

KIC 005560747

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})
005560747-01	OBS	No	614.549233	343.270694	519.4	9.364	13.7	6.5	1.96	5178	4.99	1.23
005560747-02	OBS	No	370.248431	298.035918	468.6	6.136	12.3	7.6	1.96	5178	4.35	2.42
005560747-03	OBS	No	580.578295	391.936827	459.7	9.273	12.6	7.1	1.96	5178	4.47	1.33
005560747-04	OBS	No	410.526319	446.937676	534.4	4.500	12.5	7.9	1.96	5178	4.80	2.11
005560747-05	OBS	No	388.866484	372.871537	549.0	3.595	10.5	7.8	1.96	5178	5.20	2.27
005560747-06	OBS	No	217.928488	295.742777	357.3	4.435	10.0	7.1	1.96	5178	3.75	4.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005560747-01	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—CENT_FEW_DIFFS
005560747-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—CENT_FEW_DIFFS
005560747-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS

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

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

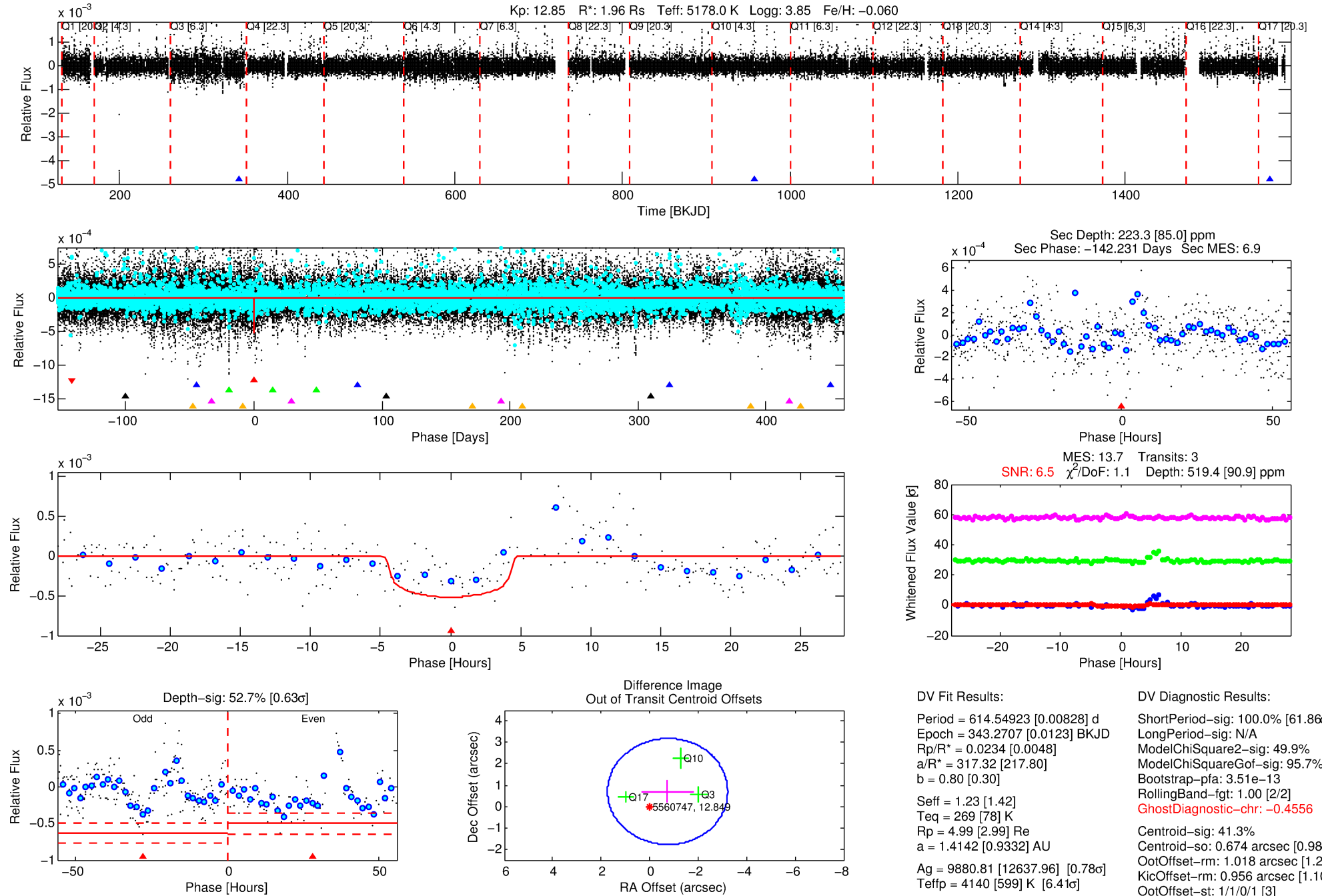
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005560747-01

No Significant Match Found

DV One-Page Summary

KIC: 5560747 Candidate: 1 of 6 Period: 614.549 d



DV Fit Results:

Period = 614.54923 [0.00828] d
Epoch = 343.2707 [0.0123] BKJD
Rp/R* = 0.0234 [0.0048]
a/R* = 317.32 [217.80]
b = 0.80 [0.30]
Seff = 1.23 [1.42]
Teq = 269 [78] K
Rp = 4.99 [2.99] Re
a = 1.4142 [0.9332] AU
Ag = 9880.81 [12637.96] [0.78 σ]
Teffp = 4140 [599] K [6.41 σ]

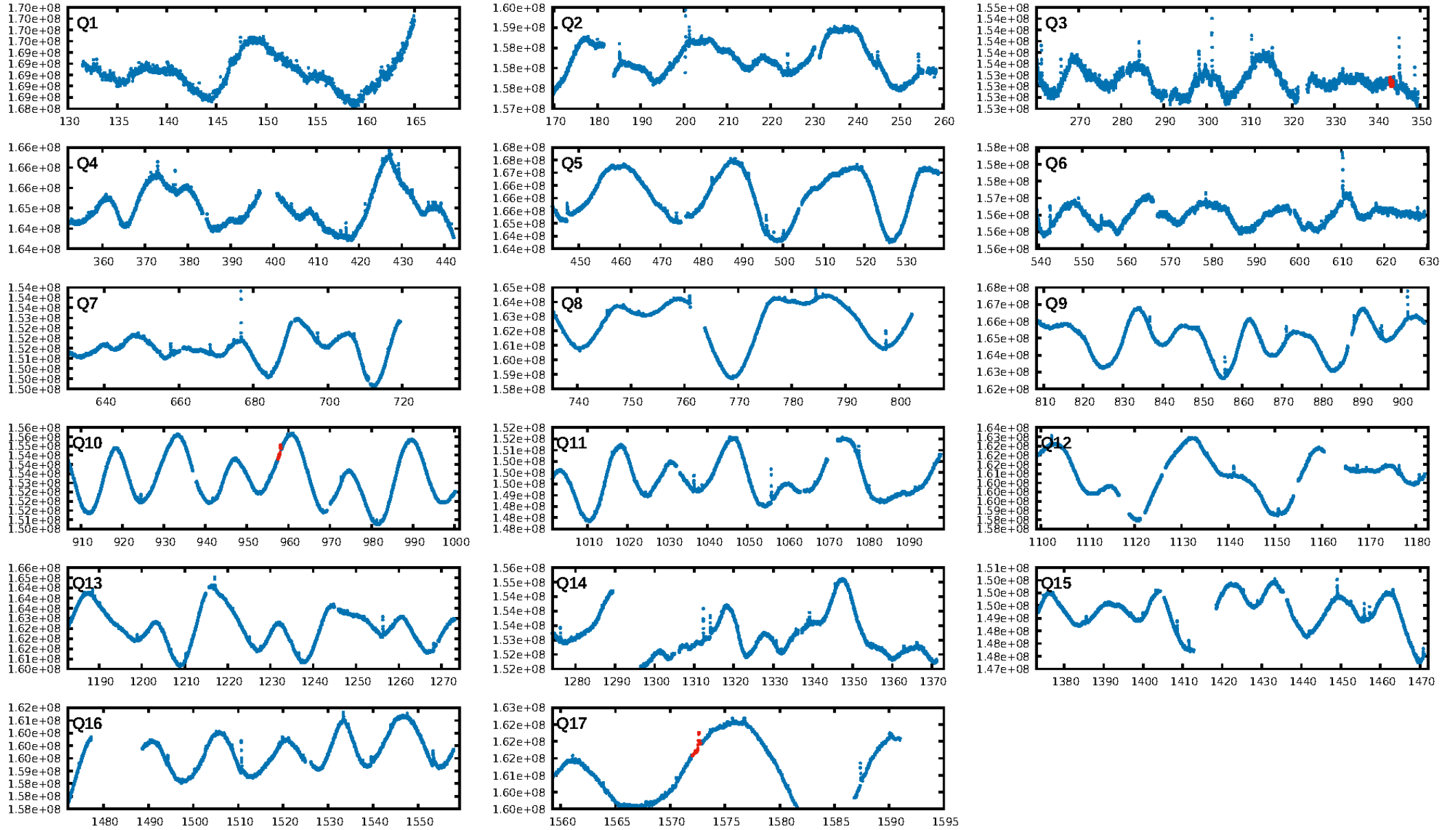
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [61.86 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 49.9%
ModelChiSquareGof-sig: 95.7%
Bootstrap-pfa: 3.51e-13
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -0.4556
Centroid-sig: 41.3%
Centroid-so: 0.674 arcsec [0.98 σ]
OotOffset-rm: 1.018 arcsec [1.23 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-rm: 0.956 arcsec [1.10 σ]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

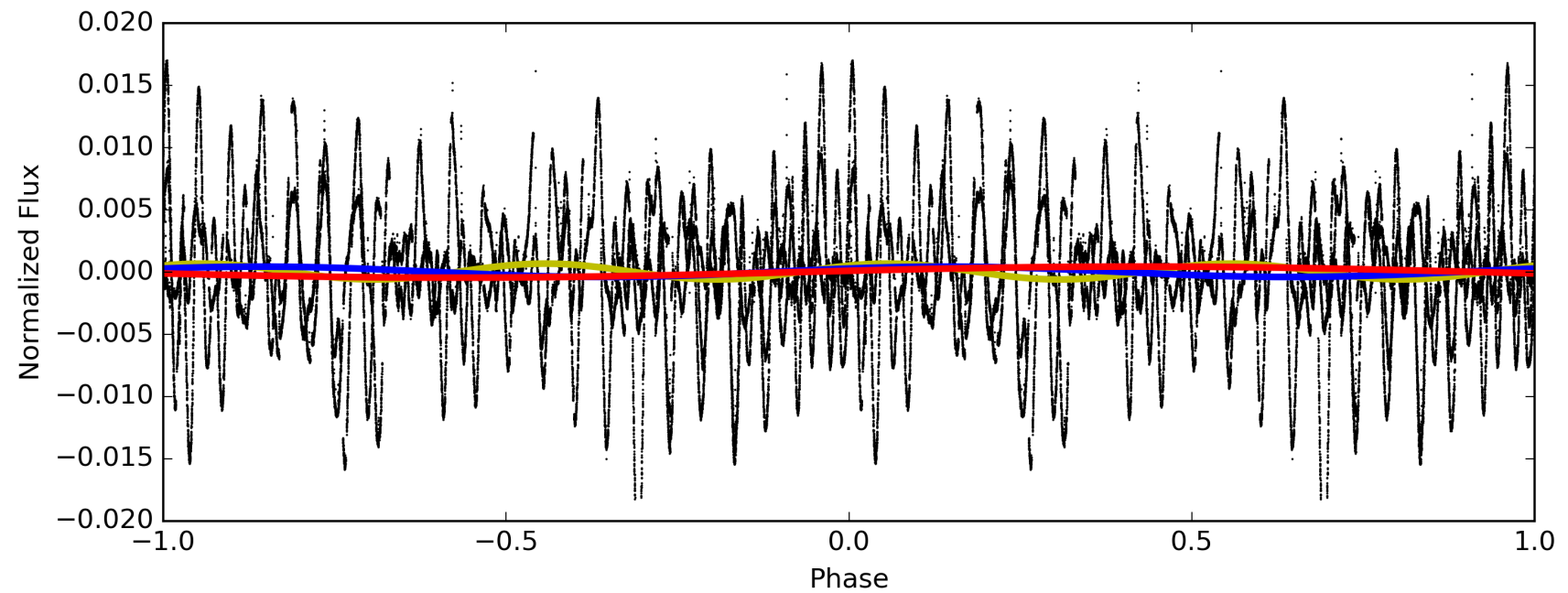
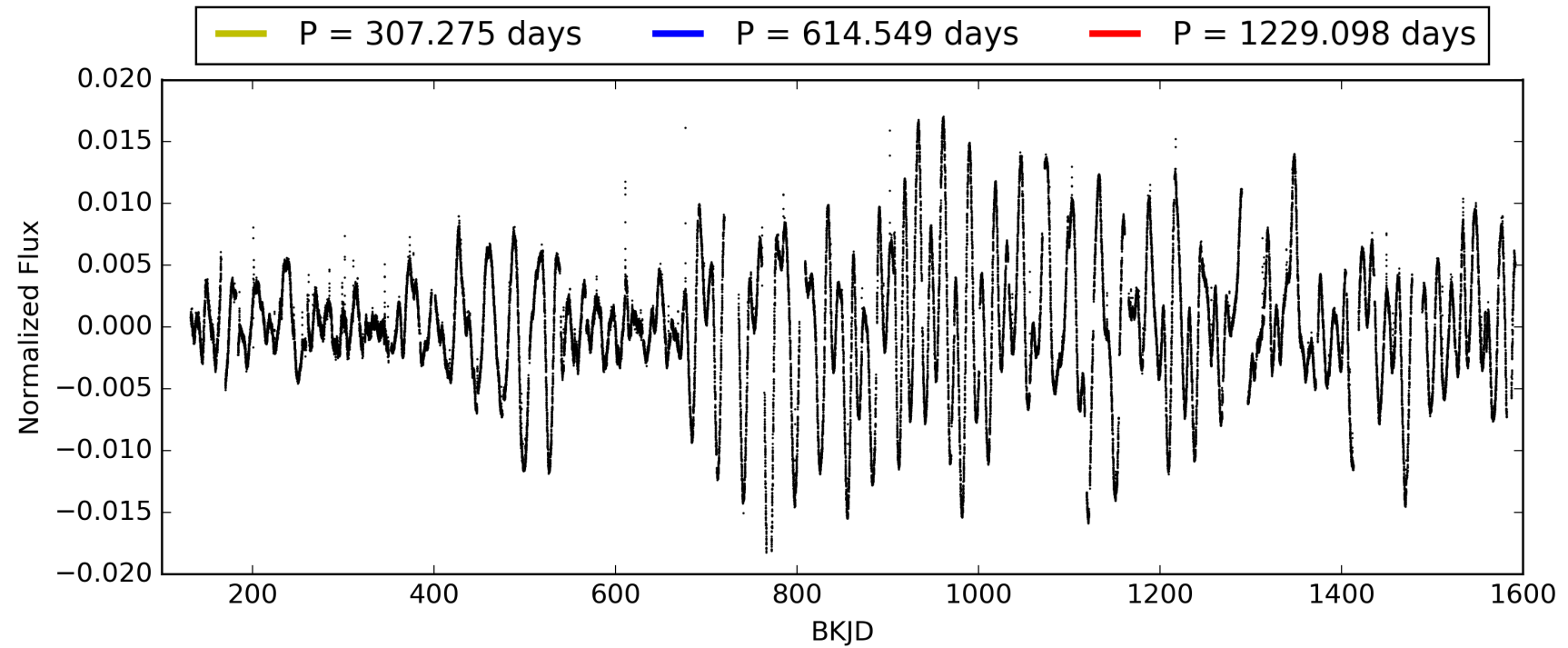
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:26:56 Z

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

TCE 005560747-01, PDC Light Curves

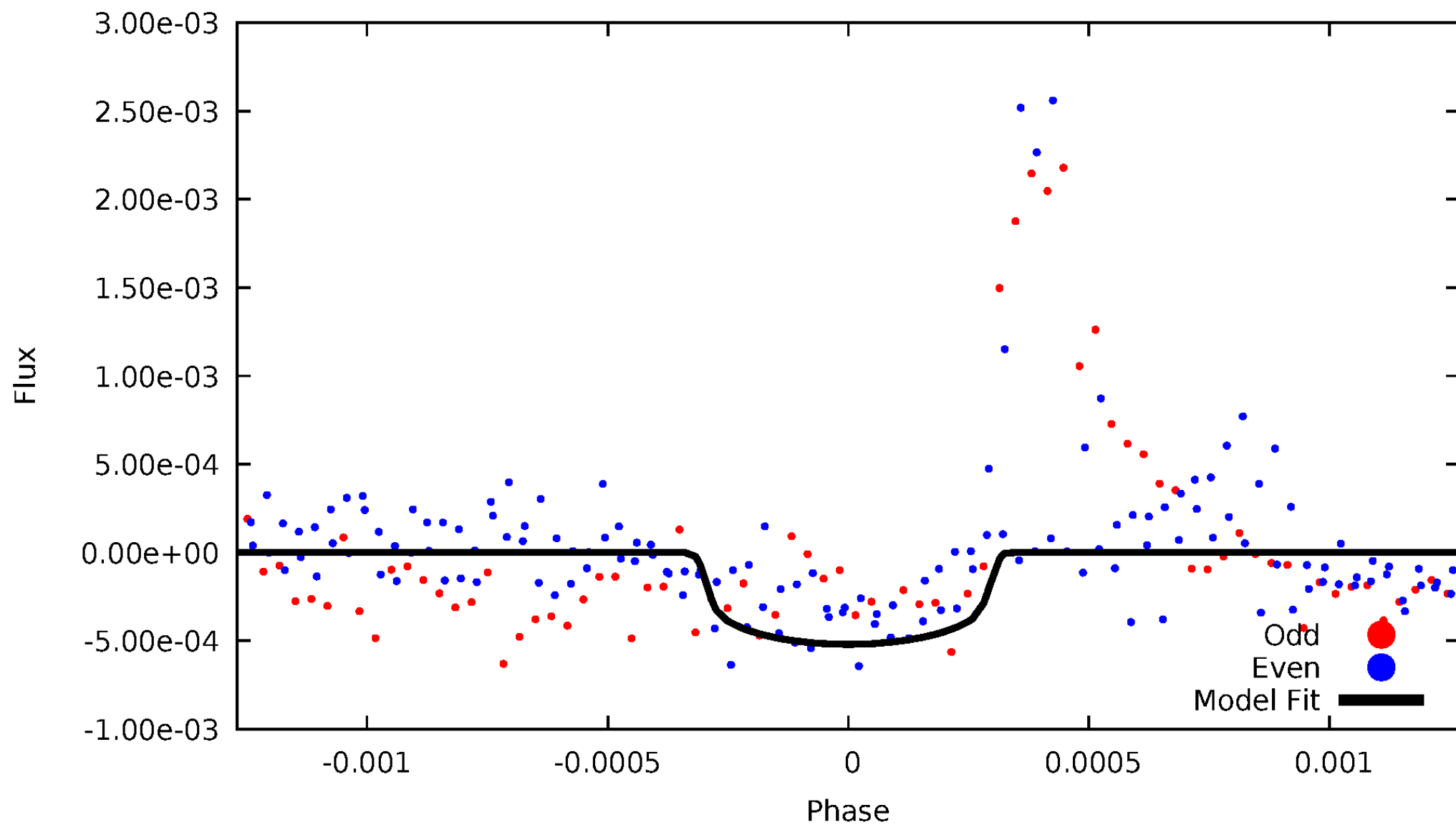


TCE 005560747-01



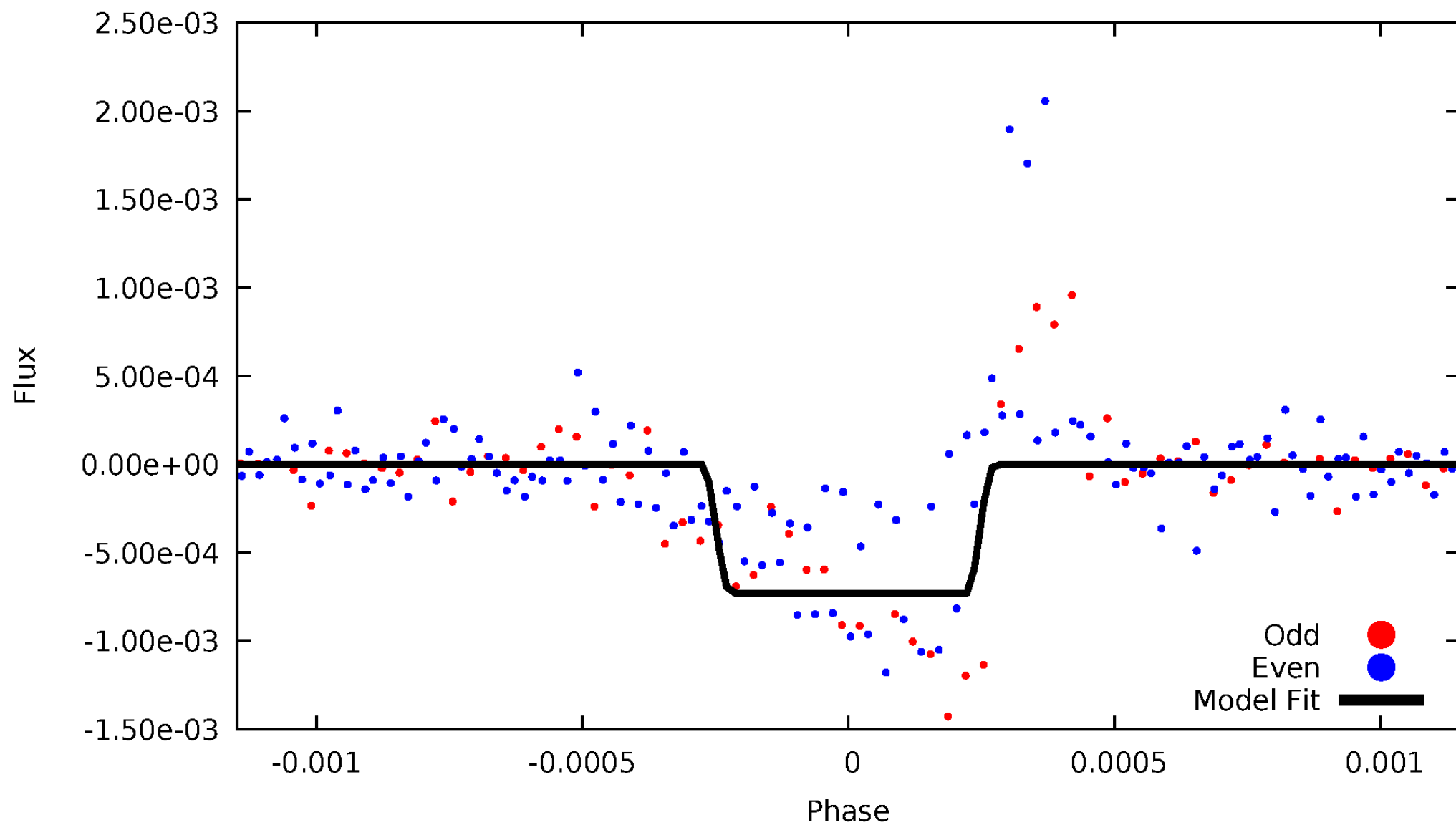
DV Odd/Even

TCE 005560747-01



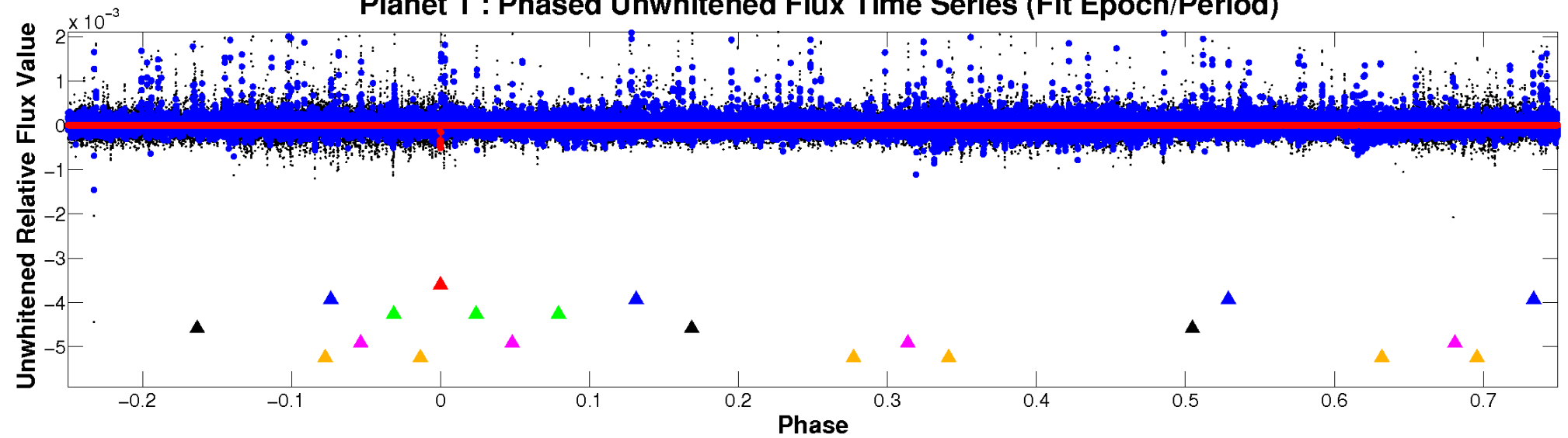
ALT Odd/Even

TCE 005560747-01

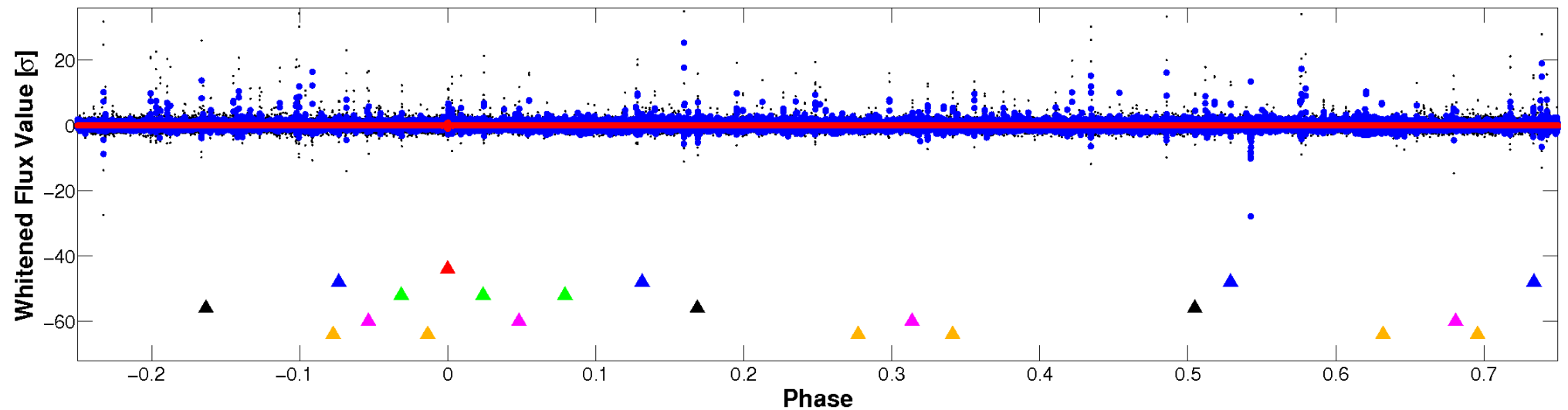


Non-Whitened Vs. Whitened Light Curve

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

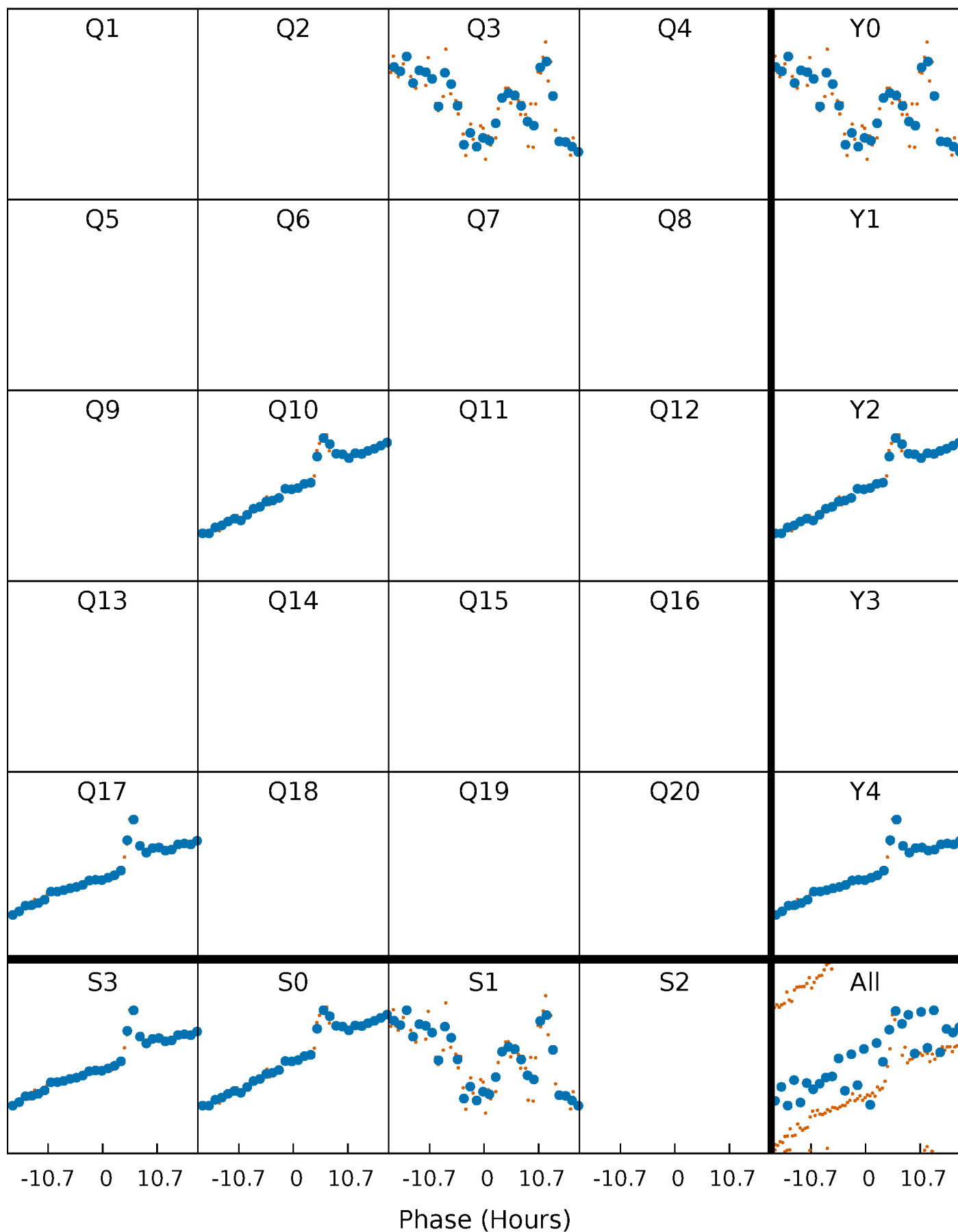


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



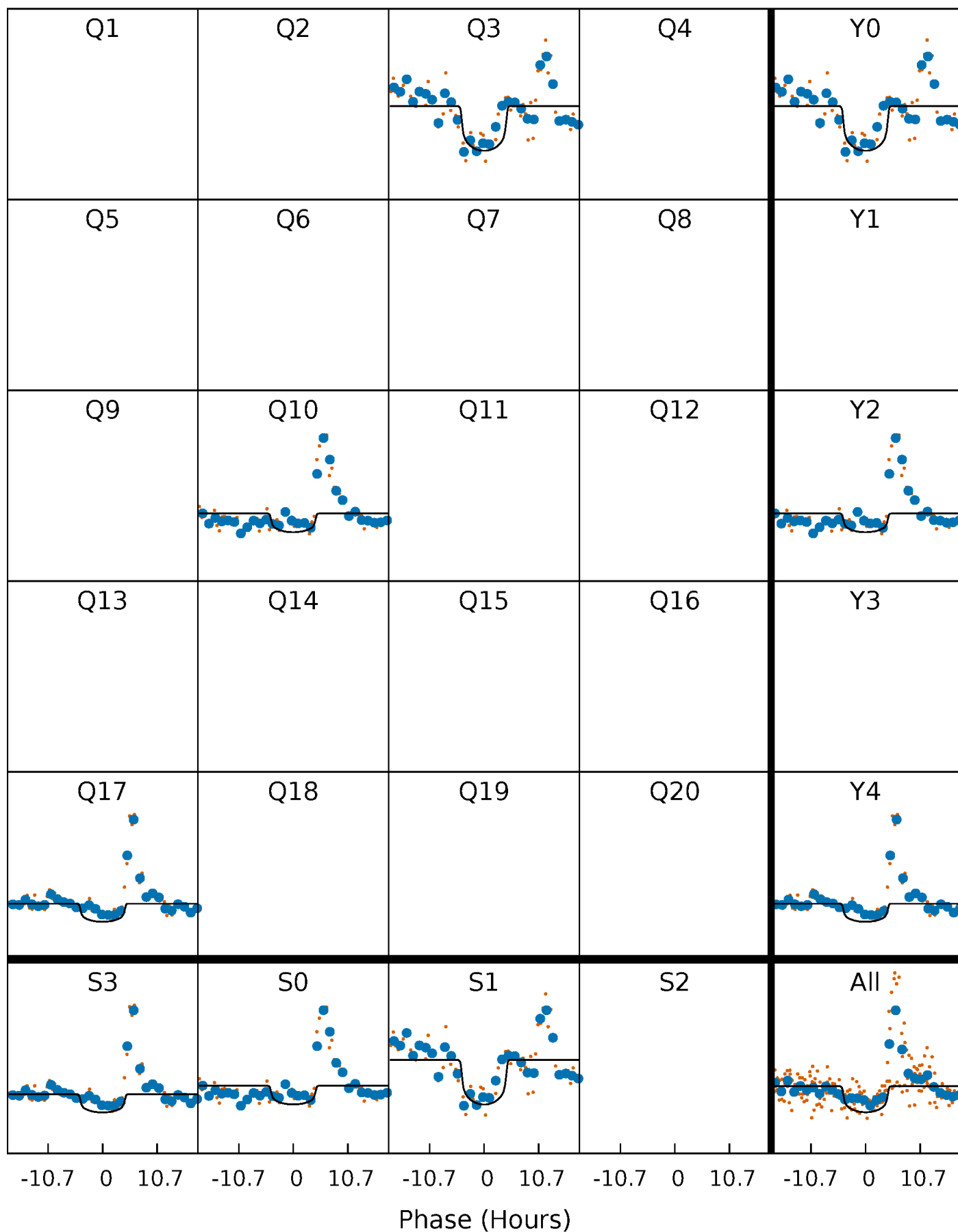
PDC Quarter-Phased Transit Curves

TCE 005560747-01 P=614.549233 Days $T_0=343.270694$ (BKJD)



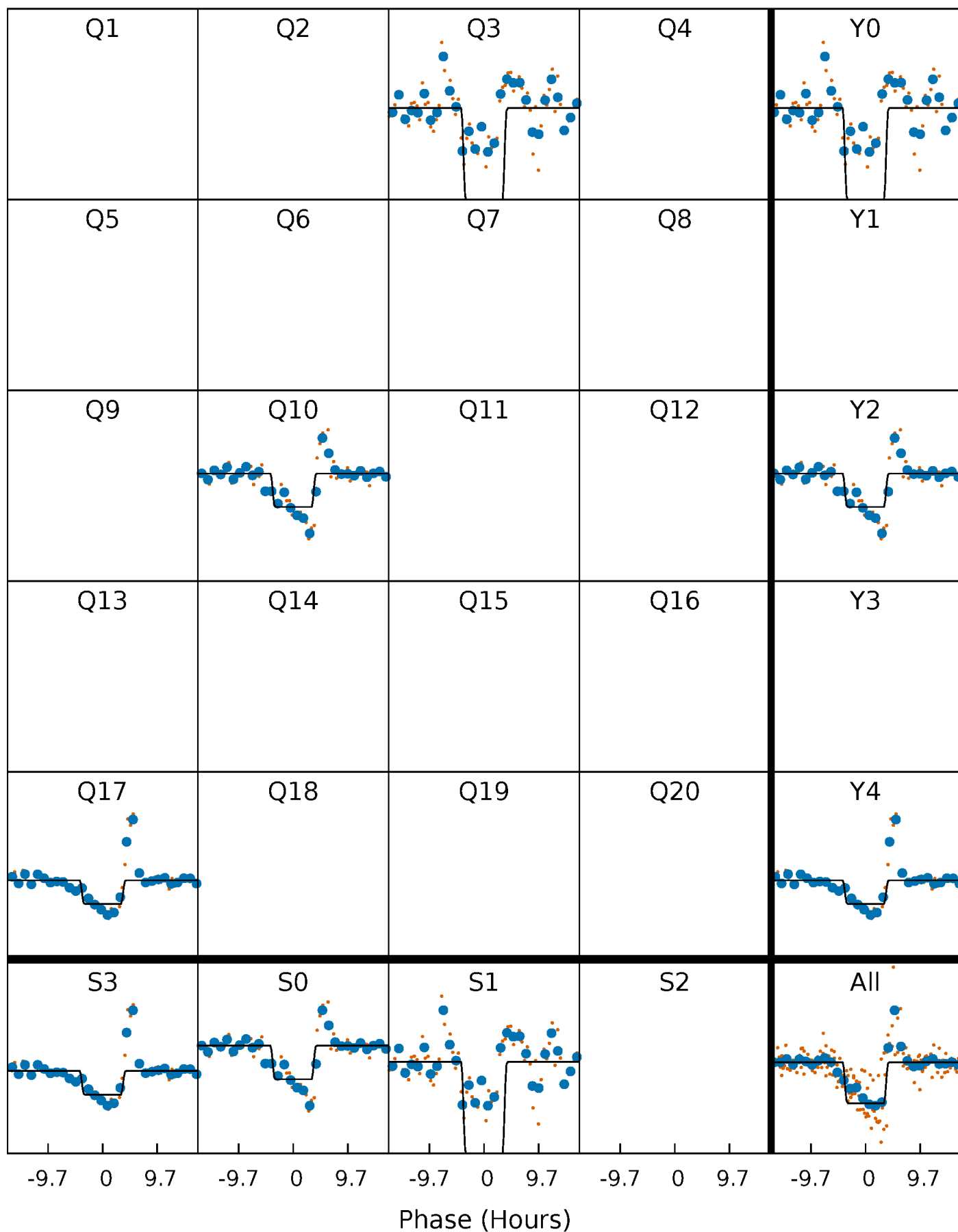
DV Quarter-Phased Transit Curves

TCE 005560747-01 P=614.549233 Days $T_0=343.270694$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

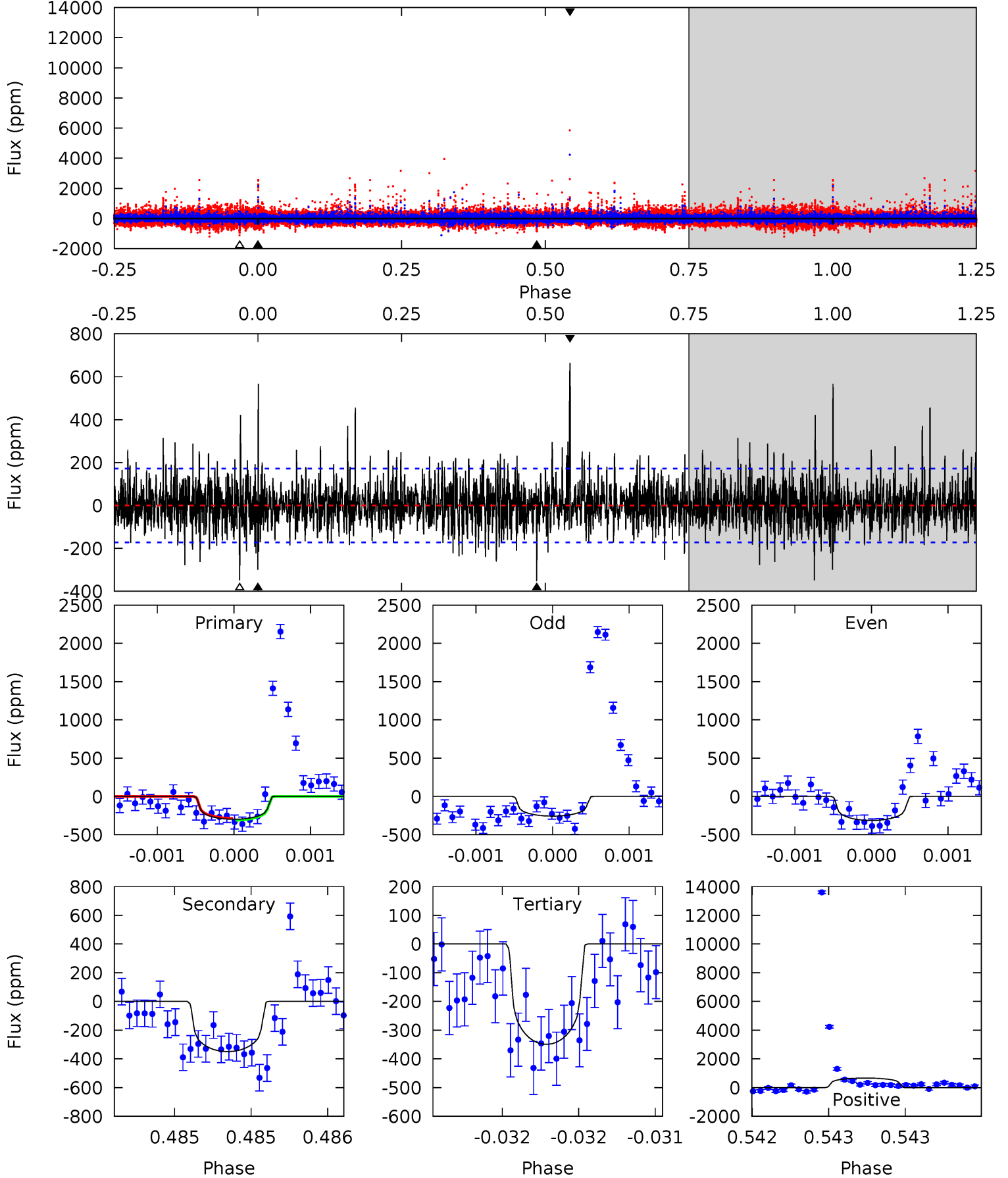
TCE 005560747-01 P=614.566562 Days $T_0=343.269903$ (BKJD)



DV Model-Shift Uniqueness Test

005560747-01, P = 614.549233 Days, E = 343.270694 Days

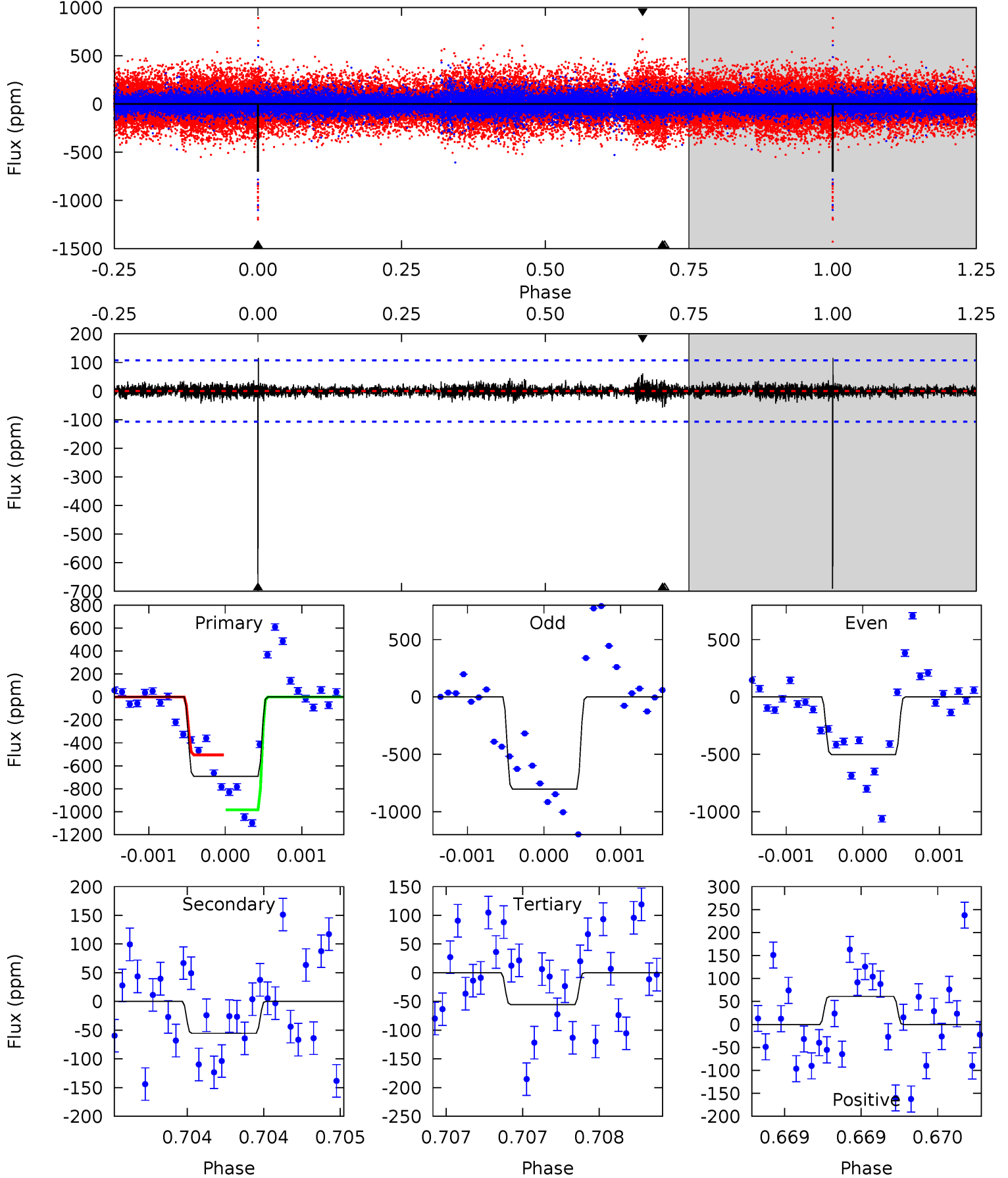
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.60	11.2	11.2	21.3	5.53	3.41	2.62	-1.63	-11.7	0.00	-10.1	0.73	1.16	0.66	0.36



Alt Model-Shift Uniqueness Test

005560747-01, P = 614.566562 Days, E = 343.269903 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.9	2.89	2.88	3.17	5.57	3.47	0.52	33.0	32.7	0.01	-0.28	8.06	0.77	0.14	12.2



Stellar Parameters For KIC 005560747

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5178^{+171}_{-140}	$3.855^{+0.707}_{-0.303}$	$-0.060^{+0.300}_{-0.250}$	$1.955^{+0.991}_{-1.101}$	$0.998^{+0.224}_{-0.183}$	$0.188^{+2.162}_{-0.122}$
	+3%/-3%	+18%/-8%	+500%/-417%	+51%/-56%	+22%/-18%	+1149%/-65%
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 005560747-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-349 ± 31	$4.80^{+2.00}_{-1.74}$	370^{+51}_{-60}	4724^{+444}_{-353}	17137^{+24053}_{-8811}
Alt.	-56 ± 19	$5.69^{+2.10}_{-1.94}$	376^{+48}_{-64}	3255^{+262}_{-234}	1890^{+2795}_{-1005}

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

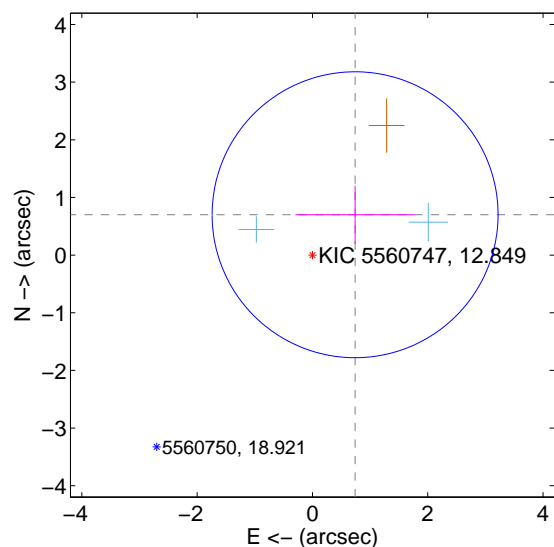
Supplemental centroid analysis for 005560747-01. Kepler magnitude: 12.85. Transit SNR 6.55

There are 2 quarters with good PRF difference image offsets

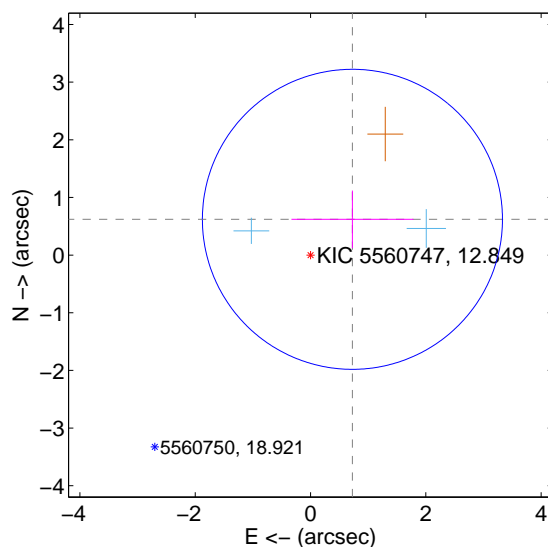
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.018 ± 0.827	1.23	-0.740 ± 1.033	0.700 ± 0.505
PRF-fit source offset from KIC position	0.956 ± 0.867	1.10	-0.727 ± 1.058	0.621 ± 0.500
photometric centroid source offset	0.67 ± 0.69	0.98	0.22 ± 1.05	-0.64 ± 0.64

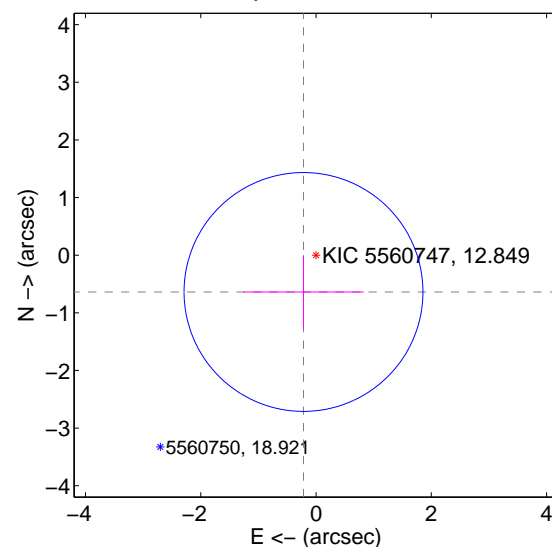
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

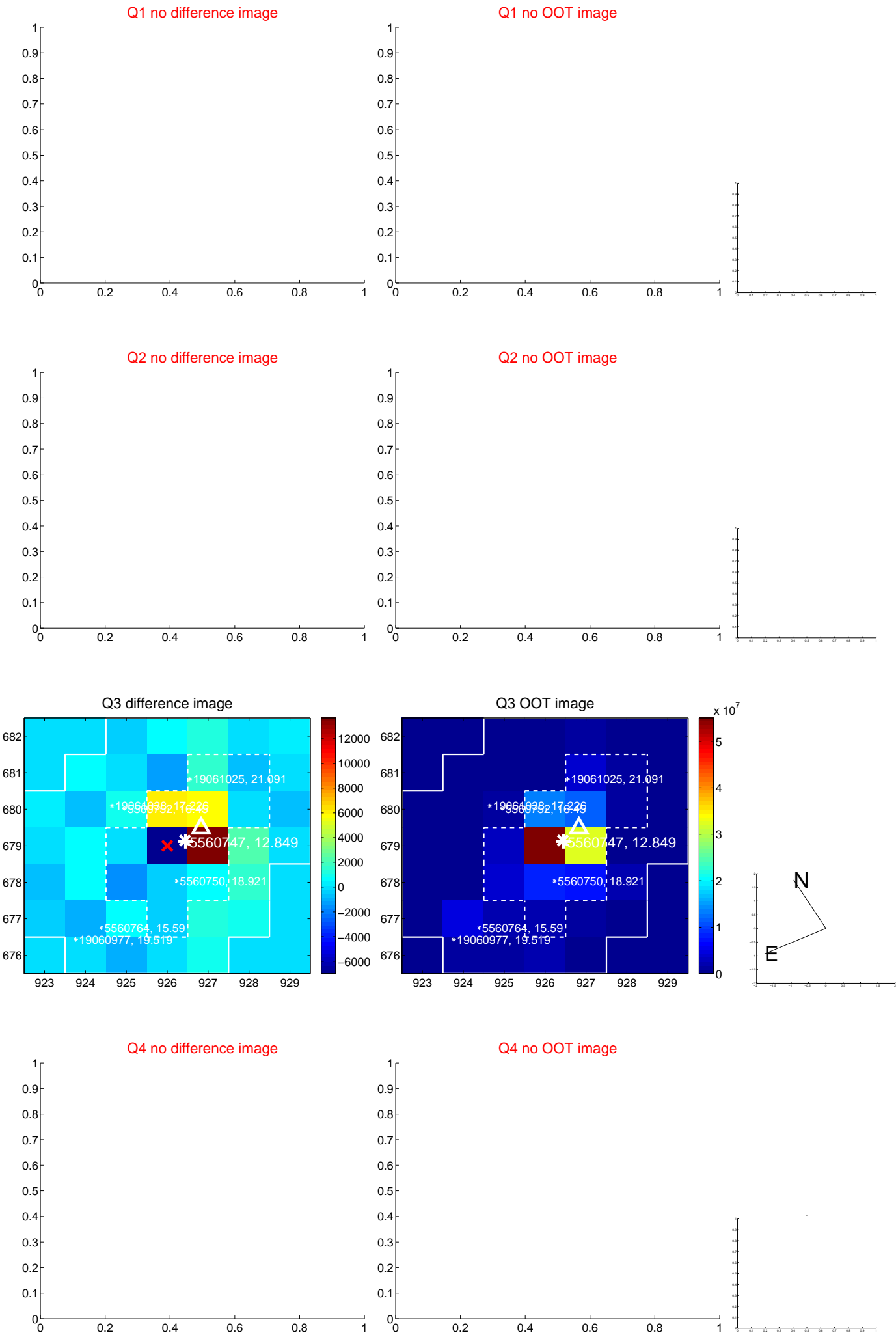


offset from photometric centroids



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.

