

KIC 007596741

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})
007596741-01	OBS	No	322.756214	448.302034	3883.8	11.062	60.5	16.1	1.99	7316	22.24	9.04
007596741-02	OBS	No	193.775818	246.218867	162.1	14.171	32.2	4.3	1.99	7316	2.61	17.85
007596741-03	OBS	No	467.458552	161.592600	295.7	6.000	29.4	-1.0	1.99	7316	3.46	5.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007596741-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007596741-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007596741-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

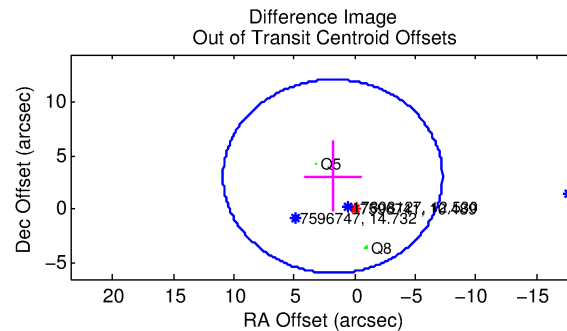
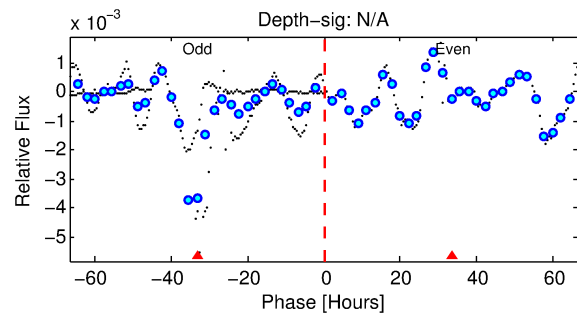
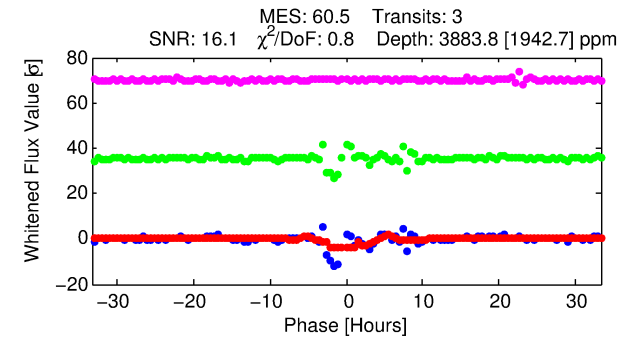
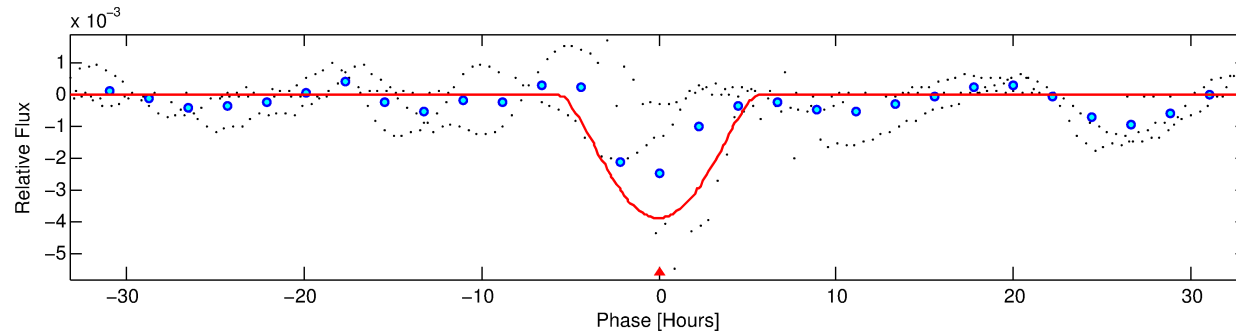
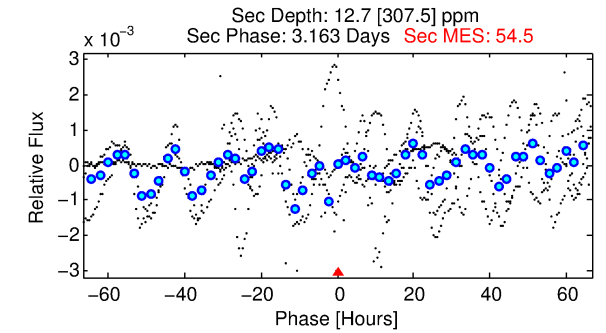
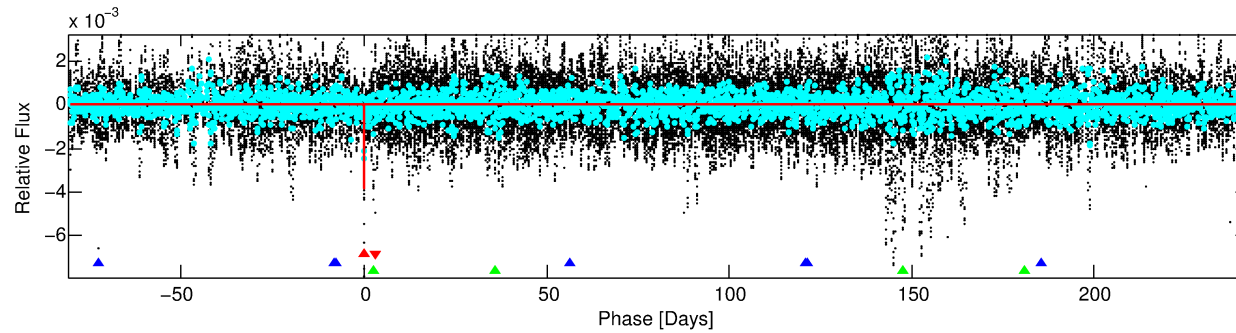
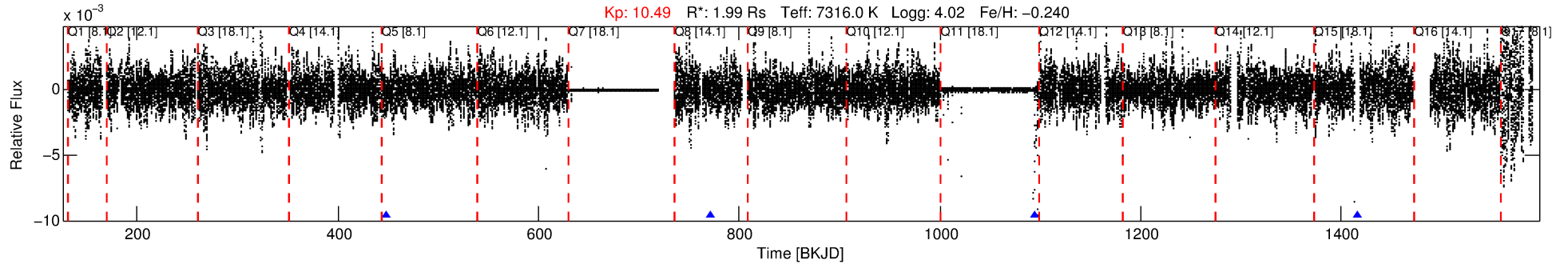
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007596741-01

No Significant Match Found

DV One-Page Summary

KIC: 7596741 Candidate: 1 of 3 Period: 322.756 d



DV Fit Results:

Period = 322.75621 [0.00743] d
Epoch = 448.3020 [0.0113] BKJD
Rp/R* = 0.1026 [0.0565]
a/R* = 103.52 [11.08]
b = 1.00 [0.12]
Self = 9.04 [3.97]
Teq = 442 [49] K
Rp = 22.24 [13.76] Re
a = 1.0586 [0.2752] AU
Ag = 15.85 [383.75] [0.04] σ
Teff = 1364 [8255] K [0.11] σ

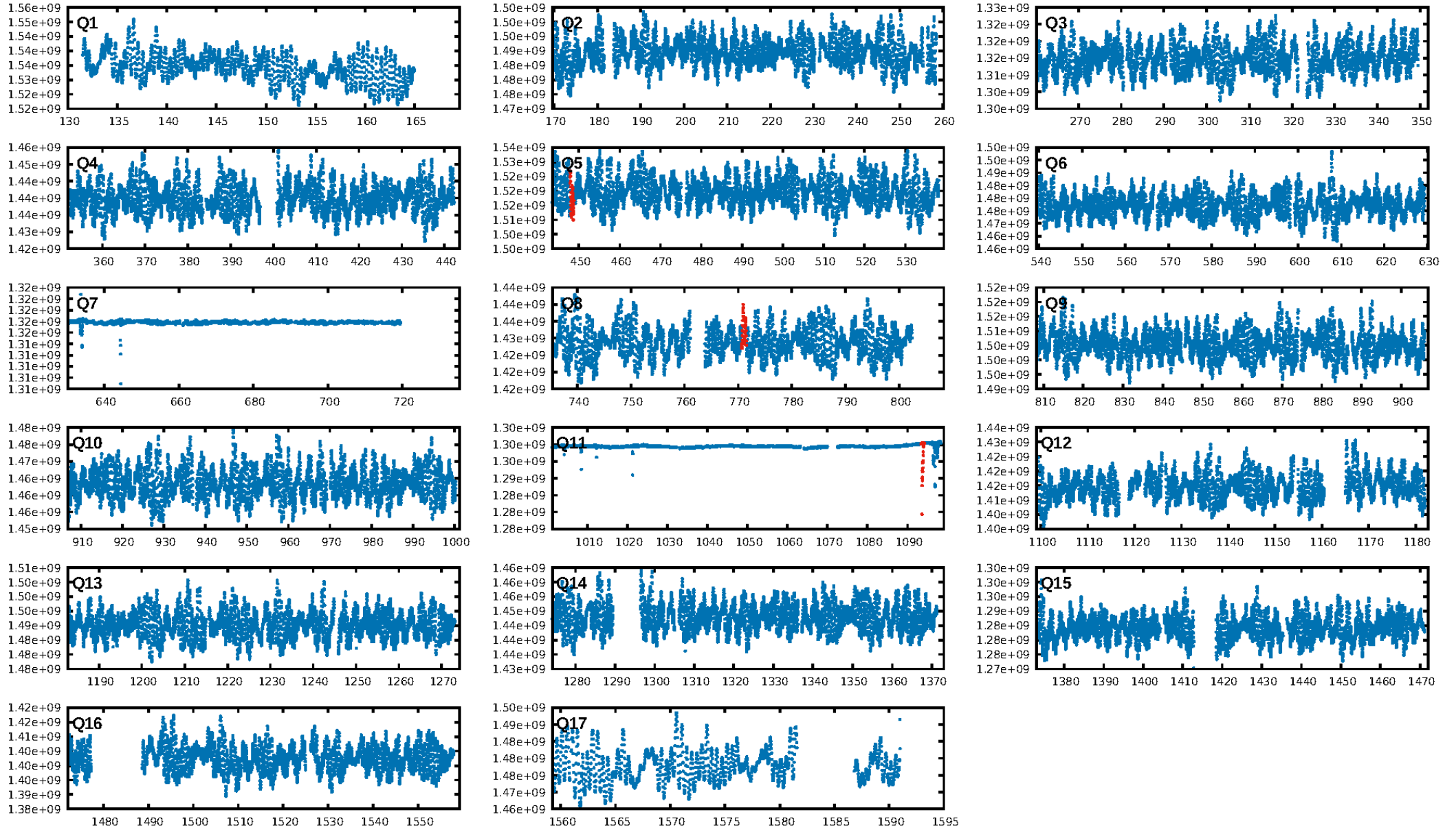
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [172.19] σ
LongPeriod-sig: 100.0% [275.96] σ
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -8.988
Centroid-sig: 27.6%
Centroid-so: 0.744 arcsec [7.82] σ
OotOffset-rm: 3.590 arcsec [1.19] σ
OotOffset-st: 0/0/1/1 [2]
KicOffset-rm: 5.029 arcsec [1.64] σ
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

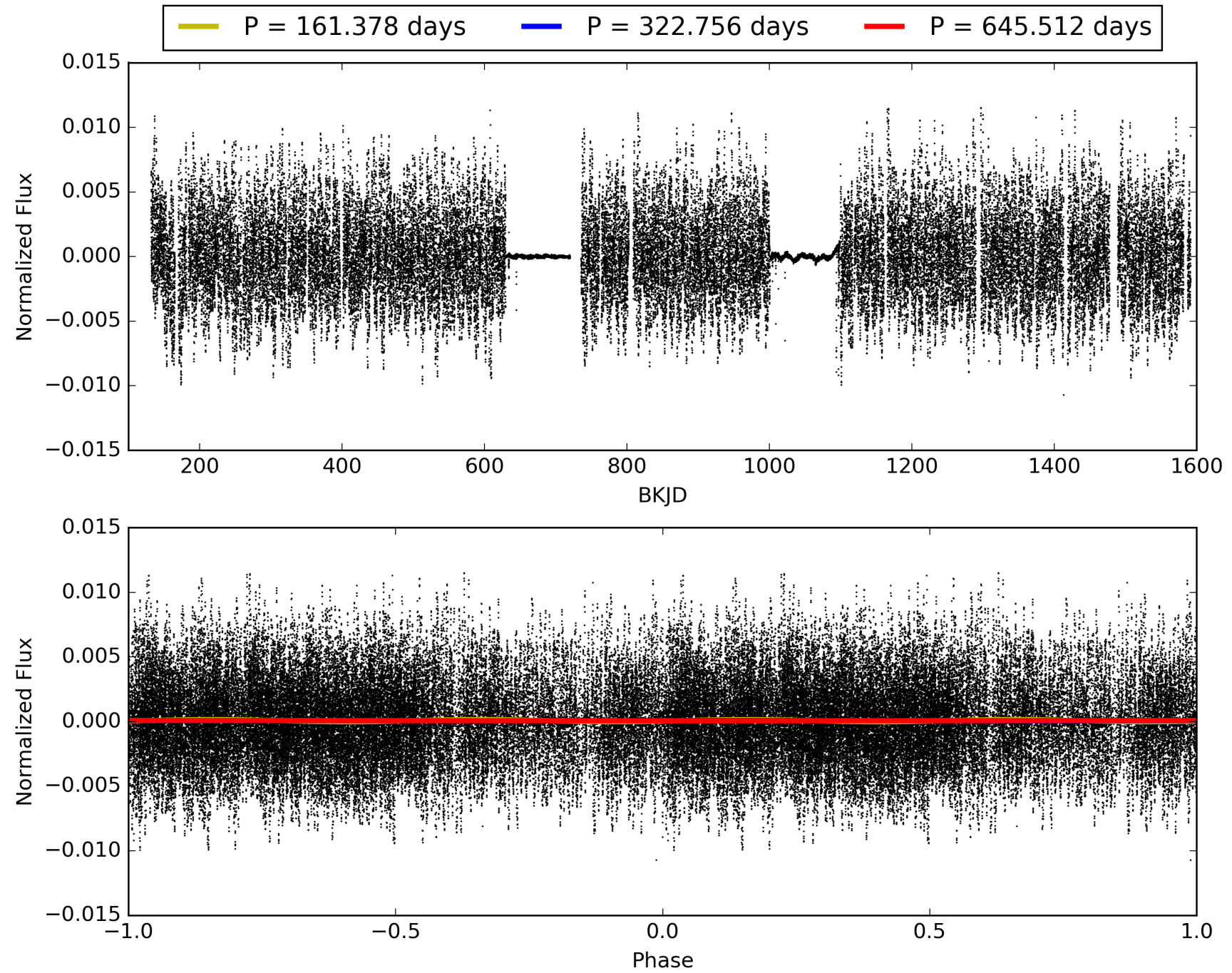
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:26:51 Z

