

KIC 012507325

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})
012507325-01	OBS	No	1.086390	132.016640	17.1	6.699	8.5	6.8	1.00	5780	0.42	2336.82
012507325-02	OBS	No	66.764918	187.846728	290.9	4.814	9.6	9.5	1.00	5780	1.98	9.64
012507325-03	OBS	No	80.783852	152.079007	328.1	6.030	9.1	9.4	1.00	5780	2.27	7.47
012507325-04	OBS	No	624.705599	192.777940	412.8	30.488	9.0	7.1	1.00	5780	2.04	0.49
012507325-05	OBS	No	97.987195	208.323577	176.2	12.443	8.8	4.5	1.00	5780	1.45	5.78
012507325-06	OBS	No	92.629169	190.725871	336.4	4.465	9.0	9.5	1.00	5780	2.11	6.23
012507325-07	OBS	No	108.517832	134.774183	196.5	3.849	8.7	6.4	1.00	5780	1.61	5.04
012507325-08	OBS	No	16.809442	134.485571	112.5	4.024	8.3	8.0	1.00	5780	1.18	60.61
012507325-09	OBS	No	64.560845	183.078488	165.1	3.500	9.1	-1.0	1.00	5780	1.27	10.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012507325-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
012507325-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT
012507325-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012507325-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
012507325-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—HALO_GHOST
012507325-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_CROWDED
012507325-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

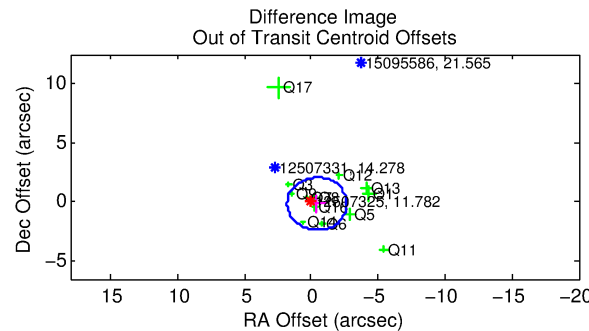
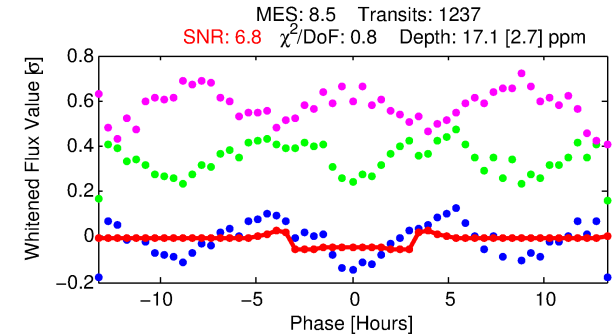
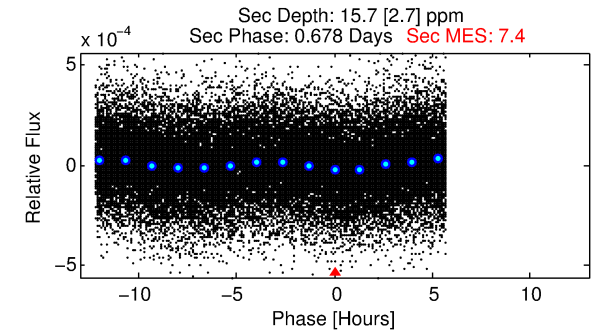
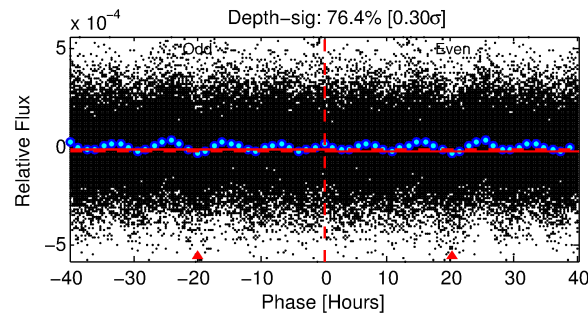
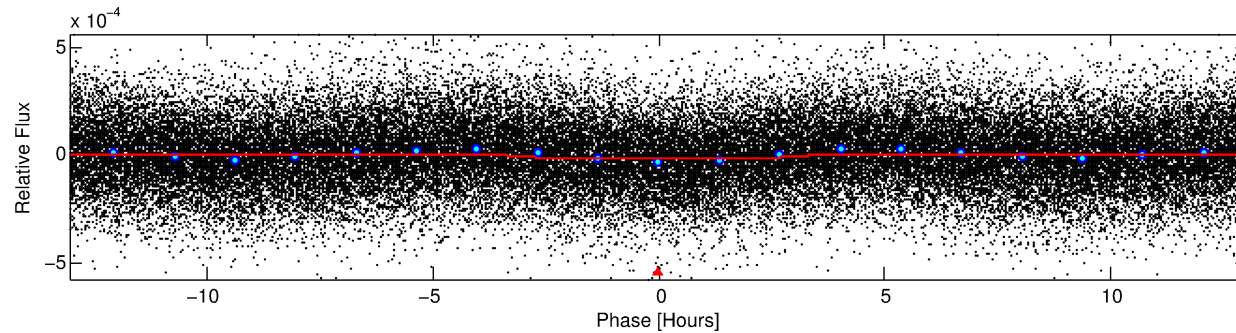
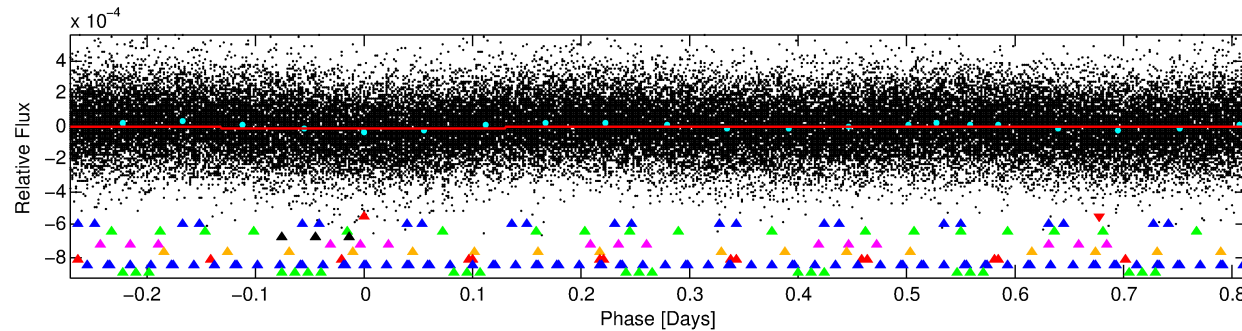
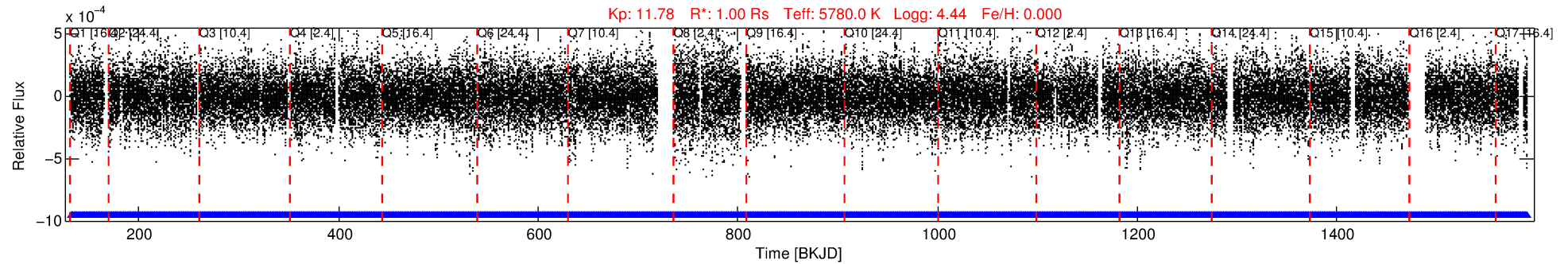
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012507325-01

No Significant Match Found

DV One-Page Summary

KIC: 12507325 Candidate: 1 of 9 Period: 1.086 d



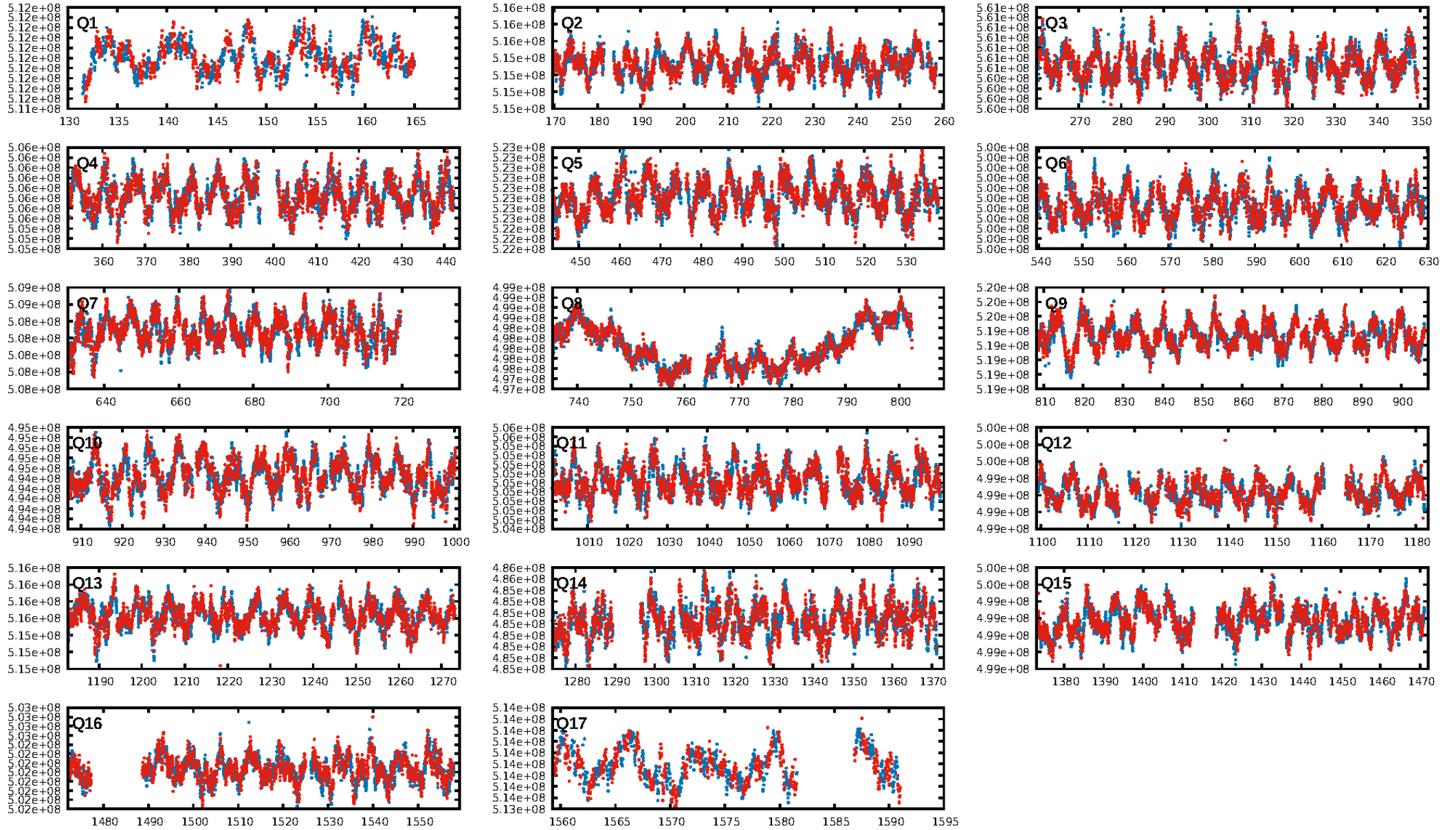
DV Fit Results:

Period = 1.08639 [0.00002] d
Epoch = 132.0166 [0.0040] BKJD
Rp/R* = 0.0039 [0.0018]
a/R* = 1.29 [1.05]
b = 0.53 [2.76]
Seff = 2336.82 [0.05]
Teq = 1773 [0] K
Rp = 0.42 [0.19] Re
a = 0.0207 [0.0000] AU
Ag = 20.55 [19.03] [1.03 σ]
Teffp = 5836 [1351] K [3.01 σ]

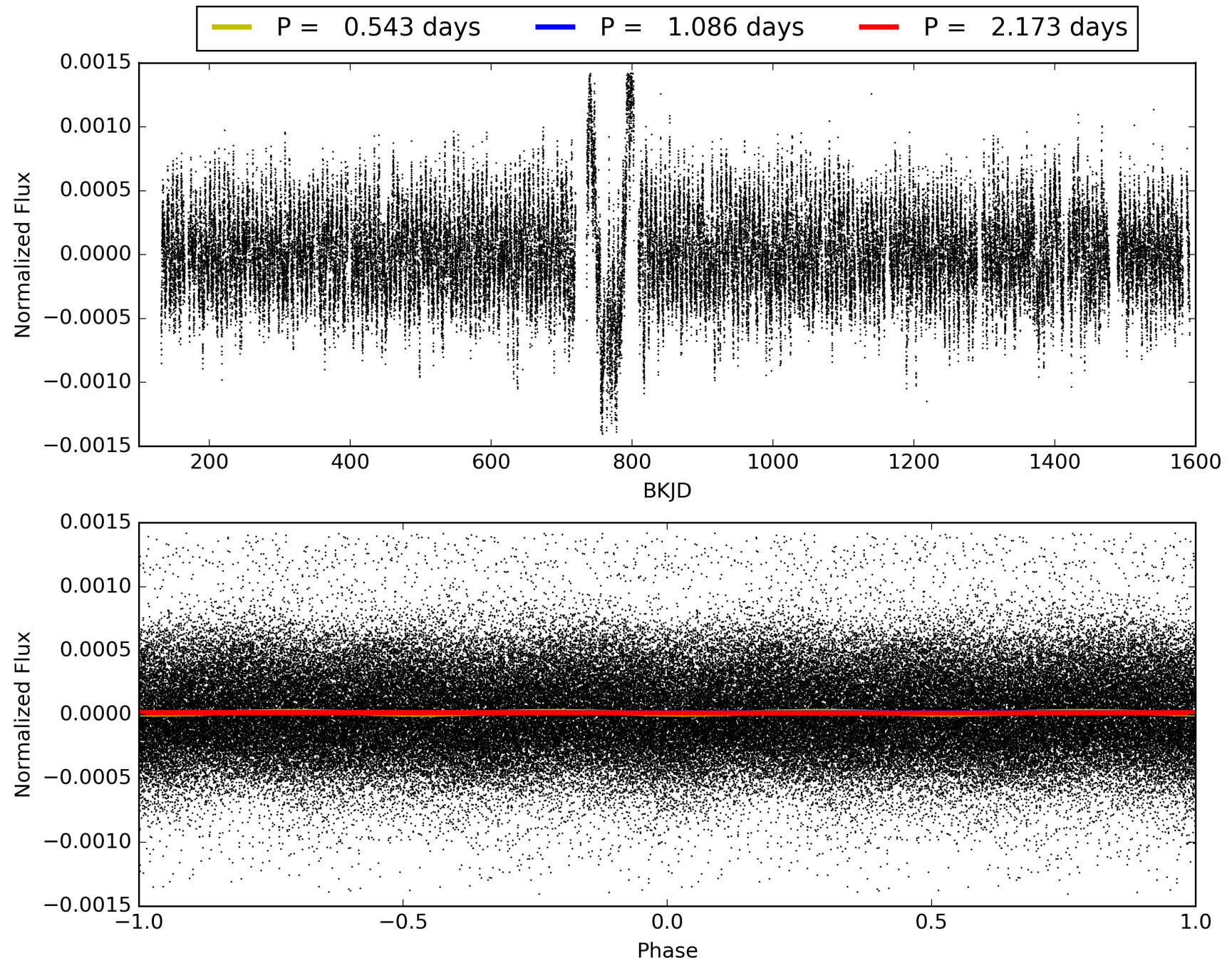
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [48.29 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1180/1180]
GhostDiagnostic-chr: 1.778
Centroid-sig: 34.0%
Centroid-so: 0.590 arcsec [1.38 σ]
OotOffset-rm: 0.456 arcsec [0.61 σ]
KicOffset-rm: 0.551 arcsec [0.57 σ]
OotOffset-st: 2/3/3/5 [13]
KicOffset-st: 2/3/3/5 [13]
DiffImageQuality-fgm: 0.54 [7/13]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 012507325-01, PDC Light Curves

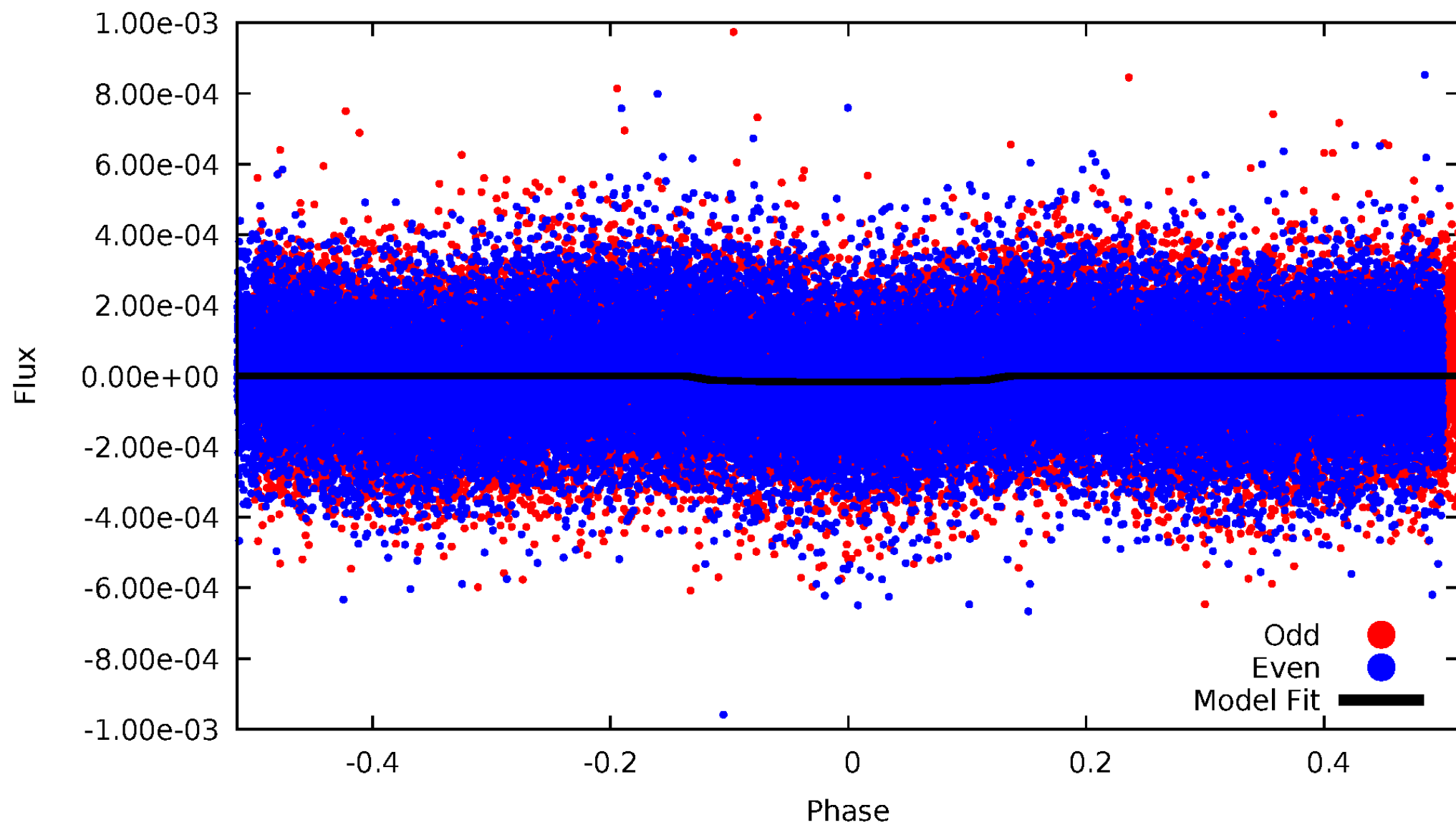


TCE 012507325-01



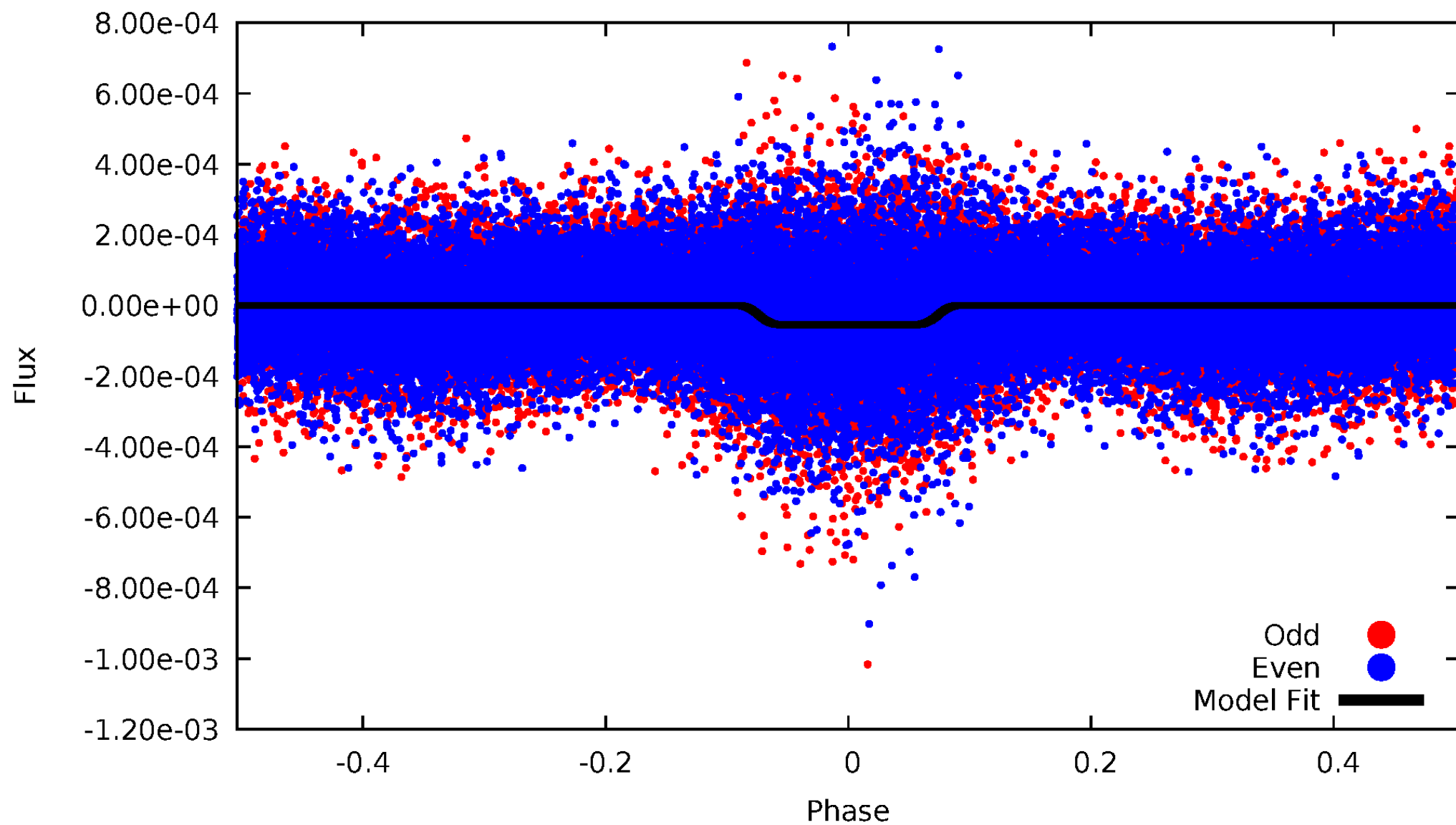
DV Odd/Even

TCE 012507325-01

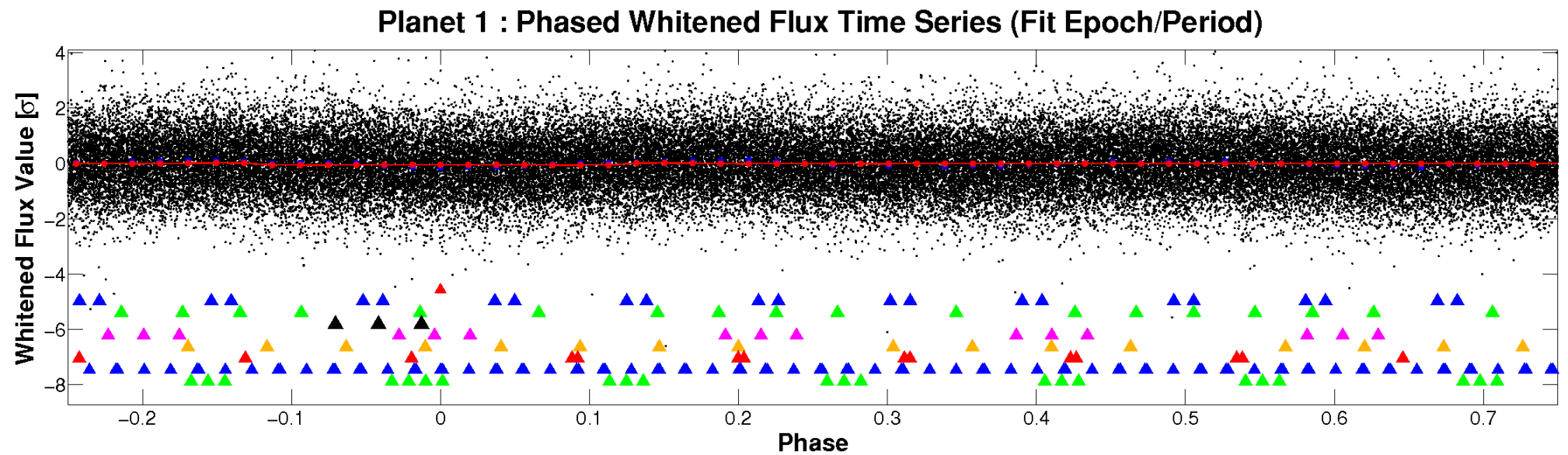
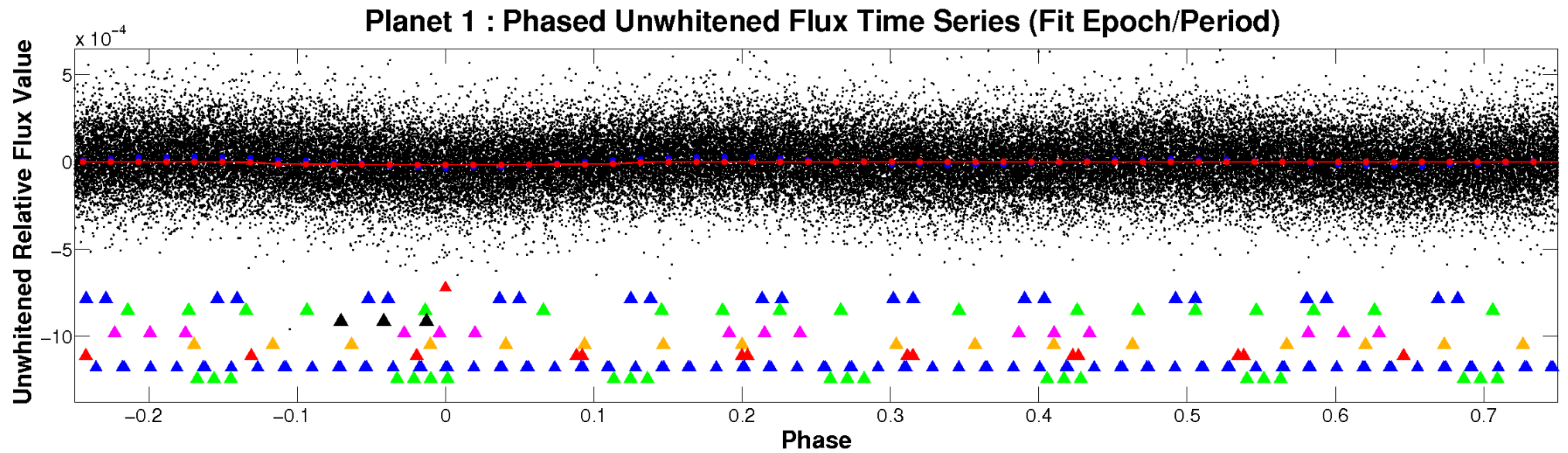


ALT Odd/Even

TCE 012507325-01

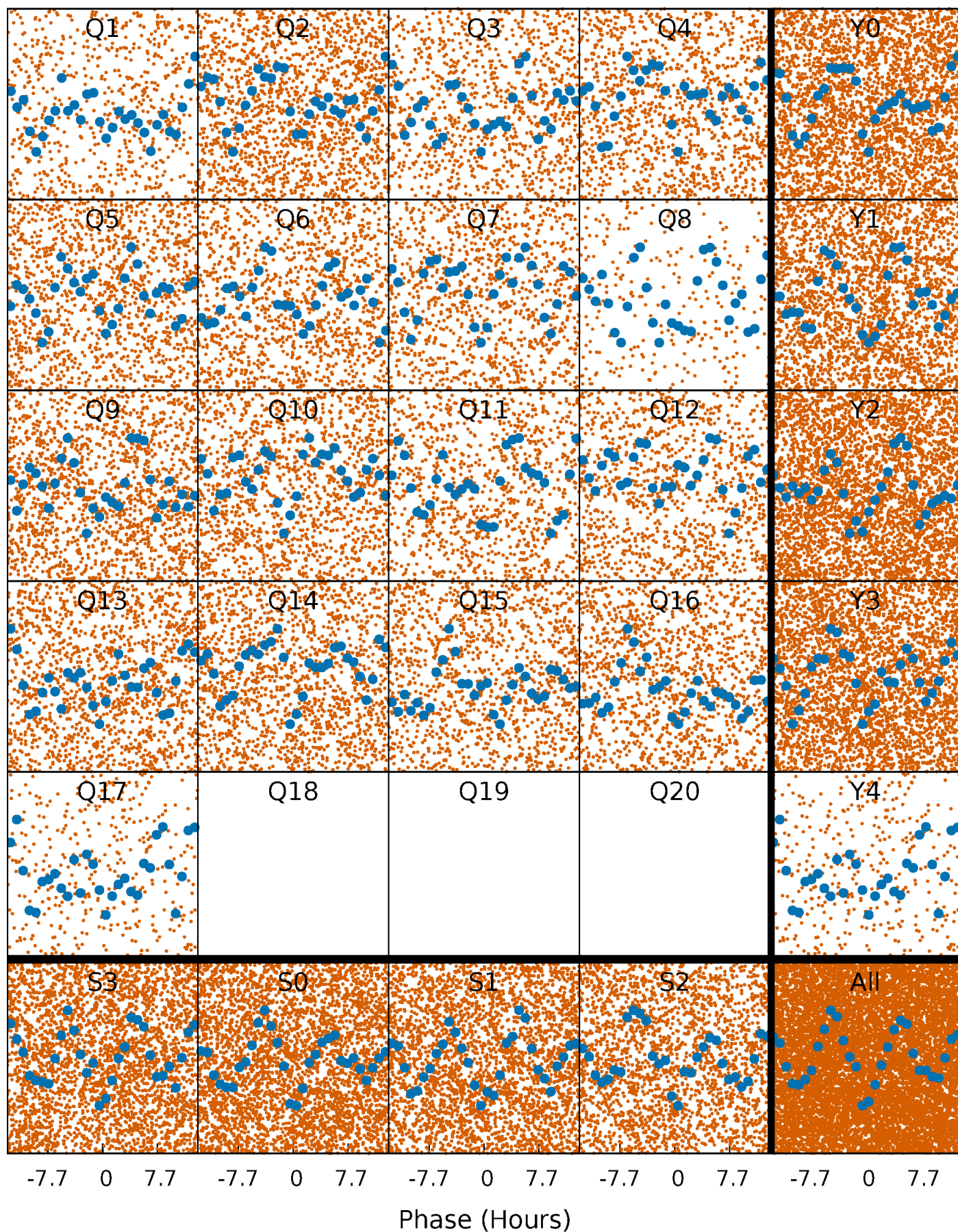


Non-Whitened Vs. Whitened Light Curve



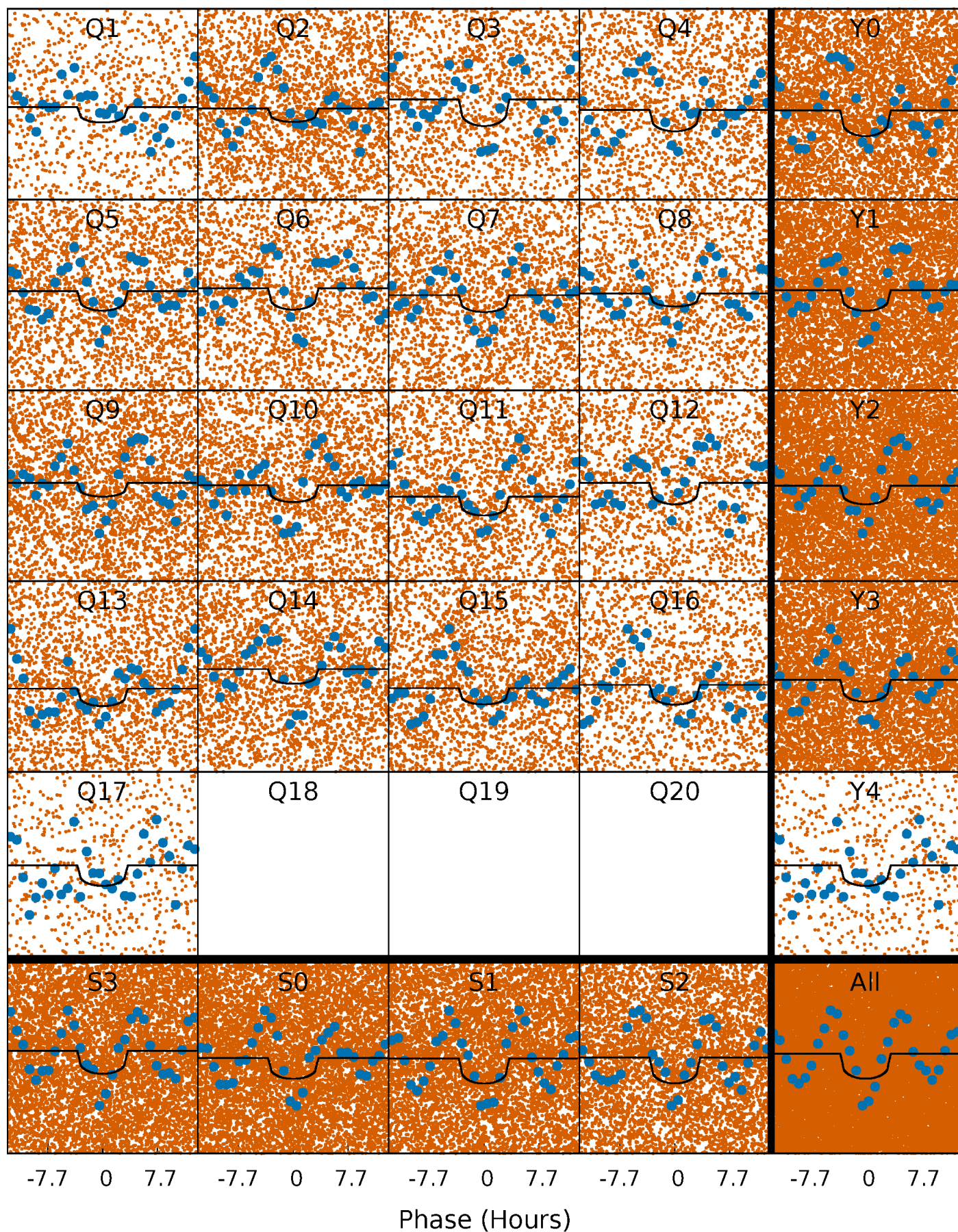
PDC Quarter-Phased Transit Curves

TCE 012507325-01 P= 1.086390 Days $T_0=132.016640$ (BKJD)



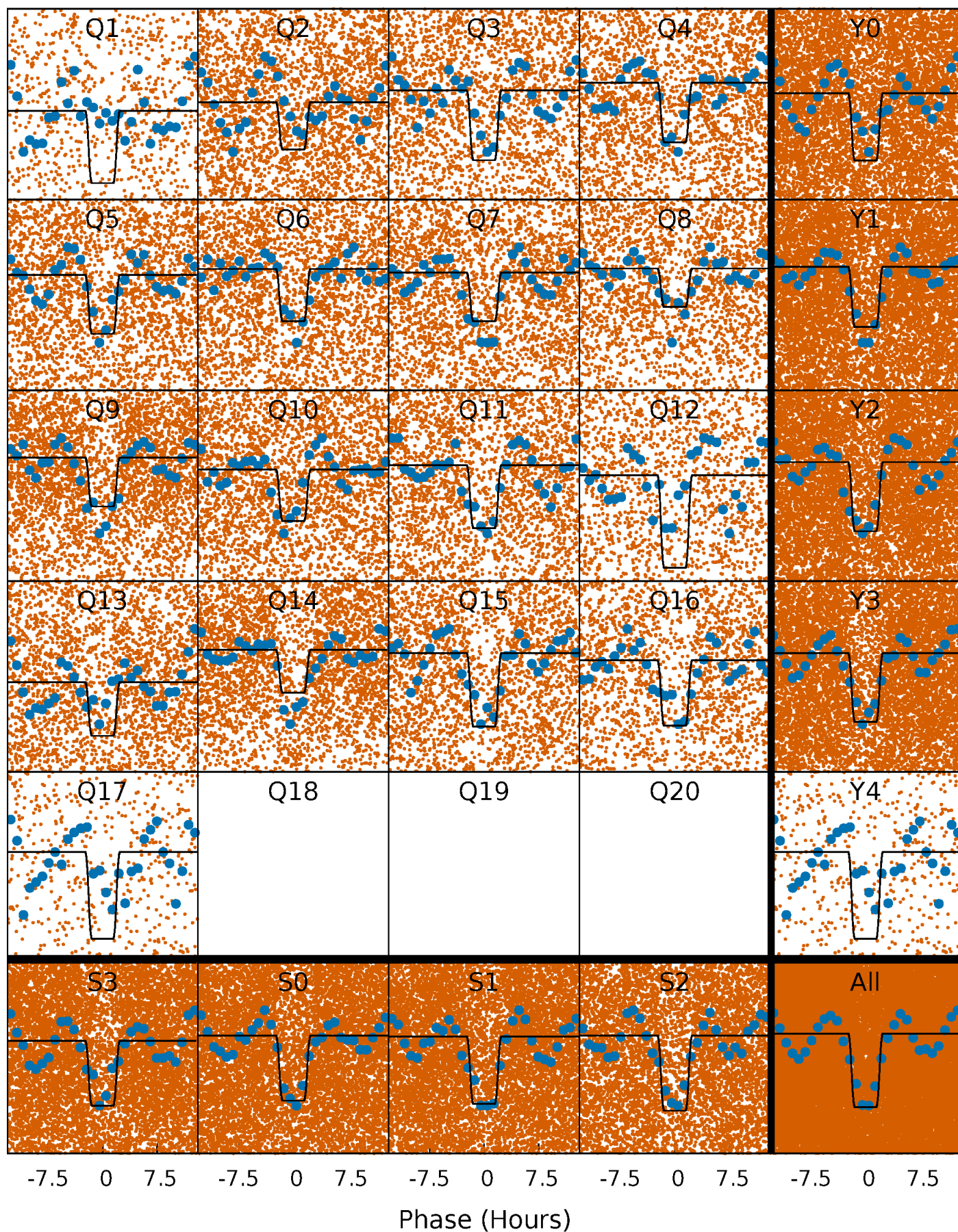
DV Quarter-Phased Transit Curves

TCE 012507325-01 P= 1.086390 Days $T_0=132.016640$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

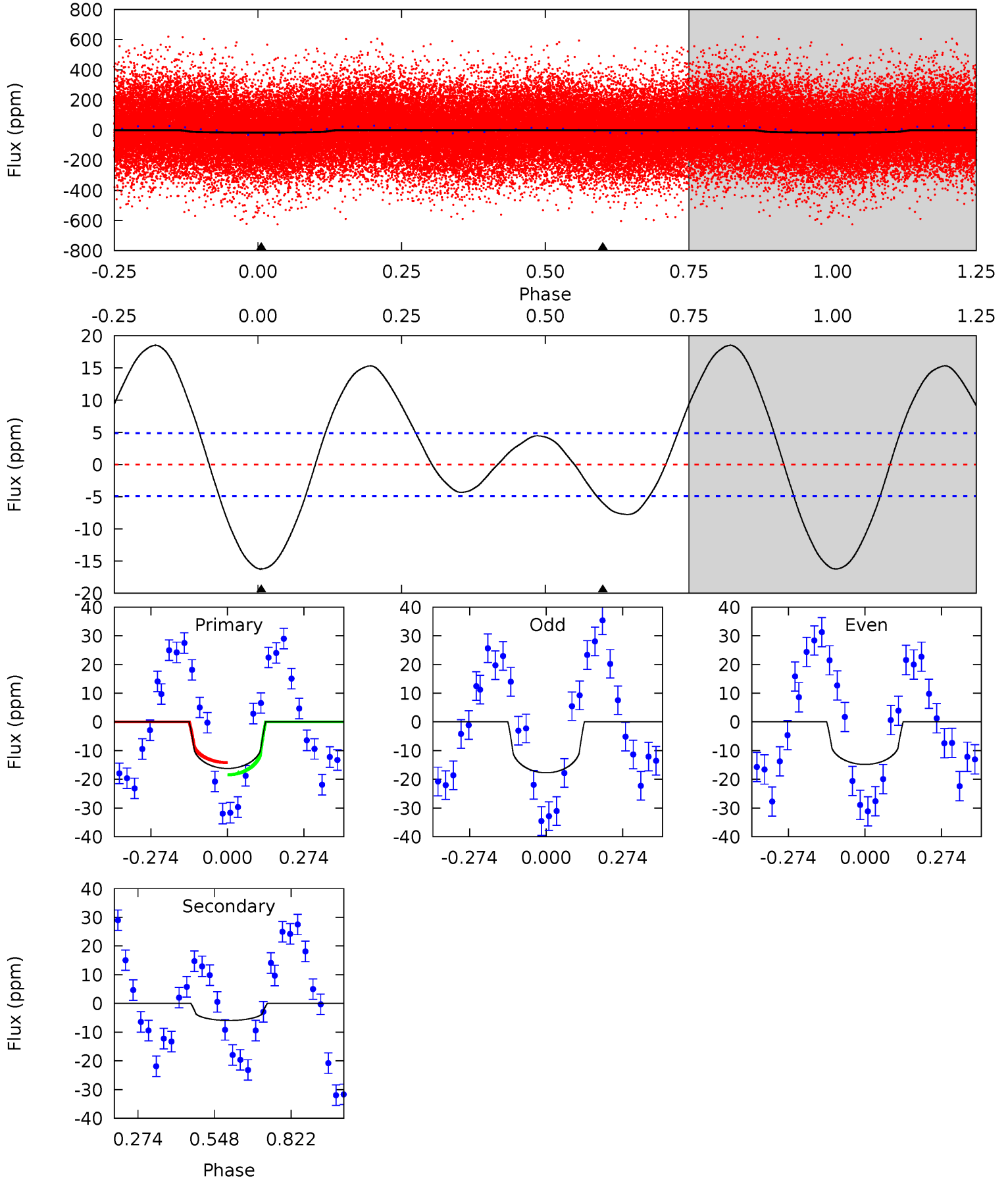
TCE 012507325-01 P= 1.086398 Days $T_0=132.020429$ (BKJD)



DV Model-Shift Uniqueness Test

012507325-01, P = 1.086390 Days, E = 130.930250 Days

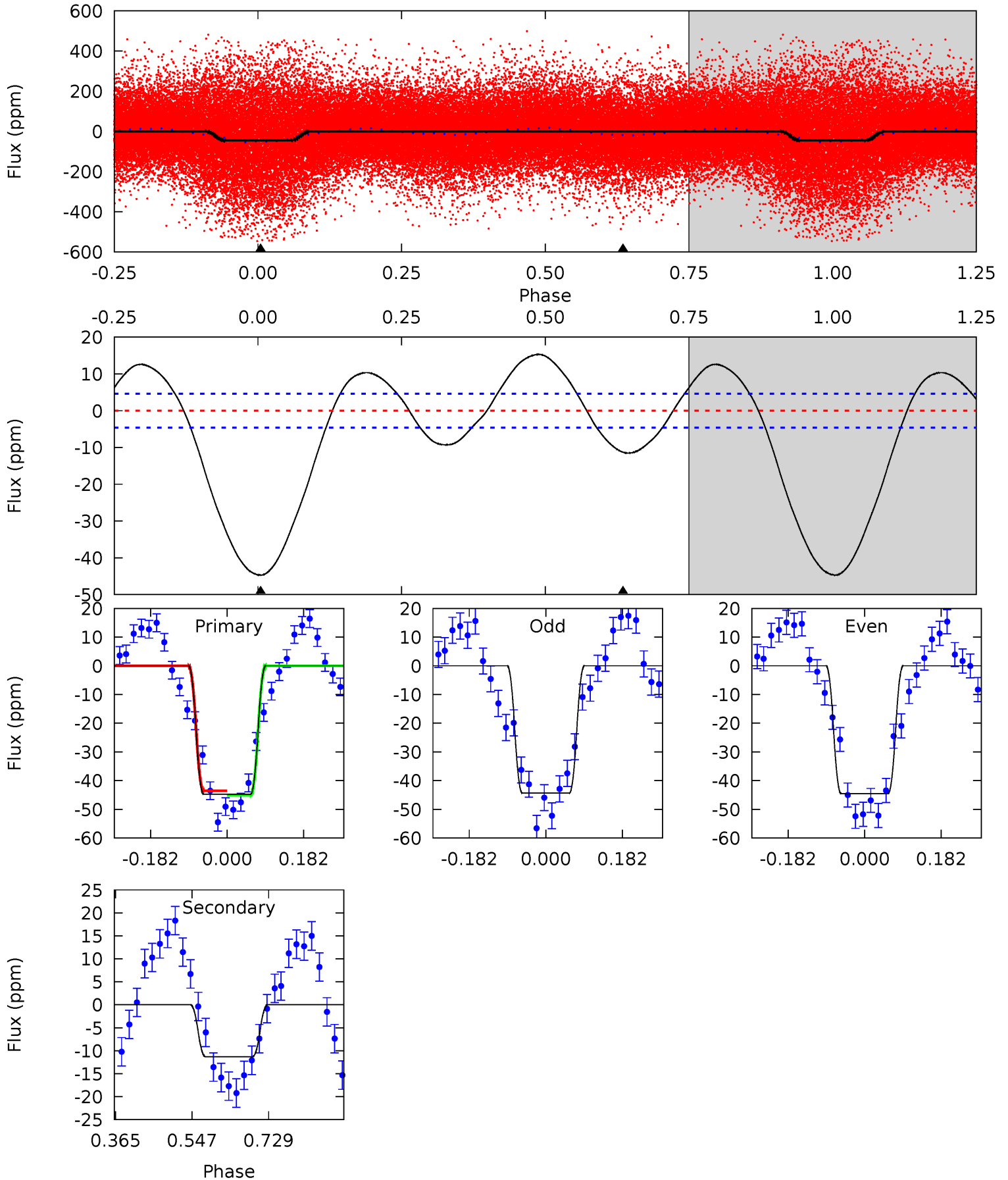
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	5.29	0	0	4.35	1.09	3.62	14.5	14.5	5.29	5.29	1.30	1.20	0.53	1.91



Alt Model-Shift Uniqueness Test

012507325-01, P = 1.086398 Days, E = 130.934031 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.9	10.9	0	0	4.44	1.33	6.86	42.9	42.9	10.9	10.9	0.06	1.06	0.26	0.77



Stellar Parameters For KIC 012507325

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 012507325-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 1	$0.43^{+0.21}_{-0.18}$	2481^{+121}_{-122}	4666^{+1311}_{-706}	$7.622^{+15.249}_{-4.245}$
Alt.	-11 ± 1	$0.81^{+0.22}_{-0.20}$	2482^{+111}_{-119}	4114^{+527}_{-360}	$4.140^{+3.335}_{-1.586}$

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 $A_{obs} \gg 1.0$

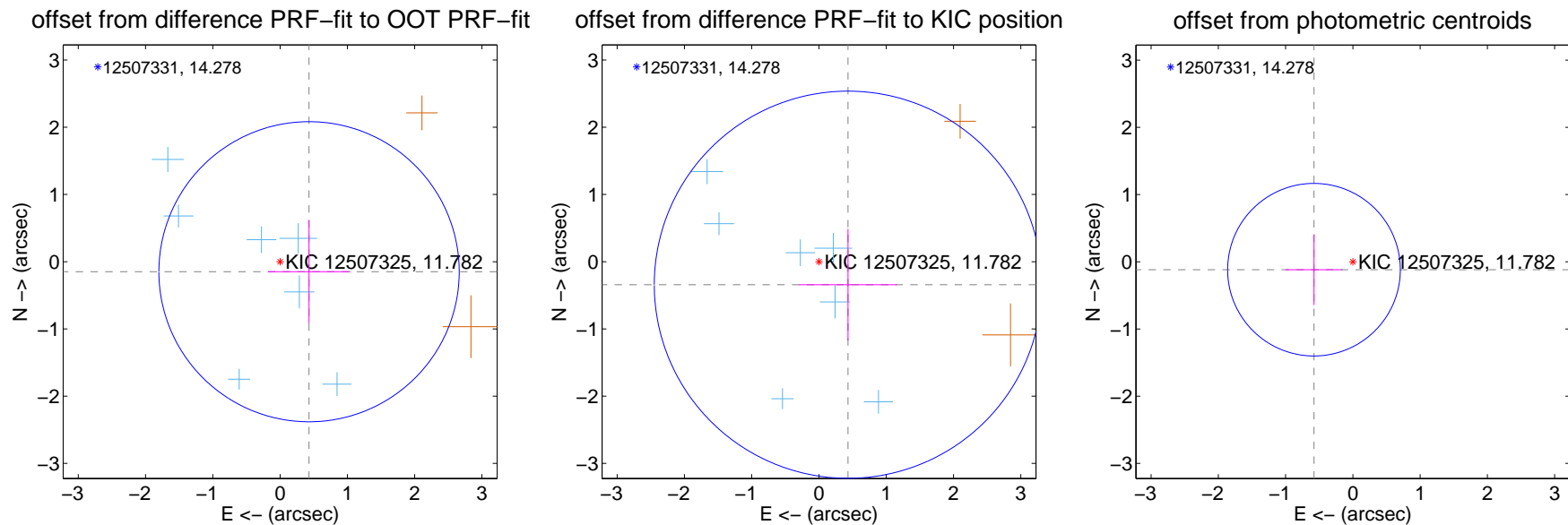
DV Centroid Data

Supplemental centroid analysis for 012507325-01. **Kepler magnitude: 11.78.** Transit SNR 6.79

There are 7 quarters with good PRF difference image offsets

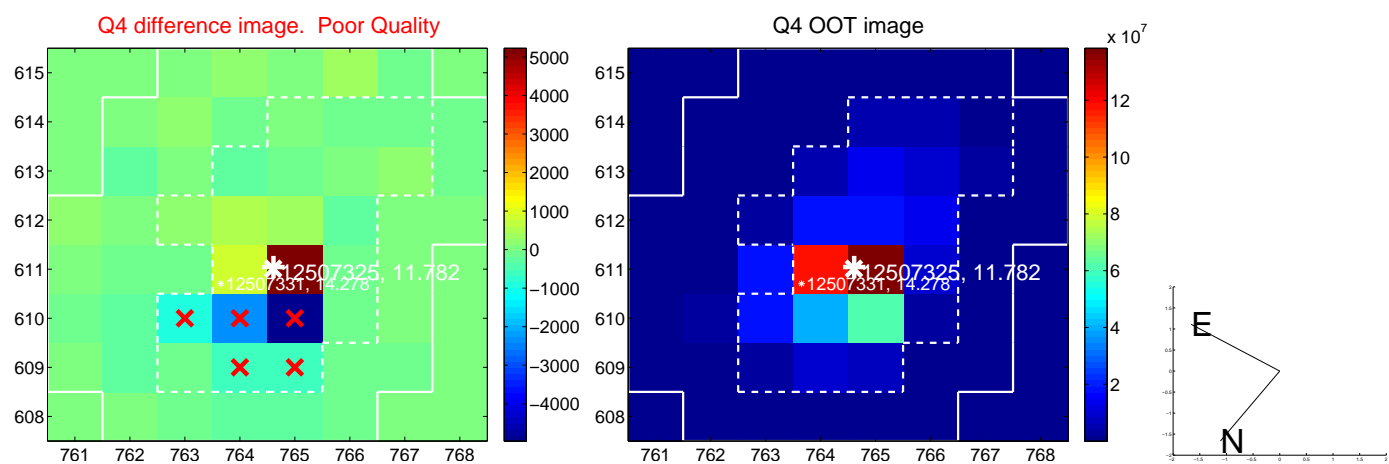
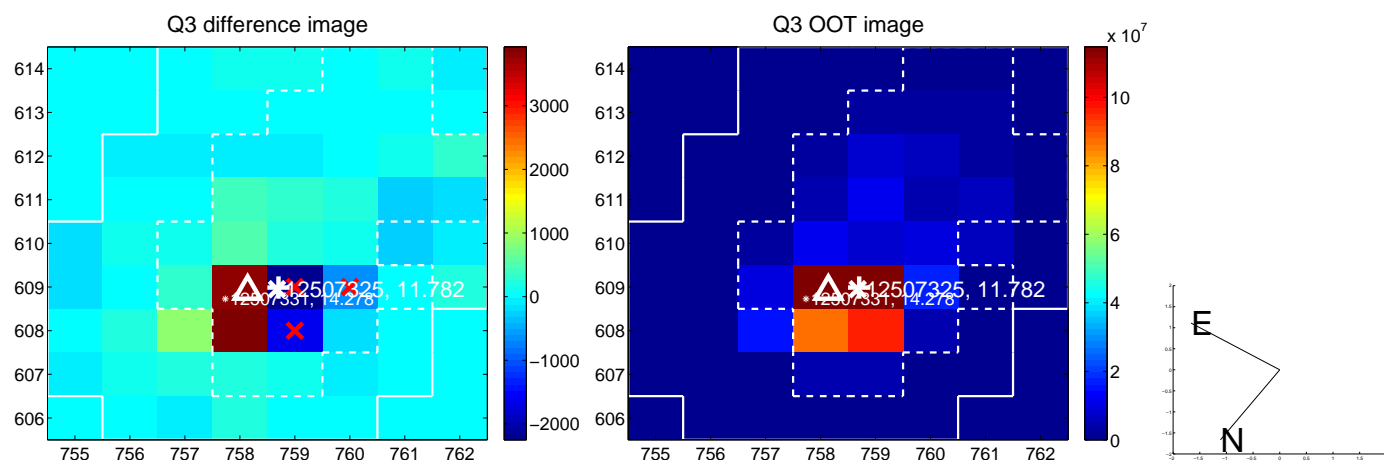
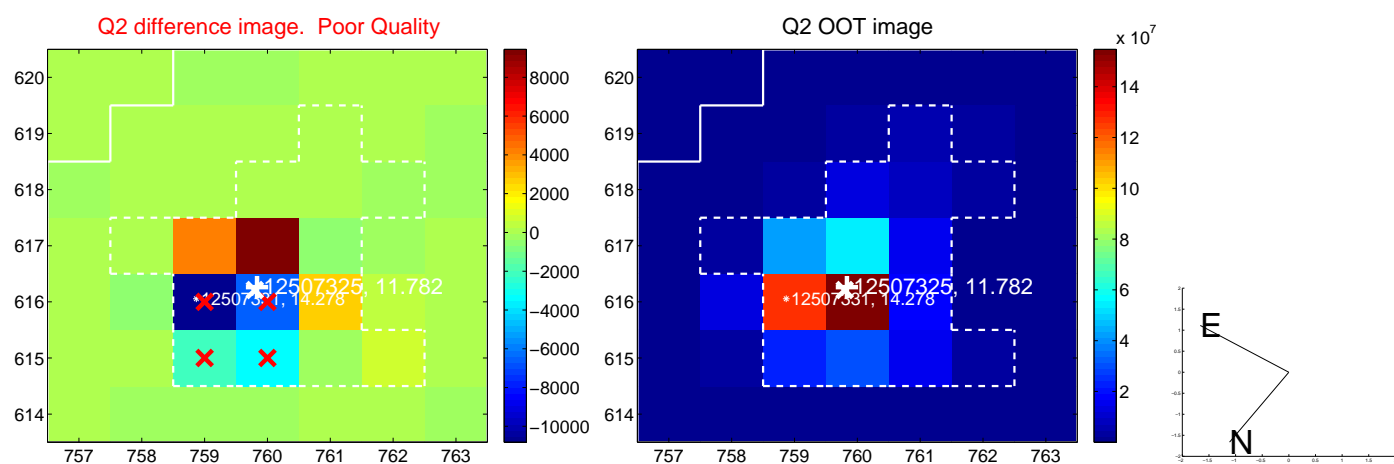
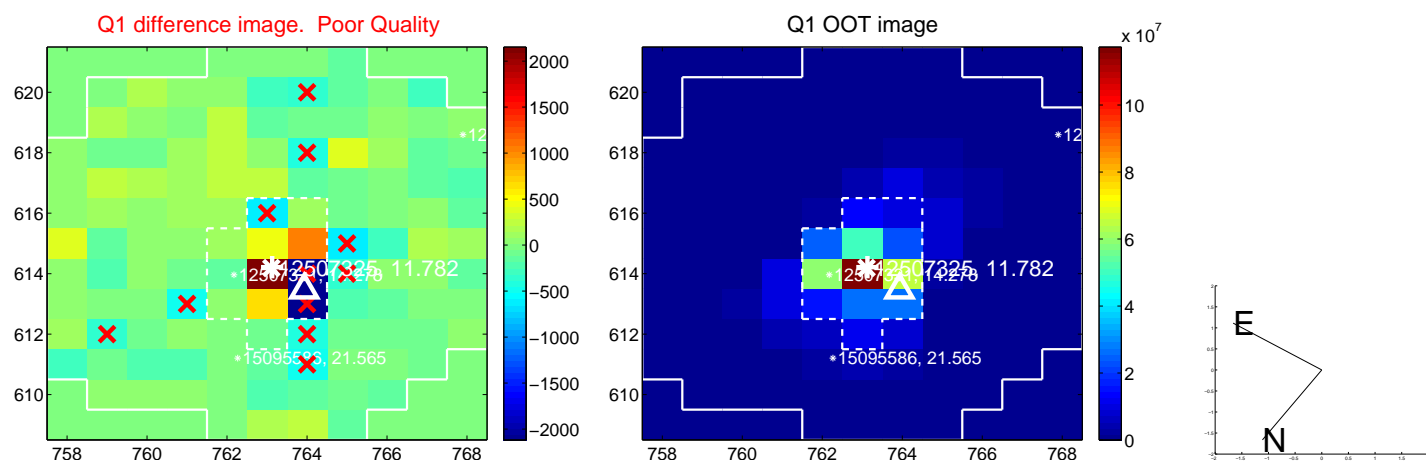
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.456 ± 0.744	0.61	-0.430 ± 0.611	-0.149 ± 0.768
PRF-fit source offset from KIC position	0.551 ± 0.960	0.57	-0.431 ± 0.728	-0.343 ± 0.830
photometric centroid source offset	0.59 ± 0.43	1.38	0.58 ± 0.42	-0.12 ± 0.53

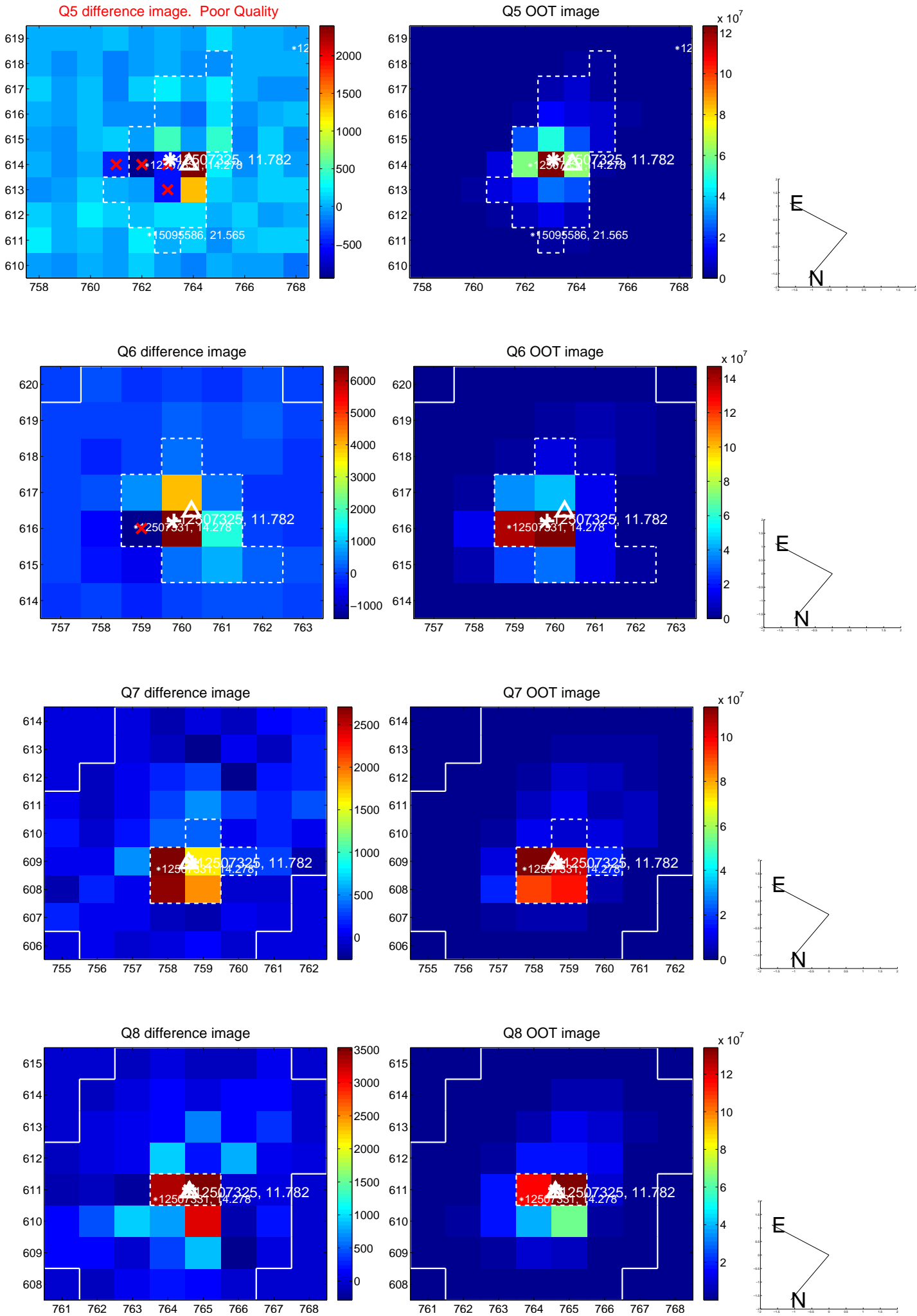


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

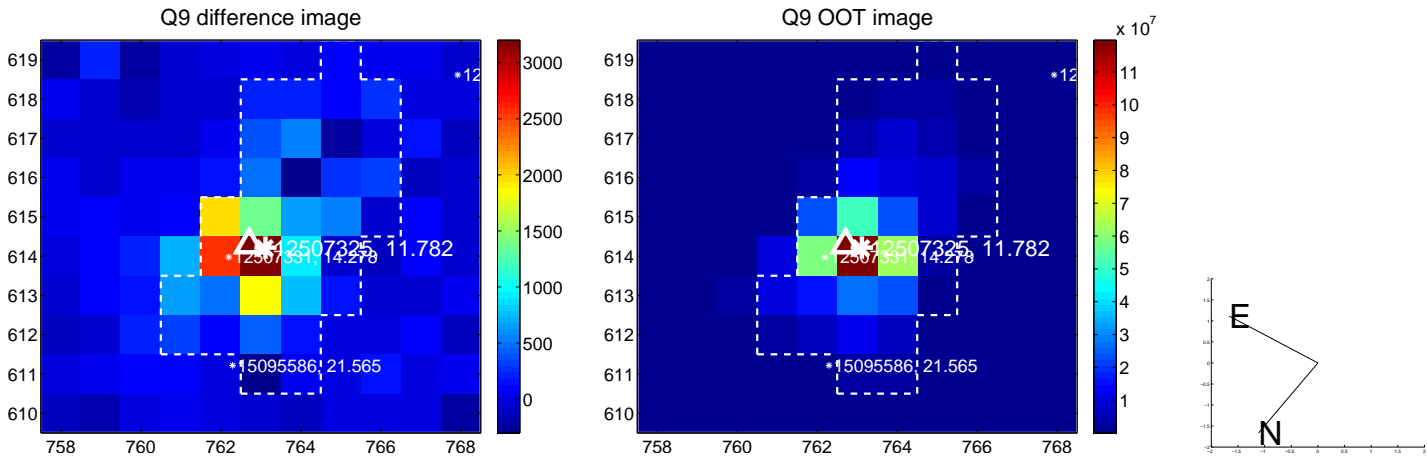
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



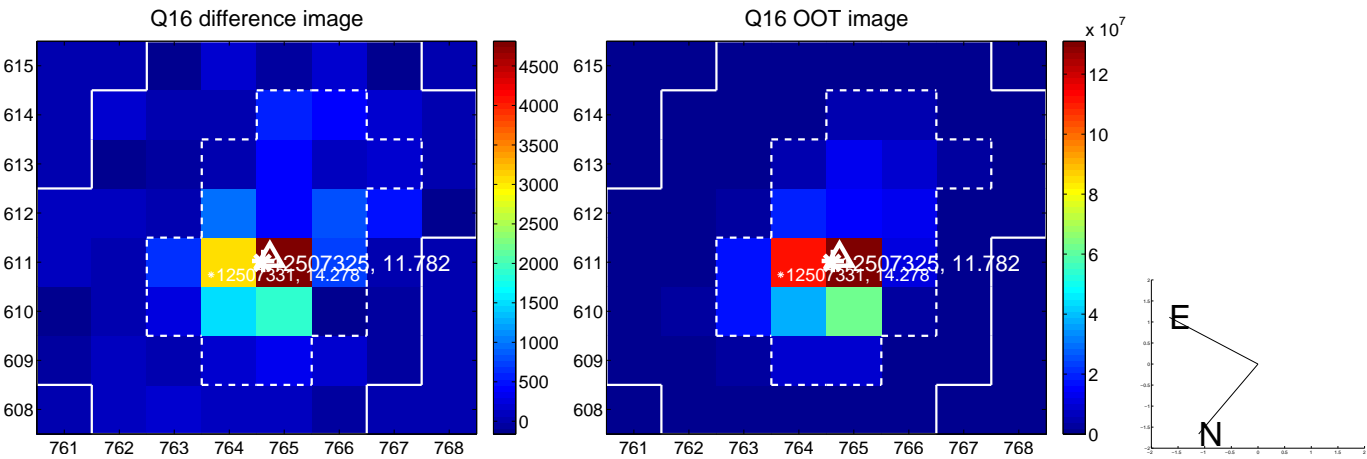
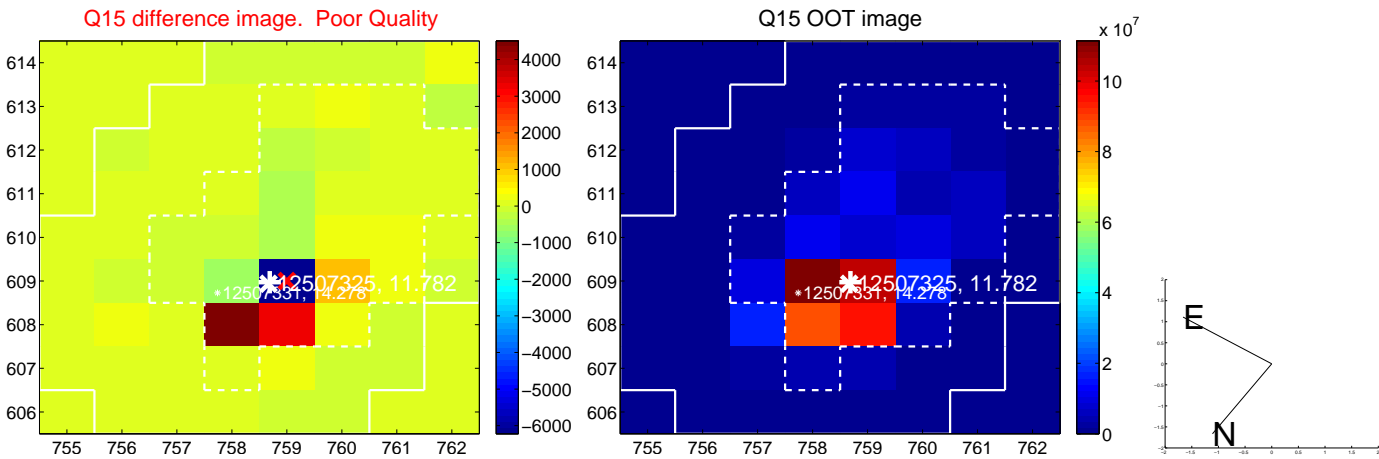
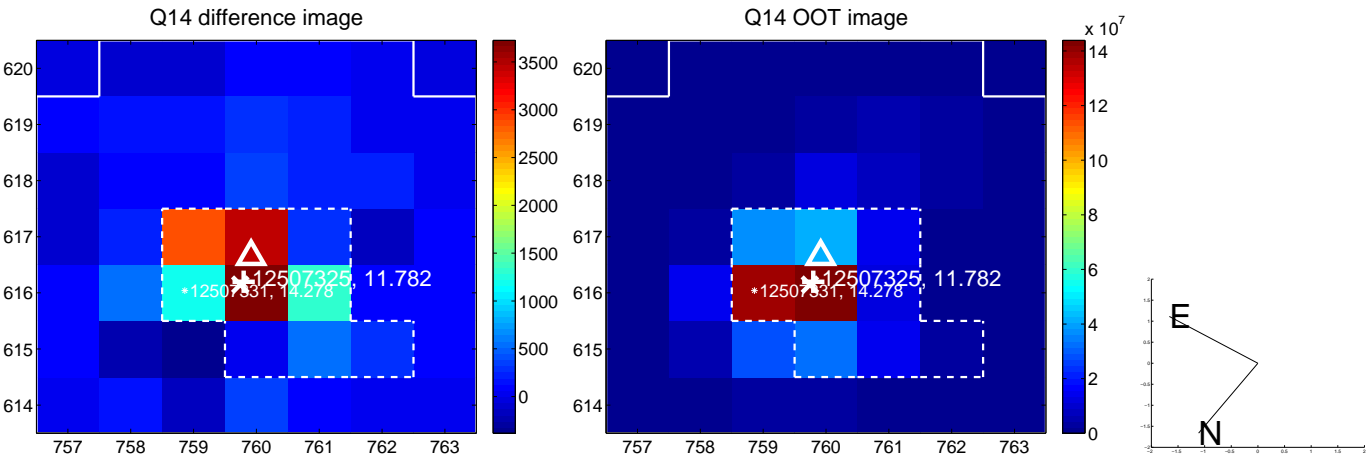
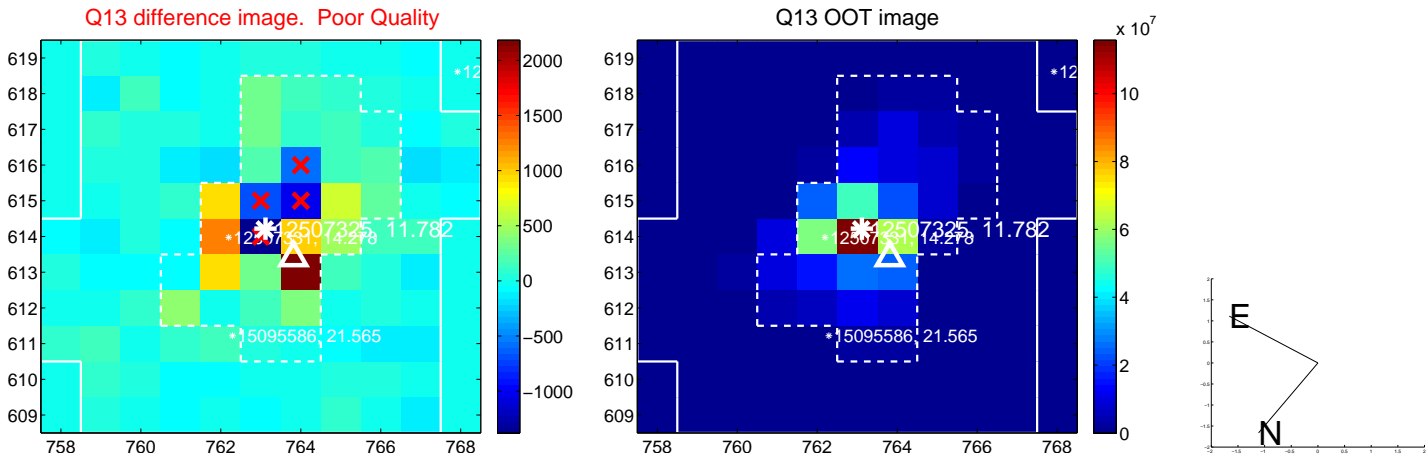
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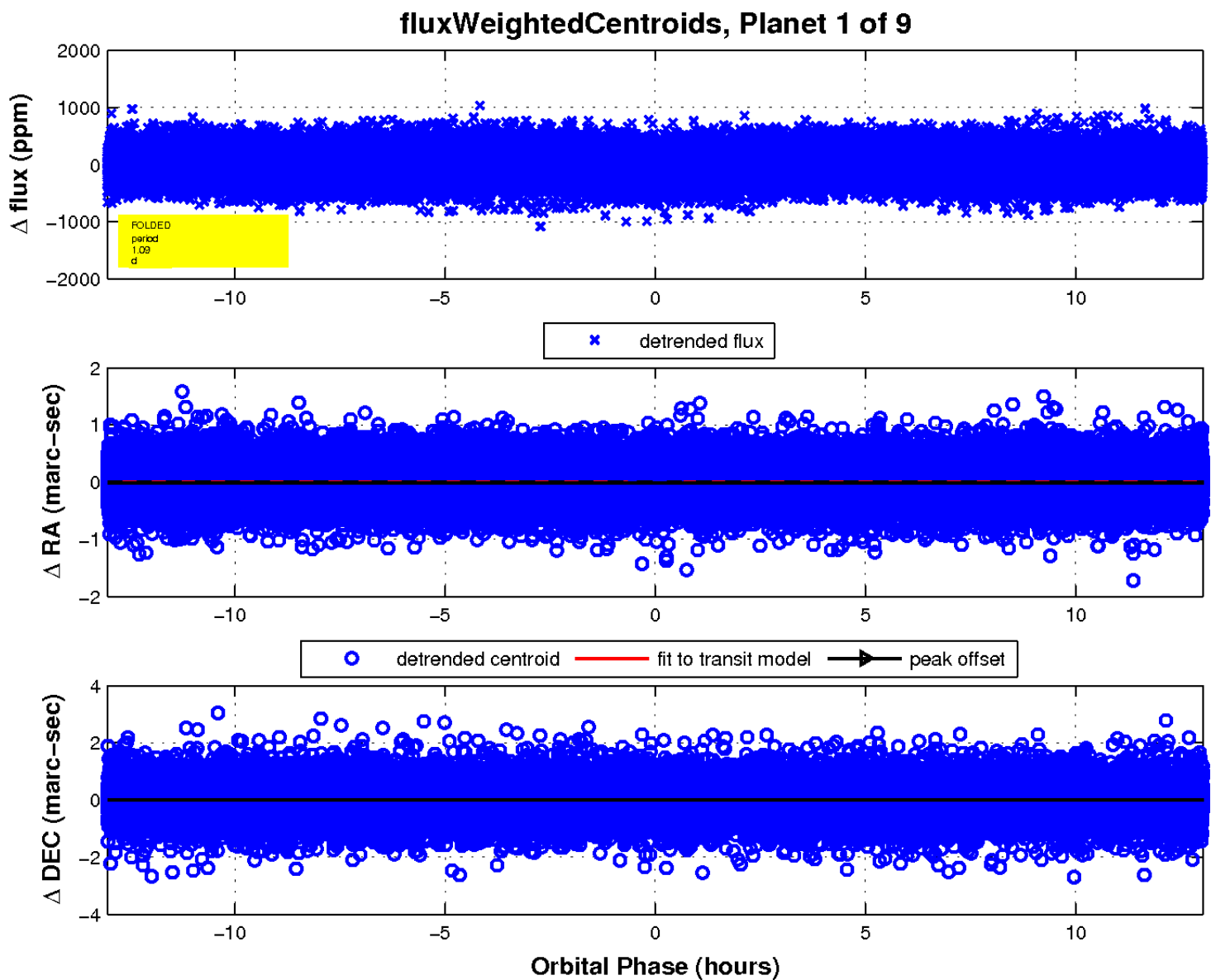
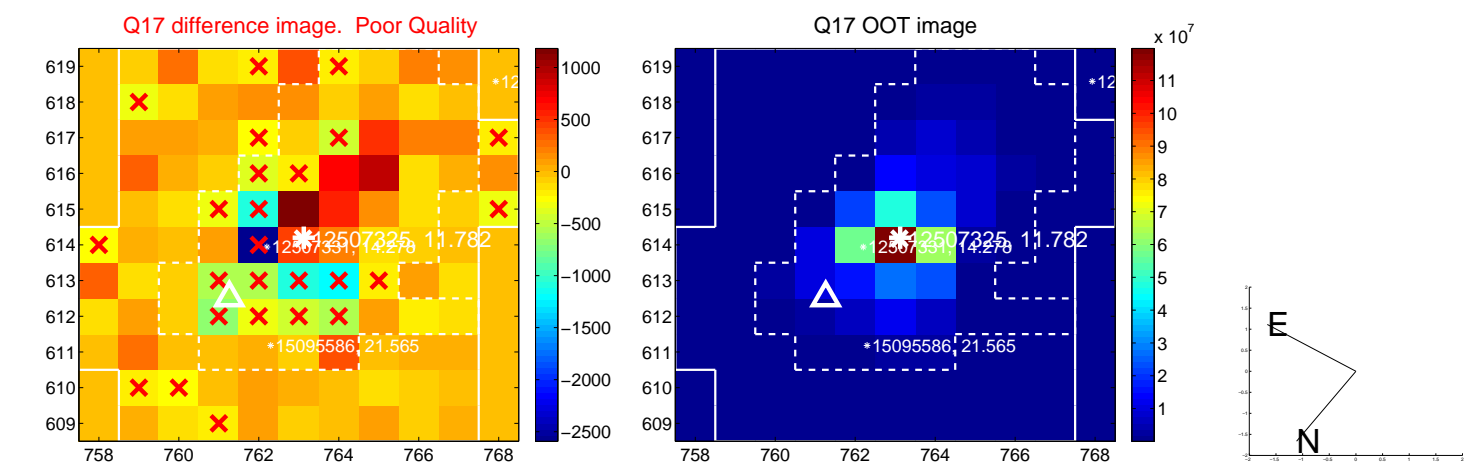
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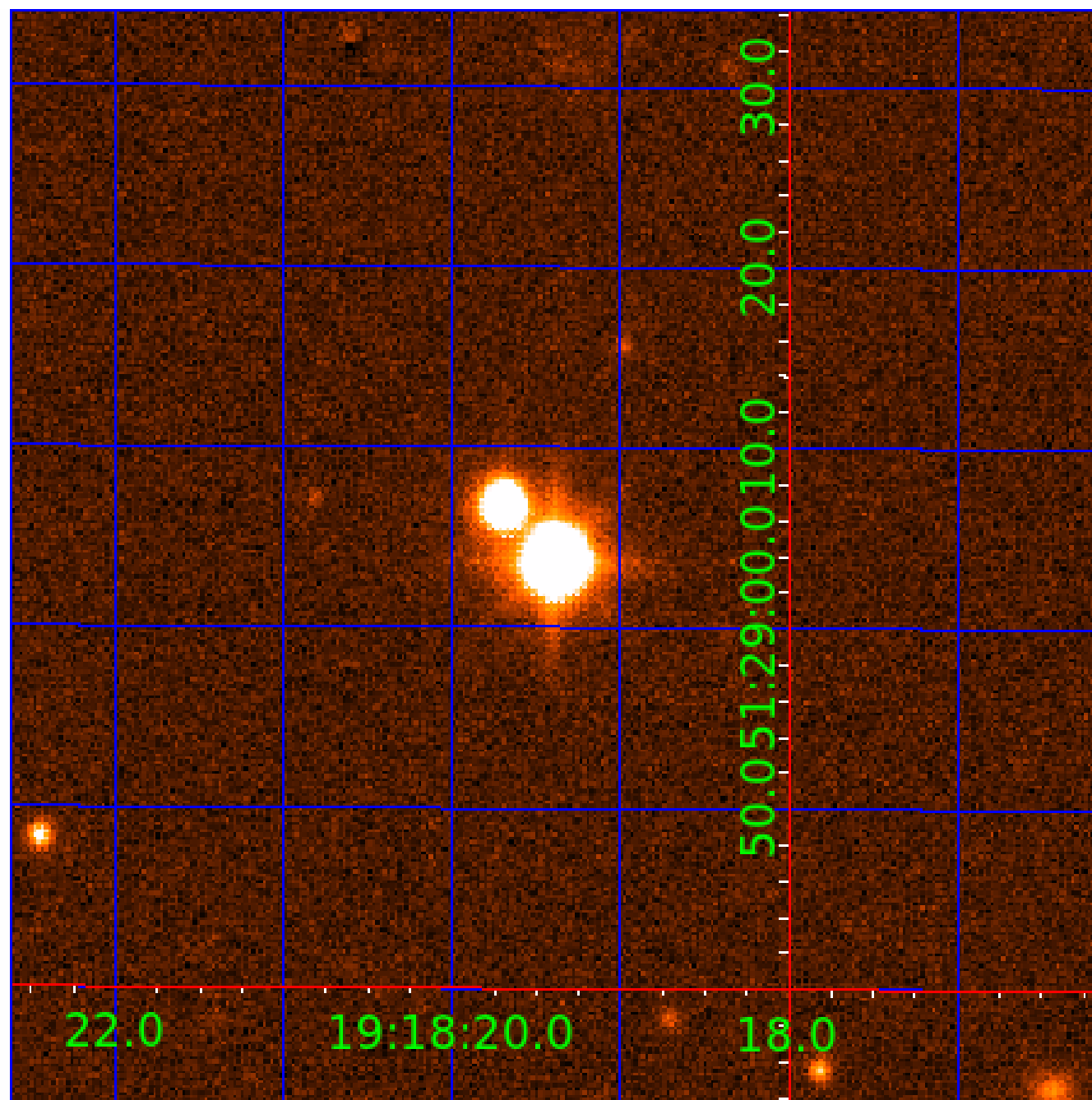


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UKIRT Image

Declination



KIC 012507325

Q1-17 DR25 TCE Parameters

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Robovetter Results

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012507325-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT
012507325-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012507325-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
012507325-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—HALO_GHOST
012507325-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_CROWDED
012507325-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

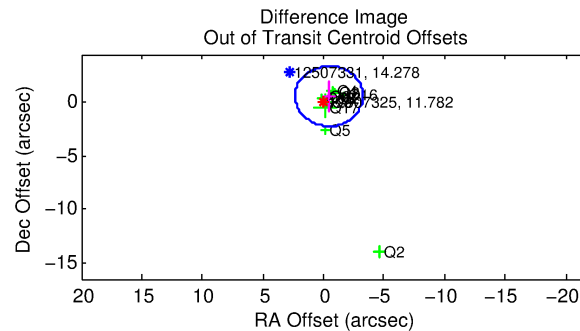
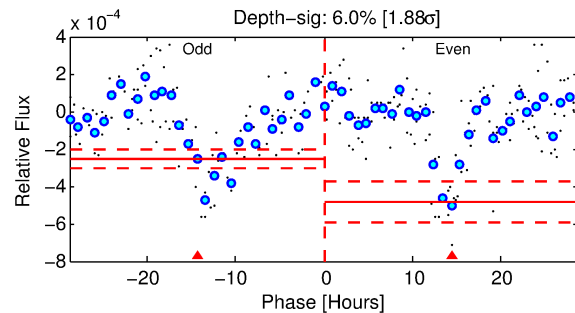
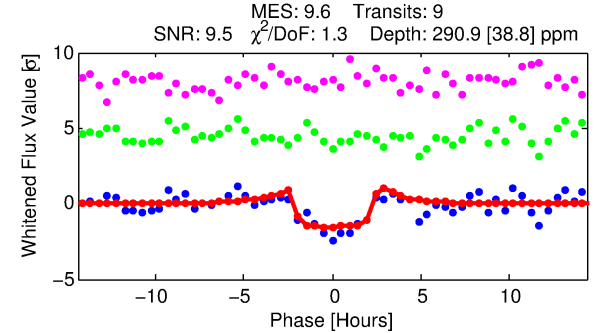
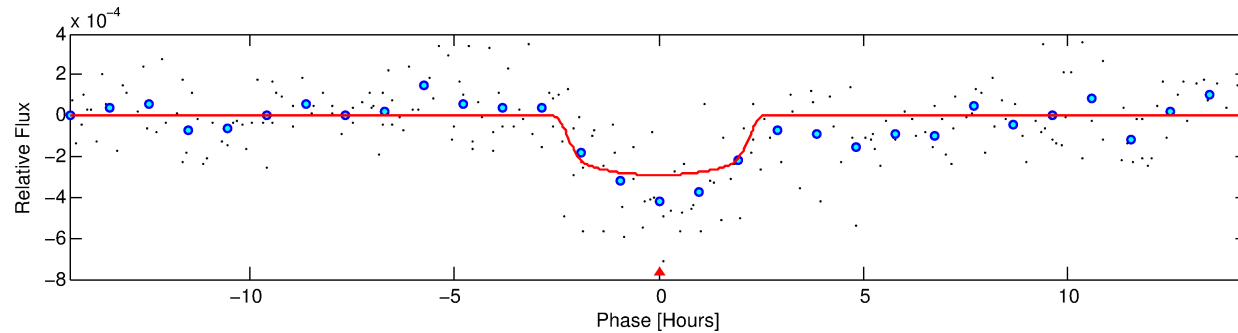
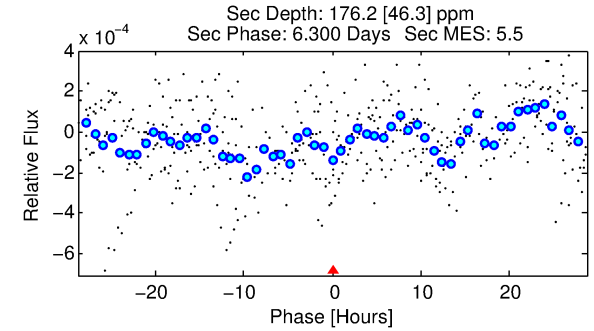
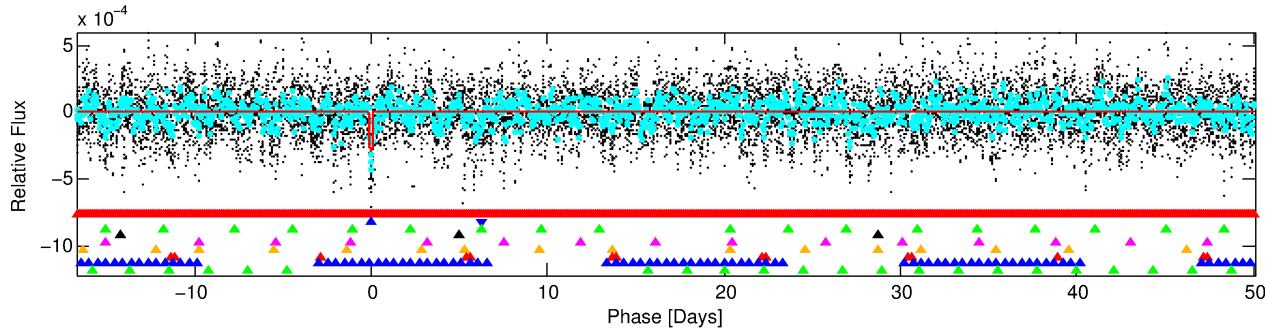
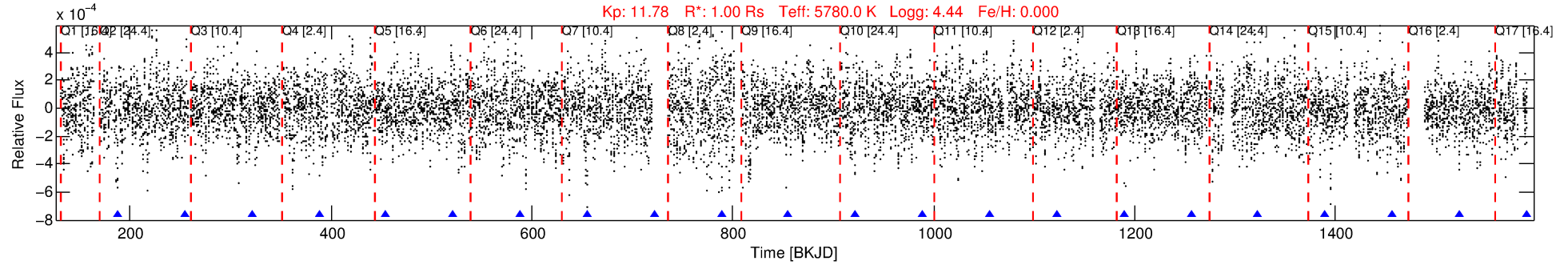
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012507325-02

No Significant Match Found

DV One-Page Summary

KIC: 12507325 Candidate: 2 of 9 Period: 66.765 d



DV Fit Results:

Period = 66.76492 [0.00063] d
Epoch = 187.8467 [0.0090] BKJD
Rp/R* = 0.0182 [0.0056]
a/R* = 55.37 [74.80]
b = 0.87 [0.37]
Seff = 9.64 [0.00]
Teq = 449 [0] K
Rp = 1.98 [0.61] Re
a = 0.3222 [0.0000] AU
Ag = 2561.64 [1723.17] [1.49σ]
Teffp = 4942 [831] K [5.41σ]

