

KIC 003967523

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})
003967523-01	OBS	No	284.319761	278.989960	2377.5	6.011	14.0	6.3	0.66	4955	3.17	0.45
003967523-02	OBS	No	211.569392	232.775545	2990.2	4.290	11.8	10.7	0.66	4955	7.05	0.66
003967523-03	OBS	No	251.196750	273.787668	1798.1	6.331	11.0	7.3	0.66	4955	3.20	0.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003967523-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_ZUMA—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003967523-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003967523-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

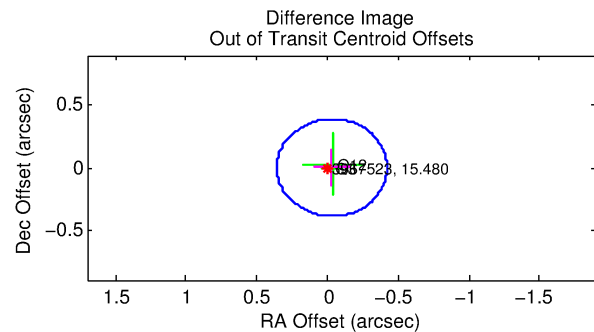
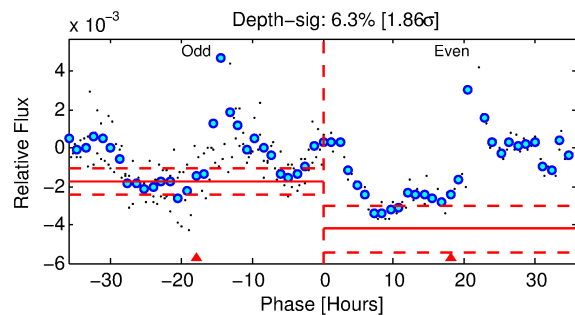
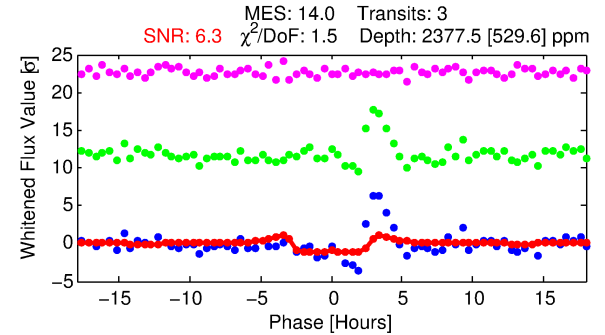
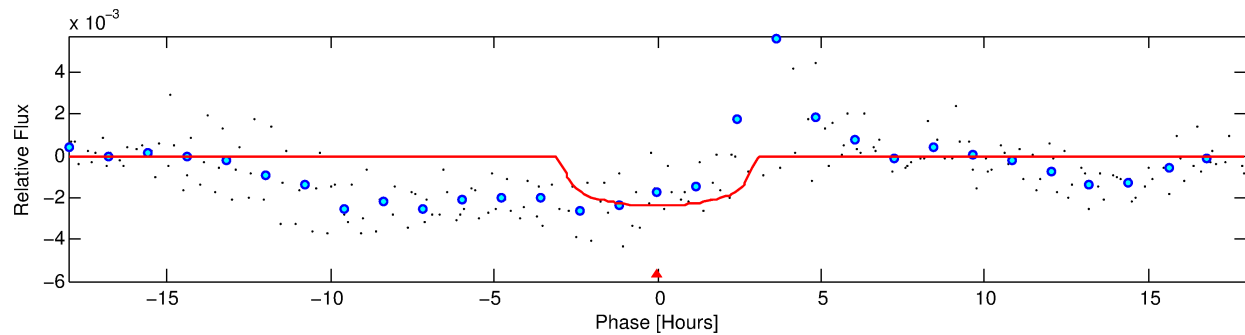
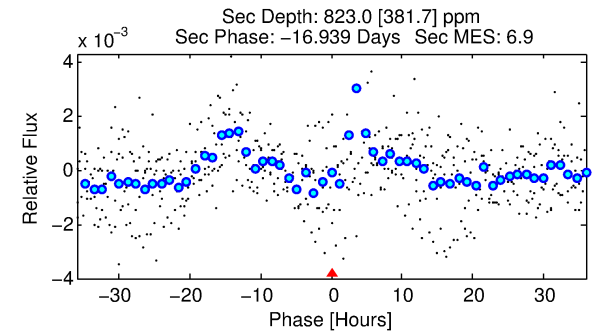
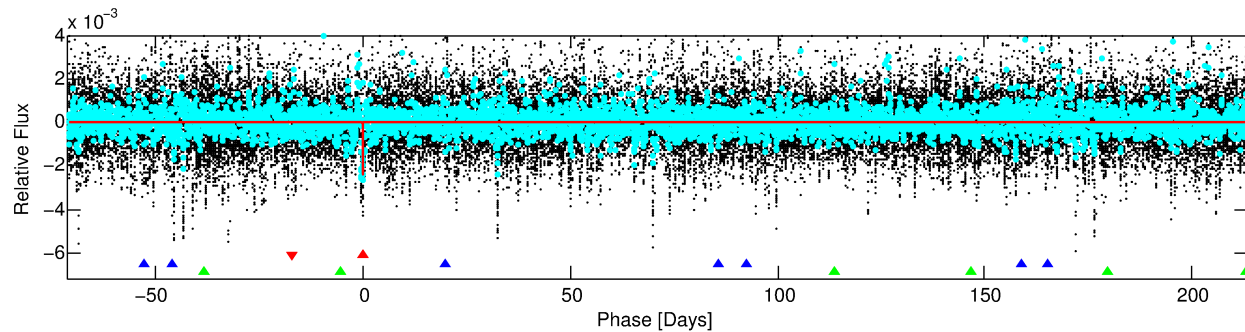
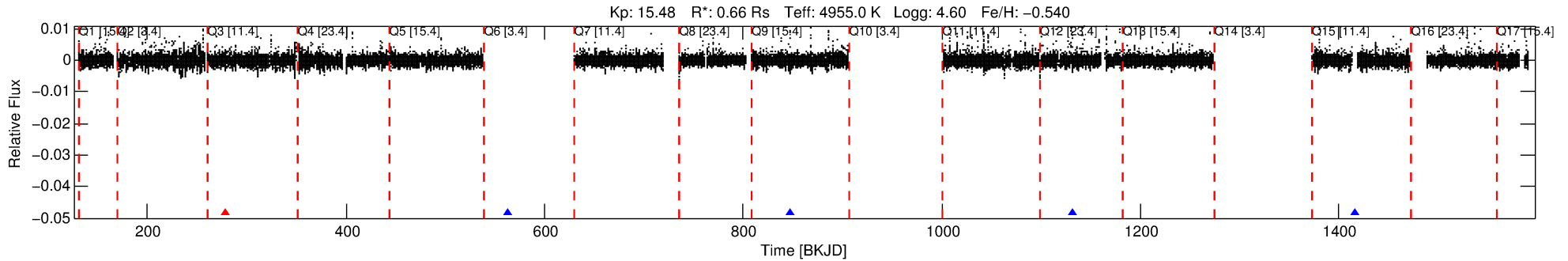
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003967523-01

No Significant Match Found

DV One-Page Summary

KIC: 3967523 Candidate: 1 of 3 Period: 284.320 d



DV Fit Results:

Period = 284.31976 [0.00551] d
Epoch = 278.9900 [0.0118] BKJD
Rp/R* = 0.0438 [0.0554]
a/R* = 368.27 [1651.74]
b = 0.23 [19.08]
Seff = 0.45 [0.08]
Teq = 208 [9] K
Rp = 3.17 [4.03] Re
a = 0.7312 [0.0604] AU
Ag = 24078.05 [62082.69] [0.39σ]
Teffp = 4012 [2586] K [1.47σ]

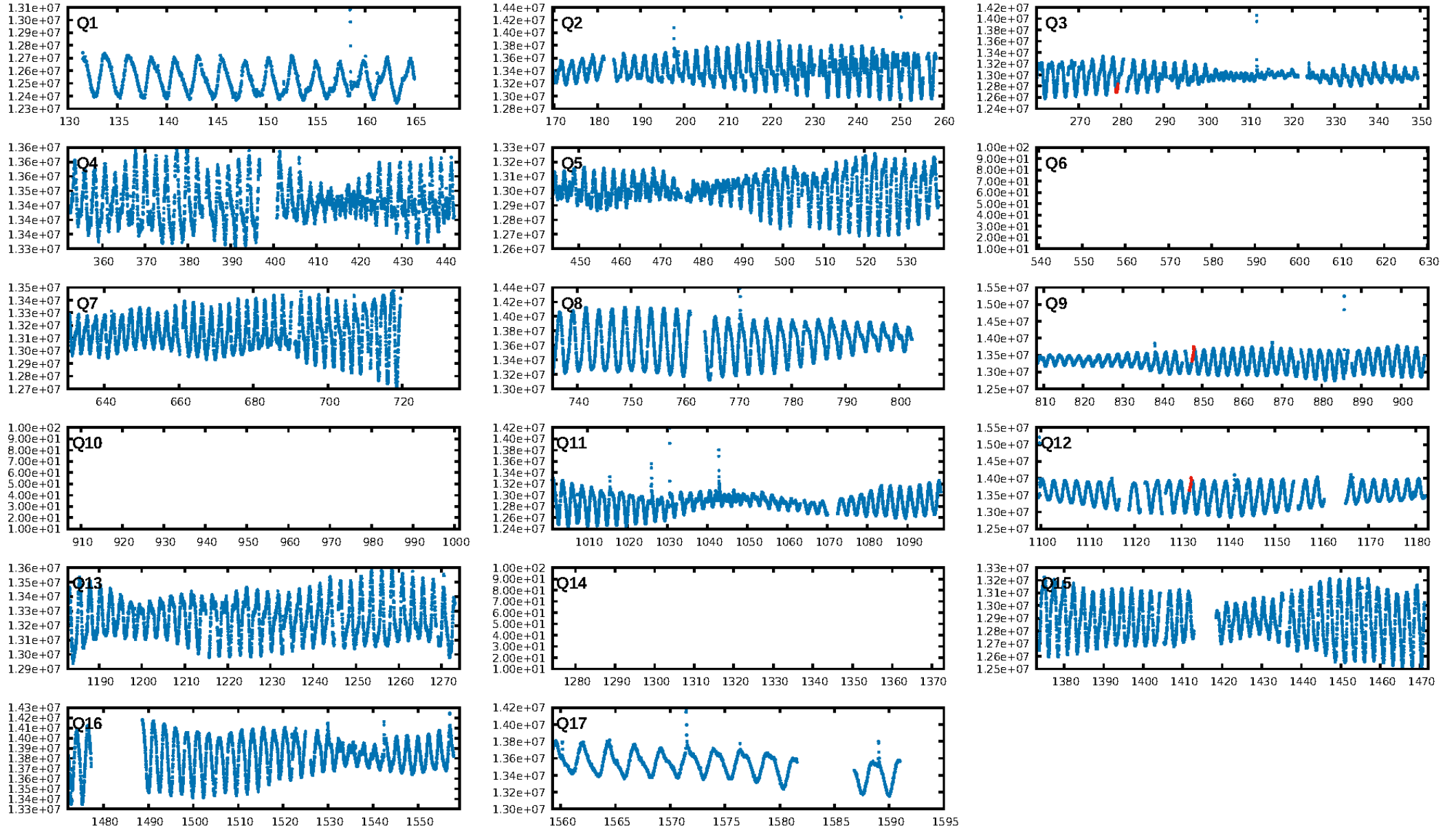
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [91.06σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 44.0%
Bootstrap-pfa: 5.42e-17
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: -35.98
Centroid-sig: 2.4%
Centroid-so: 1.903 arcsec [1.86σ]
OotOffset-rm: 0.032 arcsec [0.25σ]
KicOffset-rm: 0.183 arcsec [1.33σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

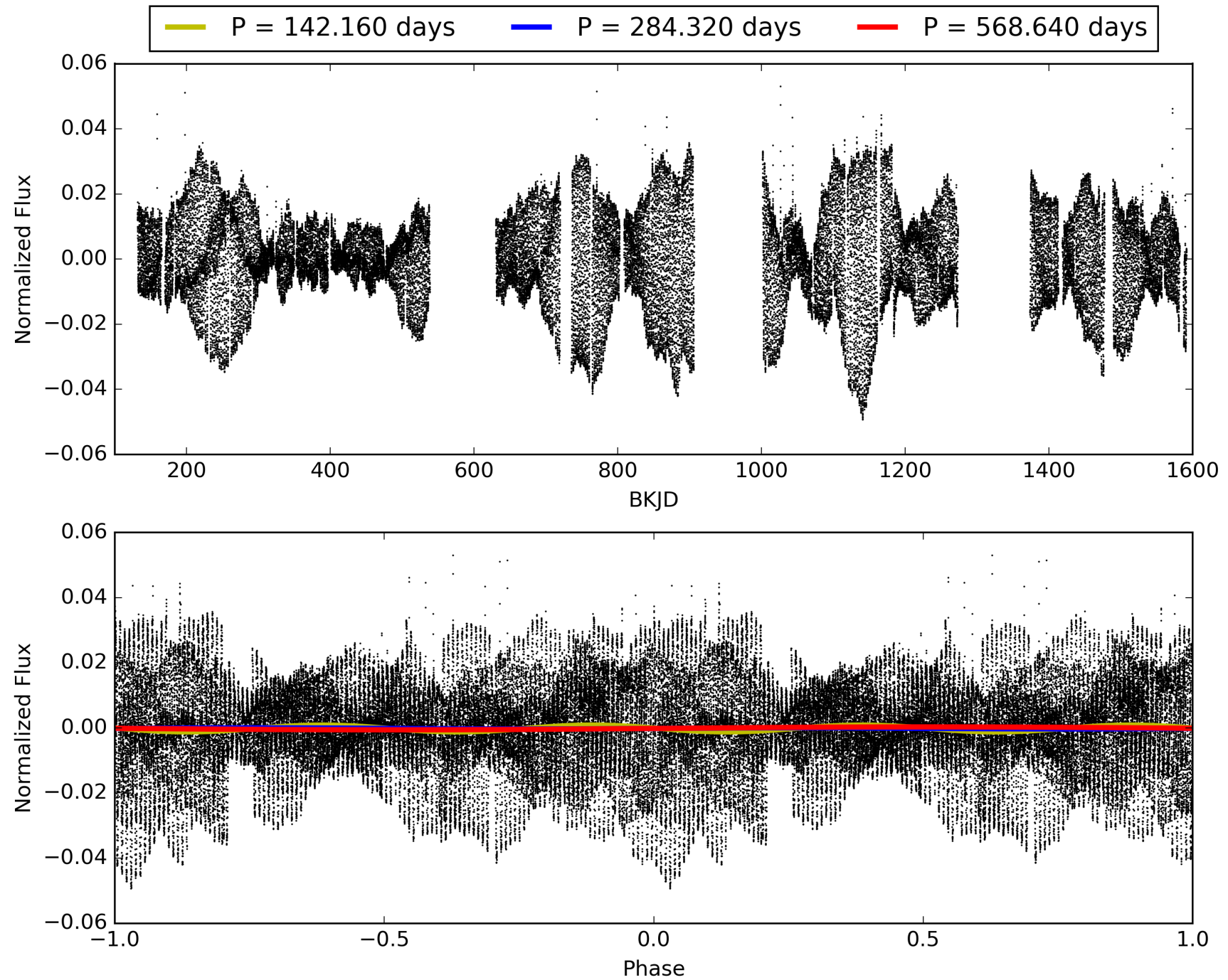
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:40:33 Z