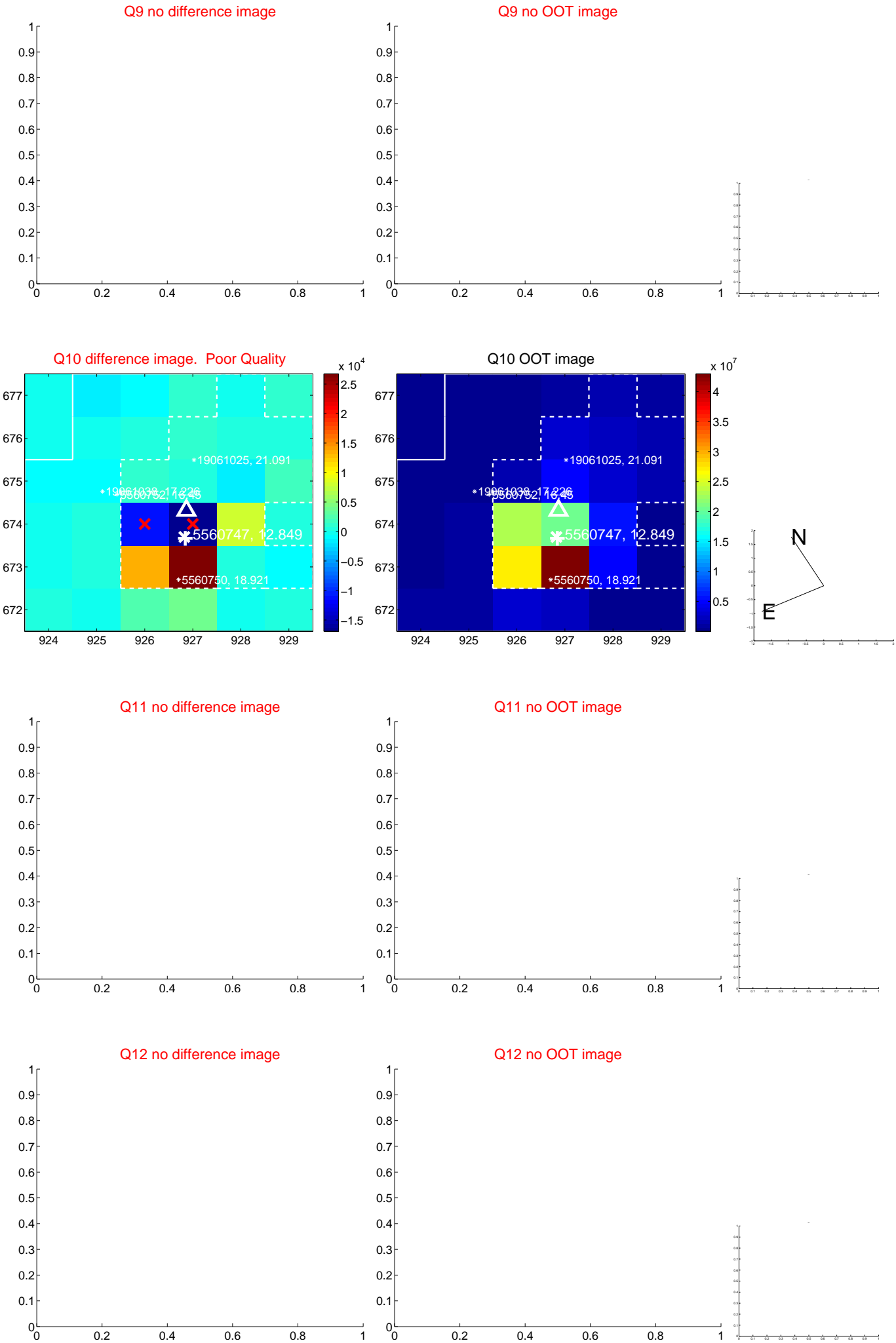
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



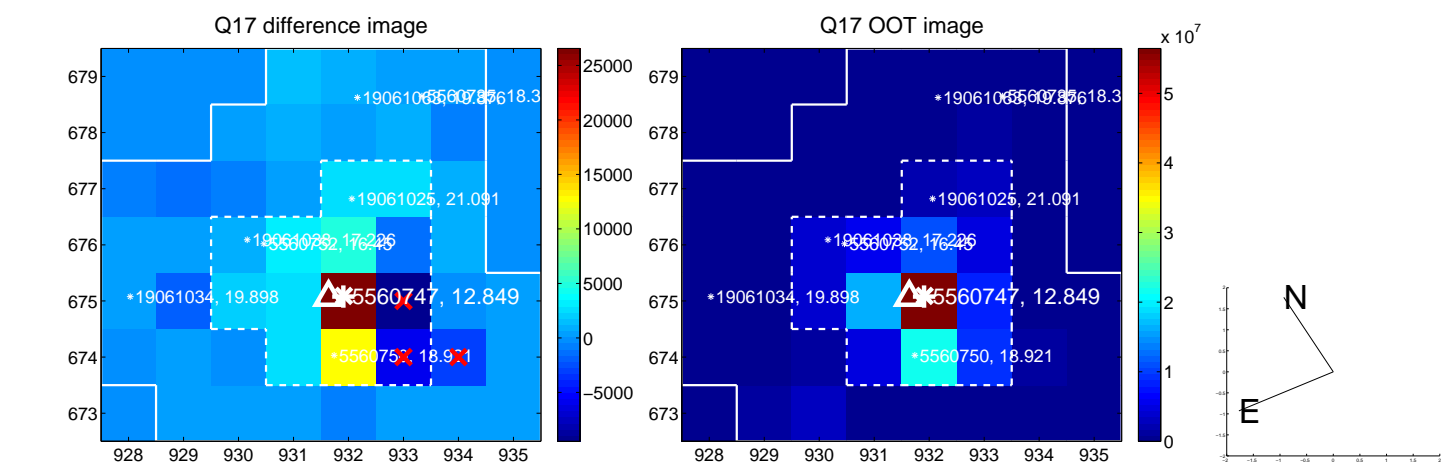
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



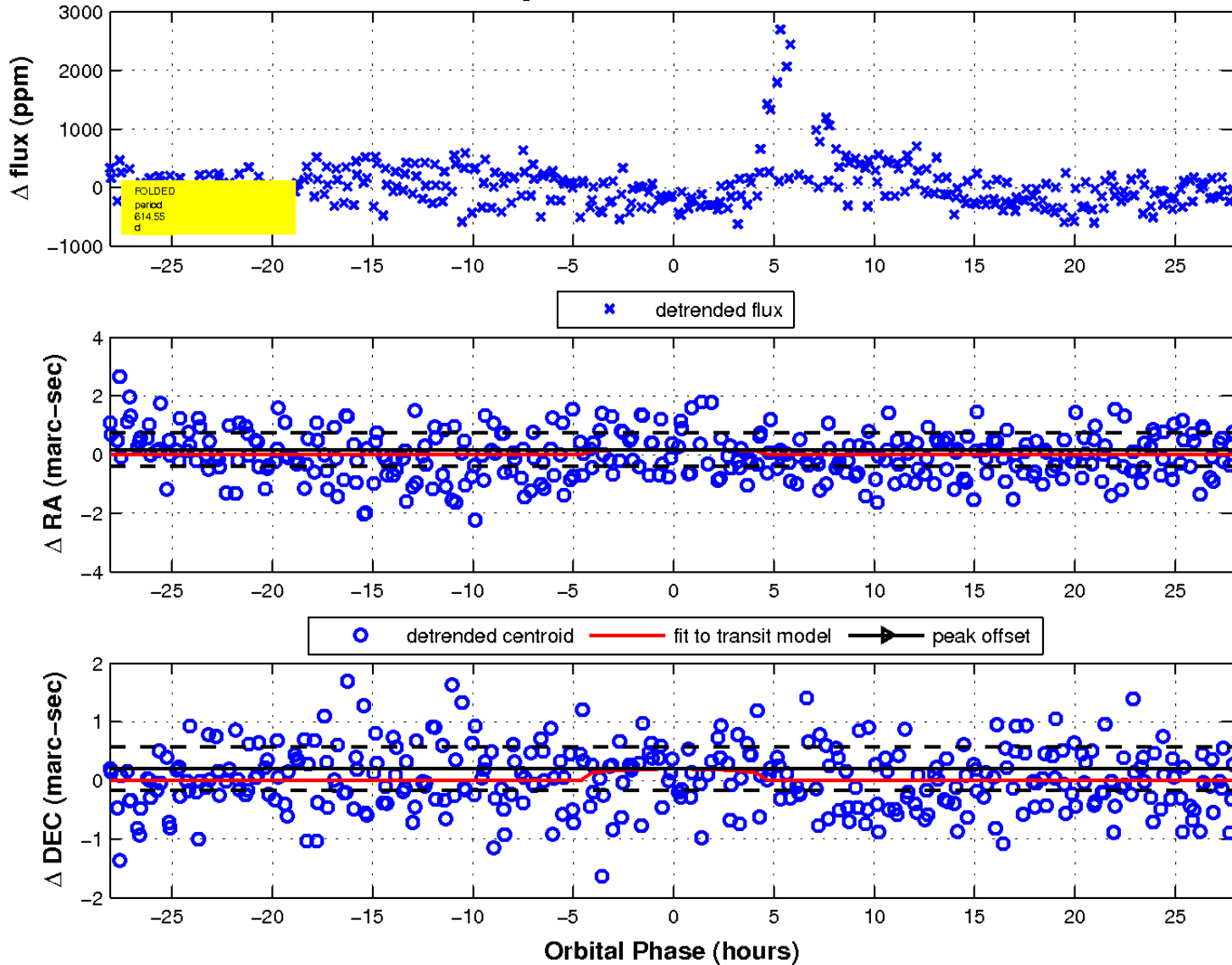
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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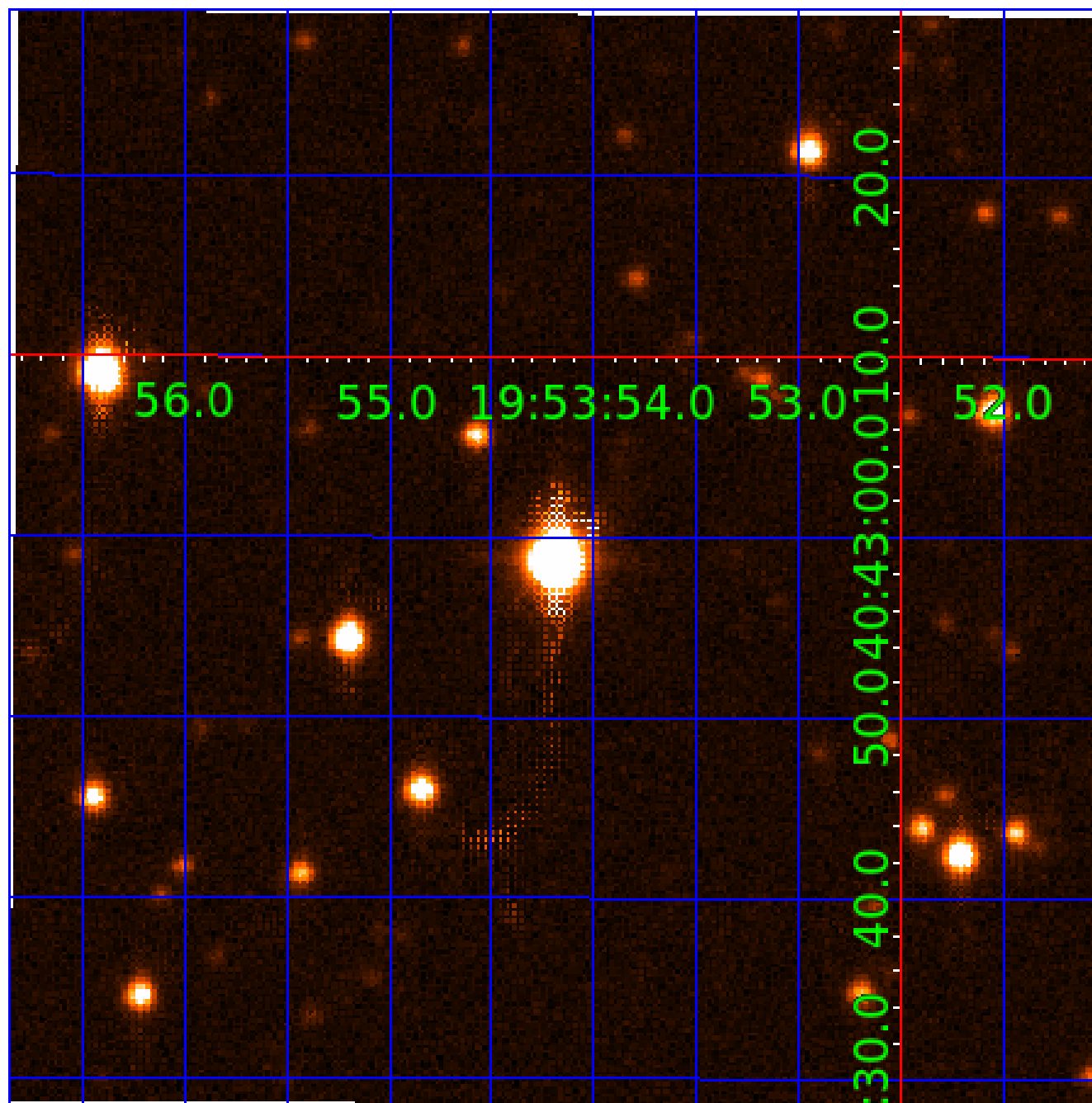


fluxWeightedCentroids, Planet 1 of 6



UKIRT Image

Declination



KIC 005560747

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})
005560747-01	OBS	No	614.549233	343.270694	519.4	9.364	13.7	6.5	1.96	5178	4.99	1.23
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005560747-06	OBS	No	217.928488	295.742777	357.3	4.435	10.0	7.1	1.96	5178	3.75	4.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005560747-01	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—CENT_FEW_DIFFS
005560747-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—CENT_FEW_DIFFS
005560747-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS

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

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

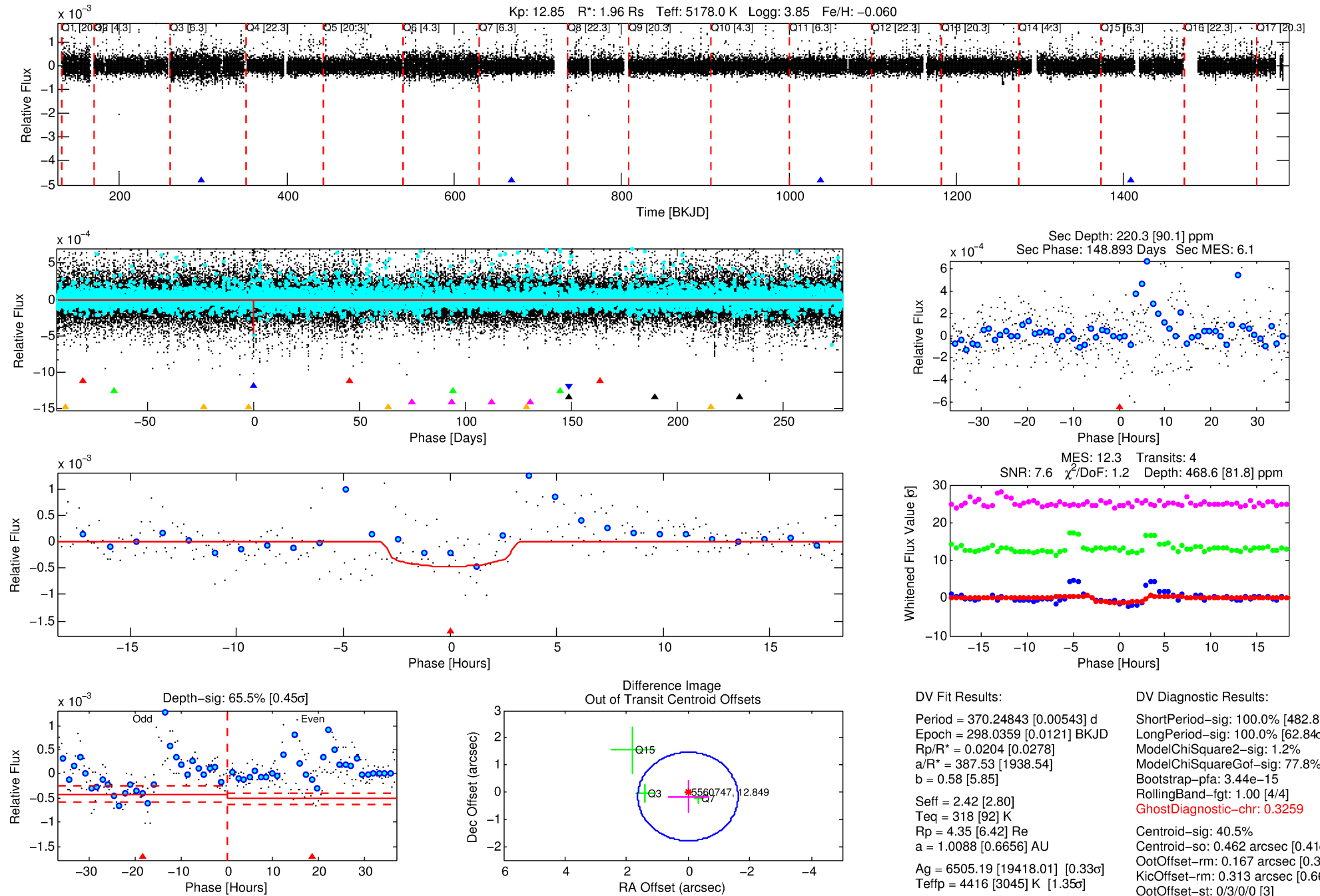
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005560747-02

No Significant Match Found

DV One-Page Summary

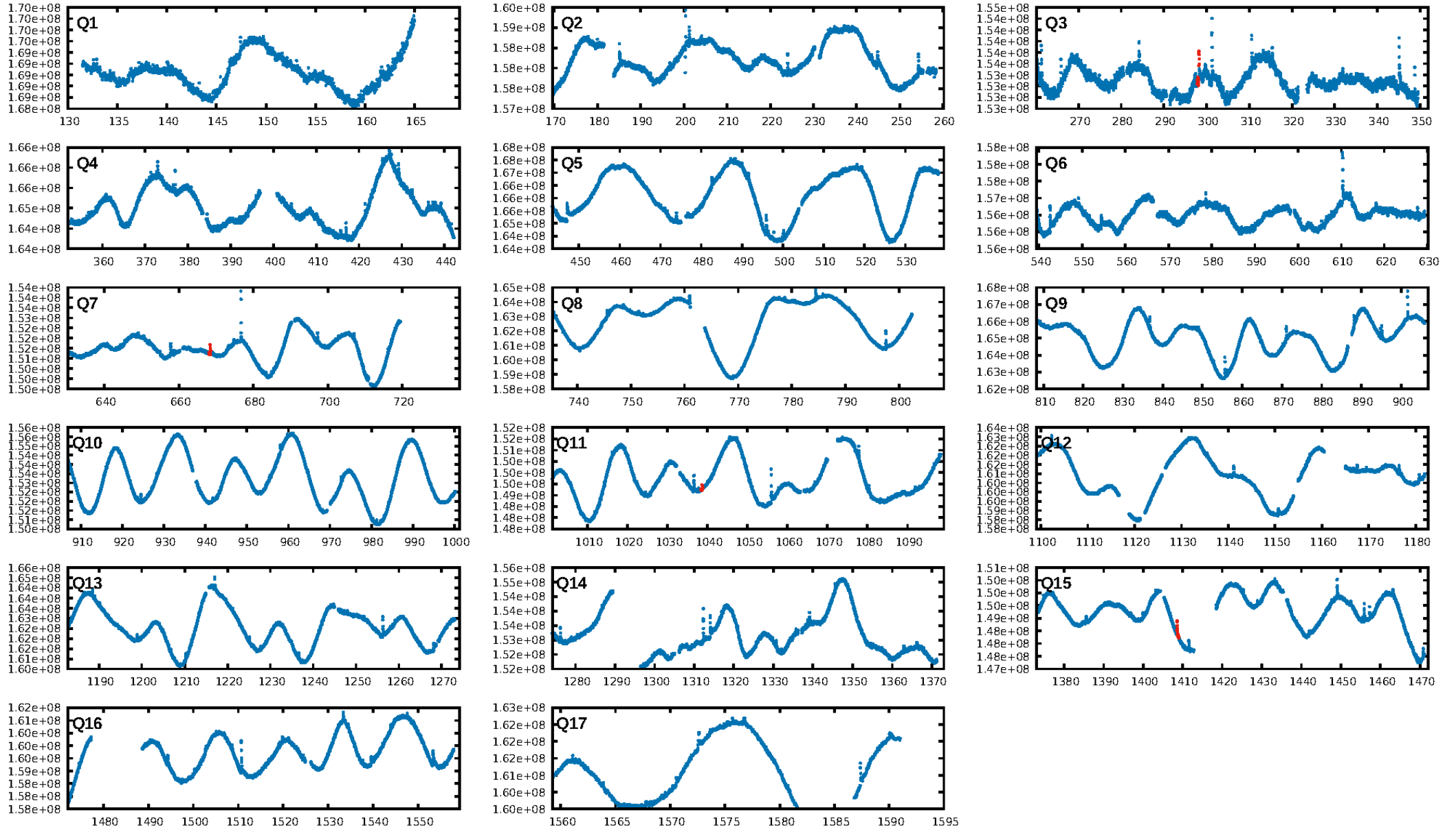
KIC: 5560747 Candidate: 2 of 6 Period: 370.248 d



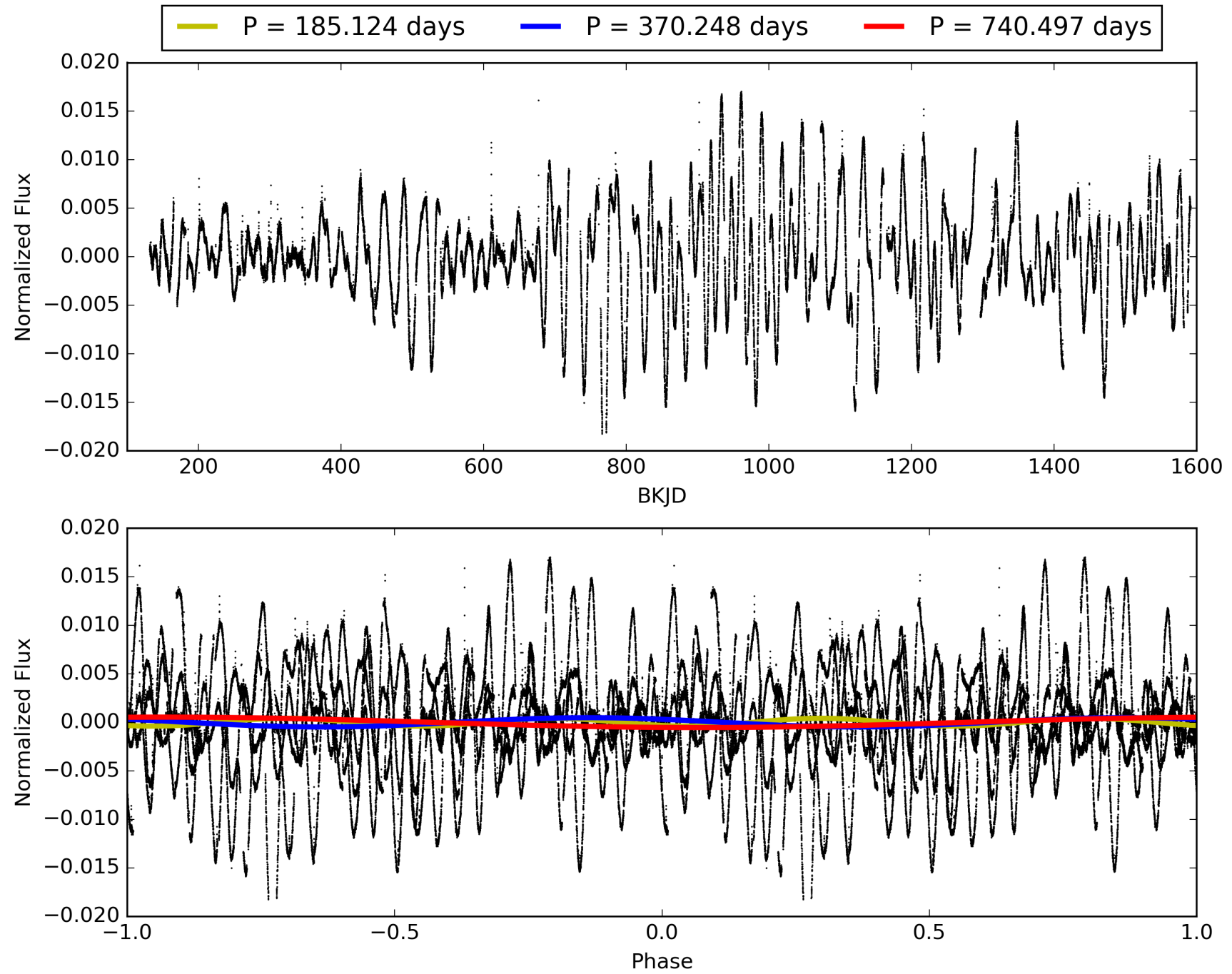
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:27:08 Z

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

TCE 005560747-02, PDC Light Curves

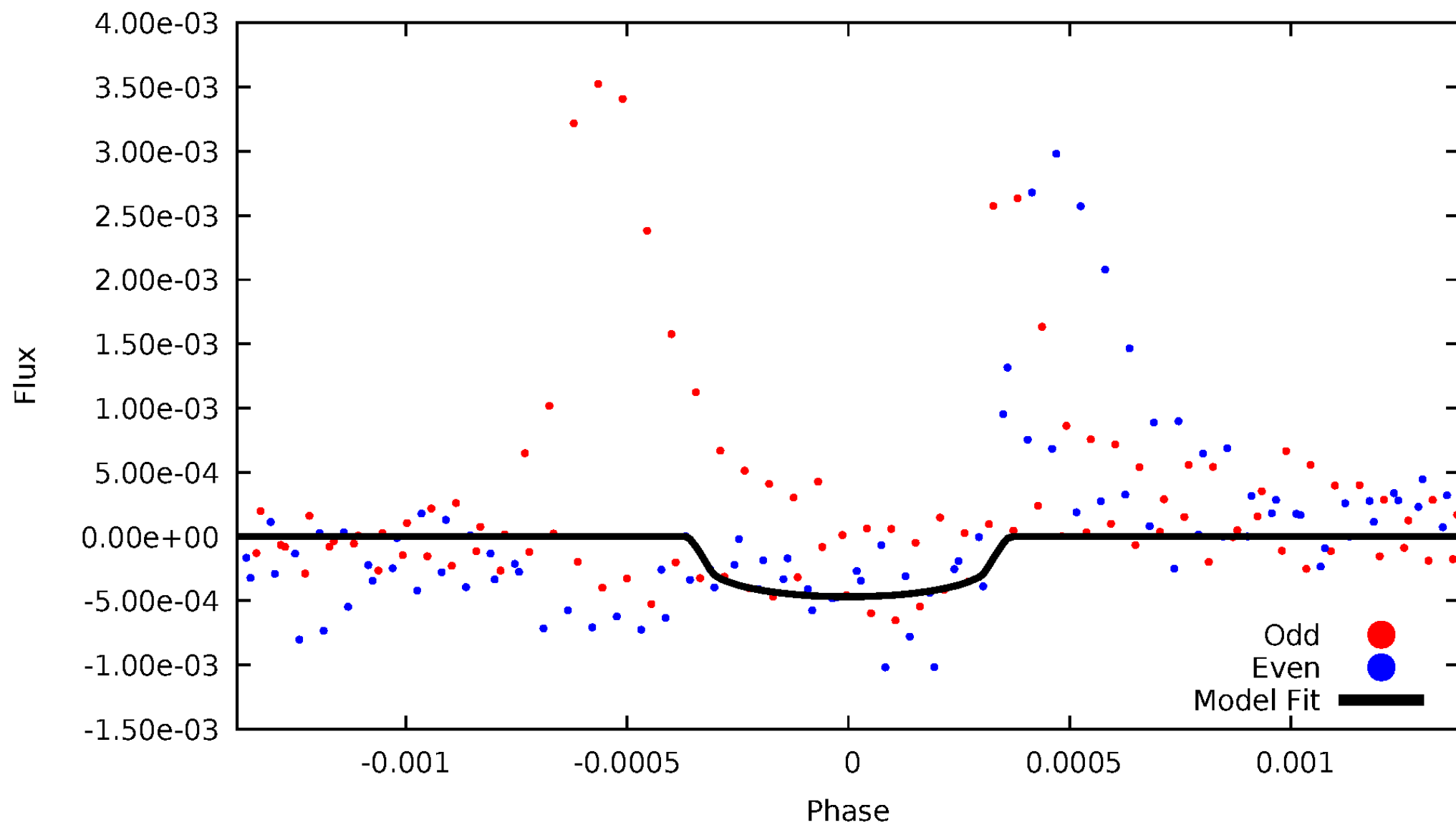


TCE 005560747-02



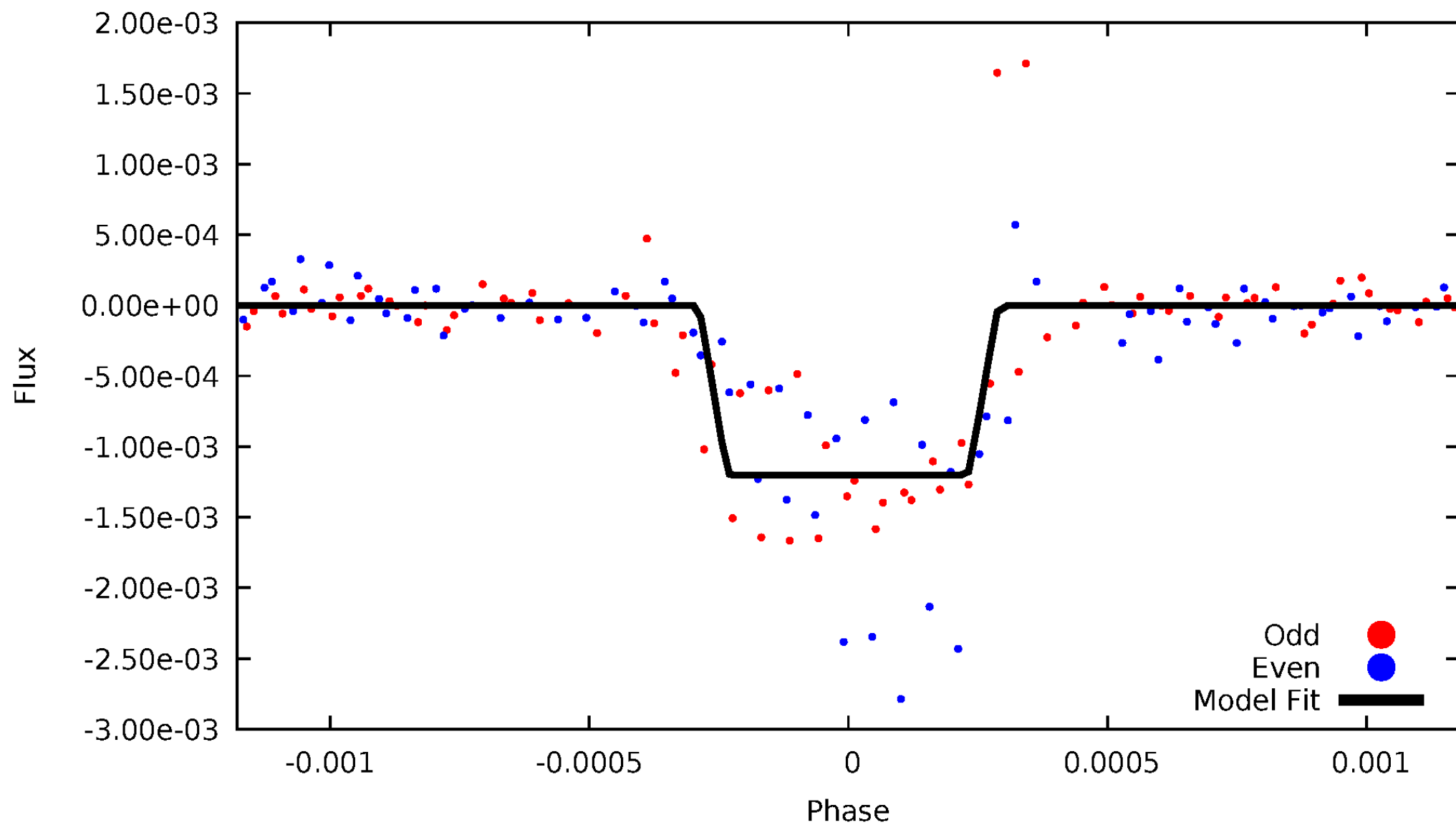
DV Odd/Even

TCE 005560747-02



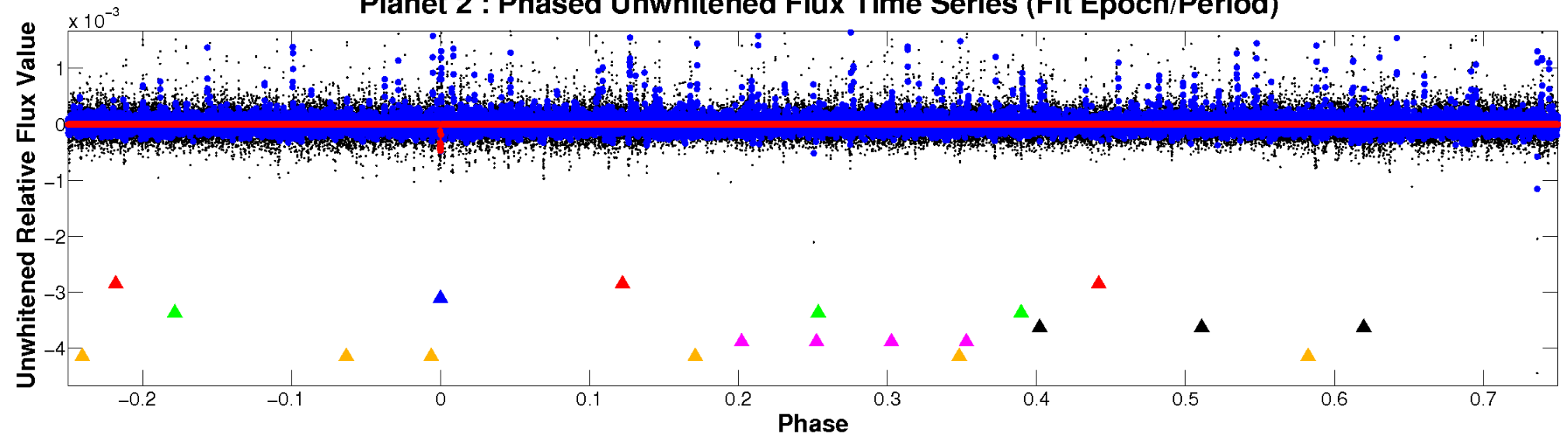
ALT Odd/Even

TCE 005560747-02

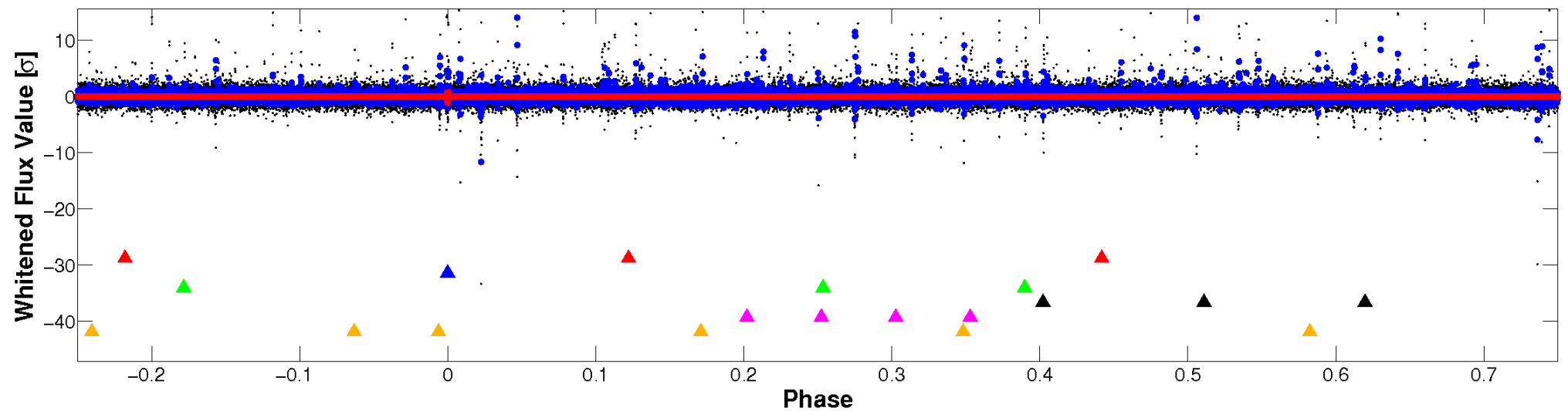


Non-Whitened Vs. Whitened Light Curve

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

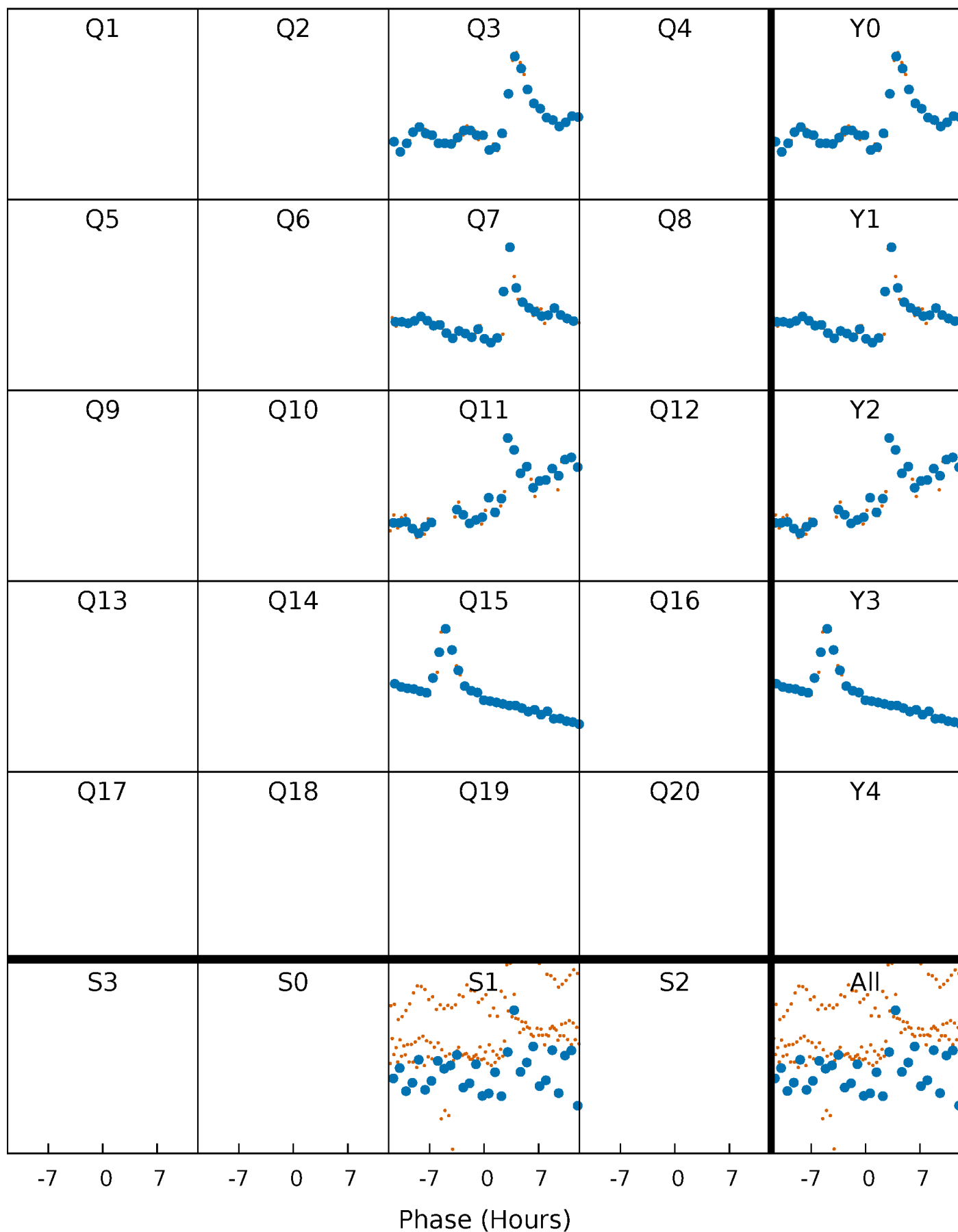


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



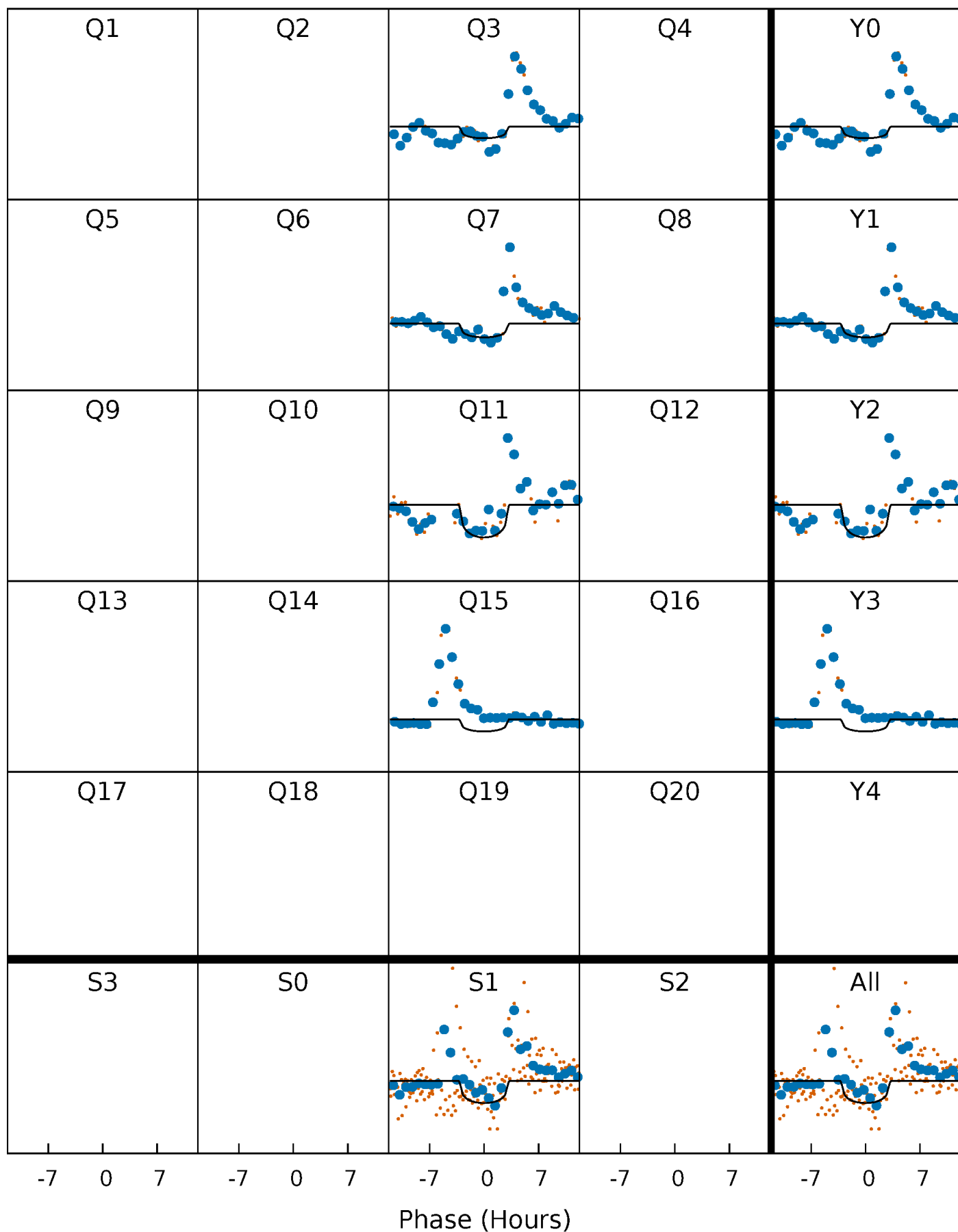
PDC Quarter-Phased Transit Curves

TCE 005560747-02 $P=370.248431$ Days $T_0=298.035918$ (BKJD)



