KIC 006508436

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 ($S_\oplus$)
006508436-01	OBS	No	336.785851	334.906102	996.7	2.958	16.4	6.1	0.83	5706	2.65	0.78
006508436-02	OBS	No	518.432935	311.515903	1109.7	12.659	12.2	5.6	0.83	5706	2.83	0.44
006508436-03	OBS	No	513.645209	173.668834	475.9	12.000	12.0	-1.0	0.83	5706	1.80	0.44
006508436-04	OBS	No	304.366537	380.965326	1023.3	3.033	11.4	6.3	0.83	5706	2.73	0.89
006508436-05	OBS	No	171.592974	226.839000	446.9	3.234	11.5	4.5	0.83	5706	1.83	1.91
006508436-06	OBS	No	464.338263	511.146777	409.1	8.995	11.3	2.2	0.83	5706	1.72	0.51
006508436-07	OBS	No	498.345043	506.977086	1005.2	5.496	11.7	5.7	0.83	5706	2.81	0.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006508436-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
006508436-04	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—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006508436-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

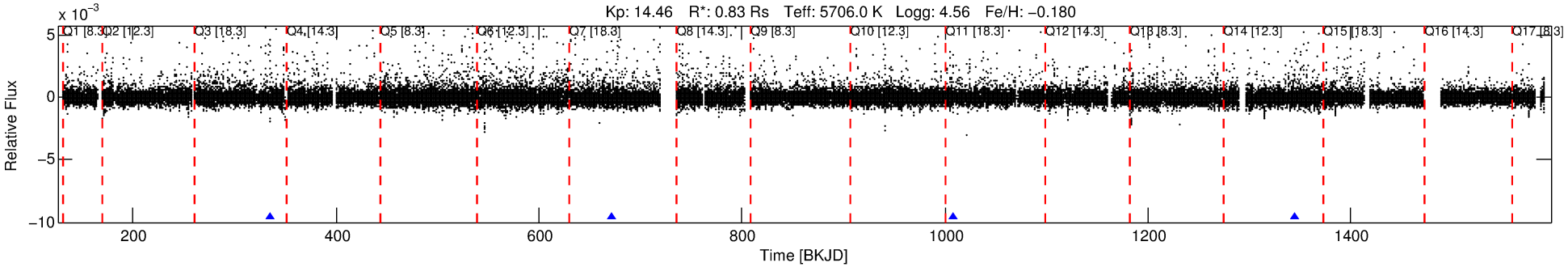
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

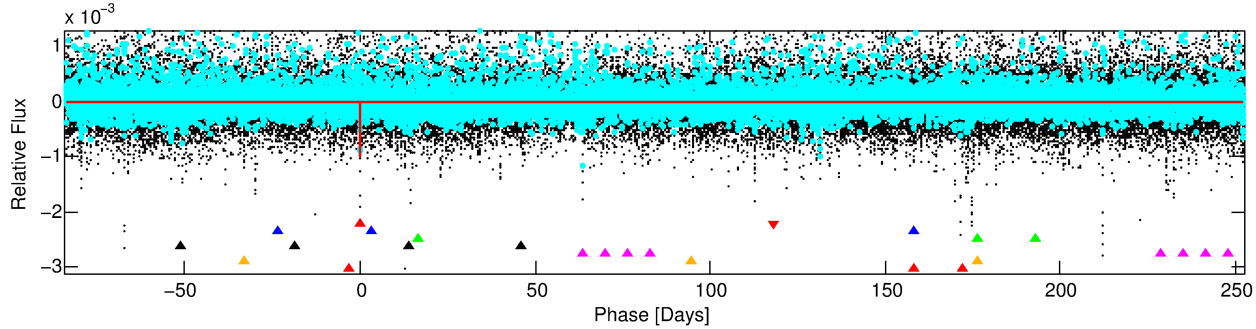
Ephemeris Match Information For 006508436-01

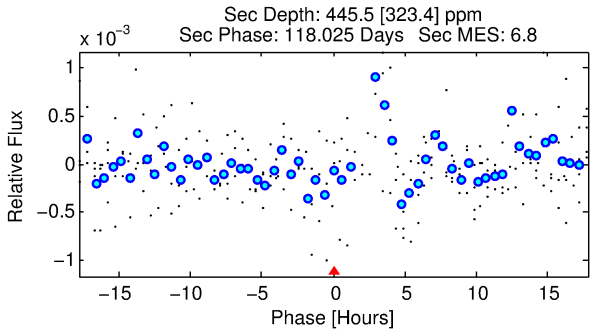
No Significant Match Found

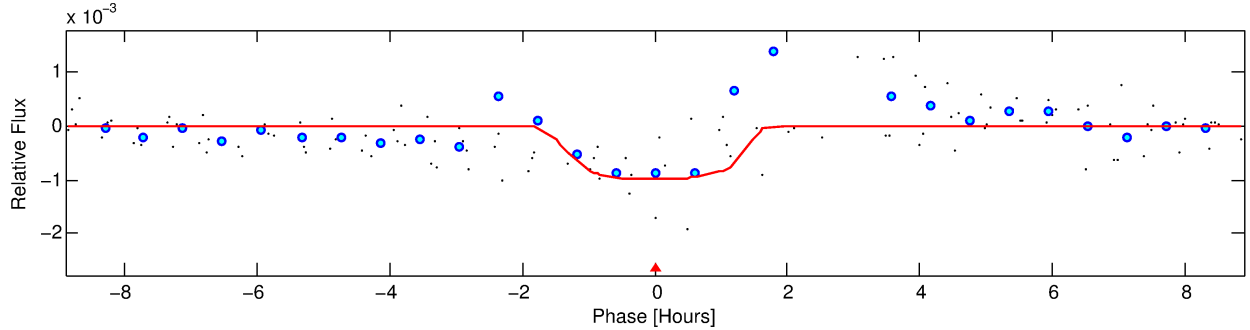
DV One-Page Summary

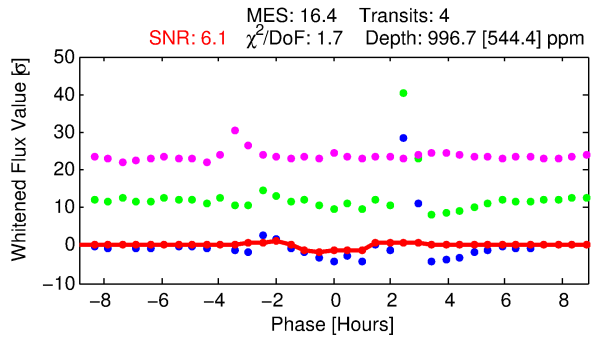
KIC: 6508436 Candidate: 1 of 7 Period: 336.786 d

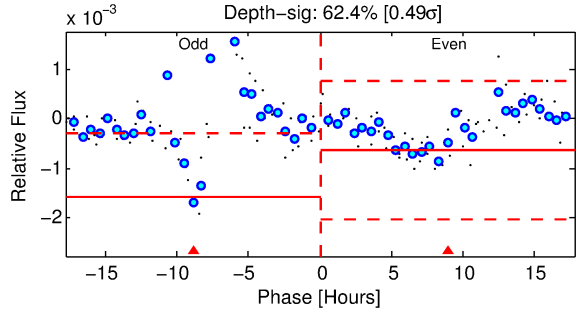


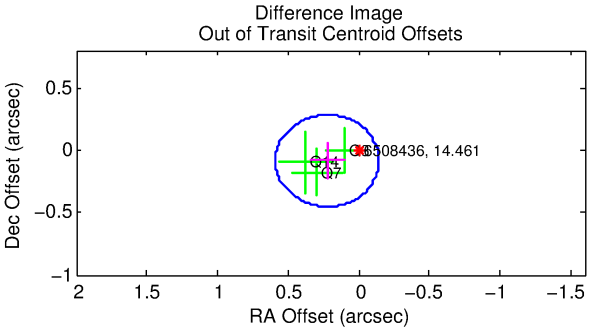












DV Fit Results:

Period = 336.78585 [0.01099] d
Epoch = 334.9061 [0.0265] BKJD
Rp/R* = 0.0291 [0.2865]
a/R* = 843.55 [36540.90]
b = 0.34 [111.85]

Seff = 0.78 [0.24]
Teq = 239 [18] K
Rp = 2.64 [26.08] Re
a = 0.9227 [0.1808] AU

Ag = 29834.16 [588739.46] [0.05σ]
Teffp = 4863 [23989] K [0.19σ]

DV Diagnostic Results:

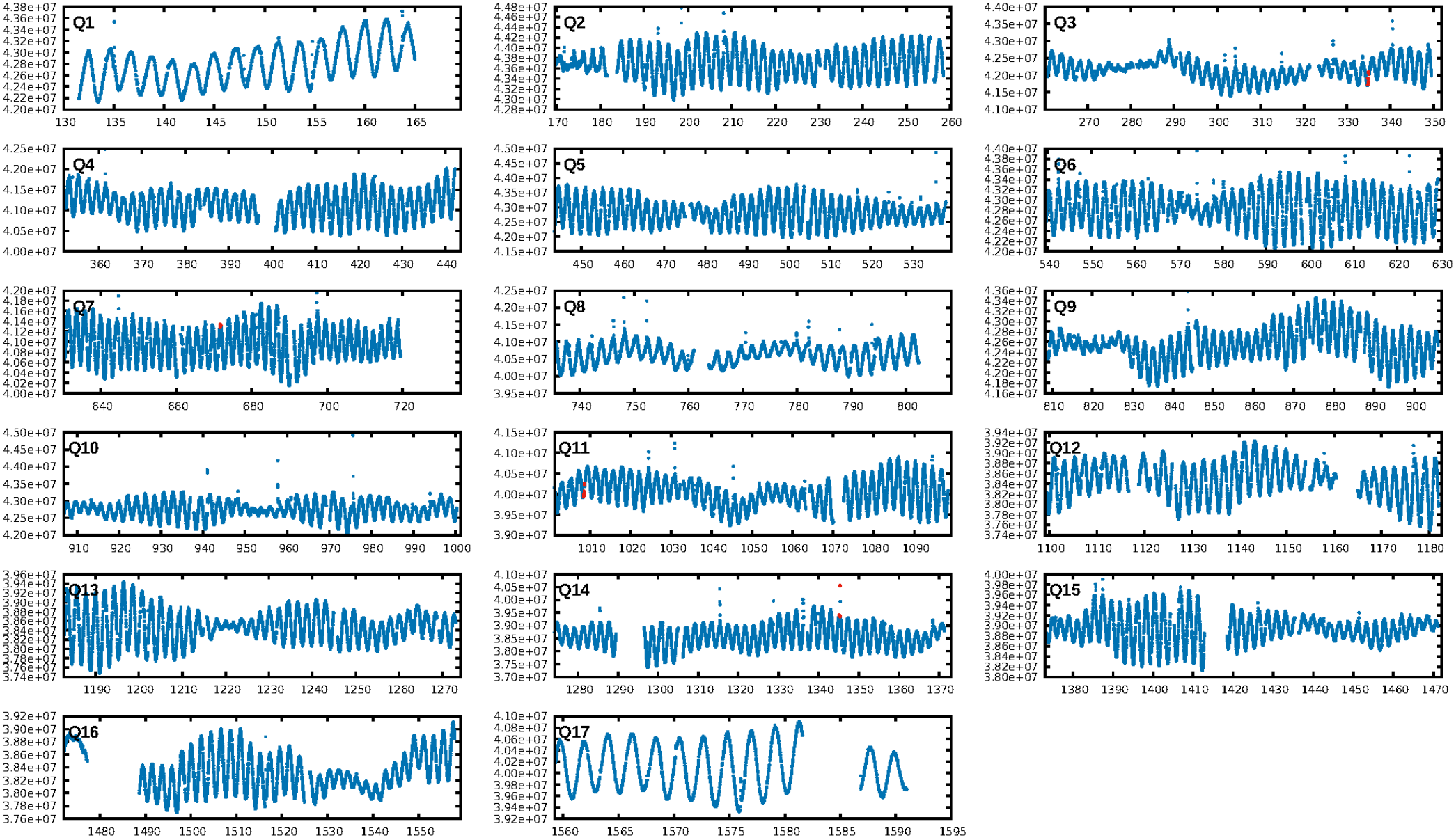
ShortPeriod−sig: 100.0% [183.67σ]
LongPeriod−sig: 100.0% [323.28σ]
ModelChiSquare2−sig: 0.0%
ModelChiSquareGof−sig: 19.8%
Bootstrap−pfa: 5.04e−16
RollingBand−fgt: 1.00 [4/4]
GhostDiagnostic−chr: 0.8956

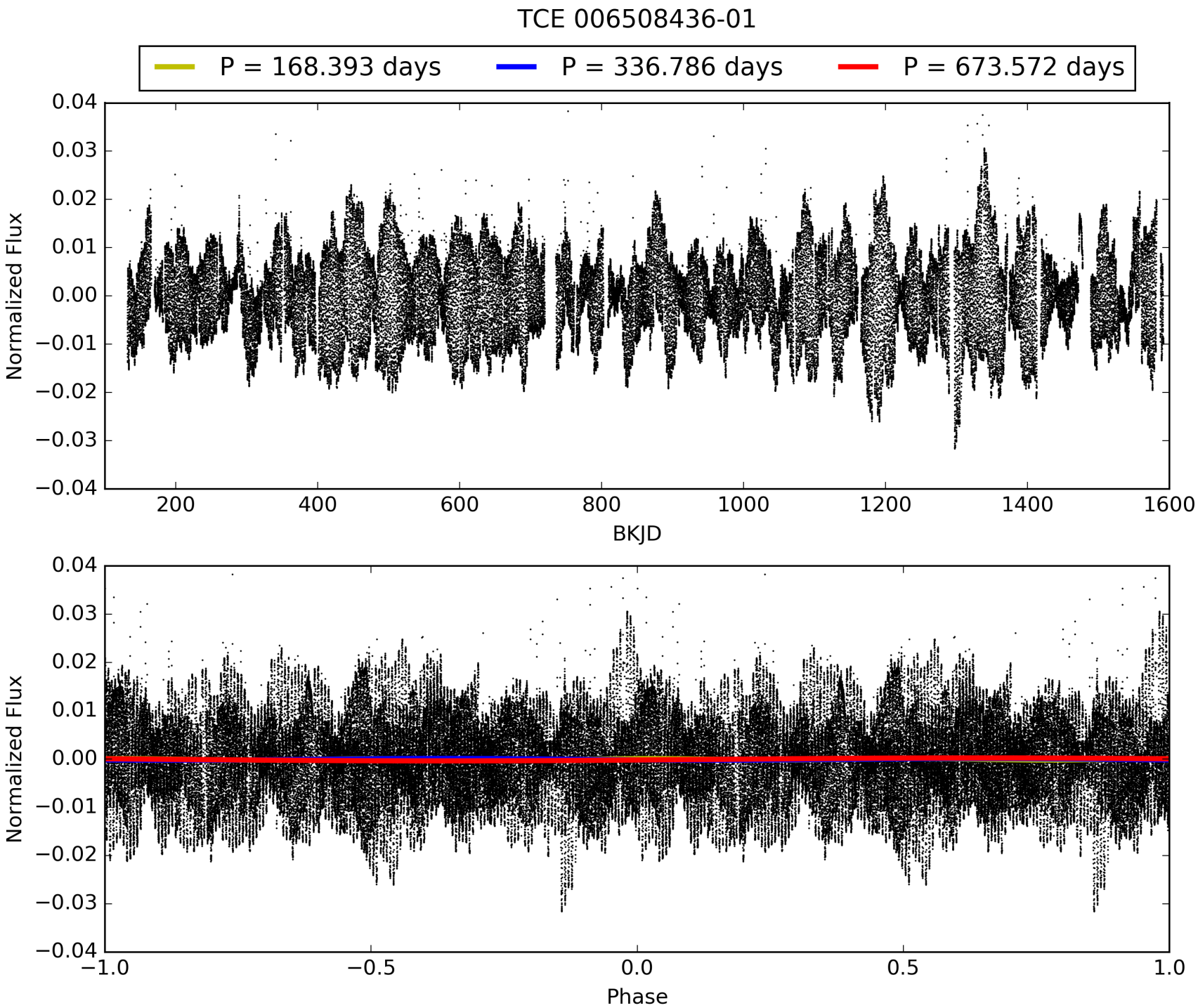
Centroid−sig: 13.4%
Centroid−so: 0.741 arcsec [0.98σ]
OotOffset−rm: 0.240 arcsec [1.96σ]
KicOffset−rm: 0.269 arcsec [2.12σ]
OotOffset−st: 1/2/0/0 [3]
KicOffset−st: 1/2/0/0 [3]
DiffImageQuality−fgm: 0.33 [1/3]
DiffImageOverlap−fno: 1.00 [3/3]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:01:46 Z

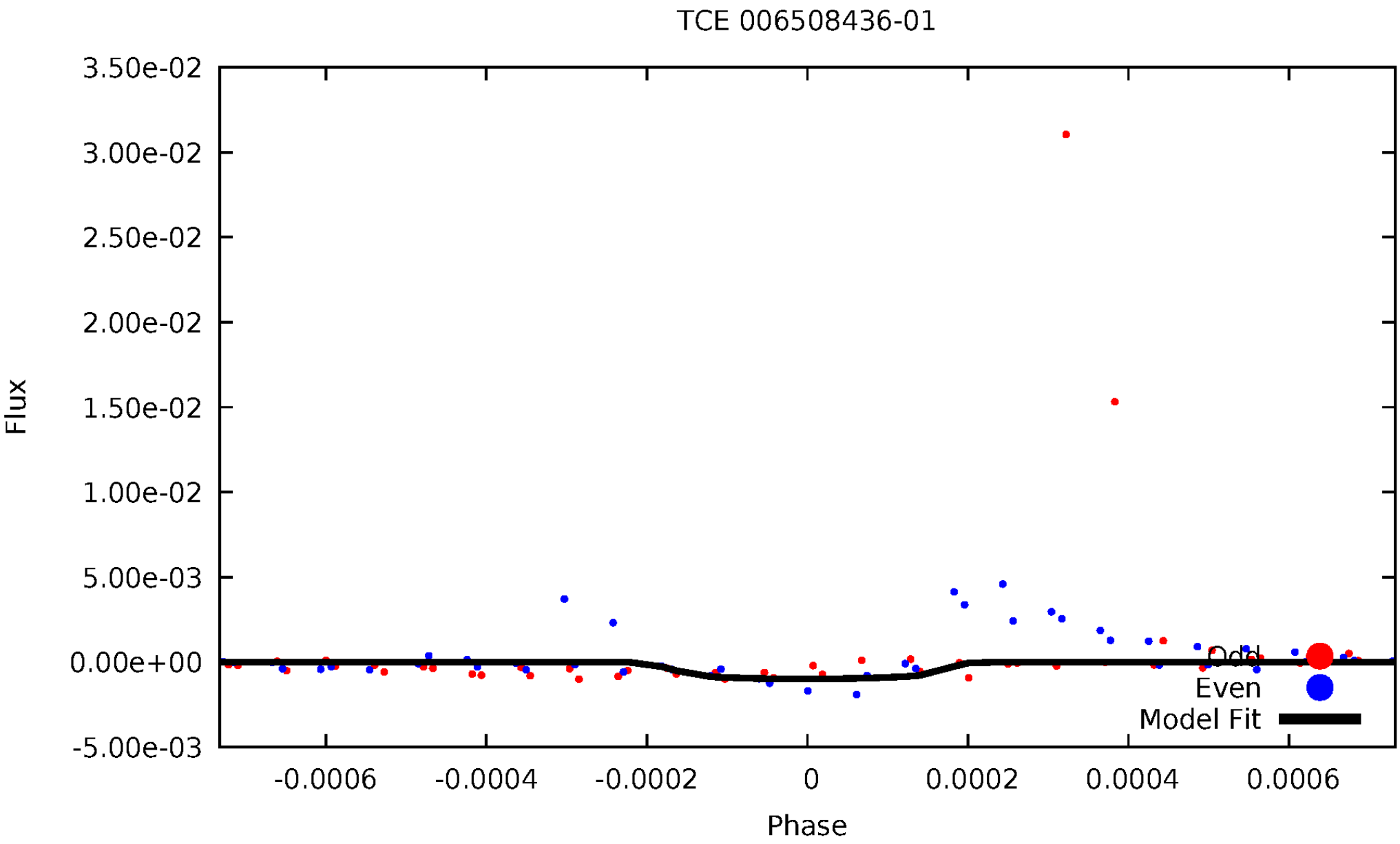
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006508436-01, PDC Light Curves




TCE 006508436-01
P = 168.393 days
P = 336.786 days
P = 673.572 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even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5.00e-03
0.00e+00
-5.00e-03
Flux
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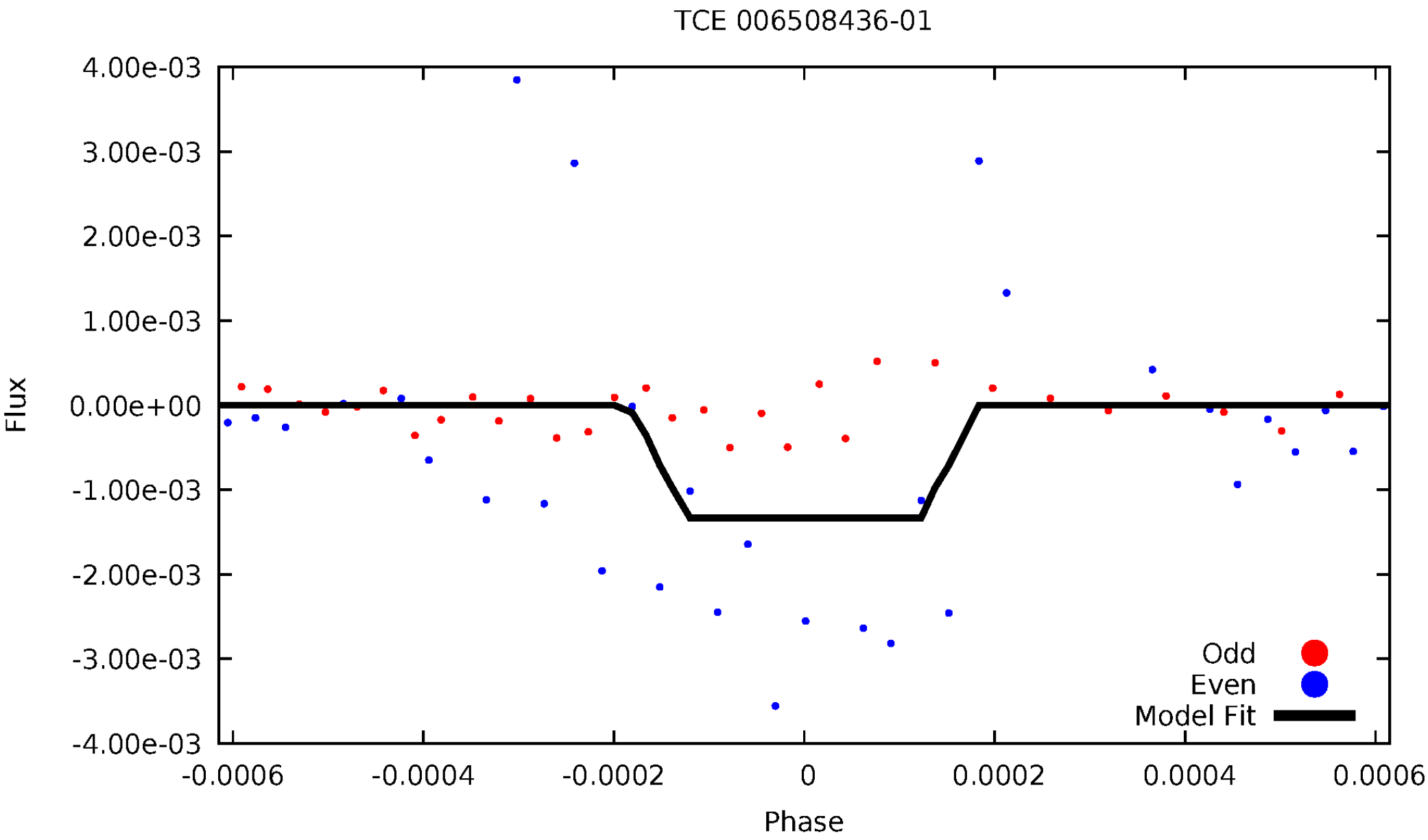
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
Phase
Odd
Even
Model Fit

ALT Odd/Even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0.00e+00
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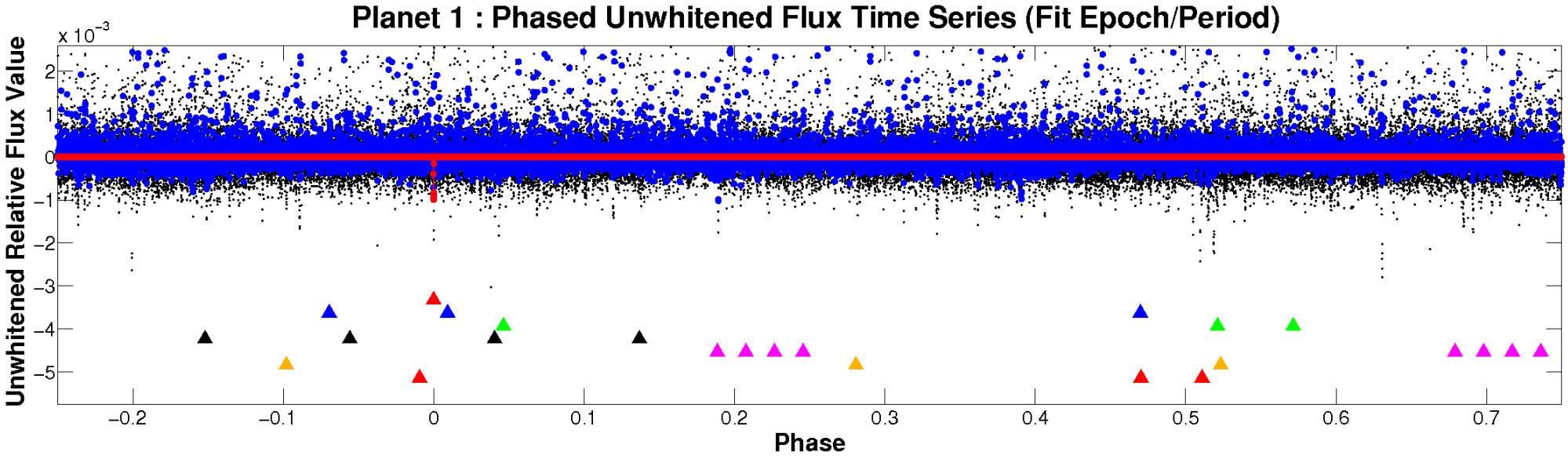
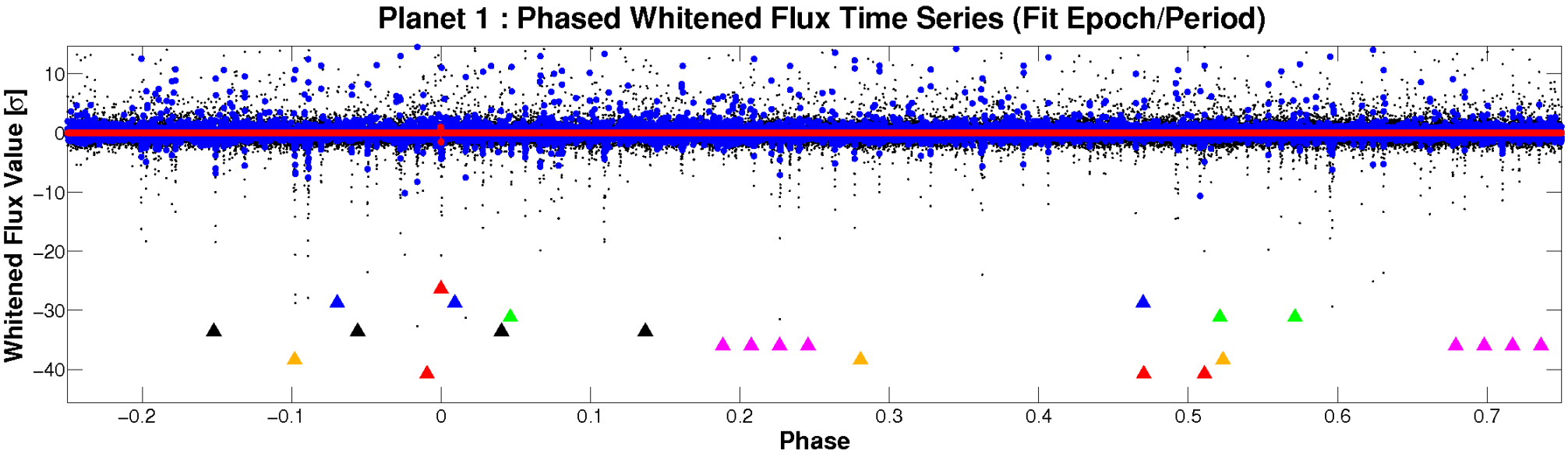
-3.00e-03
-4.00e-03
Flux
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
Phase
Odd
Even
Model Fit