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

TCE 003967523-01, PDC Light Curves

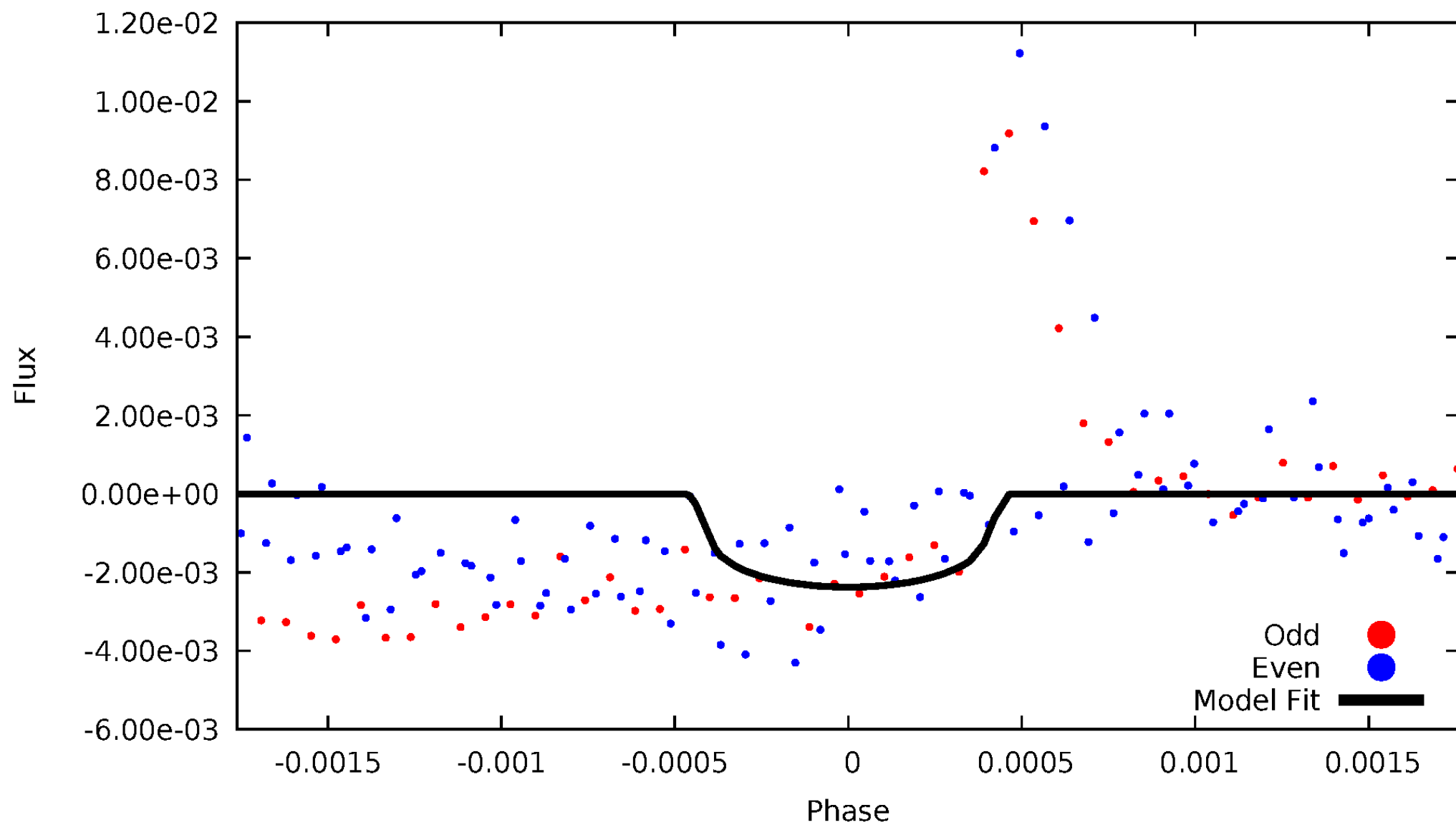


TCE 003967523-01



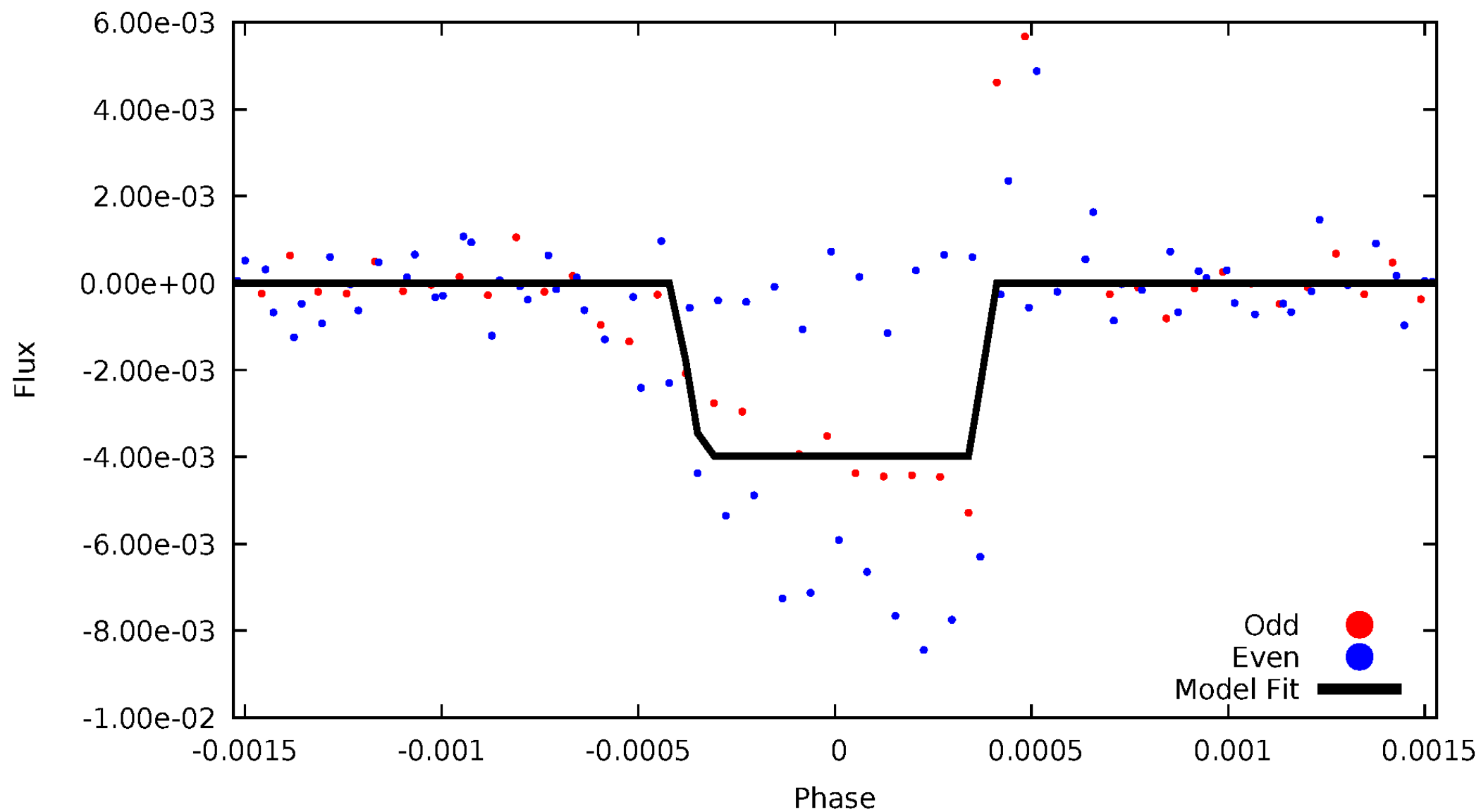
DV Odd/Even

TCE 003967523-01



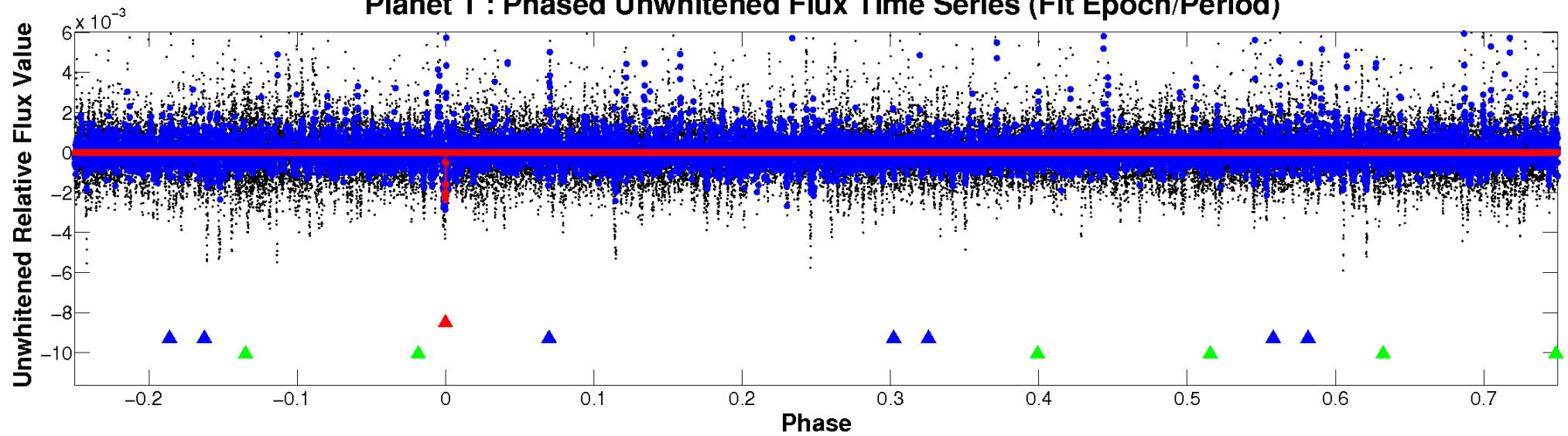
ALT Odd/Even

TCE 003967523-01

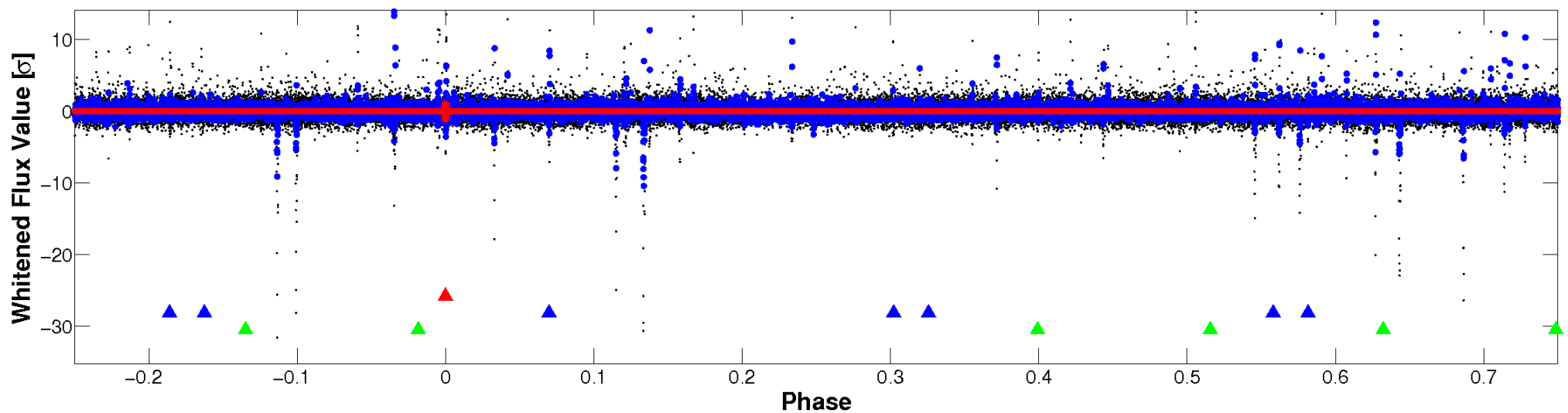


Non-Whitened Vs. Whitened Light Curve

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

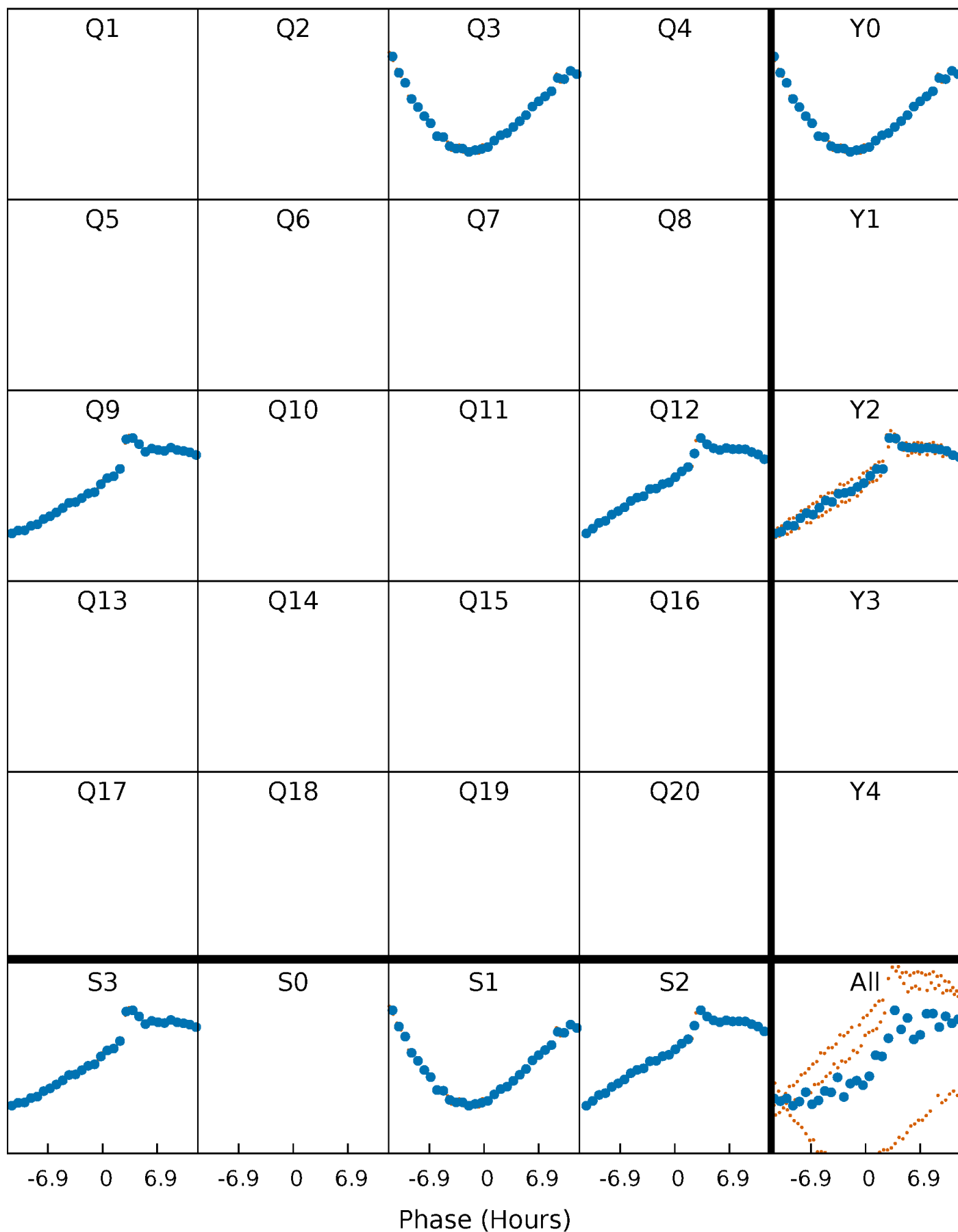


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



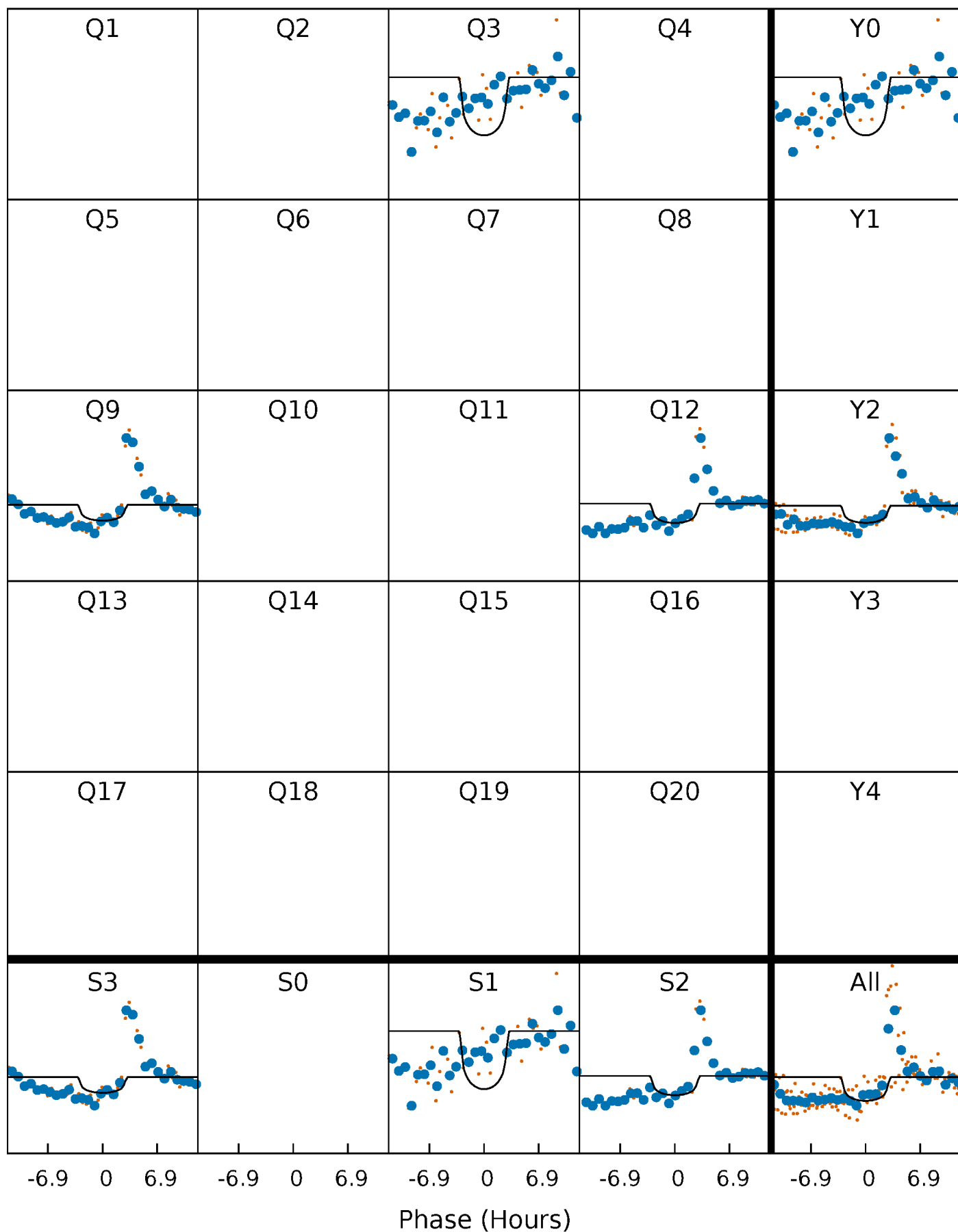
PDC Quarter-Phased Transit Curves

TCE 003967523-01 P=284.319761 Days $T_0=278.989960$ (BKJD)



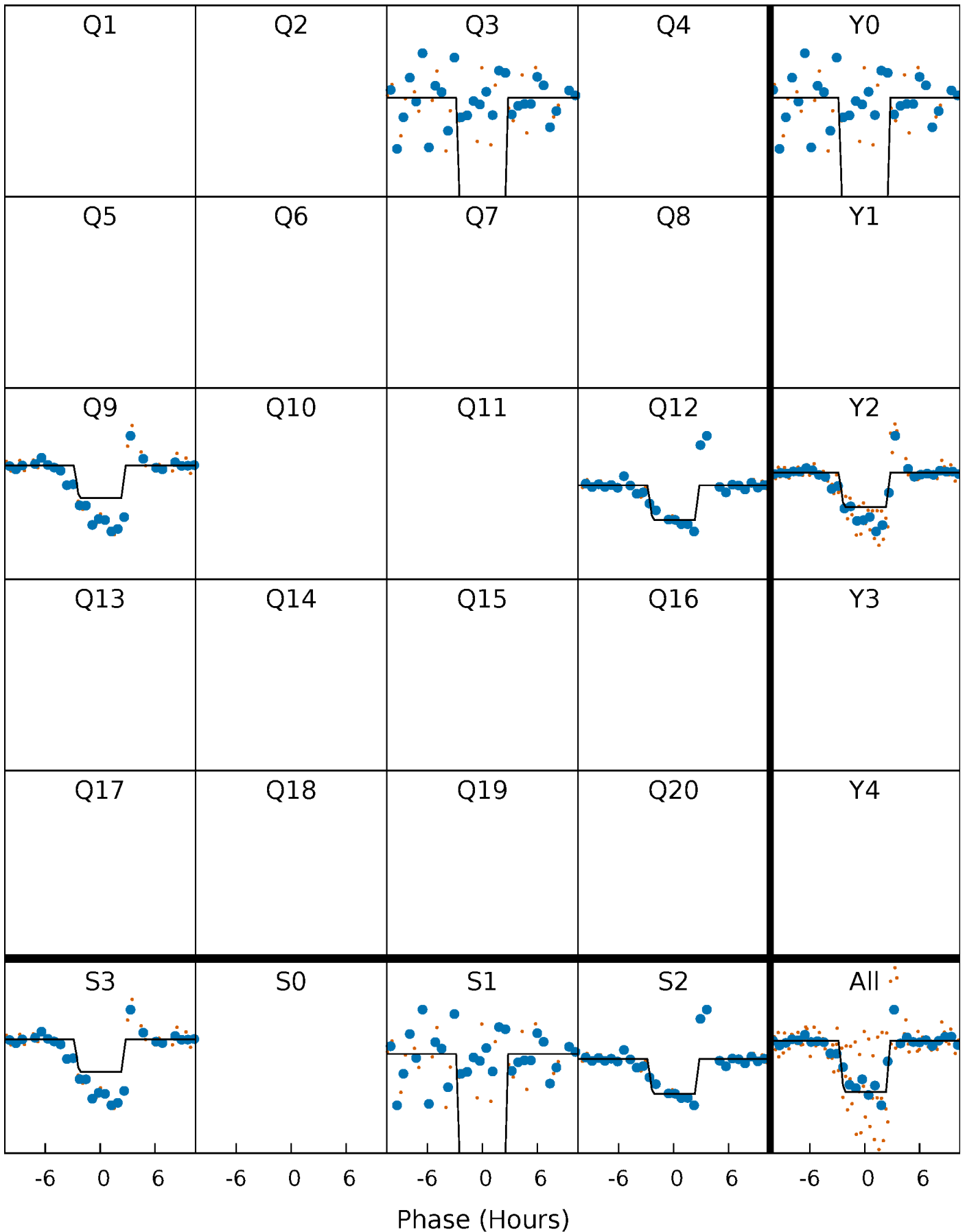
DV Quarter-Phased Transit Curves

TCE 003967523-01 $P=284.319761$ Days $T_0=278.989960$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

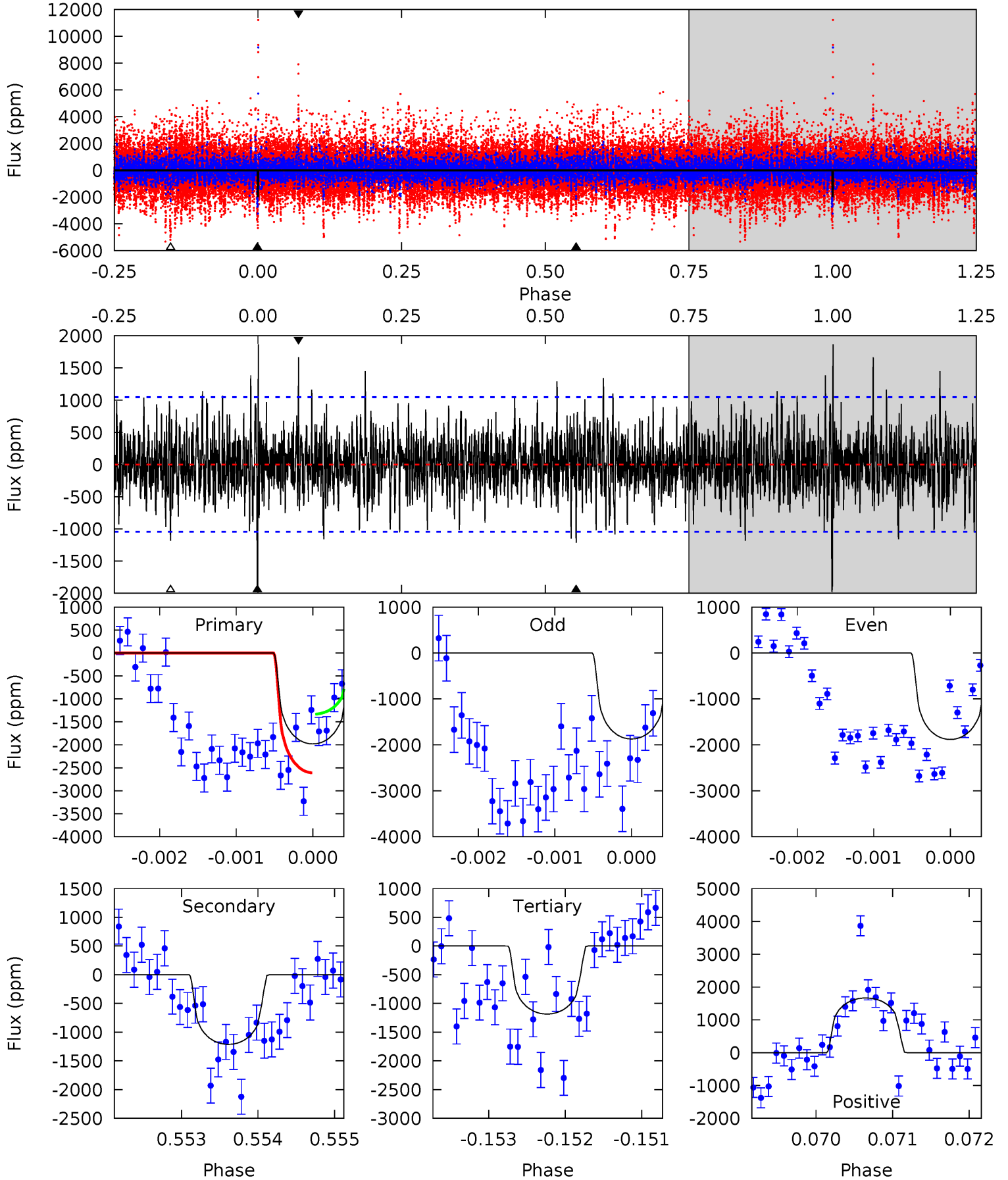
TCE 003967523-01 P=284.319365 Days $T_0=278.985406$ (BKJD)



DV Model-Shift Uniqueness Test

003967523-01, P = 284.319761 Days, E = 278.989960 Days

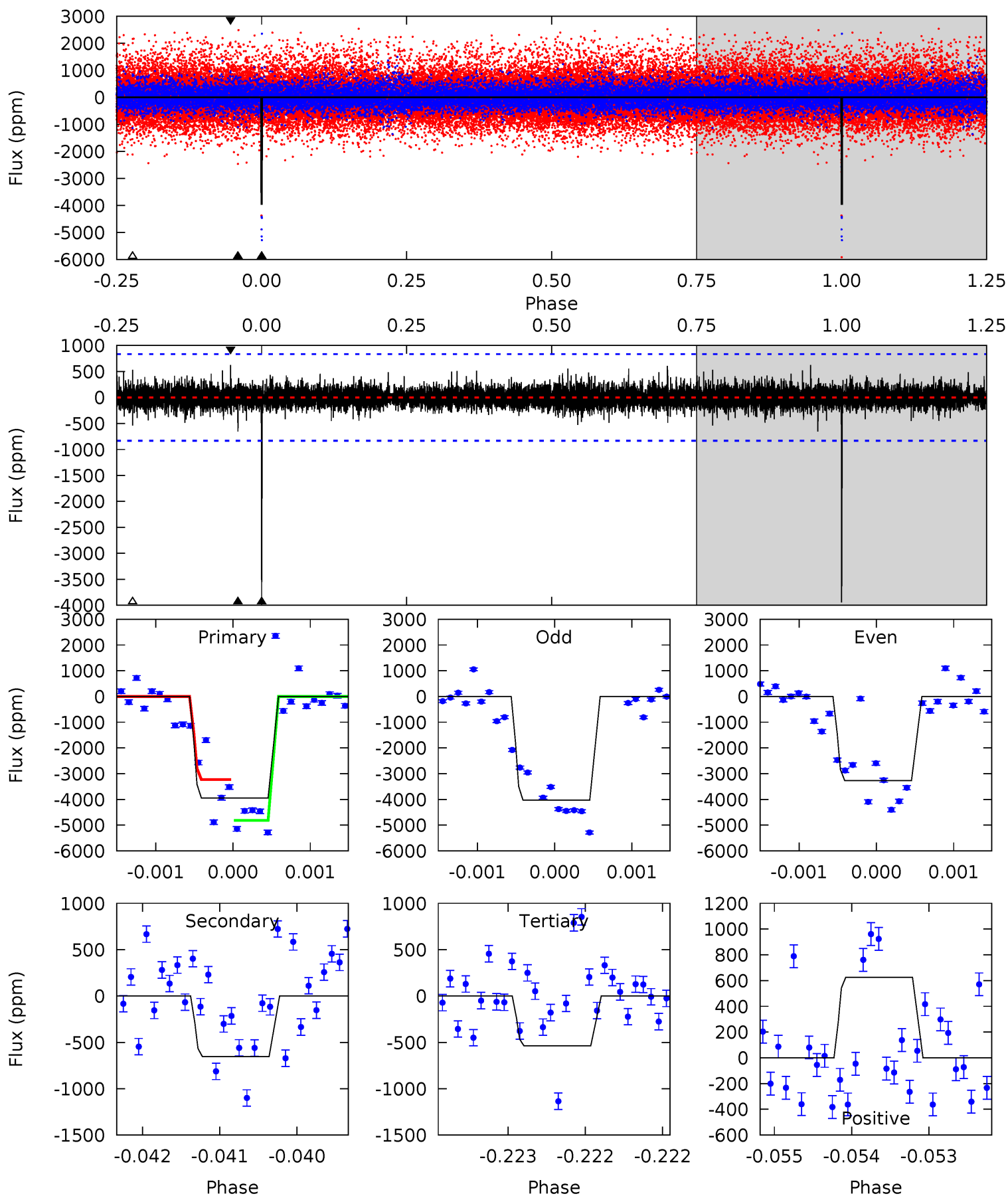
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	6.34	6.19	8.71	5.47	3.31	1.89	4.16	1.63	0.15	-2.38	0.02	0.96	0.48	3.35



Alt Model-Shift Uniqueness Test

003967523-01, P = 284.319365 Days, E = 278.985406 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.1	4.32	3.55	4.13	5.50	3.37	0.79	22.5	21.9	0.77	0.19	3.27	0.90	0.14	0



Stellar Parameters For KIC 003967523

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4955^{+148}_{-148}	$4.603^{+0.066}_{-0.039}$	$-0.540^{+0.350}_{-0.300}$	$0.664^{+0.058}_{-0.065}$	$0.645^{+0.078}_{-0.036}$	$3.108^{+0.876}_{-0.474}$
	+3%/-3%	+1%/-1%	+65%/-56%	+9%/-10%	+12%/-6%	+28%/-15%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 003967523-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1212 ± 191	$4.23^{+3.46}_{-2.65}$	289^{+10}_{-10}	4056^{+2043}_{-762}	$20456^{+124579}_{-14495}$
Alt.	-654 ± 151	$4.99^{+3.72}_{-2.89}$	290^{+11}_{-10}	3450^{+1311}_{-548}	7639^{+38457}_{-5157}

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 $A_{obs} \gg 1.0$

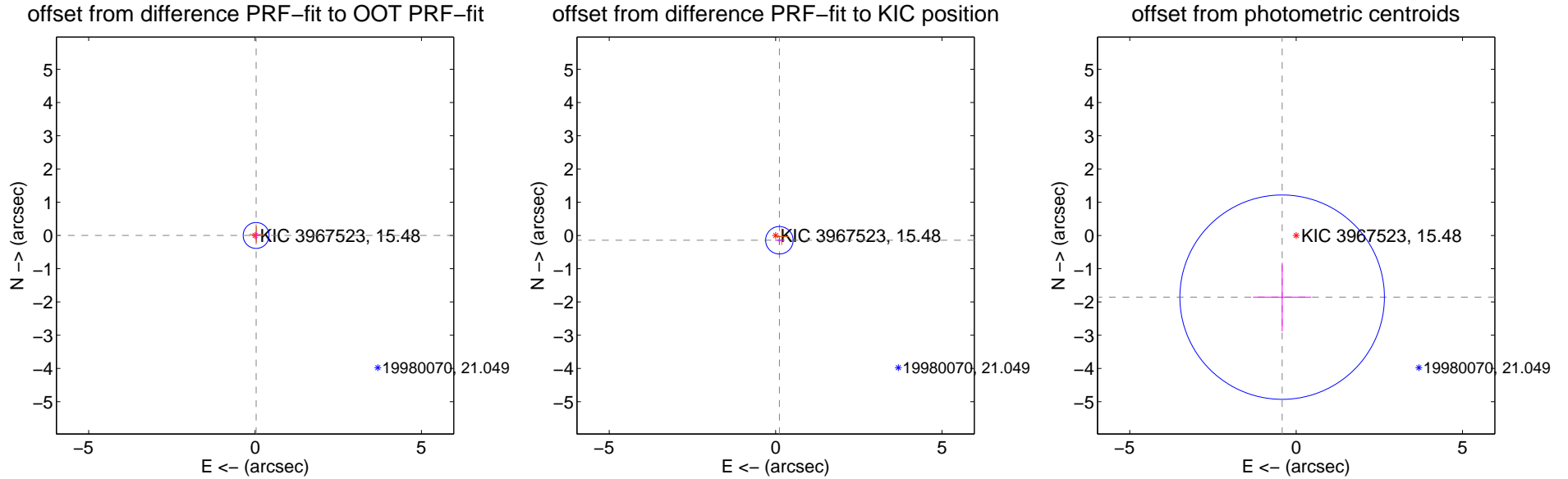
DV Centroid Data

Supplemental centroid analysis for 003967523-01. Kepler magnitude: 15.48. Transit SNR 6.30

There are 1 quarters with good PRF difference image offsets

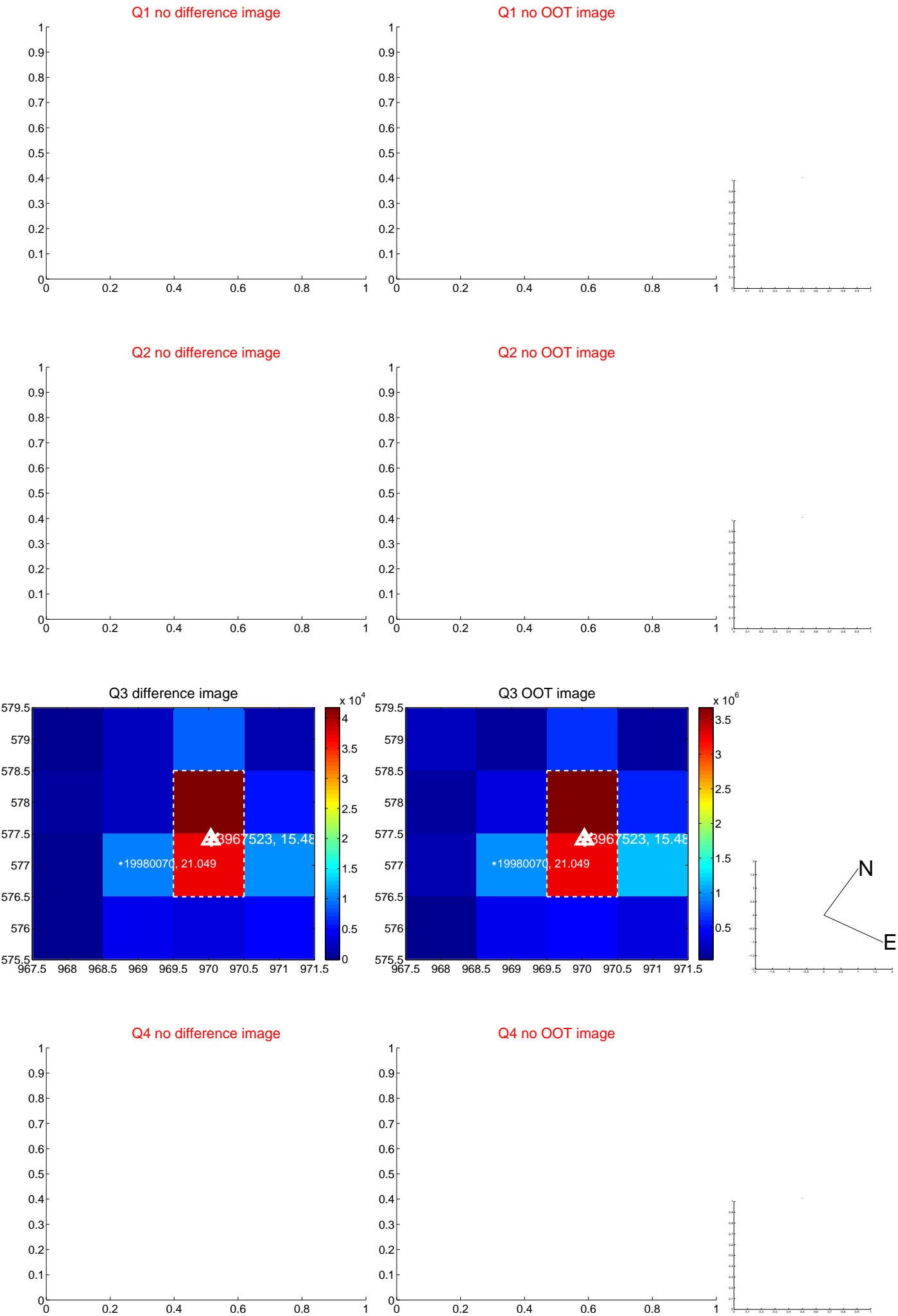
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.032 ± 0.130	0.25	-0.032 ± 0.130	0.000 ± 0.143
PRF-fit source offset from KIC position	0.183 ± 0.138	1.33	-0.114 ± 0.130	-0.144 ± 0.143
photometric centroid source offset	1.90 ± 1.02	1.86	0.42 ± 0.87	-1.86 ± 1.03



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.

