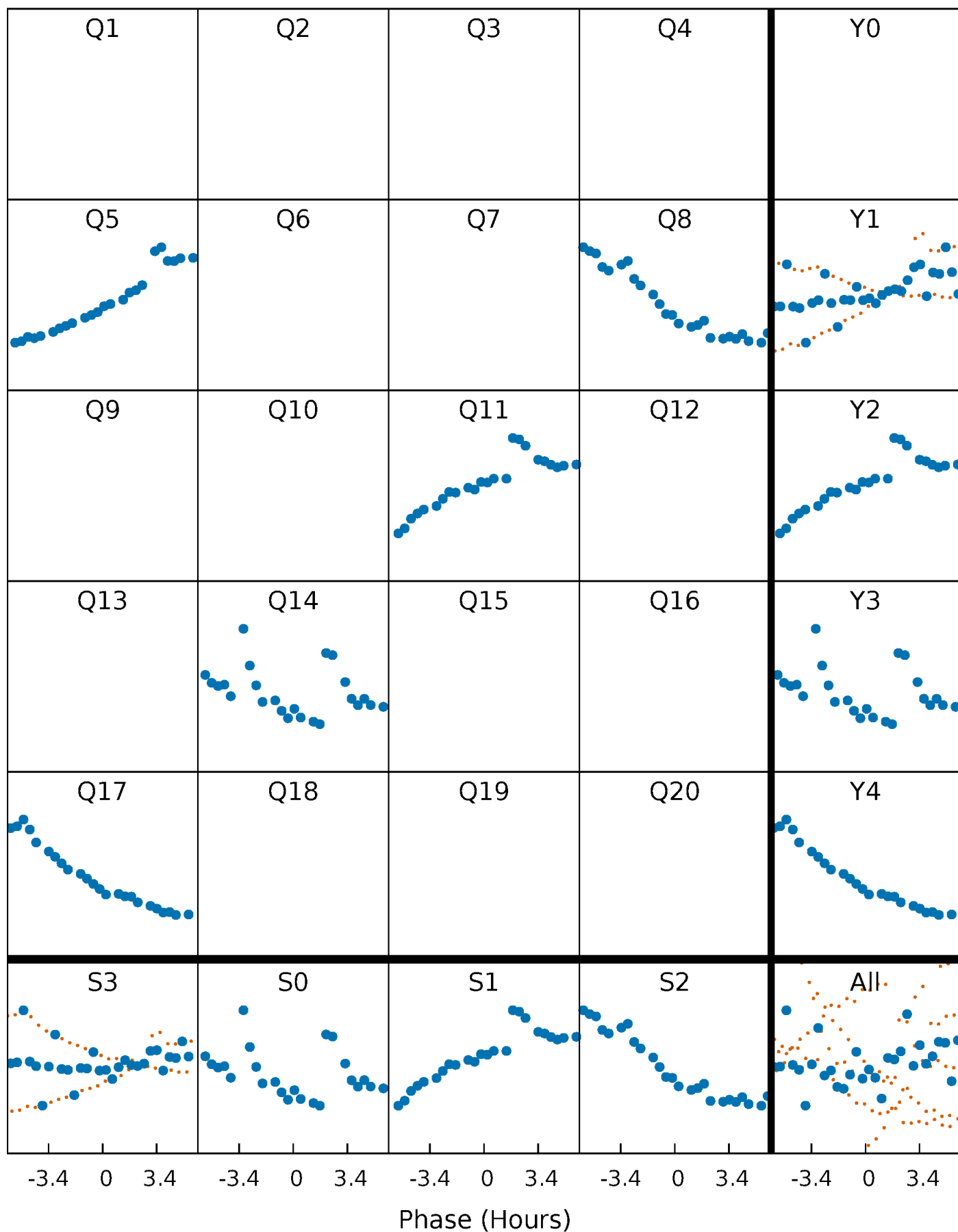


Planet 6 : Phased Whitened Flux Time Series (TPS Epoch/Period)