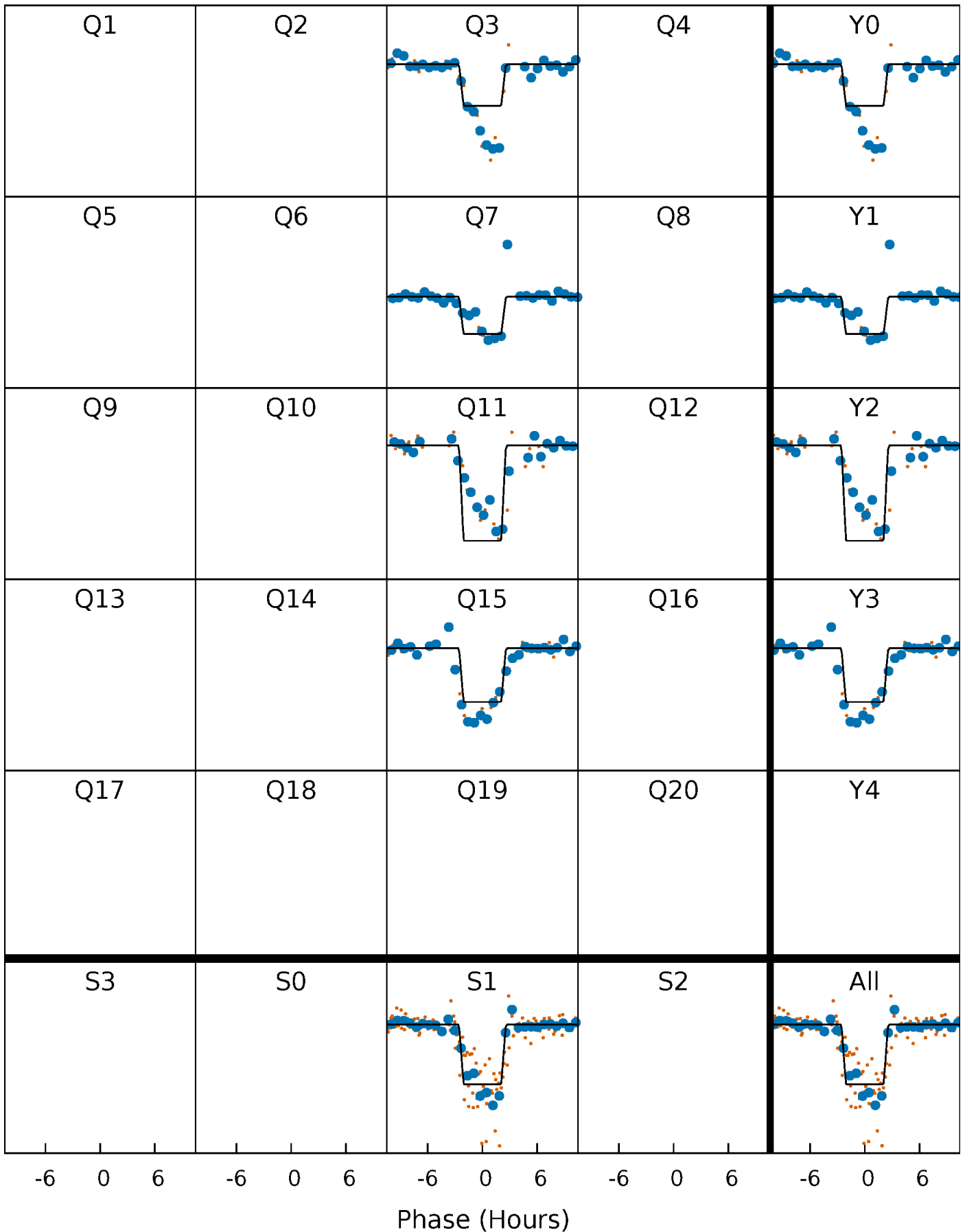
DV Quarter-Phased Transit Curves

TCE 005560747-02 $P=370.248431$ Days $T_0=298.035918$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

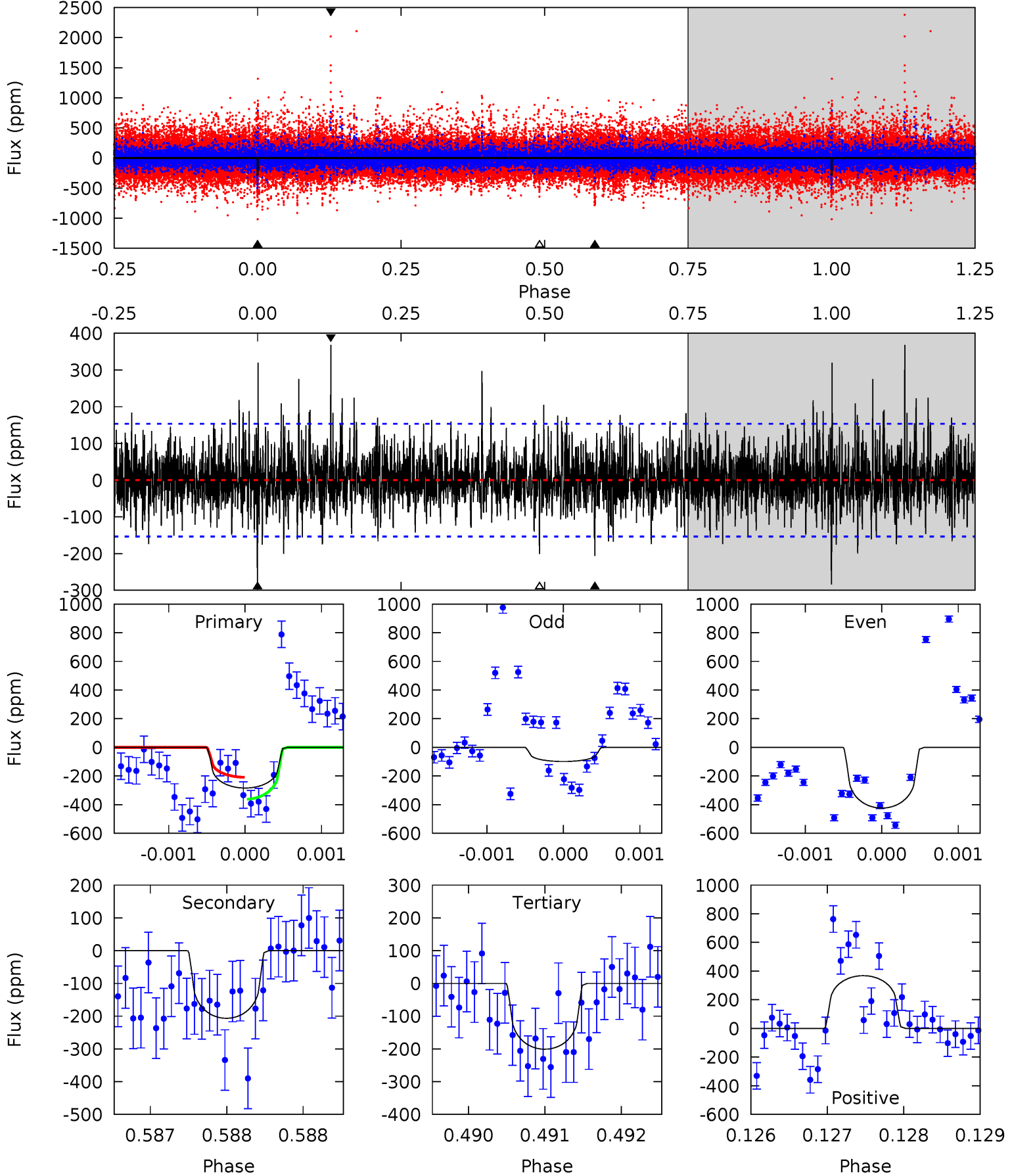
TCE 005560747-02 $P=370.228862$ Days $T_0=298.070175$ (BKJD)



DV Model-Shift Uniqueness Test

005560747-02, P = 370.248431 Days, E = 298.035918 Days

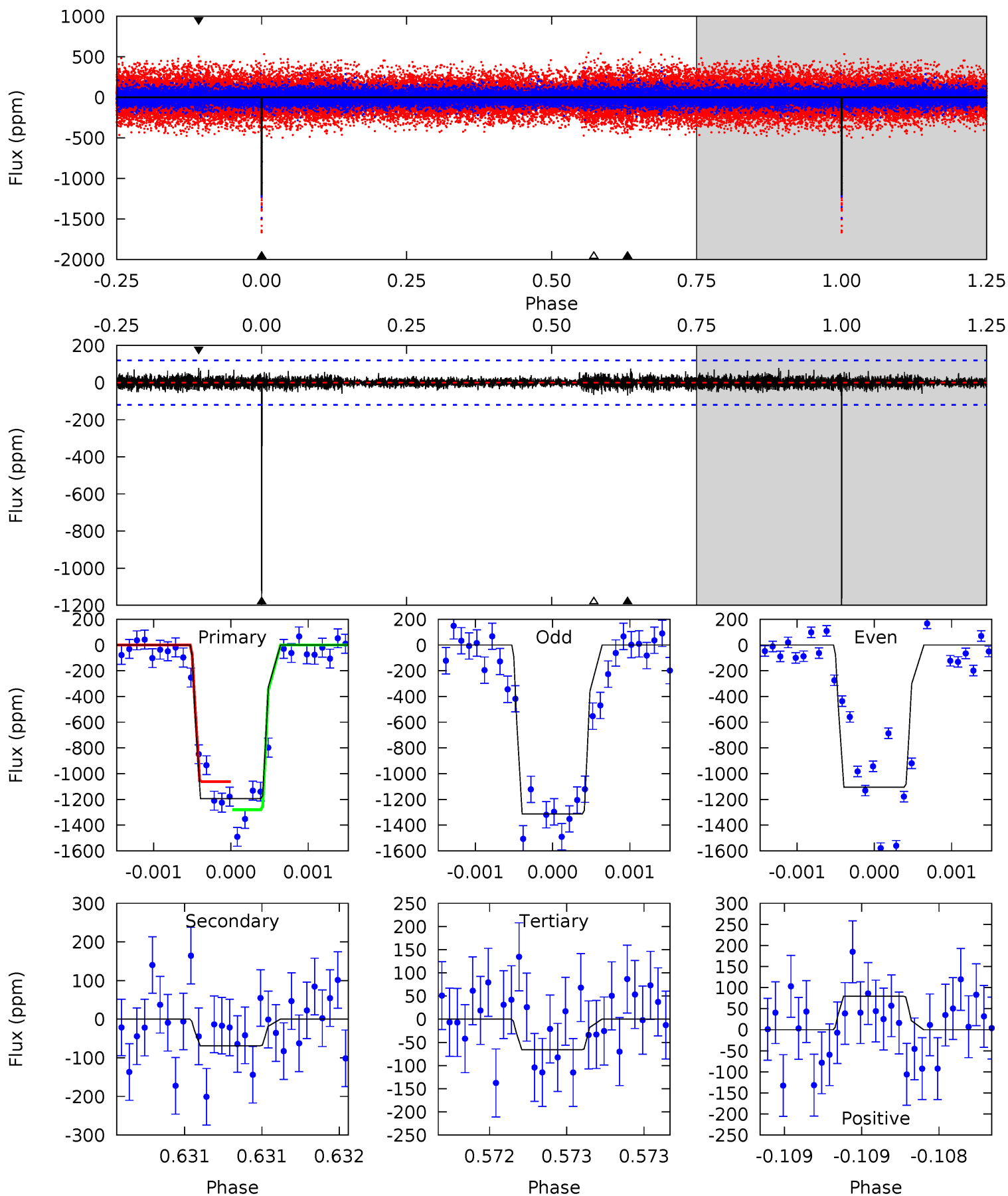
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	7.41	7.21	13.2	5.51	3.38	2.04	2.99	-3.00	0.20	-5.79	5.15	0.70	0.56	2.77



Alt Model-Shift Uniqueness Test

005560747-02, P = 370.228862 Days, E = 298.070175 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.5	3.19	3.06	3.68	5.55	3.45	0.69	52.4	51.8	0.13	-0.49	5.18	1.04	0.06	5.09



Stellar Parameters For KIC 005560747

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5178^{+171}_{-140}	$3.855^{+0.707}_{-0.303}$	$-0.060^{+0.300}_{-0.250}$	$1.955^{+0.991}_{-1.101}$	$0.998^{+0.224}_{-0.183}$	$0.188^{+2.162}_{-0.122}$
	+3%/-3%	+18%/-8%	+500%/-417%	+51%/-56%	+22%/-18%	+1149%/-65%
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 005560747-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-207 ± 28	$5.35^{+6.06}_{-3.56}$	443^{+61}_{-74}	4000^{+2280}_{-741}	4022^{+34677}_{-3114}
Alt.	-69 ± 22	$7.21^{+6.30}_{-4.23}$	435^{+63}_{-72}	3043^{+1013}_{-404}	740^{+3745}_{-539}

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

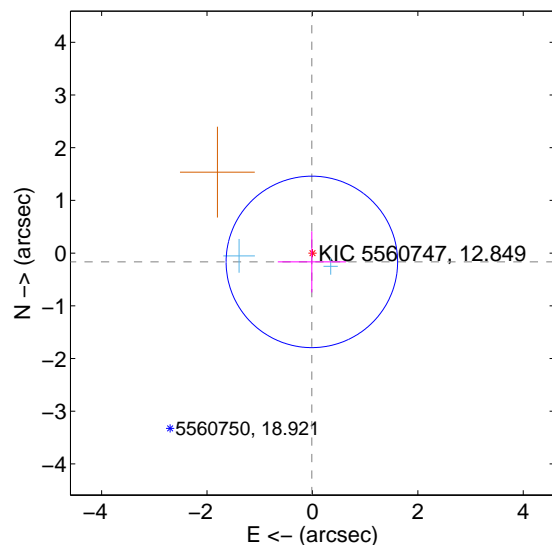
Supplemental centroid analysis for 005560747-02. Kepler magnitude: 12.85. Transit SNR 7.56

There are 2 quarters with good PRF difference image offsets

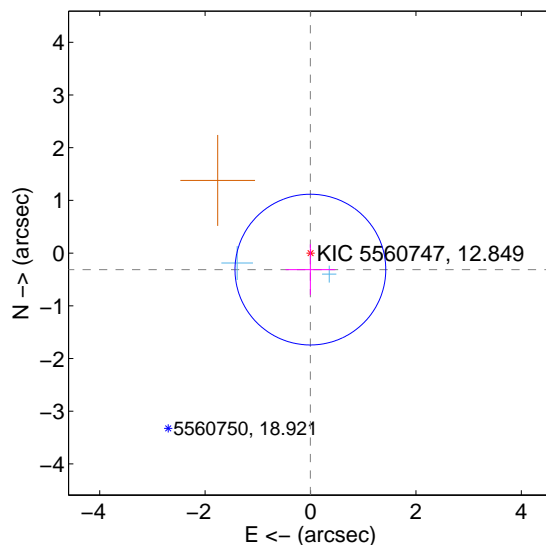
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.167 ± 0.542	0.31	0.011 ± 0.647	-0.167 ± 0.579
PRF-fit source offset from KIC position	0.313 ± 0.477	0.66	0.003 ± 0.470	-0.313 ± 0.479
photometric centroid source offset	0.46 ± 1.12	0.41	-0.45 ± 1.14	-0.12 ± 0.77

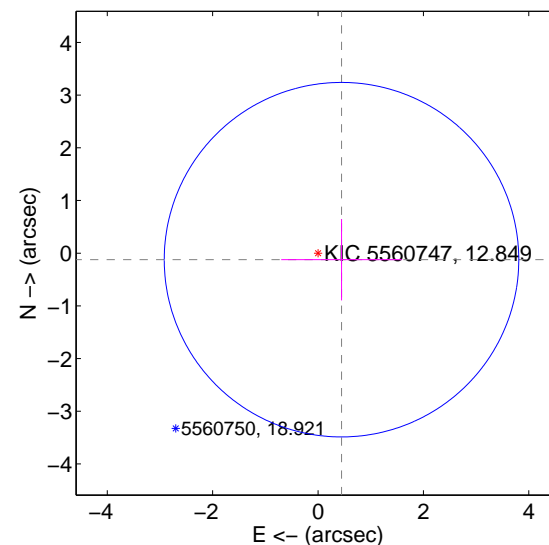
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

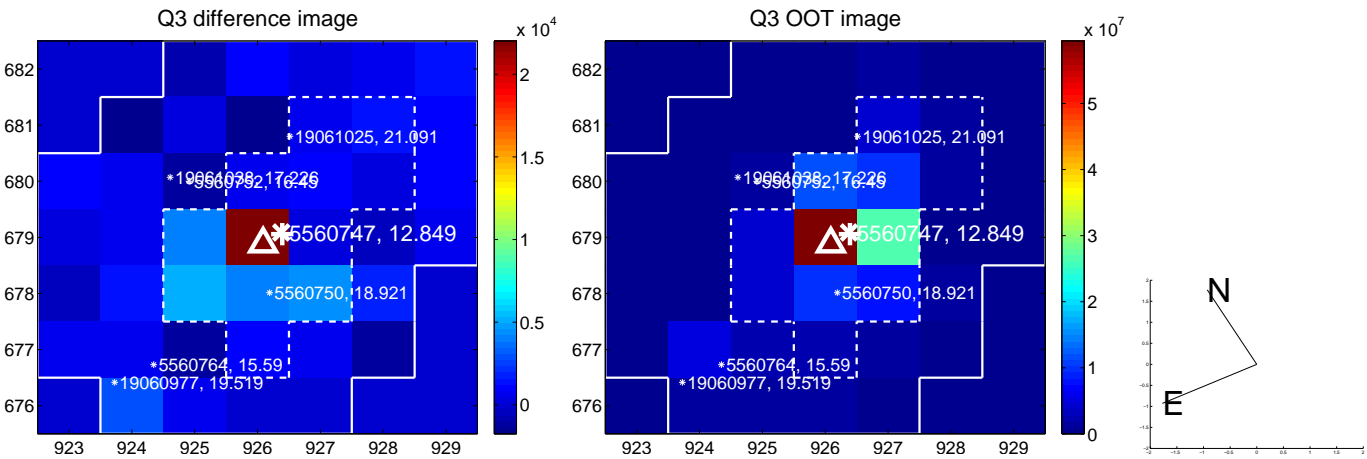


offset from photometric centroids



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.

Q5 no difference image



Q5 no OOT image



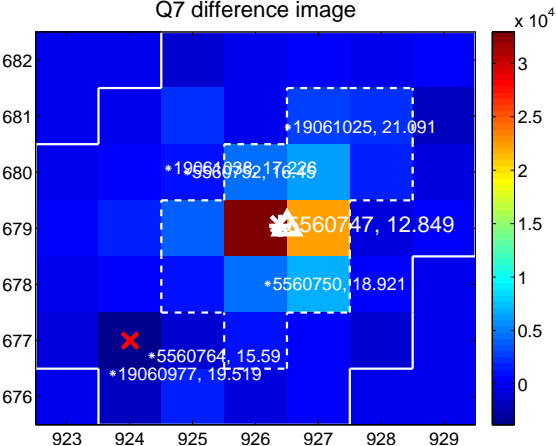
Q6 no difference image



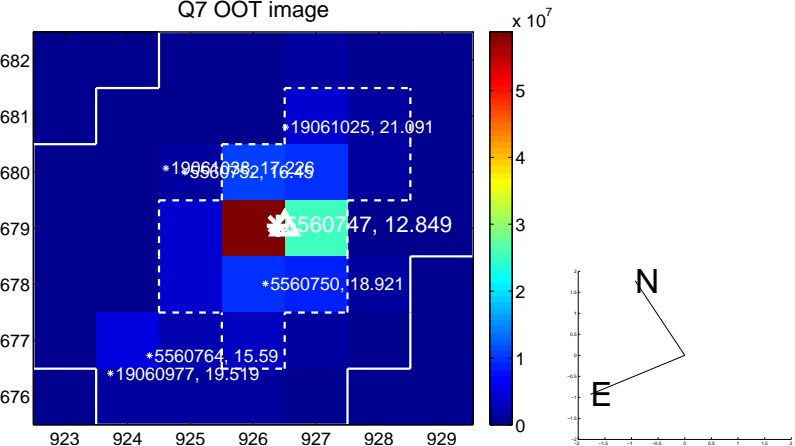
Q6 no OOT image



Q7 difference image



Q7 OOT image



Q8 no difference image



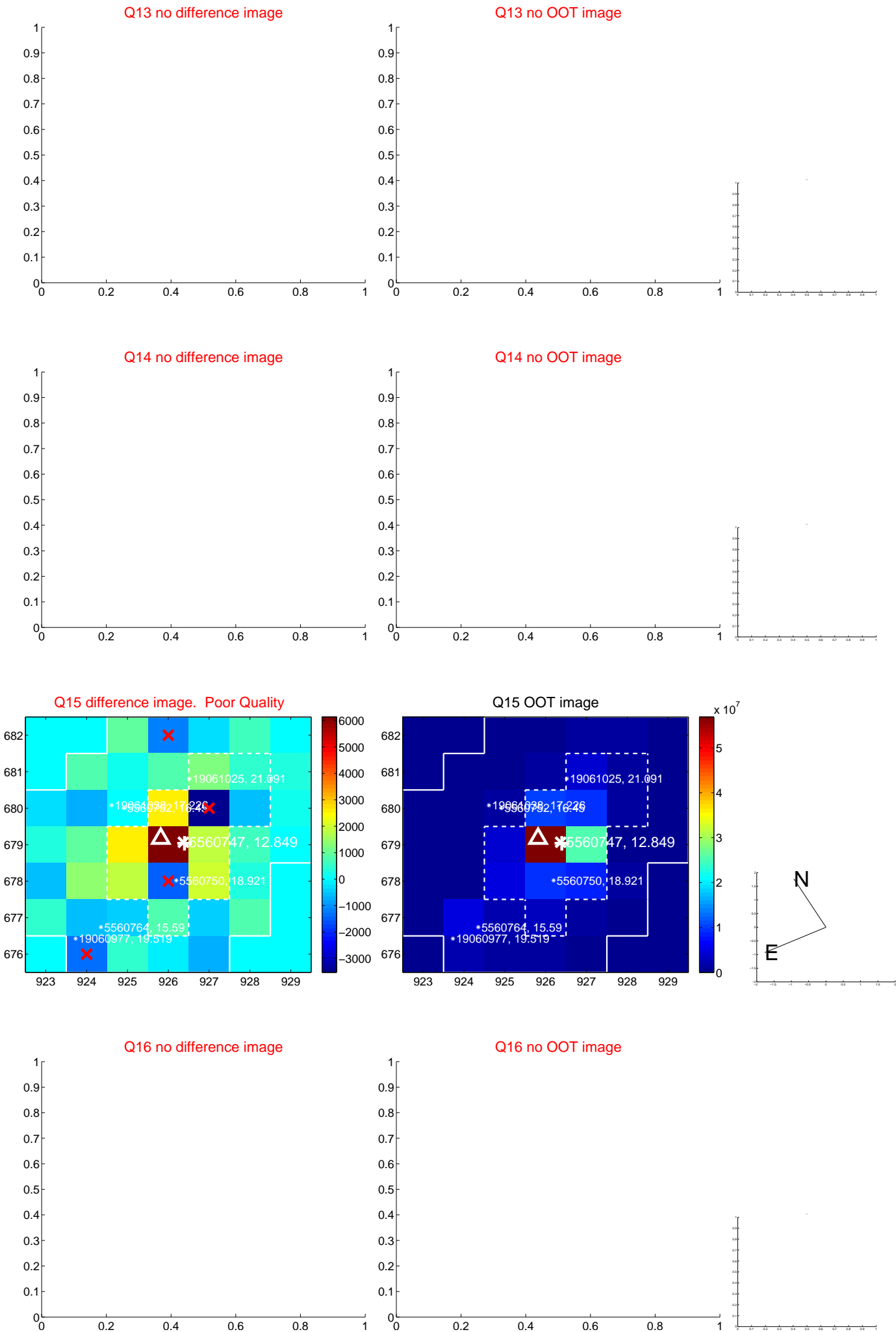
Q8 no OOT image



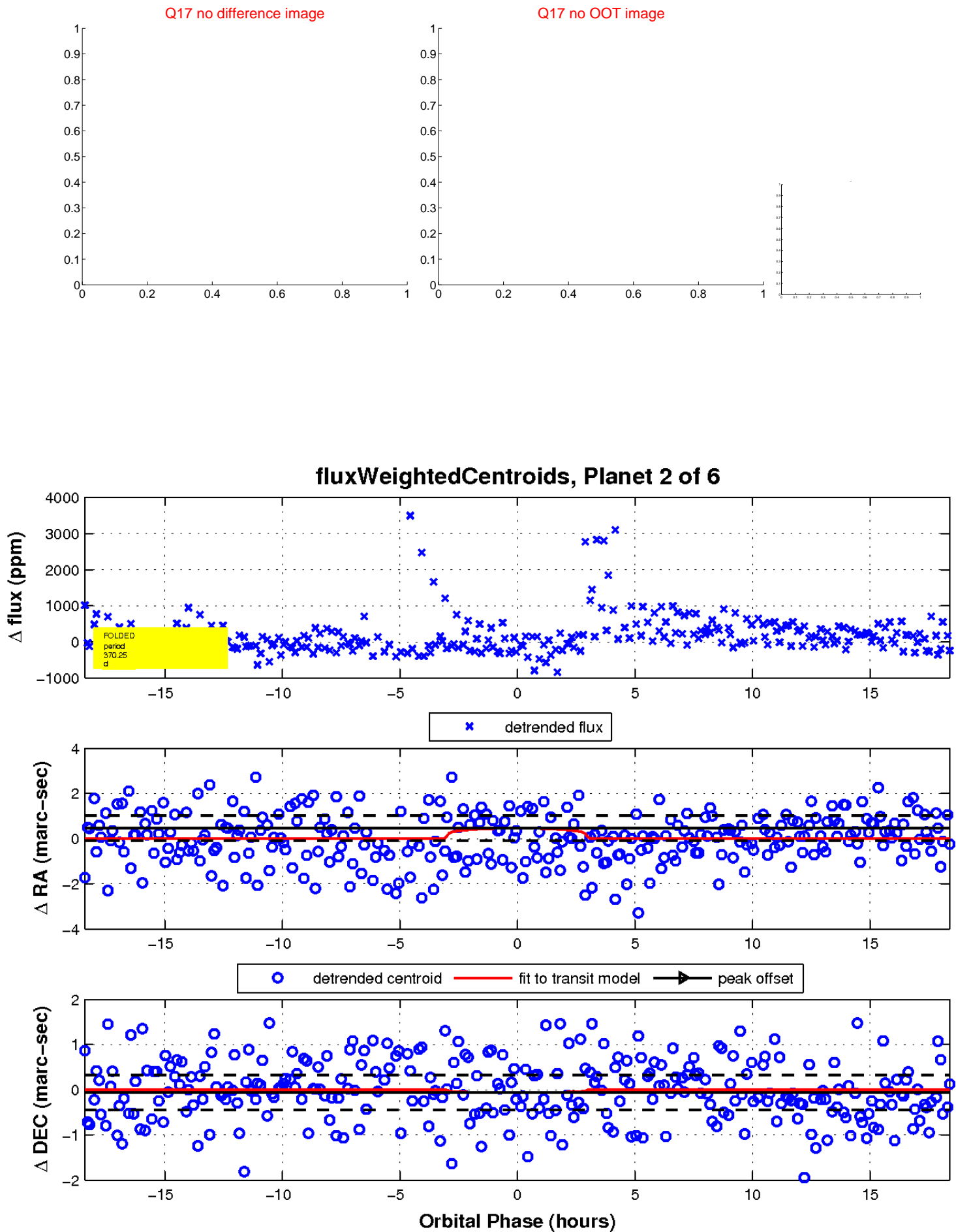
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

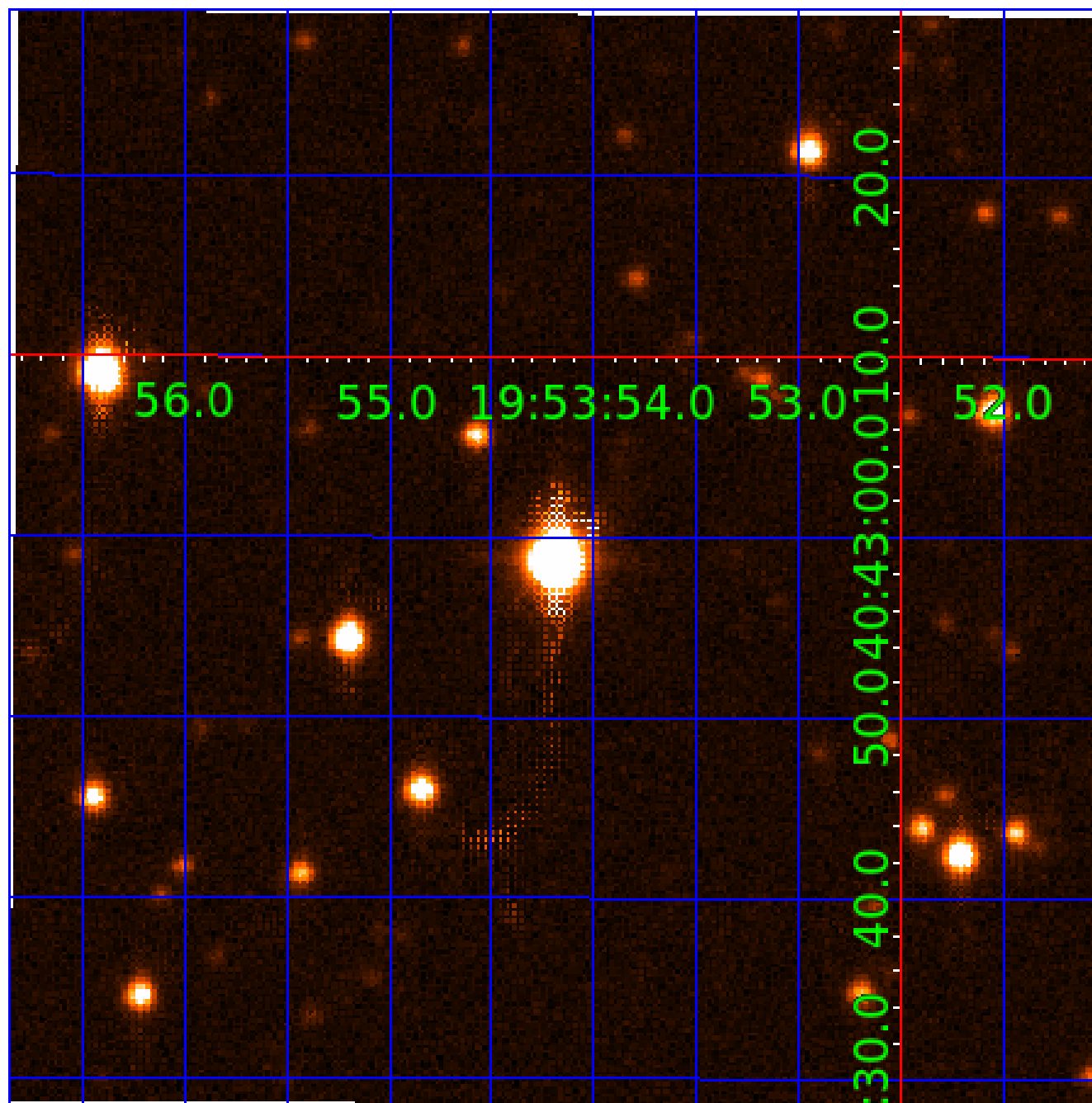


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005560747

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})
005560747-01	OBS	No	614.549233	343.270694	519.4	9.364	13.7	6.5	1.96	5178	4.99	1.23
005560747-02	OBS	No	370.248431	298.035918	468.6	6.136	12.3	7.6	1.96	5178	4.35	2.42
005560747-03	OBS	No	580.578295	391.936827	459.7	9.273	12.6	7.1	1.96	5178	4.47	1.33
005560747-04	OBS	No	410.526319	446.937676	534.4	4.500	12.5	7.9	1.96	5178	4.80	2.11
005560747-05	OBS	No	388.866484	372.871537	549.0	3.595	10.5	7.8	1.96	5178	5.20	2.27
005560747-06	OBS	No	217.928488	295.742777	357.3	4.435	10.0	7.1	1.96	5178	3.75	4.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005560747-01	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—CENT_FEW_DIFFS
005560747-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—CENT_FEW_DIFFS
005560747-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS

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

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

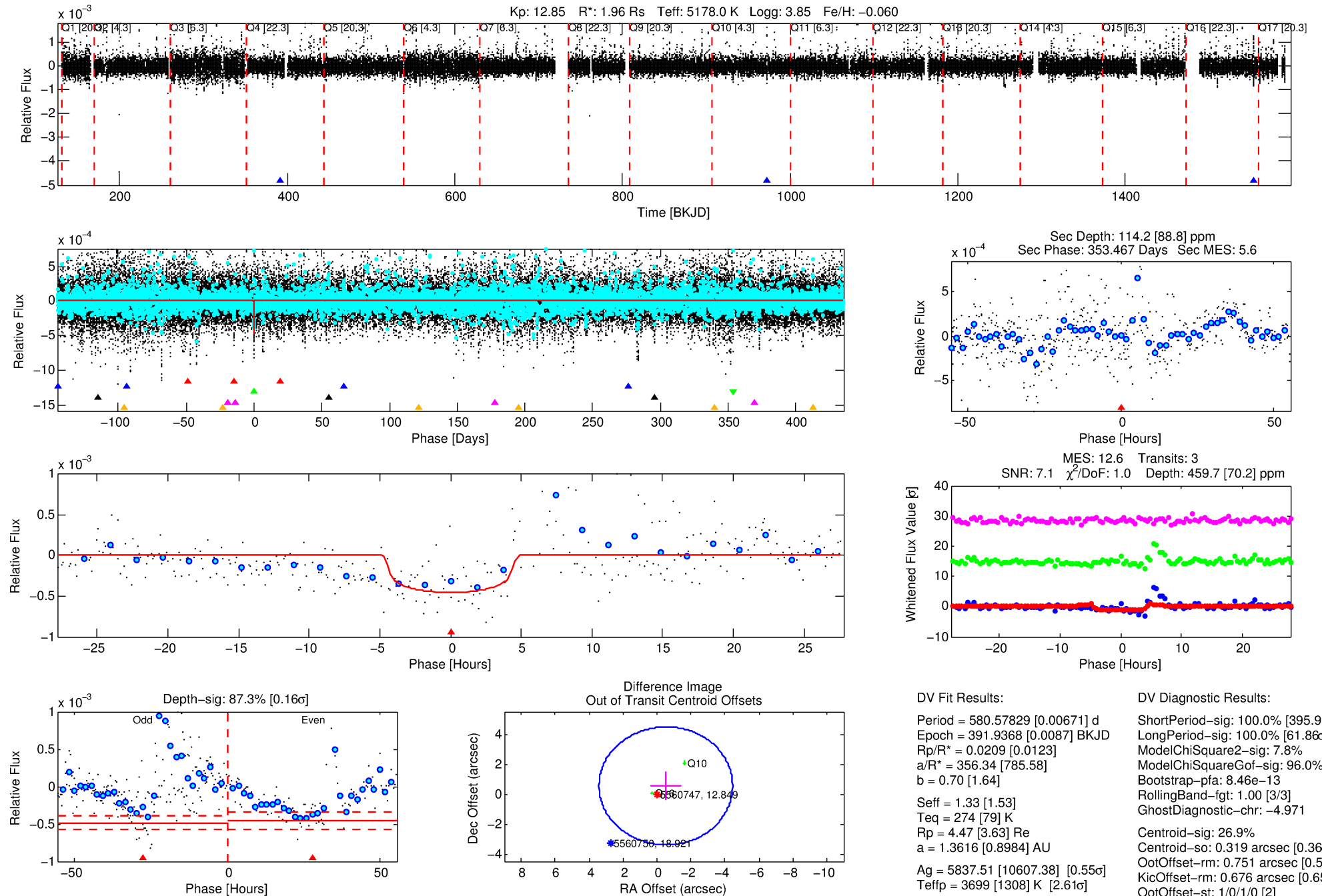
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005560747-03

No Significant Match Found

DV One-Page Summary

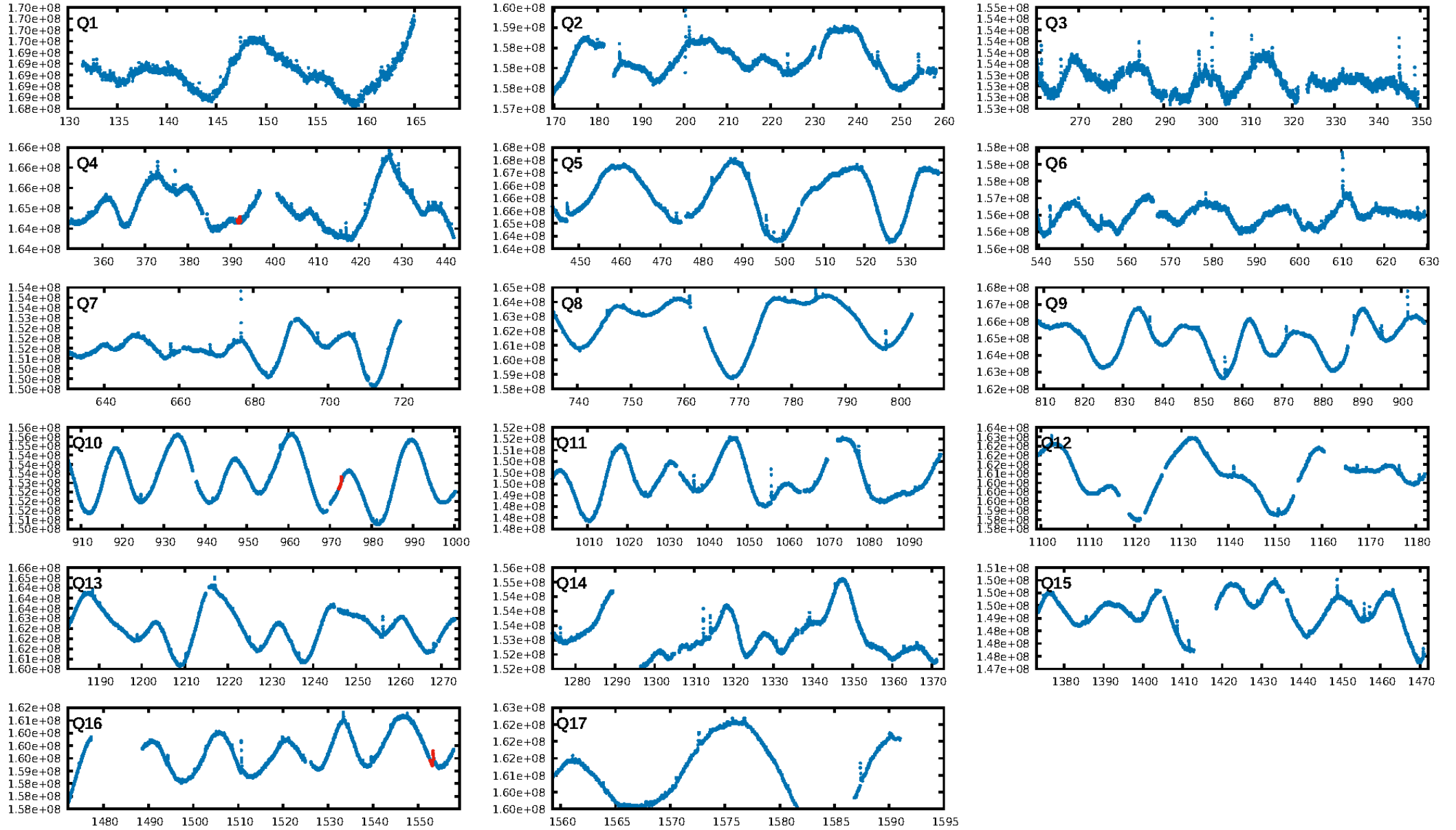
KIC: 5560747 Candidate: 3 of 6 Period: 580.578 d



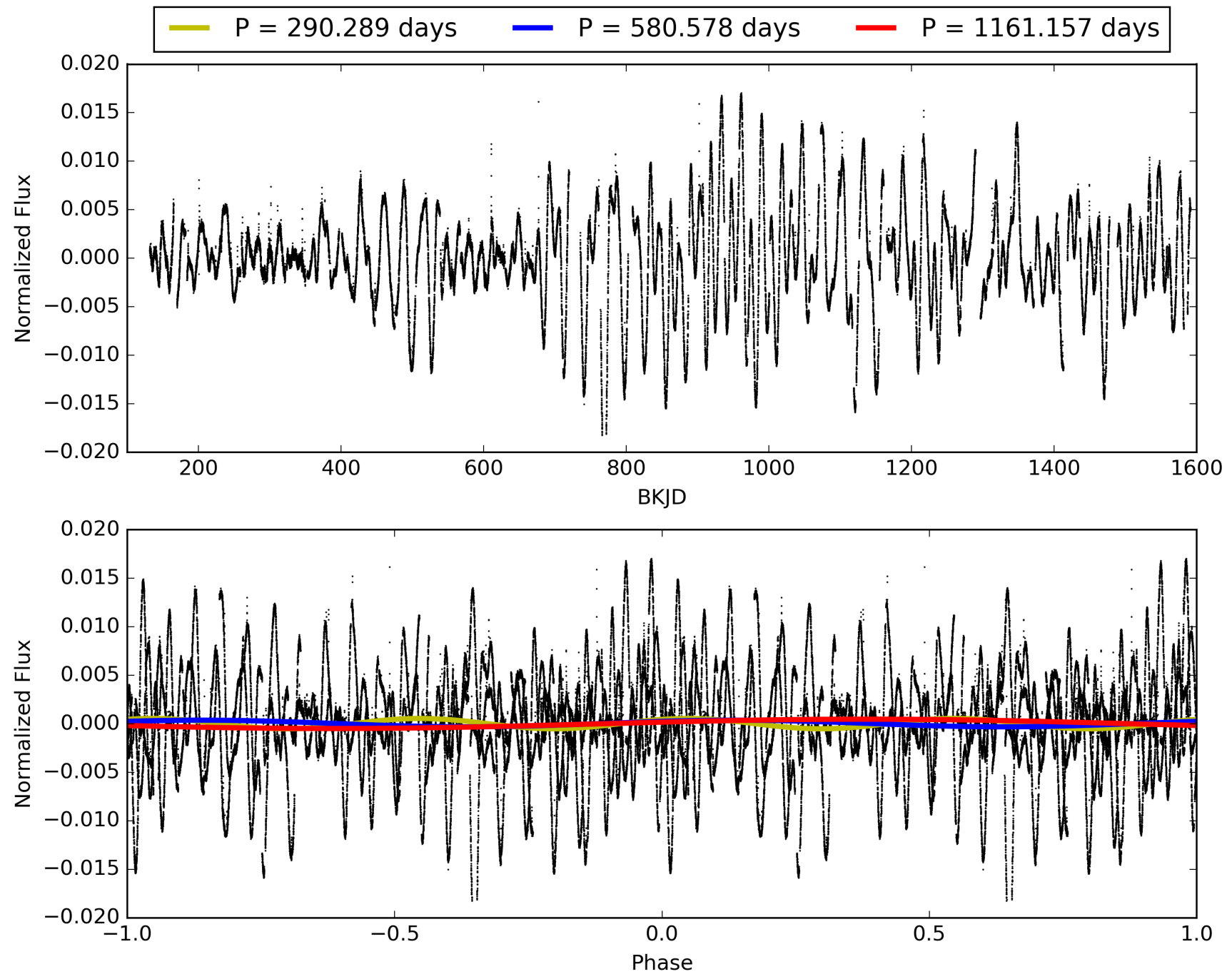
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:27:20 Z