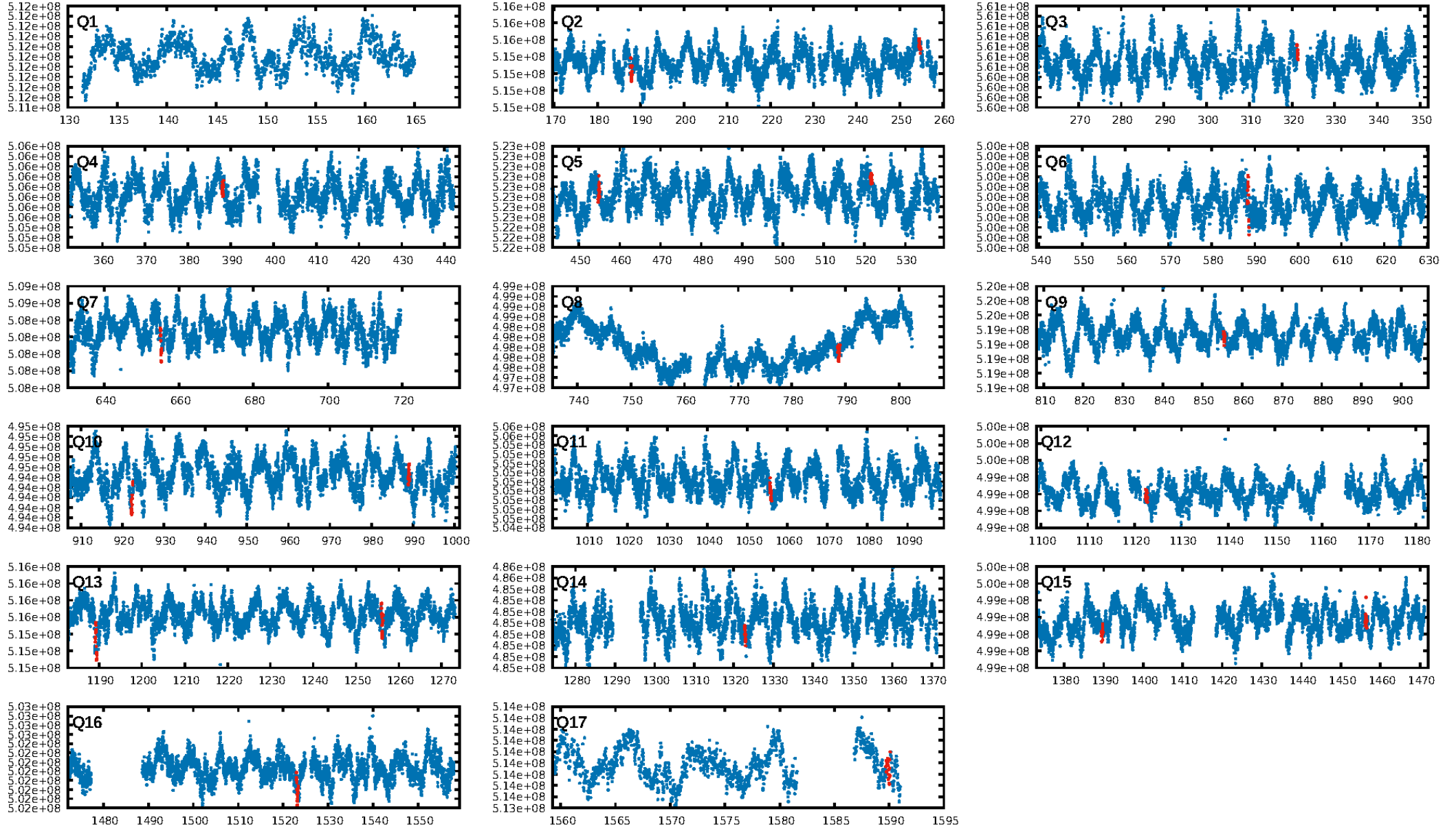
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [8.89σ]
LongPeriod-sig: 100.0% [43.60σ]
ModelChiSquare2-sig: 10.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: 0.5319
Centroid-sig: 0.4%
Centroid-so: 0.533 arcsec [1.95σ]
OotOffset-rm: 0.735 arcsec [0.79σ]
KicOffset-rm: 0.588 arcsec [0.93σ]
OotOffset-st: 2/1/3/4 [10]
KicOffset-st: 2/1/3/4 [10]
DiffImageQuality-fgm: 0.70 [7/10]
DiffImageOverlap-fno: 0.00 [0/14]

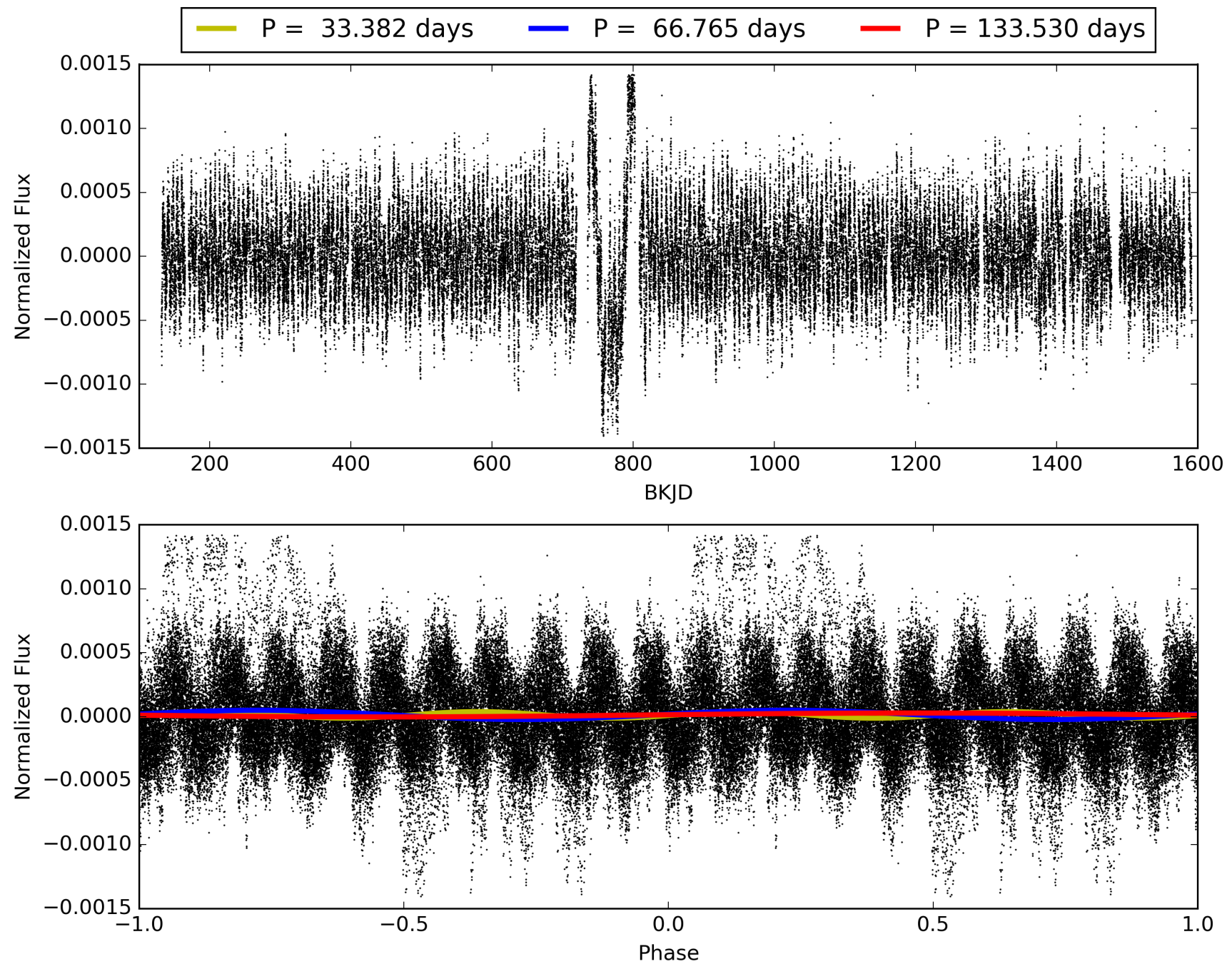
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:44:17 Z

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

TCE 012507325-02, PDC Light Curves

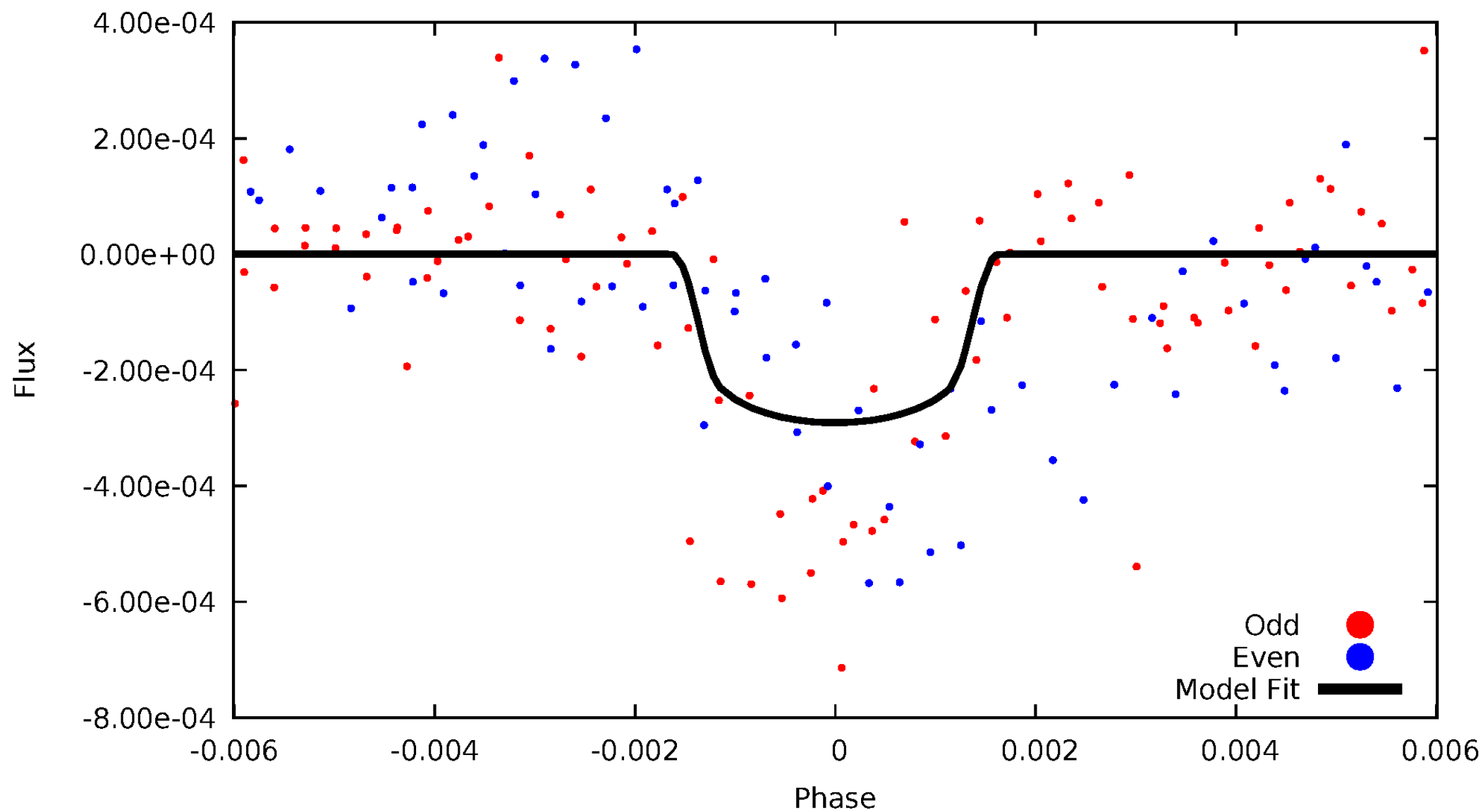


TCE 012507325-02



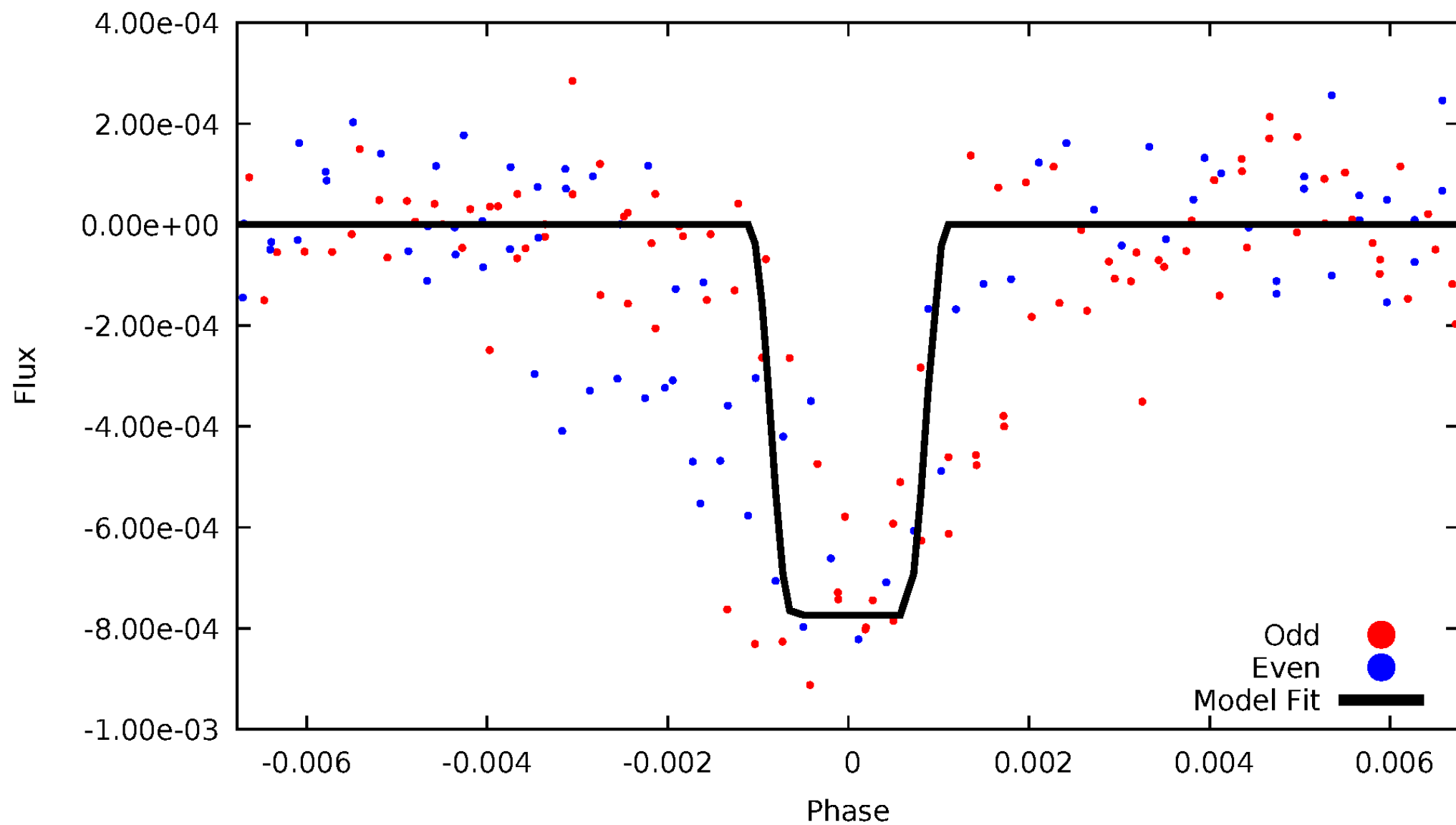
DV Odd/Even

TCE 012507325-02



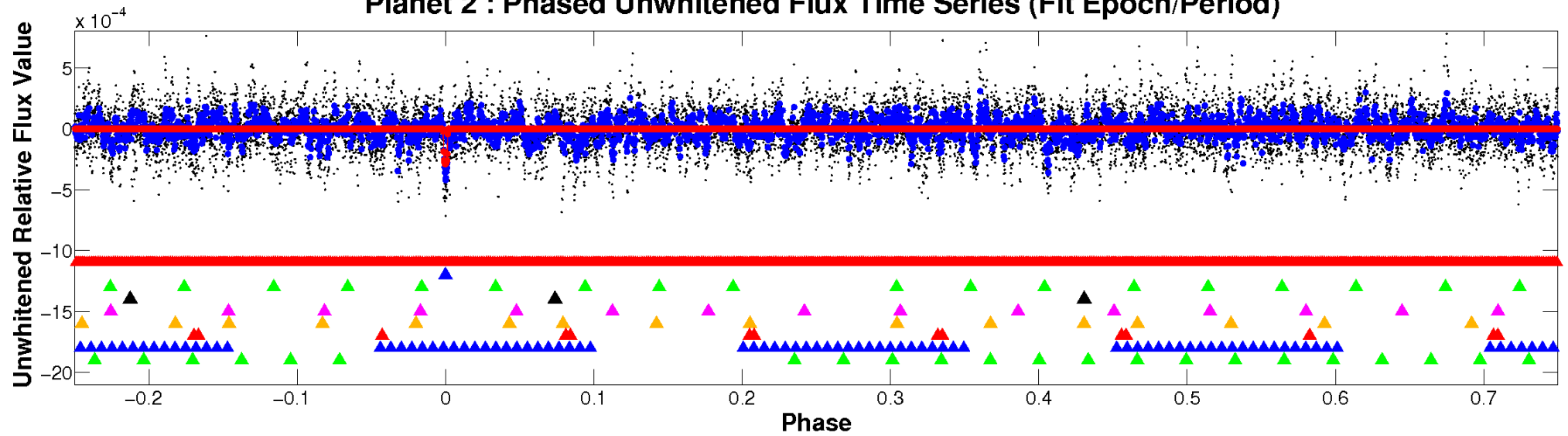
ALT Odd/Even

TCE 012507325-02

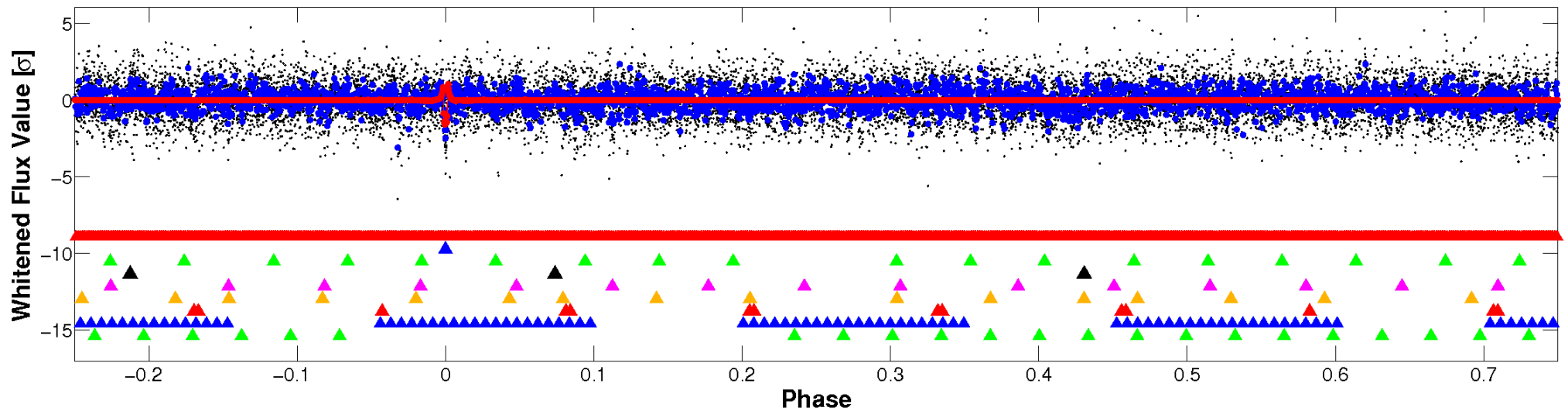


Non-Whitened Vs. Whitened Light Curve

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

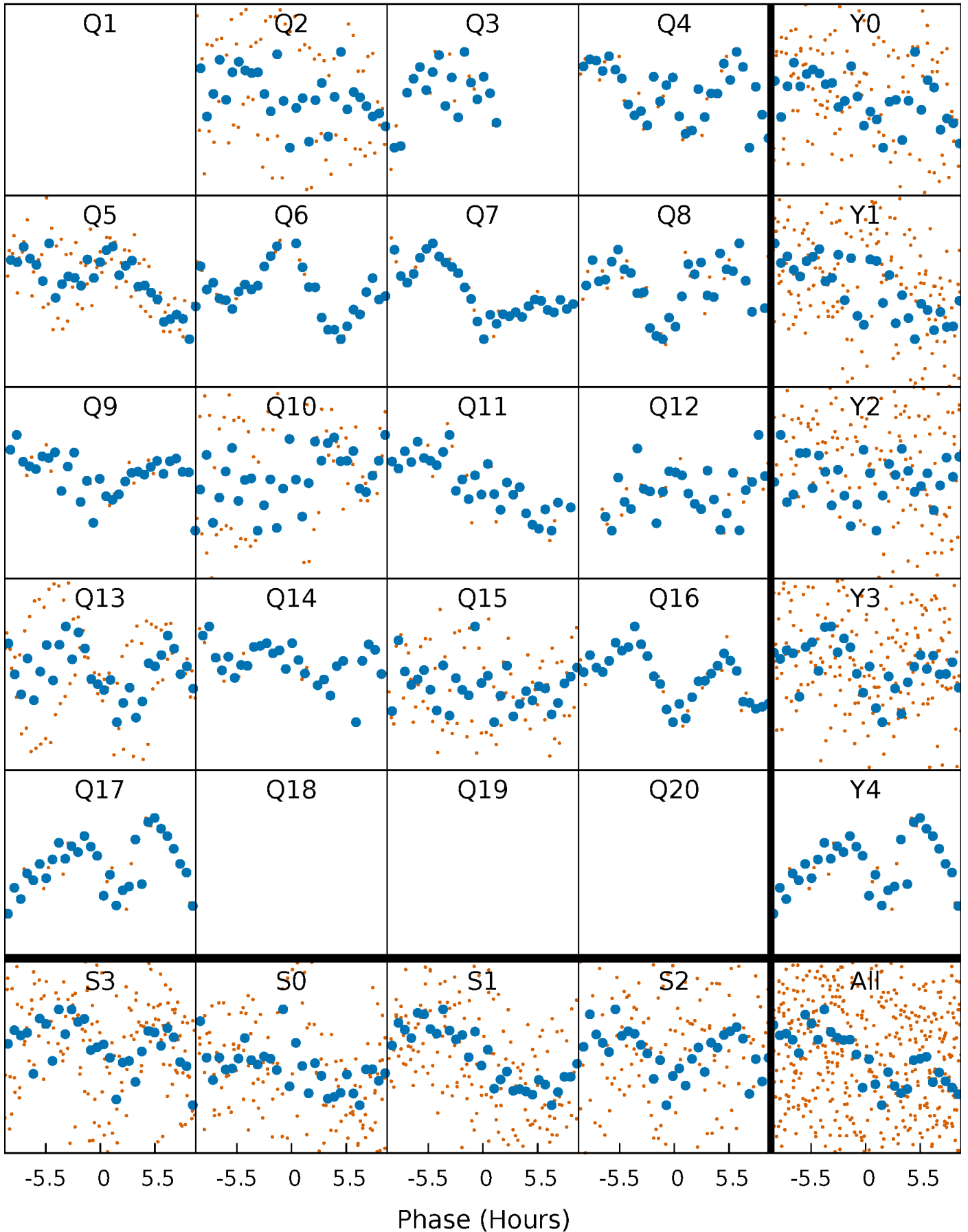


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



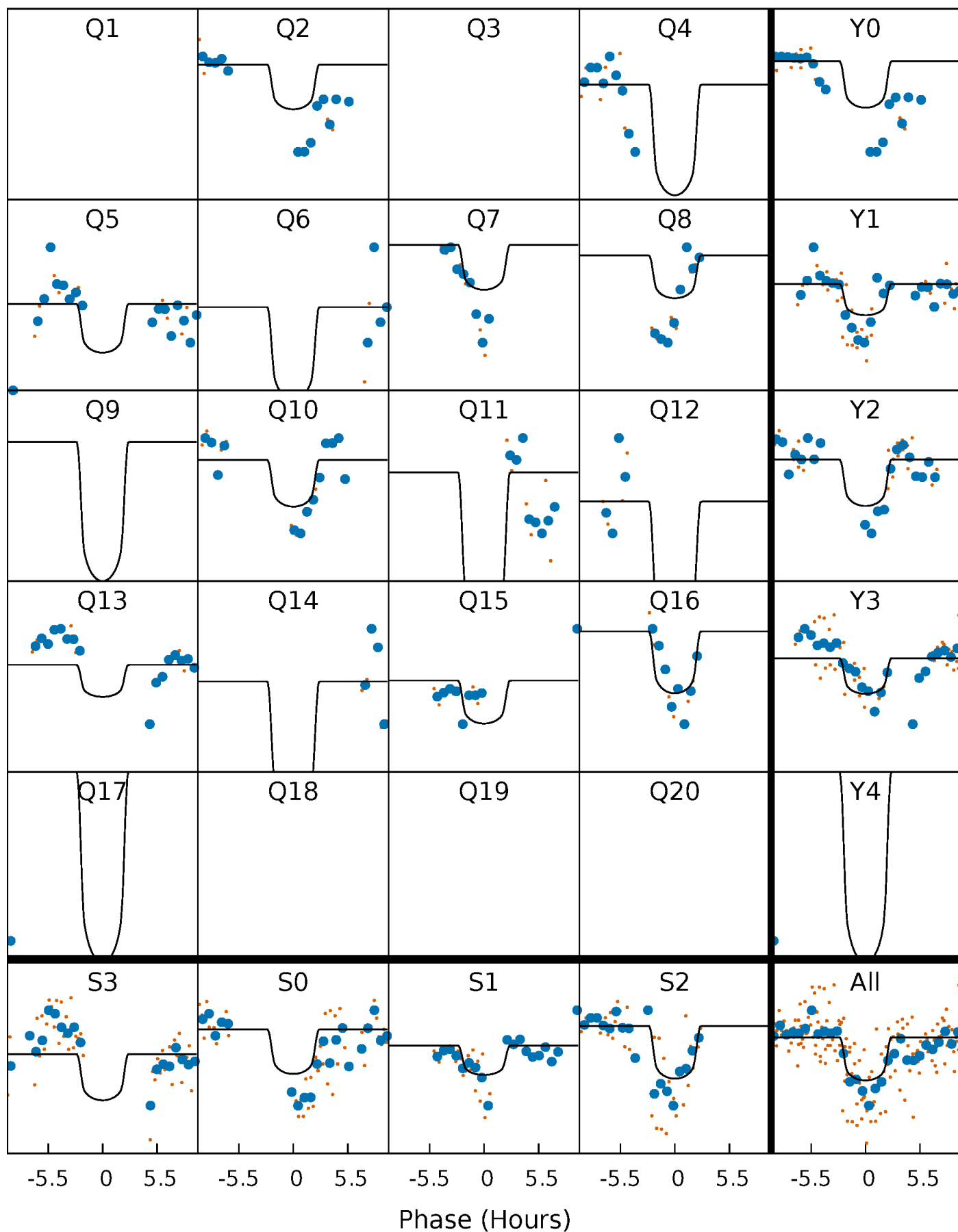
PDC Quarter-Phased Transit Curves

TCE 012507325-02 P= 66.764918 Days $T_0=187.846728$ (BKJD)



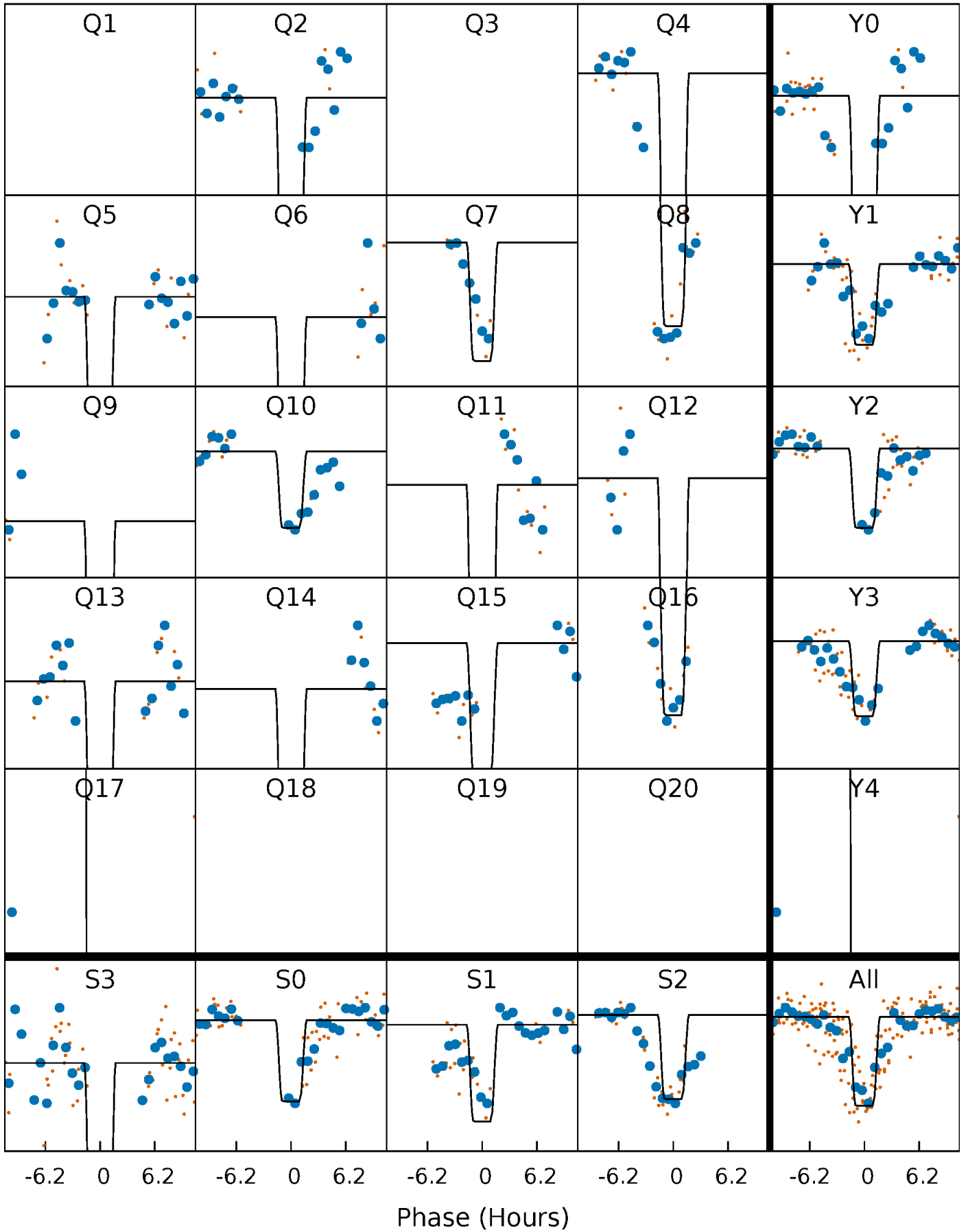
DV Quarter-Phased Transit Curves

TCE 012507325-02 P= 66.764918 Days $T_0=187.846728$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

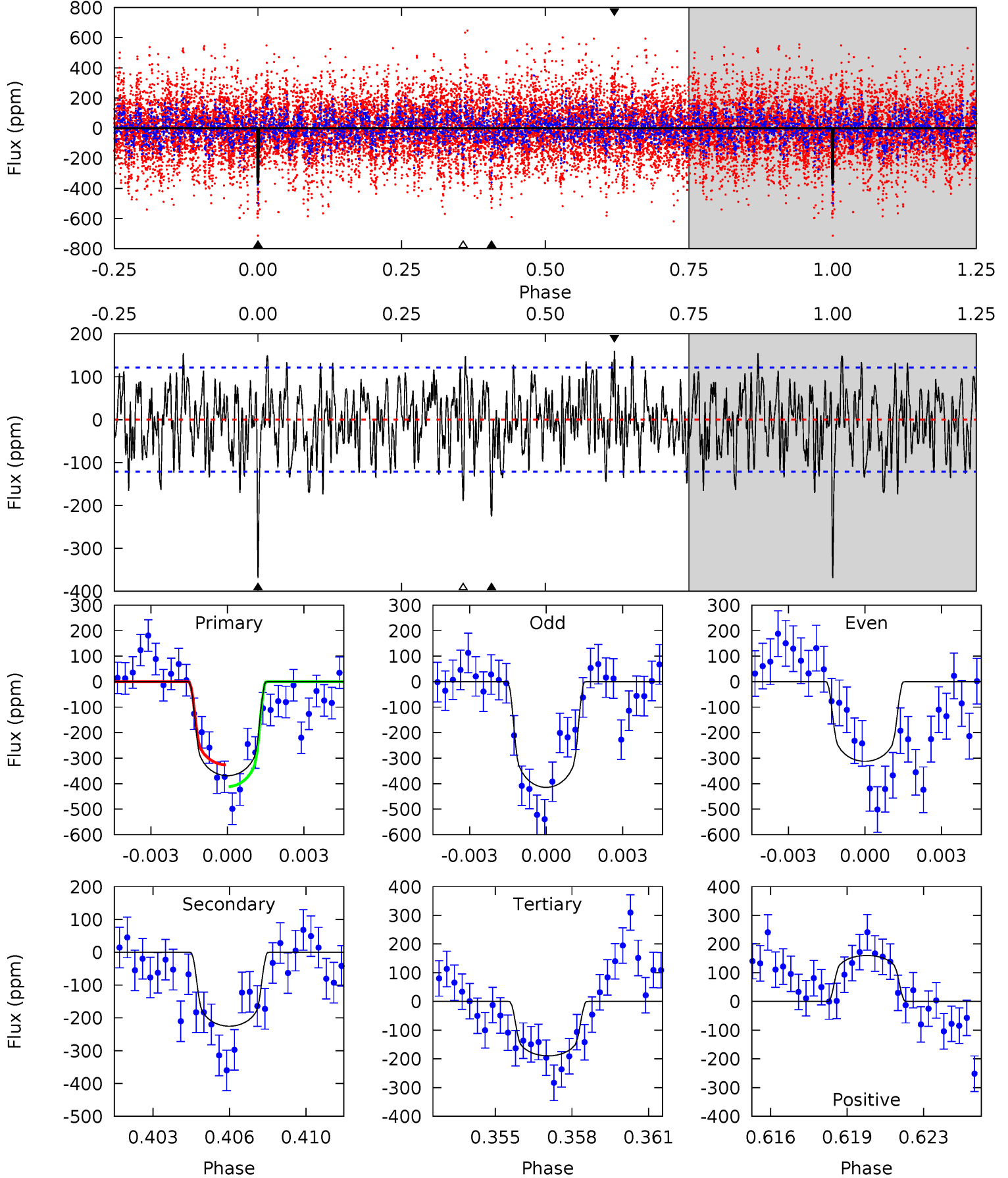
TCE 012507325-02 P= 66.768174 Days $T_0=187.810081$ (BKJD)



DV Model-Shift Uniqueness Test

012507325-02, P = 66.764918 Days, E = 121.081810 Days

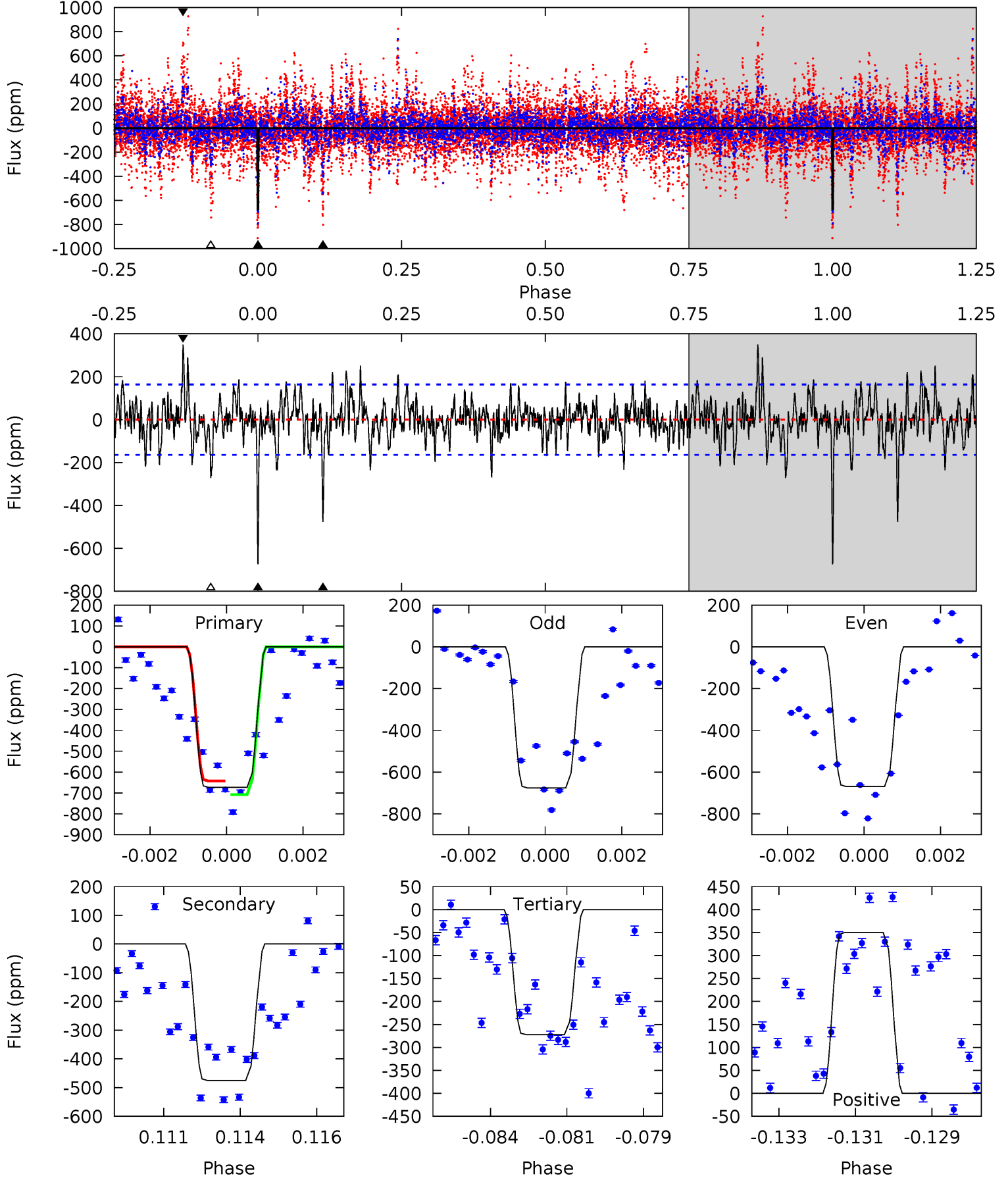
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	9.72	8.17	6.91	5.24	2.95	2.68	7.73	9.00	1.55	2.81	2.19	0.86	0.30	1.83



Alt Model-Shift Uniqueness Test

012507325-02, P = 66.768174 Days, E = 121.041907 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.8	15.4	8.80	11.3	5.31	3.07	2.36	13.0	10.5	6.56	4.04	0.10	0.86	0.34	1.05



Stellar Parameters For KIC 012507325

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 012507325-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-225 ± 23	$1.97^{+0.68}_{-0.62}$	628^{+30}_{-30}	5299^{+1115}_{-620}	3369^{+3690}_{-1542}
Alt.	-475 ± 31	$3.02^{+0.67}_{-0.60}$	627^{+33}_{-28}	5200^{+533}_{-429}	2984^{+1680}_{-996}

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

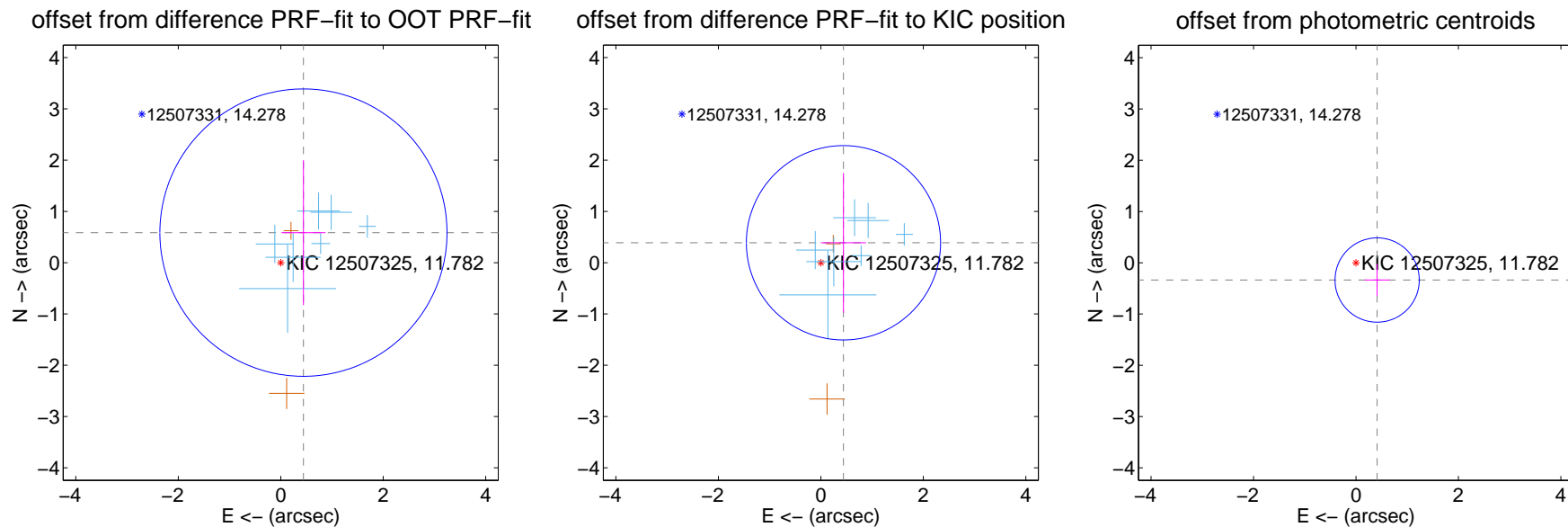
DV Centroid Data

Supplemental centroid analysis for 012507325-02. **Kepler magnitude: 11.78.** Transit SNR 9.48

There are 7 quarters with good PRF difference image offsets

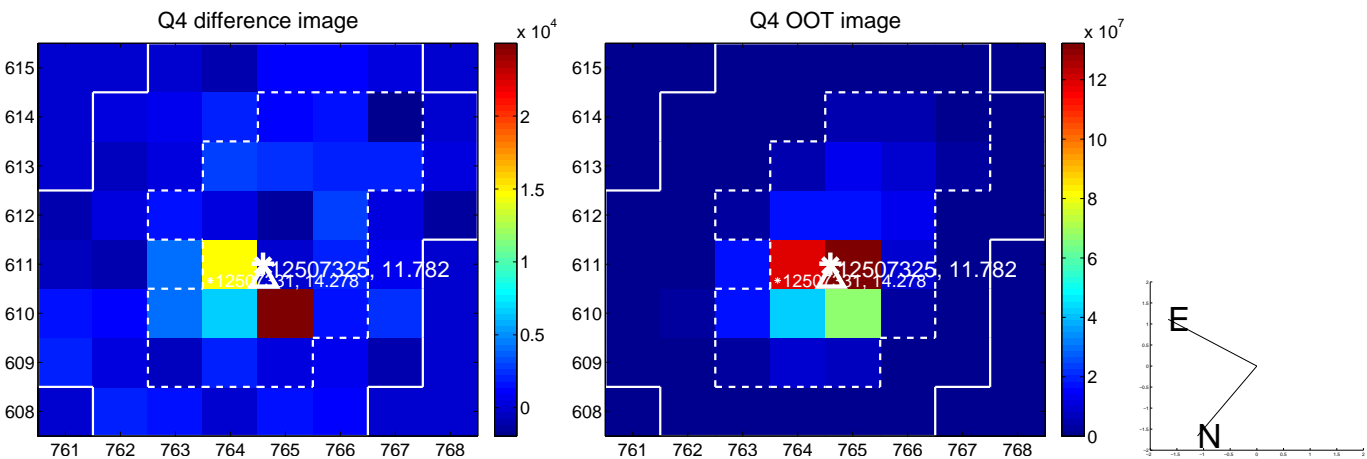
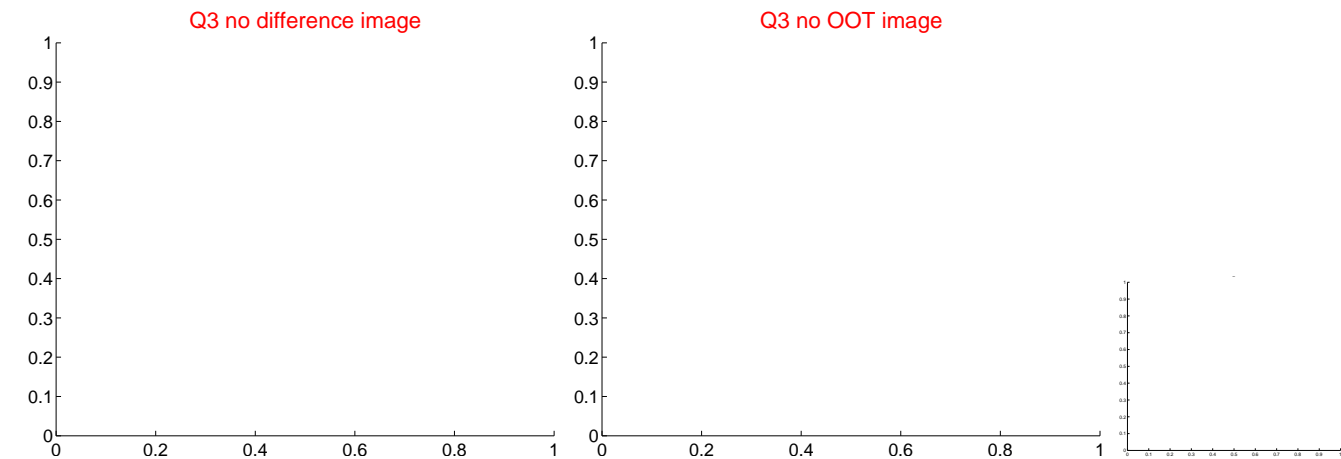
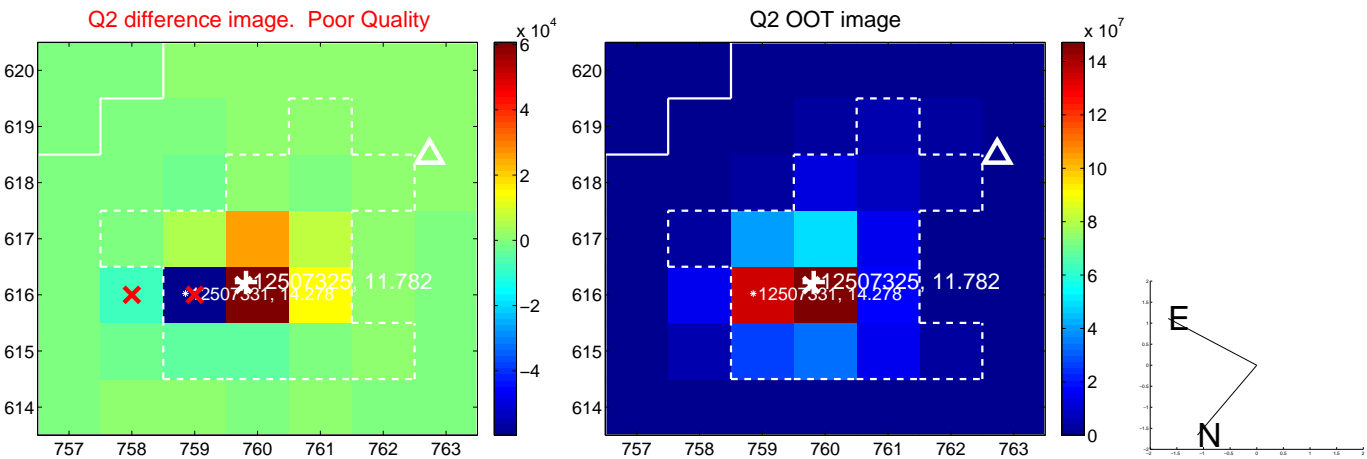
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.735 ± 0.934	0.79	-0.443 ± 0.432	0.586 ± 1.414
PRF-fit source offset from KIC position	0.588 ± 0.632	0.93	-0.441 ± 0.439	0.388 ± 1.363
photometric centroid source offset	0.53 ± 0.27	1.95	-0.41 ± 0.24	-0.34 ± 0.31

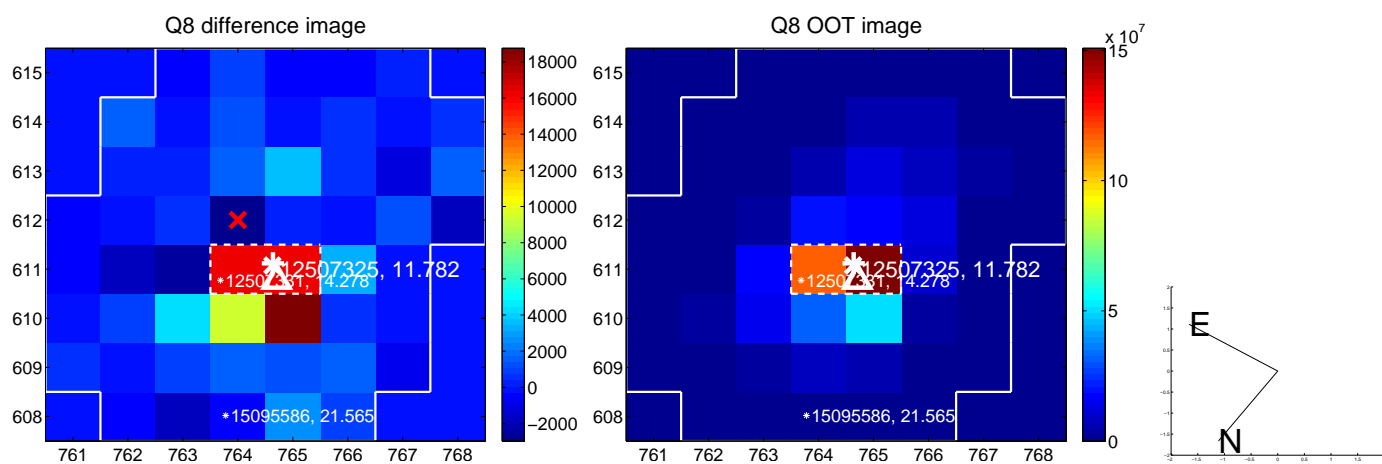
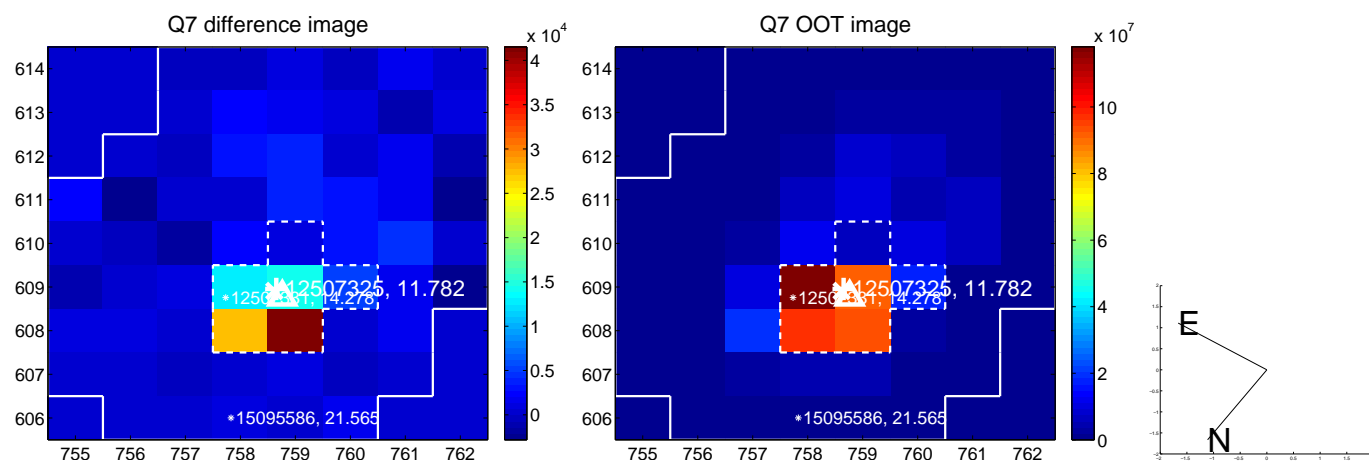
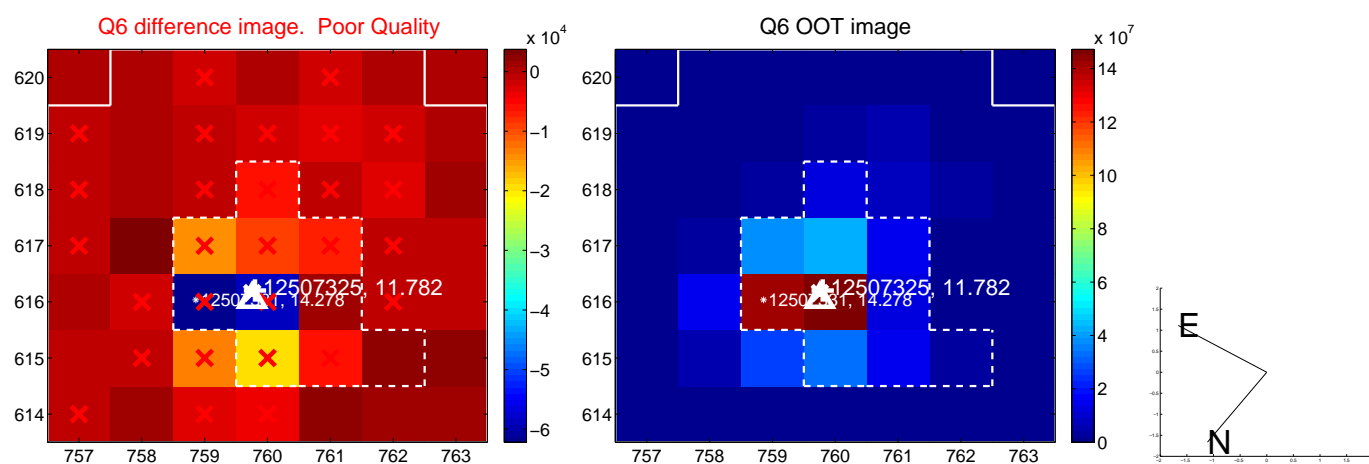
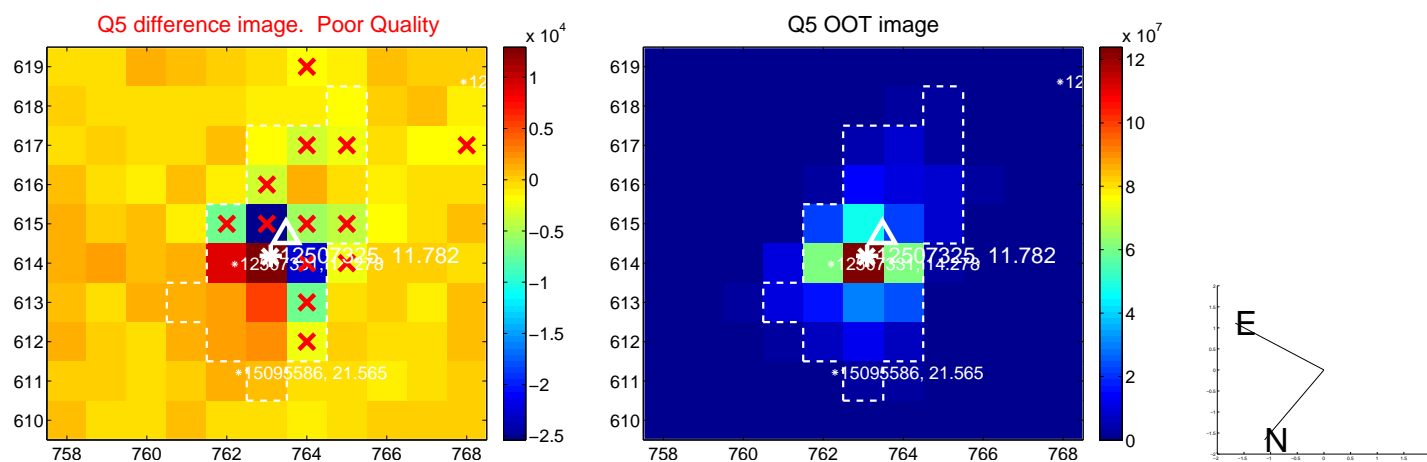


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

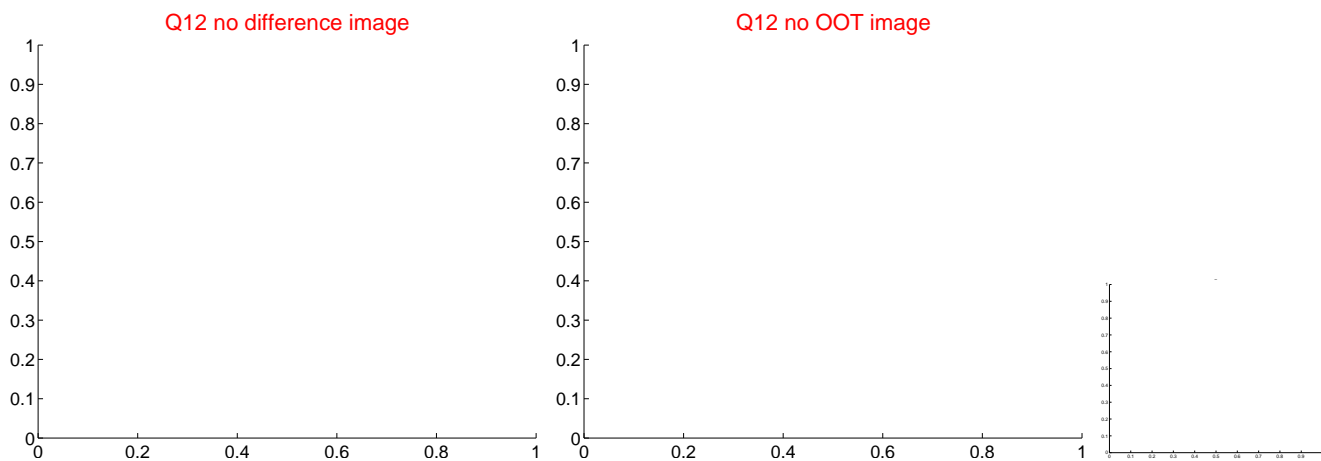
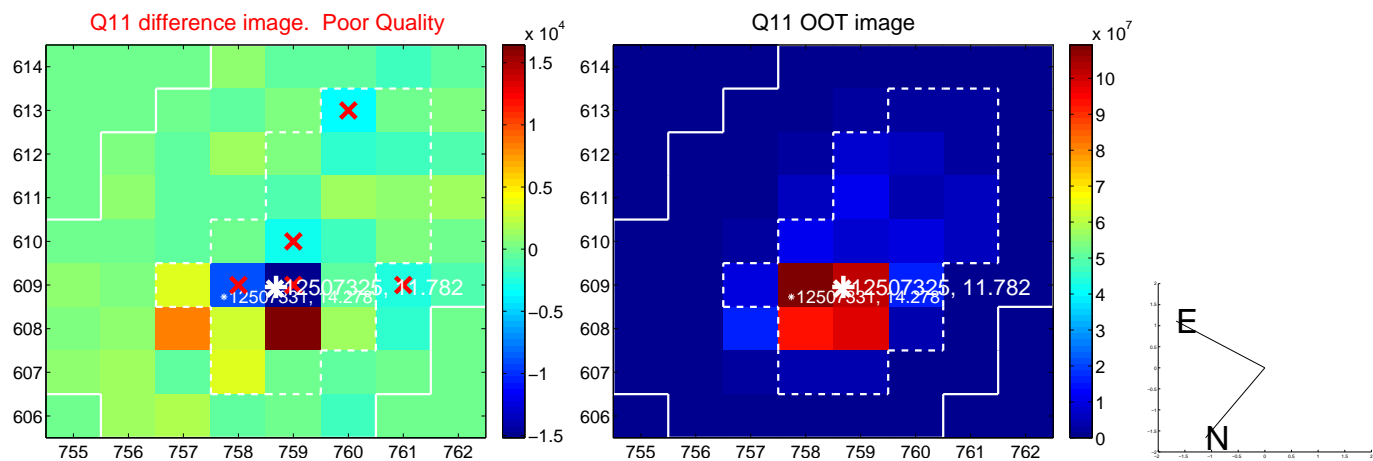
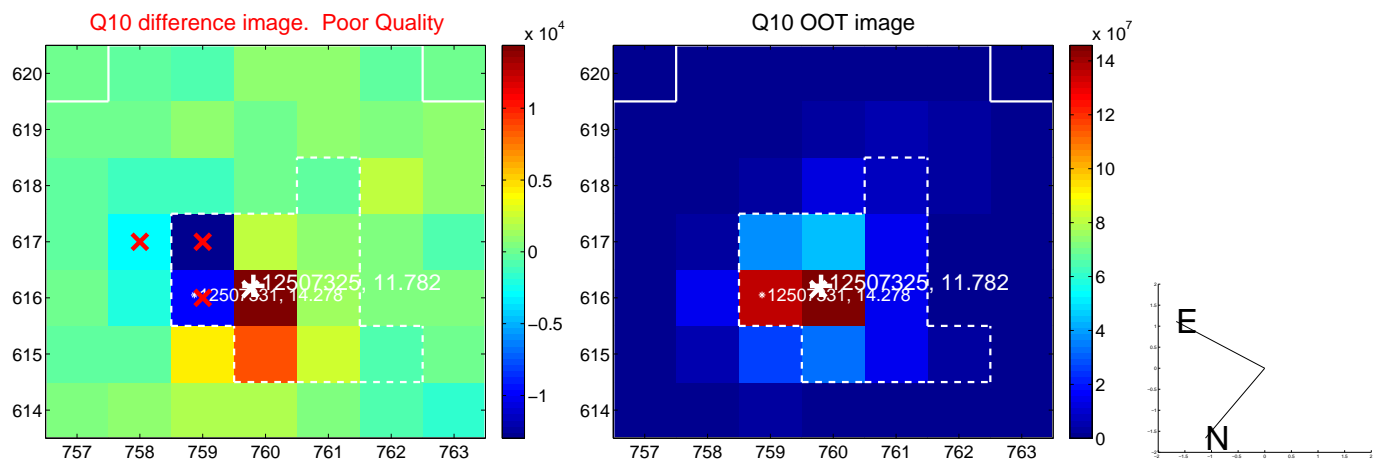
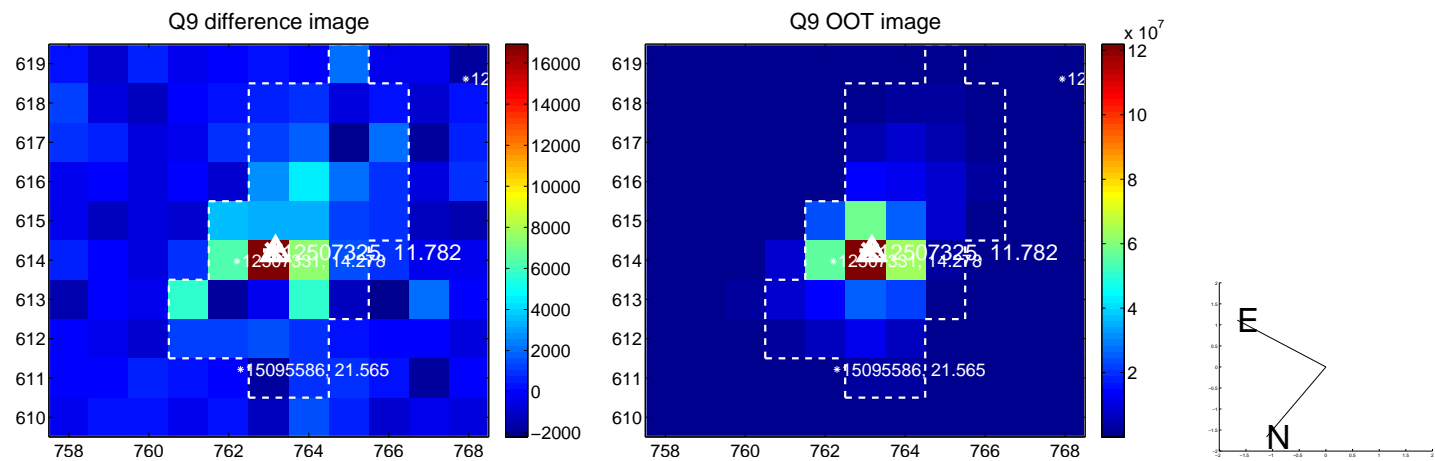
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



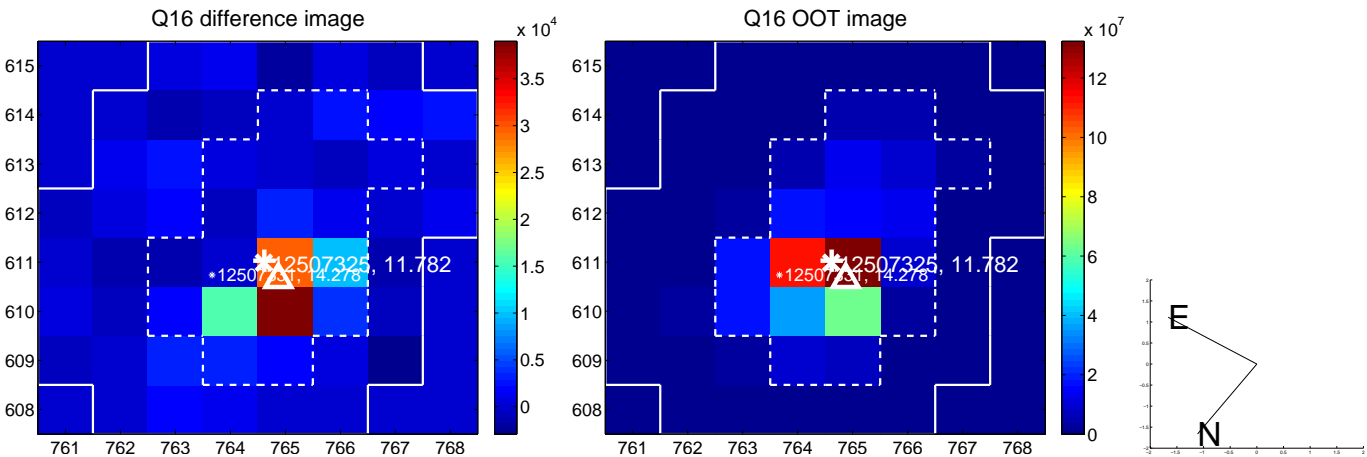
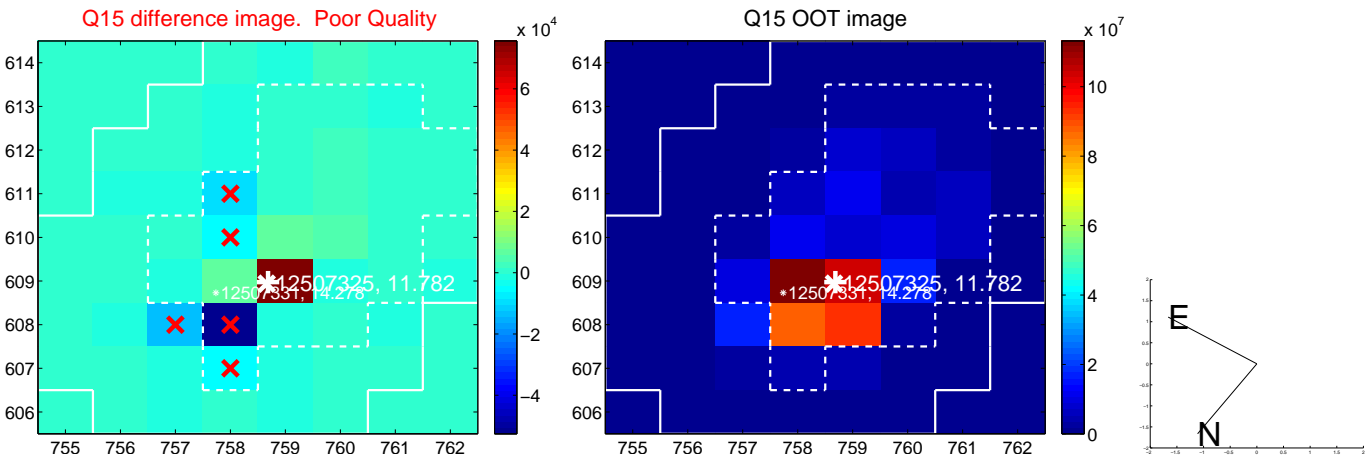
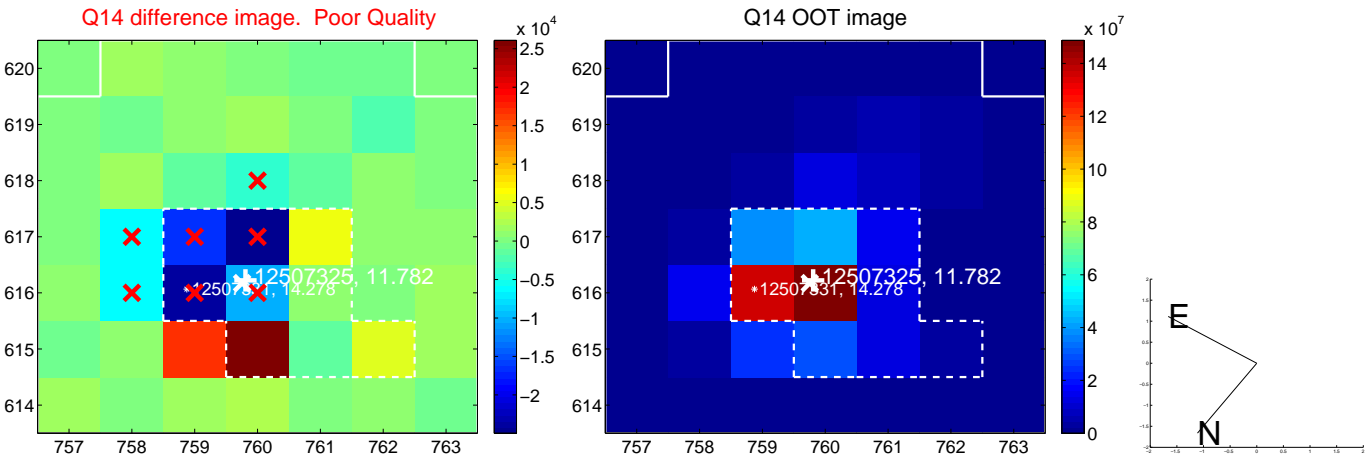
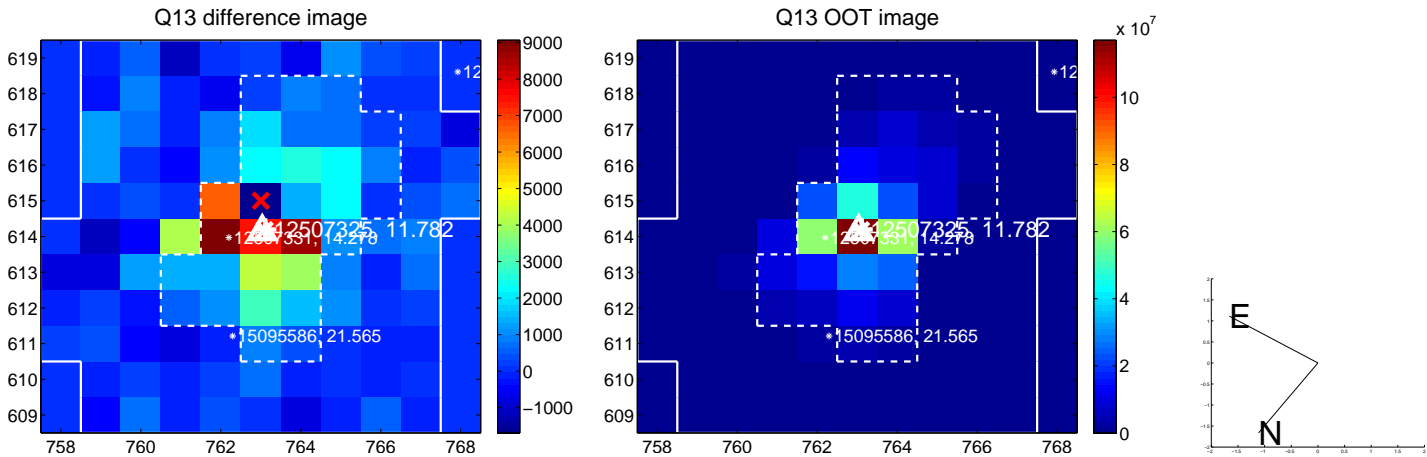
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

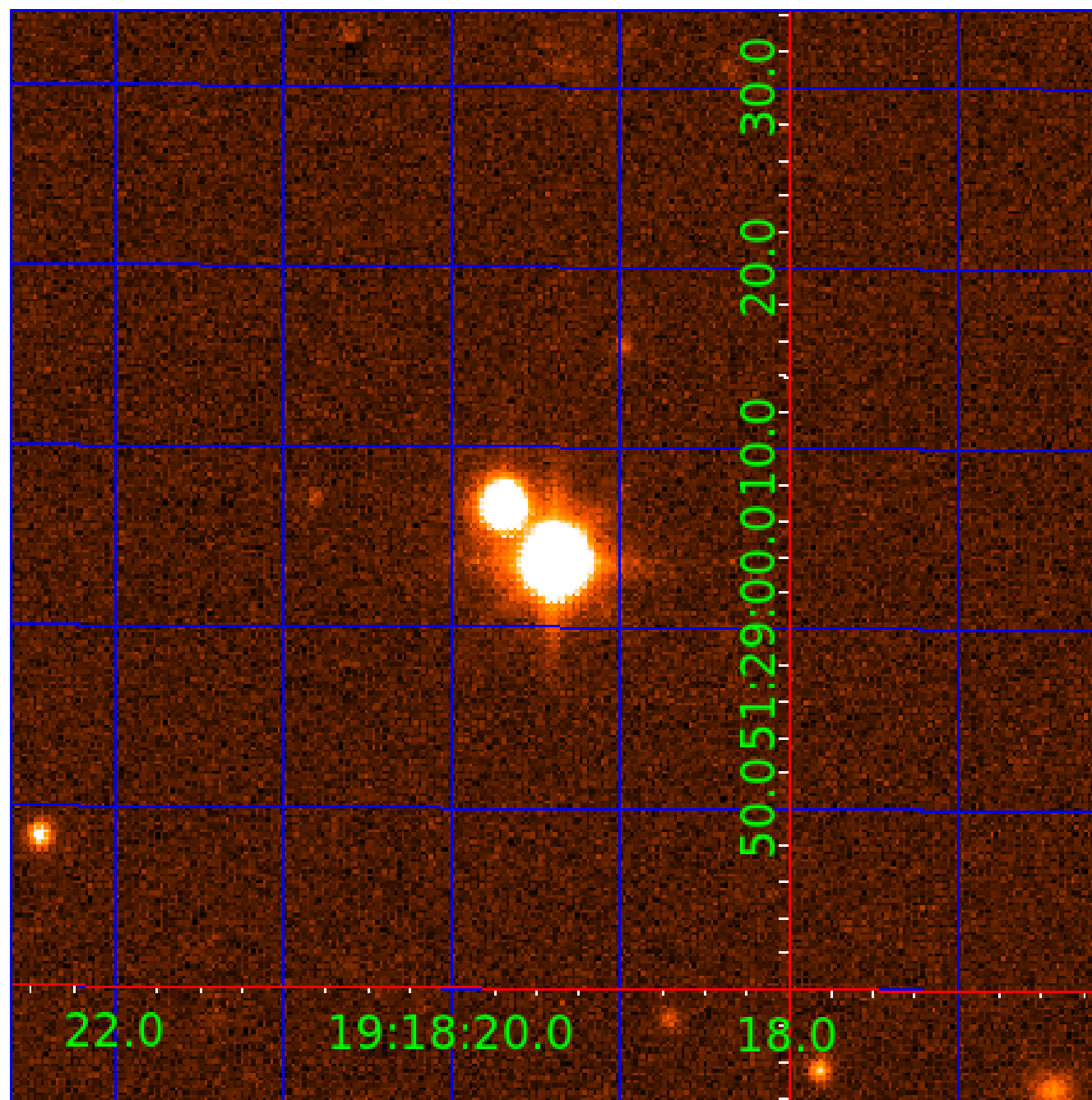


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 012507325

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})
012507325-01	OBS	No	1.086390	132.016640	17.1	6.699	8.5	6.8	1.00	5780	0.42	2336.82
012507325-02	OBS	No	66.764918	187.846728	290.9	4.814	9.6	9.5	1.00	5780	1.98	9.64
012507325-03	OBS	No	80.783852	152.079007	328.1	6.030	9.1	9.4	1.00	5780	2.27	7.47
012507325-04	OBS	No	624.705599	192.777940	412.8	30.488	9.0	7.1	1.00	5780	2.04	0.49
012507325-05	OBS	No	97.987195	208.323577	176.2	12.443	8.8	4.5	1.00	5780	1.45	5.78
012507325-06	OBS	No	92.629169	190.725871	336.4	4.465	9.0	9.5	1.00	5780	2.11	6.23
012507325-07	OBS	No	108.517832	134.774183	196.5	3.849	8.7	6.4	1.00	5780	1.61	5.04
012507325-08	OBS	No	16.809442	134.485571	112.5	4.024	8.3	8.0	1.00	5780	1.18	60.61
012507325-09	OBS	No	64.560845	183.078488	165.1	3.500	9.1	-1.0	1.00	5780	1.27	10.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012507325-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
012507325-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT
012507325-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012507325-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
012507325-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—HALO_GHOST
012507325-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_CROWDED
012507325-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

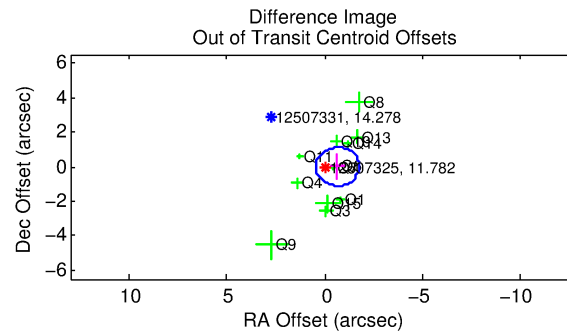
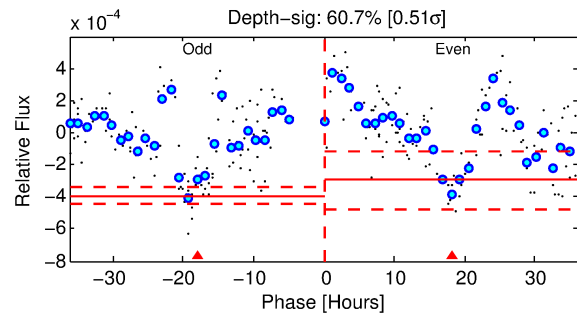
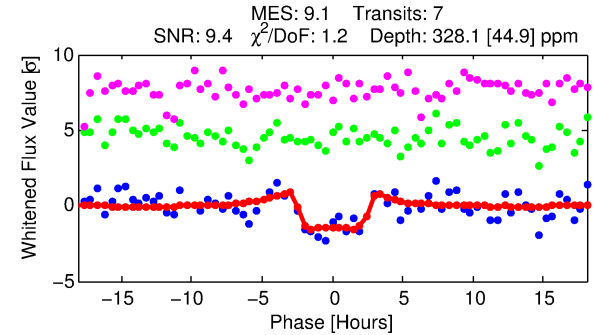
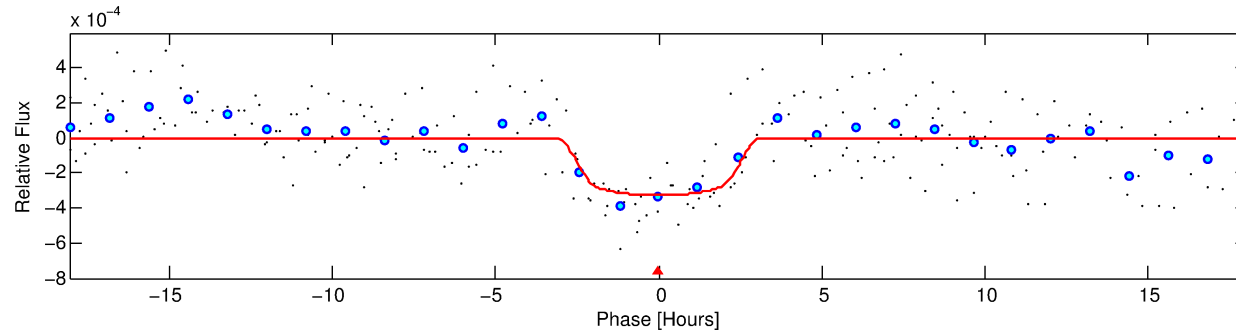
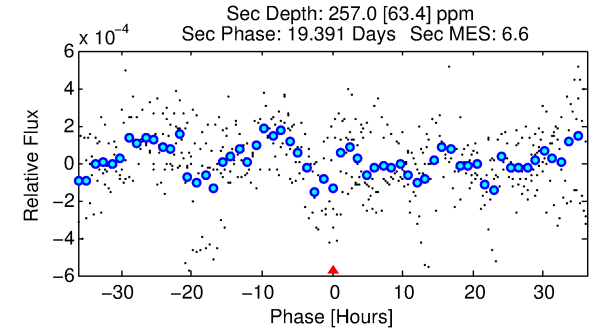
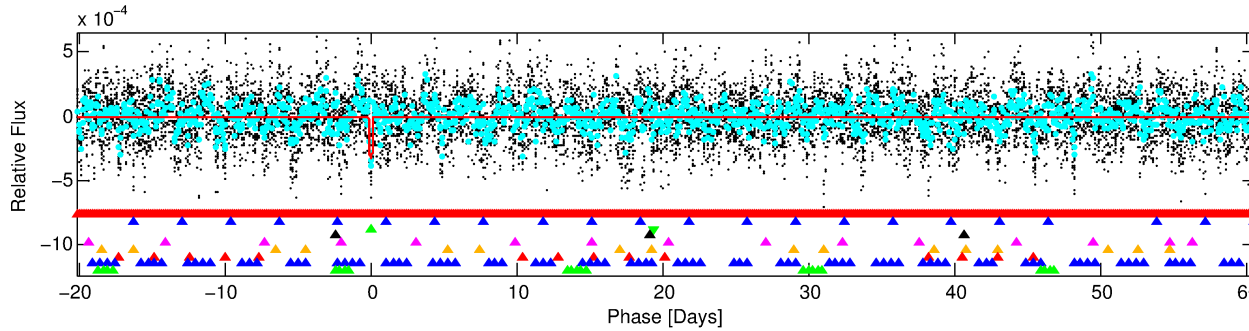
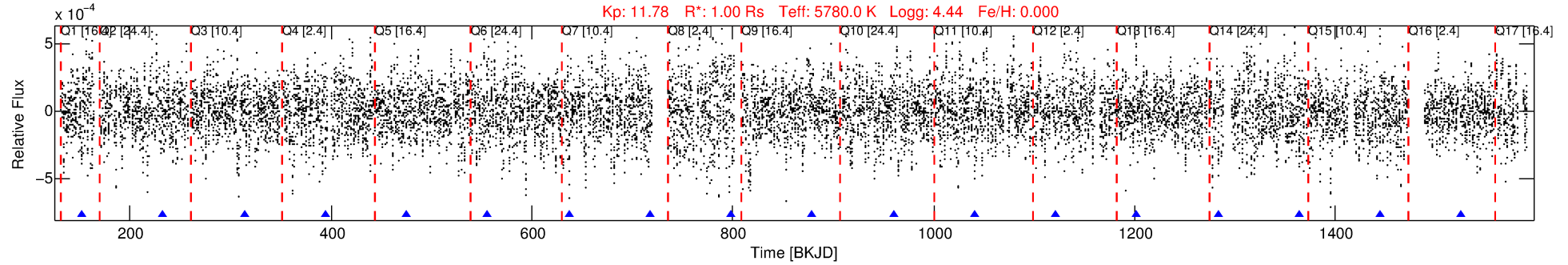
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012507325-03

No Significant Match Found

DV One-Page Summary

KIC: 12507325 Candidate: 3 of 9 Period: 80.784 d



DV Fit Results:

Period = 80.78385 [0.00110] d
Epoch = 152.0790 [0.0099] BKJD
Rp/R* = 0.0208 [0.0022]
a/R* = 40.04 [13.87]
b = 0.94 [0.04]
Seff = 7.47 [0.00]
Teq = 422 [0] K
Rp = 2.27 [0.24] Re
a = 0.3658 [0.0000] AU
Ag = 3663.26 [1186.45] [3.09σ]
Teffp = 5071 [411] K [11.32σ]

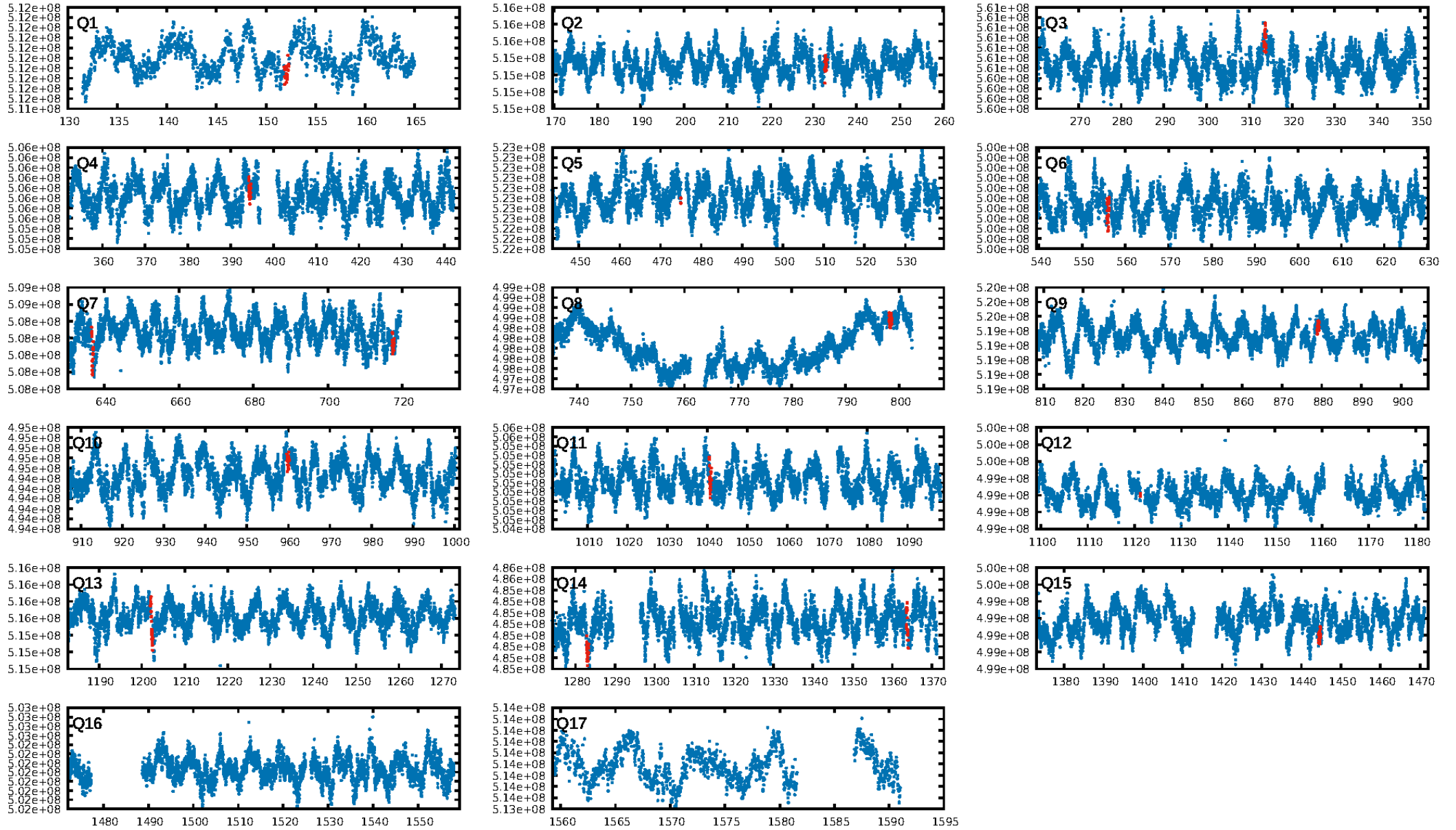
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [43.60σ]
LongPeriod-sig: 100.0% [37.89σ]
ModelChiSquare2-sig: 6.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 0.1054
Centroid-sig: 5.8%
Centroid-so: 0.226 arcsec [0.91σ]
OotOffset-rm: 0.656 arcsec [1.77σ]
KicOffset-rm: 0.701 arcsec [2.54σ]
OotOffset-st: 3/4/2/3 [12]
KicOffset-st: 3/4/2/3 [12]
DiffImageQuality-fgm: 0.75 [9/12]
DiffImageOverlap-fno: 0.00 [0/13]

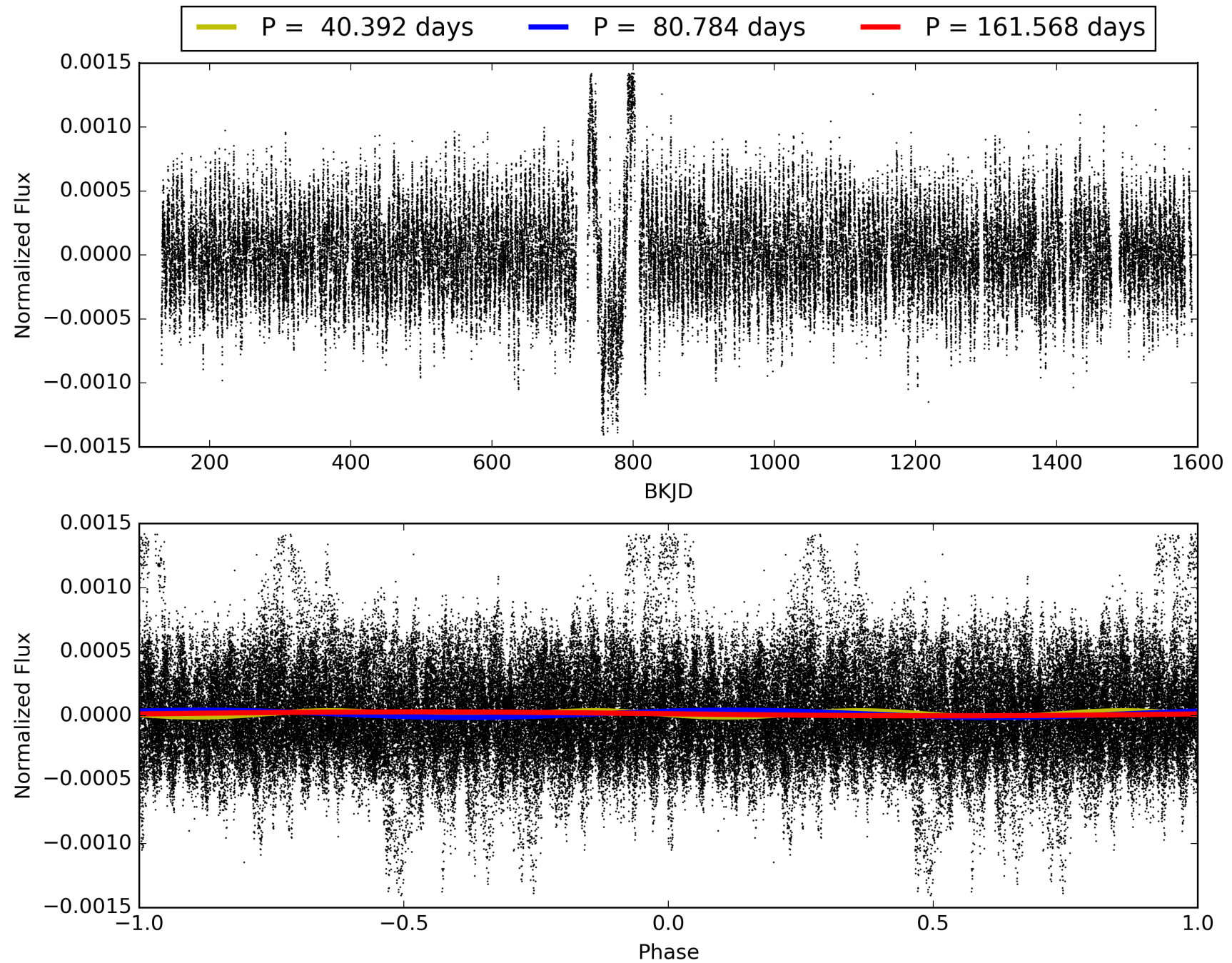
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:44:21 Z