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

TCE 007596741-01, PDC Light Curves

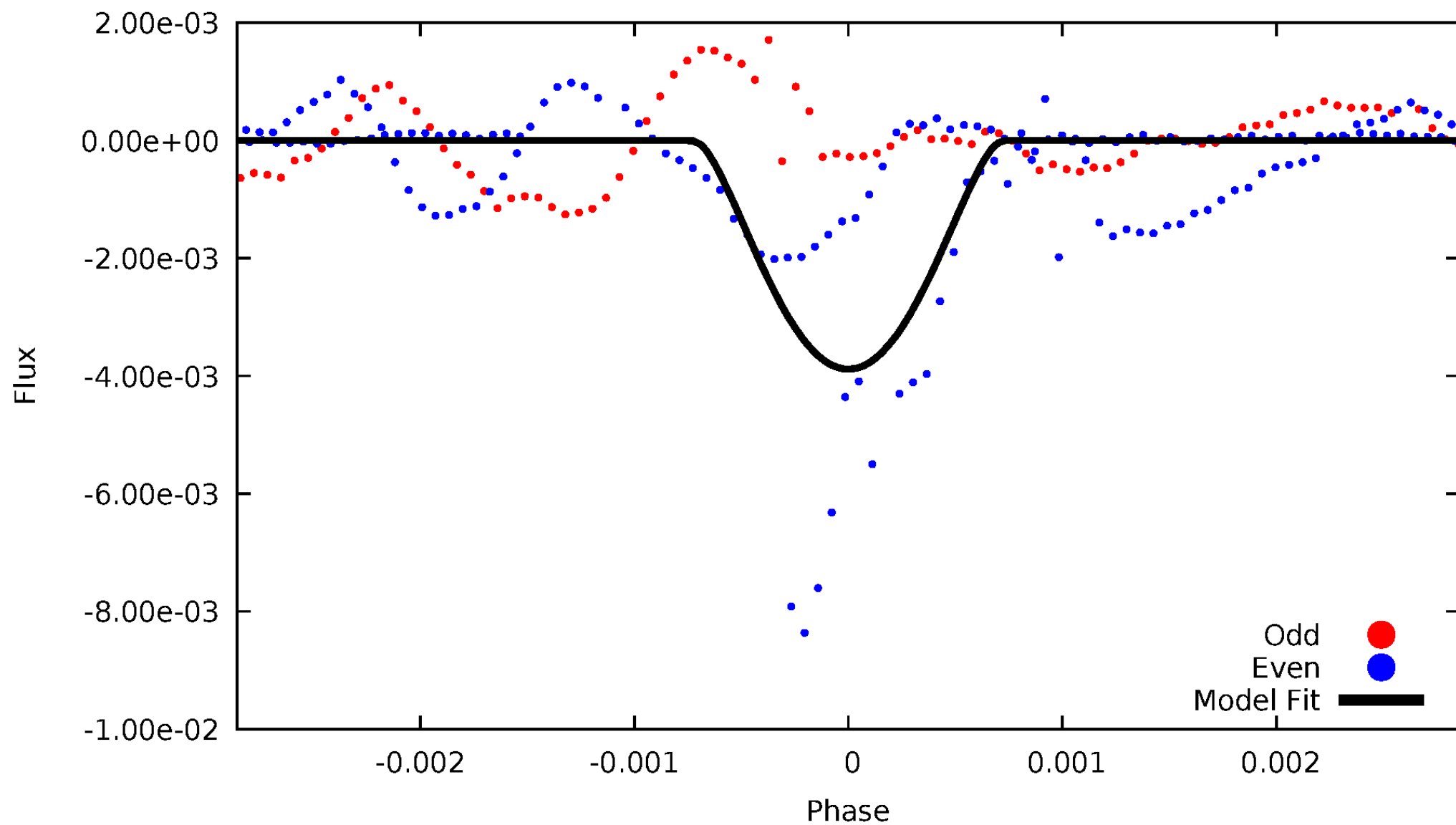


TCE 007596741-01



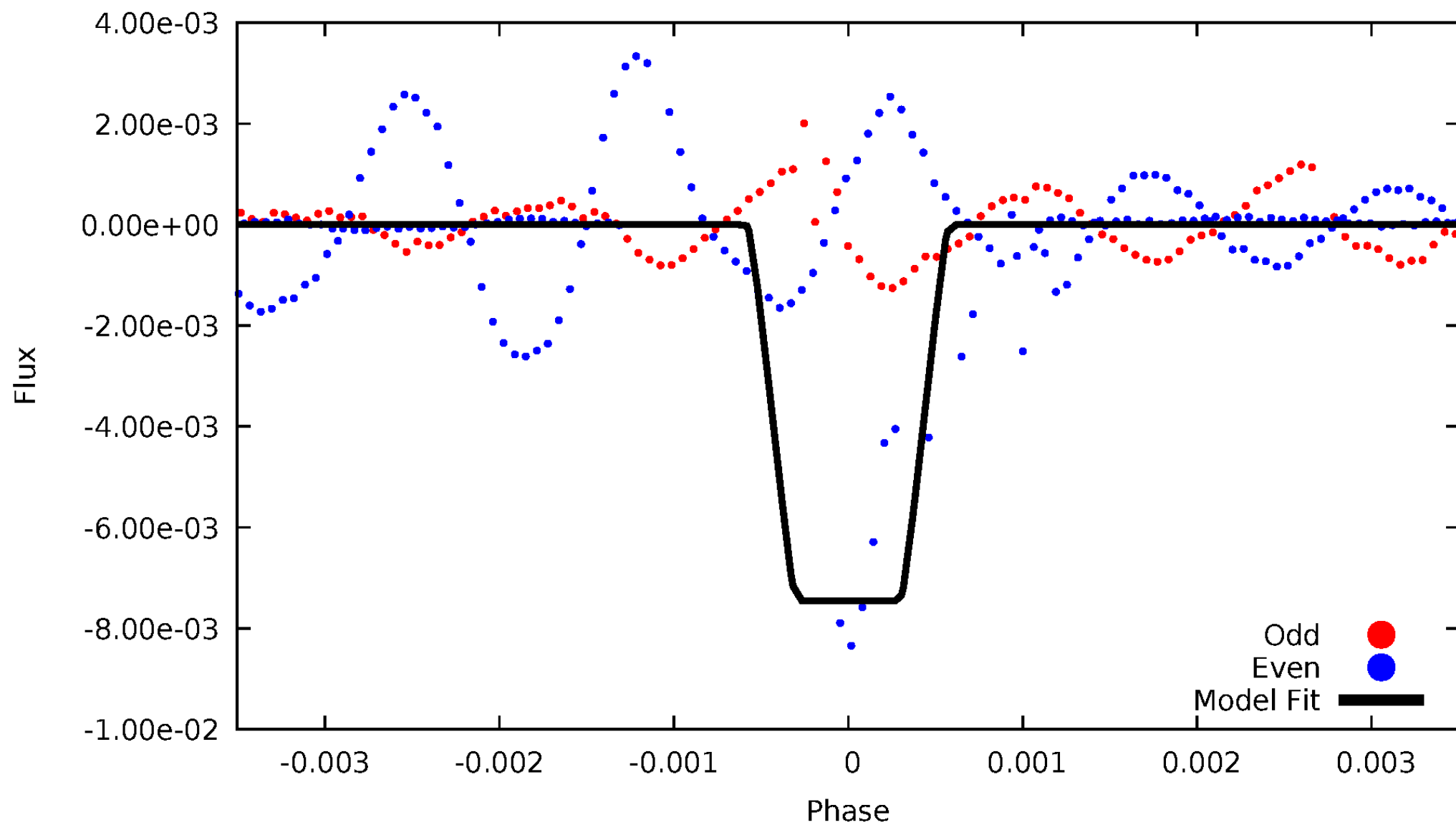
DV Odd/Even

TCE 007596741-01



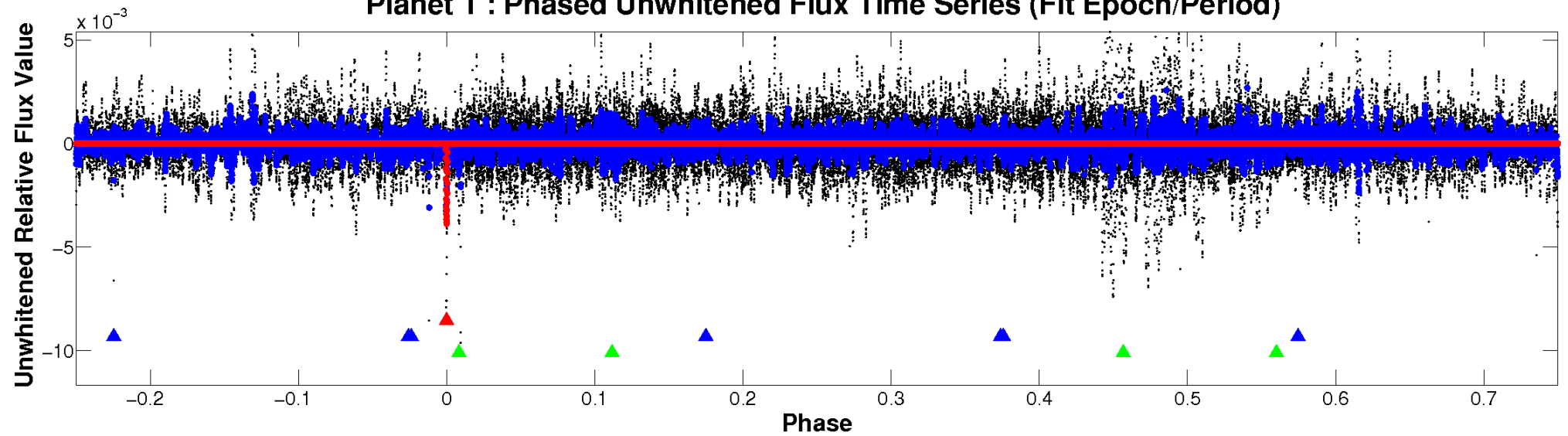
ALT Odd/Even

TCE 007596741-01

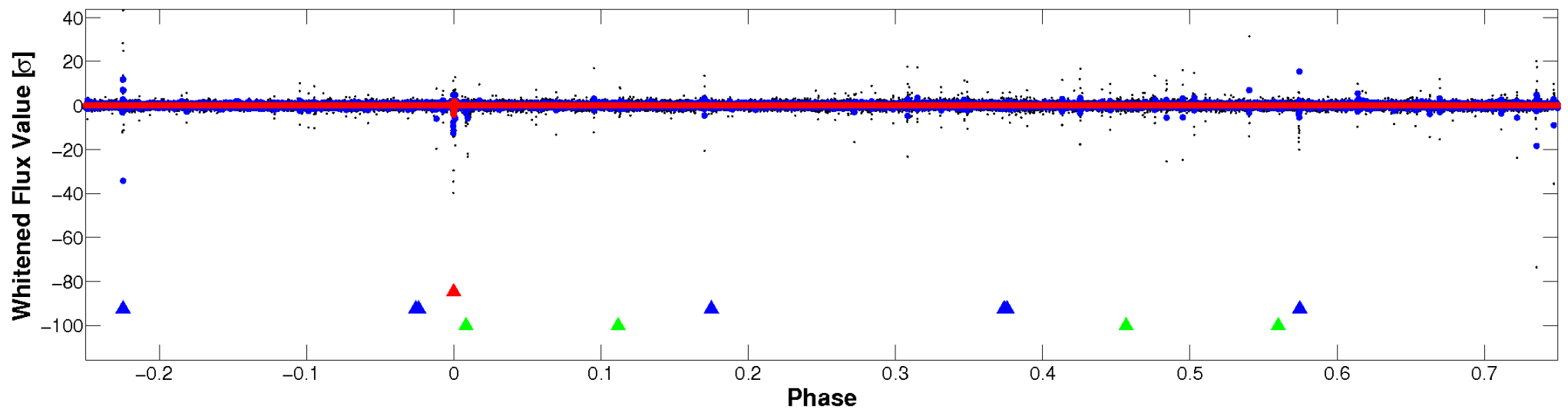


Non-Whitened Vs. Whitened Light Curve

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

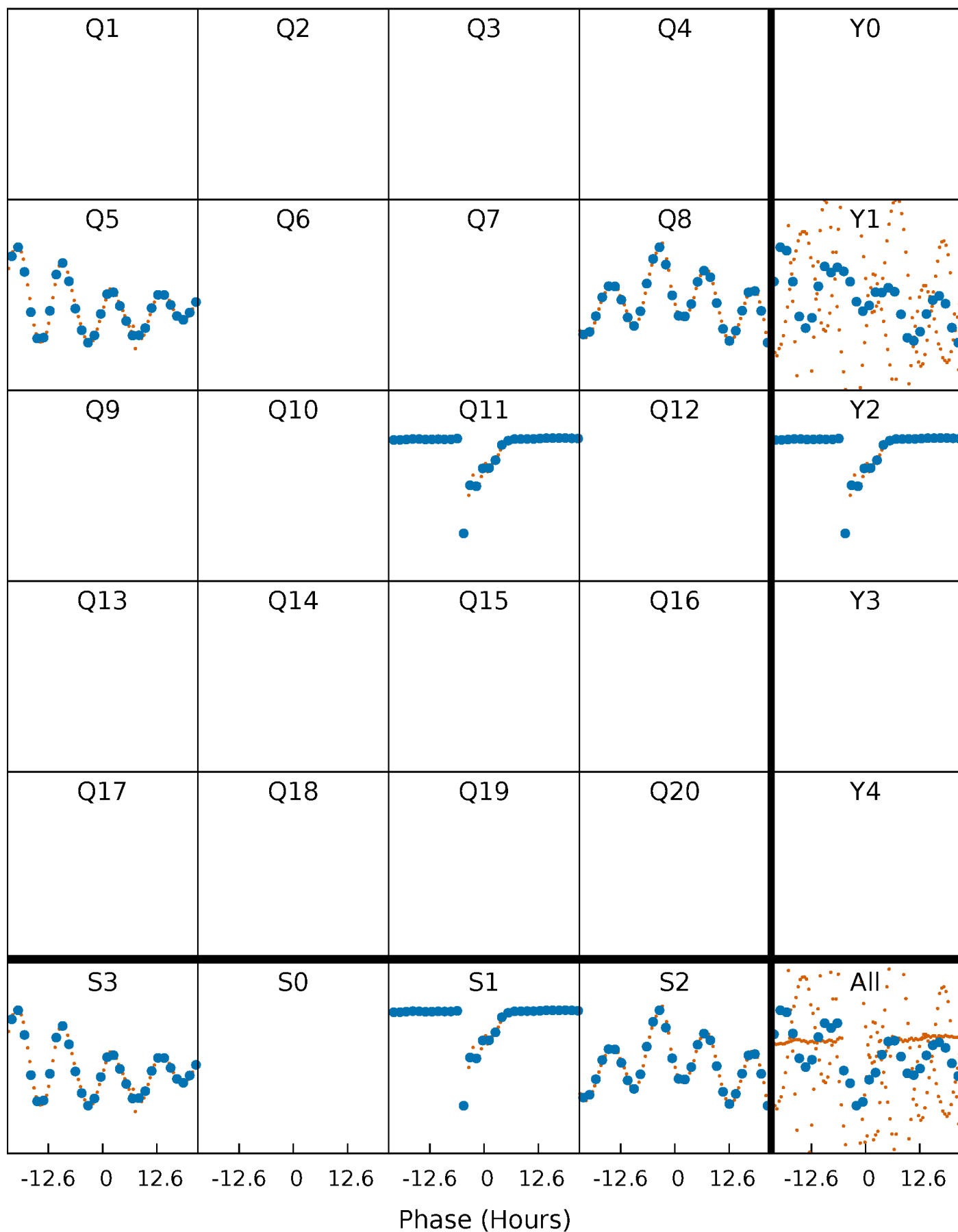


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



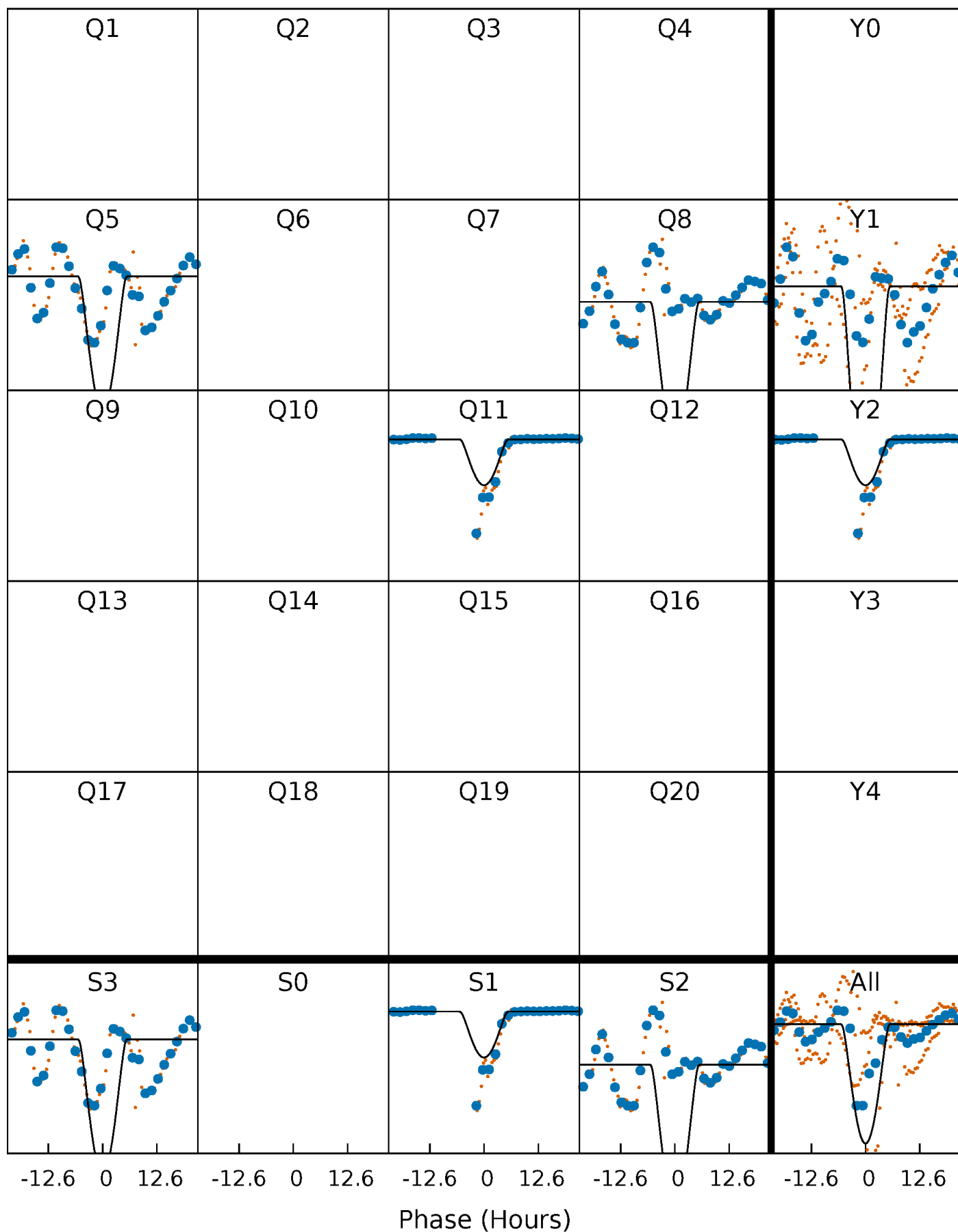
PDC Quarter-Phased Transit Curves

TCE 007596741-01 P=322.756214 Days $T_0=448.302034$ (BKJD)



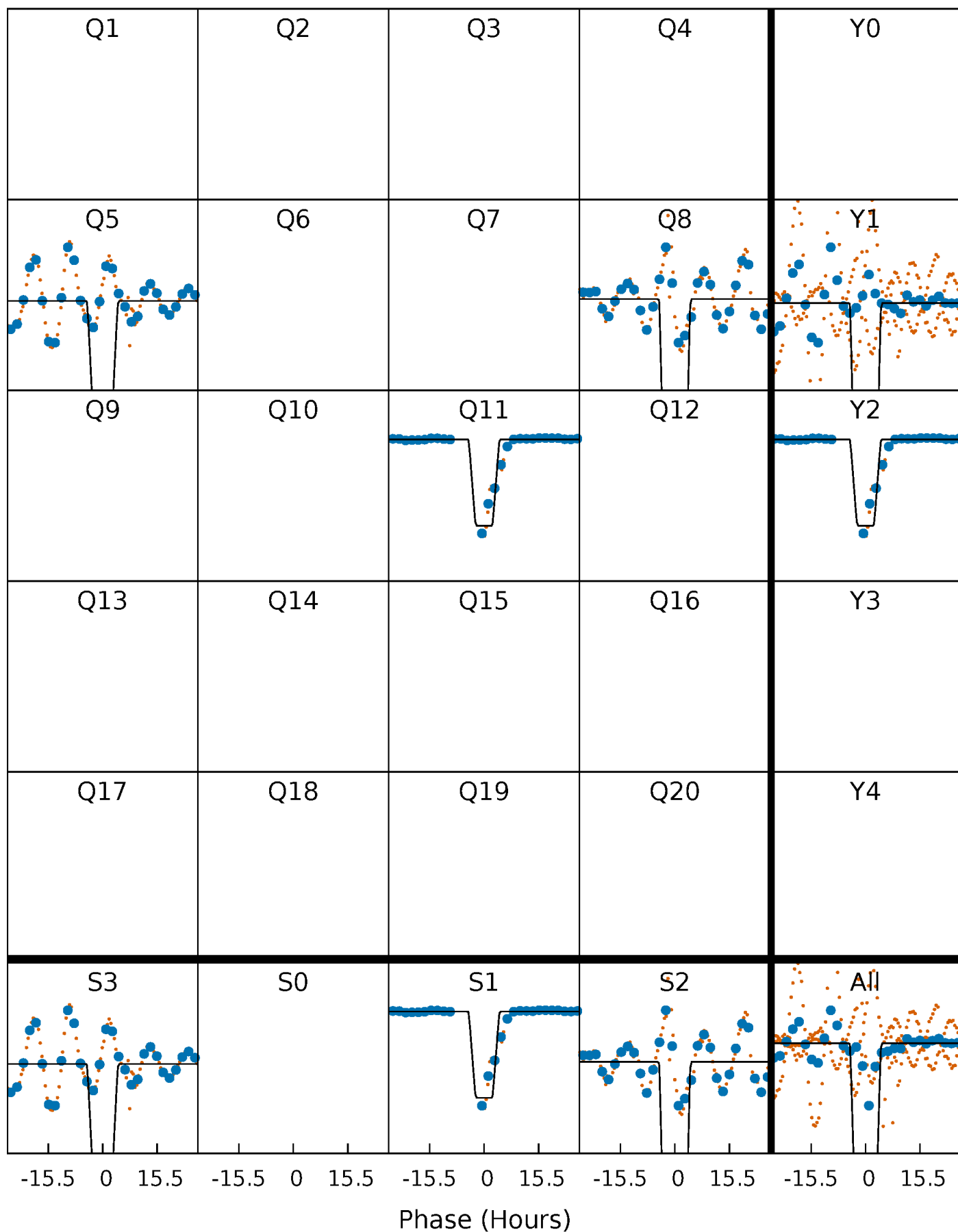
DV Quarter-Phased Transit Curves

TCE 007596741-01 P=322.756214 Days $T_0=448.302034$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

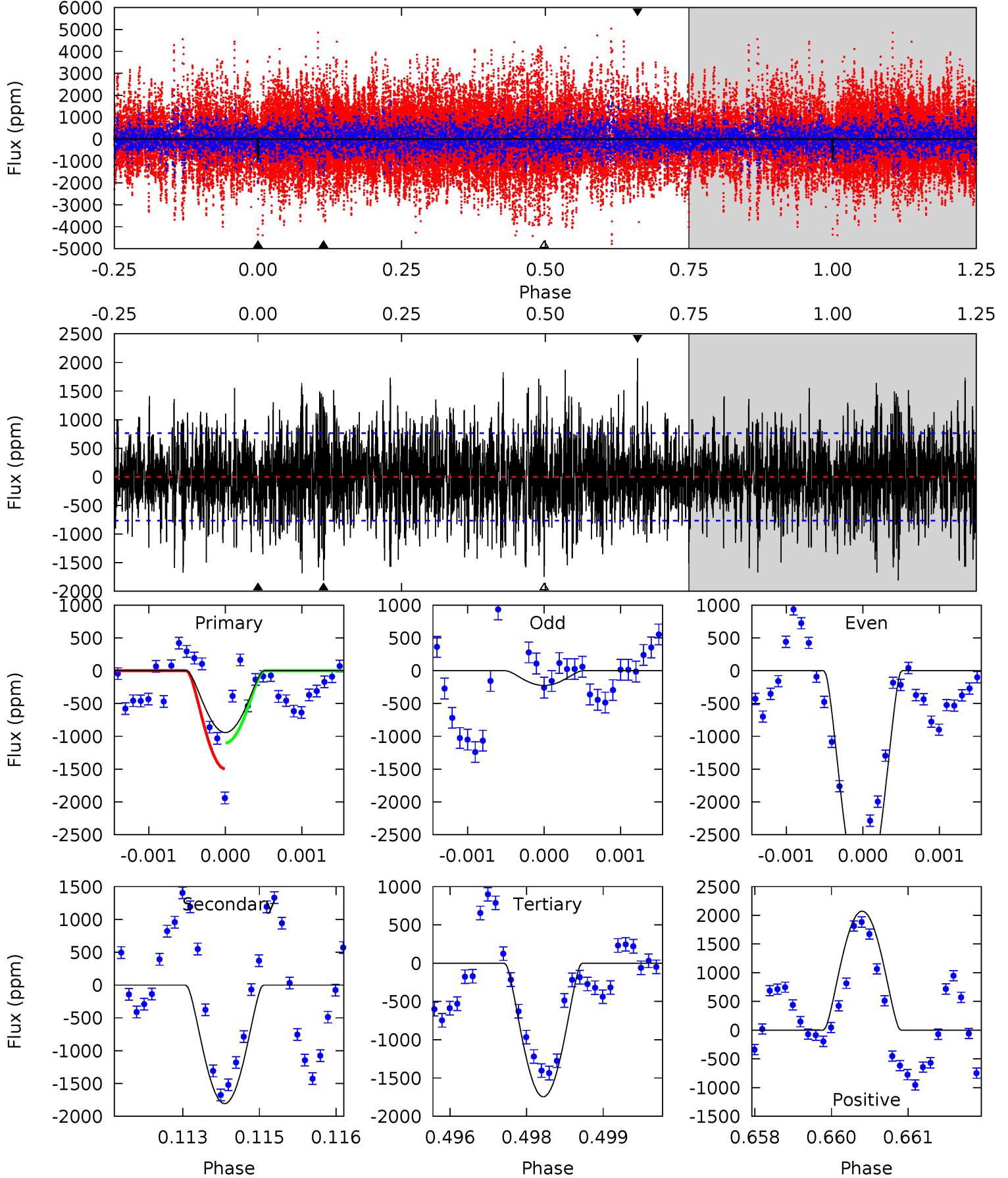
TCE 007596741-01 P=322.723177 Days $T_0=448.296675$ (BKJD)



DV Model-Shift Uniqueness Test

007596741-01, P = 322.756214 Days, E = 125.545820 Days

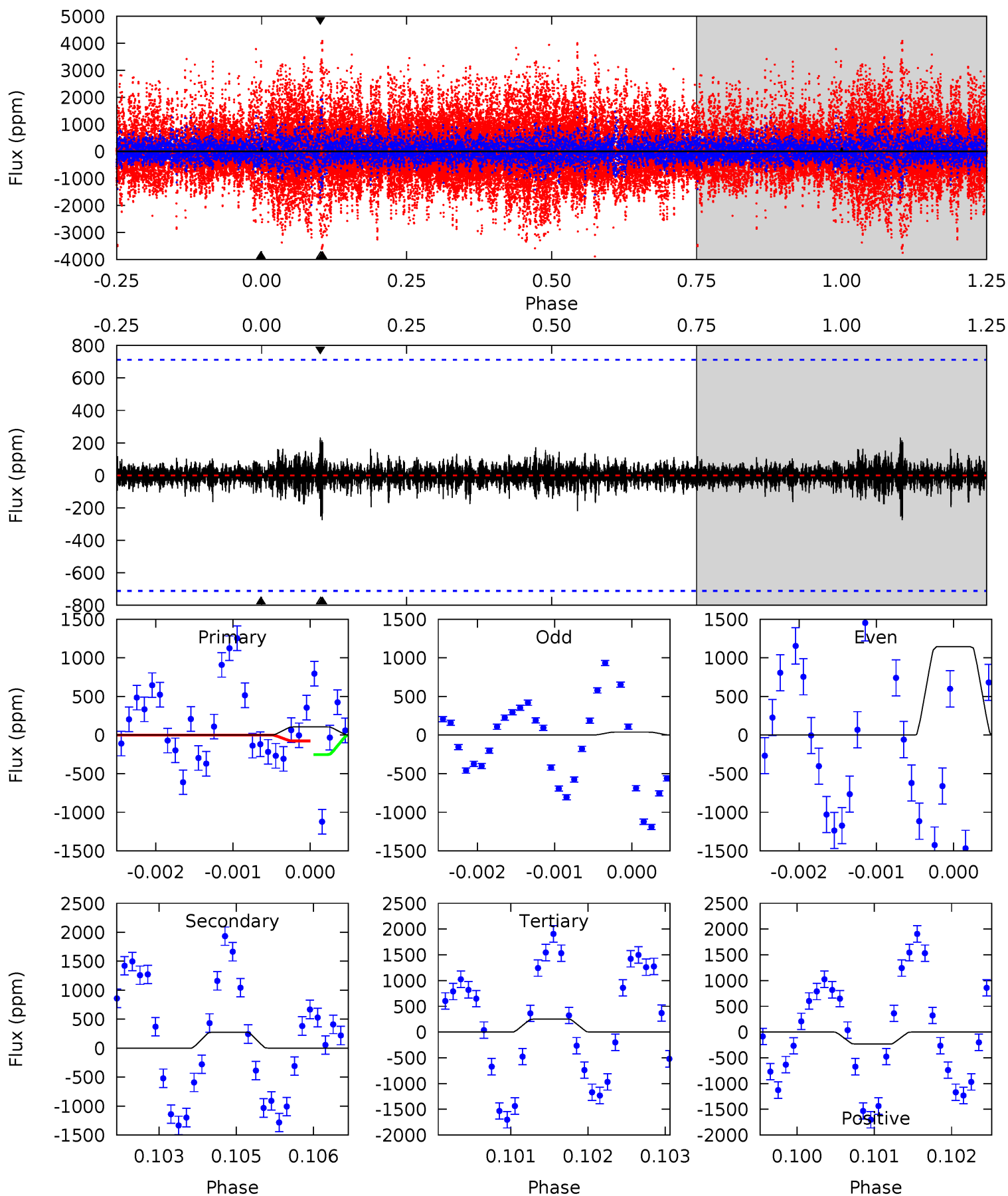
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.65	12.7	12.3	14.6	5.39	3.19	3.68	-5.66	-7.96	0.43	-1.87	11.8	1.91	0.53	1.46



Alt Model-Shift Uniqueness Test

007596741-01, P = 322.723177 Days, E = 125.573498 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.80	2.09	1.92	1.77	5.42	3.24	0.37	-1.12	-0.97	0.17	0.32	4.06	51.9	0.46	0.68



Stellar Parameters For KIC 007596741

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7316^{+230}_{-307}	$4.023^{+0.234}_{-0.156}$	$-0.240^{+0.250}_{-0.350}$	$1.987^{+0.560}_{-0.560}$	$1.517^{+0.222}_{-0.296}$	$0.272^{+0.390}_{-0.122}$
	+3%/-4%	+6%/-4%	+104%/-146%	+28%/-28%	+15%/-20%	+143%/-45%
Source	KIC0	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 007596741-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1807 ± 142	$21.23^{+13.50}_{-10.07}$	612^{+47}_{-55}	4724^{+1644}_{-698}	2389^{+6085}_{-1481}
Alt.	-275 ± 131	$19.13^{+11.79}_{-10.58}$	612^{+48}_{-51}	3477^{+1172}_{-550}	395^{+1881}_{-270}

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 $A_{obs} \gg 1.0$

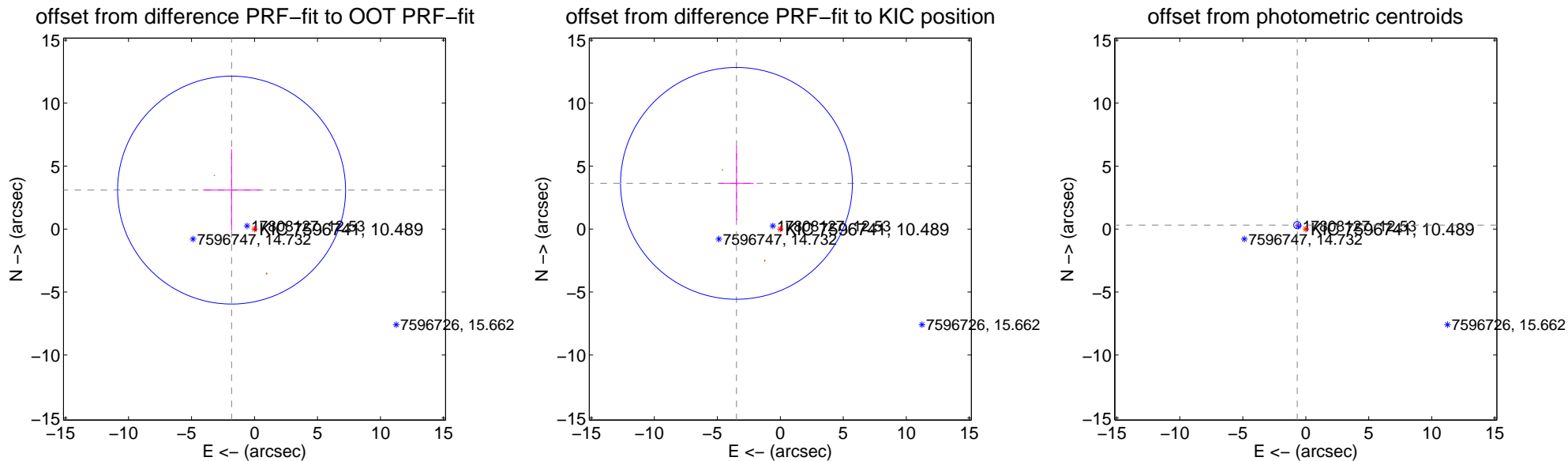
DV Centroid Data

Supplemental centroid analysis for 007596741-01. **Kepler magnitude: 10.49.** Transit SNR 16.11