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

TCE 005560747-03, PDC Light Curves

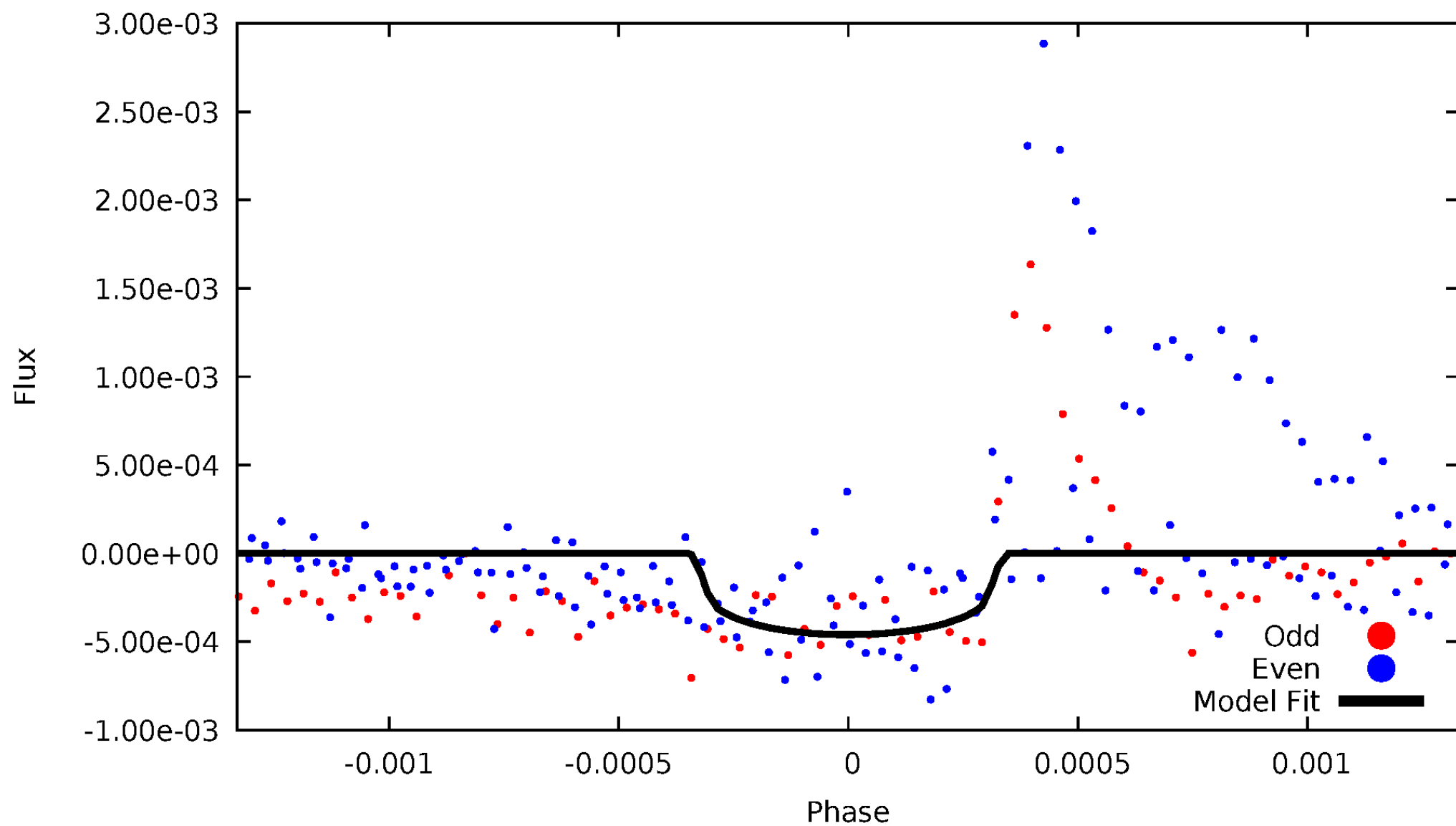


TCE 005560747-03



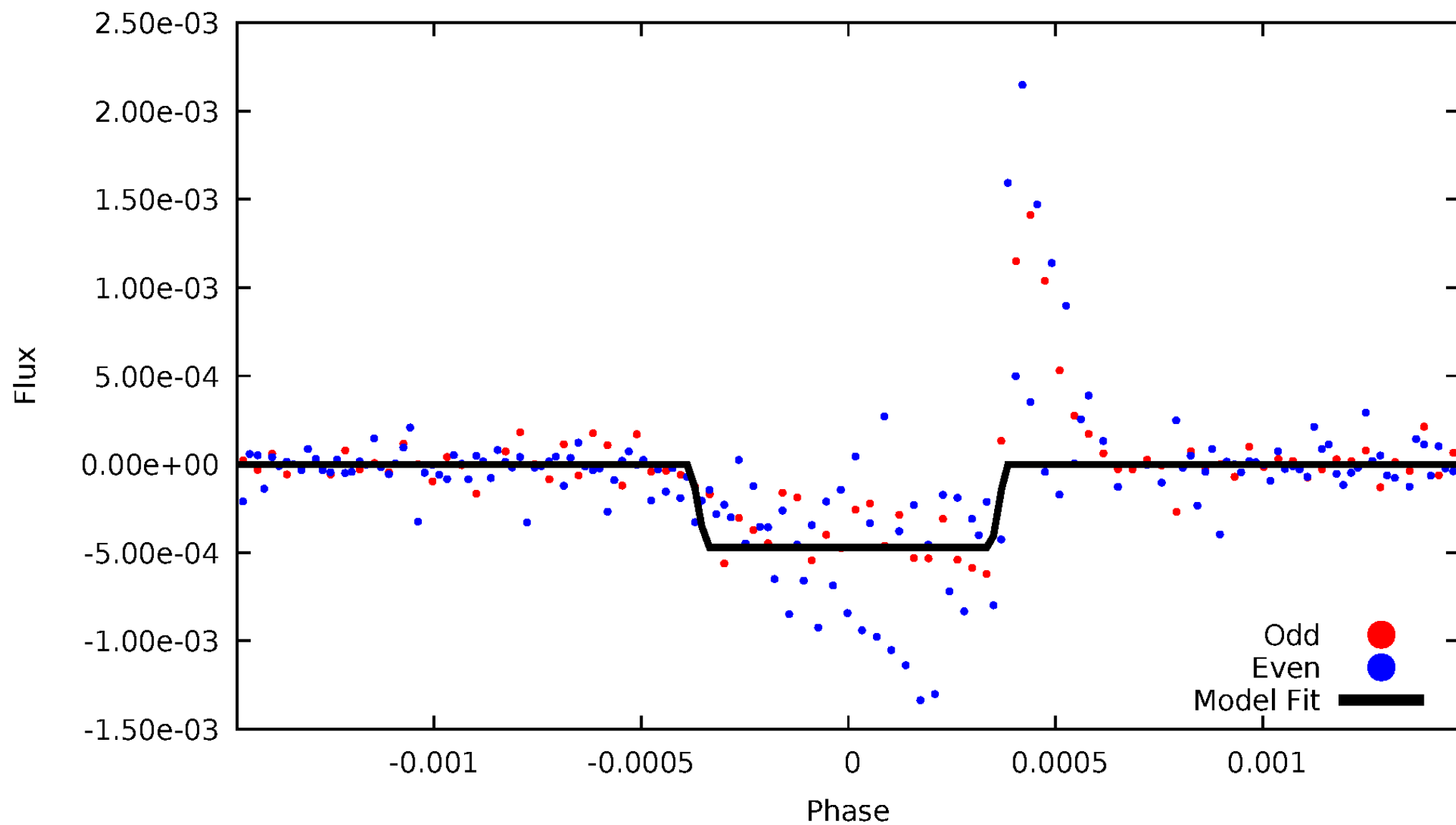
DV Odd/Even

TCE 005560747-03



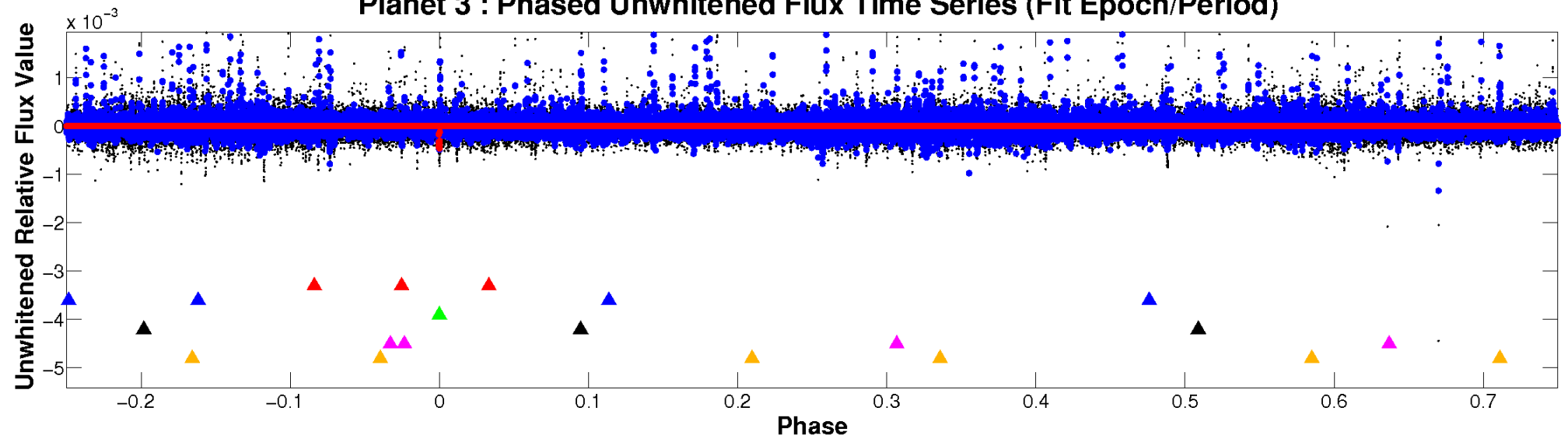
ALT Odd/Even

TCE 005560747-03

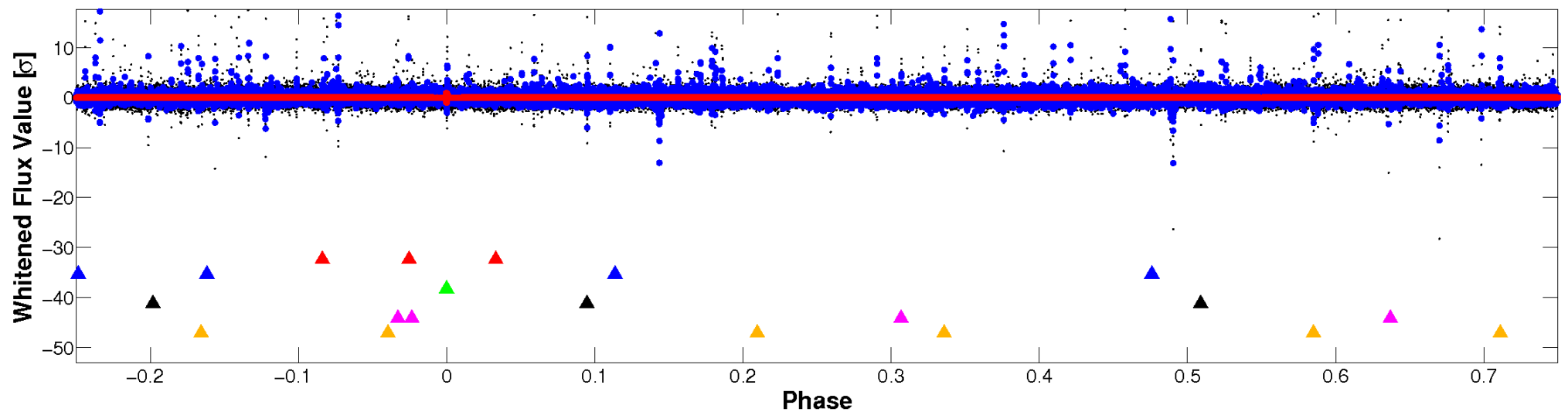


Non-Whitened Vs. Whitened Light Curve

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



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



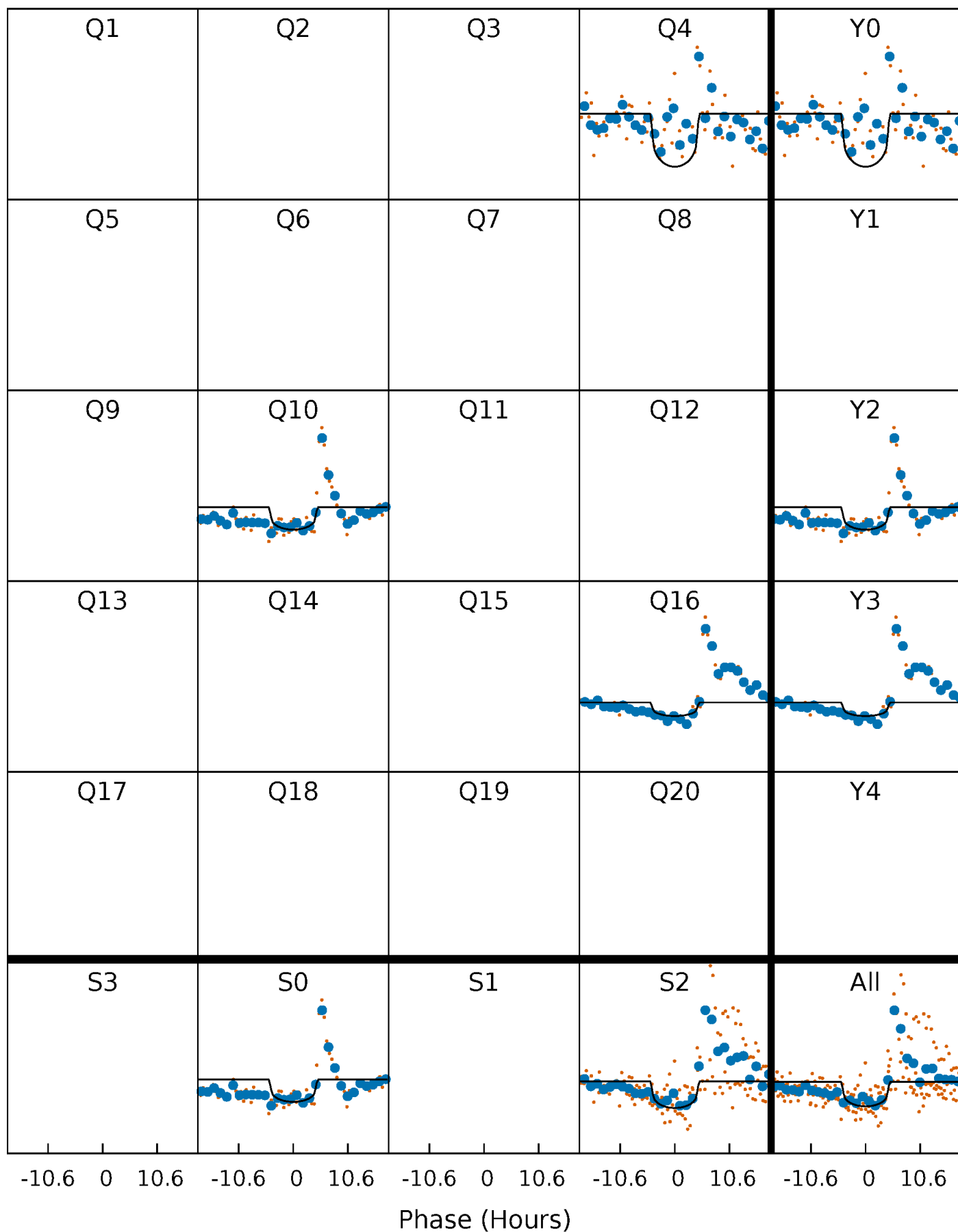
PDC Quarter-Phased Transit Curves

TCE 005560747-03 P=580.578295 Days $T_0=391.936827$ (BKJD)



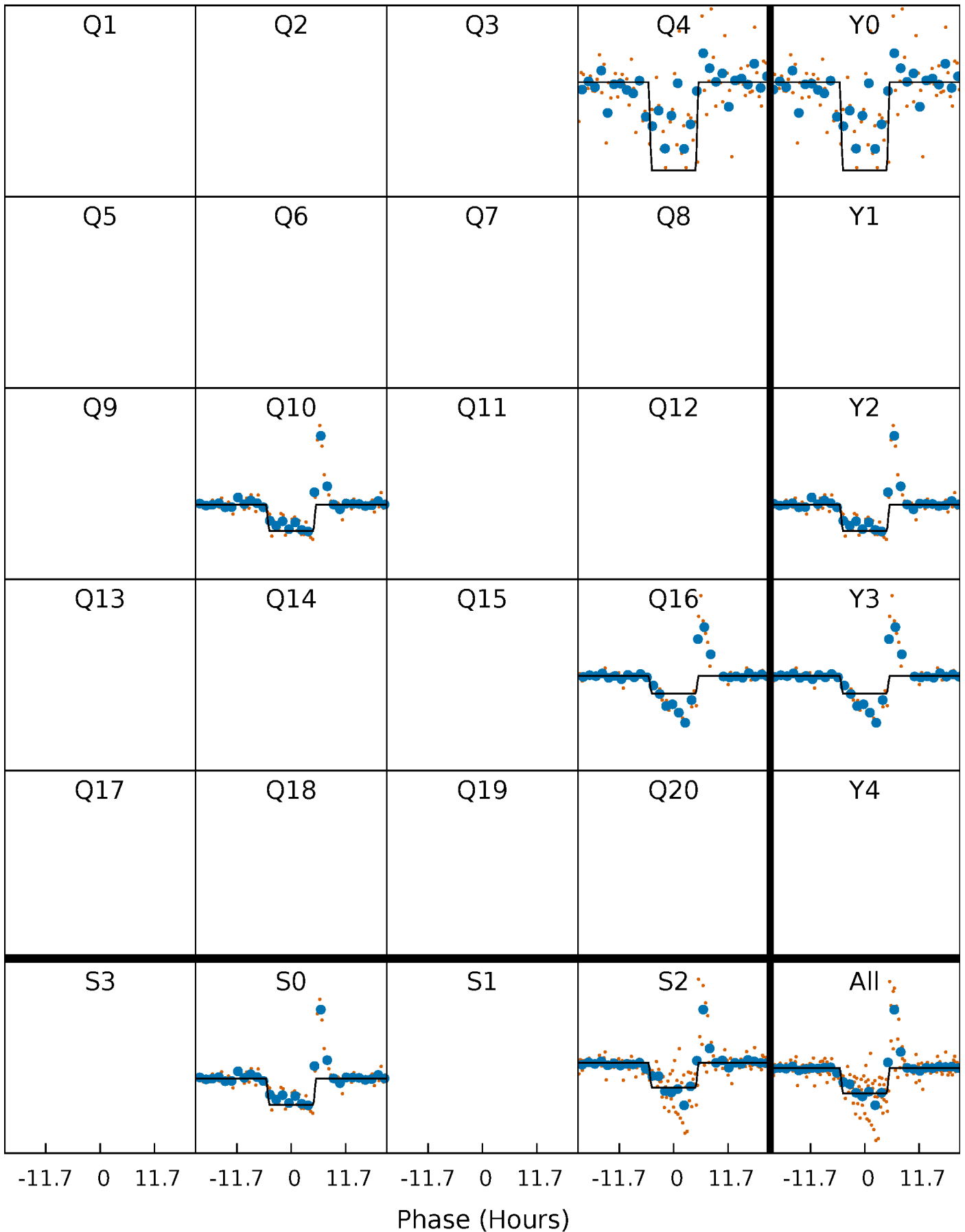
DV Quarter-Phased Transit Curves

TCE 005560747-03 $P=580.578295$ Days $T_0=391.936827$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

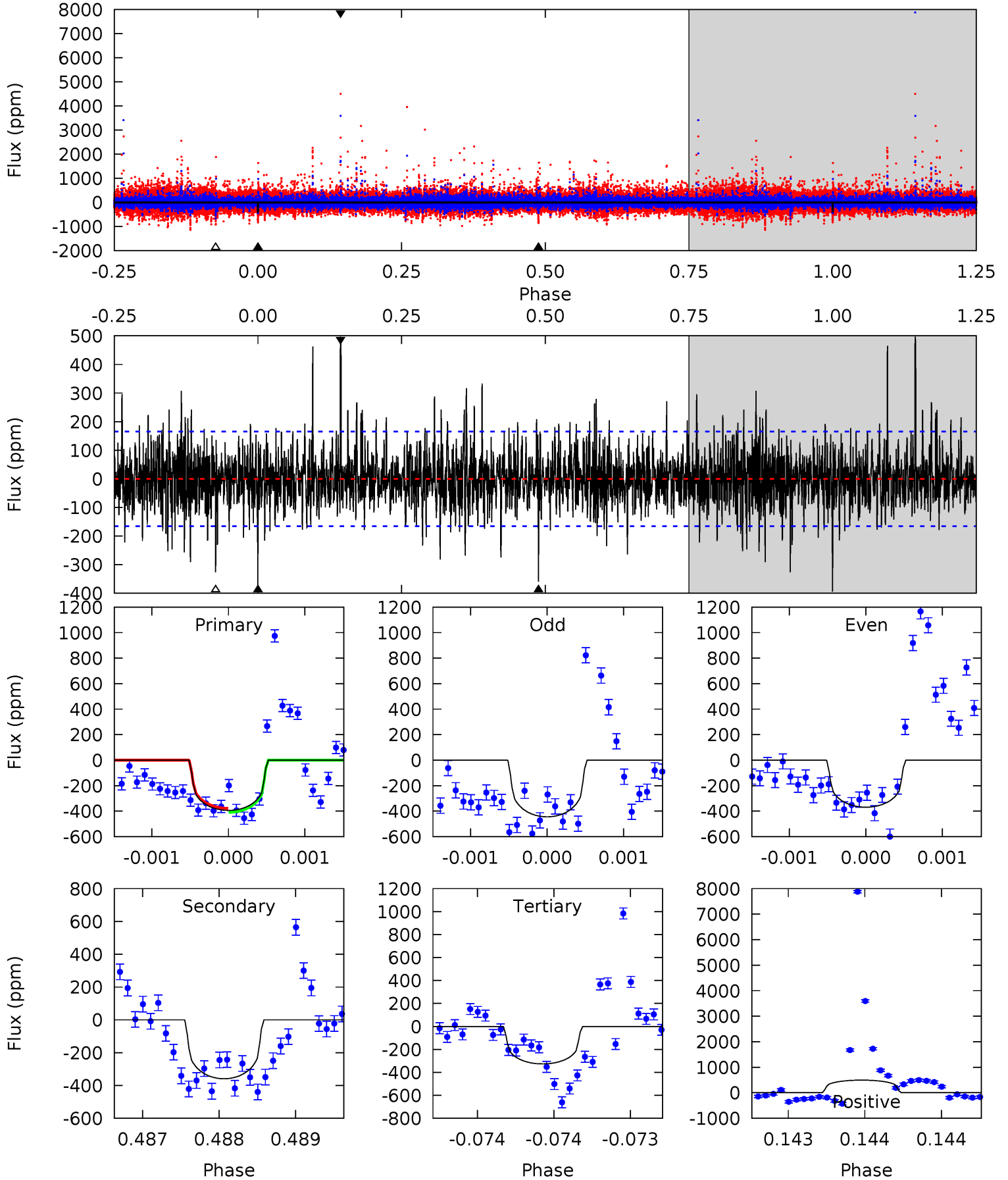
TCE 005560747-03 P=580.605985 Days $T_0=391.884348$ (BKJD)



DV Model-Shift Uniqueness Test

005560747-03, P = 580.578295 Days, E = 391.936827 Days

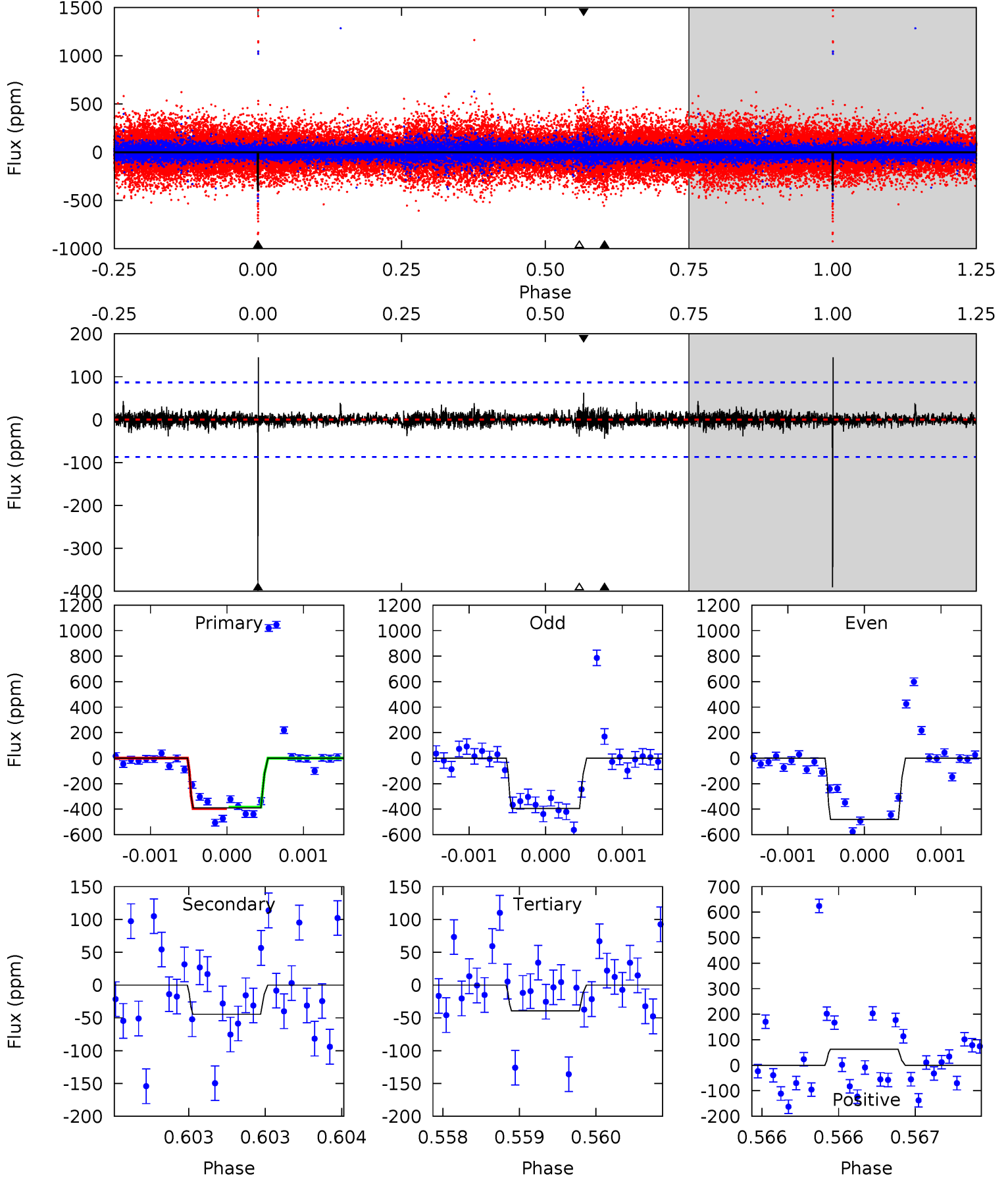
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	12.0	10.9	16.6	5.52	3.40	2.59	2.26	-3.38	1.09	-4.56	1.01	0.89	0.56	0.52



Alt Model-Shift Uniqueness Test

005560747-03, P = 580.605985 Days, E = 391.884348 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.8	2.82	2.50	3.97	5.50	3.37	0.50	22.3	20.8	0.32	-1.15	2.87	1.17	0.27	0.35



Stellar Parameters For KIC 005560747

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5178^{+171}_{-140}	$3.855^{+0.707}_{-0.303}$	$-0.060^{+0.300}_{-0.250}$	$1.955^{+0.991}_{-1.101}$	$0.998^{+0.224}_{-0.183}$	$0.188^{+2.162}_{-0.122}$
	+3%/-3%	+18%/-8%	+500%/-417%	+51%/-56%	+22%/-18%	+1149%/-65%
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 005560747-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-359 ± 30	$4.05^{+3.13}_{-2.48}$	374^{+55}_{-60}	4986^{+2388}_{-856}	$21778^{+120362}_{-14442}$
Alt.	-45 ± 16	$4.28^{+3.09}_{-2.29}$	377^{+57}_{-61}	3344^{+923}_{-442}	2379^{+10012}_{-1634}

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 $A_{obs} \gg 1.0$

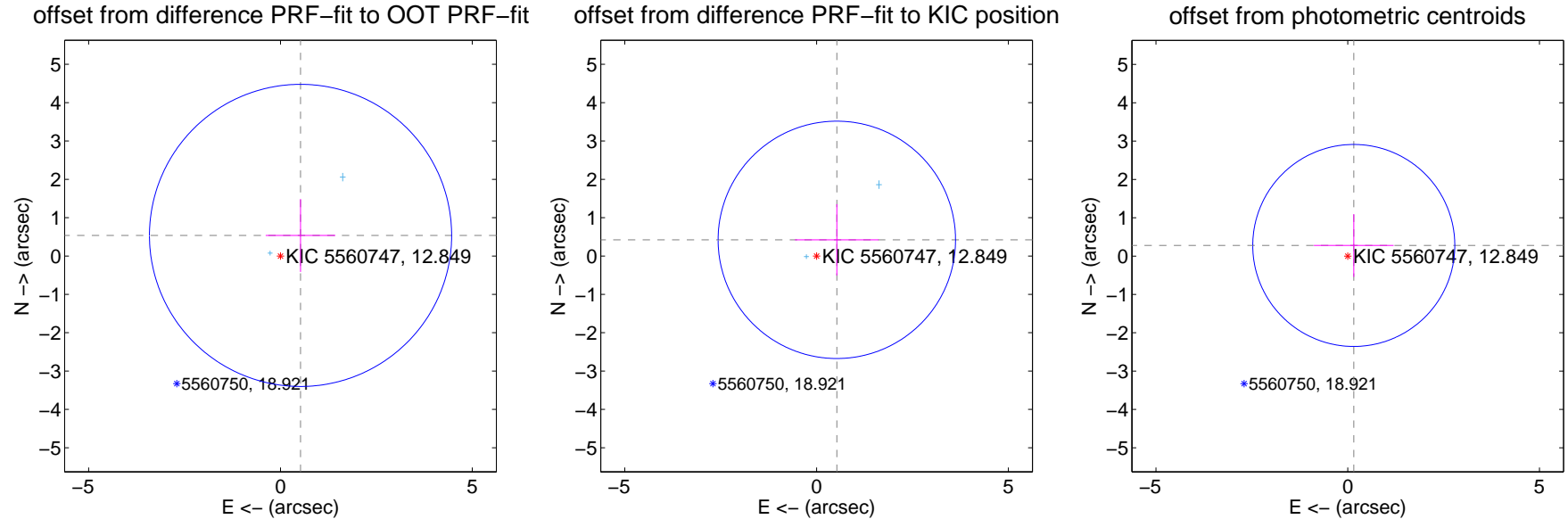
DV Centroid Data

Supplemental centroid analysis for 005560747-03. Kepler magnitude: 12.85. Transit SNR 7.15

There are 2 quarters with good PRF difference image offsets

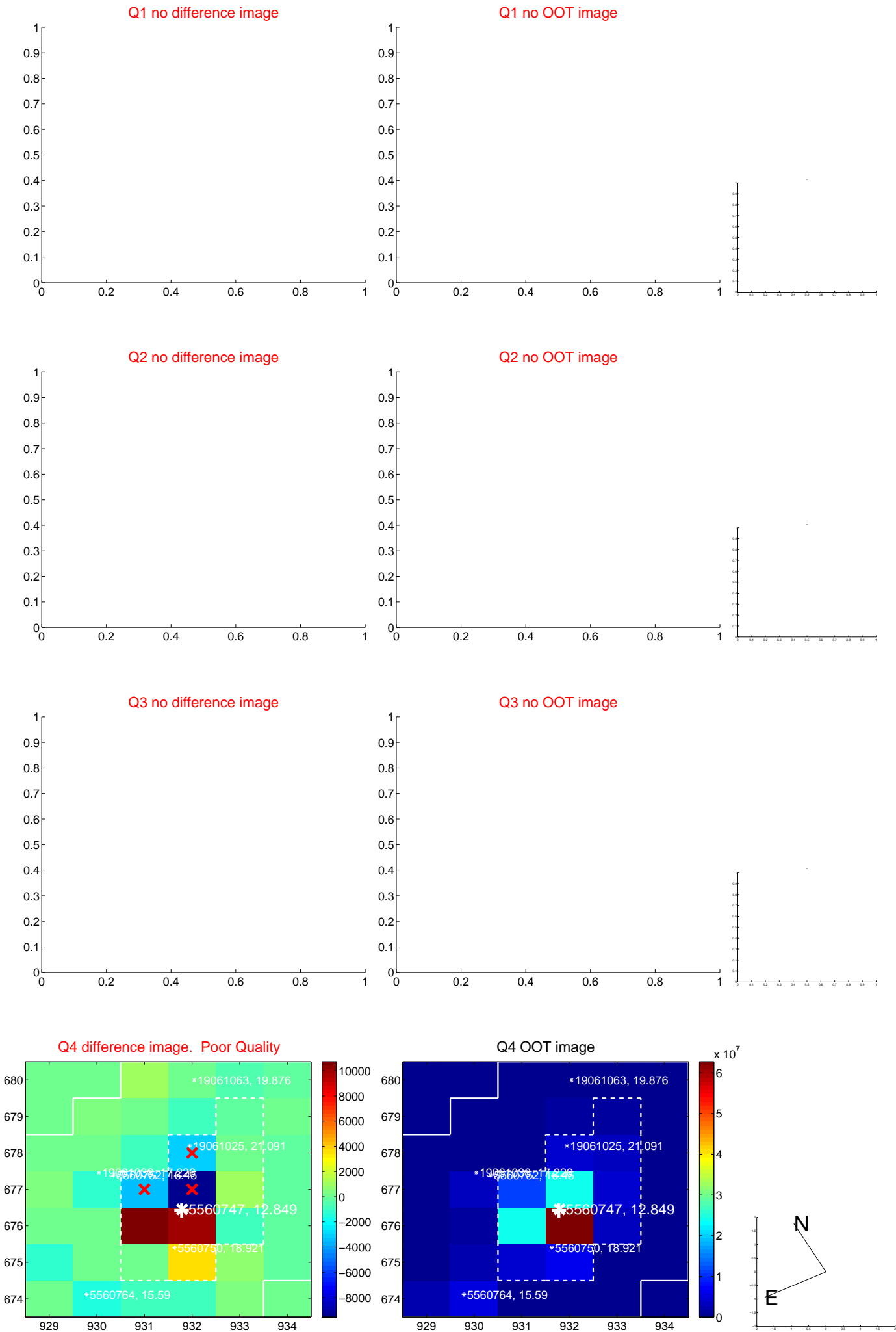
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.751 ± 1.313	0.57	-0.524 ± 0.908	0.537 ± 0.951
PRF-fit source offset from KIC position	0.676 ± 1.032	0.65	-0.528 ± 1.092	0.422 ± 0.930
photometric centroid source offset	0.32 ± 0.88	0.36	-0.16 ± 1.04	0.28 ± 0.82



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

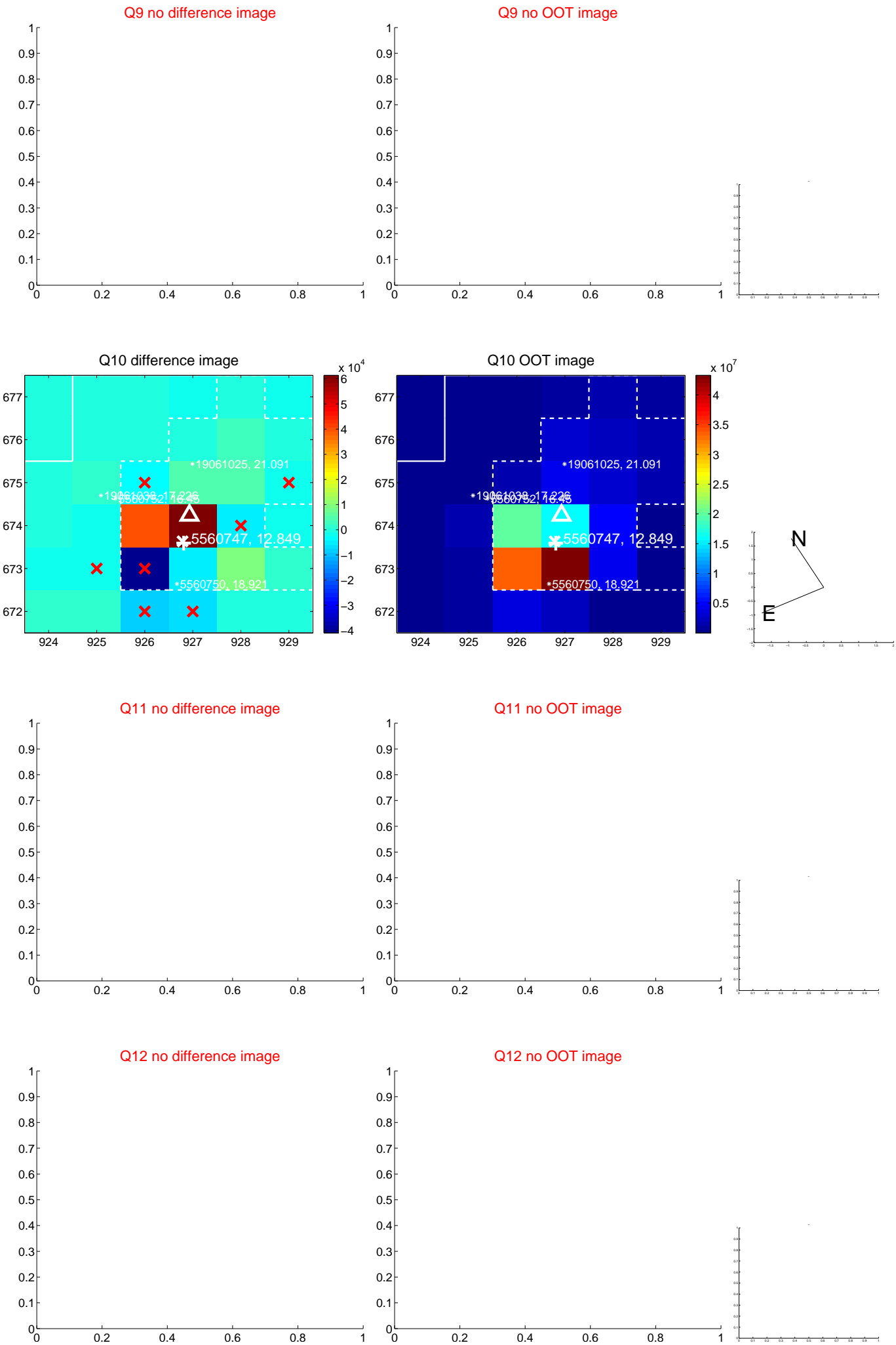
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



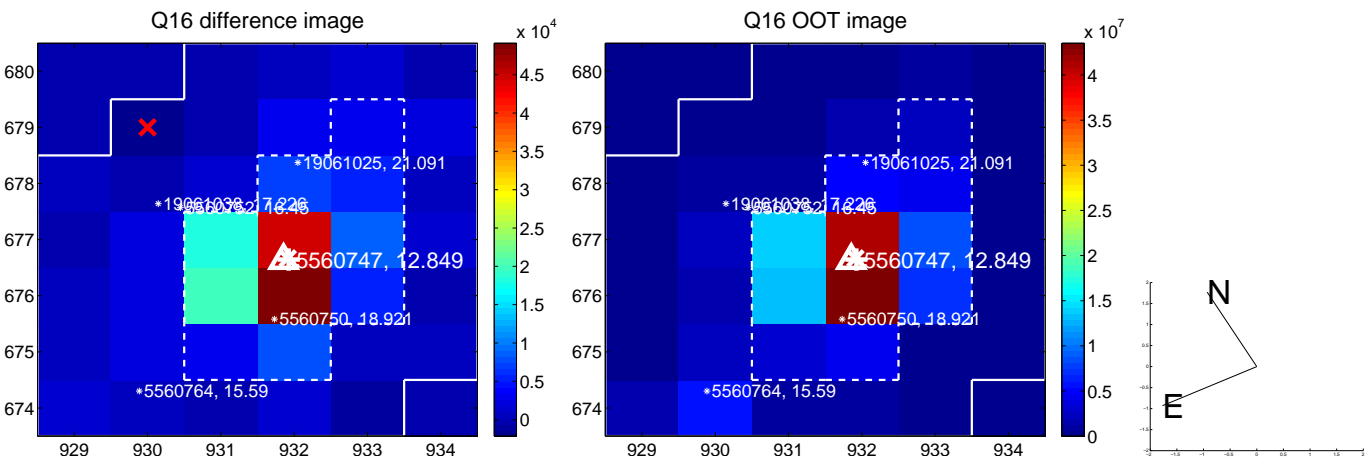
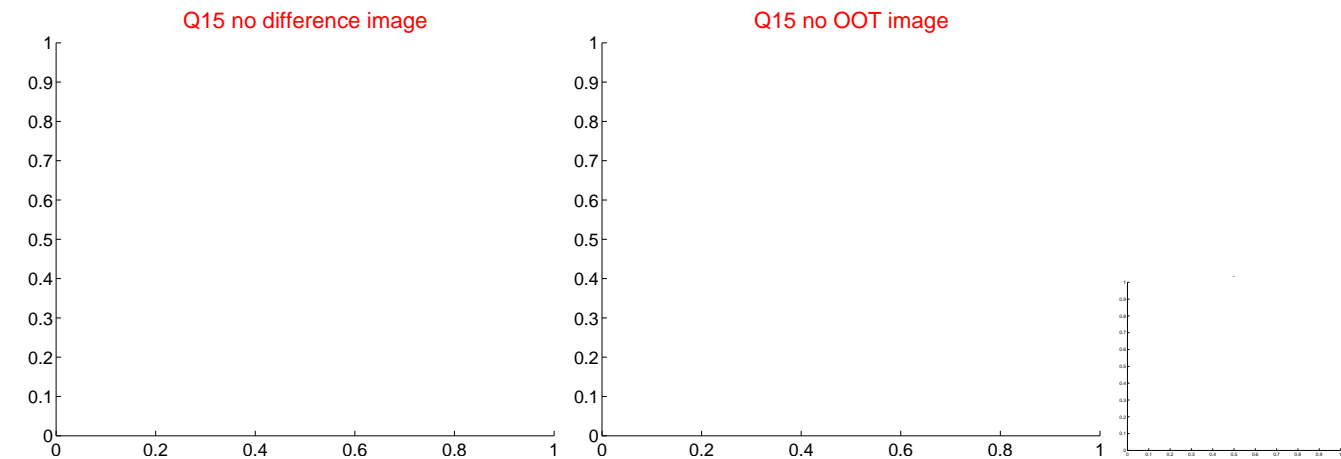
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



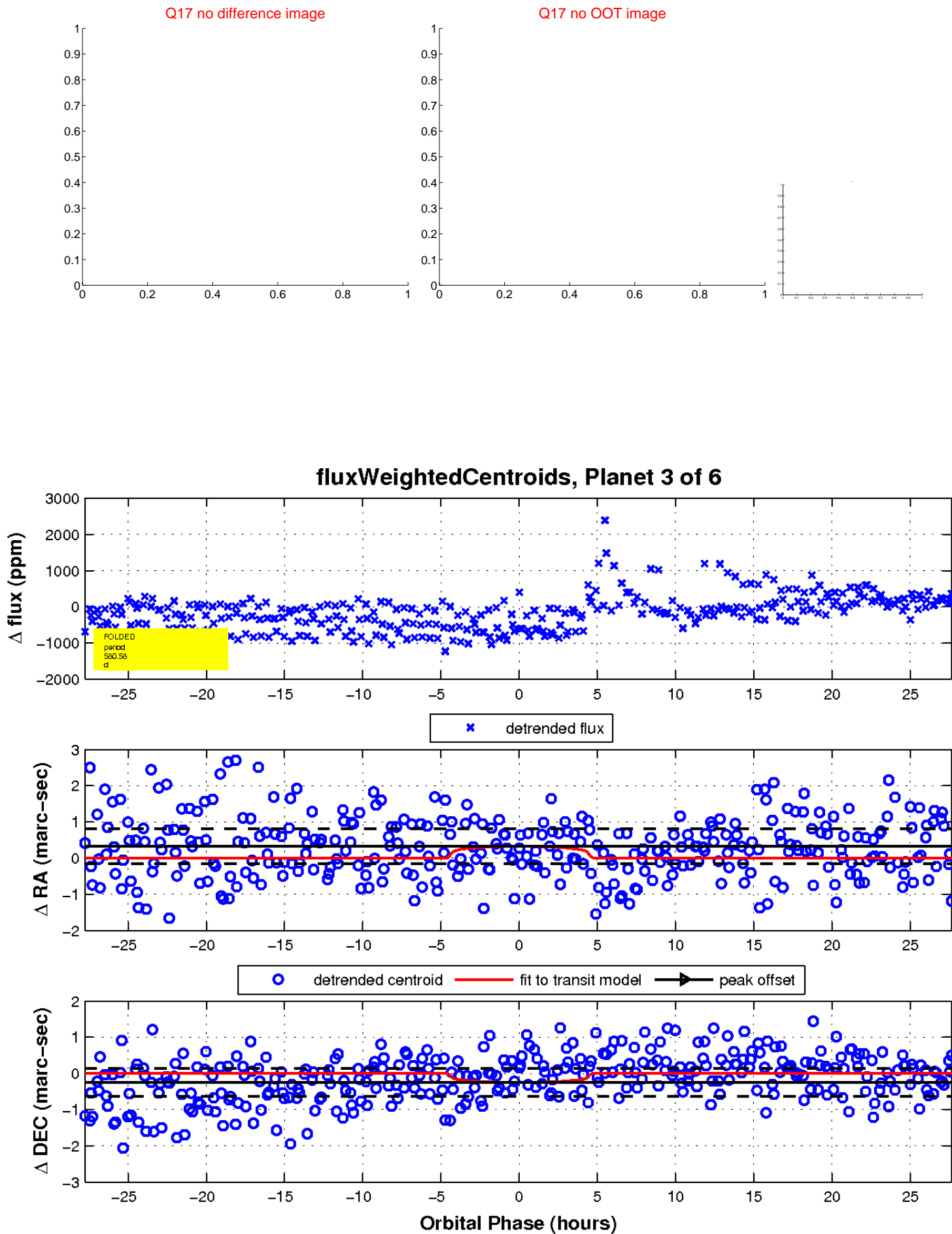
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

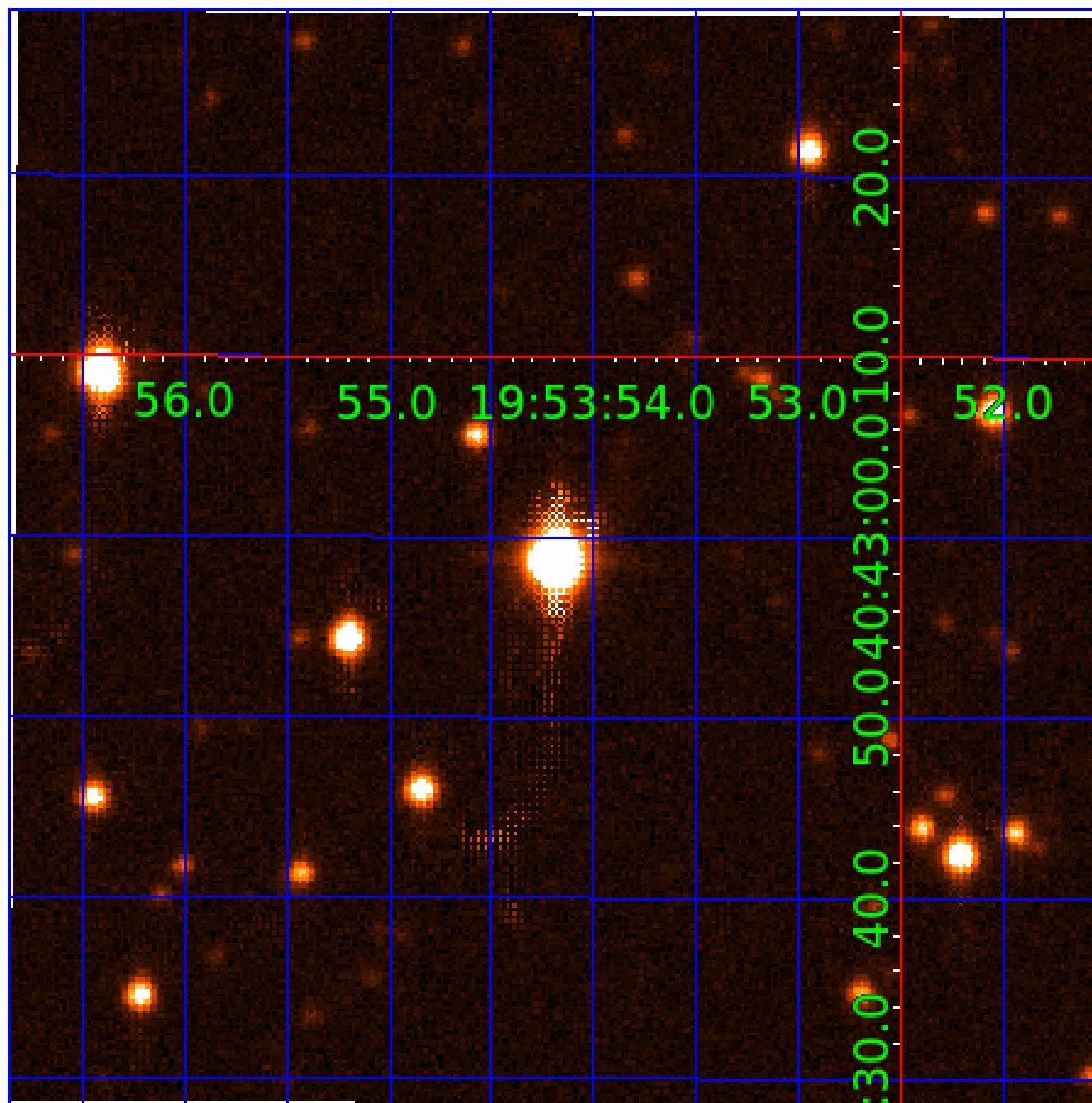


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005560747

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})
005560747-01	OBS	No	614.549233	343.270694	519.4	9.364	13.7	6.5	1.96	5178	4.99	1.23
005560747-02	OBS	No	370.248431	298.035918	468.6	6.136	12.3	7.6	1.96	5178	4.35	2.42
005560747-03	OBS	No	580.578295	391.936827	459.7	9.273	12.6	7.1	1.96	5178	4.47	1.33
005560747-04	OBS	No	410.526319	446.937676	534.4	4.500	12.5	7.9	1.96	5178	4.80	2.11
005560747-05	OBS	No	388.866484	372.871537	549.0	3.595	10.5	7.8	1.96	5178	5.20	2.27
005560747-06	OBS	No	217.928488	295.742777	357.3	4.435	10.0	7.1	1.96	5178	3.75	4.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005560747-01	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—CENT_FEW_DIFFS
005560747-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—CENT_FEW_DIFFS
005560747-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS

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

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

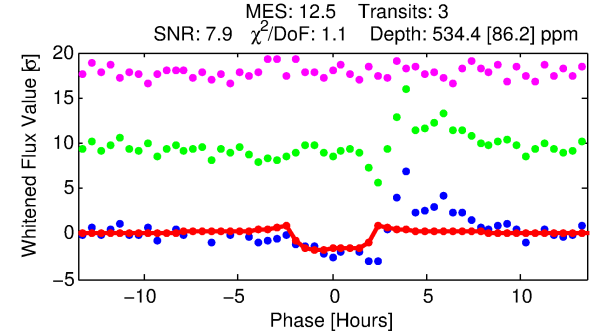
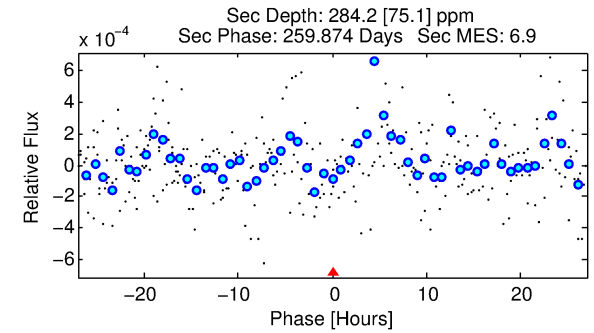
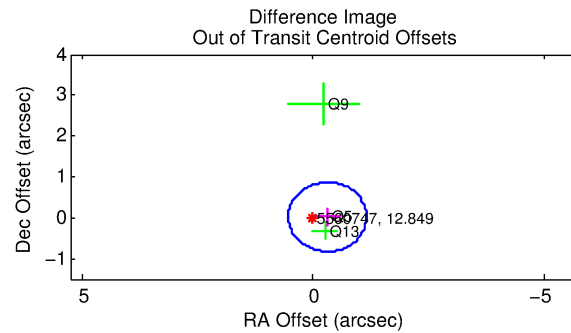
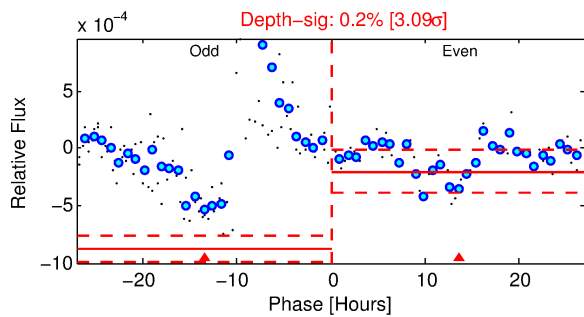
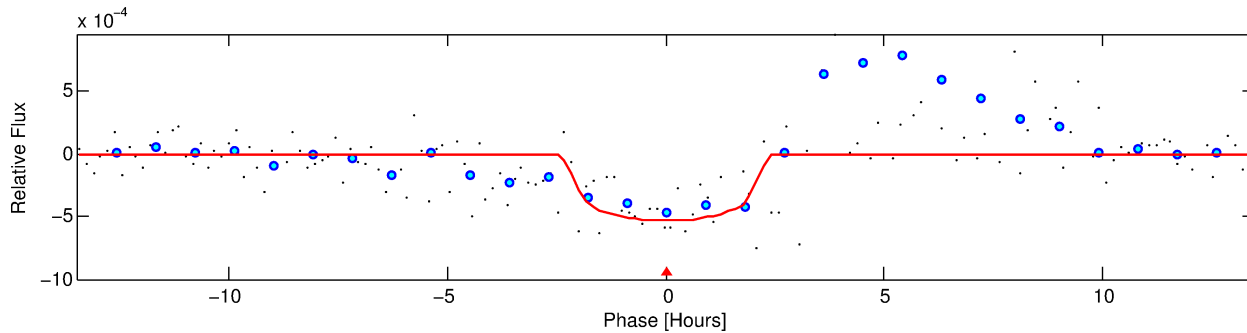
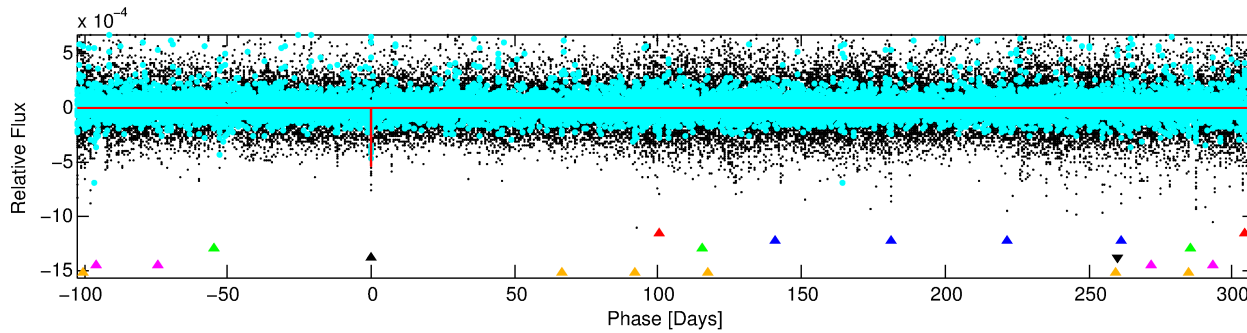
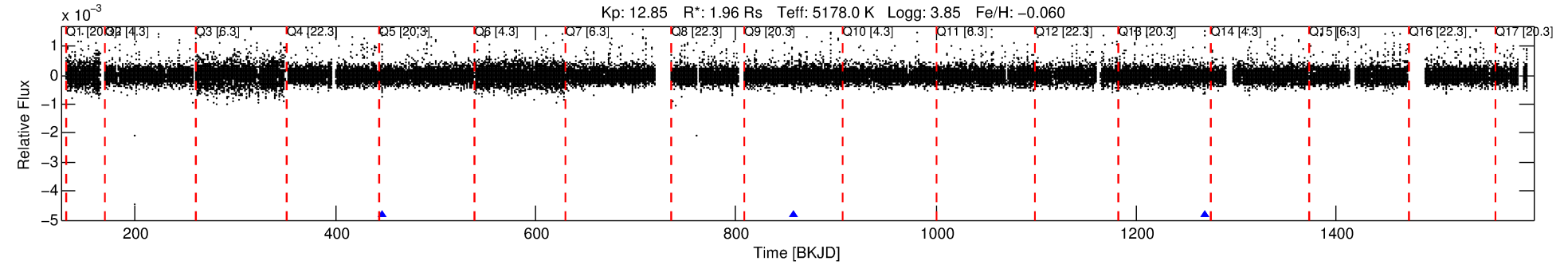
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005560747-04