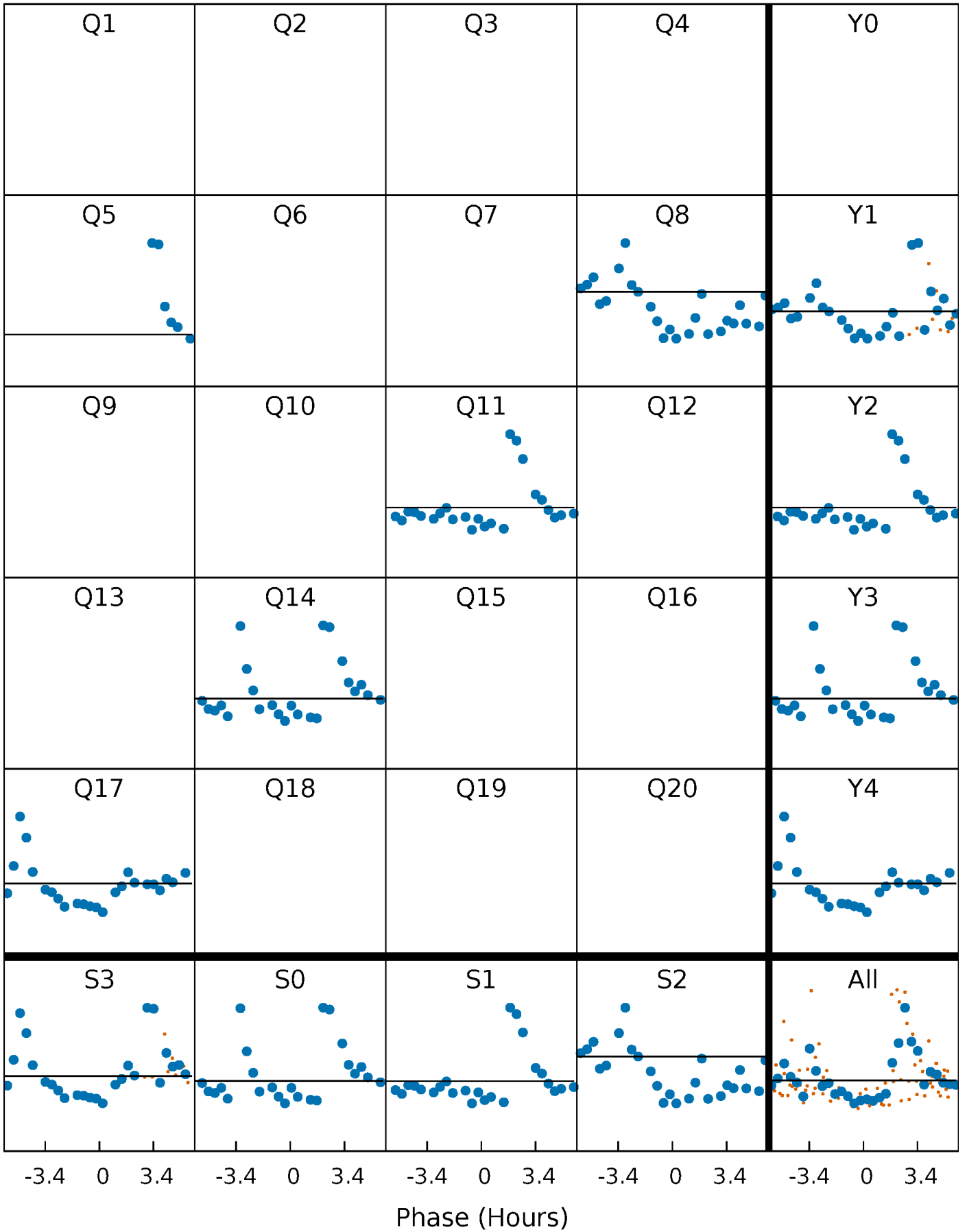
PDC Quarter-Phased Transit Curves

TCE 011350063-06 $P=263.273996$ Days $T_0=262.007058$ (BKJD)