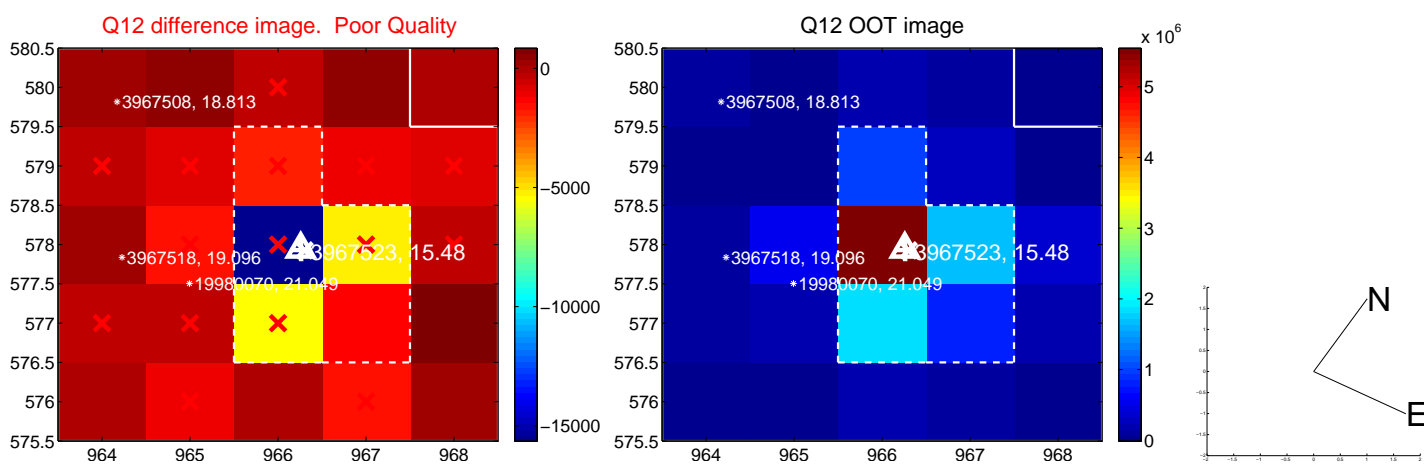
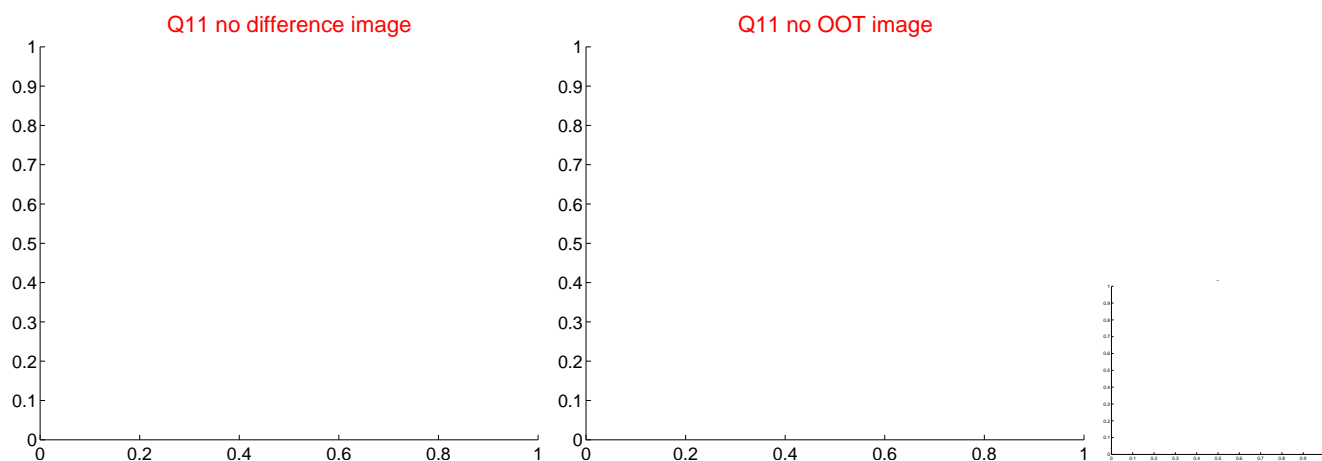
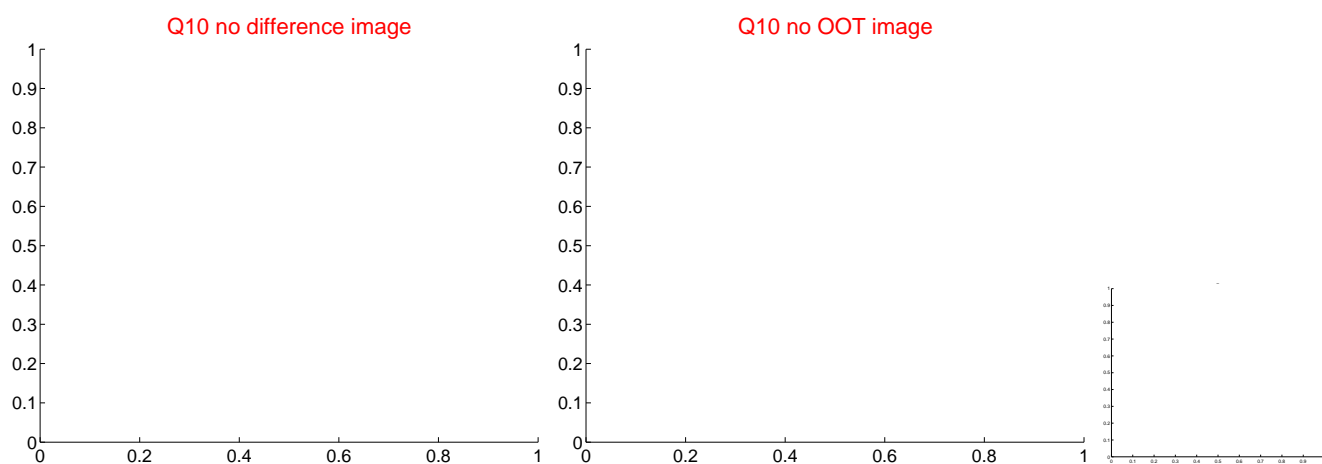
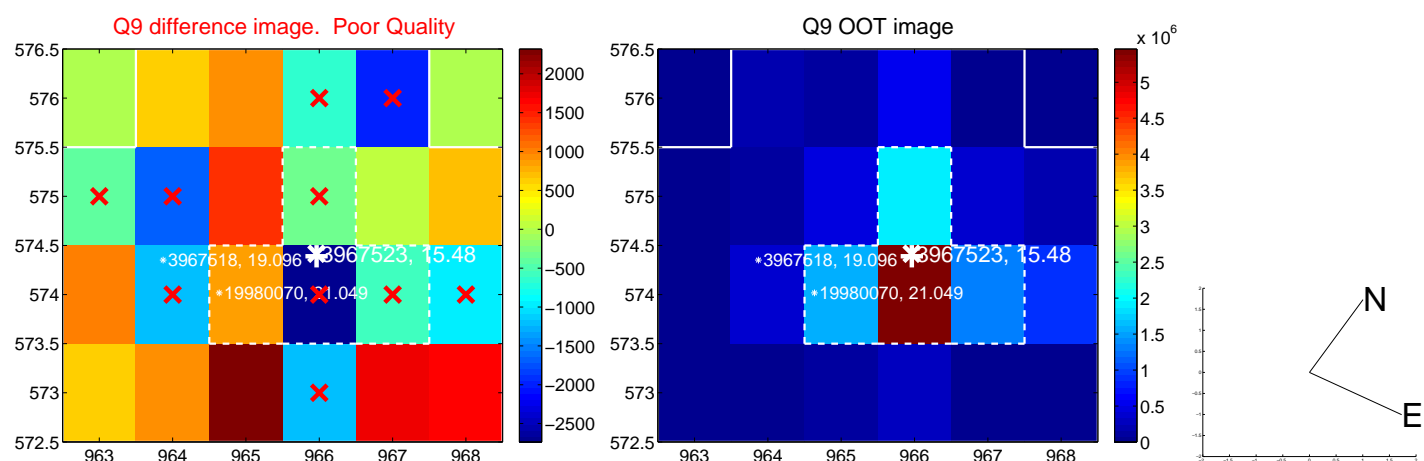
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



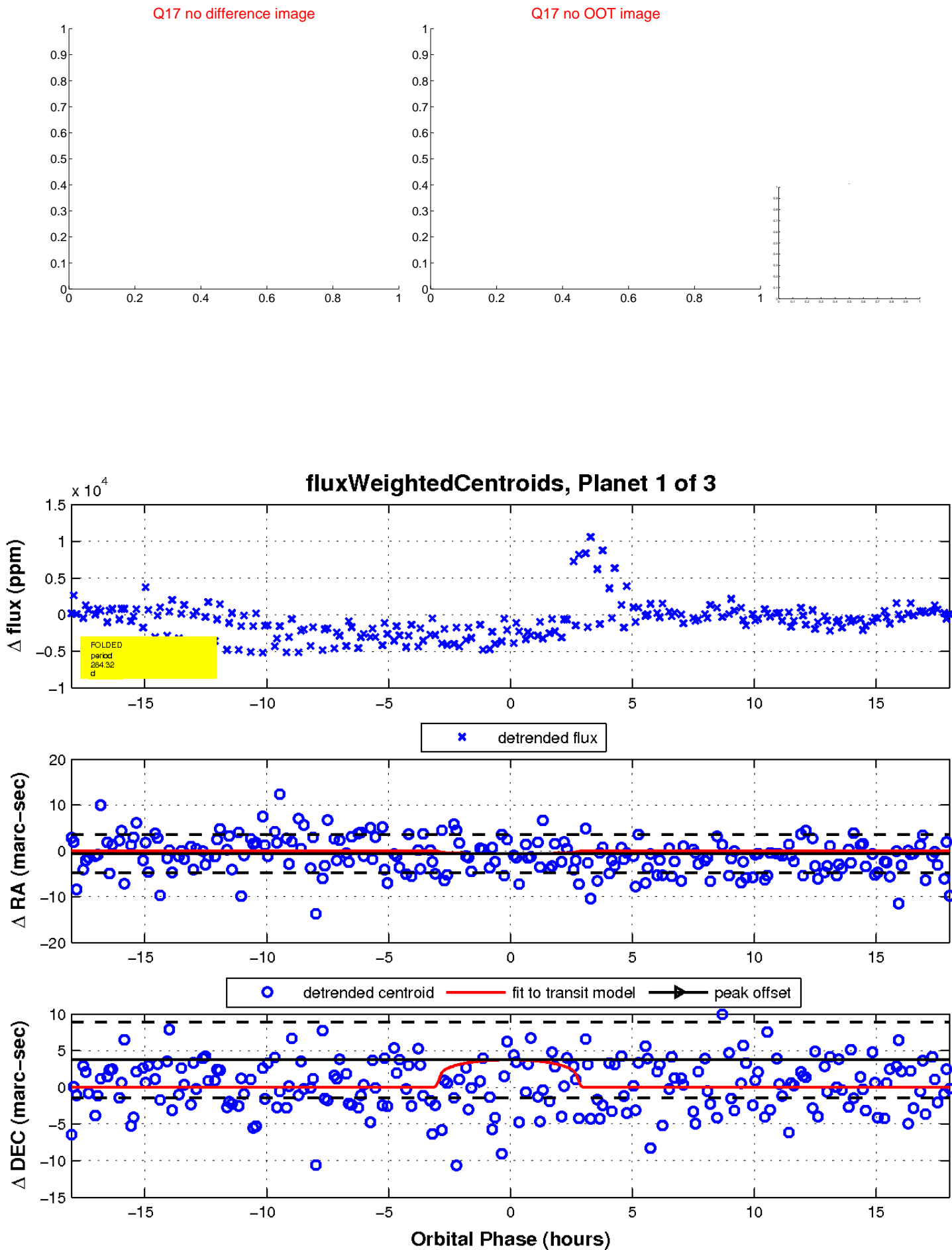
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

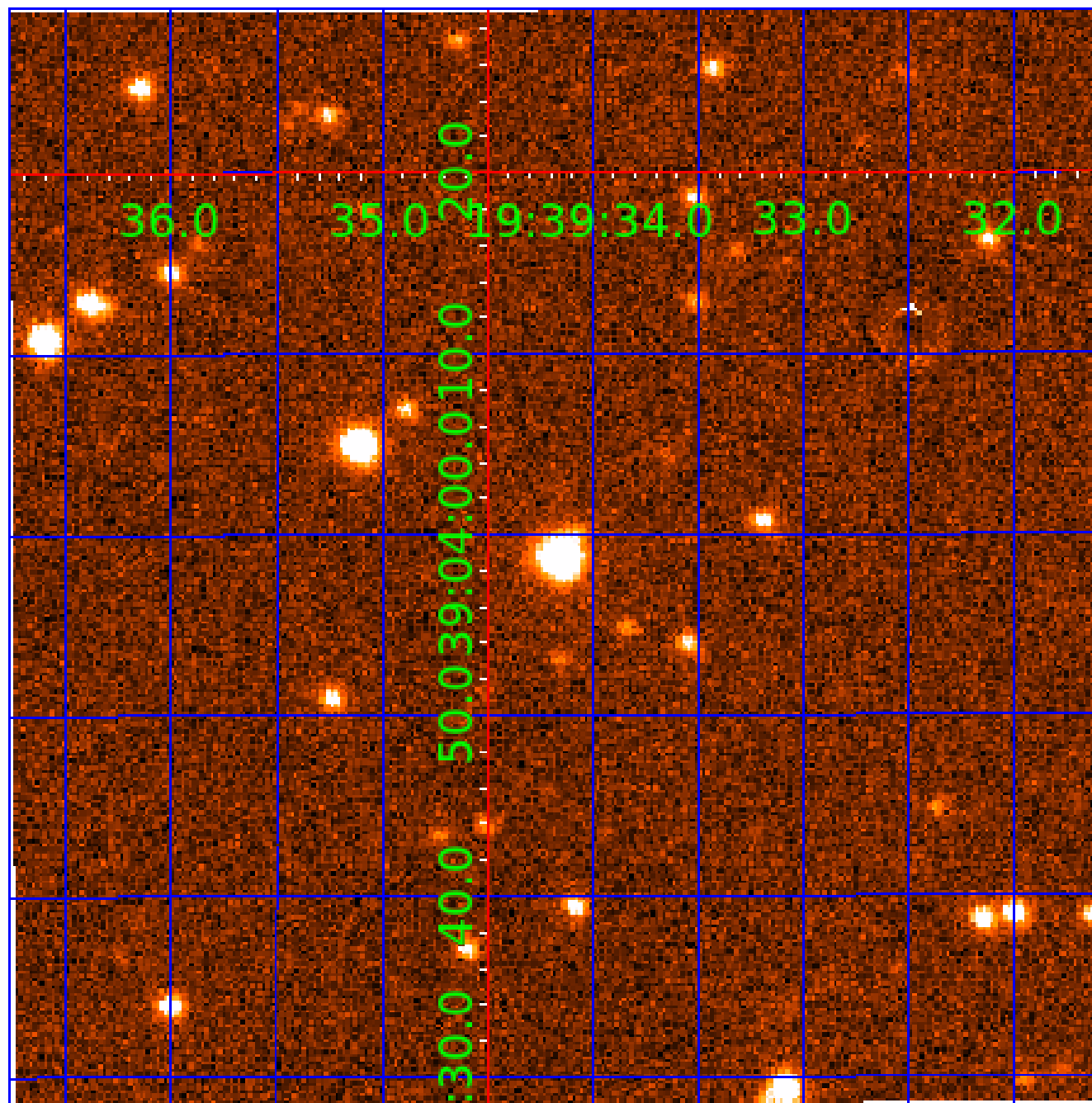


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003967523

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})
003967523-01	OBS	No	284.319761	278.989960	2377.5	6.011	14.0	6.3	0.66	4955	3.17	0.45
003967523-02	OBS	No	211.569392	232.775545	2990.2	4.290	11.8	10.7	0.66	4955	7.05	0.66
003967523-03	OBS	No	251.196750	273.787668	1798.1	6.331	11.0	7.3	0.66	4955	3.20	0.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003967523-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_ZUMA—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003967523-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003967523-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

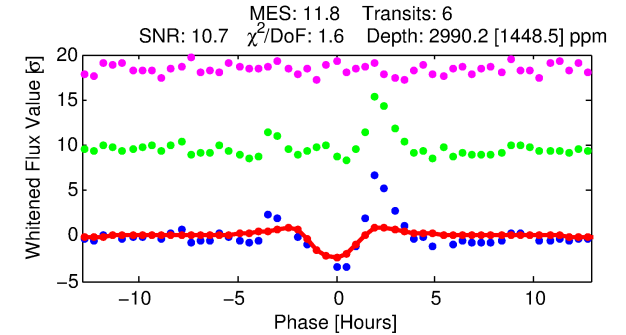
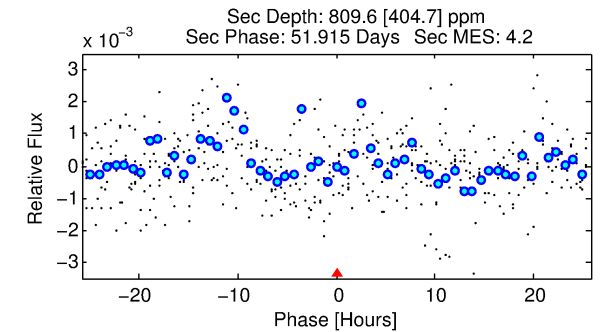
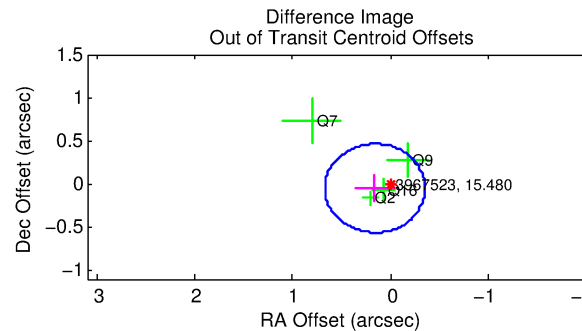
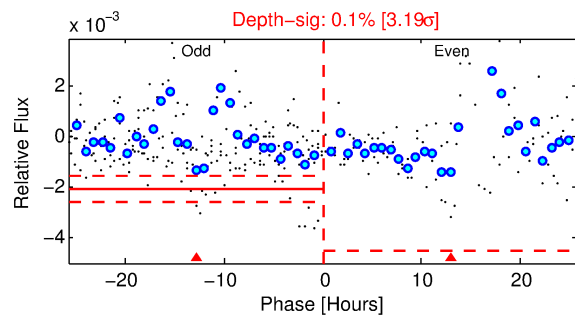
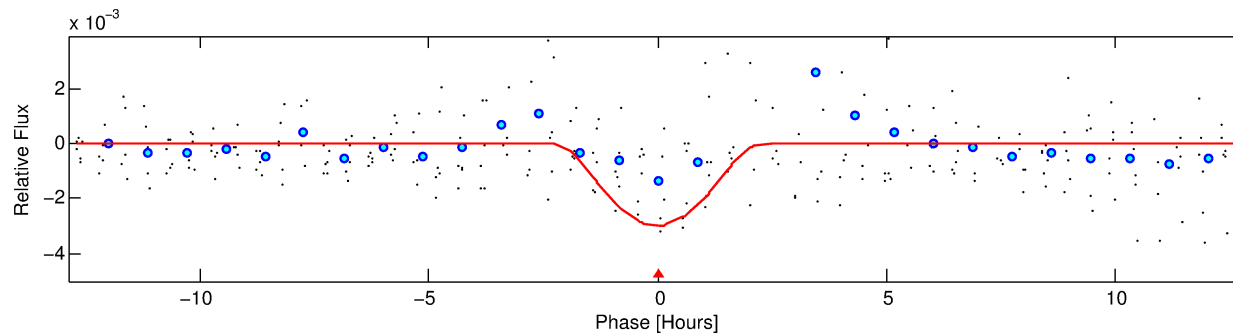
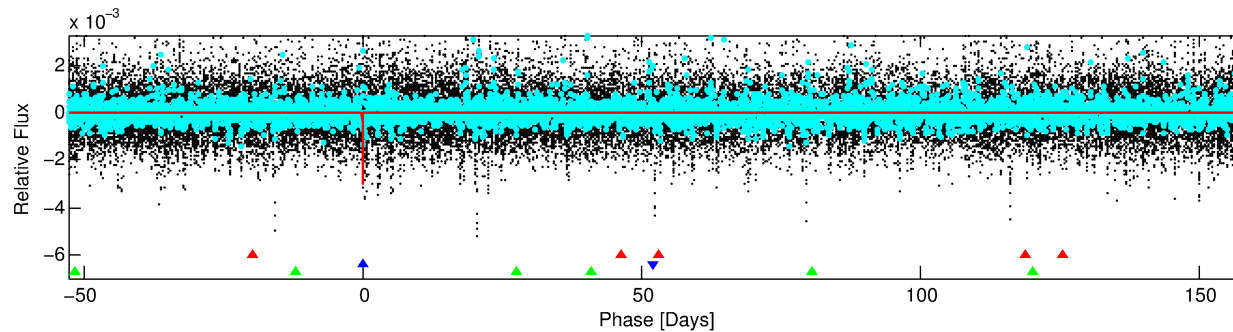
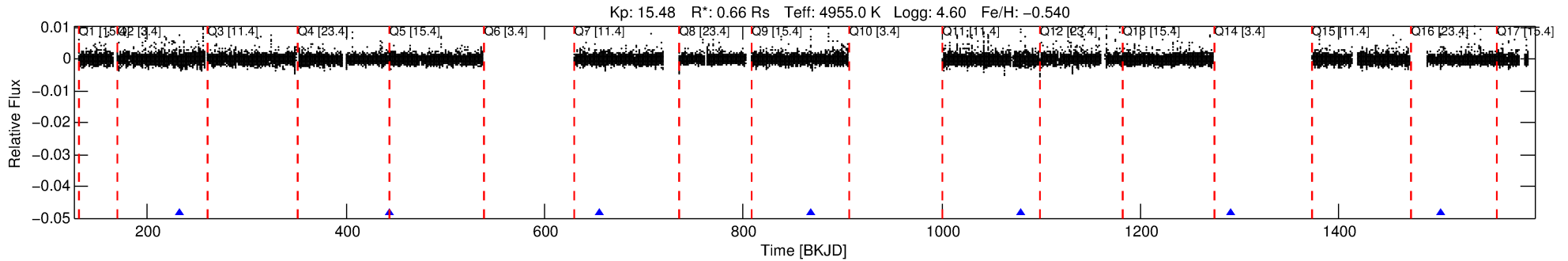
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003967523-02

No Significant Match Found

DV One-Page Summary

KIC: 3967523 Candidate: 2 of 3 Period: 211.569 d



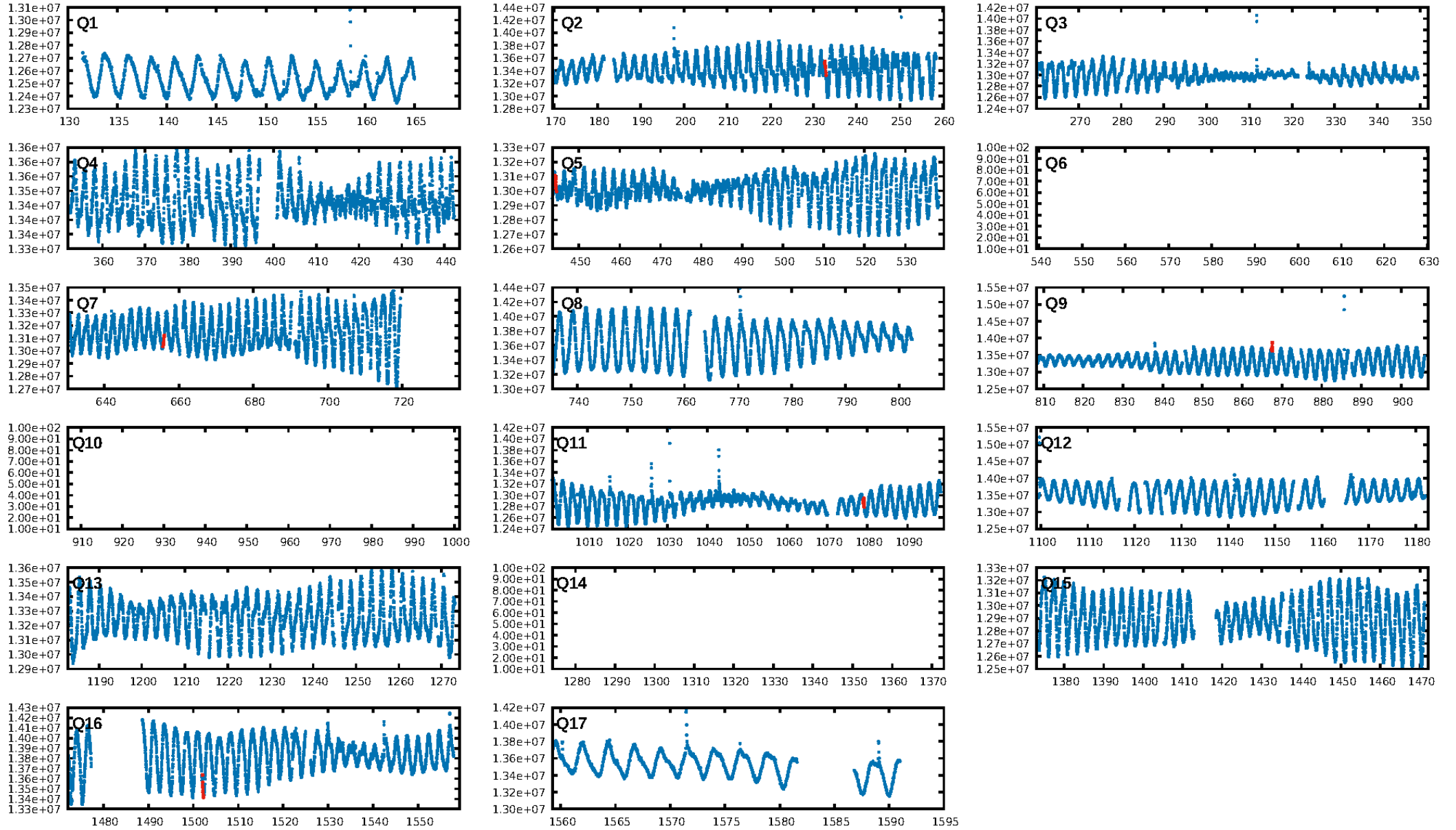
DV Fit Results:

Period = 211.56939 [0.00259] d
Epoch = 232.7755 [0.0093] BKJD
Rp/R* = 0.0973 [0.4537]
a/R* = 170.27 [155.89]
b = 1.00 [0.61]
Seff = 0.66 [0.11]
Teq = 230 [10] K
Rp = 7.05 [32.88] Re
a = 0.6004 [0.0496] AU
Ag = 3229.54 [30161.67] [0.11 σ]
Teffp = 2679 [6256] K [0.39 σ]