There are 0 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 2.43 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.590 ± 3.017	1.19	1.820 ± 2.277	3.094 ± 3.233
PRF-fit source offset from KIC position	5.029 ± 3.068	1.64	3.481 ± 1.368	3.629 ± 2.940
photometric centroid source offset	0.74 ± 0.10	7.82	0.68 ± 0.10	0.31 ± 0.05

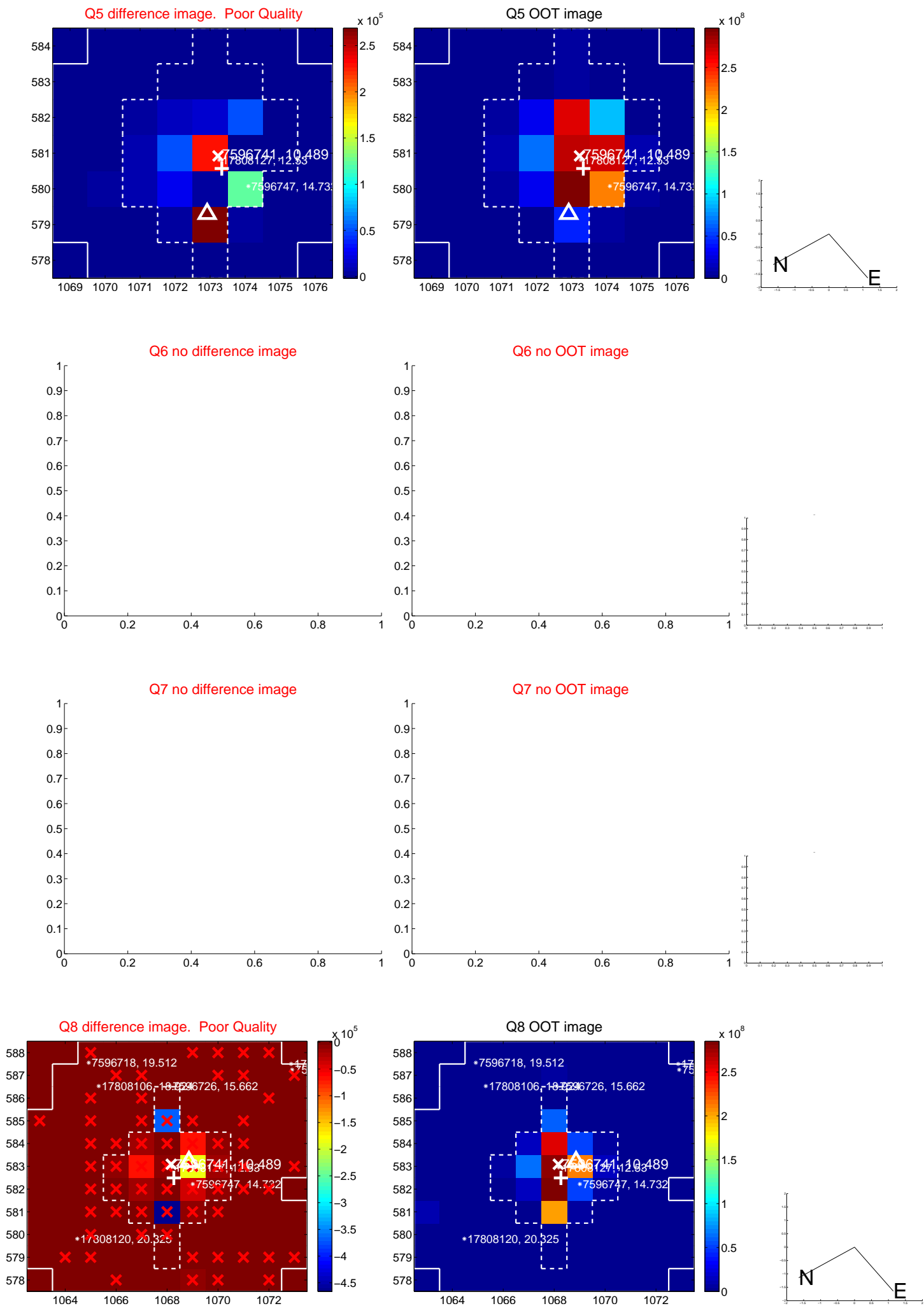


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



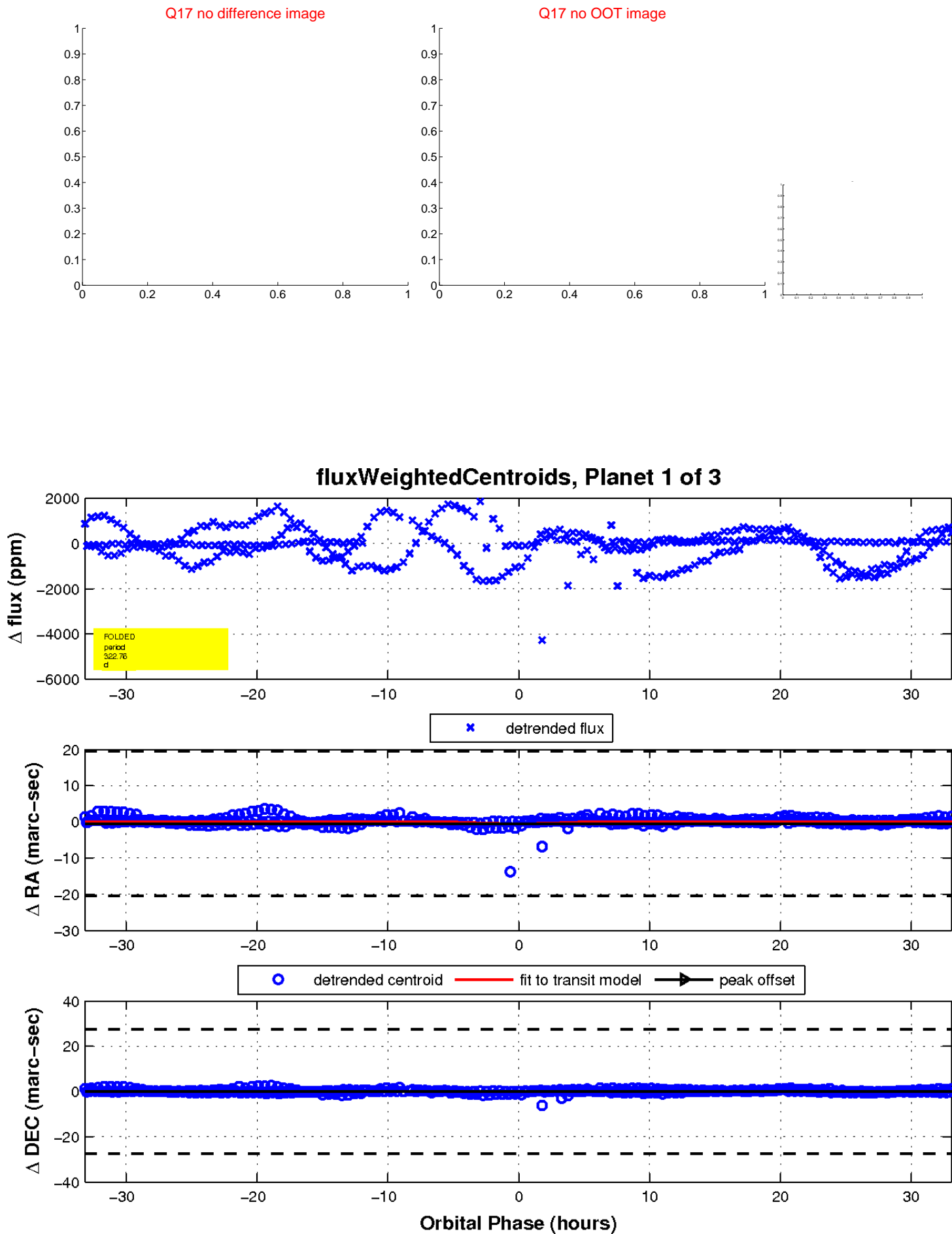
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

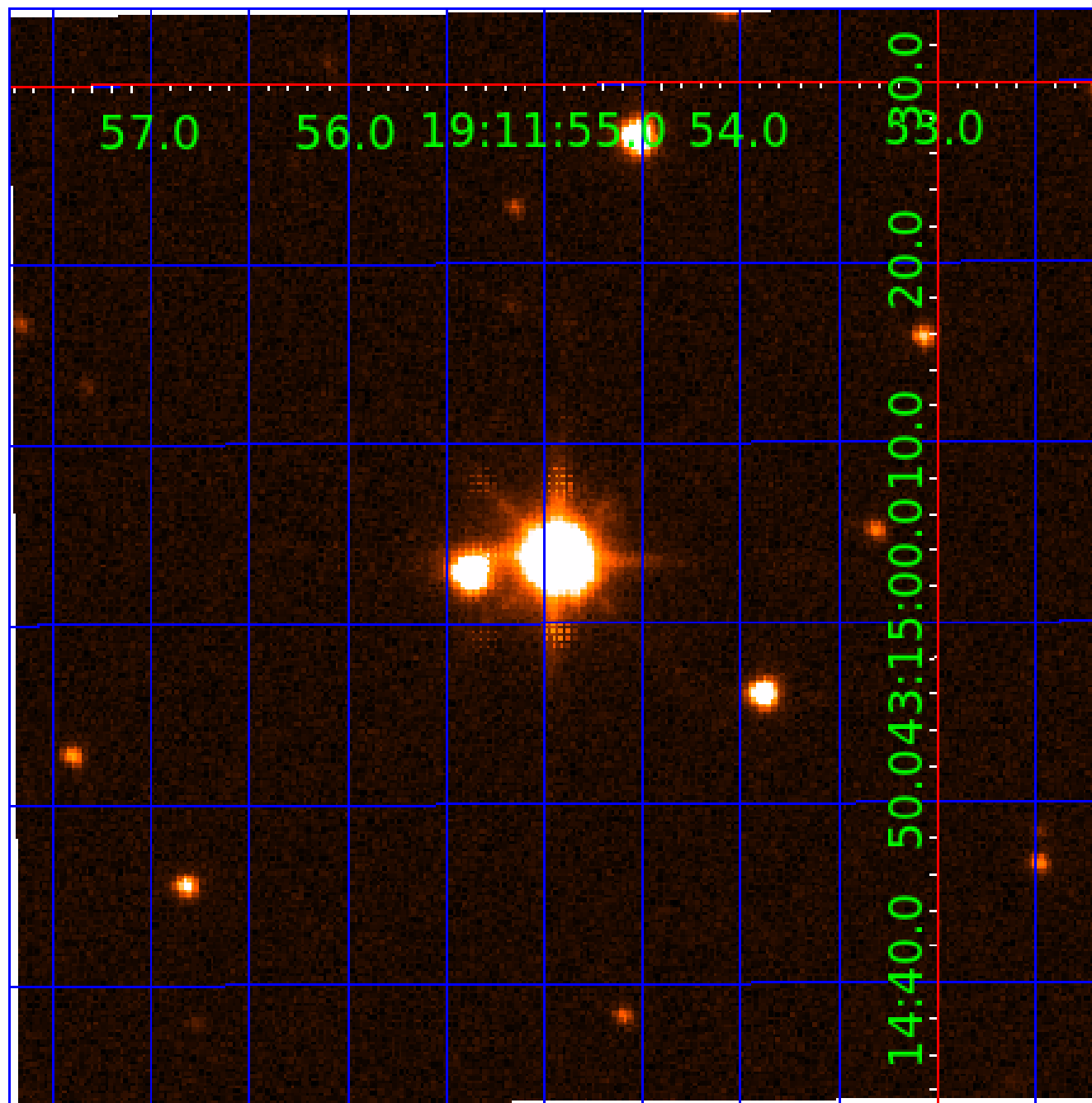


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007596741

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})
007596741-01	OBS	No	322.756214	448.302034	3883.8	11.062	60.5	16.1	1.99	7316	22.24	9.04
007596741-02	OBS	No	193.775818	246.218867	162.1	14.171	32.2	4.3	1.99	7316	2.61	17.85
007596741-03	OBS	No	467.458552	161.592600	295.7	6.000	29.4	-1.0	1.99	7316	3.46	5.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007596741-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007596741-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007596741-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

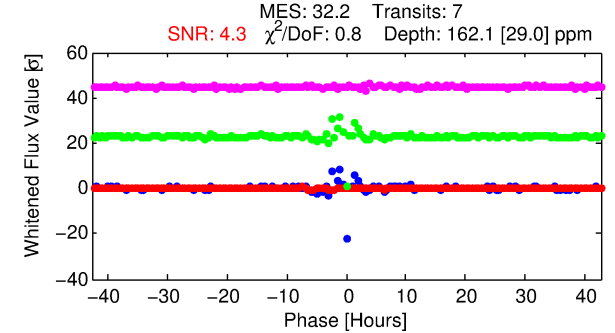
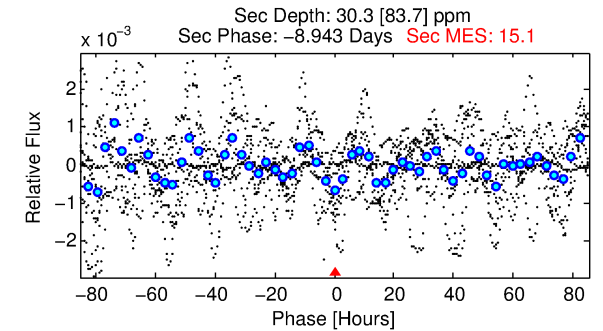
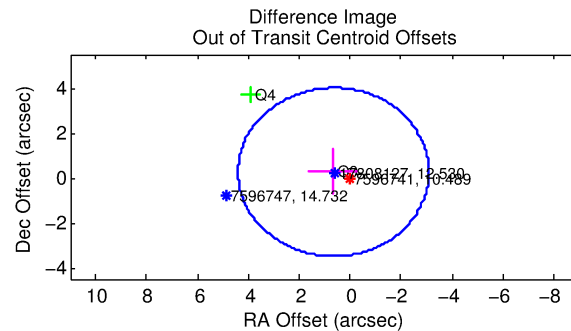
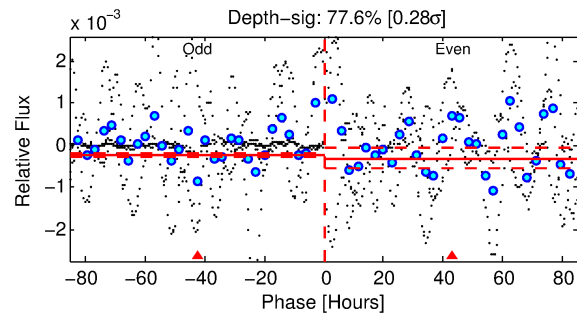
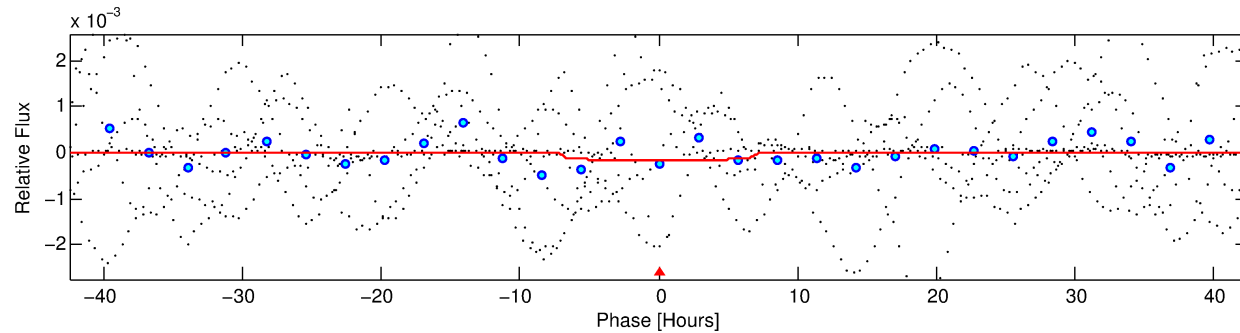
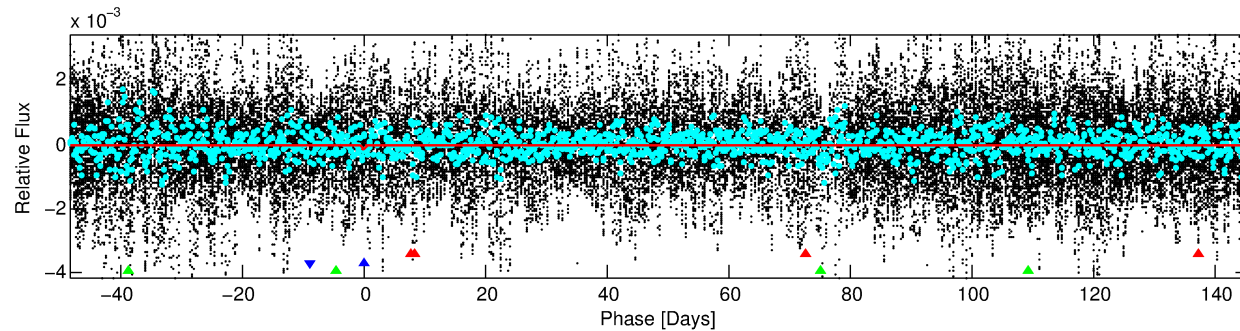
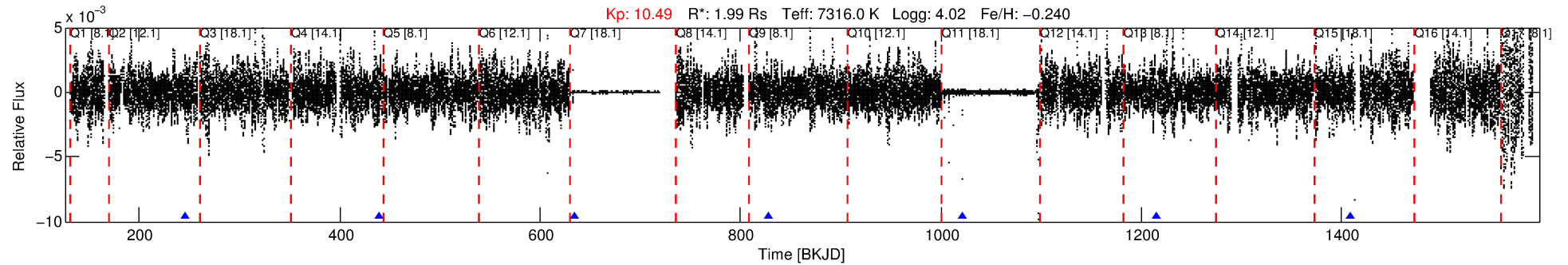
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007596741-02

No Significant Match Found

DV One-Page Summary

KIC: 7596741 Candidate: 2 of 3 Period: 193.776 d



DV Fit Results:

Period = 193.77582 [0.00366] d
Epoch = 246.2189 [0.0136] BKJD
Rp/R* = 0.0120 [0.0049]
a/R* = 94.18 [217.65]
b = 0.46 [3.98]
Seff = 17.85 [7.83]
Teq = 524 [57] K
Rp = 2.61 [1.29] Re
a = 0.7534 [0.1958] AU
Ag = 1390.69 [4040.37] [0.34 σ]
Teffp = 4949 [3565] K [1.24 σ]

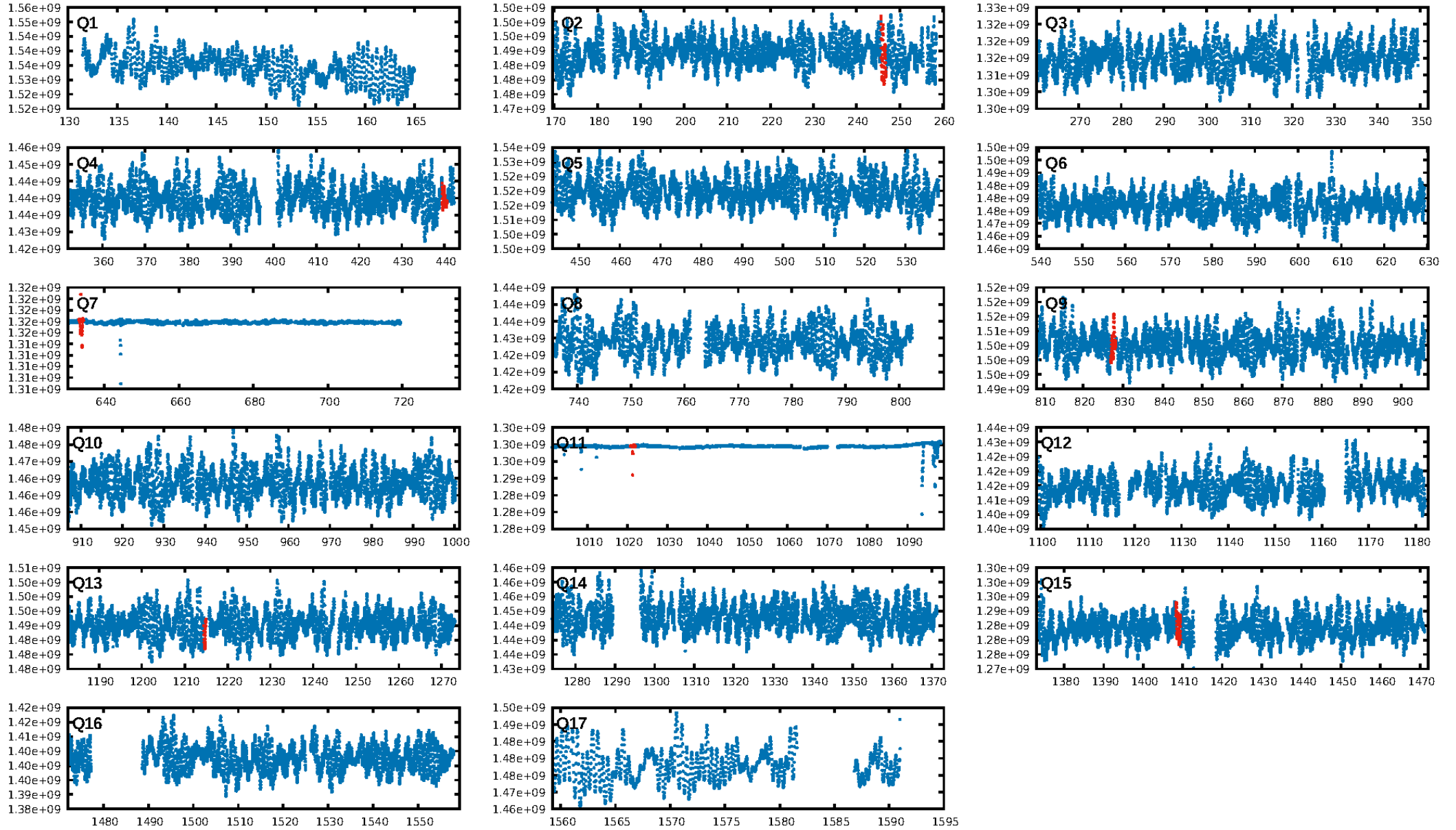
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [172.19 σ]
ModelChiSquare2-sig: 52.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 2.47
Centroid-sig: 40.9%
Centroid-so: 1.331 arcsec [0.84 σ]
OotOffset-rm: 0.702 arcsec [0.56 σ]
KicOffset-rm: 2.332 arcsec [1.00 σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