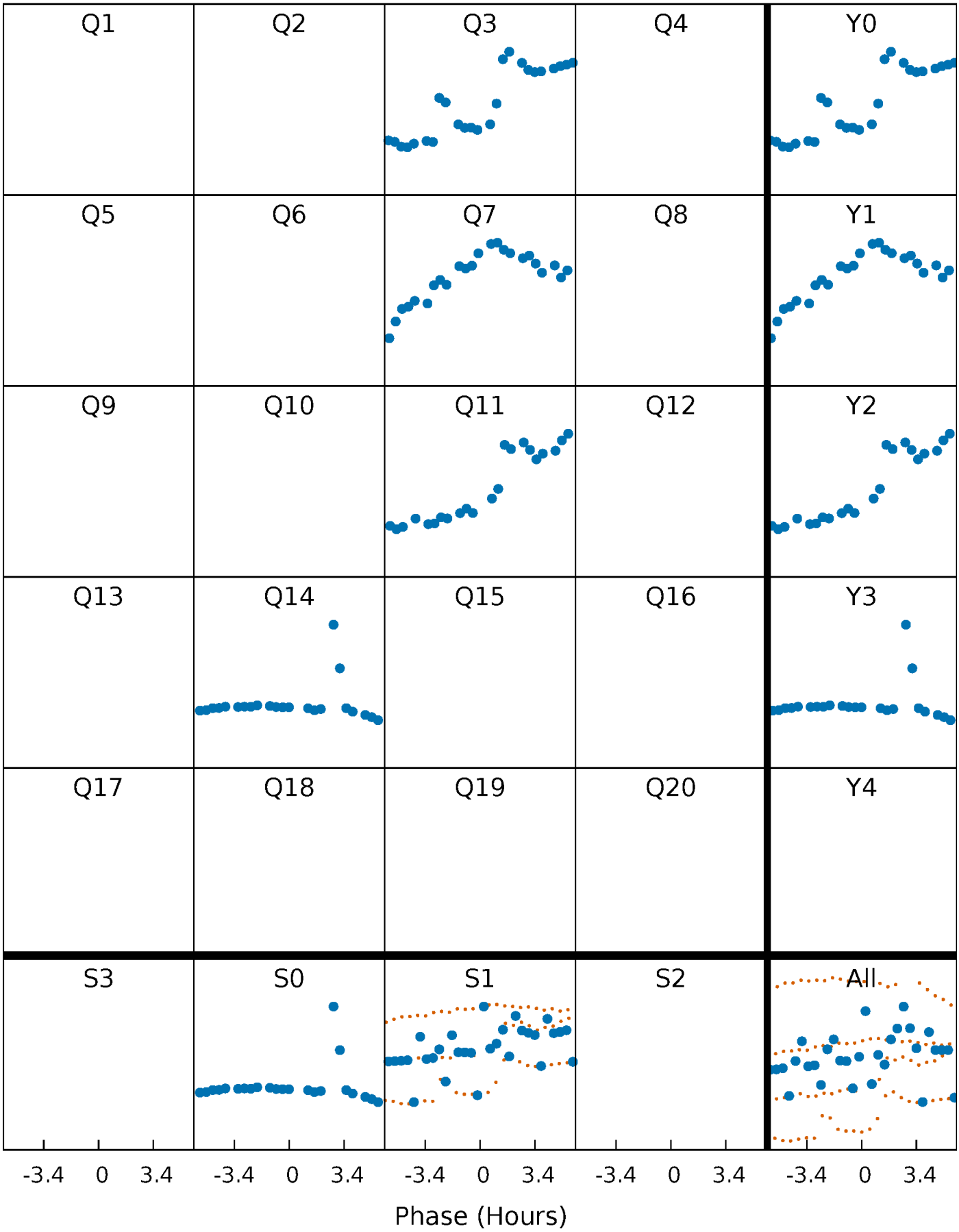
Non-Whitened Vs. Whitened Light Curve





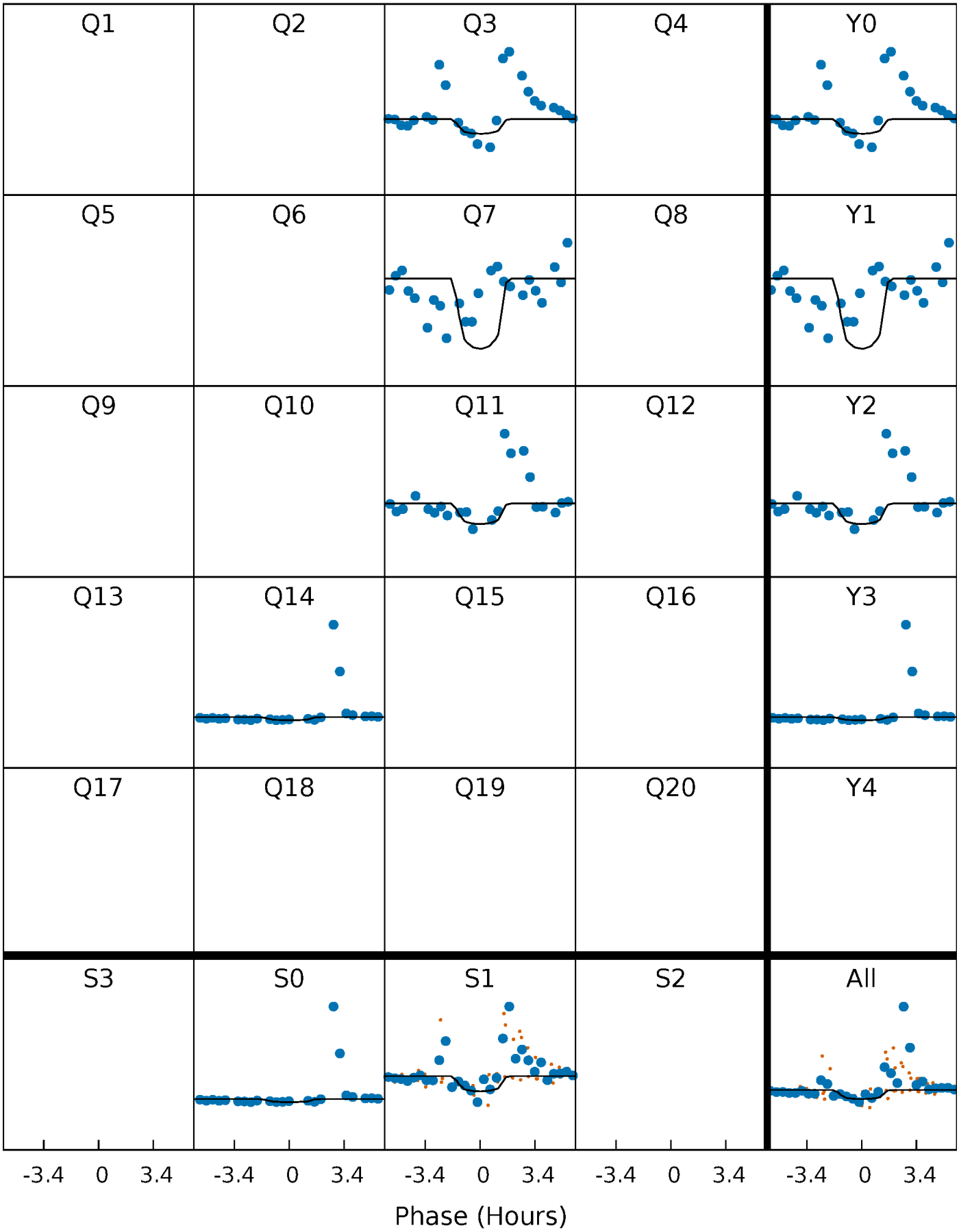
PDC Quarter-Phased Transit Curves

TCE 006508436-01 P=336.785851 Days T_0=334.906102 (BKJD)



DV Quarter-Phased Transit Curves

TCE 006508436-01 P=336.785851 Days T_0=334.906102 (BKJD)



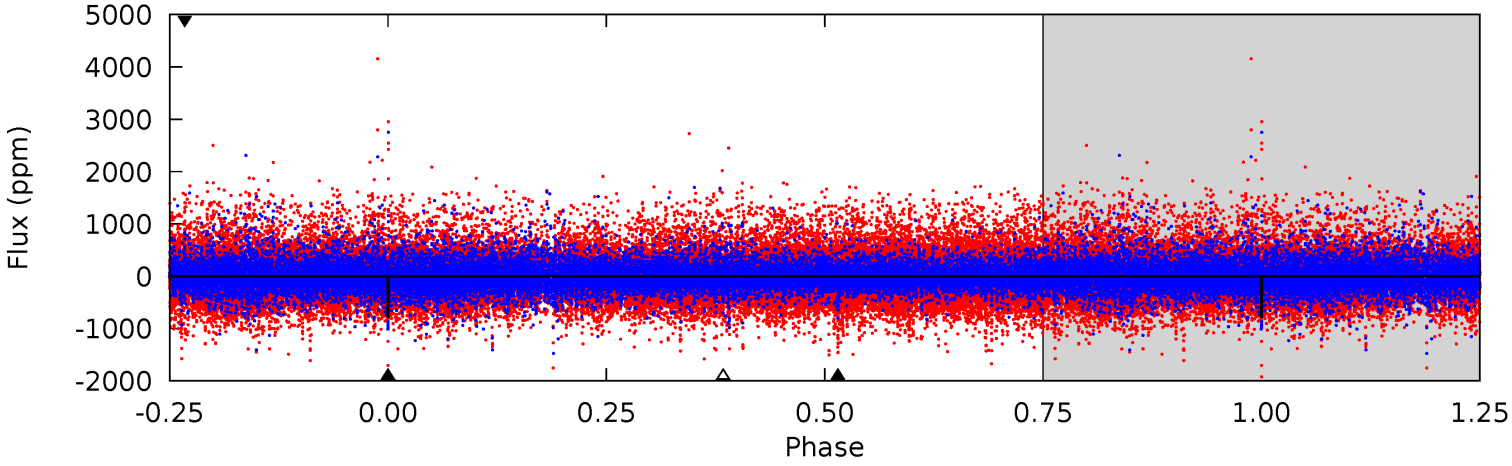
Alt. Detrend Quarter-Phased Transit Curves

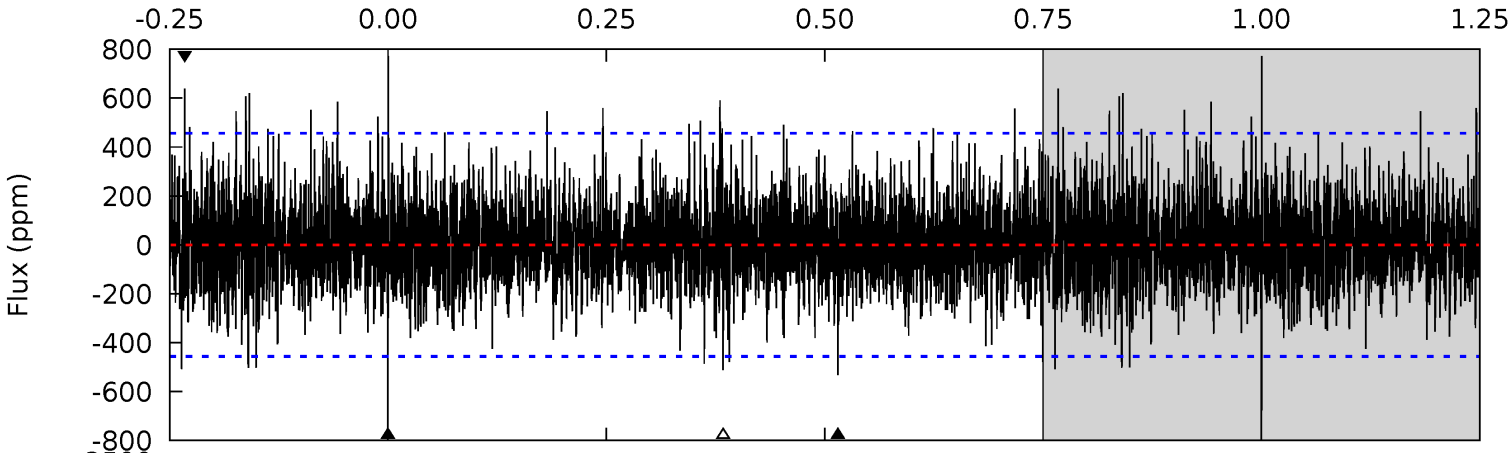
TCE 006508436-01 P=336.783180 Days T_0=334.905780 (BKJD)

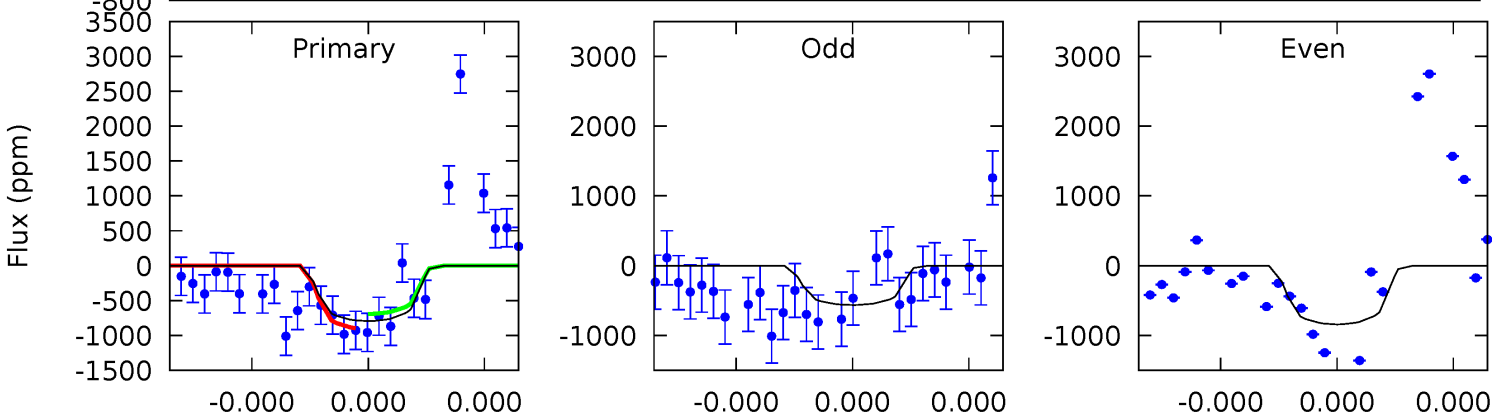
DV Model-Shift Uniqueness Test

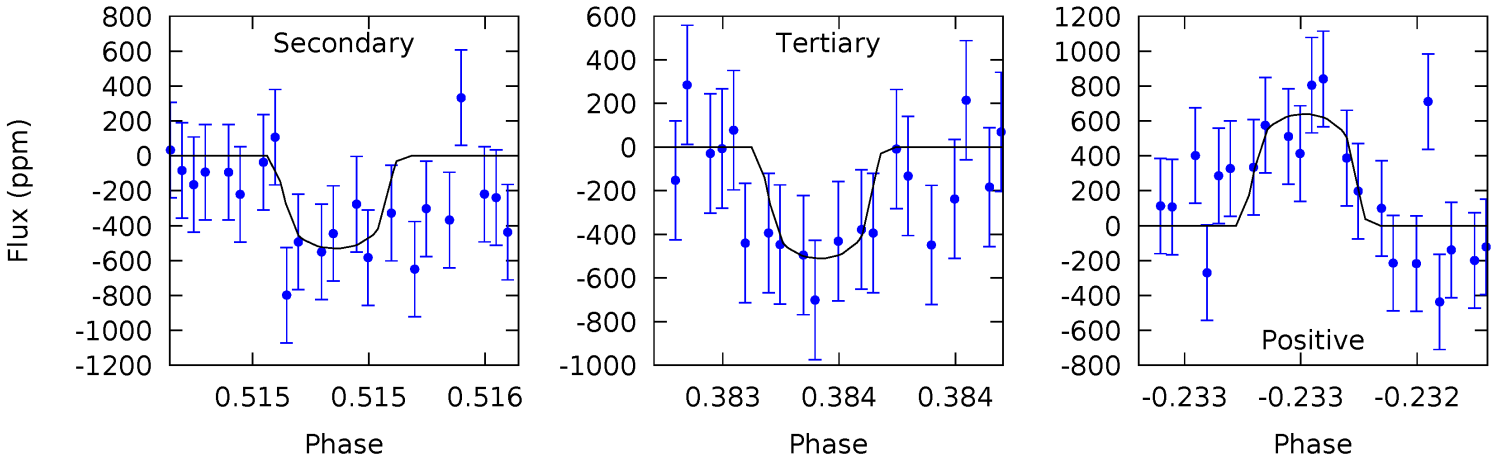
006508436-01, P = 336.785851 Days, E = 334.906102 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.78	6.55	6.30	7.88	5.62	3.55	1.70	3.49	1.90	0.25	-1.34	1.54	0.88	0.49	1.27





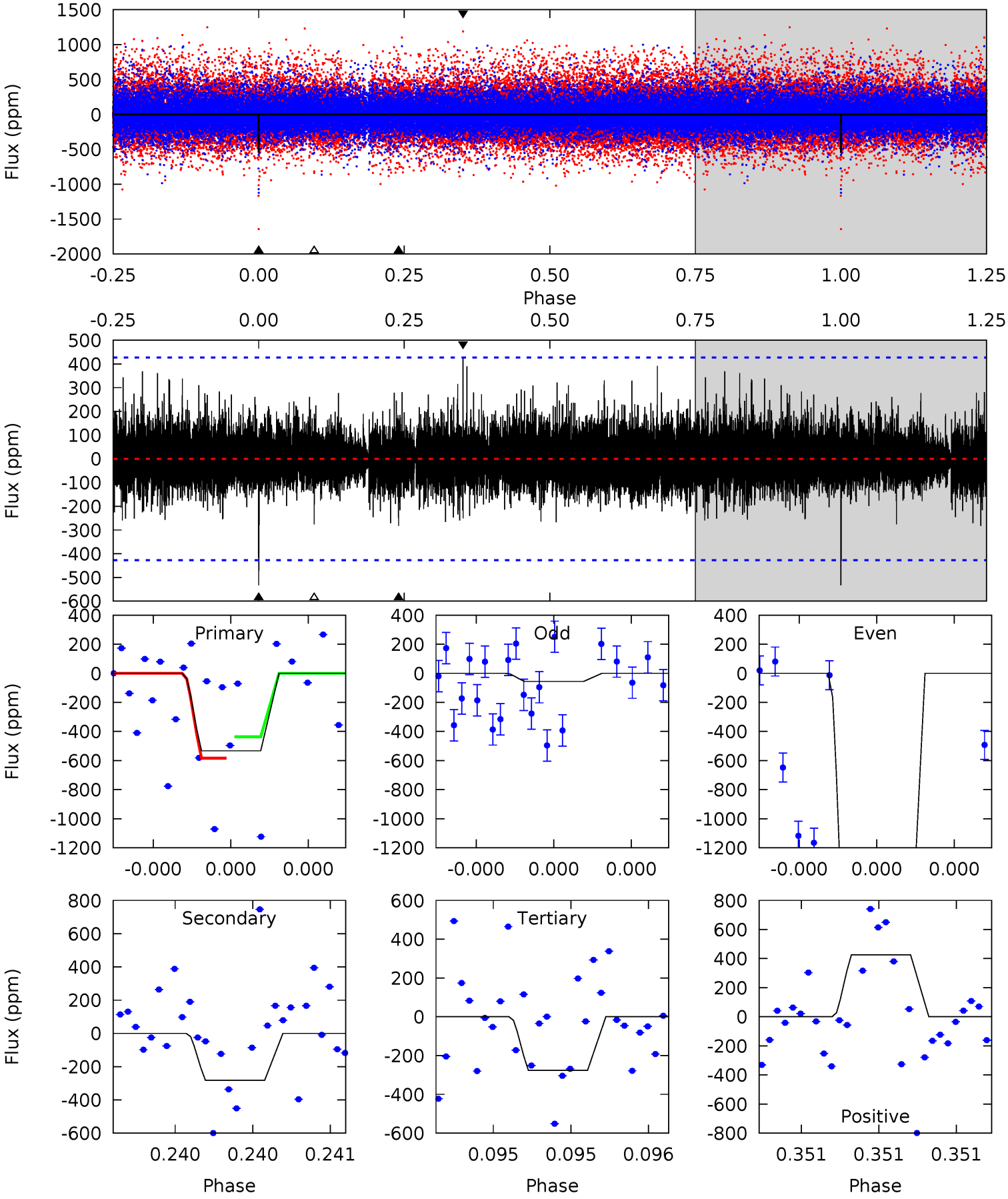




Alt Model-Shift Uniqueness Test

006508436-01, P = 336.783180 Days, E = 334.905780 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.05	3.73	3.65	5.63	5.65	3.60	0.94	3.40	1.42	0.08	-1.89	19.2	1.16	0.44	0.79



Stellar Parameters For KIC 006508436

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	5706^{+152}_{-152}	$4.561^{+0.040}_{-0.160}$	$-0.180^{+0.300}_{-0.300}$	$0.834^{+0.191}_{-0.076}$	$0.930^{+0.092}_{-0.112}$	$2.255^{+0.469}_{-0.974}$
	+3%/-3%	+1%/-4%	+167%/-167%	+23%/-9%	+10%/-12%	+21%/-43%
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 006508436-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-531±81	$19.20^{+23.50}_{-13.62}$	341^{+19}_{-13}	2712^{+1207}_{-462}	656^{+7203}_{-521}
Alt.	-282±76	$19.03^{+22.81}_{-13.30}$	342^{+19}_{-14}	2488^{+987}_{-392}	330^{+3691}_{-260}

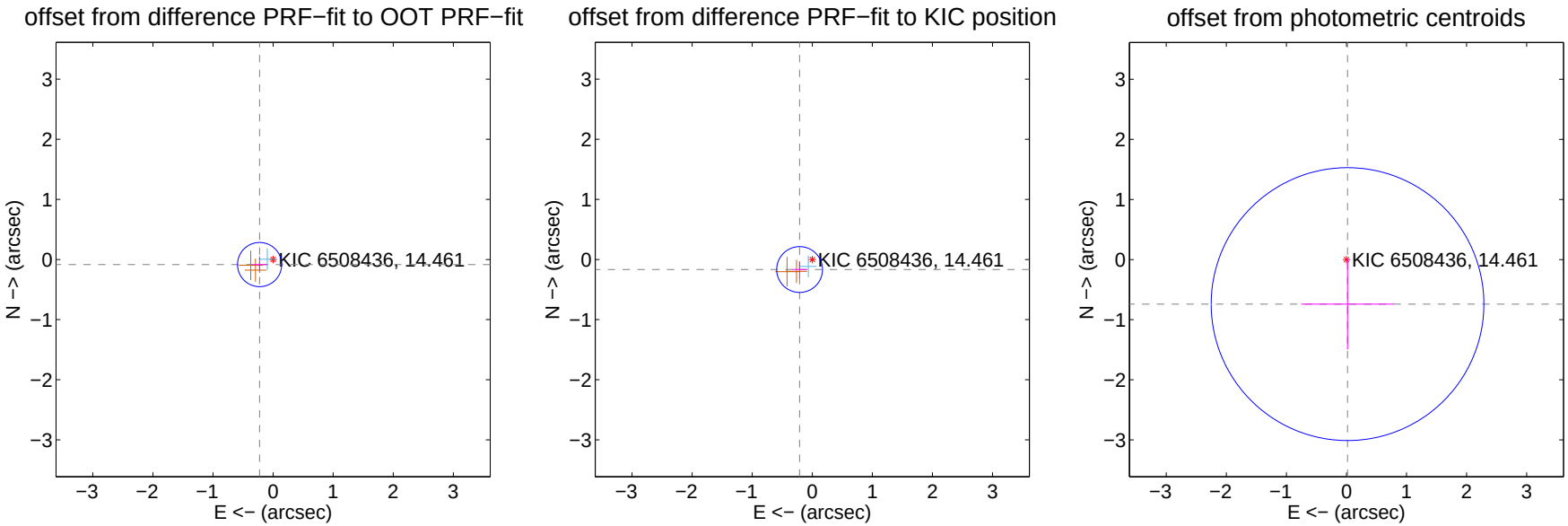
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