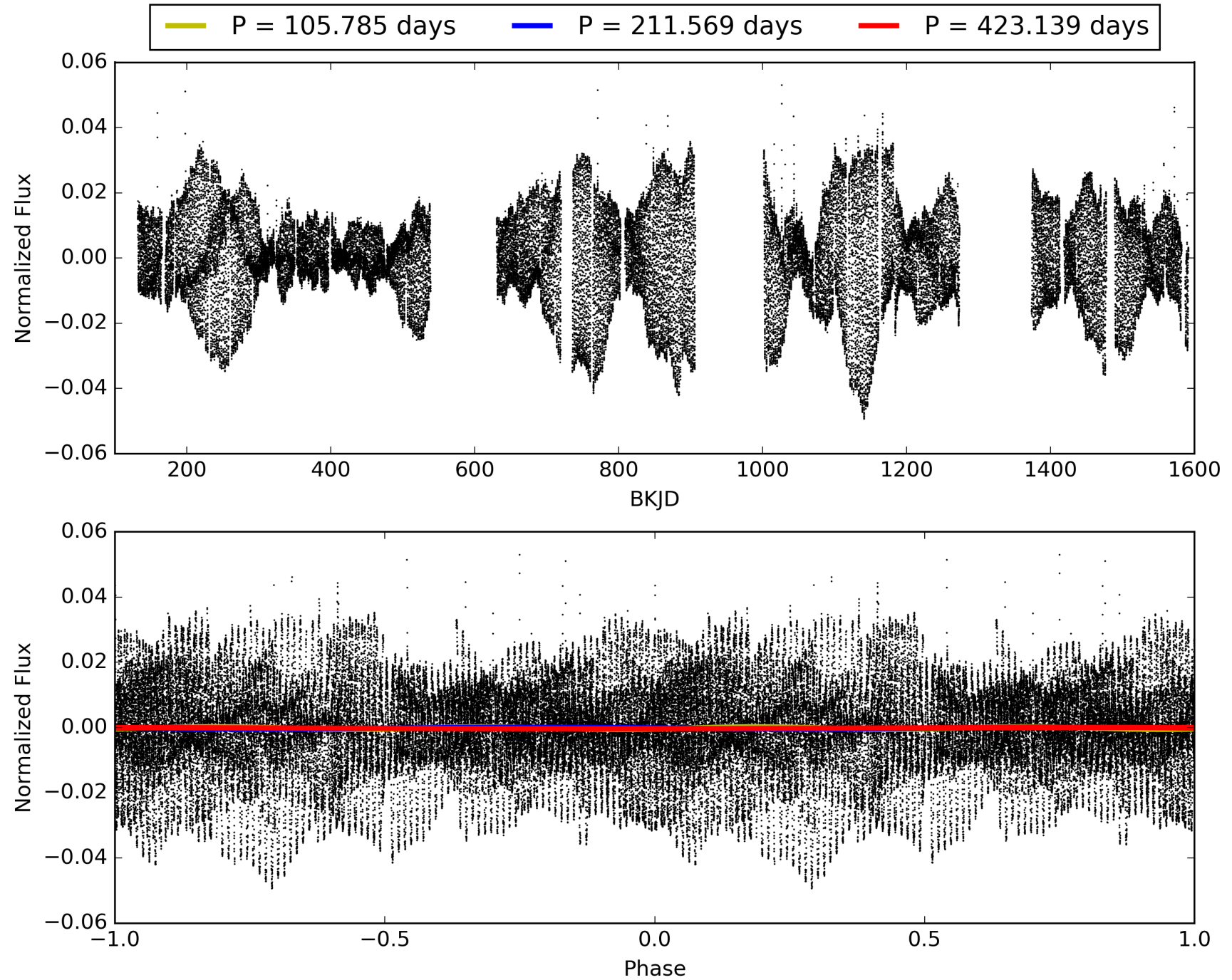
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [124.36 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 57.0%
Bootstrap-pfa: 2.95e-13
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 1.33
Centroid-sig: 11.2%
Centroid-so: 0.611 arcsec [0.88 σ]
OotOffset-rm: 0.167 arcsec [0.98 σ]
KicOffset-rm: 0.185 arcsec [1.14 σ]
OotOffset-st: 1/1/1/1 [4]
KicOffset-st: 1/1/1/1 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 1.00 [5/5]

TCE 003967523-02, PDC Light Curves

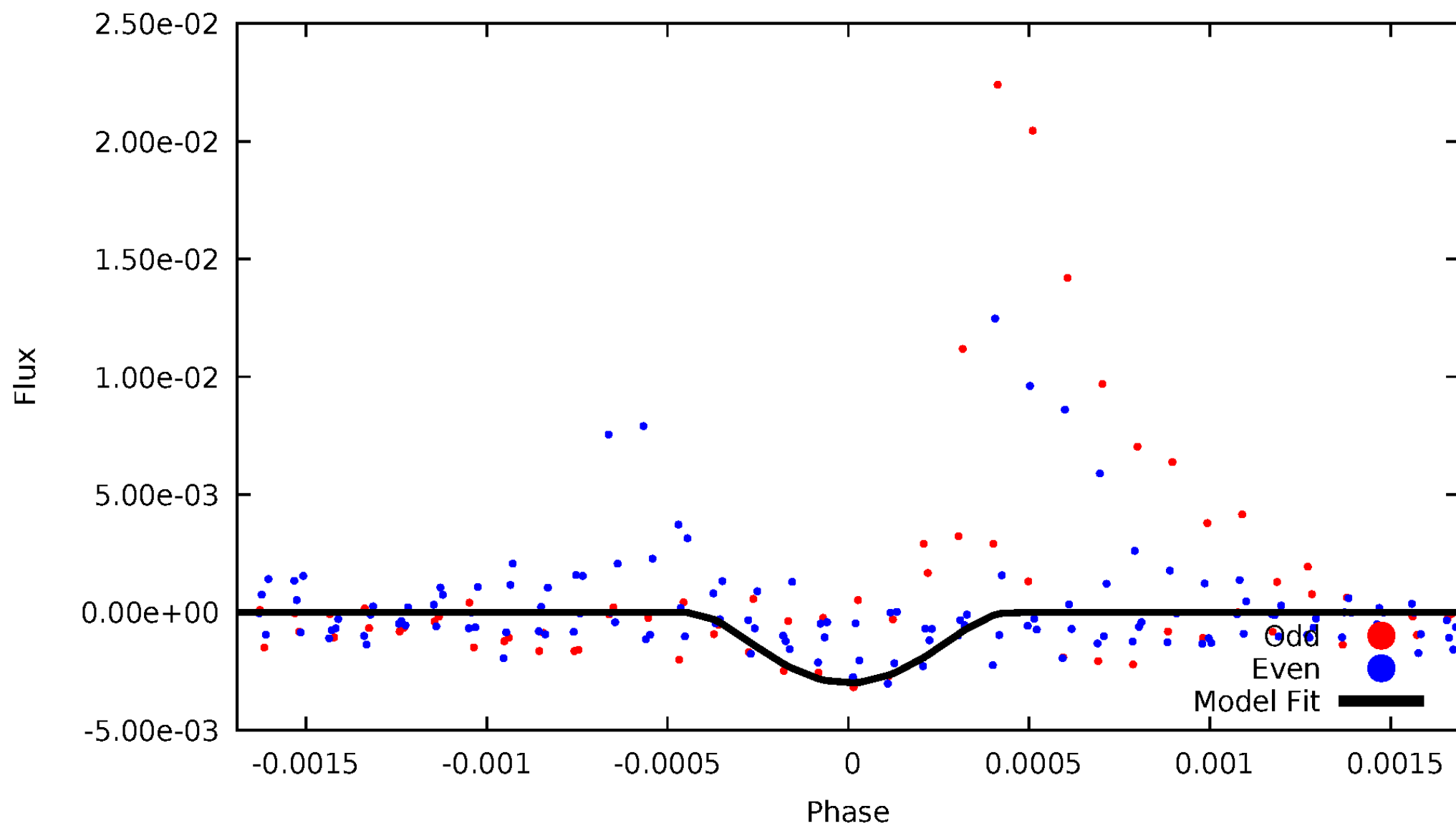


TCE 003967523-02



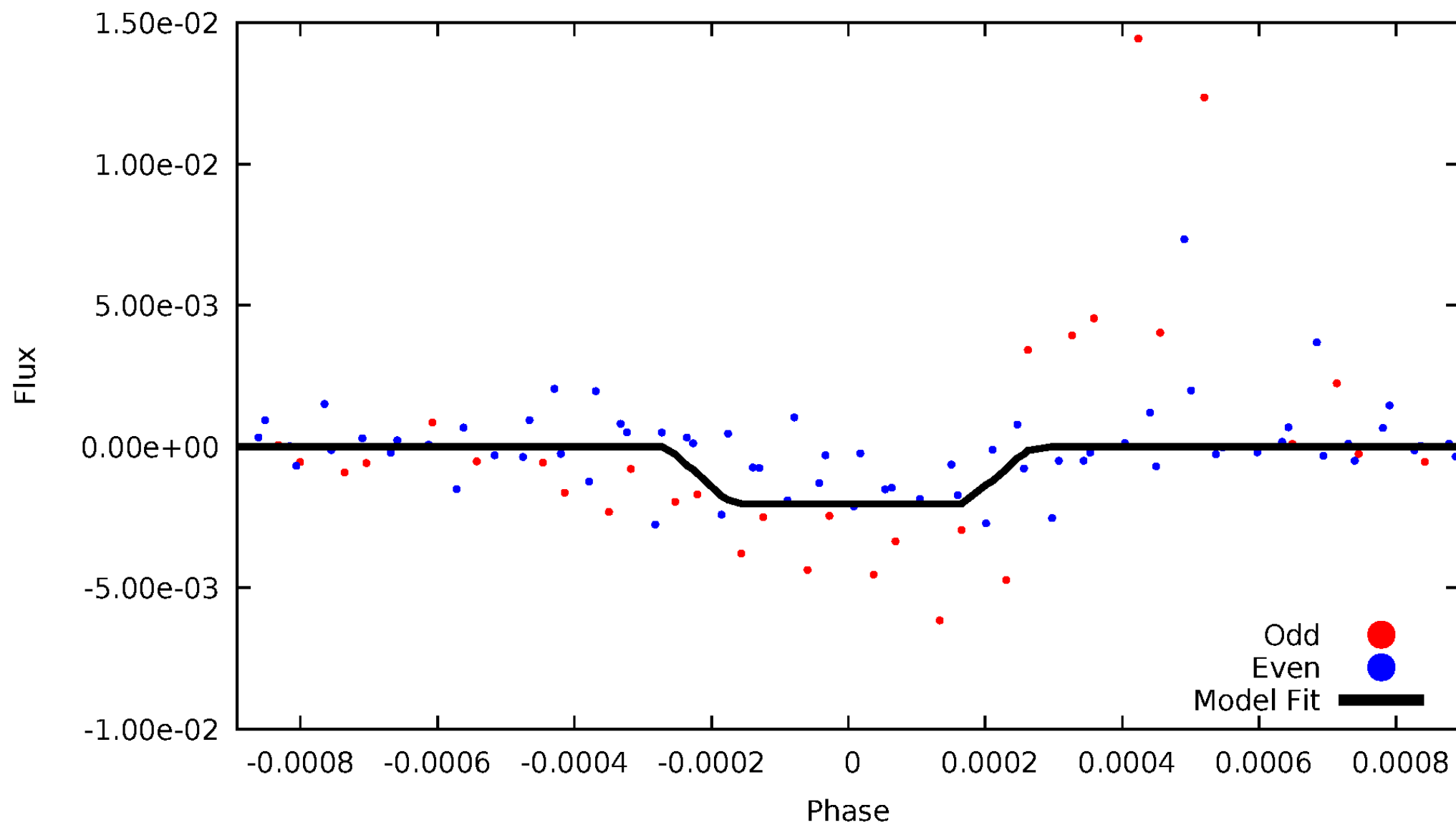
DV Odd/Even

TCE 003967523-02



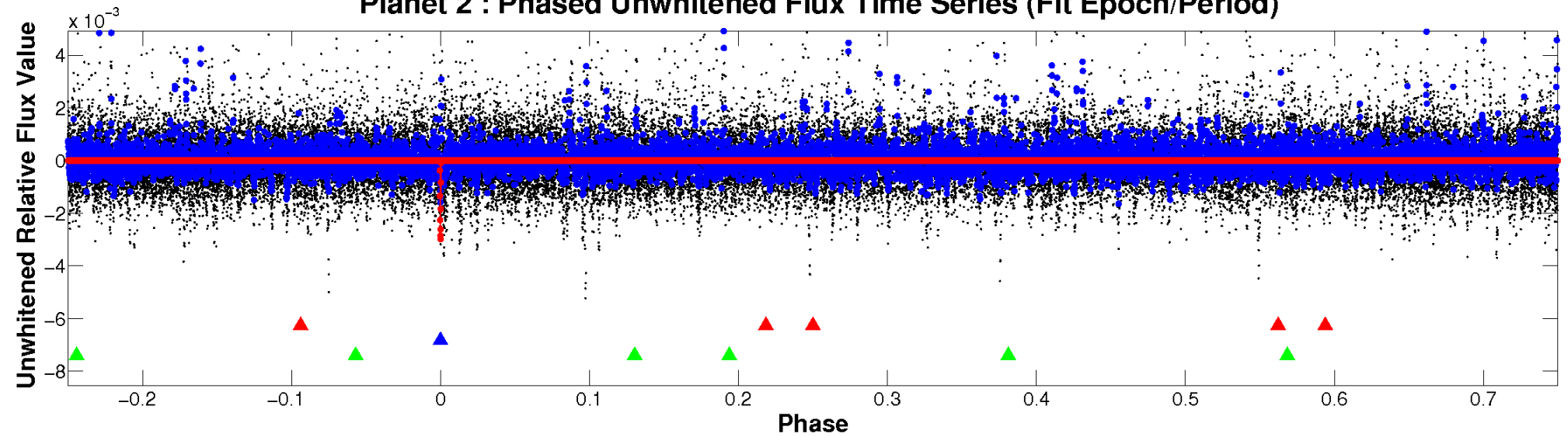
ALT Odd/Even

TCE 003967523-02

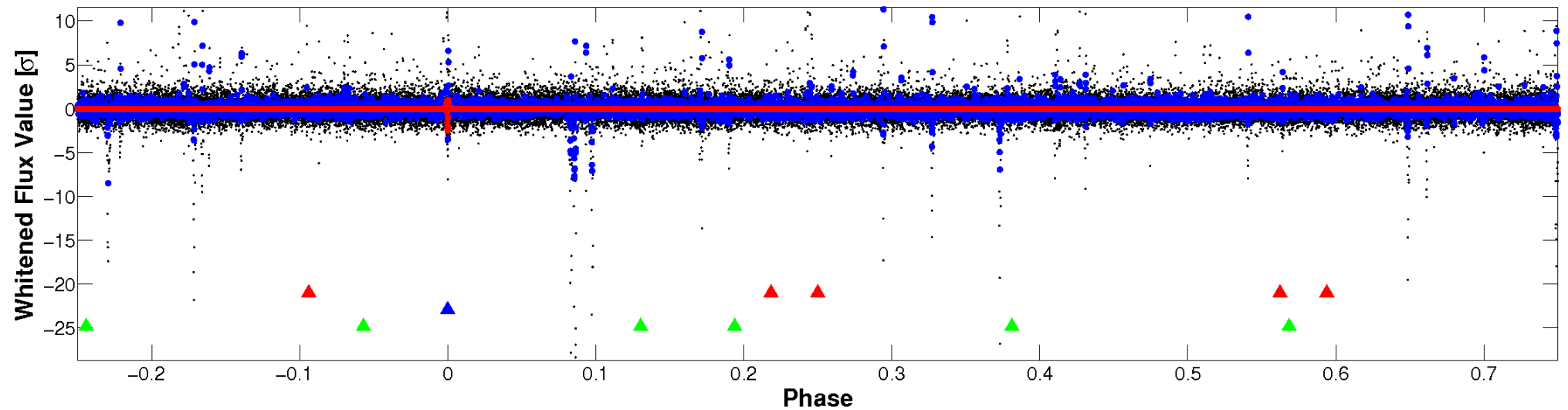


Non-Whitened Vs. Whitened Light Curve

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

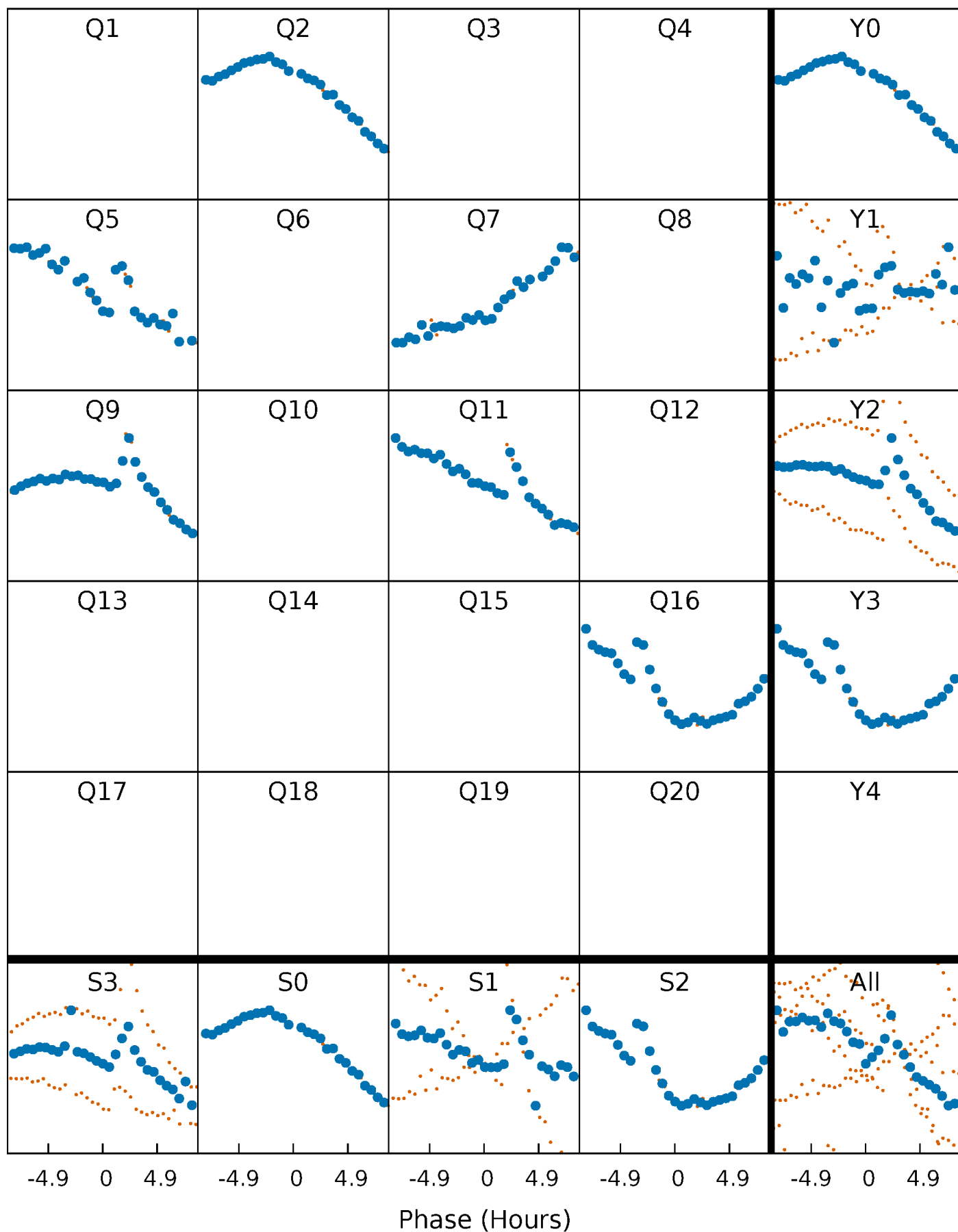


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



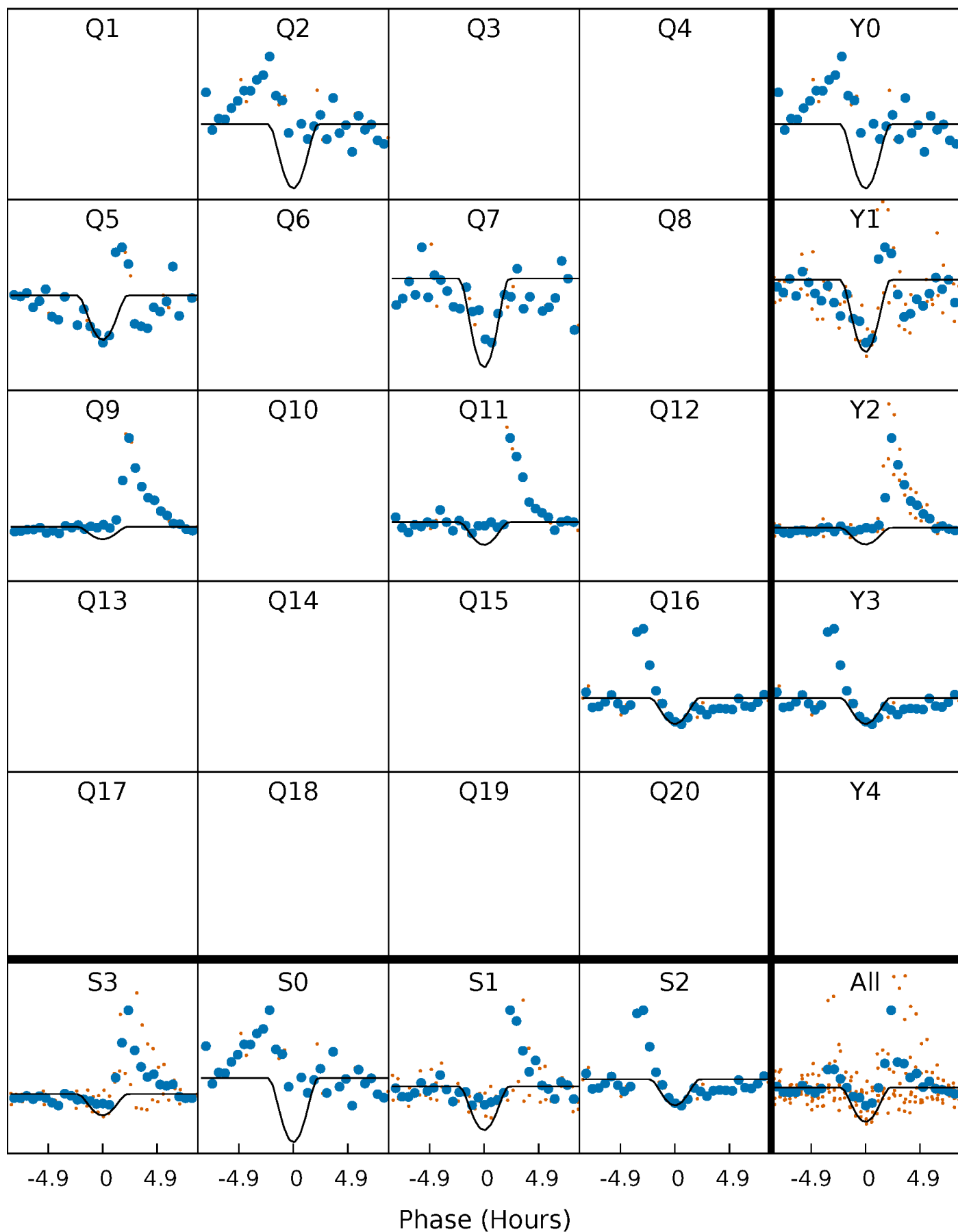
PDC Quarter-Phased Transit Curves

TCE 003967523-02 $P=211.569392$ Days $T_0=232.775545$ (BKJD)



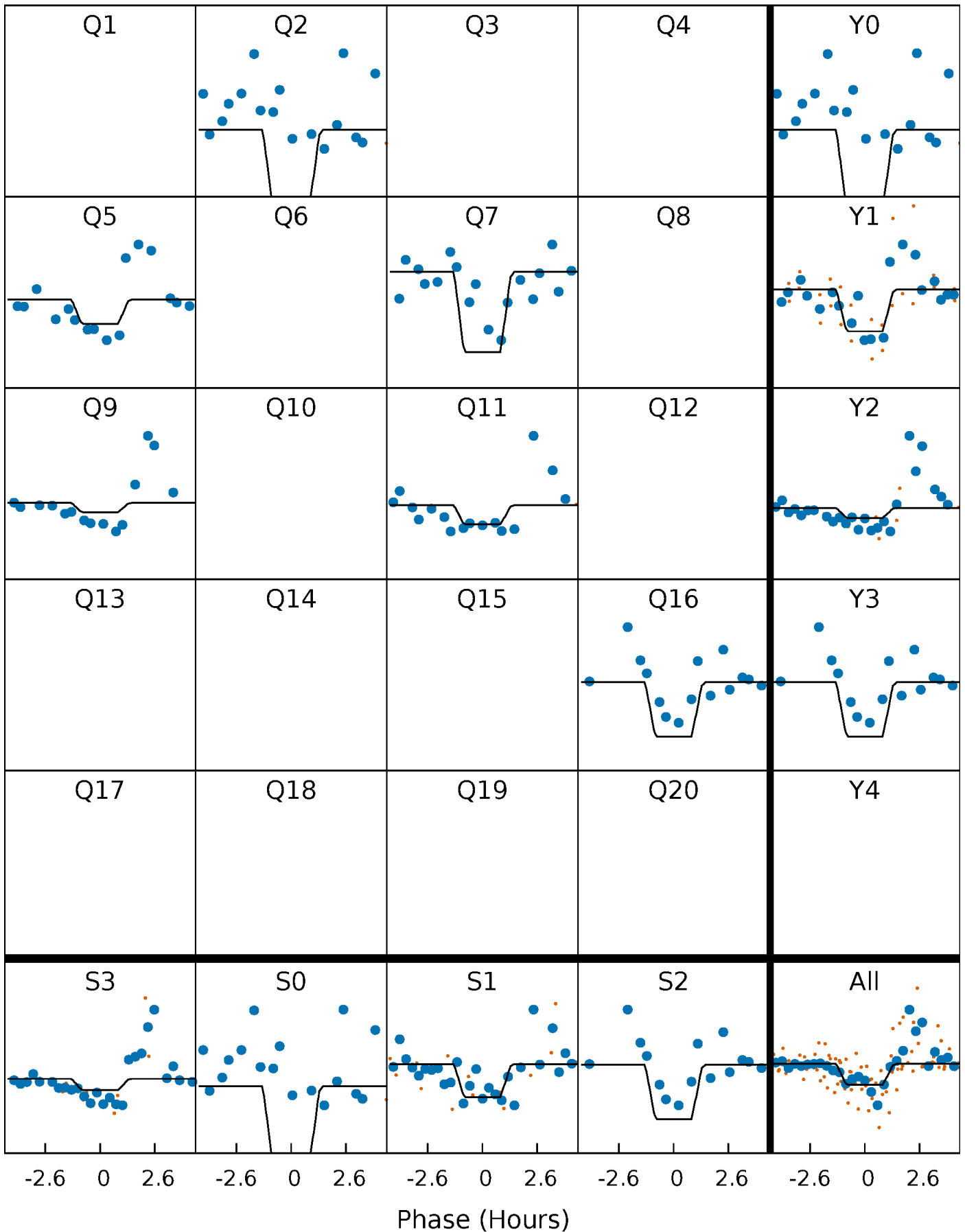
DV Quarter-Phased Transit Curves

TCE 003967523-02 $P=211.569392$ Days $T_0=232.775545$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