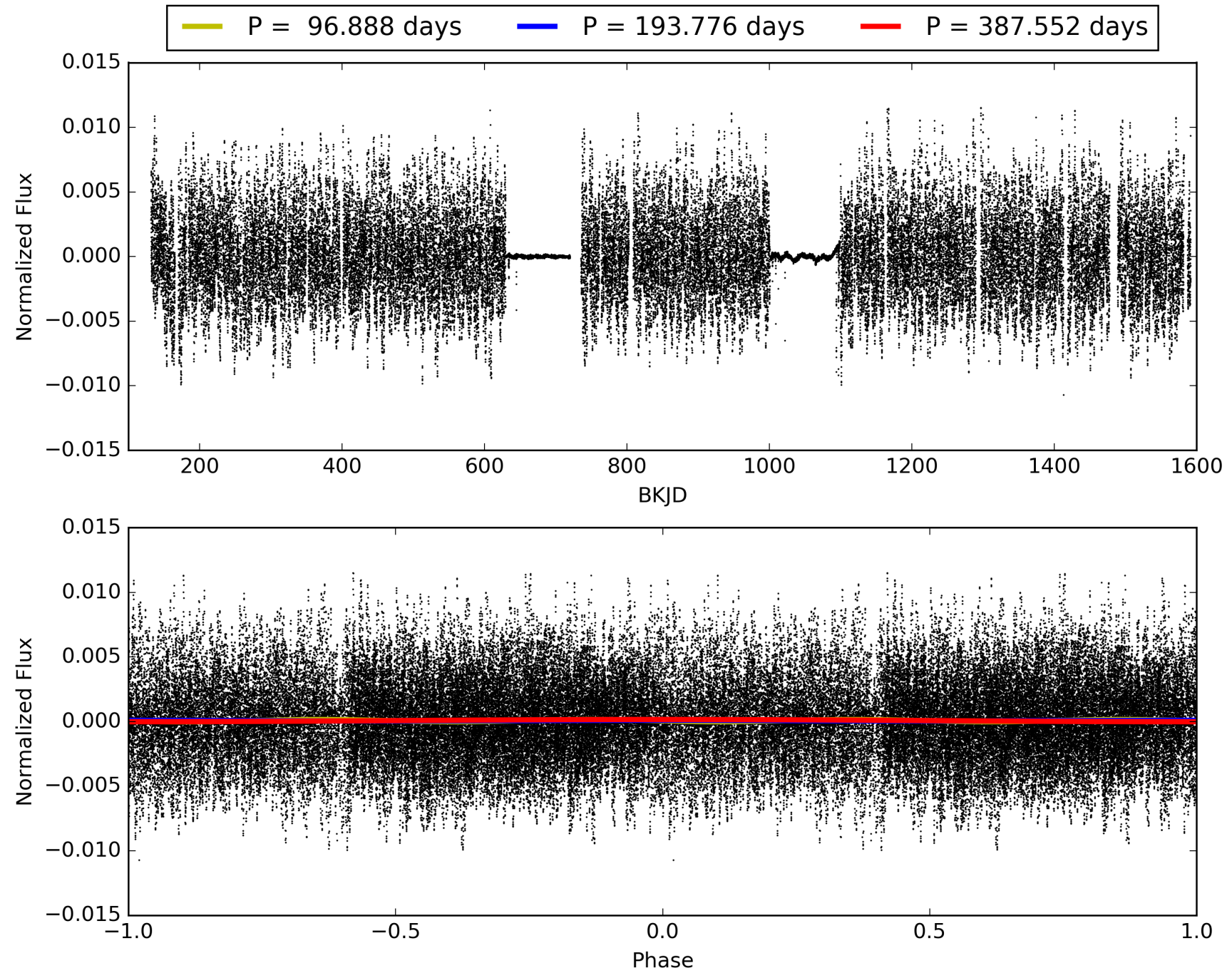
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:26:58 Z

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

TCE 007596741-02, PDC Light Curves

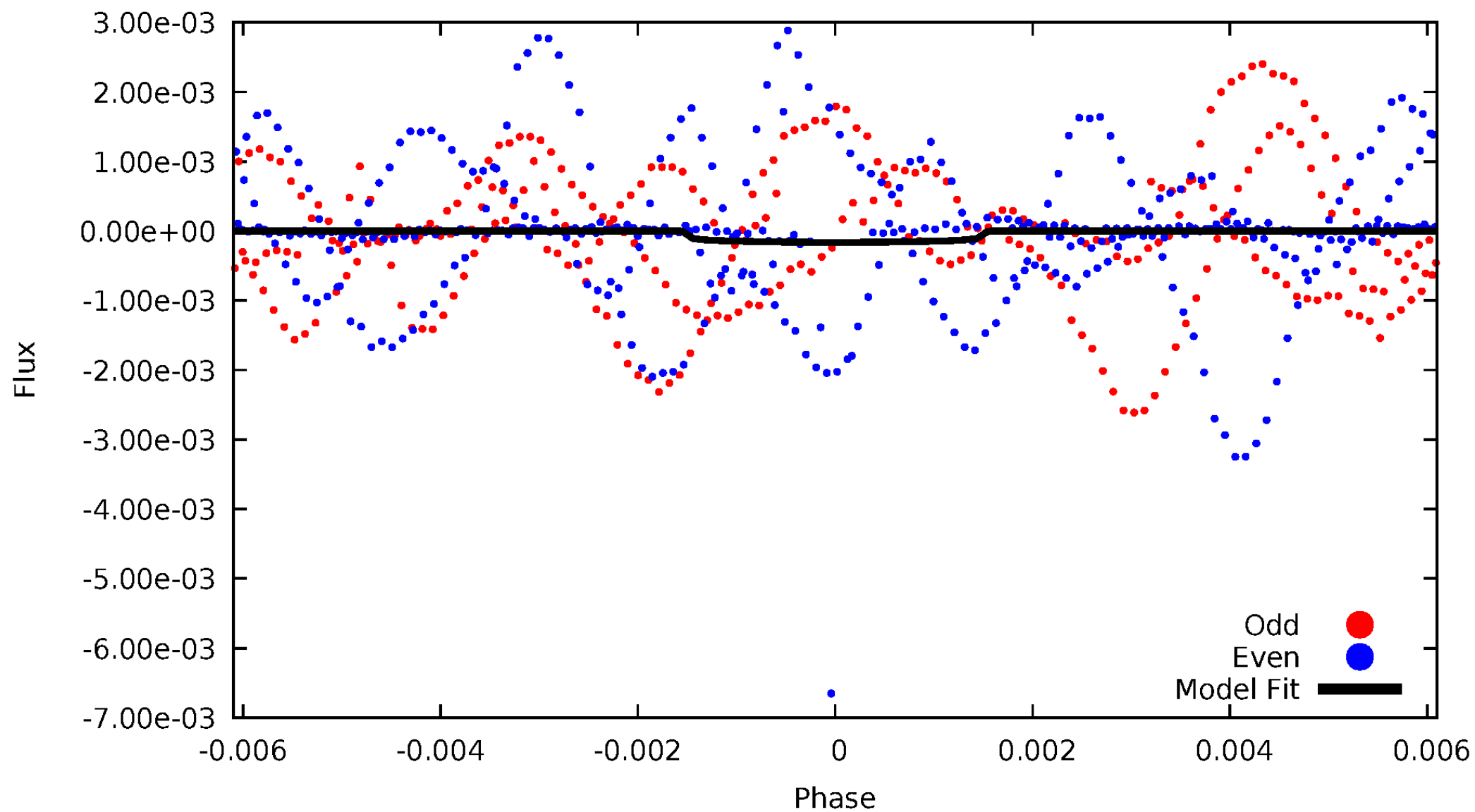


TCE 007596741-02



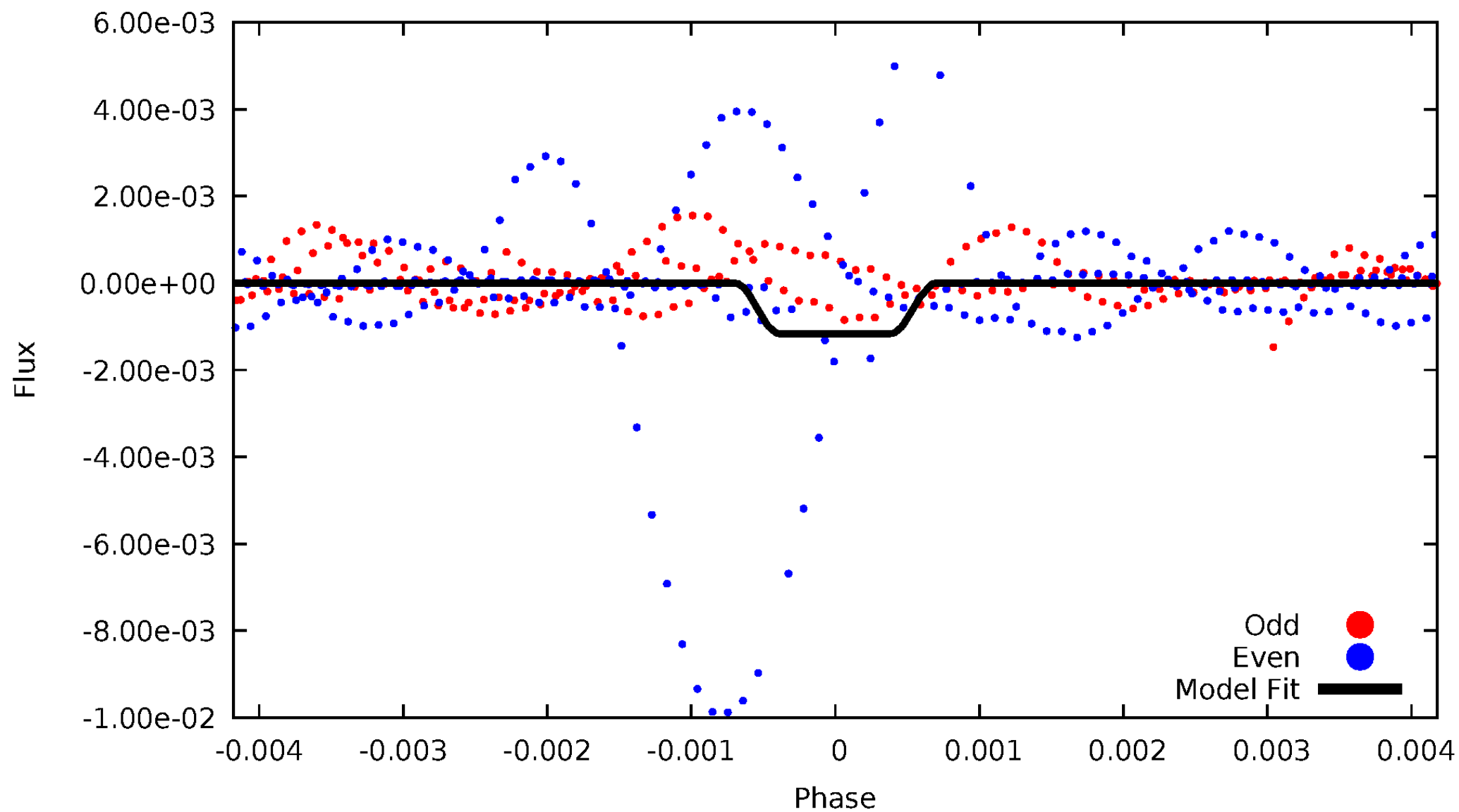
DV Odd/Even

TCE 007596741-02



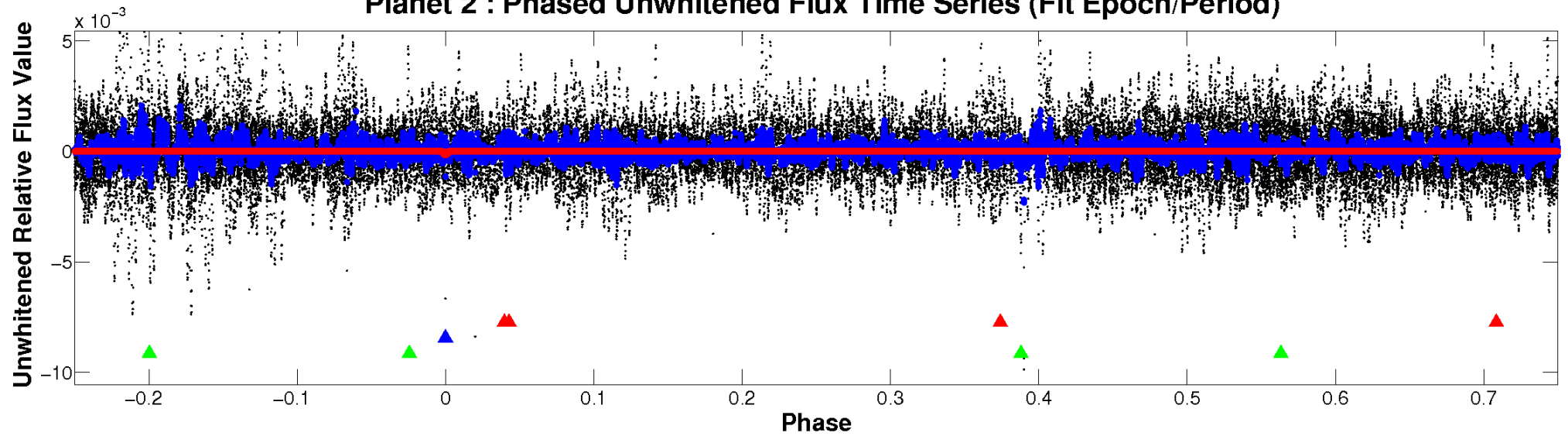
ALT Odd/Even

TCE 007596741-02

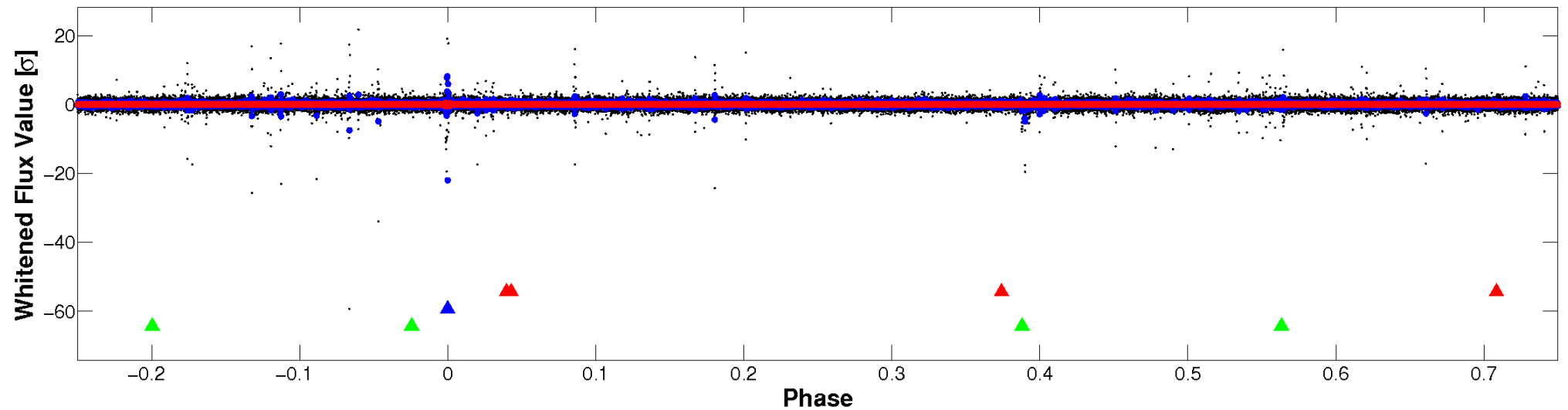


Non-Whitened Vs. Whitened Light Curve

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

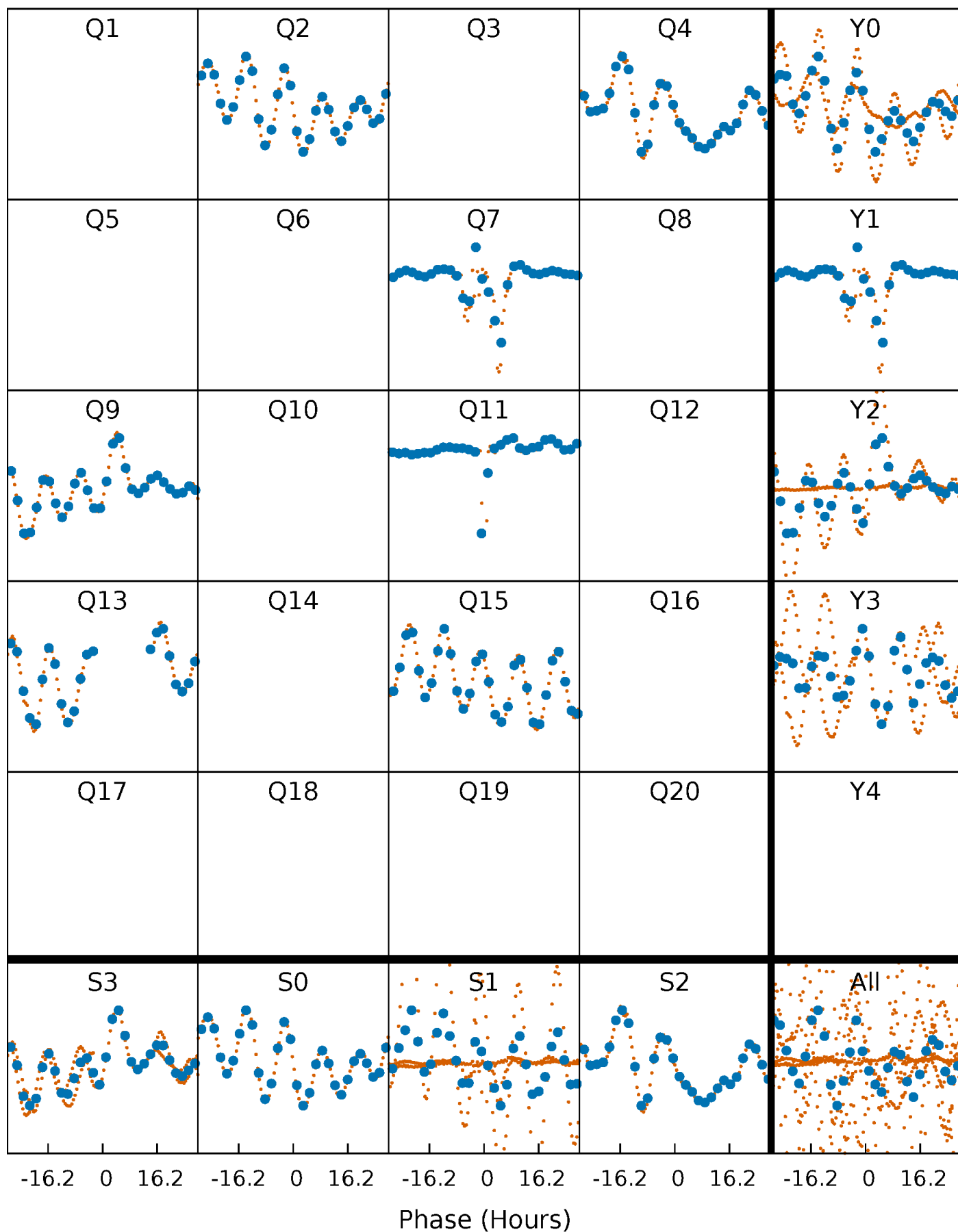


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



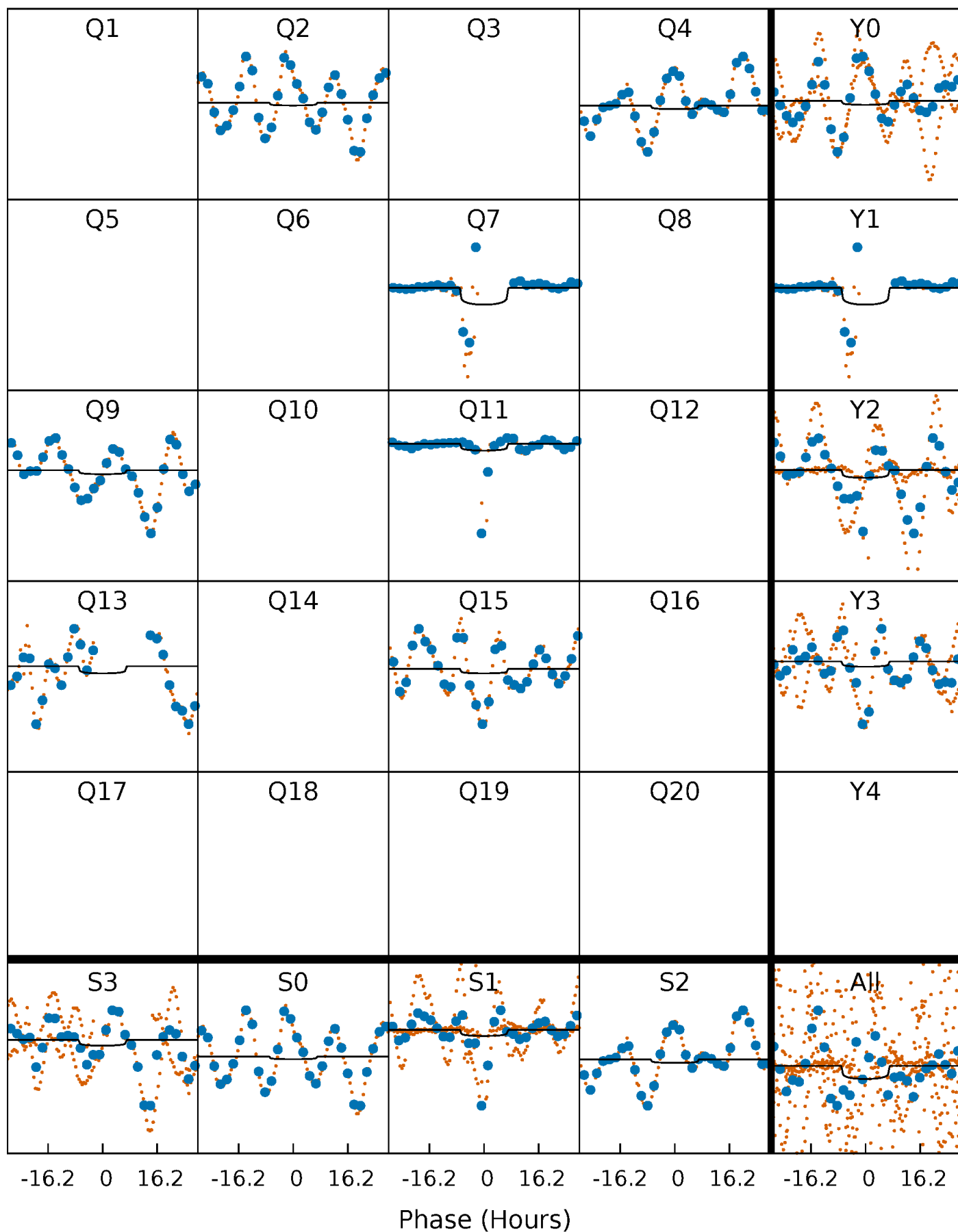
PDC Quarter-Phased Transit Curves

TCE 007596741-02 P=193.775818 Days $T_0=246.218867$ (BKJD)



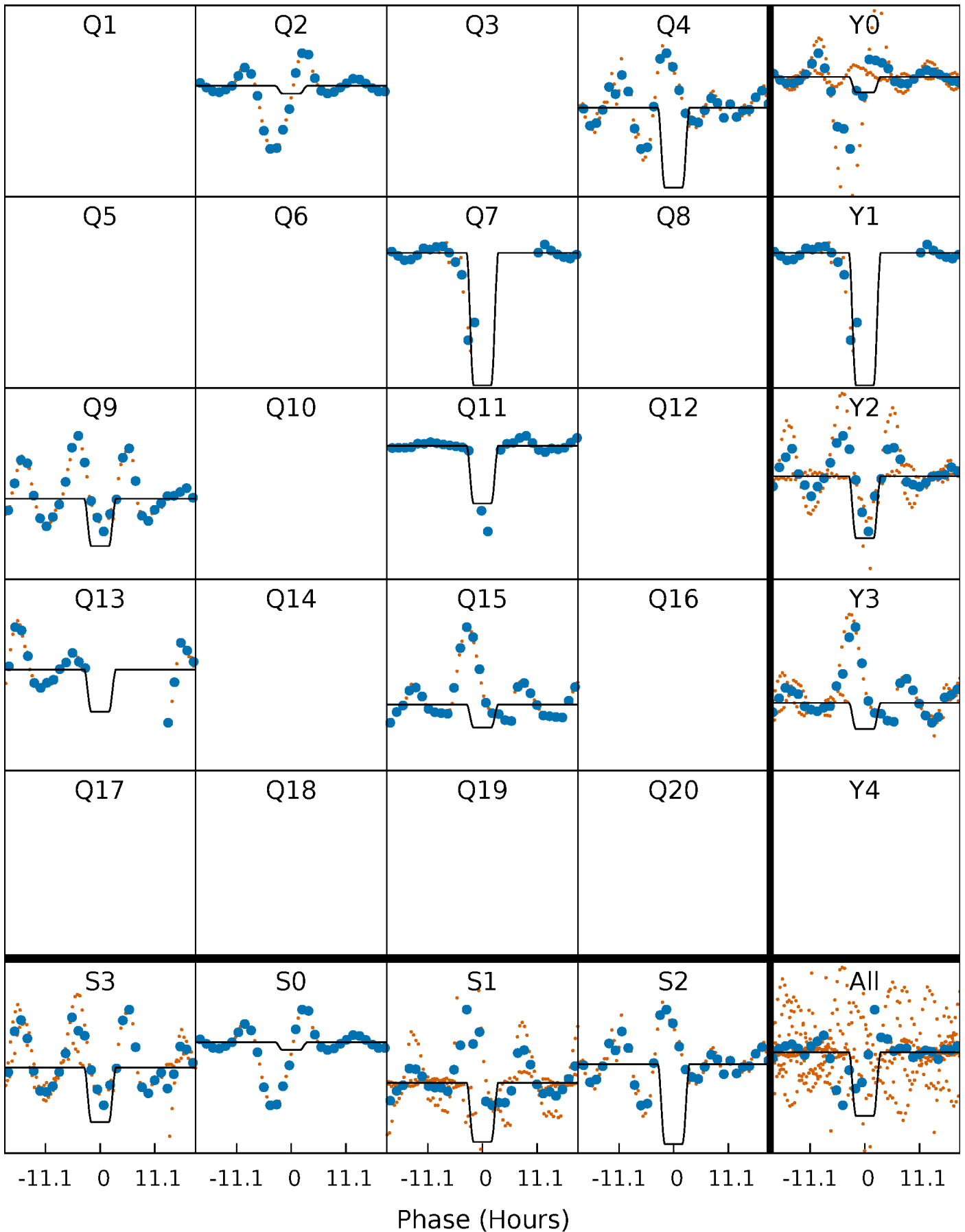
DV Quarter-Phased Transit Curves

TCE 007596741-02 P=193.775818 Days $T_0=246.218867$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