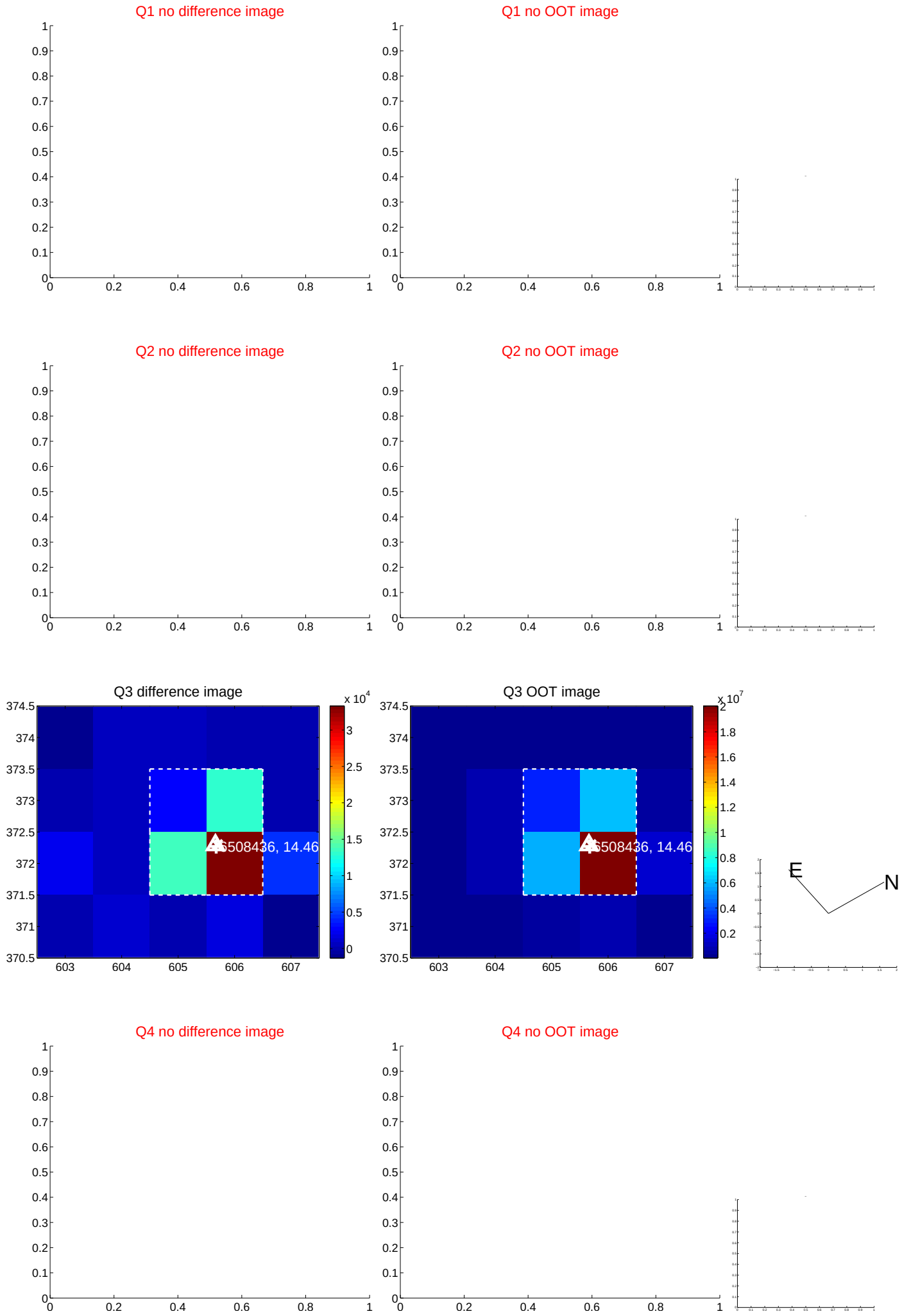
Supplemental centroid analysis for 006508436-01. Kepler magnitude: 14.46. Transit SNR 6.11
There are 1 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.240 ± 0.123	1.96	0.225 ± 0.120	-0.085 ± 0.137
PRF-fit source offset from KIC position	0.269 ± 0.127	2.12	0.211 ± 0.120	-0.167 ± 0.137
photometric centroid source offset	0.74 ± 0.76	0.98	-0.02 ± 0.77	-0.74 ± 0.76

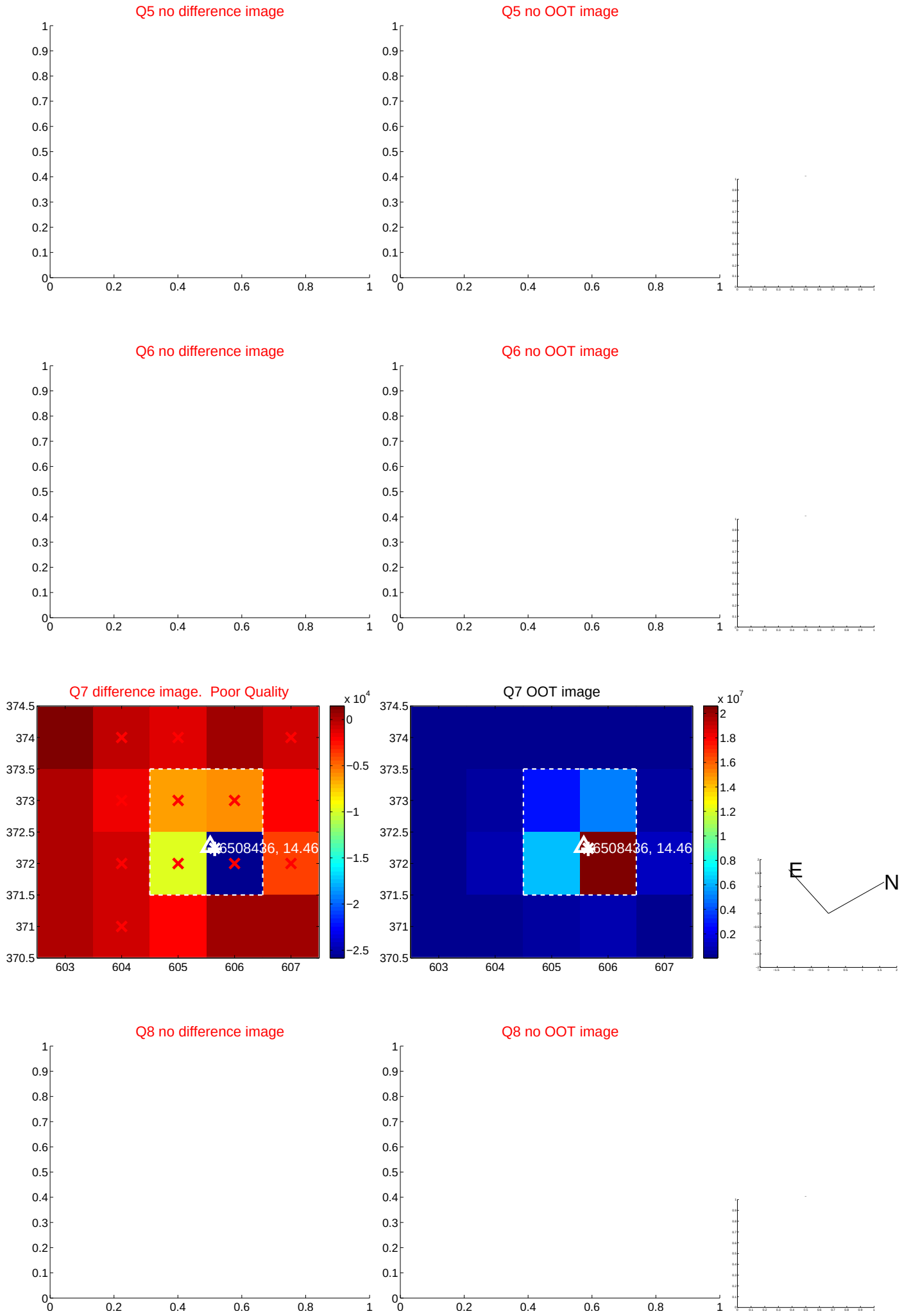


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

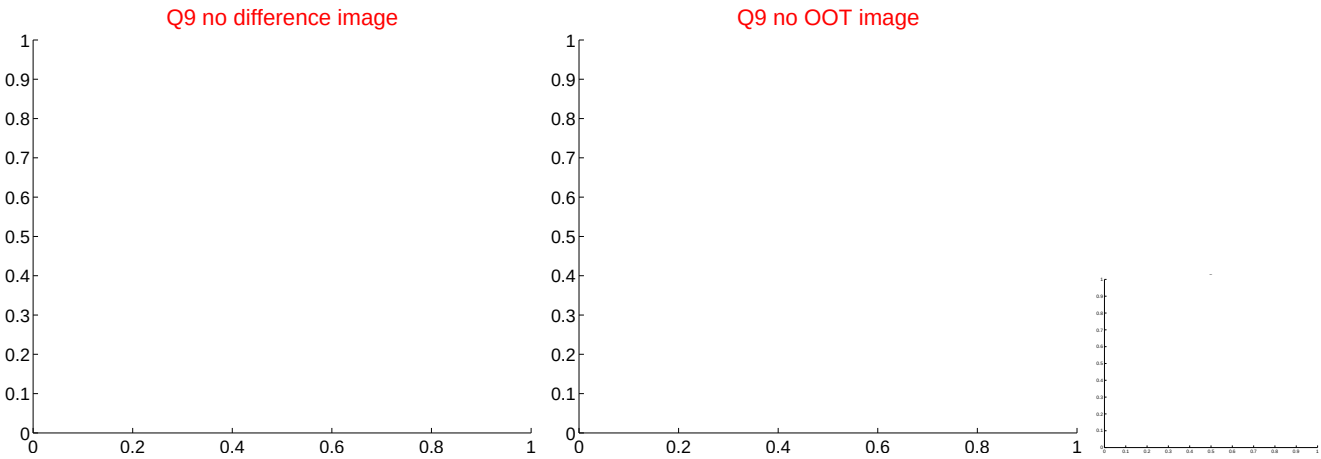
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

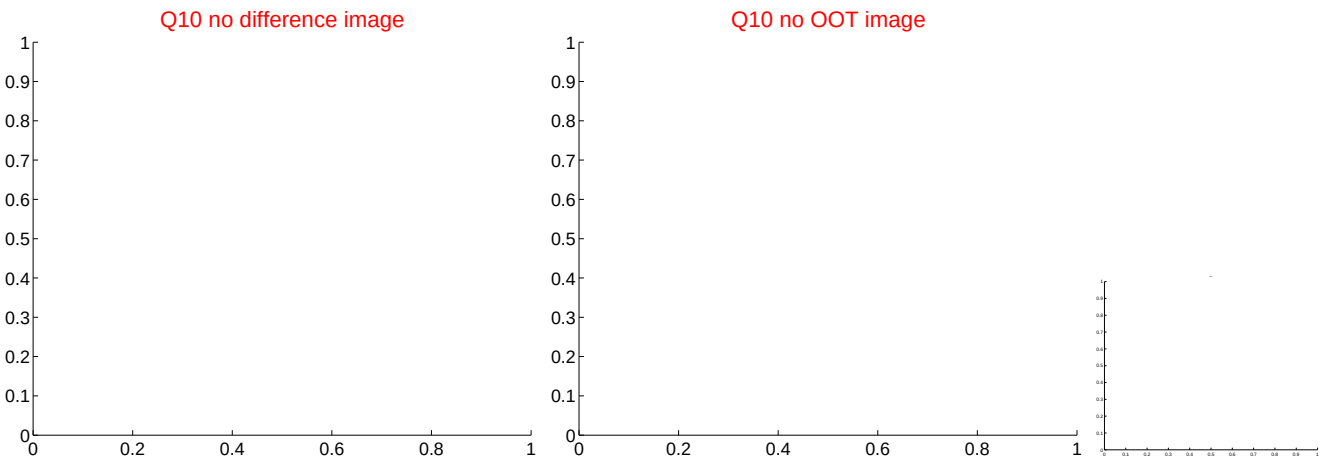


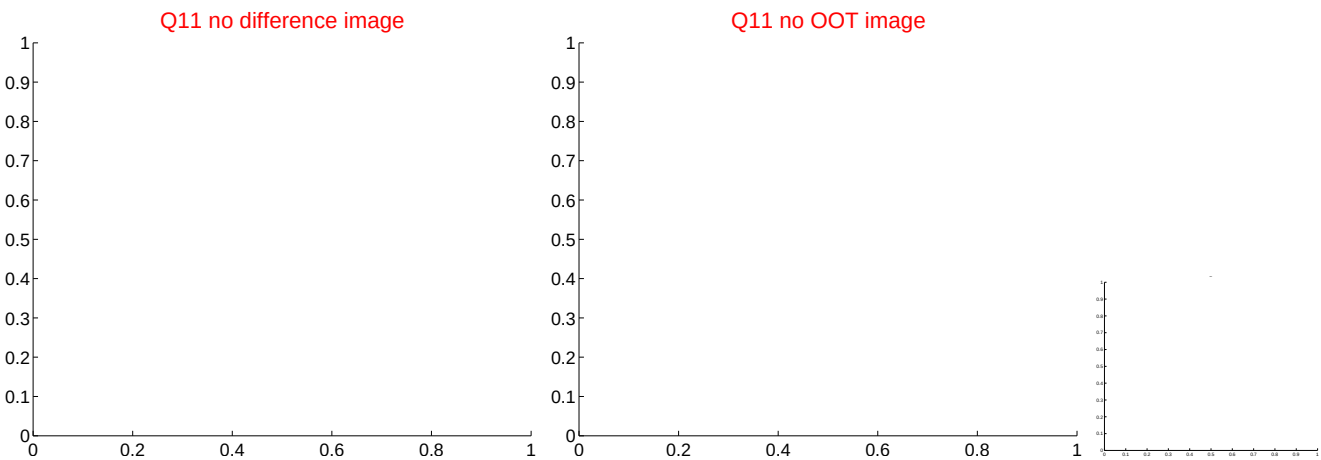
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

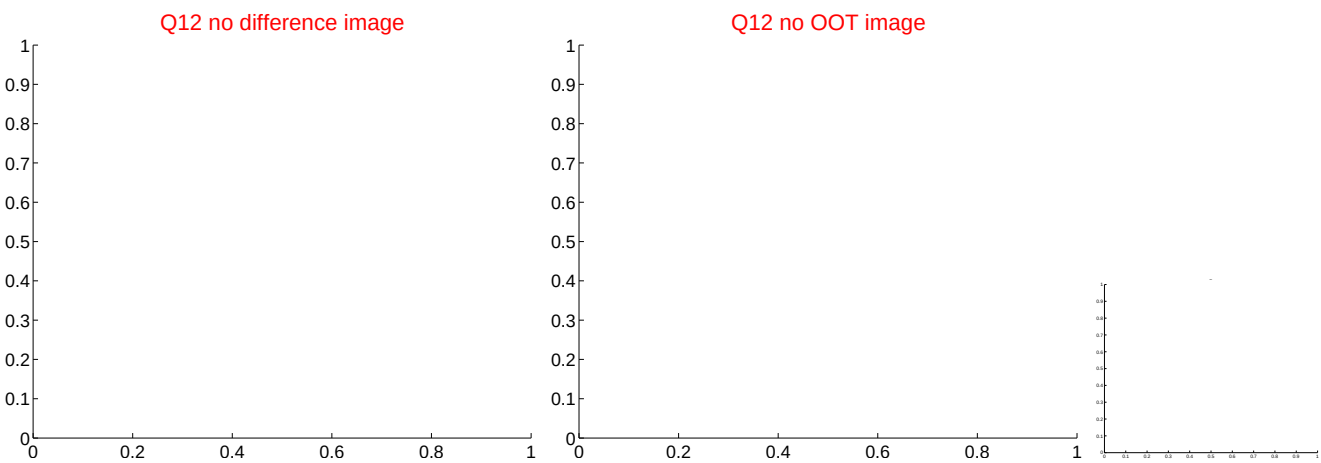


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

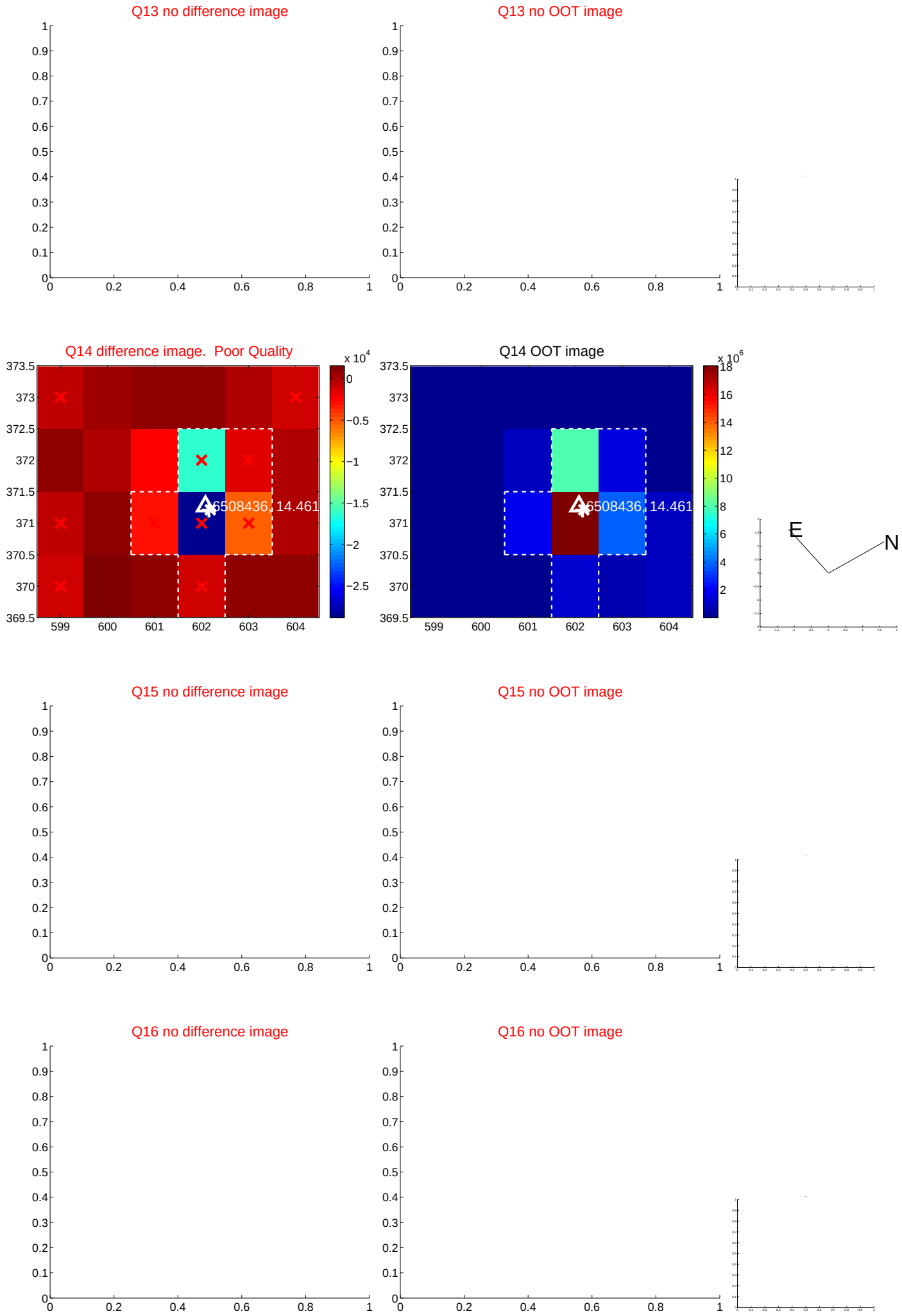




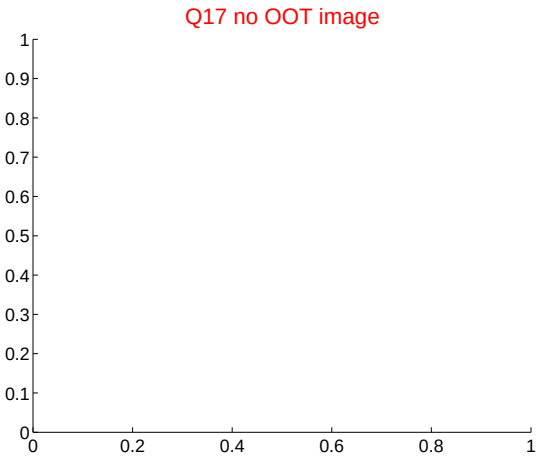


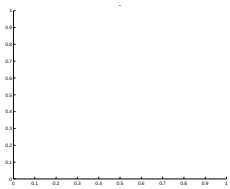


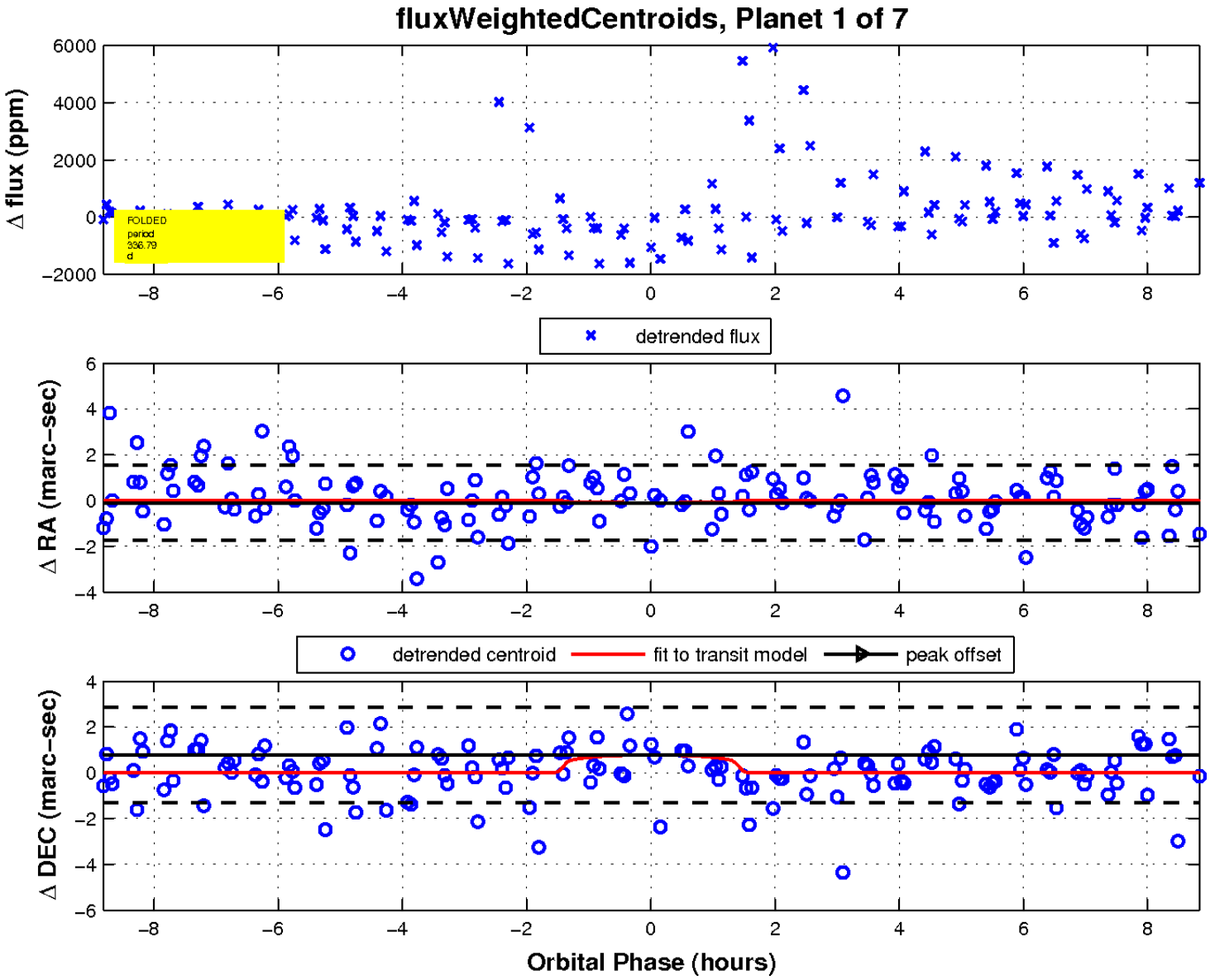
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



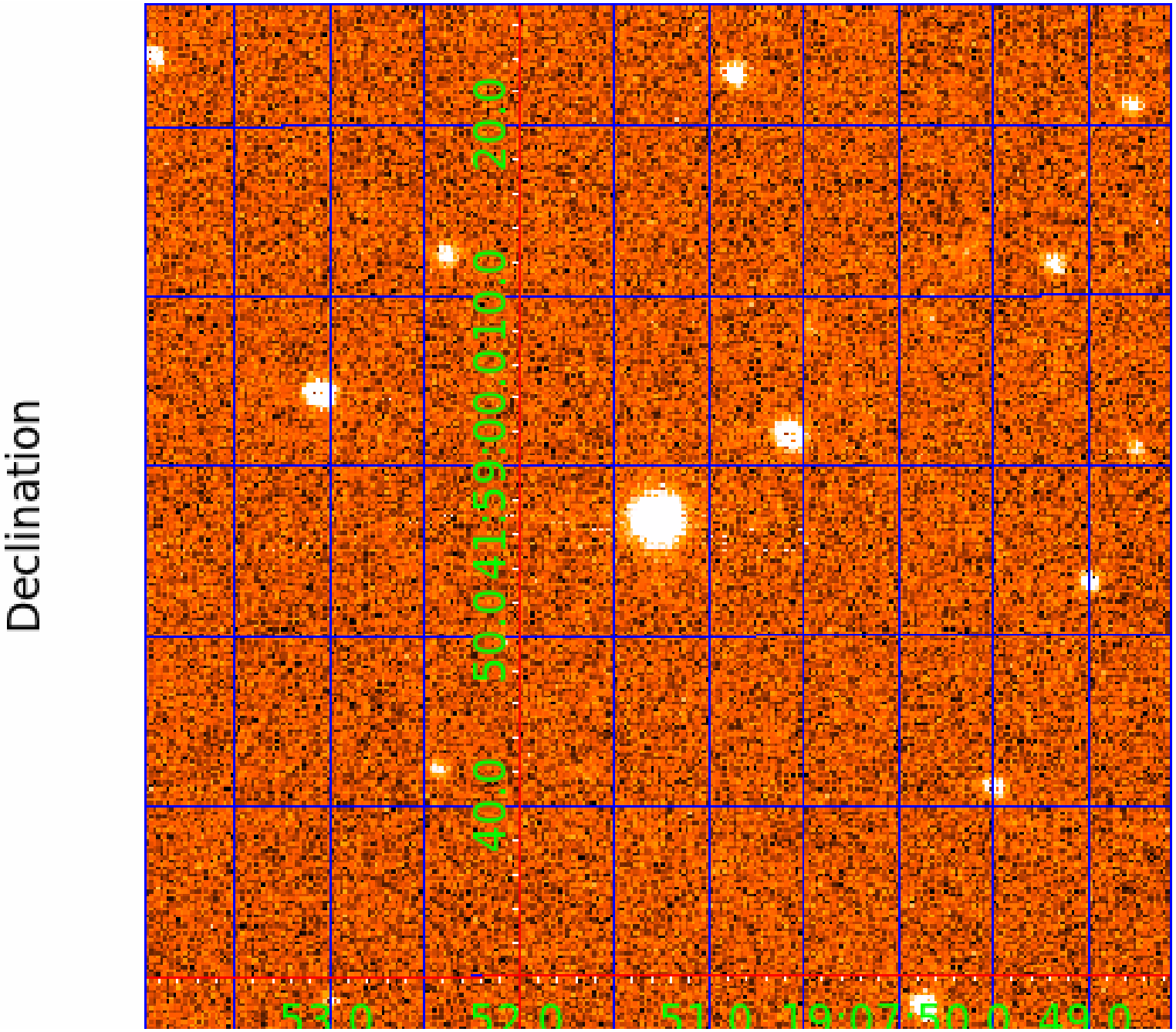
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image