No Significant Match Found

DV One-Page Summary

KIC: 5560747 Candidate: 4 of 6 Period: 410.526 d



DV Fit Results:

Period = 410.52632 [0.00596] d
Epoch = 446.9377 [0.0081] BKJD
Rp/R* = 0.0225 [0.0239]
a/R* = 526.23 [2098.19]
b = 0.69 [3.08]
Seff = 2.11 [2.44]
Teq = 307 [89] K
Rp = 4.80 [5.78] Re
a = 1.0807 [0.7131] AU
Ag = 7916.42 [19253.28] [0.41] σ
Teffp = 4481 [2406] K [1.73] σ

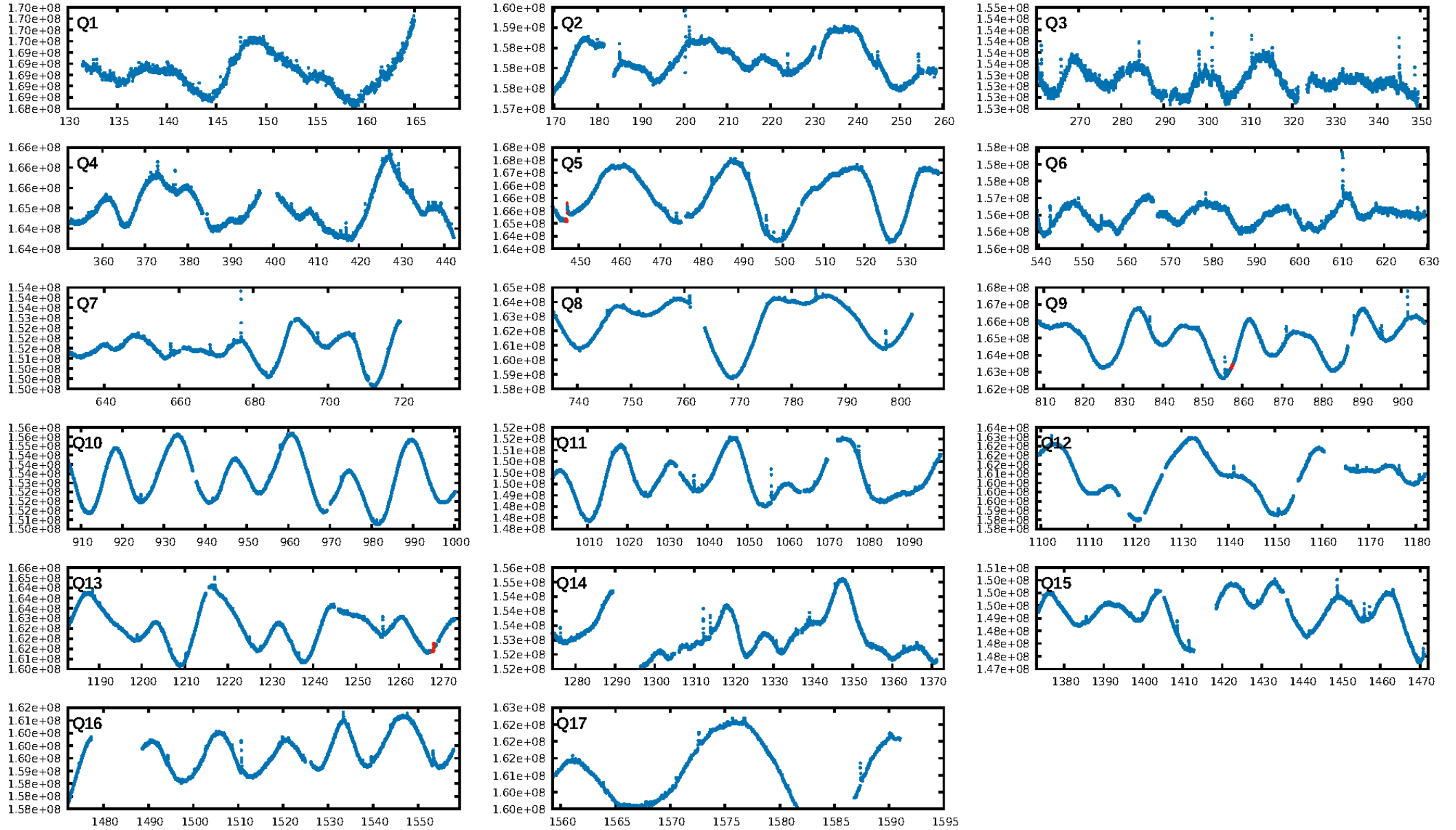
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [90.25] σ
LongPeriod-sig: 100.0% [395.95] σ
ModelChiSquare2-sig: 0.0%
a/R* = 526.23 [2098.19]
Bootstrap-pfa: 1.77e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.3018
Centroid-sig: 4.6%
Centroid-so: 1.280 arcsec [1.34] σ
OotOffset-rm: 0.307 arcsec [1.09] σ
OotOffset-st: 0/0/0/3 [3]
KicOffset-rm: 0.244 arcsec [0.87] σ
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

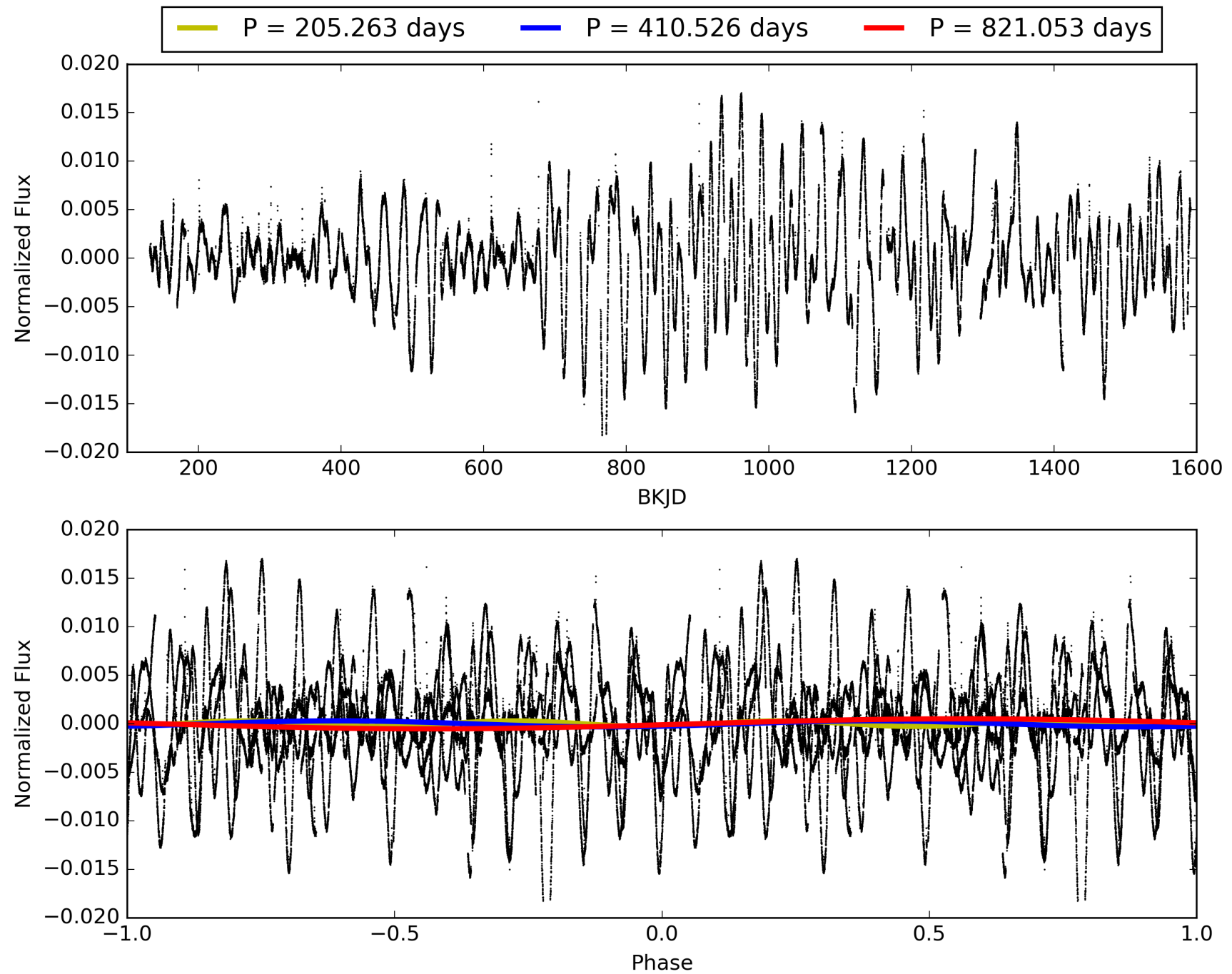
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:27:35 Z

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

TCE 005560747-04, PDC Light Curves

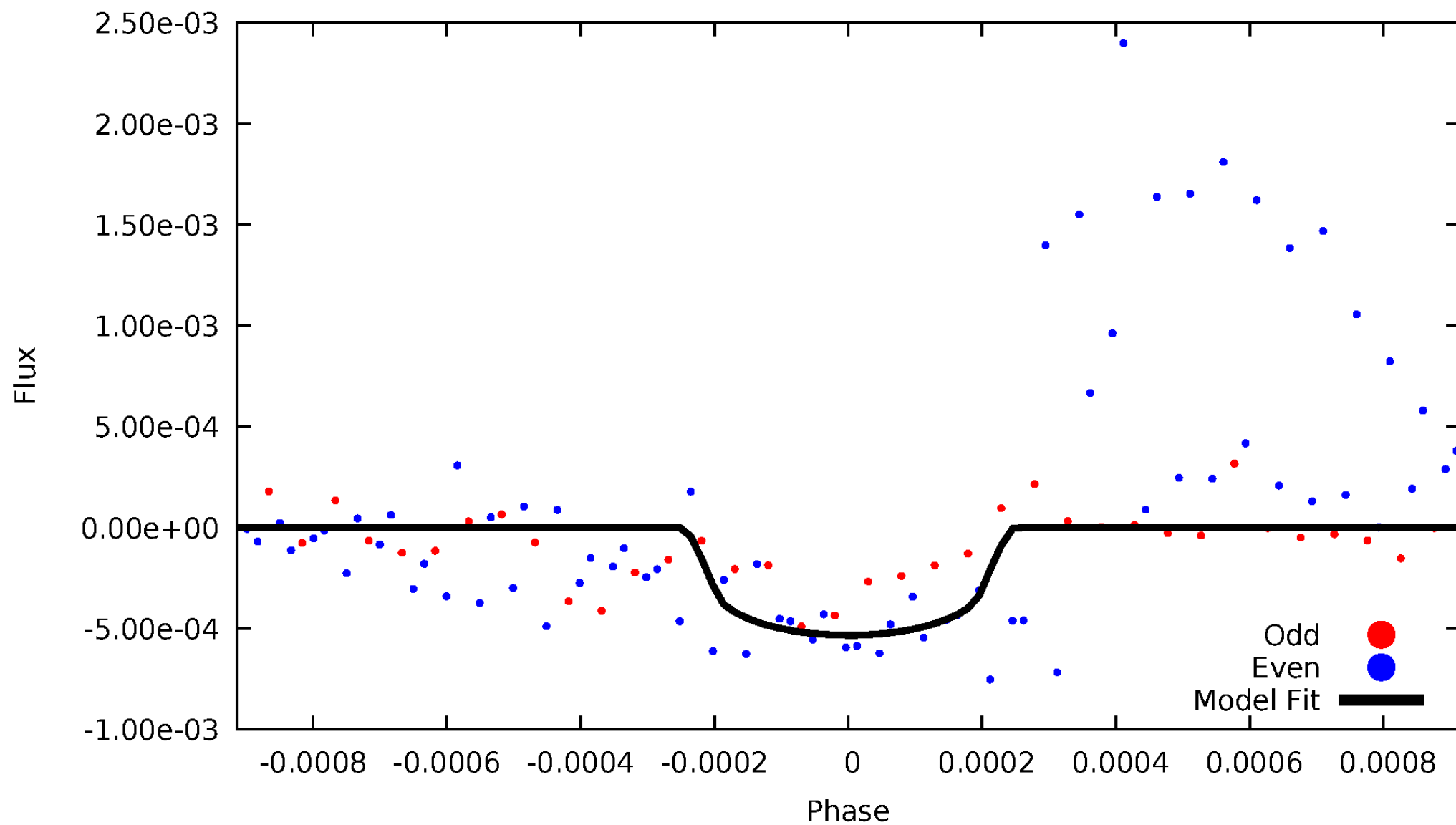


TCE 005560747-04



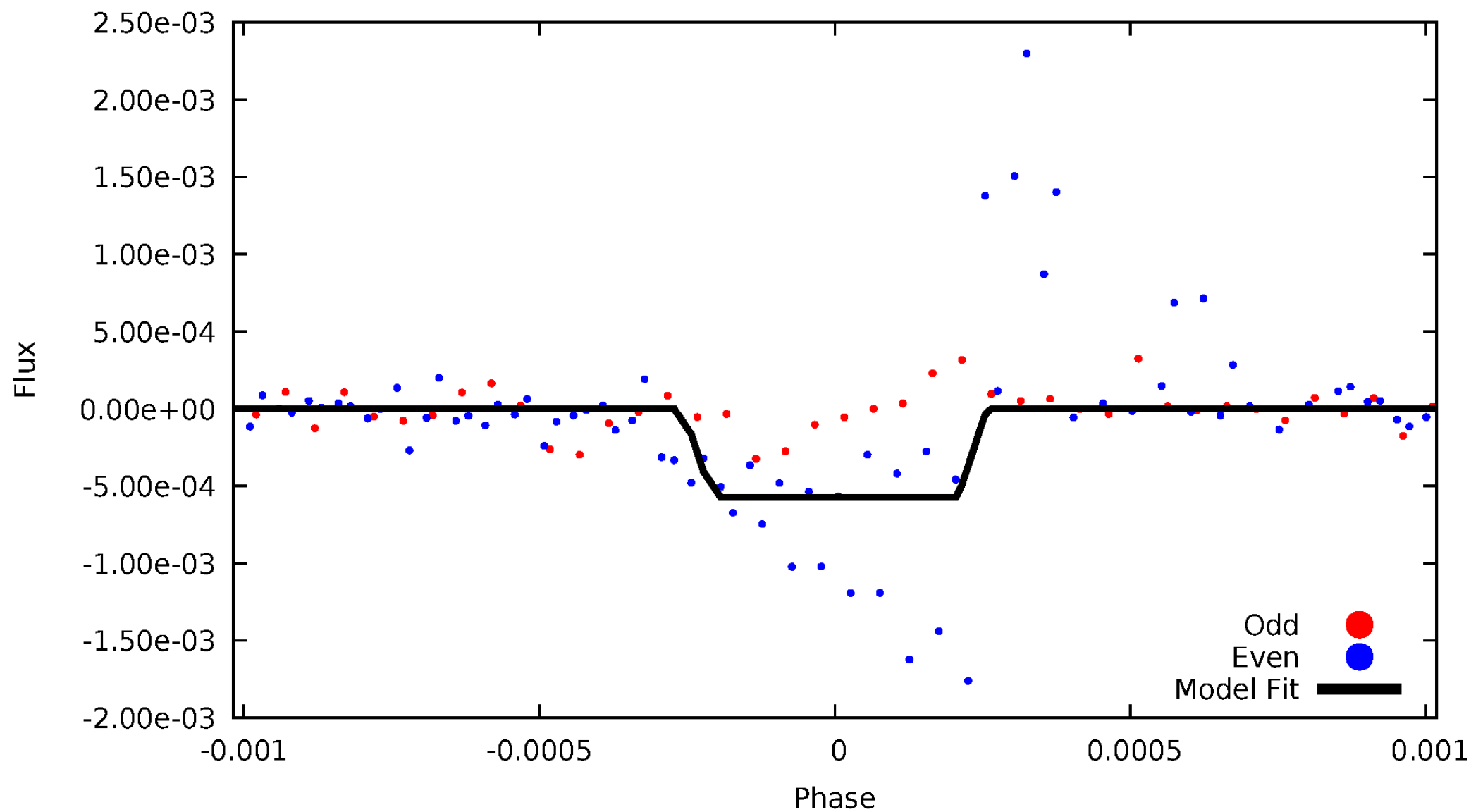
DV Odd/Even

TCE 005560747-04



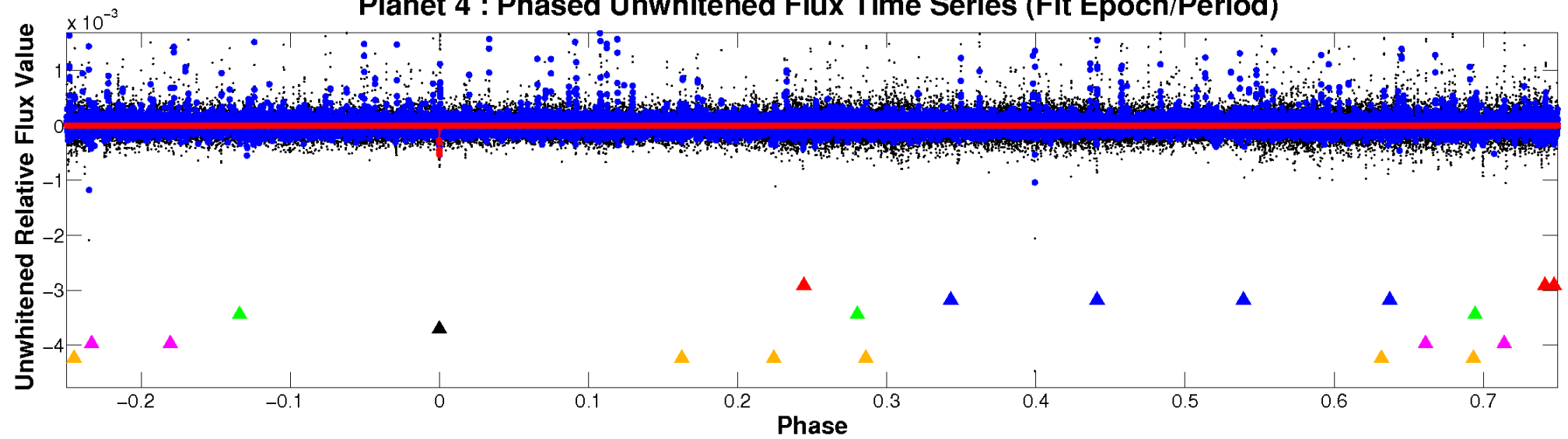
ALT Odd/Even

TCE 005560747-04

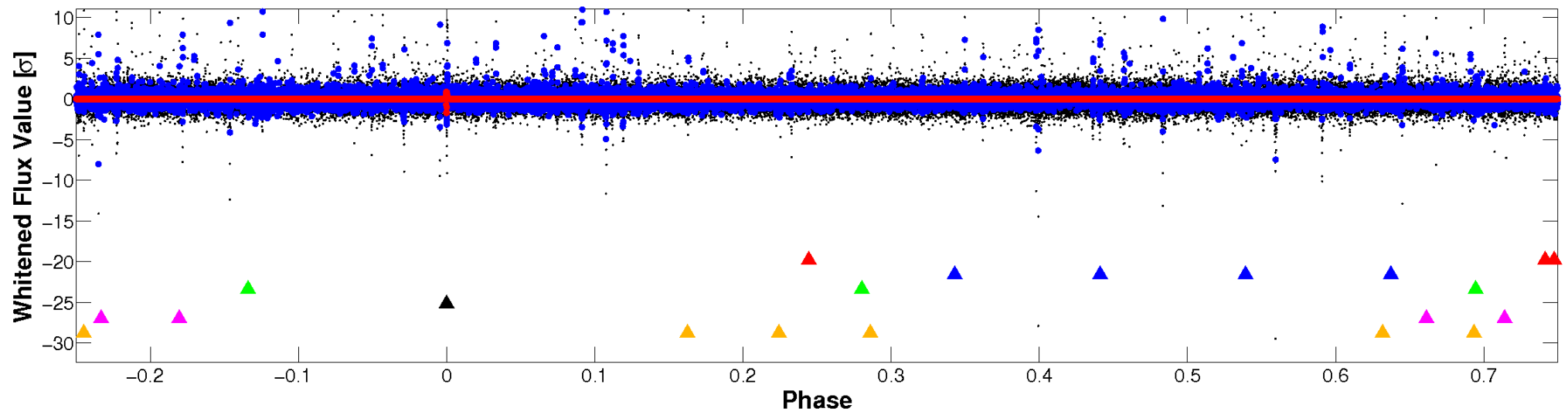


Non-Whitened Vs. Whitened Light Curve

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

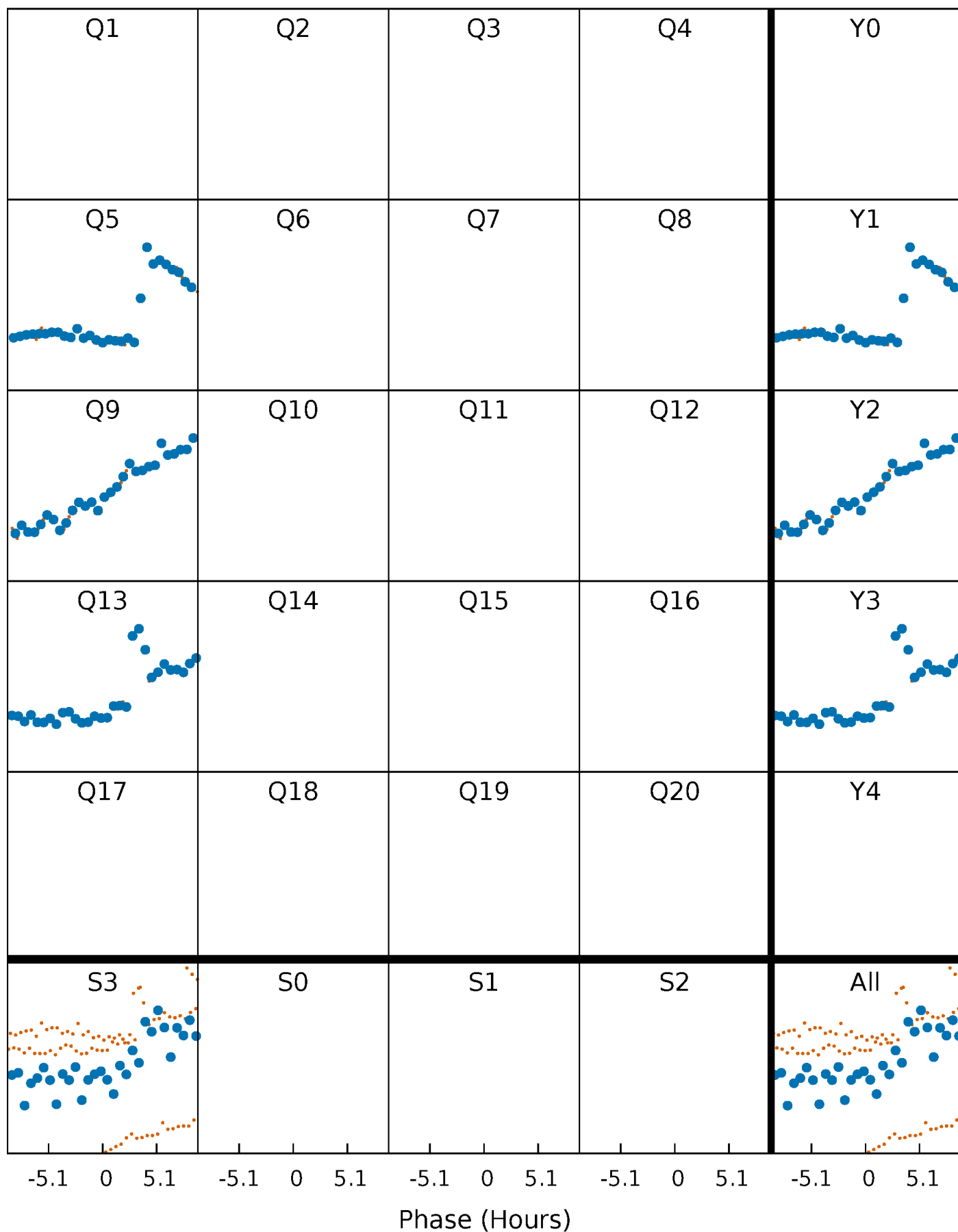


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



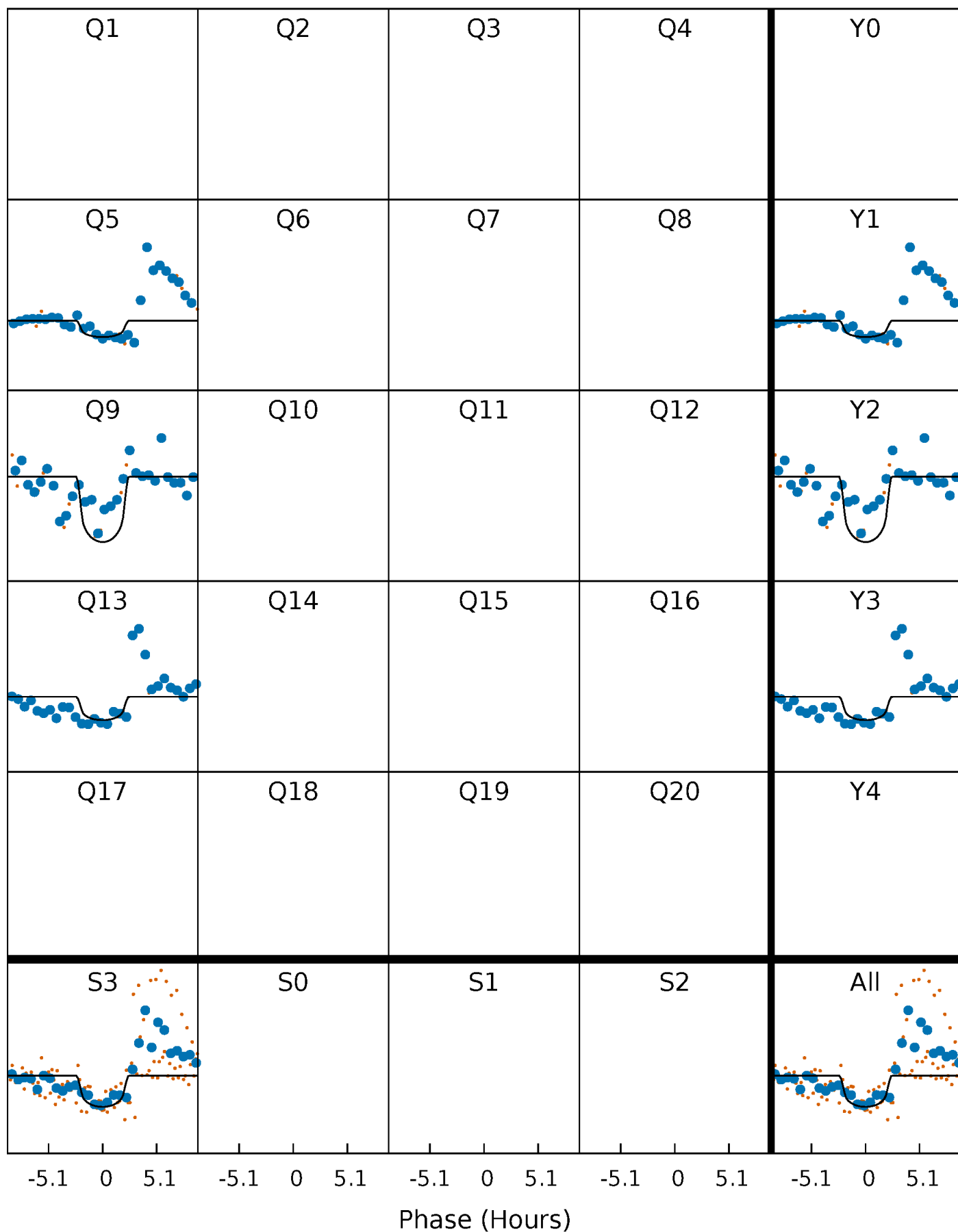
PDC Quarter-Phased Transit Curves

TCE 005560747-04 $P=410.526319$ Days $T_0=446.937677$ (BKJD)



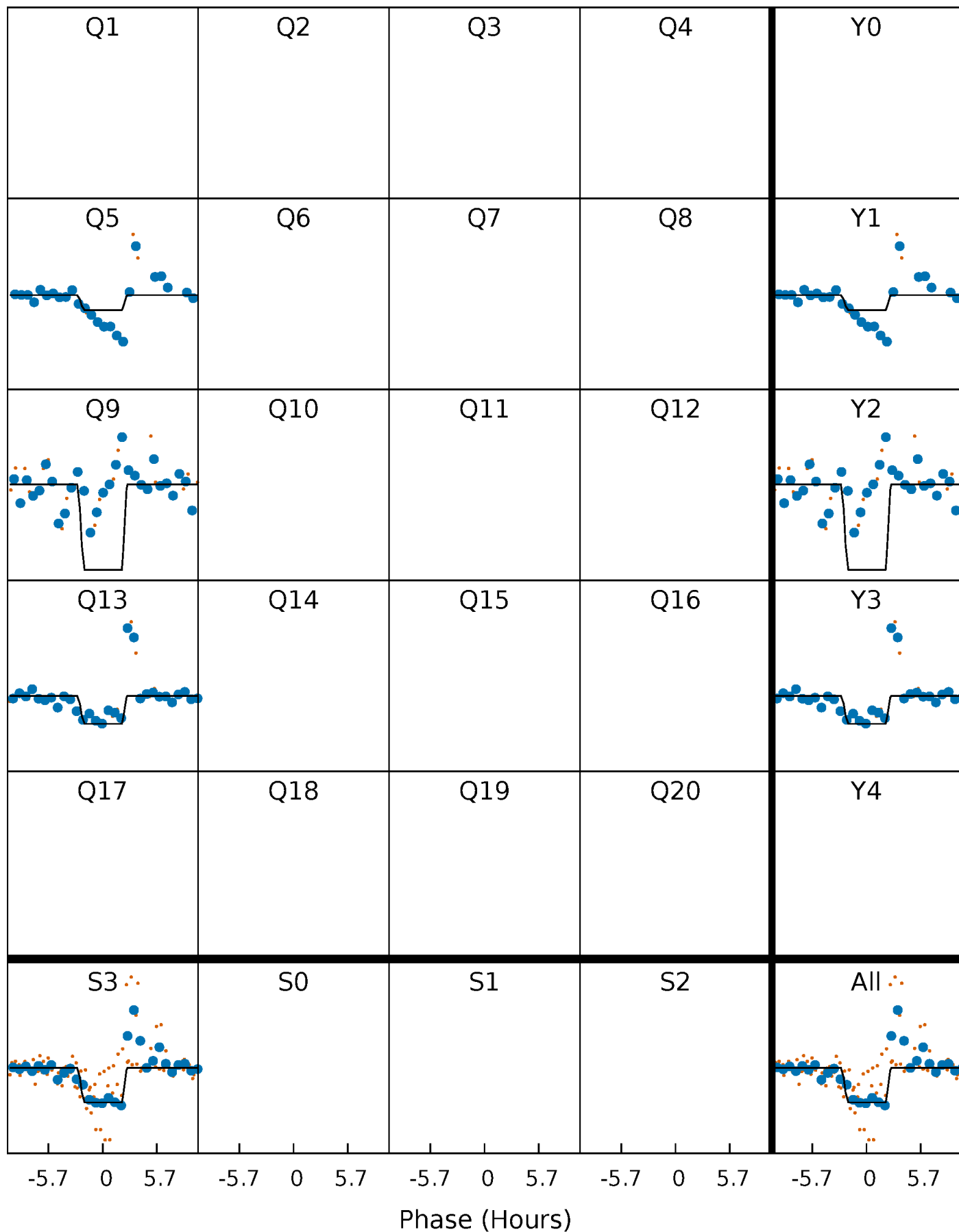
DV Quarter-Phased Transit Curves

TCE 005560747-04 $P=410.526319$ Days $T_0=446.937677$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

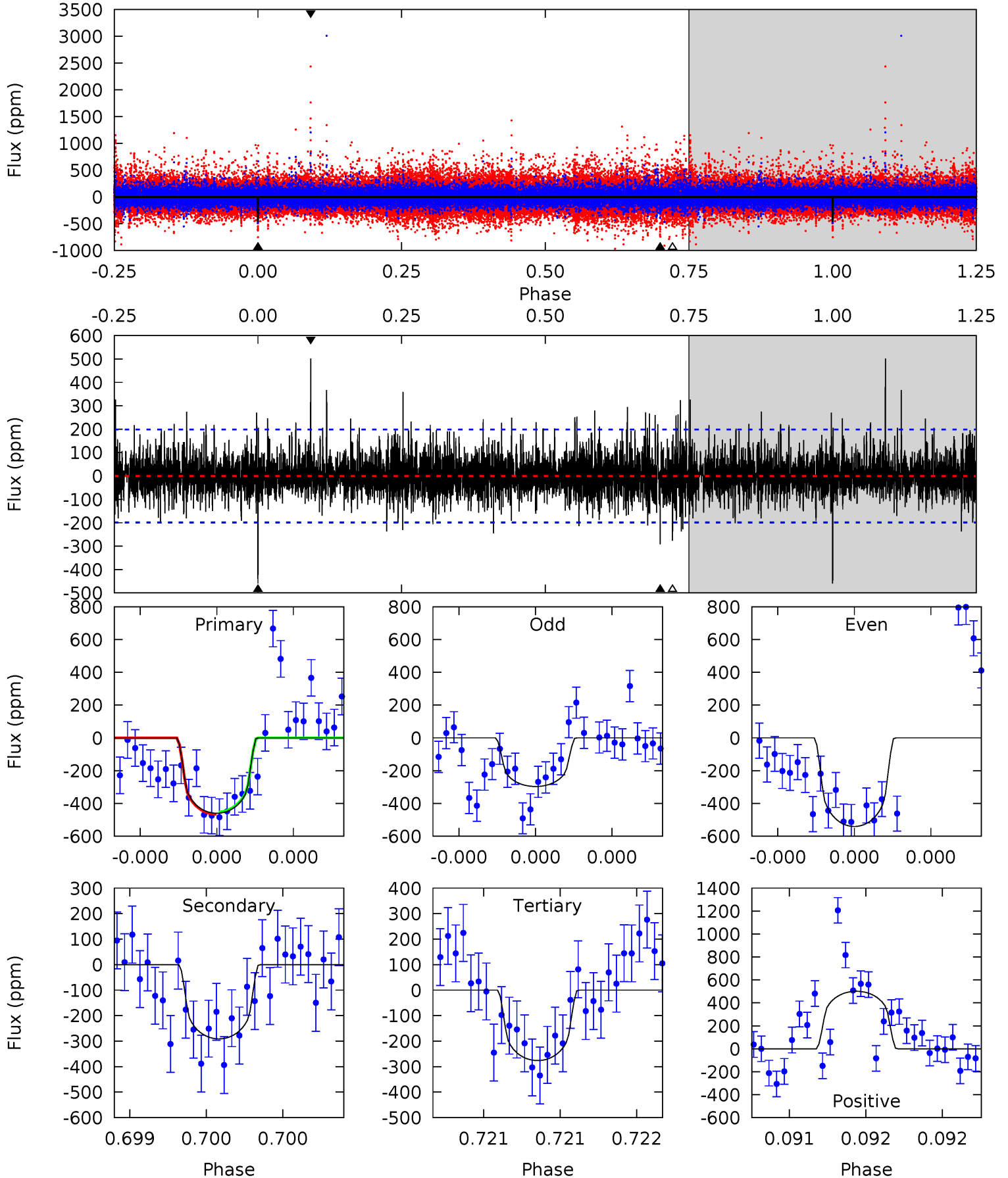
TCE 005560747-04 $P=410.517032$ Days $T_0=446.973000$ (BKJD)



DV Model-Shift Uniqueness Test

005560747-04, P = 410.526319 Days, E = 36.411358 Days

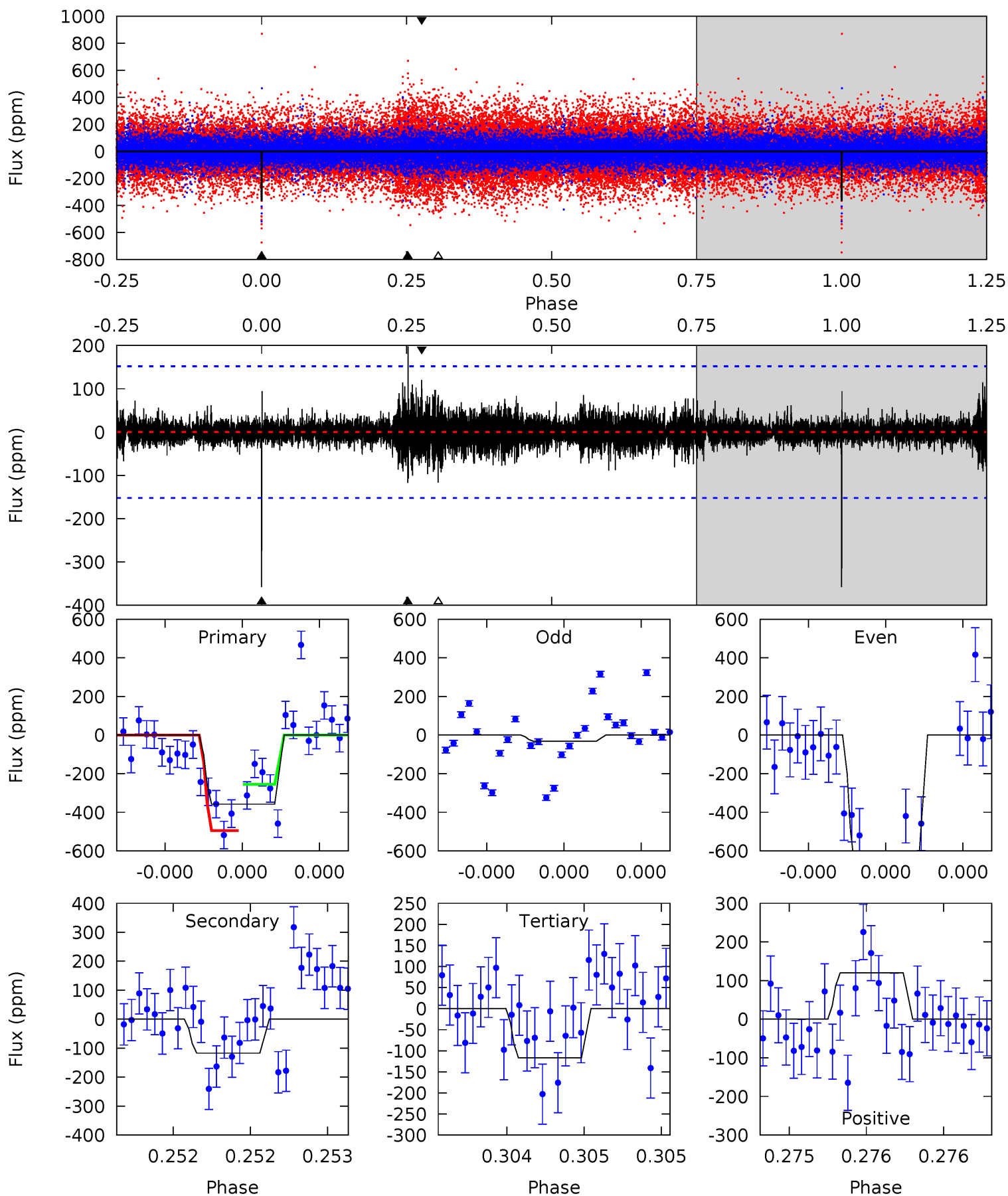
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	8.18	7.76	14.1	5.58	3.49	1.88	5.16	-1.16	0.42	-5.90	2.80	0.92	0.52	0.19



Alt Model-Shift Uniqueness Test

005560747-04, P = 410.517032 Days, E = 36.455968 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	4.30	4.27	4.40	5.58	3.49	0.75	8.87	8.74	0.03	-0.10	14.0	1.24	0.36	4.45



Stellar Parameters For KIC 005560747

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5178^{+171}_{-140}	$3.855^{+0.707}_{-0.303}$	$-0.060^{+0.300}_{-0.250}$	$1.955^{+0.991}_{-1.101}$	$0.998^{+0.224}_{-0.183}$	$0.188^{+2.162}_{-0.122}$
	+3%/-3%	+18%/-8%	+500%/-417%	+51%/-56%	+22%/-18%	+1149%/-65%
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 005560747-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-291 ± 36	$5.52^{+5.09}_{-3.73}$	424^{+59}_{-74}	4213^{+2718}_{-752}	6157^{+51450}_{-4507}
Alt.	-117 ± 27	$5.65^{+5.35}_{-3.50}$	421^{+60}_{-67}	3533^{+1601}_{-513}	2220^{+14171}_{-1605}

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

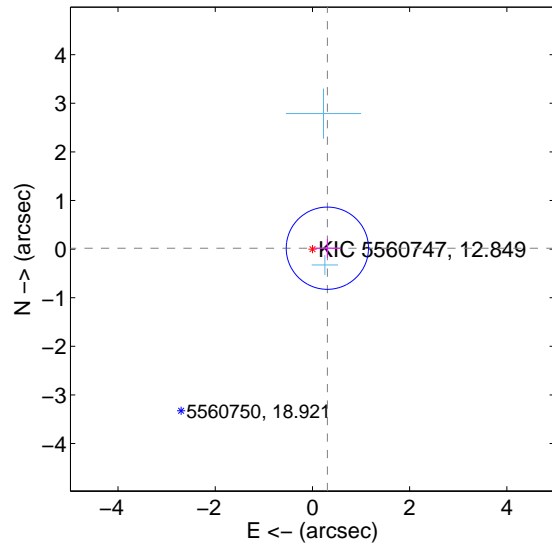
Supplemental centroid analysis for 005560747-04. Kepler magnitude: 12.85. Transit SNR 7.88

There are 3 quarters with good PRF difference image offsets

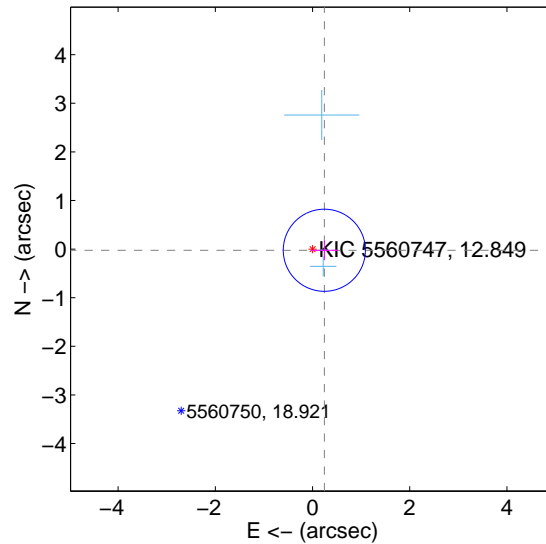
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.307 ± 0.282	1.09	-0.307 ± 0.282	0.018 ± 0.197
PRF-fit source offset from KIC position	0.244 ± 0.282	0.87	-0.243 ± 0.282	-0.024 ± 0.197
photometric centroid source offset	1.28 ± 0.96	1.34	1.05 ± 1.04	0.74 ± 0.77

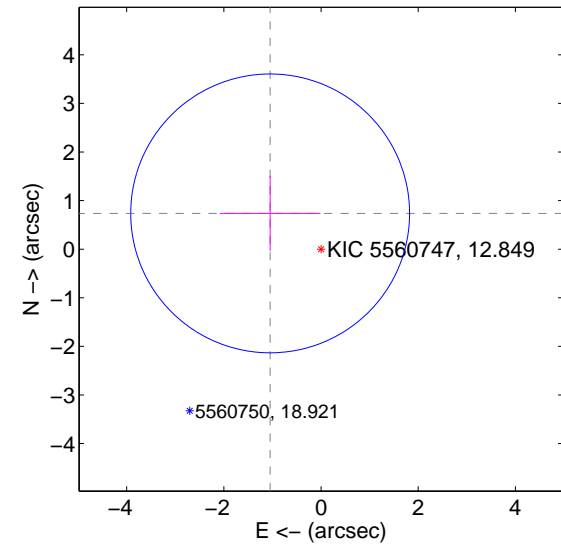
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

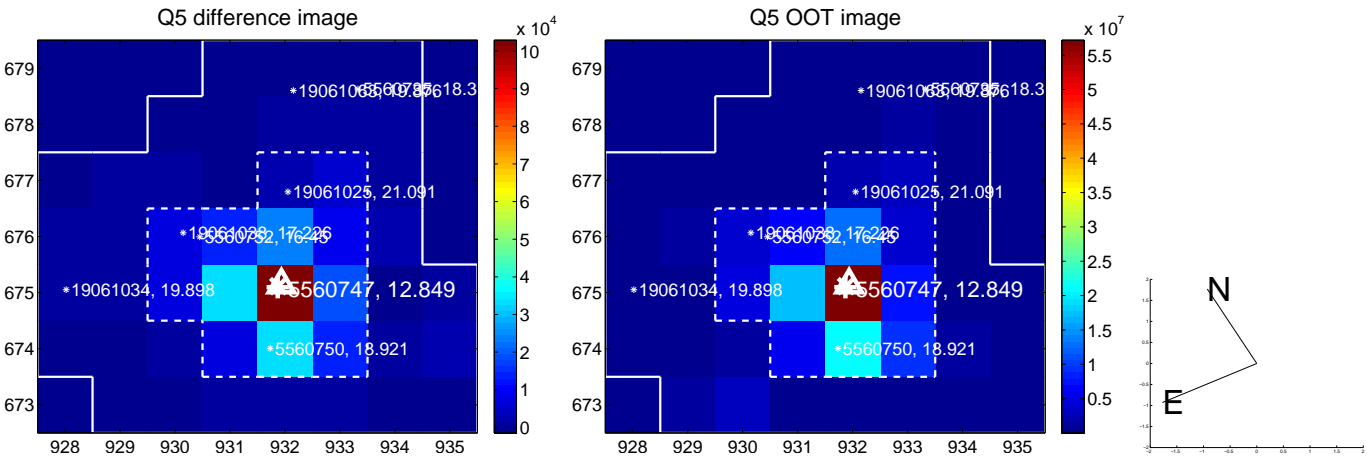


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

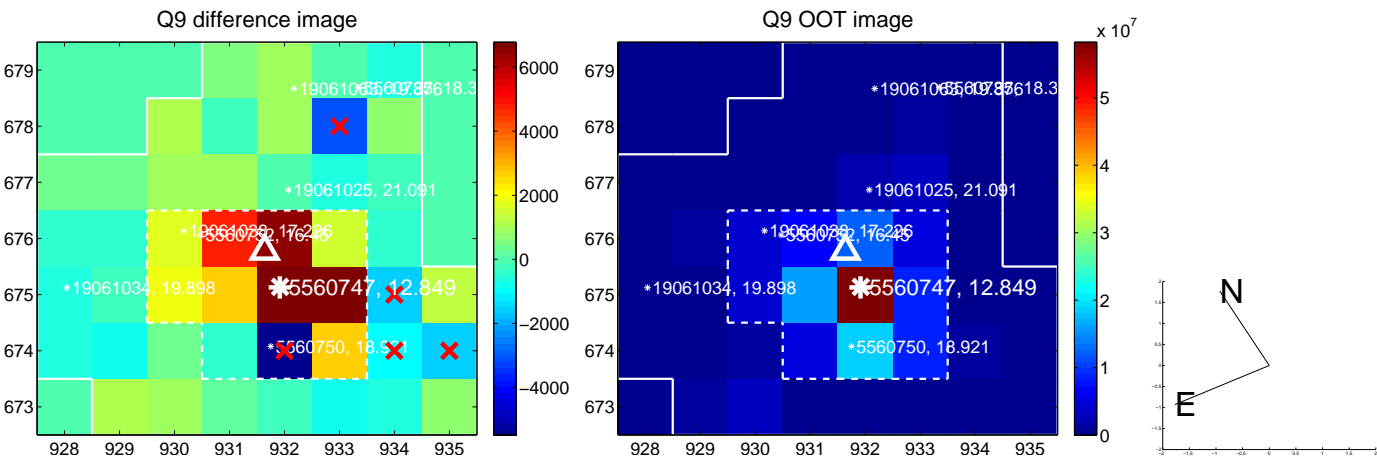
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