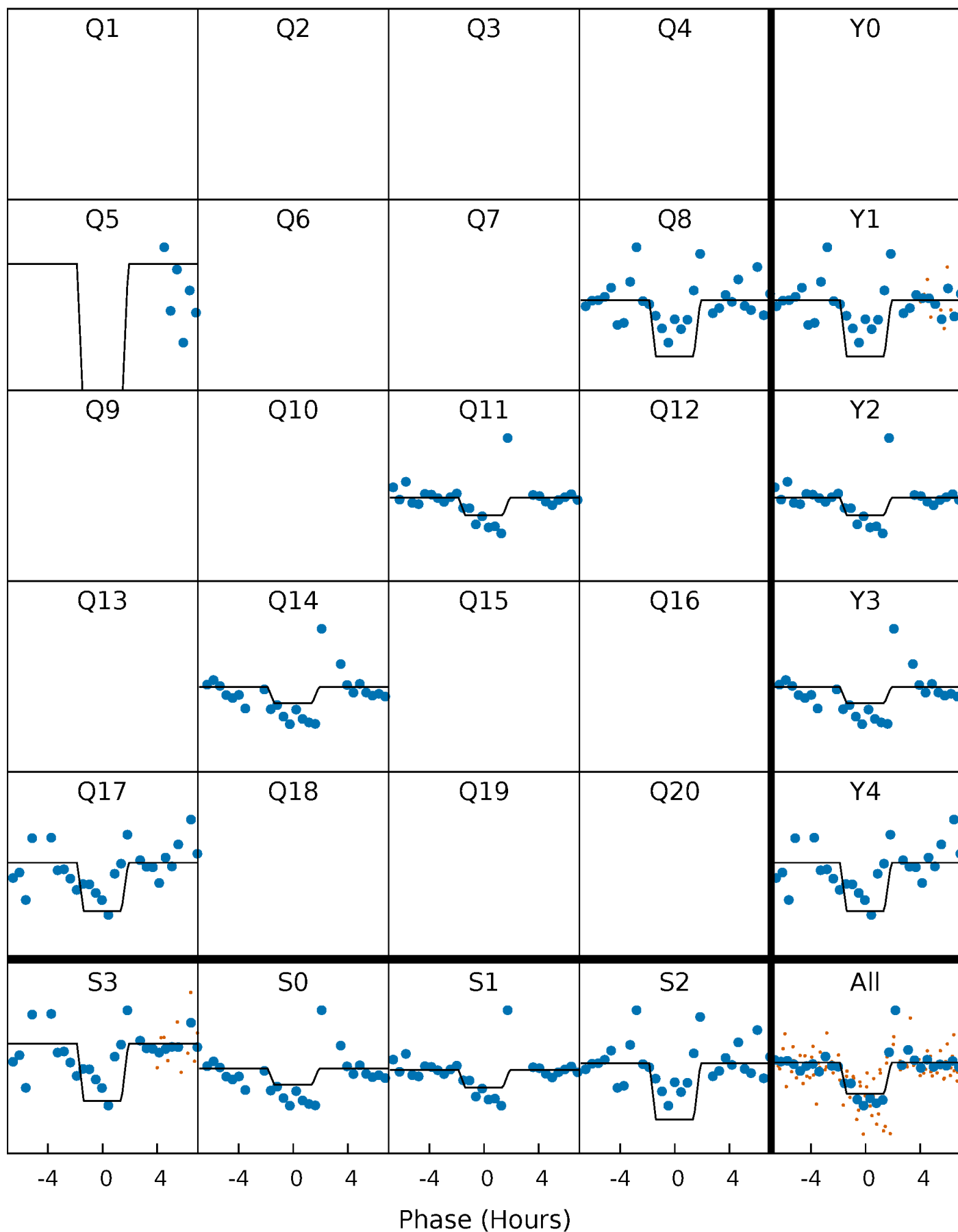
DV Quarter-Phased Transit Curves

TCE 011350063-06 $P=263.273996$ Days $T_0=262.007058$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

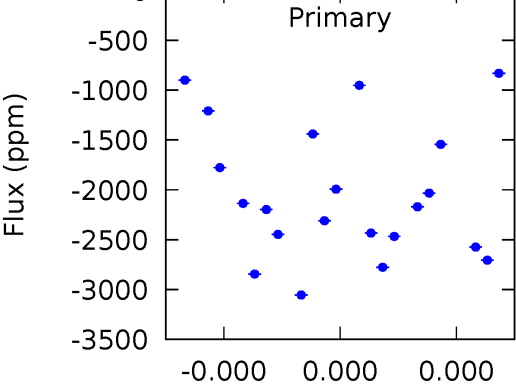
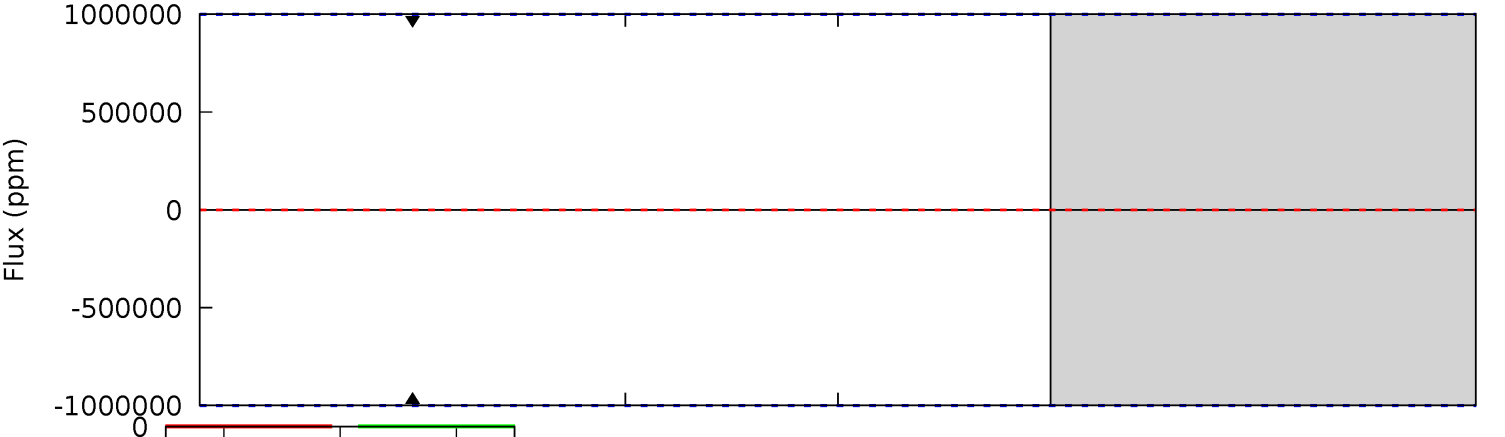
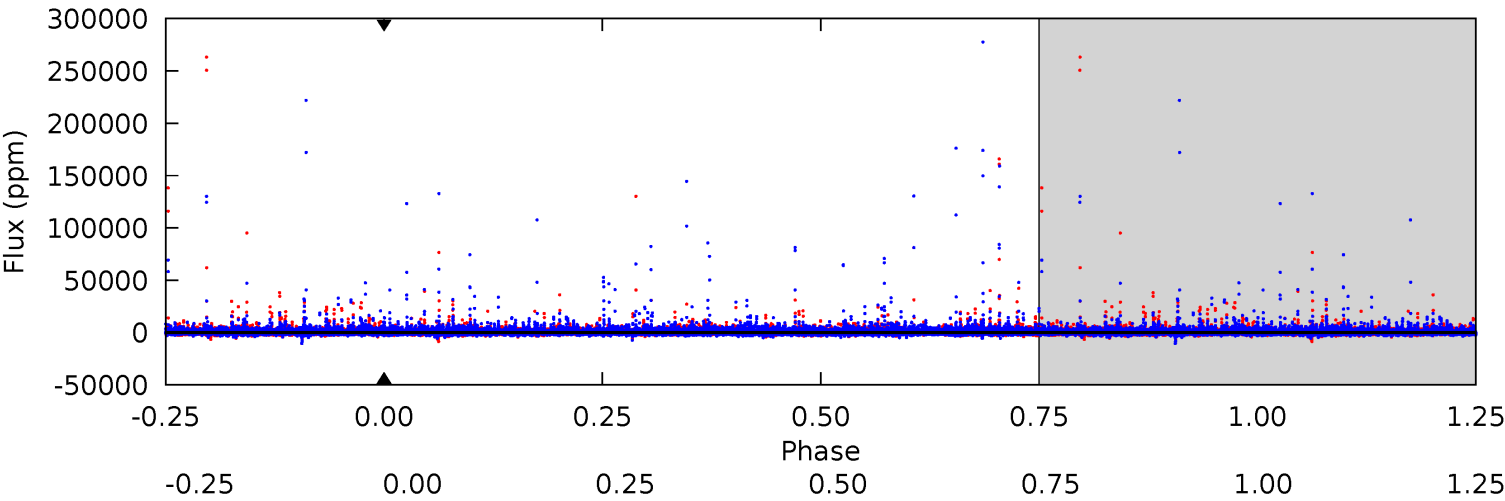
TCE 011350063-06 P=263.273996 Days $T_0=261.999629$ (BKJD)