KIC 006508436

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 ($S_\oplus$)
006508436-01	OBS	No	336.785851	334.906102	996.7	2.958	16.4	6.1	0.83	5706	2.65	0.78
006508436-02	OBS	No	518.432935	311.515903	1109.7	12.659	12.2	5.6	0.83	5706	2.83	0.44
006508436-03	OBS	No	513.645209	173.668834	475.9	12.000	12.0	-1.0	0.83	5706	1.80	0.44
006508436-04	OBS	No	304.366537	380.965326	1023.3	3.033	11.4	6.3	0.83	5706	2.73	0.89
006508436-05	OBS	No	171.592974	226.839000	446.9	3.234	11.5	4.5	0.83	5706	1.83	1.91
006508436-06	OBS	No	464.338263	511.146777	409.1	8.995	11.3	2.2	0.83	5706	1.72	0.51
006508436-07	OBS	No	498.345043	506.977086	1005.2	5.496	11.7	5.7	0.83	5706	2.81	0.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006508436-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
006508436-04	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—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006508436-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

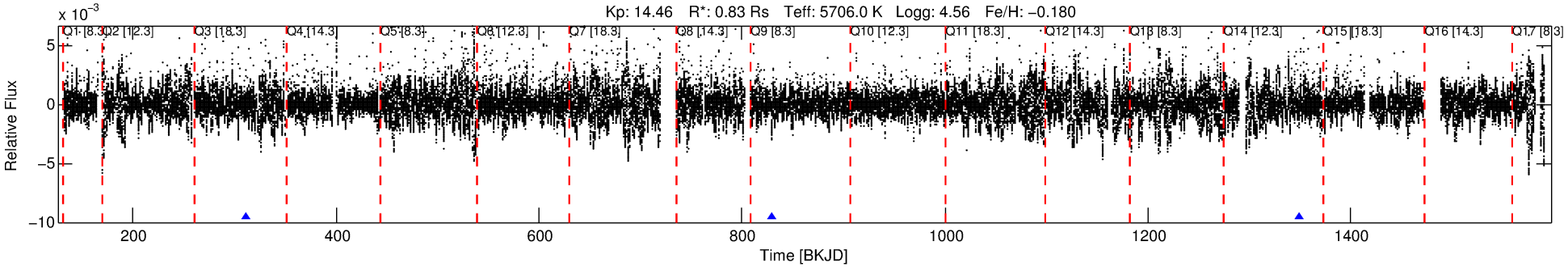
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

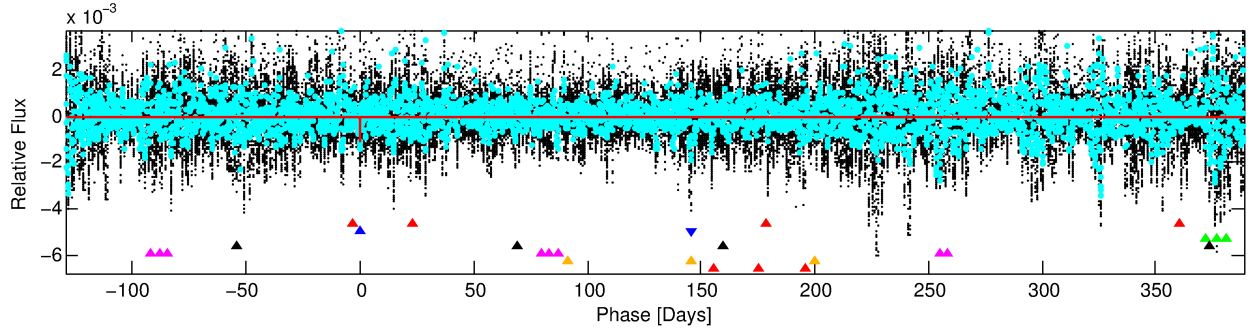
Ephemeris Match Information For 006508436-02

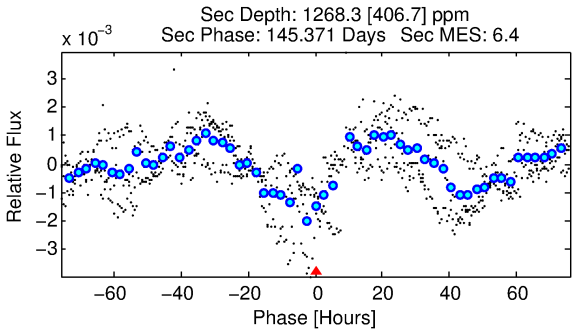
No Significant Match Found

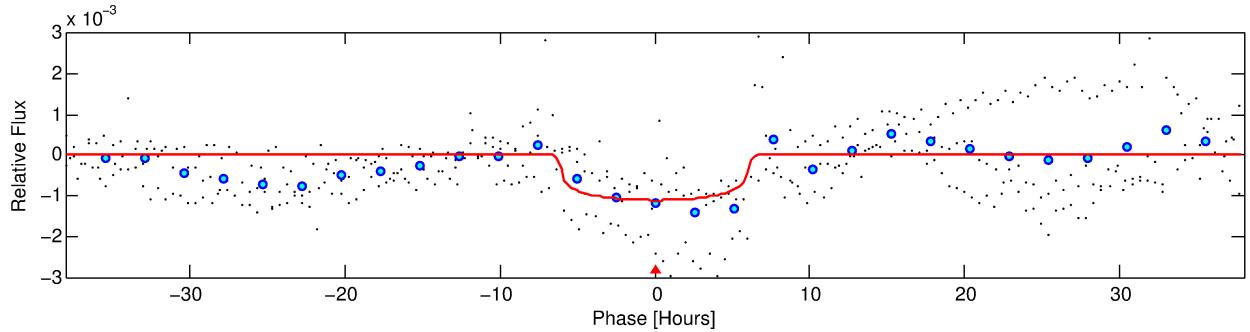
DV One-Page Summary

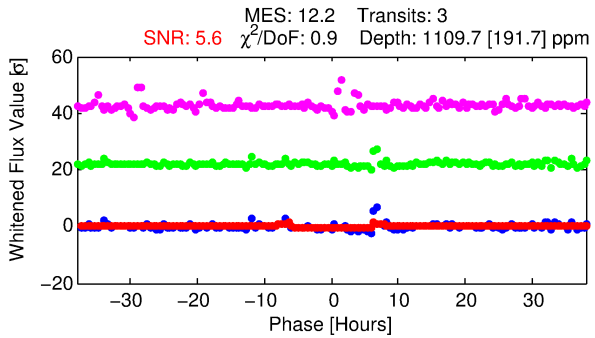
KIC: 6508436 Candidate: 2 of 7 Period: 518.433 d

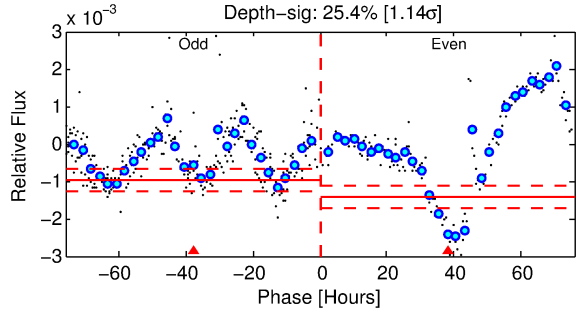


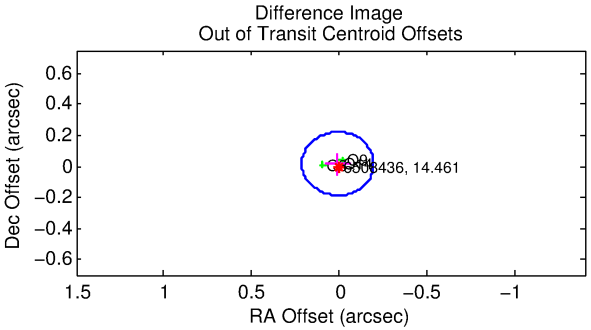












DV Fit Results:

Period = 518.43294 [0.00655] d
Epoch = 311.5159 [0.0086] BKJD
Rp/R* = 0.0311 [0.0076]
a/R* = 284.59 [263.73]
b = 0.49 [1.46]

Seff = 0.44 [0.13]
Teq = 207 [16] K
Rp = 2.83 [0.95] Re
a = 1.2301 [0.2410] AU

Ag = 131554.52 [85849.92] [1.53σ]
Teffp = 6103 [907] K [6.50σ]

DV Diagnostic Results:

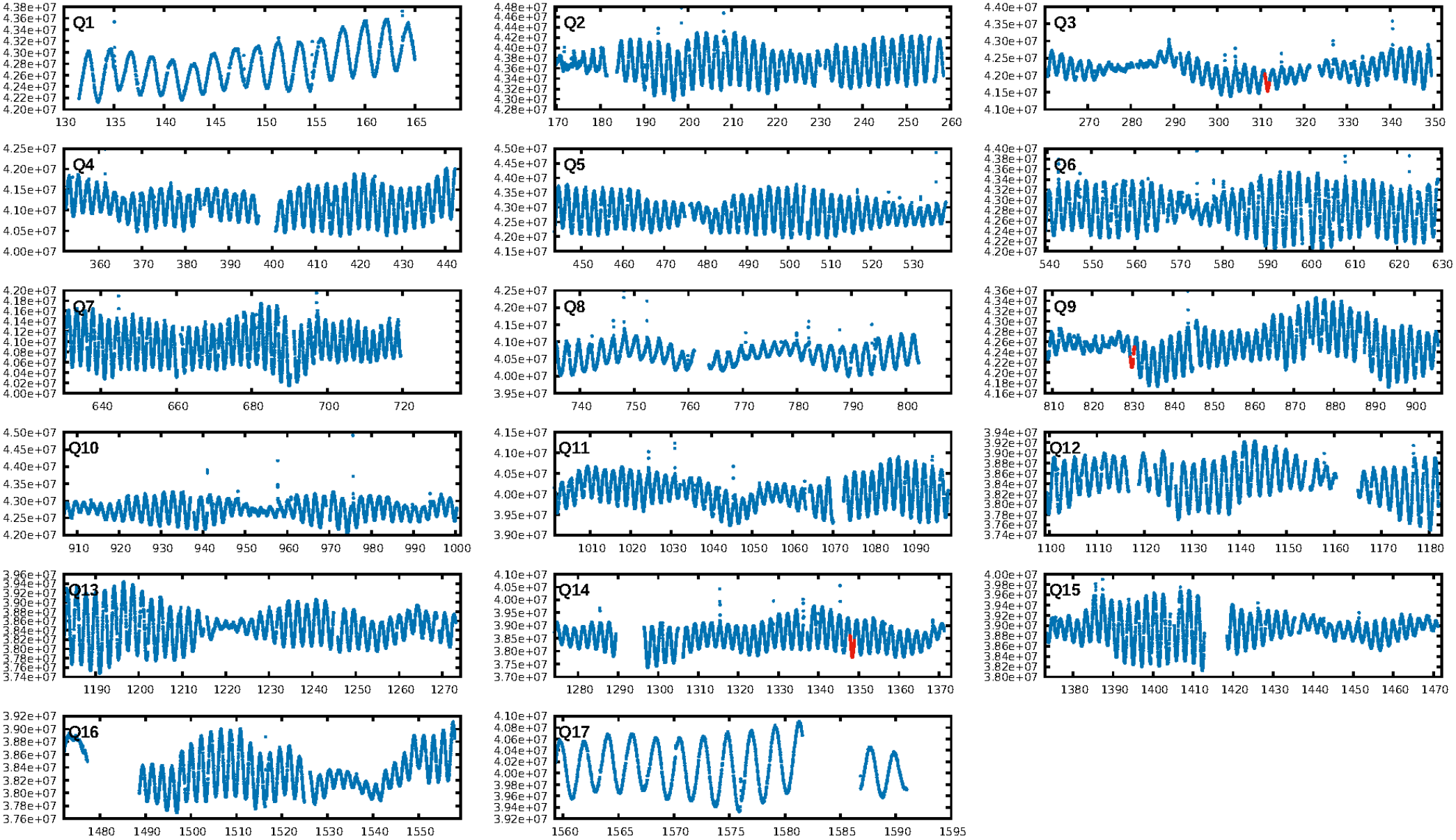
ShortPeriod−sig: 100.0% [6.59σ]
LongPeriod−sig: N/A
ModelChiSquare2−sig: 51.4%
ModelChiSquareGof−sig: 99.8%
Bootstrap−pfa: 6.23e−09
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: 0.5364

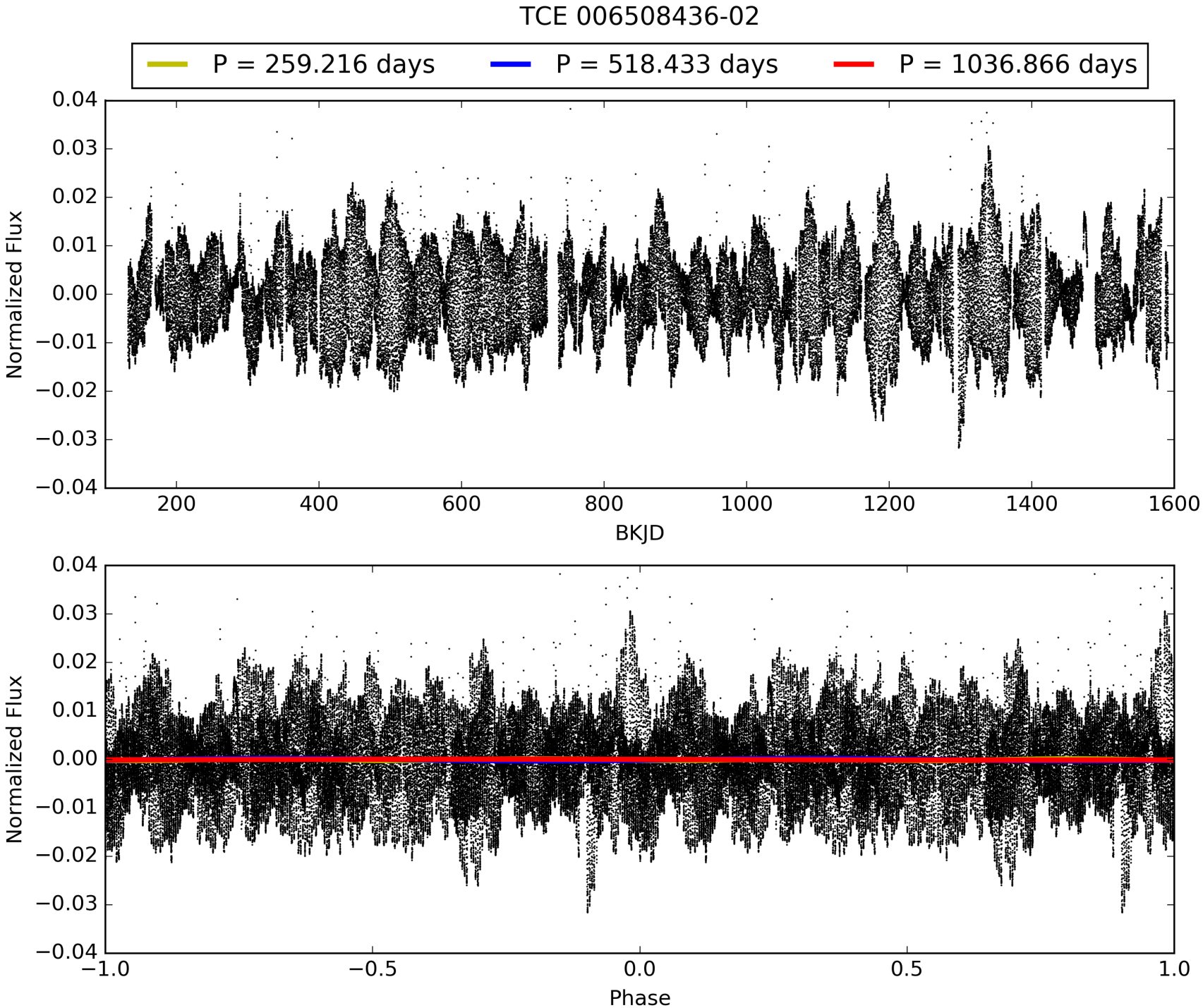
Centroid−sig: 0.7%
Centroid−so: 0.755 arcsec [1.64σ]
OotOffset−rm: 0.021 arcsec [0.30σ]
KicOffset−rm: 0.097 arcsec [1.40σ]
OotOffset−st: 1/1/0/1 [3]
KicOffset−st: 1/1/0/1 [3]
DiffImageQuality−fgm: 1.00 [3/3]
DiffImageOverlap−fno: 1.00 [3/3]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:01:56 Z

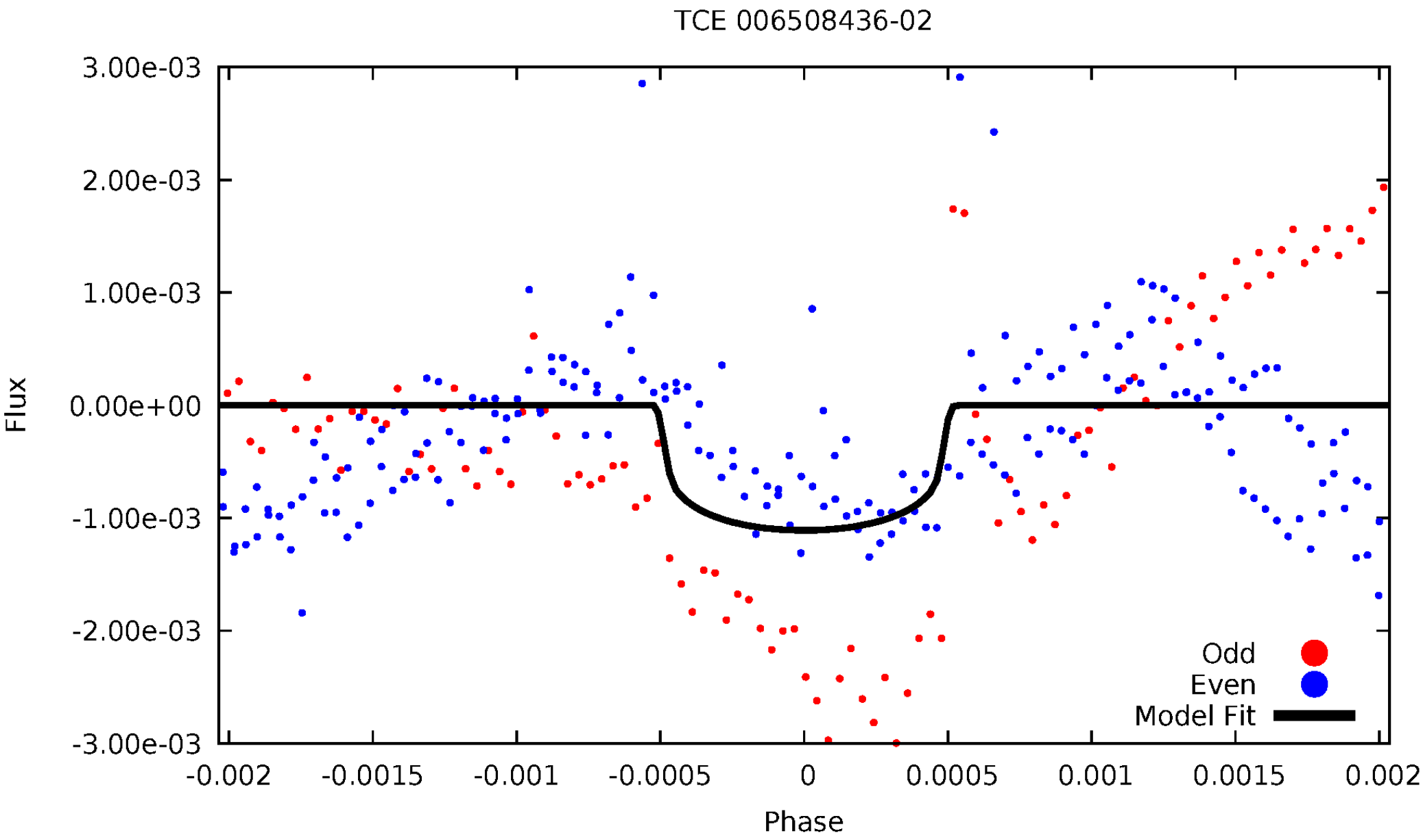
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006508436-02, PDC Light Curves




TCE 006508436-02
P = 259.216 days
P = 518.433 days
P = 1036.866 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even


TCE 006508436-02
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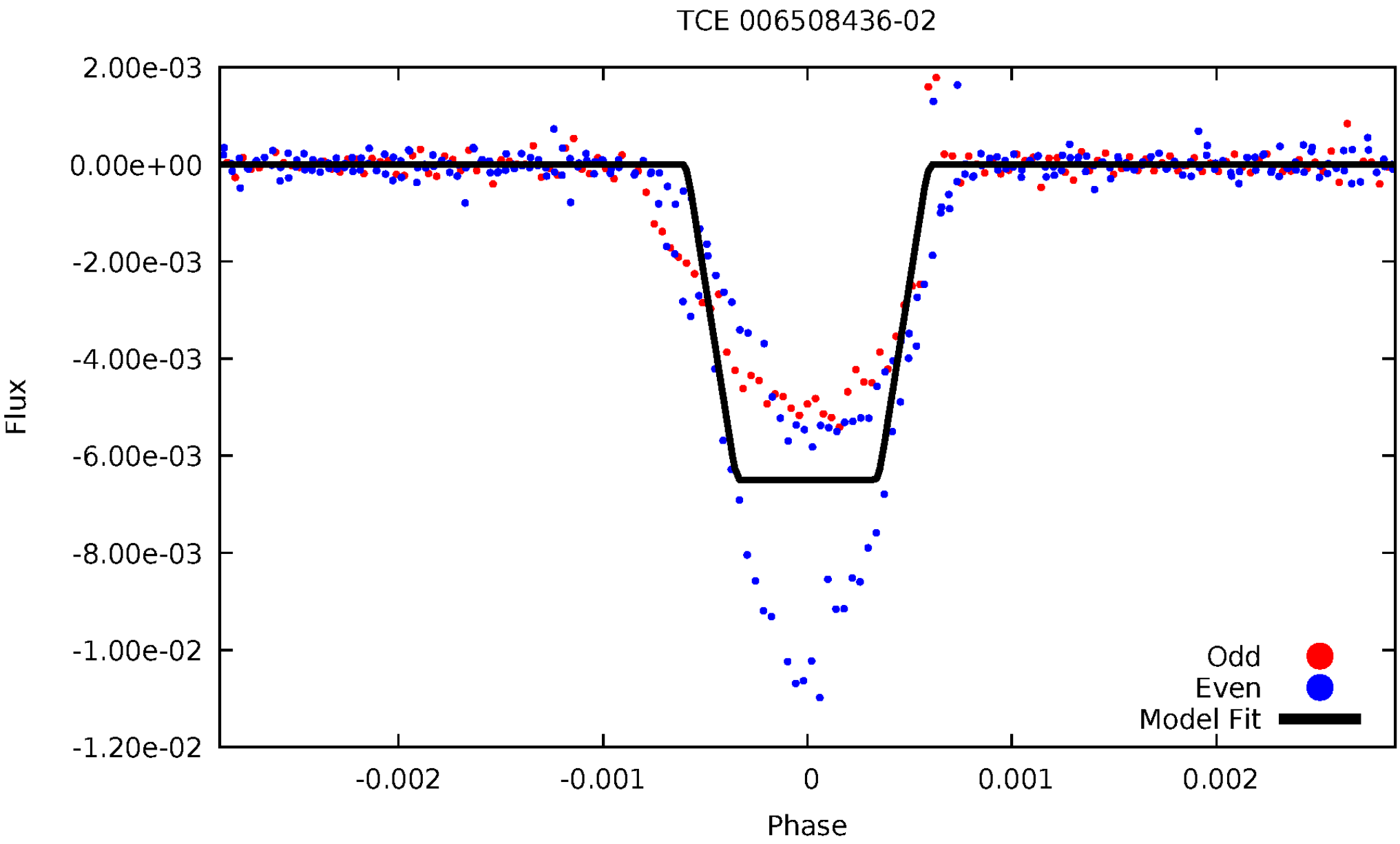
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
Flux
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006508436-02
2.00e-03
0.00e+00
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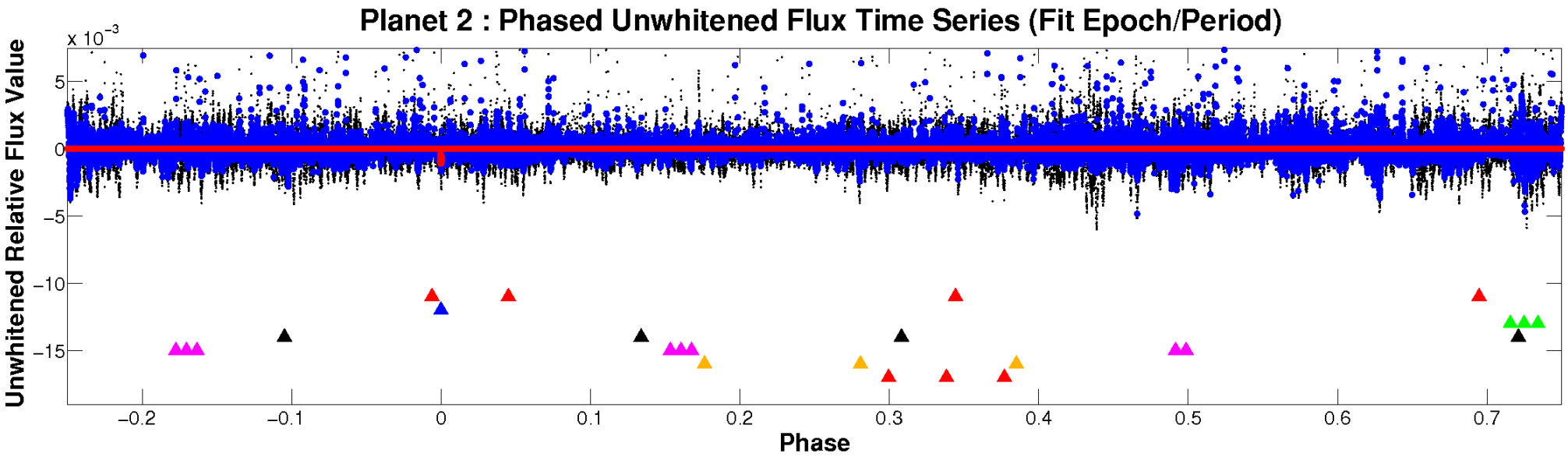
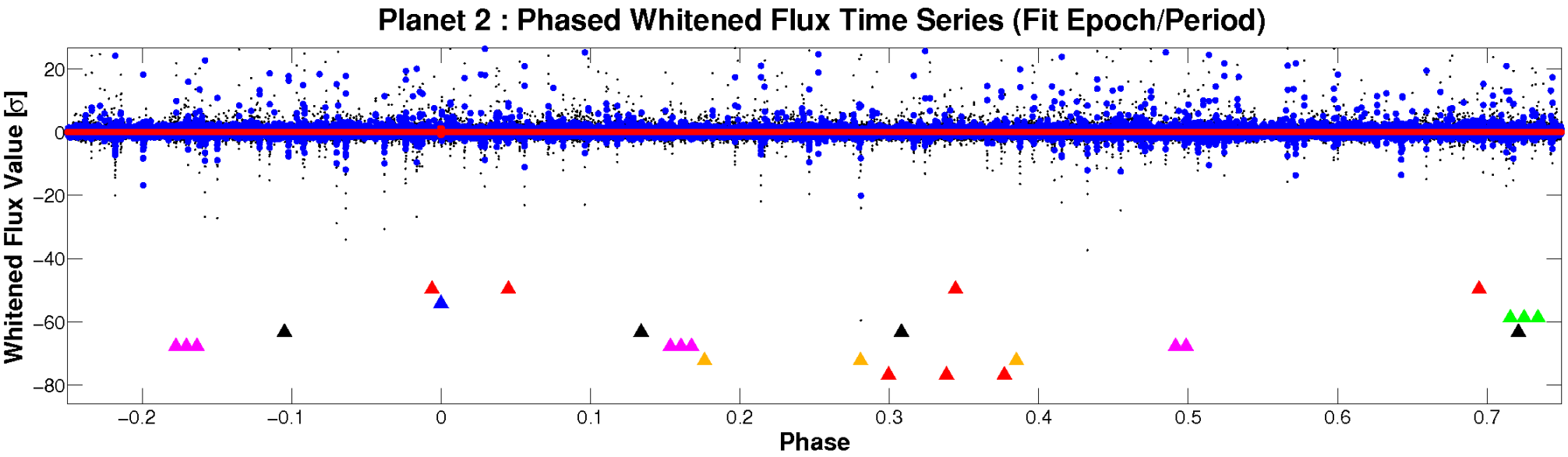
-4.00e-03
-6.00e-03
-8.00e-03
-1.00e-02
-1.20e-02
Flux
-0.002
-0.001
0
0.001
0.002
Phase
Odd
Even
Model Fit