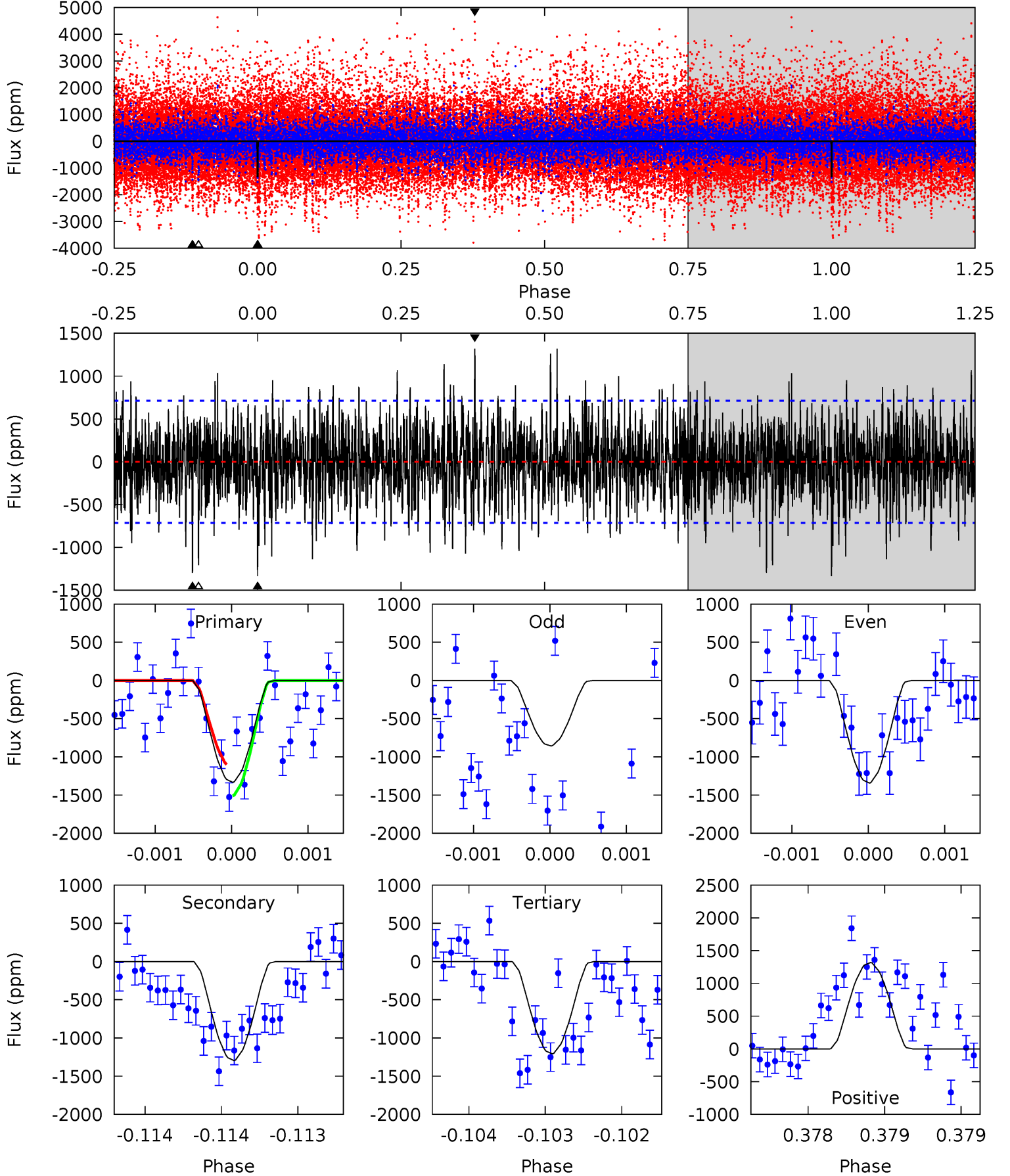
TCE 003967523-02 $P=211.574044$ Days $T_0=232.759435$ (BKJD)



DV Model-Shift Uniqueness Test

003967523-02, P = 211.569392 Days, E = 21.206153 Days

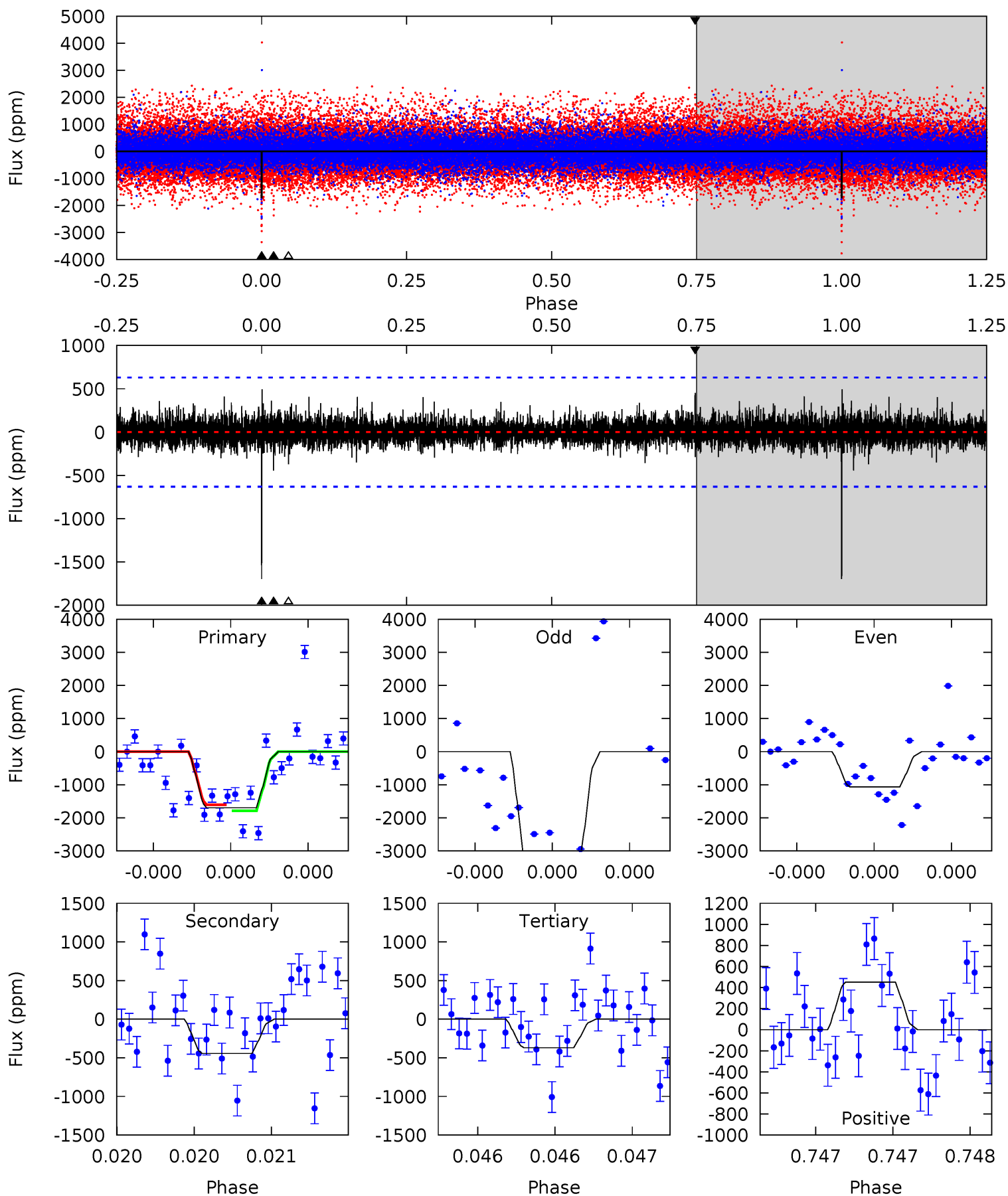
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	9.95	9.27	10.1	5.47	3.33	2.57	0.97	0.11	0.68	-0.18	1.74	0.73	0.50	1.58



Alt Model-Shift Uniqueness Test

003967523-02, P = 211.574044 Days, E = 21.185391 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.0	3.92	3.26	3.99	5.57	3.48	0.81	11.7	11.0	0.66	-0.07	12.0	1.17	0.23	0.82



Stellar Parameters For KIC 003967523

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4955^{+148}_{-148}	$4.603^{+0.066}_{-0.039}$	$-0.540^{+0.350}_{-0.300}$	$0.664^{+0.058}_{-0.065}$	$0.645^{+0.078}_{-0.036}$	$3.108^{+0.876}_{-0.474}$
	+3%/-3%	+1%/-1%	+65%/-56%	+9%/-10%	+12%/-6%	+28%/-15%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 003967523-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1296 ± 130	$25.22^{+28.14}_{-16.70}$	319^{+11}_{-11}	2424^{+843}_{-365}	402^{+3221}_{-311}
Alt.	-444 ± 113	$22.21^{+26.55}_{-15.27}$	320^{+13}_{-12}	2210^{+766}_{-332}	175^{+1719}_{-137}

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

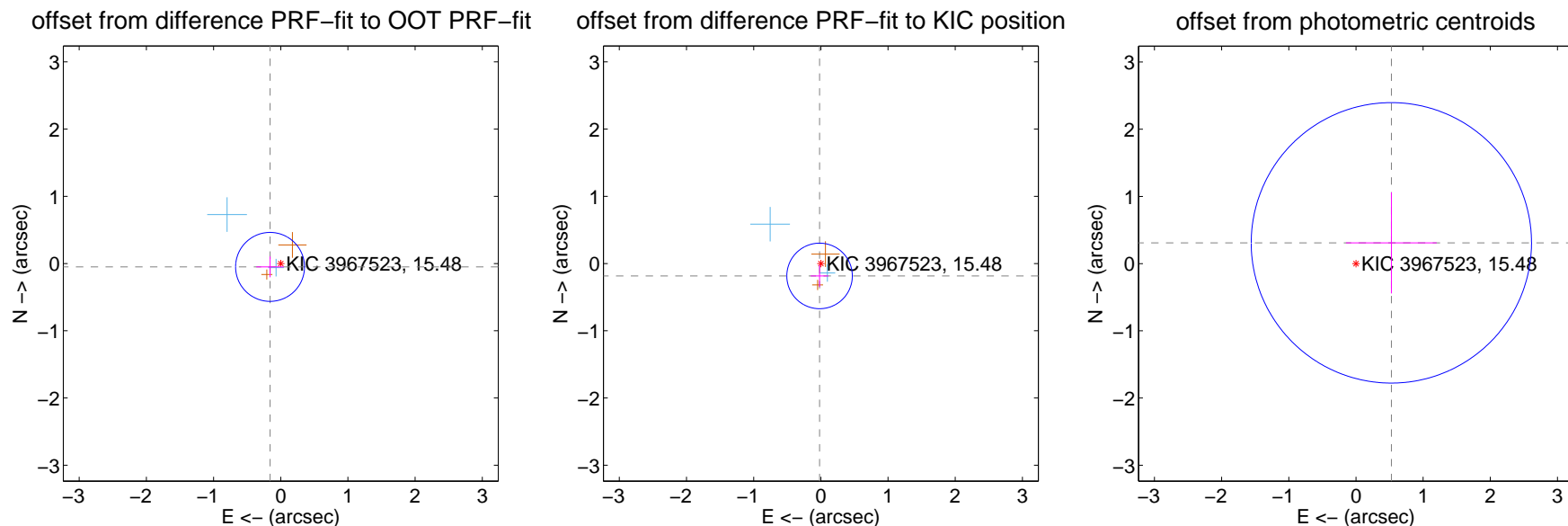
DV Centroid Data

Supplemental centroid analysis for 003967523-02. Kepler magnitude: 15.48. Transit SNR 10.72

There are 2 quarters with good PRF difference image offsets

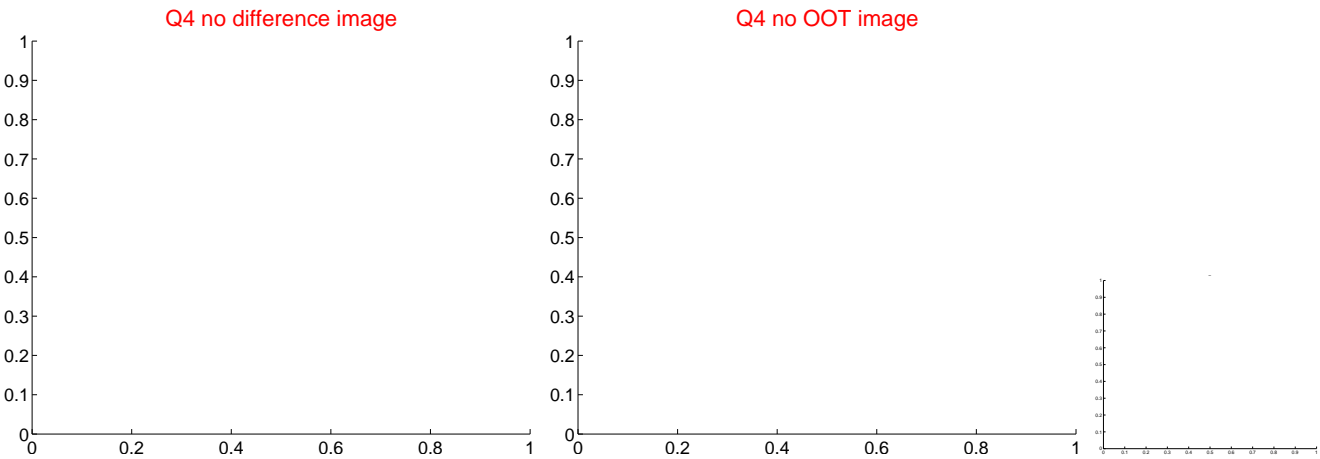
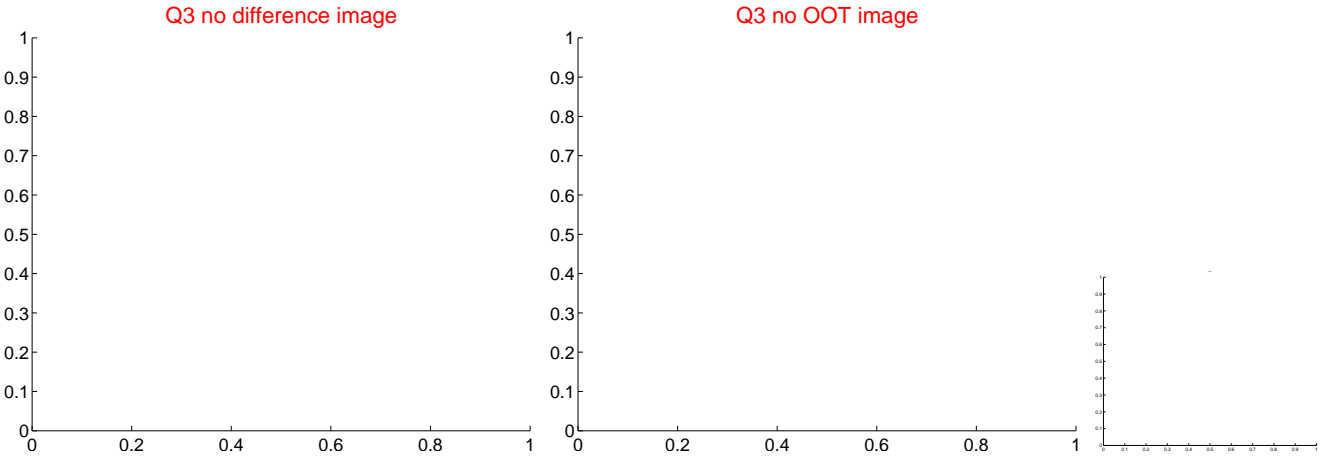
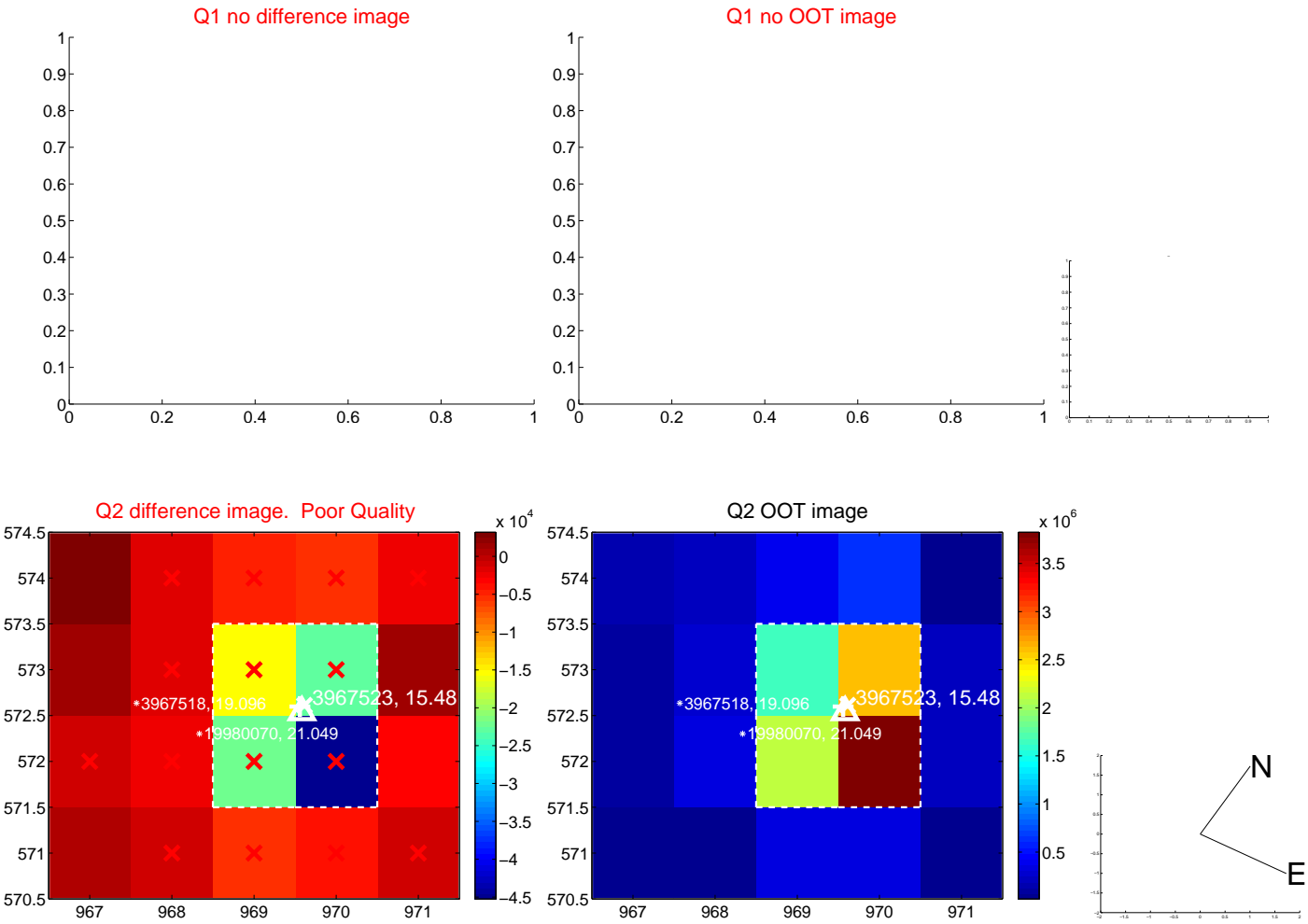
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.167 ± 0.171	0.98	0.159 ± 0.205	-0.050 ± 0.154
PRF-fit source offset from KIC position	0.185 ± 0.162	1.14	0.019 ± 0.132	-0.184 ± 0.163
photometric centroid source offset	0.61 ± 0.70	0.88	-0.53 ± 0.67	0.31 ± 0.75

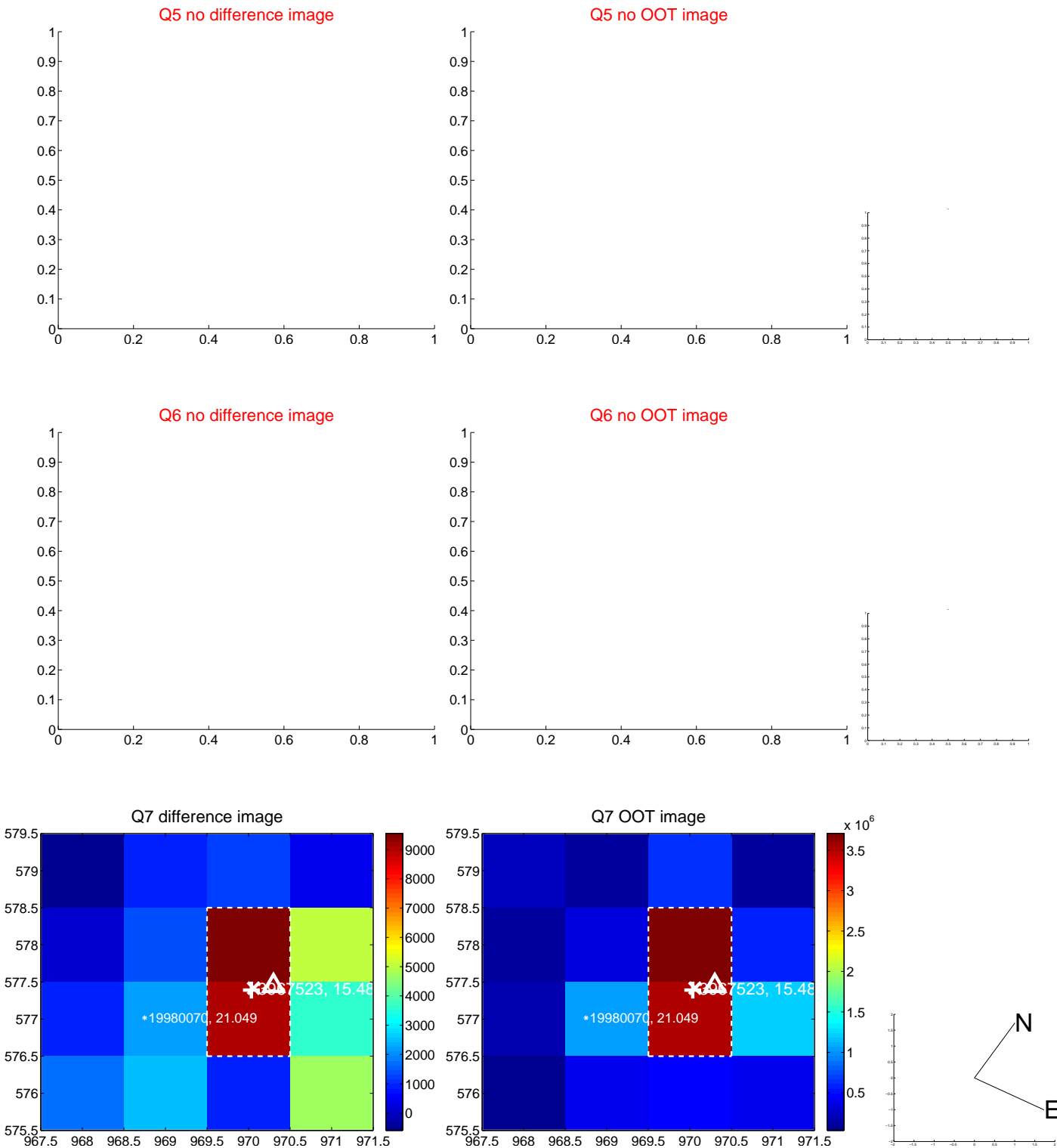


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

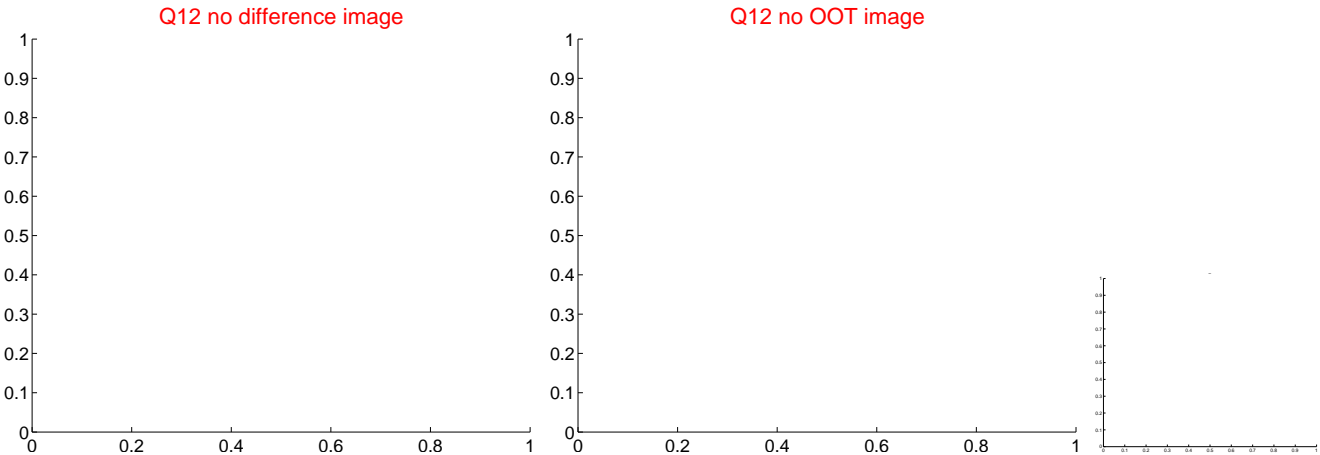
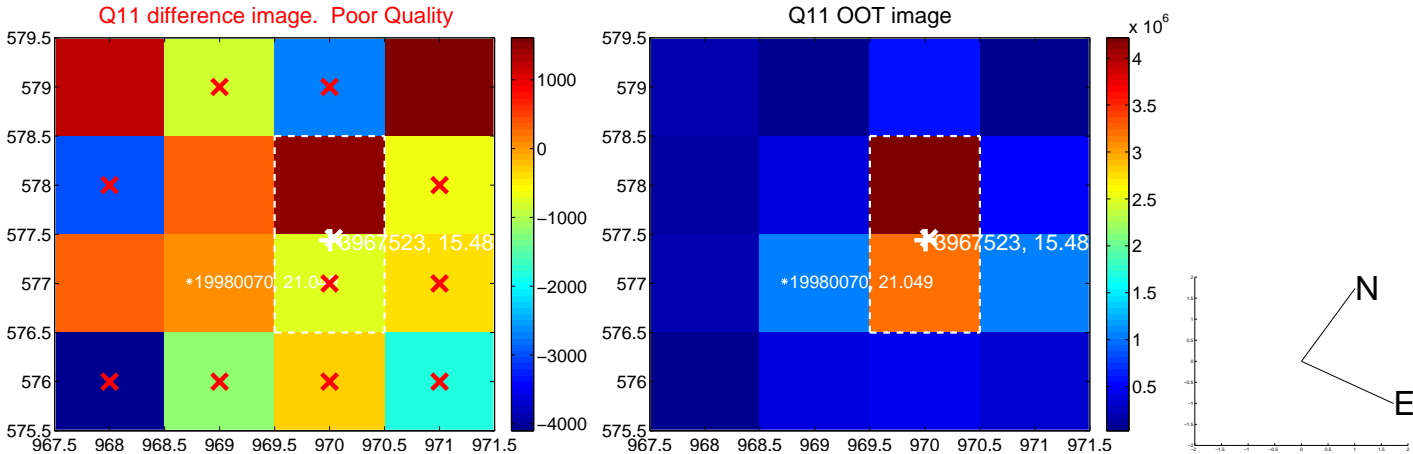
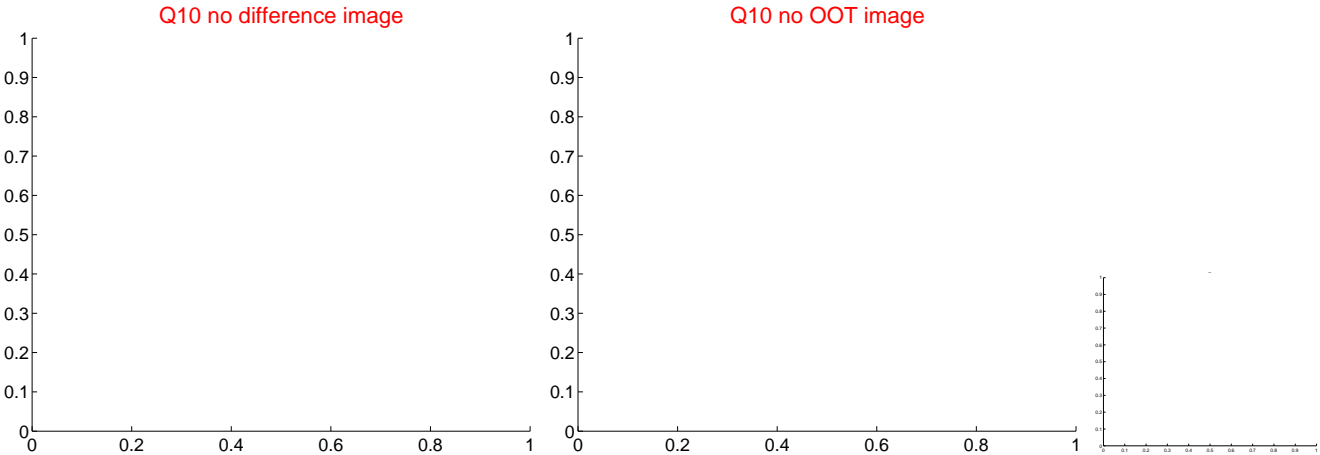
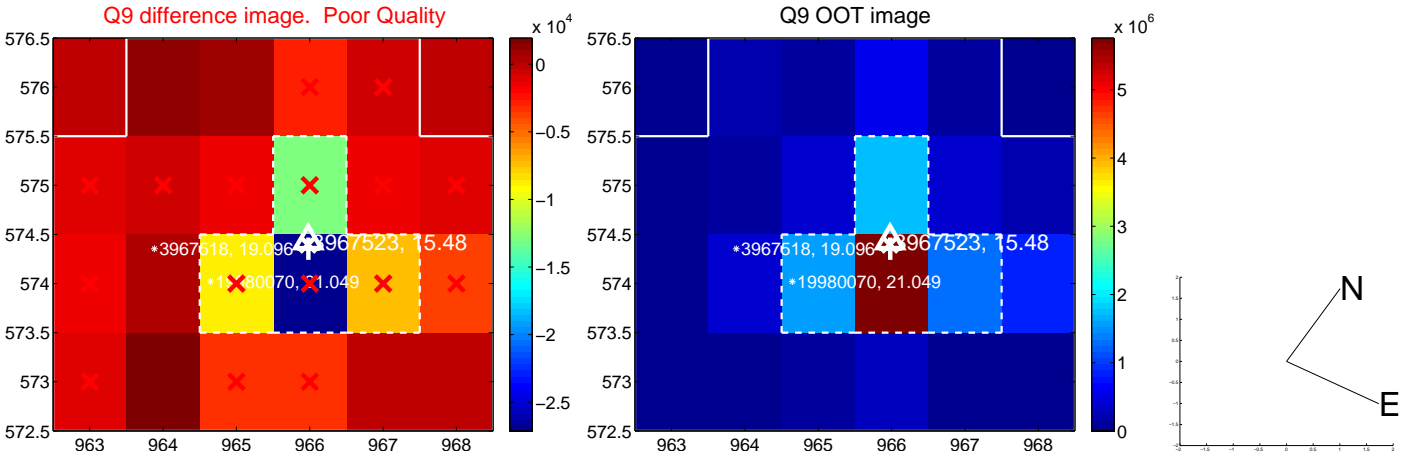
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