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

TCE 012507325-03, PDC Light Curves

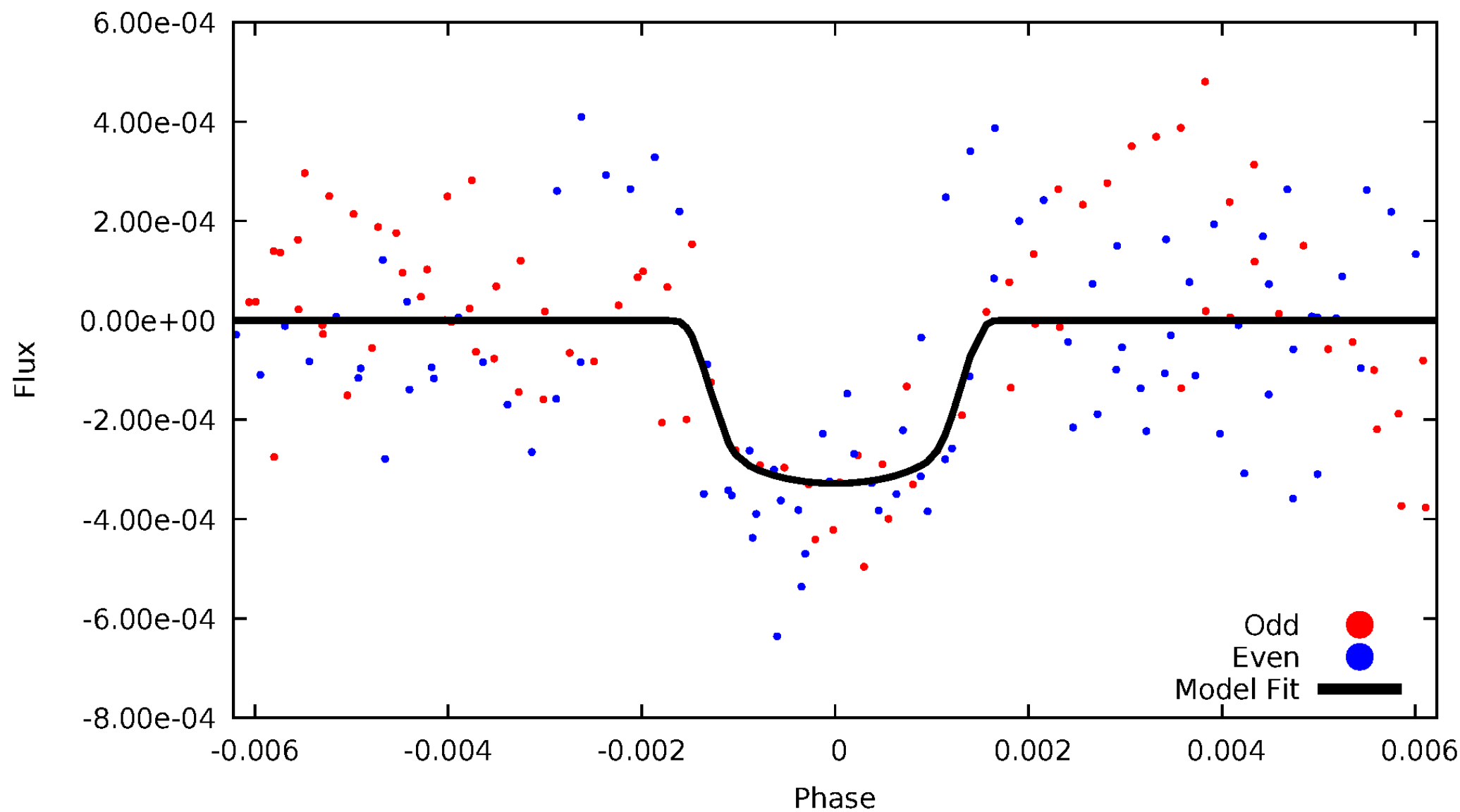


TCE 012507325-03



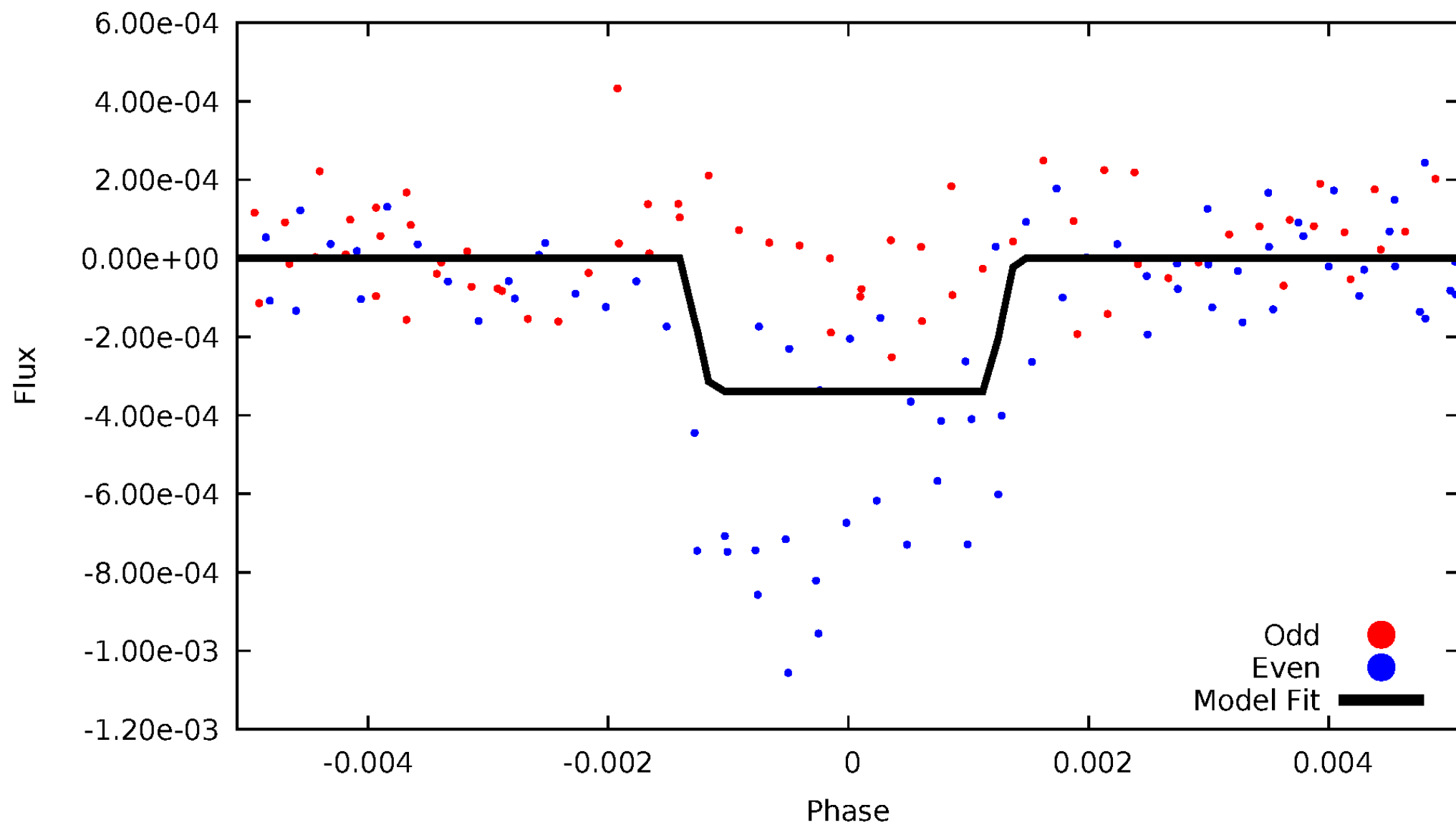
DV Odd/Even

TCE 012507325-03



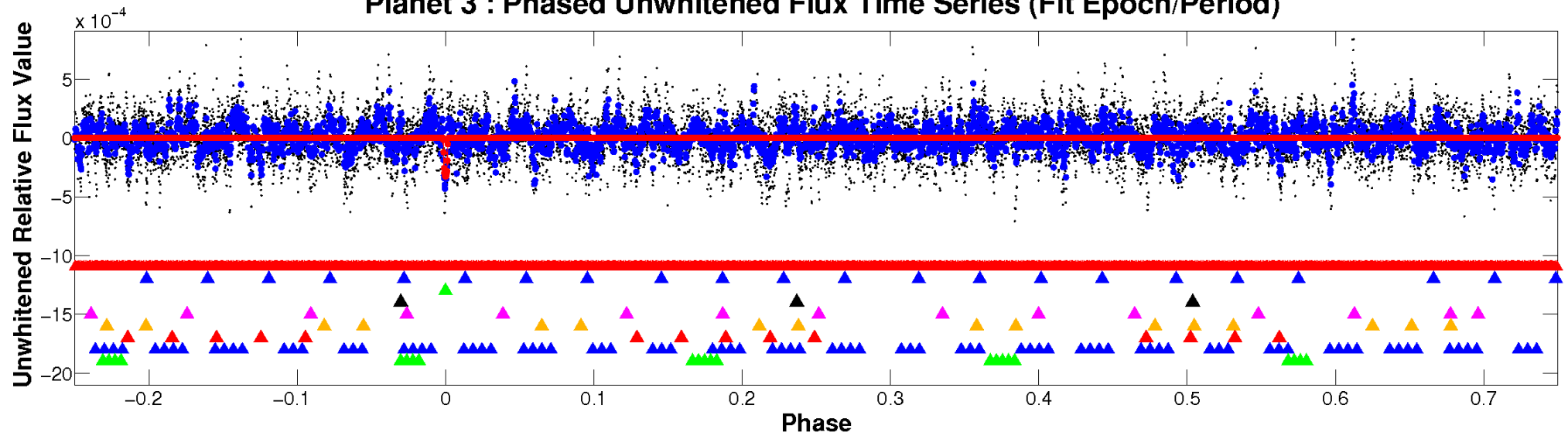
ALT Odd/Even

TCE 012507325-03

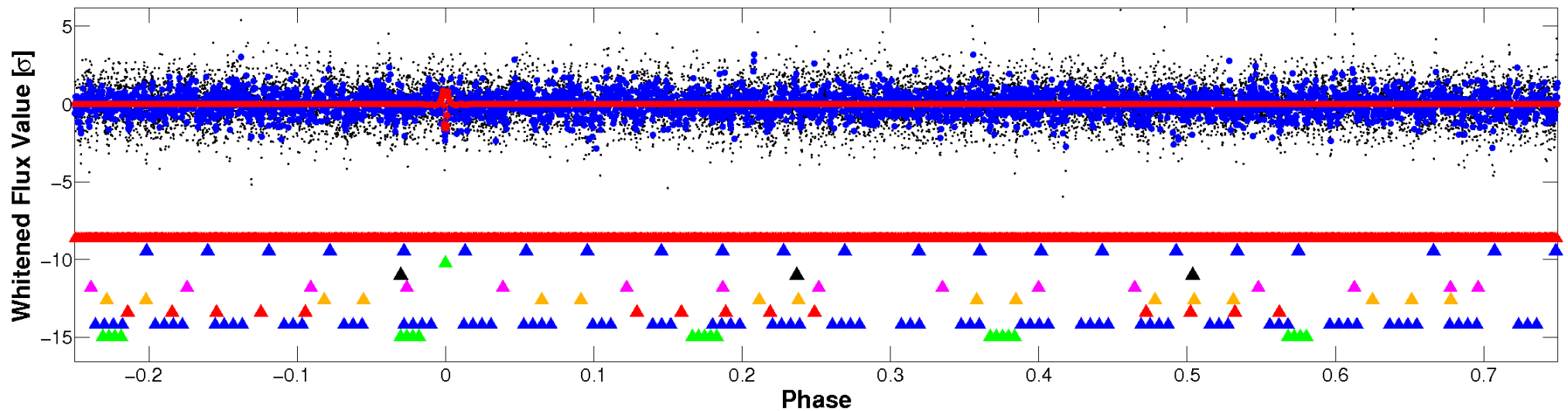


Non-Whitened Vs. Whitened Light Curve

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



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



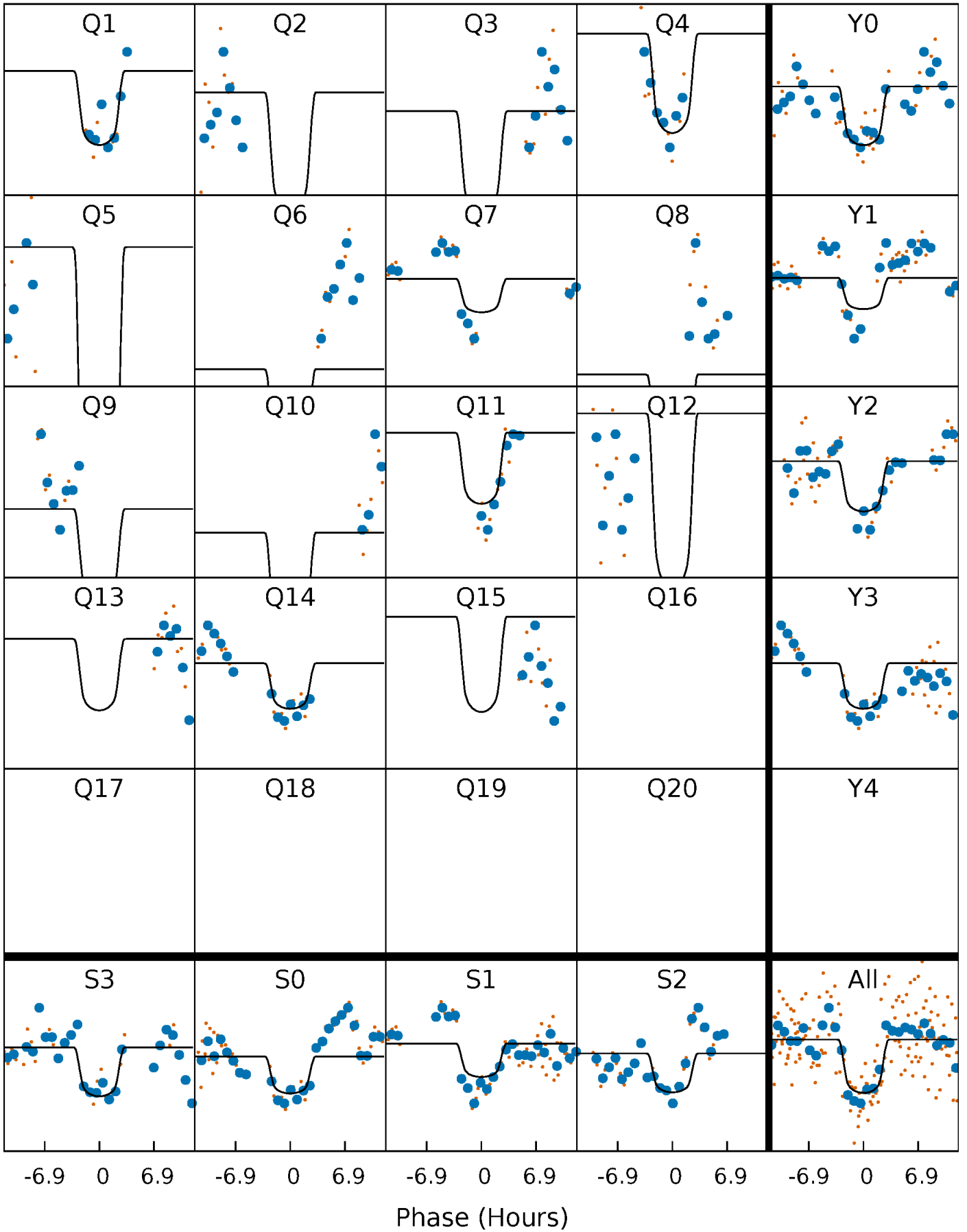
PDC Quarter-Phased Transit Curves

TCE 012507325-03 P= 80.783852 Days $T_0=152.079007$ (BKJD)



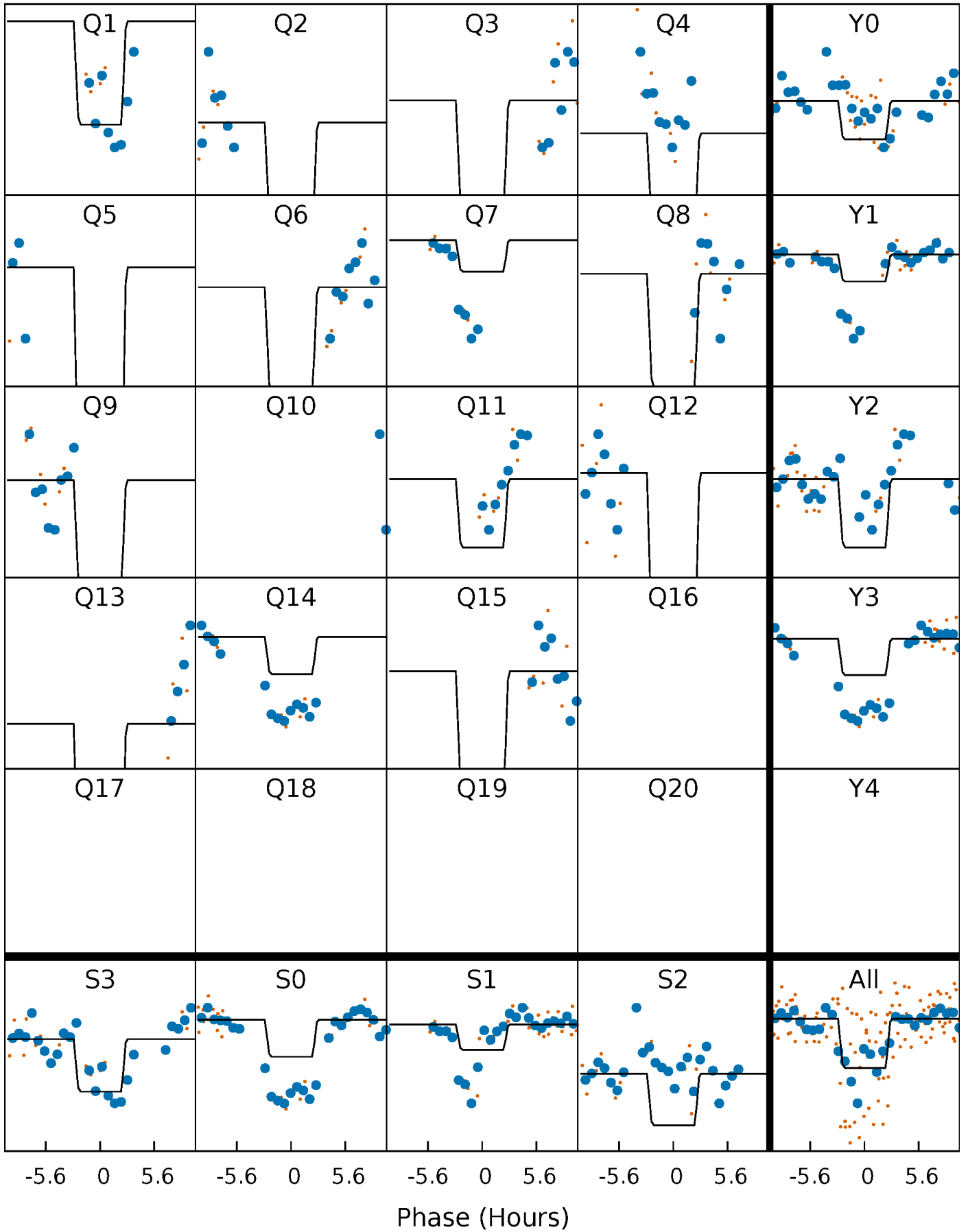
DV Quarter-Phased Transit Curves

TCE 012507325-03 $P = 80.783852$ Days $T_0 = 152.079007$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

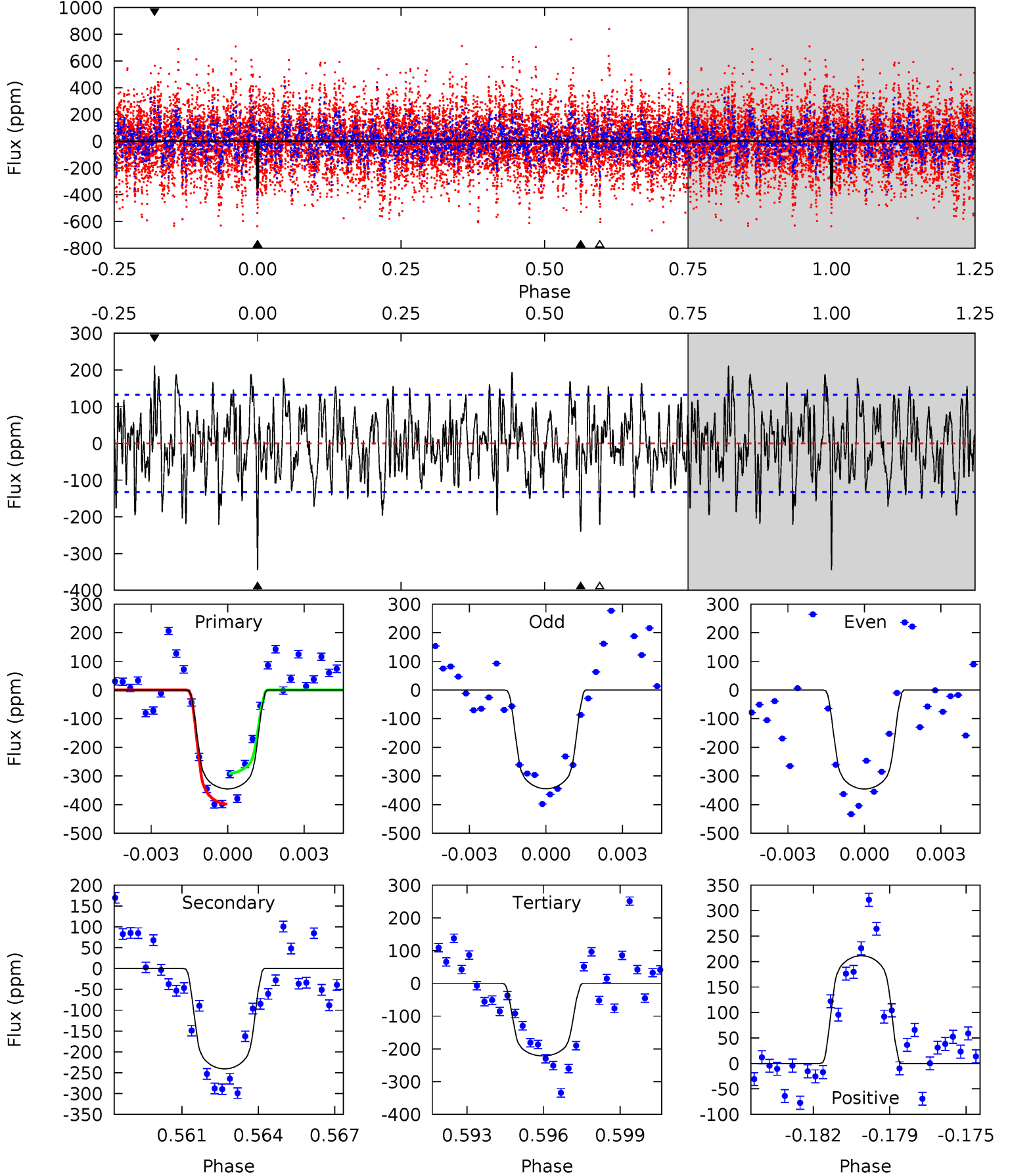
TCE 012507325-03 $P = 80.784433$ Days $T_0 = 152.067679$ (BKJD)



DV Model-Shift Uniqueness Test

012507325-03, P = 80.783852 Days, E = 71.295155 Days

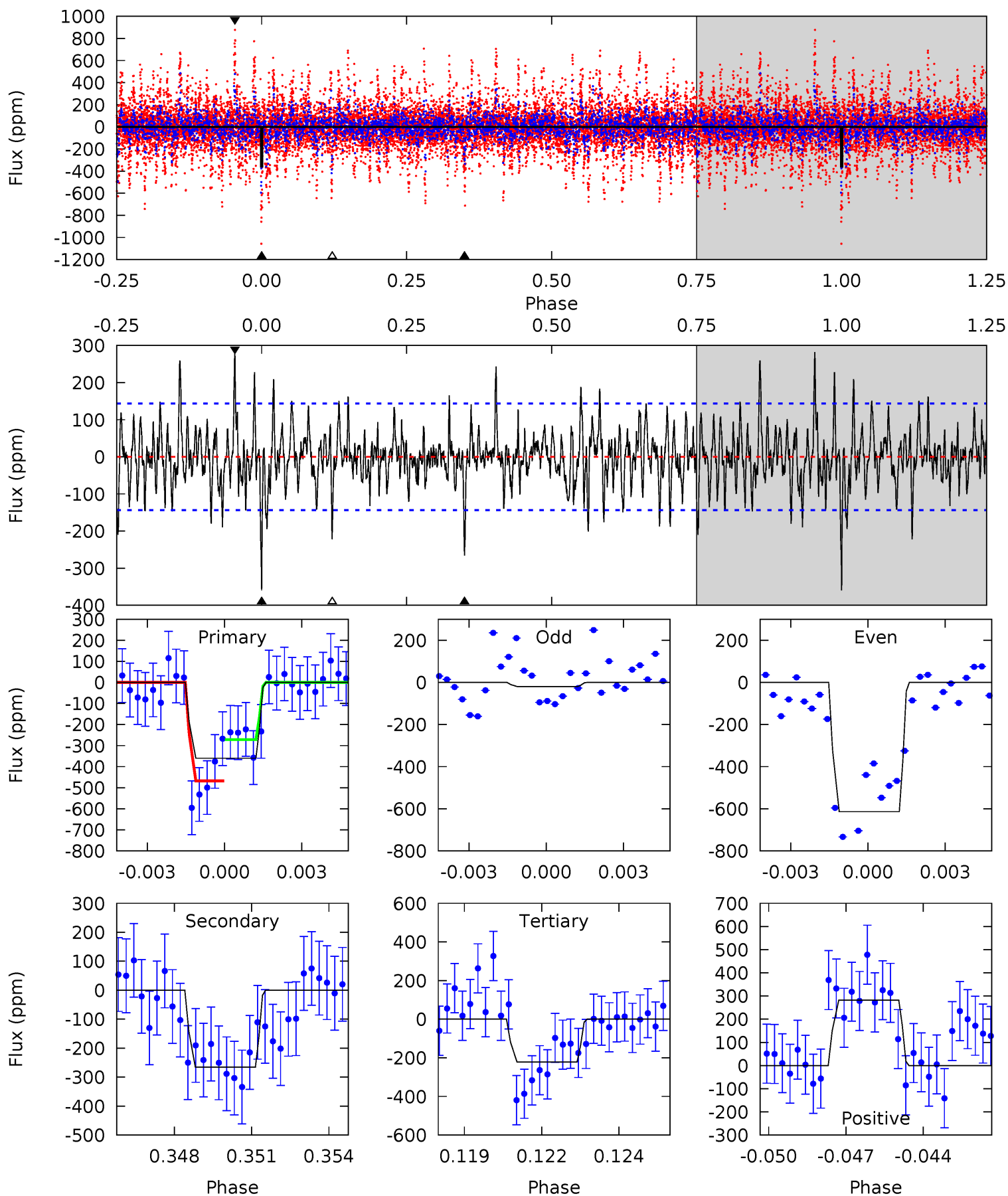
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	9.52	8.76	8.36	5.24	2.95	2.97	4.88	5.28	0.76	1.16	0.02	0.88	0.38	2.11



Alt Model-Shift Uniqueness Test

012507325-03, P = 80.784433 Days, E = 71.283246 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	9.75	8.14	10.3	5.27	2.99	2.35	5.08	2.87	1.61	-0.59	10.1	1.56	0.44	3.58



Stellar Parameters For KIC 012507325

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 012507325-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-241 ± 25	$2.26^{+0.30}_{-0.24}$	590^{+28}_{-28}	5060^{+300}_{-290}	3422^{+971}_{-817}
Alt.	-266 ± 27	$2.00^{+0.28}_{-0.27}$	588^{+30}_{-26}	5462^{+426}_{-335}	4880^{+1674}_{-1136}

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 $A_{obs} \gg 1.0$

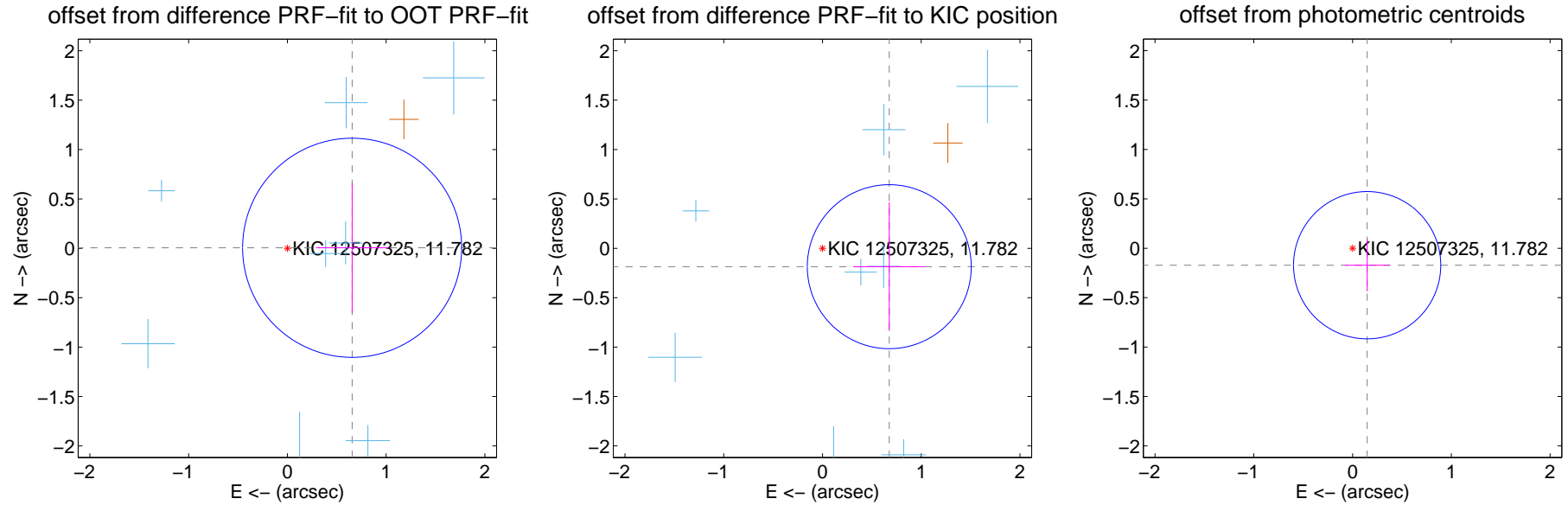
DV Centroid Data

Supplemental centroid analysis for 012507325-03. **Kepler magnitude: 11.78.** Transit SNR 9.38

There are 9 quarters with good PRF difference image offsets

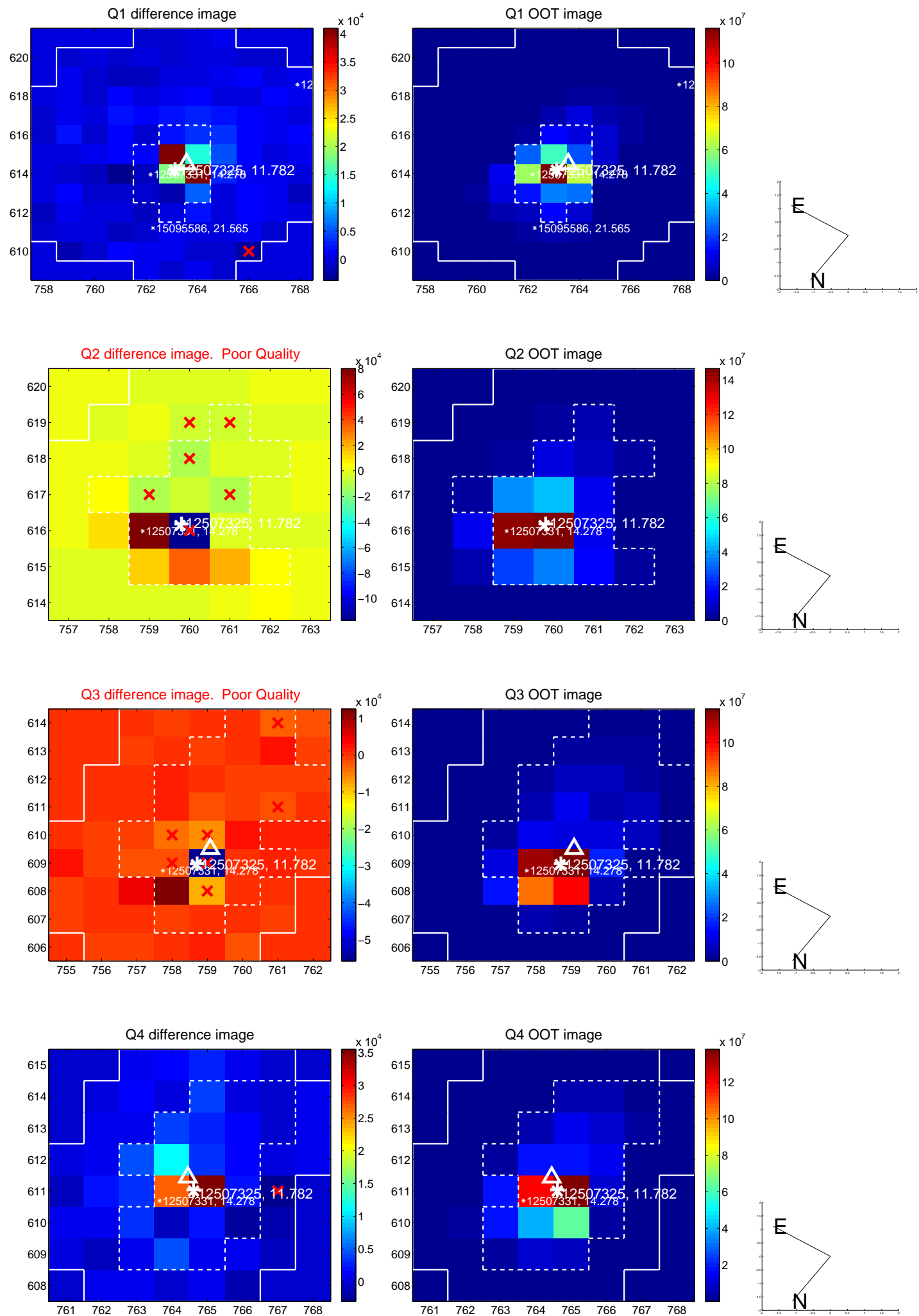
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.656 ± 0.370	1.77	-0.656 ± 0.366	0.006 ± 0.656
PRF-fit source offset from KIC position	0.701 ± 0.277	2.54	-0.676 ± 0.364	-0.186 ± 0.650
photometric centroid source offset	0.23 ± 0.25	0.91	-0.15 ± 0.23	-0.17 ± 0.26

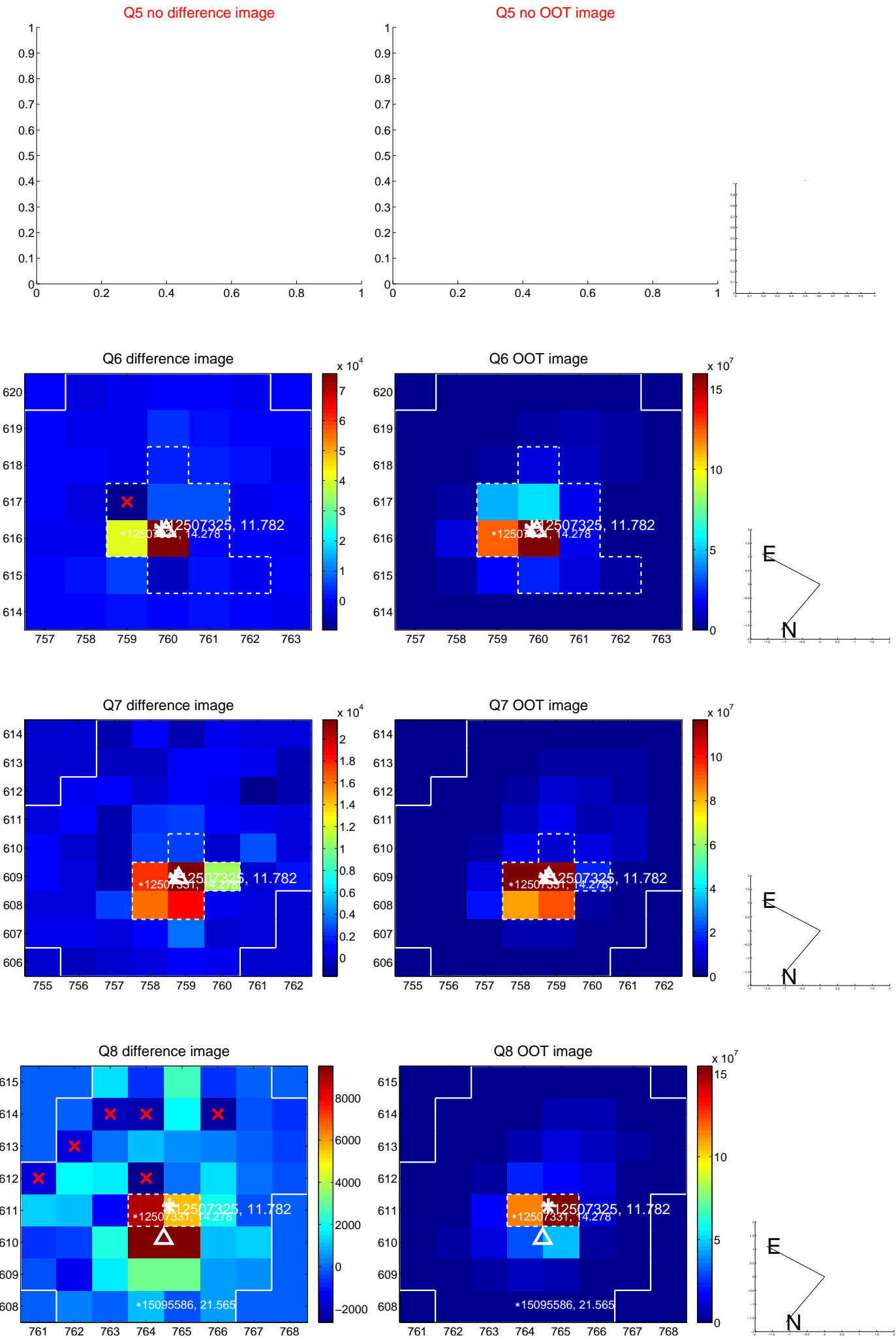


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

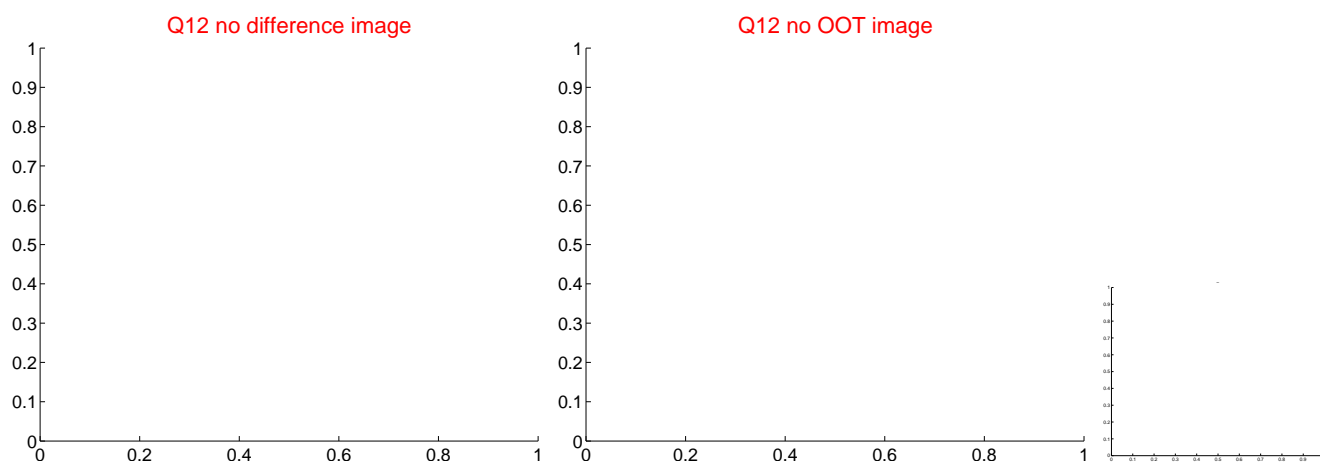
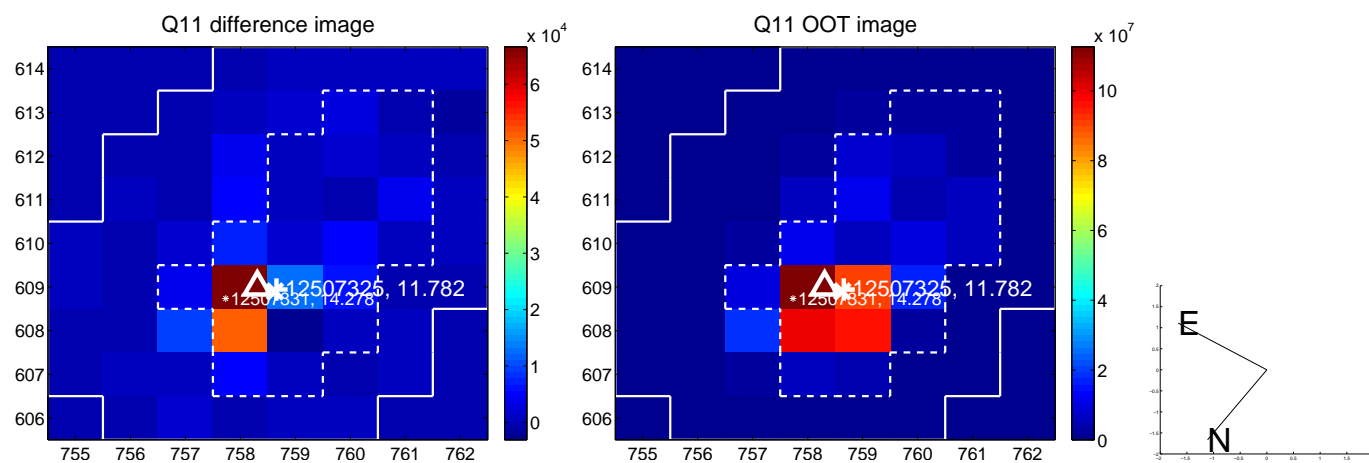
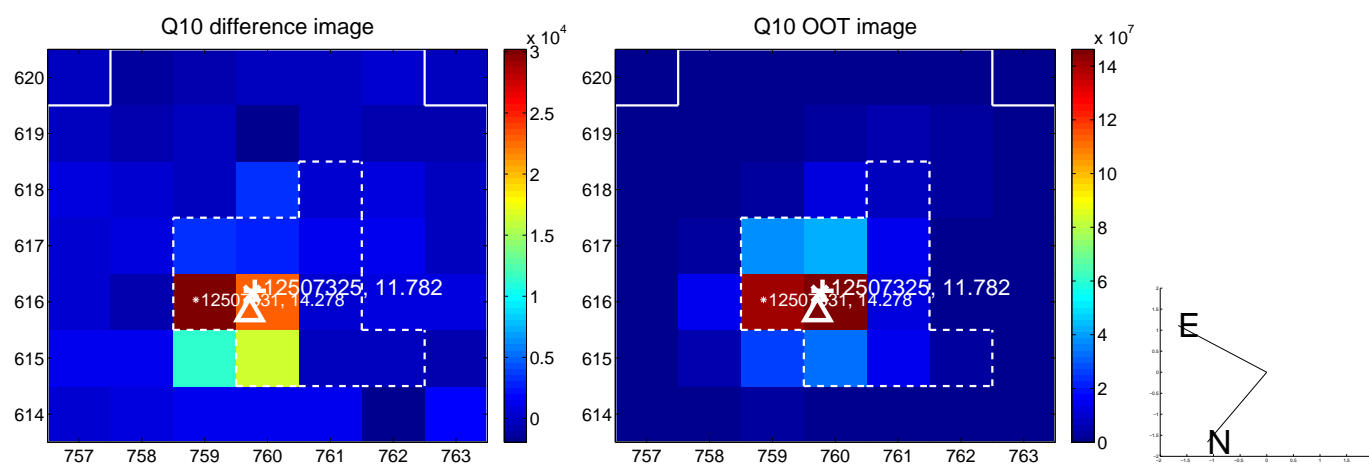
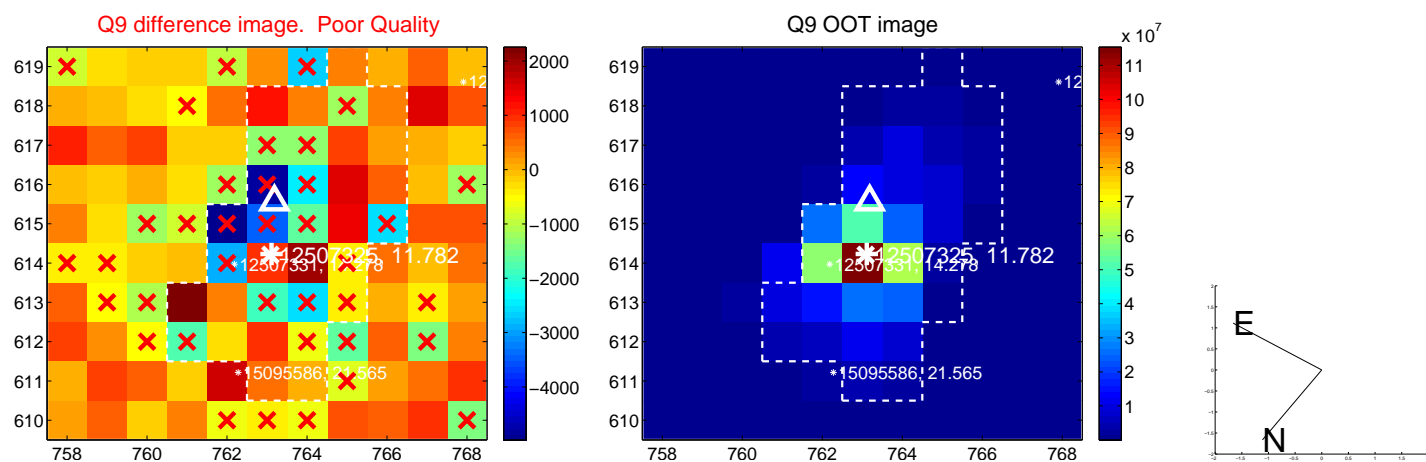
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



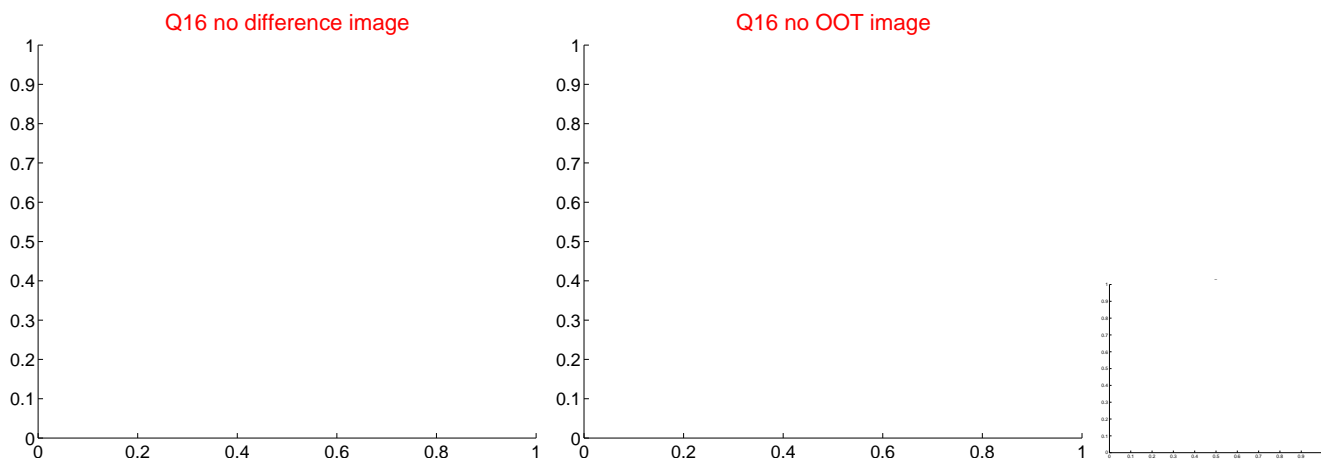
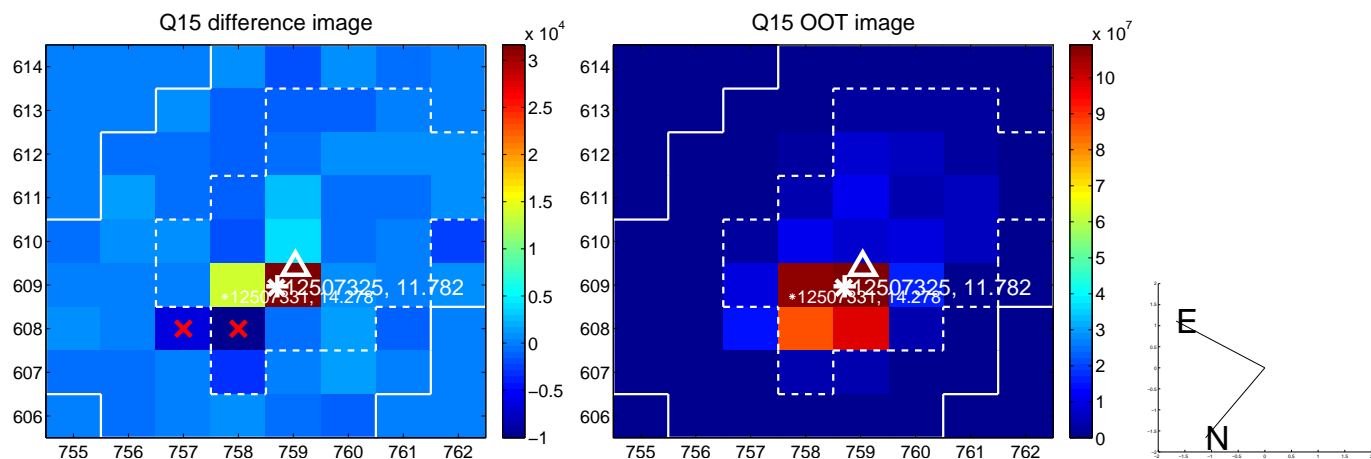
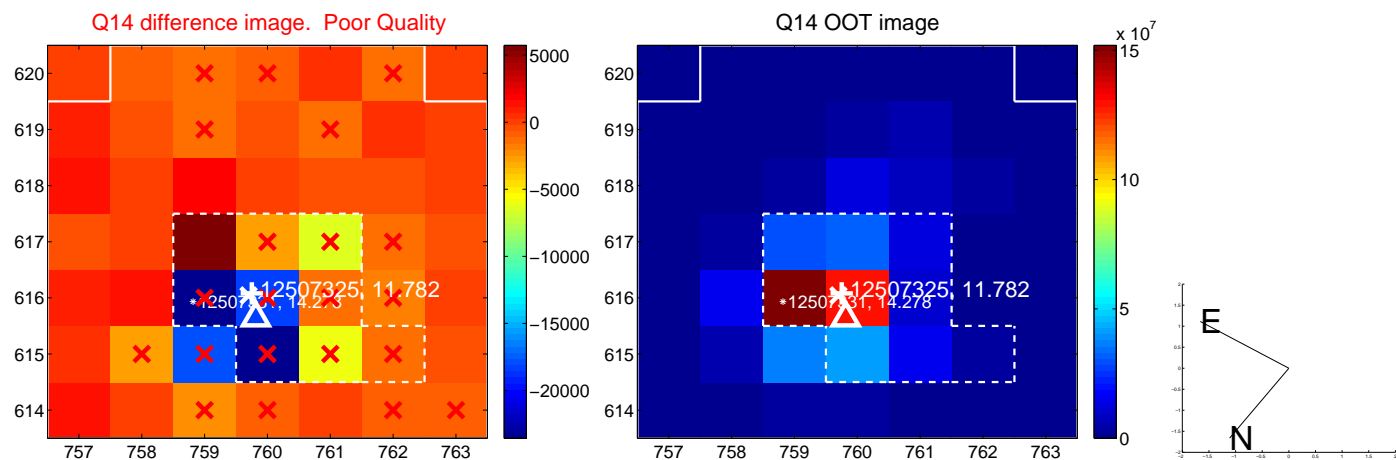
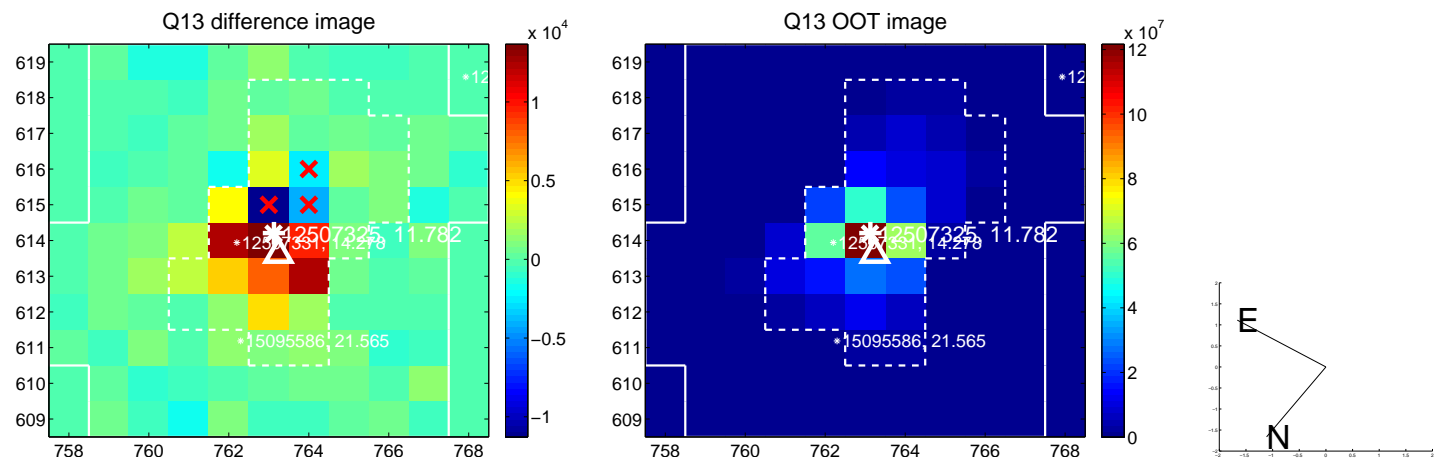
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



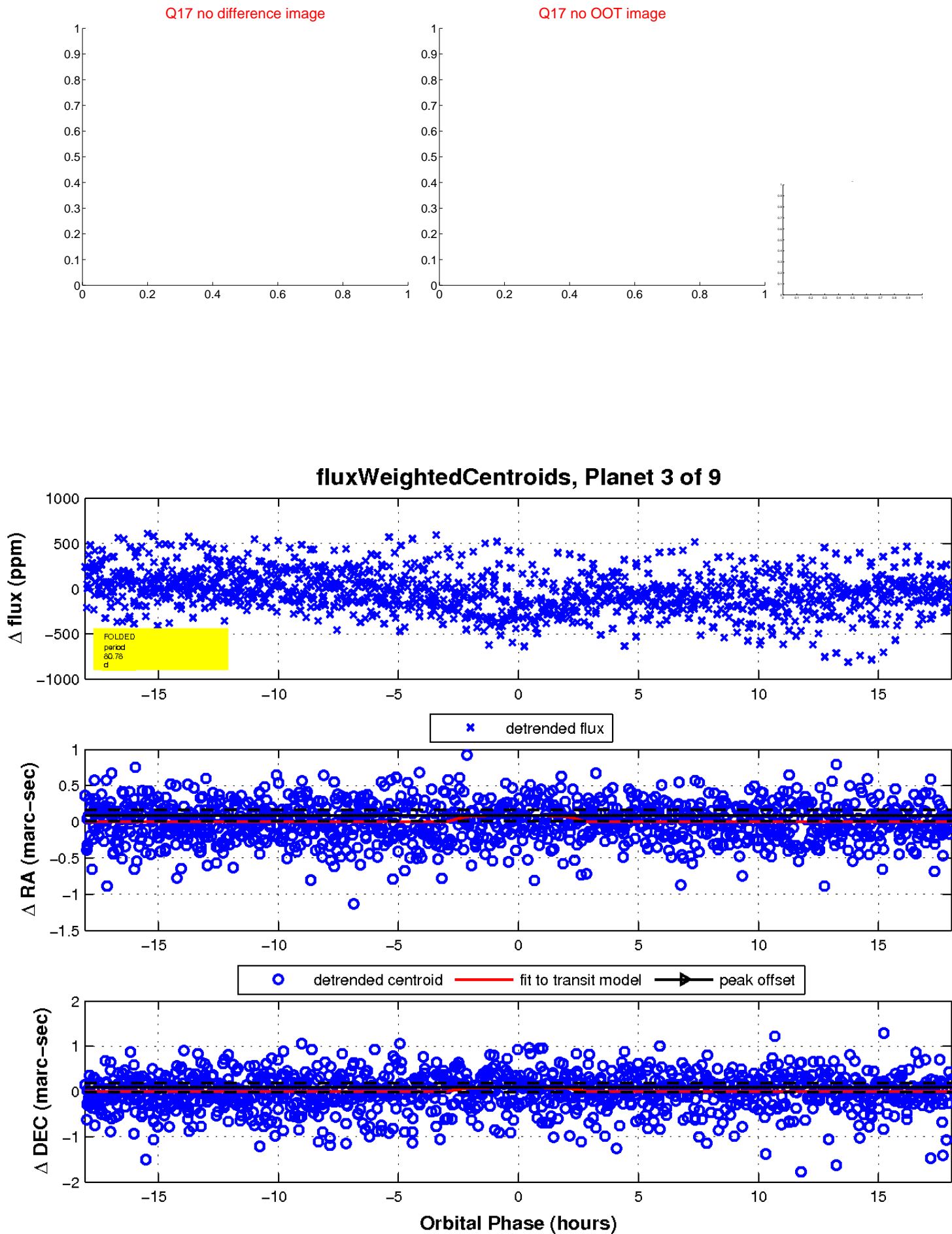
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

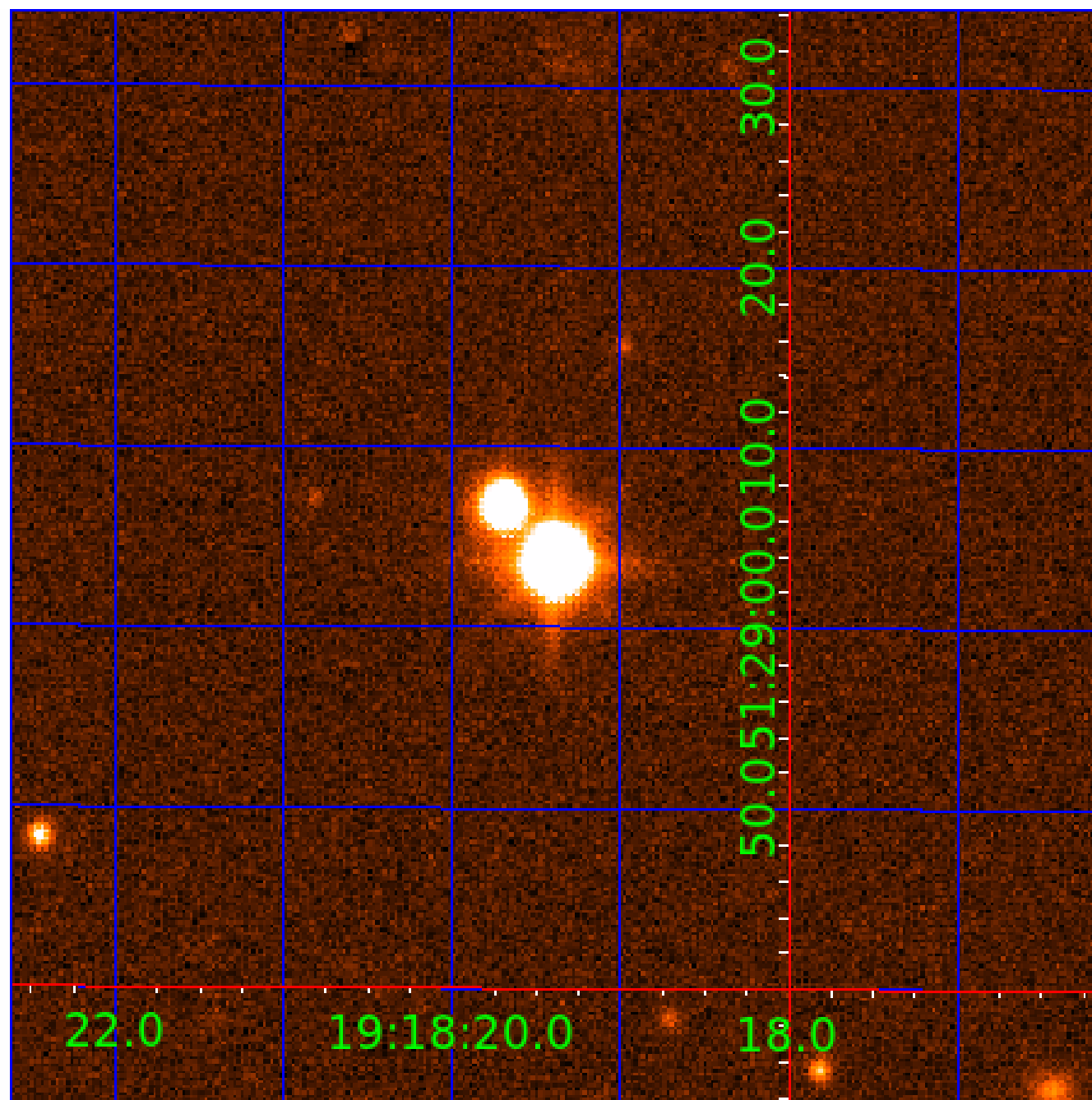


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 012507325

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})
012507325-01	OBS	No	1.086390	132.016640	17.1	6.699	8.5	6.8	1.00	5780	0.42	2336.82
012507325-02	OBS	No	66.764918	187.846728	290.9	4.814	9.6	9.5	1.00	5780	1.98	9.64
012507325-03	OBS	No	80.783852	152.079007	328.1	6.030	9.1	9.4	1.00	5780	2.27	7.47
012507325-04	OBS	No	624.705599	192.777940	412.8	30.488	9.0	7.1	1.00	5780	2.04	0.49
012507325-05	OBS	No	97.987195	208.323577	176.2	12.443	8.8	4.5	1.00	5780	1.45	5.78
012507325-06	OBS	No	92.629169	190.725871	336.4	4.465	9.0	9.5	1.00	5780	2.11	6.23
012507325-07	OBS	No	108.517832	134.774183	196.5	3.849	8.7	6.4	1.00	5780	1.61	5.04
012507325-08	OBS	No	16.809442	134.485571	112.5	4.024	8.3	8.0	1.00	5780	1.18	60.61
012507325-09	OBS	No	64.560845	183.078488	165.1	3.500	9.1	-1.0	1.00	5780	1.27	10.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012507325-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
012507325-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT
012507325-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012507325-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
012507325-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—HALO_GHOST
012507325-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_CROWDED
012507325-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

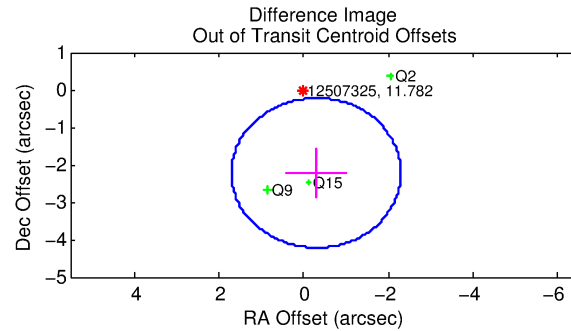
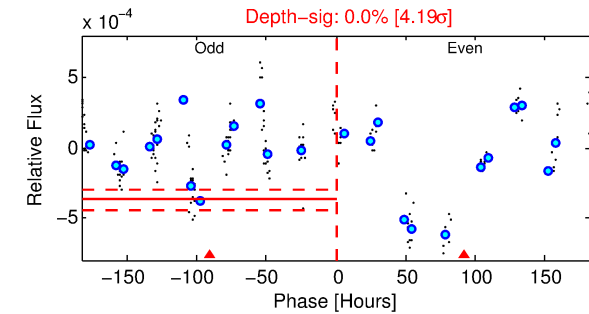
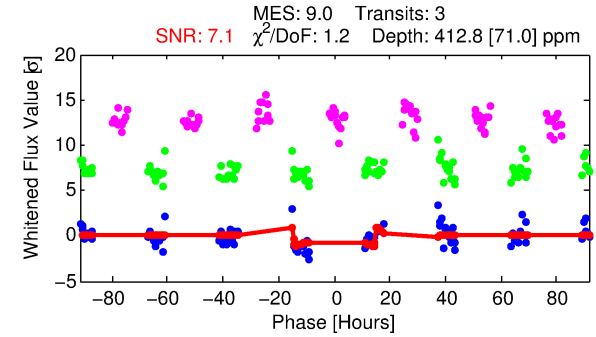
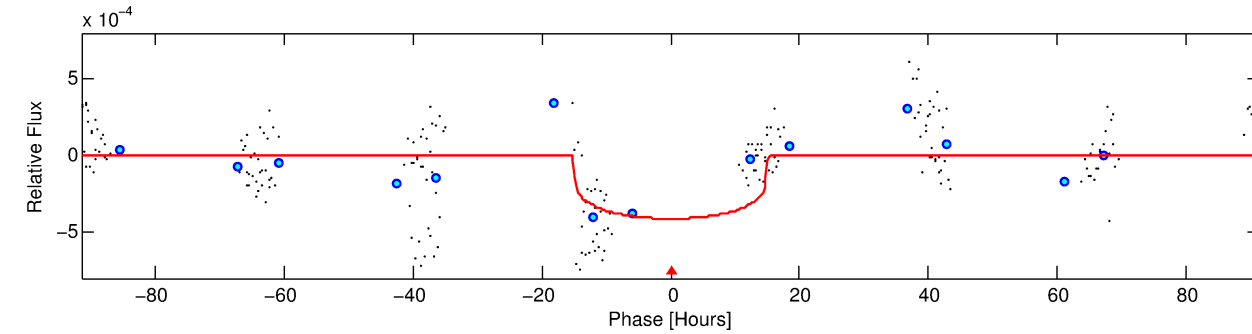
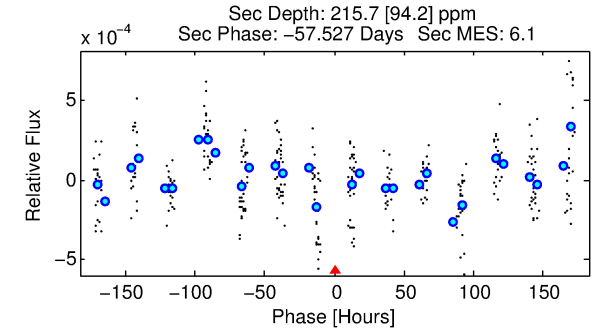
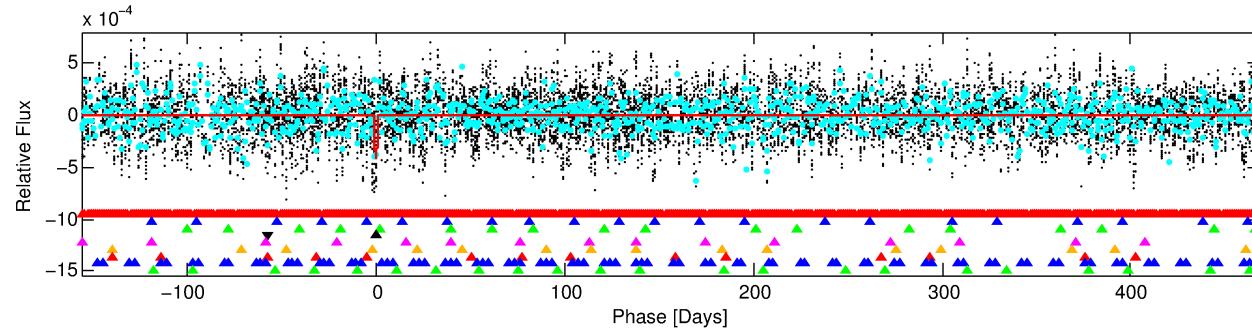
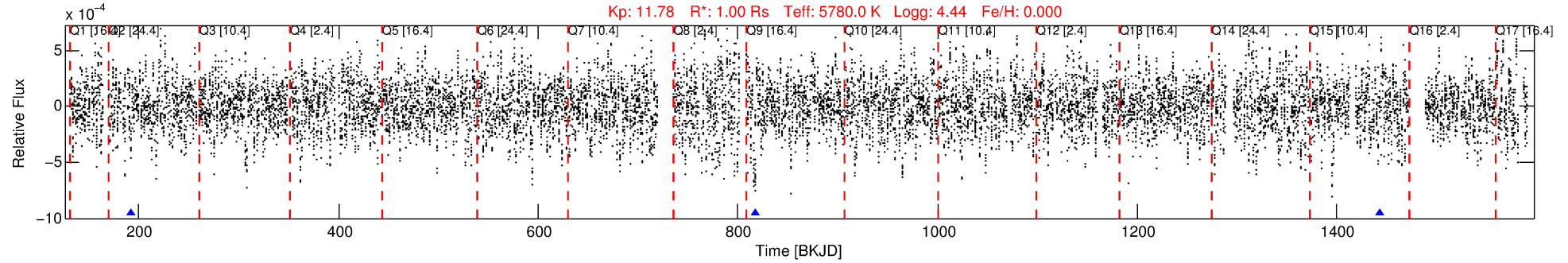
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012507325-04

No Significant Match Found

DV One-Page Summary

KIC: 12507325 Candidate: 4 of 9 Period: 624.706 d



DV Fit Results:

Period = 624.70560 [0.00987] d
Epoch = 192.7779 [0.0158] BKJD
Rp/R* = 0.0187 [0.0038]
a/R* = 149.68 [118.97]
b = 0.35 [1.98]
Seff = 0.49 [0.00]
Teq = 213 [0] K
Rp = 2.04 [0.41] Re
a = 1.4305 [0.0000] AU
Ag = 58405.34 [34830.71] [1.68σ]
Teffp = 5124 [764] K [6.43σ]

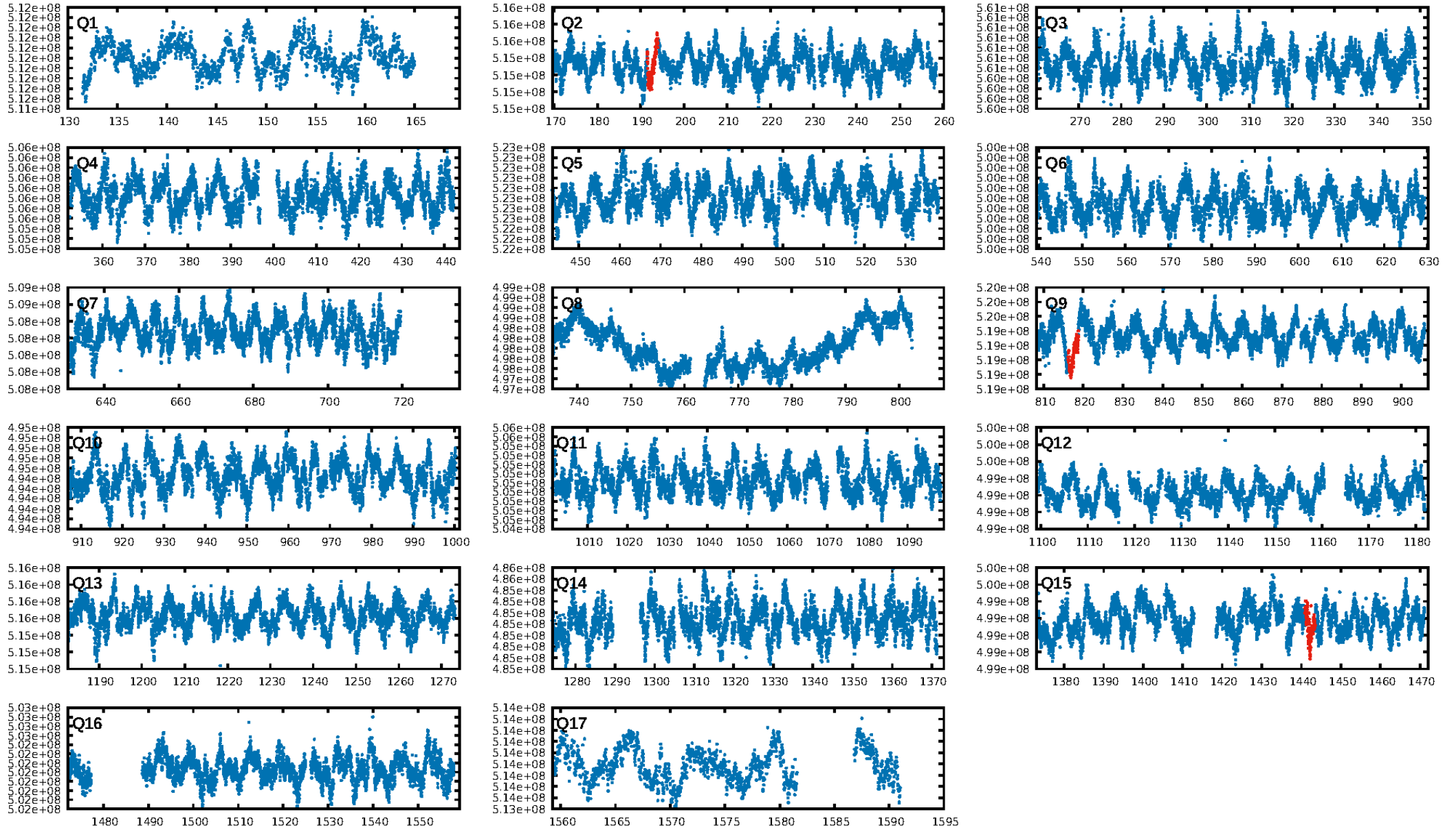
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [403.15σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 23.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.5444
Centroid-sig: 66.7%
Centroid-so: 0.099 arcsec [0.30σ]
OotOffset-rm: 2.241 arcsec [3.37σ]
KicOffset-rm: 2.390 arcsec [2.71σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 0.00 [0/3]

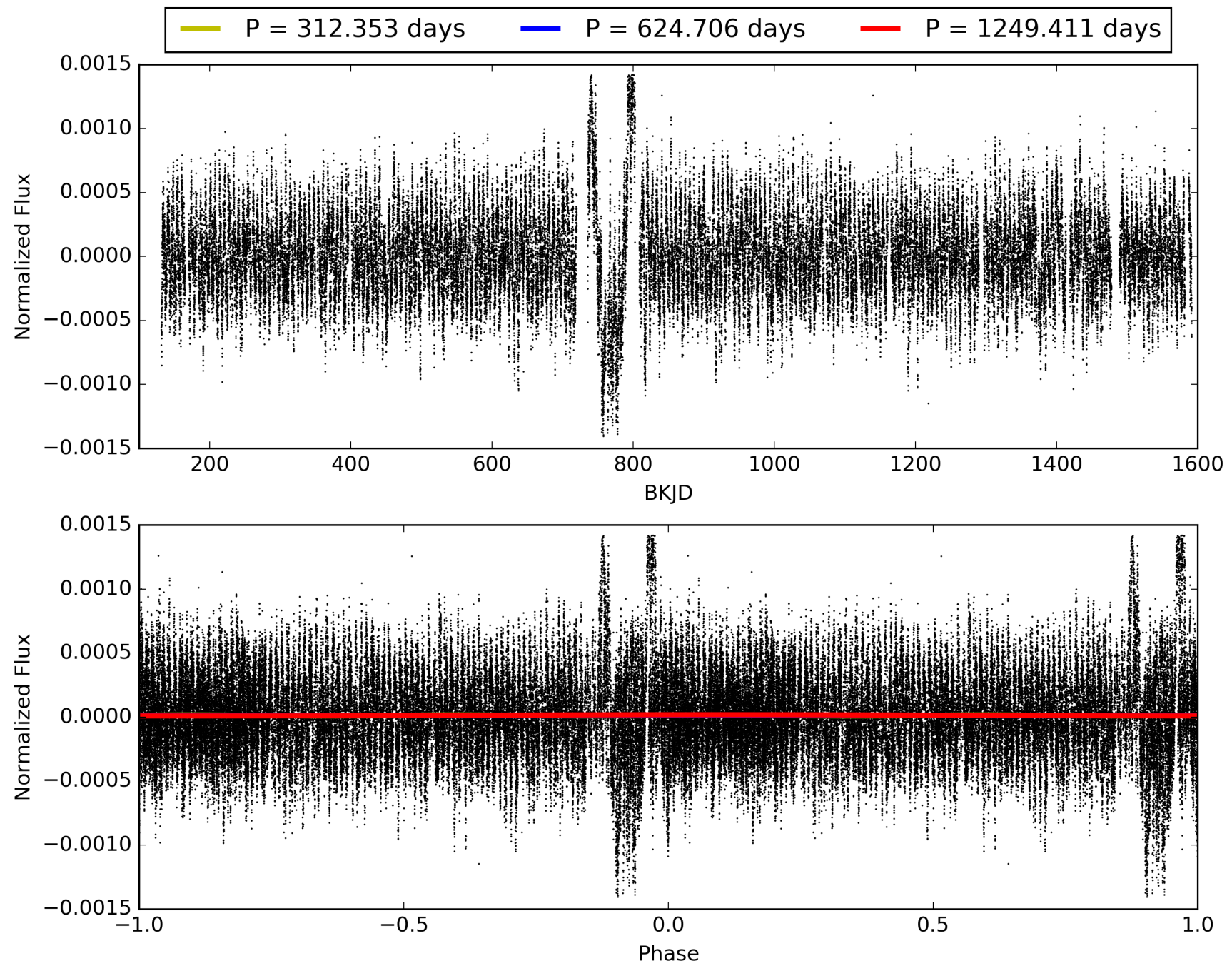
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:44:26 Z

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

TCE 012507325-04, PDC Light Curves

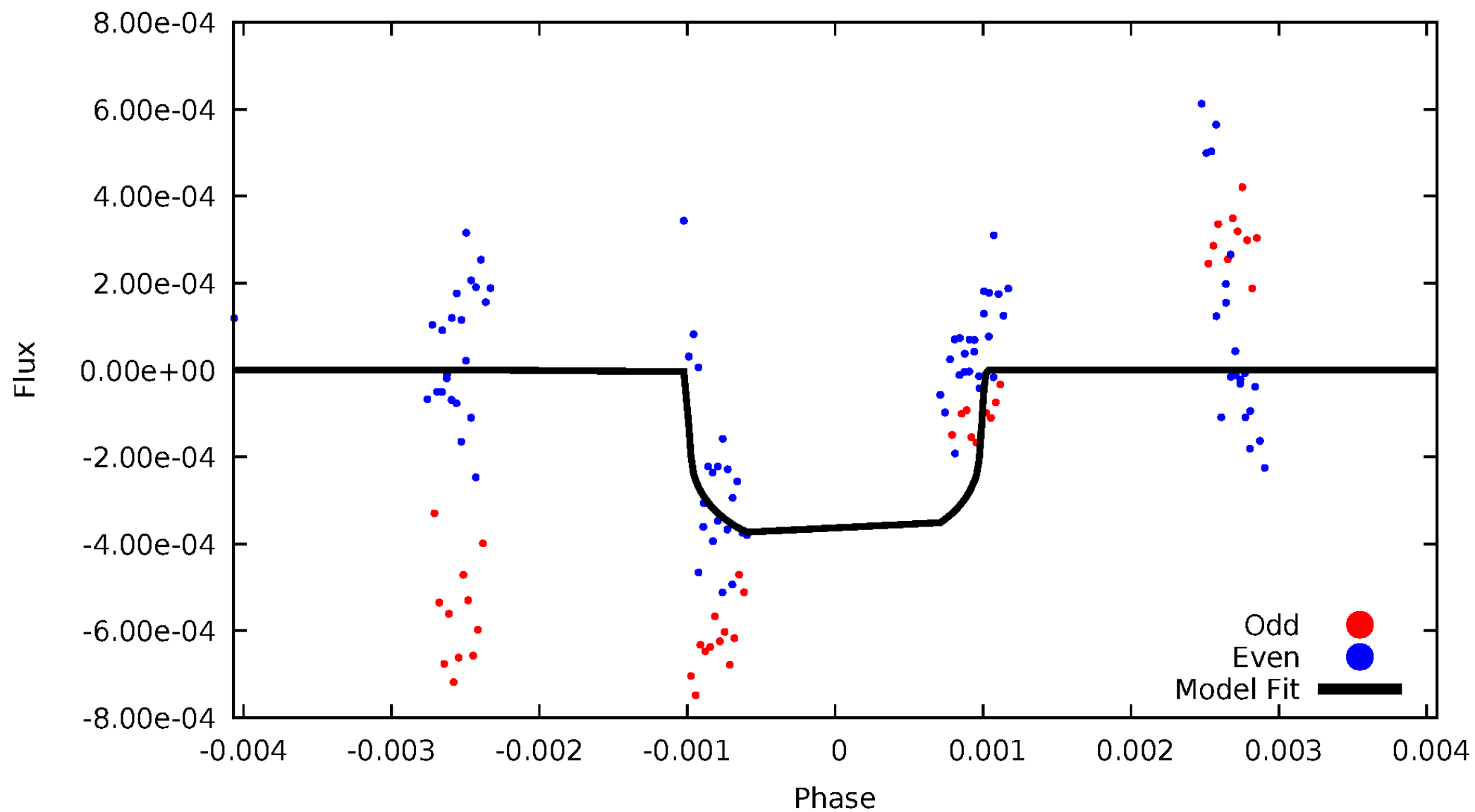


TCE 012507325-04



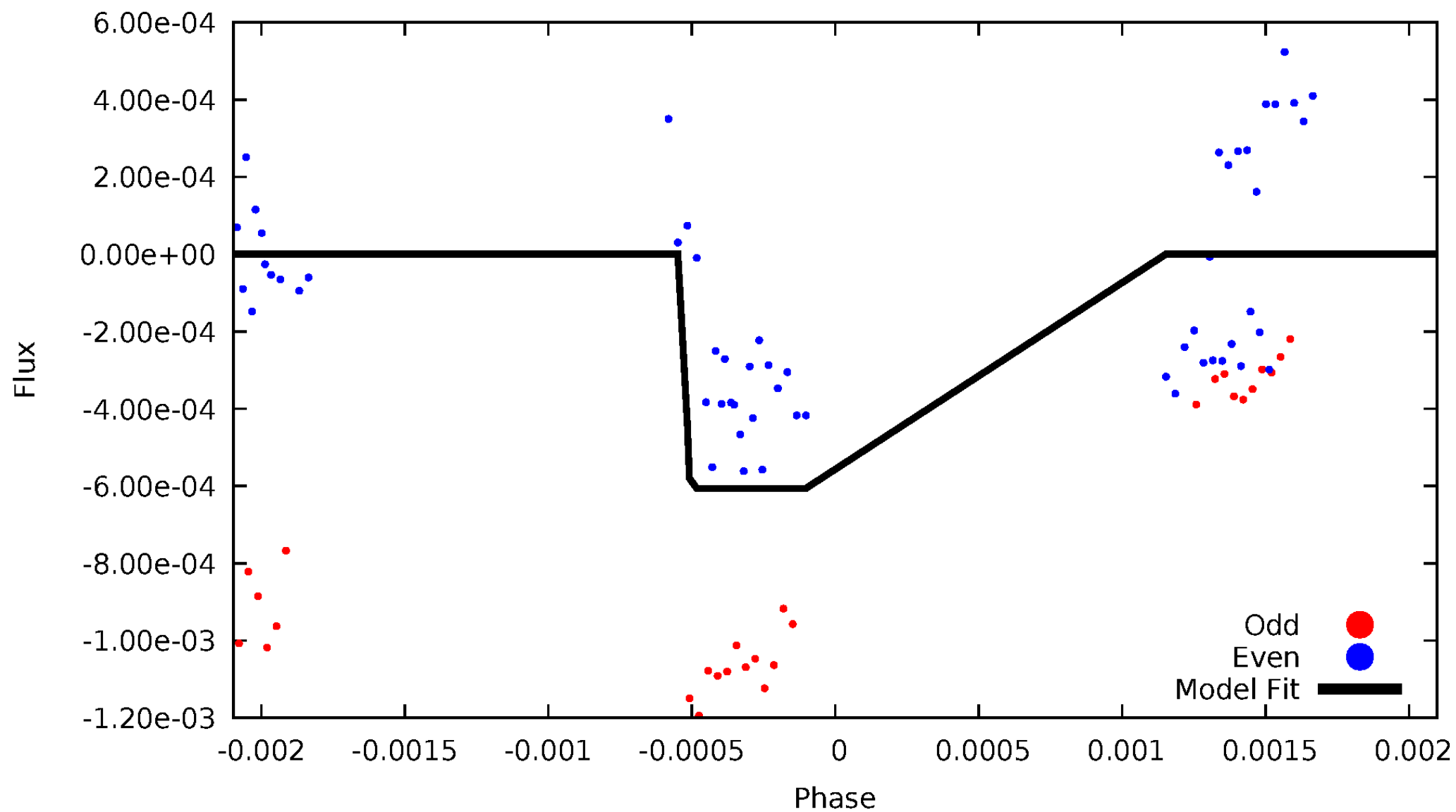
DV Odd/Even

TCE 012507325-04



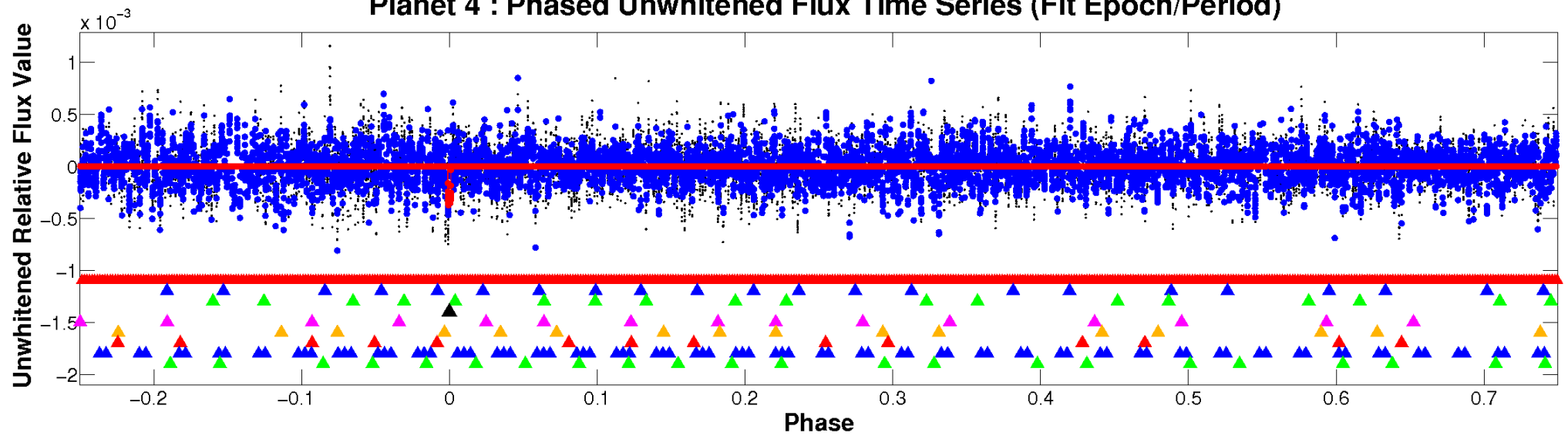
ALT Odd/Even

TCE 012507325-04

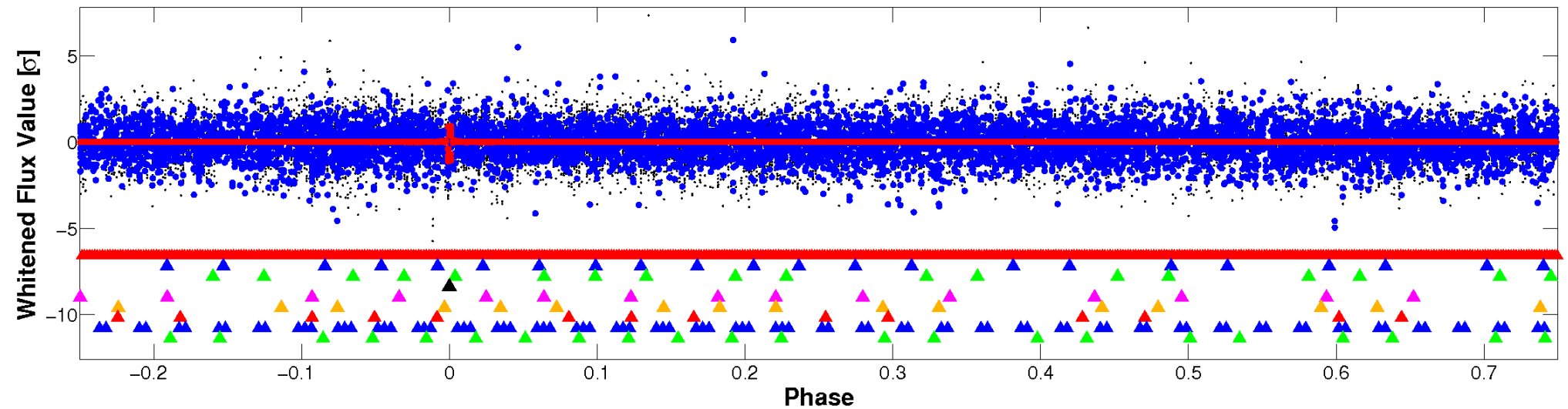


Non-Whitened Vs. Whitened Light Curve

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

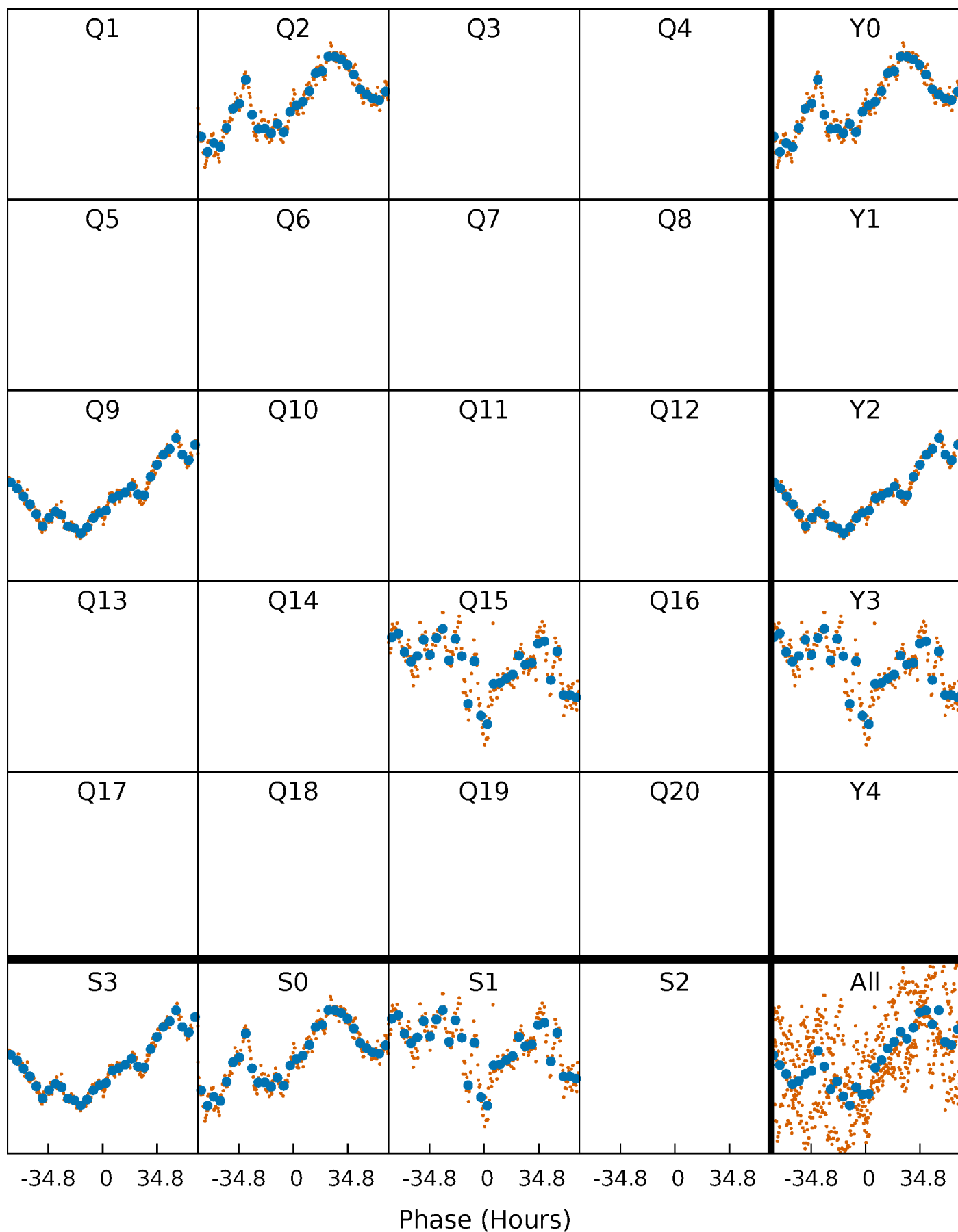


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



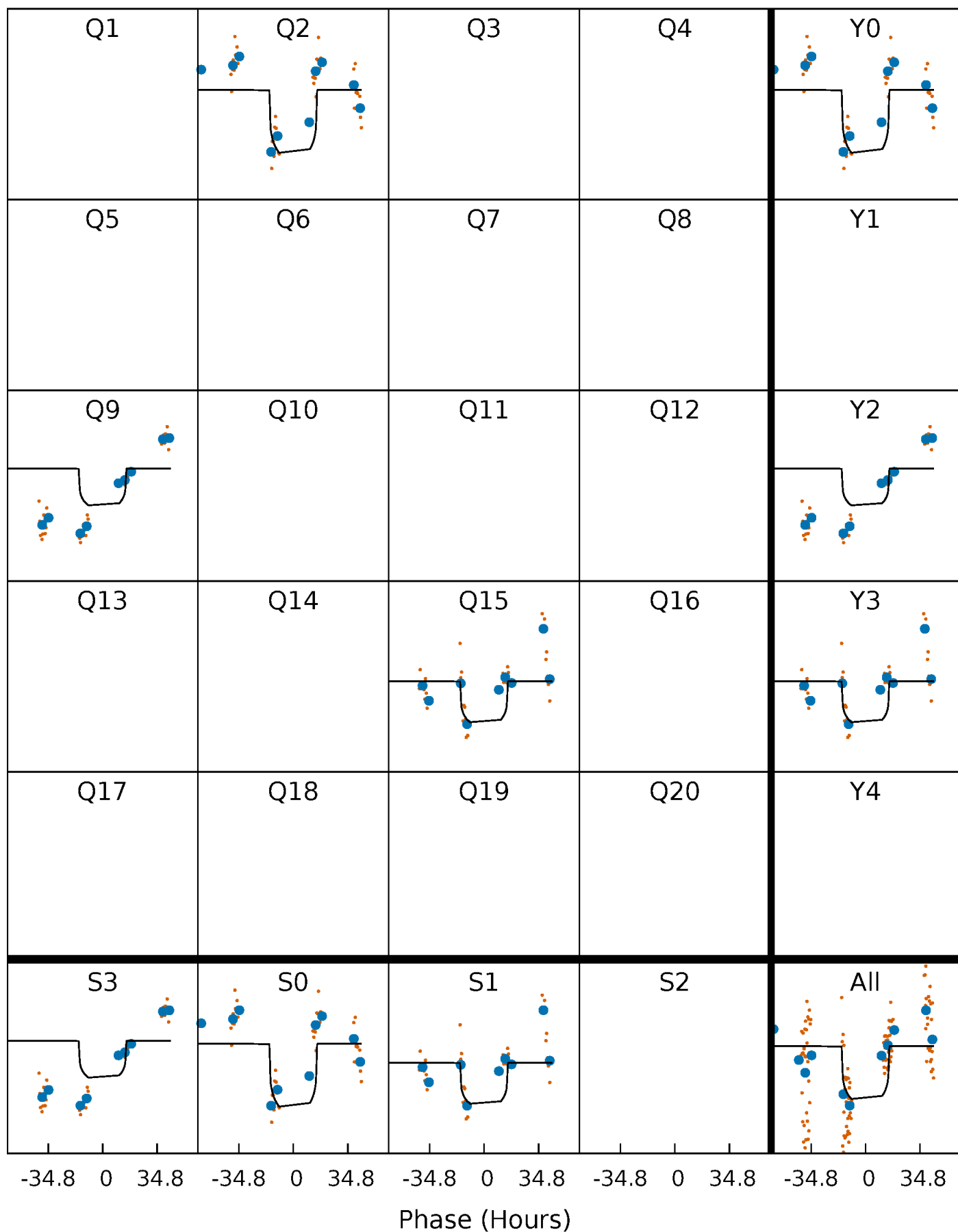
PDC Quarter-Phased Transit Curves

TCE 012507325-04 $P=624.705599$ Days $T_0=192.777940$ (BKJD)