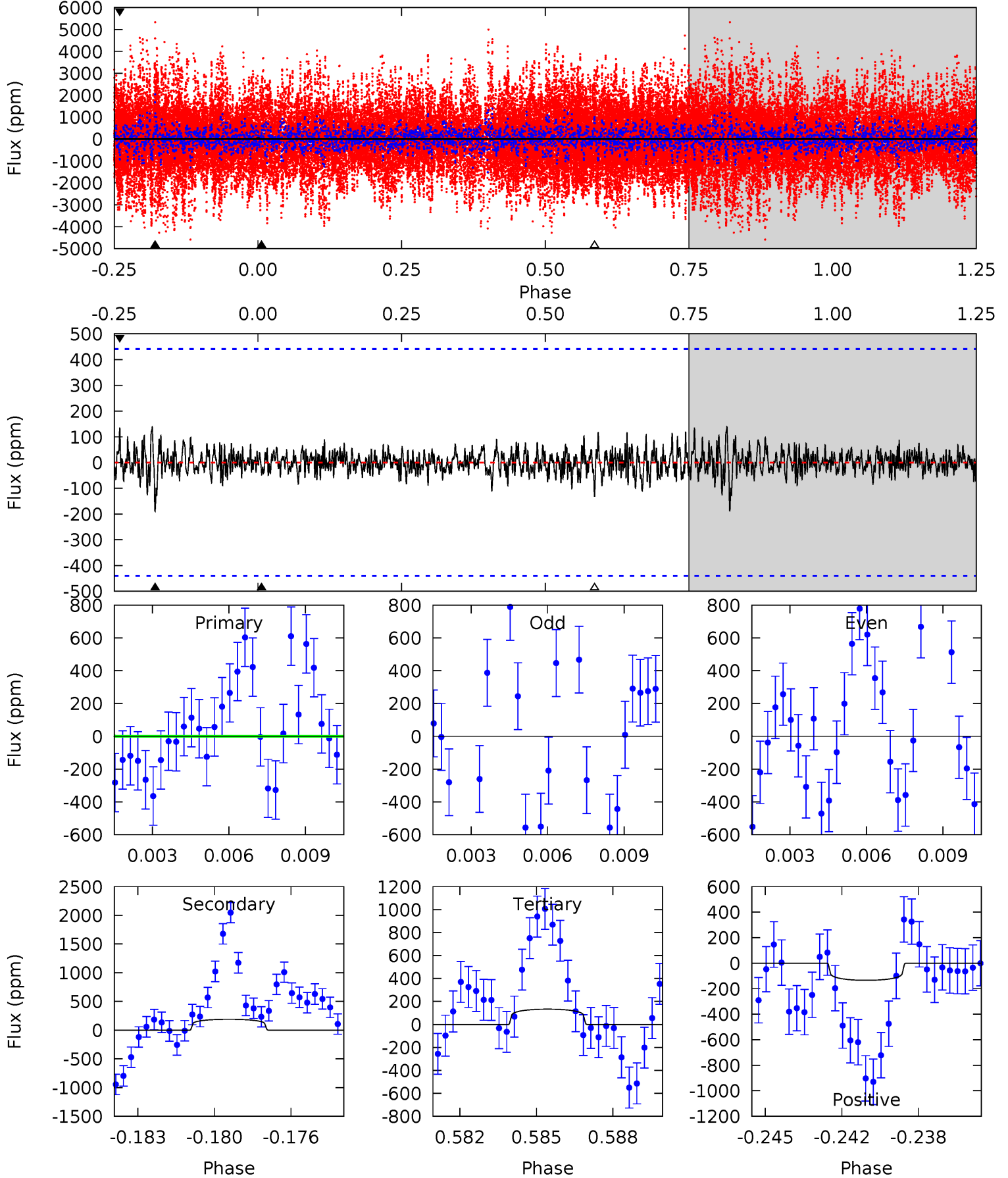
TCE 007596741-02 P=193.820636 Days $T_0=246.025325$ (BKJD)



DV Model-Shift Uniqueness Test

007596741-02, $P = 193.775818$ Days, $E = 52.443049$ Days

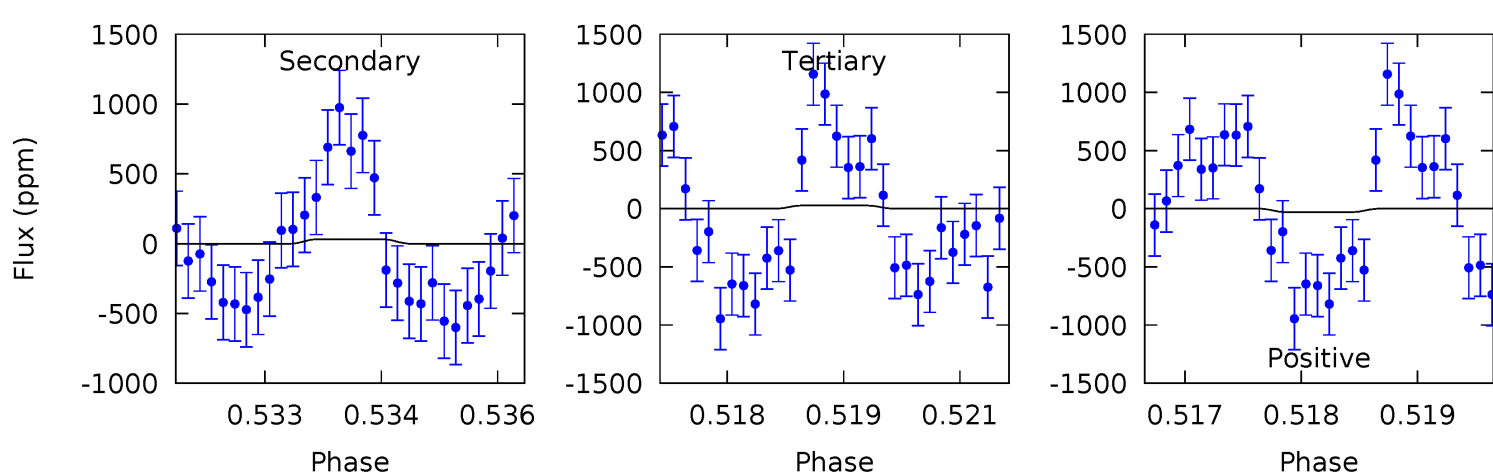
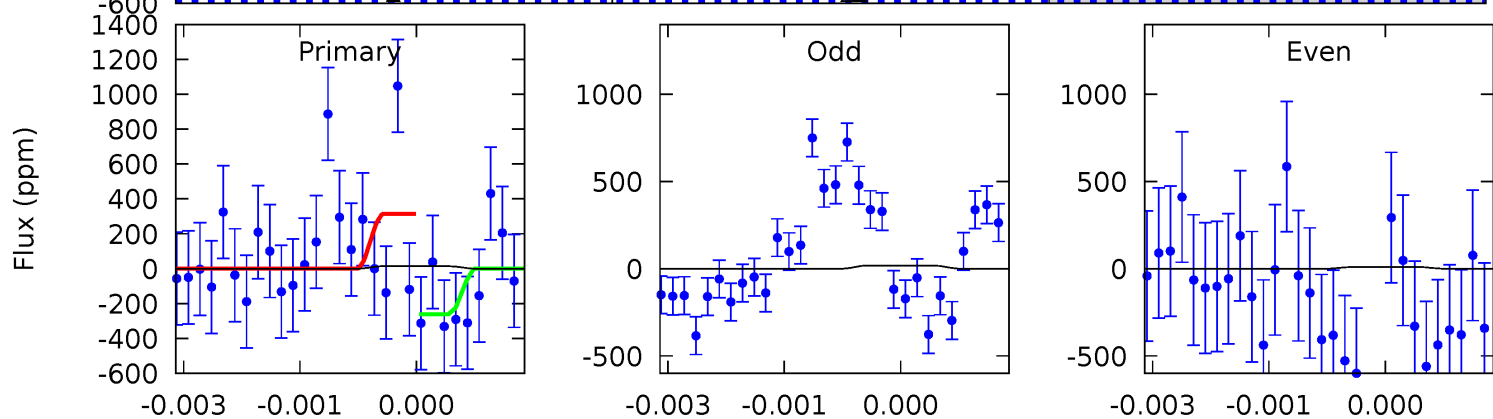
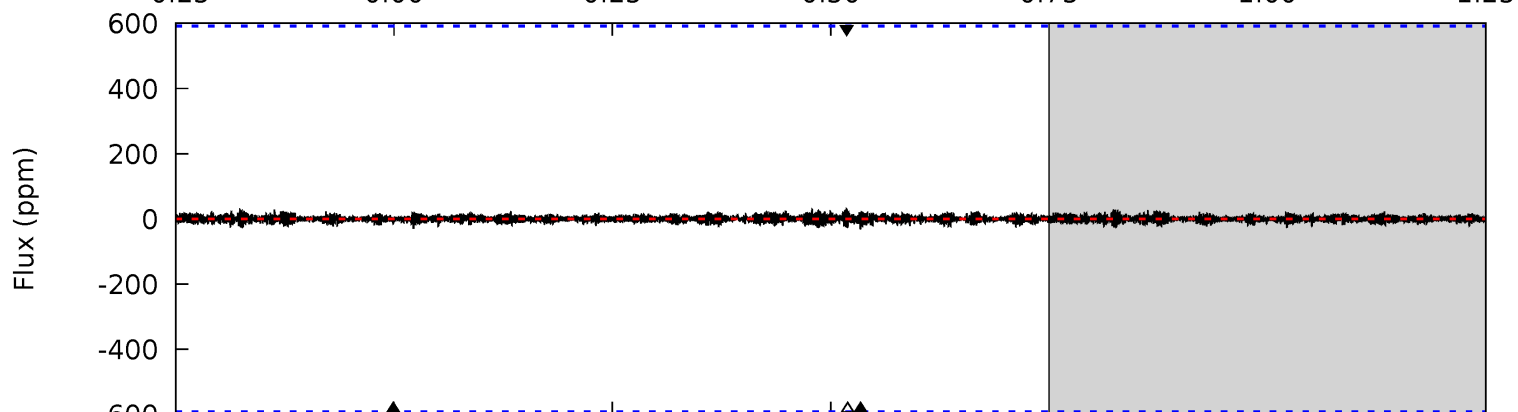
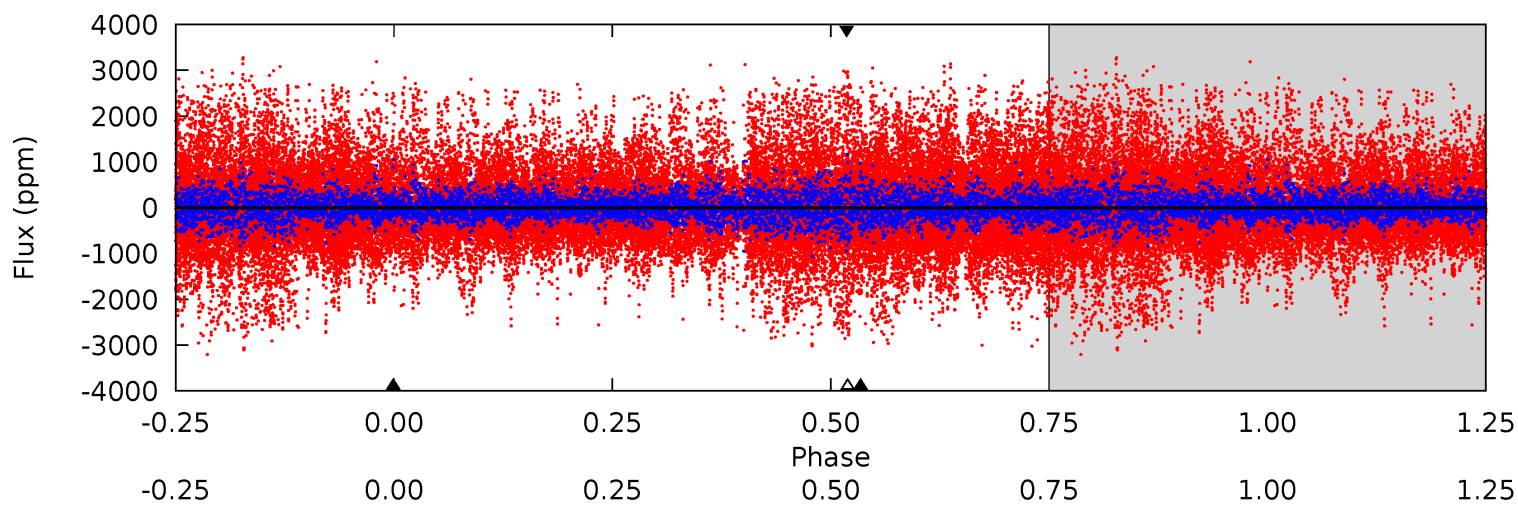
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.49	2.25	1.58	1.60	5.25	2.96	0.46	-1.10	-1.11	0.67	0.65	0.33	0.06	0.42	0.83



Alt Model-Shift Uniqueness Test

007596741-02, P = 193.820636 Days, E = 52.204689 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.13	0.29	0.25	0.27	5.40	3.20	0.07	-0.12	-0.14	0.04	0.02	0.04	0.57	0.48	0.25



Stellar Parameters For KIC 007596741

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7316^{+230}_{-307}	$4.023^{+0.234}_{-0.156}$	$-0.240^{+0.250}_{-0.350}$	$1.987^{+0.560}_{-0.560}$	$1.517^{+0.222}_{-0.296}$	$0.272^{+0.390}_{-0.122}$
	+3%/-4%	+6%/-4%	+104%/-146%	+28%/-28%	+15%/-20%	+143%/-45%
Source	KIC0	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 007596741-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-189 ± 84	$2.55^{+1.16}_{-1.06}$	726^{+63}_{-65}	7731^{+3614}_{-1590}	8581^{+18514}_{-5044}
Alt.	-32 ± 110	$7.24^{+1.63}_{-1.46}$	724^{+53}_{-58}	3282^{+1171}_{-7367}	138^{+765}_{-688}

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

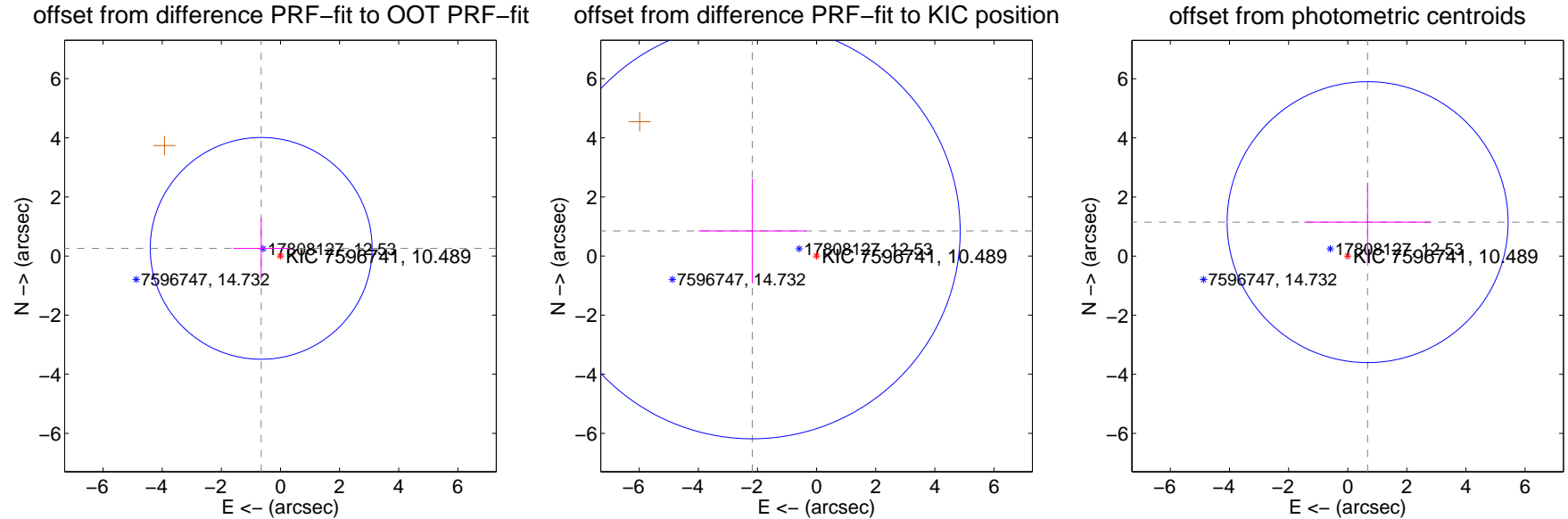
DV Centroid Data

Supplemental centroid analysis for 007596741-02. **Kepler magnitude: 10.49.** Transit SNR 4.31

There are 0 quarters with good PRF difference image offsets

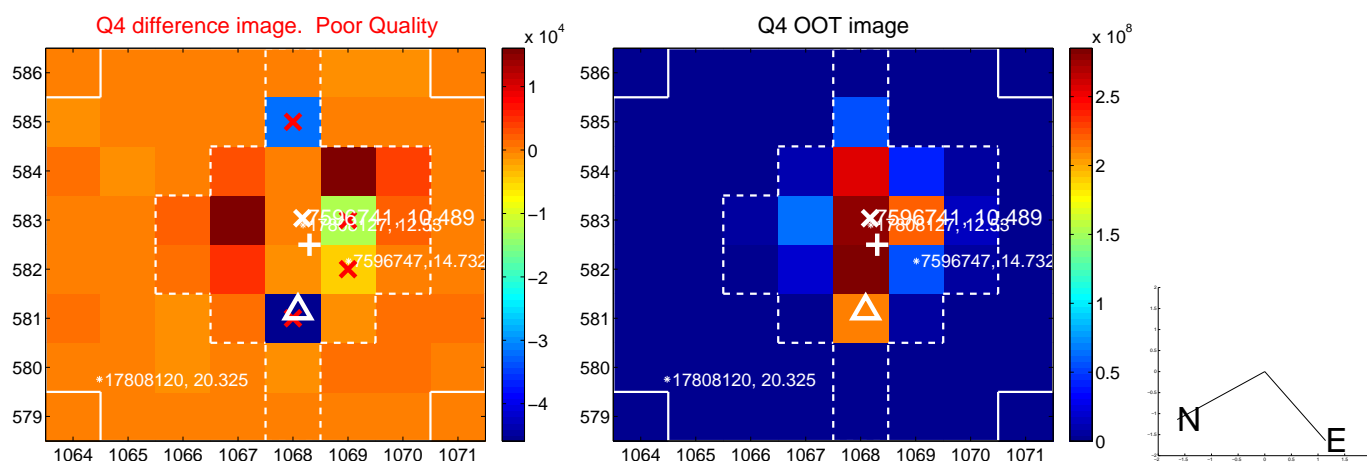
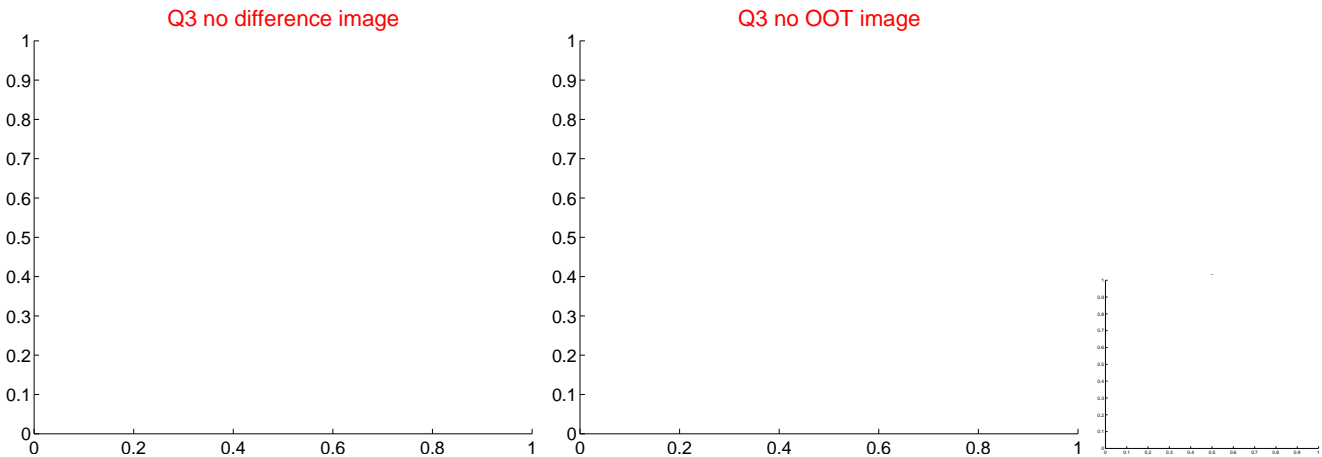
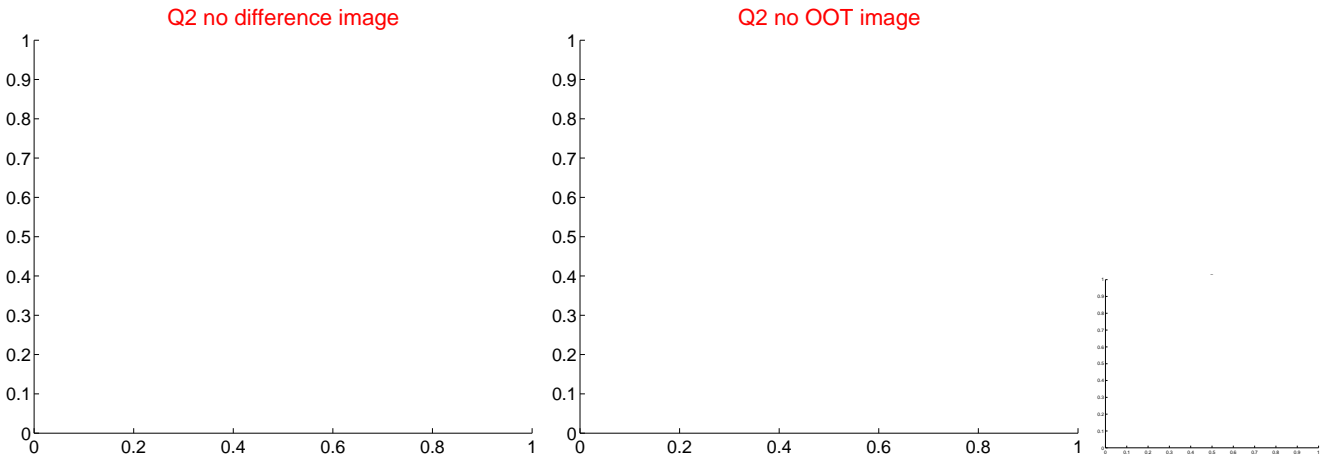
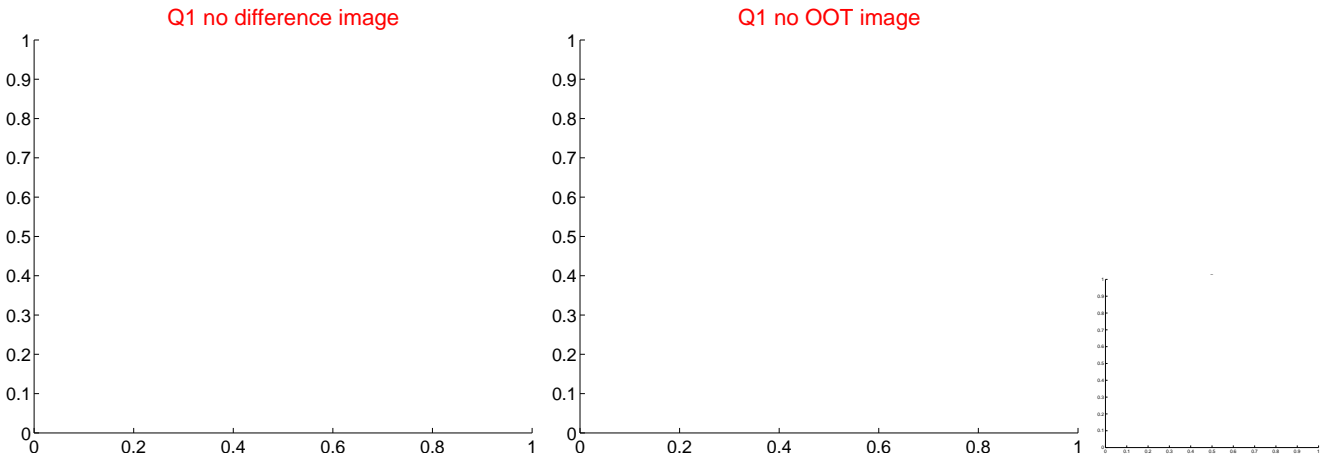
The direct PRF centroid is offset from the target star catalog position by about 1.63 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.702 ± 1.250	0.56	0.652 ± 0.947	0.259 ± 1.007
PRF-fit source offset from KIC position	2.332 ± 2.343	1.00	2.173 ± 1.825	0.847 ± 1.771
photometric centroid source offset	1.33 ± 1.58	0.84	-0.67 ± 2.14	1.15 ± 1.34



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.