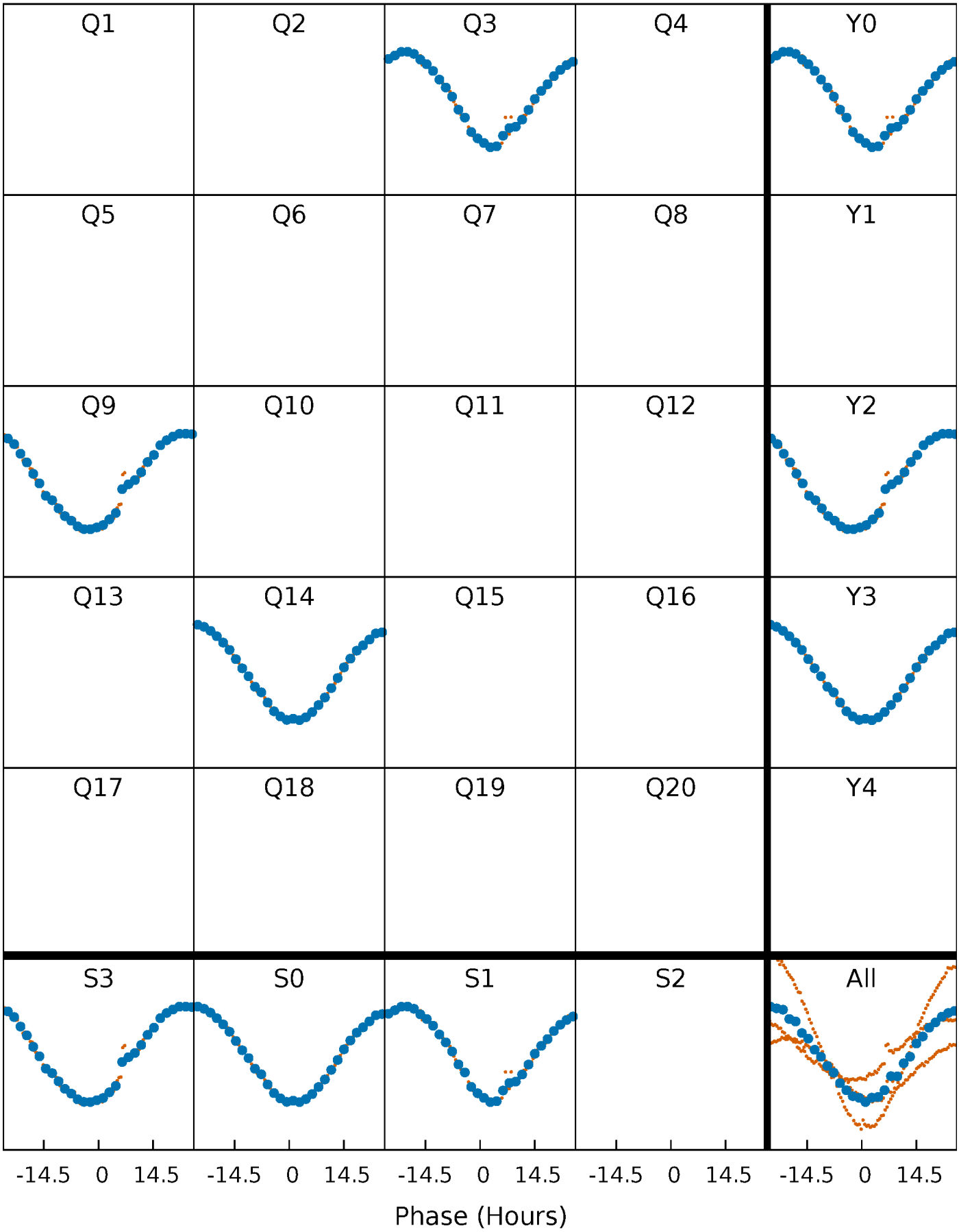
Non-Whitened Vs. Whitened Light Curve





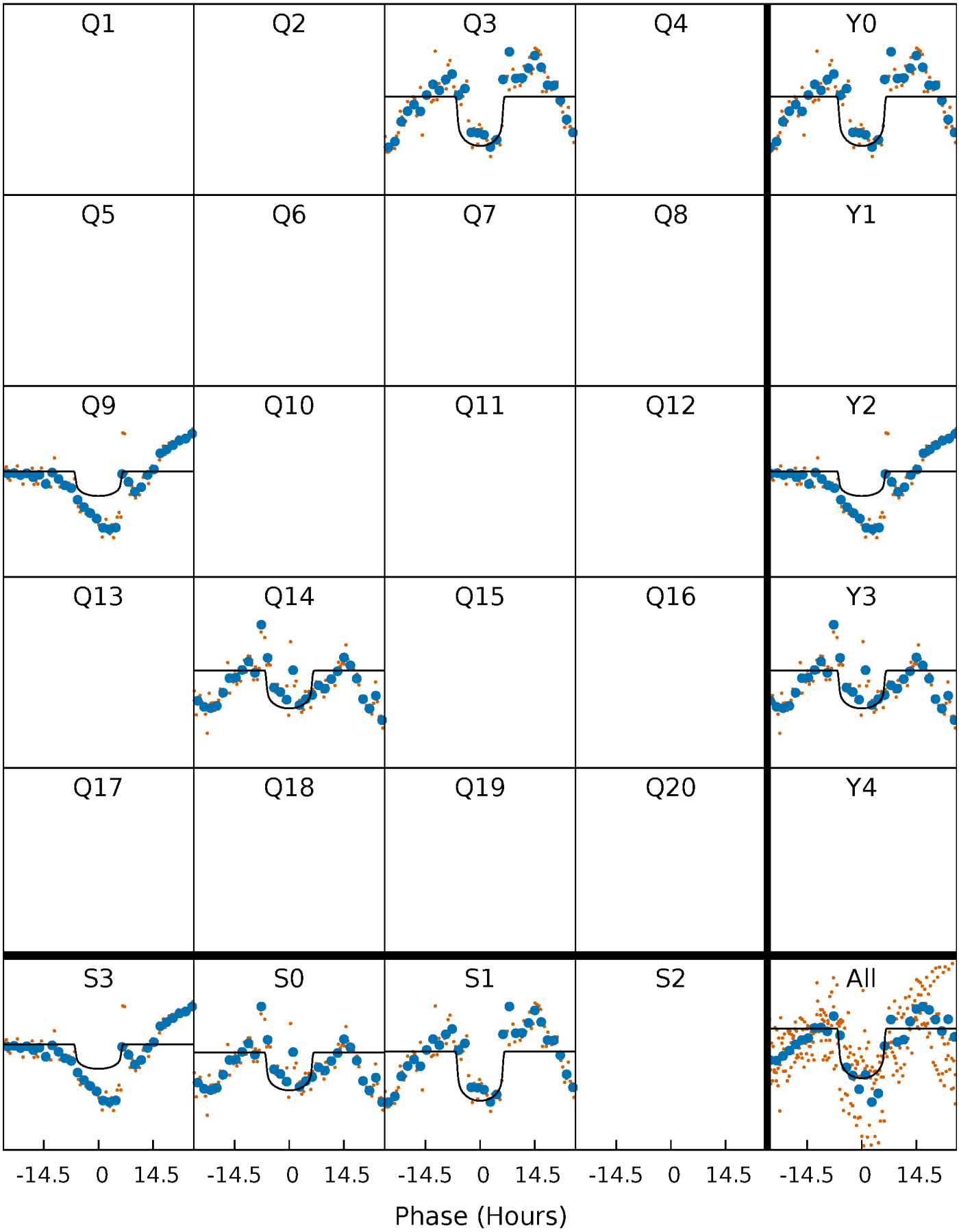
PDC Quarter-Phased Transit Curves

TCE 006508436-02 P=518.432935 Days T_0=311.515903 (BKJD)



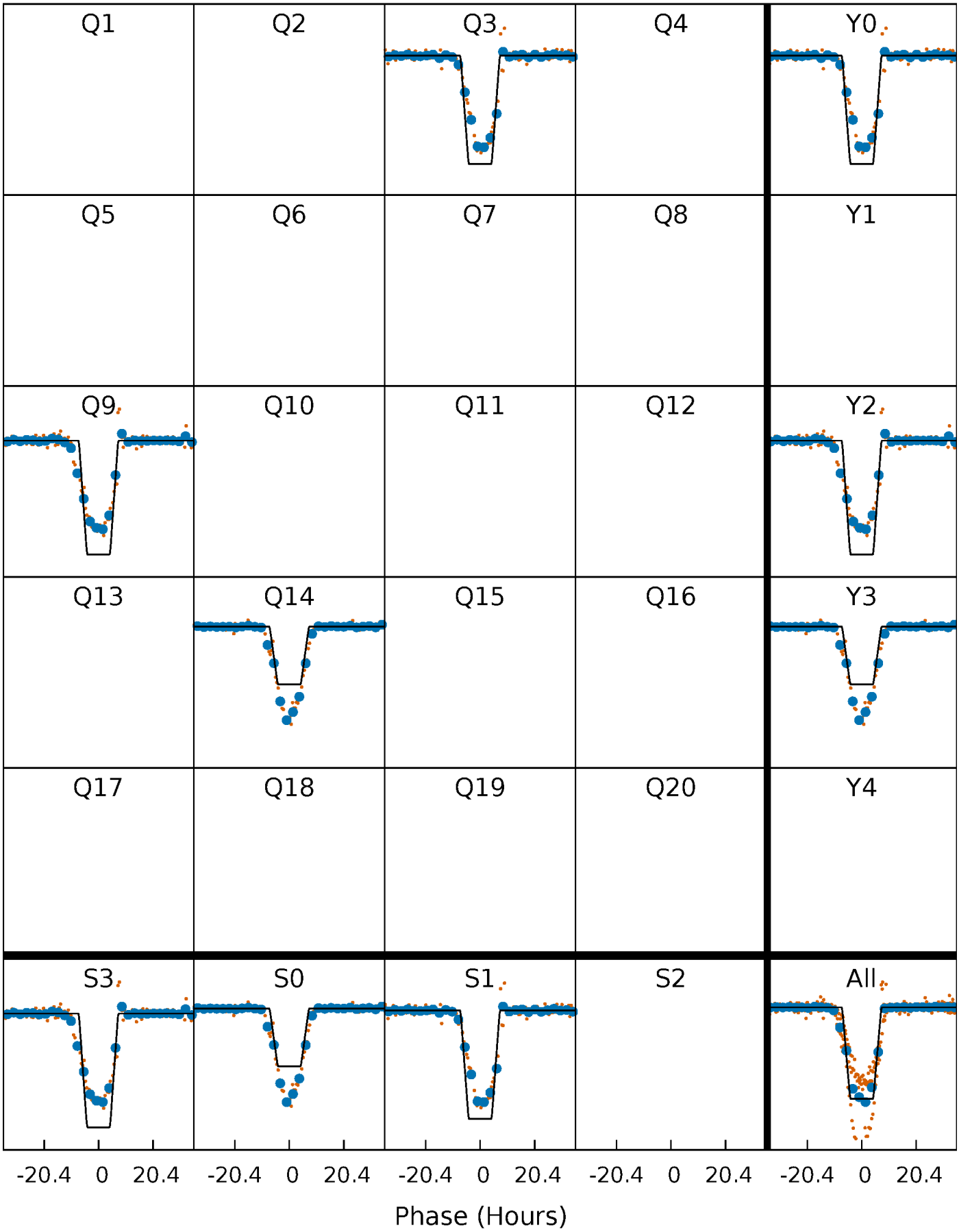
DV Quarter-Phased Transit Curves

TCE 006508436-02 P=518.432935 Days T_0=311.515903 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

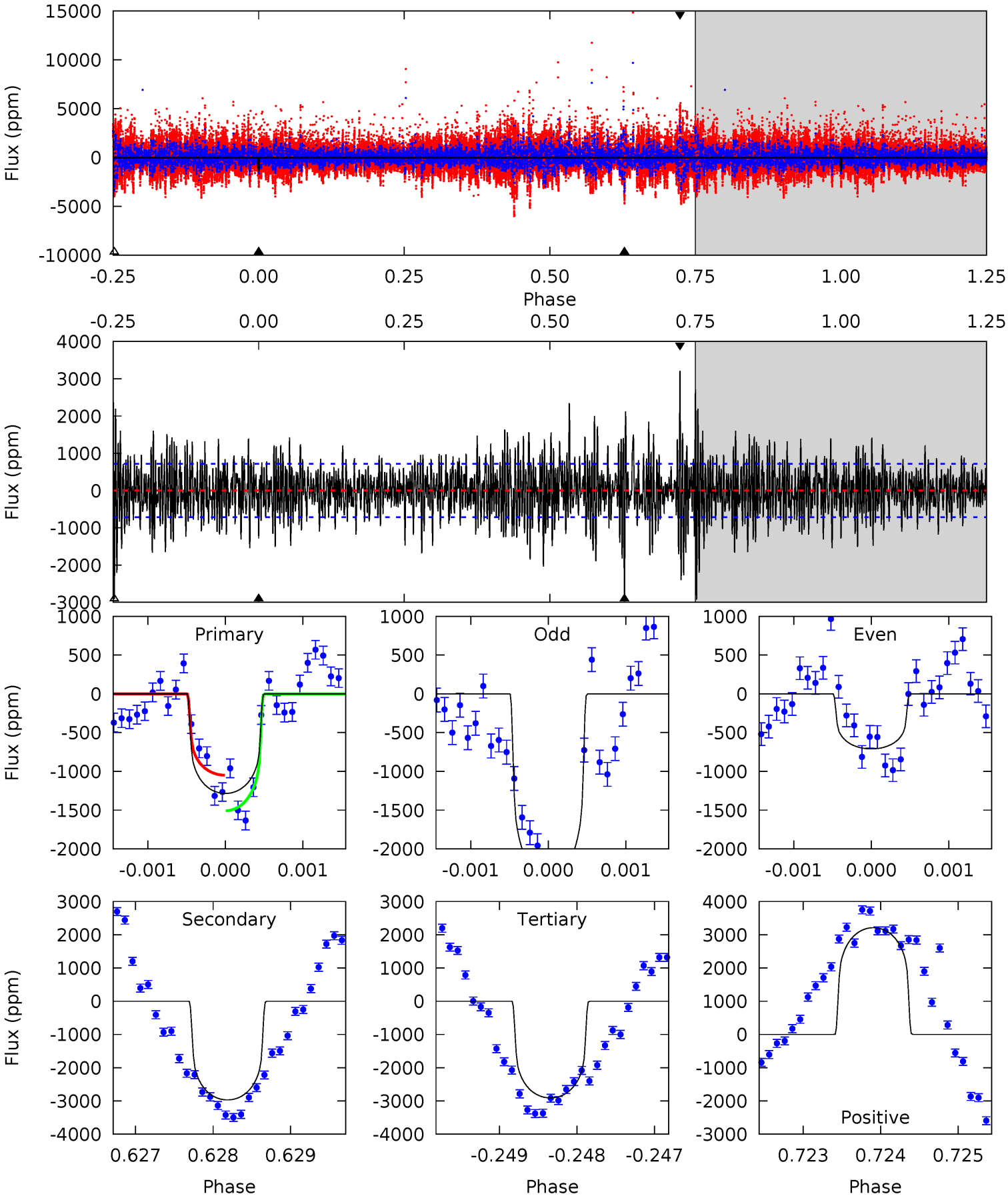
TCE 006508436-02 P=518.433473 Days T_0=311.477514 (BKJD)



DV Model-Shift Uniqueness Test

006508436-02, P = 518.432935 Days, E = 311.515903 Days

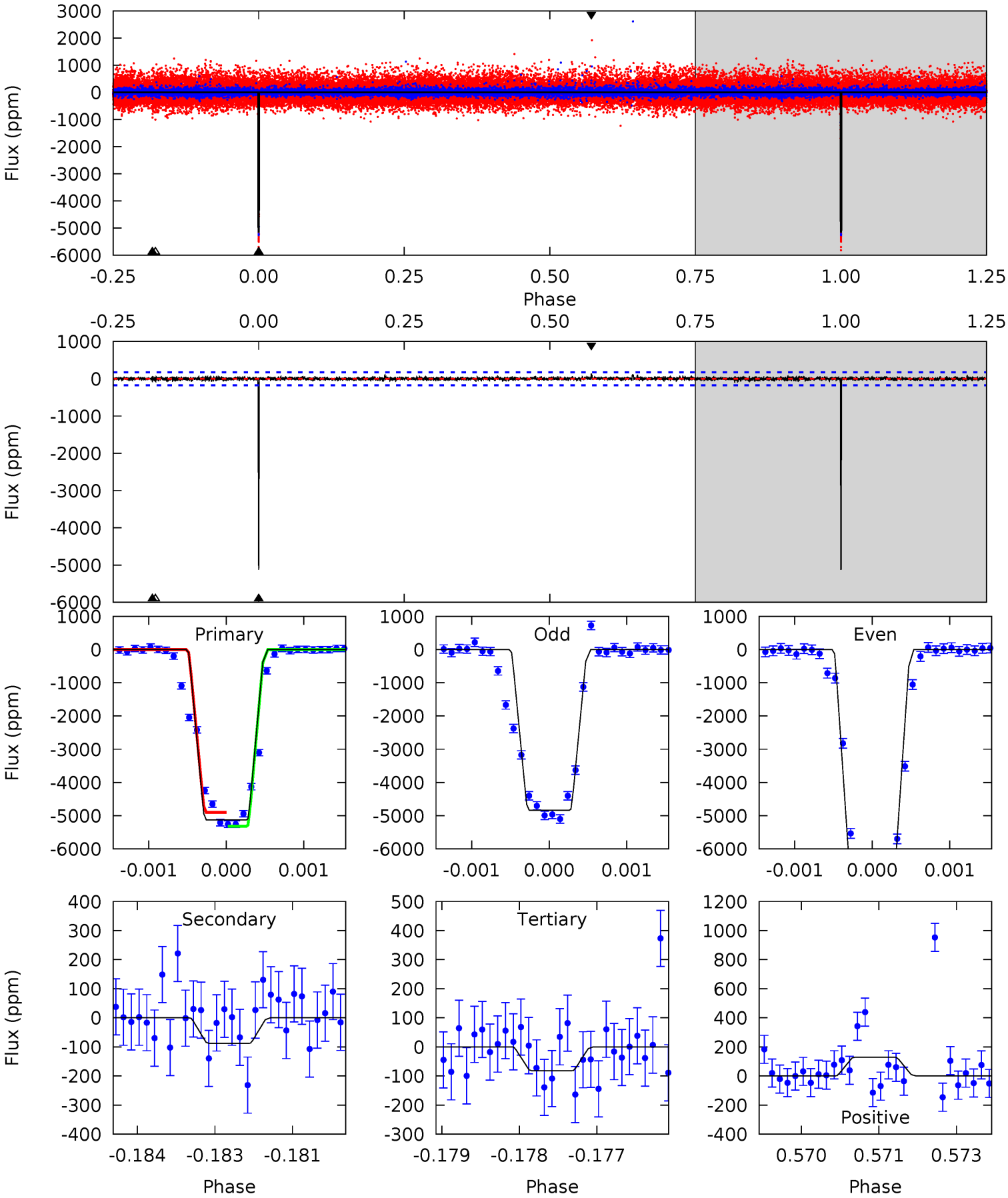
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.76	22.6	22.1	24.4	5.44	3.27	4.80	-12.3	-14.6	0.46	-1.84	5.57	1.56	0.52	1.73



Alt Model-Shift Uniqueness Test

006508436-02, P = 518.433473 Days, E = 311.477514 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
159.2	2.72	2.54	4.00	5.42	3.23	0.58	156.7	155.2	0.18	-1.28	32.8	1.26	0.02	6.40



Stellar Parameters For KIC 006508436

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	5706^{+152}_{-152}	$4.561^{+0.040}_{-0.160}$	$-0.180^{+0.300}_{-0.300}$	$0.834^{+0.191}_{-0.076}$	$0.930^{+0.092}_{-0.112}$	$2.255^{+0.469}_{-0.974}$
	+3%/-3%	+1%/-4%	+167%/-167%	+23%/-9%	+10%/-12%	+21%/-43%
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 006508436-02 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2970±132	$2.99^{+0.74}_{-0.76}$	295^{+17}_{-12}	7648^{+1540}_{-937}	$275819^{+211858}_{-99311}$
Alt.	-87±32	$7.60^{+1.14}_{-0.90}$	295^{+17}_{-12}	2712^{+152}_{-165}	1214^{+628}_{-489}

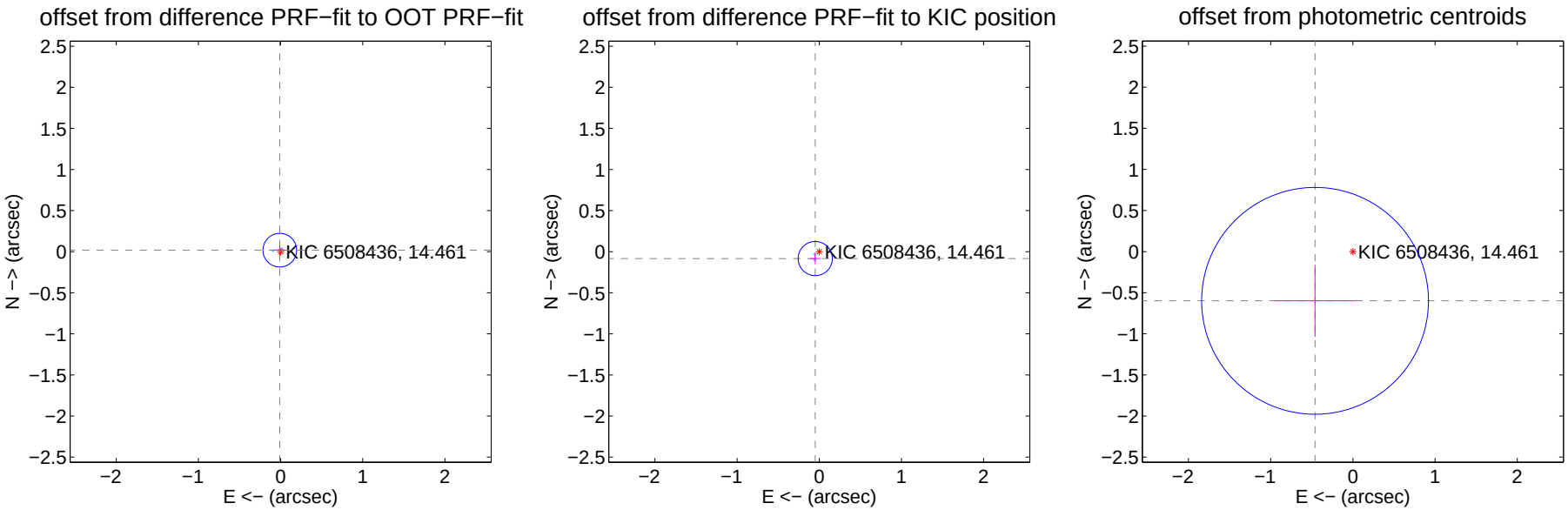
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

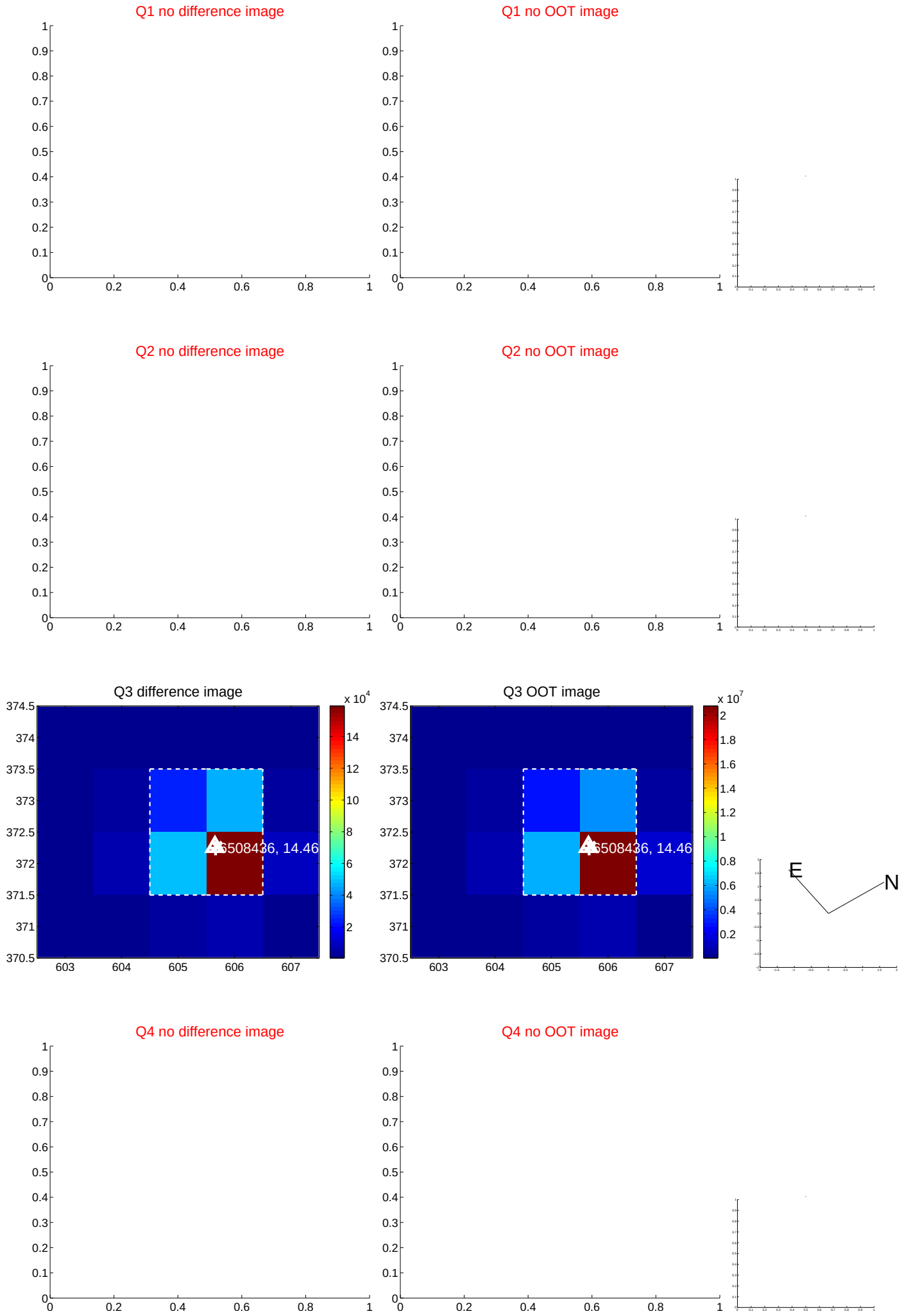
Supplemental centroid analysis for 006508436-02. Kepler magnitude: 14.46. Transit SNR 5.63
There are 3 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.021 ± 0.068	0.30	0.010 ± 0.072	0.018 ± 0.067
PRF-fit source offset from KIC position	0.097 ± 0.069	1.40	0.049 ± 0.067	-0.084 ± 0.070
photometric centroid source offset	0.76 ± 0.46	1.64	0.46 ± 0.49	-0.60 ± 0.44