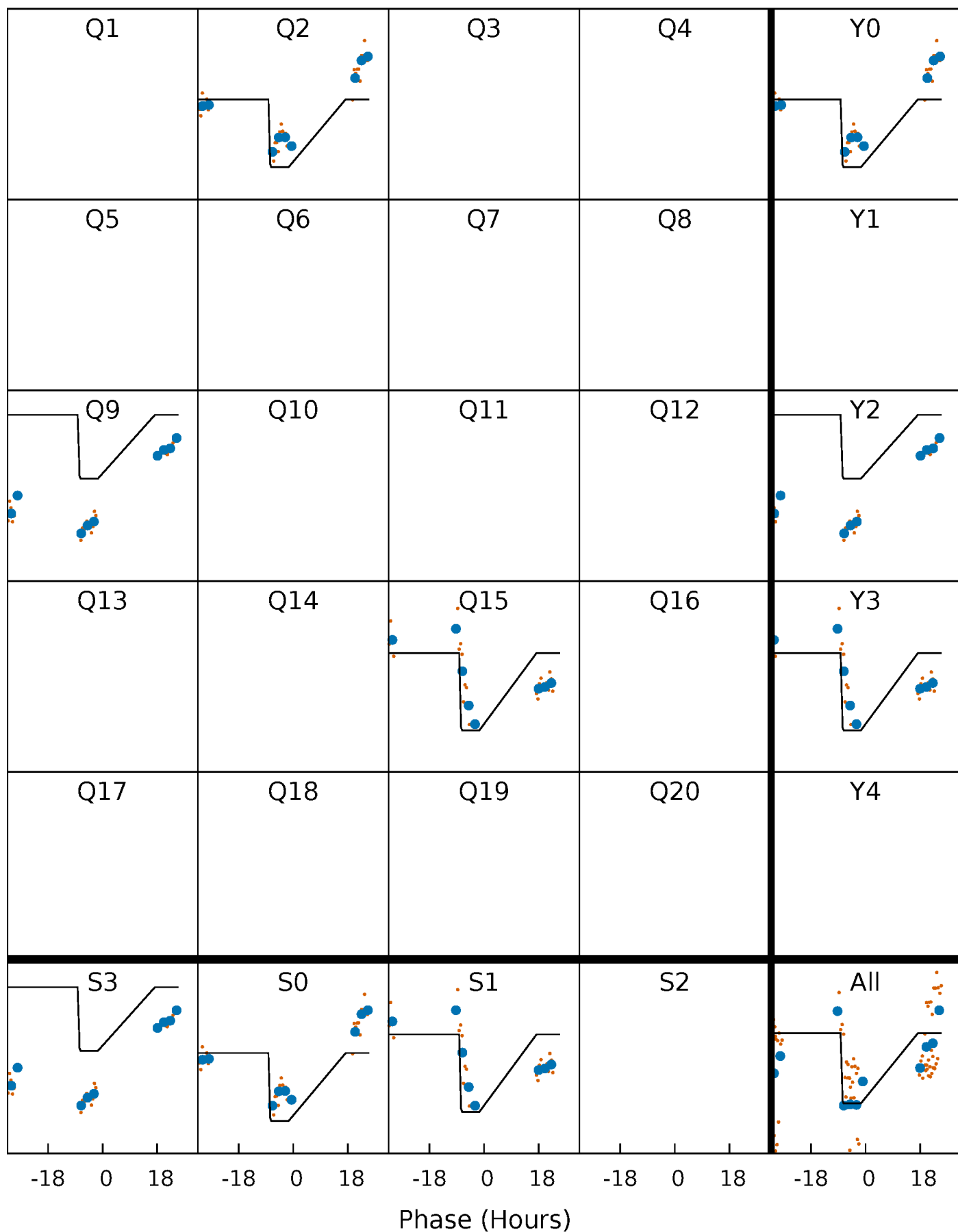
DV Quarter-Phased Transit Curves

TCE 012507325-04 P=624.705599 Days $T_0=192.777940$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

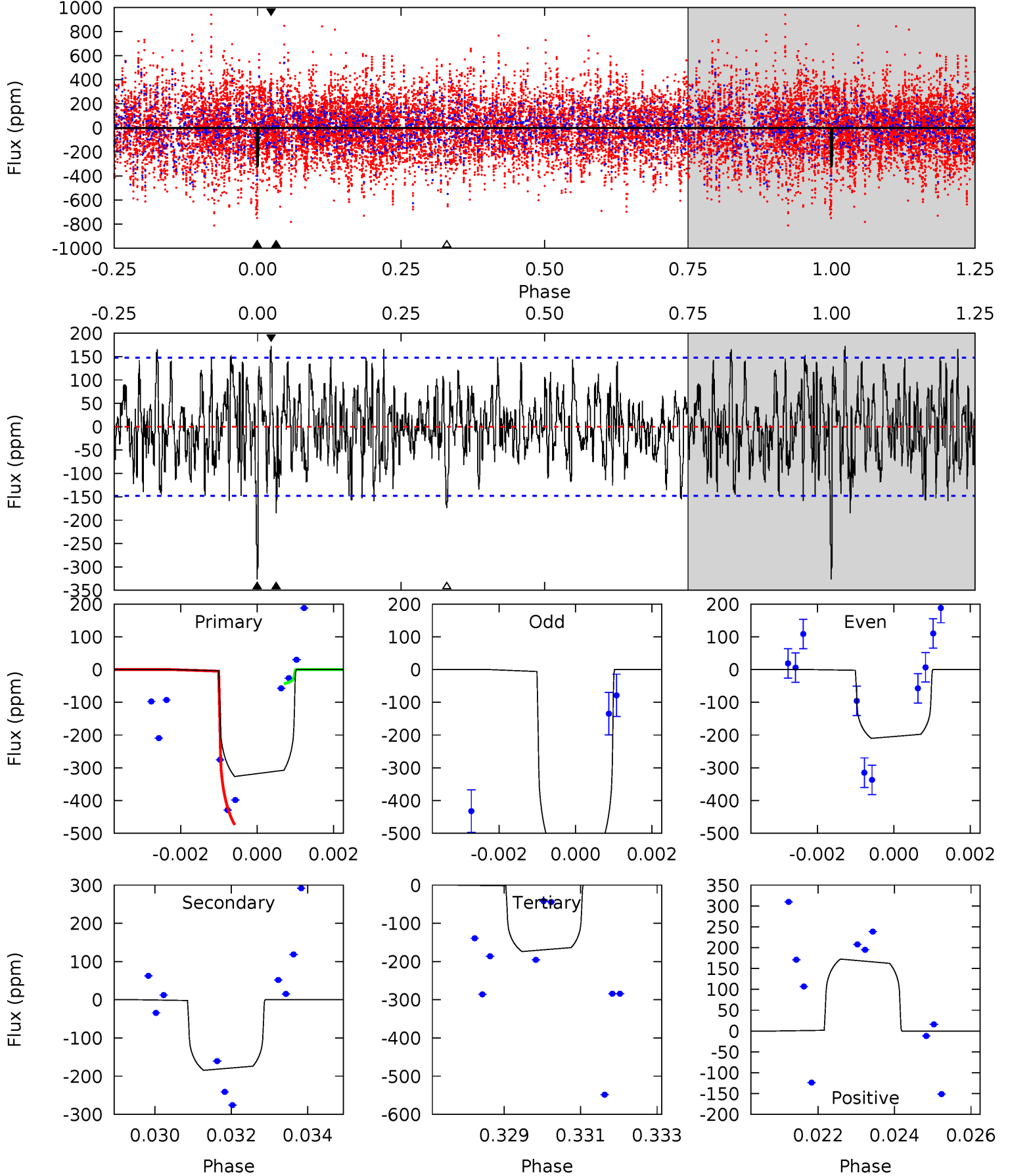
TCE 012507325-04 P=624.722041 Days $T_0=192.468946$ (BKJD)



DV Model-Shift Uniqueness Test

012507325-04, P = 624.705599 Days, E = 192.777940 Days

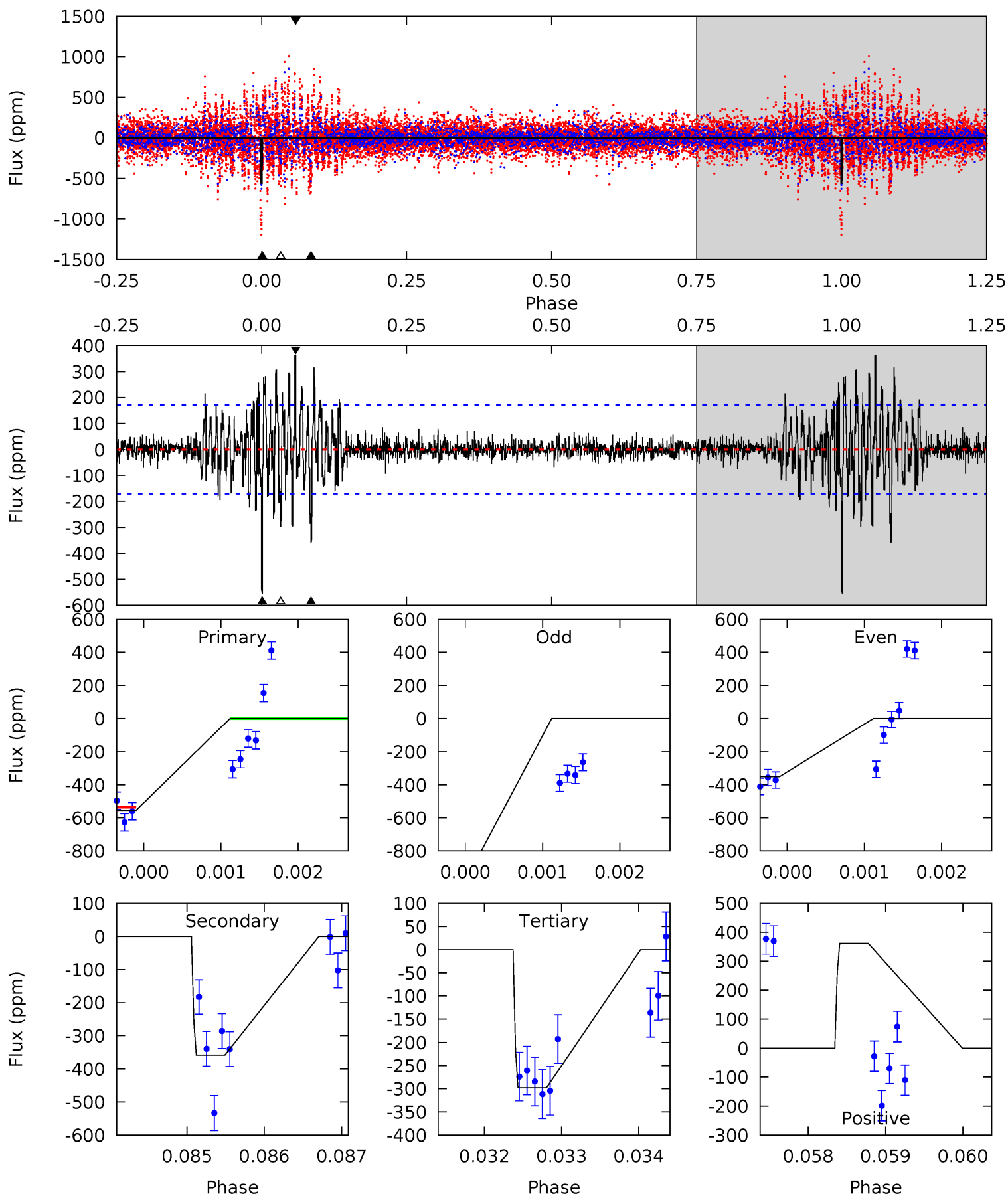
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	6.65	6.26	6.21	5.32	3.09	2.21	5.51	5.55	0.39	0.44	5.94	1.36	0.35	7.72



Alt Model-Shift Uniqueness Test

012507325-04, P = 624.722041 Days, E = 192.468946 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.7	11.4	9.51	11.5	5.45	3.28	2.17	8.18	6.15	1.93	-0.10	11.9	0	0.39	0



Stellar Parameters For KIC 012507325

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 012507325-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-185 ± 28	$2.04^{+0.46}_{-0.42}$	298^{+14}_{-13}	5020^{+545}_{-440}	49873^{+30606}_{-17666}
Alt.	-359 ± 31	$2.66^{+0.50}_{-0.43}$	298^{+14}_{-14}	5143^{+437}_{-375}	56736^{+25323}_{-16434}

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 $A_{obs} \gg 1.0$

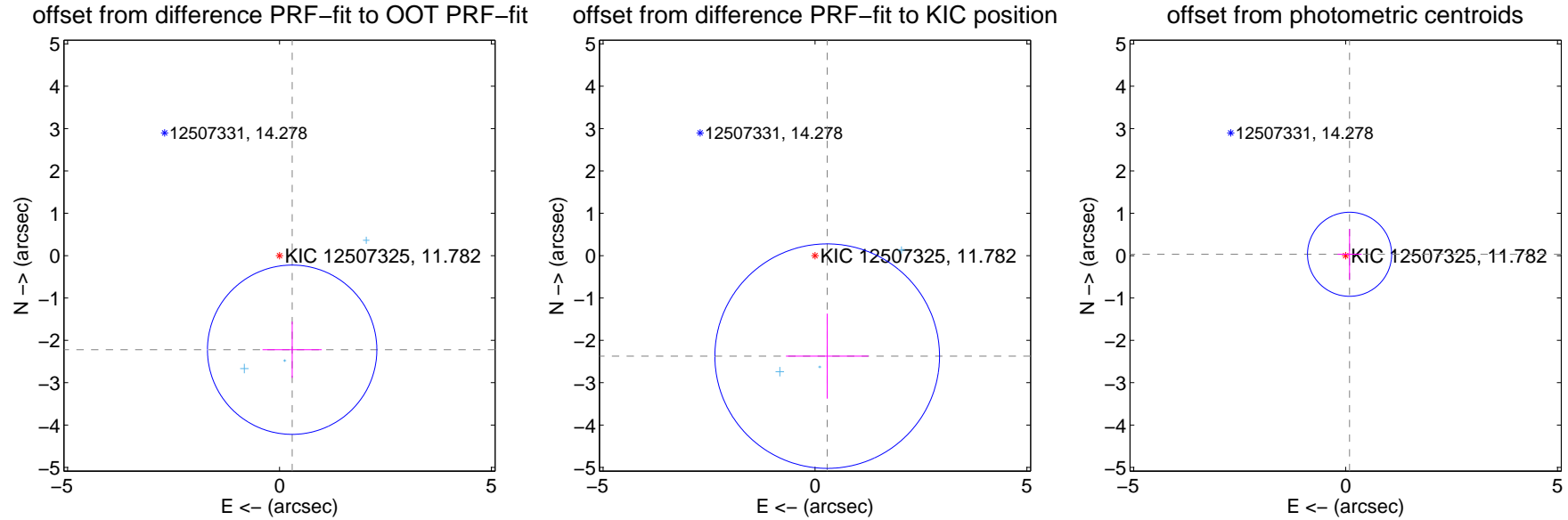
DV Centroid Data

Supplemental centroid analysis for 012507325-04. **Kepler magnitude: 11.78.** Transit SNR 7.09

There are 3 quarters with good PRF difference image offsets

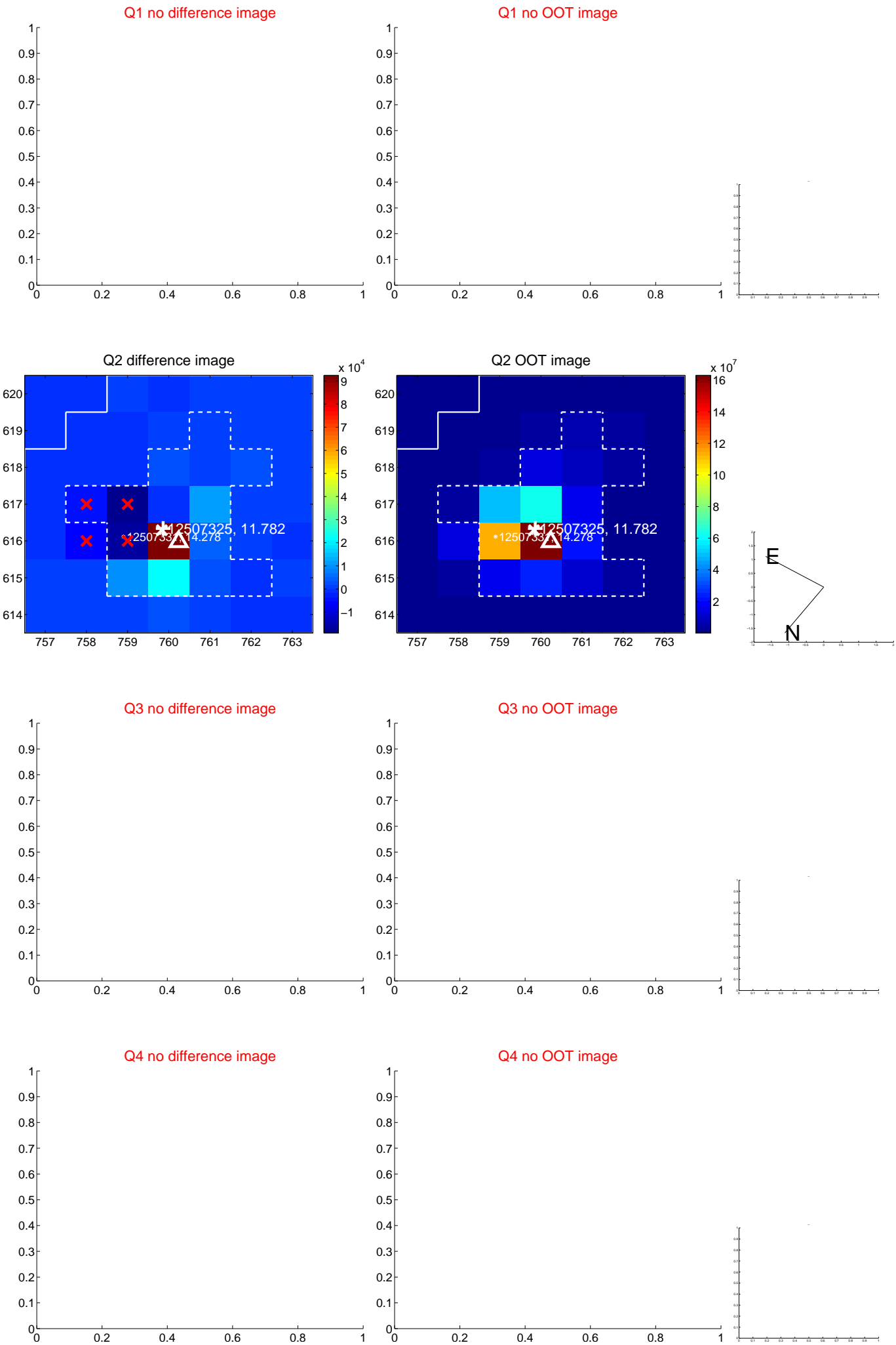
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.241 ± 0.666	3.37	-0.299 ± 0.700	-2.221 ± 0.665
PRF-fit source offset from KIC position	2.390 ± 0.883	2.71	-0.288 ± 0.973	-2.373 ± 1.005
photometric centroid source offset	0.10 ± 0.33	0.30	-0.09 ± 0.28	0.03 ± 0.59



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

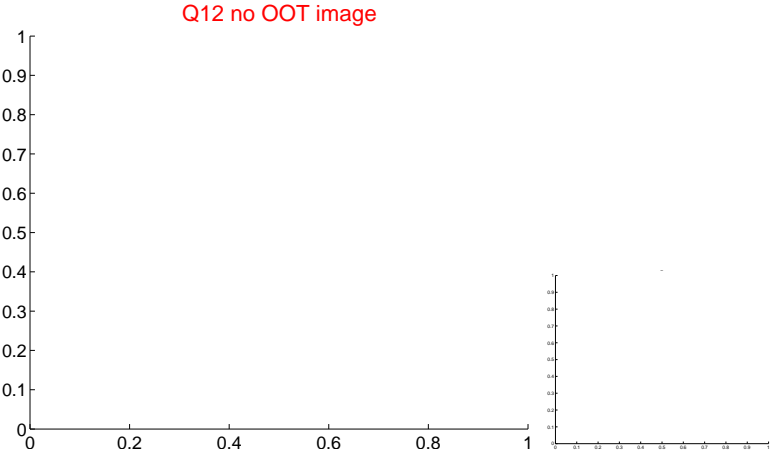
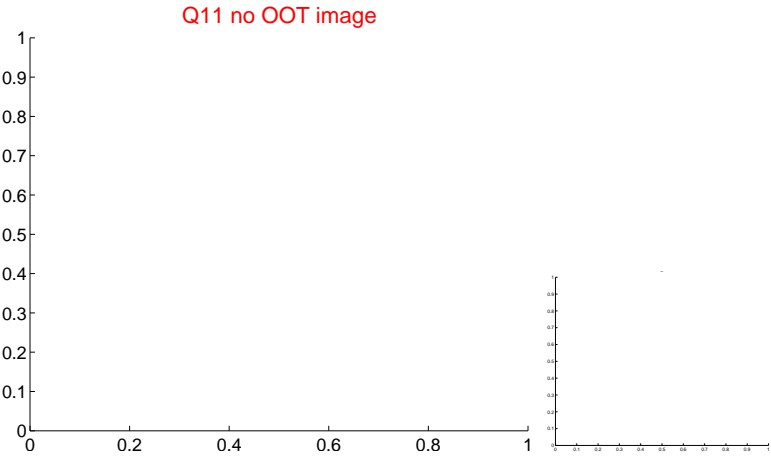
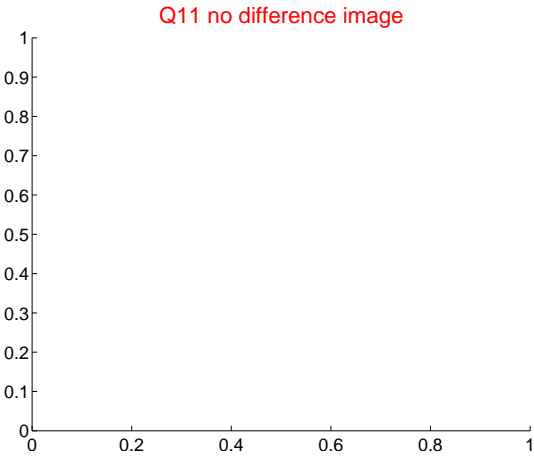
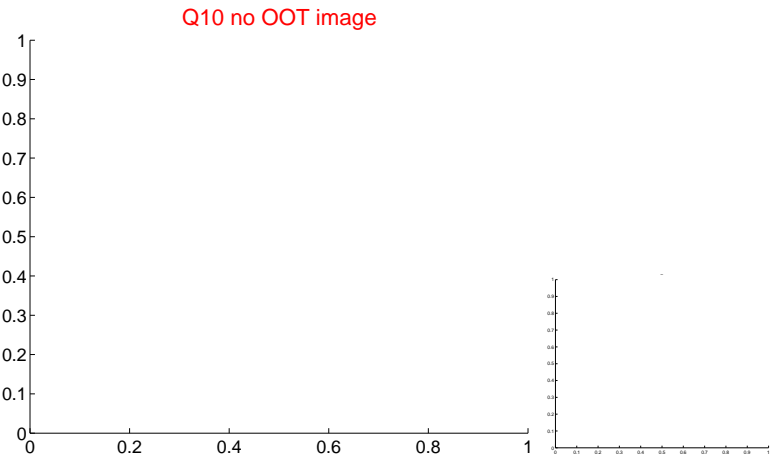
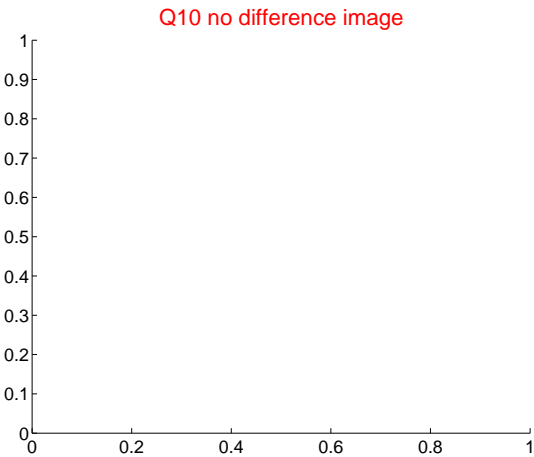
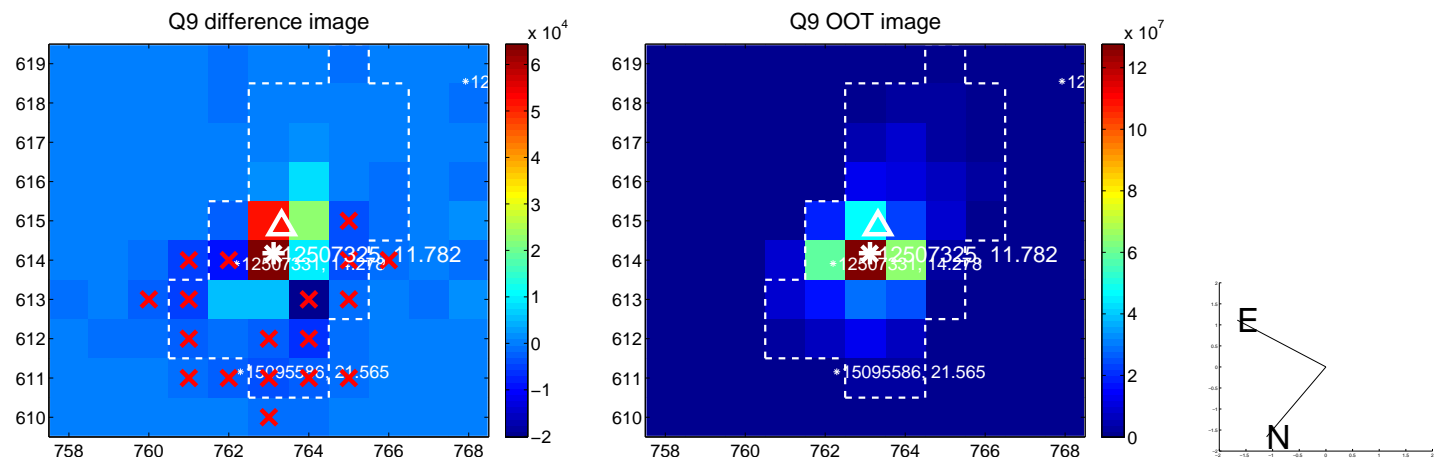
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



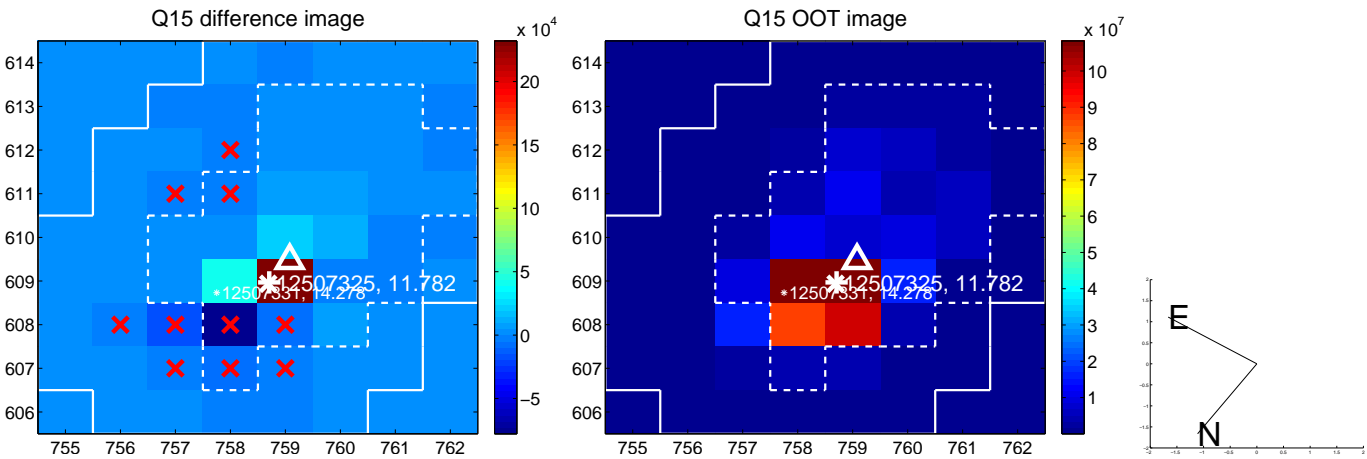
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



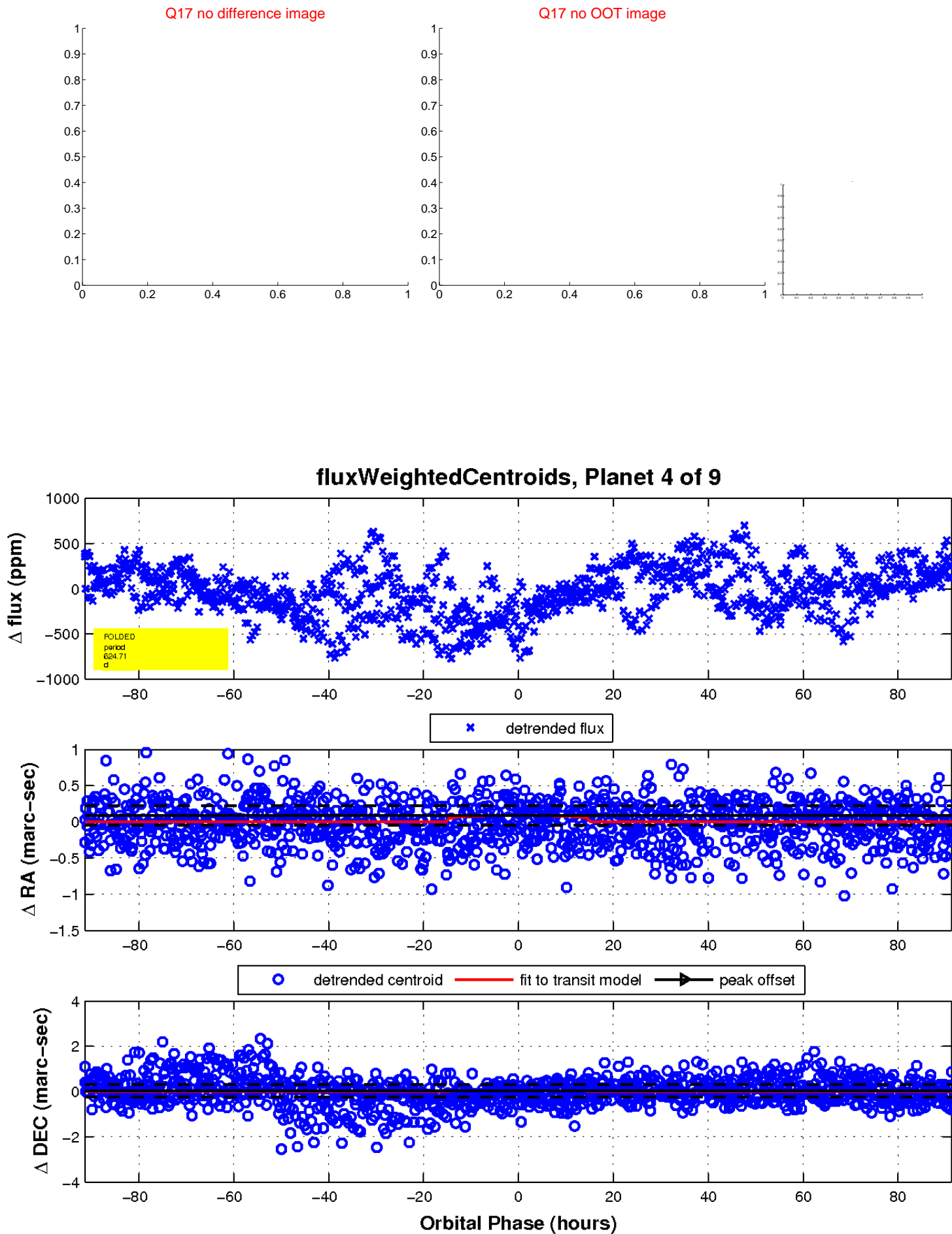
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

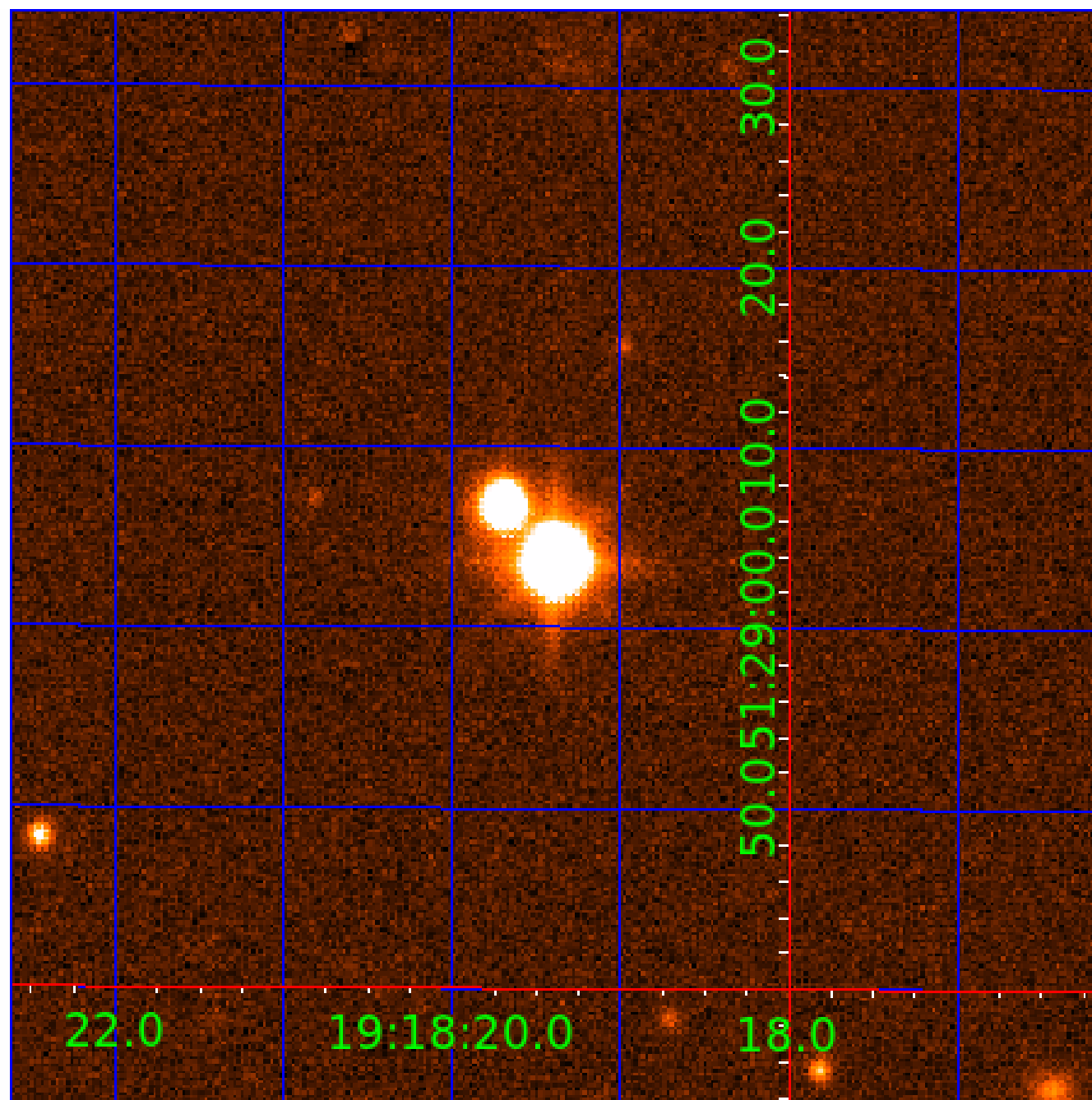


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 012507325

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})
012507325-01	OBS	No	1.086390	132.016640	17.1	6.699	8.5	6.8	1.00	5780	0.42	2336.82
012507325-02	OBS	No	66.764918	187.846728	290.9	4.814	9.6	9.5	1.00	5780	1.98	9.64
012507325-03	OBS	No	80.783852	152.079007	328.1	6.030	9.1	9.4	1.00	5780	2.27	7.47
012507325-04	OBS	No	624.705599	192.777940	412.8	30.488	9.0	7.1	1.00	5780	2.04	0.49
012507325-05	OBS	No	97.987195	208.323577	176.2	12.443	8.8	4.5	1.00	5780	1.45	5.78
012507325-06	OBS	No	92.629169	190.725871	336.4	4.465	9.0	9.5	1.00	5780	2.11	6.23
012507325-07	OBS	No	108.517832	134.774183	196.5	3.849	8.7	6.4	1.00	5780	1.61	5.04
012507325-08	OBS	No	16.809442	134.485571	112.5	4.024	8.3	8.0	1.00	5780	1.18	60.61
012507325-09	OBS	No	64.560845	183.078488	165.1	3.500	9.1	-1.0	1.00	5780	1.27	10.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012507325-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
012507325-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT
012507325-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012507325-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
012507325-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—HALO_GHOST
012507325-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_CROWDED
012507325-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

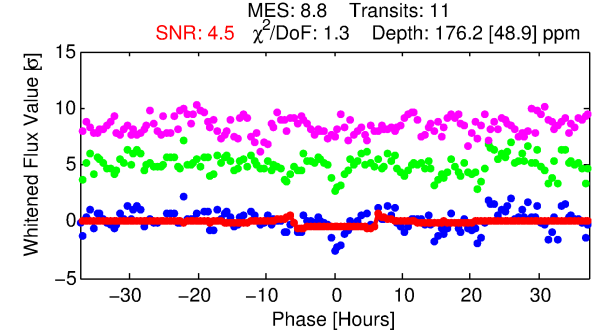
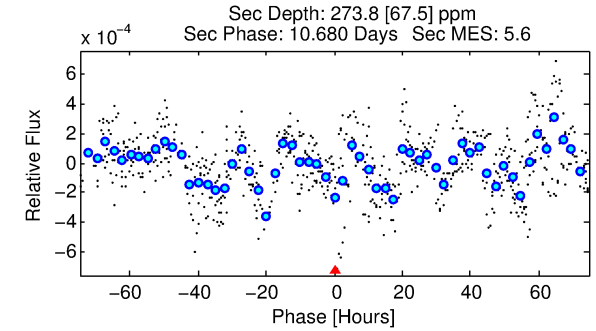
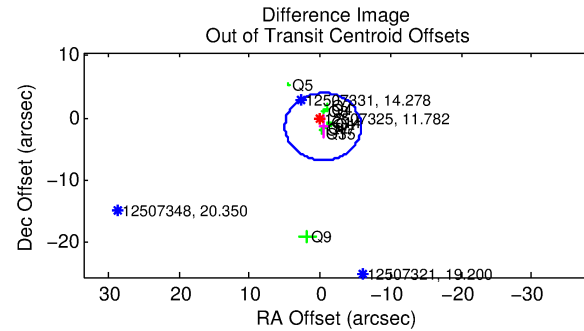
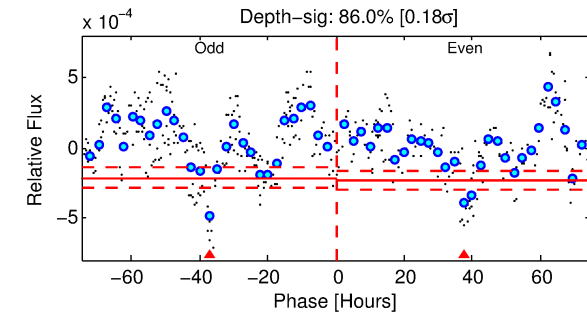
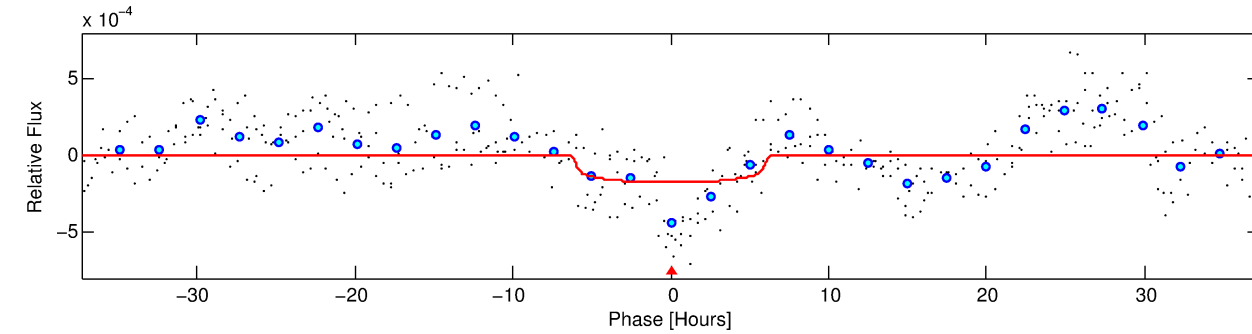
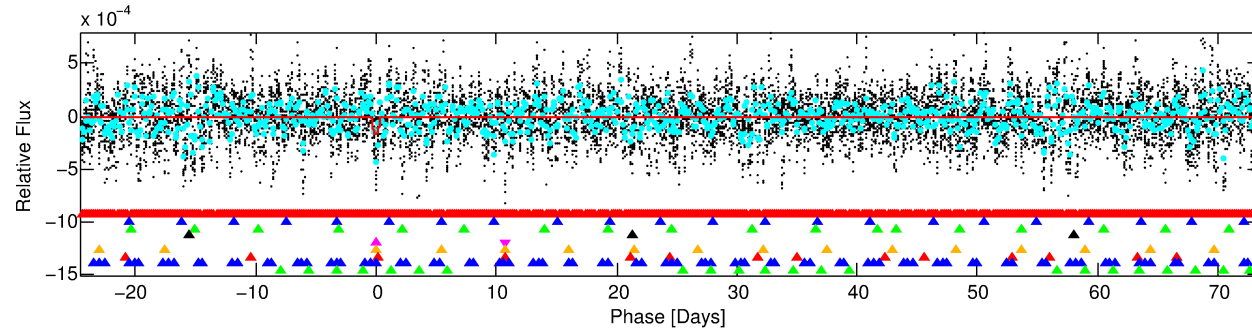
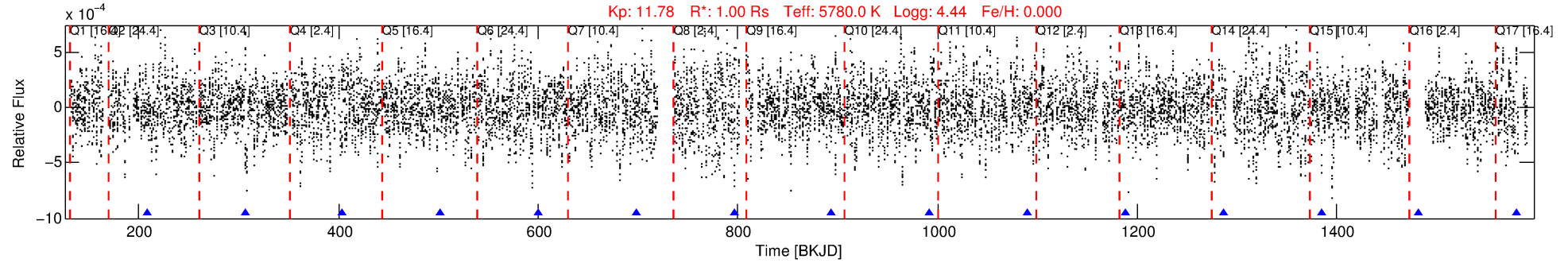
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012507325-05

No Significant Match Found

DV One-Page Summary

KIC: 12507325 Candidate: 5 of 9 Period: 97.987 d



DV Fit Results:

Period = 97.98720 [0.00301] d
Epoch = 208.3236 [0.0166] BKJD
Rp/R* = 0.0133 [0.0058]
a/R* = 39.70 [73.82]
b = 0.77 [0.98]
Seff = 5.78 [0.00]
Teq = 395 [0] K
Rp = 1.45 [0.63] Re
a = 0.4160 [0.0000] AU
Ag = 12361.46 [11204.57] [1.10 σ]
Teffp = 6445 [1460] K [4.14 σ]

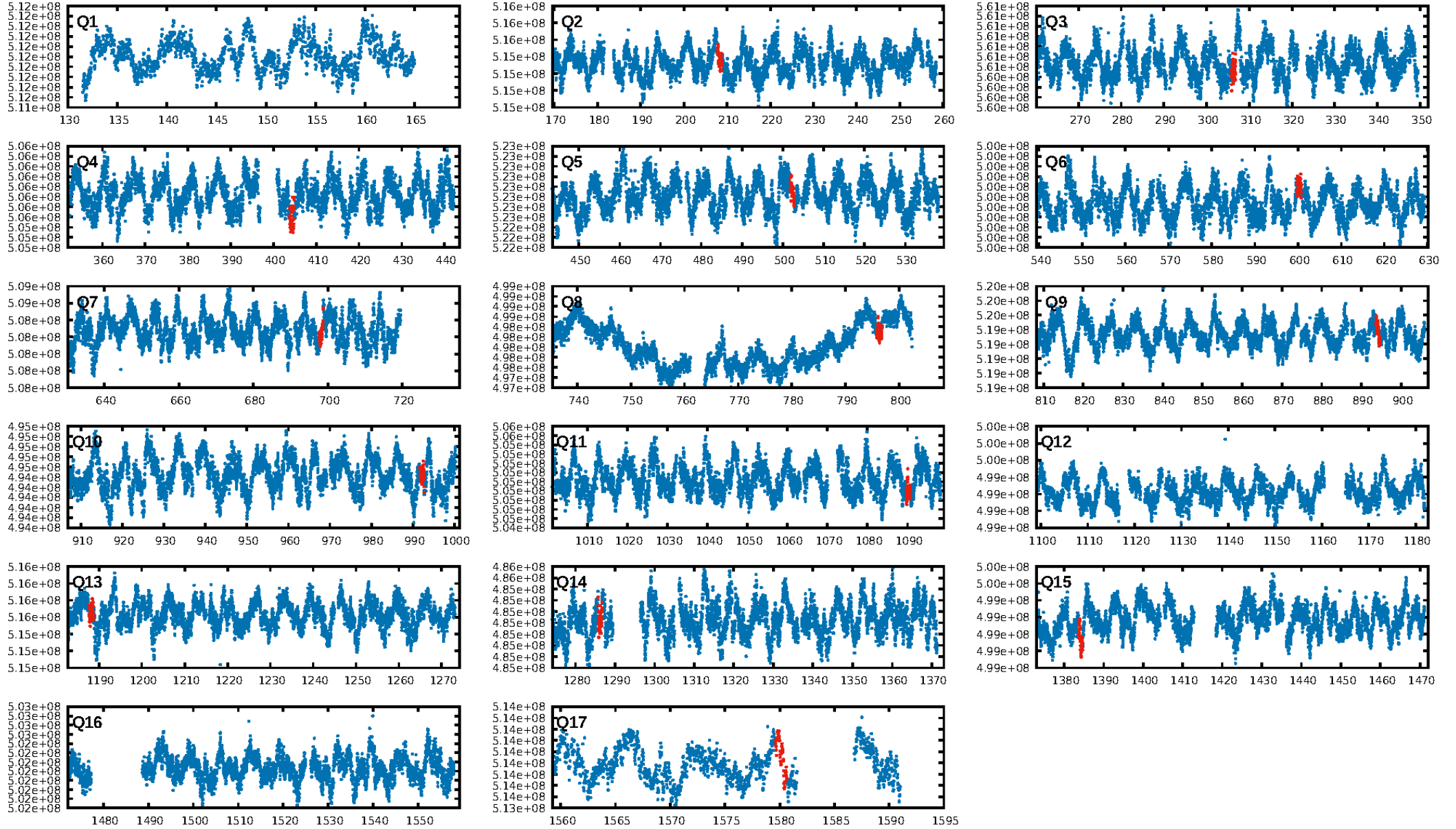
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [9.73 σ]
LongPeriod-sig: 100.0% [19.40 σ]
ModelChiSquare2-sig: 39.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: -0.2652
Centroid-sig: 48.7%
Centroid-so: 0.415 arcsec [0.93 σ]
OotOffset-rm: 1.479 arcsec [0.82 σ]
OotOffset-st: 2/4/2/3 [11]
KicOffset-rm: 1.661 arcsec [0.93 σ]
KicOffset-st: 2/4/2/3 [11]
DiffImageQuality-fgm: 0.64 [7/11]
DiffImageOverlap-fno: 0.00 [0/12]

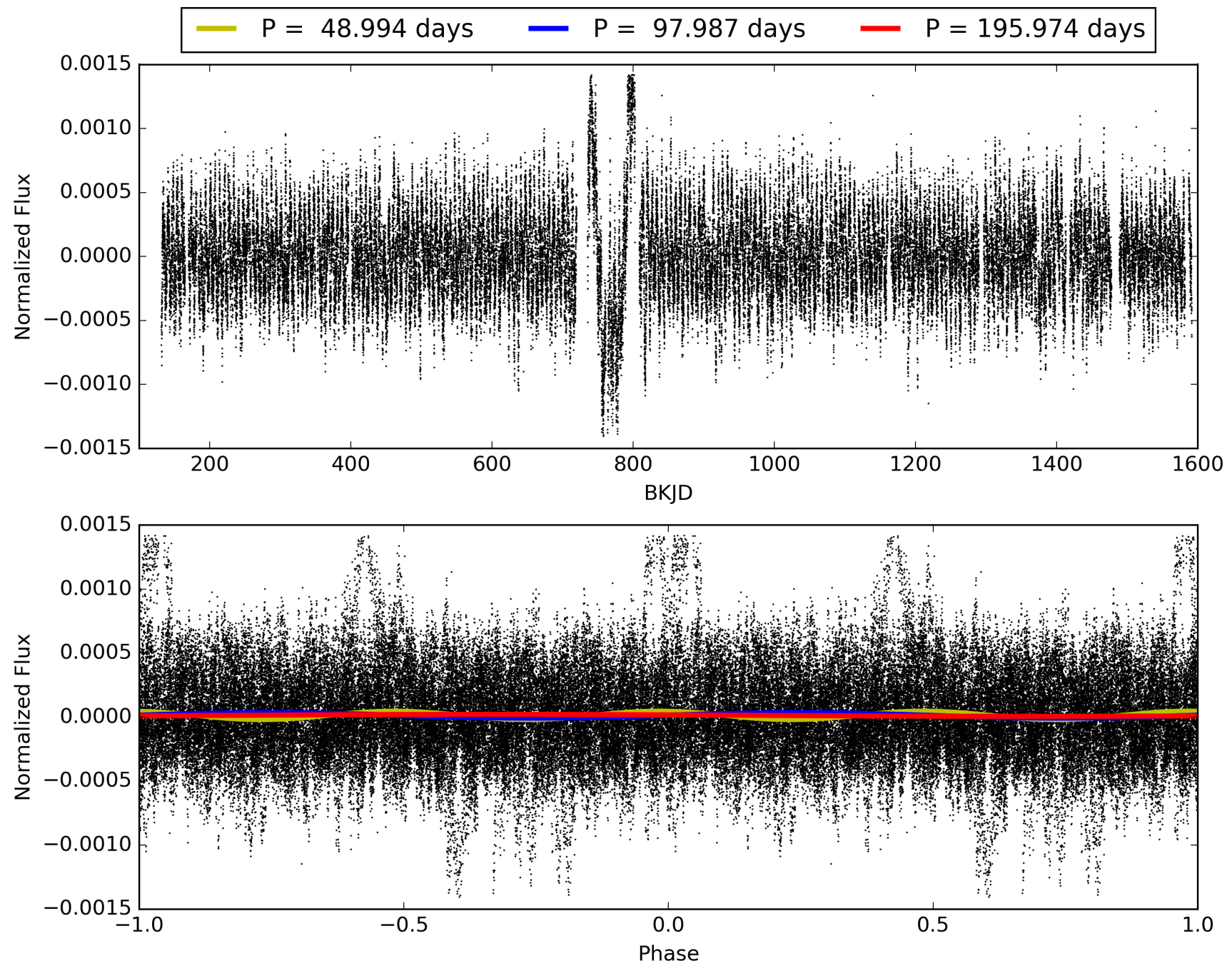
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:44:29 Z

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

TCE 012507325-05, PDC Light Curves

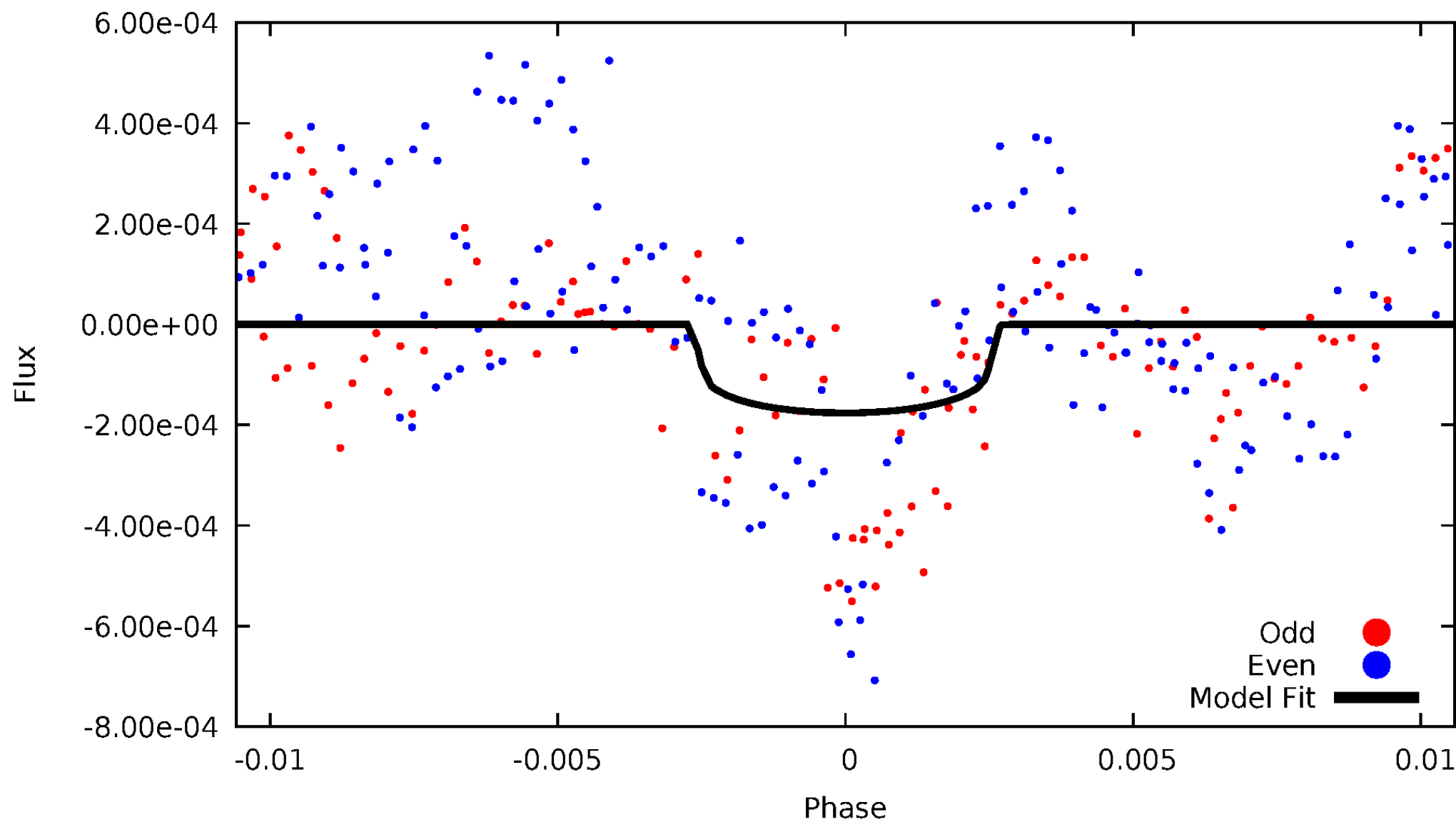


TCE 012507325-05



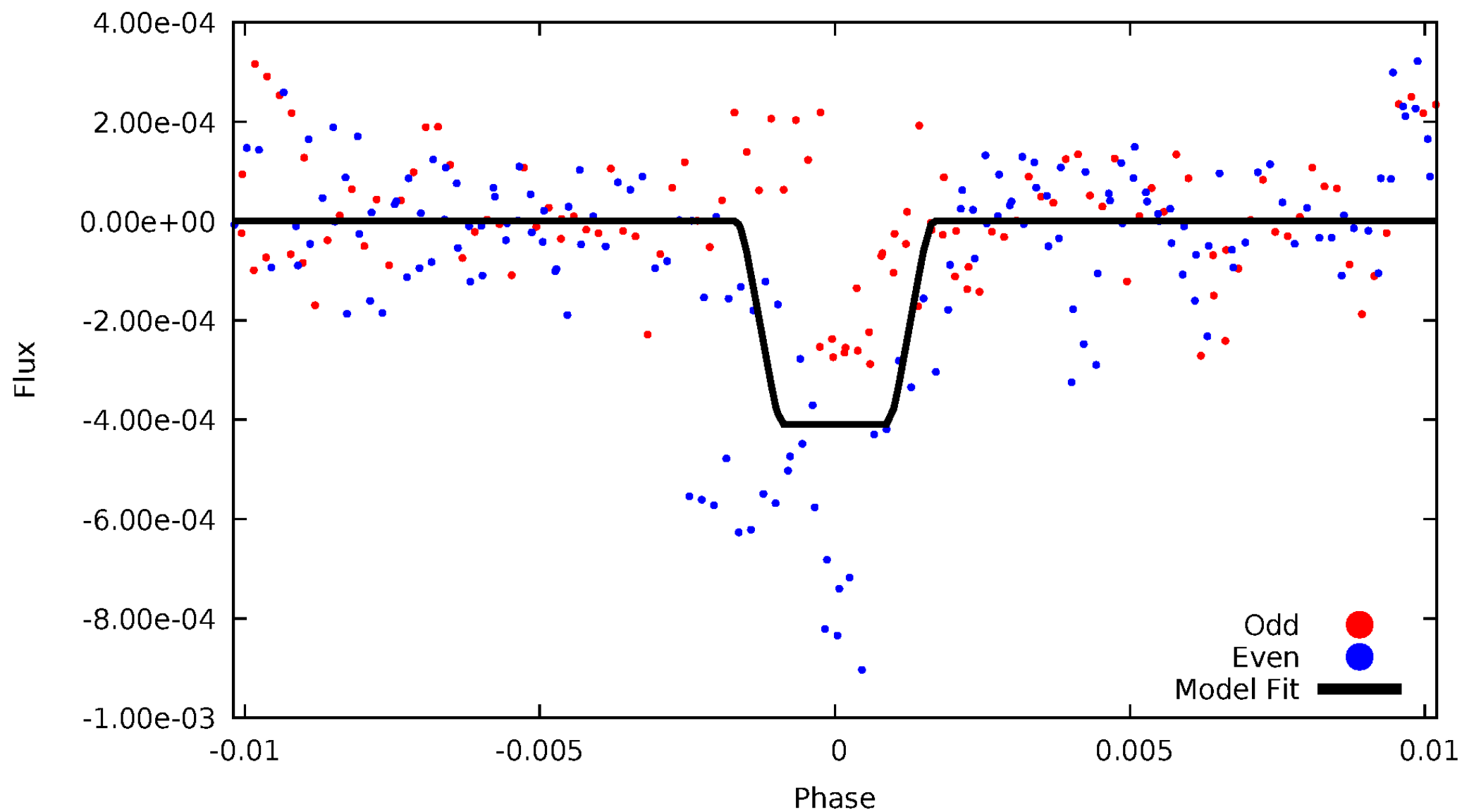
DV Odd/Even

TCE 012507325-05

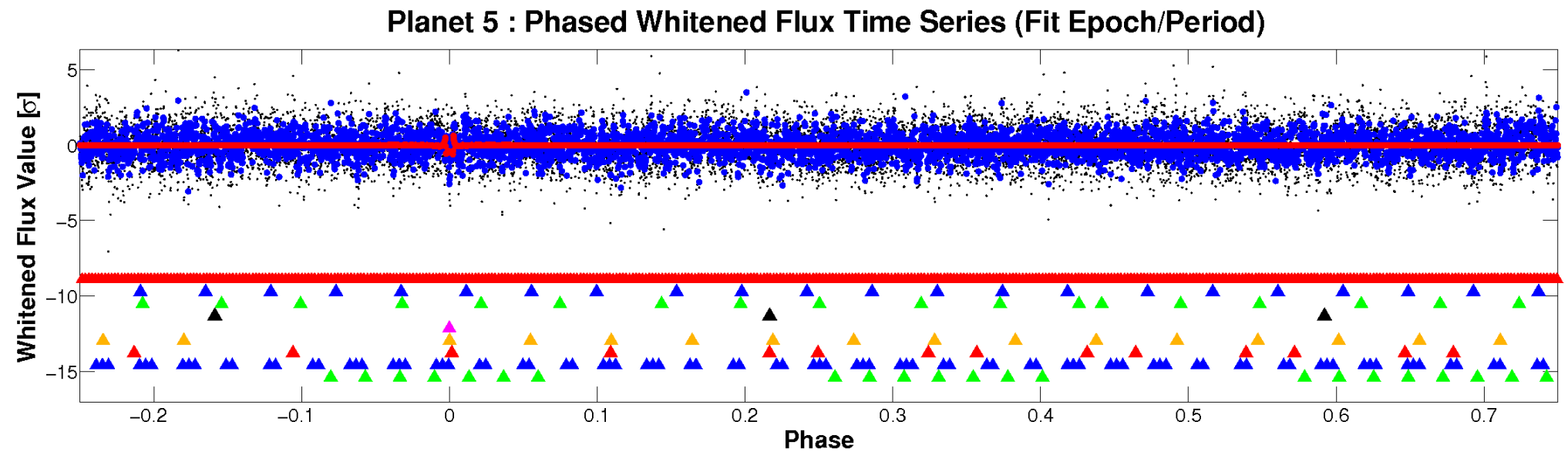
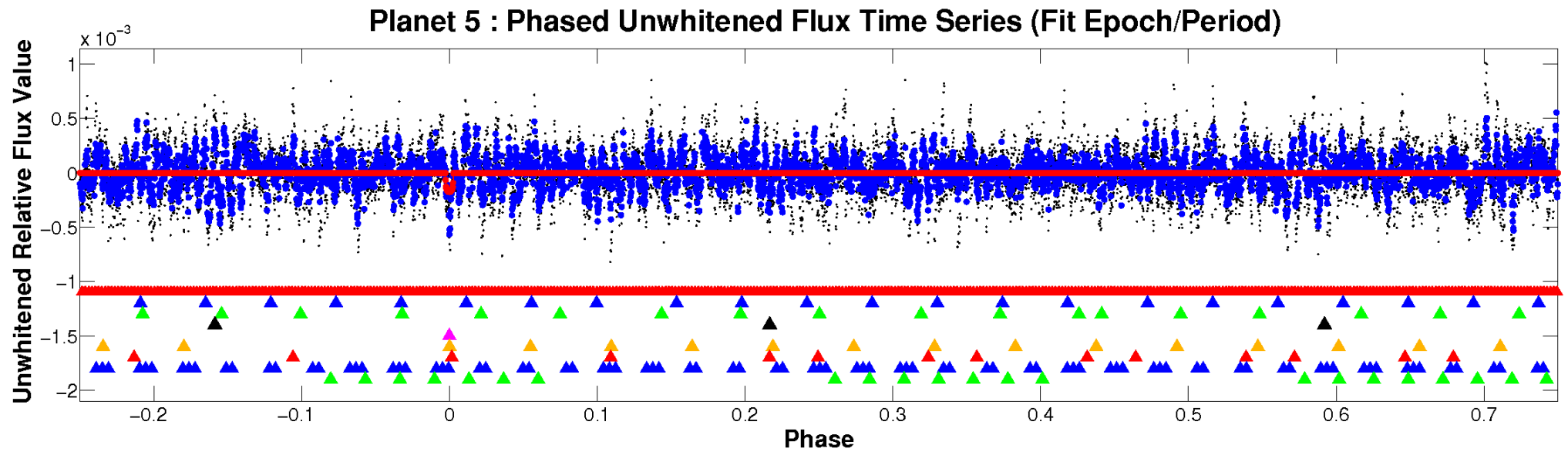


ALT Odd/Even

TCE 012507325-05

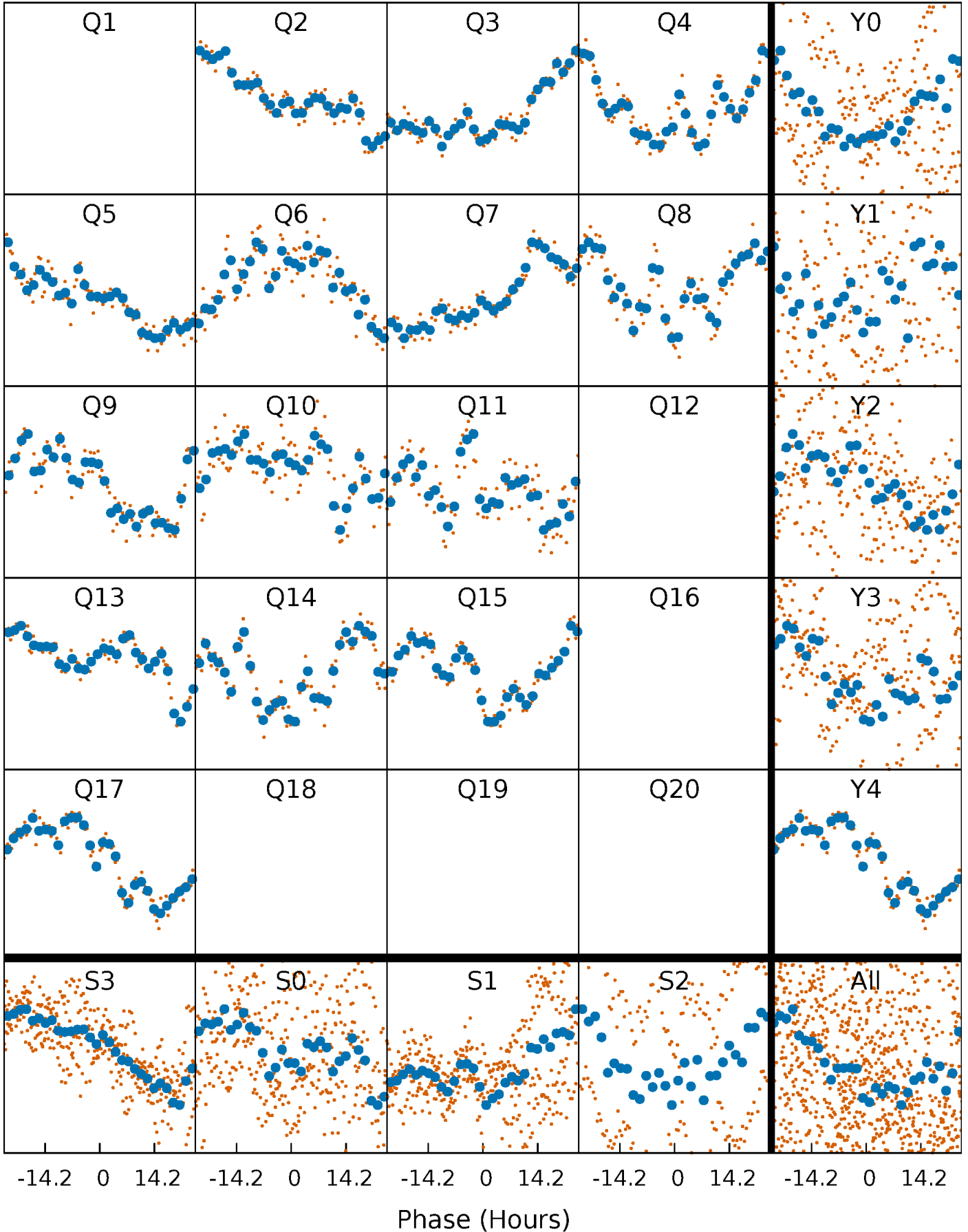


Non-Whitened Vs. Whitened Light Curve



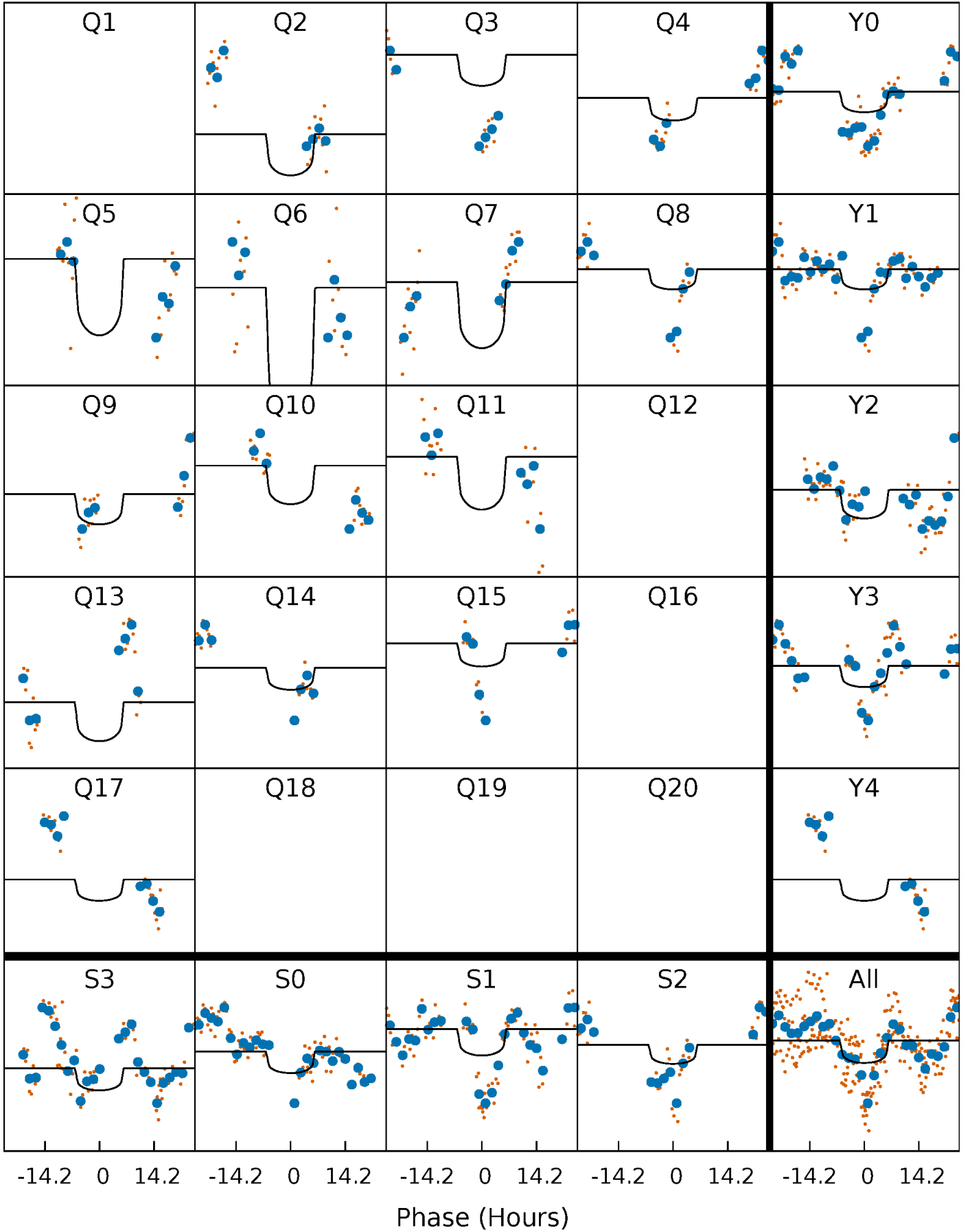
PDC Quarter-Phased Transit Curves

TCE 012507325-05 $P = 97.987195$ Days $T_0 = 208.323577$ (BKJD)



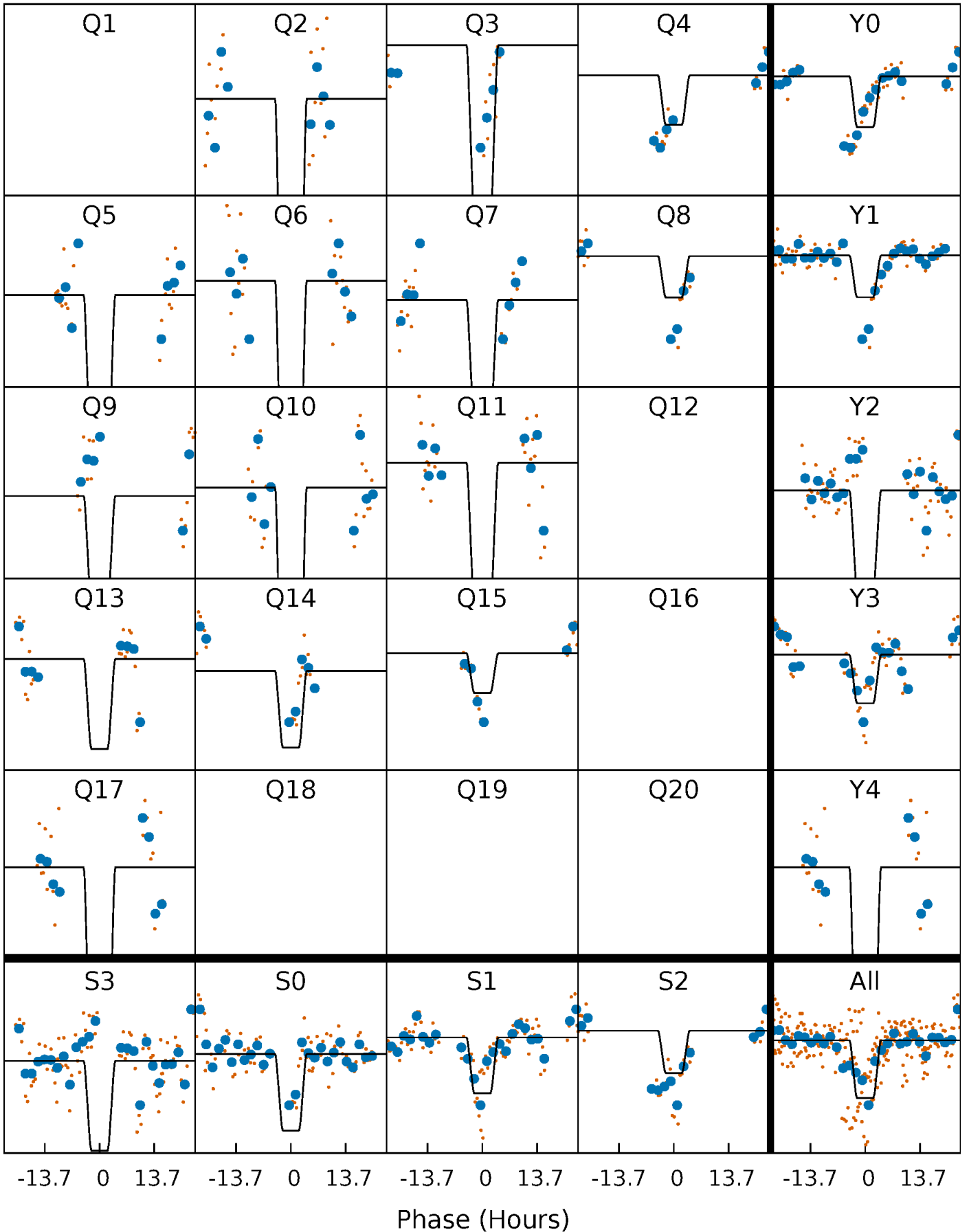
DV Quarter-Phased Transit Curves

TCE 012507325-05 $P = 97.987195$ Days $T_0 = 208.323577$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

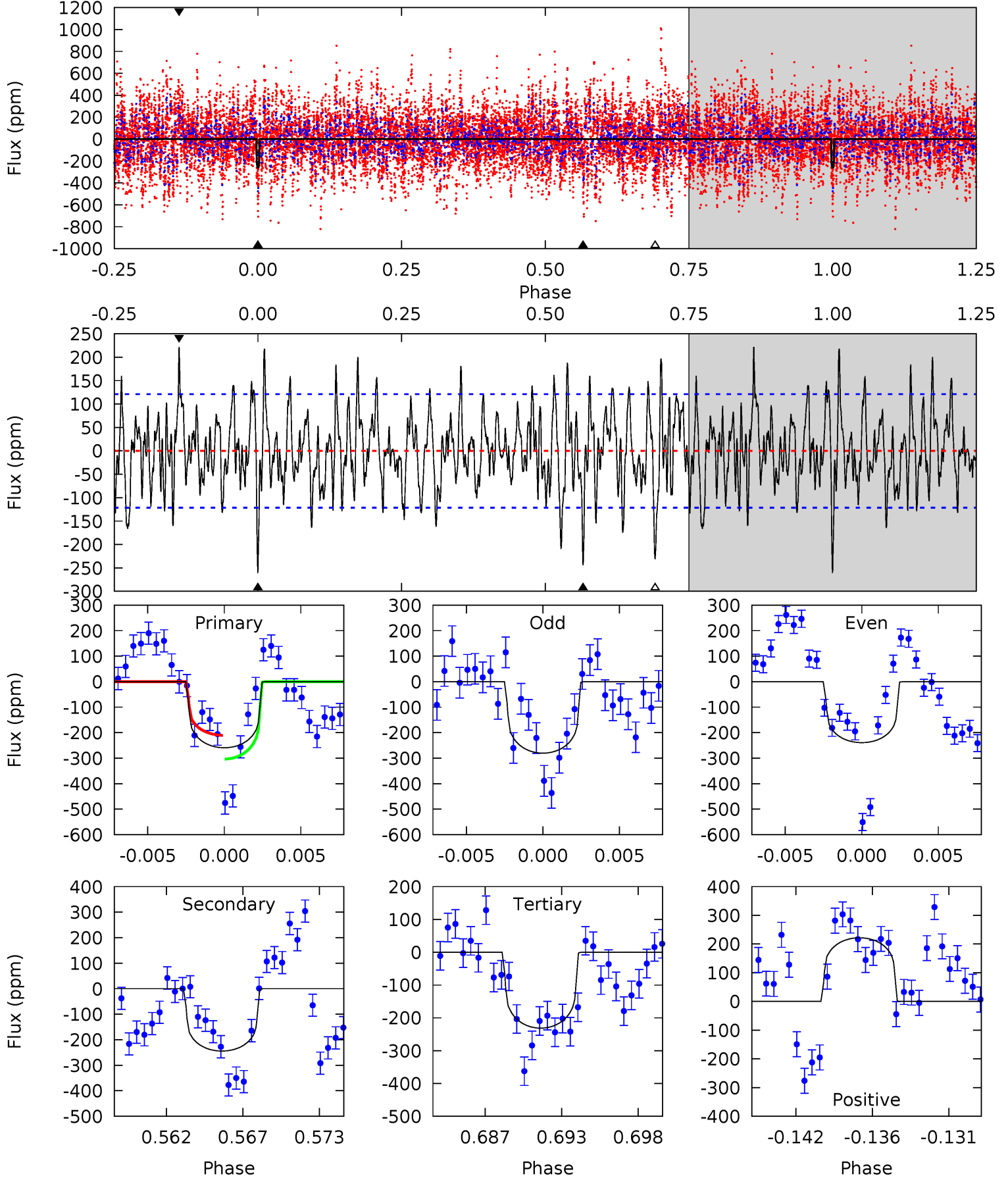
TCE 012507325-05 $P = 97.989267$ Days $T_0 = 208.316365$ (BKJD)



DV Model-Shift Uniqueness Test

012507325-05, P = 97.987195 Days, E = 110.336382 Days

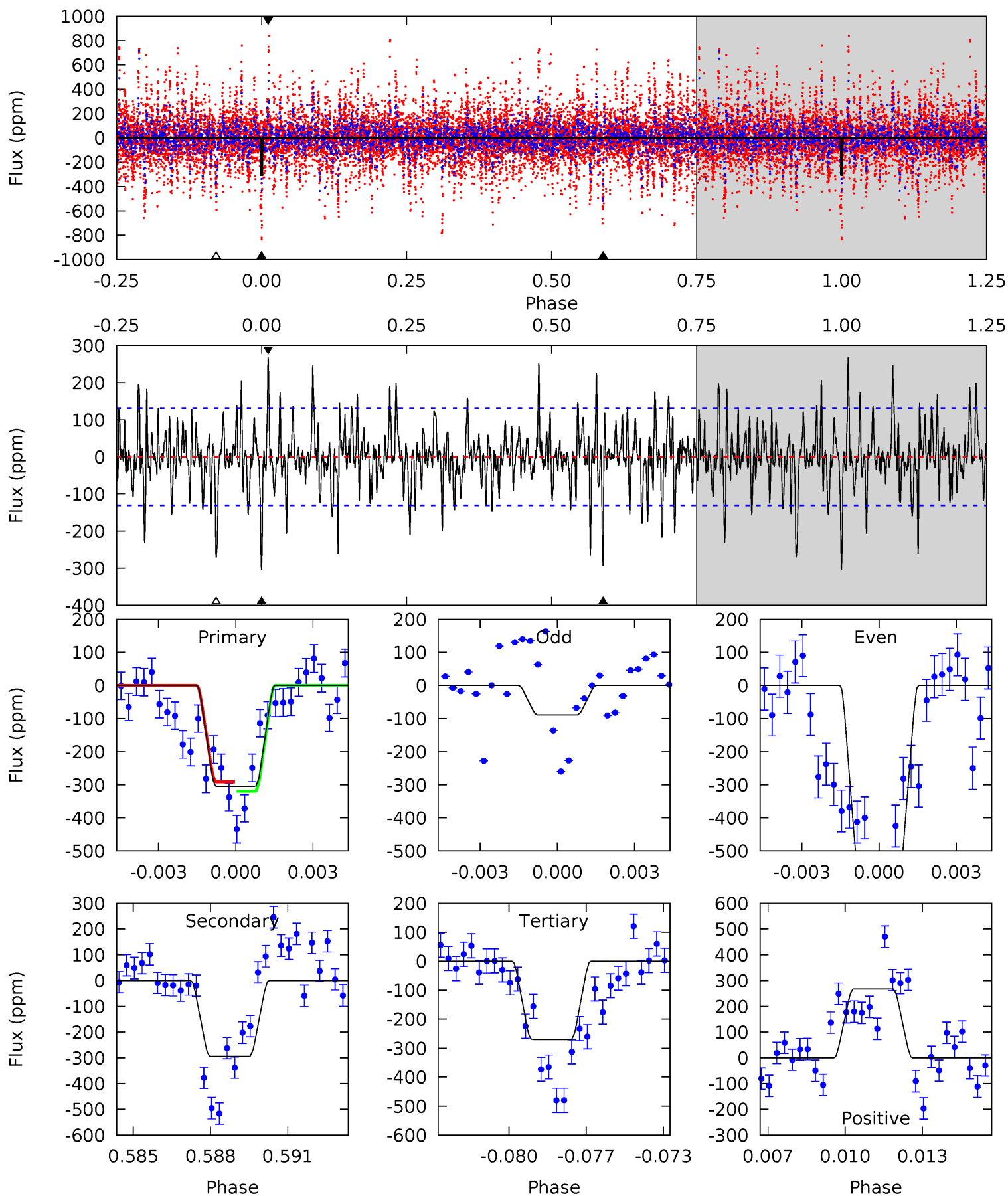
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	10.4	9.81	9.40	5.14	2.78	3.06	1.18	1.59	0.55	0.96	0.88	0.88	0.46	1.96



Alt Model-Shift Uniqueness Test

012507325-05, P = 97.989267 Days, E = 110.327098 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	11.7	10.8	10.7	5.23	2.93	2.73	1.39	1.48	0.97	1.06	9.35	0.90	0.47	0.57



Stellar Parameters For KIC 012507325

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 012507325-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-244 ± 24	$1.40^{+0.69}_{-0.64}$	553^{+24}_{-27}	6334^{+2777}_{-1092}	11749^{+29154}_{-6457}
Alt.	-294 ± 25	$2.21^{+0.69}_{-0.65}$	555^{+27}_{-28}	5349^{+998}_{-588}	5633^{+5593}_{-2308}