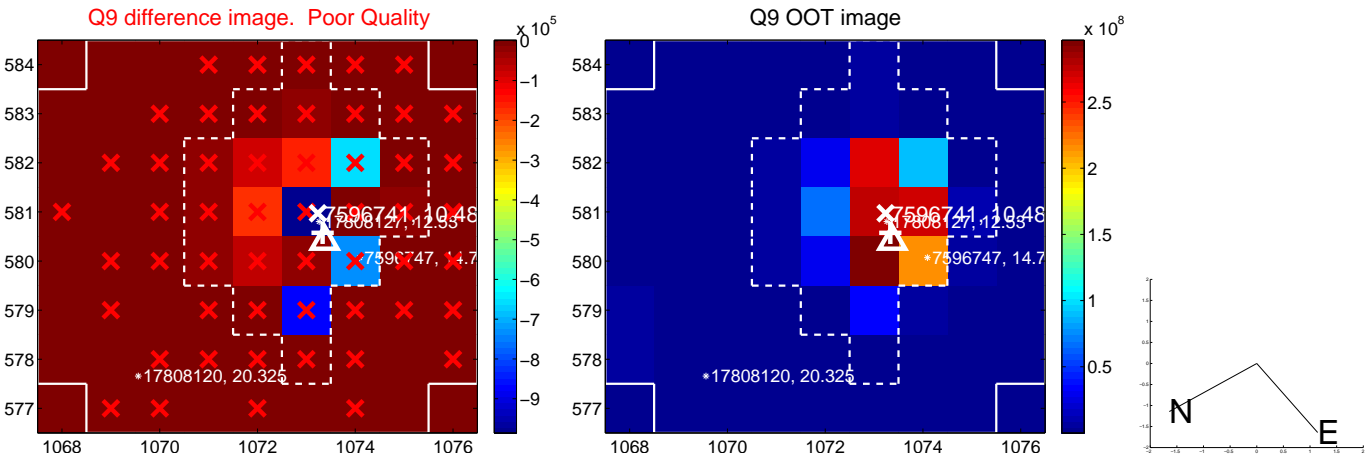
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



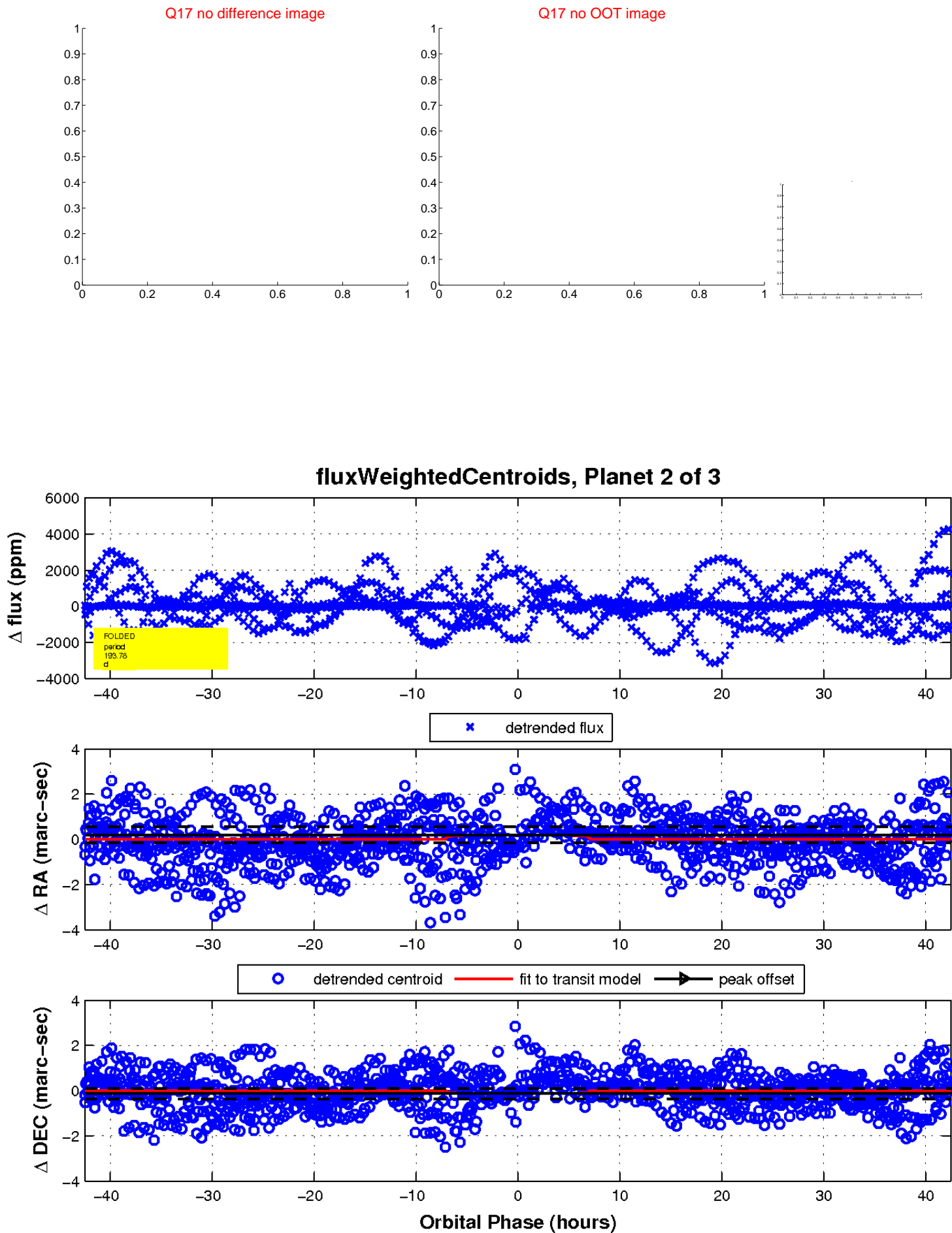
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

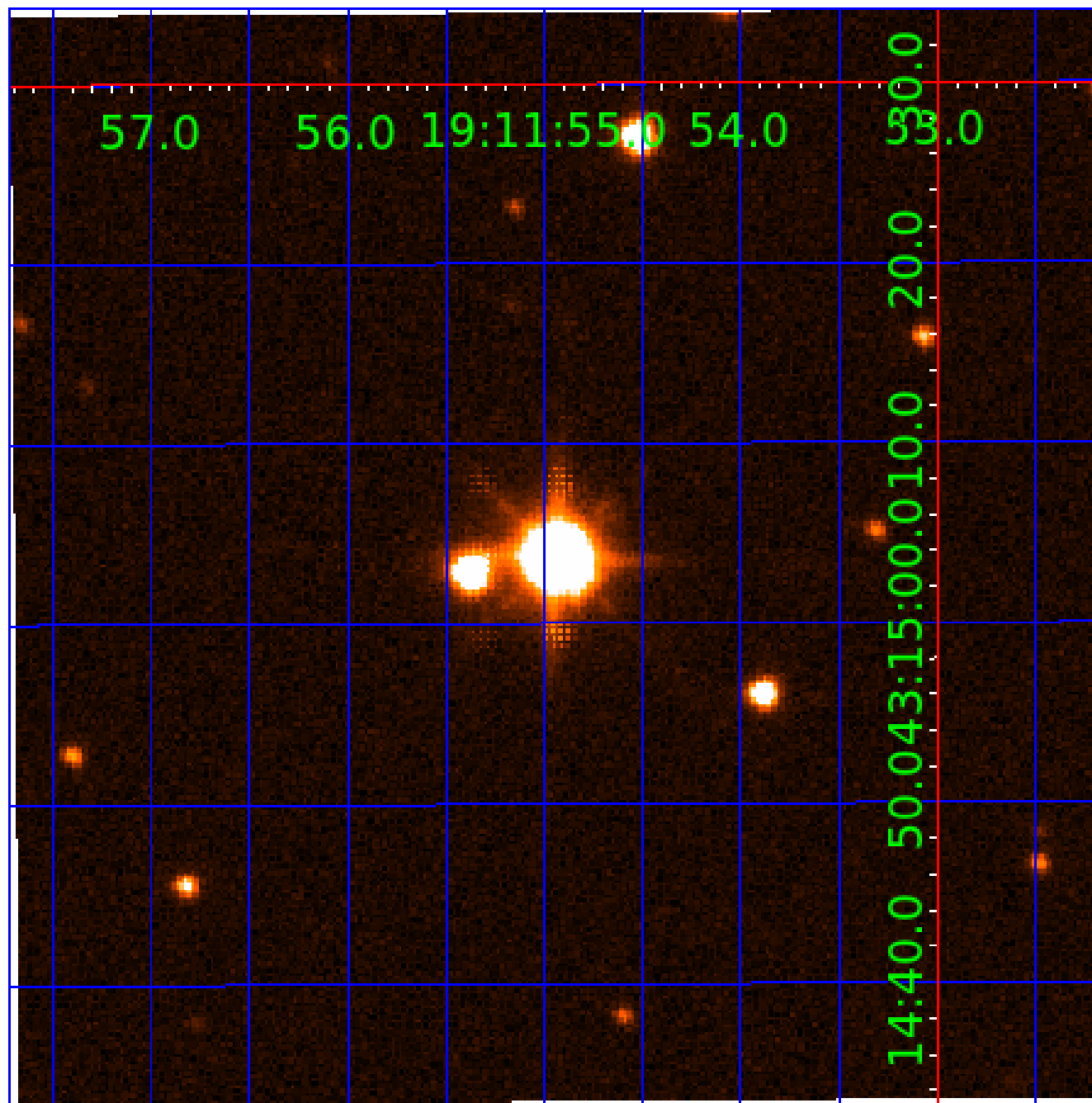


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007596741

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})
007596741-01	OBS	No	322.756214	448.302034	3883.8	11.062	60.5	16.1	1.99	7316	22.24	9.04
007596741-02	OBS	No	193.775818	246.218867	162.1	14.171	32.2	4.3	1.99	7316	2.61	17.85
007596741-03	OBS	No	467.458552	161.592600	295.7	6.000	29.4	-1.0	1.99	7316	3.46	5.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007596741-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007596741-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007596741-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

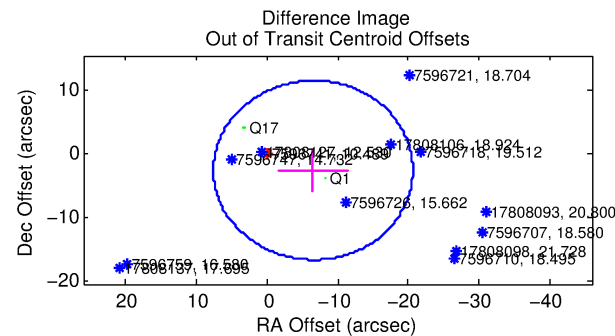
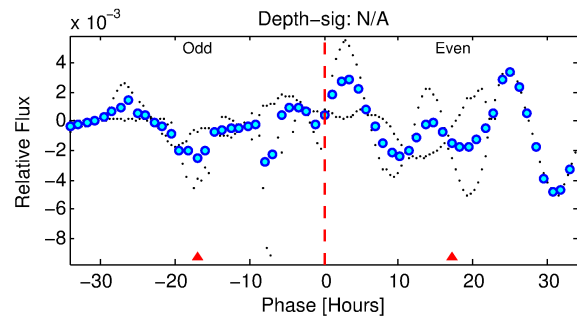
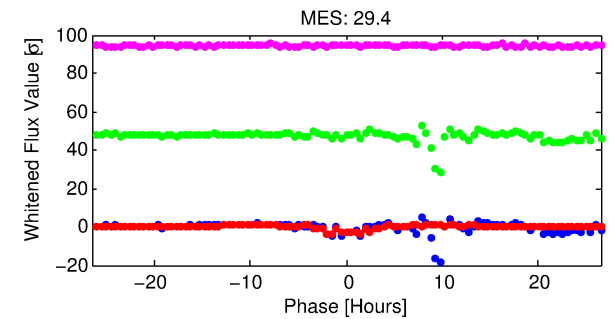
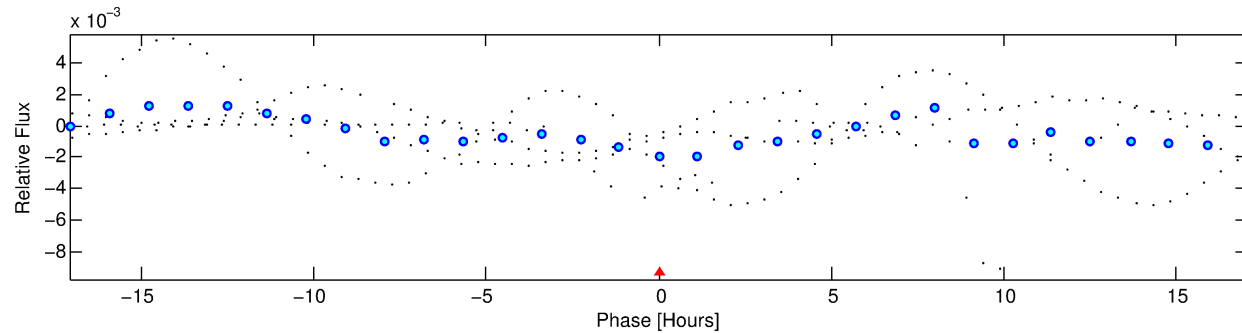
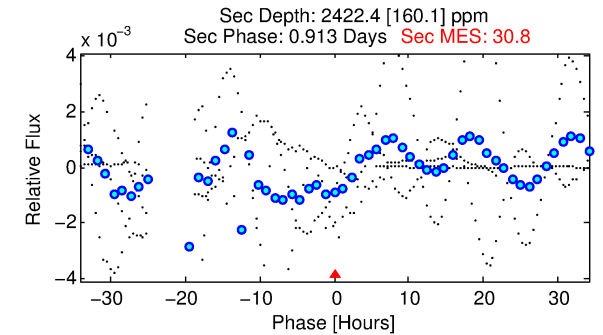
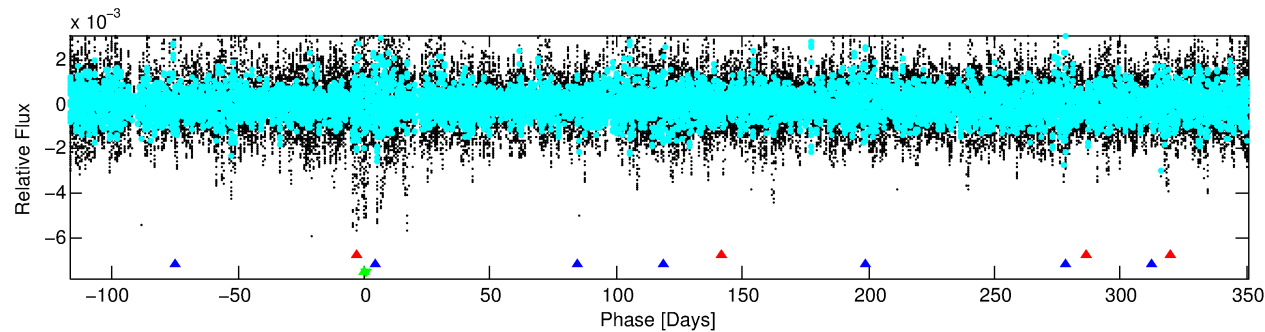
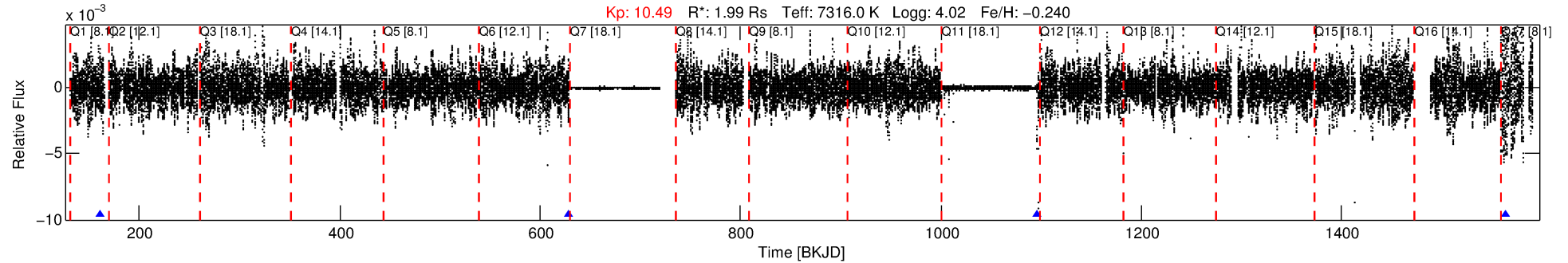
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007596741-03

No Significant Match Found

DV One-Page Summary

KIC: 7596741 Candidate: 3 of 3 Period: 467.459 d



TPS TCE Results:

Period = 467.45855 d
Epoch = 161.5926 BKJD

DV fit results are unavailable

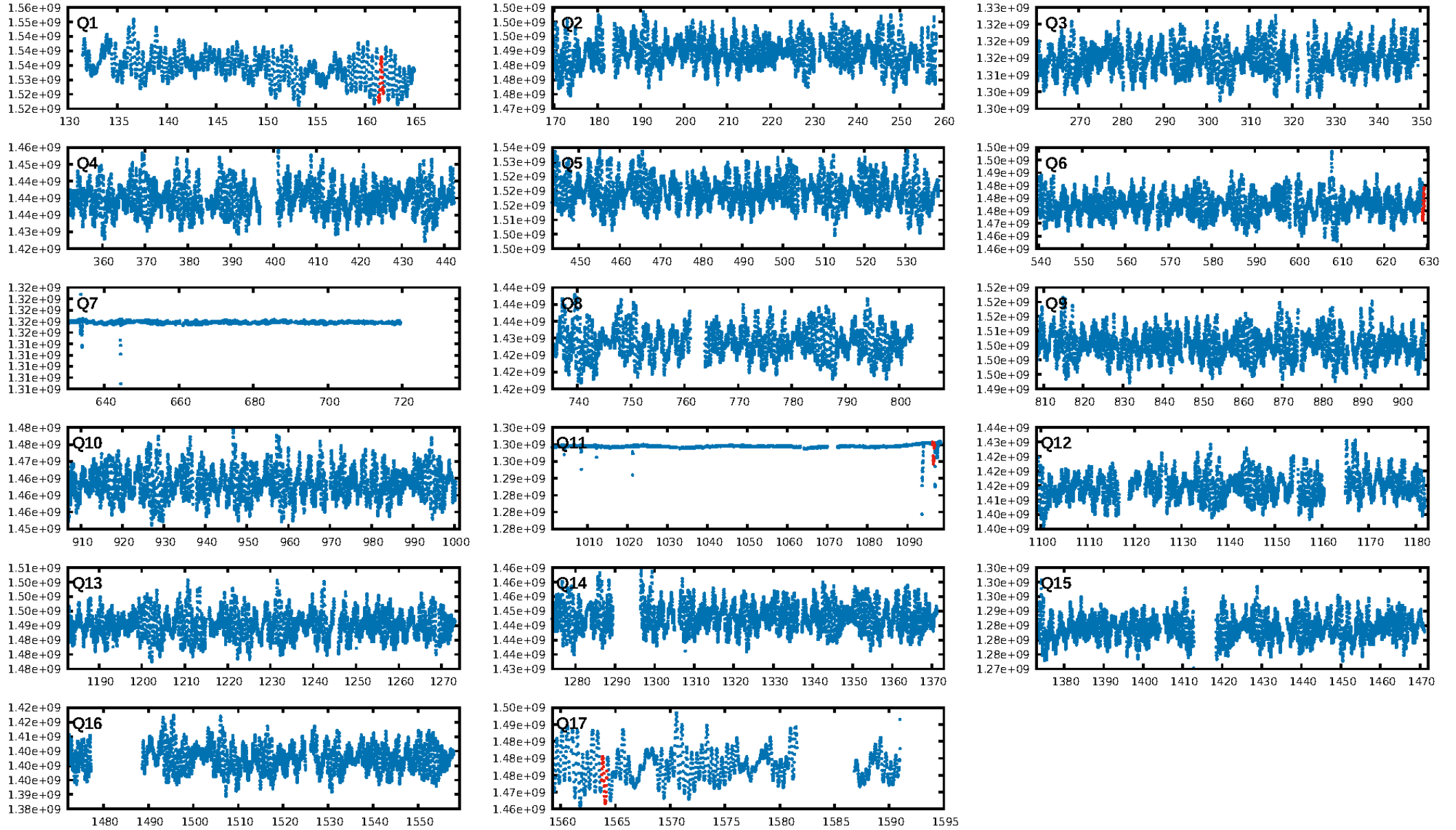
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [275.96σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 13.71
Centroid-sig: 69.9%
Centroid-so: 0.568 arcsec [6.28σ]
OotOffset-rm: 7.037 arcsec [1.50σ]
KicOffset-rm: 5.259 arcsec [1.14σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

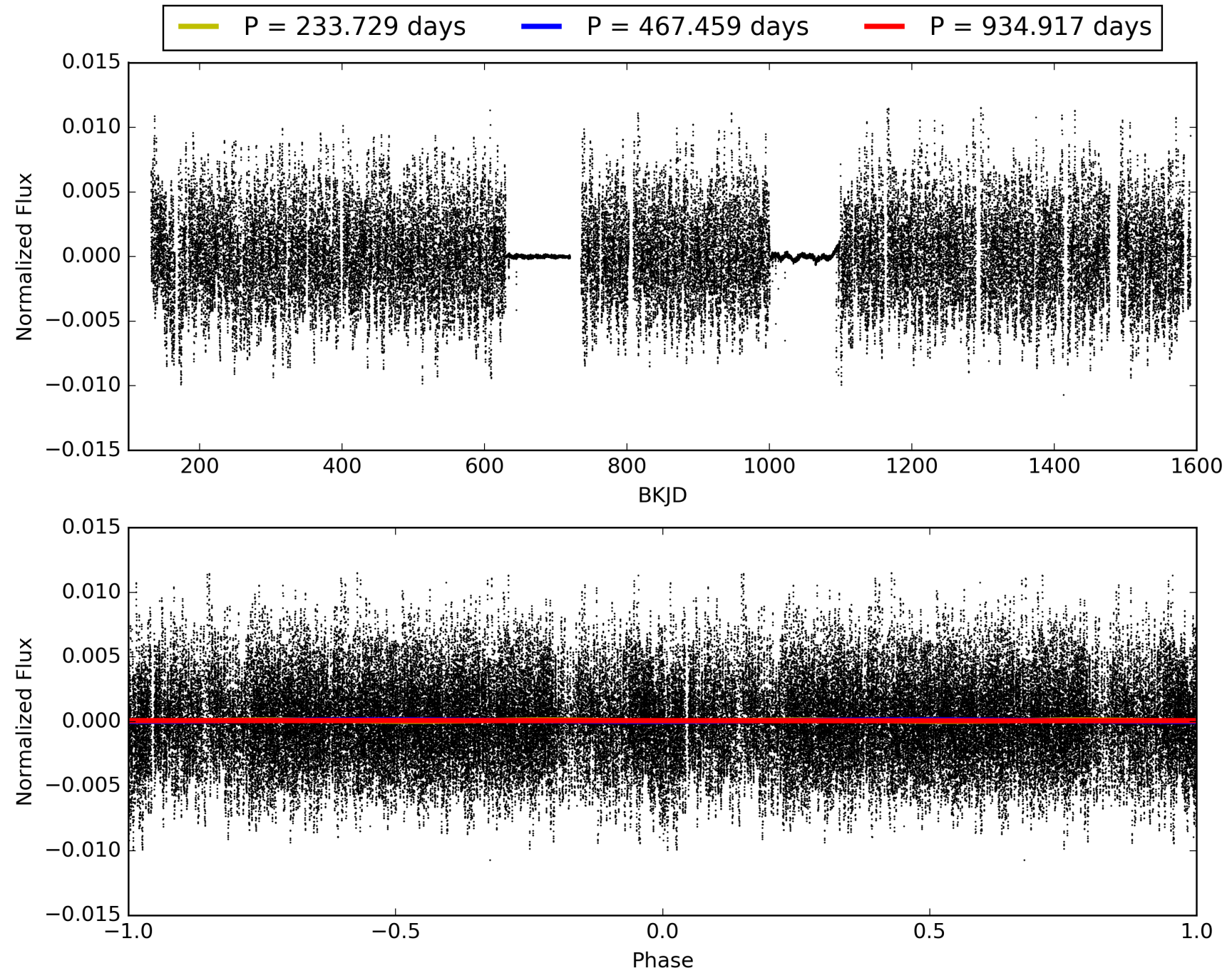
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:27:12 Z