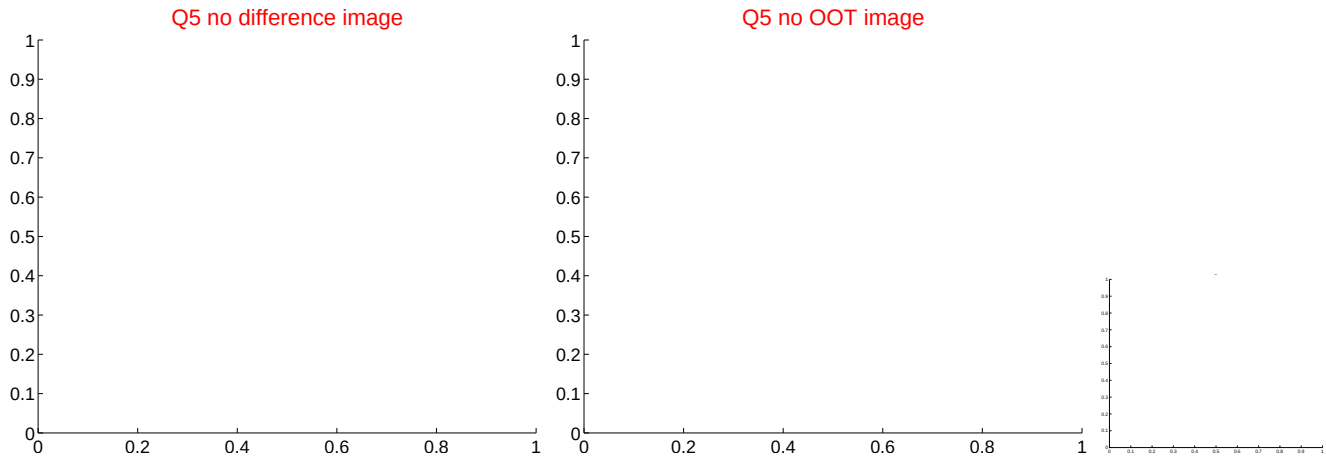


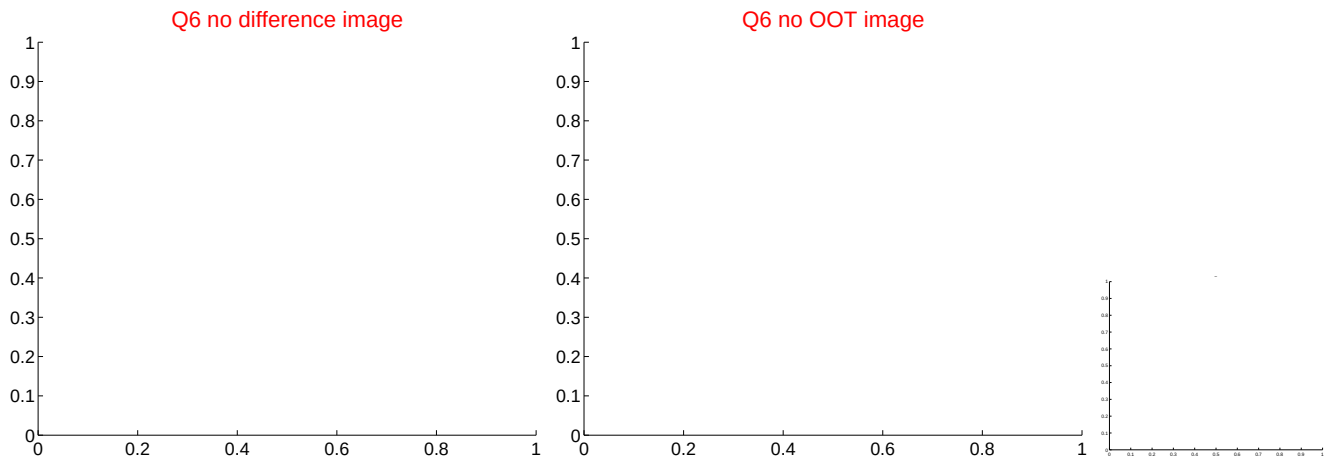
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

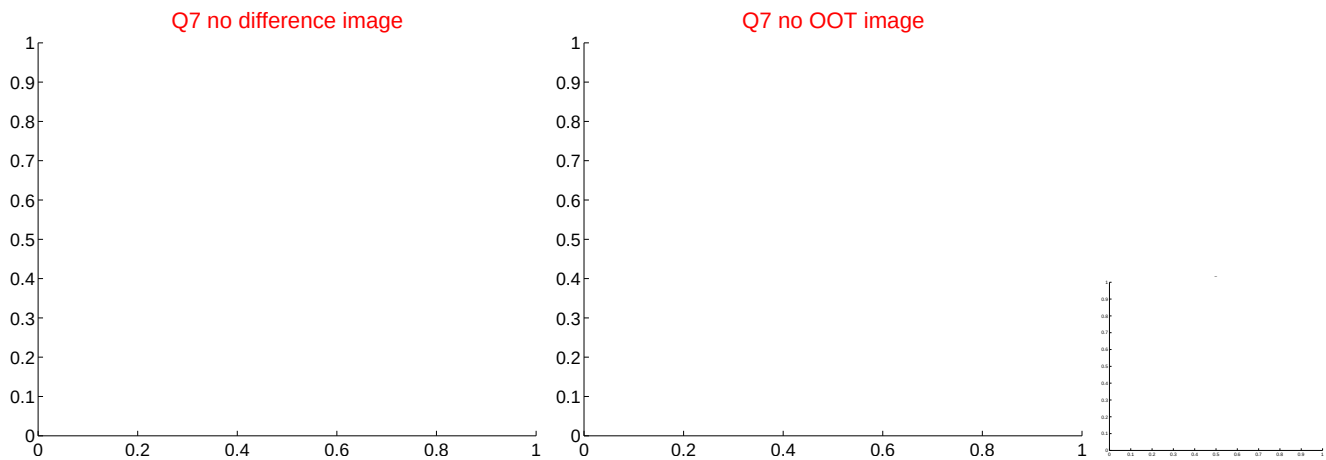
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

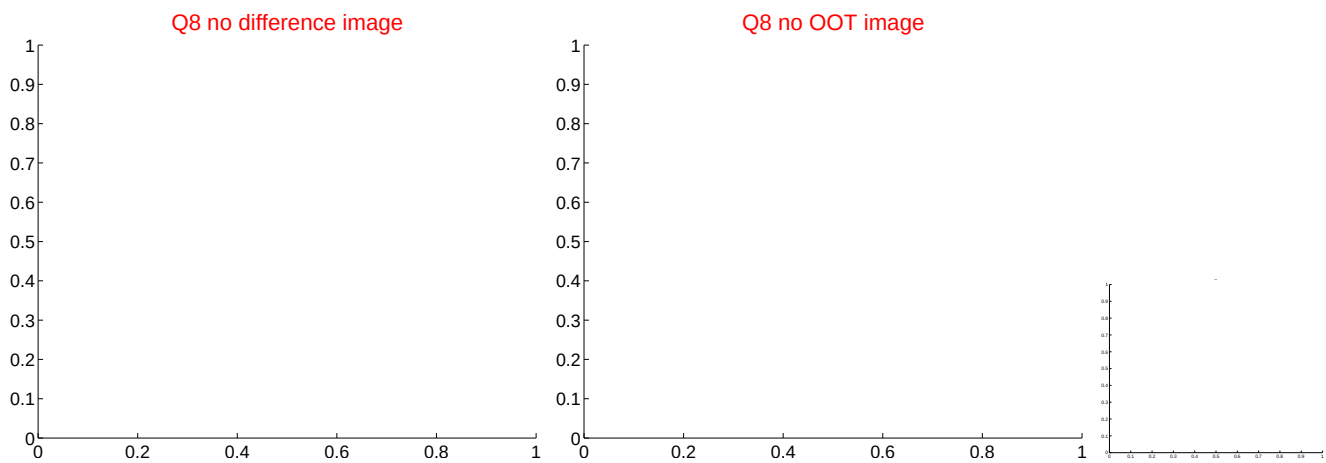


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

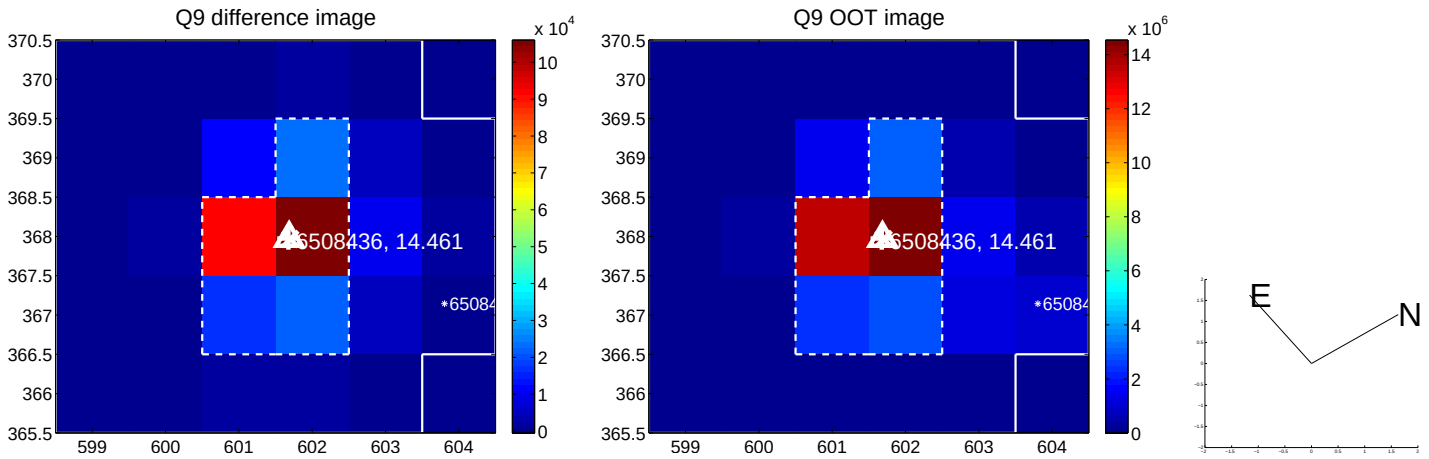


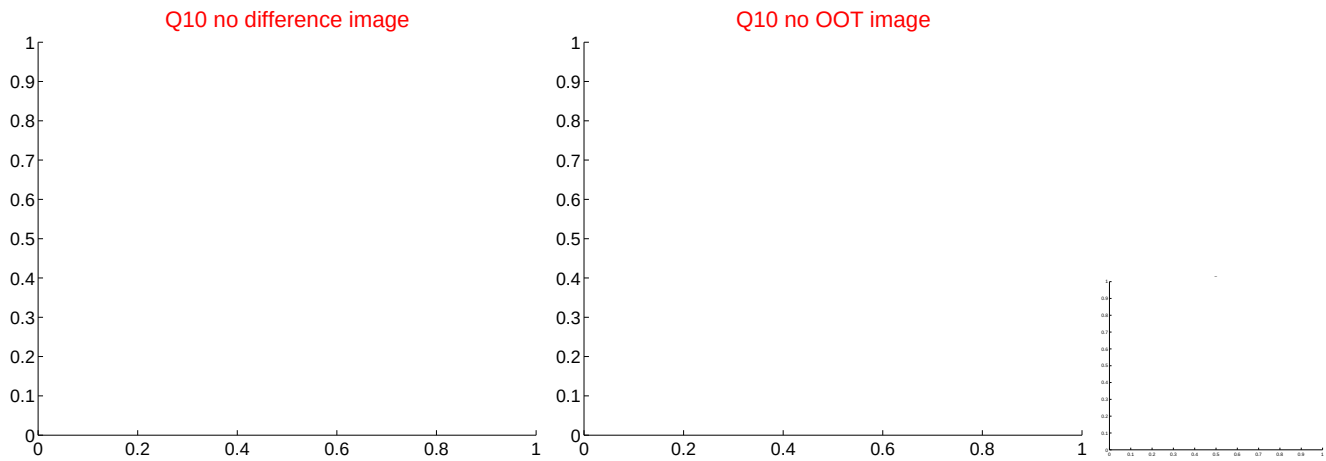


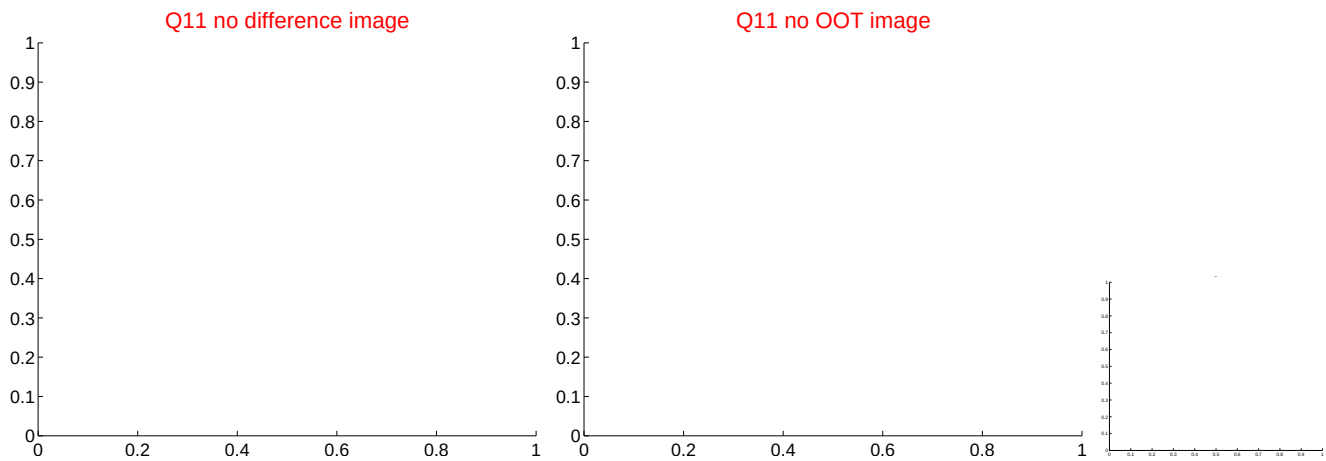


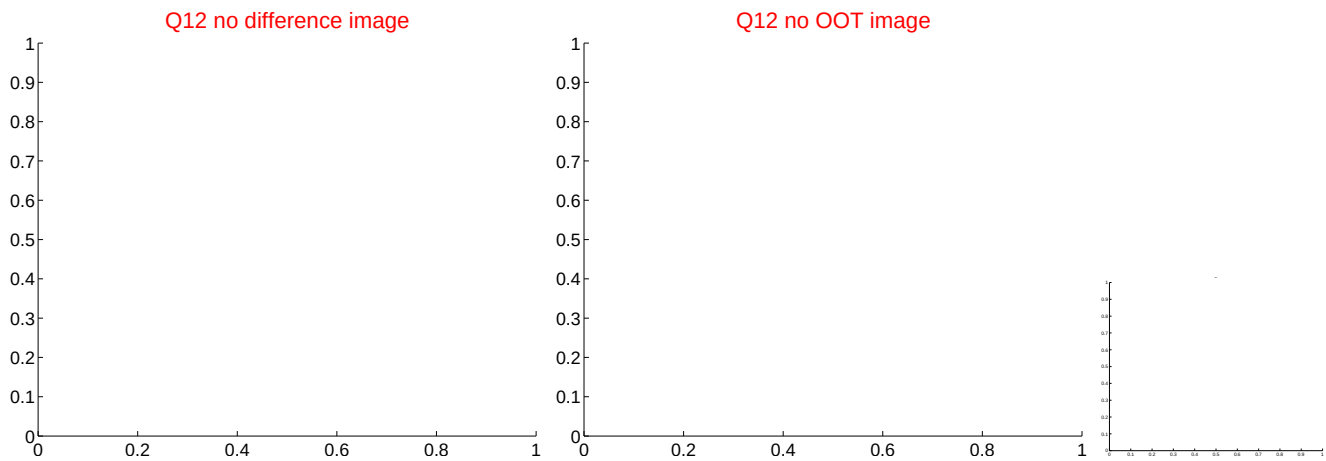


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

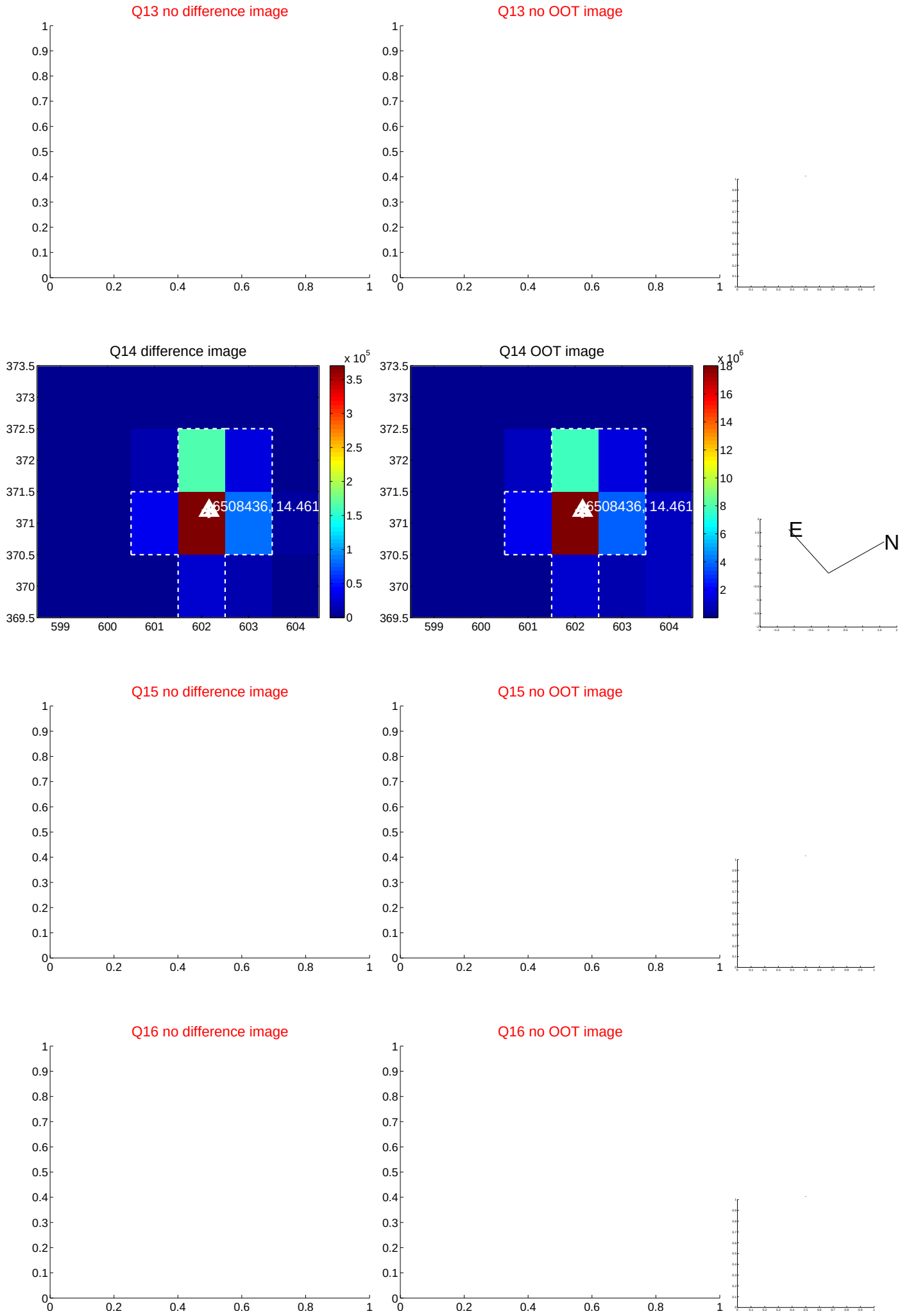




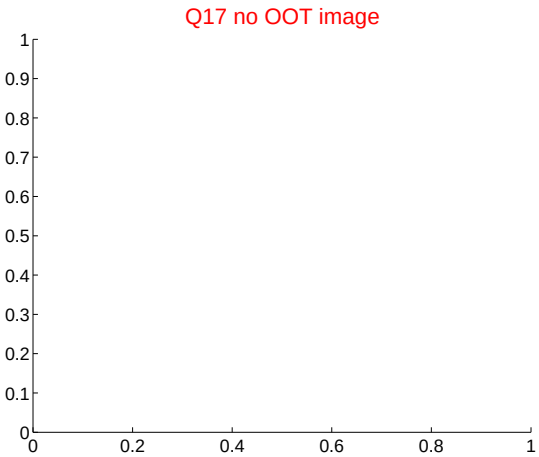


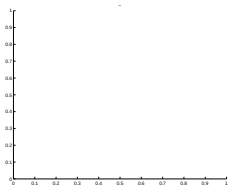


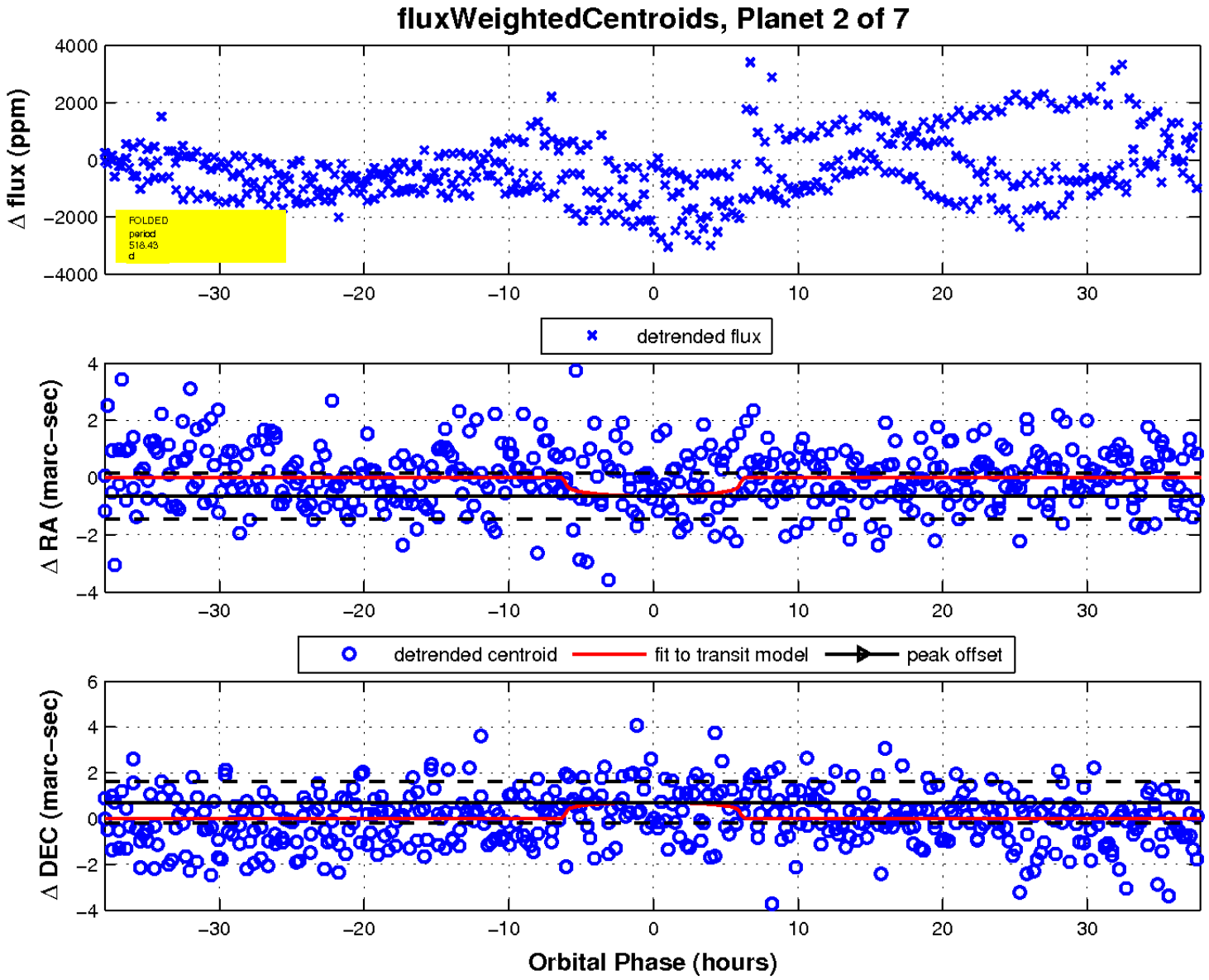
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