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 $A_{obs} \gg 1.0$

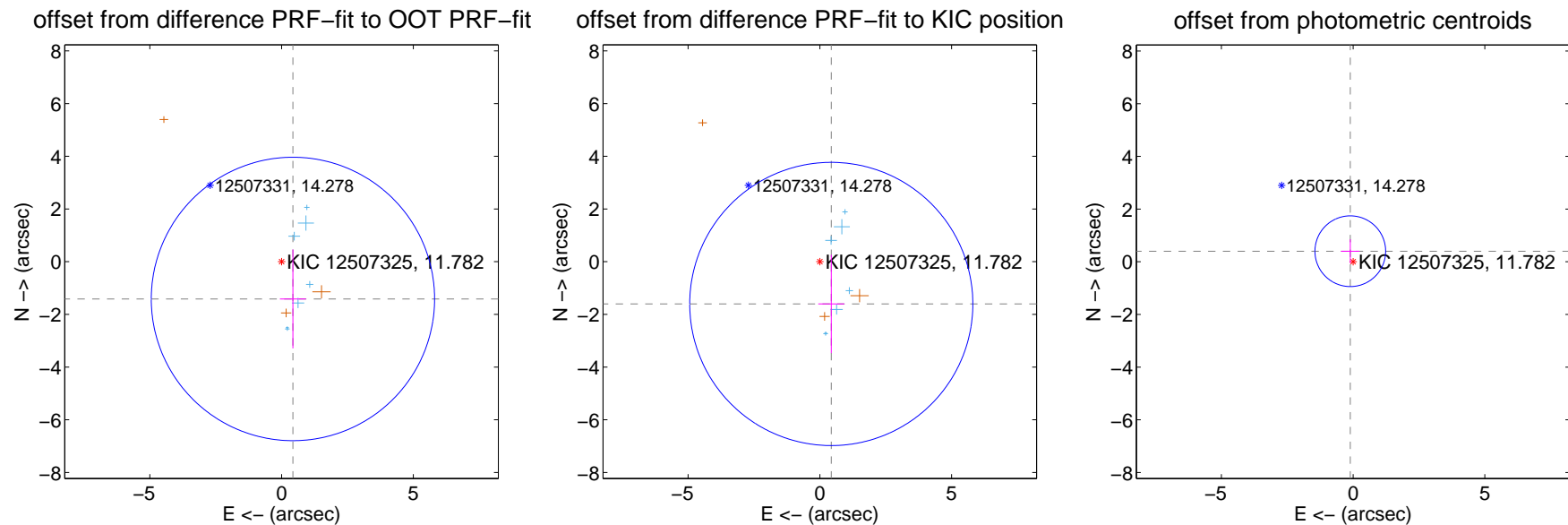
DV Centroid Data

Supplemental centroid analysis for 012507325-05. **Kepler magnitude: 11.78.** Transit SNR 4.46

There are 7 quarters with good PRF difference image offsets

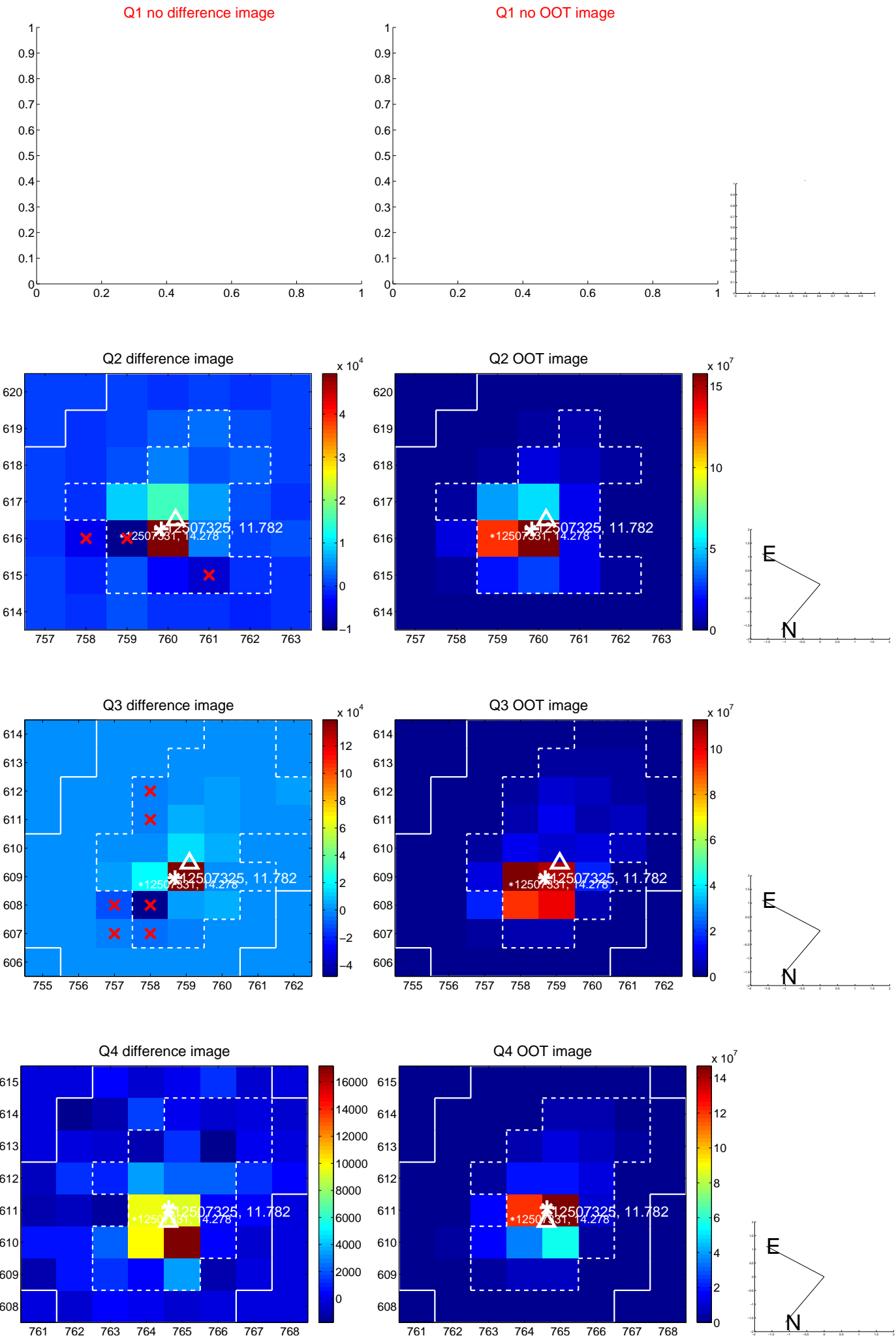
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.479 ± 1.793	0.82	-0.431 ± 0.494	-1.414 ± 1.874
PRF-fit source offset from KIC position	1.661 ± 1.791	0.93	-0.434 ± 0.495	-1.604 ± 1.862
photometric centroid source offset	0.41 ± 0.45	0.93	0.11 ± 0.35	0.40 ± 0.45

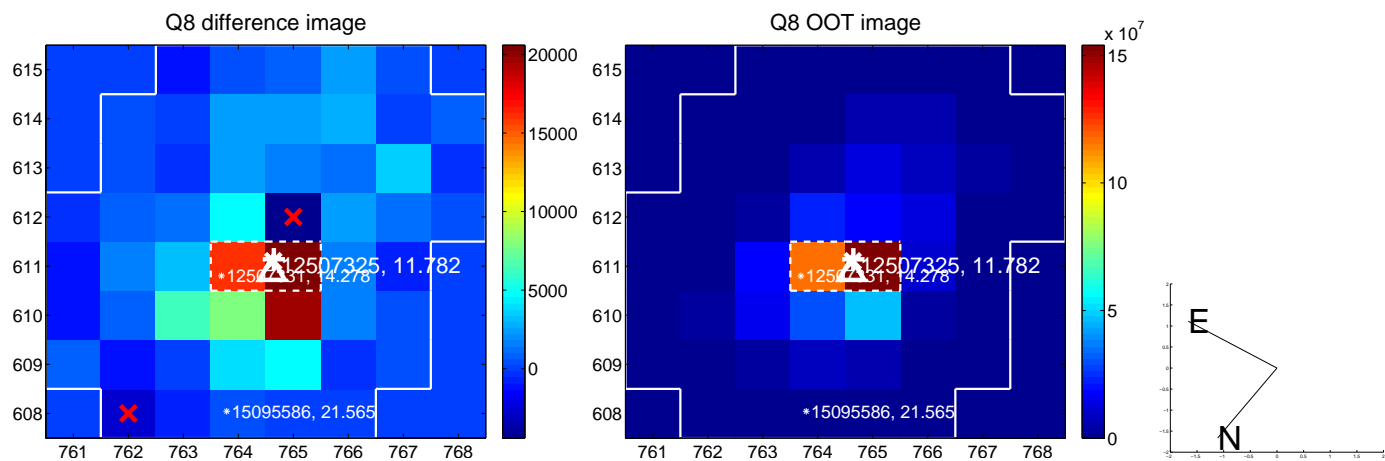
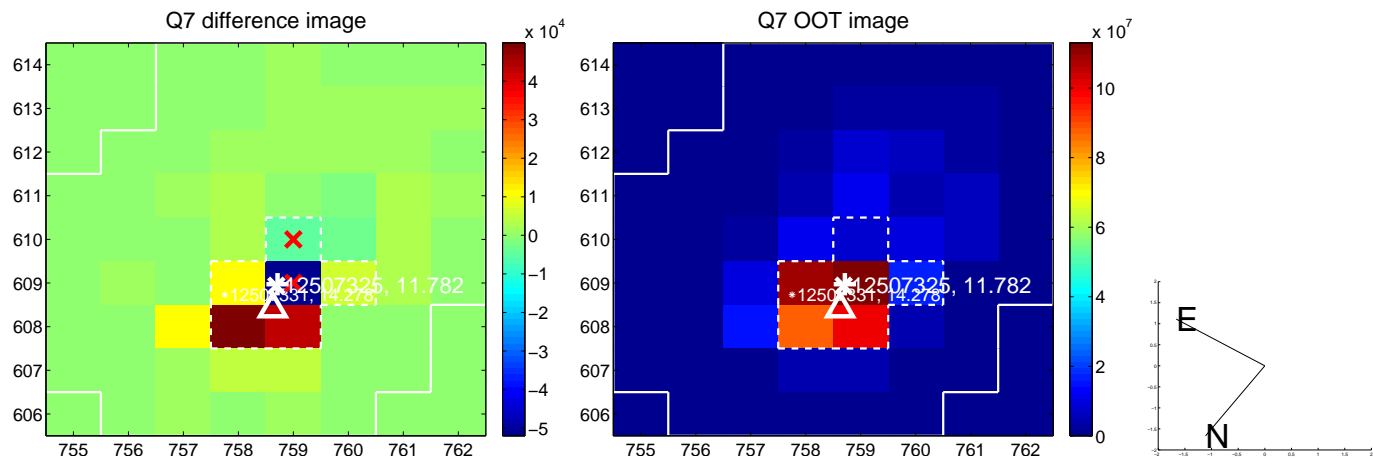
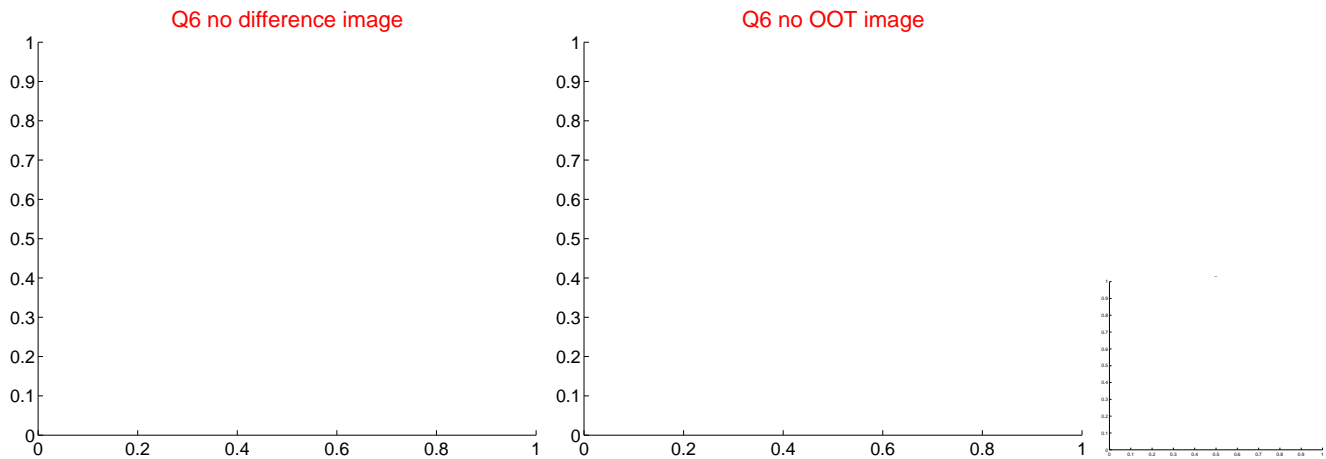
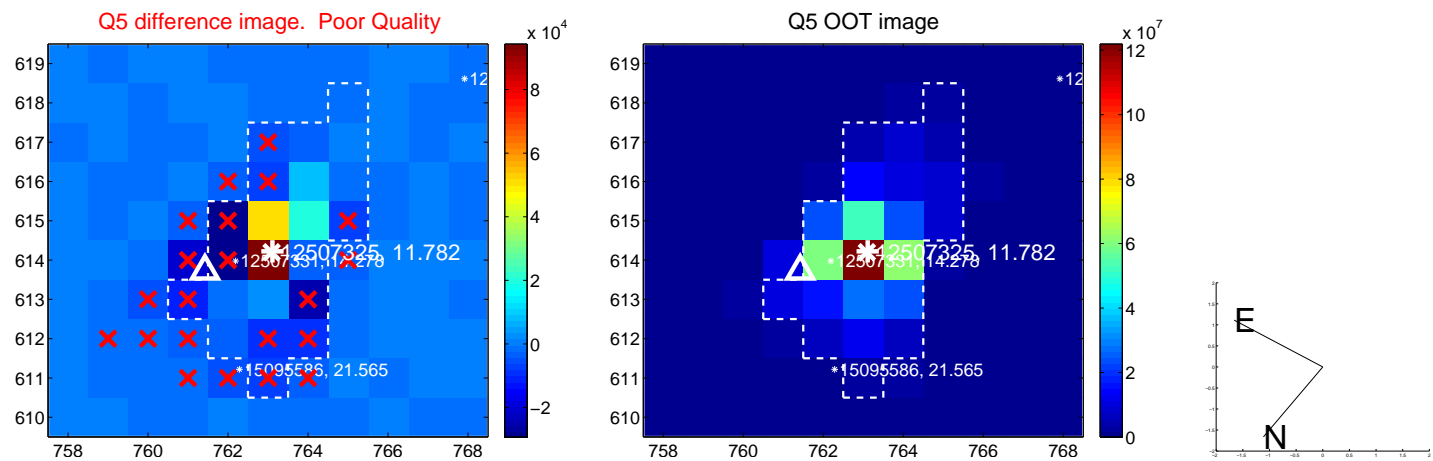


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

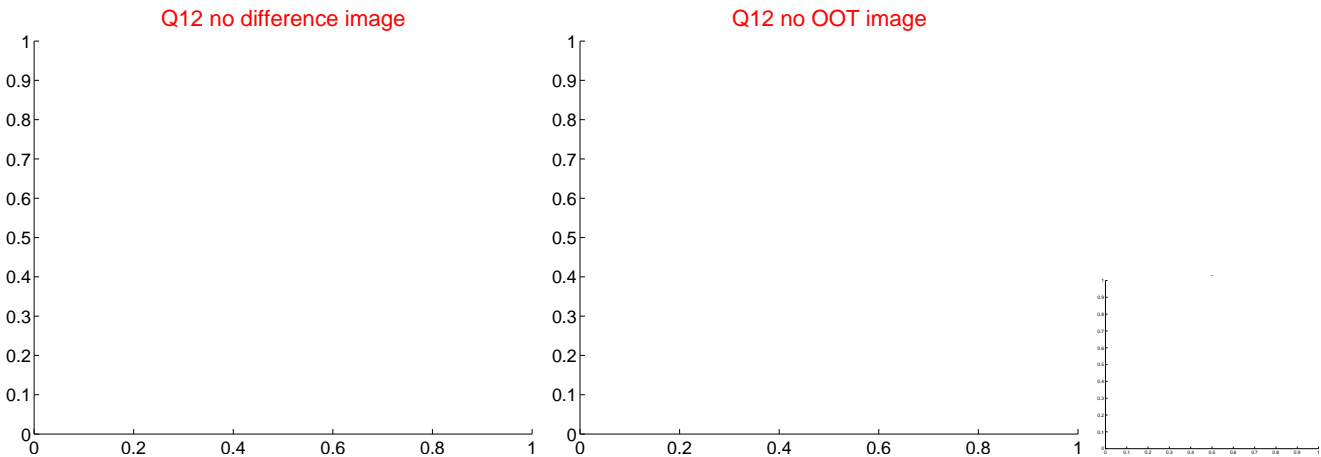
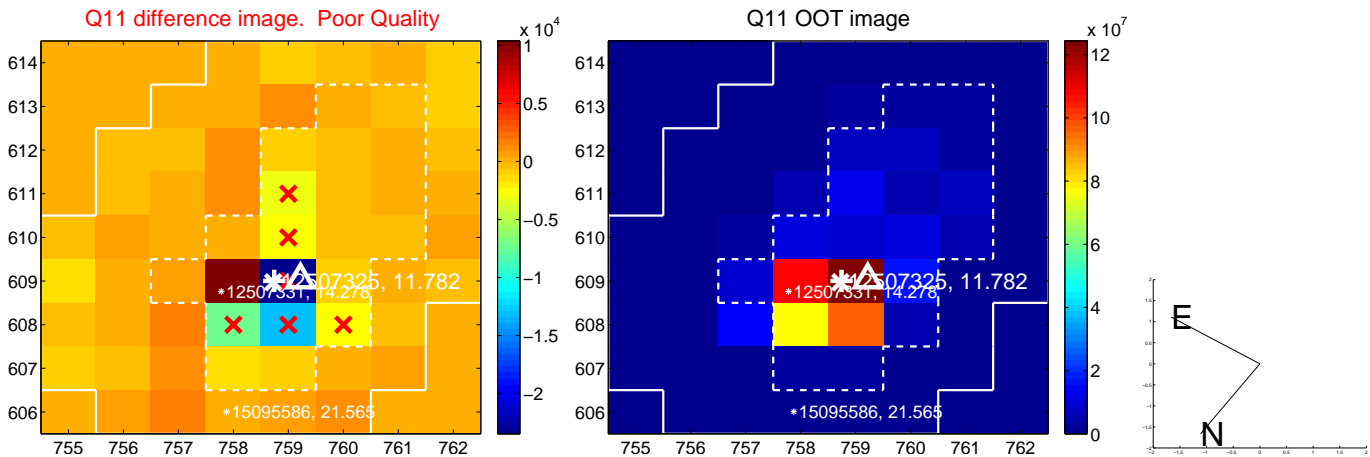
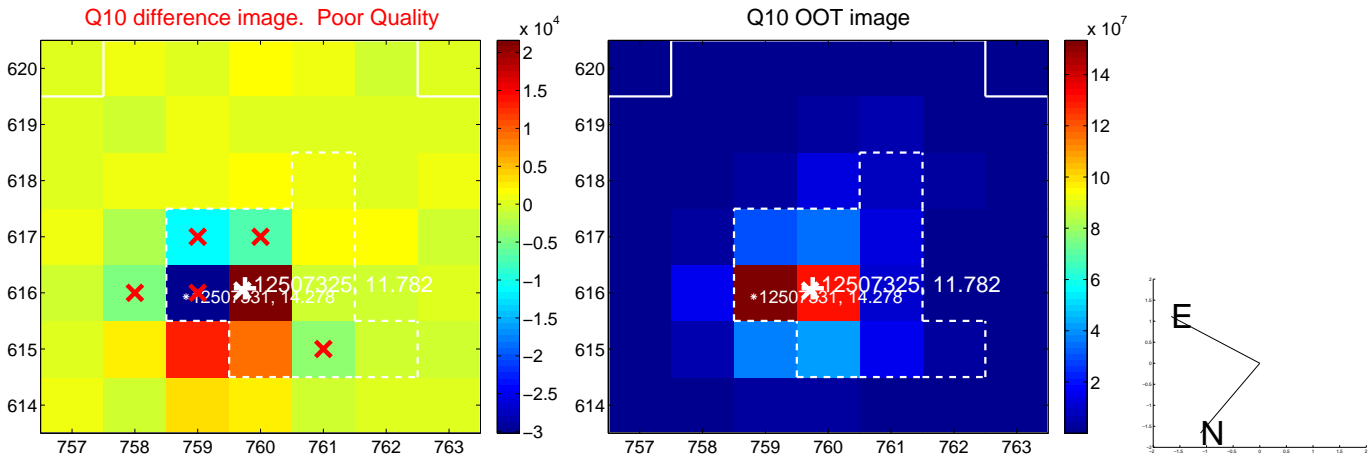
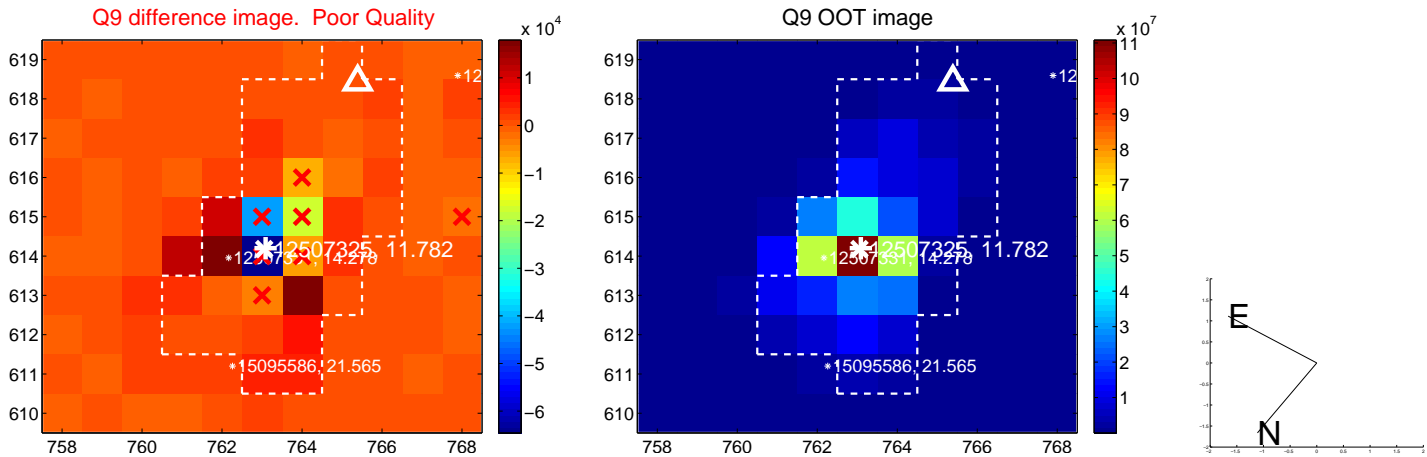
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

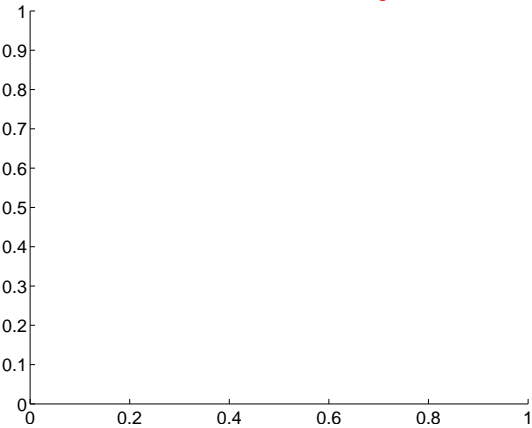


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

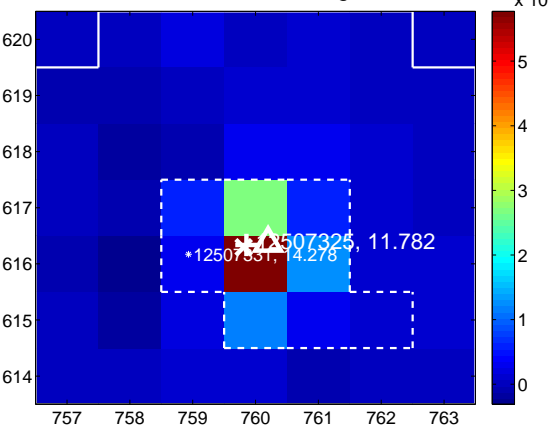
Q13 no difference image



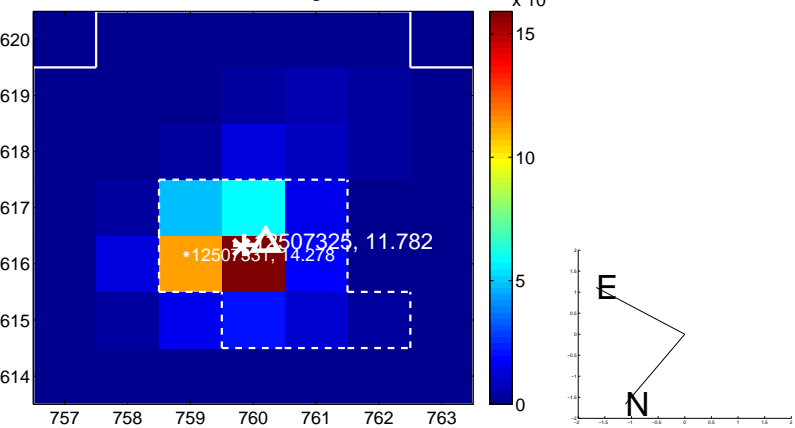
Q13 no OOT image



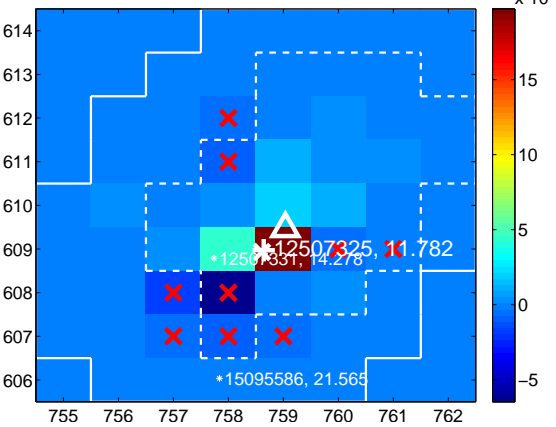
Q14 difference image



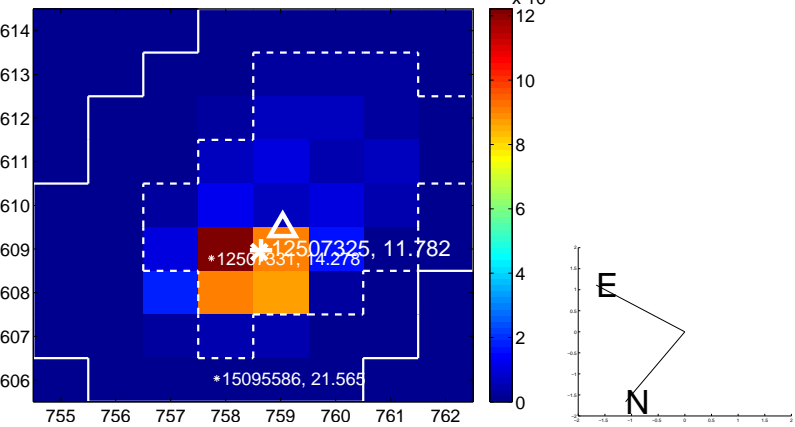
Q14 OOT image



Q15 difference image



Q15 OOT image



Q16 no difference image

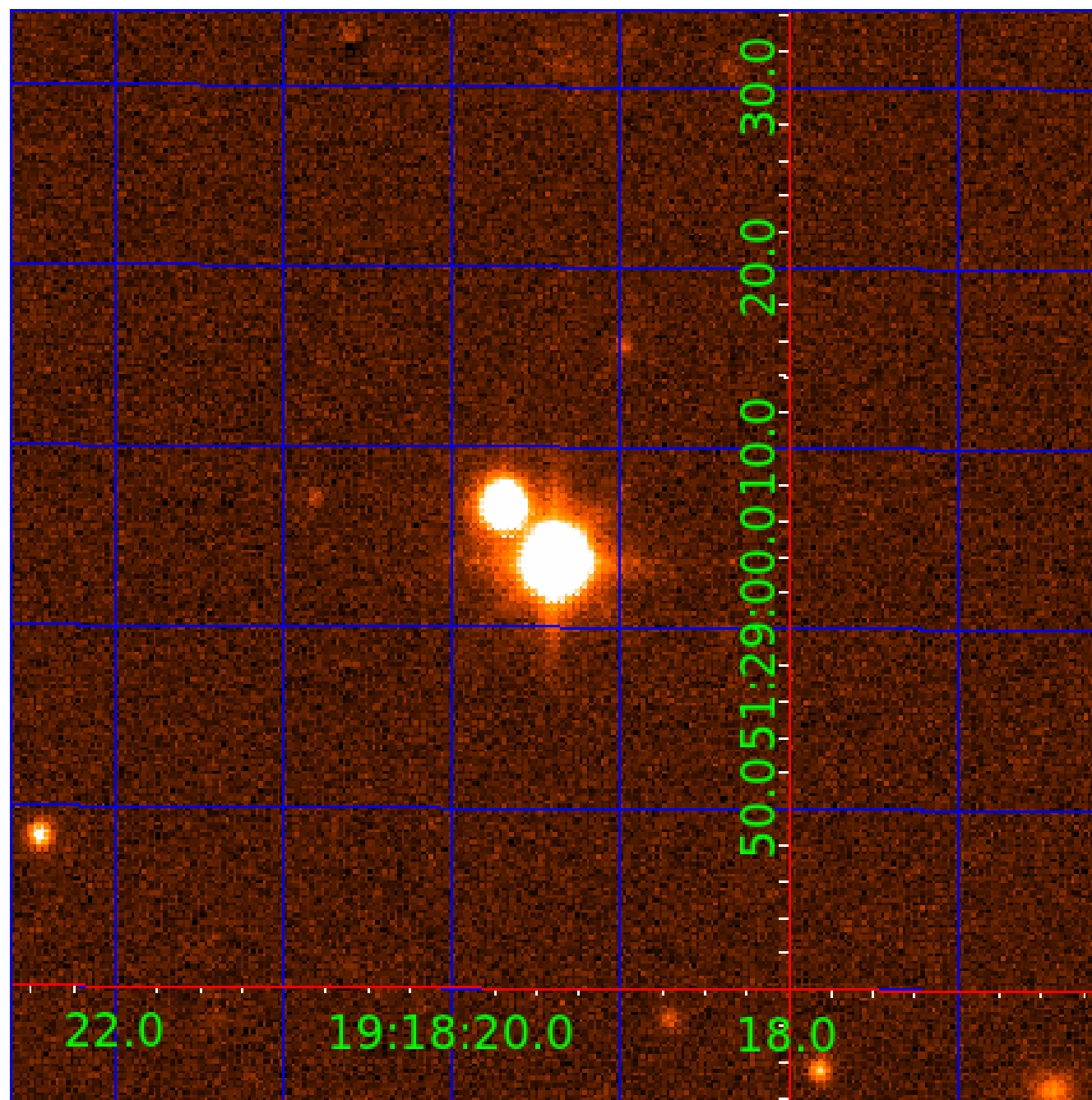


Q16 no OOT image



UKIRT Image

Declination



KIC 012507325

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})
012507325-01	OBS	No	1.086390	132.016640	17.1	6.699	8.5	6.8	1.00	5780	0.42	2336.82
012507325-02	OBS	No	66.764918	187.846728	290.9	4.814	9.6	9.5	1.00	5780	1.98	9.64
012507325-03	OBS	No	80.783852	152.079007	328.1	6.030	9.1	9.4	1.00	5780	2.27	7.47
012507325-04	OBS	No	624.705599	192.777940	412.8	30.488	9.0	7.1	1.00	5780	2.04	0.49
012507325-05	OBS	No	97.987195	208.323577	176.2	12.443	8.8	4.5	1.00	5780	1.45	5.78
012507325-06	OBS	No	92.629169	190.725871	336.4	4.465	9.0	9.5	1.00	5780	2.11	6.23
012507325-07	OBS	No	108.517832	134.774183	196.5	3.849	8.7	6.4	1.00	5780	1.61	5.04
012507325-08	OBS	No	16.809442	134.485571	112.5	4.024	8.3	8.0	1.00	5780	1.18	60.61
012507325-09	OBS	No	64.560845	183.078488	165.1	3.500	9.1	-1.0	1.00	5780	1.27	10.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012507325-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
012507325-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT
012507325-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012507325-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
012507325-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—HALO_GHOST
012507325-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_CROWDED
012507325-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

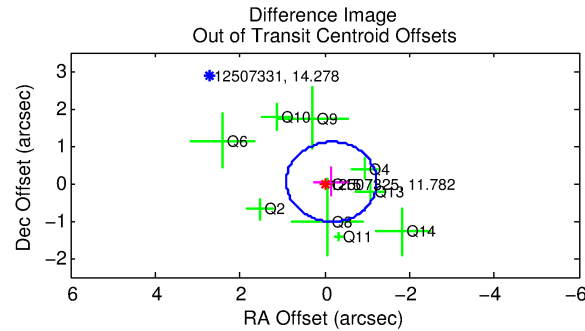
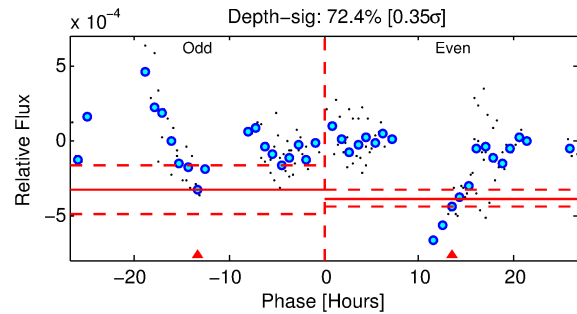
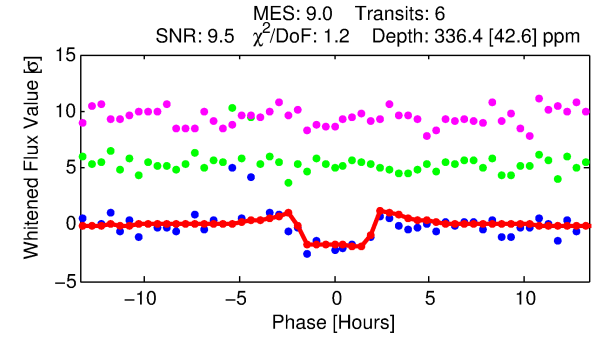
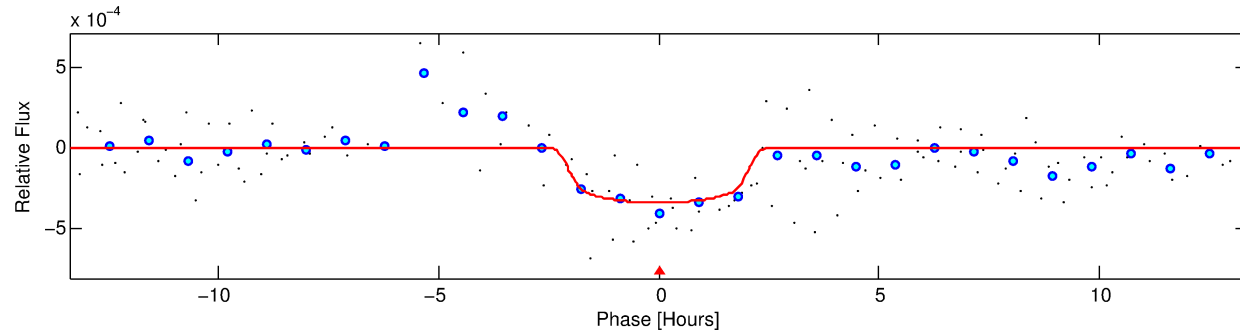
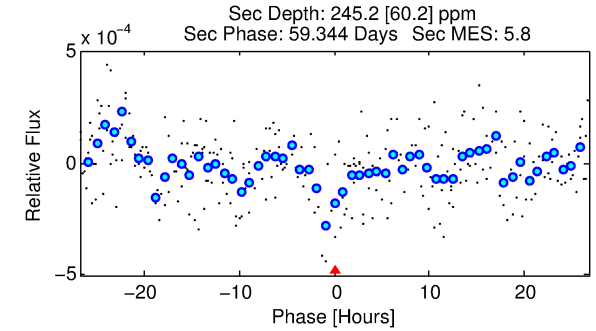
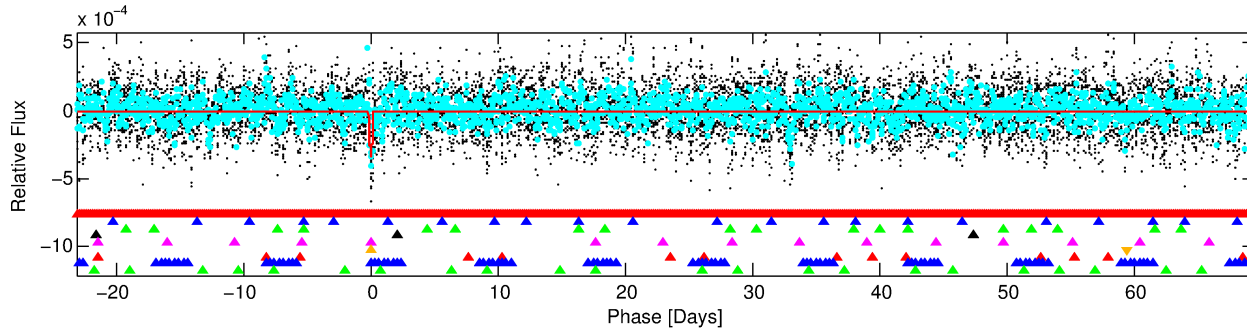
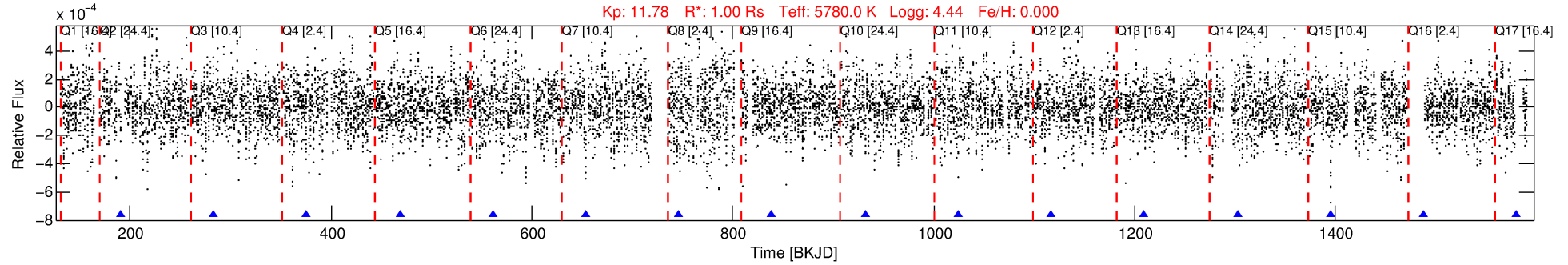
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012507325-06

No Significant Match Found

DV One-Page Summary

KIC: 12507325 Candidate: 6 of 9 Period: 92.629 d



DV Fit Results:

Period = 92.62917 [0.00142] d
Epoch = 190.7259 [0.0105] BKJD
Rp/R* = 0.0193 [0.0084]
a/R* = 86.87 [170.92]
b = 0.86 [0.61]
Seff = 6.23 [0.00]
Teq = 403 [0] K
Rp = 2.11 [0.92] Re
a = 0.4007 [0.0000] AU
Ag = 4872.94 [4420.84] [1.10σ]
Teffp = 5203 [1180] K [4.07σ]

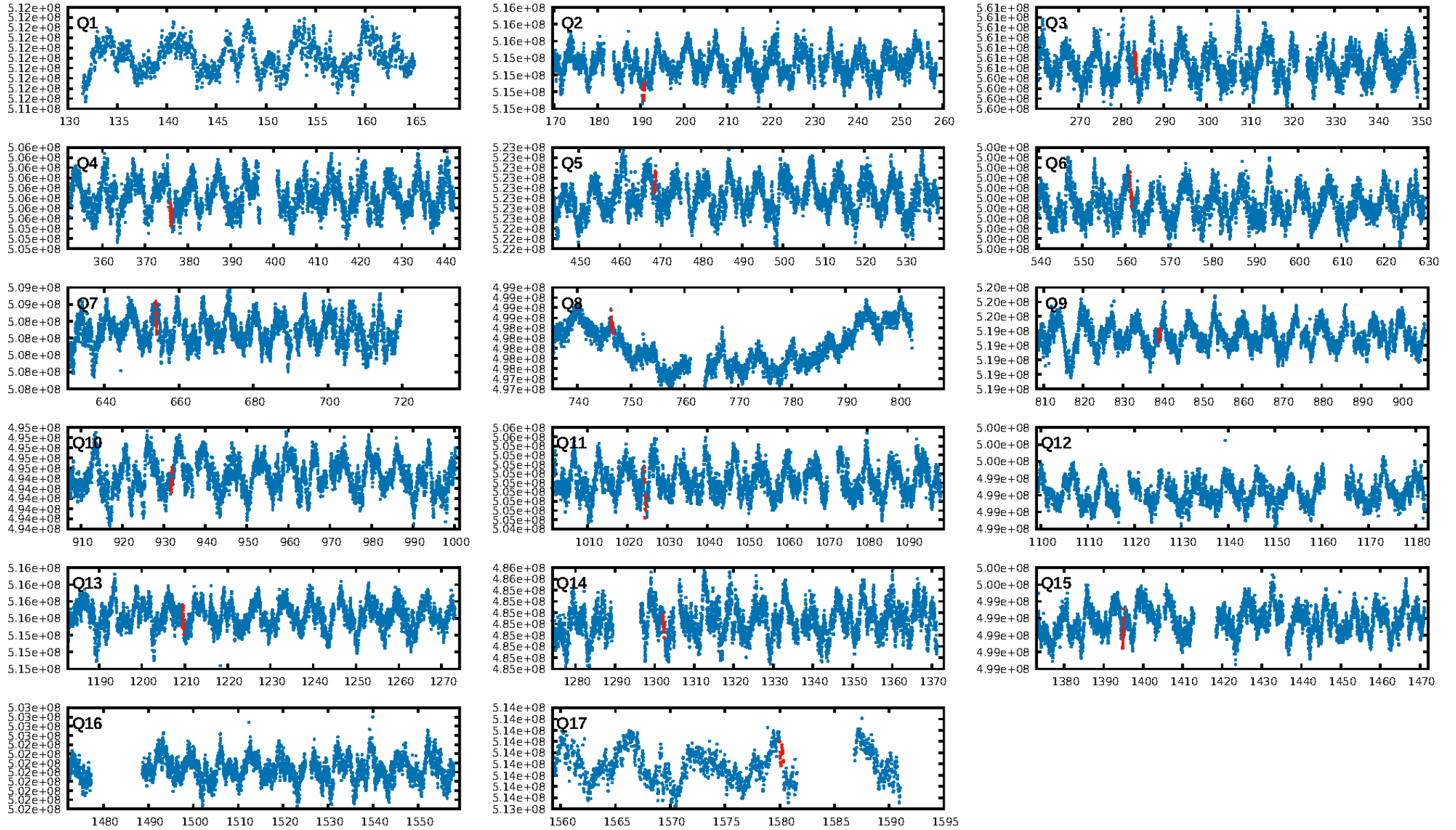
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [37.89σ]
LongPeriod-sig: 100.0% [9.73σ]
ModelChiSquare2-sig: 17.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 0.07493
Centroid-sig: 89.1%
Centroid-so: 0.222 arcsec [0.76σ]
OotOffset-rm: 0.166 arcsec [0.47σ]
KicOffset-rm: 0.219 arcsec [0.51σ]
OotOffset-st: 4/2/2/2 [10]
KicOffset-st: 4/2/2/2 [10]
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DiffImageOverlap-fno: 0.00 [0/14]

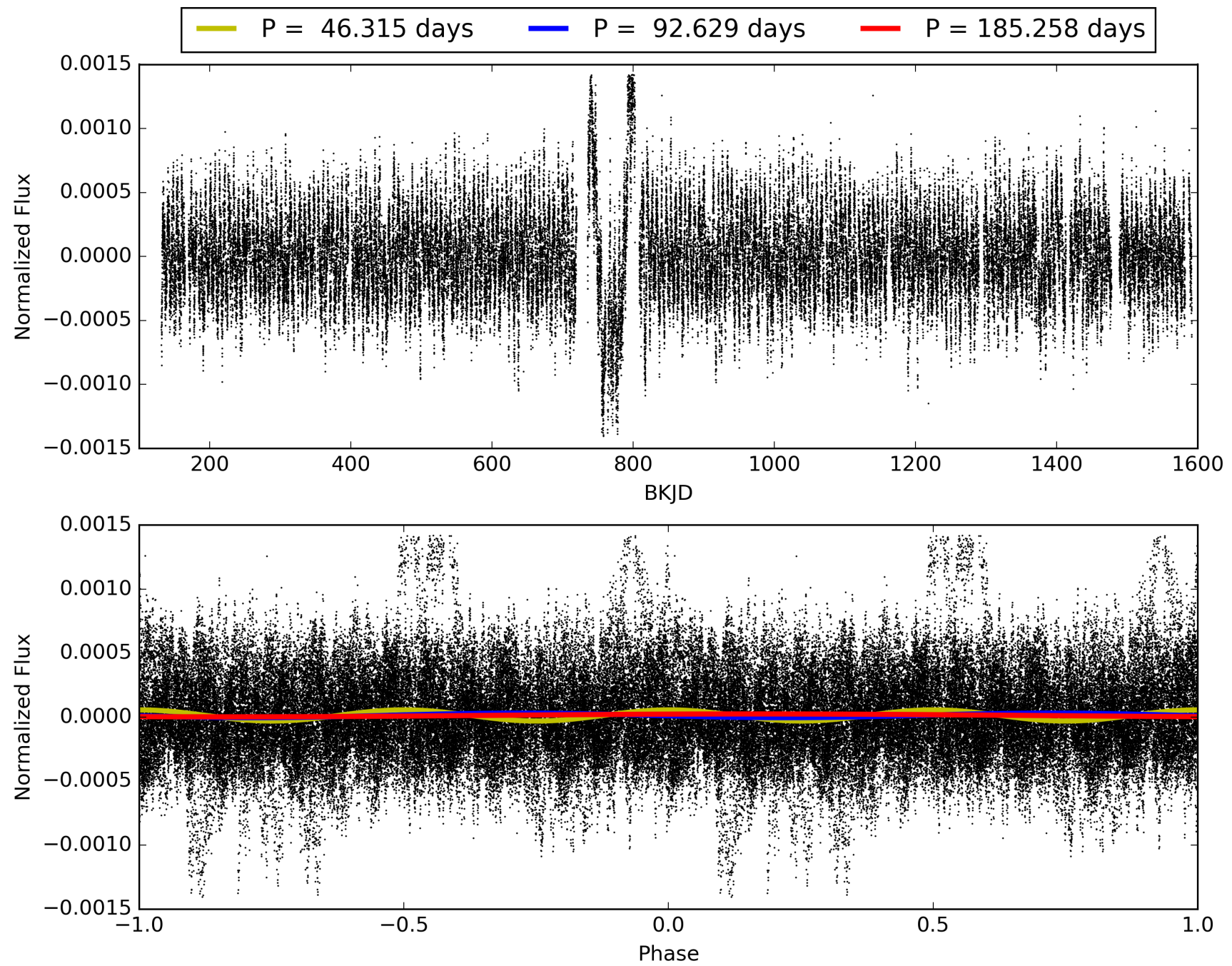
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:44:33 Z

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

TCE 012507325-06, PDC Light Curves

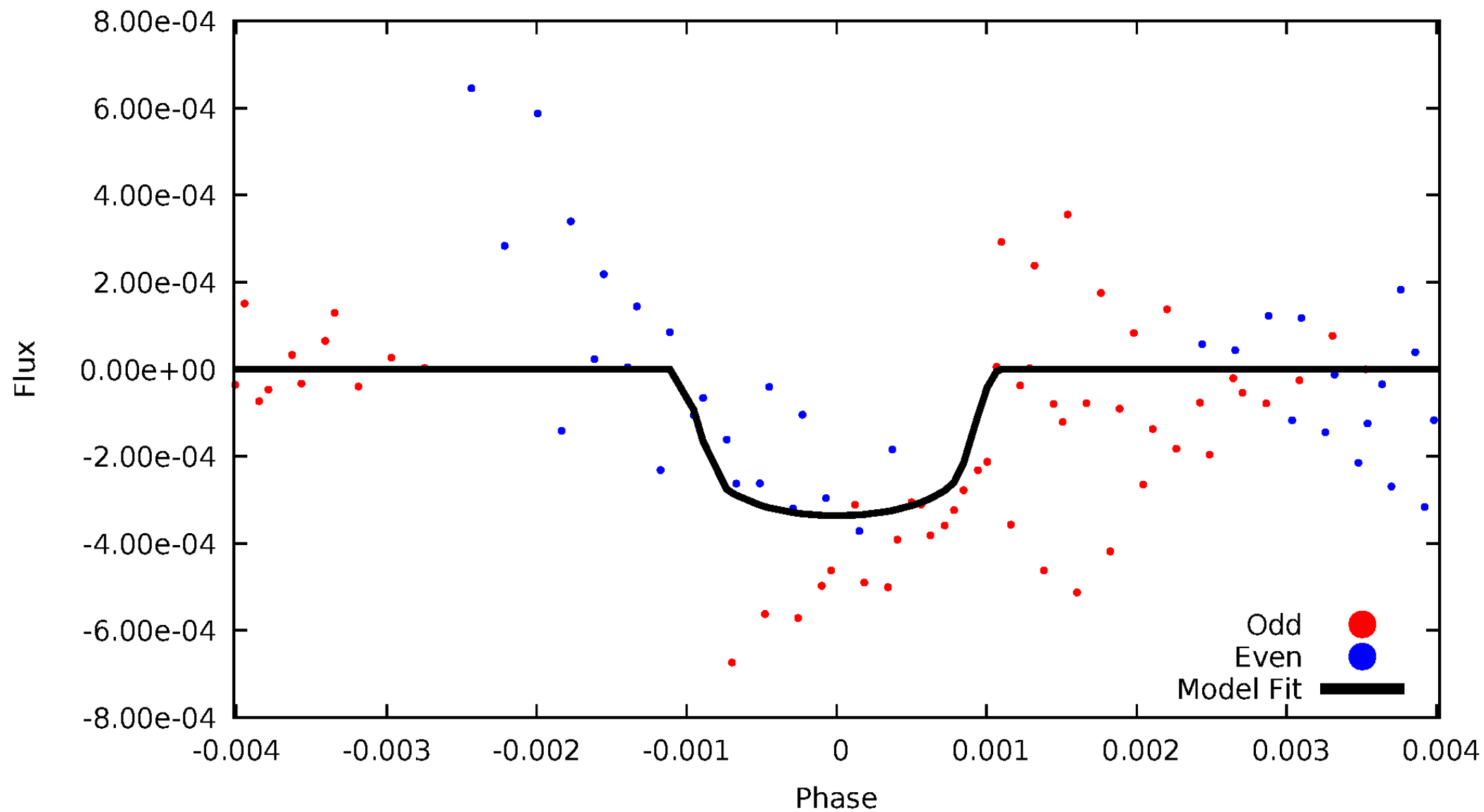


TCE 012507325-06



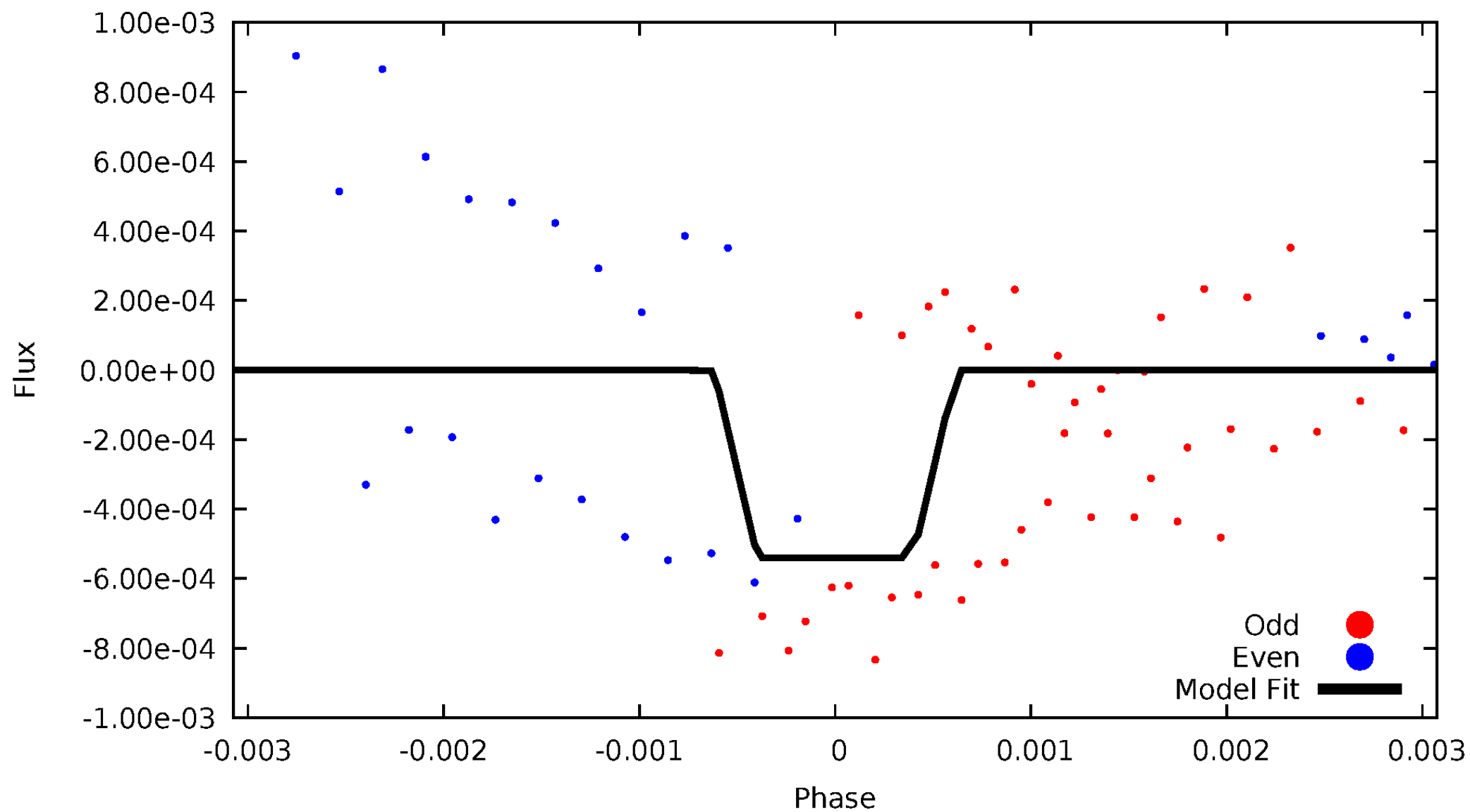
DV Odd/Even

TCE 012507325-06



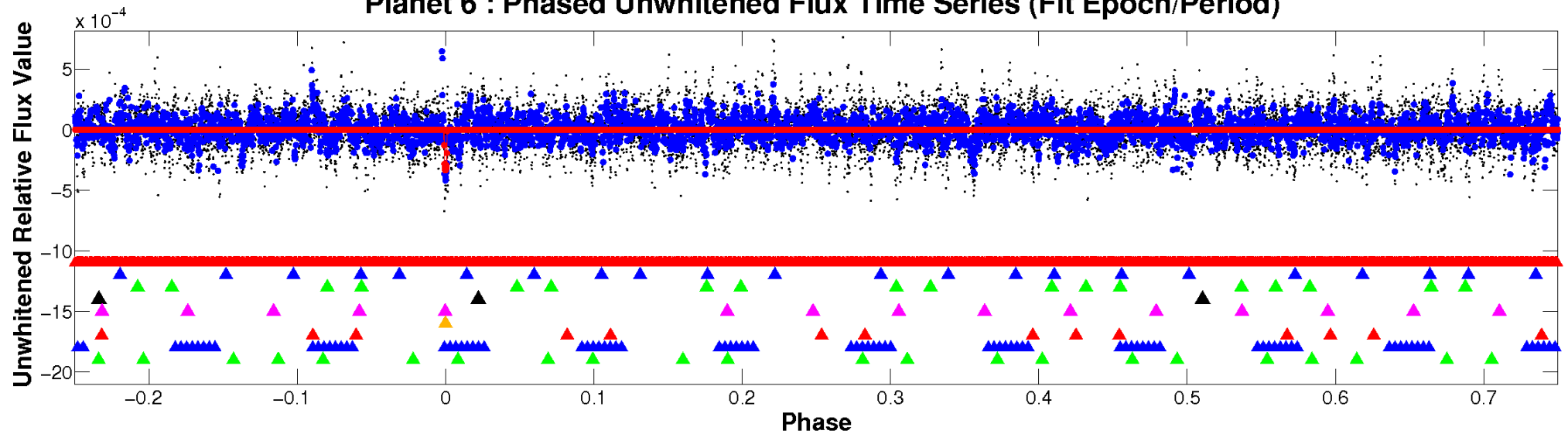
ALT Odd/Even

TCE 012507325-06

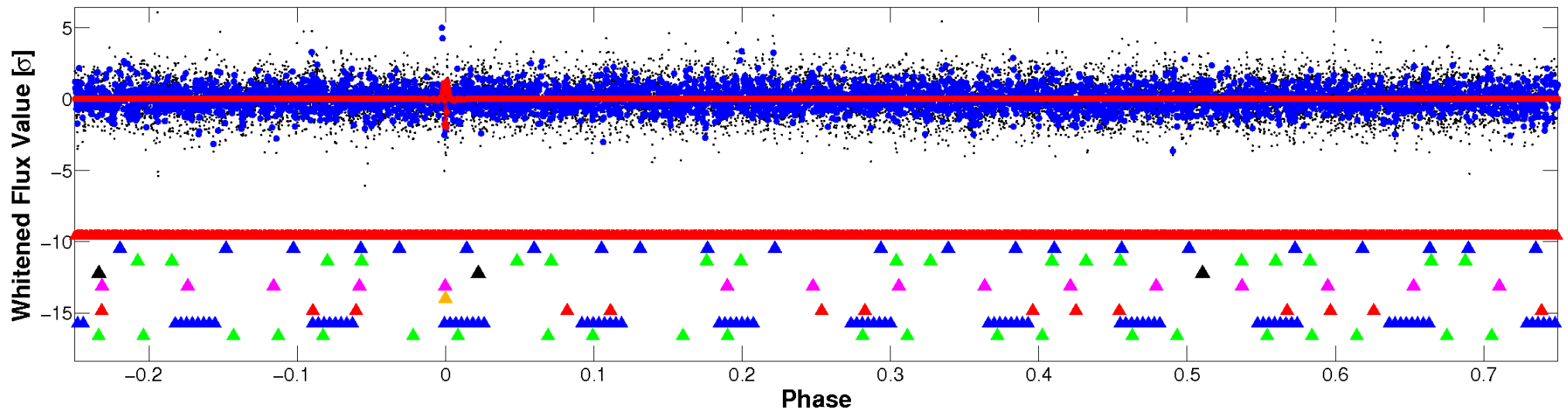


Non-Whitened Vs. Whitened Light Curve

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

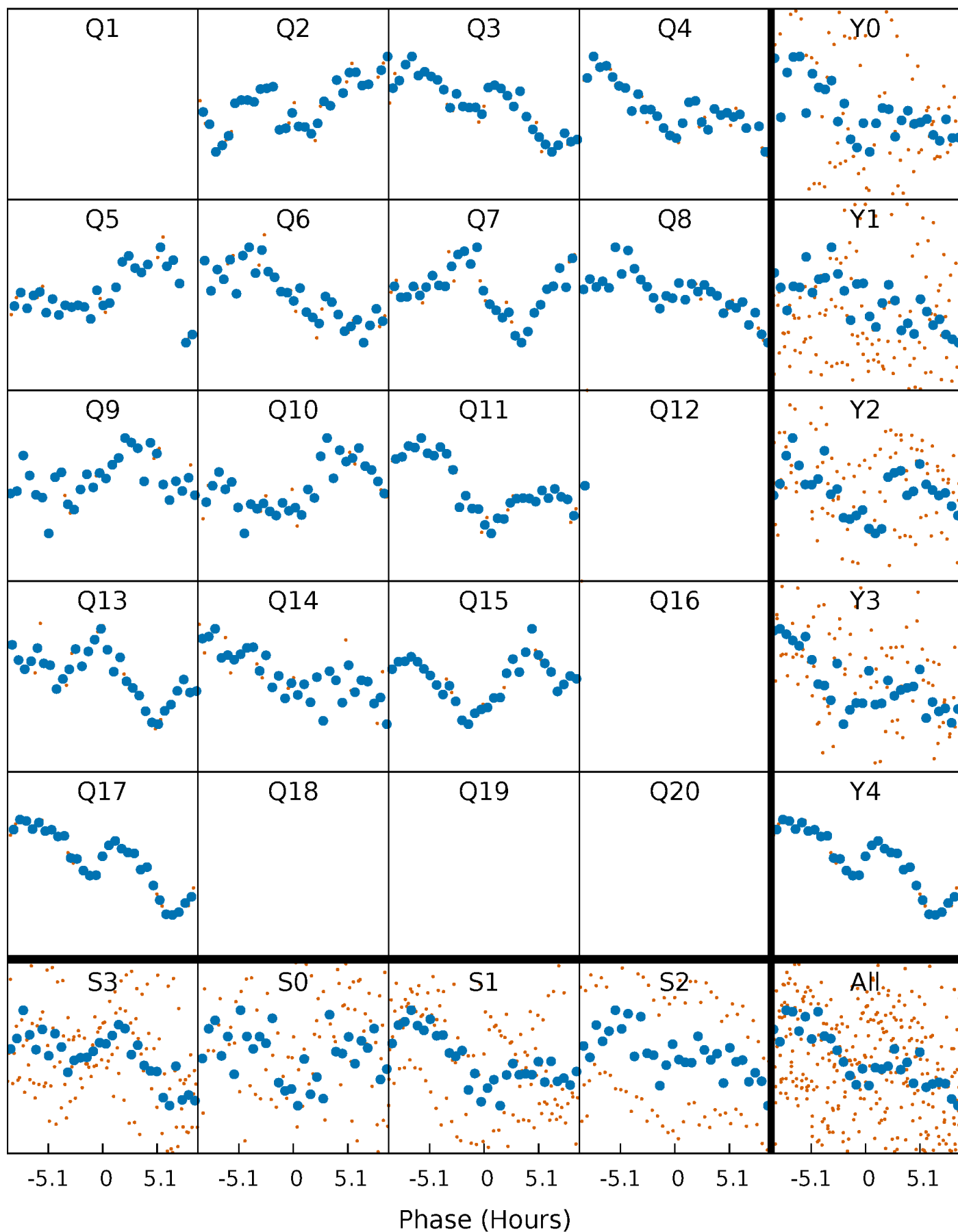


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



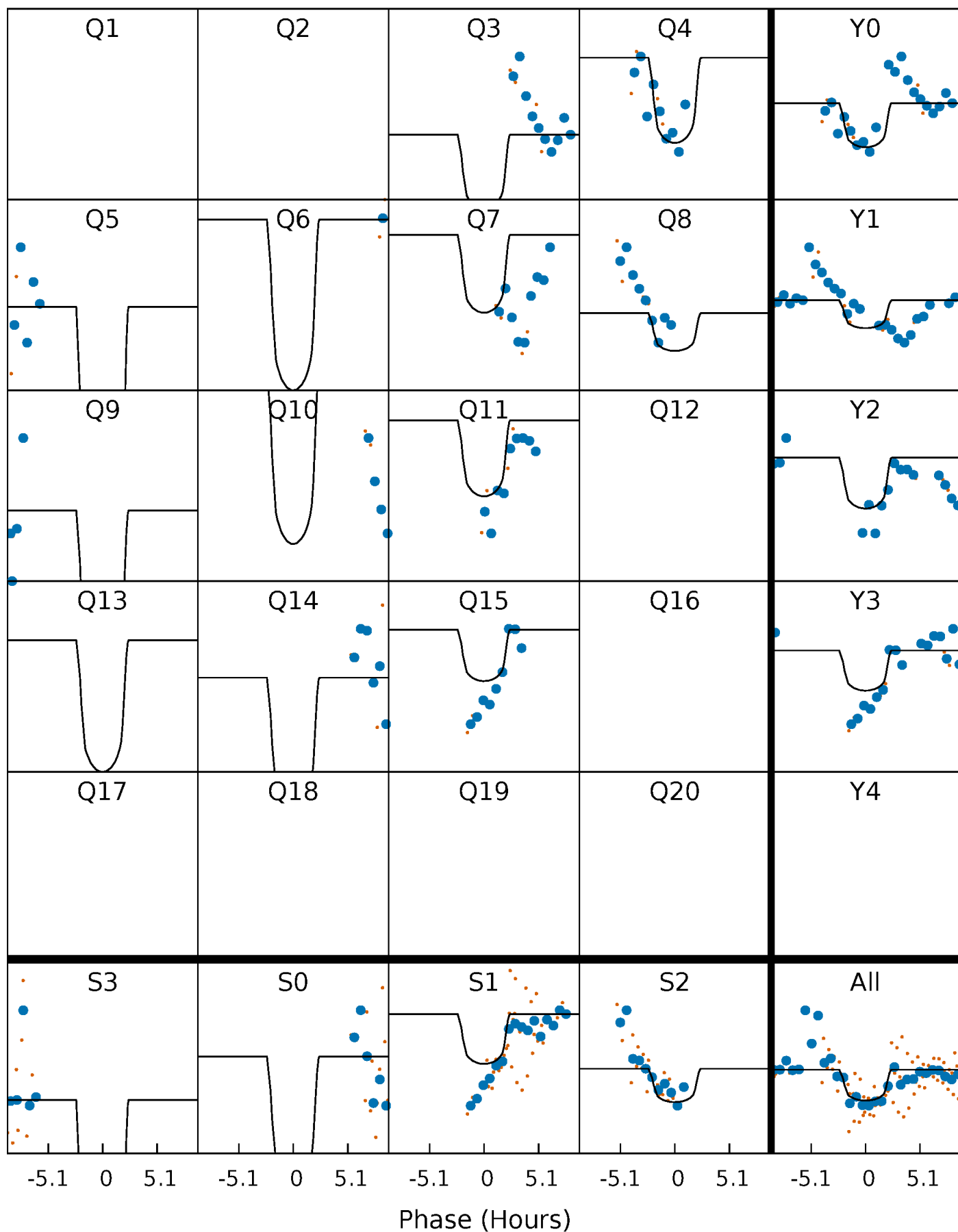
PDC Quarter-Phased Transit Curves

TCE 012507325-06 P= 92.629169 Days $T_0=190.725871$ (BKJD)



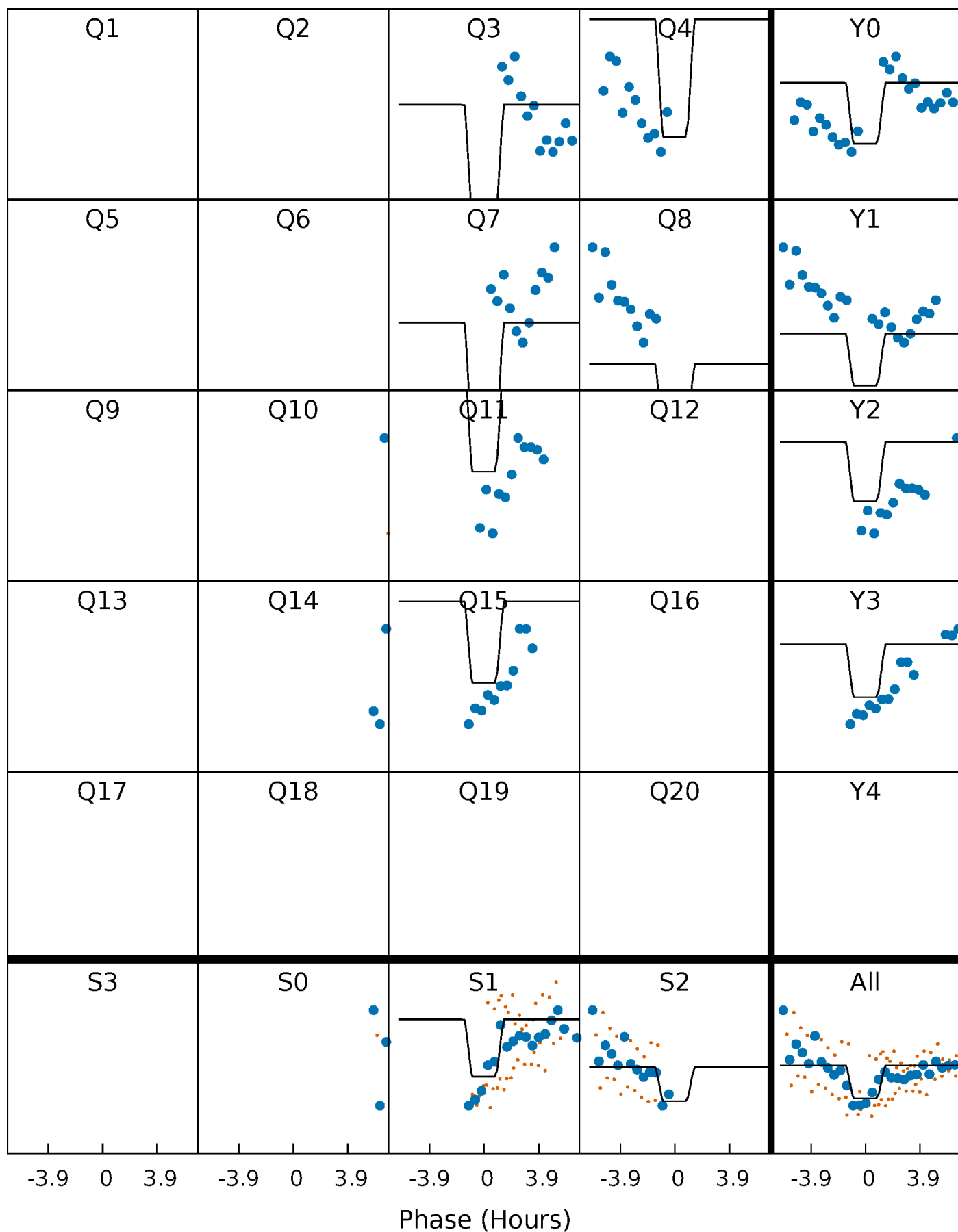
DV Quarter-Phased Transit Curves

TCE 012507325-06 P= 92.629169 Days $T_0=190.725871$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

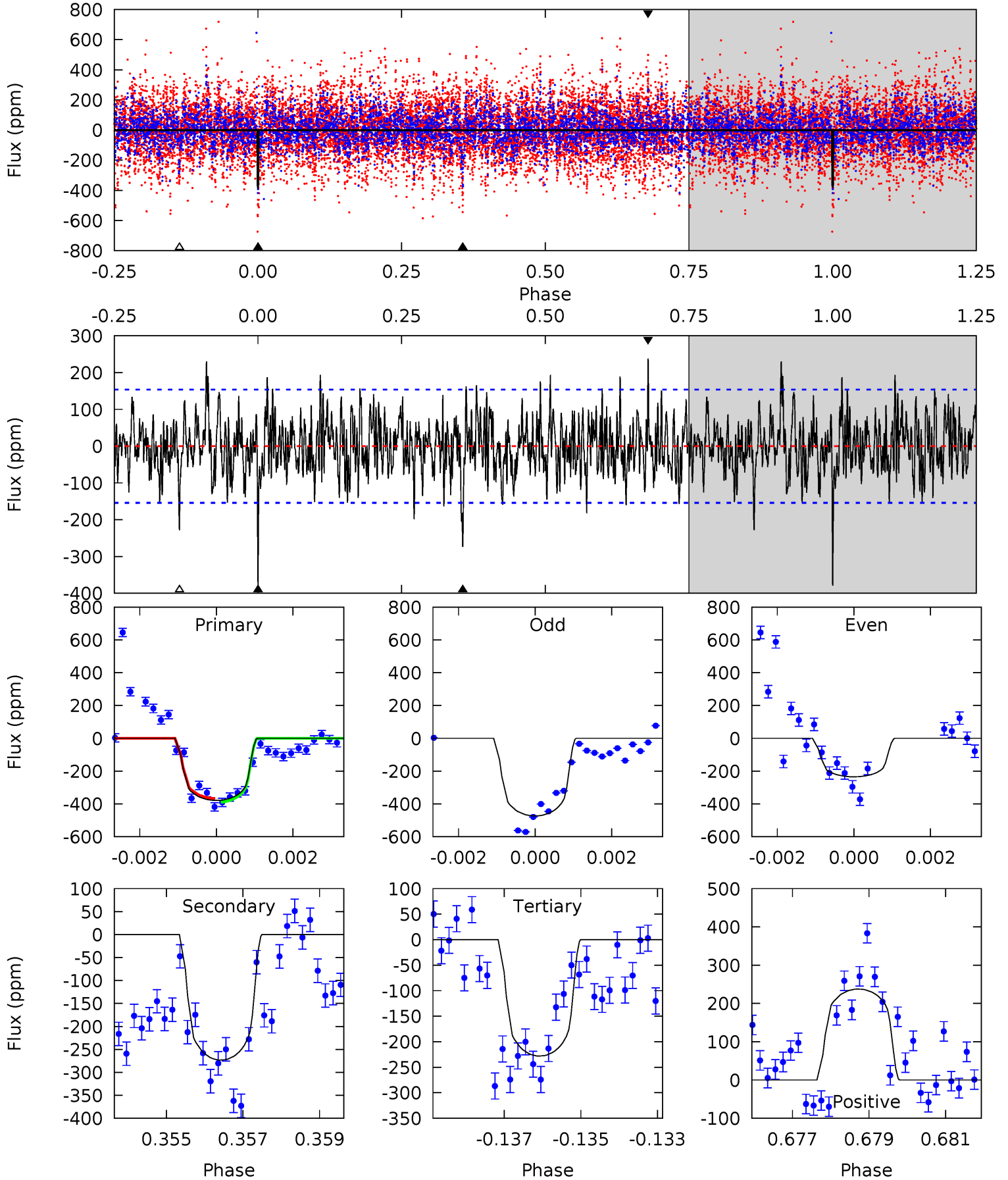
TCE 012507325-06 P= 92.623548 Days $T_0=190.789151$ (BKJD)



DV Model-Shift Uniqueness Test

012507325-06, P = 92.629169 Days, E = 98.096702 Days

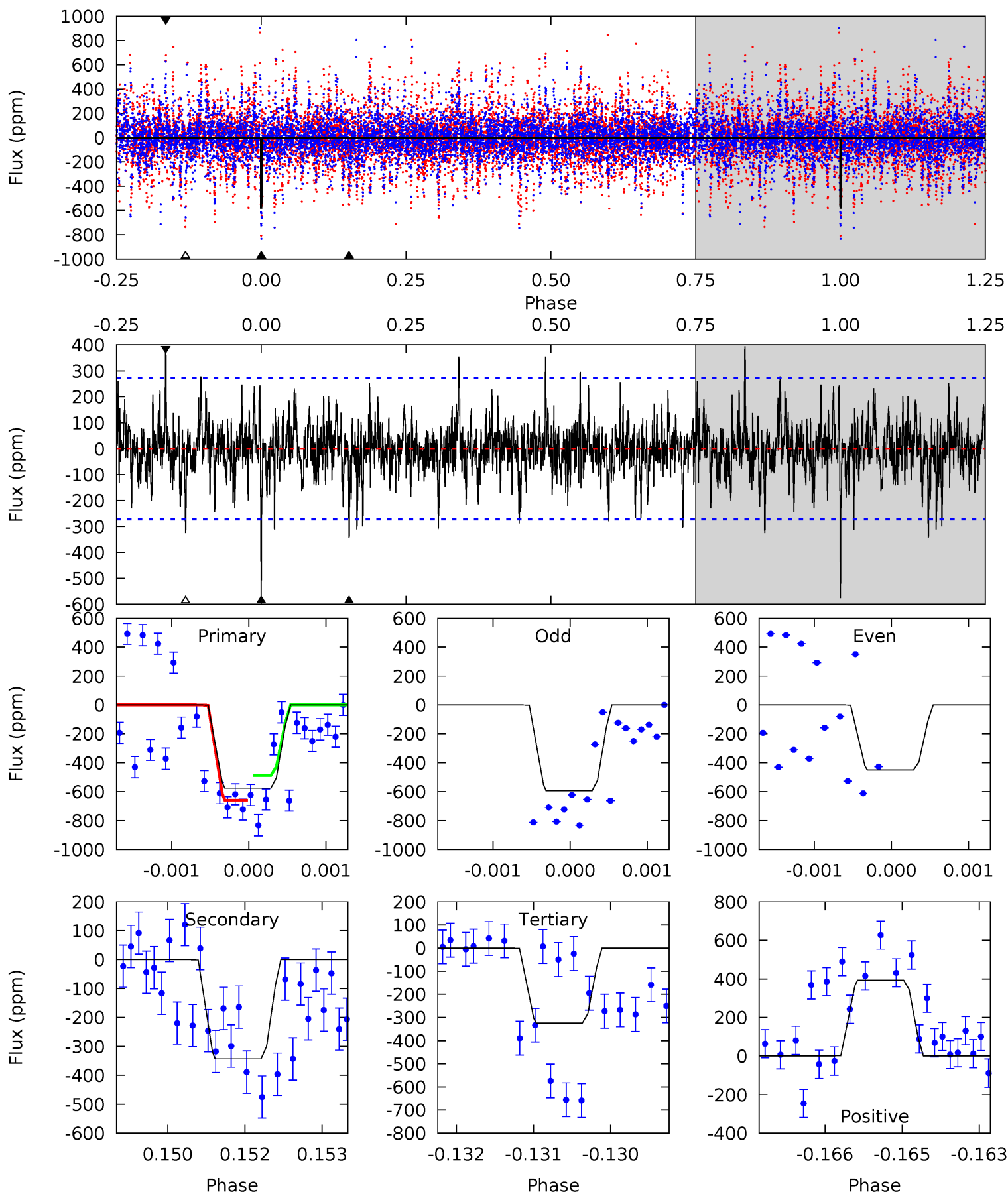
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	9.45	7.88	8.21	5.32	3.08	2.20	5.21	4.88	1.57	1.23	3.89	0.89	0.39	0.40



Alt Model-Shift Uniqueness Test

012507325-06, P = 92.623548 Days, E = 98.165603 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	6.81	6.44	7.83	5.42	3.24	1.61	4.99	3.60	0.37	-1.01	1.25	0.74	0.41	1.71



Stellar Parameters For KIC 012507325

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 012507325-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-273 ± 29	$2.13^{+0.90}_{-0.93}$	563^{+25}_{-27}	5348^{+1803}_{-753}	5240^{+11411}_{-2613}
Alt.	-343 ± 50	$2.55^{+0.90}_{-0.91}$	562^{+28}_{-27}	5194^{+1258}_{-628}	4714^{+6325}_{-2161}

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 $A_{obs} \gg 1.0$

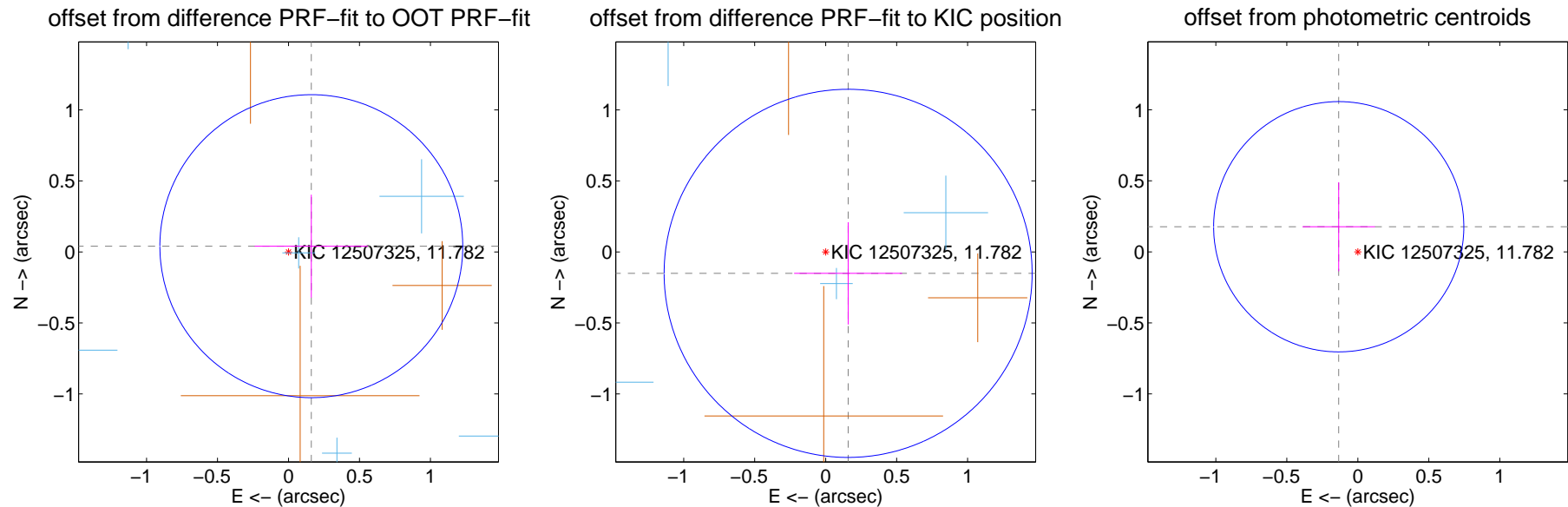
DV Centroid Data

Supplemental centroid analysis for 012507325-06. **Kepler magnitude: 11.78.** Transit SNR 9.53

There are 7 quarters with good PRF difference image offsets

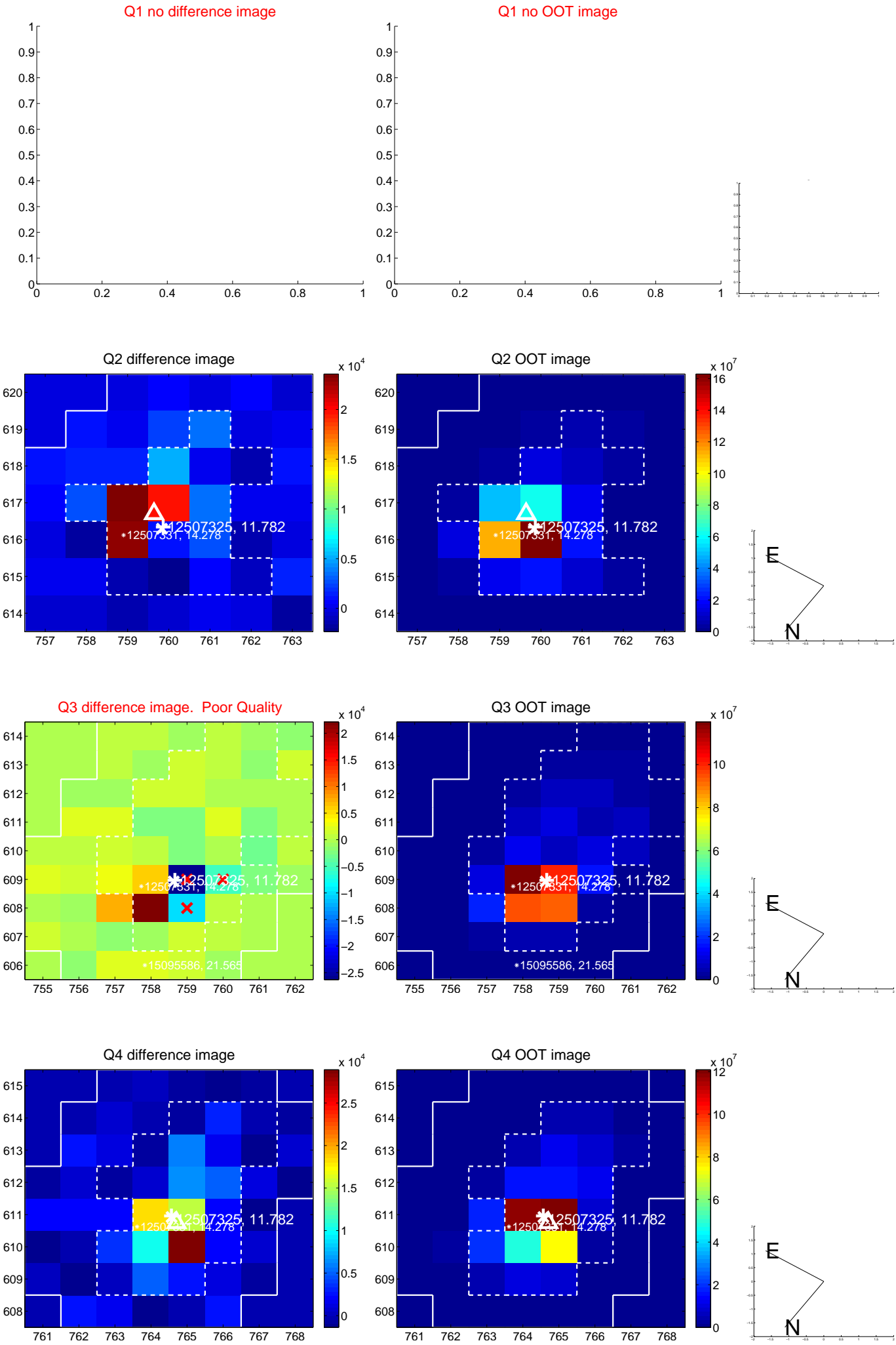
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.166 ± 0.356	0.47	-0.161 ± 0.399	0.040 ± 0.362
PRF-fit source offset from KIC position	0.219 ± 0.432	0.51	-0.158 ± 0.381	-0.151 ± 0.360
photometric centroid source offset	0.22 ± 0.29	0.76	0.13 ± 0.25	0.18 ± 0.31

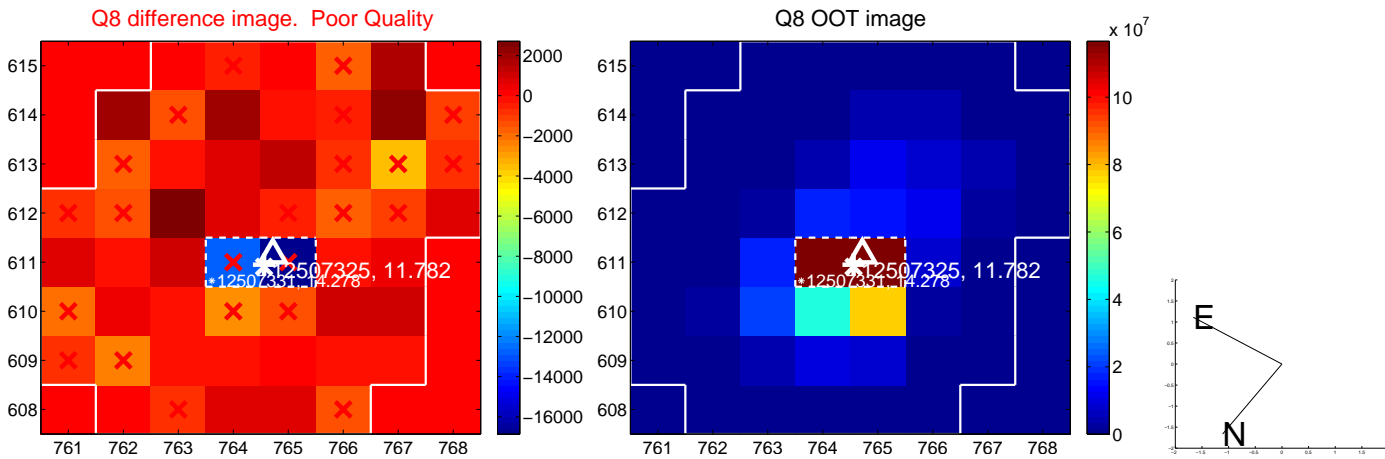
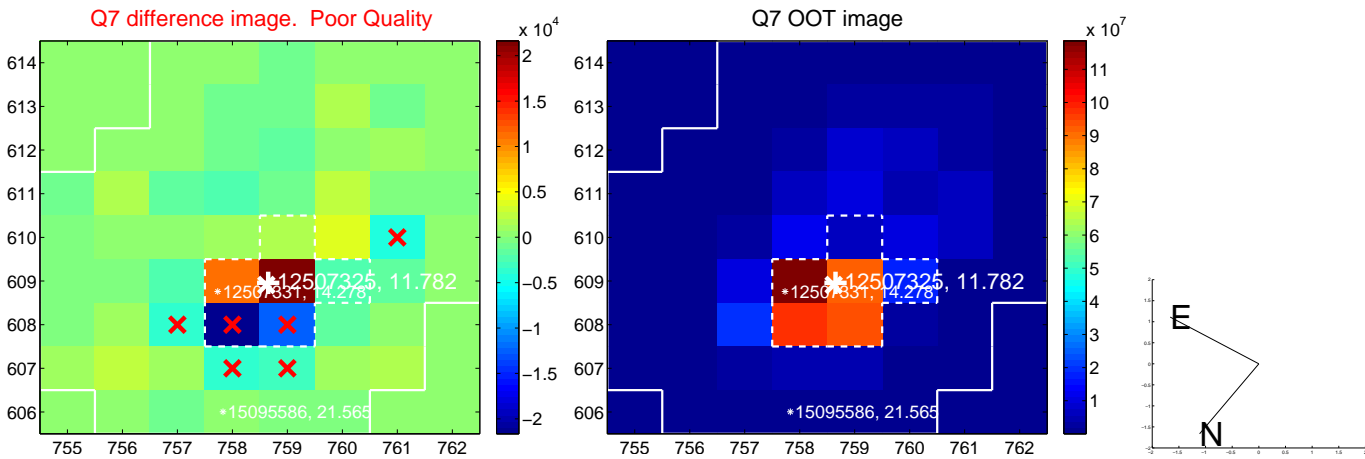
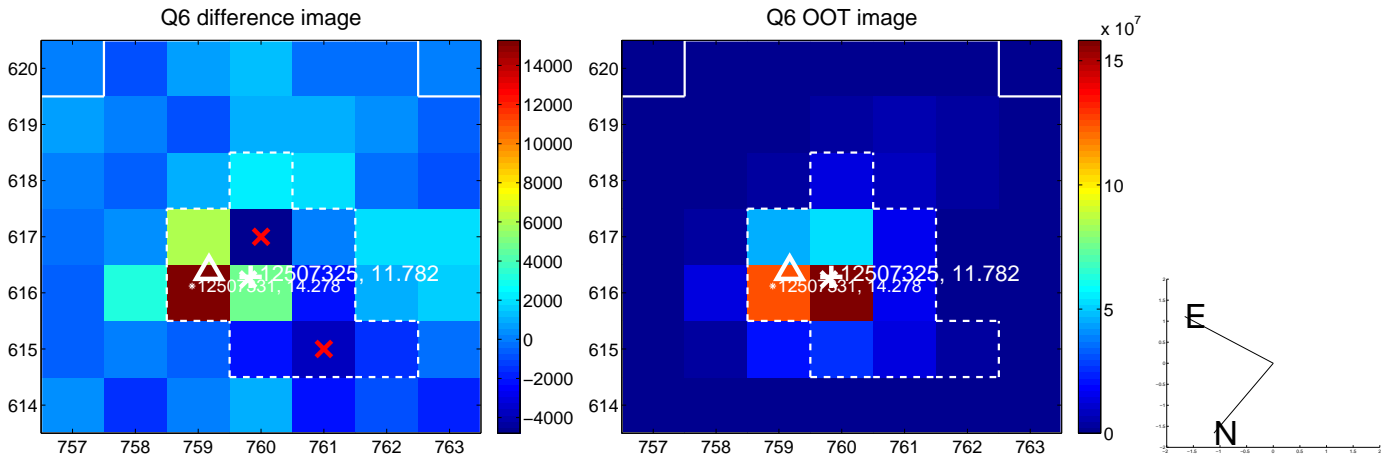
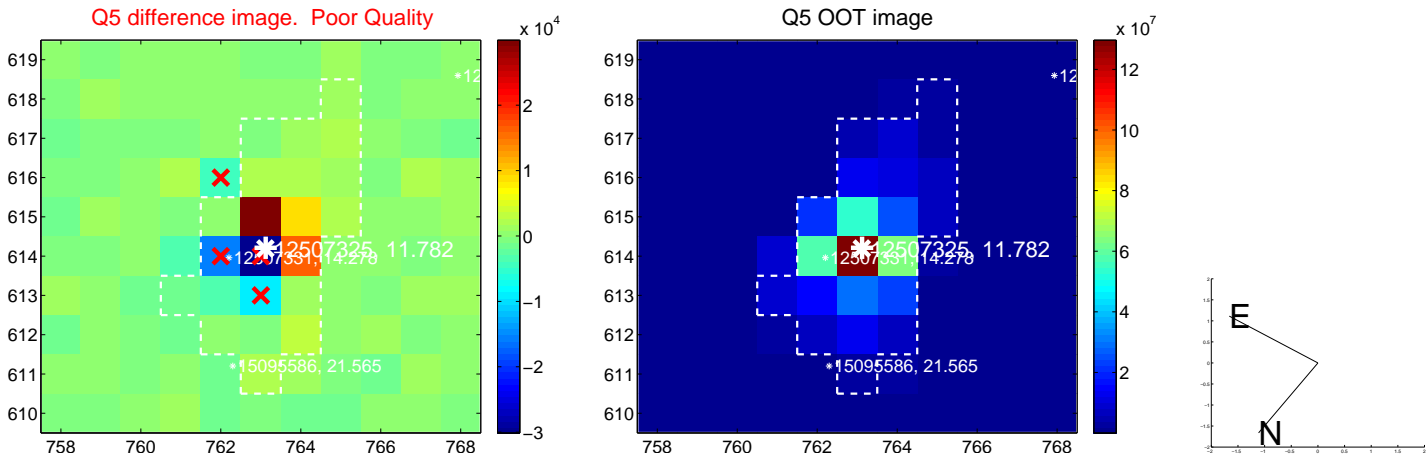