DV Model-Shift Uniqueness Test

011350063-06, P = 263.273996 Days, E = 262.007058 Days

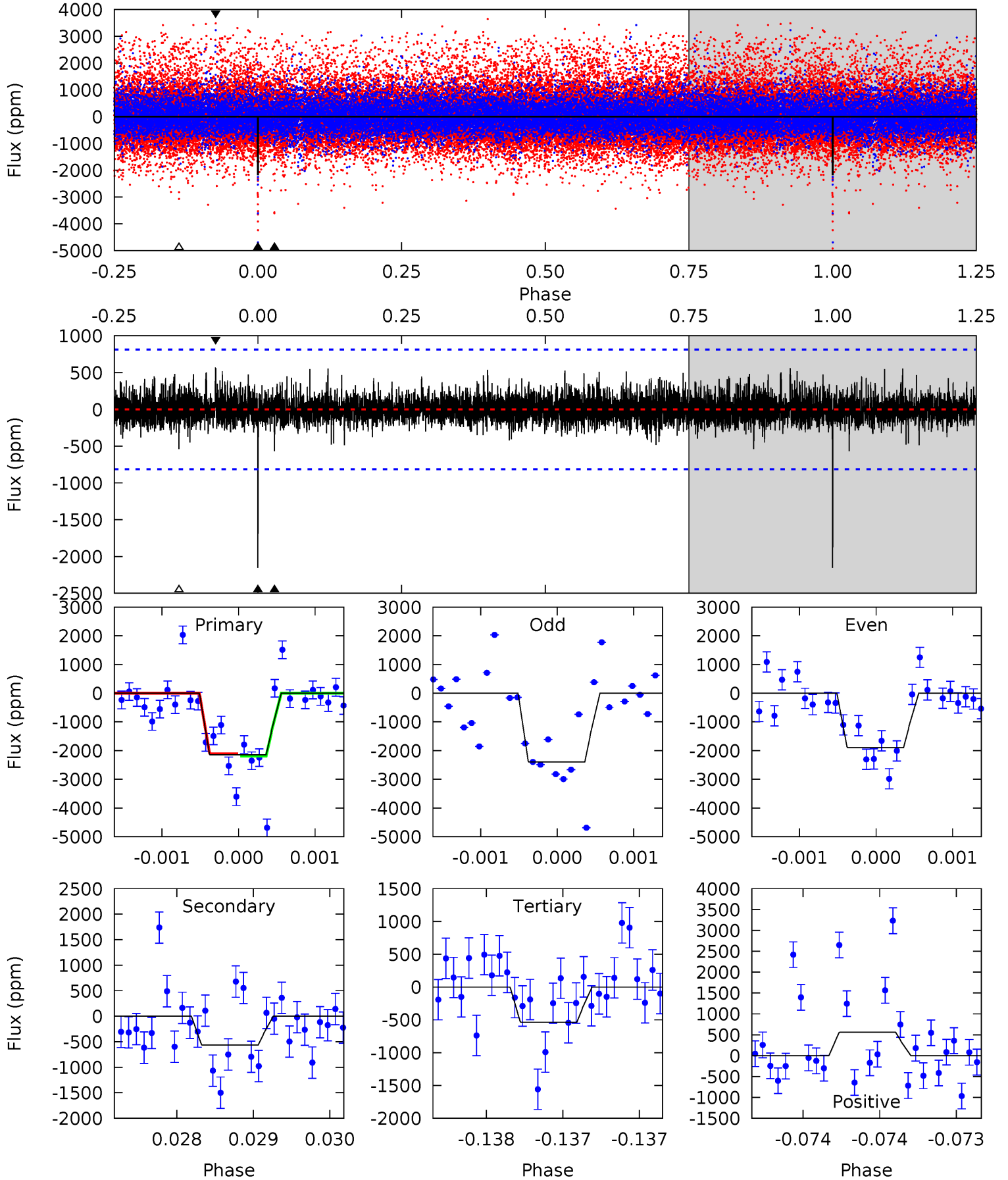
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011350063-06, P = 263.273996 Days, E = 261.999629 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.7	3.86	3.66	3.81	5.55	3.44	0.90	11.0	10.9	0.20	0.05	1.61	1.09	0.21	0.31