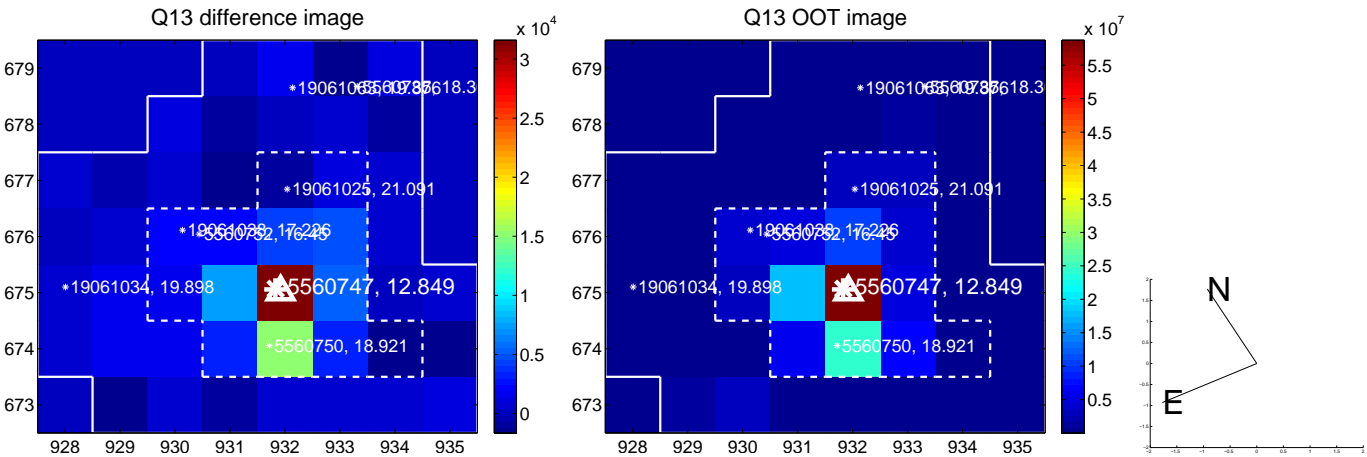
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



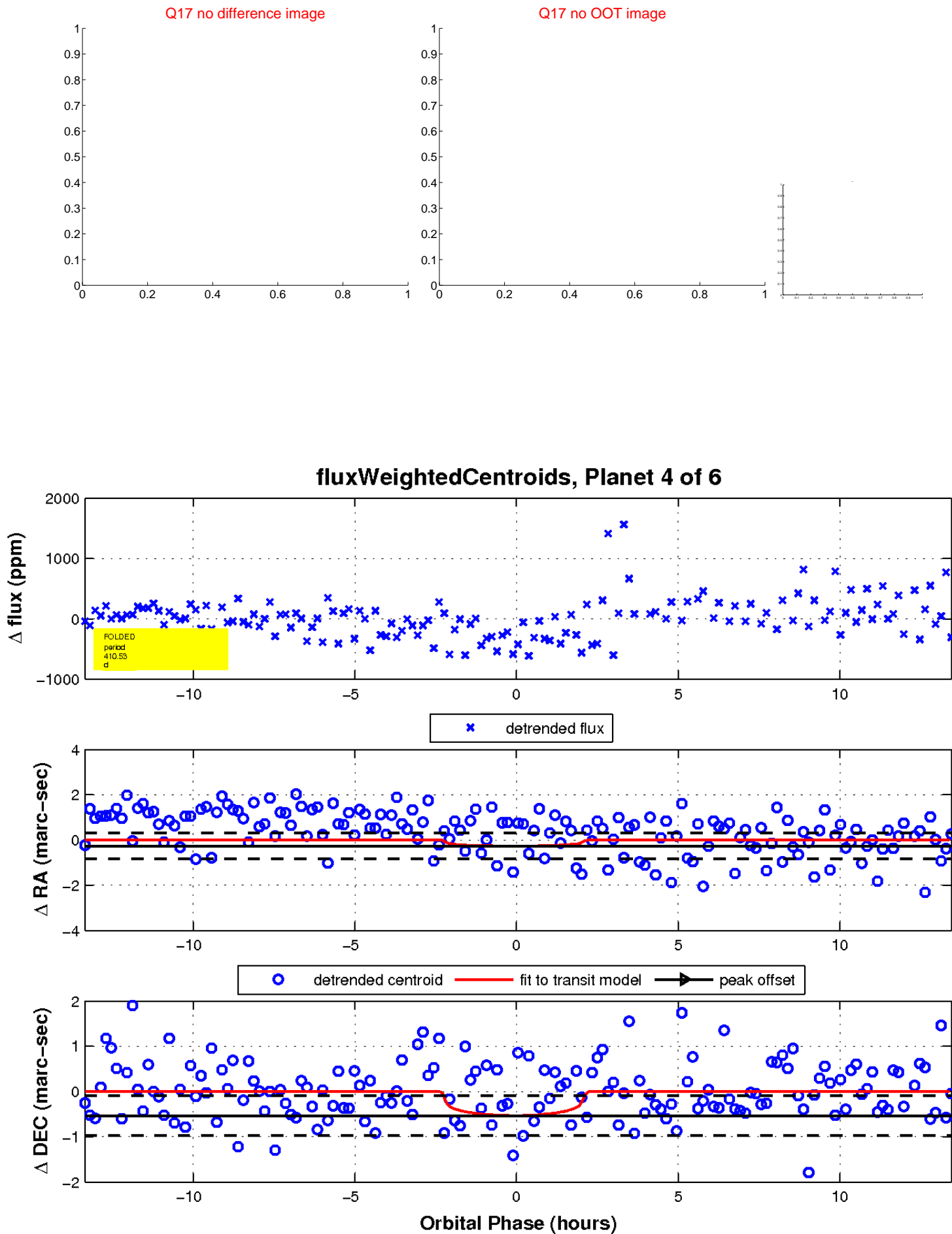
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

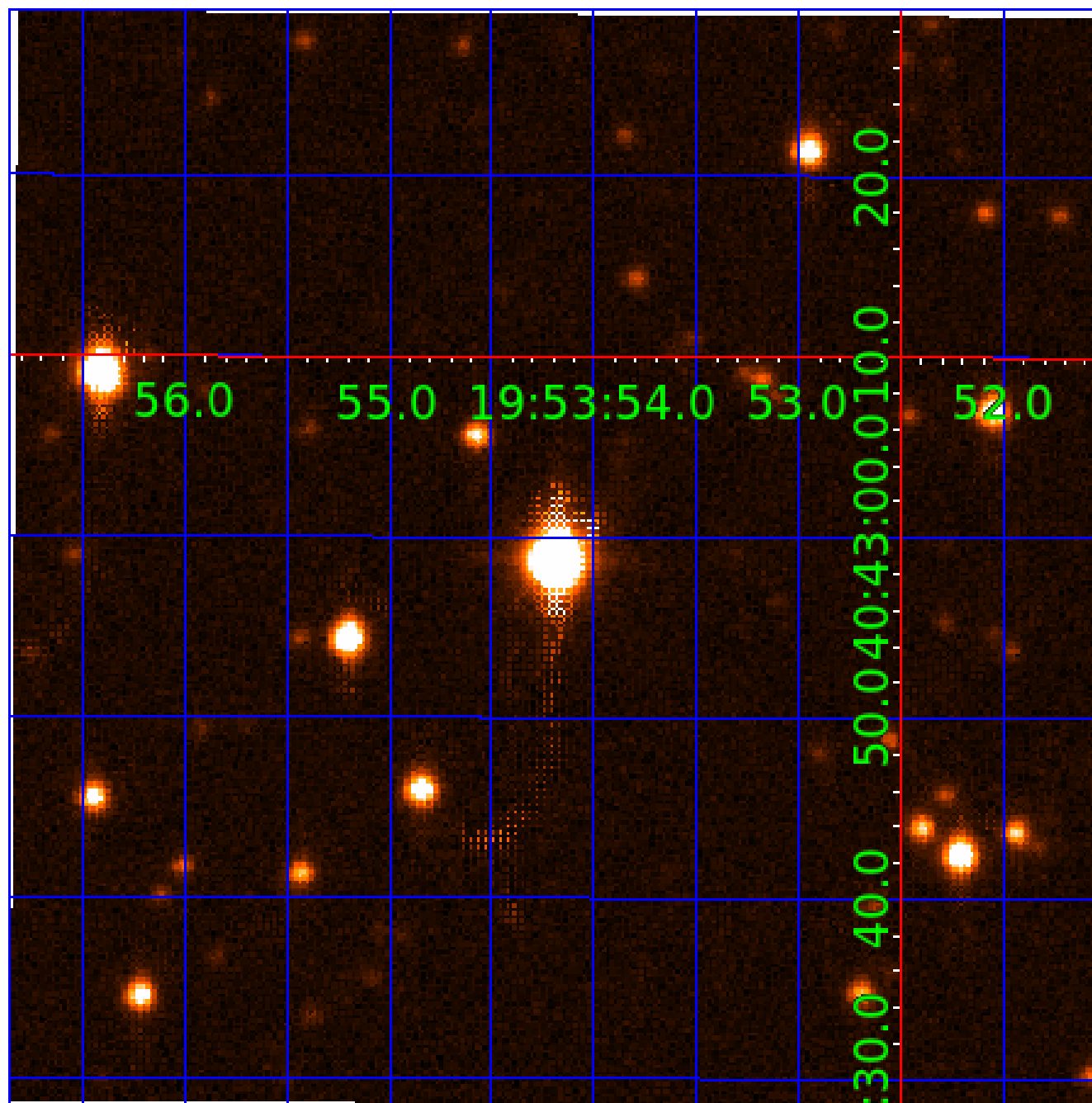


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005560747

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})
005560747-01	OBS	No	614.549233	343.270694	519.4	9.364	13.7	6.5	1.96	5178	4.99	1.23
005560747-02	OBS	No	370.248431	298.035918	468.6	6.136	12.3	7.6	1.96	5178	4.35	2.42
005560747-03	OBS	No	580.578295	391.936827	459.7	9.273	12.6	7.1	1.96	5178	4.47	1.33
005560747-04	OBS	No	410.526319	446.937676	534.4	4.500	12.5	7.9	1.96	5178	4.80	2.11
005560747-05	OBS	No	388.866484	372.871537	549.0	3.595	10.5	7.8	1.96	5178	5.20	2.27
005560747-06	OBS	No	217.928488	295.742777	357.3	4.435	10.0	7.1	1.96	5178	3.75	4.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005560747-01	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—CENT_FEW_DIFFS
005560747-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—CENT_FEW_DIFFS
005560747-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS

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

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

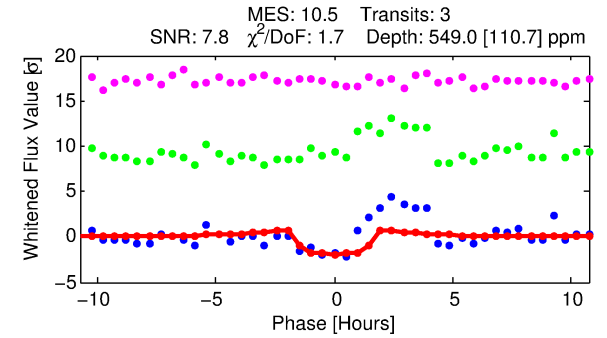
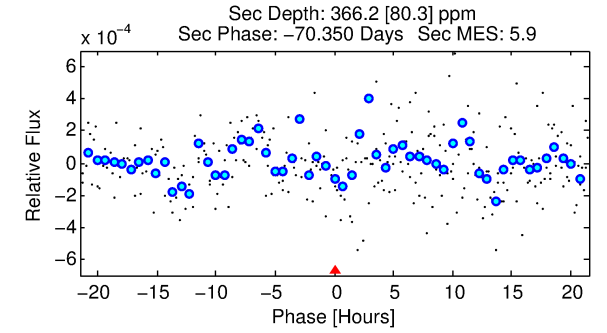
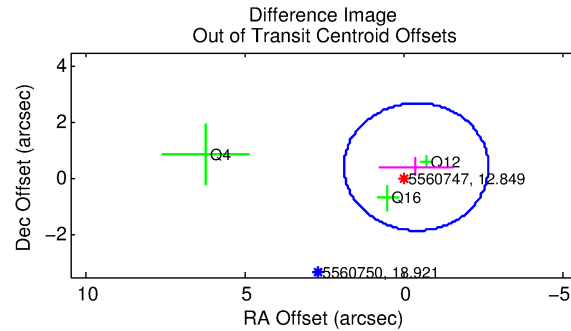
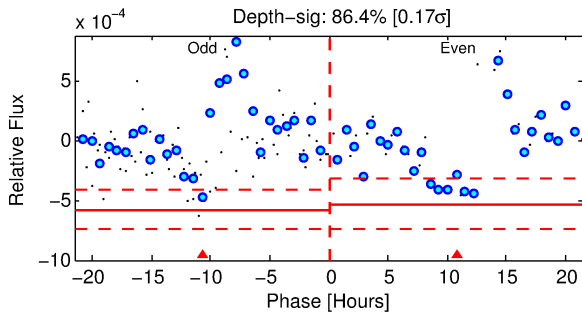
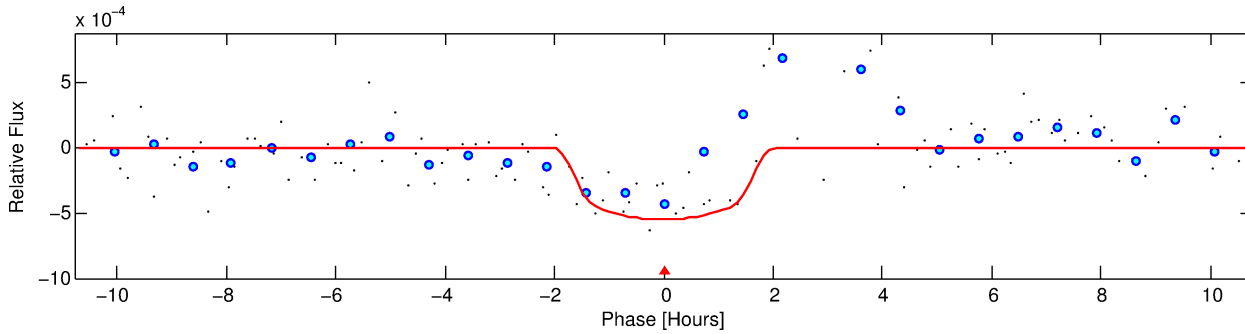
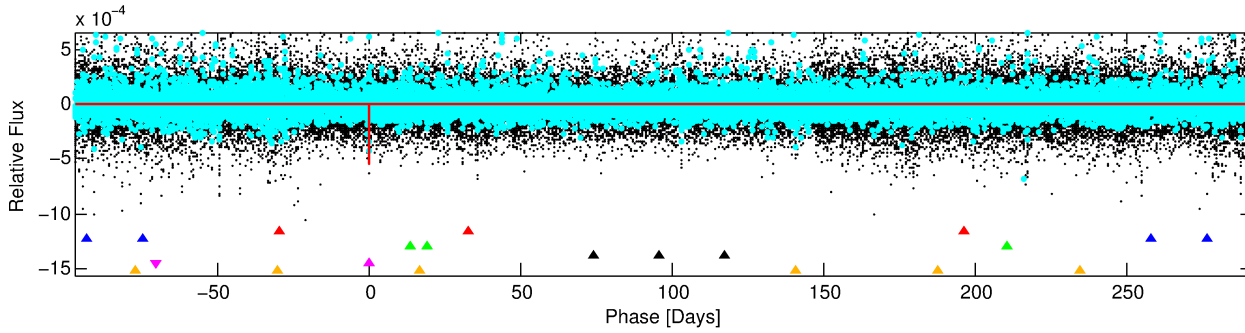
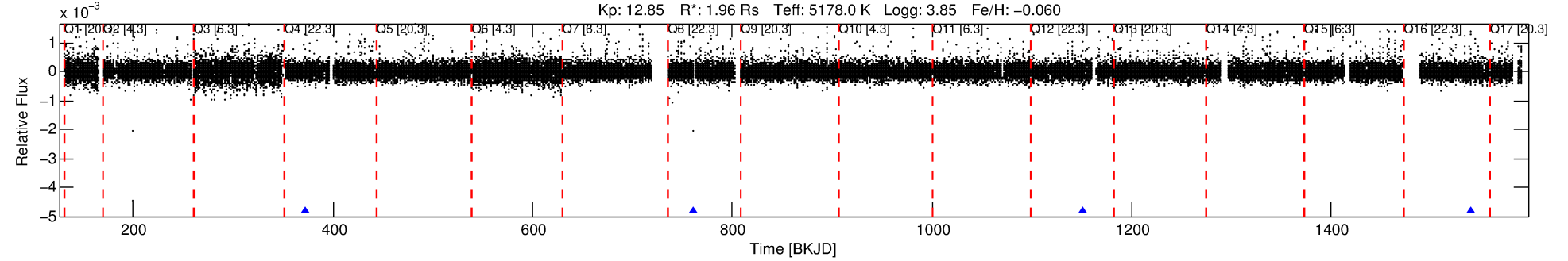
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005560747-05

No Significant Match Found

DV One-Page Summary

KIC: 5560747 Candidate: 5 of 6 Period: 388.866 d



DV Fit Results:

Period = 388.86648 [0.00467] d
Epoch = 372.8715 [0.0107] BKJD
Rp/R* = 0.0244 [0.0248]
a/R* = 501.35 [1954.18]
b = 0.83 [1.54]
Seff = 2.27 [2.62]
Teq = 313 [90] K
Rp = 5.20 [6.05] Re
a = 1.0423 [0.6878] AU
Ag = 8097.75 [19007.14] [0.43 σ]
Teffp = 4588 [2353] K [1.82 σ]

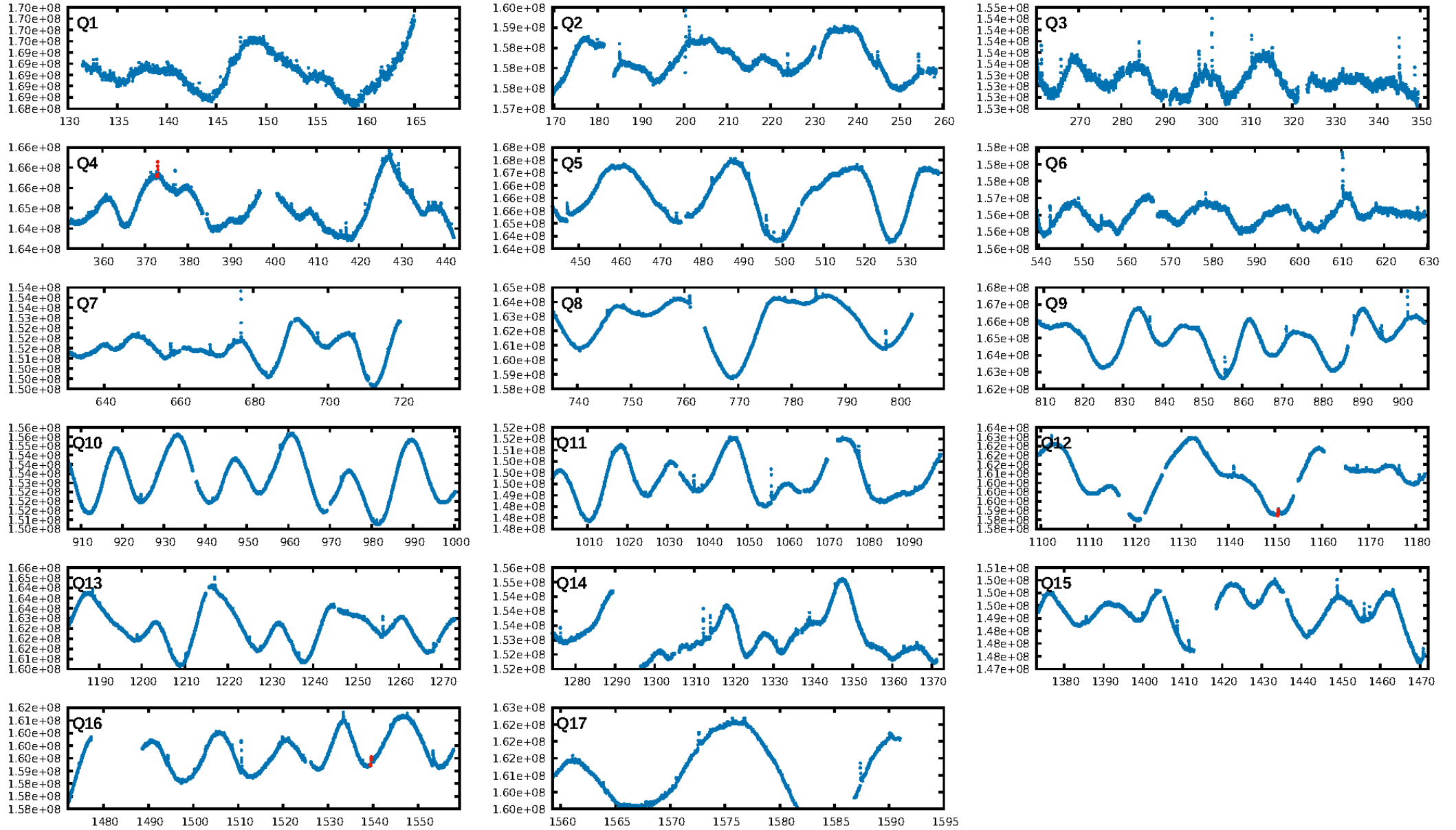
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [62.84 σ]
LongPeriod-sig: 100.0% [90.25 σ]
ModelChiSquare2-sig: 66.1%
ModelChiSquareGo-sig: 93.0%
Bootstrap-pfa: 2.33e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.45
Centroid-sig: 23.3%
Centroid-so: 0.387 arcsec [0.39 σ]
OotOffset-rm: 0.568 arcsec [0.75 σ]
OotOffset-st: 0/0/3/0 [3]
KicOffset-rm: 0.459 arcsec [0.38 σ]
KicOffset-st: 0/0/3/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

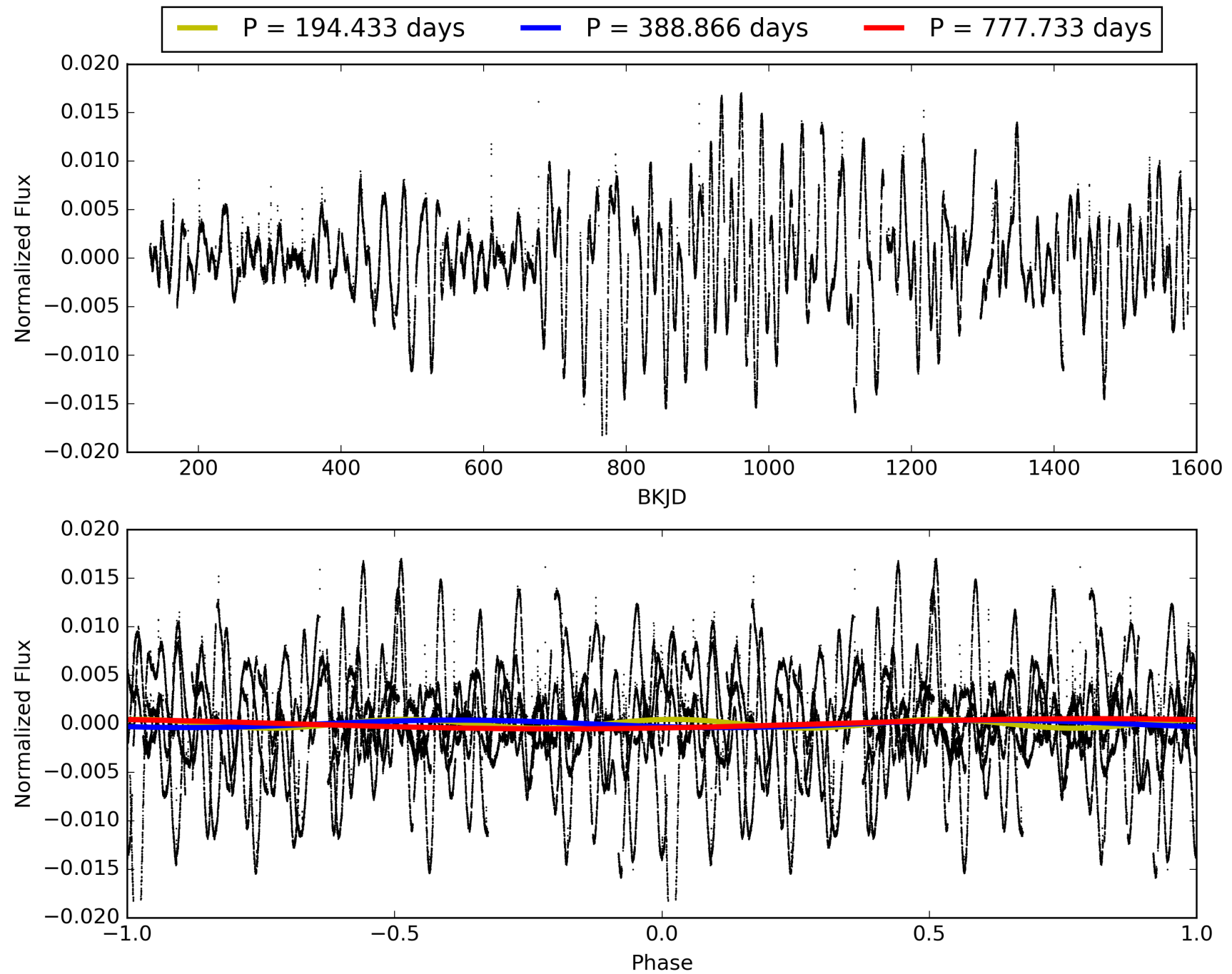
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:27:52 Z

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

TCE 005560747-05, PDC Light Curves

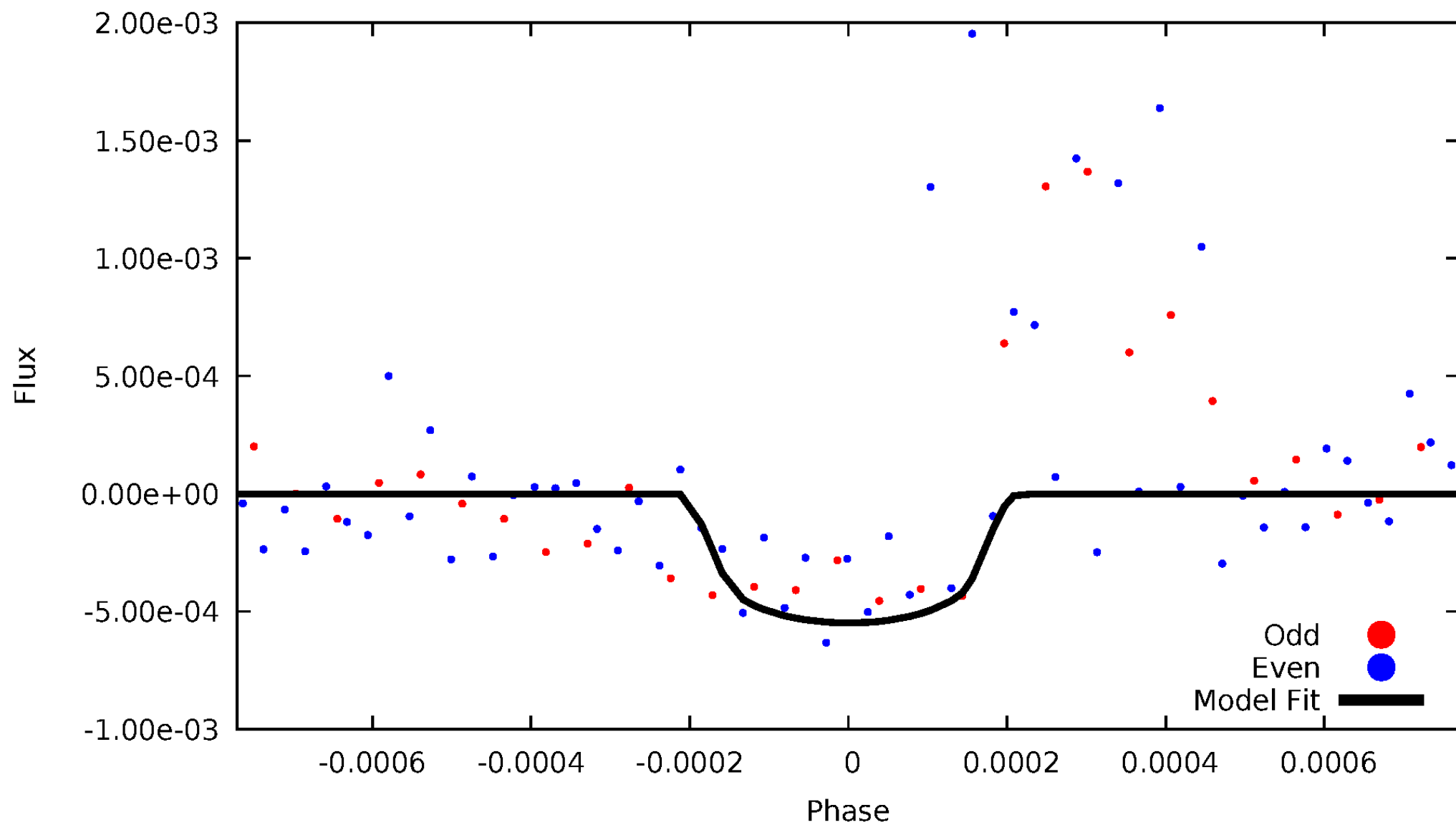


TCE 005560747-05



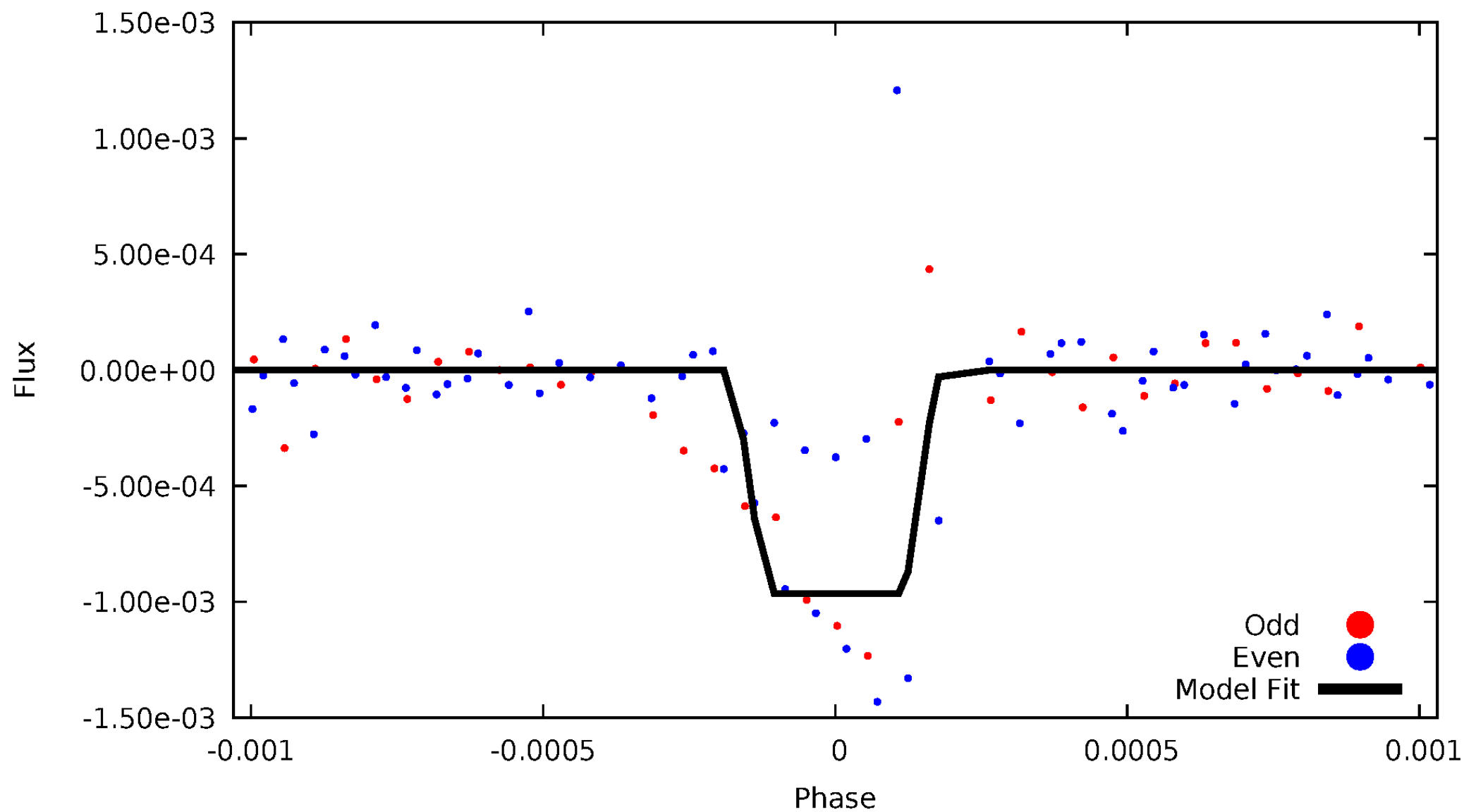
DV Odd/Even

TCE 005560747-05



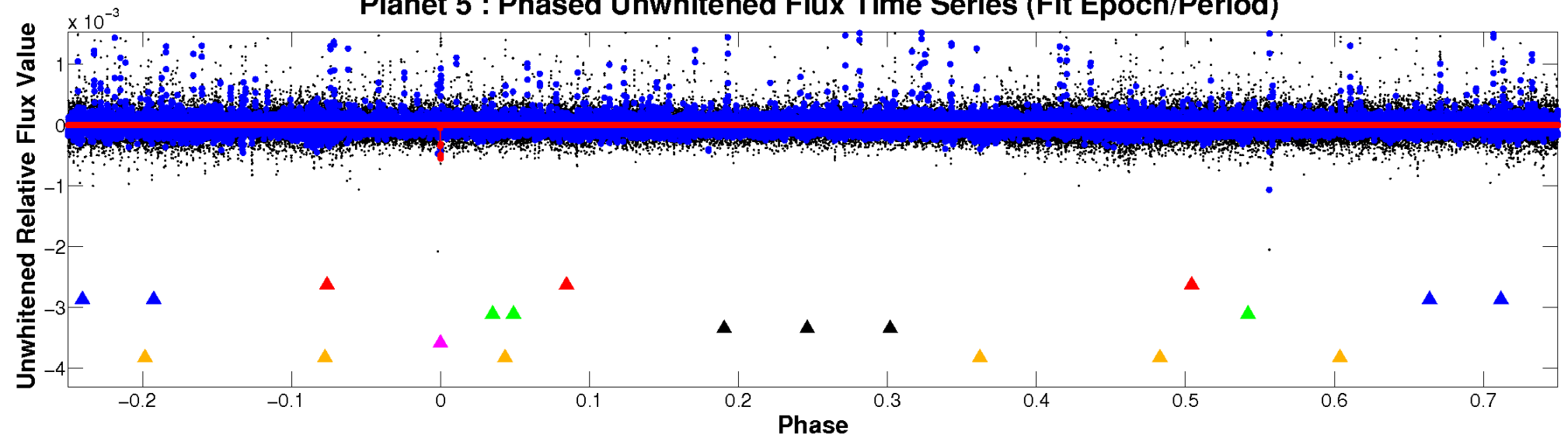
ALT Odd/Even

TCE 005560747-05

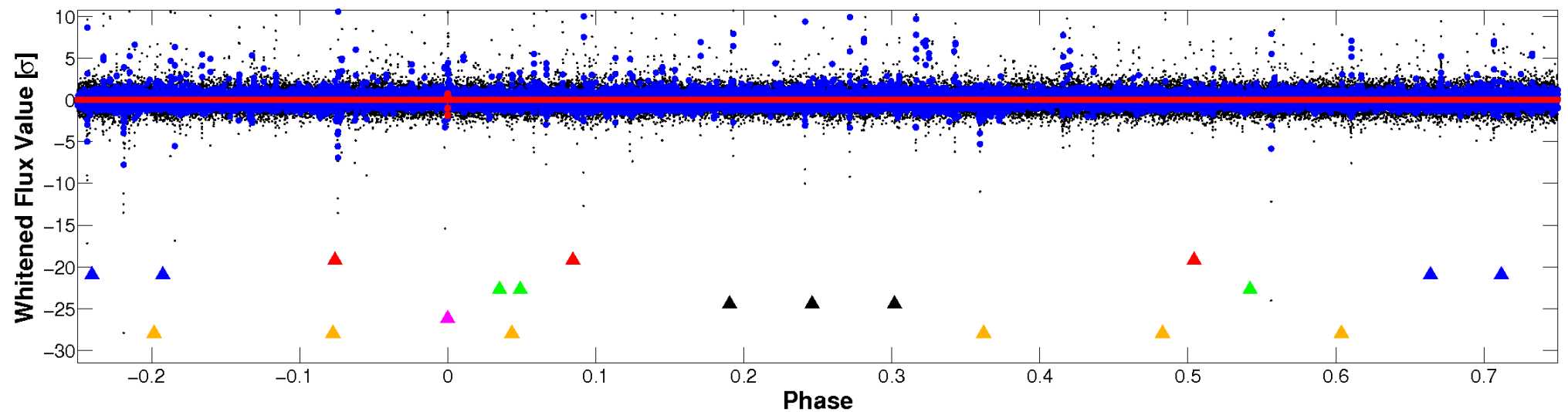


Non-Whitened Vs. Whitened Light Curve

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

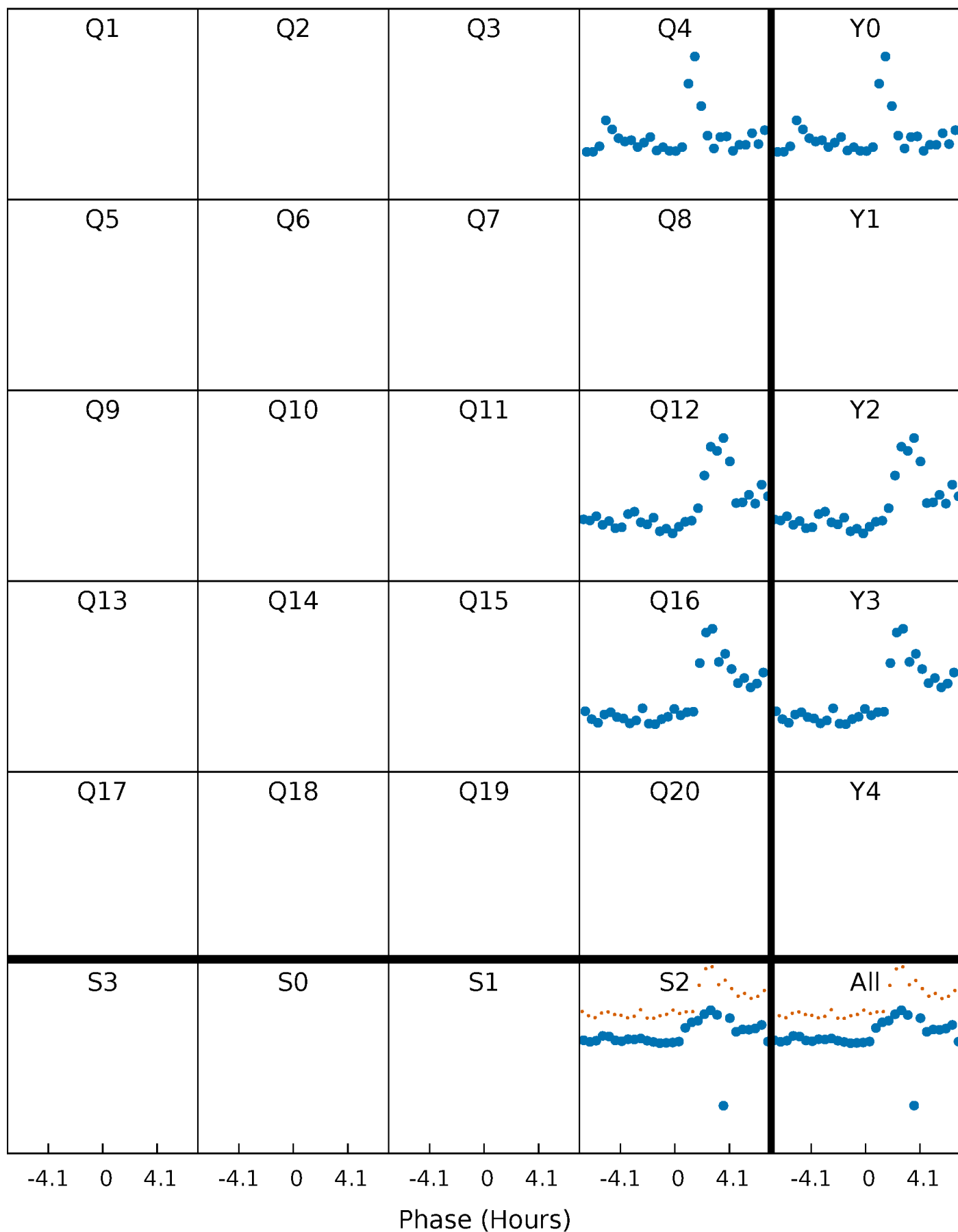


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



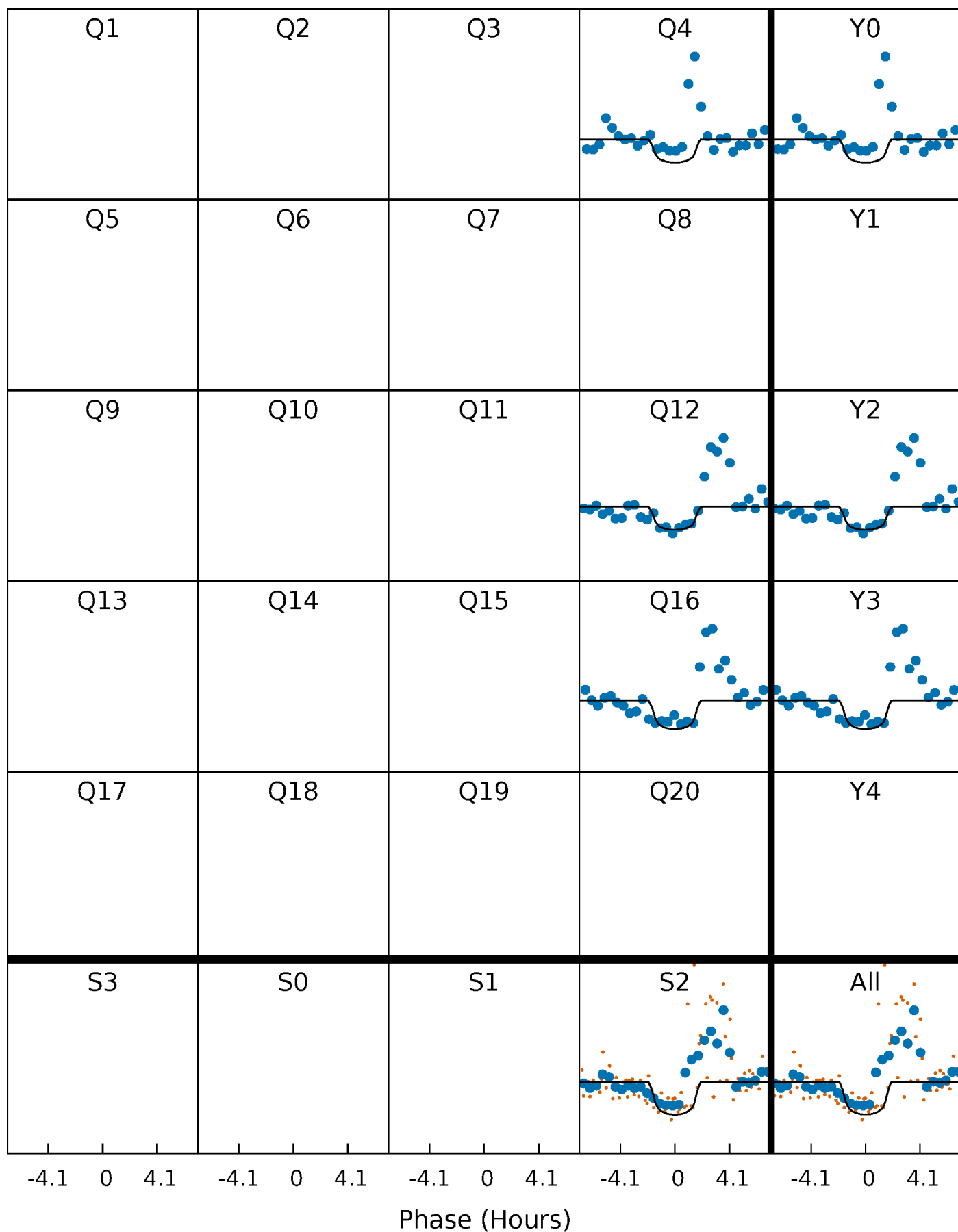
PDC Quarter-Phased Transit Curves

TCE 005560747-05 $P=388.866484$ Days $T_0=372.871537$ (BKJD)



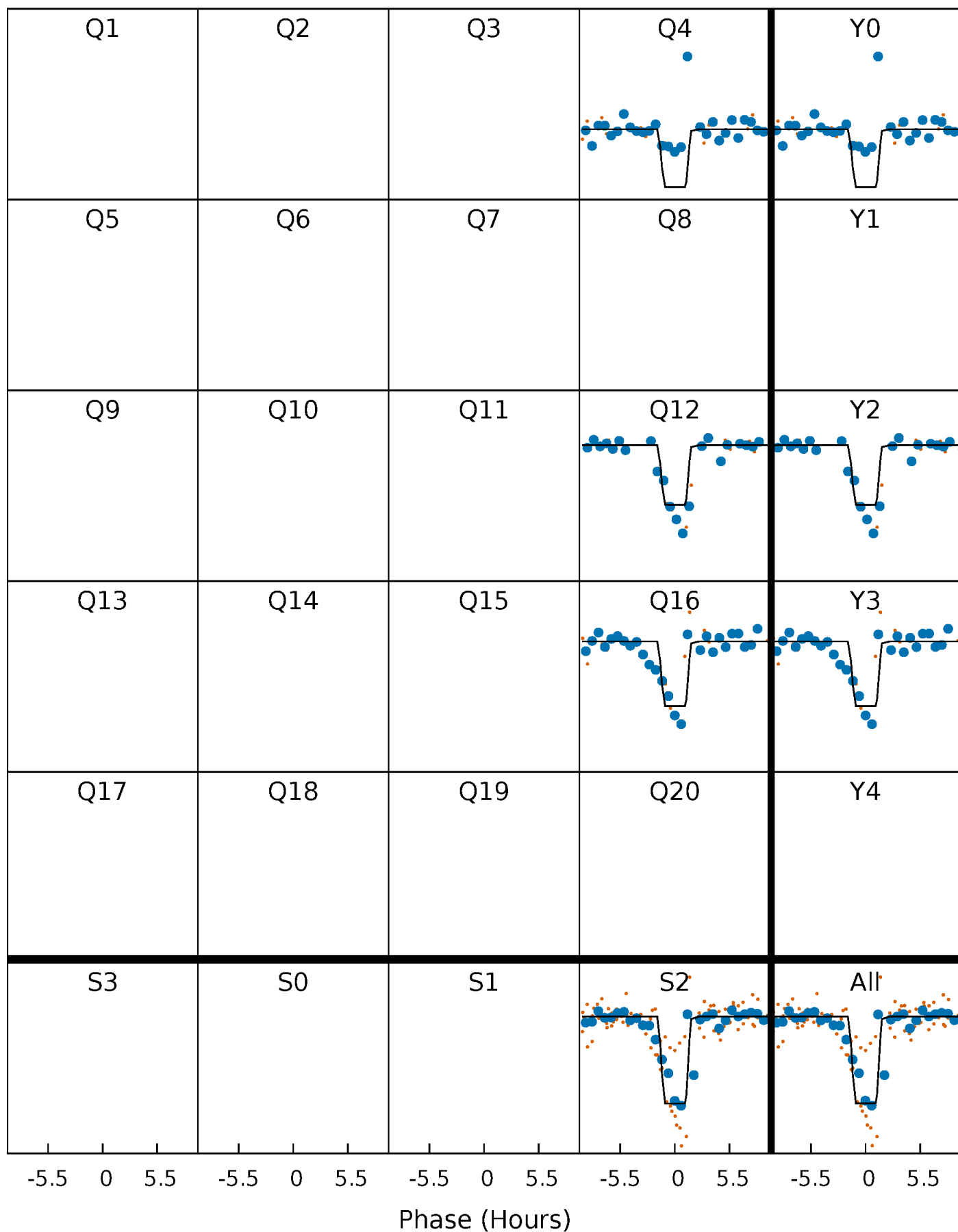
DV Quarter-Phased Transit Curves

TCE 005560747-05 $P=388.866484$ Days $T_0=372.871537$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