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

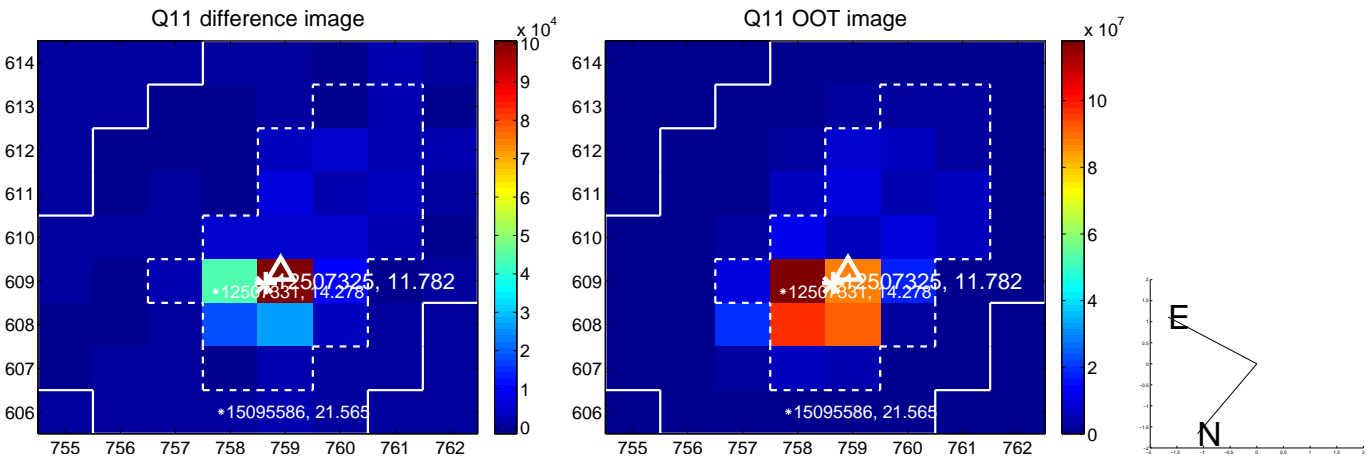
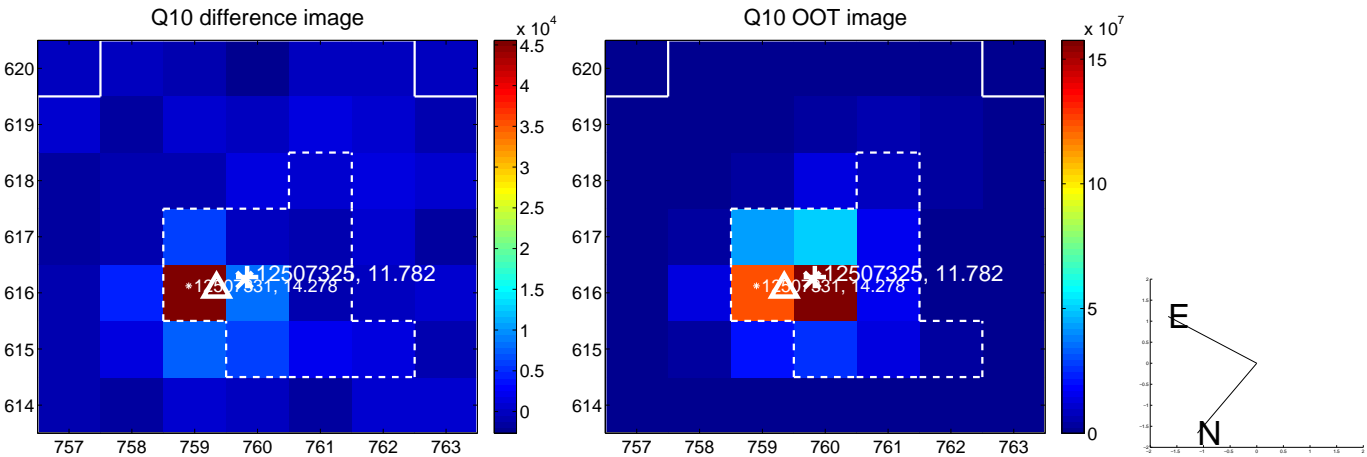
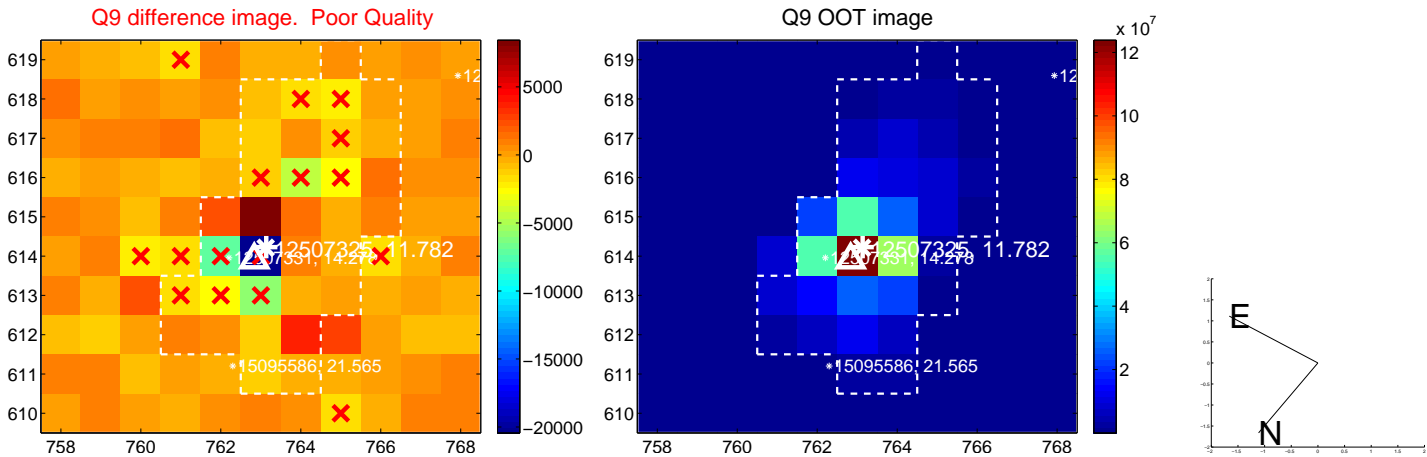
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



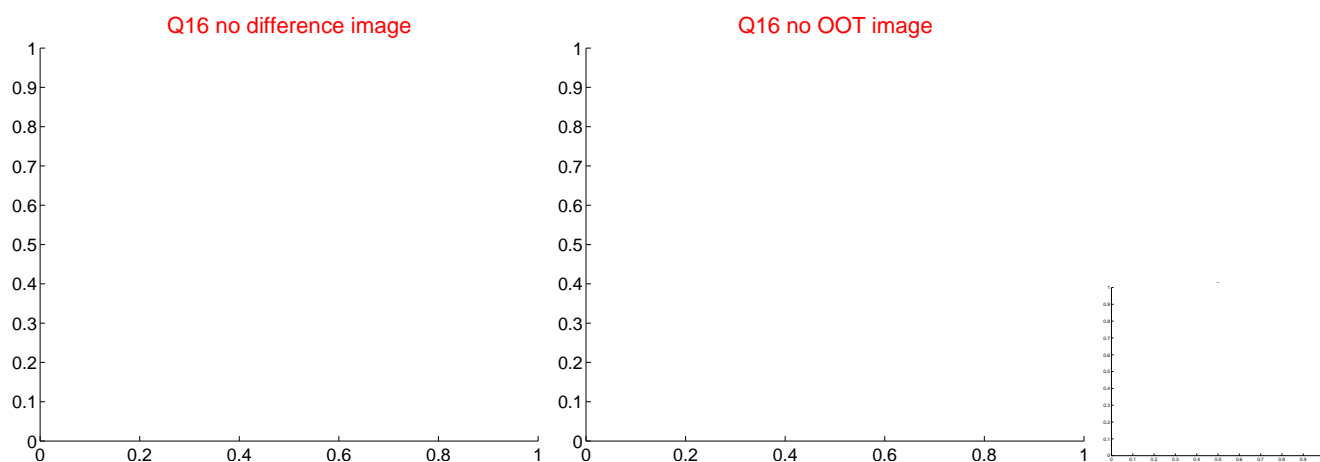
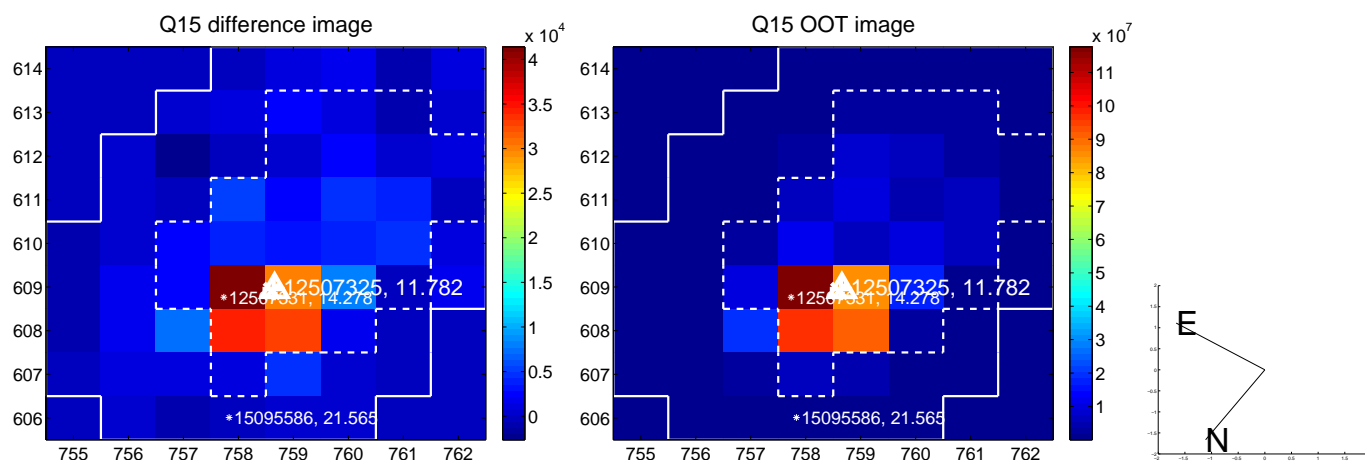
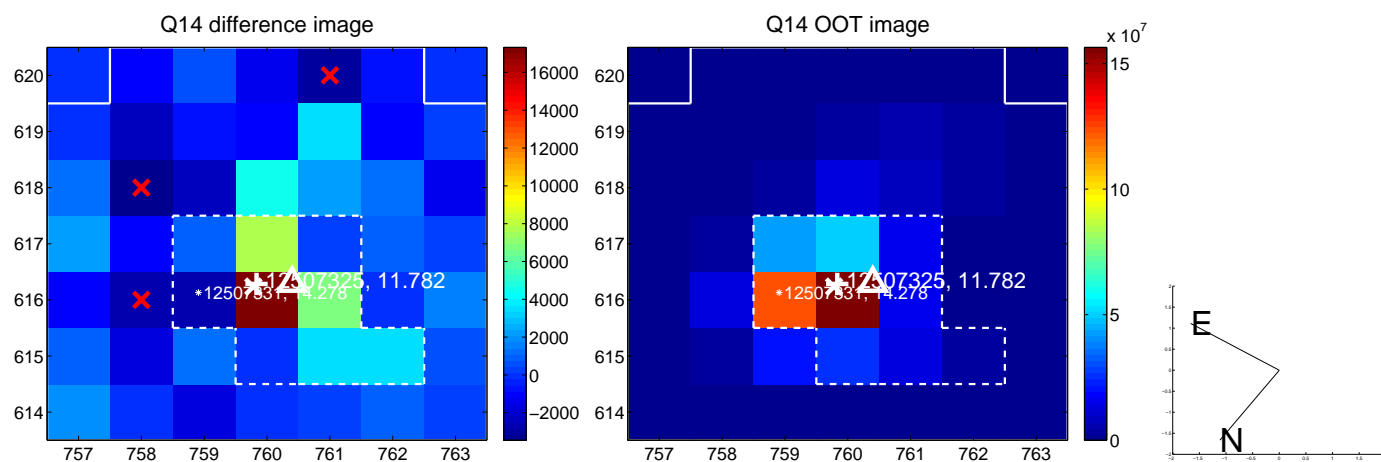
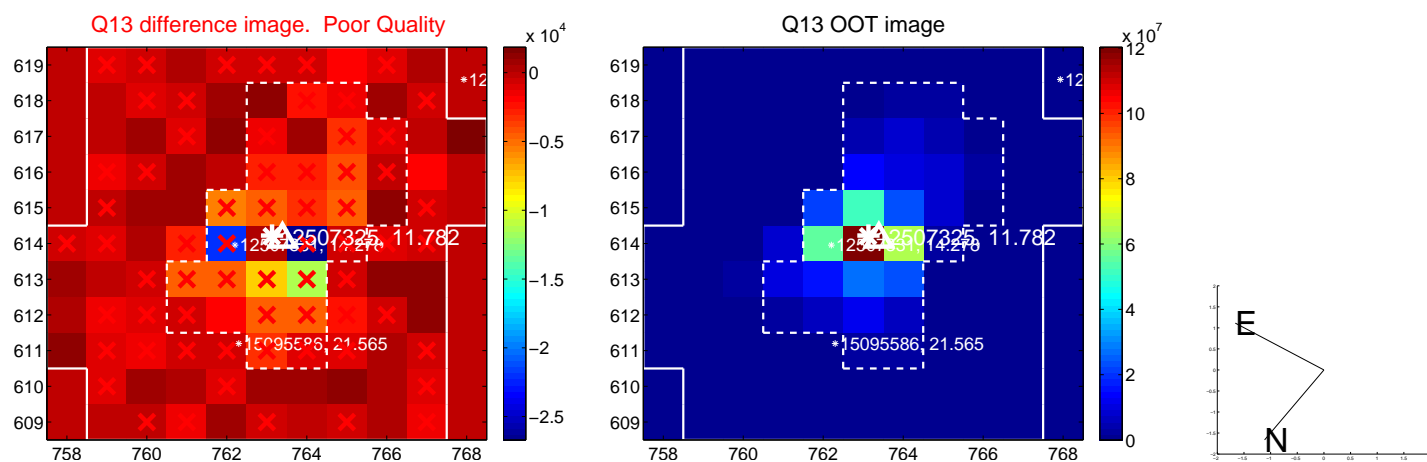
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



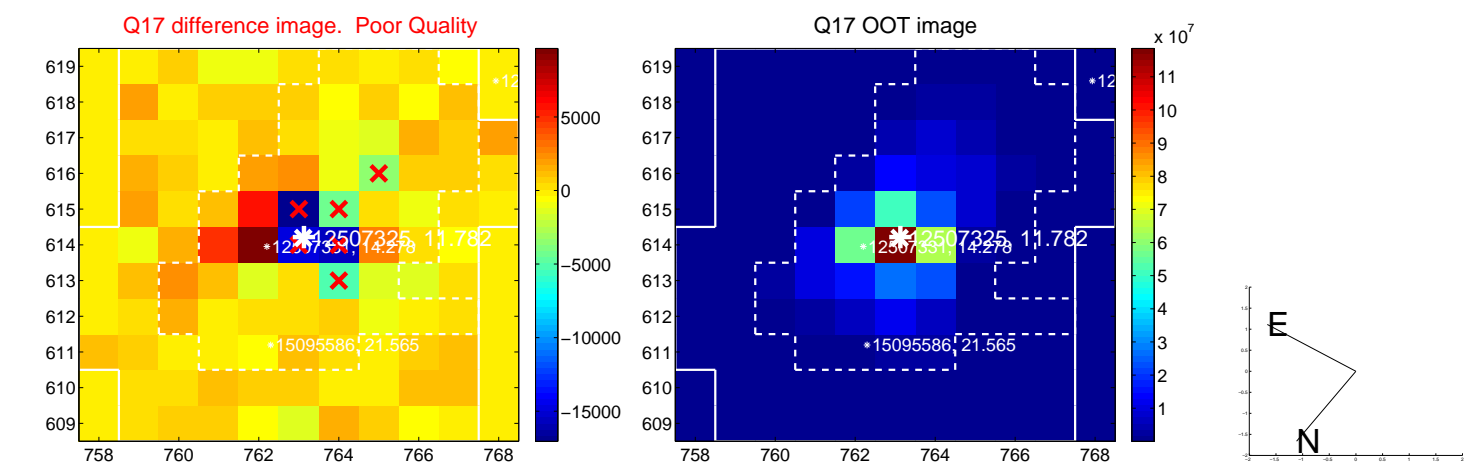
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



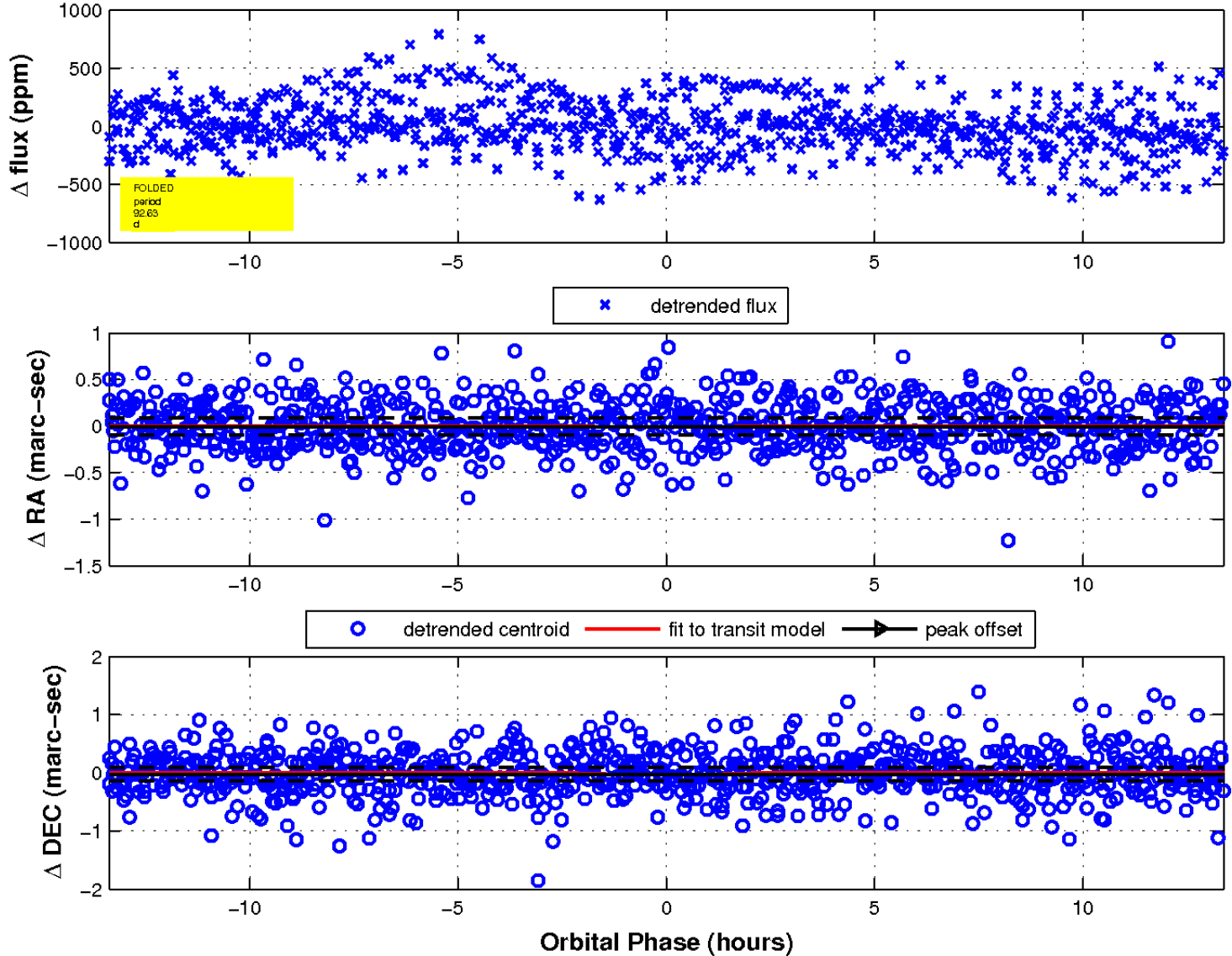
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

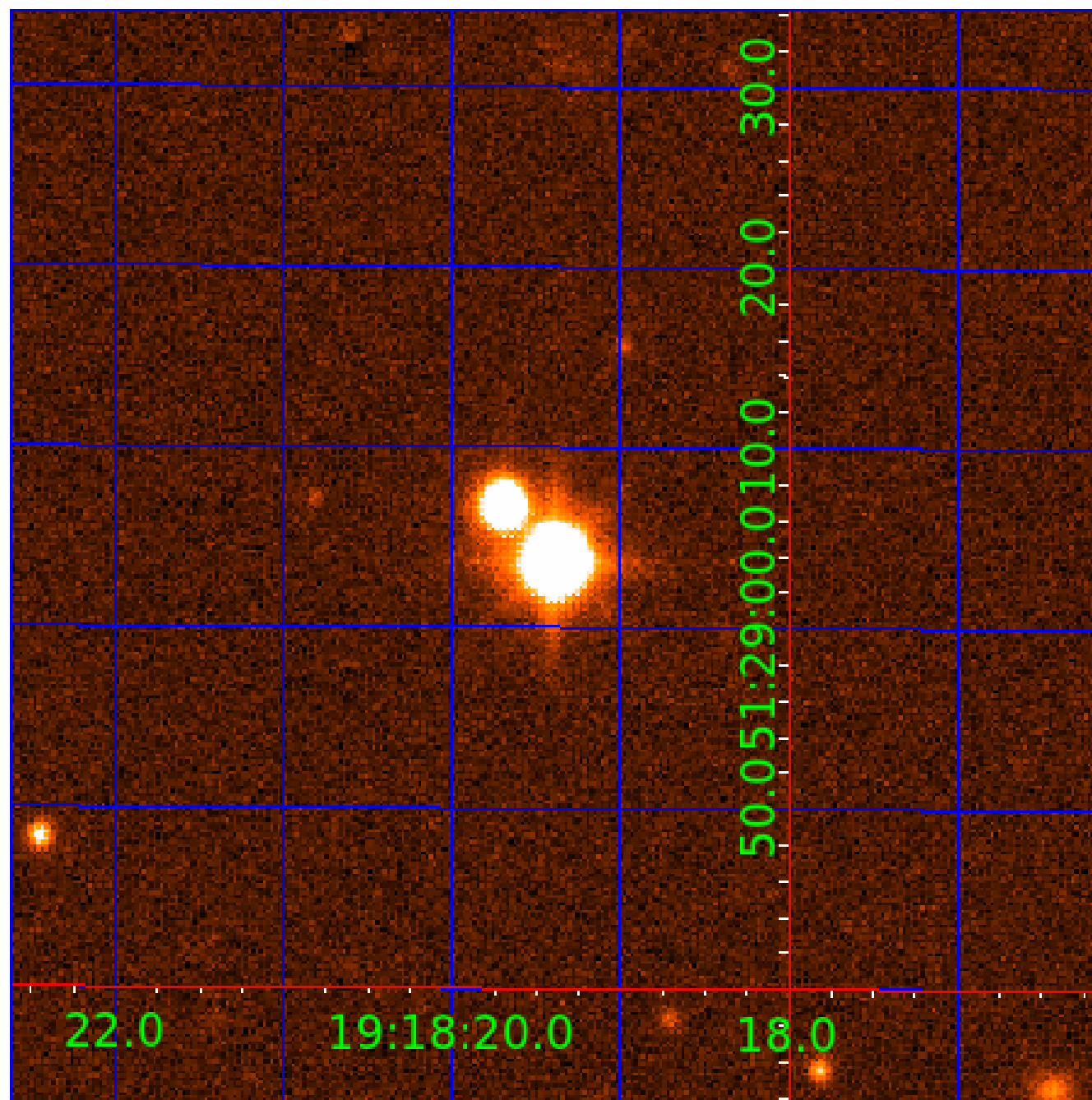


fluxWeightedCentroids, Planet 6 of 9



UKIRT Image

Declination



KIC 012507325

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})
012507325-01	OBS	No	1.086390	132.016640	17.1	6.699	8.5	6.8	1.00	5780	0.42	2336.82
012507325-02	OBS	No	66.764918	187.846728	290.9	4.814	9.6	9.5	1.00	5780	1.98	9.64
012507325-03	OBS	No	80.783852	152.079007	328.1	6.030	9.1	9.4	1.00	5780	2.27	7.47
012507325-04	OBS	No	624.705599	192.777940	412.8	30.488	9.0	7.1	1.00	5780	2.04	0.49
012507325-05	OBS	No	97.987195	208.323577	176.2	12.443	8.8	4.5	1.00	5780	1.45	5.78
012507325-06	OBS	No	92.629169	190.725871	336.4	4.465	9.0	9.5	1.00	5780	2.11	6.23
012507325-07	OBS	No	108.517832	134.774183	196.5	3.849	8.7	6.4	1.00	5780	1.61	5.04
012507325-08	OBS	No	16.809442	134.485571	112.5	4.024	8.3	8.0	1.00	5780	1.18	60.61
012507325-09	OBS	No	64.560845	183.078488	165.1	3.500	9.1	-1.0	1.00	5780	1.27	10.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012507325-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
012507325-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT
012507325-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012507325-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
012507325-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—HALO_GHOST
012507325-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_CROWDED
012507325-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

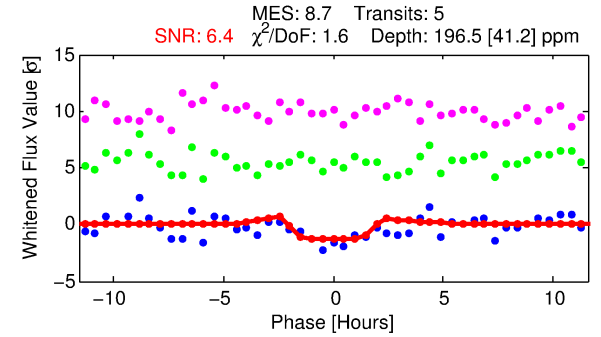
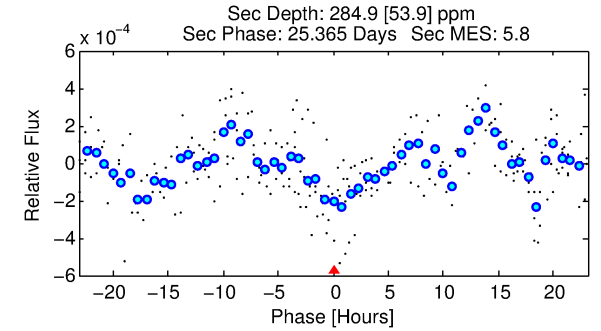
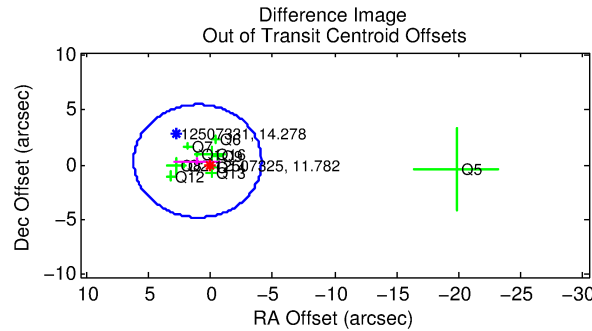
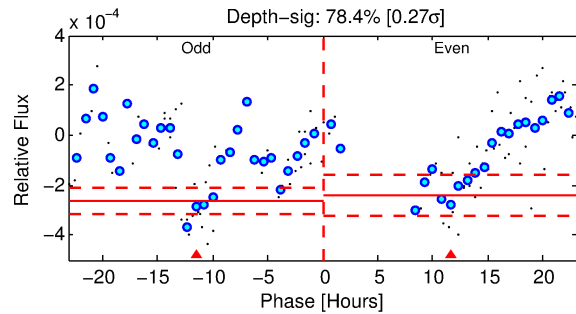
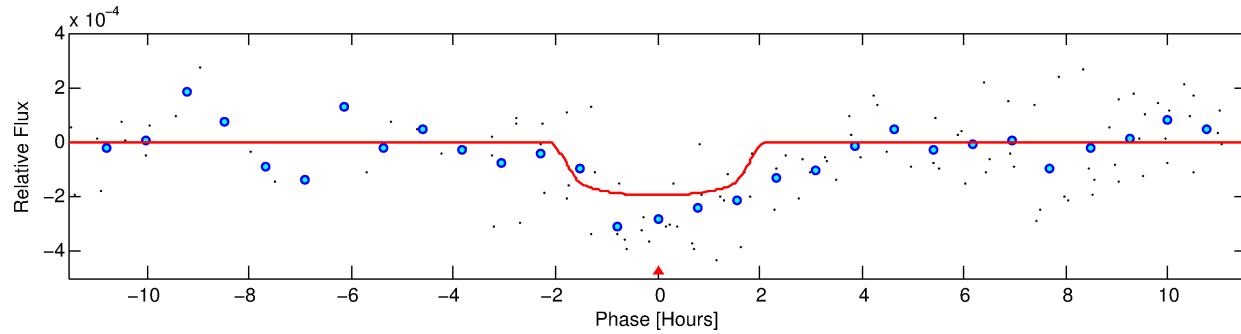
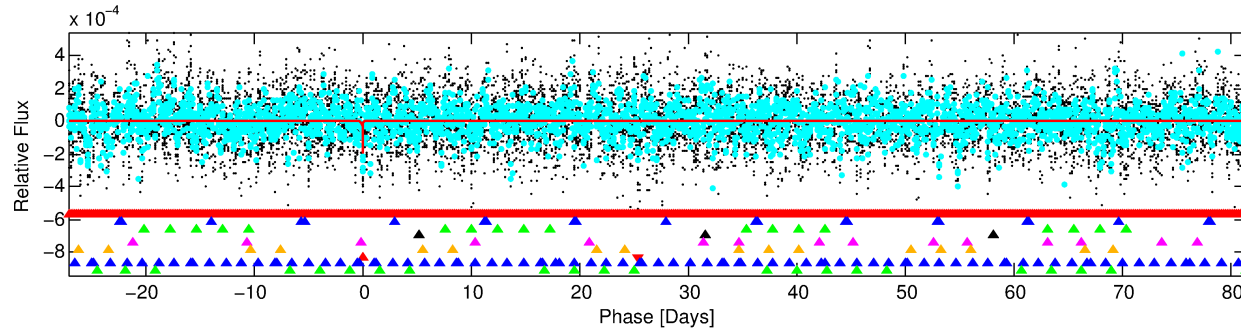
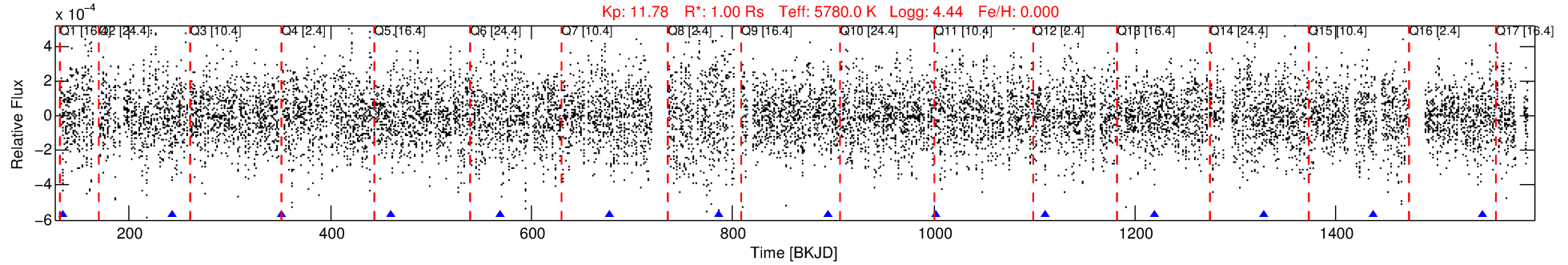
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012507325-07

No Significant Match Found

DV One-Page Summary

KIC: 12507325 Candidate: 7 of 9 Period: 108.518 d



DV Fit Results:

Period = 108.51783 [0.00135] d
Epoch = 134.7742 [0.0100] BKJD
Rp/R* = 0.0148 [0.0301]
a/R* = 116.80 [1117.92]
b = 0.86 [3.00]
Seff = 5.04 [0.00]
Teq = 382 [0] K
Rp = 1.61 [3.29] Re
a = 0.4453 [0.0000] AU
Ag = 11996.79 [49088.80] [0.24 σ]
Teffp = 6183 [6325] K [0.92 σ]

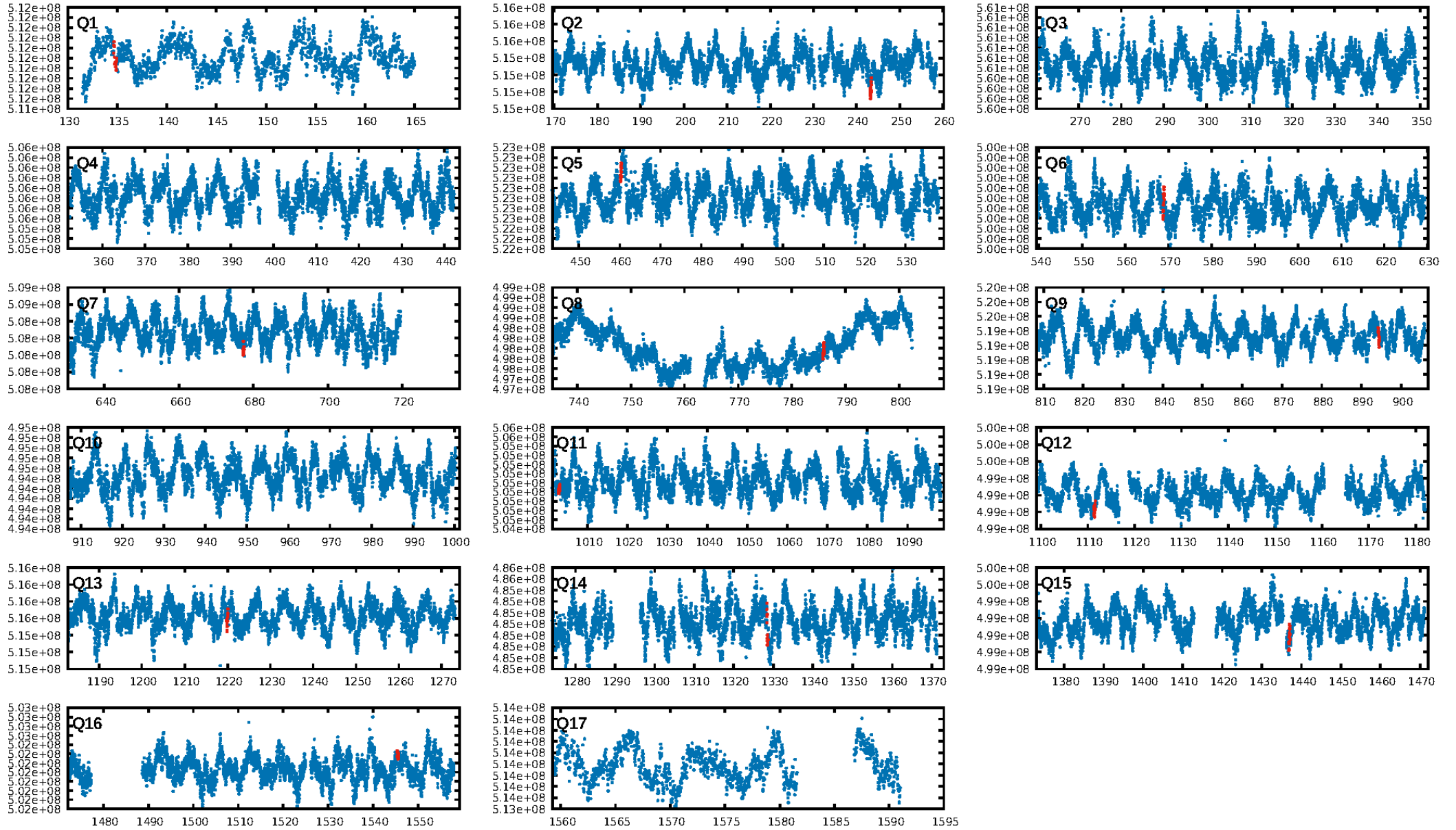
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [19.40 σ]
LongPeriod-sig: 100.0% [403.15 σ]
ModelChiSquare2-sig: 12.2%
ModelChiSquareGof-sig: 86.4%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 2.054
Centroid-sig: 45.1%
Centroid-so: 0.453 arcsec [0.80 σ]
OotOffset-rm: 1.077 arcsec [0.63 σ]
KicOffset-rm: 1.019 arcsec [0.49 σ]
OotOffset-st: 3/1/3/4 [11]
KicOffset-st: 3/1/3/4 [11]
DiffImageQuality-fgm: 0.55 [6/11]
DiffImageOverlap-fno: 0.00 [0/12]

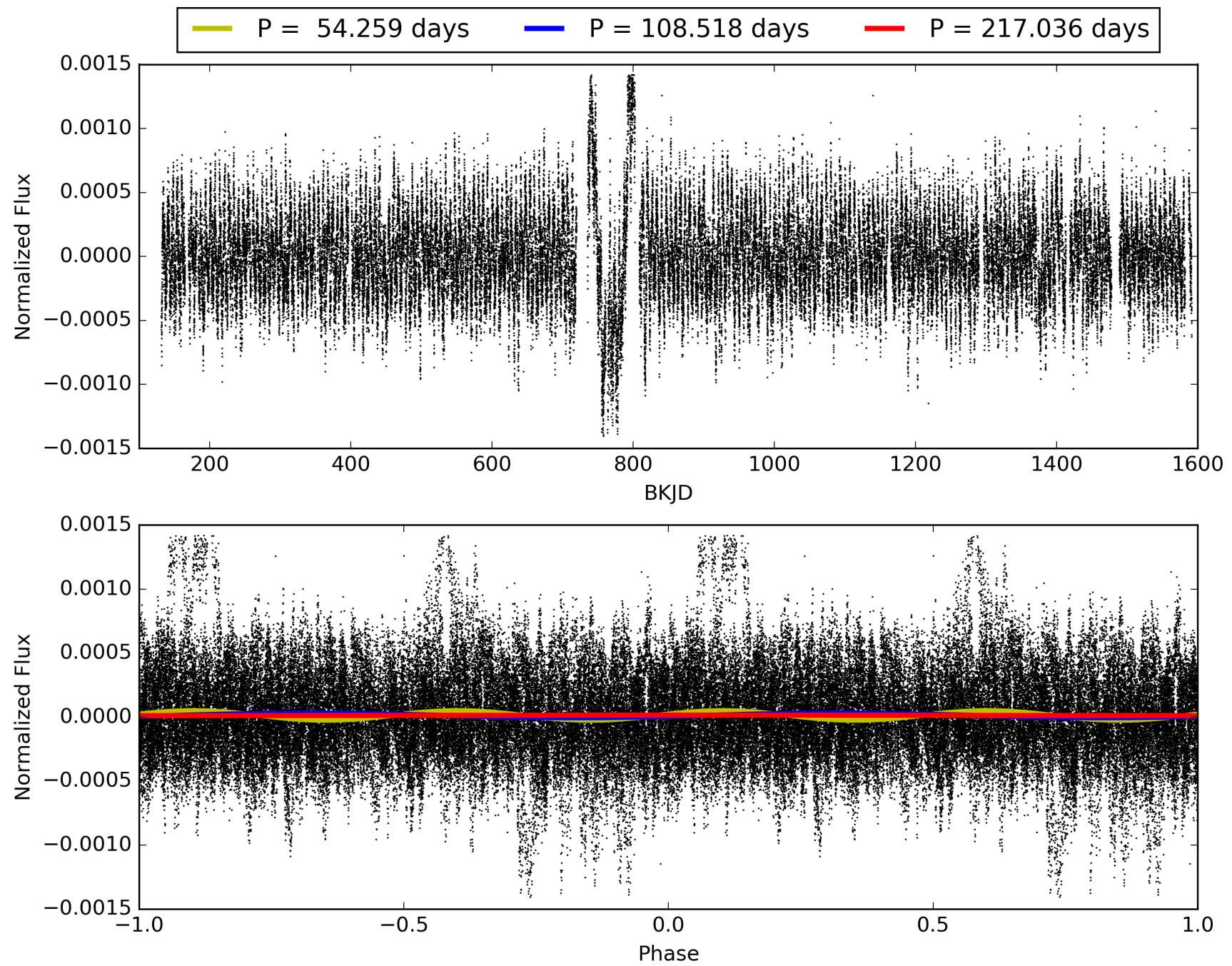
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:44:37 Z

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

TCE 012507325-07, PDC Light Curves

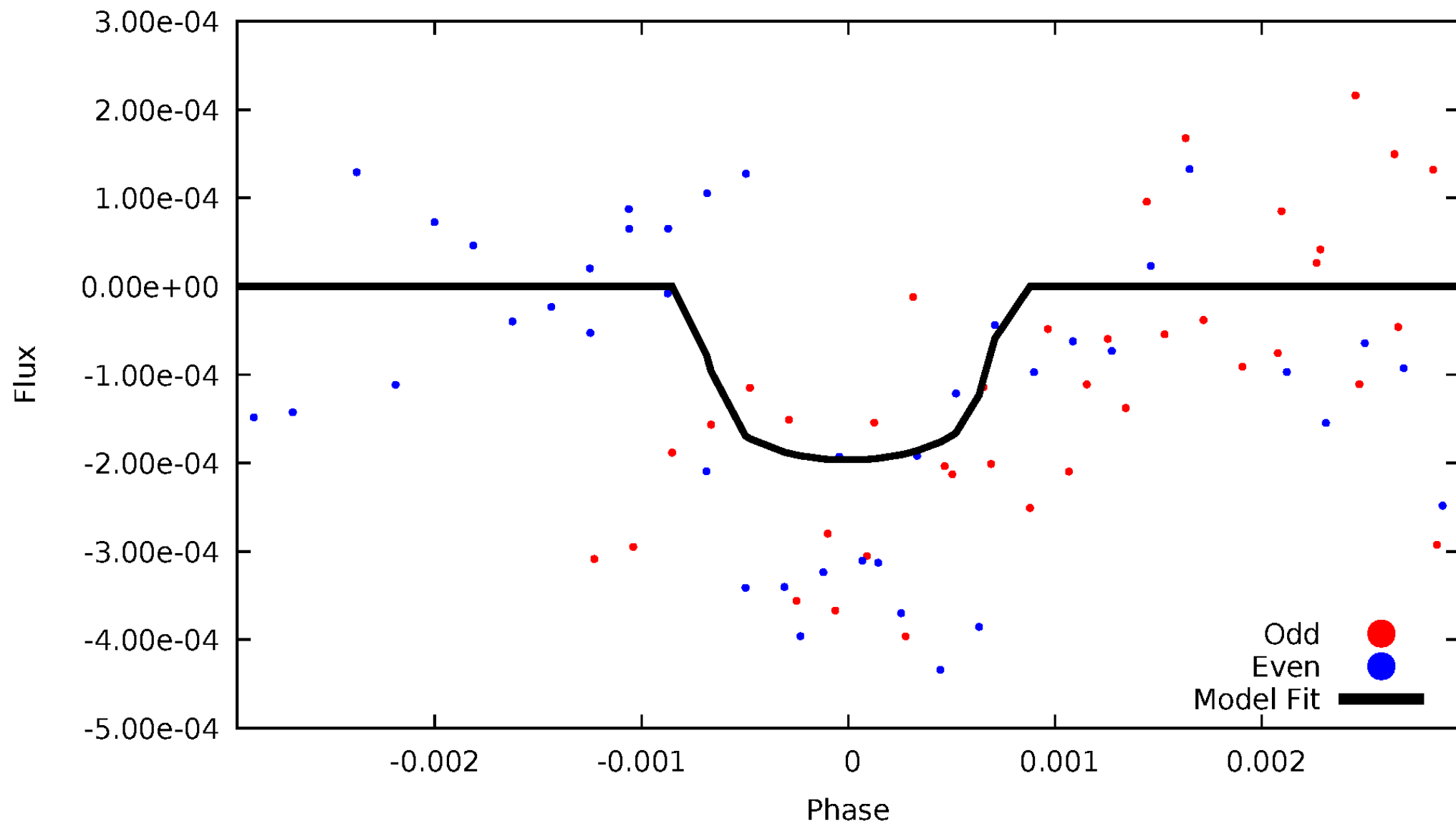


TCE 012507325-07



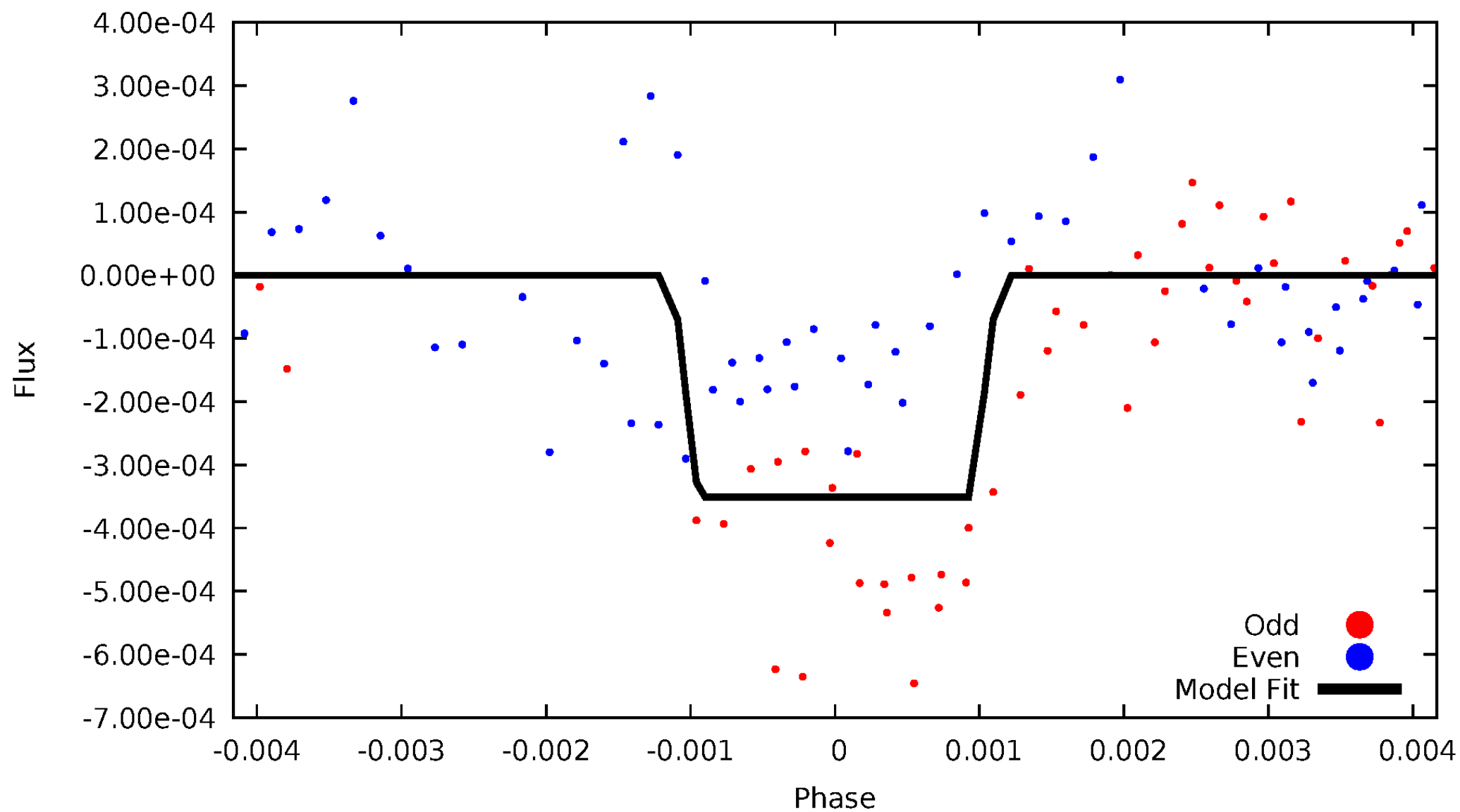
DV Odd/Even

TCE 012507325-07



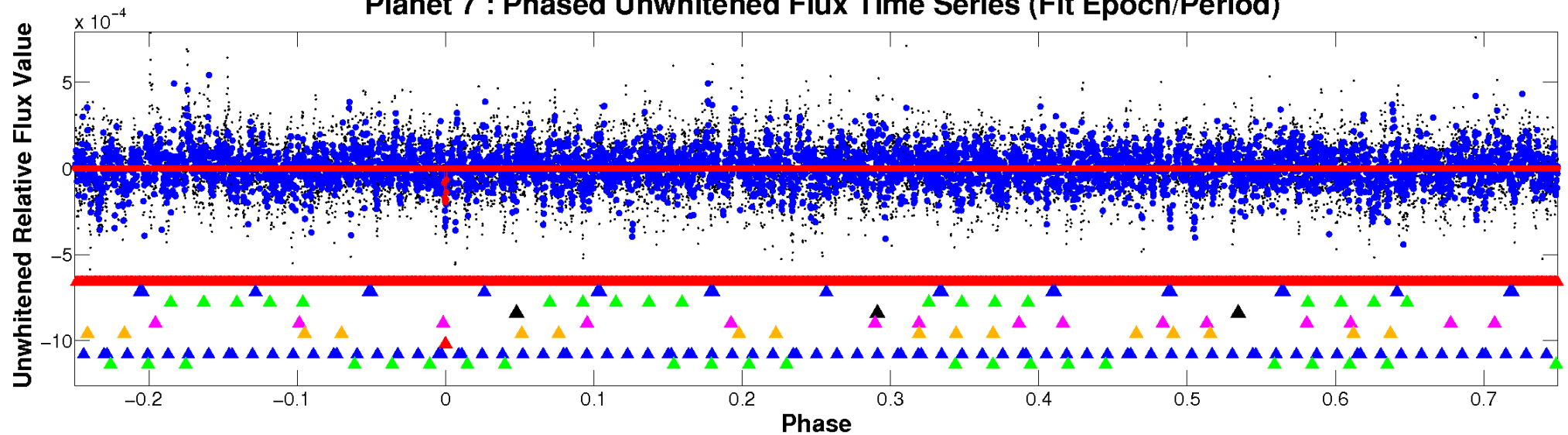
ALT Odd/Even

TCE 012507325-07

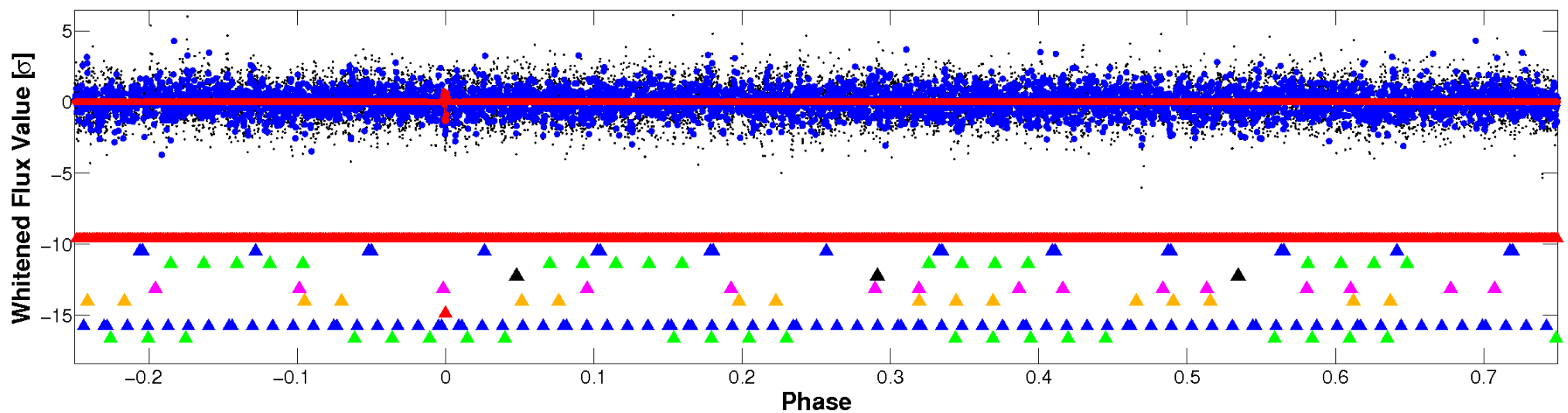


Non-Whitened Vs. Whitened Light Curve

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

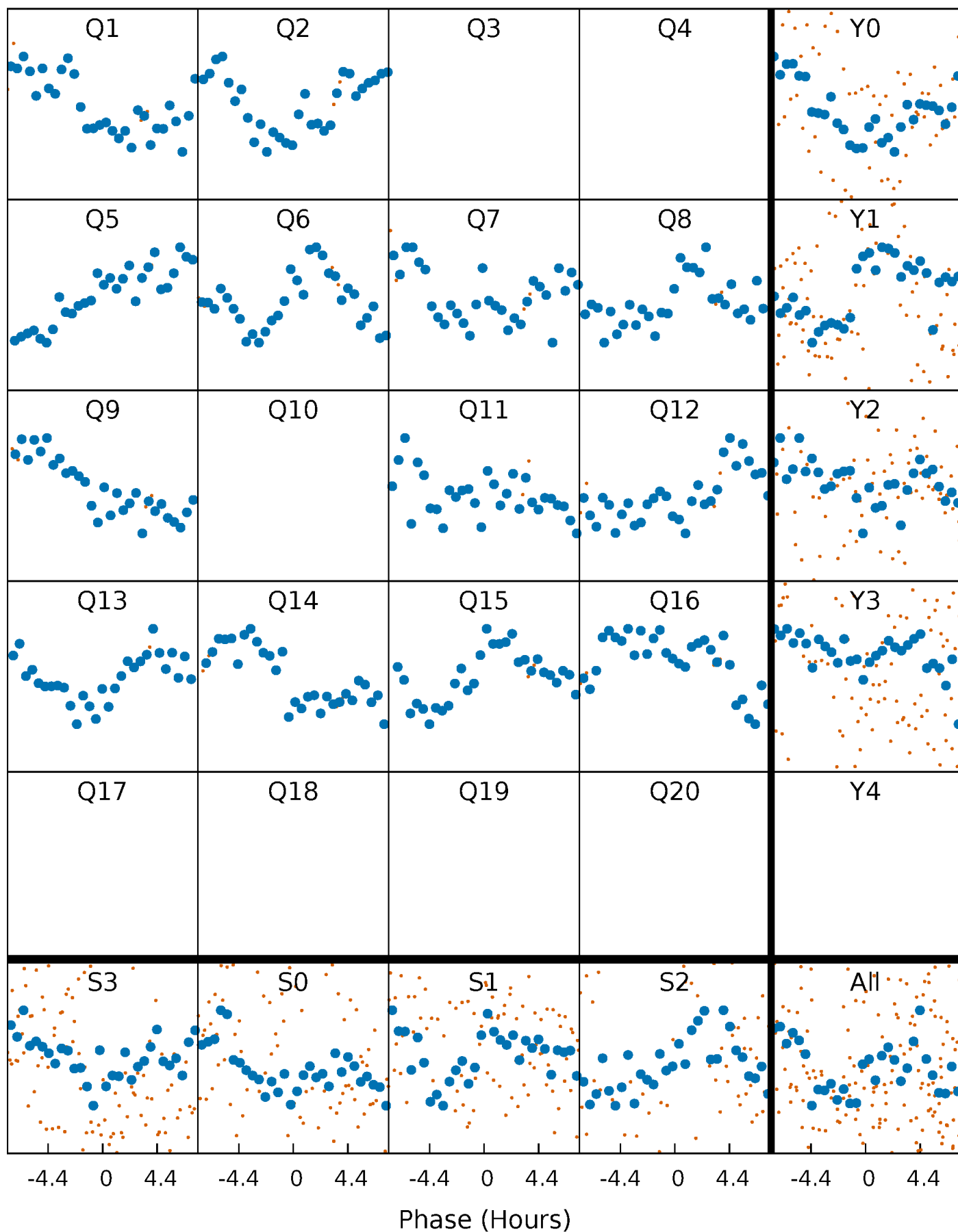


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



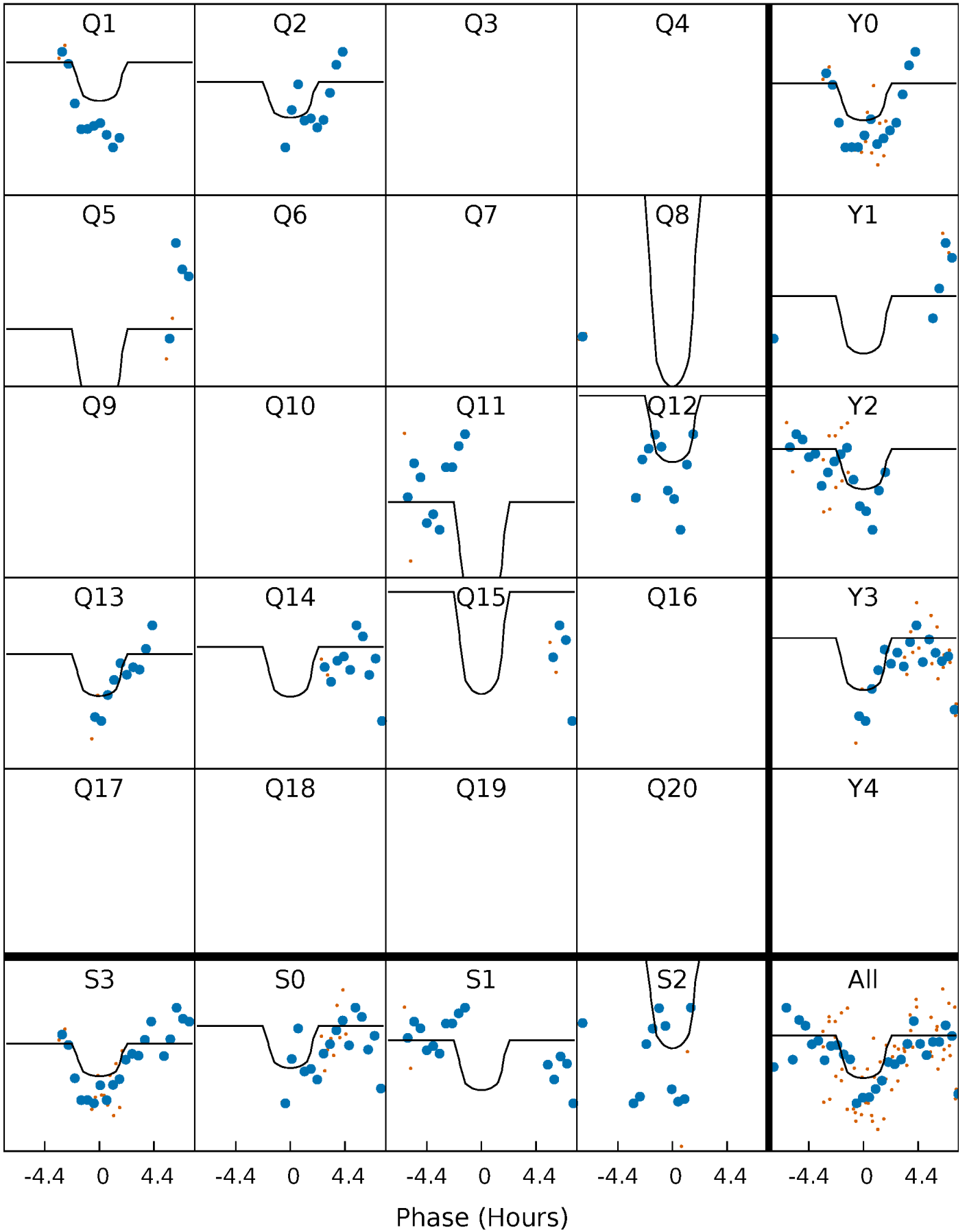
PDC Quarter-Phased Transit Curves

TCE 012507325-07 $P=108.517832$ Days $T_0=134.774183$ (BKJD)



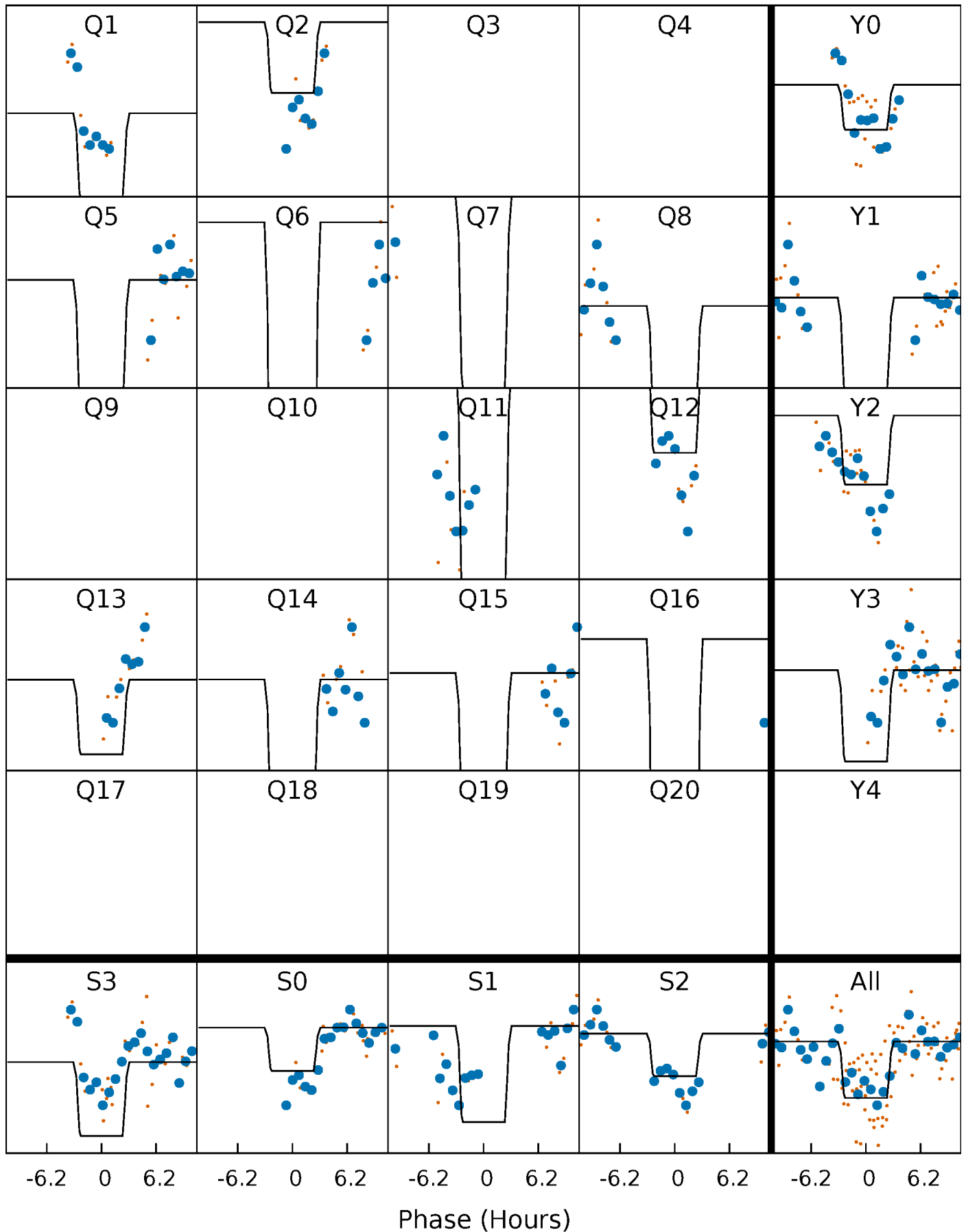
DV Quarter-Phased Transit Curves

TCE 012507325-07 P=108.517832 Days $T_0=134.774183$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

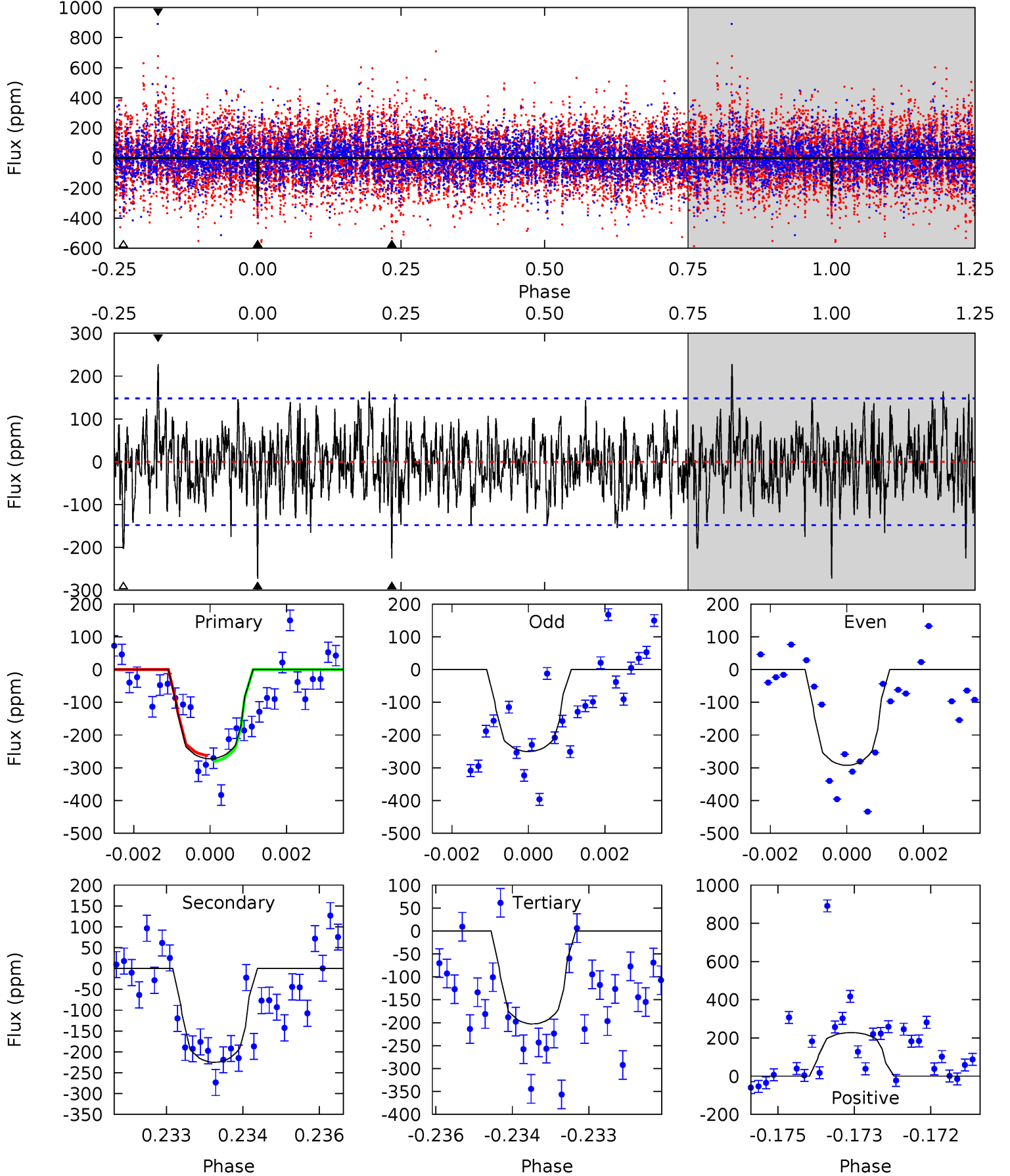
TCE 012507325-07 P=108.512002 Days $T_0=134.797449$ (BKJD)



DV Model-Shift Uniqueness Test

012507325-07, $P = 108.517832$ Days, $E = 26.256351$ Days

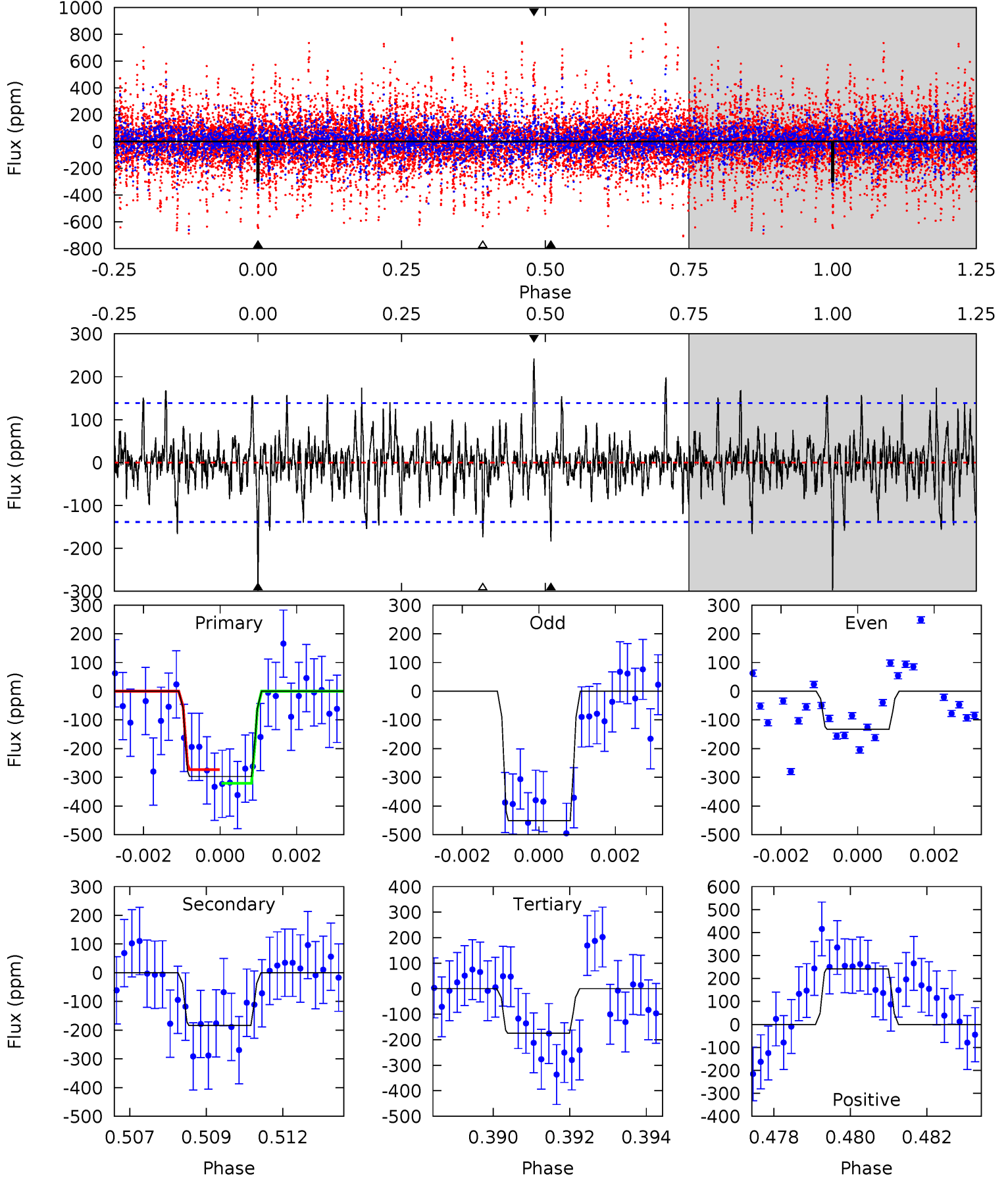
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.88	8.16	7.35	8.27	5.37	3.16	2.03	2.52	1.60	0.81	-0.11	0.76	0.76	0.46	0.33



Alt Model-Shift Uniqueness Test

012507325-07, P = 108.512002 Days, E = 26.285447 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	7.04	6.66	9.28	5.30	3.05	1.80	4.72	2.11	0.37	-2.24	5.81	1.29	0.45	0.91



Stellar Parameters For KIC 012507325

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 012507325-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-225 ± 28	$2.78^{+2.85}_{-1.87}$	533^{+27}_{-26}	4593^{+3340}_{-1030}	3196^{+26389}_{-2434}
Alt.	-184 ± 26	$3.30^{+3.15}_{-2.22}$	535^{+28}_{-26}	4136^{+2579}_{-823}	1820^{+14624}_{-1352}

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

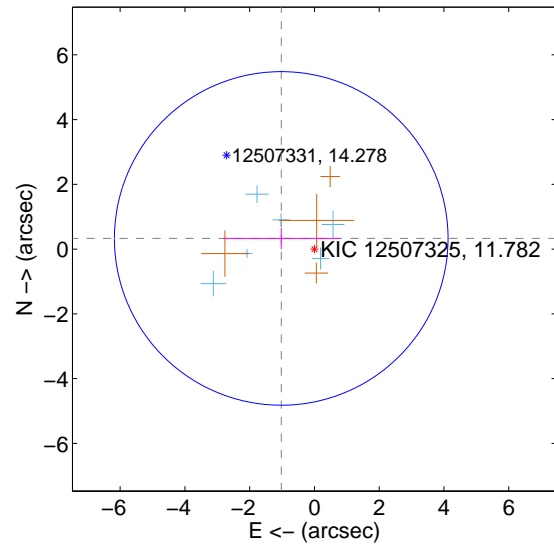
Supplemental centroid analysis for 012507325-07. **Kepler magnitude: 11.78.** Transit SNR 6.42

There are 6 quarters with good PRF difference image offsets

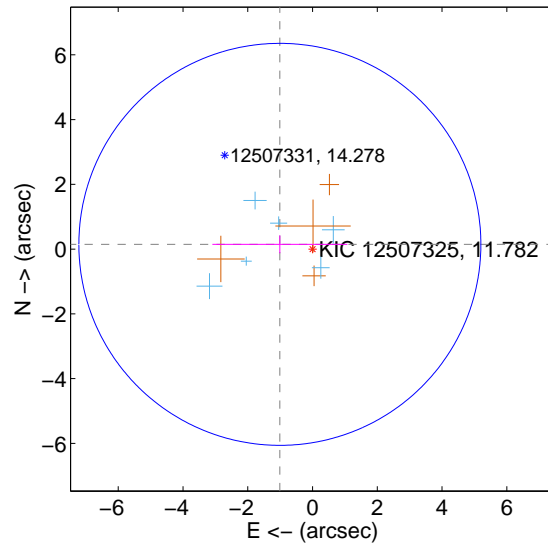
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.077 ± 1.717	0.63	1.025 ± 1.795	0.330 ± 0.327
PRF-fit source offset from KIC position	1.019 ± 2.069	0.49	1.008 ± 2.084	0.146 ± 0.277
photometric centroid source offset	0.45 ± 0.57	0.80	-0.02 ± 0.46	0.45 ± 0.57

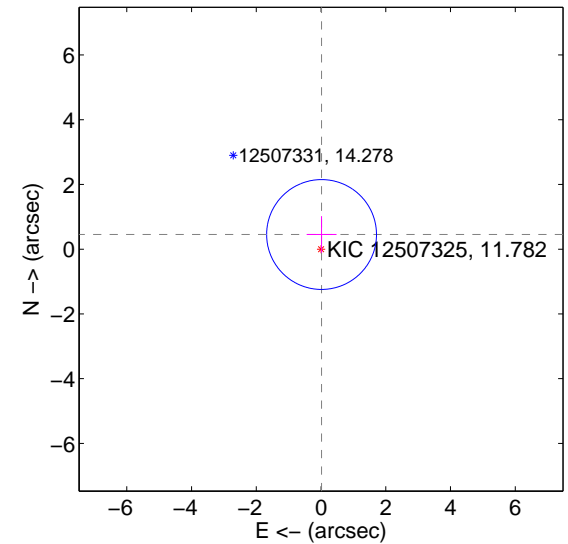
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

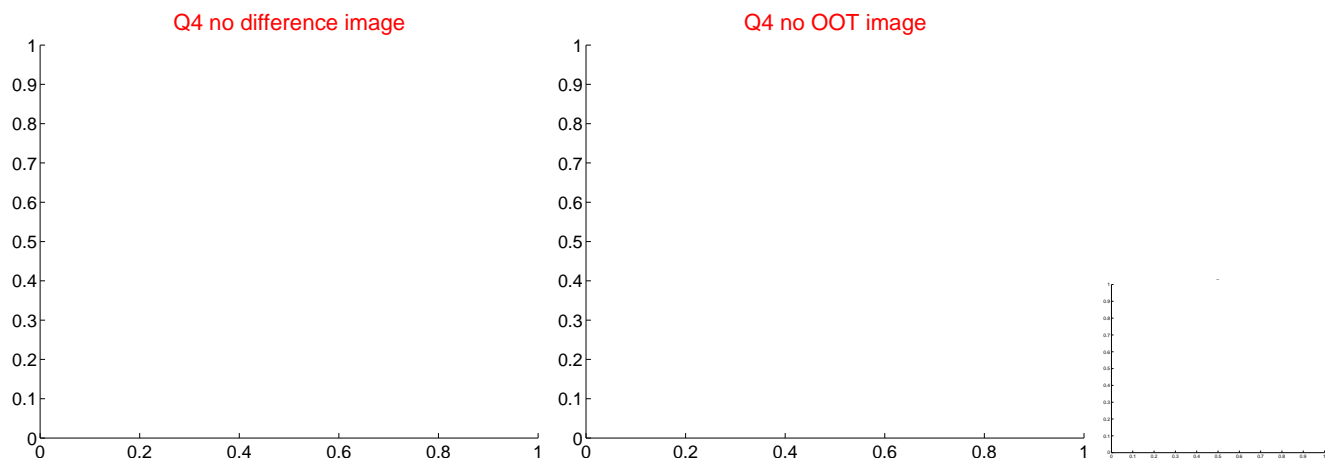
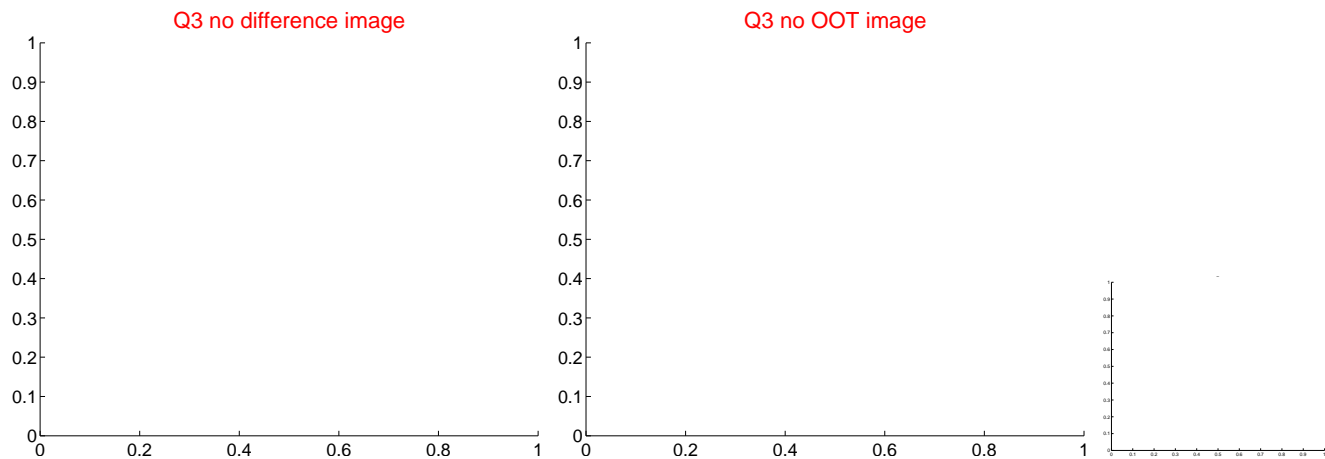
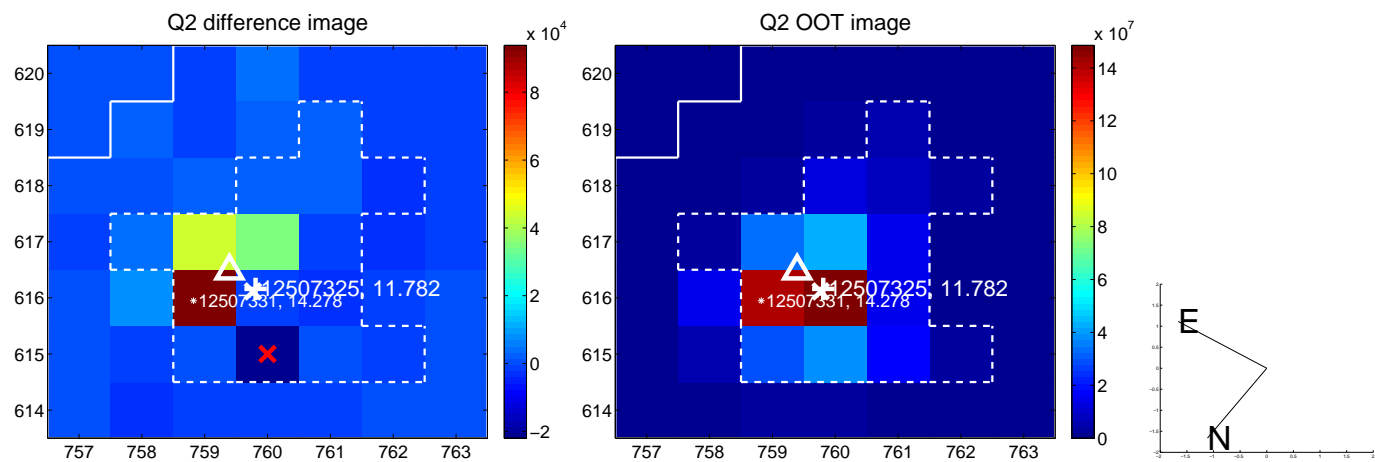
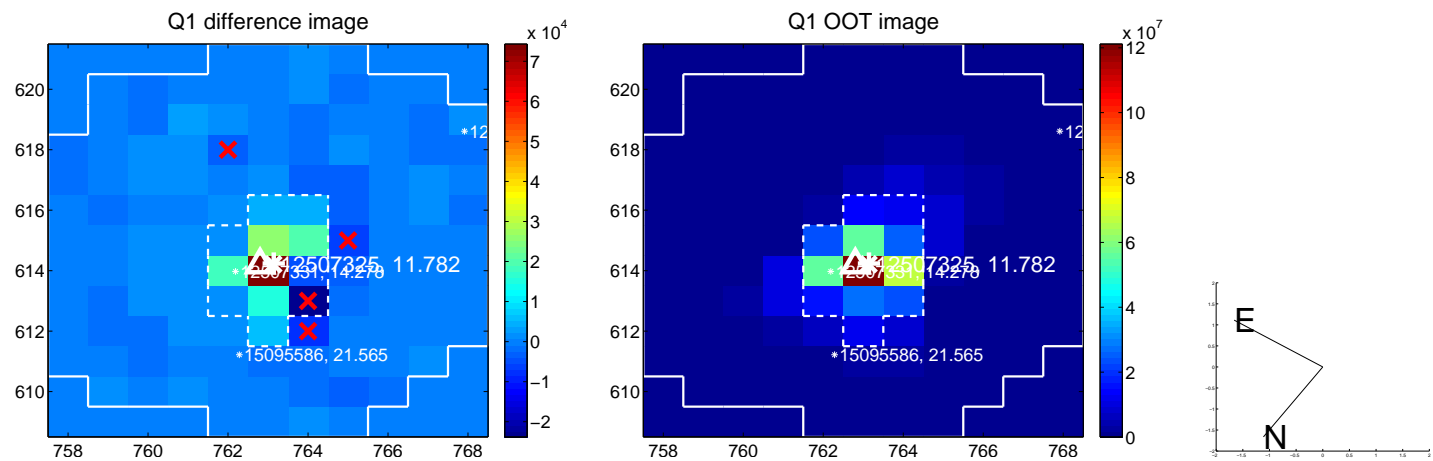


offset from photometric centroids

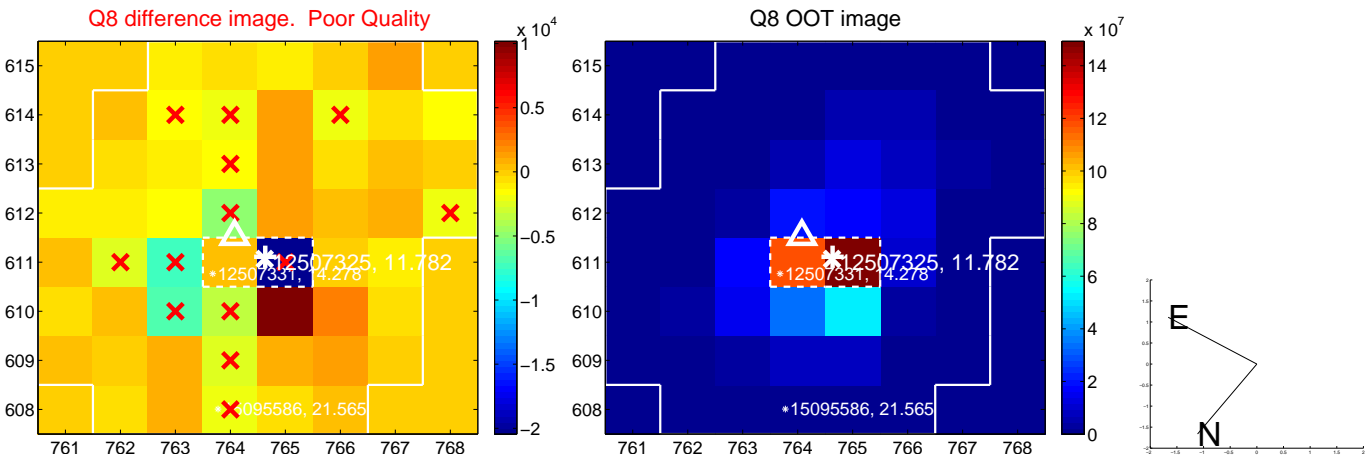
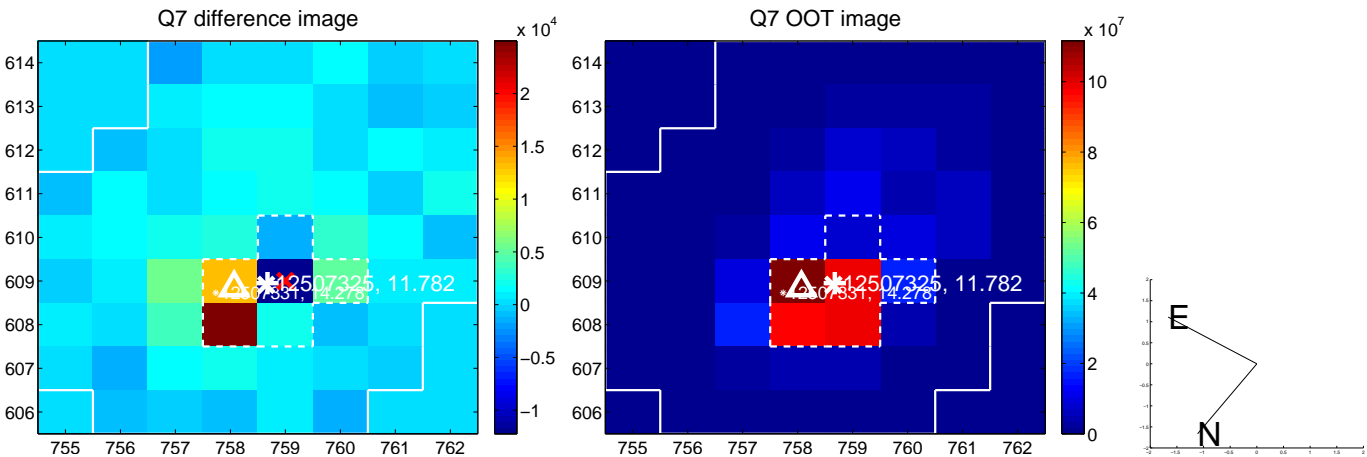
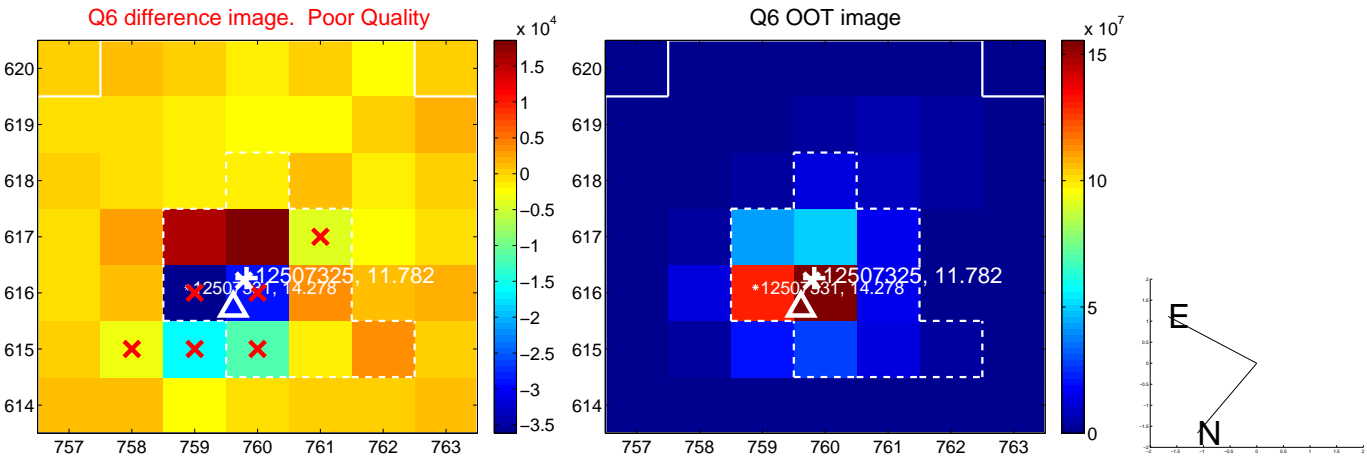
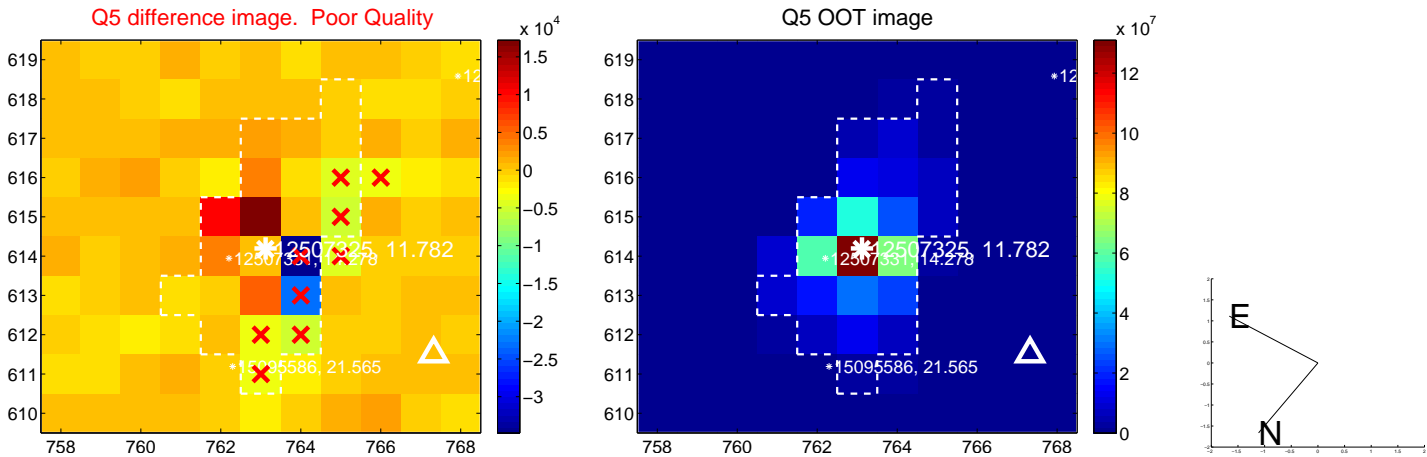