Stellar Parameters For KIC 011350063

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3418^{+40}_{-44}	$5.035^{+0.035}_{-0.042}$	$-0.300^{+0.100}_{-0.100}$	$0.250^{+0.030}_{-0.027}$	$0.248^{+0.034}_{-0.037}$	$22.350^{+4.344}_{-4.368}$
	+1%/-1%	+1%/-1%	+33%/-33%	+12%/-11%	+14%/-15%	+19%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011350063-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$2.53^{+2.14}_{-1.56}$	149^{+3}_{-3}	3207^{+3709}_{-8573}	$126757^{+5889956}_{-2185779}$
Alt.	-566 ± 146	$2.42^{+2.23}_{-1.62}$	149^{+3}_{-3}	2398^{+819}_{-341}	$13512^{+109394}_{-10119}$

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

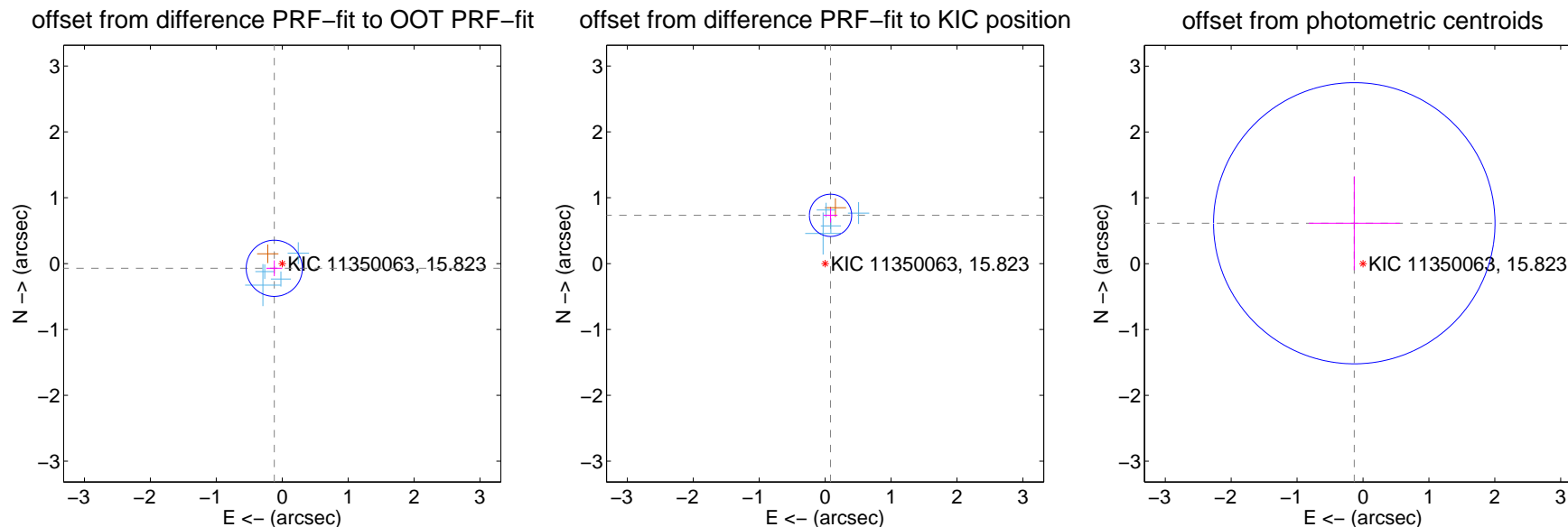
DV Centroid Data

Supplemental centroid analysis for 011350063-06. Kepler magnitude: 15.82. 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 0.98 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.140 ± 0.142	0.99	0.120 ± 0.120	-0.072 ± 0.120
PRF-fit source offset from KIC position	0.738 ± 0.107	6.90	-0.082 ± 0.106	0.733 ± 0.107
photometric centroid source offset	0.63 ± 0.71	0.88	0.13 ± 0.69	0.61 ± 0.71