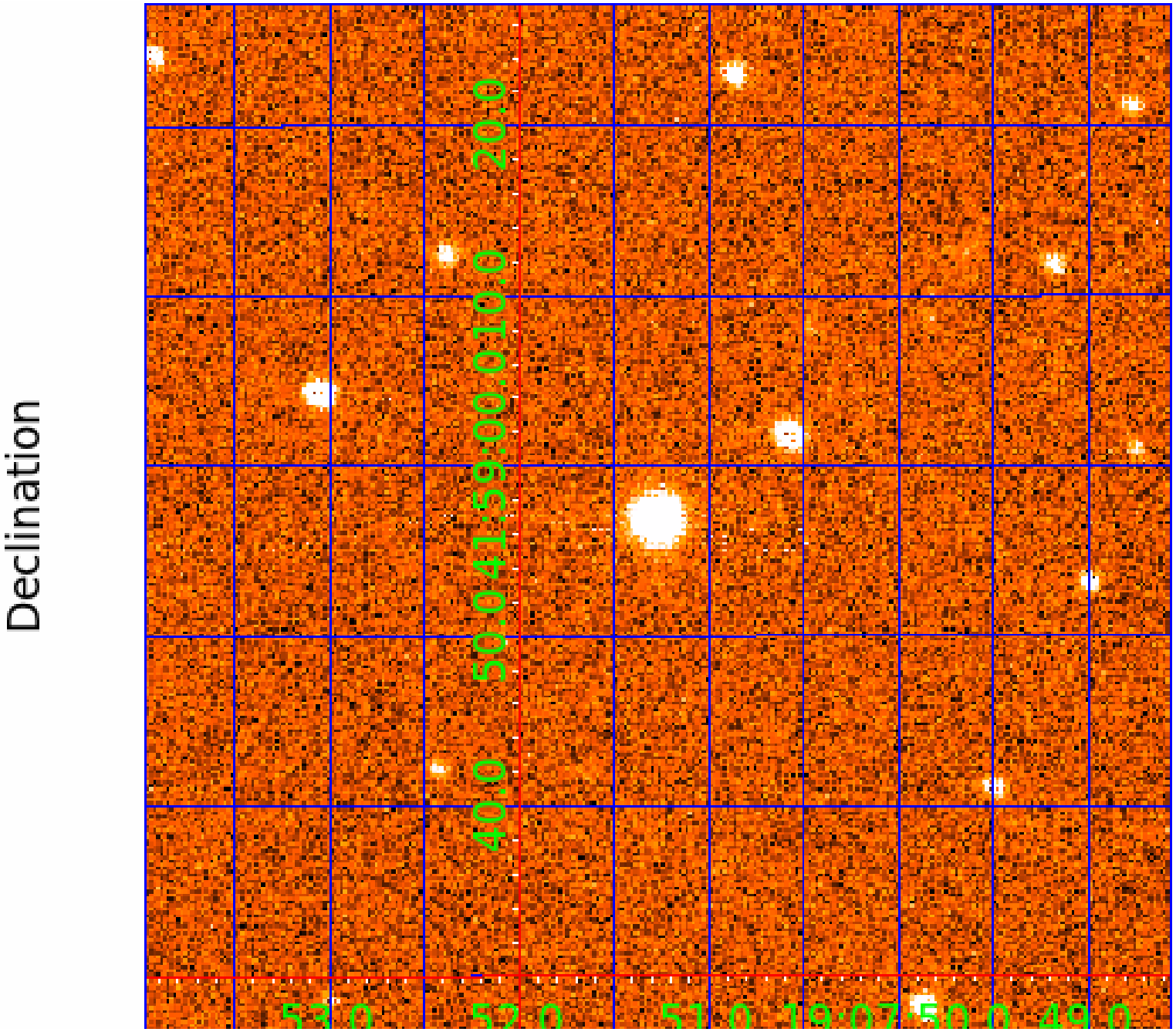
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image



KIC 006508436

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 ($S_\oplus$)
006508436-01	OBS	No	336.785851	334.906102	996.7	2.958	16.4	6.1	0.83	5706	2.65	0.78
006508436-02	OBS	No	518.432935	311.515903	1109.7	12.659	12.2	5.6	0.83	5706	2.83	0.44
006508436-03	OBS	No	513.645209	173.668834	475.9	12.000	12.0	-1.0	0.83	5706	1.80	0.44
006508436-04	OBS	No	304.366537	380.965326	1023.3	3.033	11.4	6.3	0.83	5706	2.73	0.89
006508436-05	OBS	No	171.592974	226.839000	446.9	3.234	11.5	4.5	0.83	5706	1.83	1.91
006508436-06	OBS	No	464.338263	511.146777	409.1	8.995	11.3	2.2	0.83	5706	1.72	0.51
006508436-07	OBS	No	498.345043	506.977086	1005.2	5.496	11.7	5.7	0.83	5706	2.81	0.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006508436-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
006508436-04	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—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006508436-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

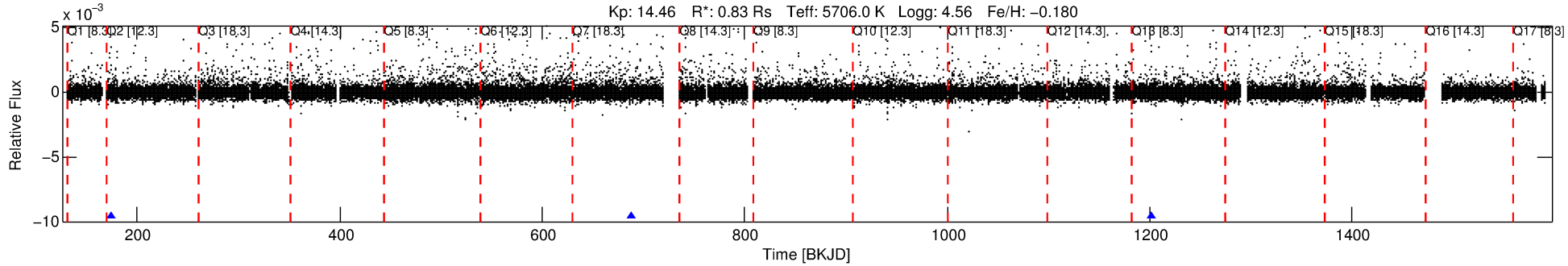
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

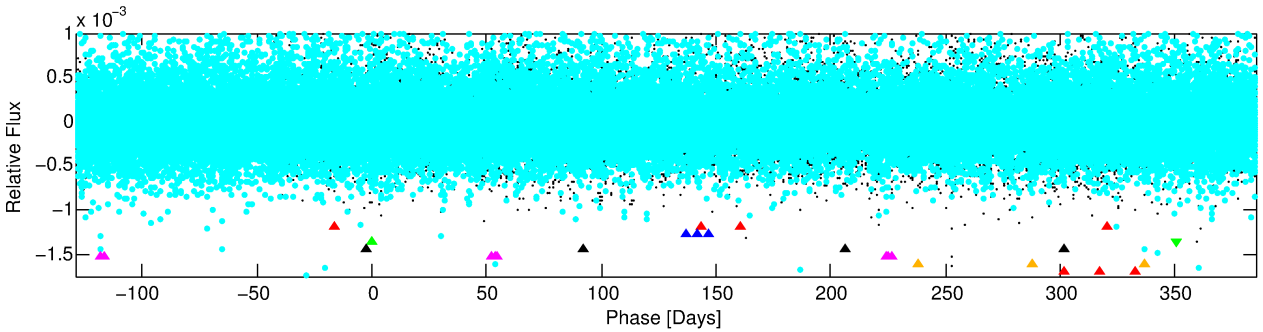
Ephemeris Match Information For 006508436-03

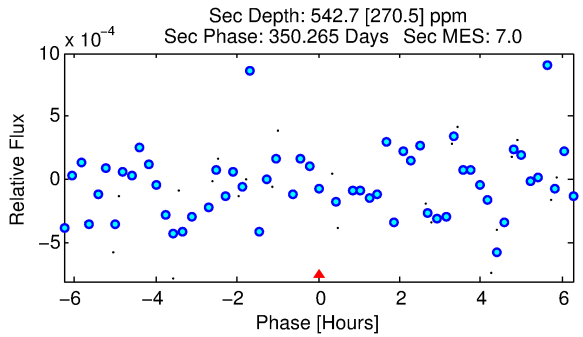
No Significant Match Found

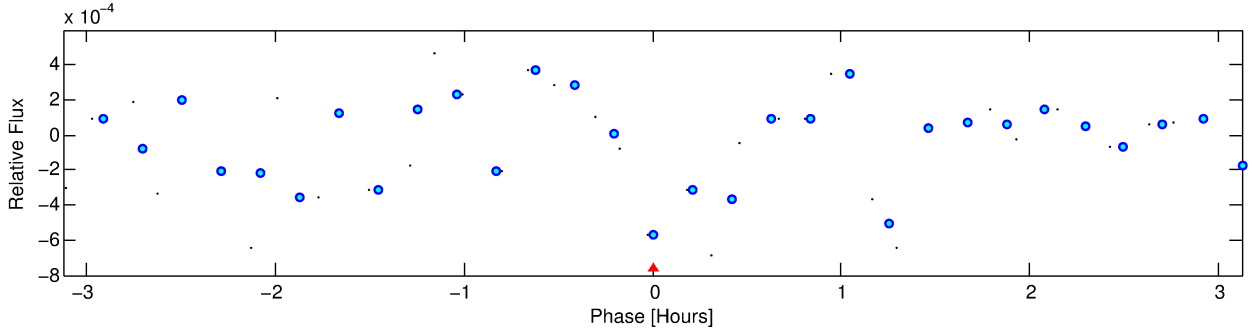
DV One-Page Summary

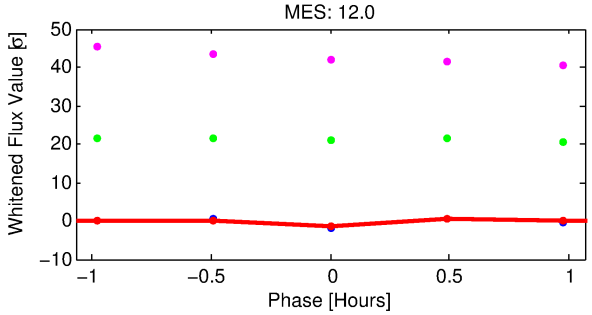
KIC: 6508436 Candidate: 3 of 7 Period: 513.645 d

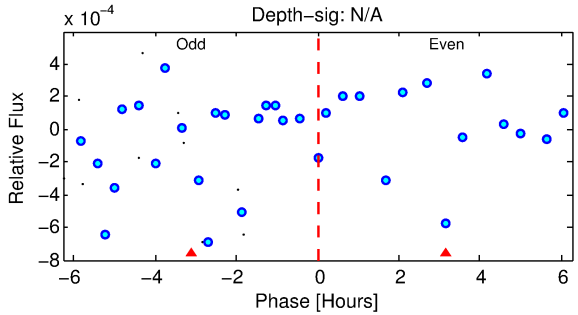


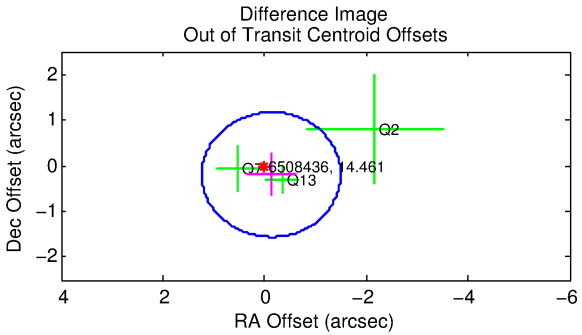












TPS TCE Results:

Period = 513.64521 d
Epoch = 173.6688 BKJD

DV fit results are unavailable

DV Diagnostic Results:

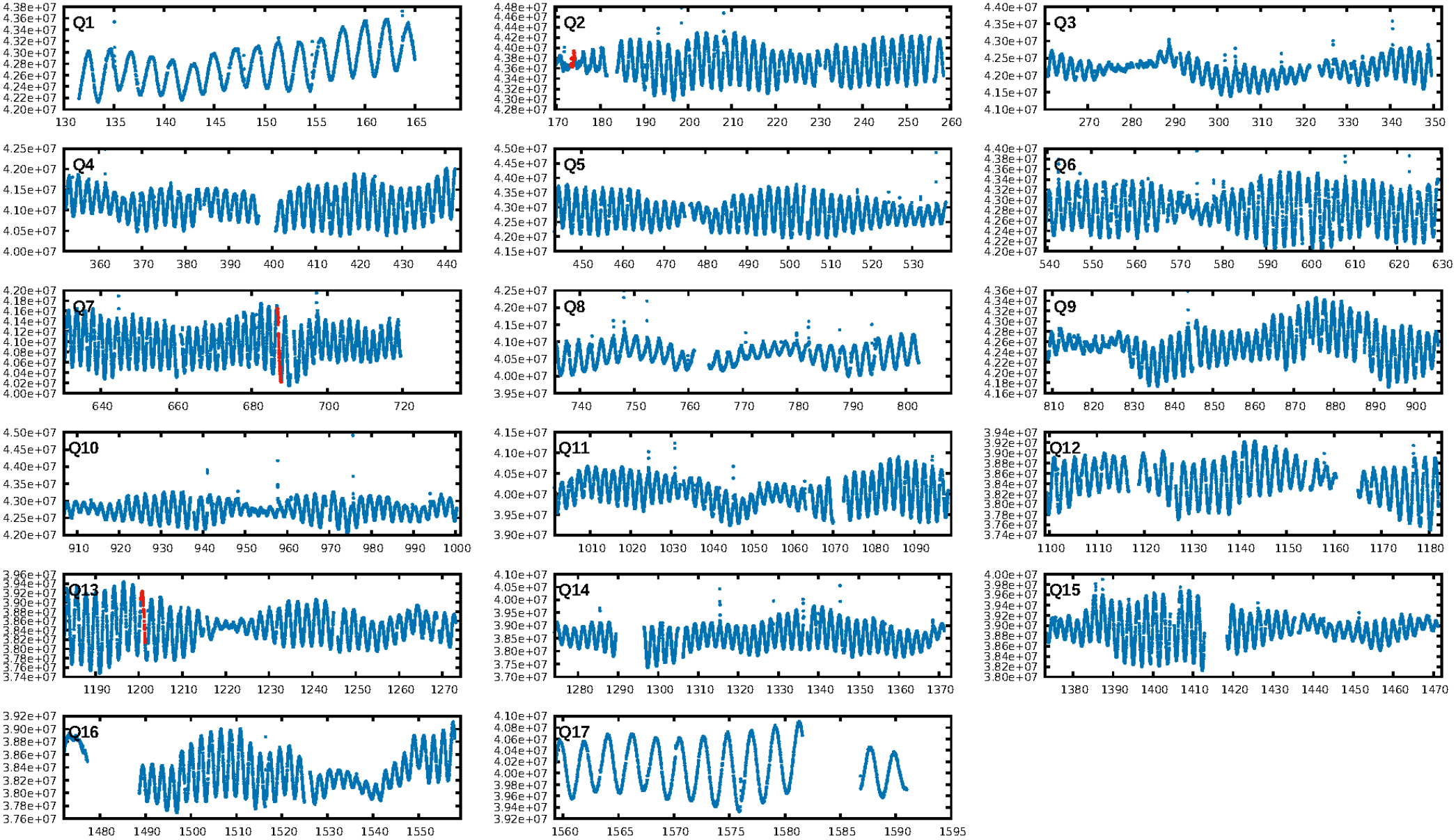
ShortPeriod−sig: 100.0% [27.82σ]
LongPeriod−sig: 100.0% [6.59σ]
ModelChiSquare2−sig: N/A
ModelChiSquareGof−sig: N/A
Bootstrap−pfa: 1.82e−08
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: −0.5846

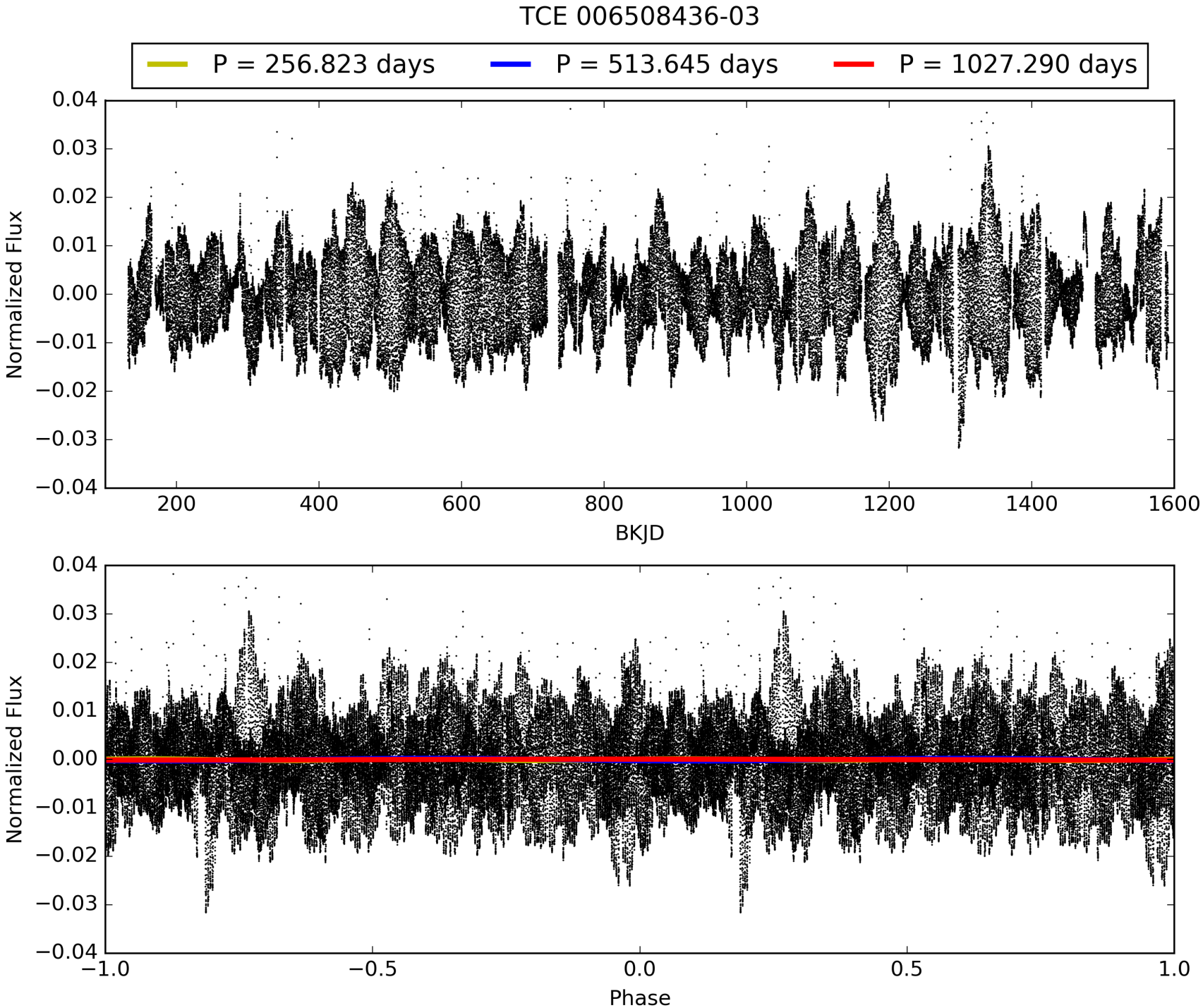
Centroid−sig: 72.6%
Centroid−so: 2.575 arcsec [0.42σ]
OotOffset−rm: 0.234 arcsec [0.51σ]
KicOffset−rm: 0.244 arcsec [0.55σ]
OotOffset−st: 1/1/0/1 [3]
KicOffset−st: 1/1/0/1 [3]
DiffImageQuality−fgm: 0.67 [2/3]
DiffImageOverlap−fno: 1.00 [3/3]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:02:51 Z

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

TCE 006508436-03, PDC Light Curves

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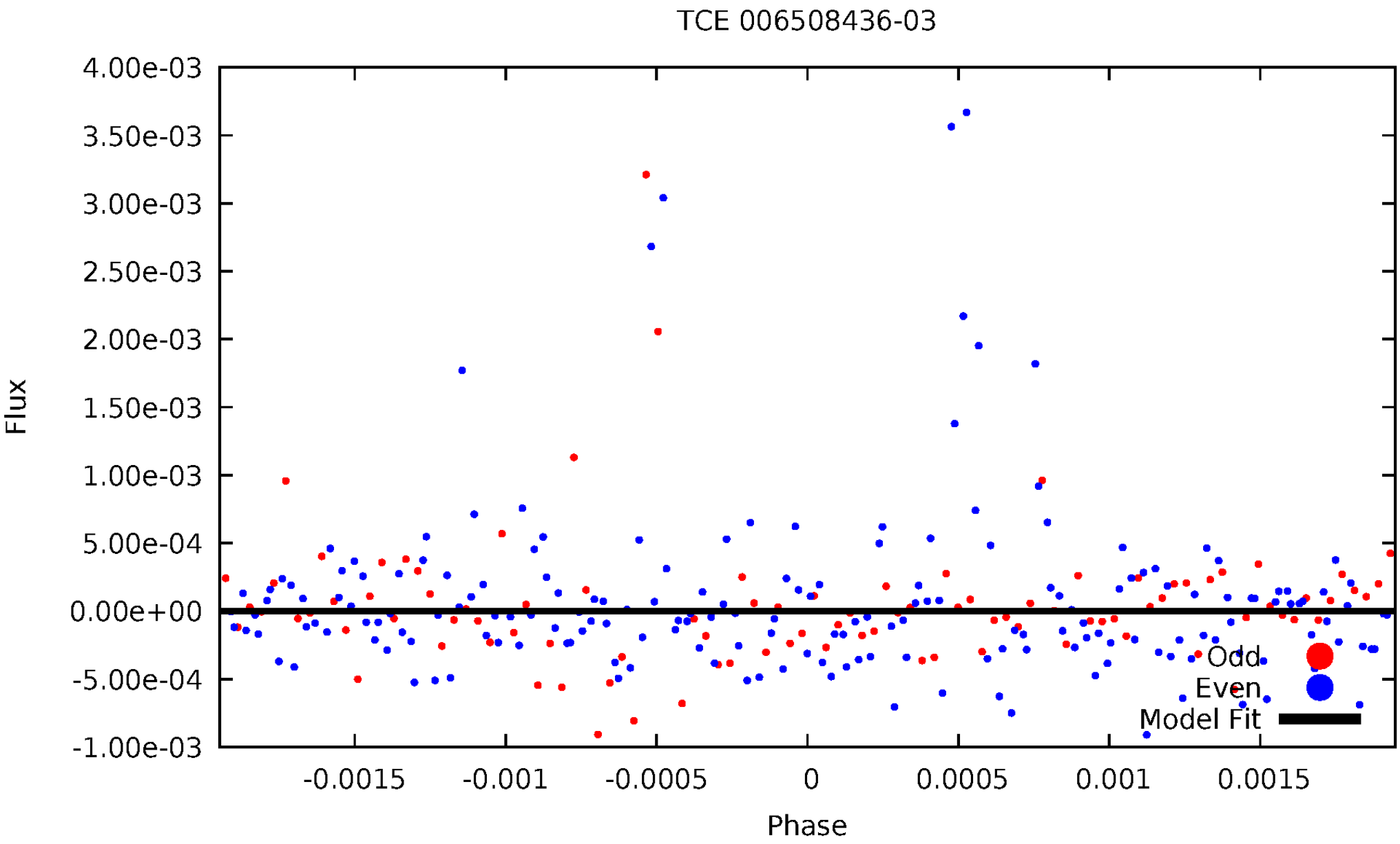
P = 256.823 days
P = 513.645 days
P = 1027.290 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even