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

TCE 007596741-03, PDC Light Curves

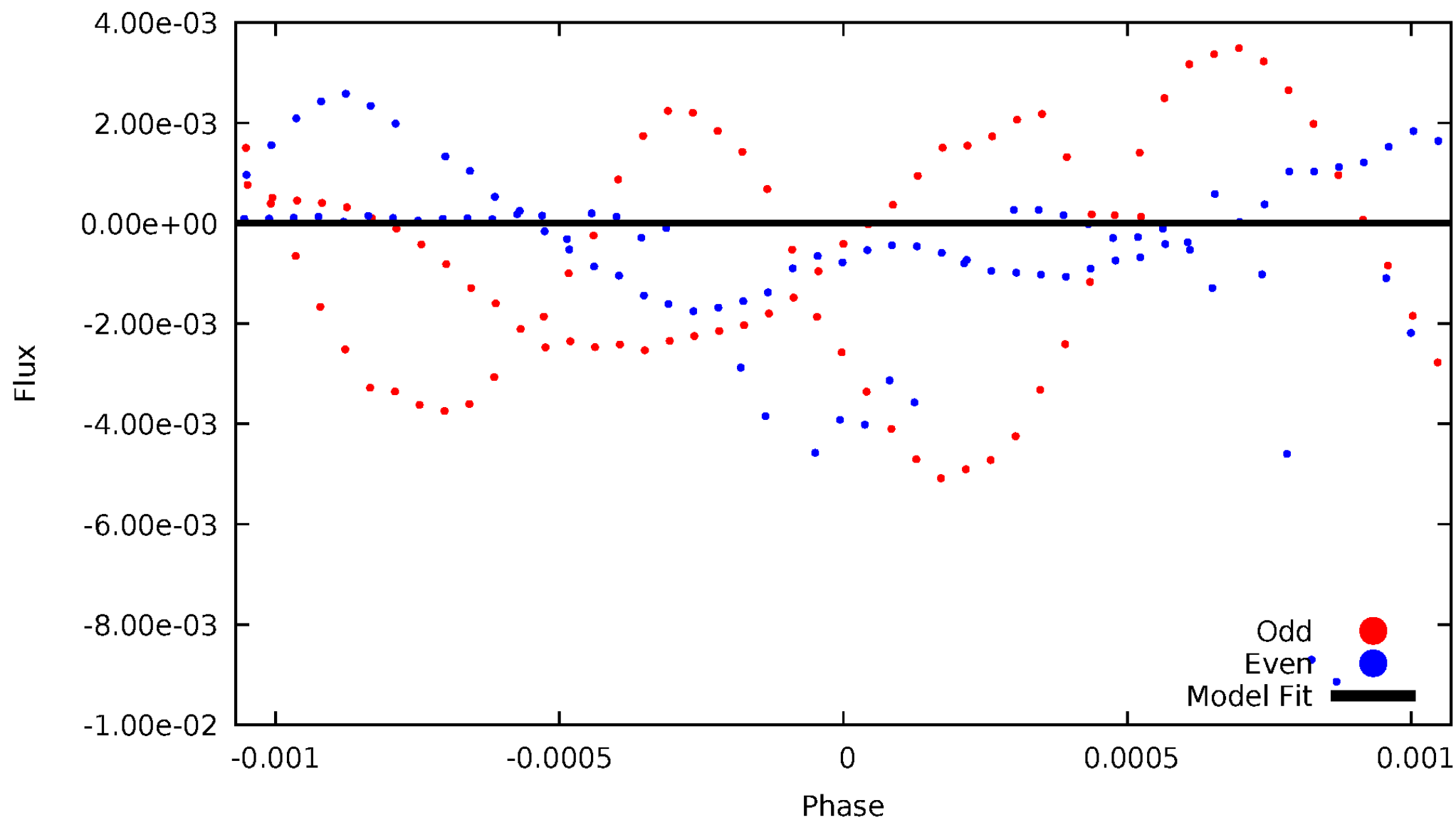


TCE 007596741-03



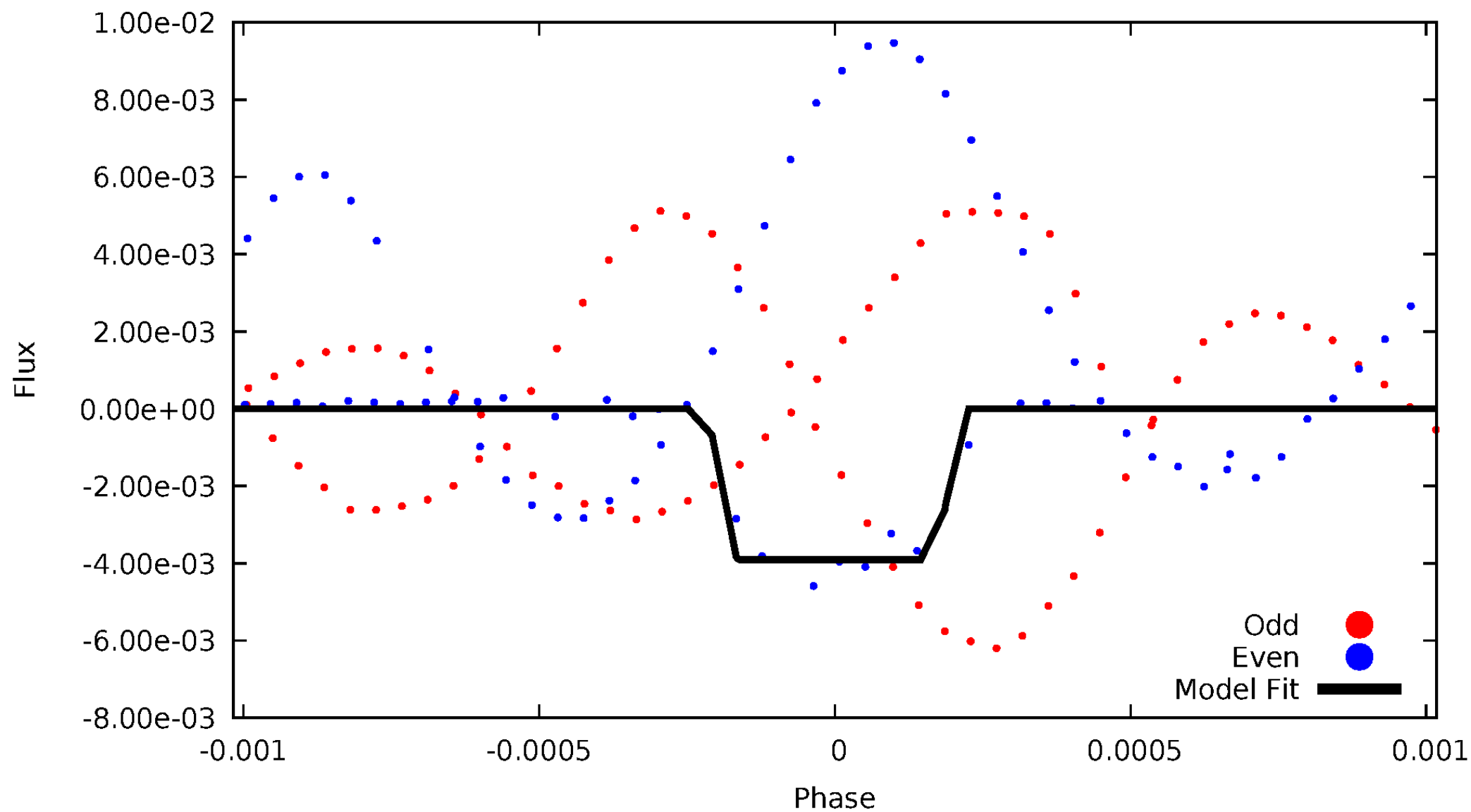
DV Odd/Even

TCE 007596741-03

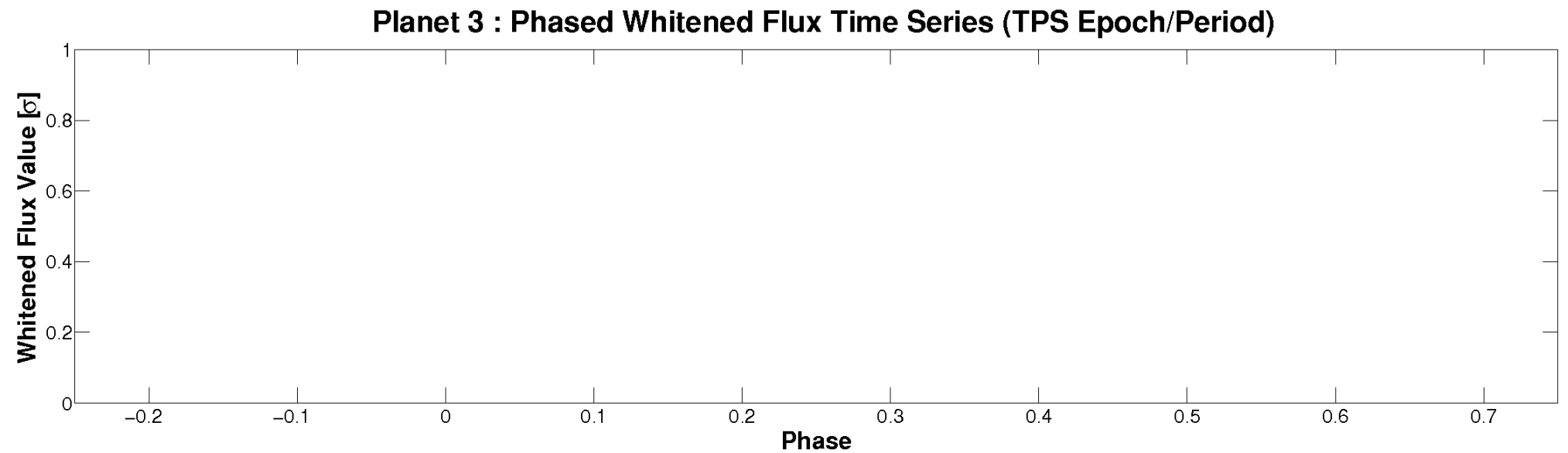
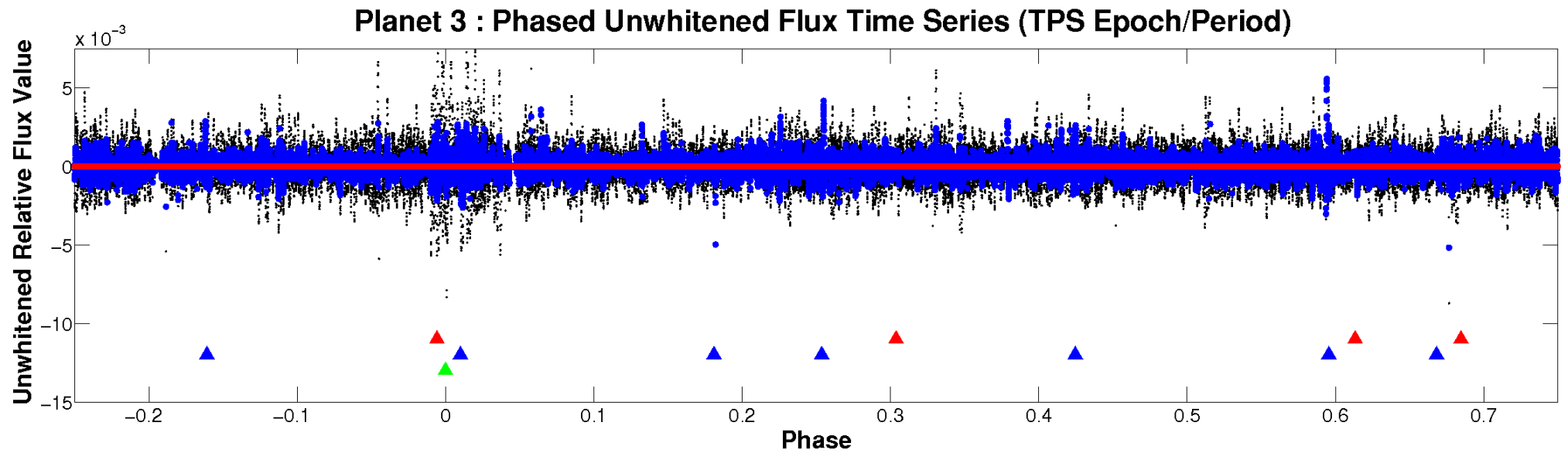


ALT Odd/Even

TCE 007596741-03

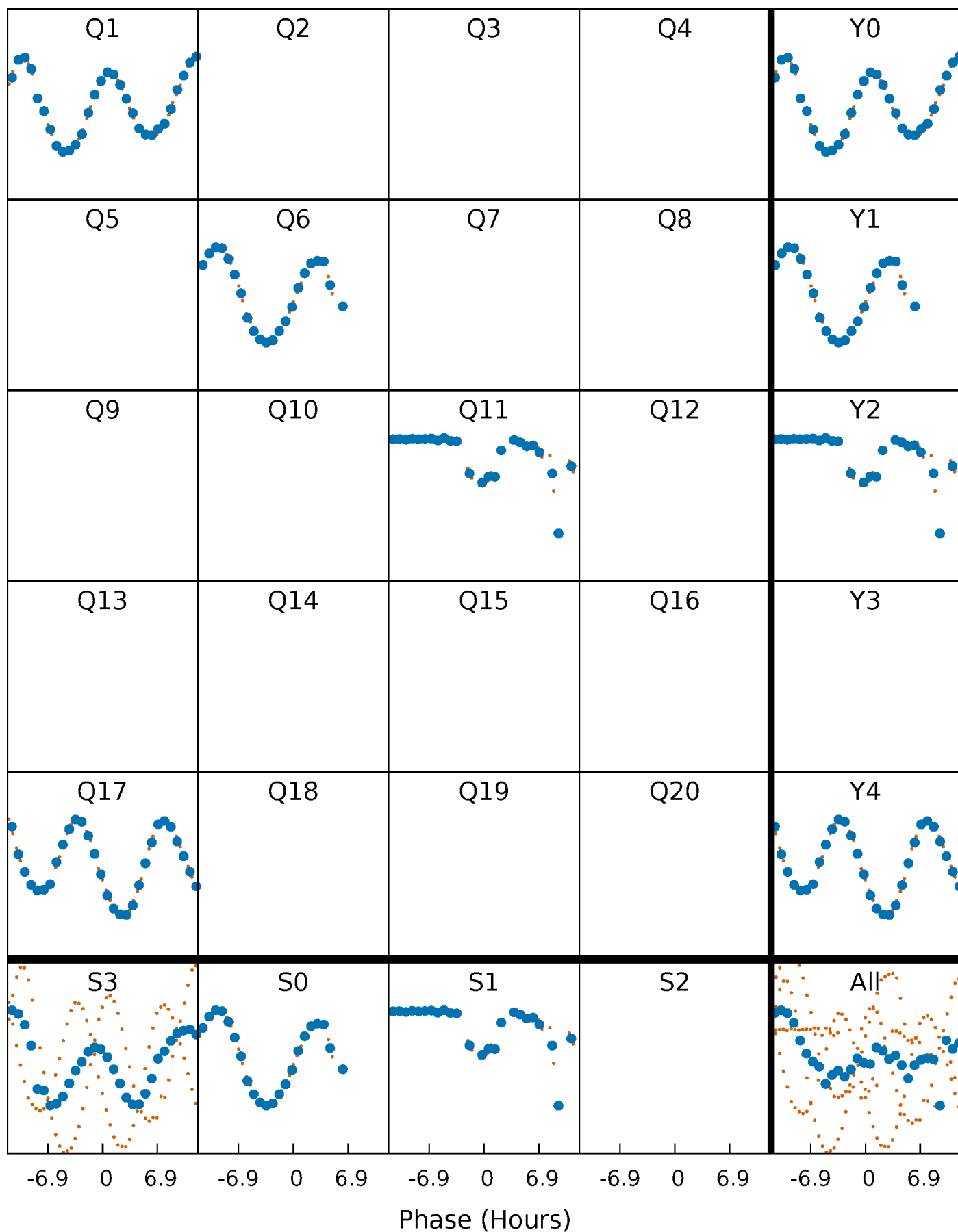


Non-Whitened Vs. Whitened Light Curve



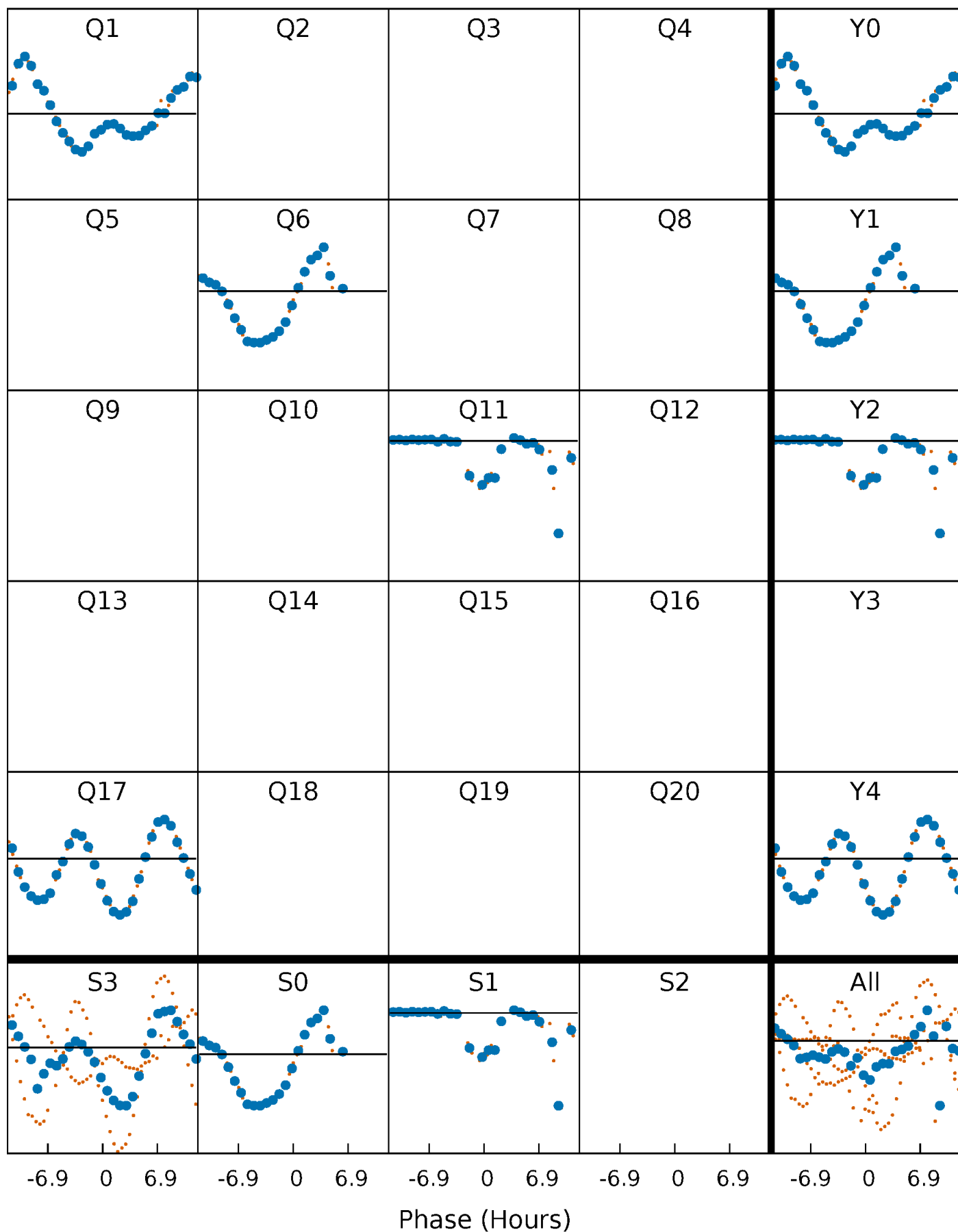
PDC Quarter-Phased Transit Curves

TCE 007596741-03 $P=467.458552$ Days $T_0=161.592600$ (BKJD)



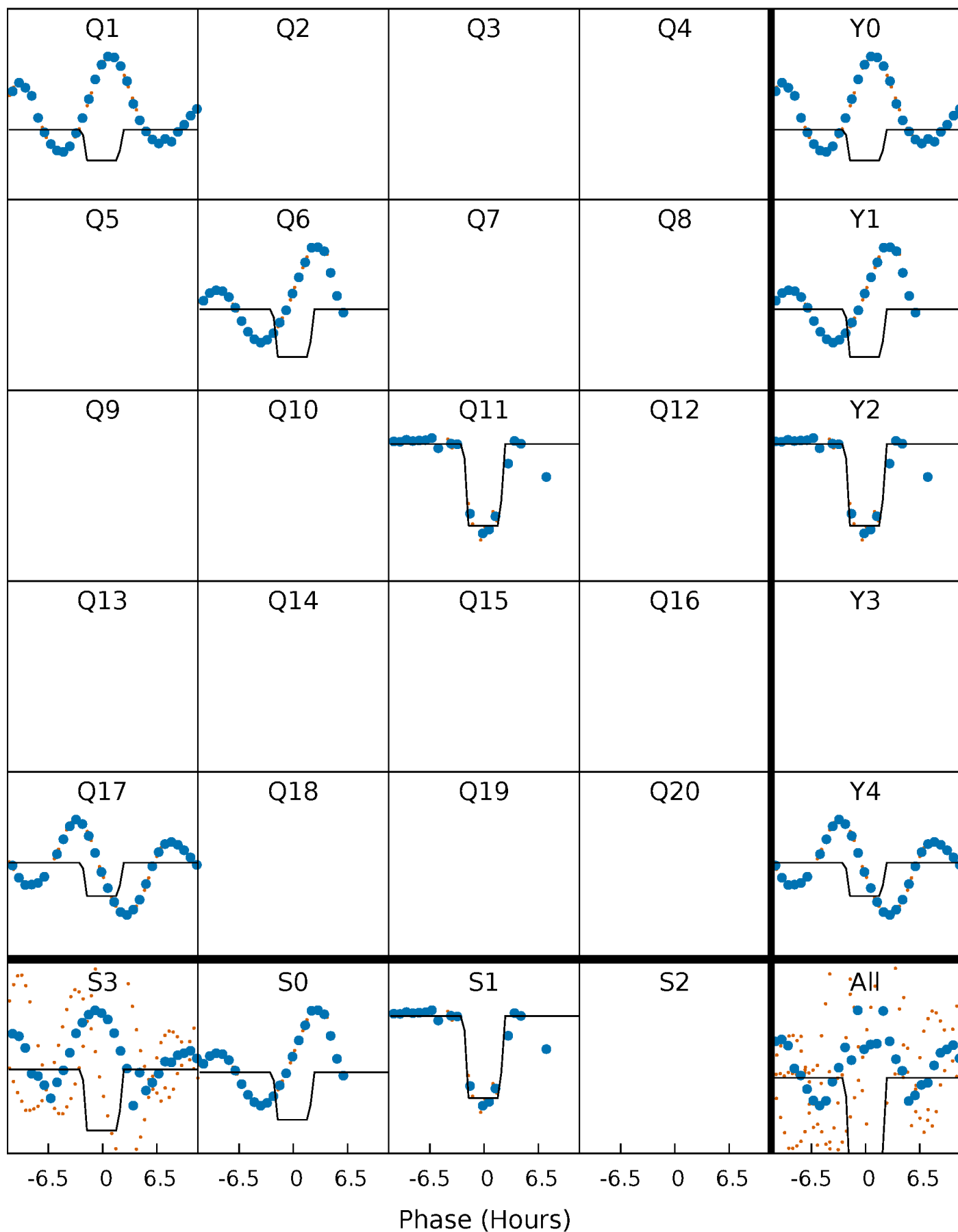
DV Quarter-Phased Transit Curves

TCE 007596741-03 $P=467.458552$ Days $T_0=161.592600$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