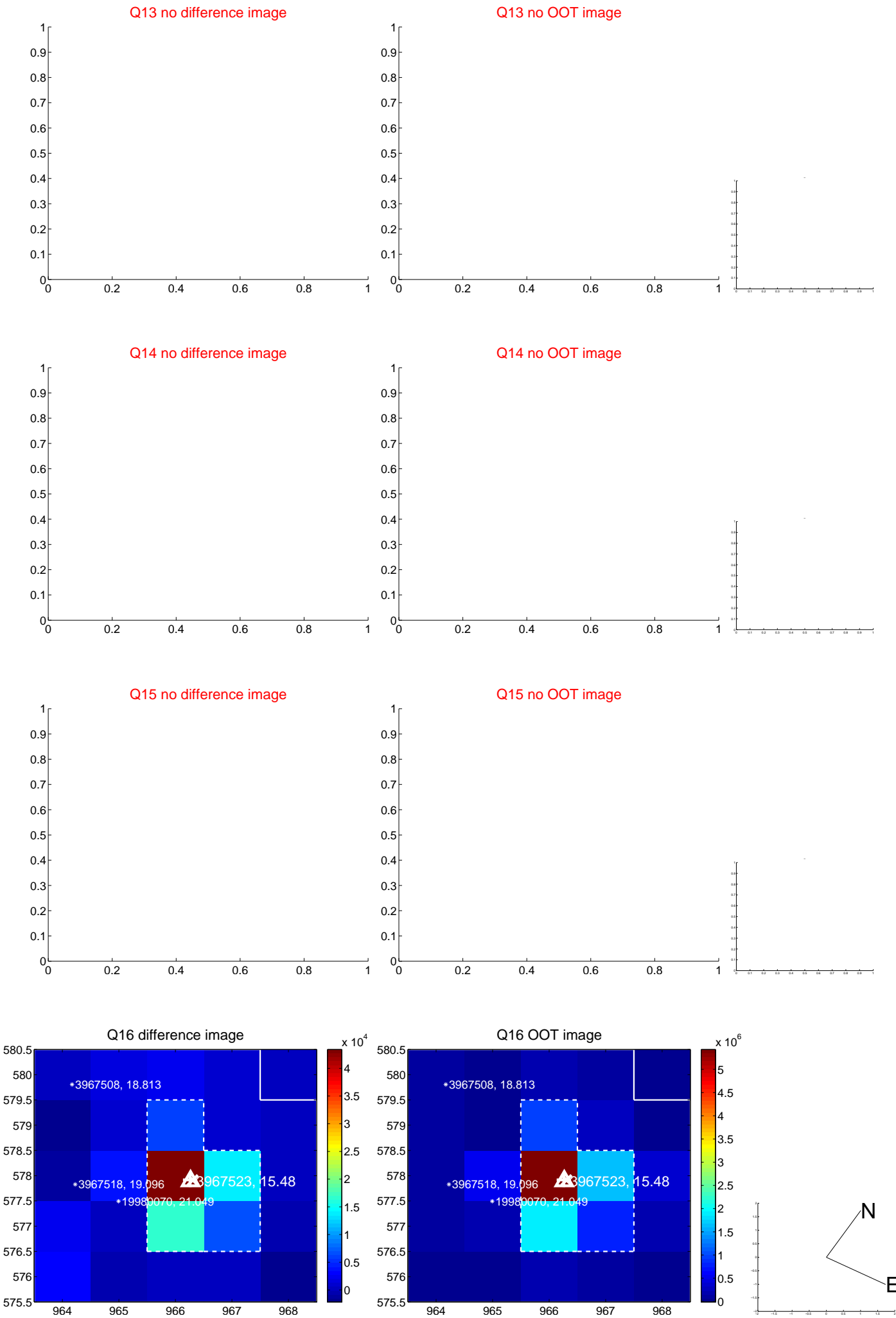
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



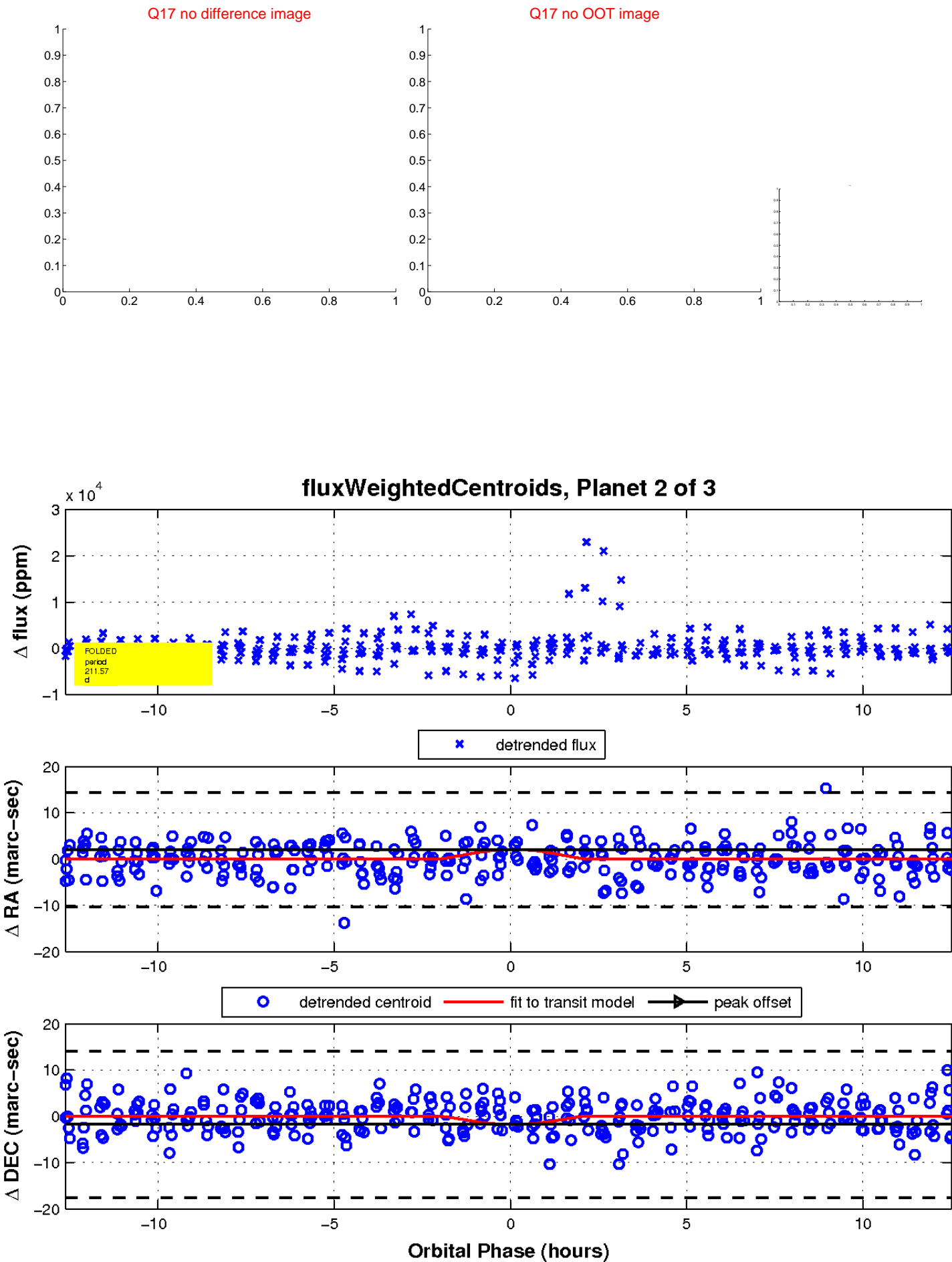
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

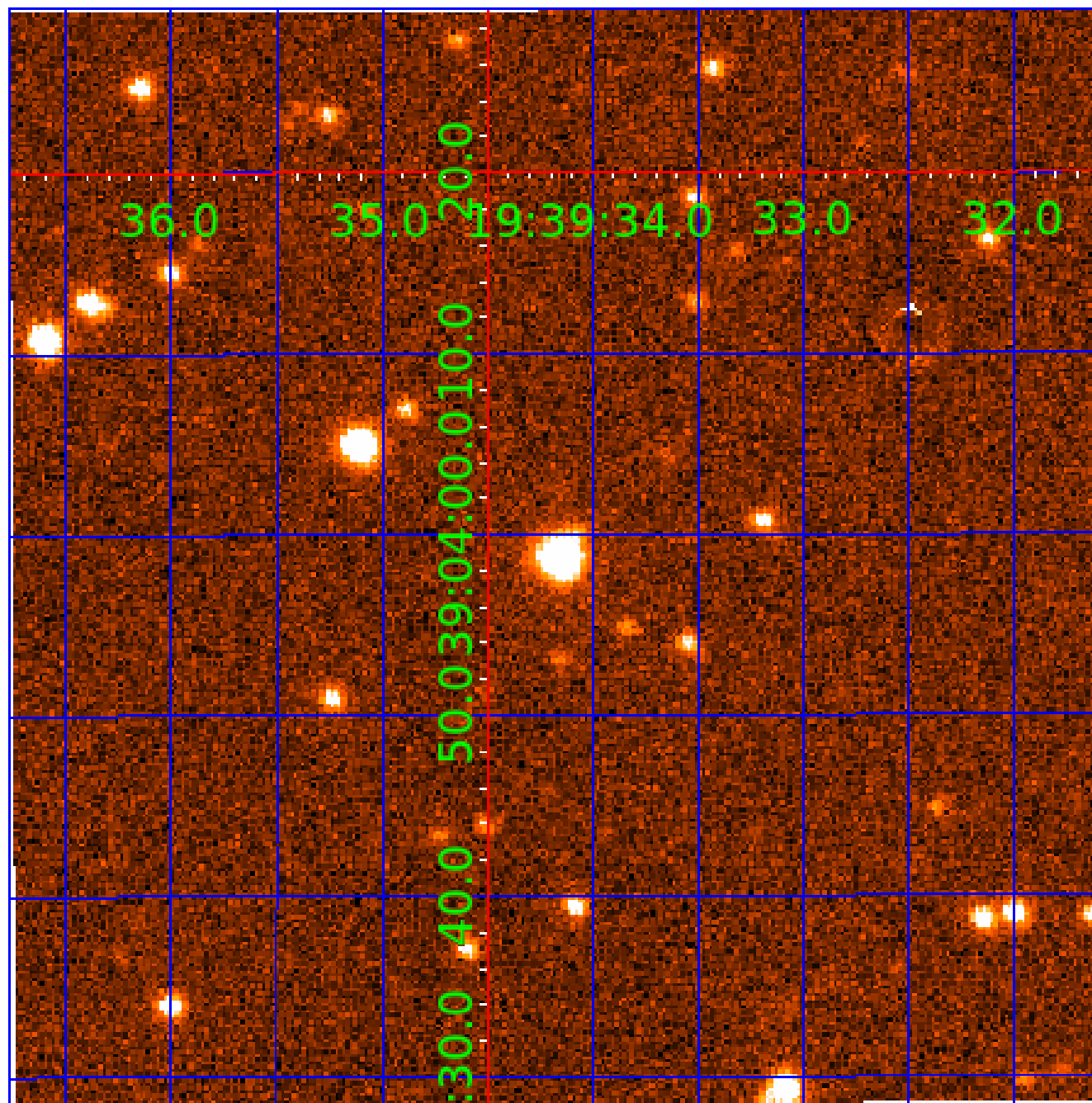


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003967523

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})
003967523-01	OBS	No	284.319761	278.989960	2377.5	6.011	14.0	6.3	0.66	4955	3.17	0.45
003967523-02	OBS	No	211.569392	232.775545	2990.2	4.290	11.8	10.7	0.66	4955	7.05	0.66
003967523-03	OBS	No	251.196750	273.787668	1798.1	6.331	11.0	7.3	0.66	4955	3.20	0.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003967523-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_ZUMA—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003967523-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003967523-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

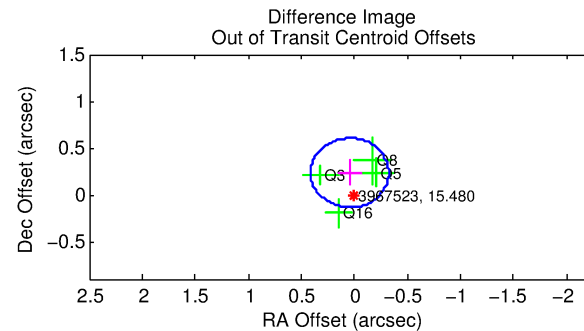
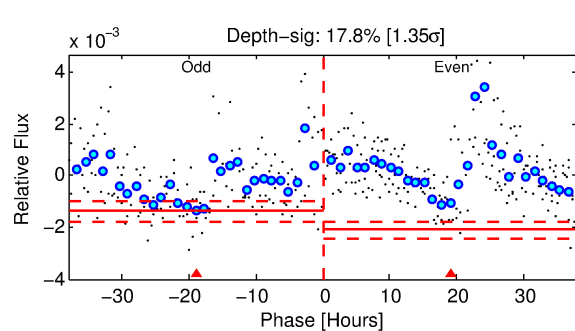
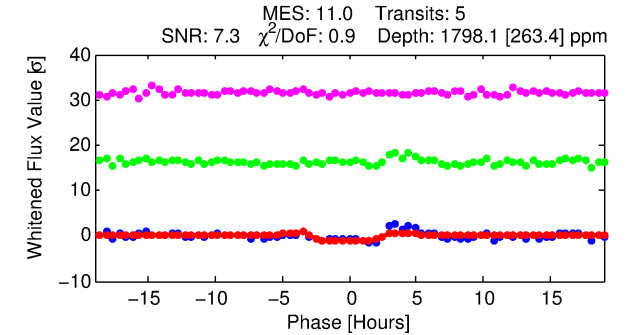
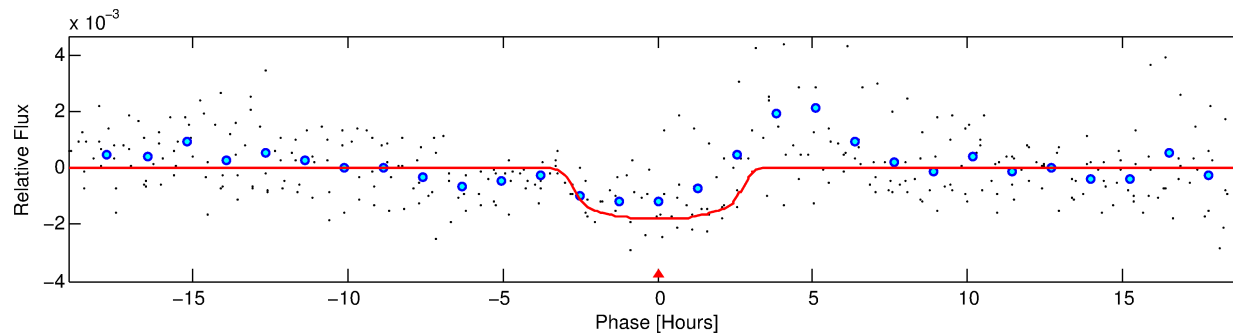
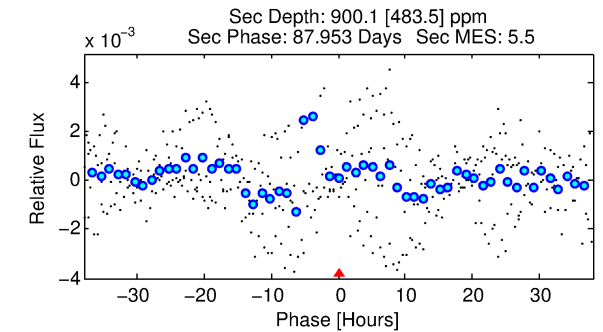
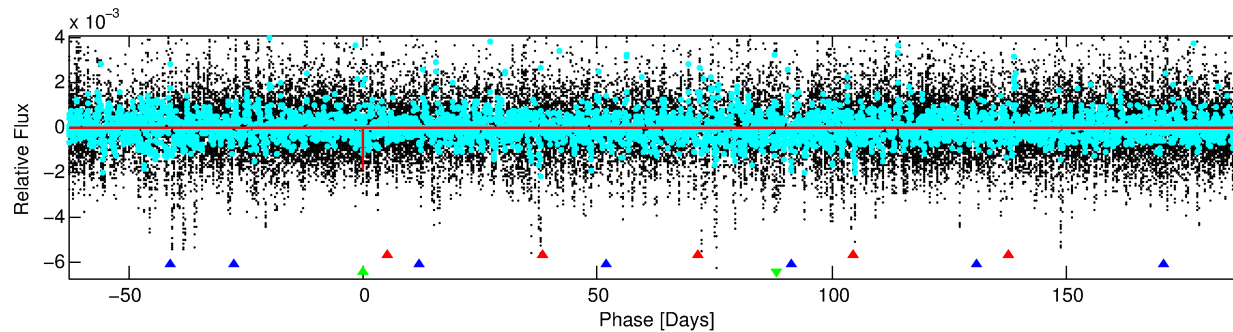
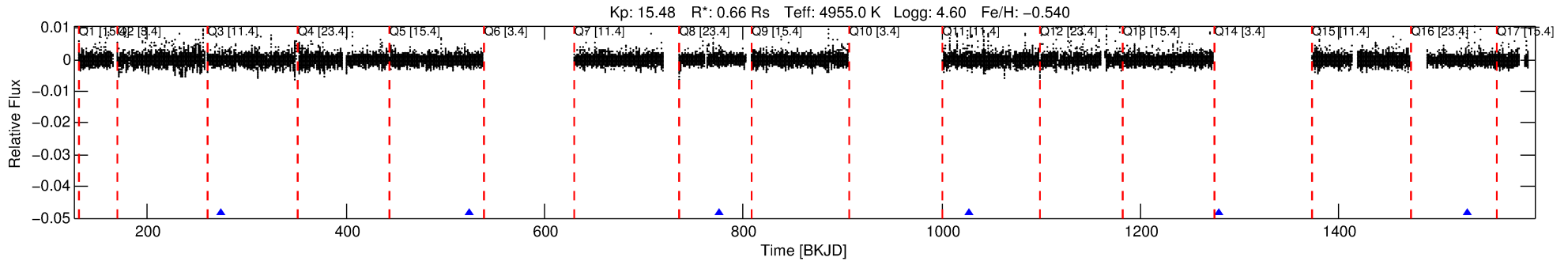
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003967523-03

No Significant Match Found

DV One-Page Summary

KIC: 3967523 Candidate: 3 of 3 Period: 251.197 d



DV Fit Results:

Period = 251.19675 [0.00280] d
Epoch = 273.7877 [0.0089] BKJD
Rp/R* = 0.0441 [0.0075]
a/R* = 193.68 [100.45]
b = 0.83 [0.20]
Seff = 0.53 [0.09]
Teq = 217 [9] K
Rp = 3.20 [0.63] Re
a = 0.6732 [0.0556] AU
Ag = 21933.95 [14187.89] [1.55σ]
Teffp = 4085 [660] K [5.86σ]

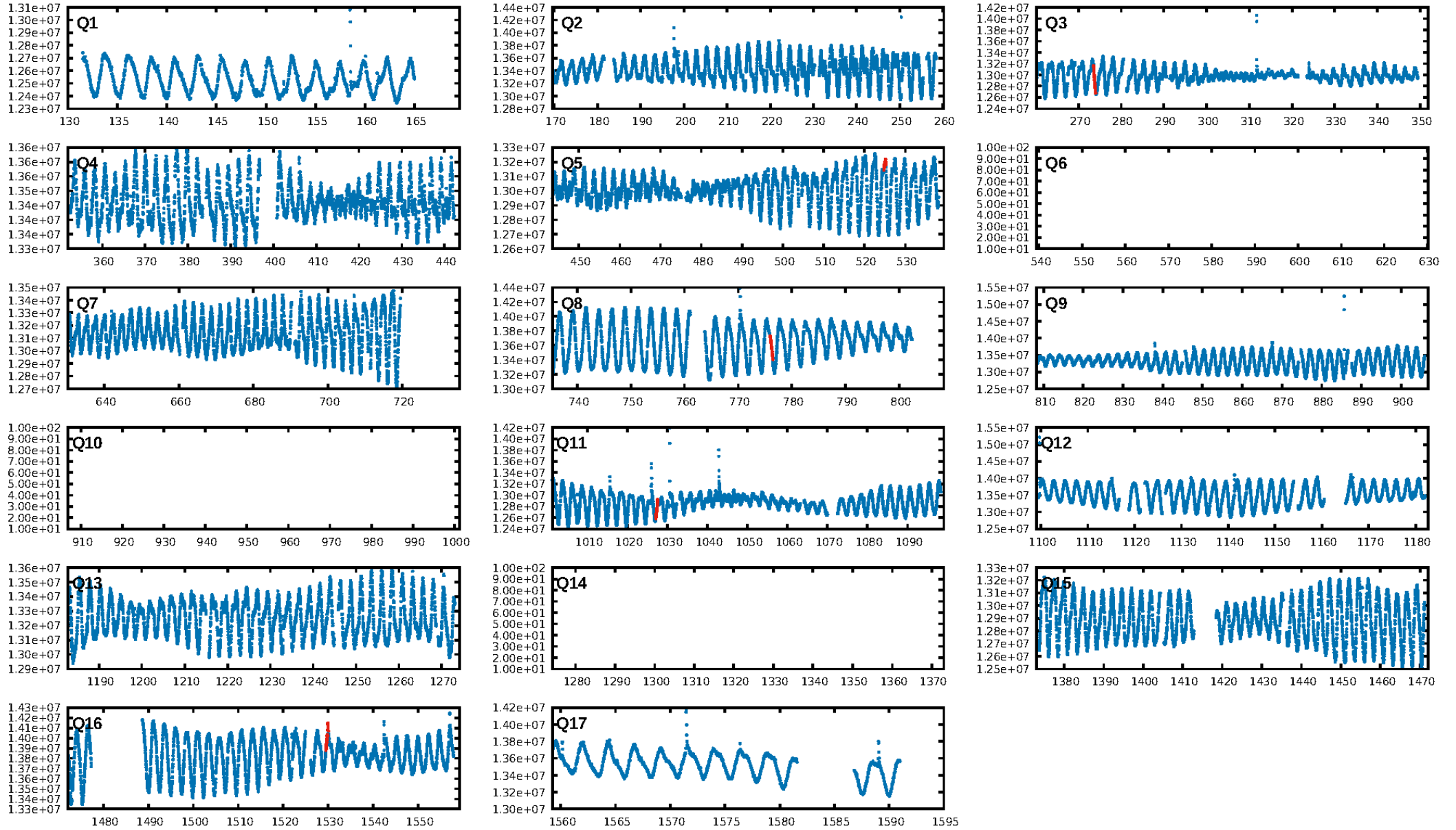
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [124.36σ]
LongPeriod-sig: 100.0% [91.06σ]
ModelChiSquare2-sig: 63.6%
ModelChiSquareGof-sig: 99.3%
Bootstrap-pfa: 1.72e-12
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -1.409
Centroid-sig: 14.7%
Centroid-so: 1.336 arcsec [1.53σ]
OotOffset-rm: 0.238 arcsec [1.93σ]
KicOffset-rm: 0.092 arcsec [0.62σ]
OotOffset-st: 0/1/2/1 [4]
KicOffset-st: 0/1/2/1 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [4/4]