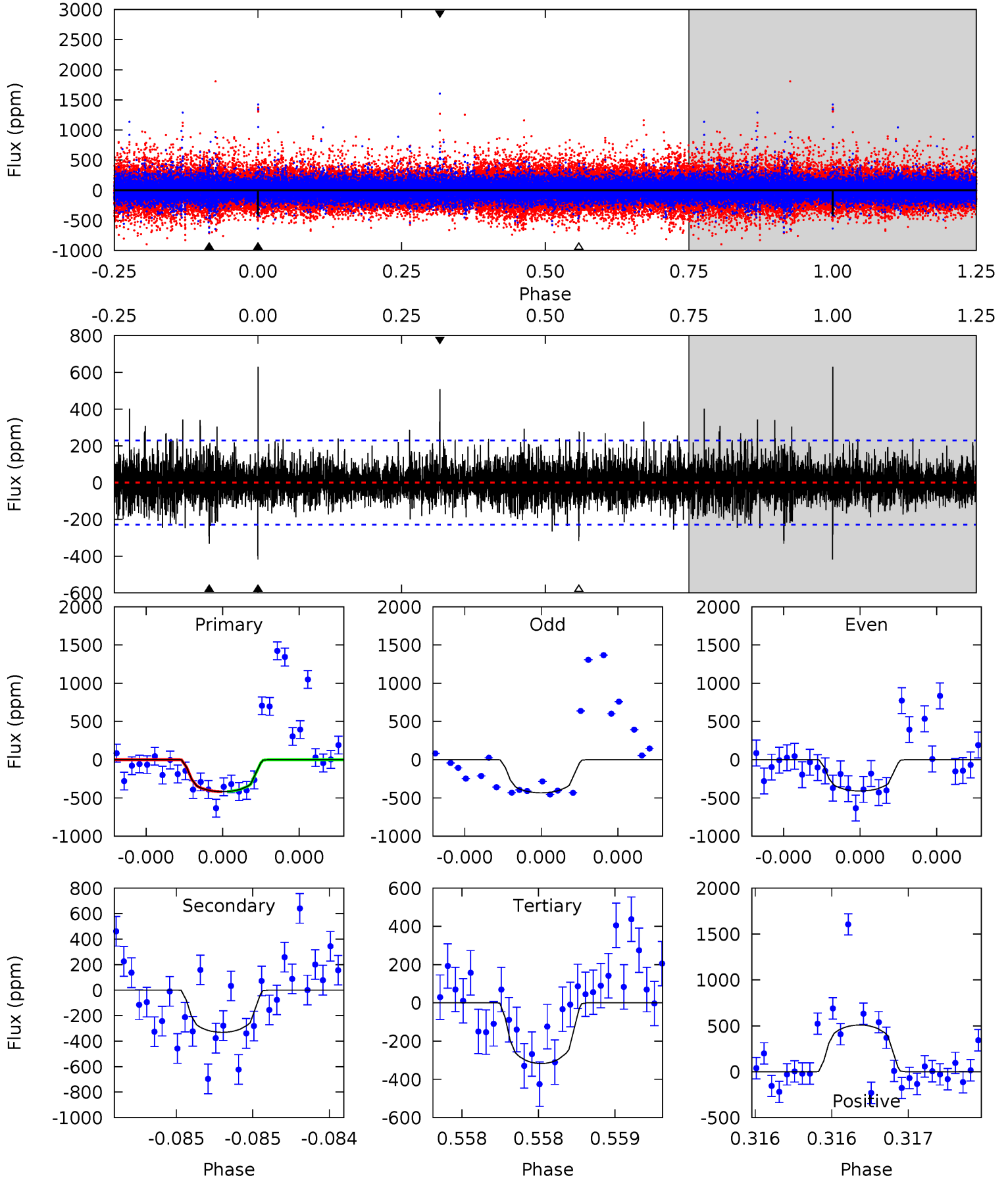
TCE 005560747-05 $P=388.878193$ Days $T_0=372.870696$ (BKJD)



DV Model-Shift Uniqueness Test

005560747-05, P = 388.866484 Days, E = 372.871537 Days

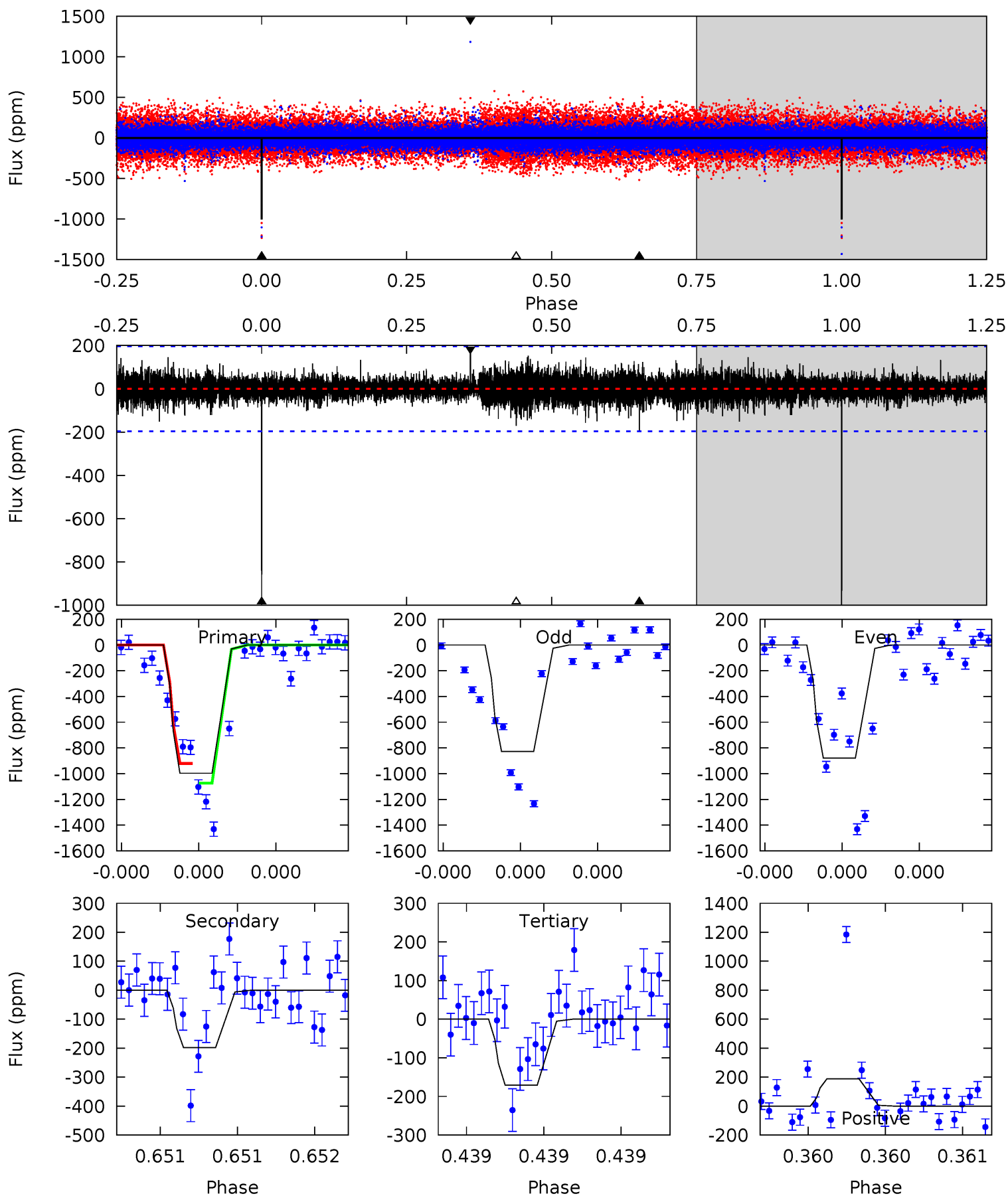
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	8.11	7.77	12.5	5.61	3.54	1.72	2.47	-2.23	0.34	-4.36	0.25	0.54	0.60	0.02



Alt Model-Shift Uniqueness Test

005560747-05, P = 388.878193 Days, E = 372.870696 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.5	5.65	4.87	5.38	5.60	3.53	0.92	23.6	23.1	0.78	0.27	0.81	0.82	0.16	2.17



Stellar Parameters For KIC 005560747

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5178^{+171}_{-140}	$3.855^{+0.707}_{-0.303}$	$-0.060^{+0.300}_{-0.250}$	$1.955^{+0.991}_{-1.101}$	$0.998^{+0.224}_{-0.183}$	$0.188^{+2.162}_{-0.122}$
	+3%/-3%	+18%/-8%	+500%/-417%	+51%/-56%	+22%/-18%	+1149%/-65%
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 005560747-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-331 ± 41	$5.59^{+5.64}_{-3.77}$	428^{+64}_{-72}	4268^{+2712}_{-718}	6687^{+52917}_{-5085}
Alt.	-198 ± 35	$6.63^{+5.74}_{-4.00}$	435^{+53}_{-72}	3679^{+1504}_{-538}	2832^{+14333}_{-2086}

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 $A_{obs} \gg 1.0$

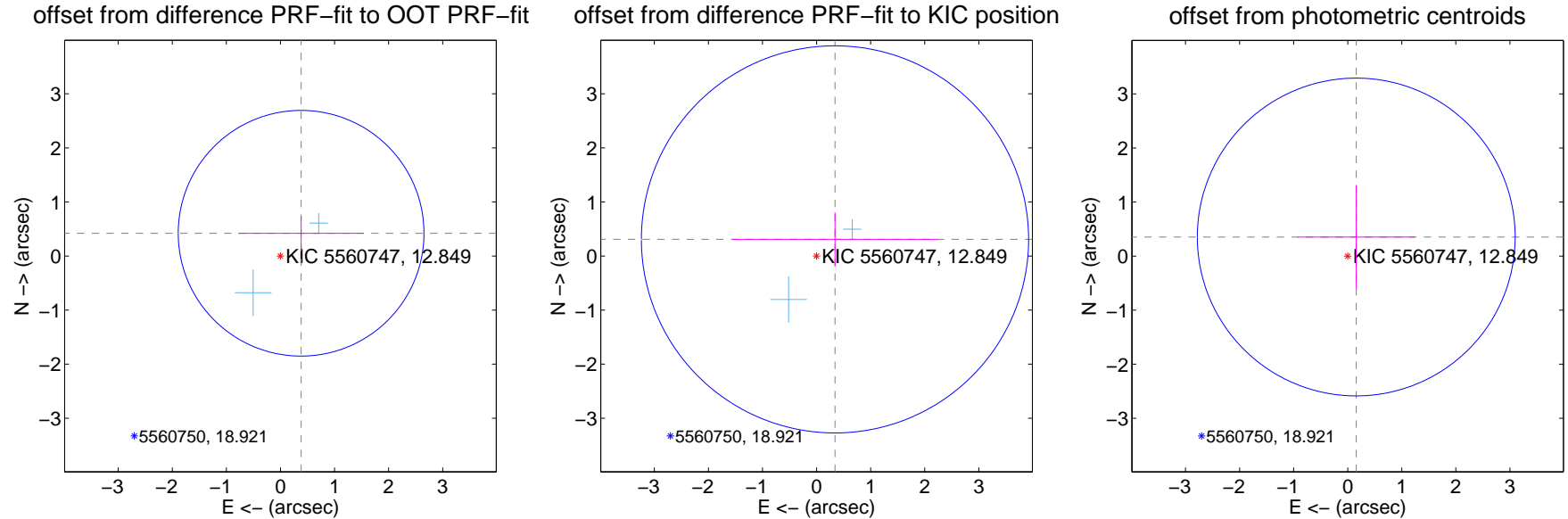
DV Centroid Data

Supplemental centroid analysis for 005560747-05. Kepler magnitude: 12.85. Transit SNR 7.77

There are 2 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.568 ± 0.757	0.75	-0.382 ± 1.162	0.421 ± 0.313
PRF-fit source offset from KIC position	0.459 ± 1.193	0.38	-0.340 ± 1.900	0.308 ± 0.499
photometric centroid source offset	0.39 ± 0.98	0.39	-0.16 ± 1.08	0.35 ± 0.96



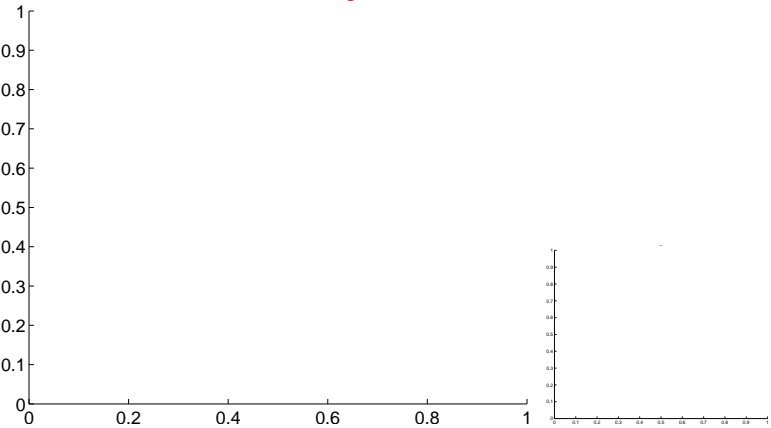
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

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

Q1 no difference image



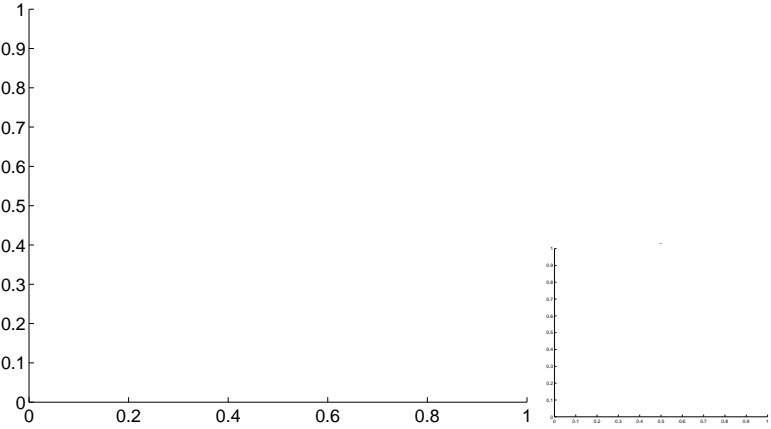
Q1 no OOT image



Q2 no difference image



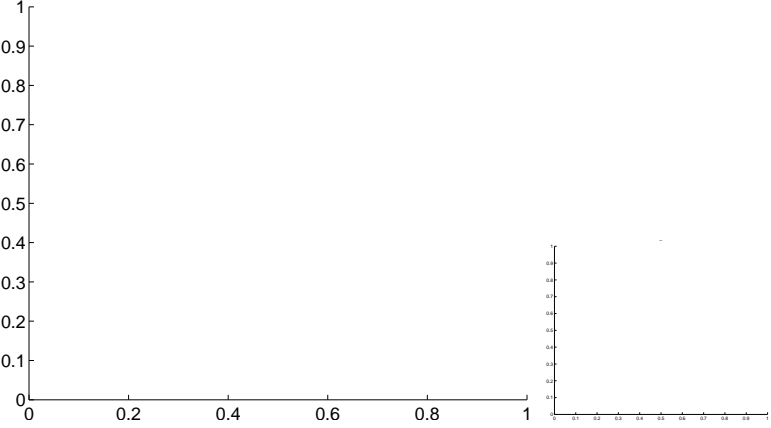
Q2 no OOT image



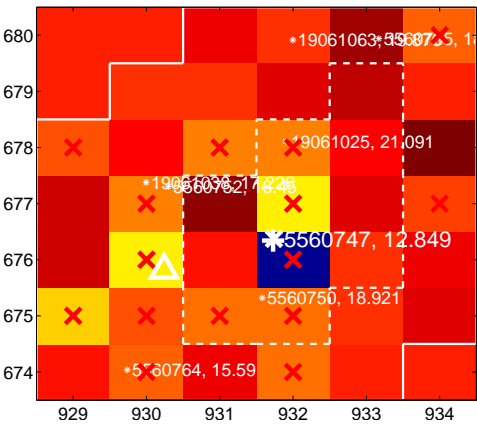
Q3 no difference image



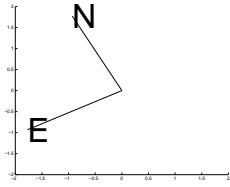
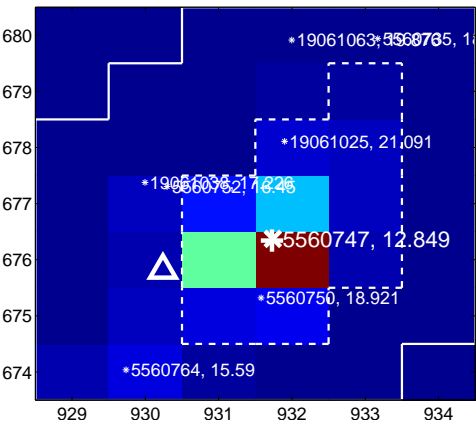
Q3 no OOT image



Q4 difference image. Poor Quality



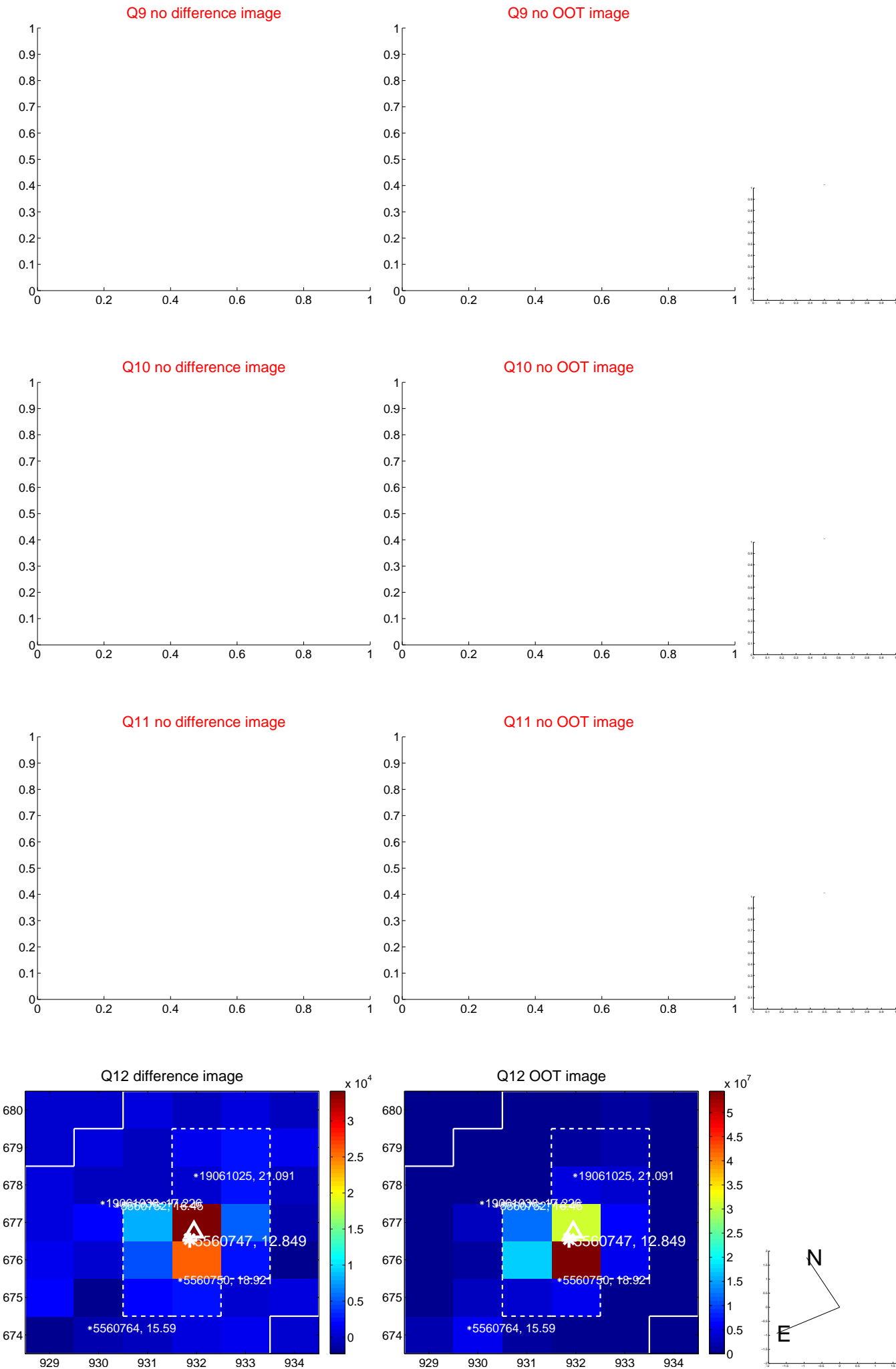
Q4 OOT image



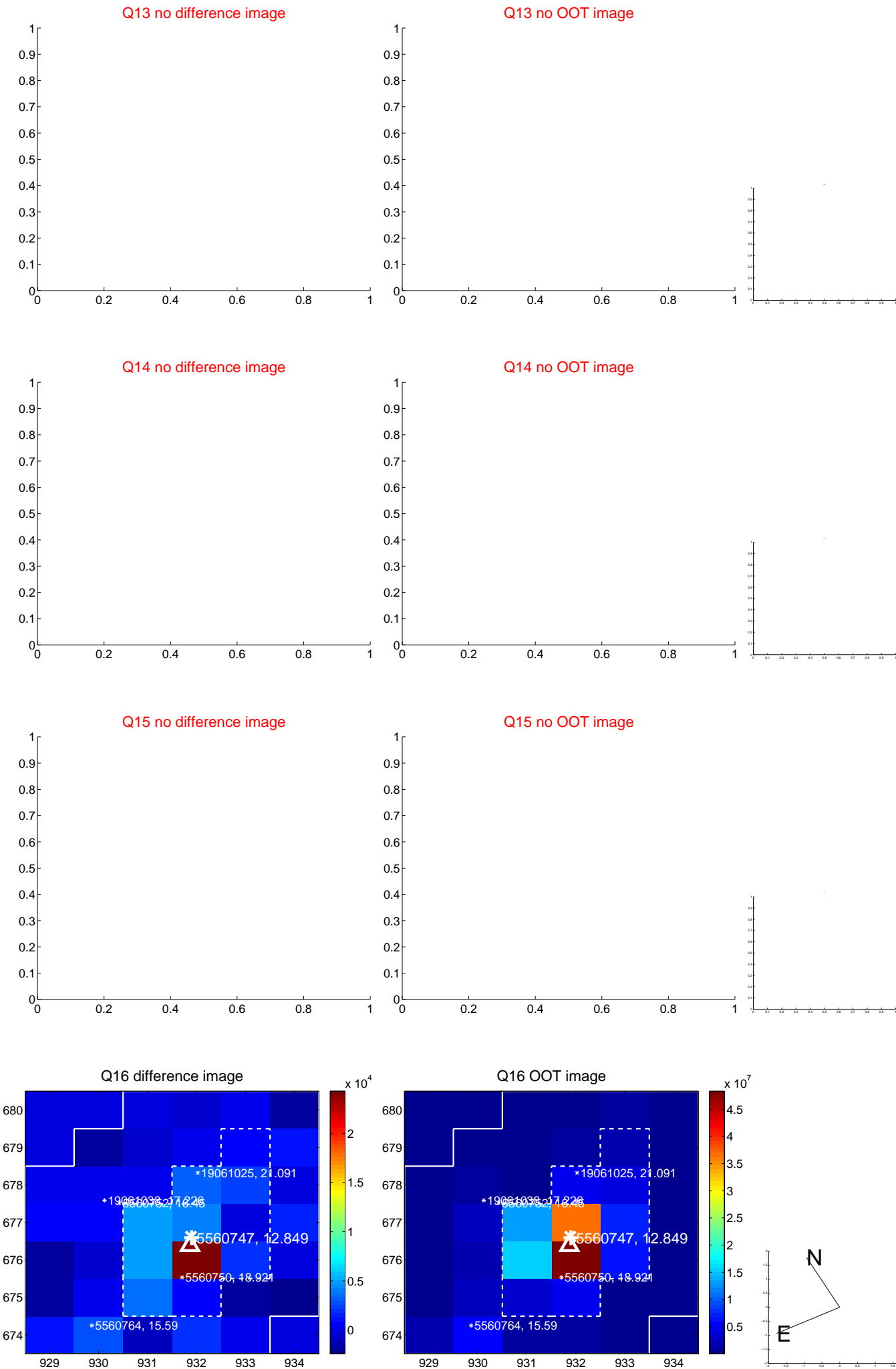
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



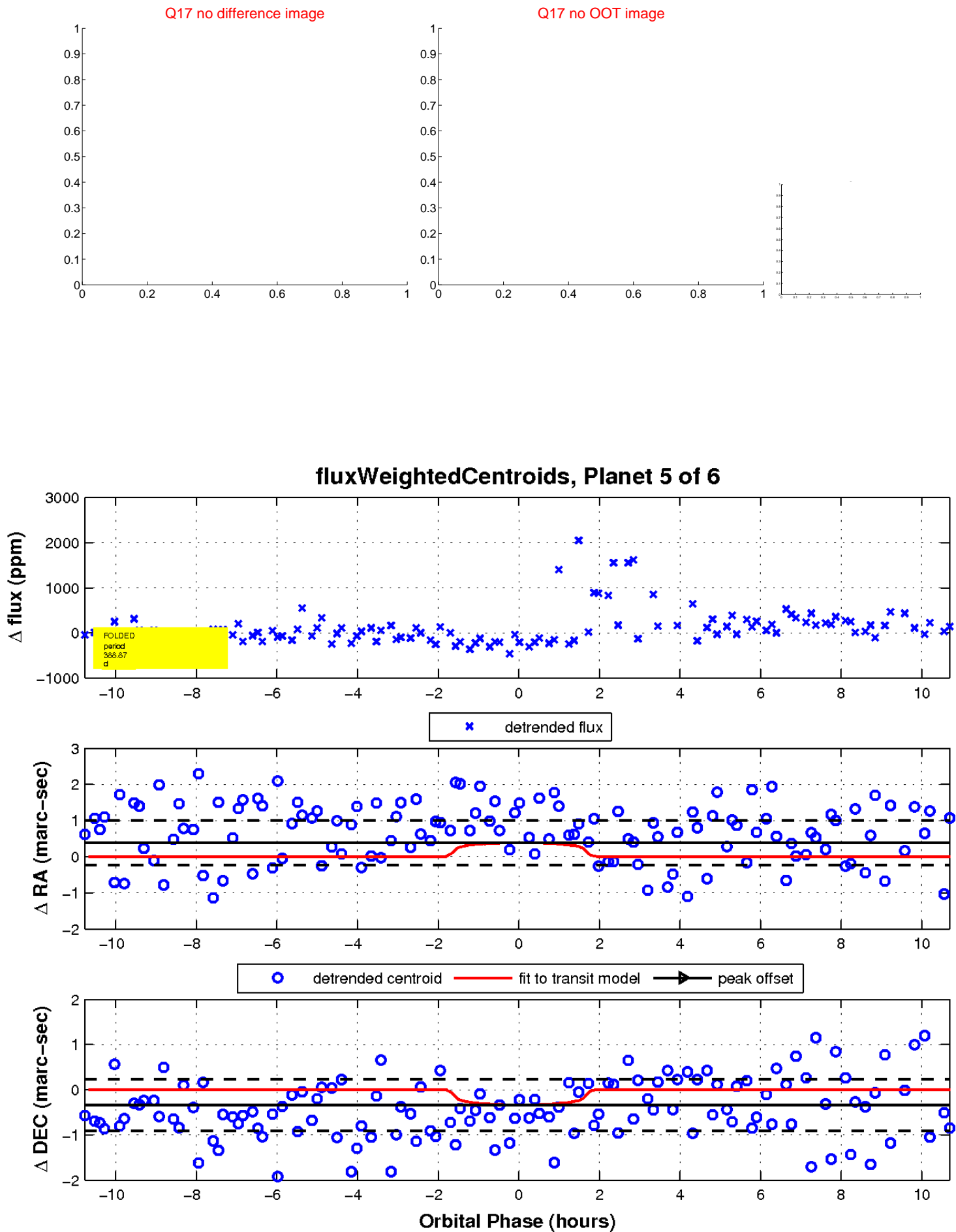
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

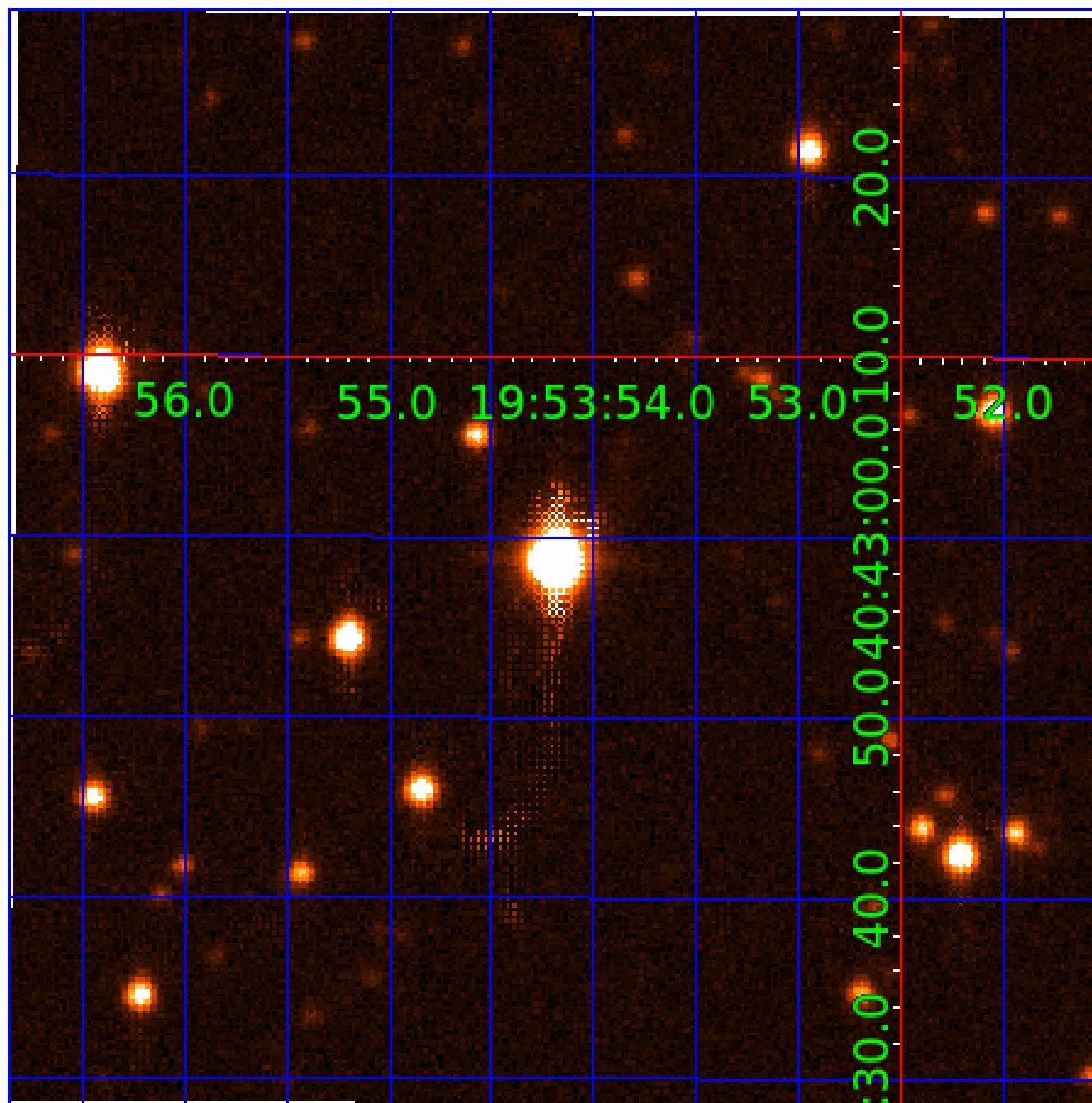


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005560747

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})
005560747-01	OBS	No	614.549233	343.270694	519.4	9.364	13.7	6.5	1.96	5178	4.99	1.23
005560747-02	OBS	No	370.248431	298.035918	468.6	6.136	12.3	7.6	1.96	5178	4.35	2.42
005560747-03	OBS	No	580.578295	391.936827	459.7	9.273	12.6	7.1	1.96	5178	4.47	1.33
005560747-04	OBS	No	410.526319	446.937676	534.4	4.500	12.5	7.9	1.96	5178	4.80	2.11
005560747-05	OBS	No	388.866484	372.871537	549.0	3.595	10.5	7.8	1.96	5178	5.20	2.27
005560747-06	OBS	No	217.928488	295.742777	357.3	4.435	10.0	7.1	1.96	5178	3.75	4.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005560747-01	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—CENT_FEW_DIFFS
005560747-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560747-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—CENT_FEW_DIFFS
005560747-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS

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

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

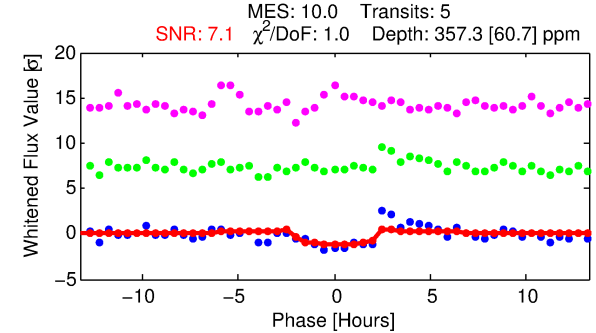
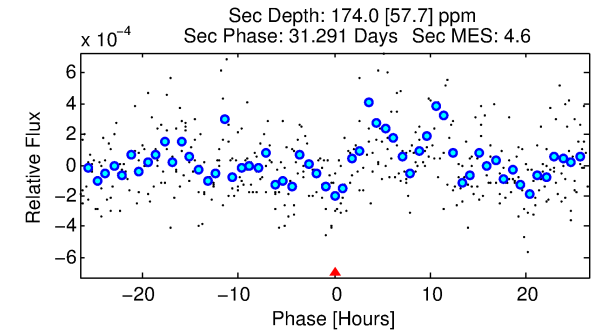
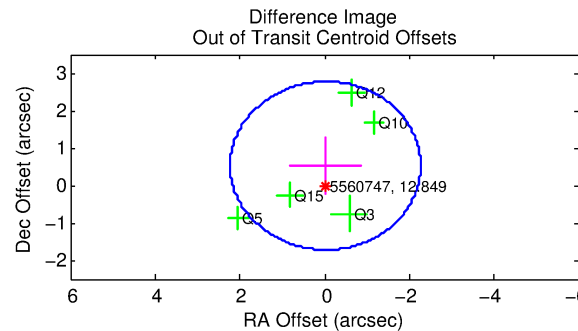
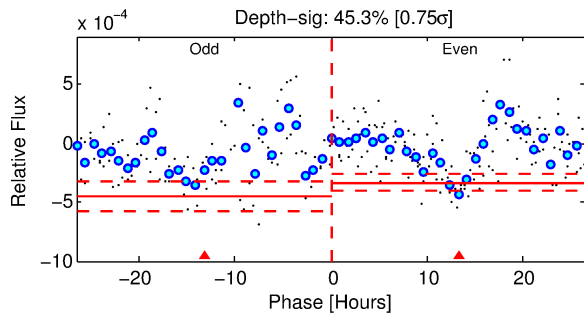
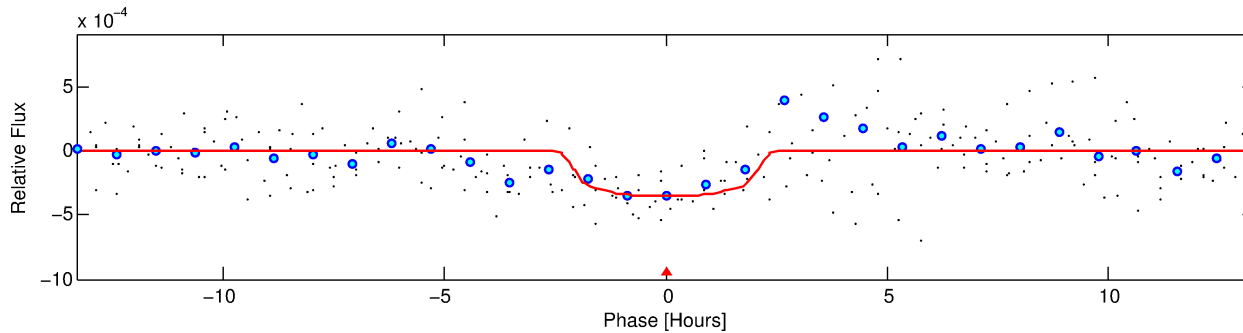
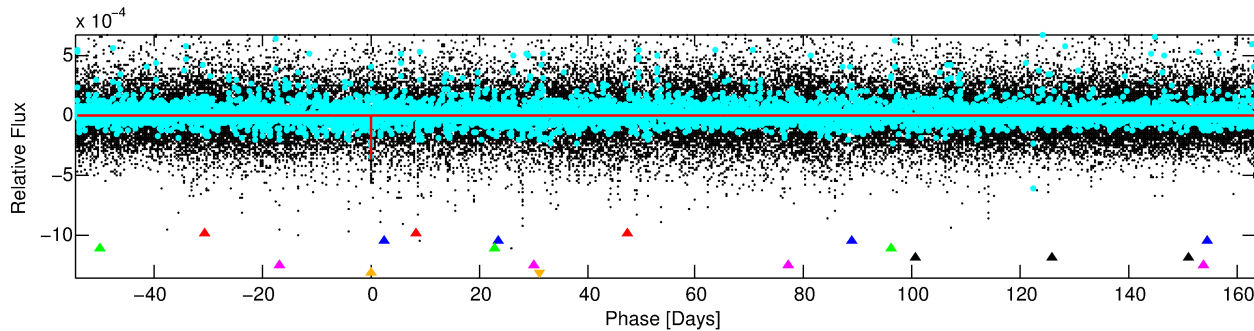
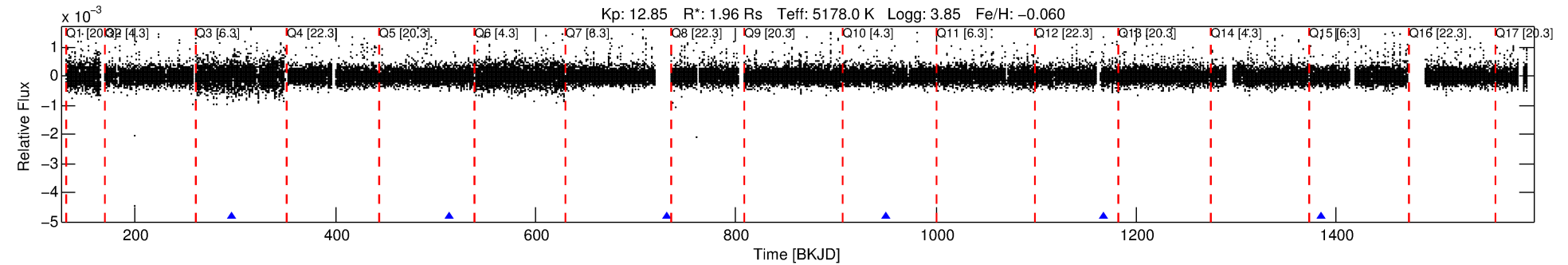
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005560747-06

No Significant Match Found

DV One-Page Summary

KIC: 5560747 Candidate: 6 of 6 Period: 217.928 d



DV Fit Results:

Period = 217.92849 [0.00286] d
Epoch = 295.7428 [0.0100] BKJD
Rp/R* = 0.0176 [0.0277]
a/R* = 329.54 [1917.98]
b = 0.51 [8.43]
Seff = 4.90 [5.67]
Teq = 379 [110] K
Rp = 3.75 [6.28] Re
a = 0.7085 [0.4675] AU
Ag = 3412.76 [11507.37] [0.30 σ]
Teffp = 4484 [3557] K [1.15 σ]

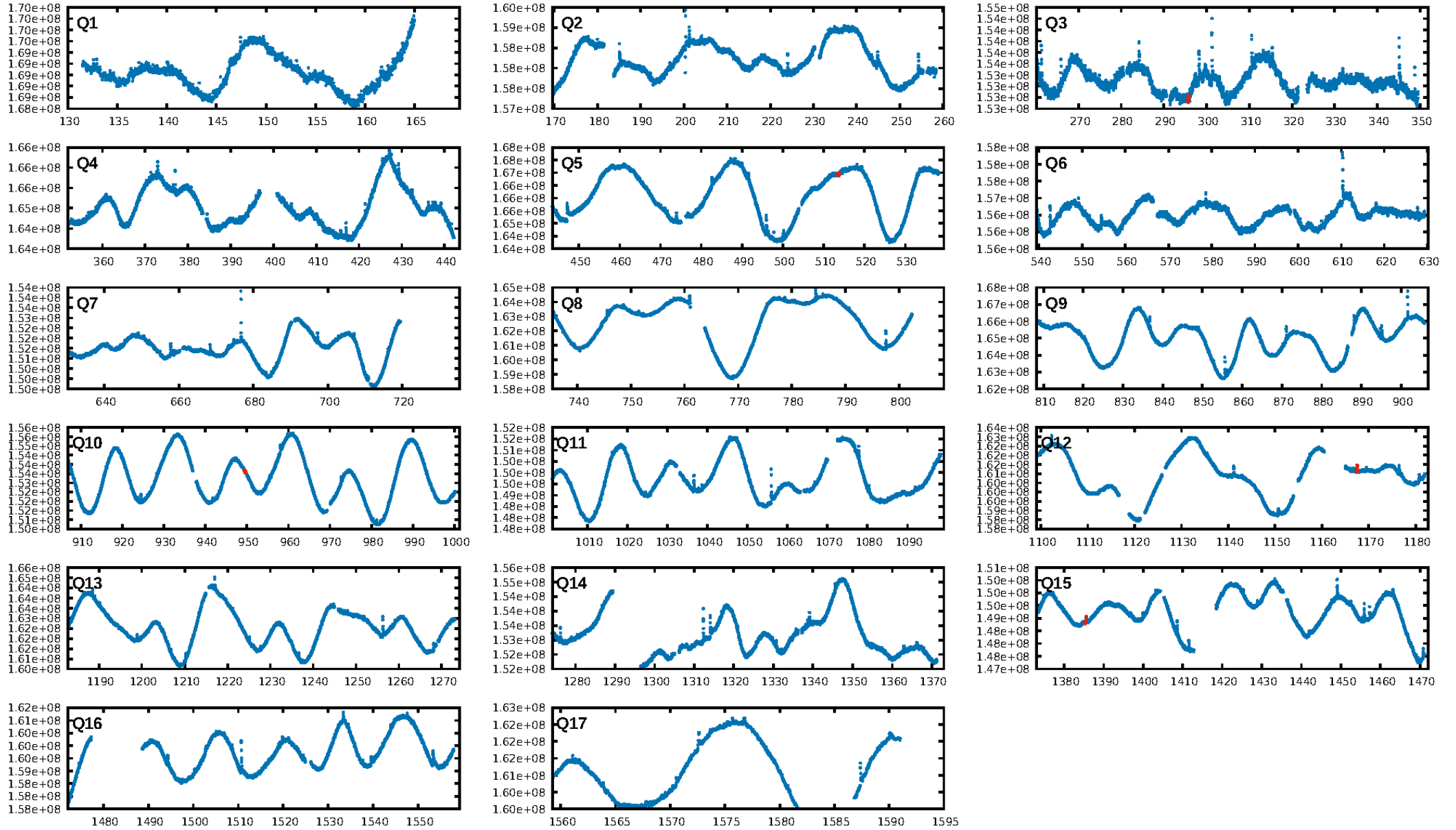
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [482.89 σ]
ModelChiSquare2-sig: 18.5%
ModelChiSquareGof-sig: 96.8%
Bootstrap-pfa: 4.09e-12
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 1.192
Centroid-sig: 61.4%
Centroid-so: 0.444 arcsec [0.36 σ]
OotOffset-rm: 0.526 arcsec [0.70 σ]
KicOffset-rm: 0.423 arcsec [0.56 σ]
OotOffset-st: 1/2/1/1 [5]
KicOffset-st: 1/2/1/1 [5]
DiffImageQuality-fgm: 1.00 [5/5]
DiffImageOverlap-fno: 1.00 [5/5]

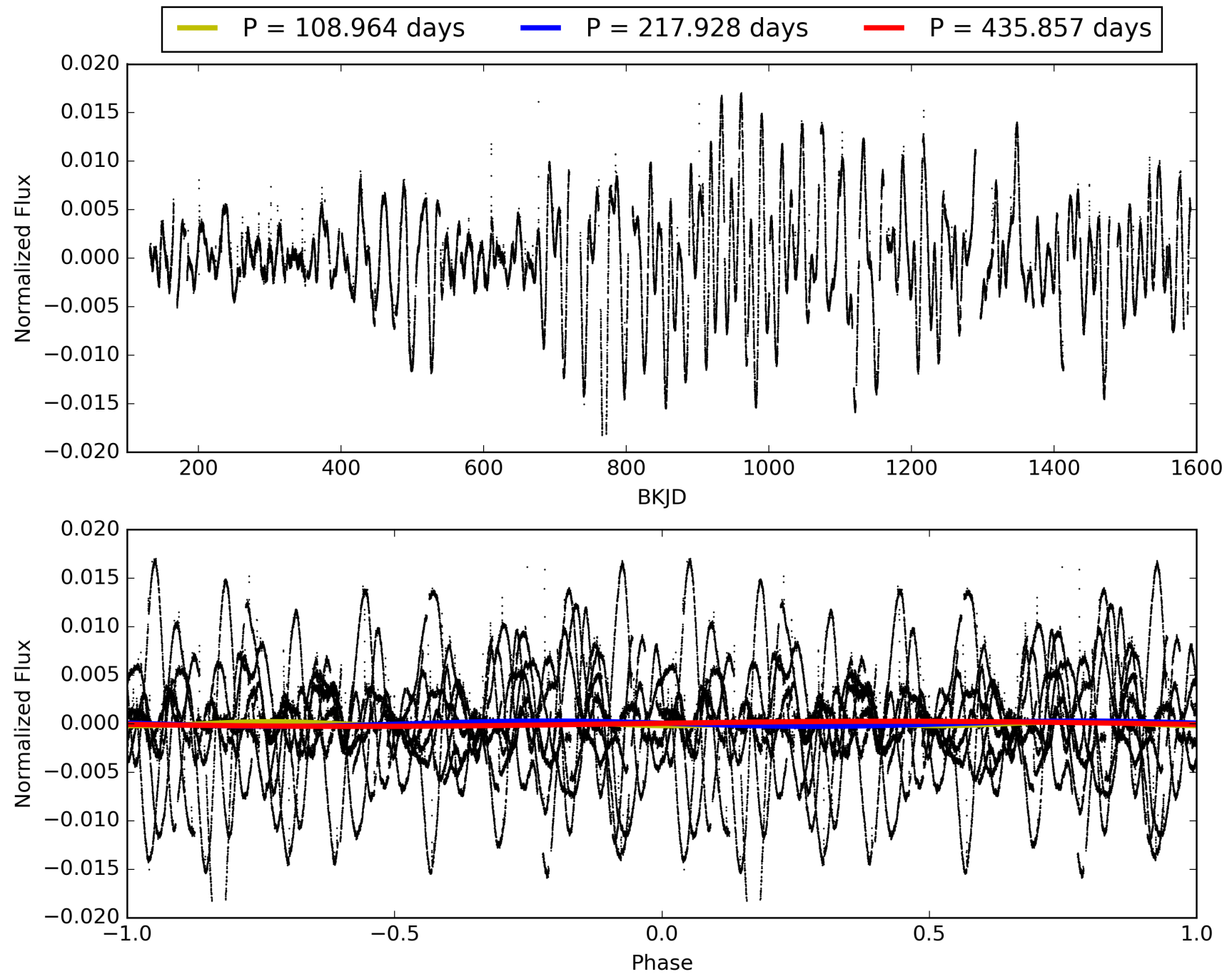
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:28:02 Z