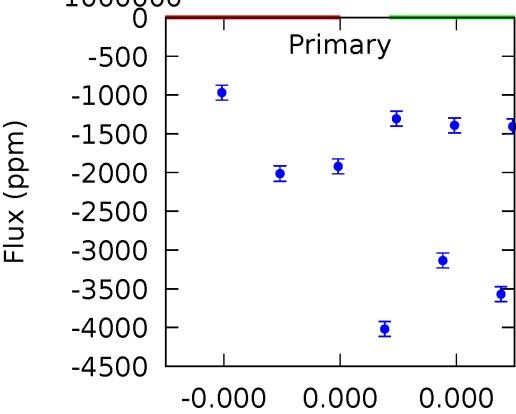
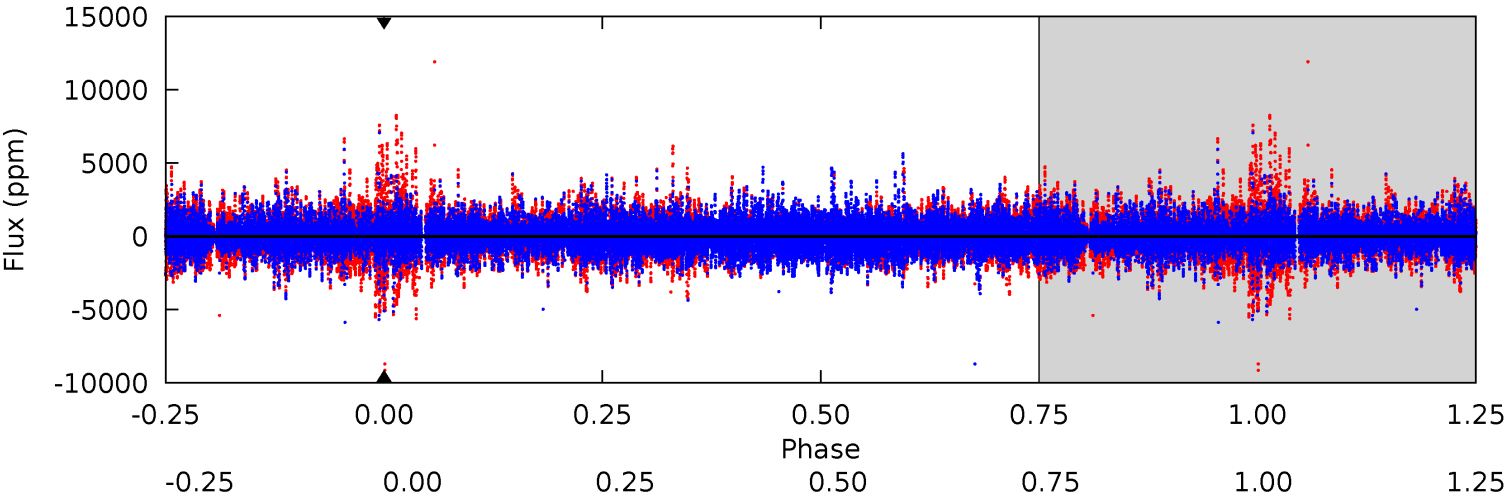
TCE 007596741-03 P=467.458552 Days $T_0=161.586178$ (BKJD)



DV Model-Shift Uniqueness Test

007596741-03, P = 467.458552 Days, E = 161.592600 Days

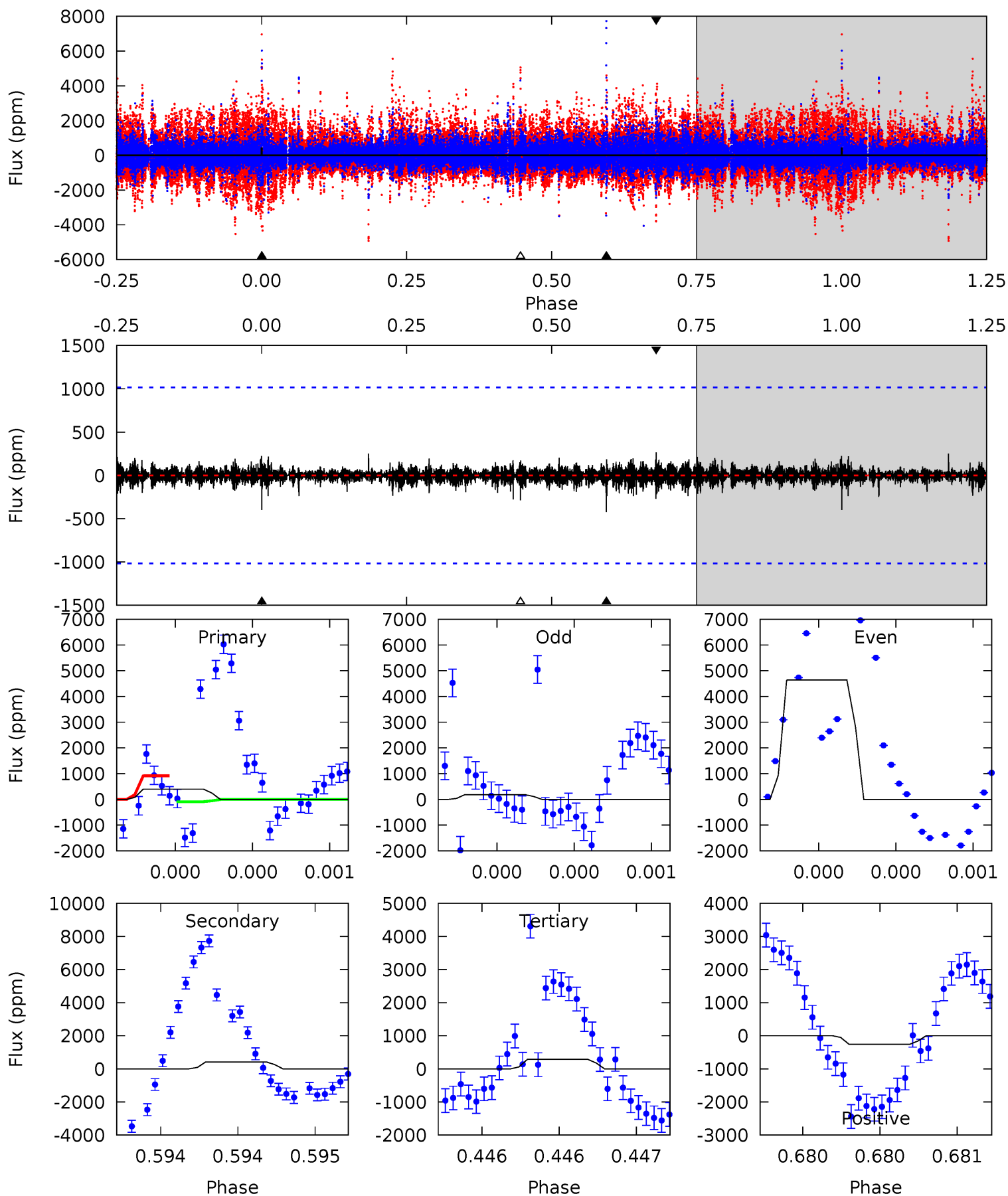
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007596741-03, P = 467.458552 Days, E = 161.586178 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.20	2.33	1.59	1.44	5.61	3.54	0.32	0.61	0.76	0.74	0.89	13.5	5.60	0.38	2.31



Stellar Parameters For KIC 007596741

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7316^{+230}_{-307}	$4.023^{+0.234}_{-0.156}$	$-0.240^{+0.250}_{-0.350}$	$1.987^{+0.560}_{-0.560}$	$1.517^{+0.222}_{-0.296}$	$0.272^{+0.390}_{-0.122}$
	+3%/-4%	+6%/-4%	+104%/-146%	+28%/-28%	+15%/-20%	+143%/-45%
Source	KIC0	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 007596741-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$15.54^{+15.55}_{-10.69}$	545^{+38}_{-49}	-6041^{+39573}_{-31196}	$-10468.135^{+638936.121}_{-692001.698}$
Alt.	-422 ± 181	$19.02^{+19.33}_{-12.41}$	539^{+42}_{-42}	3783^{+2010}_{-771}	1100^{+8418}_{-849}

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

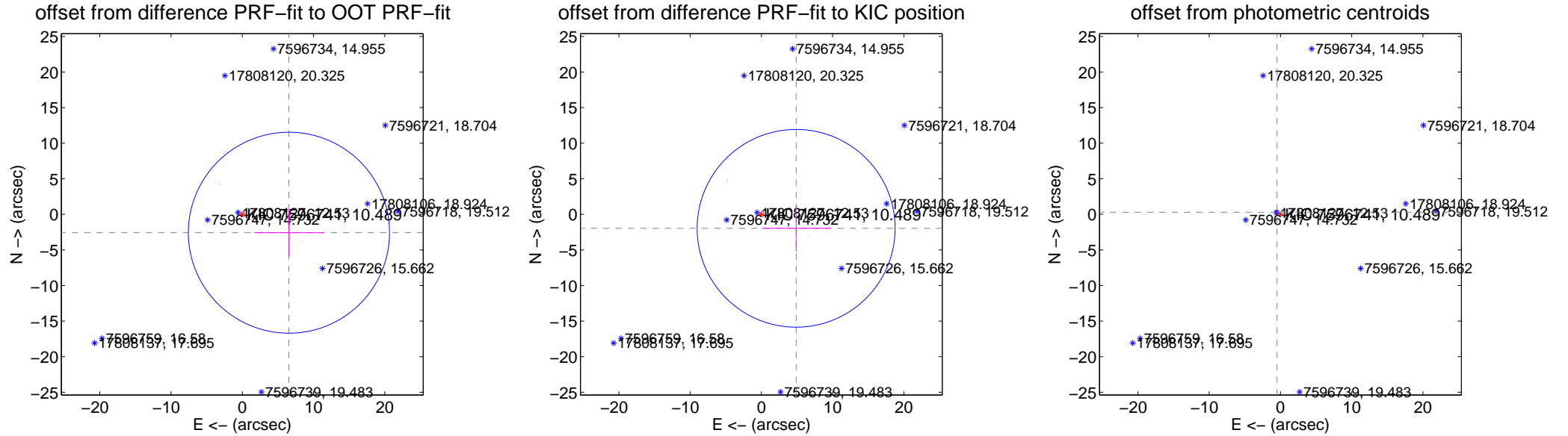
DV Centroid Data

Supplemental centroid analysis for 007596741-03. **Kepler magnitude: 10.49.** Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

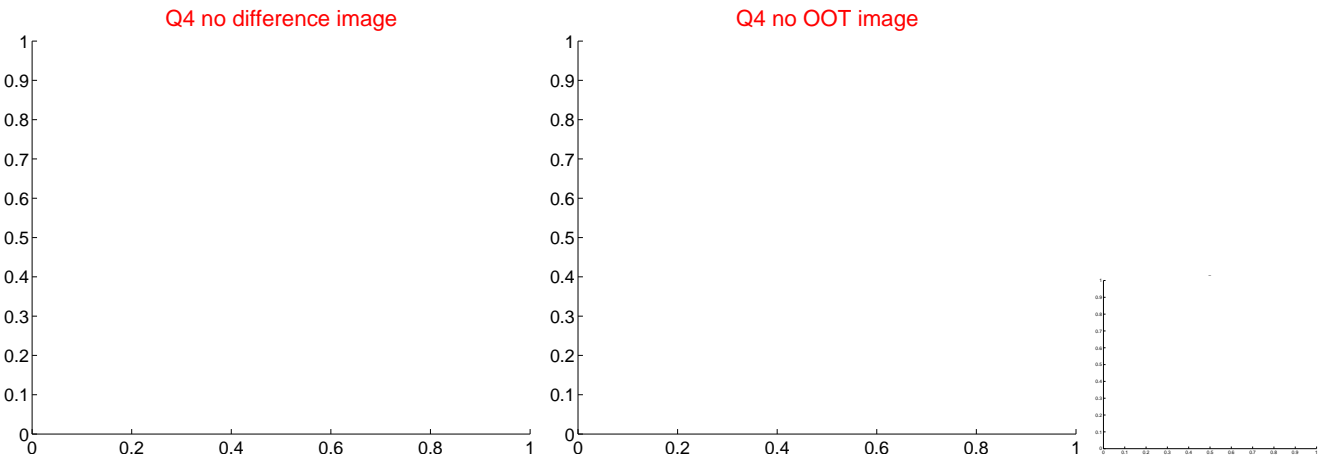
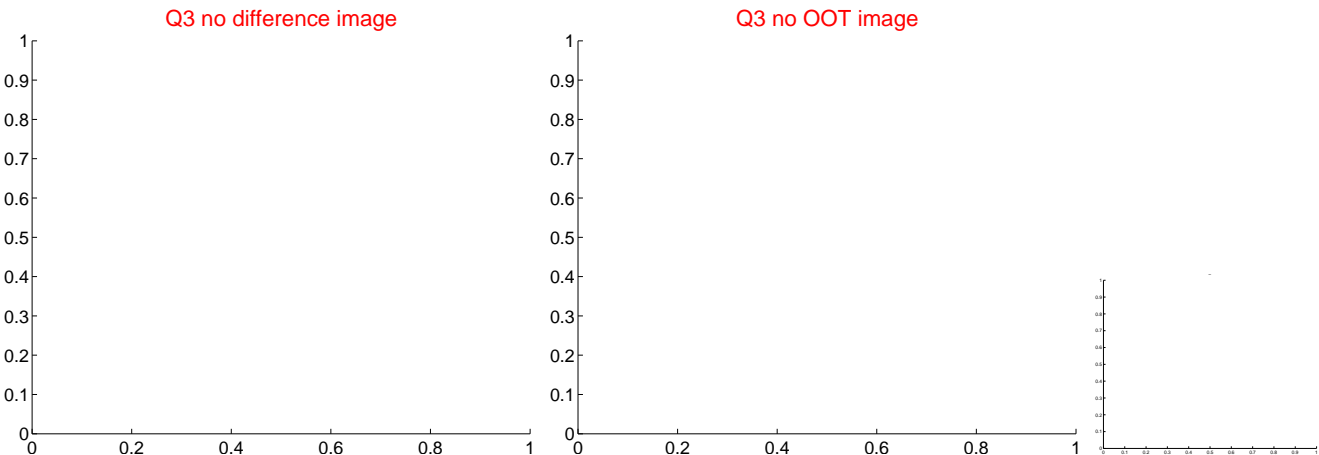
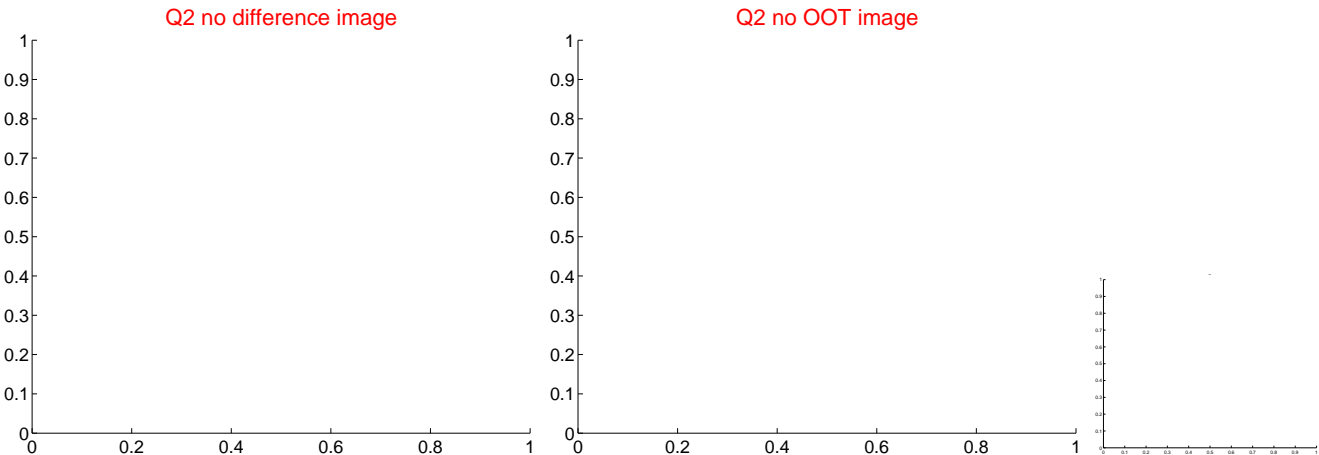
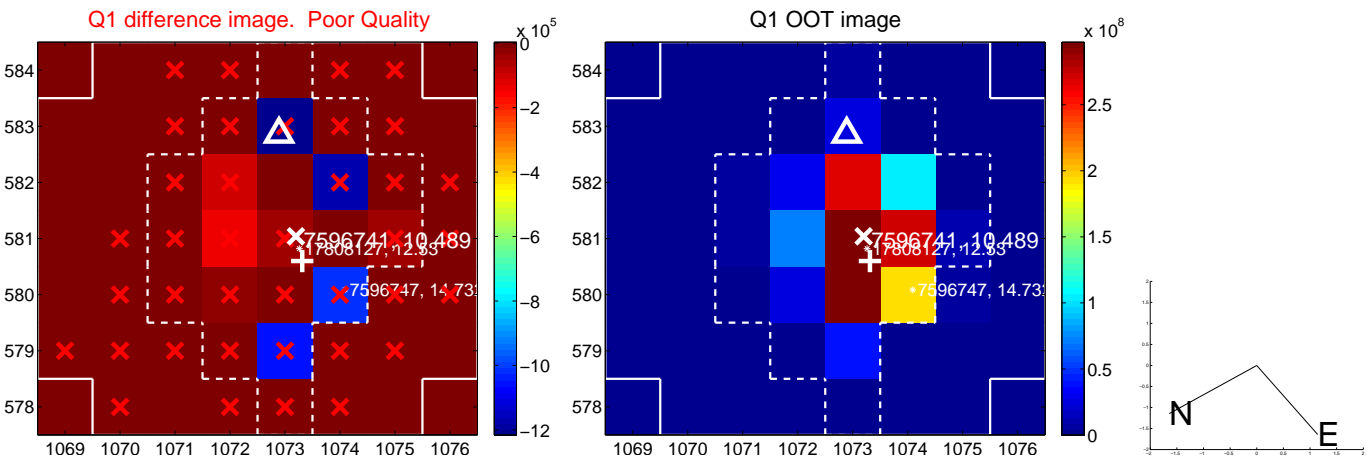
The direct PRF centroid is offset from the target star catalog position by about 1.63 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.037 ± 4.706	1.50	-6.547 ± 4.887	-2.580 ± 3.311
PRF-fit source offset from KIC position	5.259 ± 4.631	1.14	-4.879 ± 4.813	-1.963 ± 3.287
photometric centroid source offset	0.57 ± 0.09	6.28	0.49 ± 0.10	0.29 ± 0.06



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.



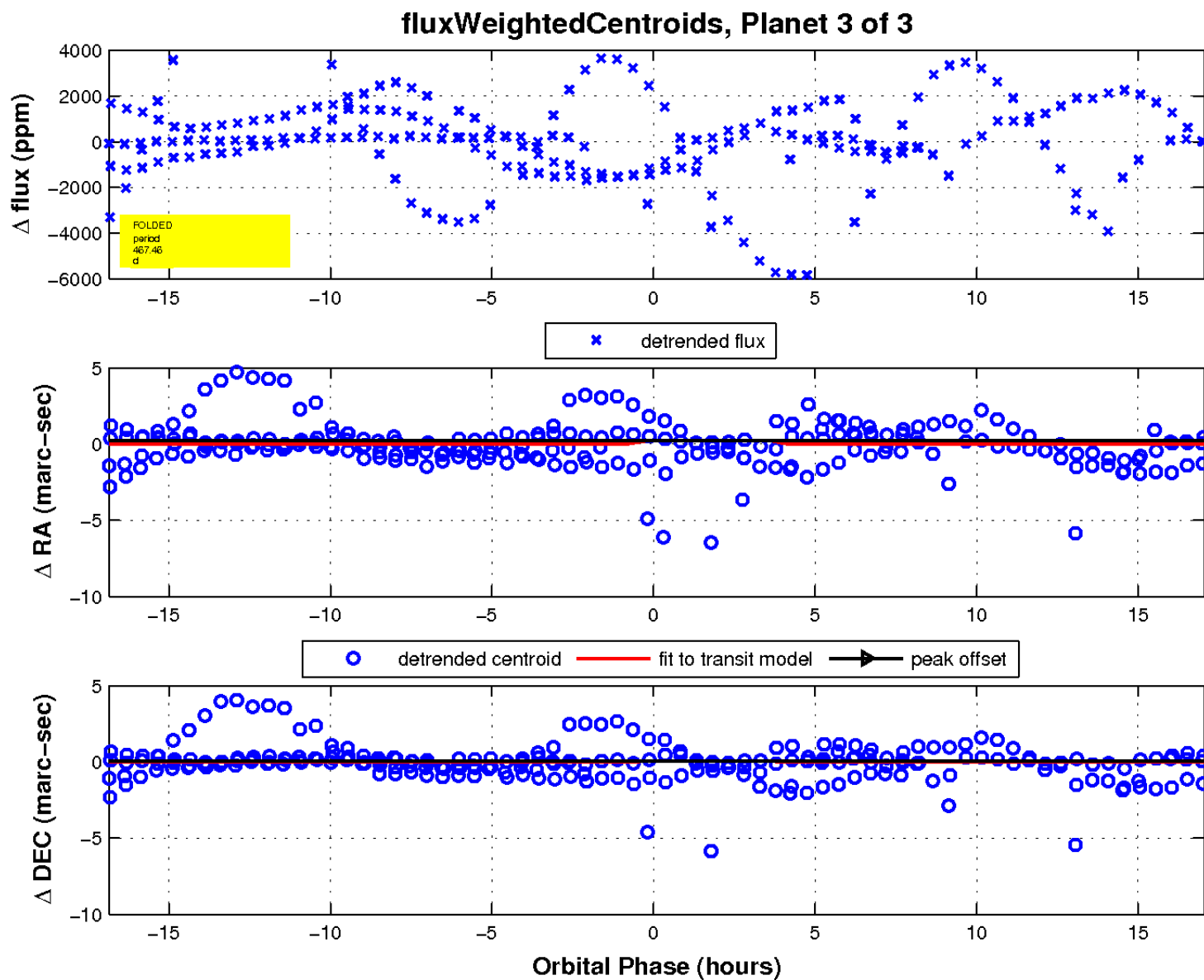
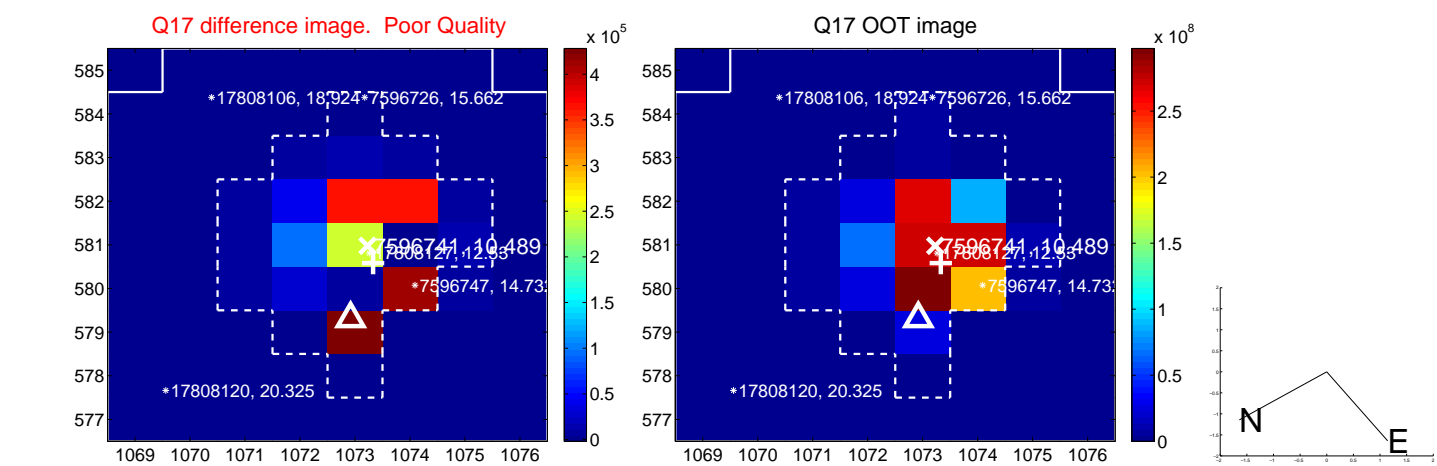
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