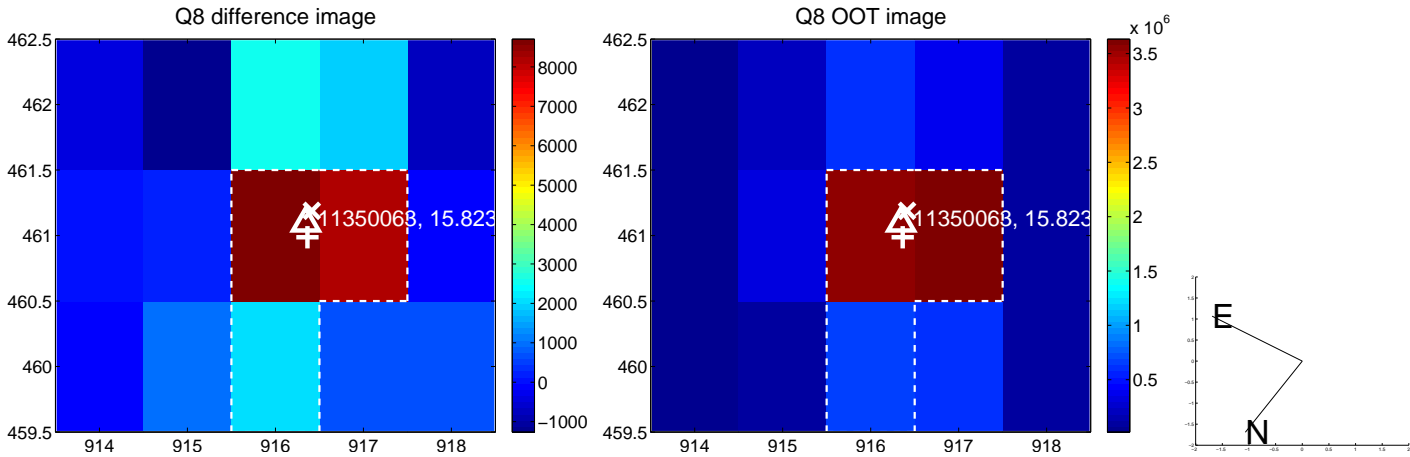
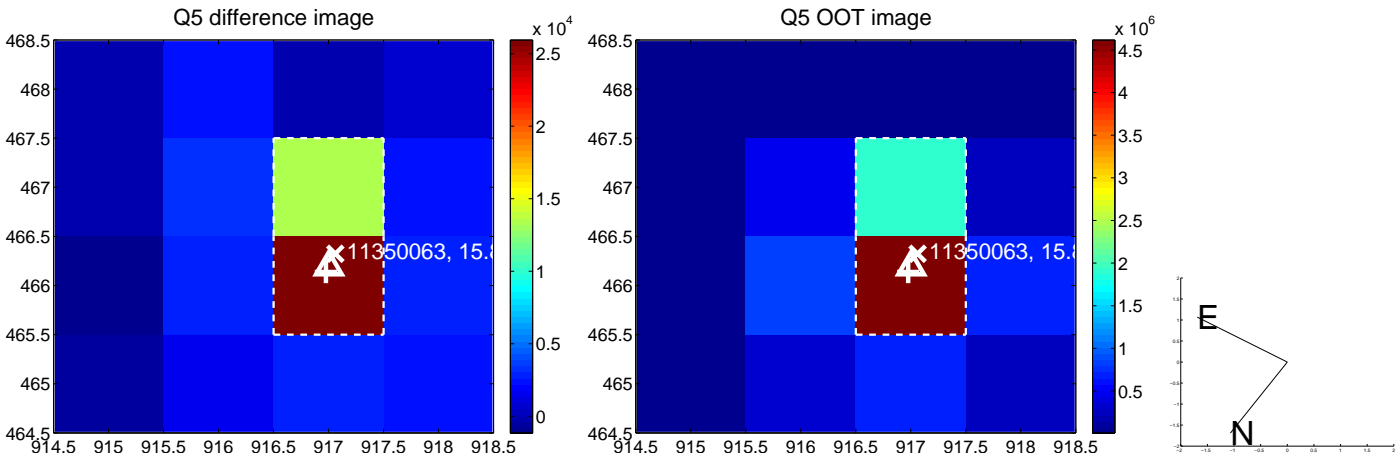


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

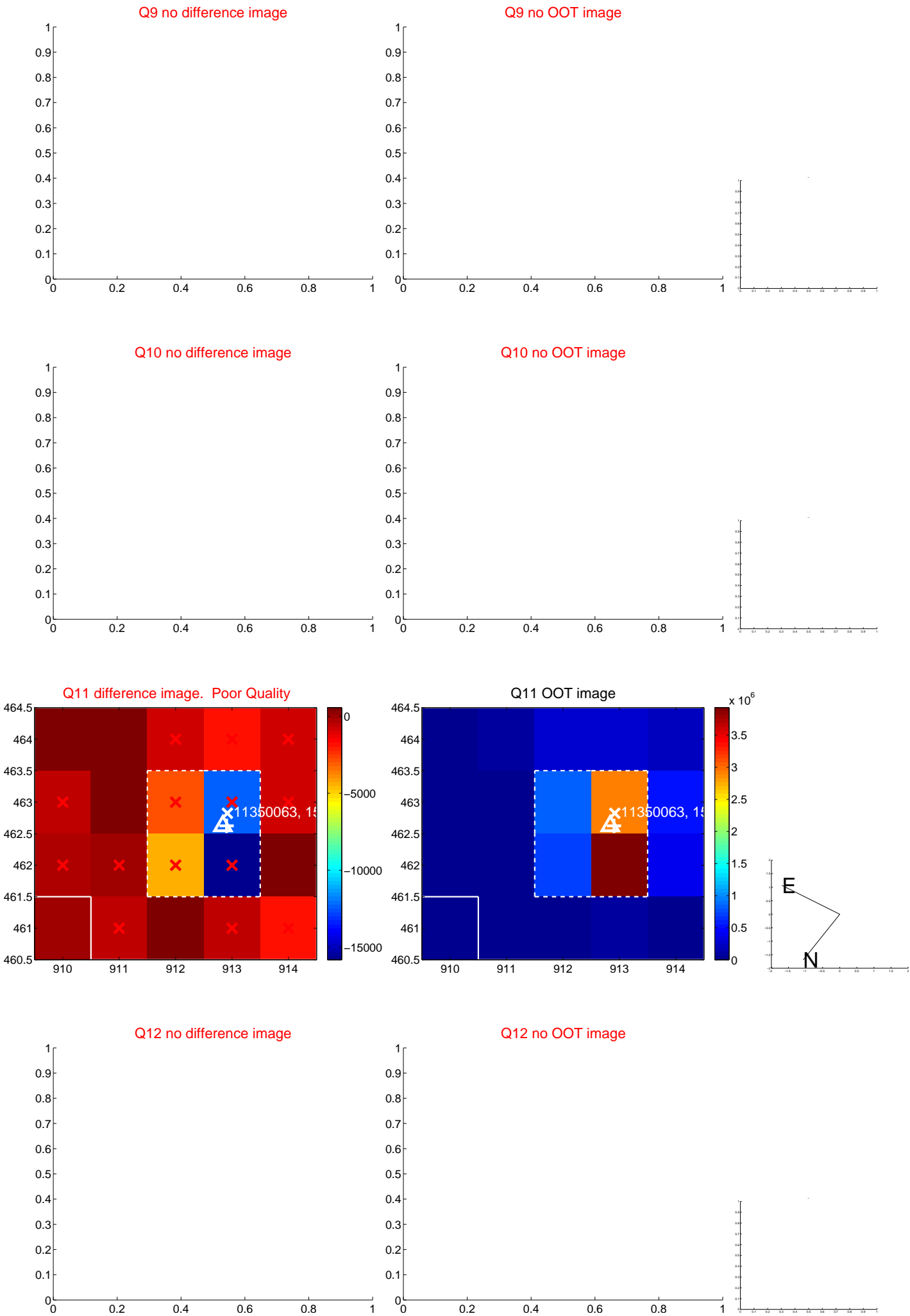
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.