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

TCE 005560747-06, PDC Light Curves

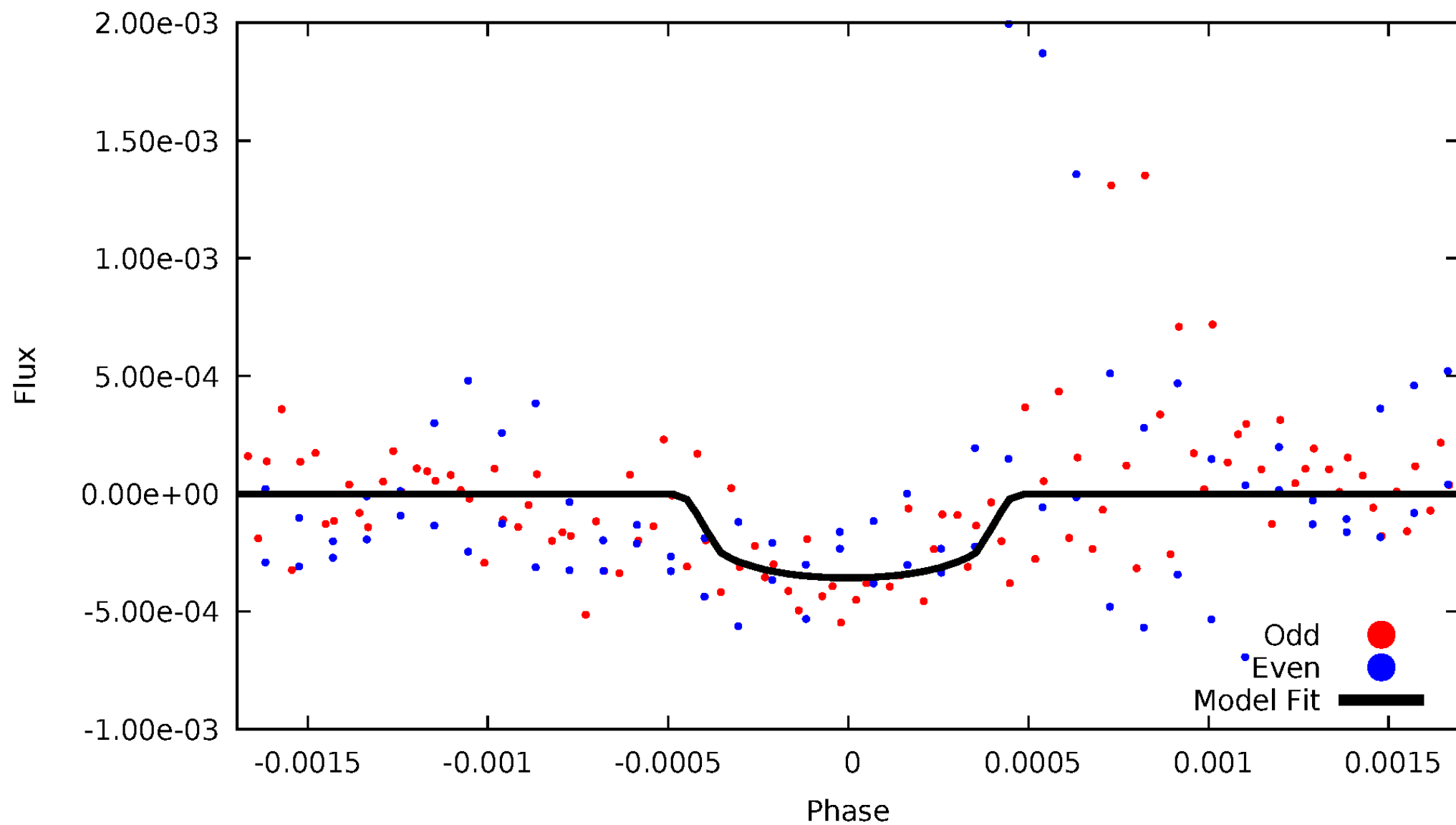


TCE 005560747-06



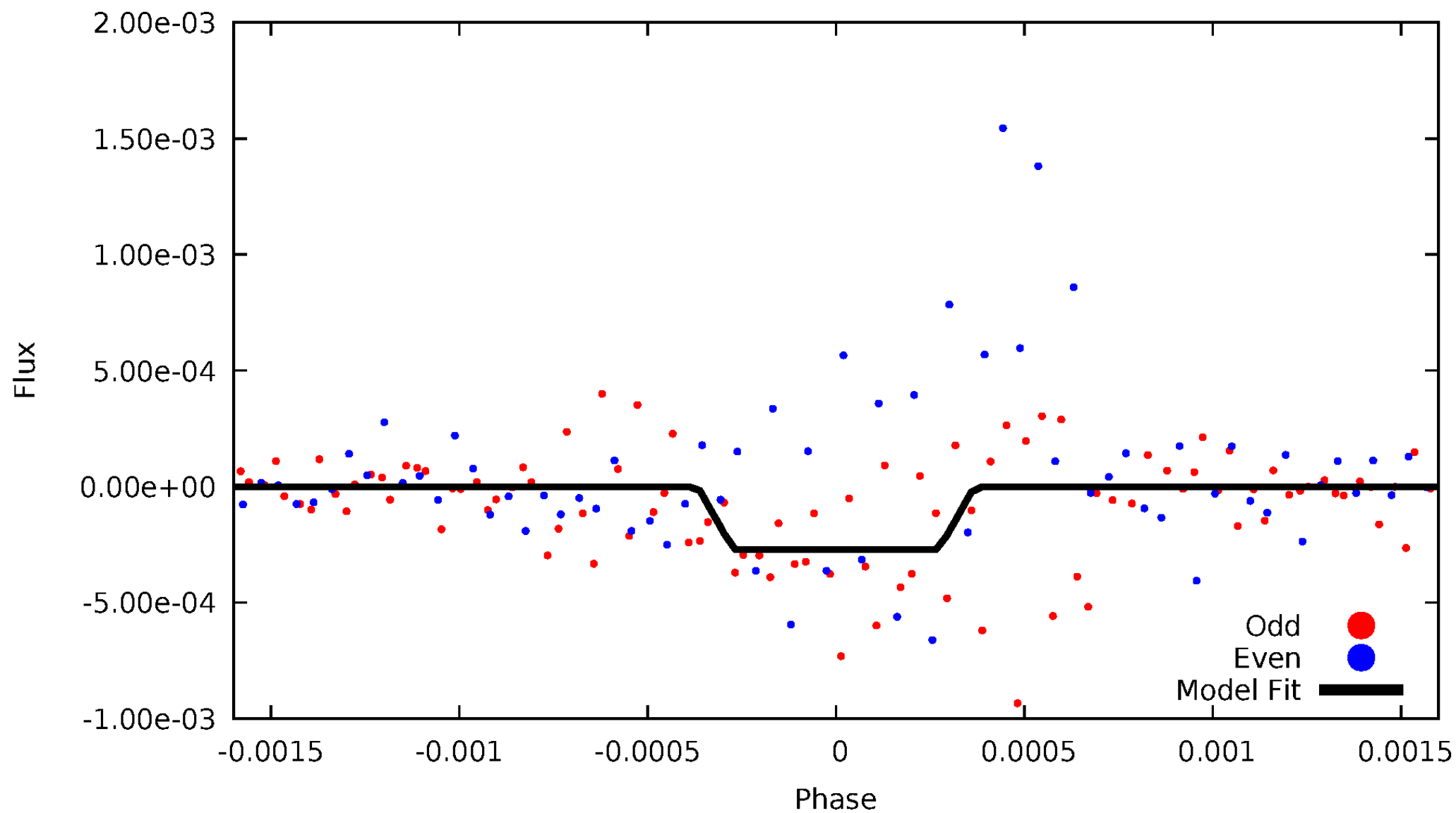
DV Odd/Even

TCE 005560747-06



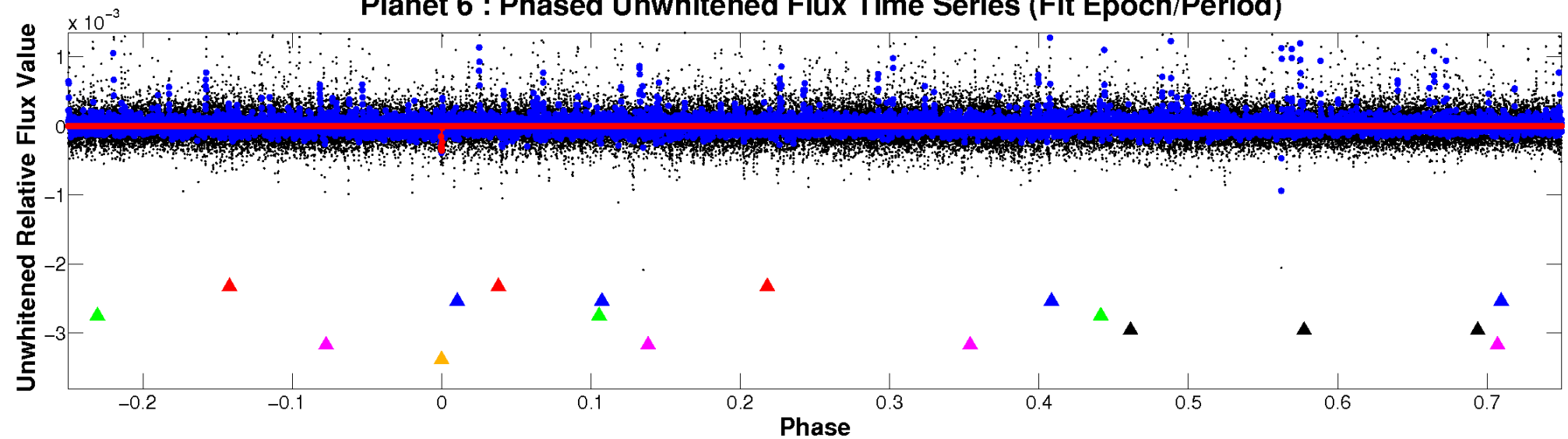
ALT Odd/Even

TCE 005560747-06

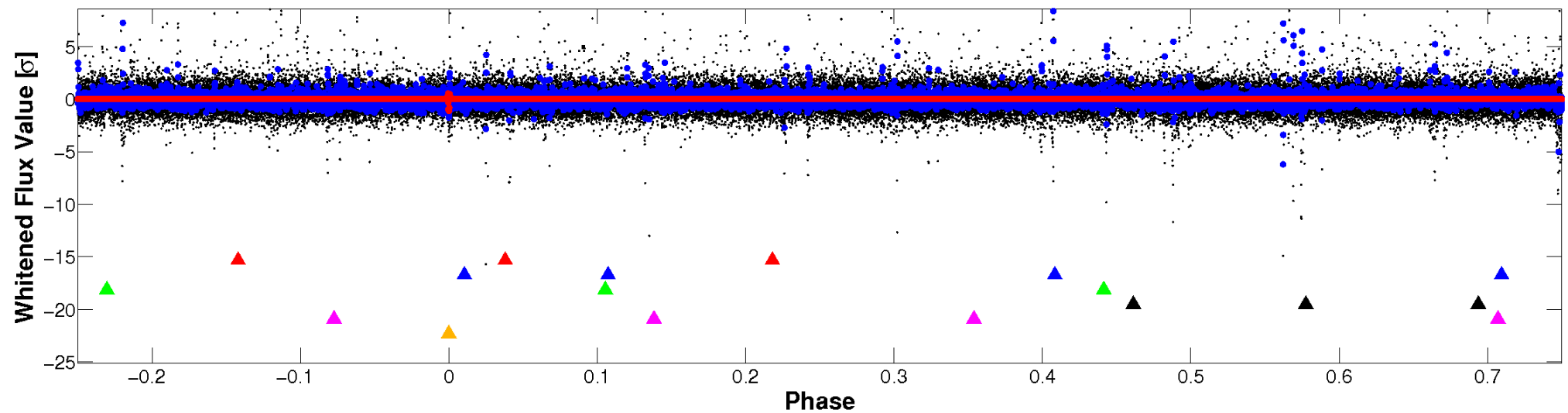


Non-Whitened Vs. Whitened Light Curve

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

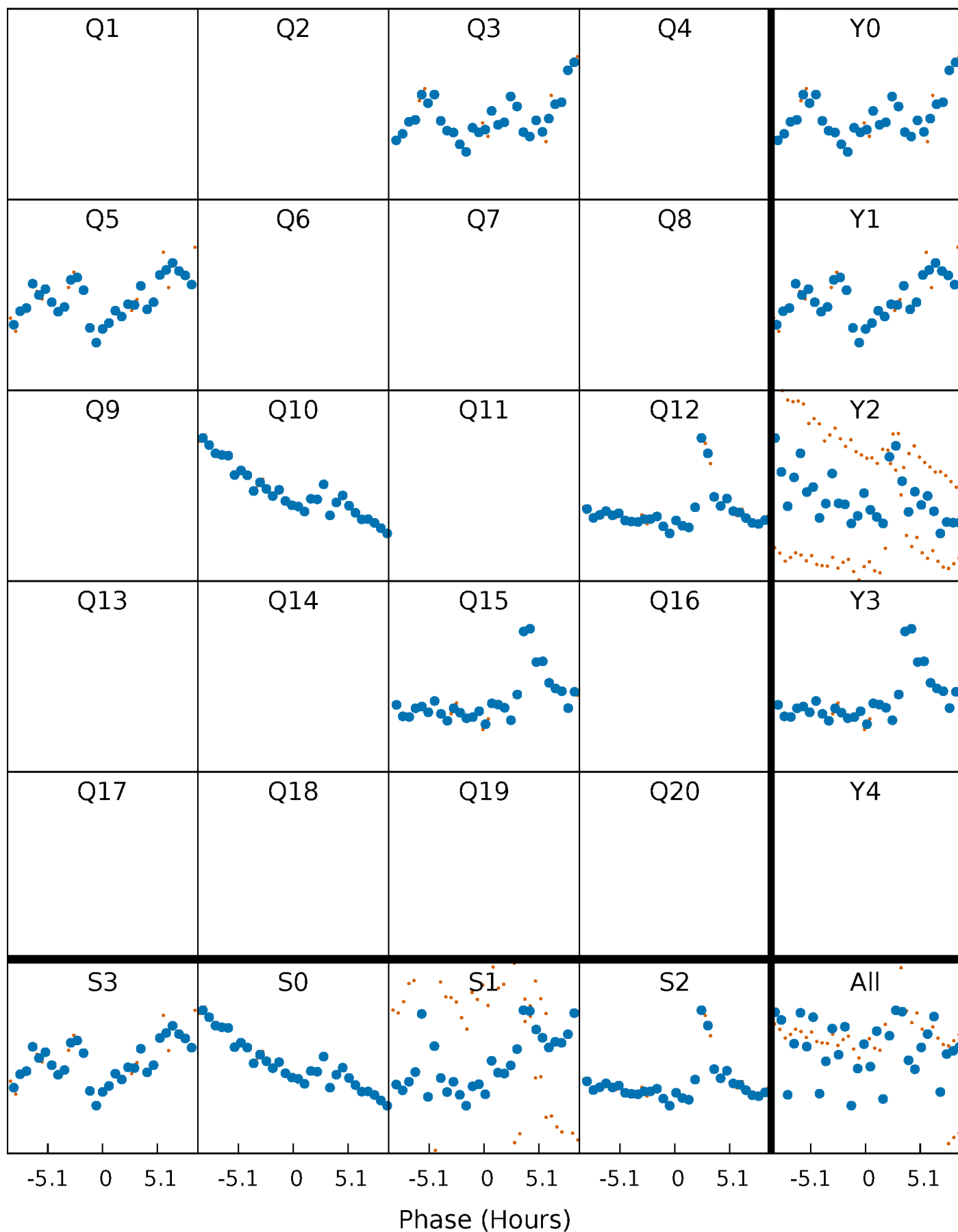


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



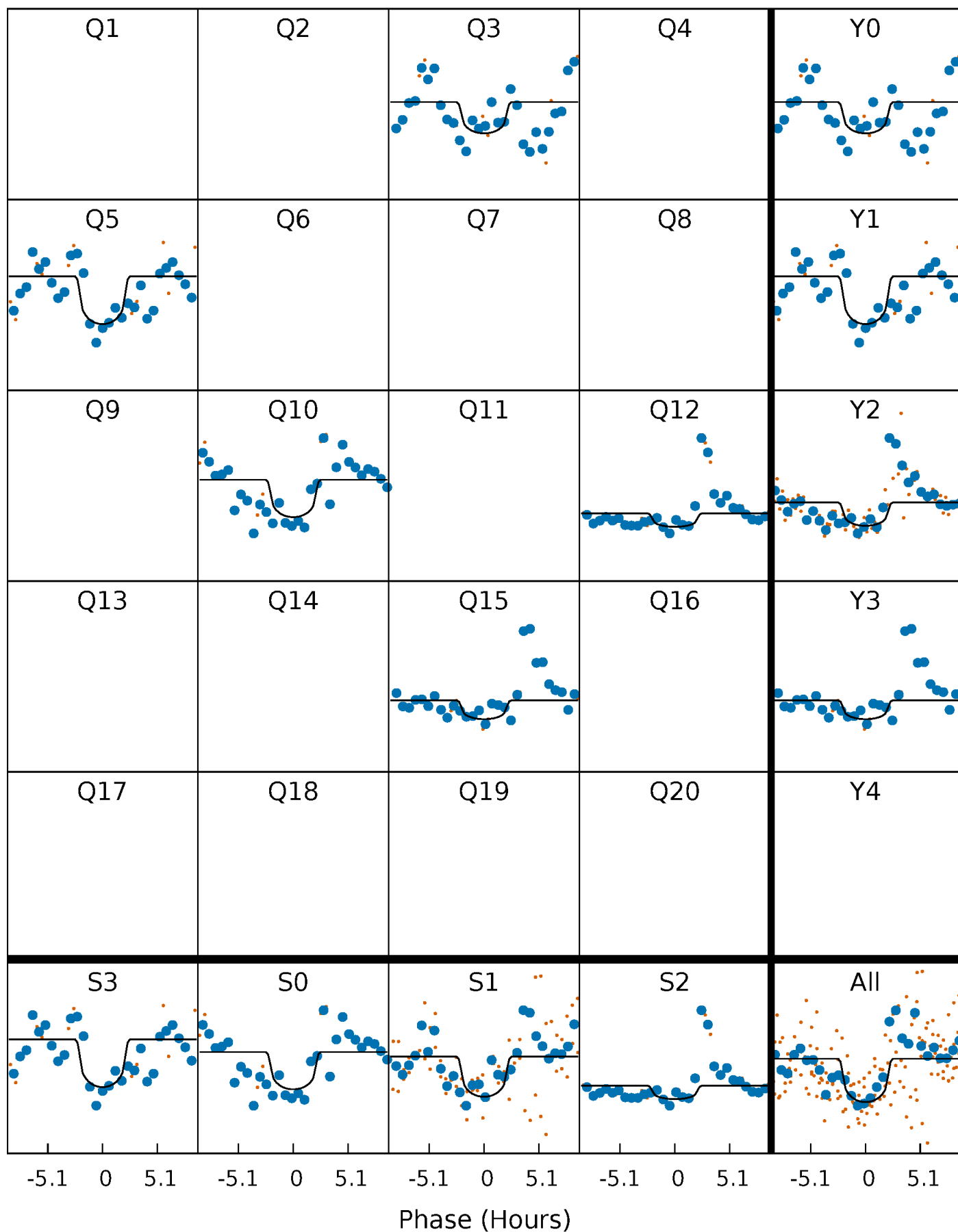
PDC Quarter-Phased Transit Curves

TCE 005560747-06 P=217.928488 Days $T_0=295.742777$ (BKJD)



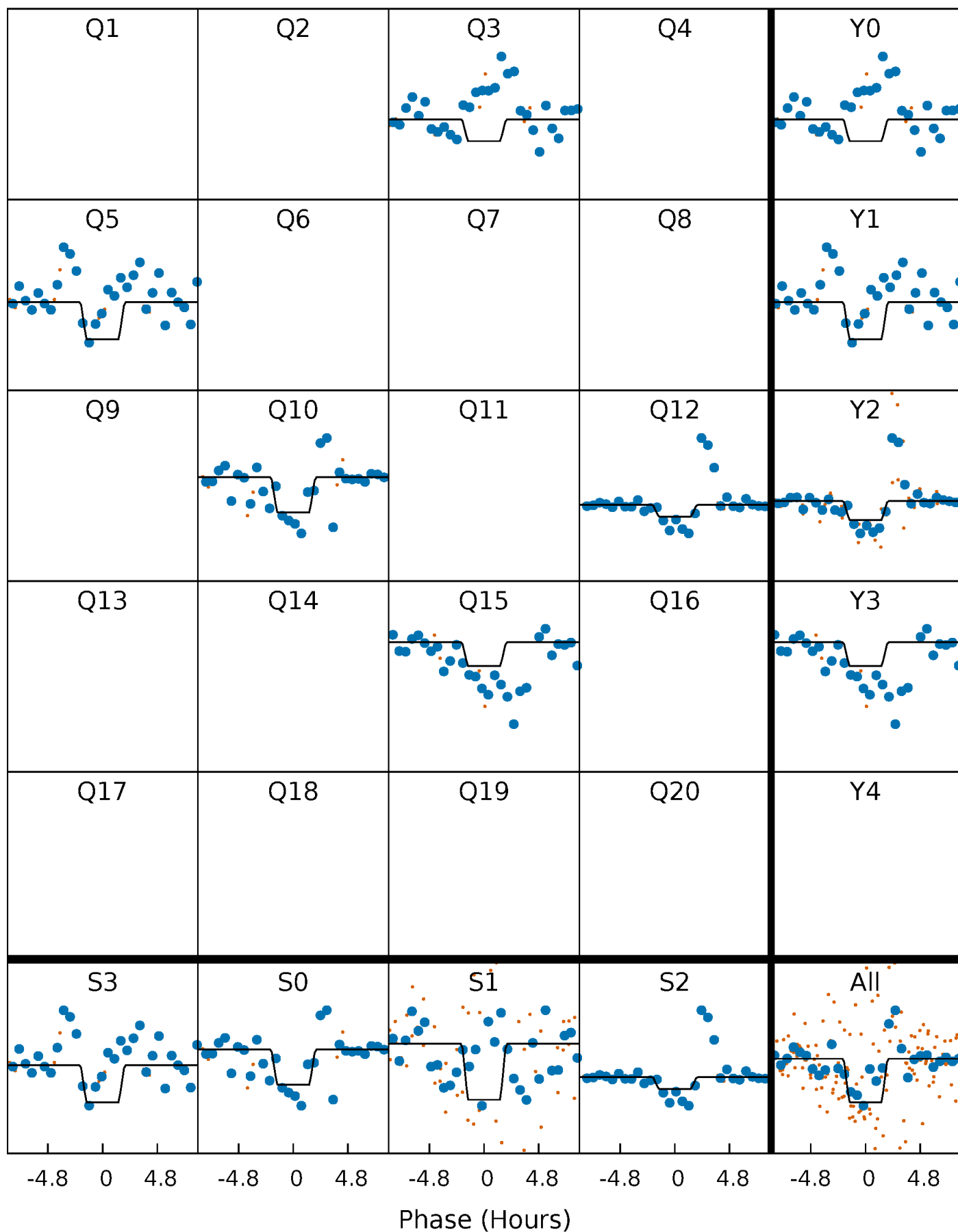
DV Quarter-Phased Transit Curves

TCE 005560747-06 $P=217.928488$ Days $T_0=295.742777$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

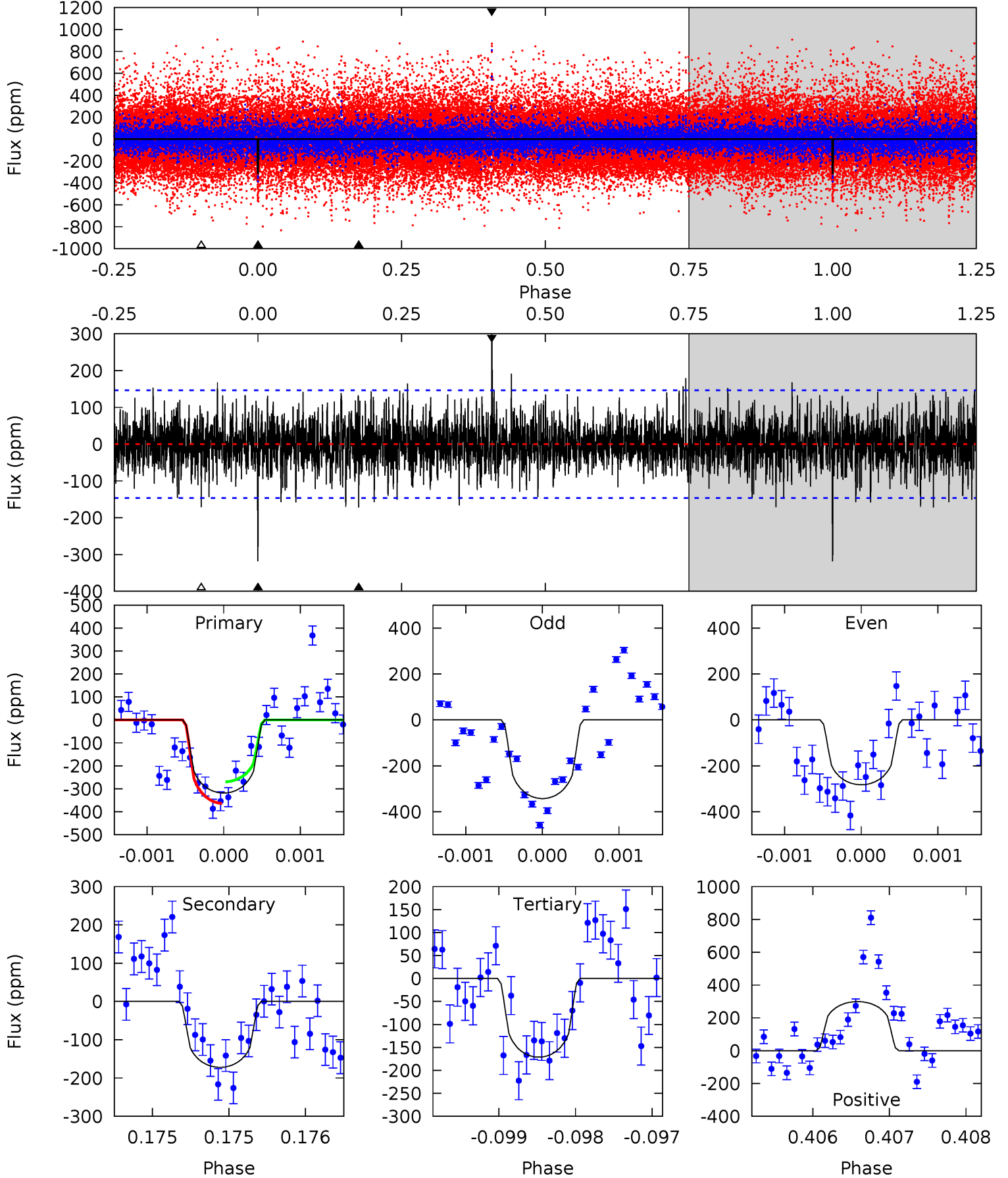
TCE 005560747-06 P=217.920740 Days $T_0=295.774154$ (BKJD)



DV Model-Shift Uniqueness Test

005560747-06, P = 217.928488 Days, E = 77.814289 Days

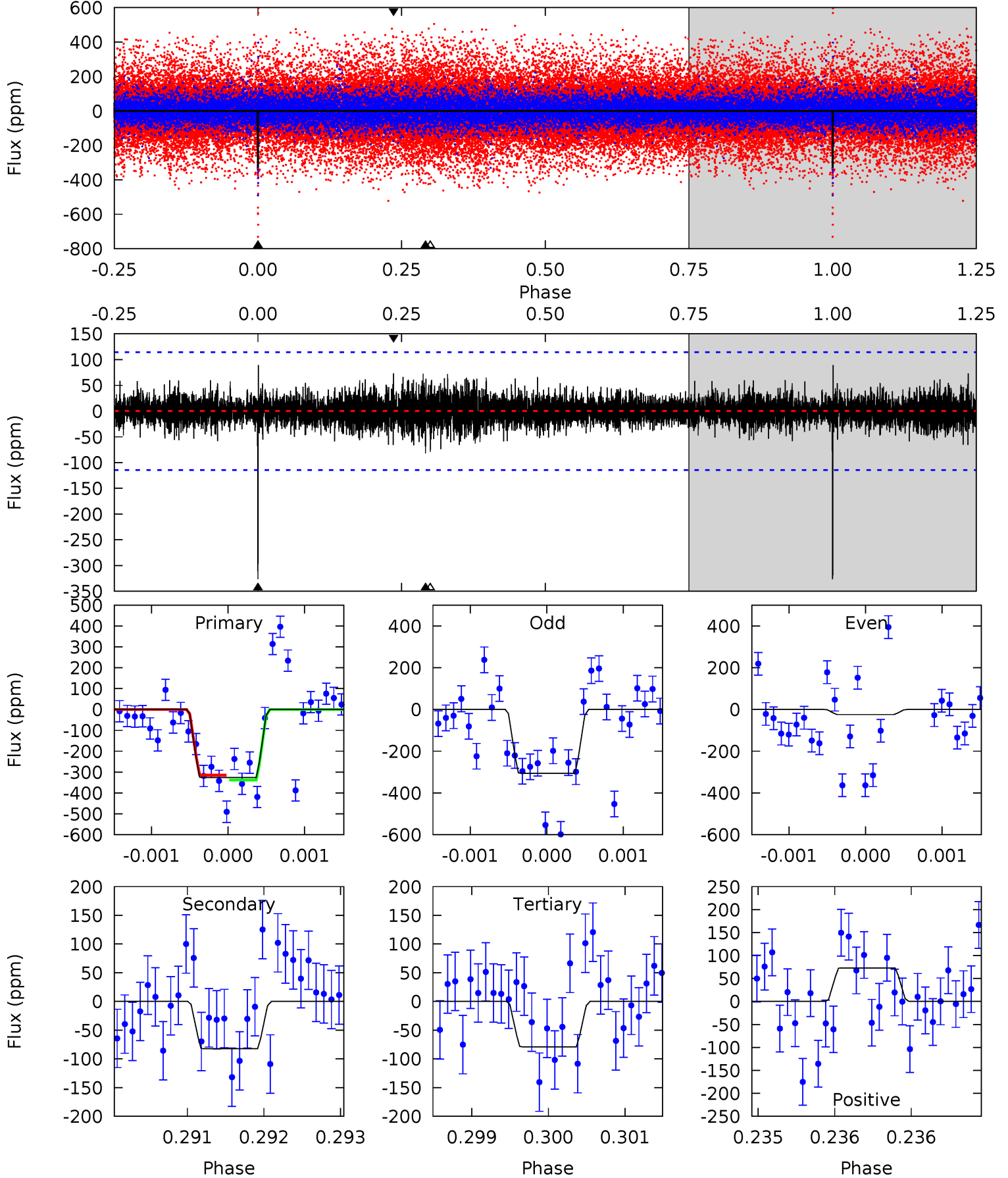
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	6.42	6.39	11.2	5.47	3.32	1.78	5.50	0.73	0.03	-4.74	1.08	1.06	0.48	1.77



Alt Model-Shift Uniqueness Test

005560747-06, P = 217.920740 Days, E = 77.853414 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.7	3.96	3.80	3.51	5.51	3.38	0.86	11.9	12.2	0.16	0.45	6.94	0.61	0.21	0.57



Stellar Parameters For KIC 005560747

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5178^{+171}_{-140}	$3.855^{+0.707}_{-0.303}$	$-0.060^{+0.300}_{-0.250}$	$1.955^{+0.991}_{-1.101}$	$0.998^{+0.224}_{-0.183}$	$0.188^{+2.162}_{-0.122}$
	+3%/-3%	+18%/-8%	+500%/-417%	+51%/-56%	+22%/-18%	+1149%/-65%
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 005560747-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-172 ± 27	$5.38^{+5.98}_{-3.51}$	524^{+77}_{-85}	3911^{+1920}_{-751}	1696^{+12586}_{-1330}
Alt.	-82 ± 21	$4.92^{+6.07}_{-3.21}$	526^{+70}_{-89}	3495^{+1742}_{-642}	919^{+6795}_{-743}

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

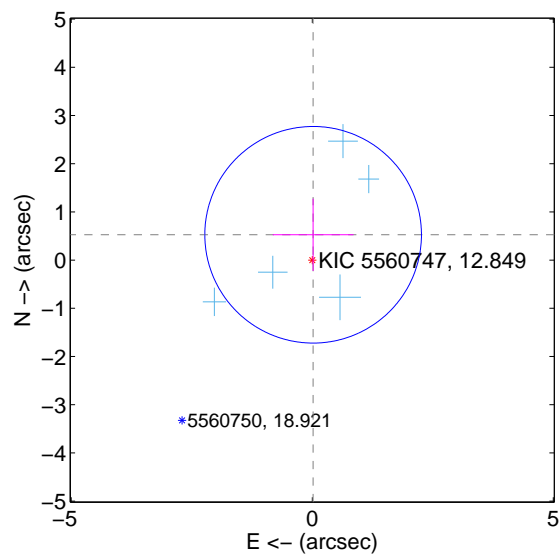
Supplemental centroid analysis for 005560747-06. Kepler magnitude: 12.85. Transit SNR 7.08

There are 5 quarters with good PRF difference image offsets

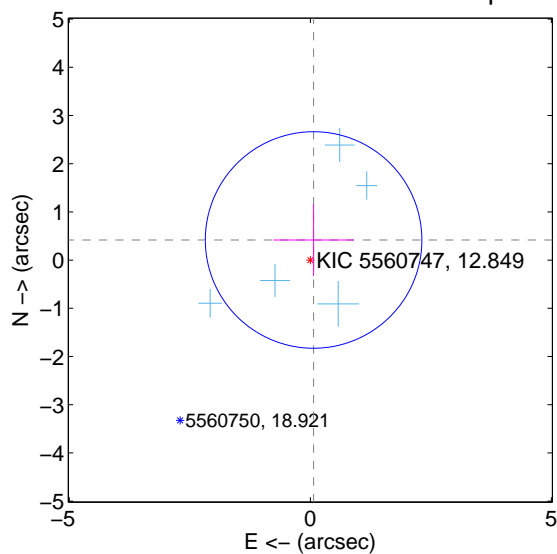
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.526 ± 0.749	0.70	-0.018 ± 0.838	0.525 ± 0.749
PRF-fit source offset from KIC position	0.423 ± 0.749	0.56	-0.068 ± 0.835	0.417 ± 0.746
photometric centroid source offset	0.44 ± 1.25	0.36	0.40 ± 1.30	0.20 ± 0.99

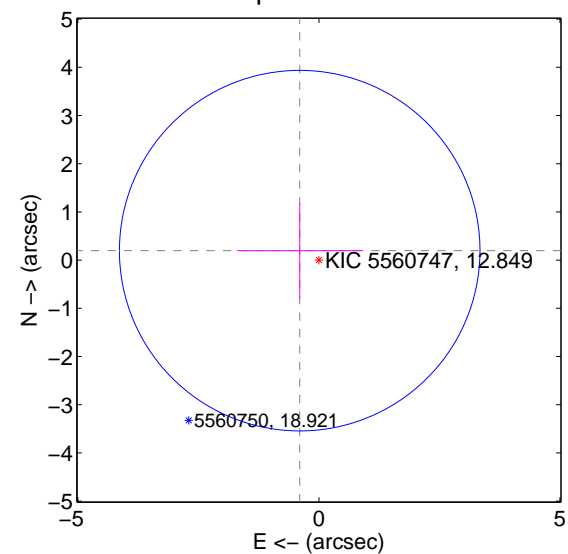
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

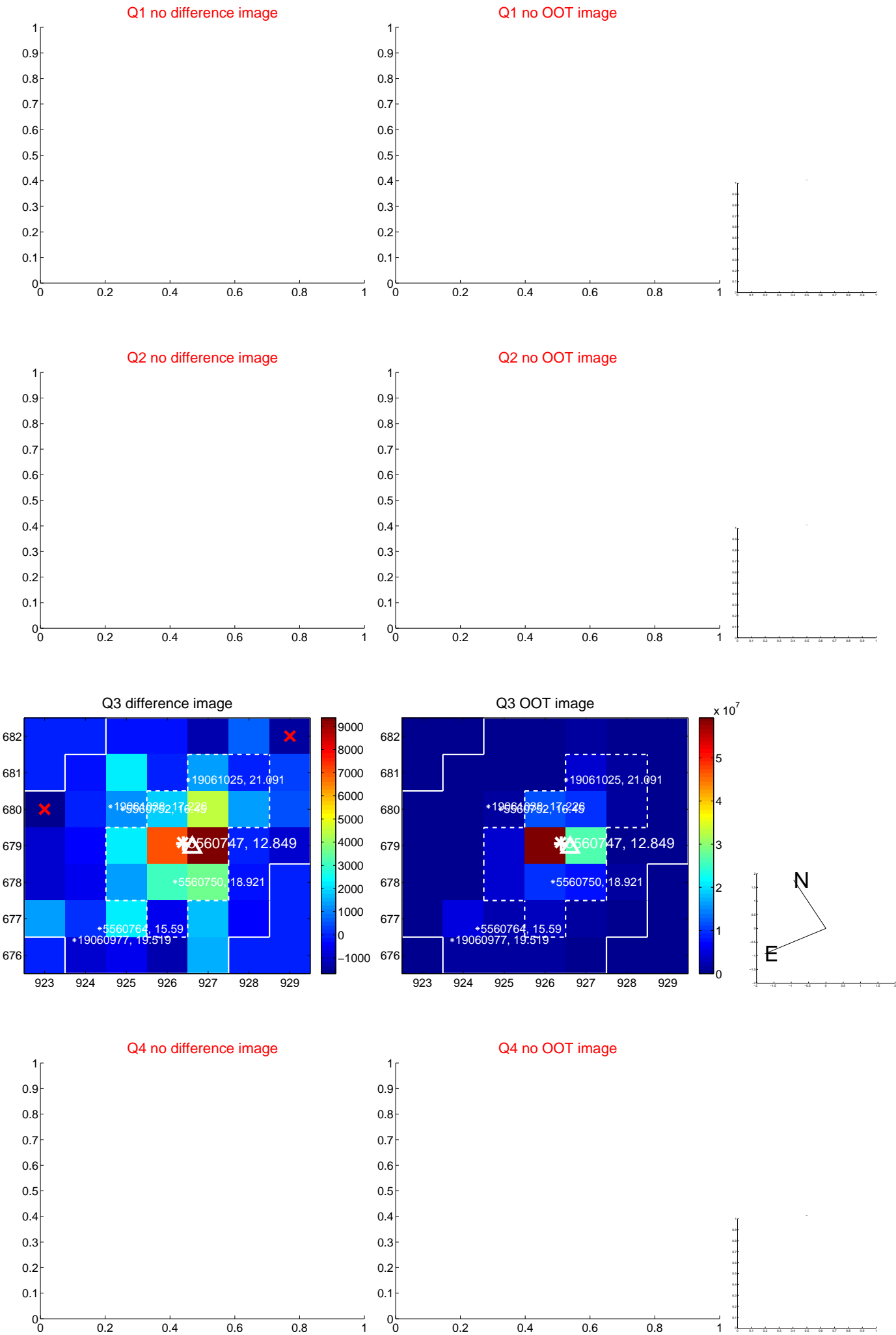


offset from photometric centroids

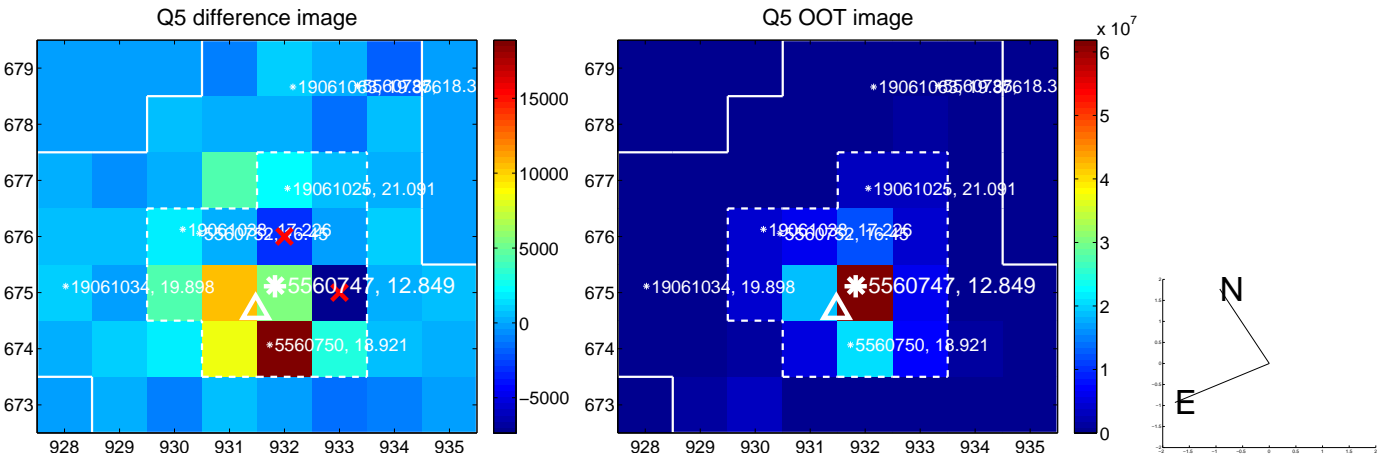


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

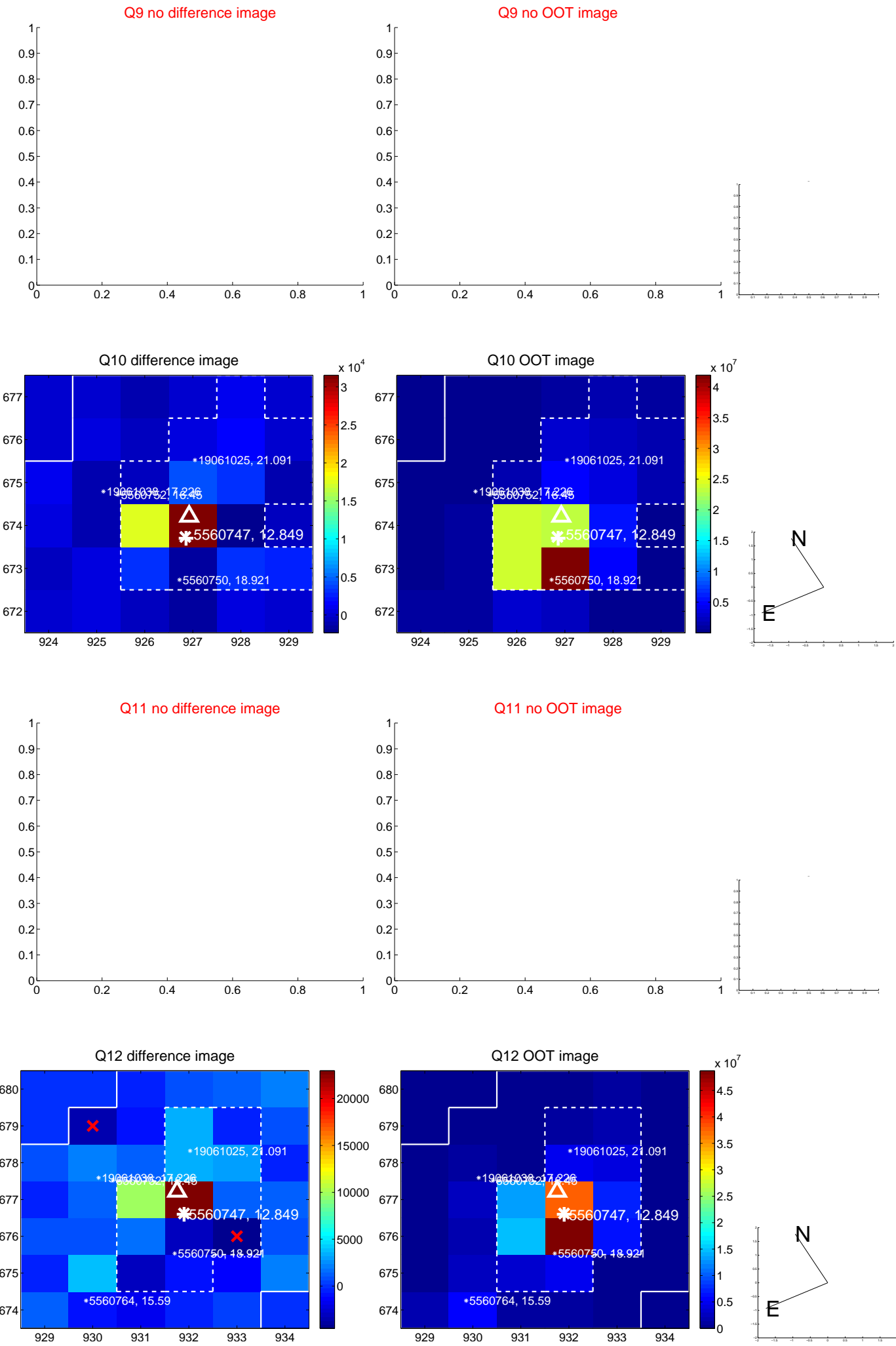
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



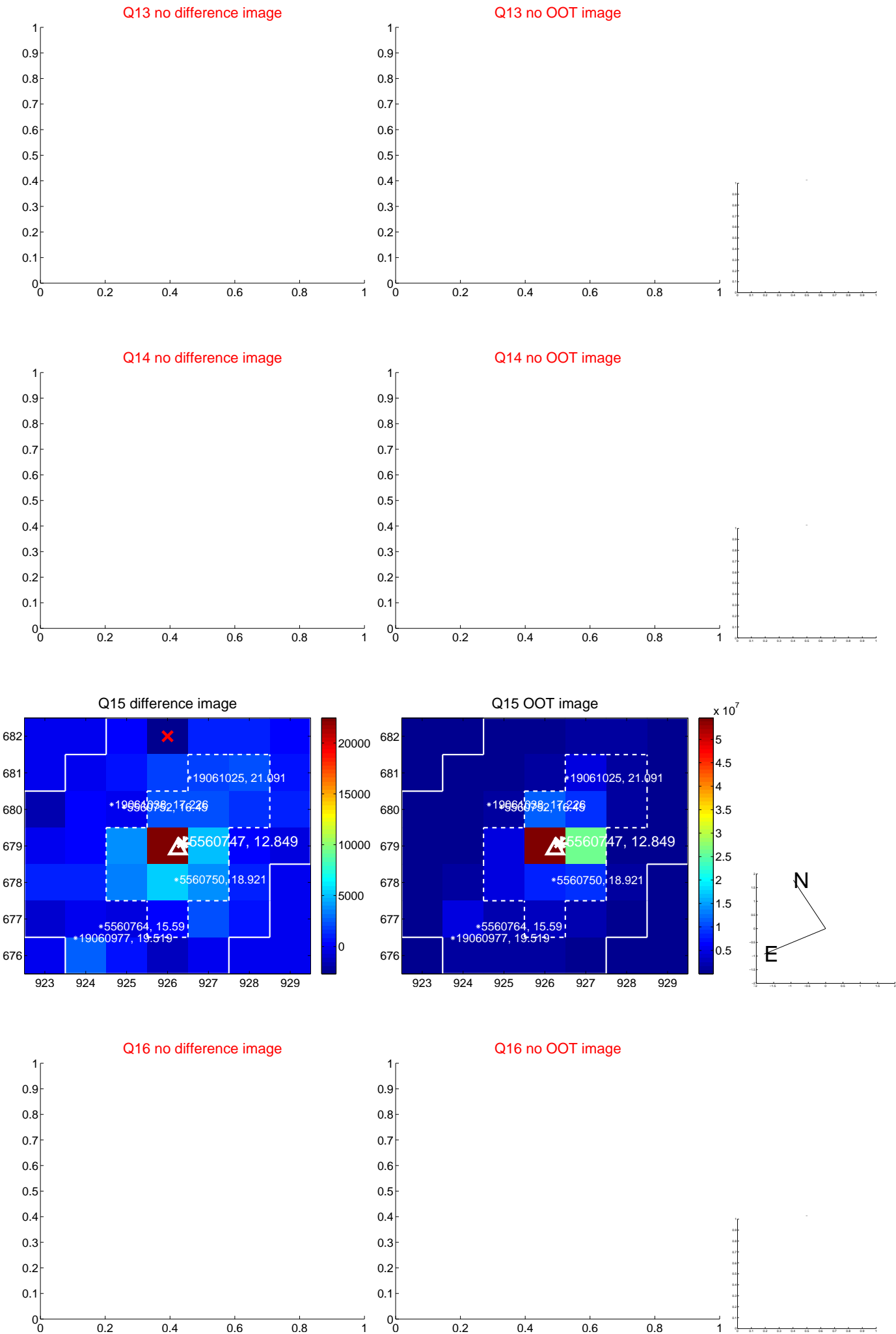
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



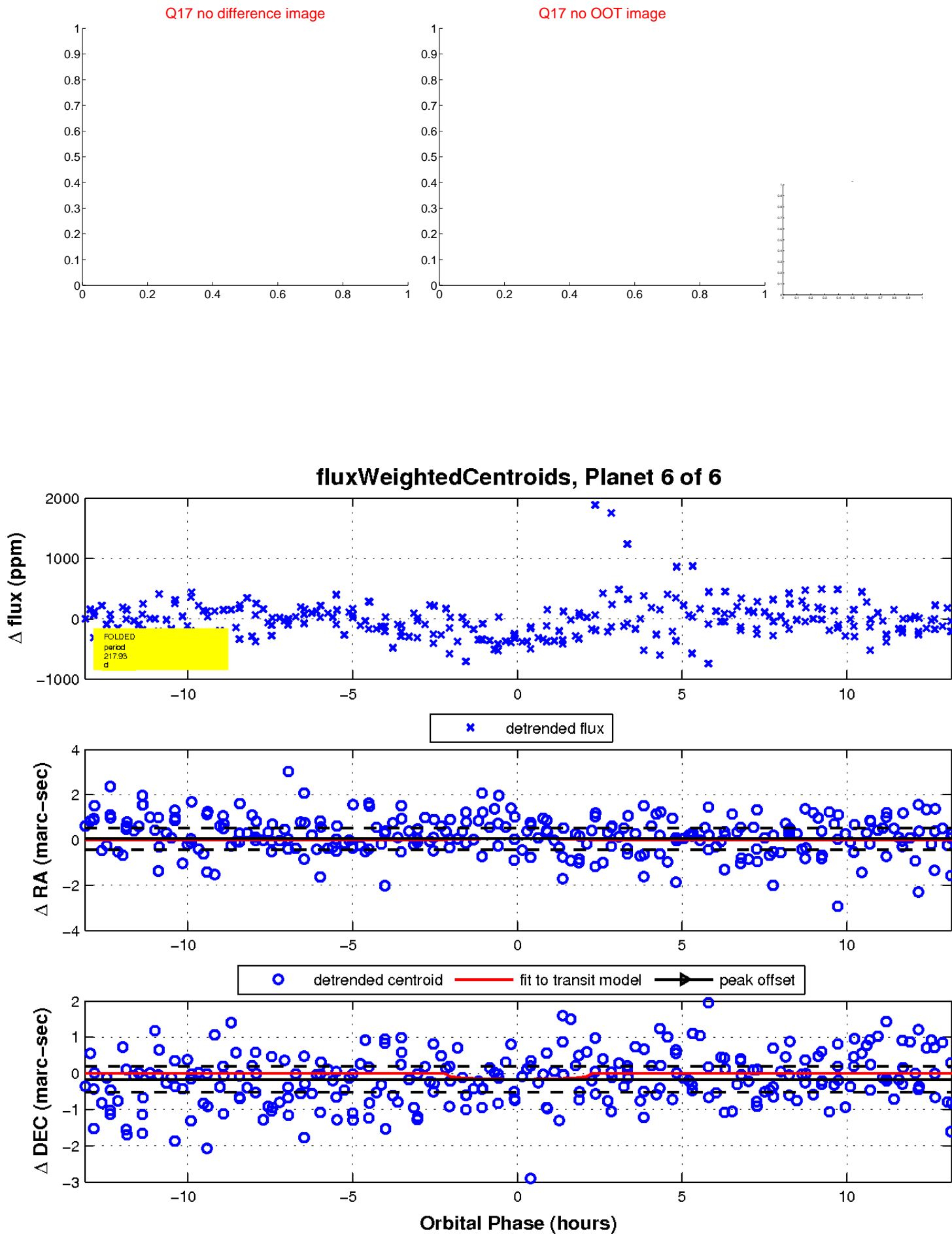
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