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

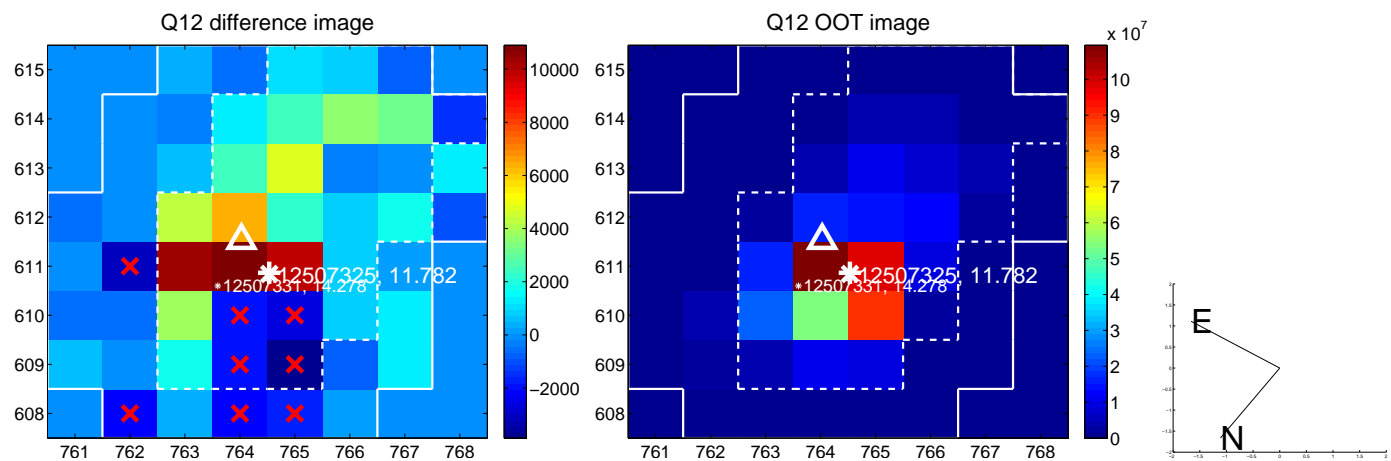
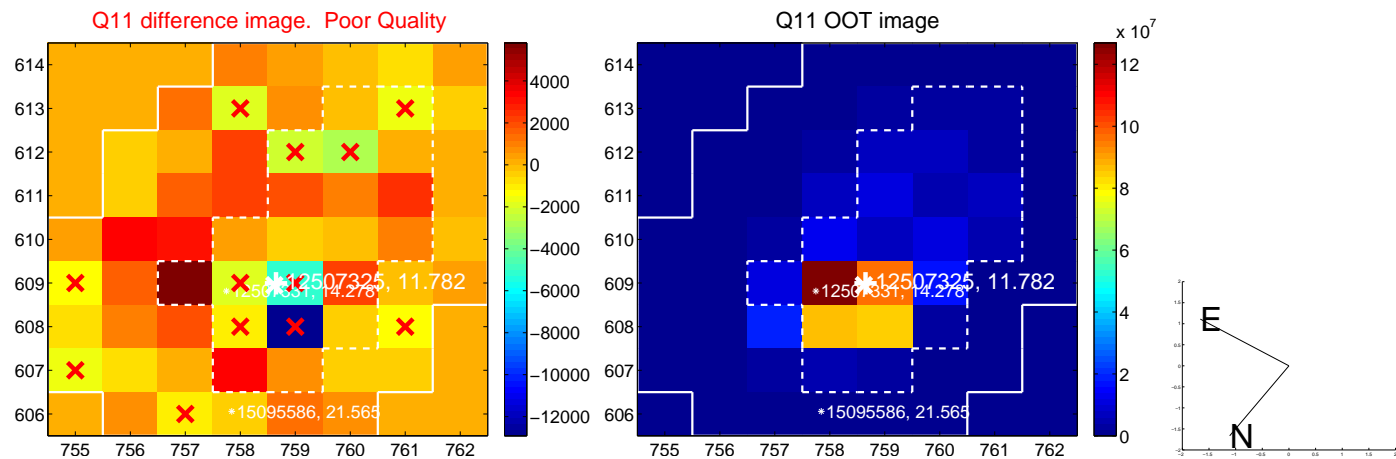
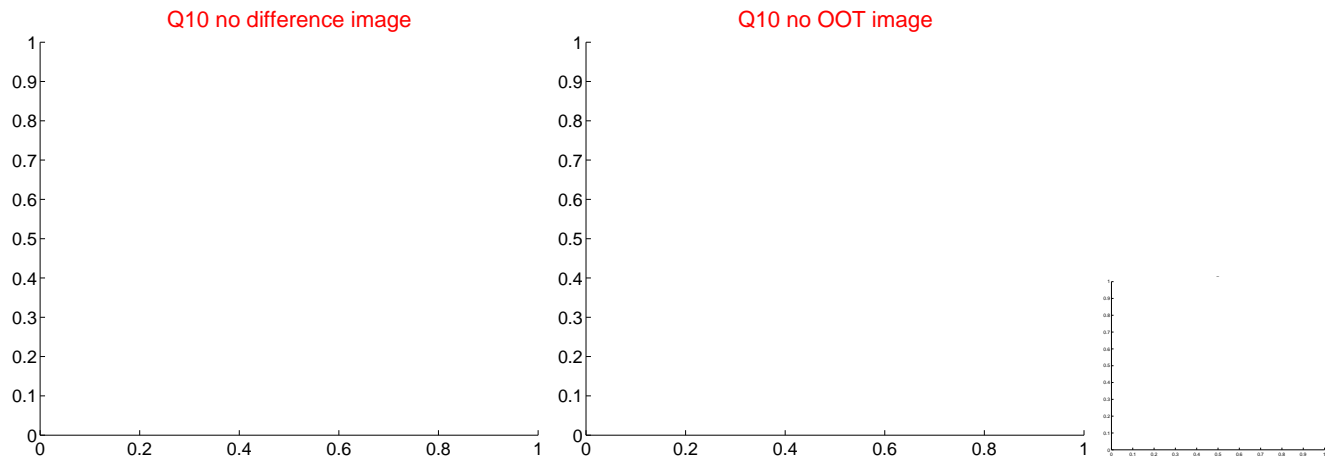
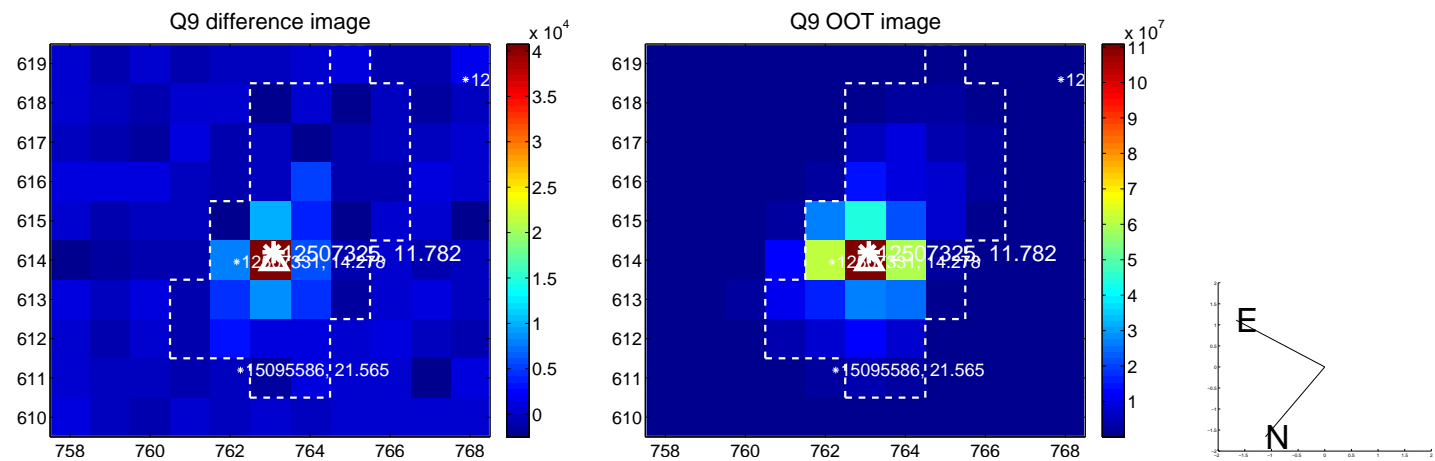
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



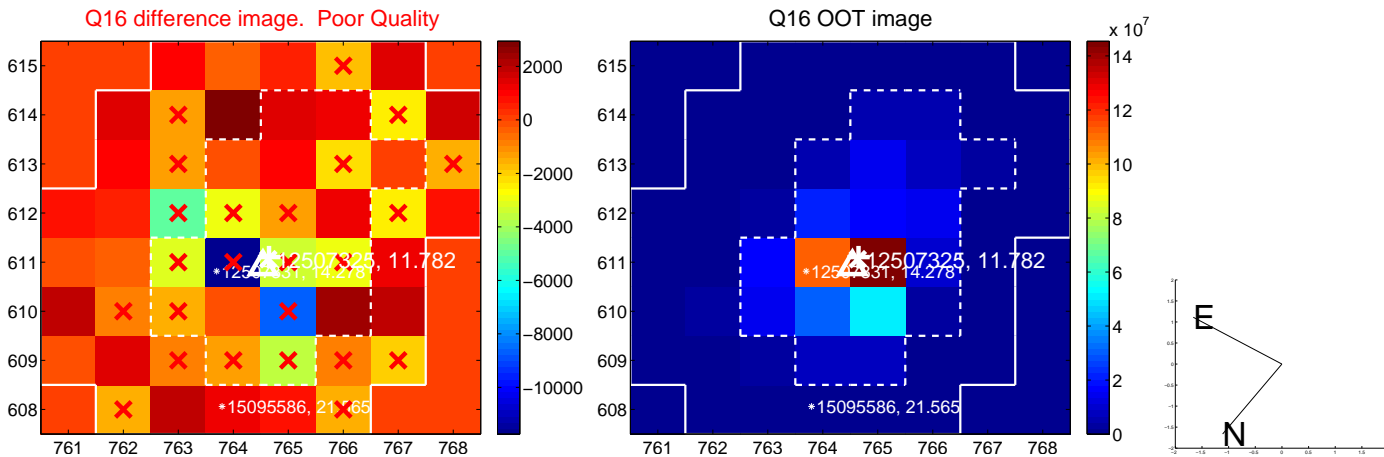
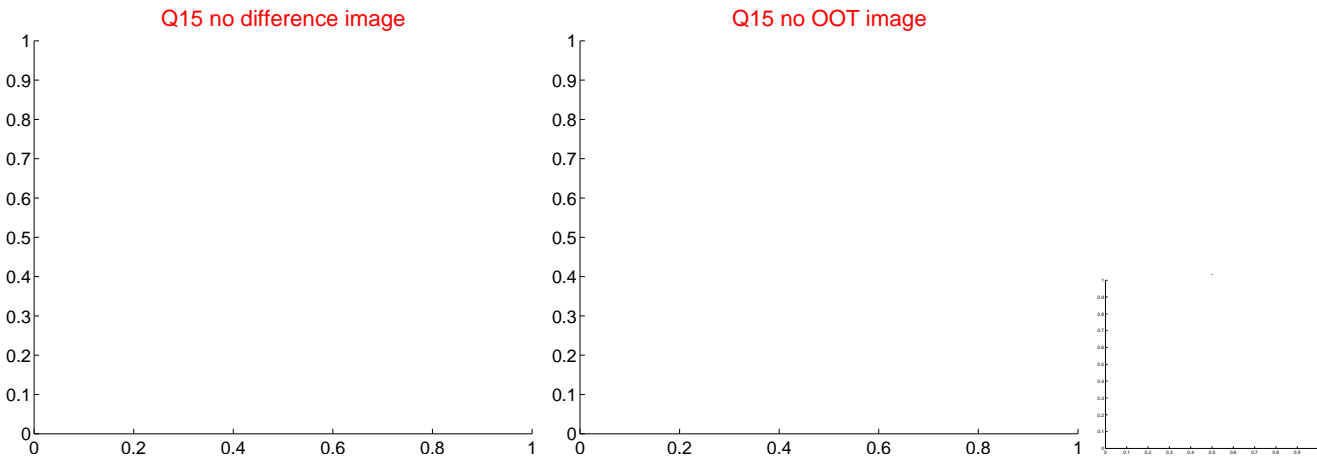
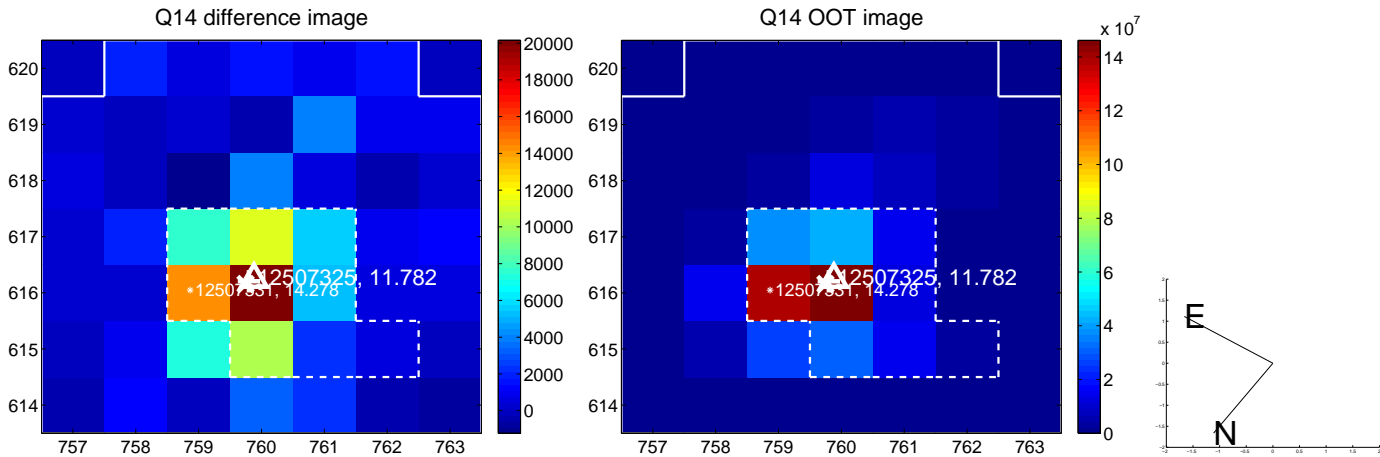
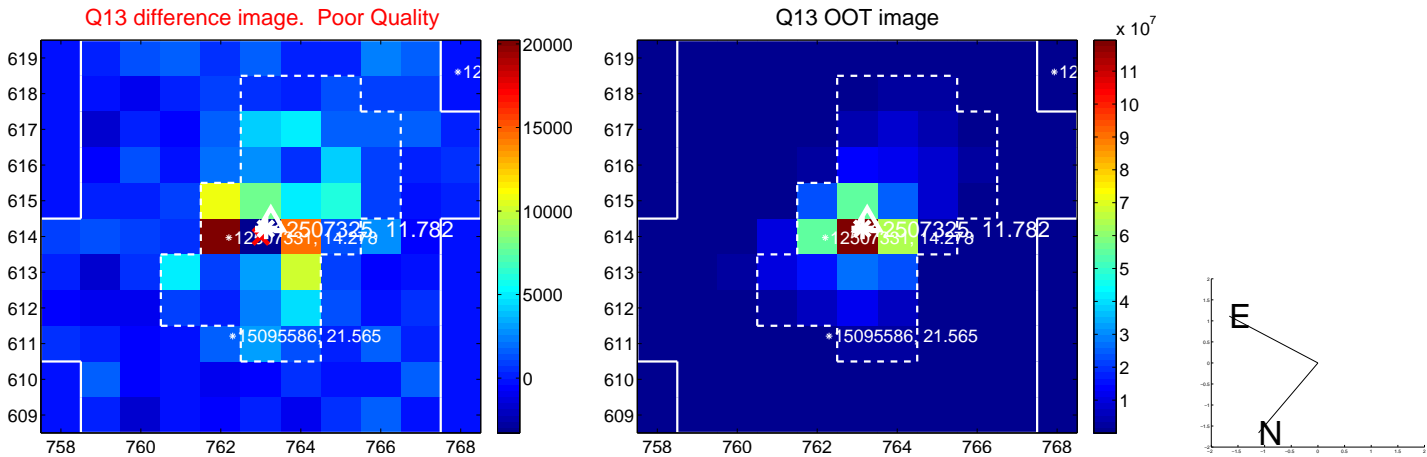
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



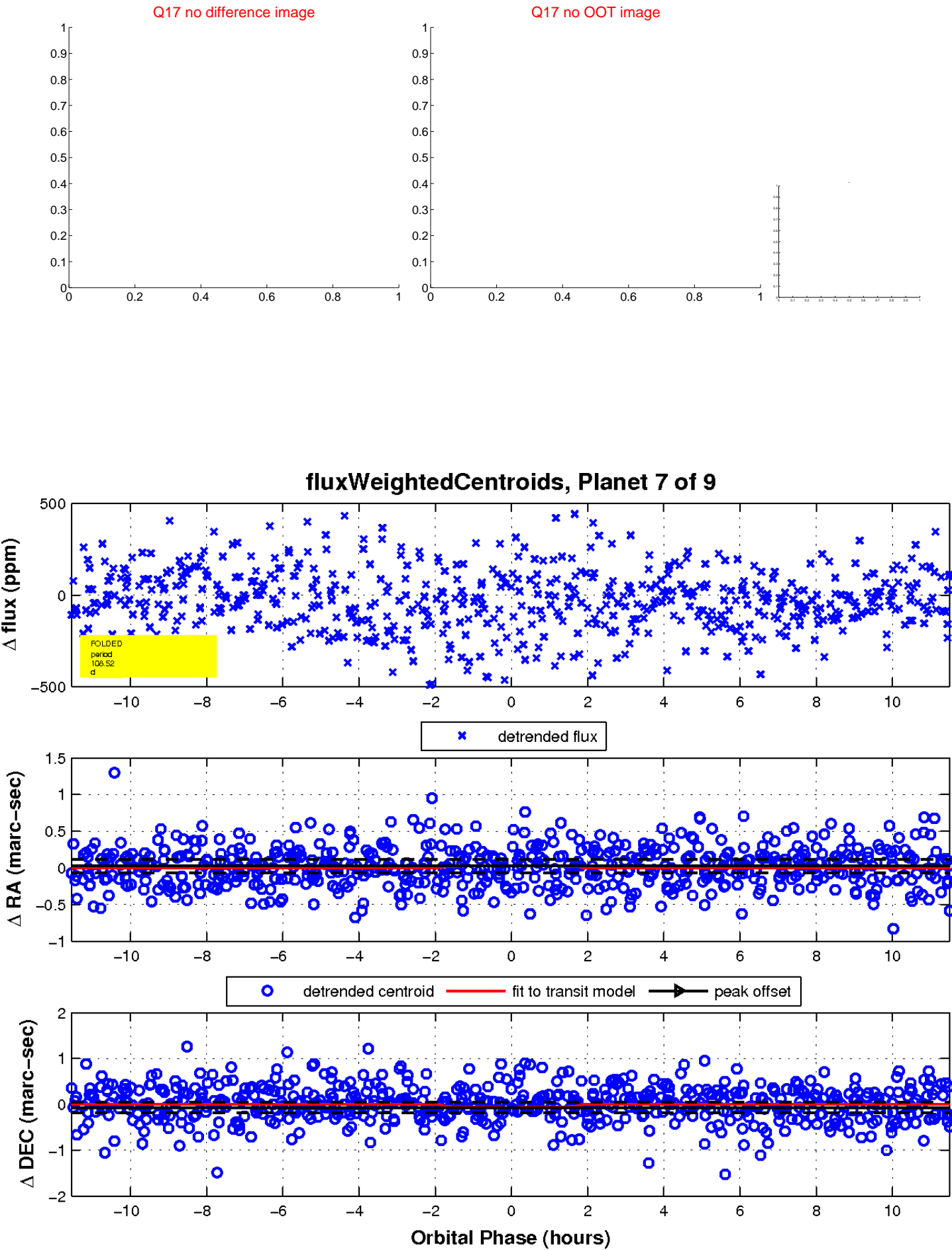
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

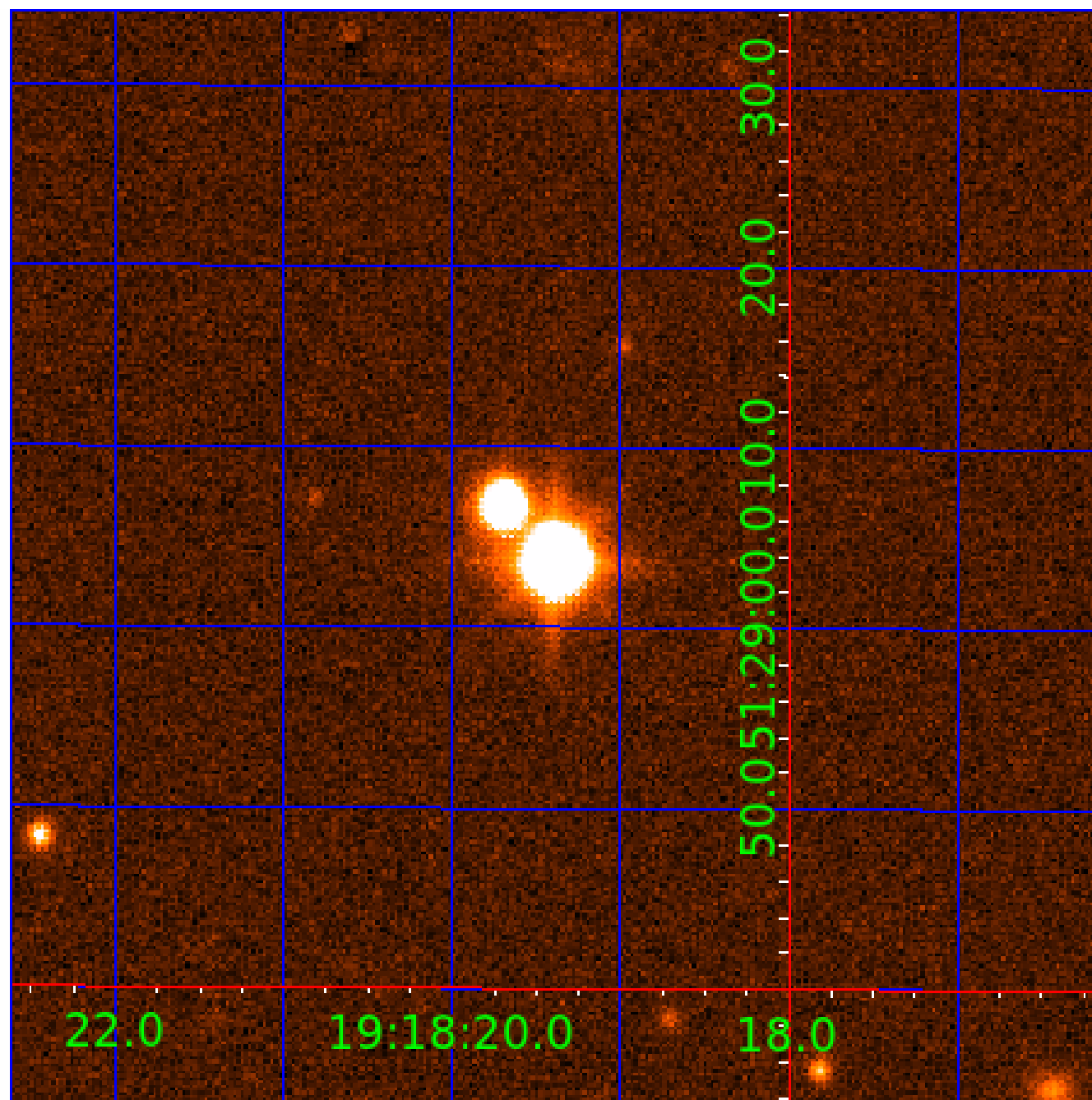


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 012507325

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})
012507325-01	OBS	No	1.086390	132.016640	17.1	6.699	8.5	6.8	1.00	5780	0.42	2336.82
012507325-02	OBS	No	66.764918	187.846728	290.9	4.814	9.6	9.5	1.00	5780	1.98	9.64
012507325-03	OBS	No	80.783852	152.079007	328.1	6.030	9.1	9.4	1.00	5780	2.27	7.47
012507325-04	OBS	No	624.705599	192.777940	412.8	30.488	9.0	7.1	1.00	5780	2.04	0.49
012507325-05	OBS	No	97.987195	208.323577	176.2	12.443	8.8	4.5	1.00	5780	1.45	5.78
012507325-06	OBS	No	92.629169	190.725871	336.4	4.465	9.0	9.5	1.00	5780	2.11	6.23
012507325-07	OBS	No	108.517832	134.774183	196.5	3.849	8.7	6.4	1.00	5780	1.61	5.04
012507325-08	OBS	No	16.809442	134.485571	112.5	4.024	8.3	8.0	1.00	5780	1.18	60.61
012507325-09	OBS	No	64.560845	183.078488	165.1	3.500	9.1	-1.0	1.00	5780	1.27	10.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012507325-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
012507325-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT
012507325-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012507325-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
012507325-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—HALO_GHOST
012507325-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_CROWDED
012507325-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

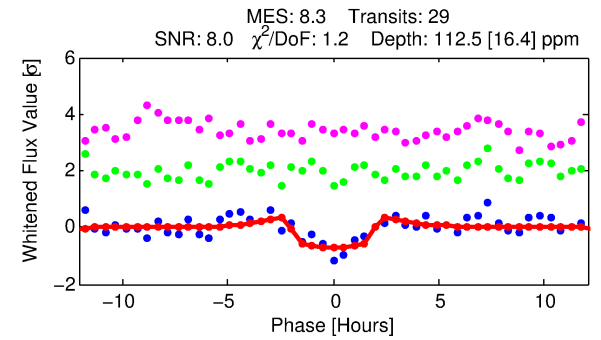
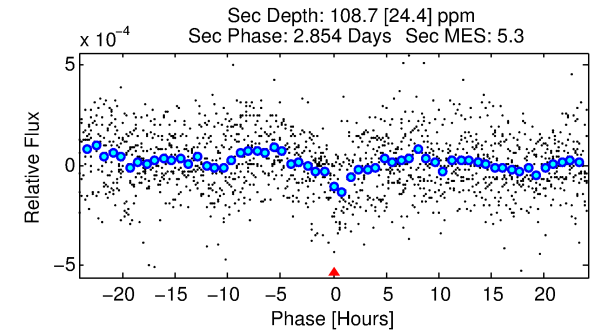
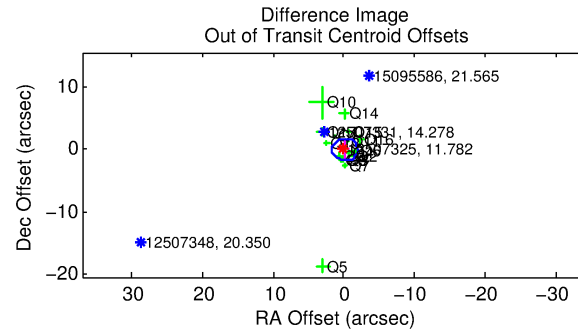
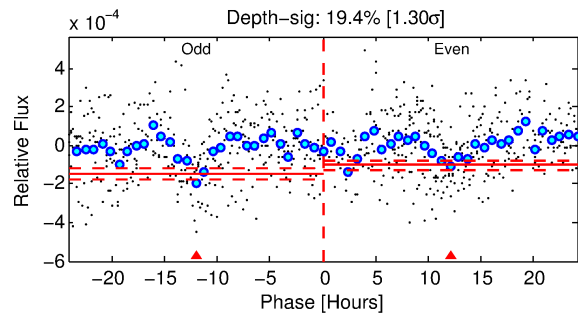
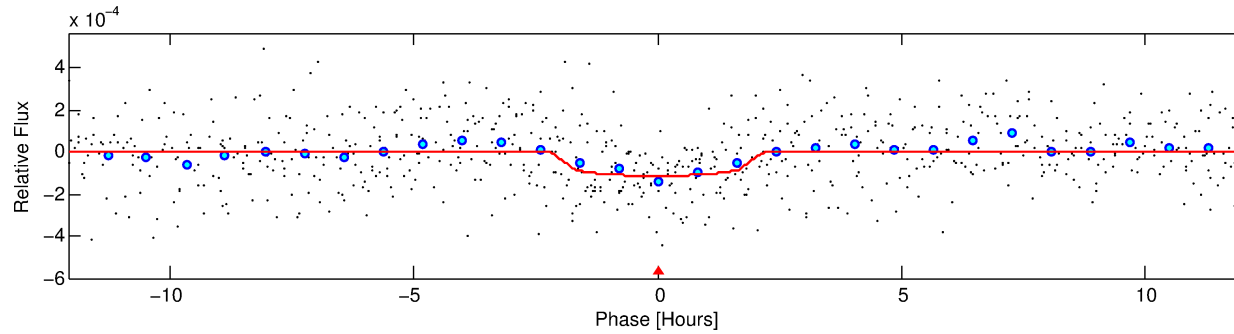
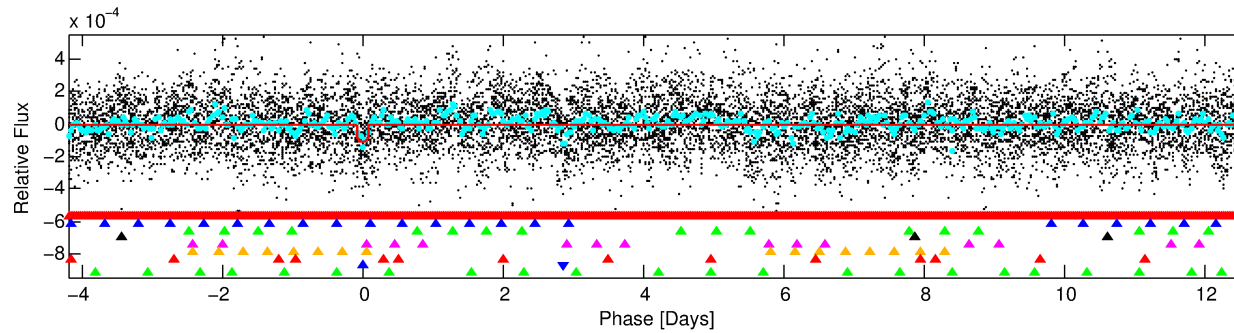
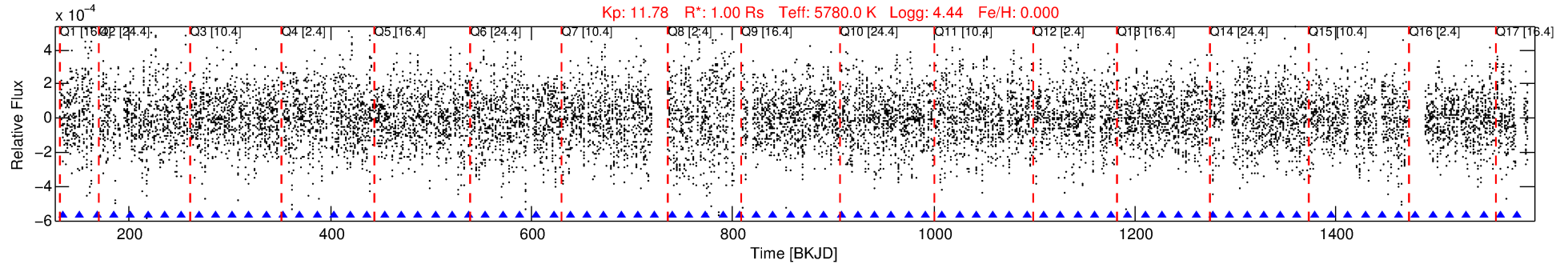
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012507325-08

No Significant Match Found

DV One-Page Summary

KIC: 12507325 Candidate: 8 of 9 Period: 16.809 d



DV Fit Results:

Period = 16.80944 [0.00017] d
Epoch = 134.4856 [0.0085] BKJD
Rp/R* = 0.0108 [0.0086]
a/R* = 19.60 [70.31]
b = 0.80 [1.61]
Seff = 60.61 [0.00]
Teff = 711 [0] K
Rp = 1.18 [0.93] Re
a = 0.1284 [0.0000] AU
Ag = 709.21 [1135.11] [0.62 σ]
Teffp = 5677 [2271] K [2.19 σ]

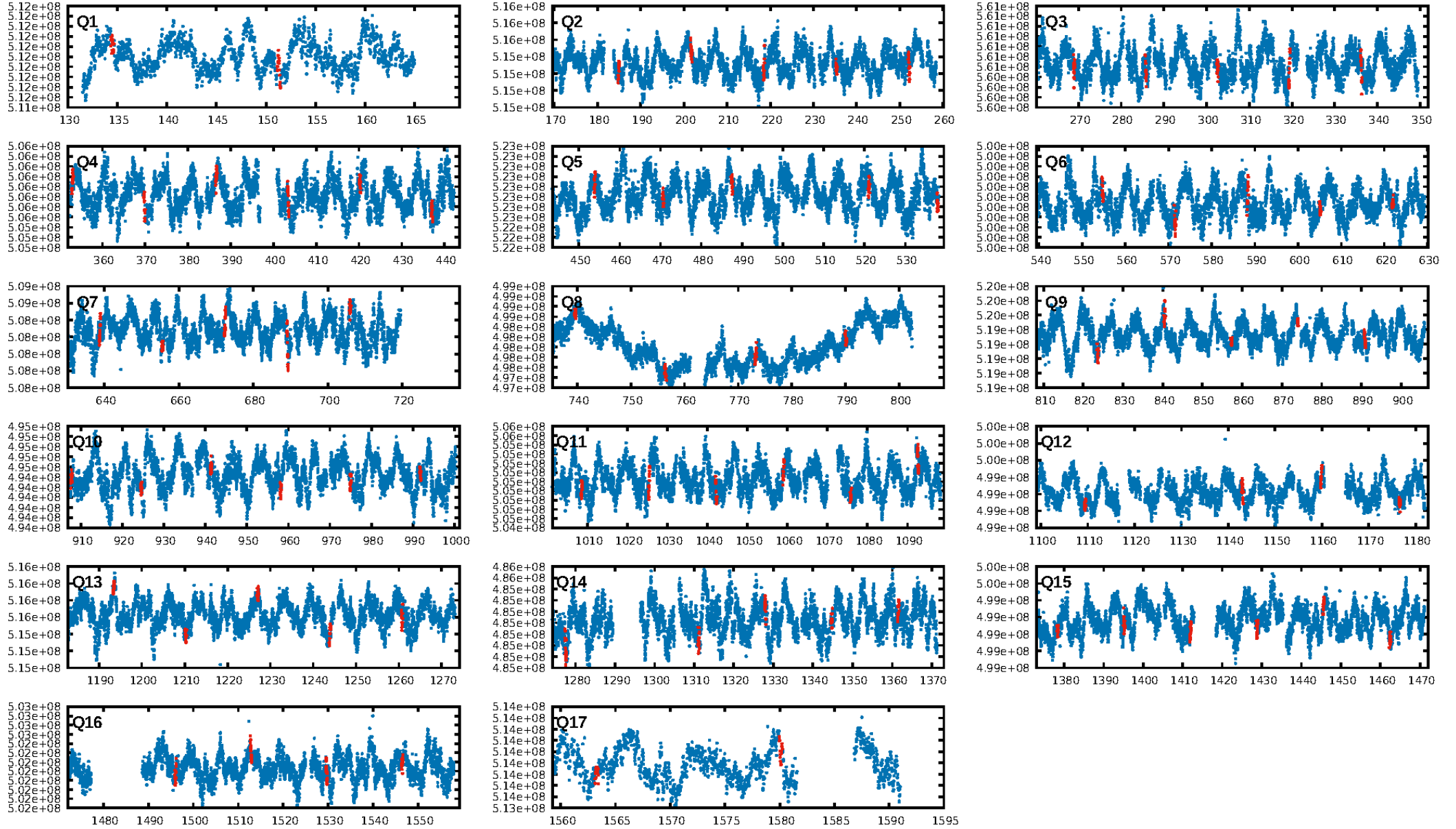
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [48.29 σ]
LongPeriod-sig: 100.0% [214.89 σ]
ModelChiSquare2-sig: 9.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [28/28]
GhostDiagnostic-chr: 2.994
Centroid-sig: 3.0%
Centroid-so: 0.502 arcsec [1.26 σ]
OotOffset-rm: 0.234 arcsec [0.40 σ]
KicOffset-rm: 0.341 arcsec [0.30 σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.62 [10/16]
DiffImageOverlap-fno: 0.18 [3/17]

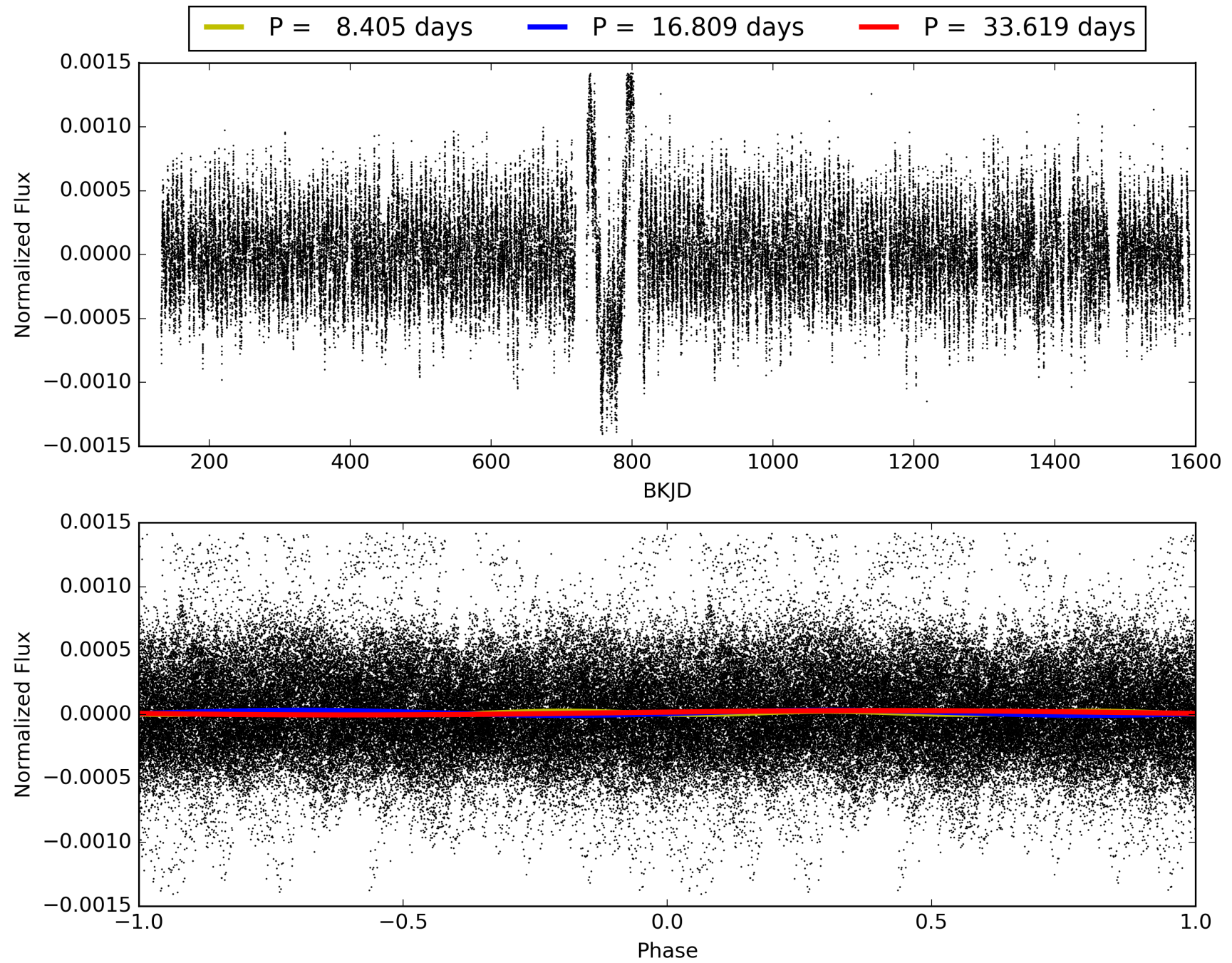
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:44:41 Z

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

TCE 012507325-08, PDC Light Curves

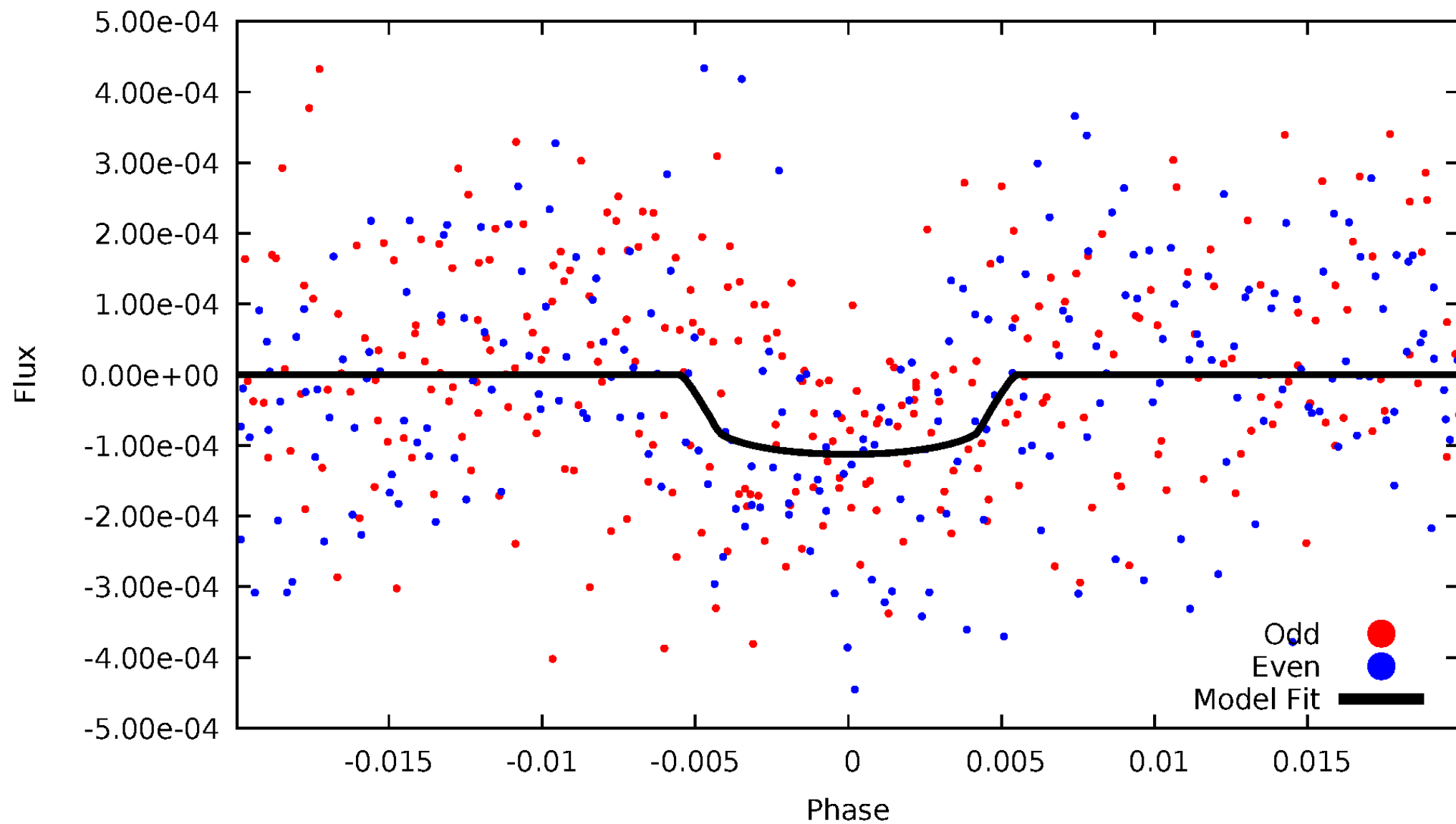


TCE 012507325-08



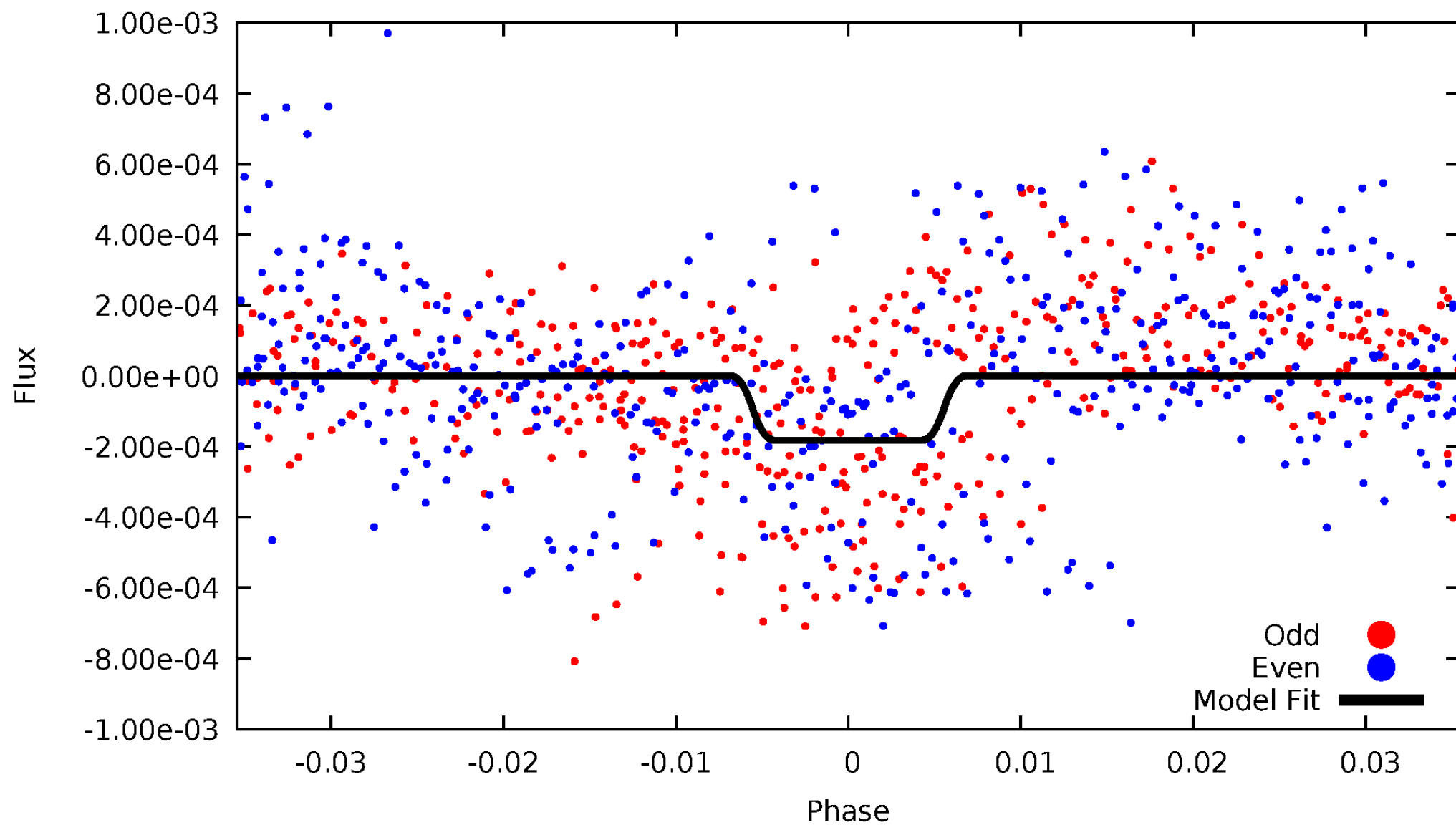
DV Odd/Even

TCE 012507325-08



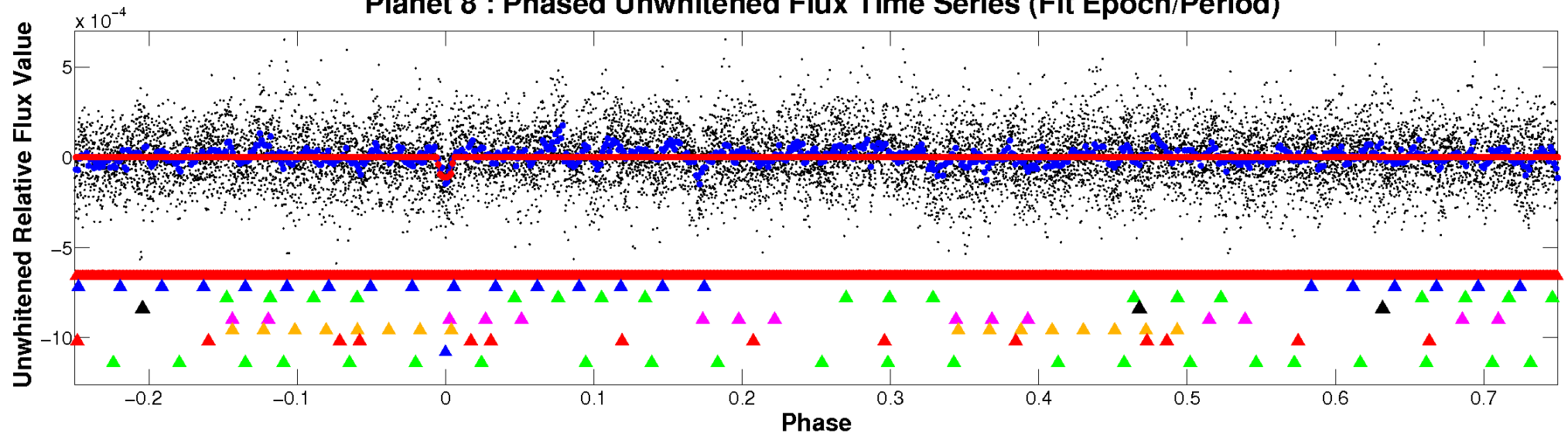
ALT Odd/Even

TCE 012507325-08

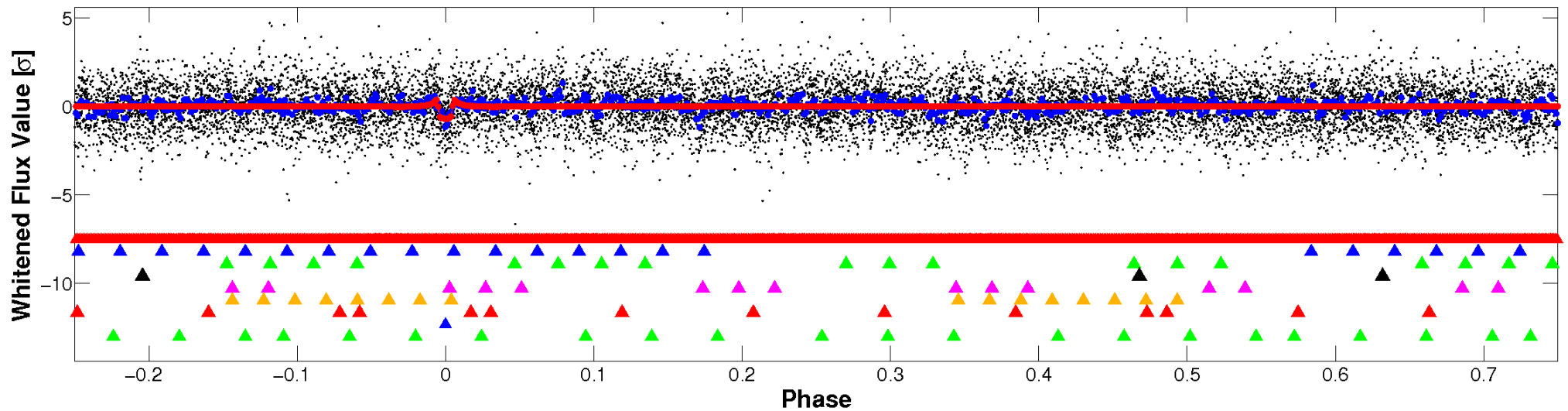


Non-Whitened Vs. Whitened Light Curve

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

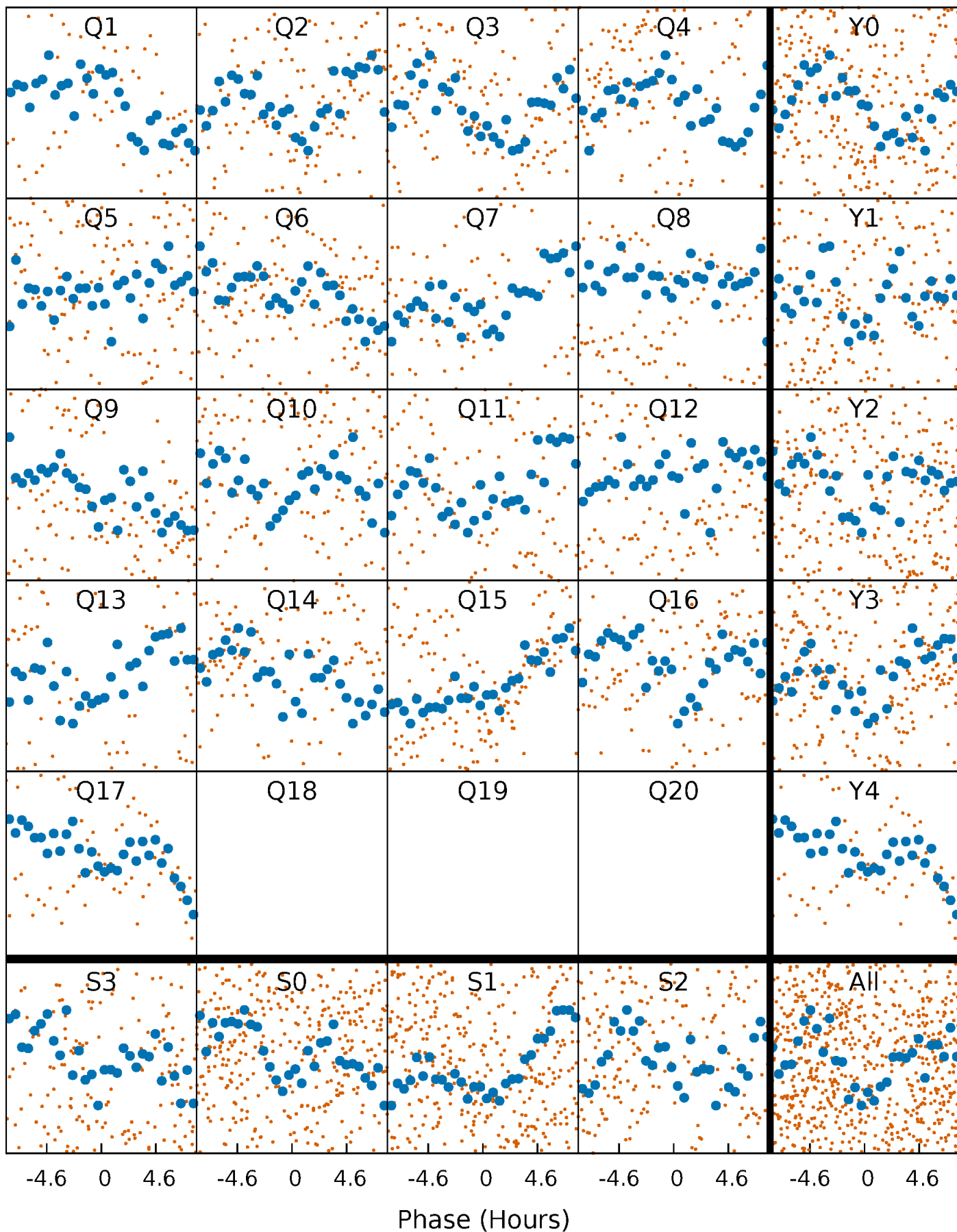


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



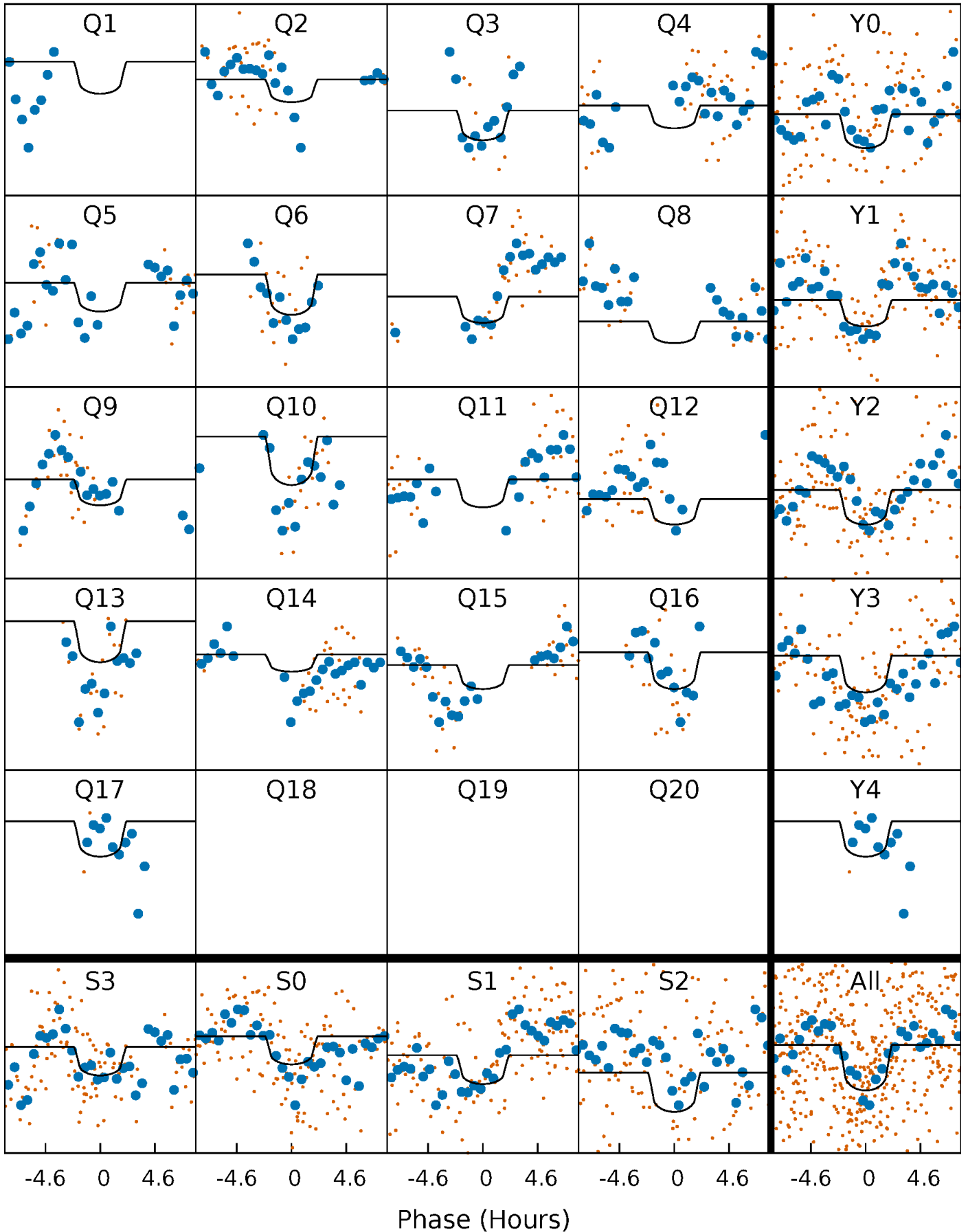
PDC Quarter-Phased Transit Curves

TCE 012507325-08 P= 16.809442 Days $T_0=134.485571$ (BKJD)



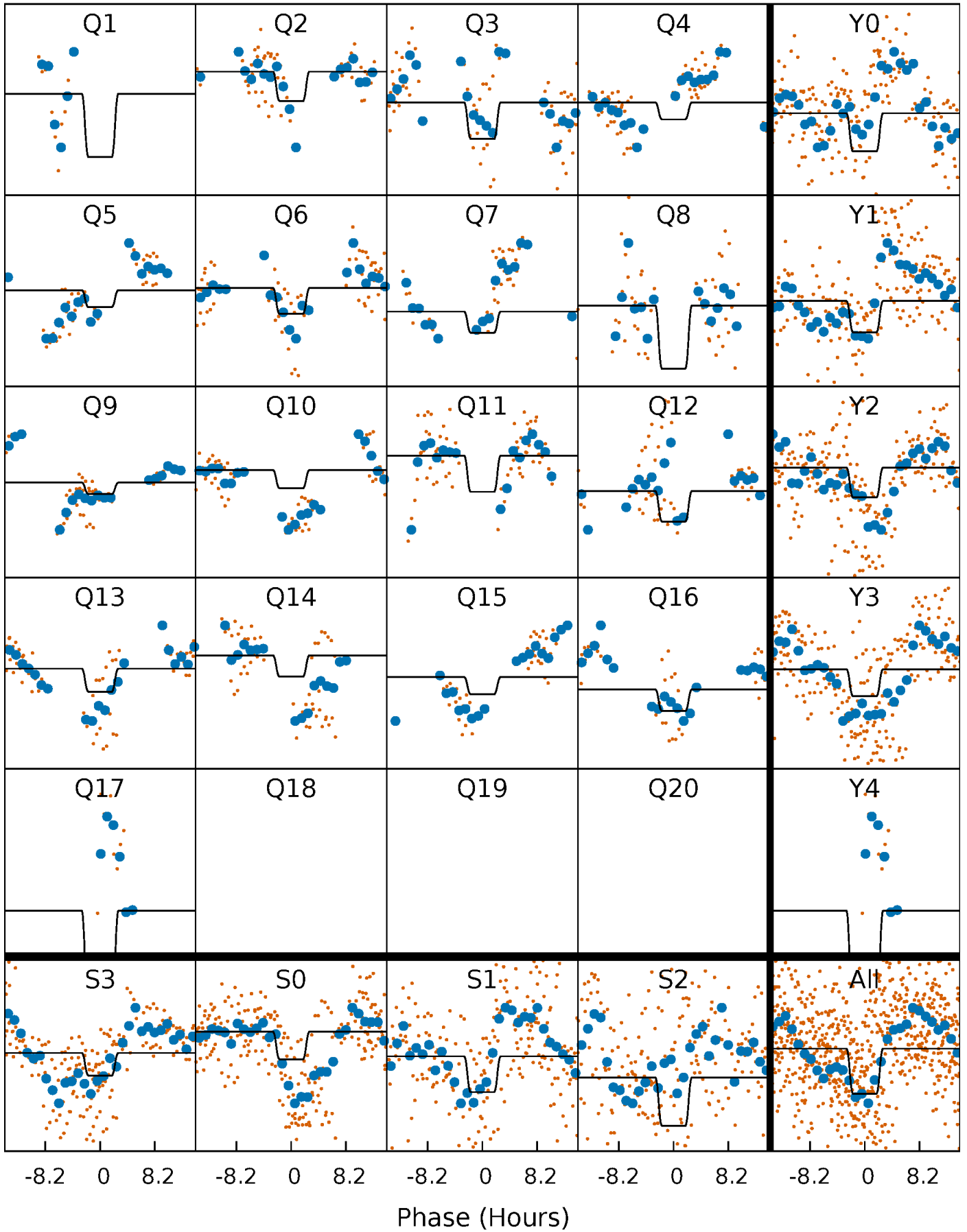
DV Quarter-Phased Transit Curves

TCE 012507325-08 P= 16.809442 Days $T_0=134.485571$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

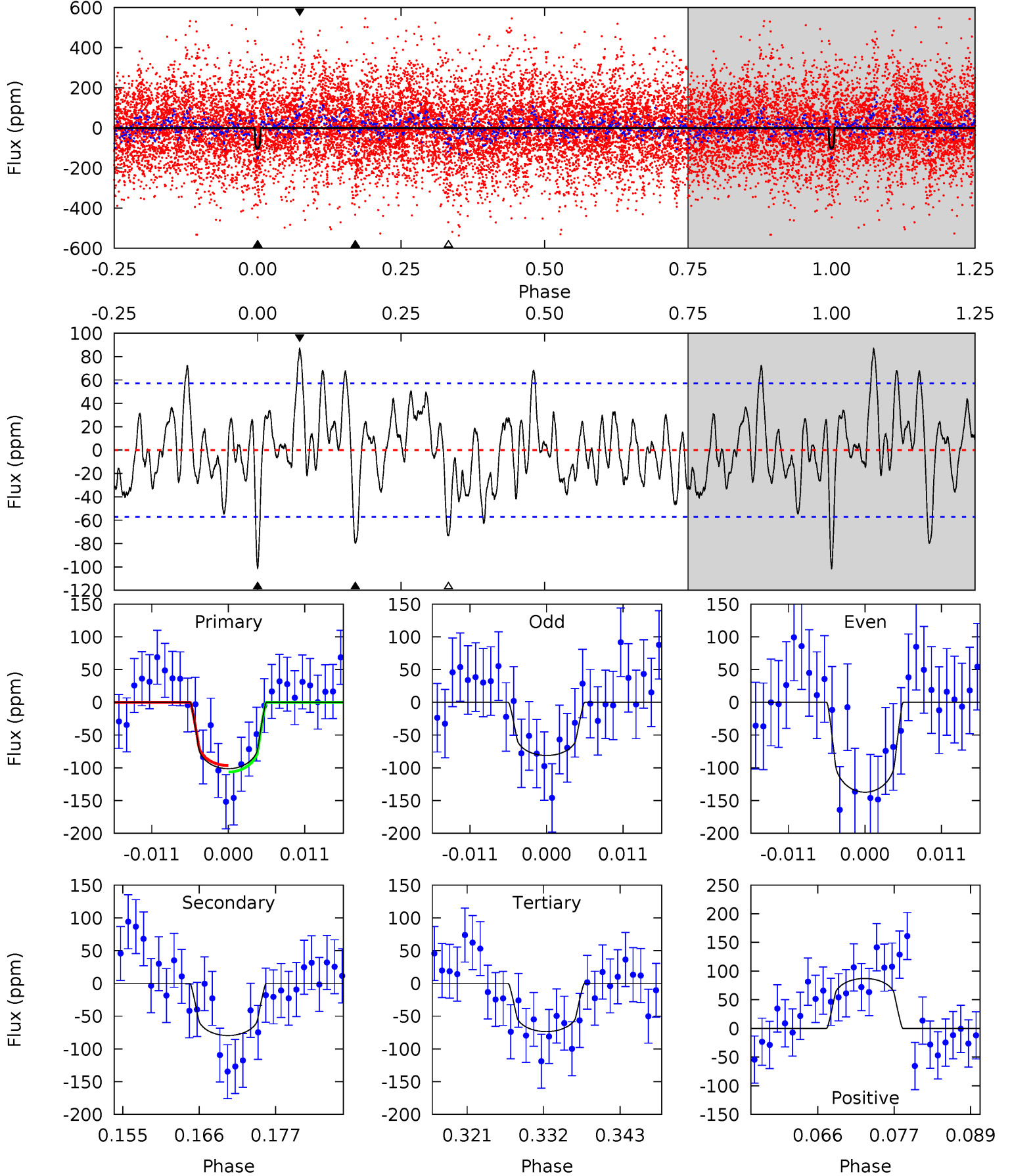
TCE 012507325-08 P= 16.808820 Days $T_0=134.497422$ (BKJD)



DV Model-Shift Uniqueness Test

012507325-08, P = 16.809442 Days, E = 117.676129 Days

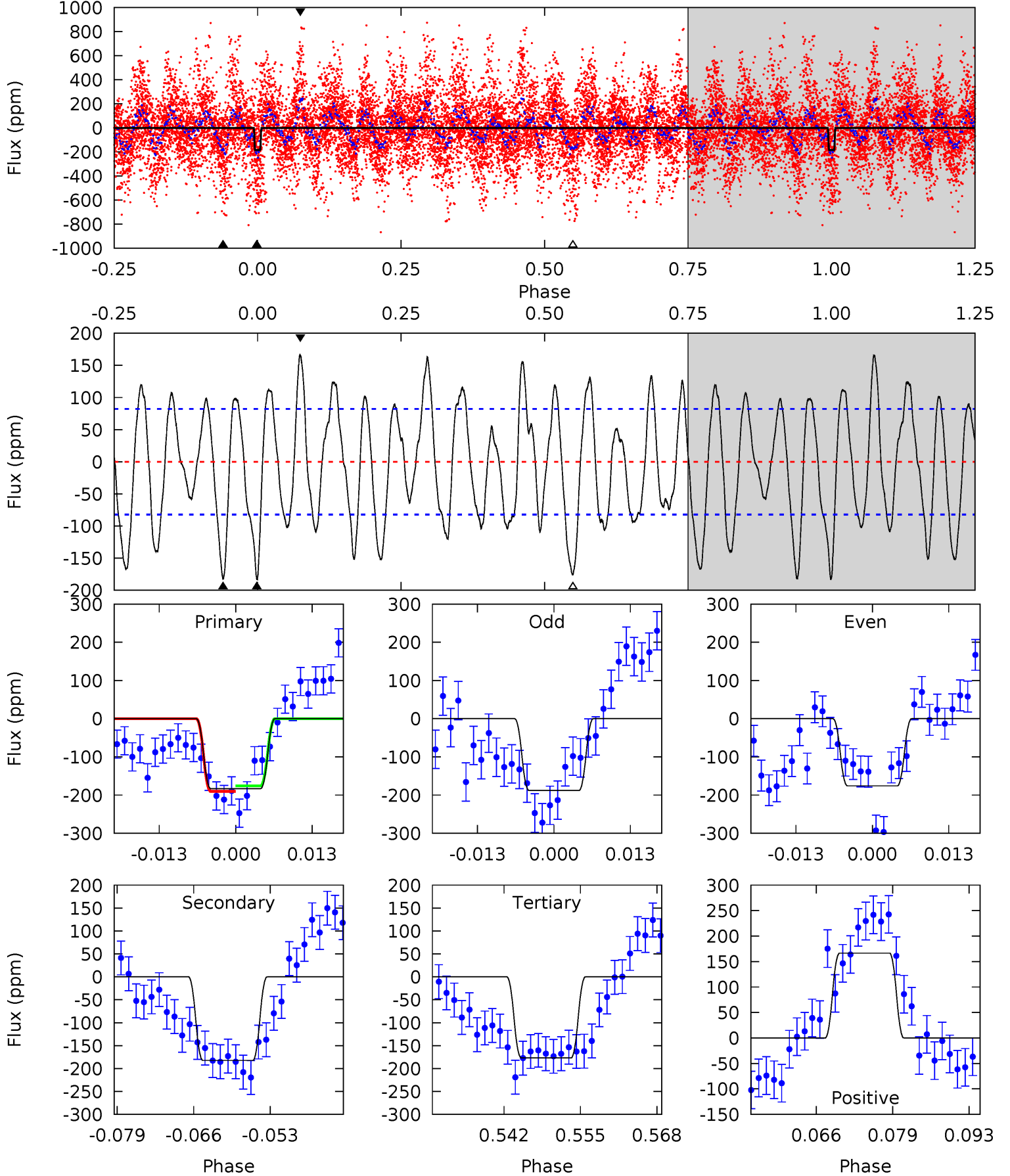
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.89	6.98	6.45	7.64	5.01	2.54	2.36	2.44	1.25	0.53	-0.66	2.42	0.80	0.46	0.43



Alt Model-Shift Uniqueness Test

012507325-08, P = 16.808820 Days, E = 117.688602 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	11.0	10.7	10.1	4.97	2.48	4.95	0.39	1.00	0.35	0.95	0.37	0.94	0.48	0.44



Stellar Parameters For KIC 012507325

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 012507325-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-80 ± 11	$1.30^{+0.88}_{-0.76}$	993^{+48}_{-45}	5060^{+3012}_{-942}	425^{+2056}_{-270}
Alt.	-182 ± 17	$1.57^{+0.93}_{-0.89}$	996^{+48}_{-51}	5610^{+3177}_{-1015}	671^{+2865}_{-397}

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 $A_{obs} \gg 1.0$

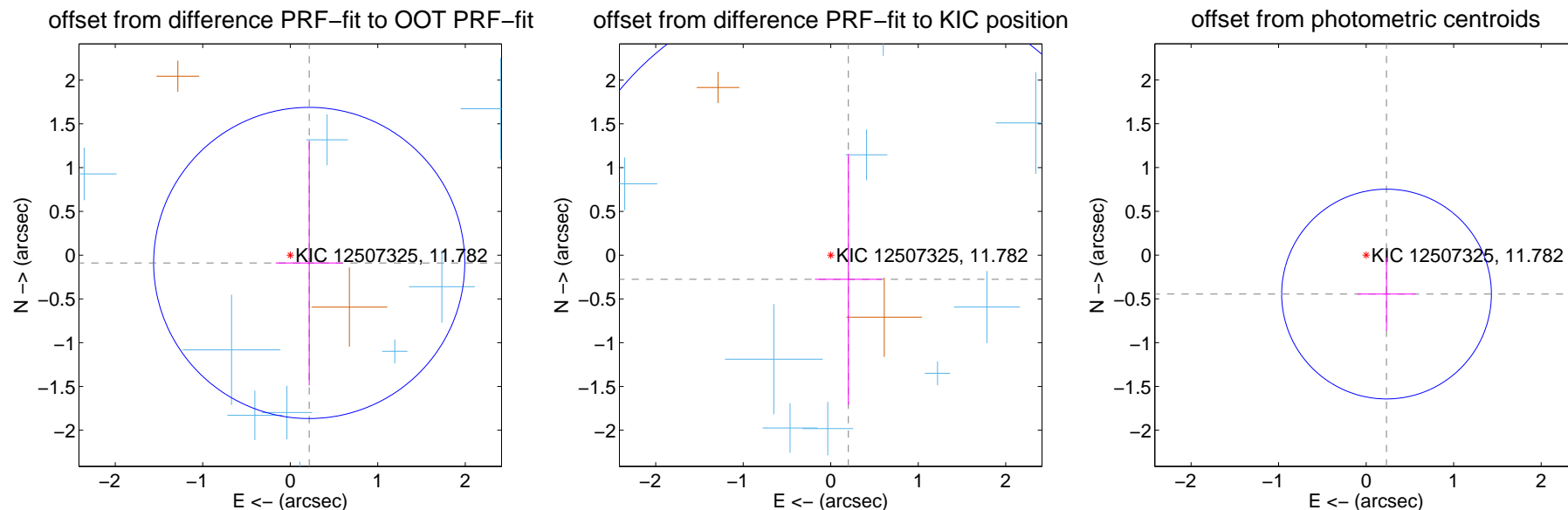
DV Centroid Data

Supplemental centroid analysis for 012507325-08. **Kepler magnitude: 11.78.** Transit SNR 7.95

There are 10 quarters with good PRF difference image offsets

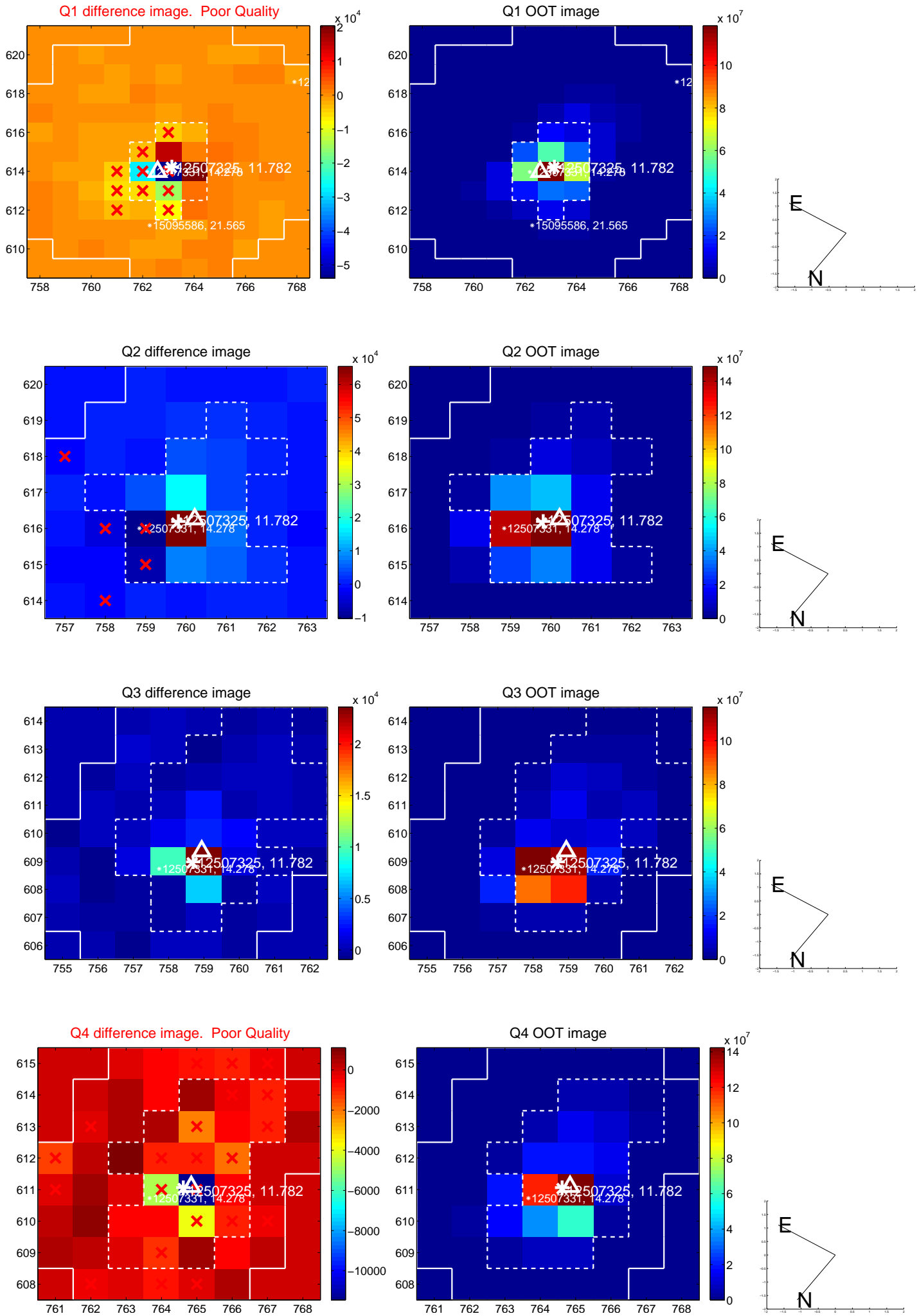
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.234 ± 0.593	0.40	-0.216 ± 0.383	-0.089 ± 1.399
PRF-fit source offset from KIC position	0.341 ± 1.130	0.30	-0.201 ± 0.382	-0.276 ± 1.432
photometric centroid source offset	0.50 ± 0.40	1.26	-0.23 ± 0.33	-0.45 ± 0.42

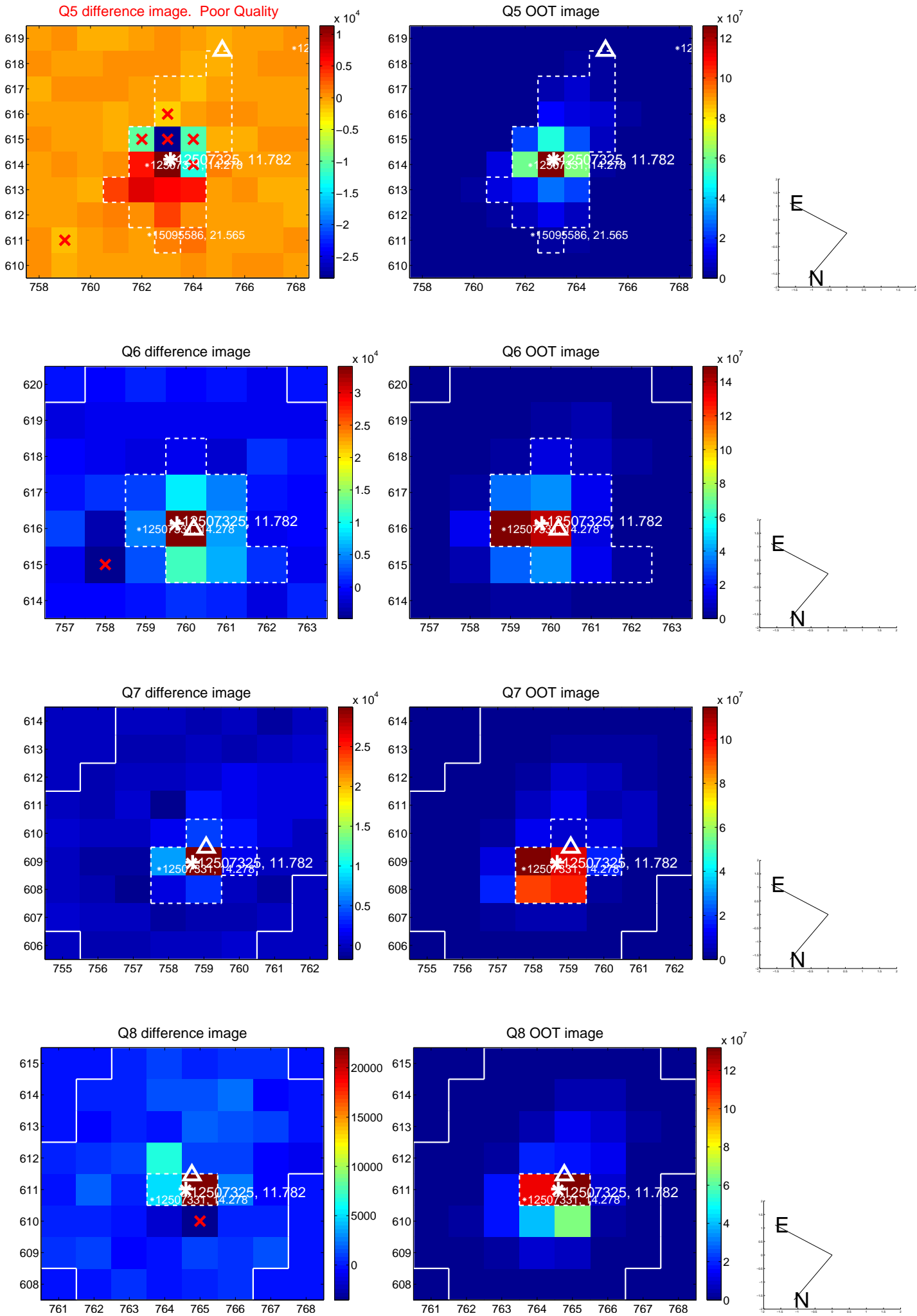


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

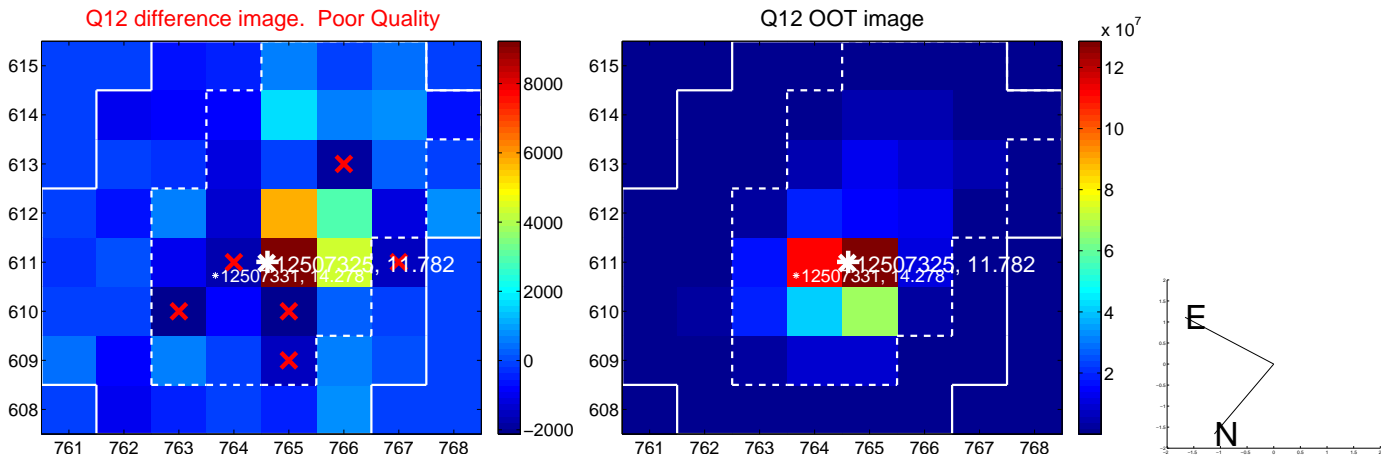
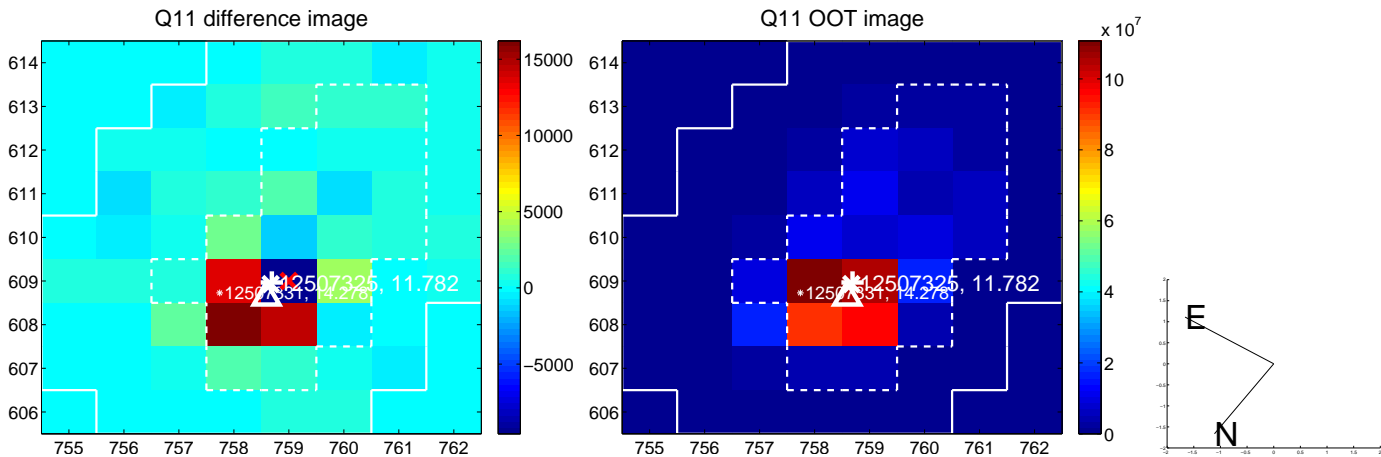
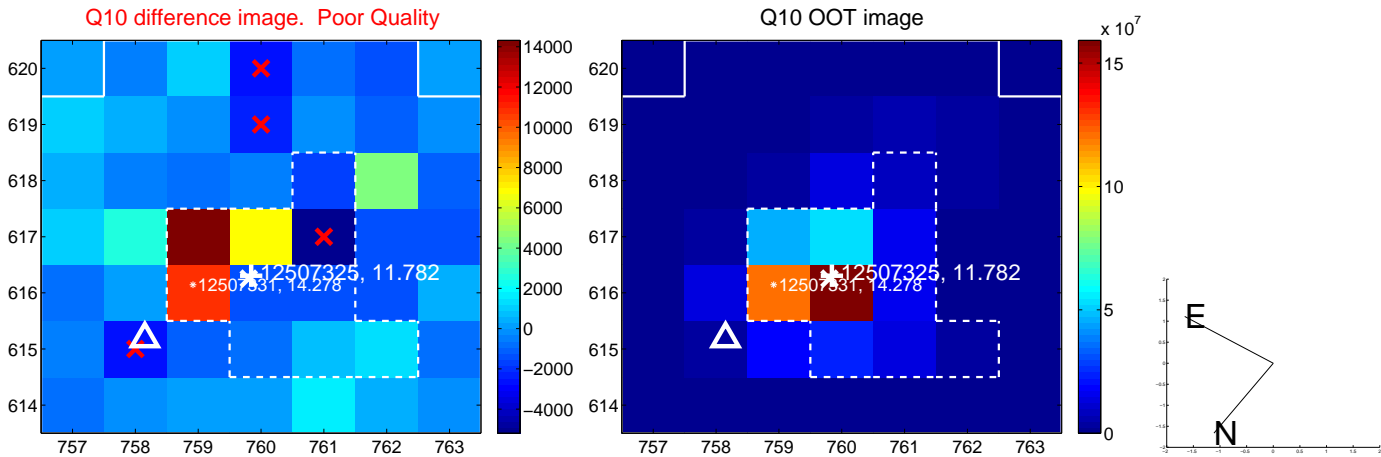
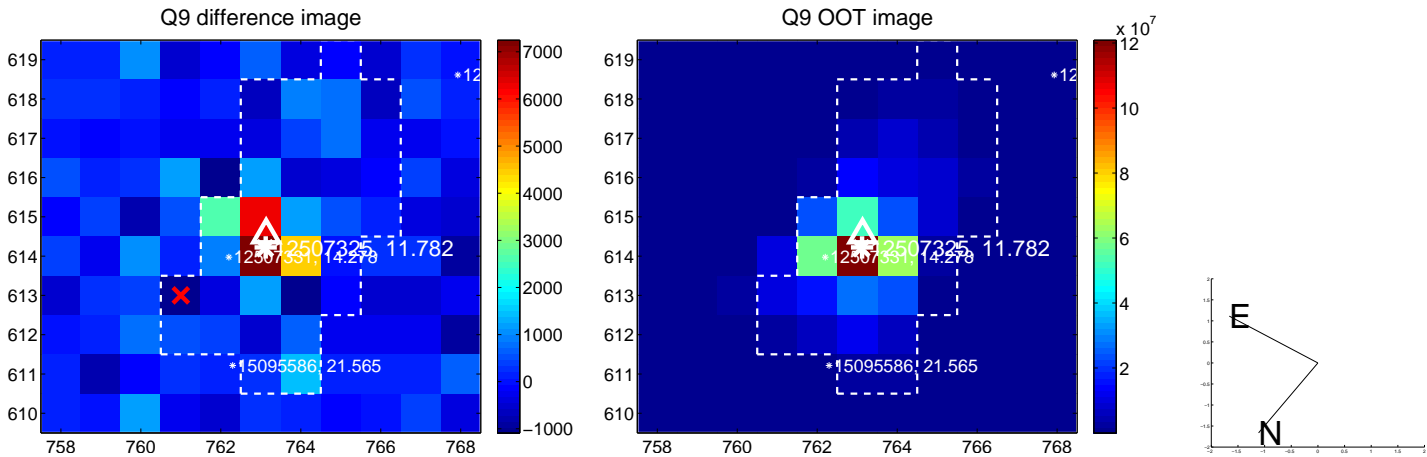
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