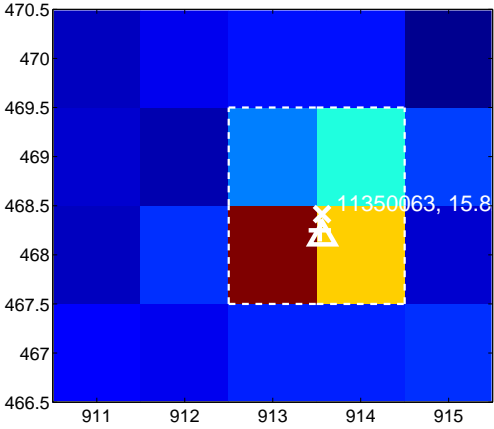
Q13 no difference image



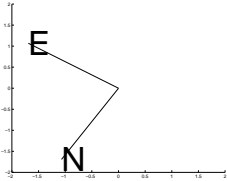
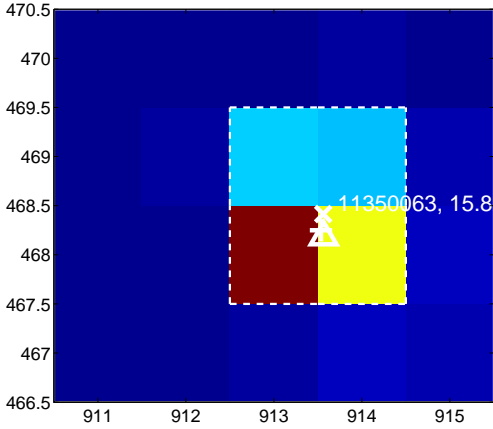
Q13 no OOT image