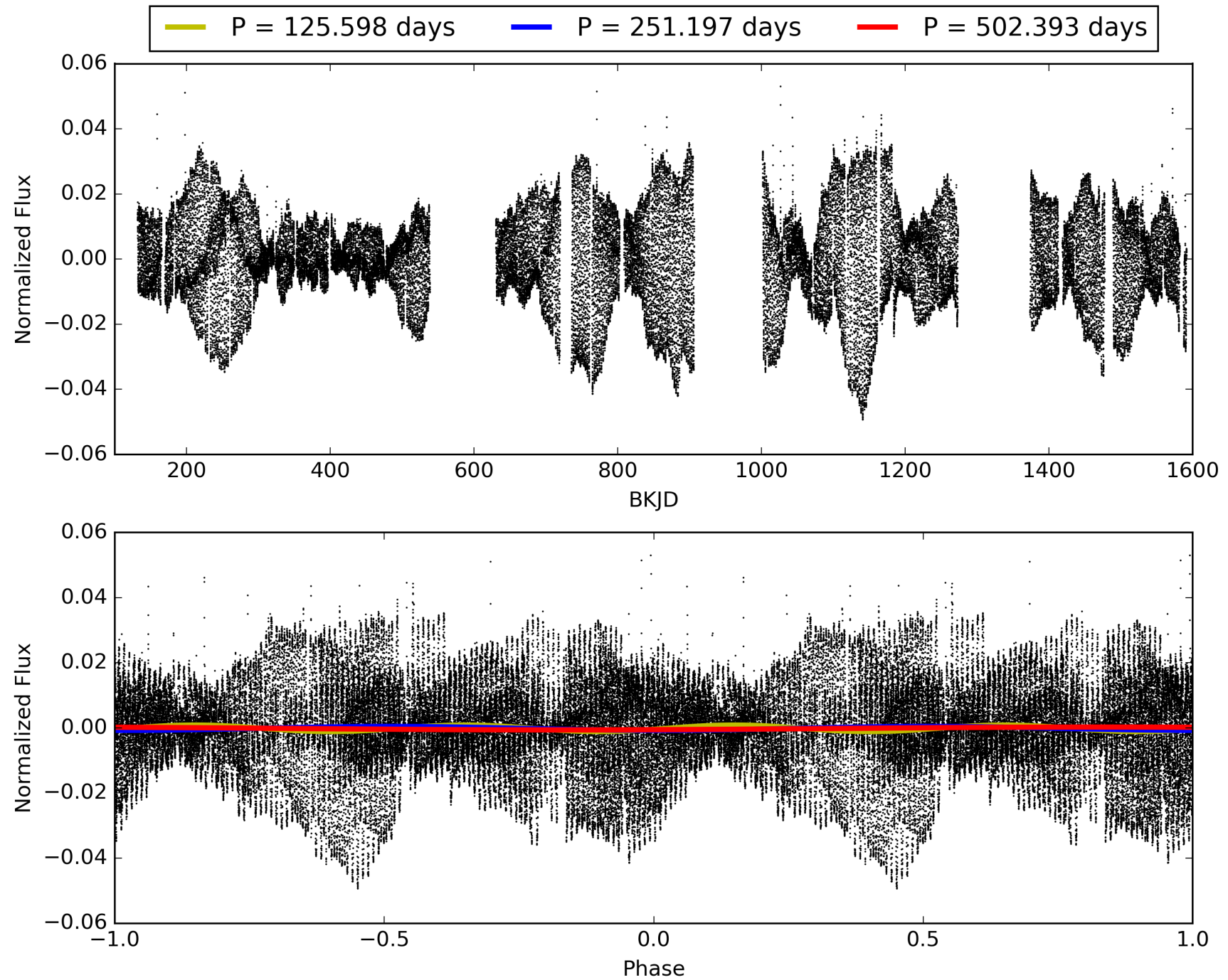
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:40:49 Z

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

TCE 003967523-03, PDC Light Curves

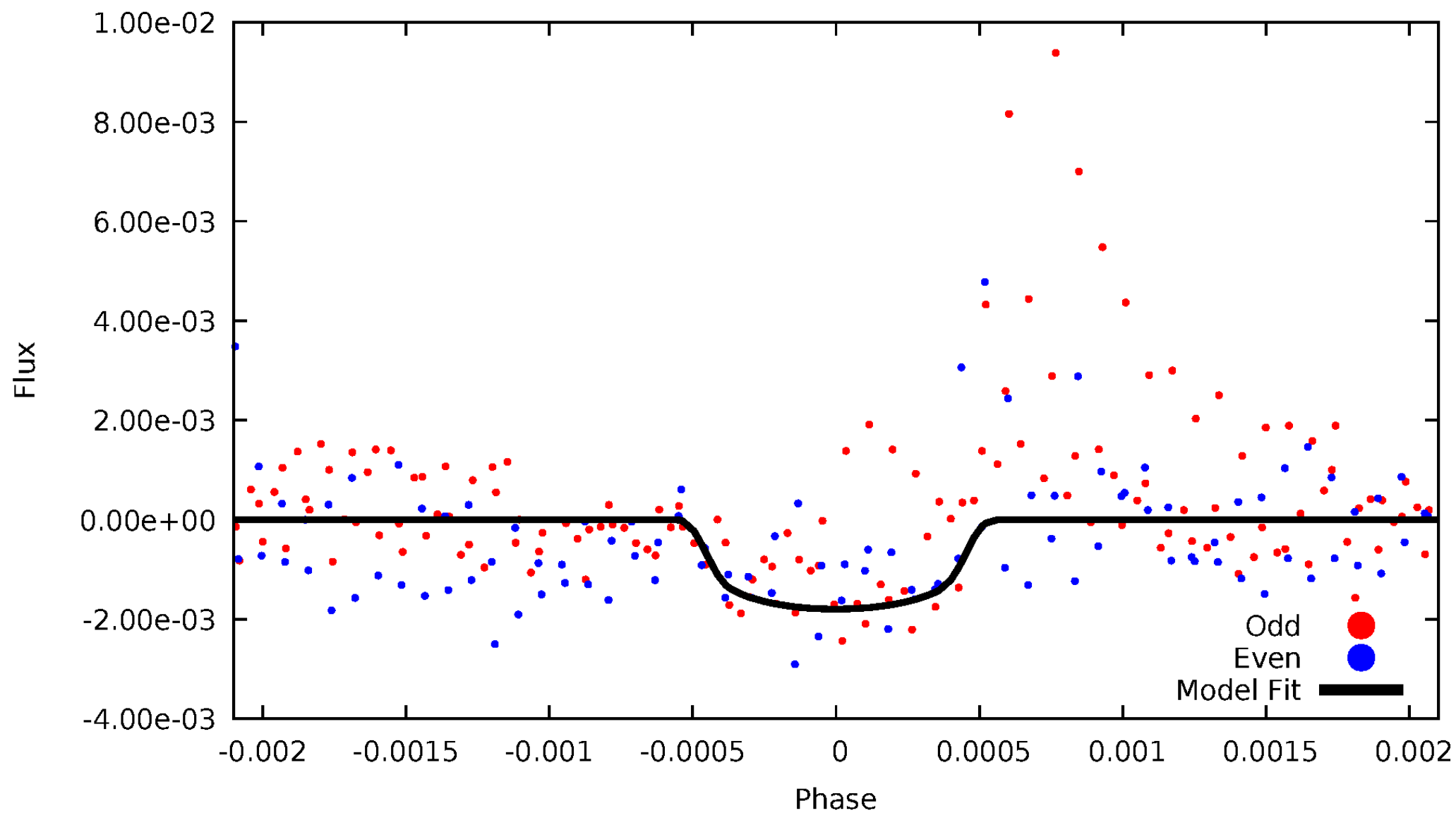


TCE 003967523-03



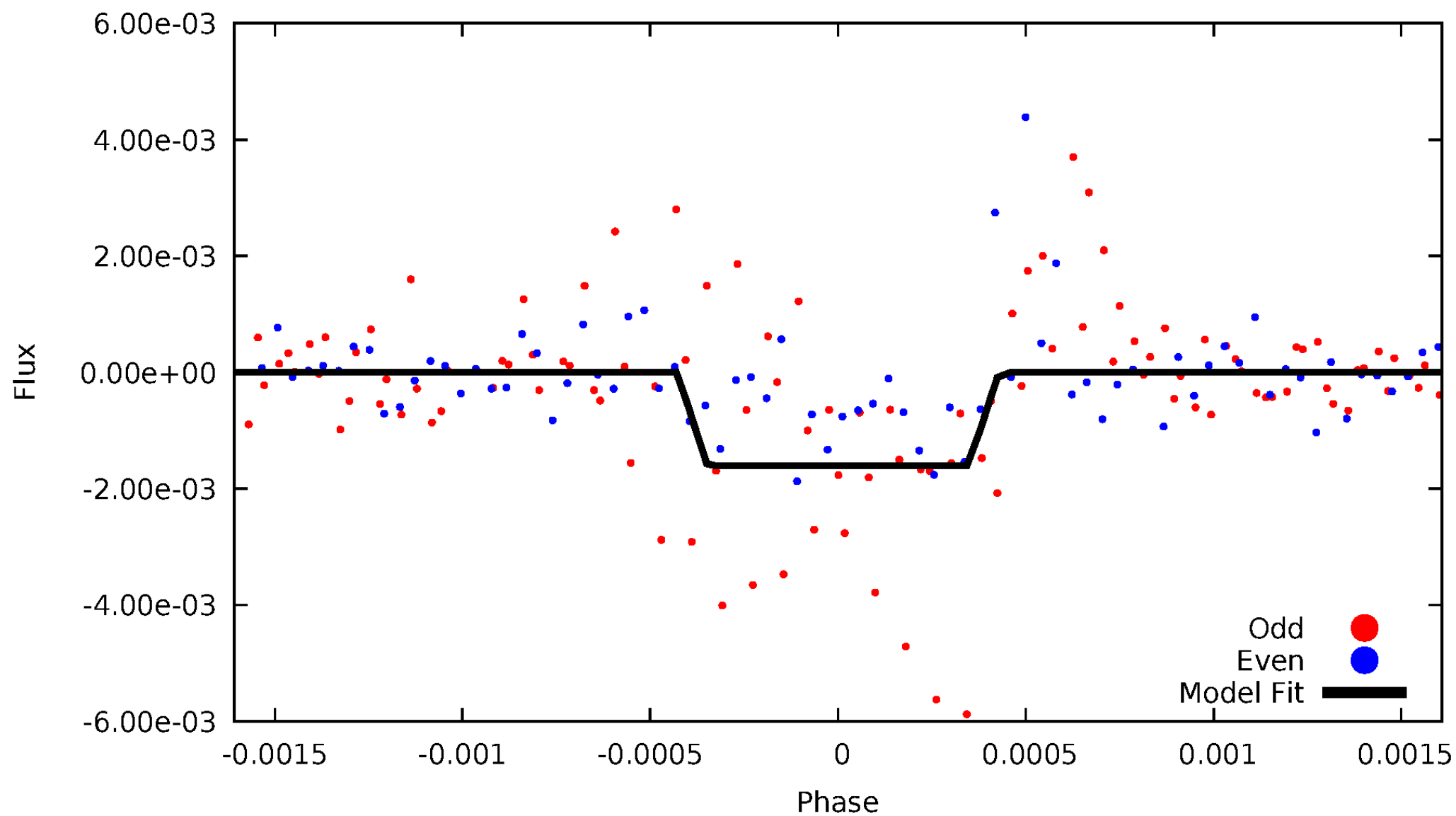
DV Odd/Even

TCE 003967523-03



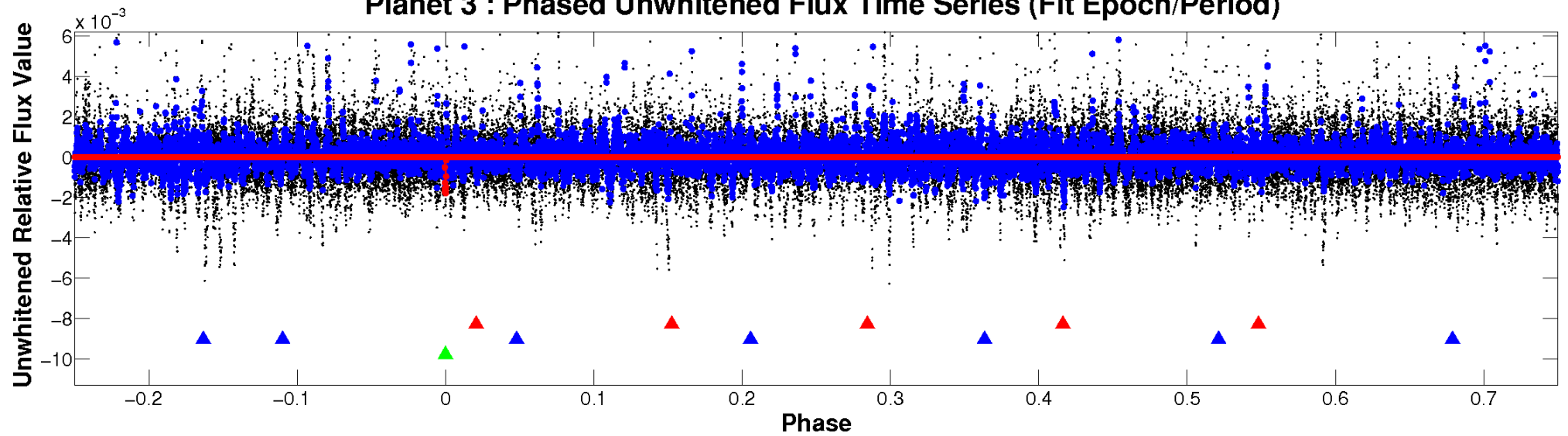
ALT Odd/Even

TCE 003967523-03

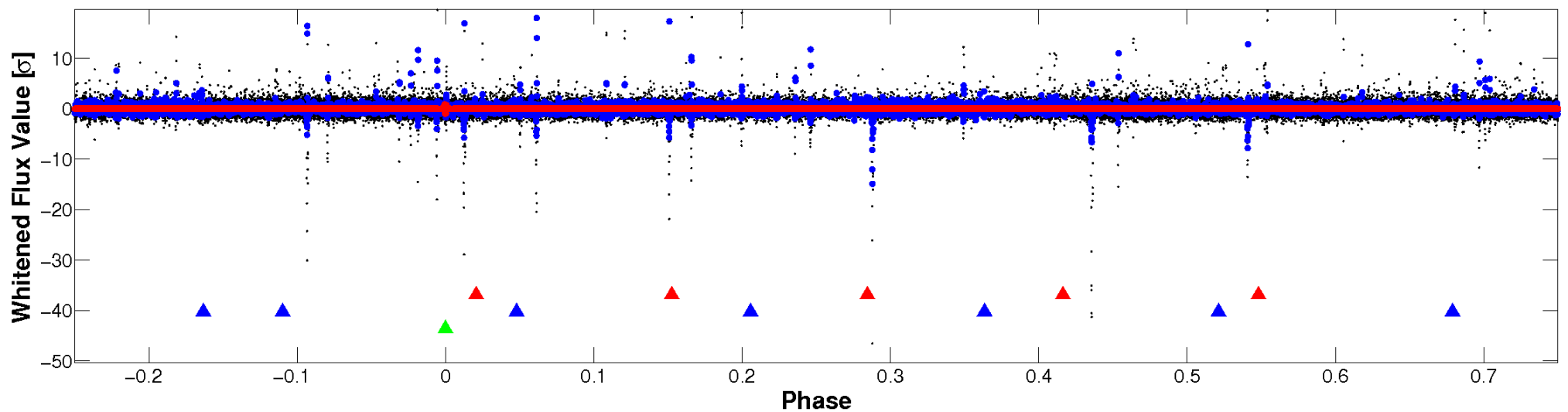


Non-Whitened Vs. Whitened Light Curve

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



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



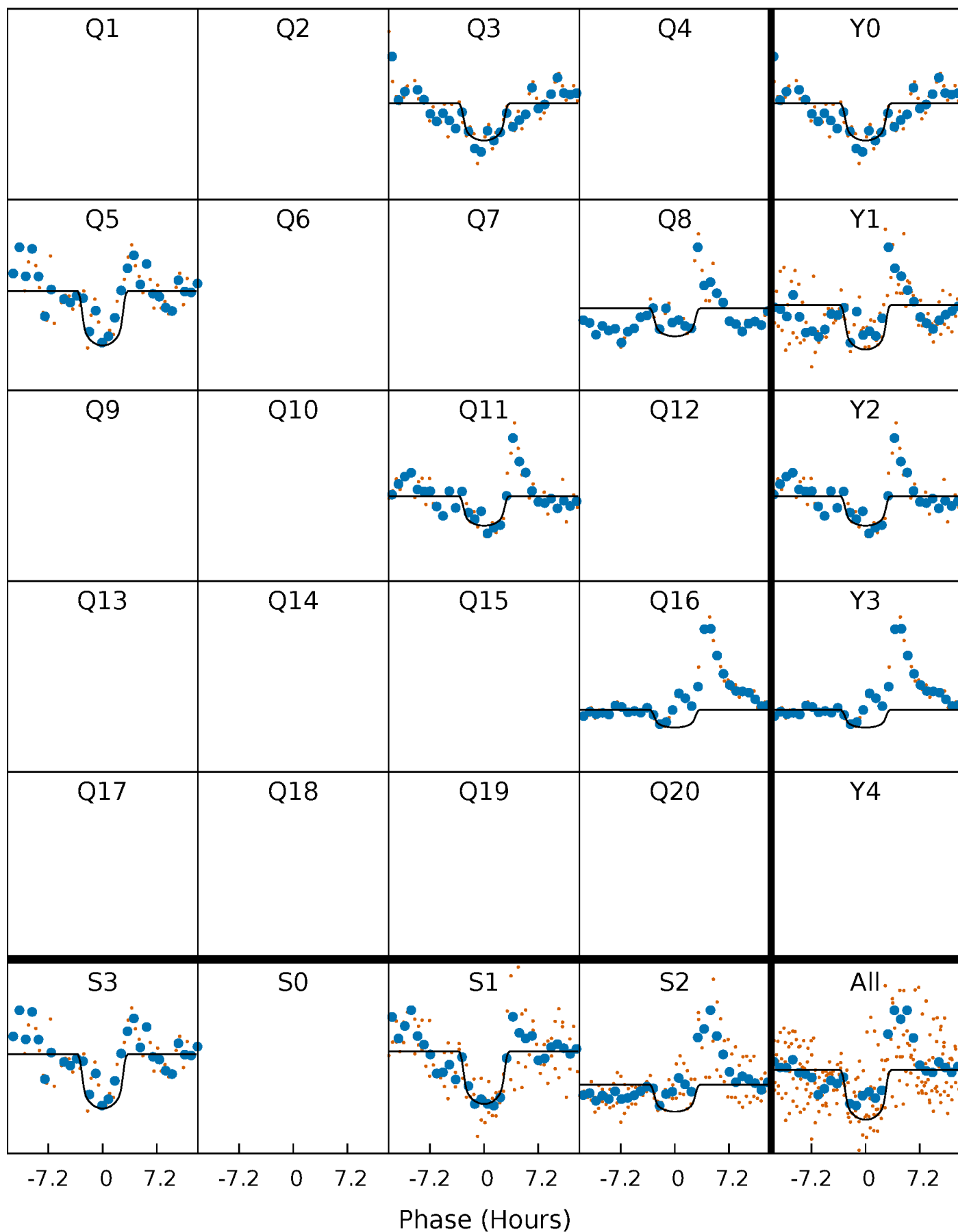
PDC Quarter-Phased Transit Curves

TCE 003967523-03 P=251.196750 Days $T_0=273.787668$ (BKJD)



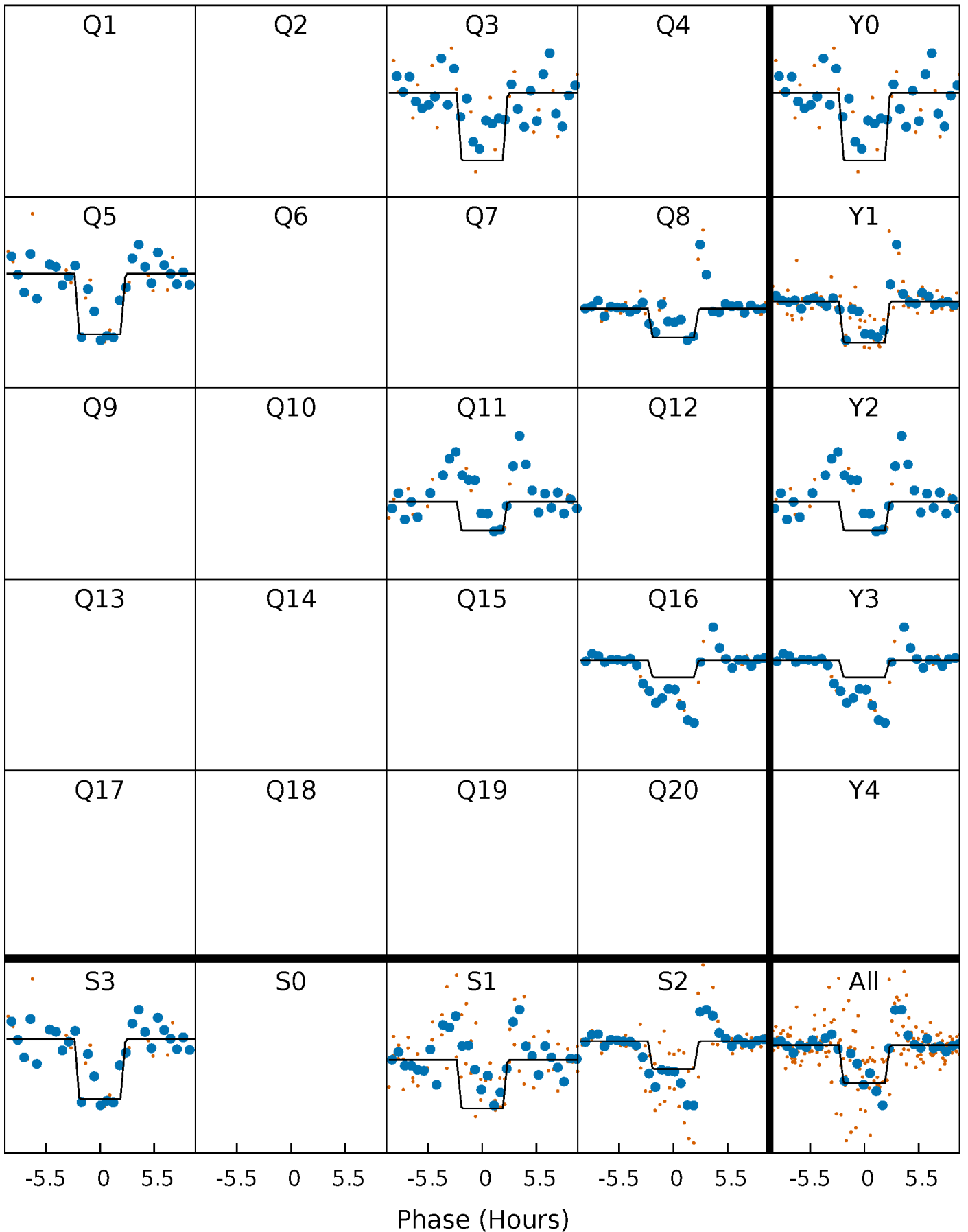
DV Quarter-Phased Transit Curves

TCE 003967523-03 $P=251.196750$ Days $T_0=273.787668$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

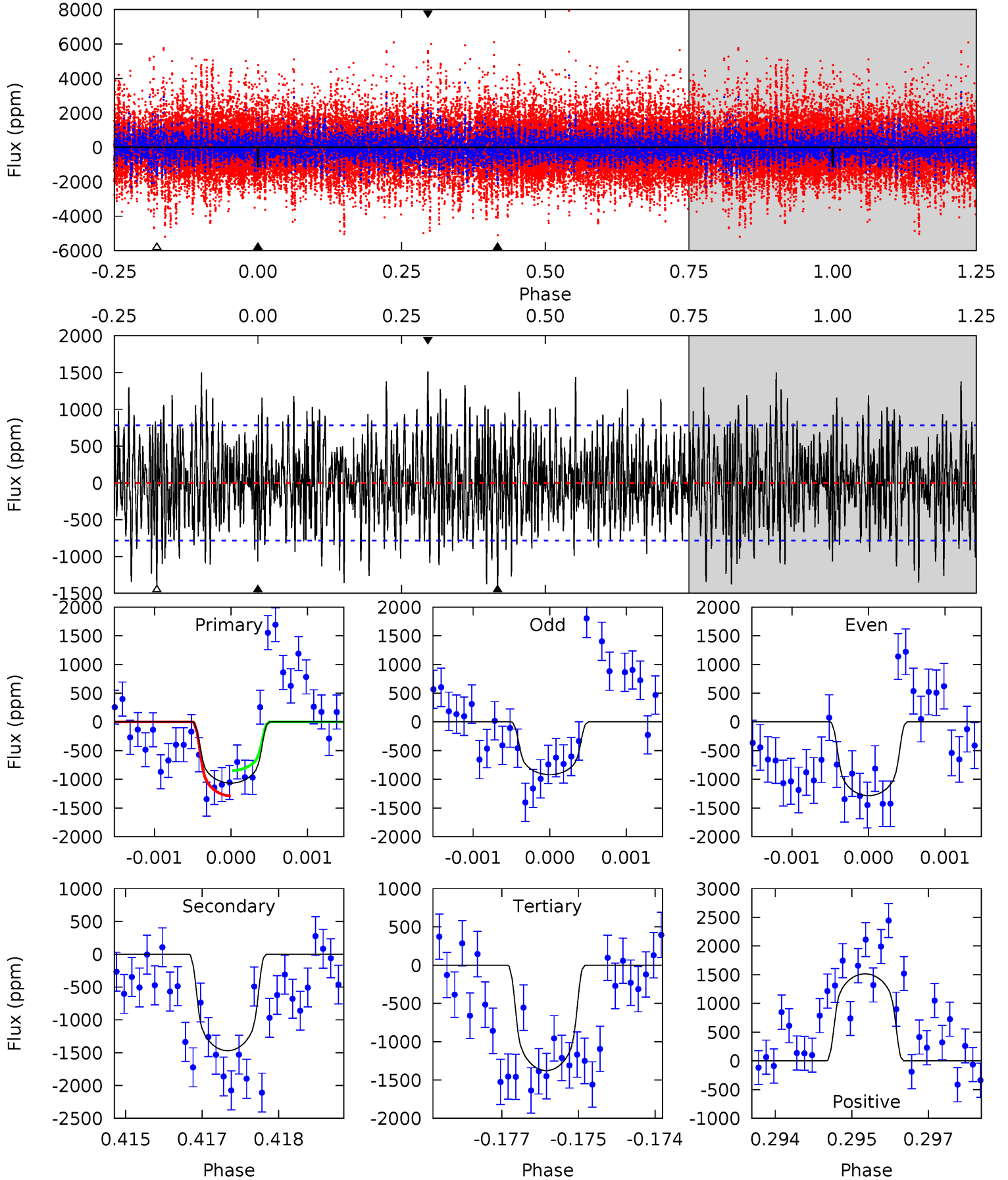
TCE 003967523-03 P=251.203375 Days $T_0=273.779218$ (BKJD)