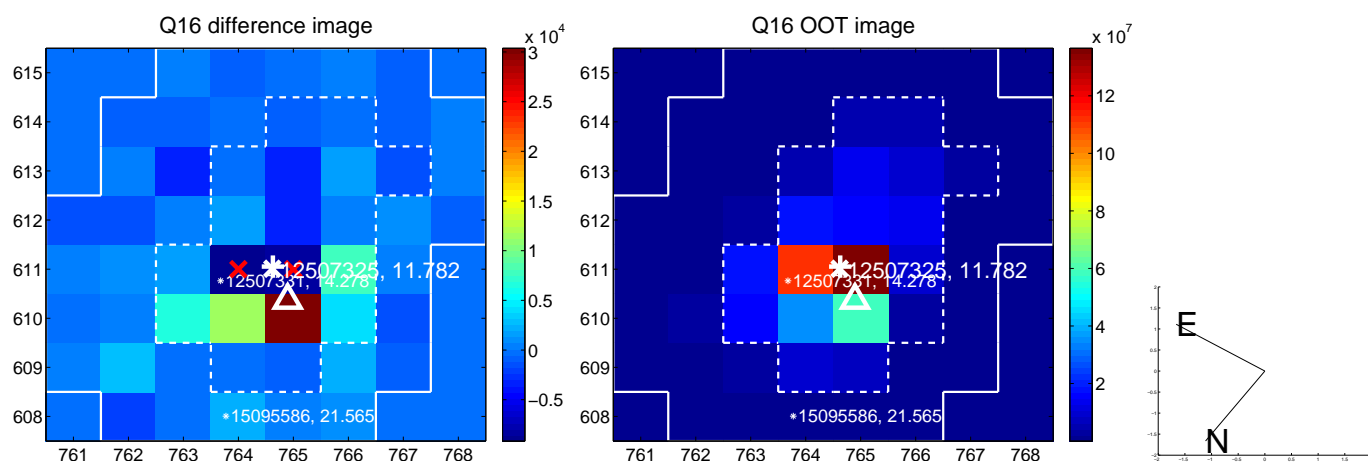
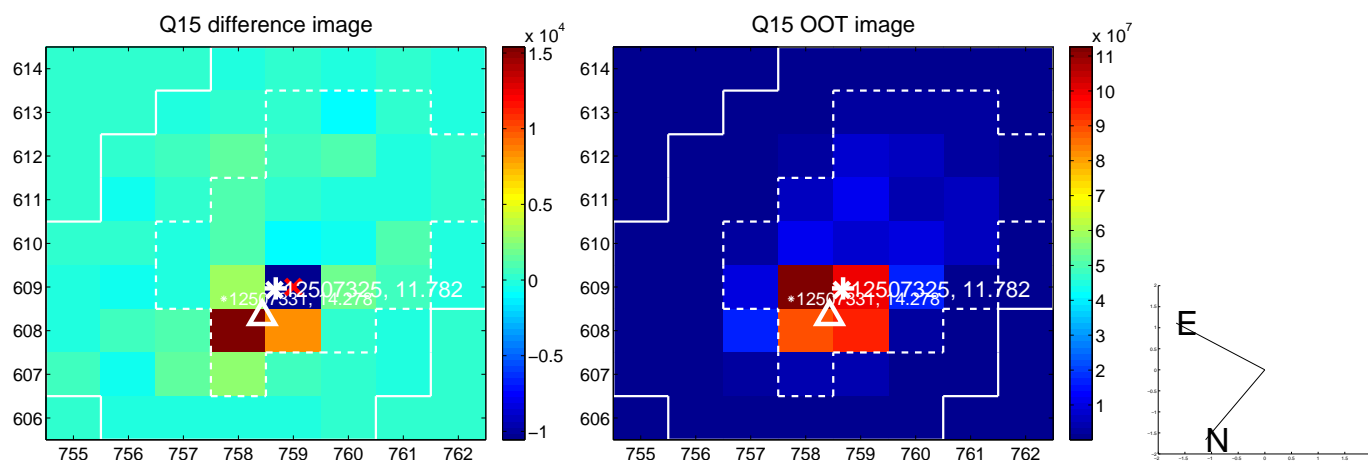
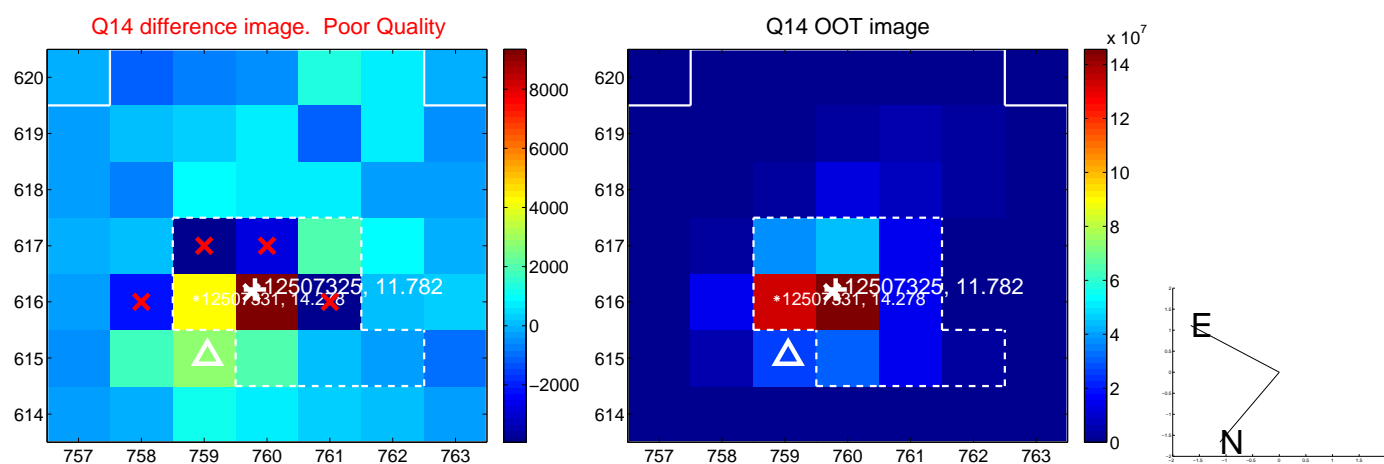
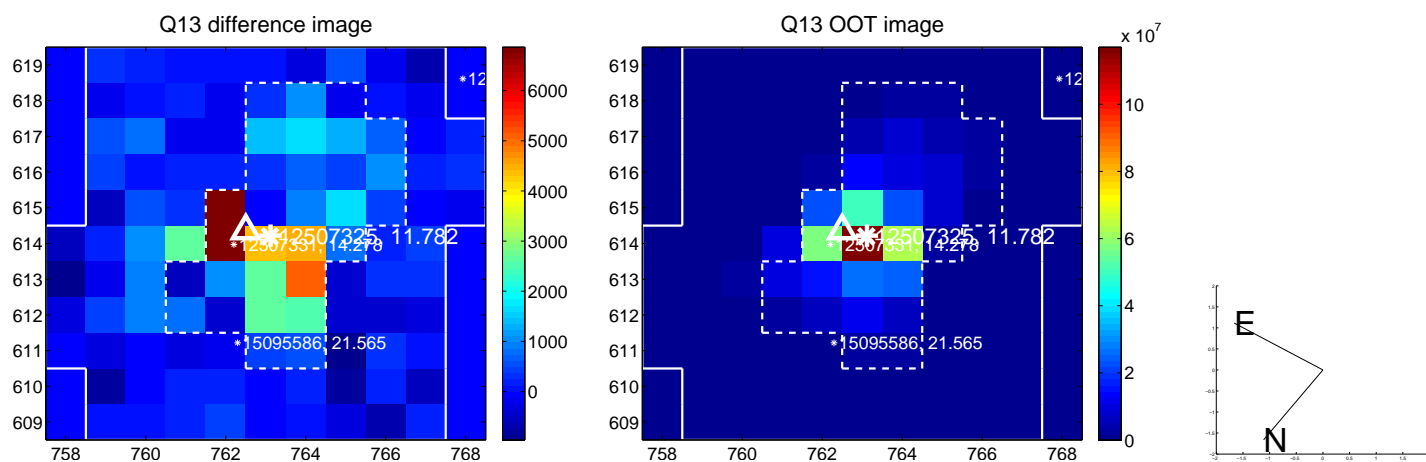
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



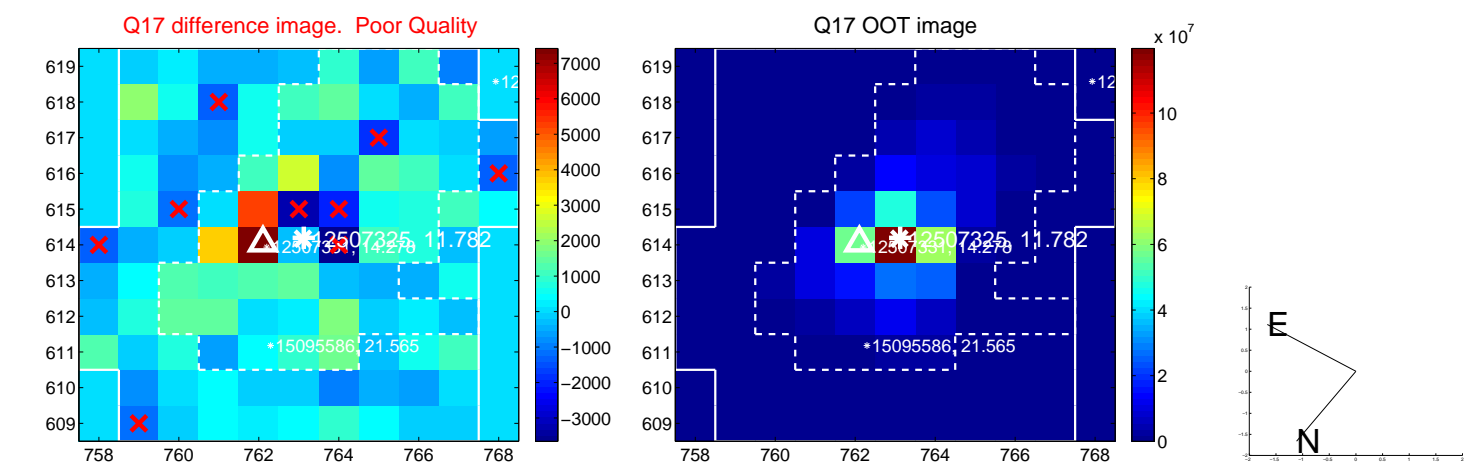
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



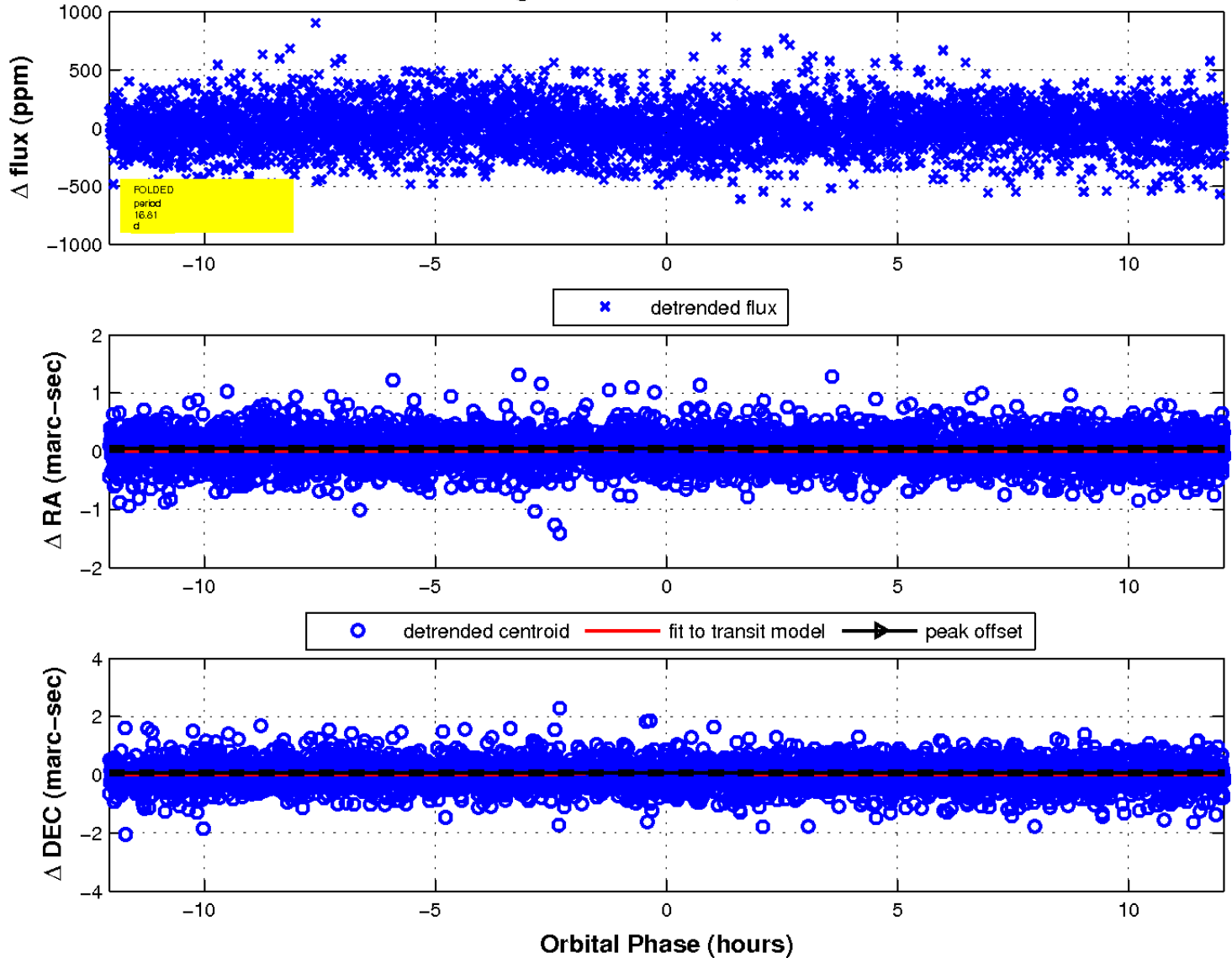
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

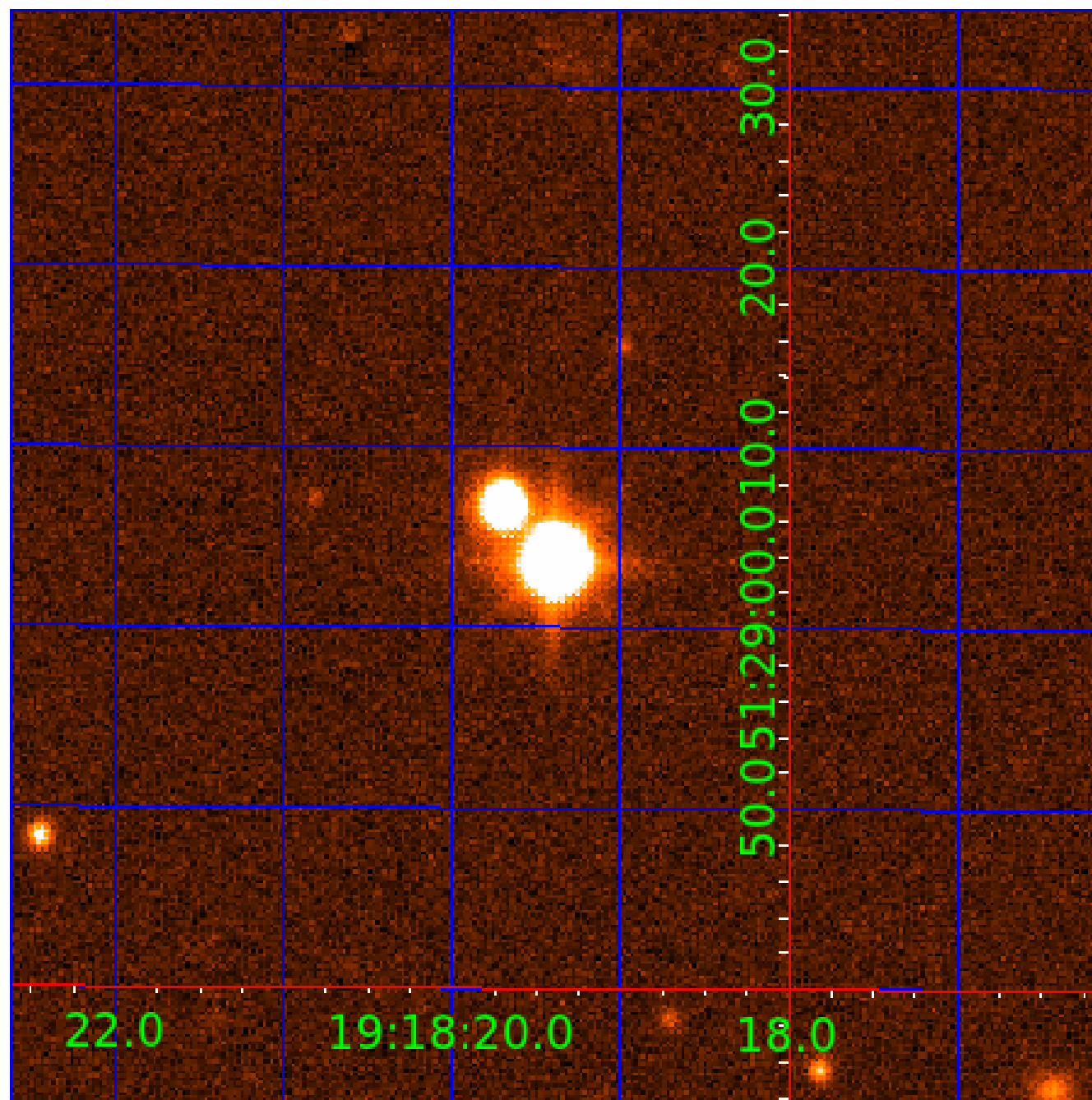


fluxWeightedCentroids, Planet 8 of 9



UKIRT Image

Declination



KIC 012507325

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})
012507325-01	OBS	No	1.086390	132.016640	17.1	6.699	8.5	6.8	1.00	5780	0.42	2336.82
012507325-02	OBS	No	66.764918	187.846728	290.9	4.814	9.6	9.5	1.00	5780	1.98	9.64
012507325-03	OBS	No	80.783852	152.079007	328.1	6.030	9.1	9.4	1.00	5780	2.27	7.47
012507325-04	OBS	No	624.705599	192.777940	412.8	30.488	9.0	7.1	1.00	5780	2.04	0.49
012507325-05	OBS	No	97.987195	208.323577	176.2	12.443	8.8	4.5	1.00	5780	1.45	5.78
012507325-06	OBS	No	92.629169	190.725871	336.4	4.465	9.0	9.5	1.00	5780	2.11	6.23
012507325-07	OBS	No	108.517832	134.774183	196.5	3.849	8.7	6.4	1.00	5780	1.61	5.04
012507325-08	OBS	No	16.809442	134.485571	112.5	4.024	8.3	8.0	1.00	5780	1.18	60.61
012507325-09	OBS	No	64.560845	183.078488	165.1	3.500	9.1	-1.0	1.00	5780	1.27	10.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012507325-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
012507325-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT
012507325-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012507325-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
012507325-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—HALO_GHOST
012507325-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
012507325-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_CROWDED
012507325-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

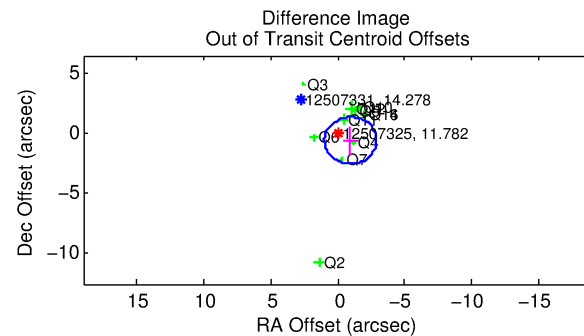
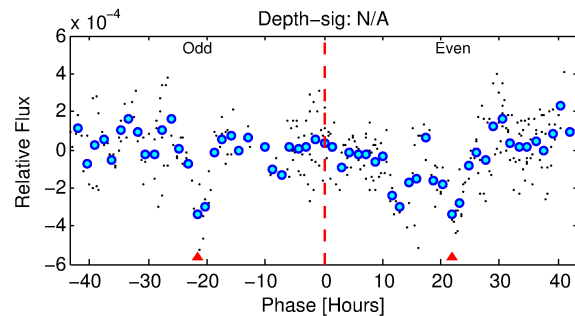
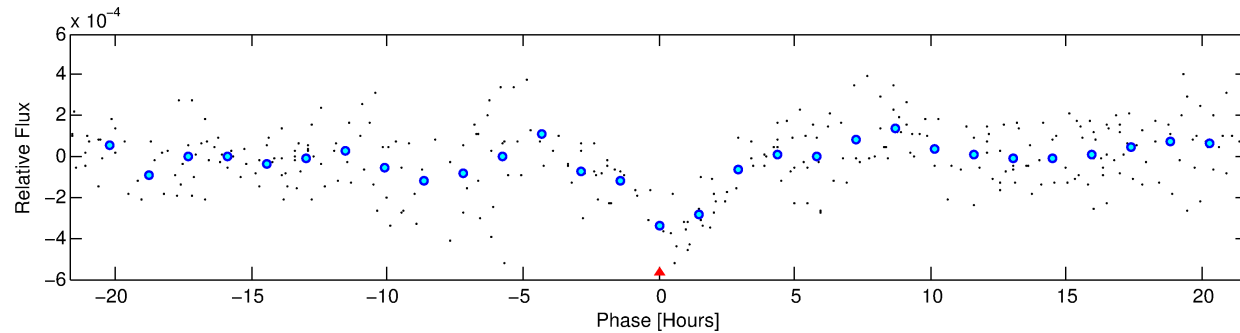
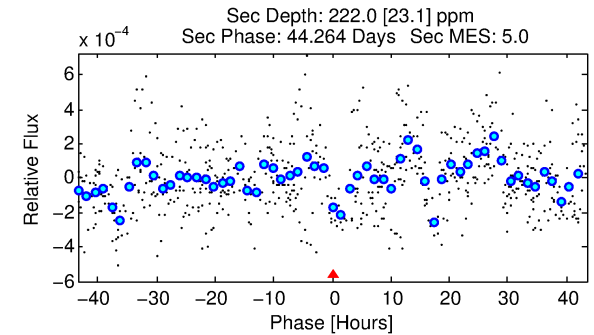
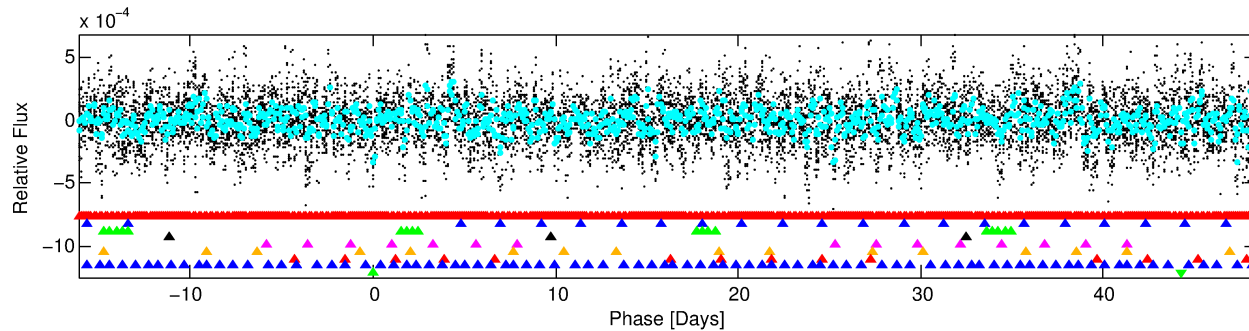
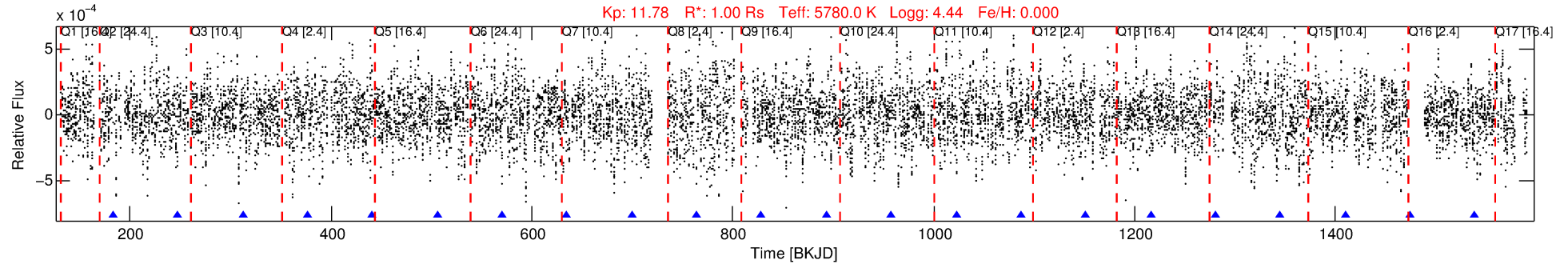
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012507325-09

No Significant Match Found

DV One-Page Summary

KIC: 12507325 Candidate: 9 of 9 Period: 64.561 d



TPS TCE Results:

Period = 64.56085 d
Epoch = 183.0785 BKJD

DV fit results are unavailable

DV Diagnostic Results:

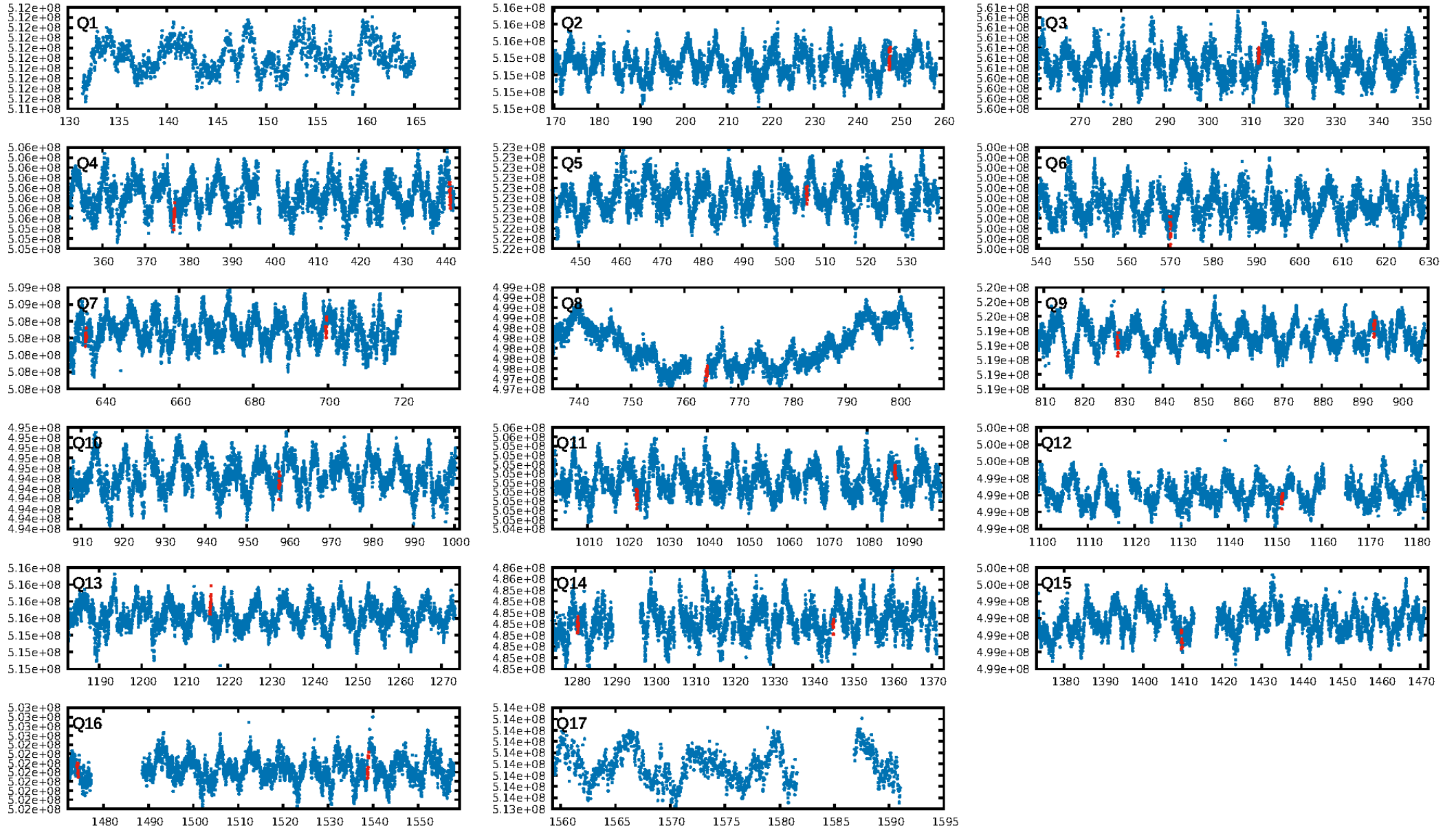
ShortPeriod-sig: 100.0% [214.89σ]
LongPeriod-sig: 100.0% [8.89σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: -0.02046

Centroid-sig: 0.9%
Centroid-so: 0.224 arcsec [1.24σ]
OotOffset-rm: 1.109 arcsec [1.71σ]
KicOffset-rm: 0.968 arcsec [2.16σ]
OotOffset-st: 4/3/3/1 [11]
KicOffset-st: 4/3/3/1 [11]
DiffImageQuality-fgm: 0.64 [7/11]
DiffImageOverlap-fno: 0.00 [0/11]

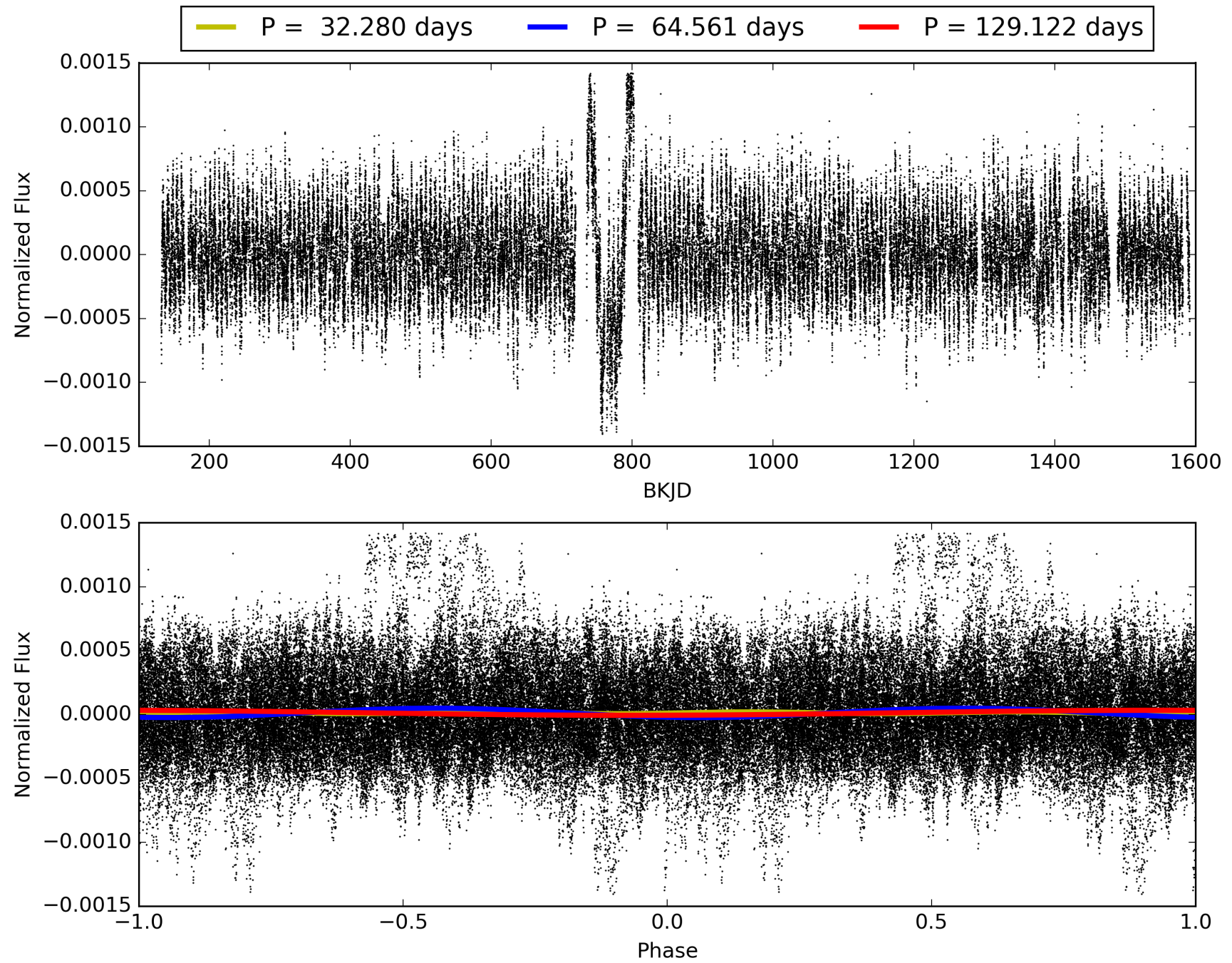
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:44:45 Z

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

TCE 012507325-09, PDC Light Curves

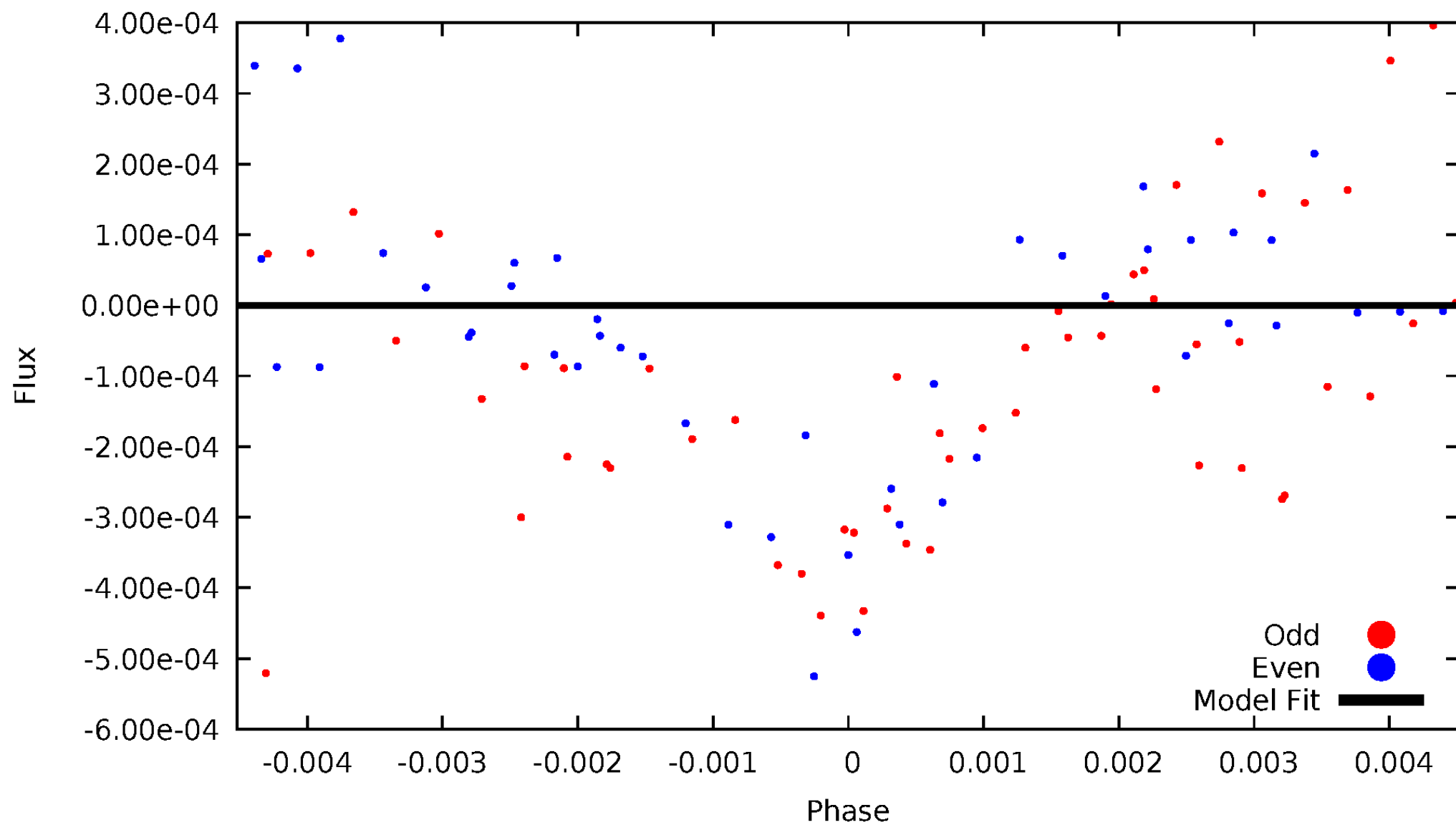


TCE 012507325-09



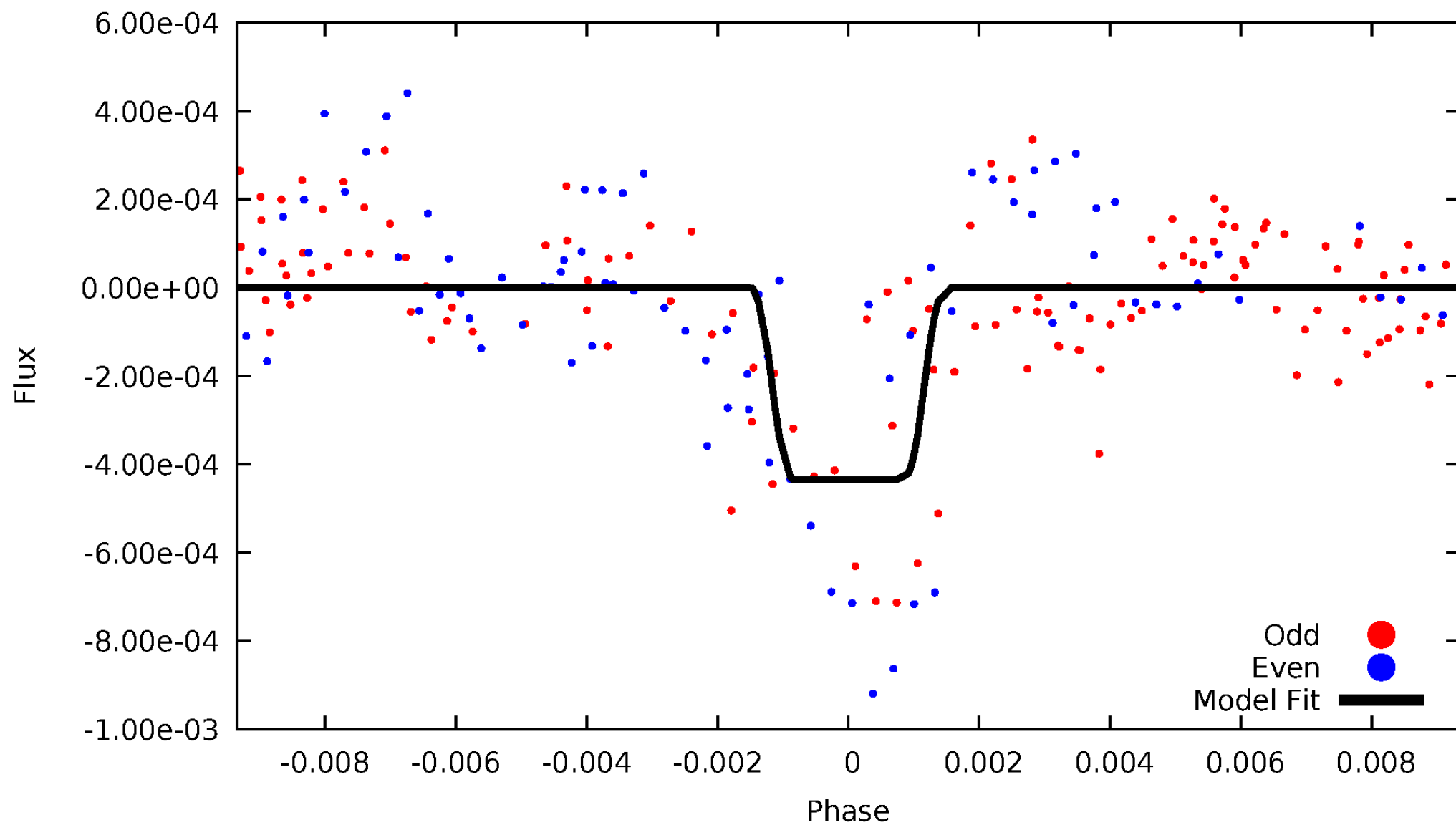
DV Odd/Even

TCE 012507325-09

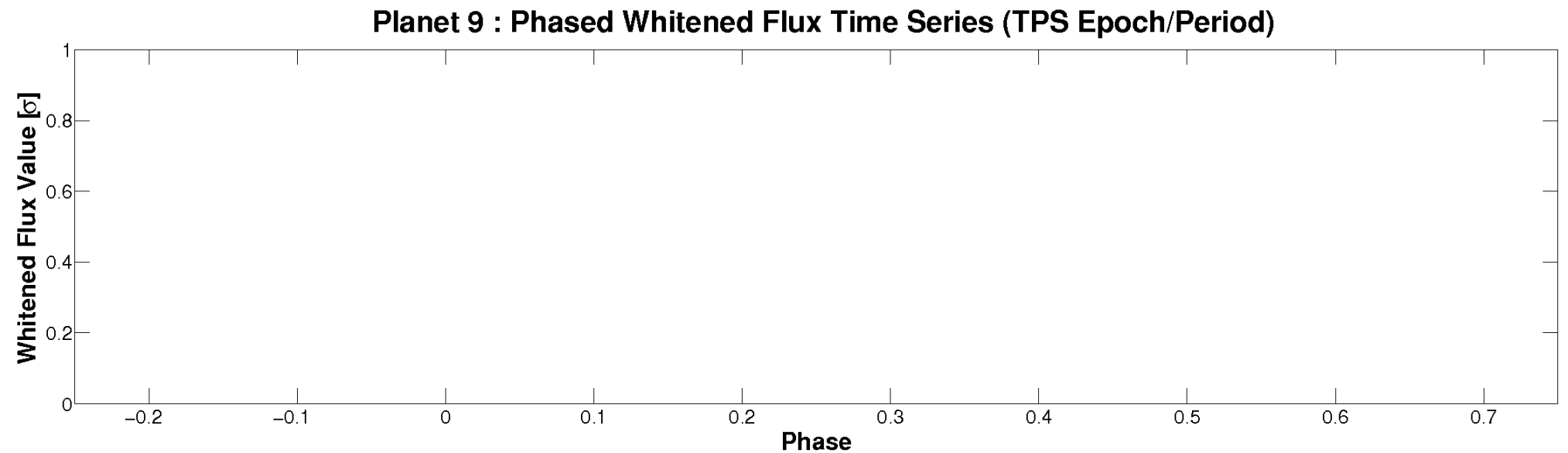
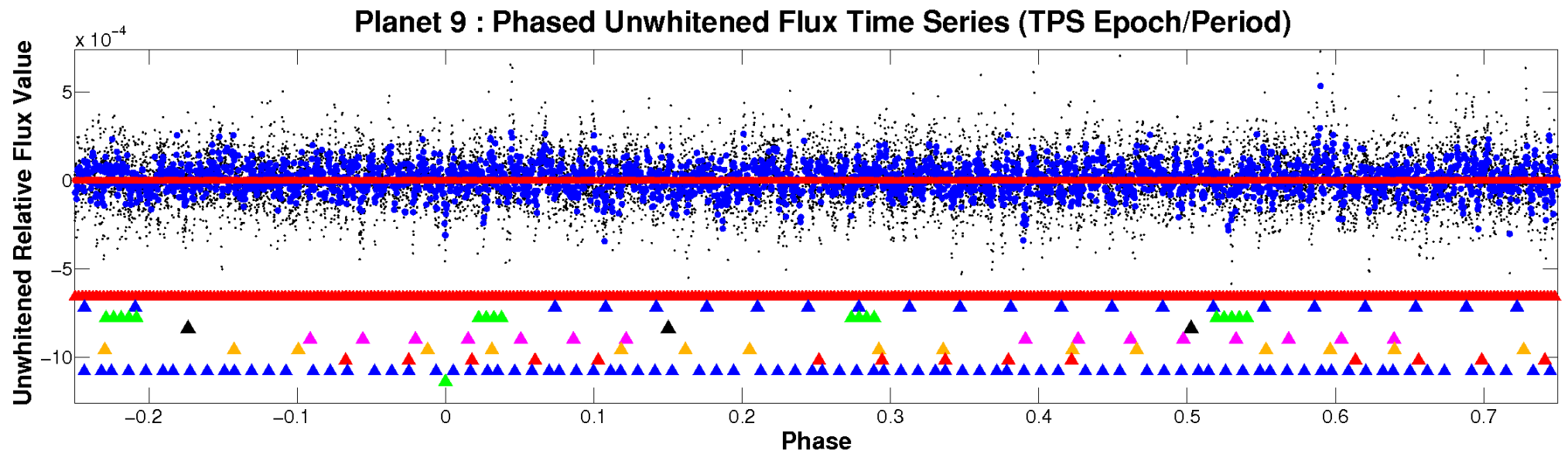


ALT Odd/Even

TCE 012507325-09

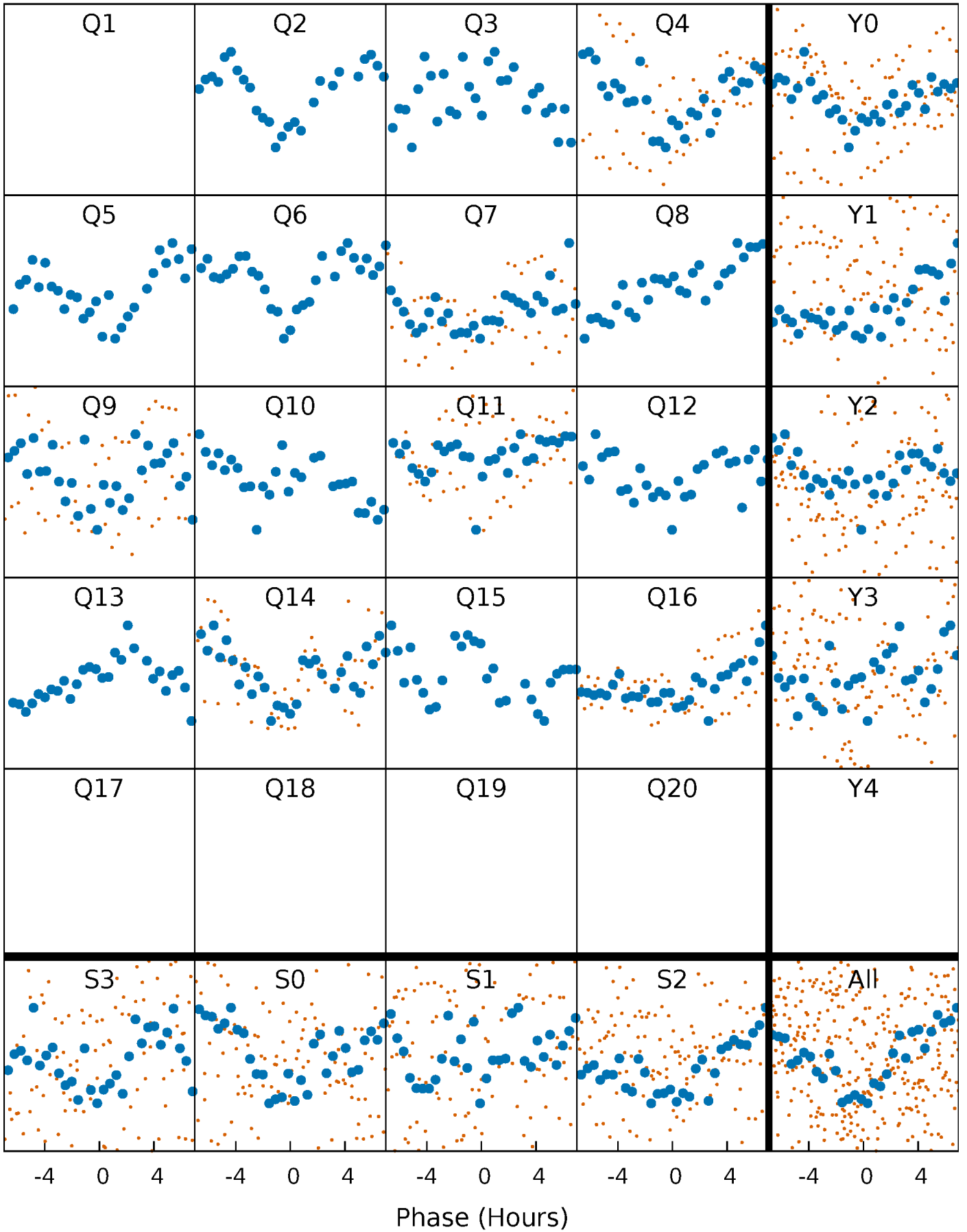


Non-Whitened Vs. Whitened Light Curve



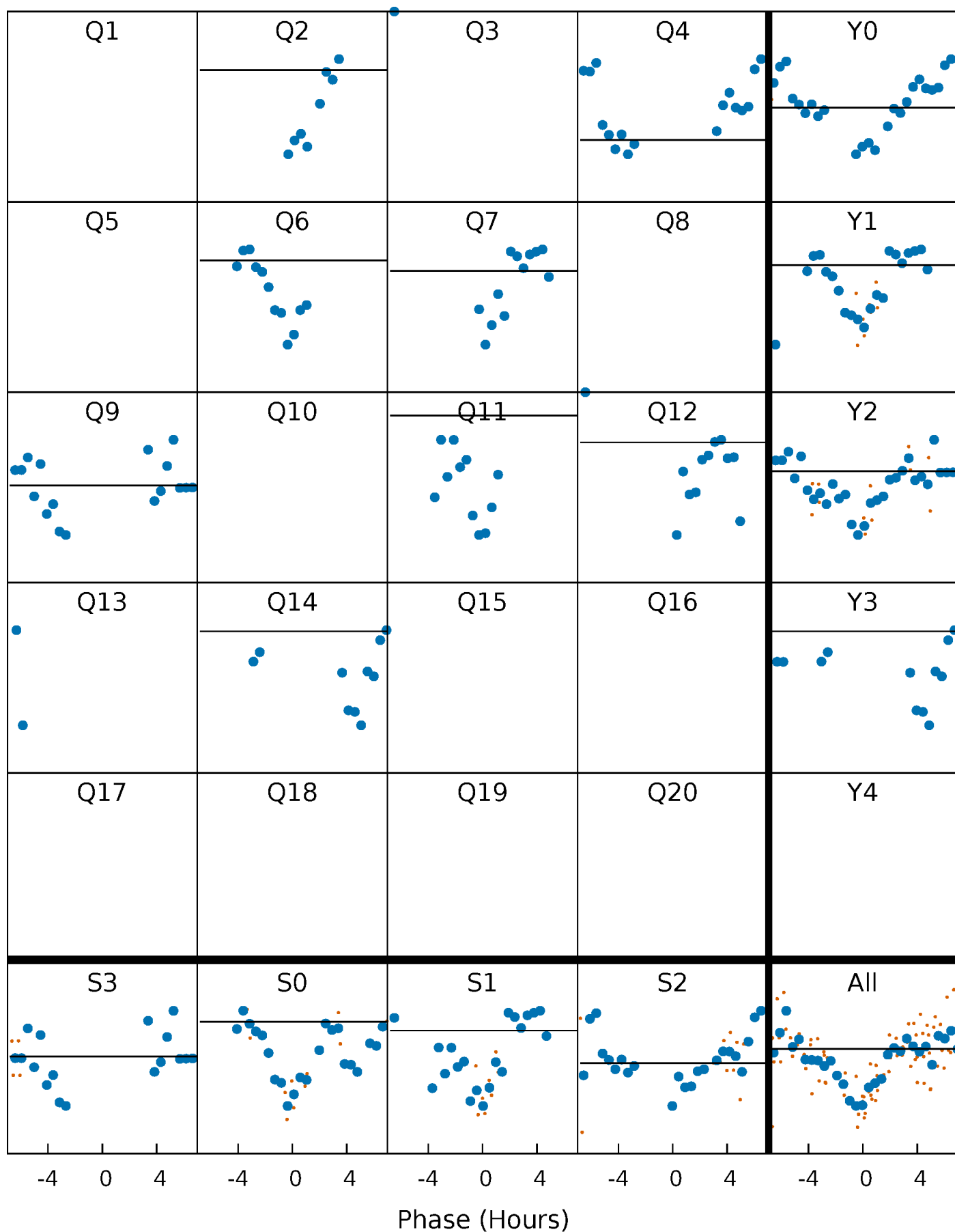
PDC Quarter-Phased Transit Curves

TCE 012507325-09 $P = 64.560845$ Days $T_0 = 183.078488$ (BKJD)



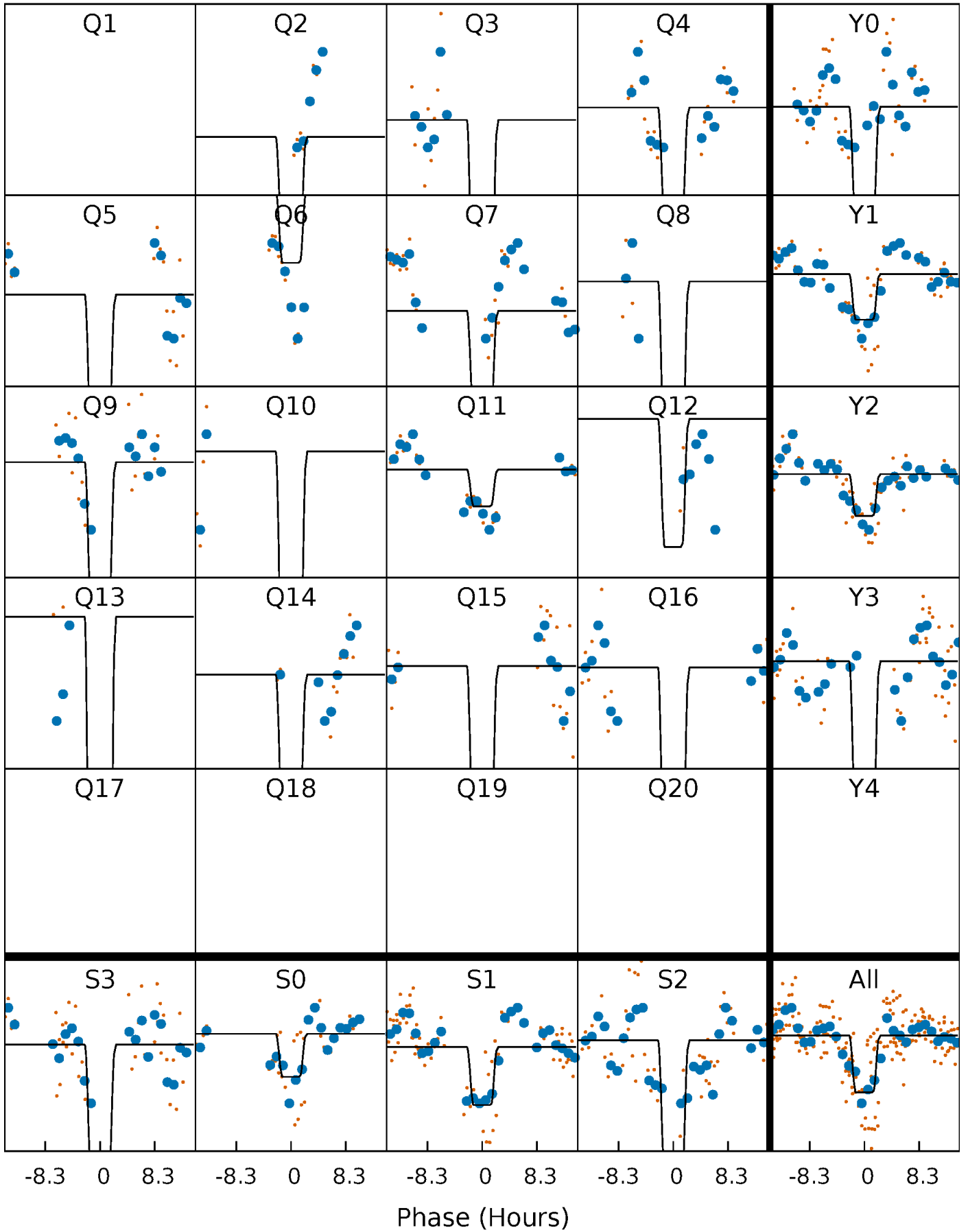
DV Quarter-Phased Transit Curves

TCE 012507325-09 P= 64.560845 Days $T_0=183.078488$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

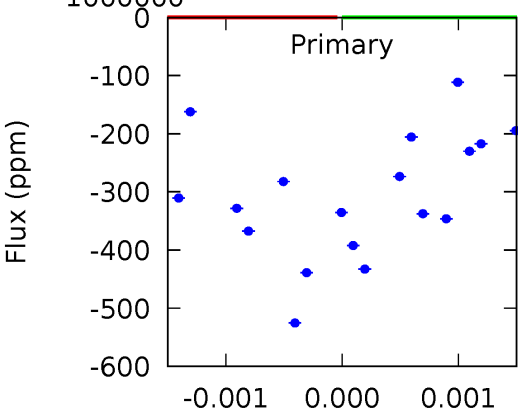
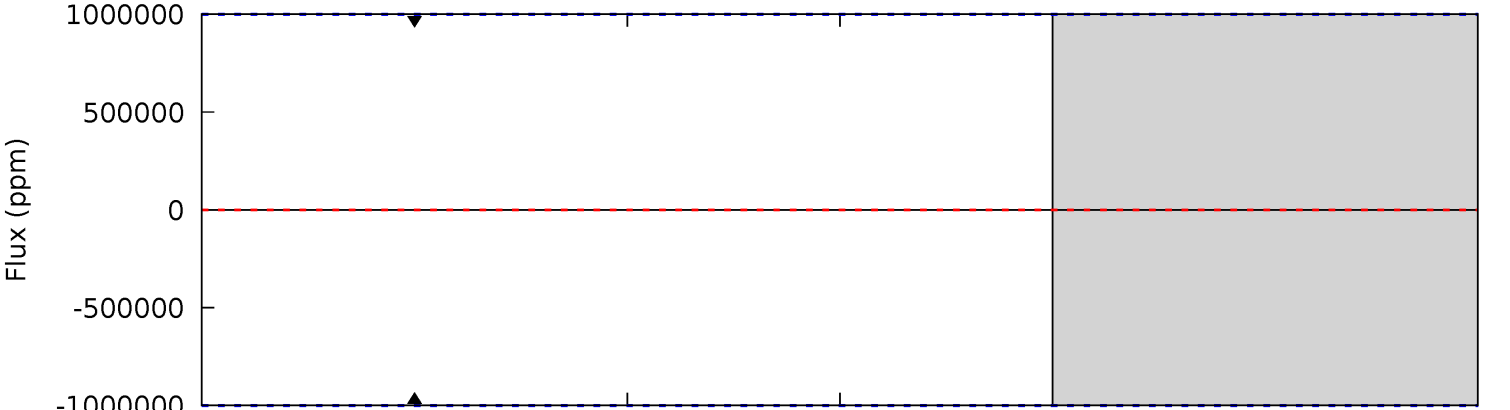
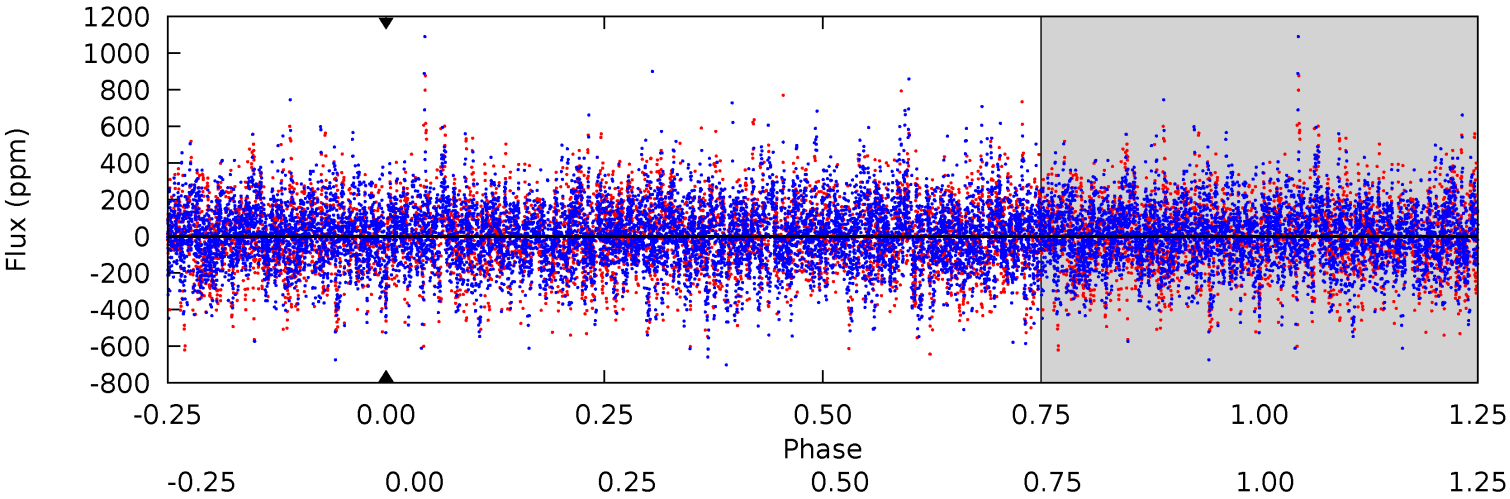
TCE 012507325-09 $P = 64.560845$ Days $T_0 = 183.037928$ (BKJD)



DV Model-Shift Uniqueness Test

012507325-09, P = 64.560845 Days, E = 118.517643 Days

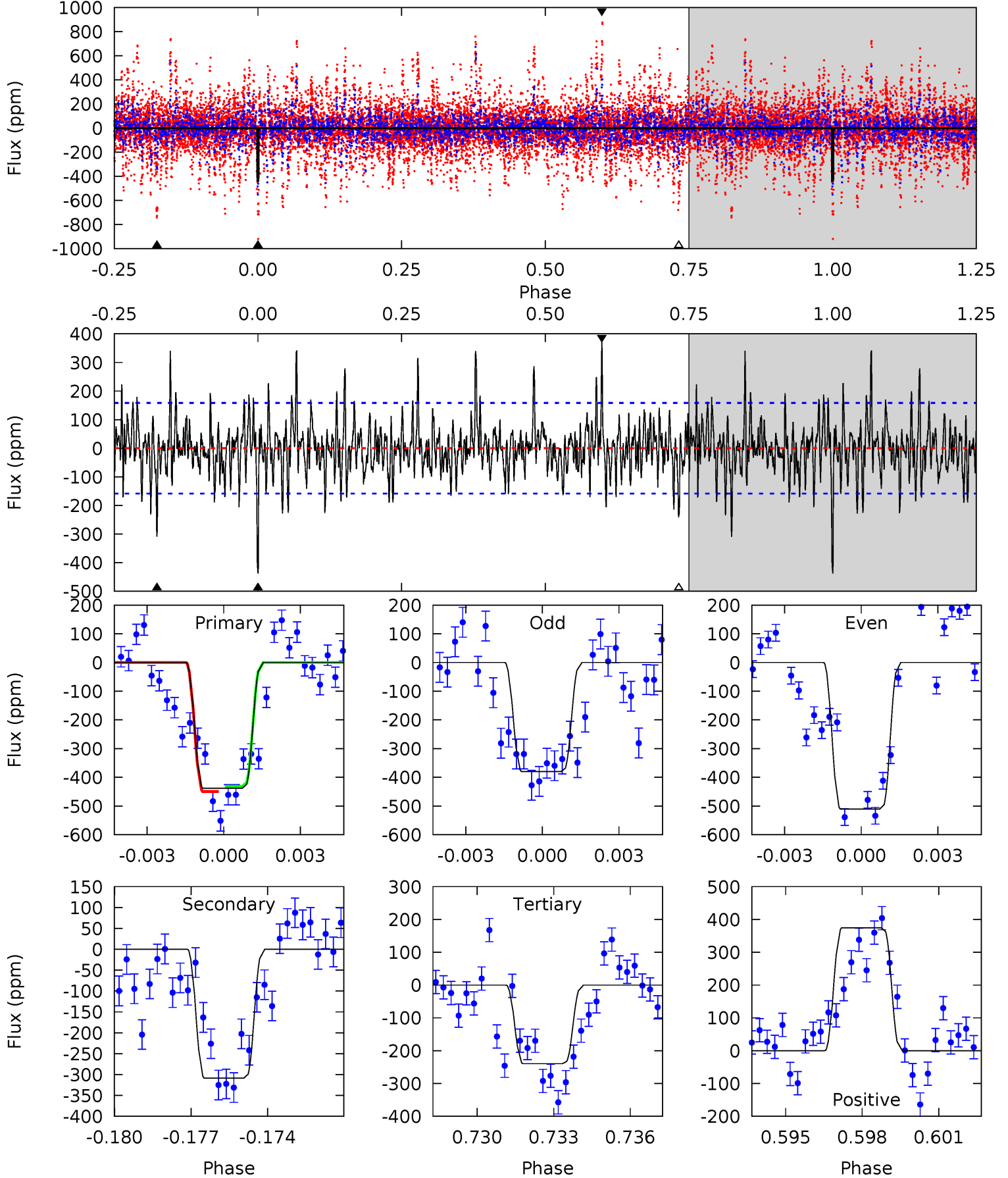
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

012507325-09, P = 64.560845 Days, E = 118.477083 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	10.2	7.95	12.4	5.25	2.96	2.61	6.57	2.11	2.28	-2.18	2.16	1.21	0.46	0.29



Stellar Parameters For KIC 012507325

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 012507325-09 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$7.46^{+9.55}_{-5.06}$	635^{+32}_{-32}	-4759^{+26414}_{-19801}	$-1854.642^{+162642.938}_{-188575.062}$
Alt.	-309 ± 30	$7.86^{+8.42}_{-5.08}$	635^{+29}_{-29}	3381^{+1577}_{-651}	275^{+1902}_{-214}

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

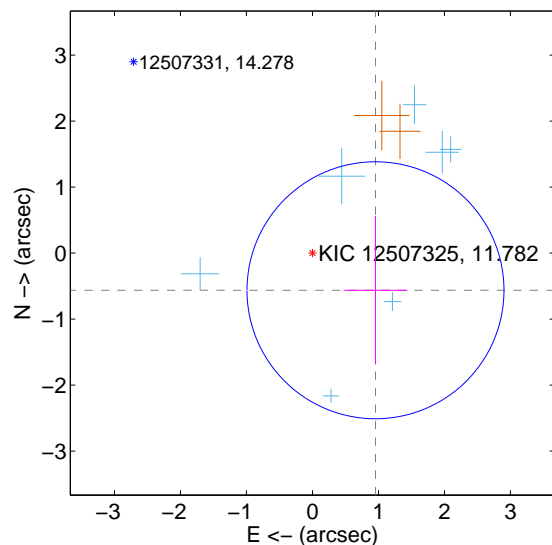
Supplemental centroid analysis for 012507325-09. **Kepler magnitude: 11.78.** Transit SNR -1.00

There are 7 quarters with good PRF difference image offsets

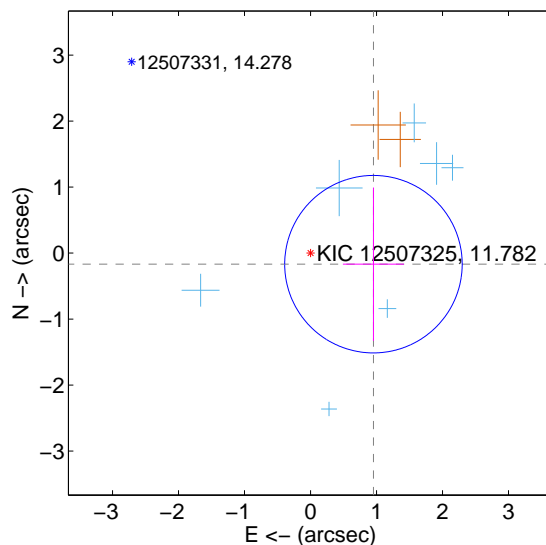
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.109 ± 0.649	1.71	-0.955 ± 0.483	-0.563 ± 1.125
PRF-fit source offset from KIC position	0.968 ± 0.448	2.16	-0.953 ± 0.463	-0.168 ± 1.162
photometric centroid source offset	0.22 ± 0.18	1.24	-0.17 ± 0.16	-0.15 ± 0.20

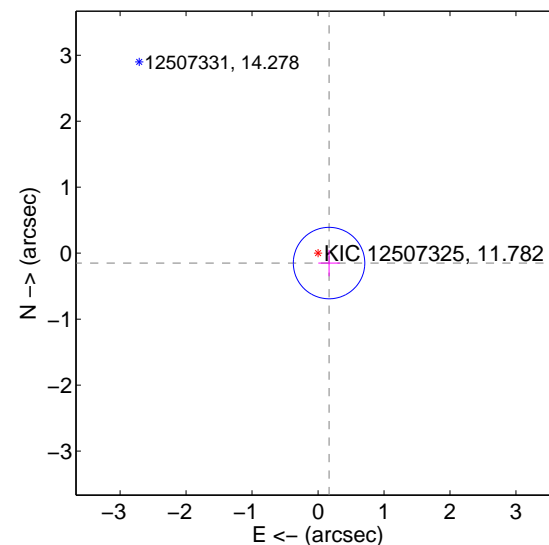
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

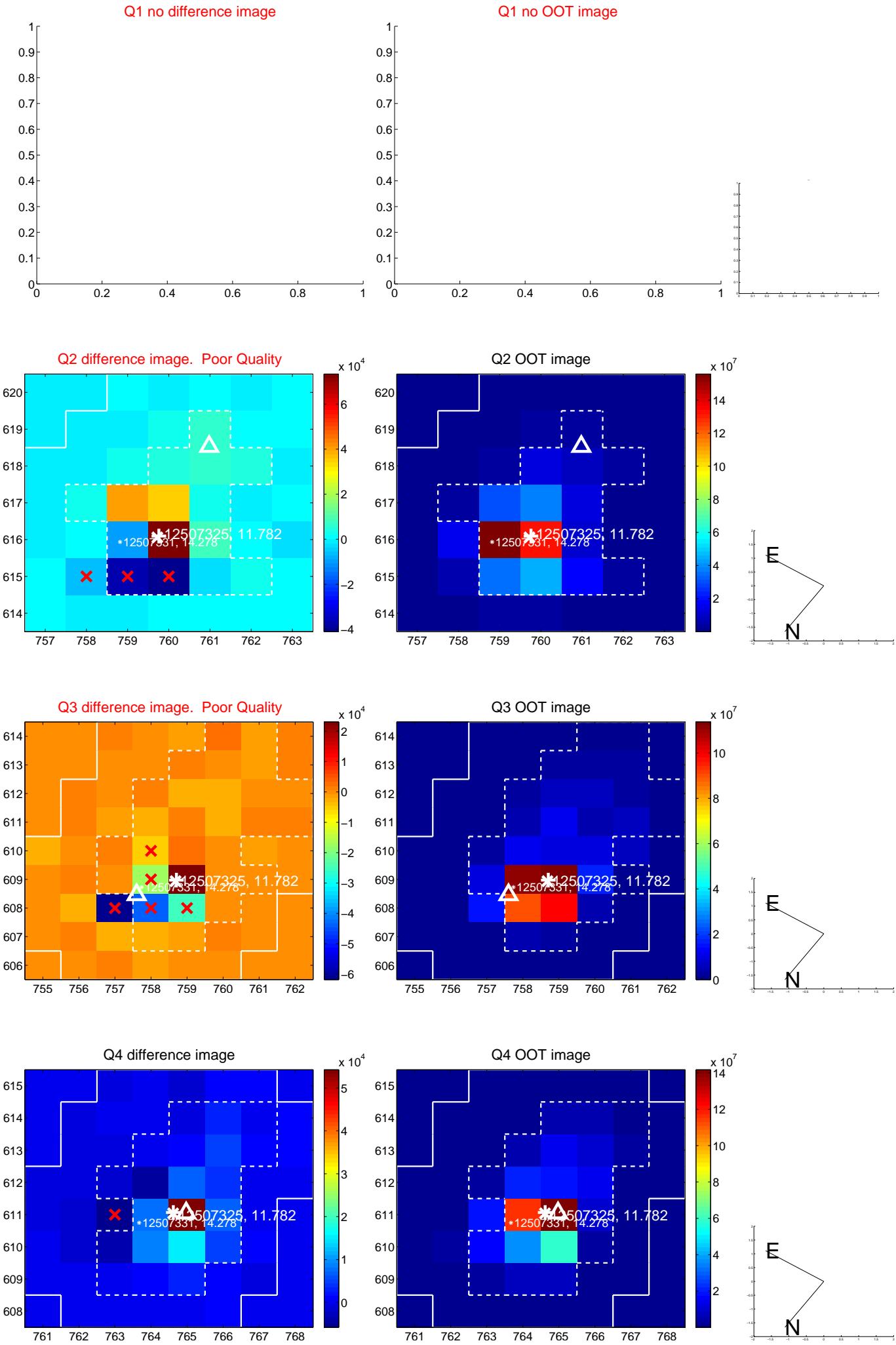


offset from photometric centroids

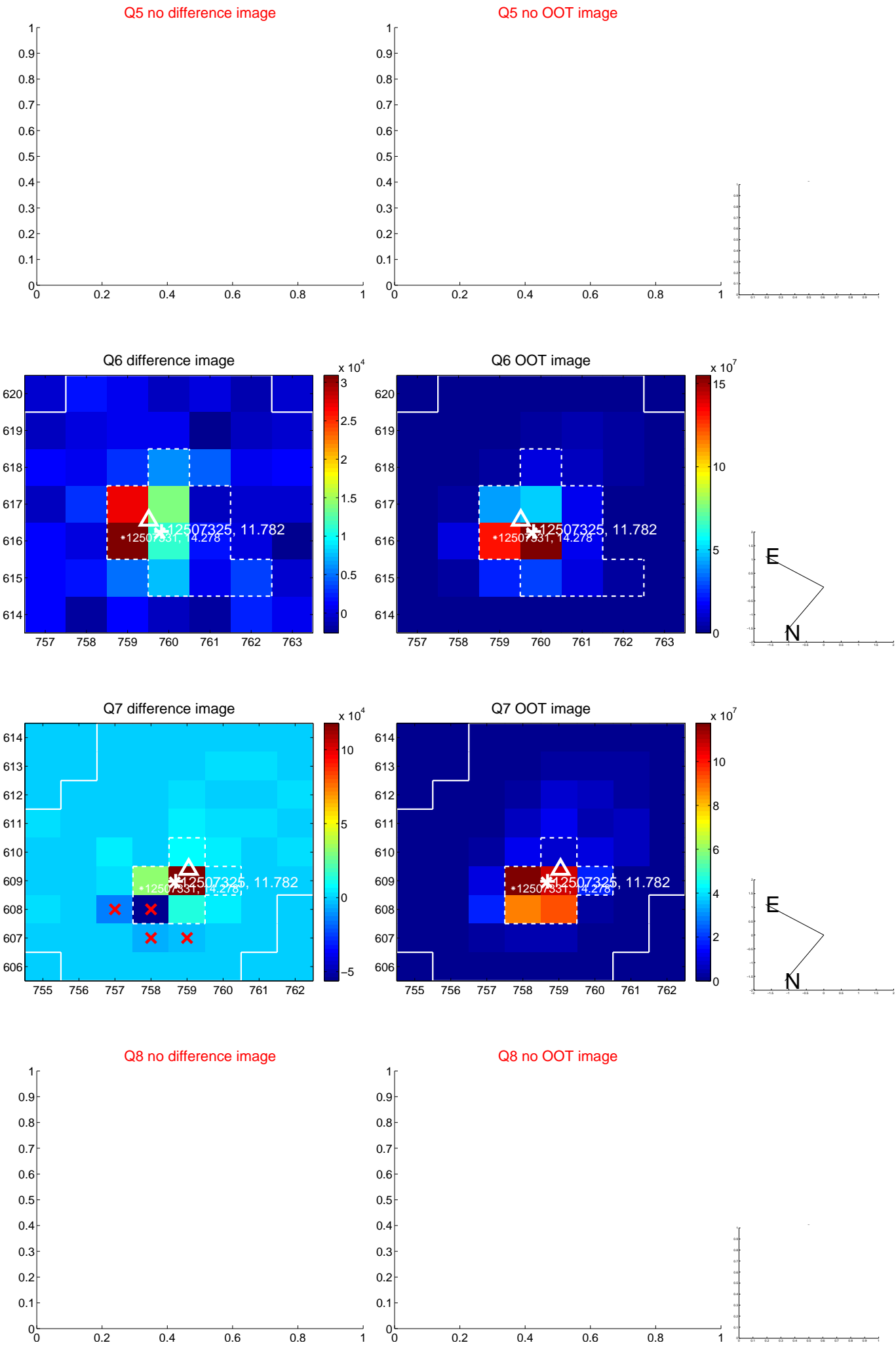


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

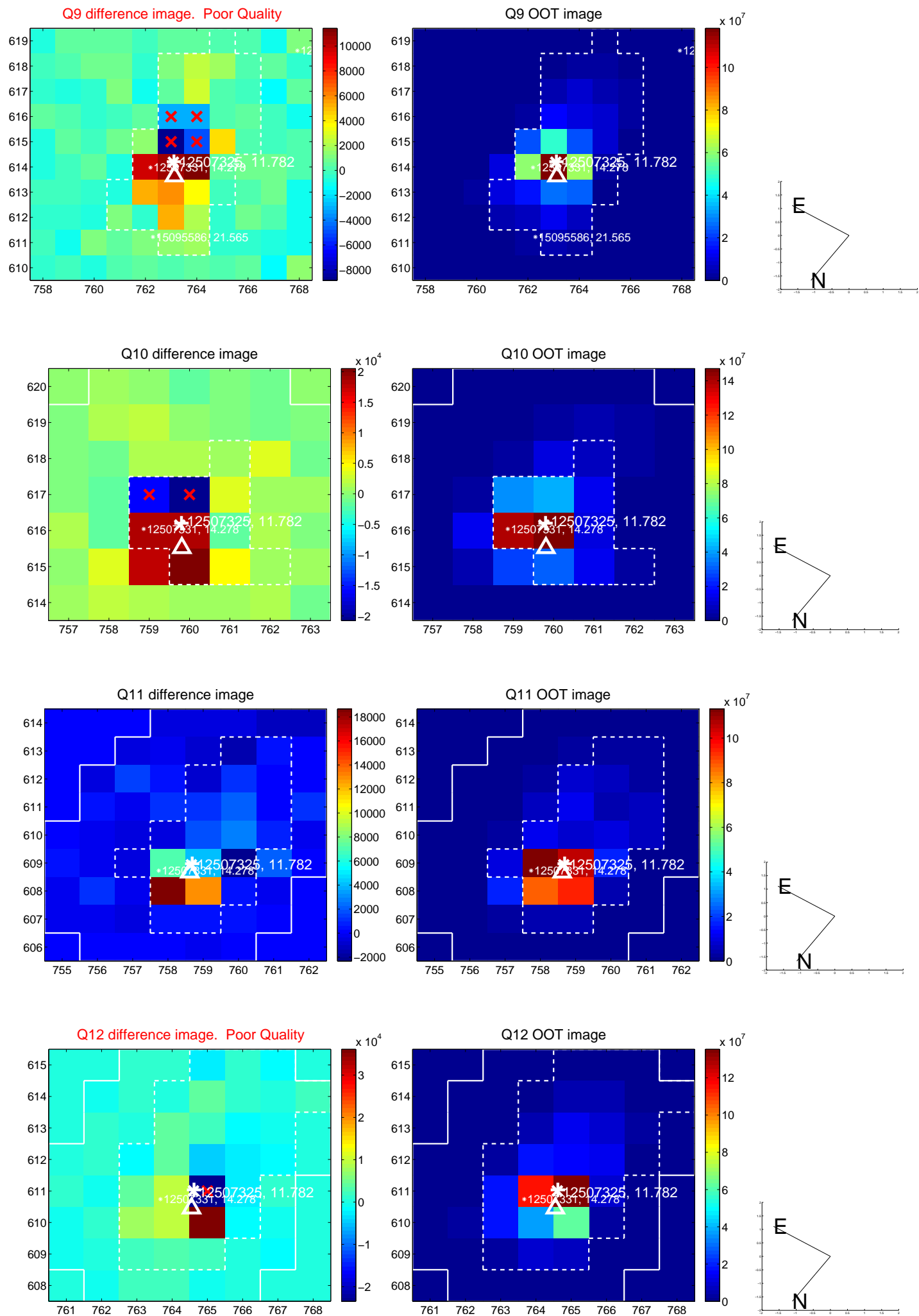
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



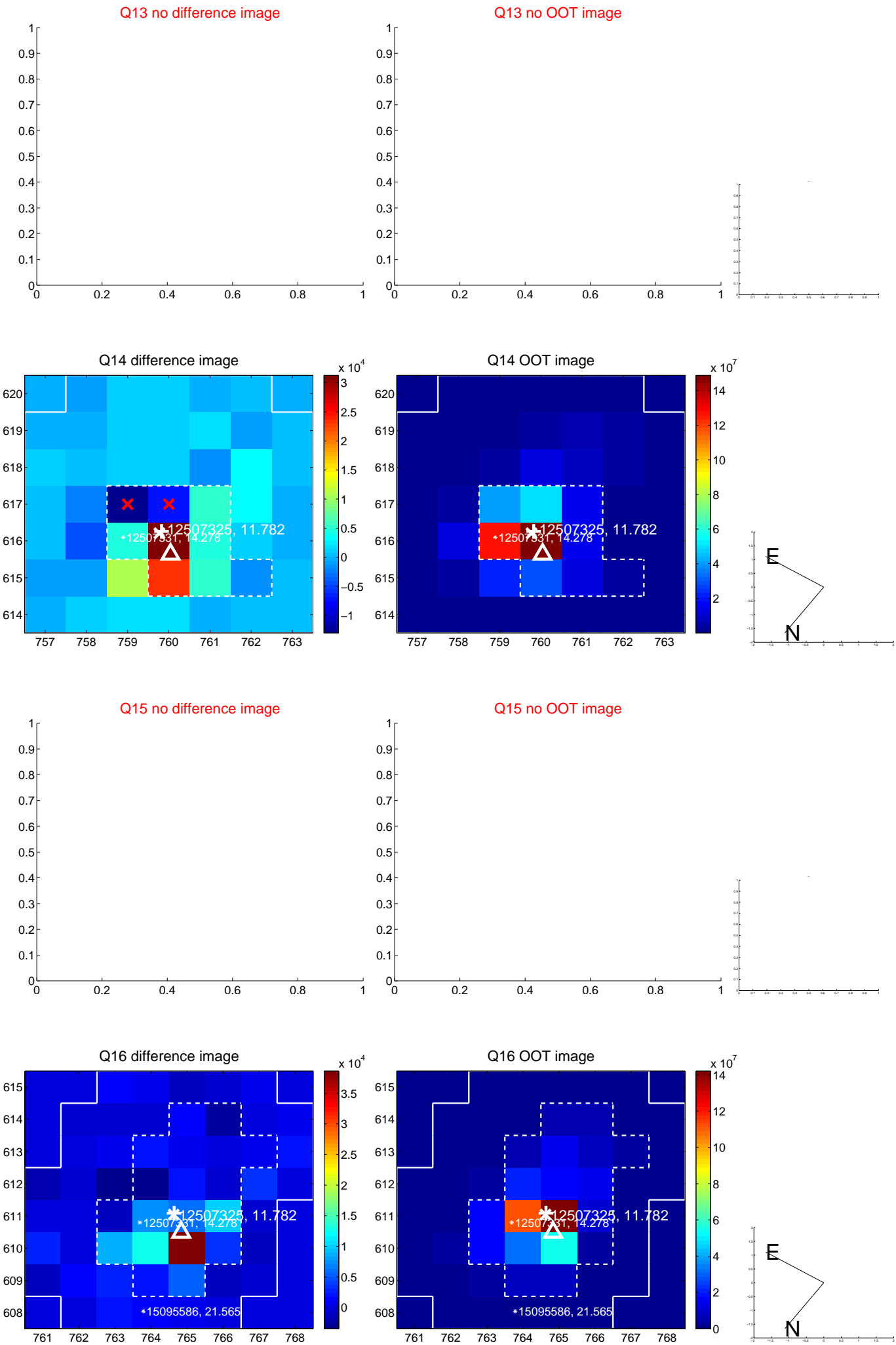
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



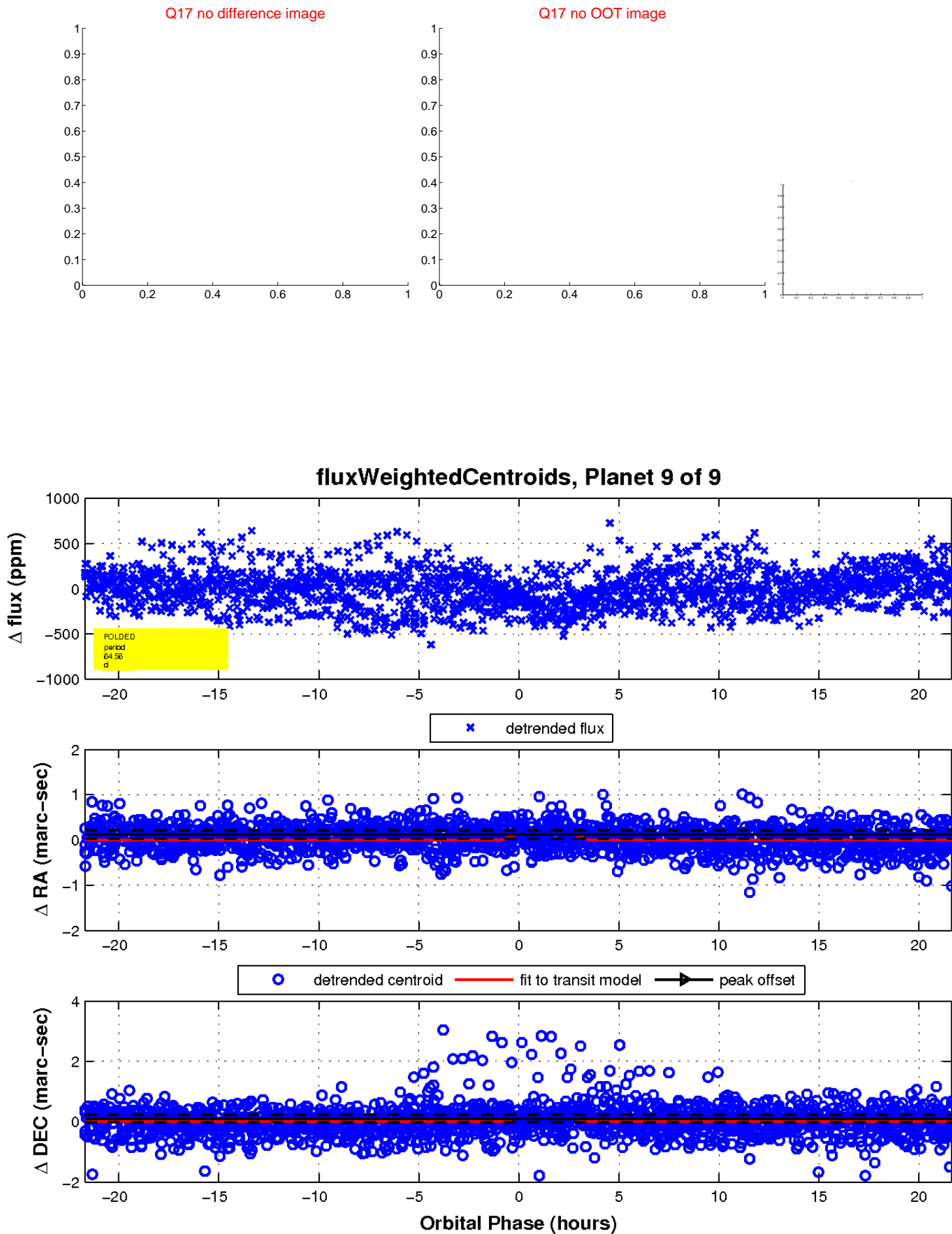
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \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