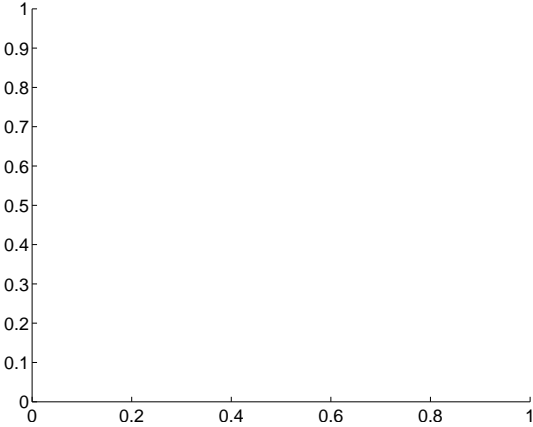
Q14 difference image



Q14 OOT image



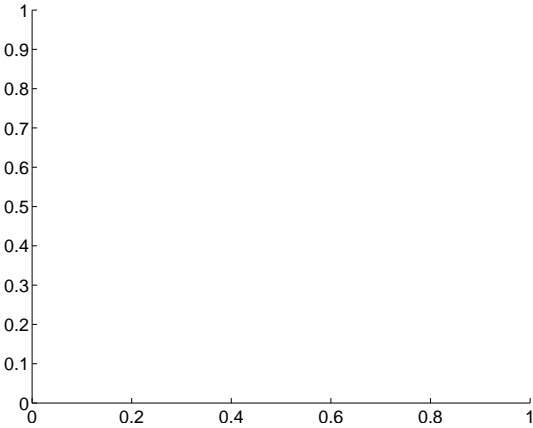
Q15 no difference image



Q15 no OOT image



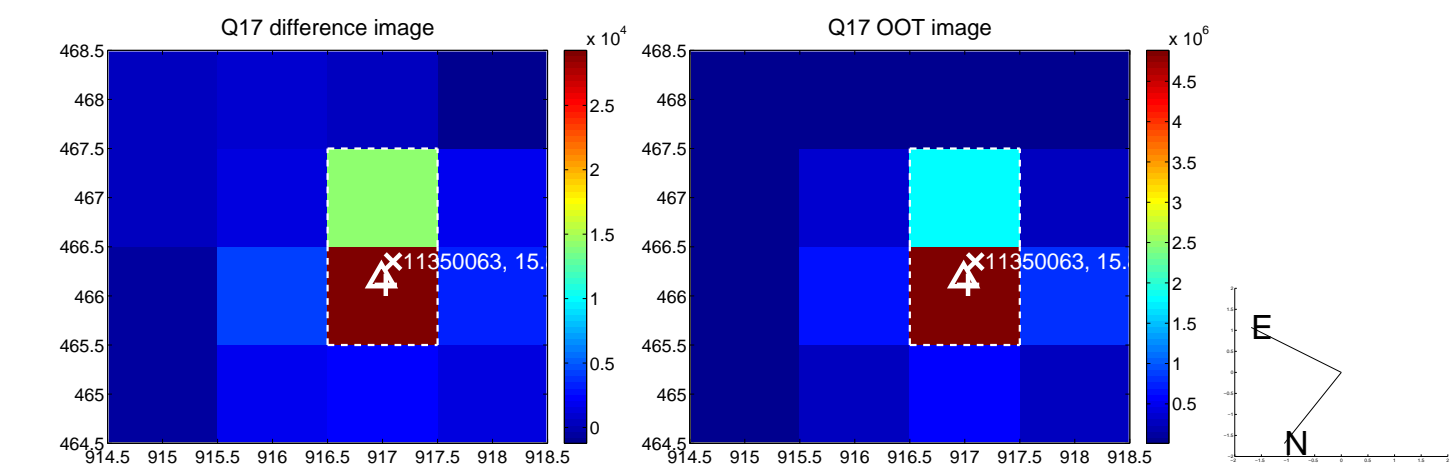
Q16 no difference image



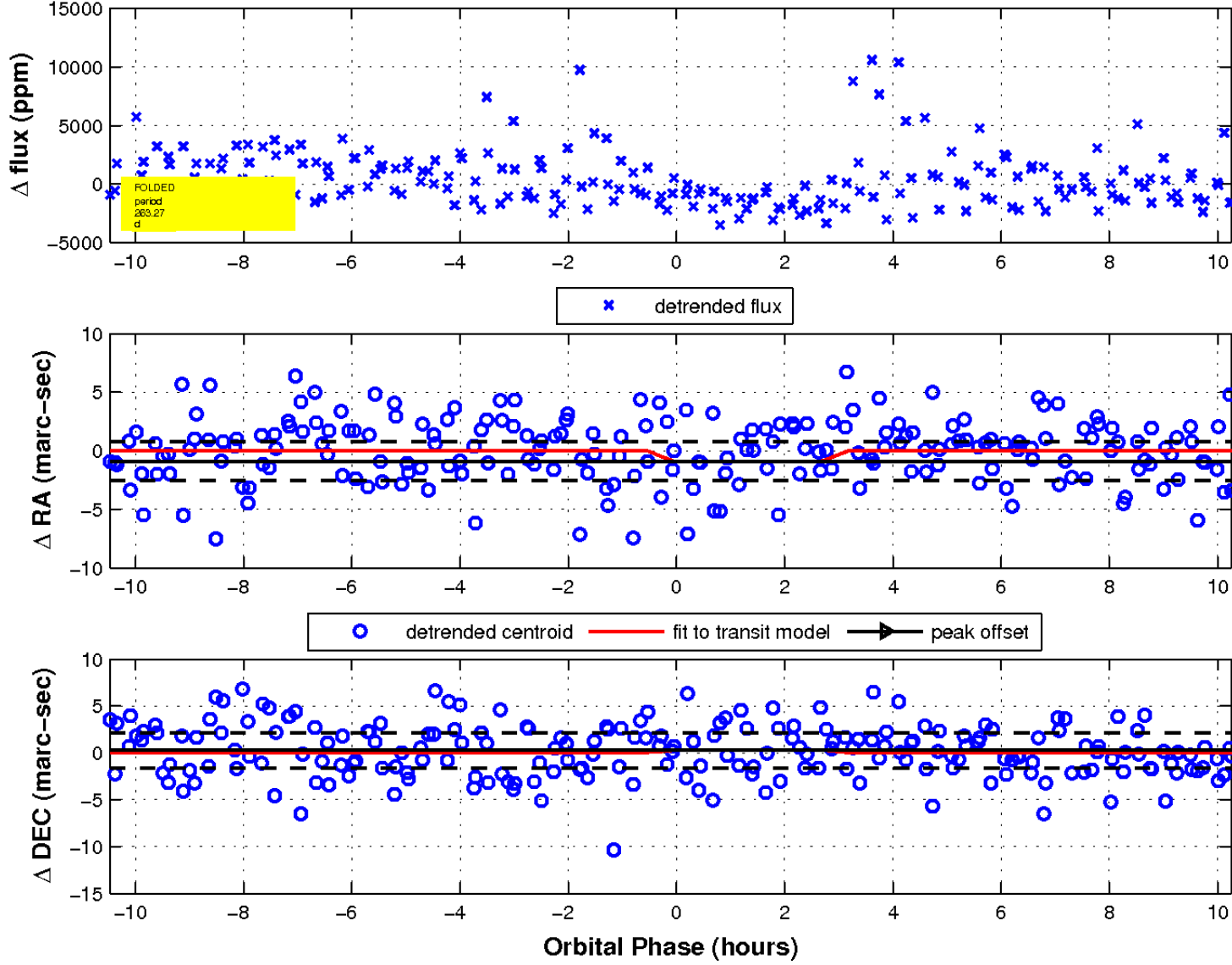
Q16 no OOT image



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



fluxWeightedCentroids, Planet 6 of 6



UKIRT Image

Declination