DV Model-Shift Uniqueness Test

003967523-03, P = 251.196750 Days, E = 22.590918 Days

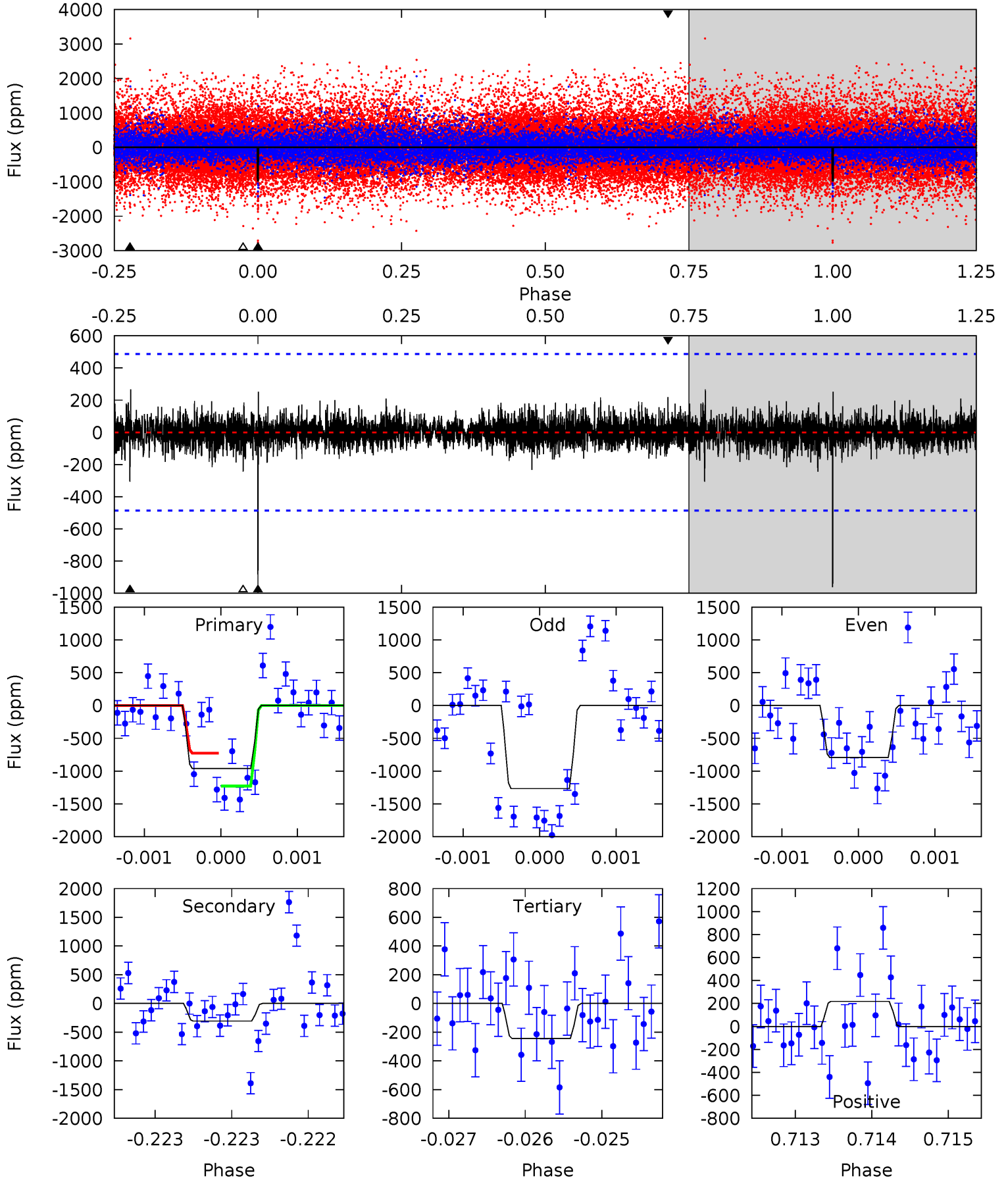
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.40	10.2	9.56	10.5	5.43	3.26	3.12	-2.16	-3.12	0.64	-0.32	1.11	0.96	0.51	1.53



Alt Model-Shift Uniqueness Test

003967523-03, P = 251.203375 Days, E = 22.575843 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	3.46	2.74	2.46	5.48	3.33	0.62	8.09	8.38	0.71	1.00	2.62	1.74	0.22	2.86



Stellar Parameters For KIC 003967523

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4955^{+148}_{-148}	$4.603^{+0.066}_{-0.039}$	$-0.540^{+0.350}_{-0.300}$	$0.664^{+0.058}_{-0.065}$	$0.645^{+0.078}_{-0.036}$	$3.108^{+0.876}_{-0.474}$
	+3%/-3%	+1%/-1%	+65%/-56%	+9%/-10%	+12%/-6%	+28%/-15%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 003967523-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1469 ± 144	$3.13^{+0.58}_{-0.54}$	302^{+12}_{-11}	4701^{+447}_{-312}	37482^{+18485}_{-10853}
Alt.	-307 ± 89	$2.88^{+0.56}_{-0.55}$	302^{+11}_{-11}	3634^{+321}_{-278}	9099^{+5729}_{-3467}

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

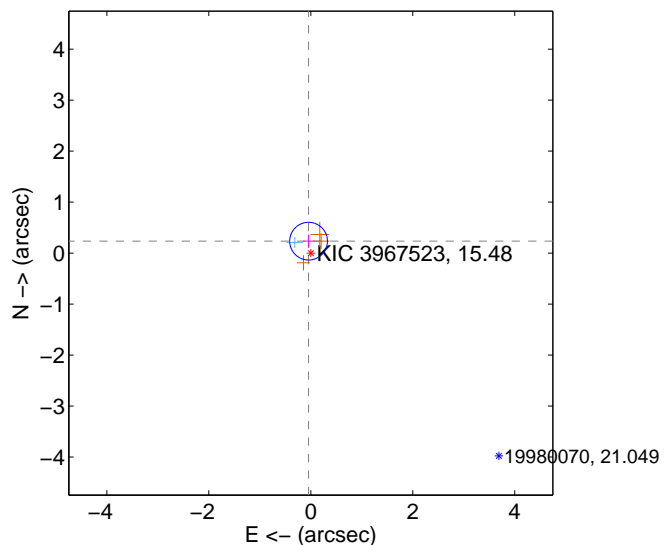
Supplemental centroid analysis for 003967523-03. Kepler magnitude: 15.48. Transit SNR 7.35

There are 1 quarters with good PRF difference image offsets

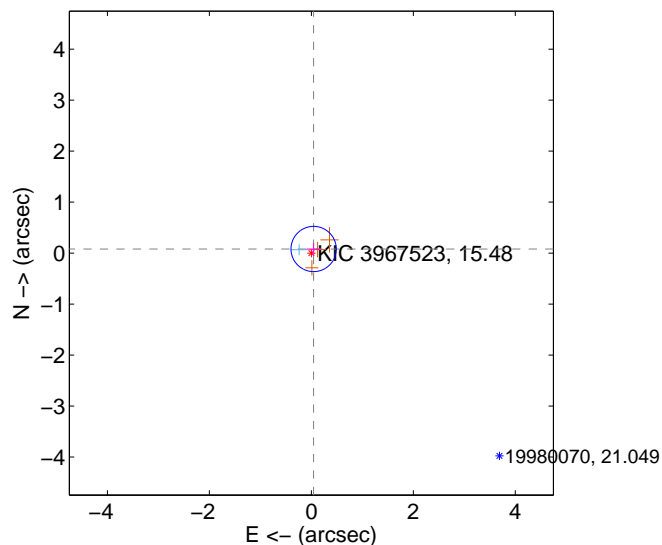
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.238 ± 0.123	1.93	0.044 ± 0.108	0.234 ± 0.128
PRF-fit source offset from KIC position	0.092 ± 0.148	0.62	-0.045 ± 0.140	0.081 ± 0.118
photometric centroid source offset	1.34 ± 0.87	1.53	1.19 ± 0.84	-0.61 ± 0.99

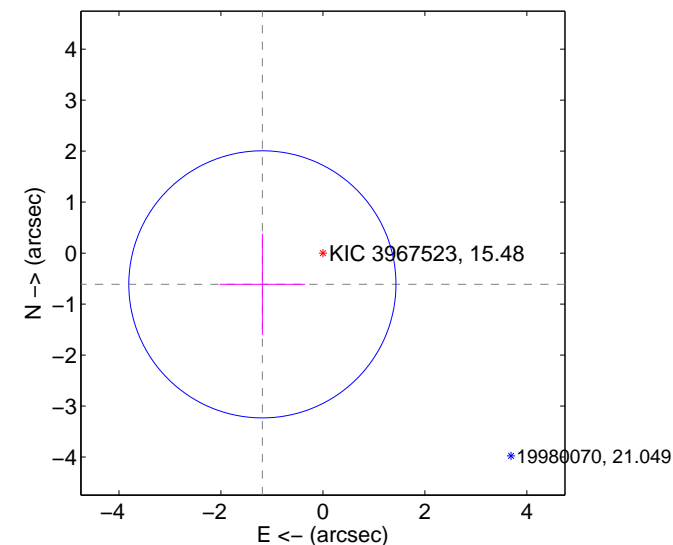
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

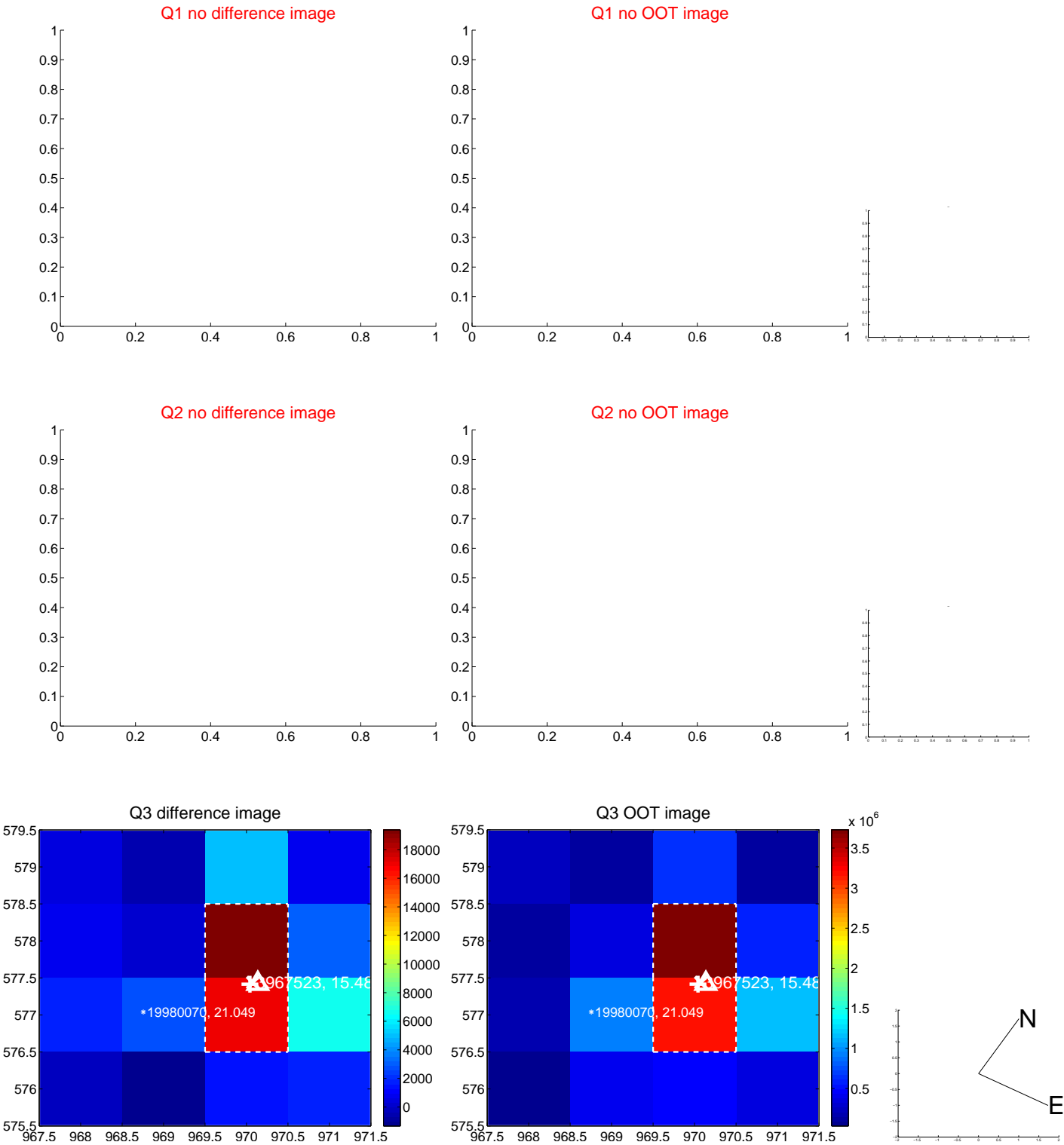


offset from photometric centroids

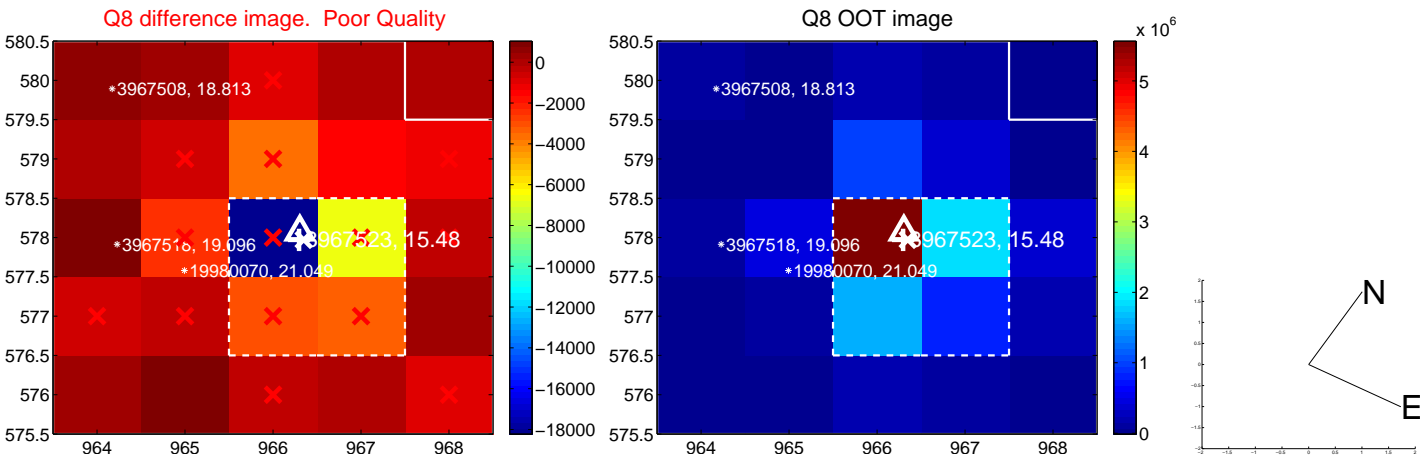
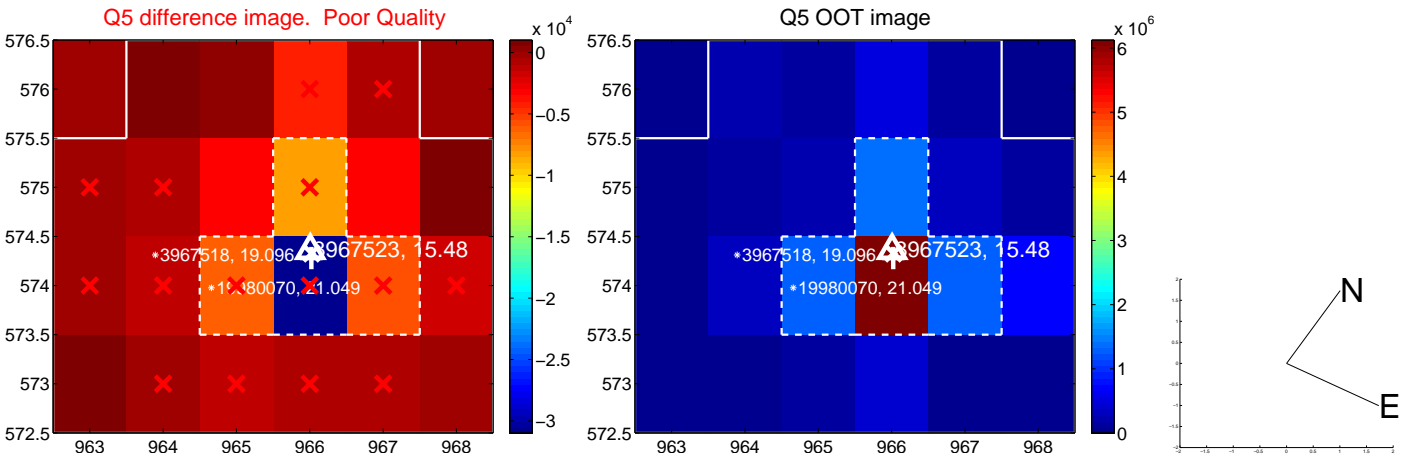


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



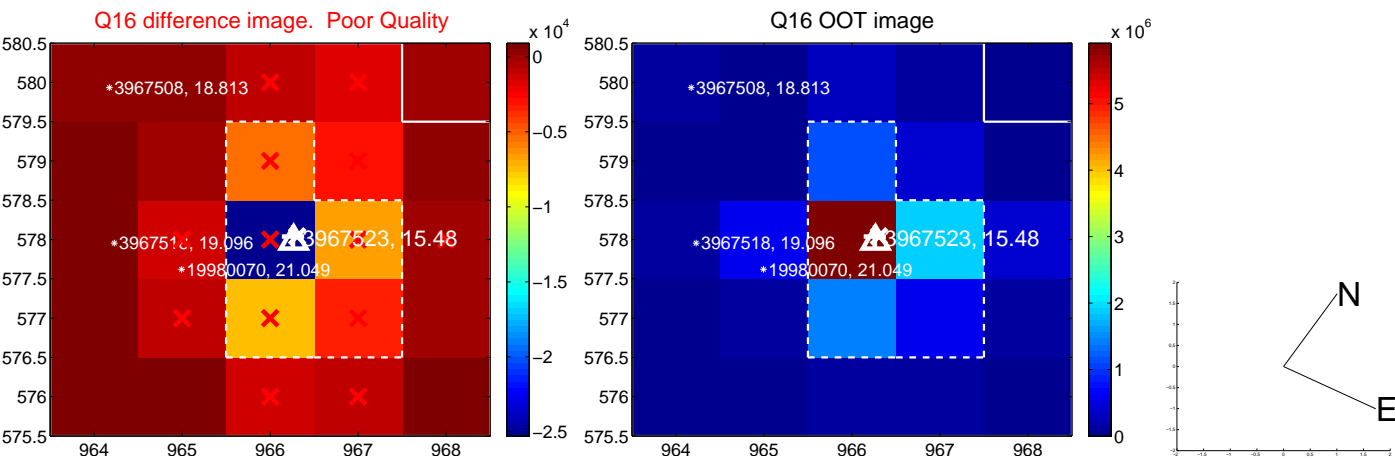
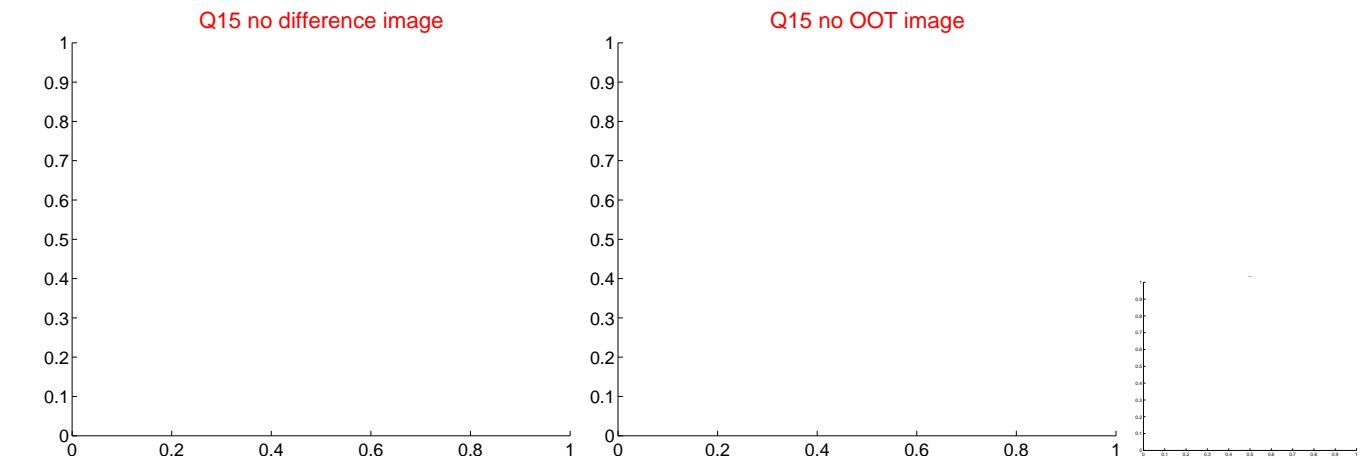
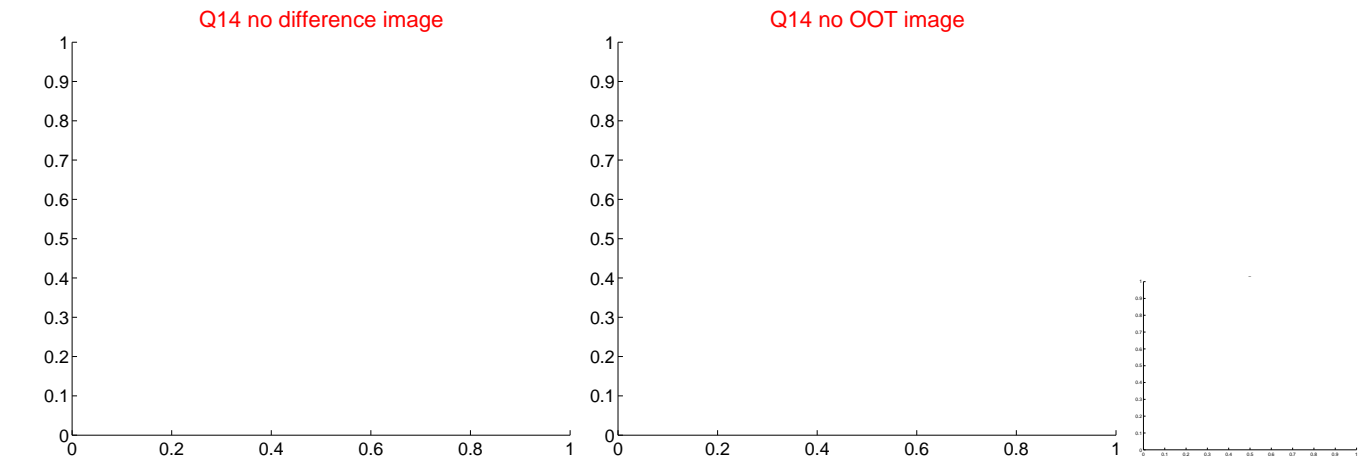
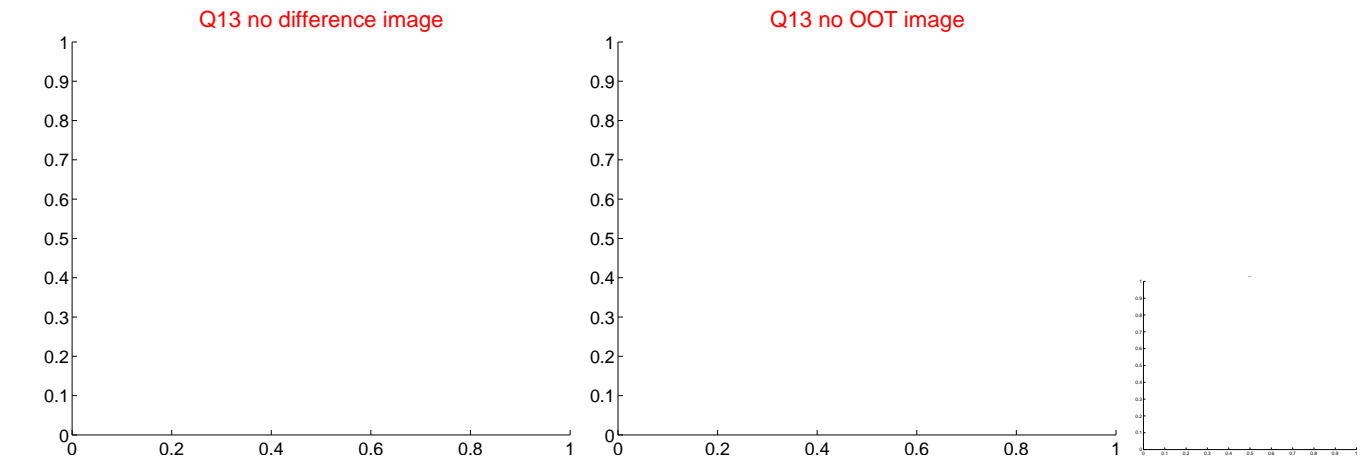
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



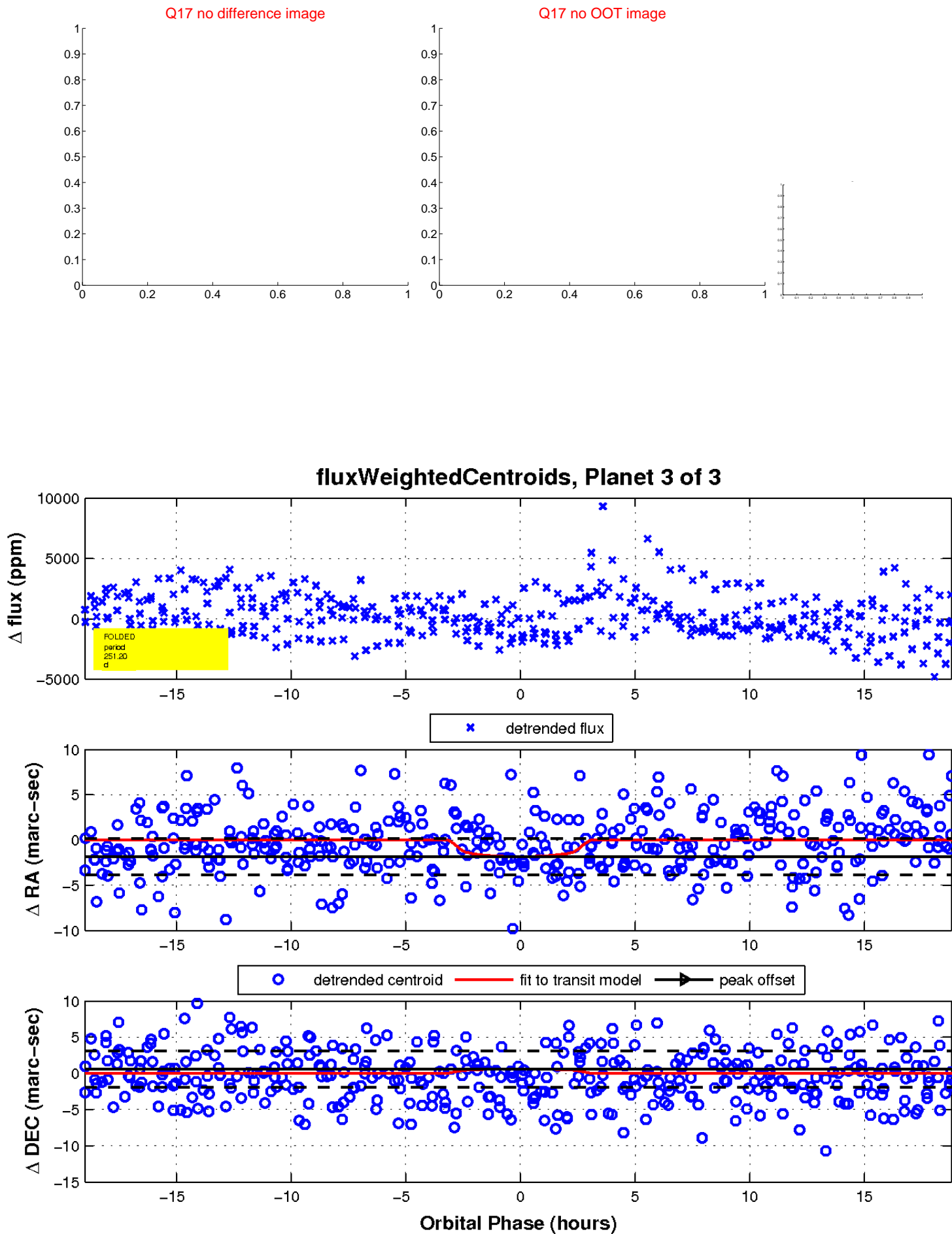
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