TCE 006508436-03
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2.50e-03
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
Flux
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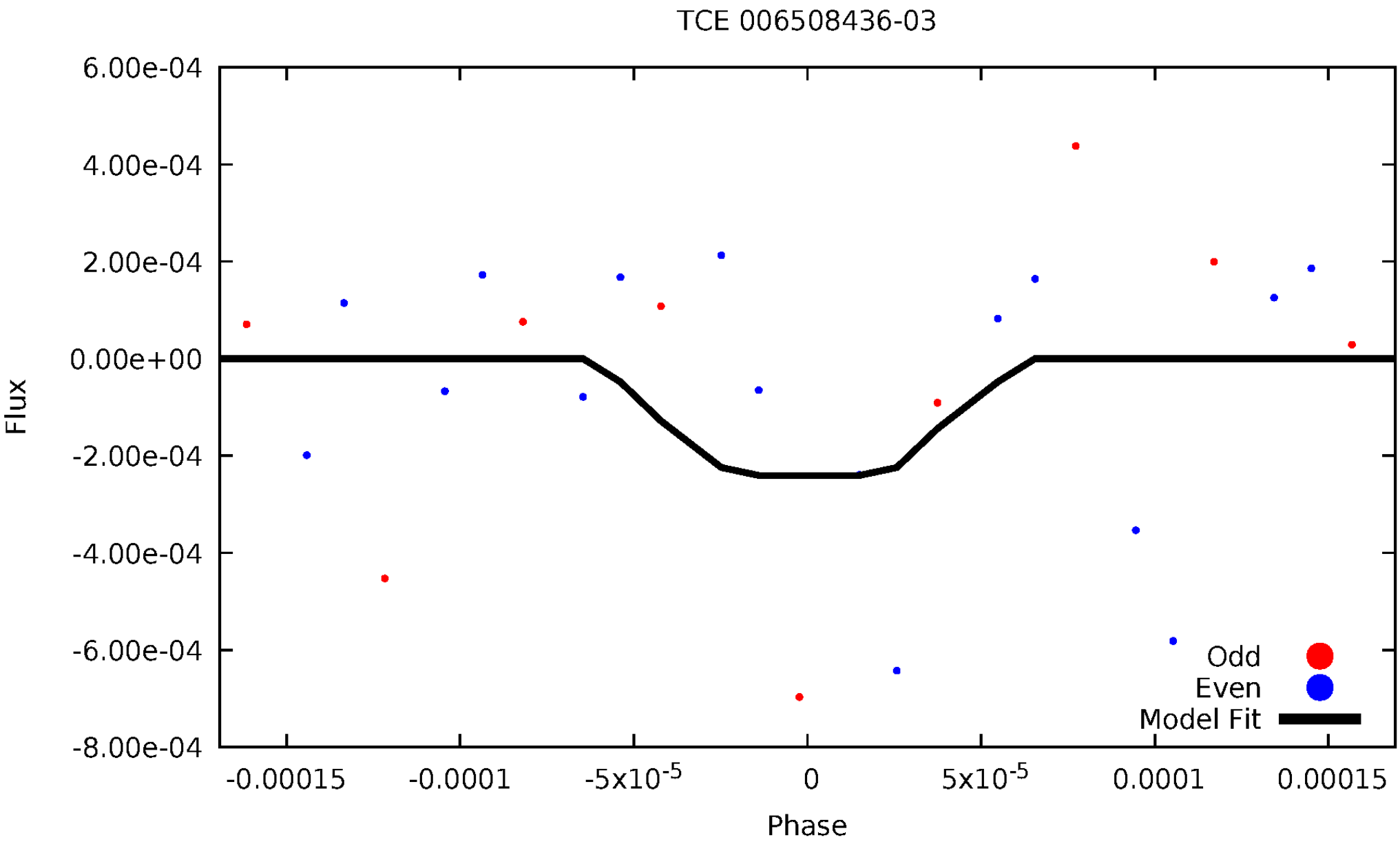
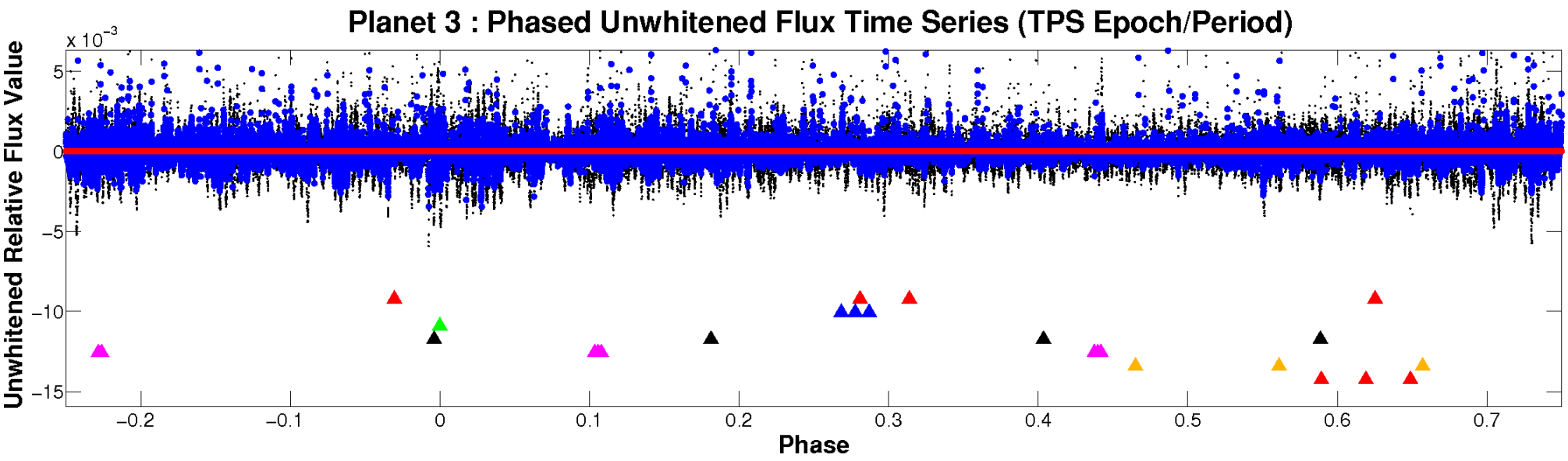
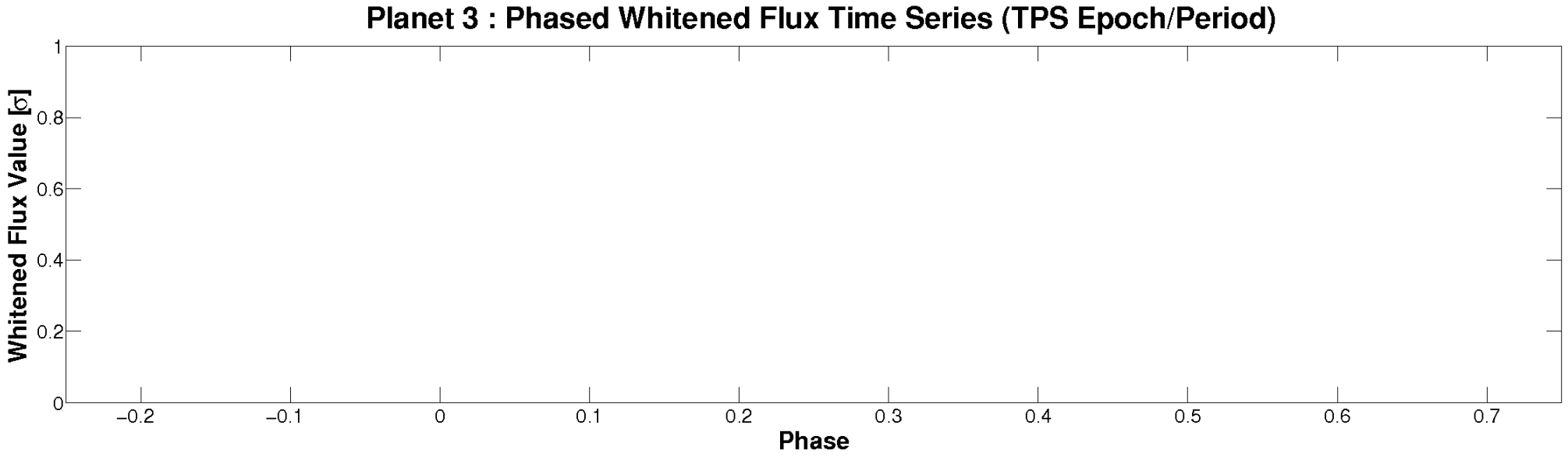
-0.001
-0.0005
0
0.0005
0.001
0.0015
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006508436-03
6.00e-04
4.00e-04
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
Flux
-0.00015
-0.0001
-5x10^-5
0
5x10^-5
0.0001
0.00015
Phase
Odd
Even
Model Fit

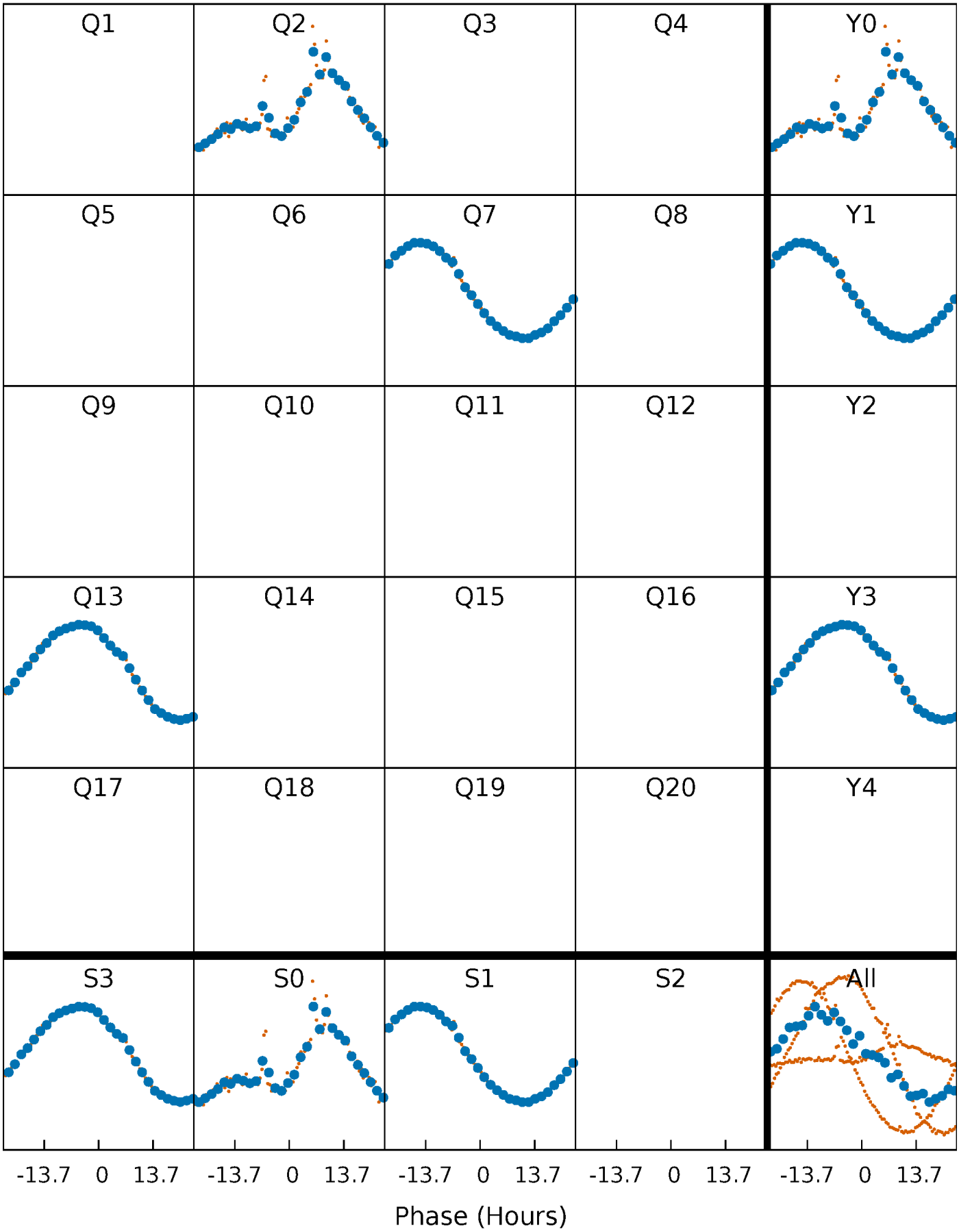
Non-Whitened Vs. Whitened Light Curve





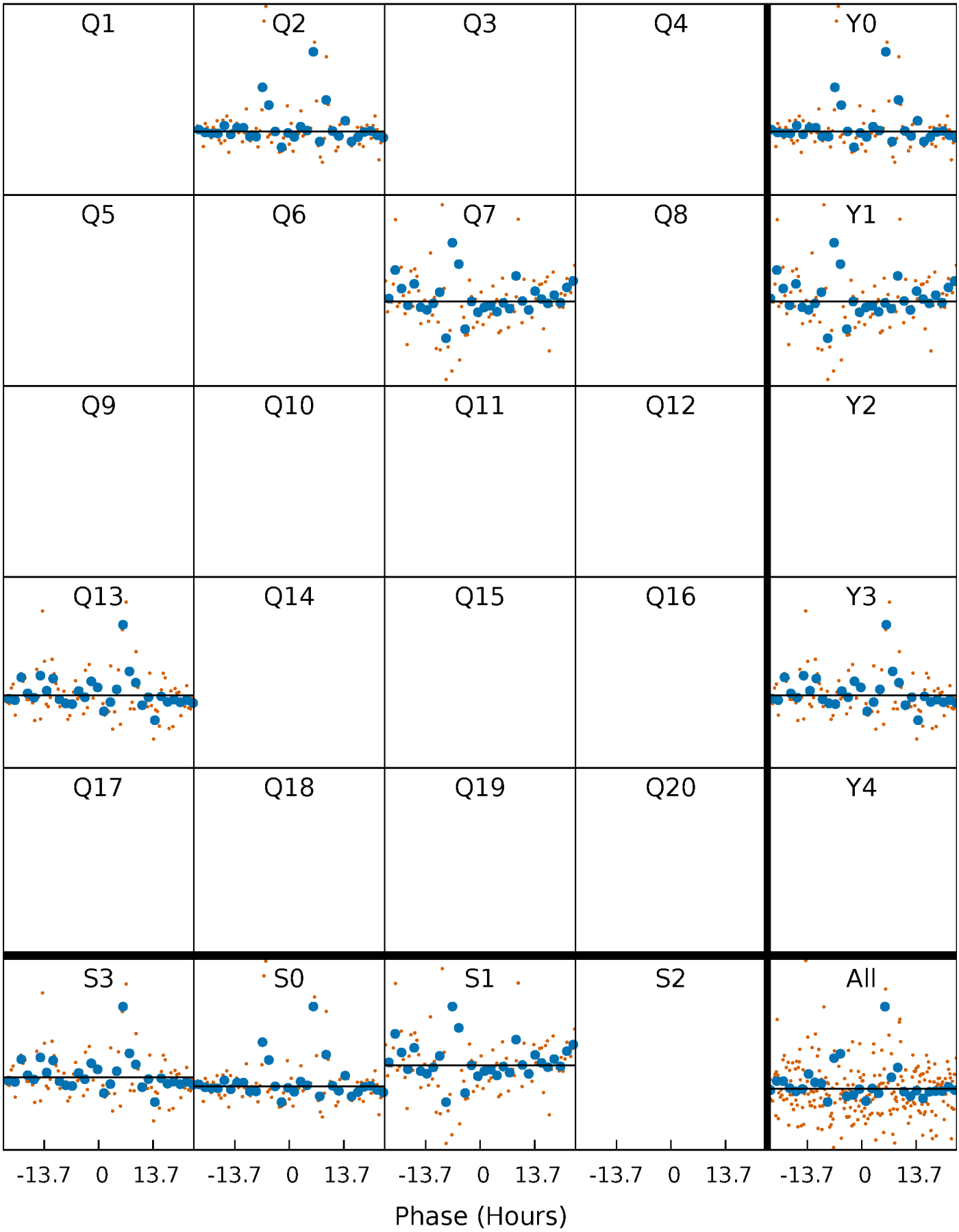
PDC Quarter-Phased Transit Curves

TCE 006508436-03 P=513.645209 Days T_0=173.668834 (BKJD)



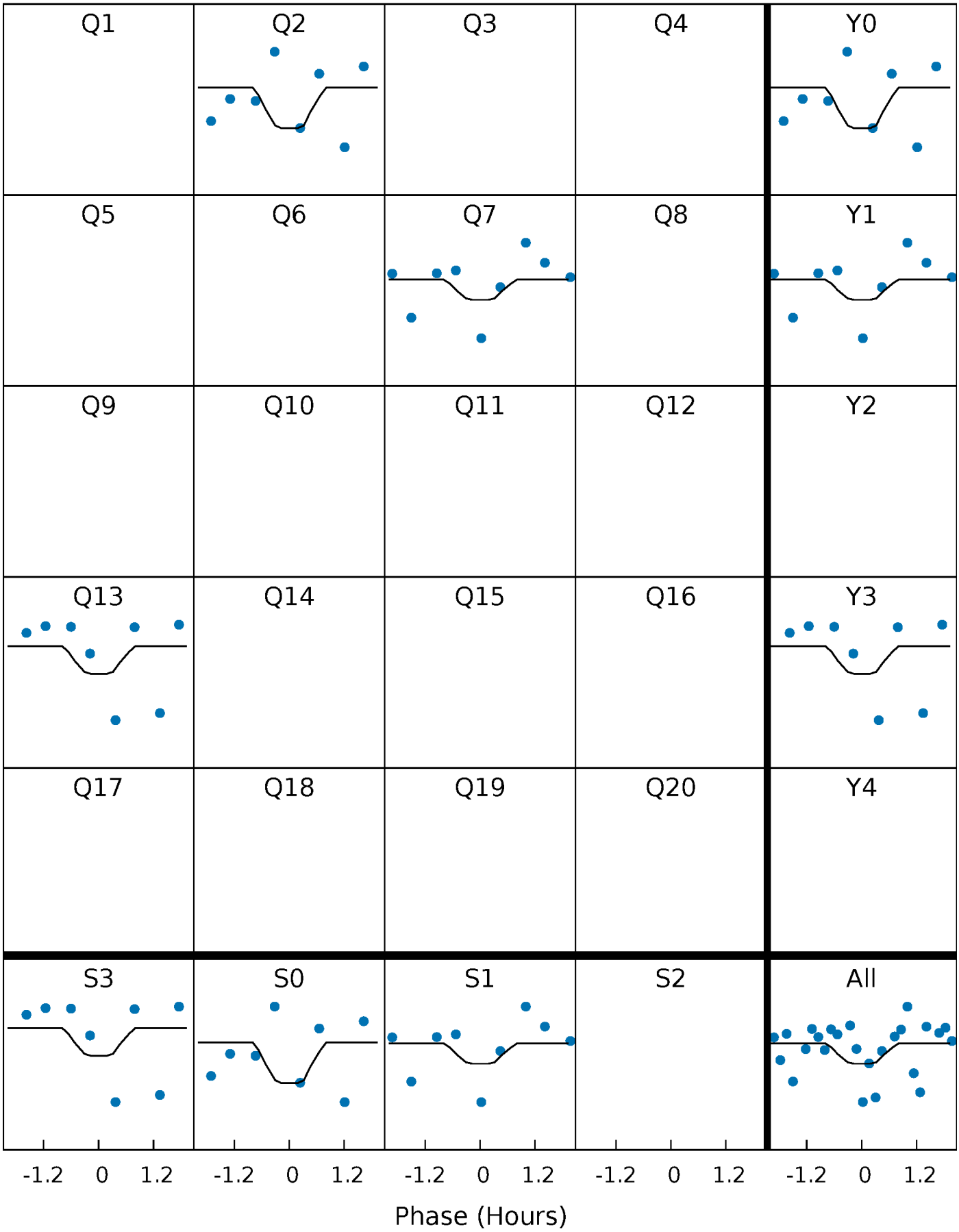
DV Quarter-Phased Transit Curves

TCE 006508436-03 P=513.645209 Days T_0=173.668834 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

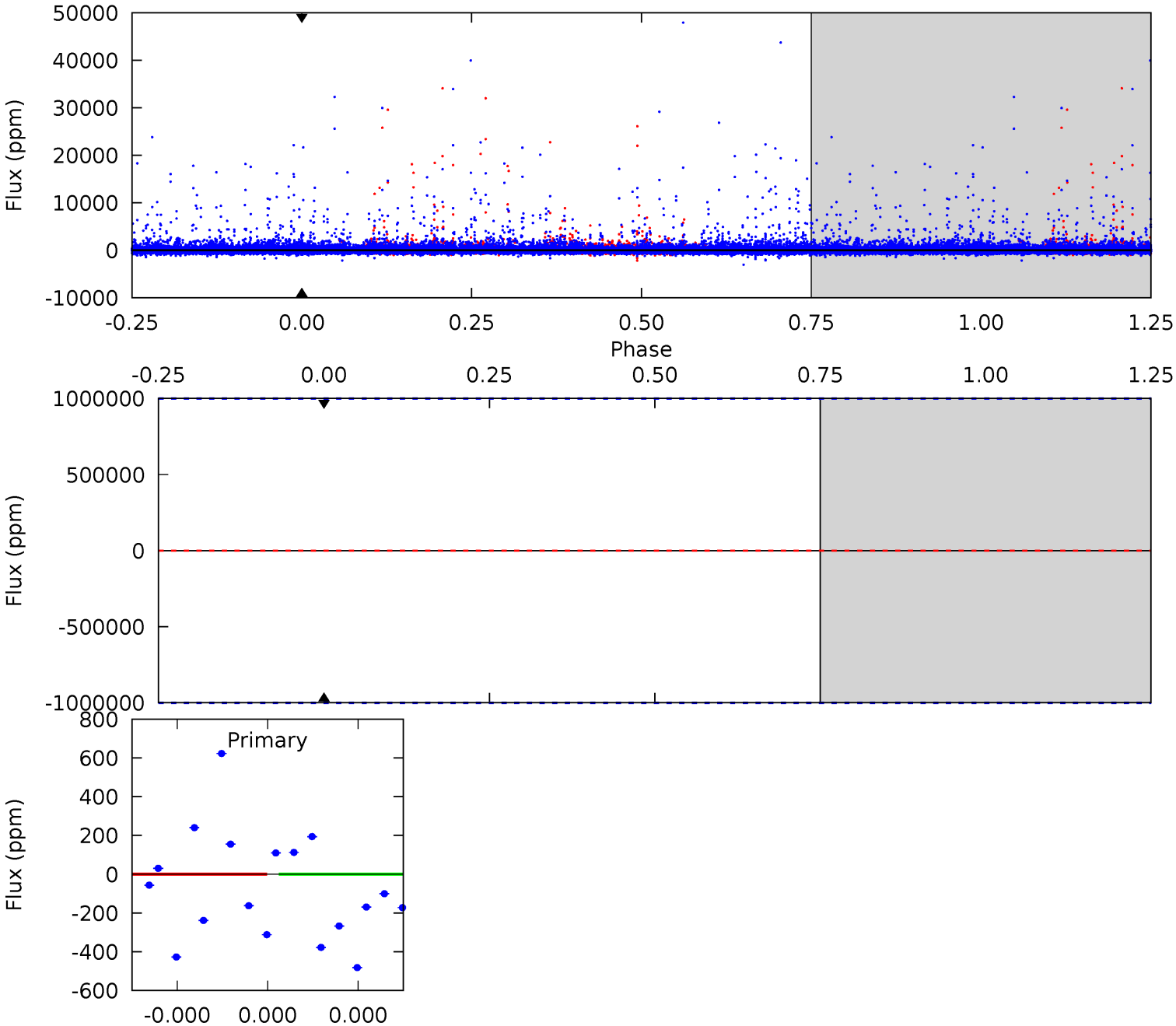
TCE 006508436-03 P=513.645209 Days T_0=174.396484 (BKJD)



DV Model-Shift Uniqueness Test

006508436-03, P = 513.645209 Days, E = 173.668834 Days

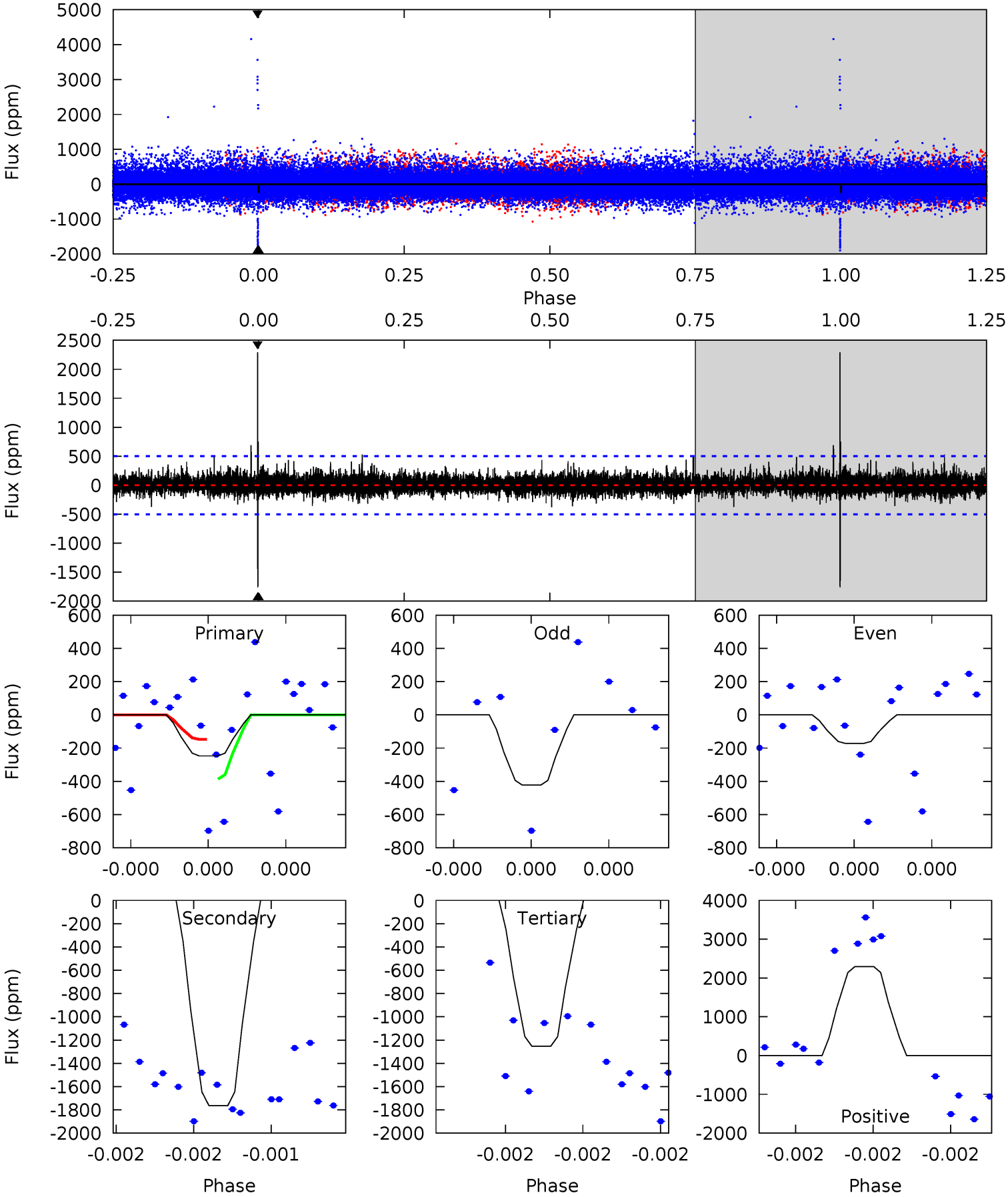
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

006508436-03, P = 513.645209 Days, E = 174.396484 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.86	20.4	14.5	26.6	5.82	3.85	1.03	-11.7	-23.7	5.91	-6.14	1.27	0.77	0.57	1.39



Stellar Parameters For KIC 006508436

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	5706^{+152}_{-152}	$4.561^{+0.040}_{-0.160}$	$-0.180^{+0.300}_{-0.300}$	$0.834^{+0.191}_{-0.076}$	$0.930^{+0.092}_{-0.112}$	$2.255^{+0.469}_{-0.974}$
	+3%/-3%	+1%/-4%	+167%/-167%	+23%/-9%	+10%/-12%	+21%/-43%
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 006508436-03 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0±1000000	$6.97^{+7.95}_{-4.67}$	296^{+16}_{-12}	4280^{+17033}_{-23742}	$21103^{+3222742}_{-2706588}$
Alt.	-1763±86	$6.68^{+7.62}_{-4.74}$	297^{+16}_{-12}	4545^{+4004}_{-1059}	$31604^{+374668}_{-24790}$

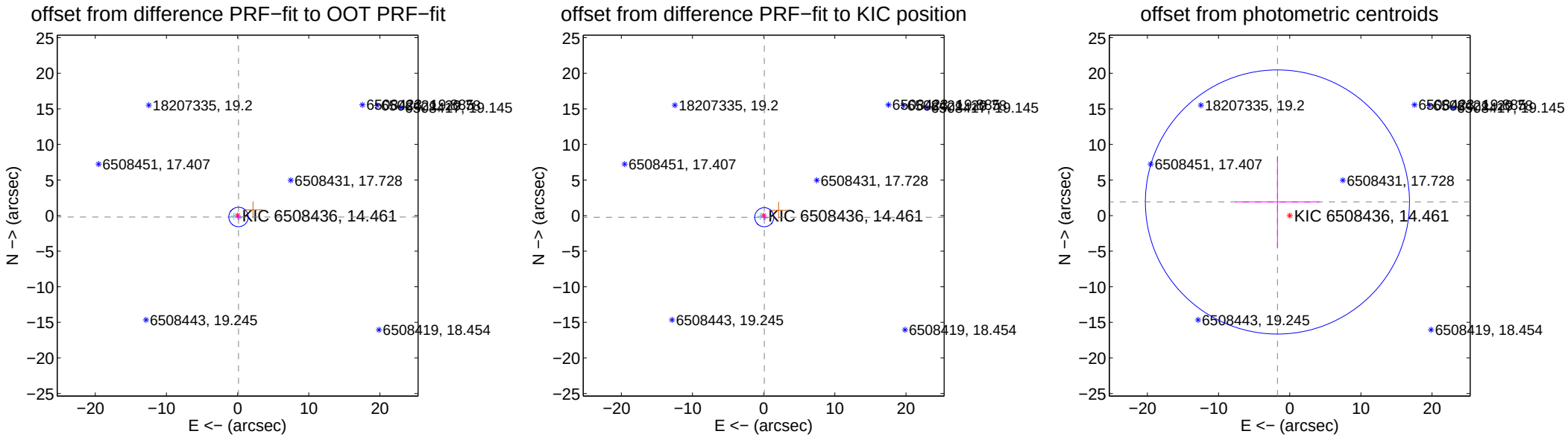
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

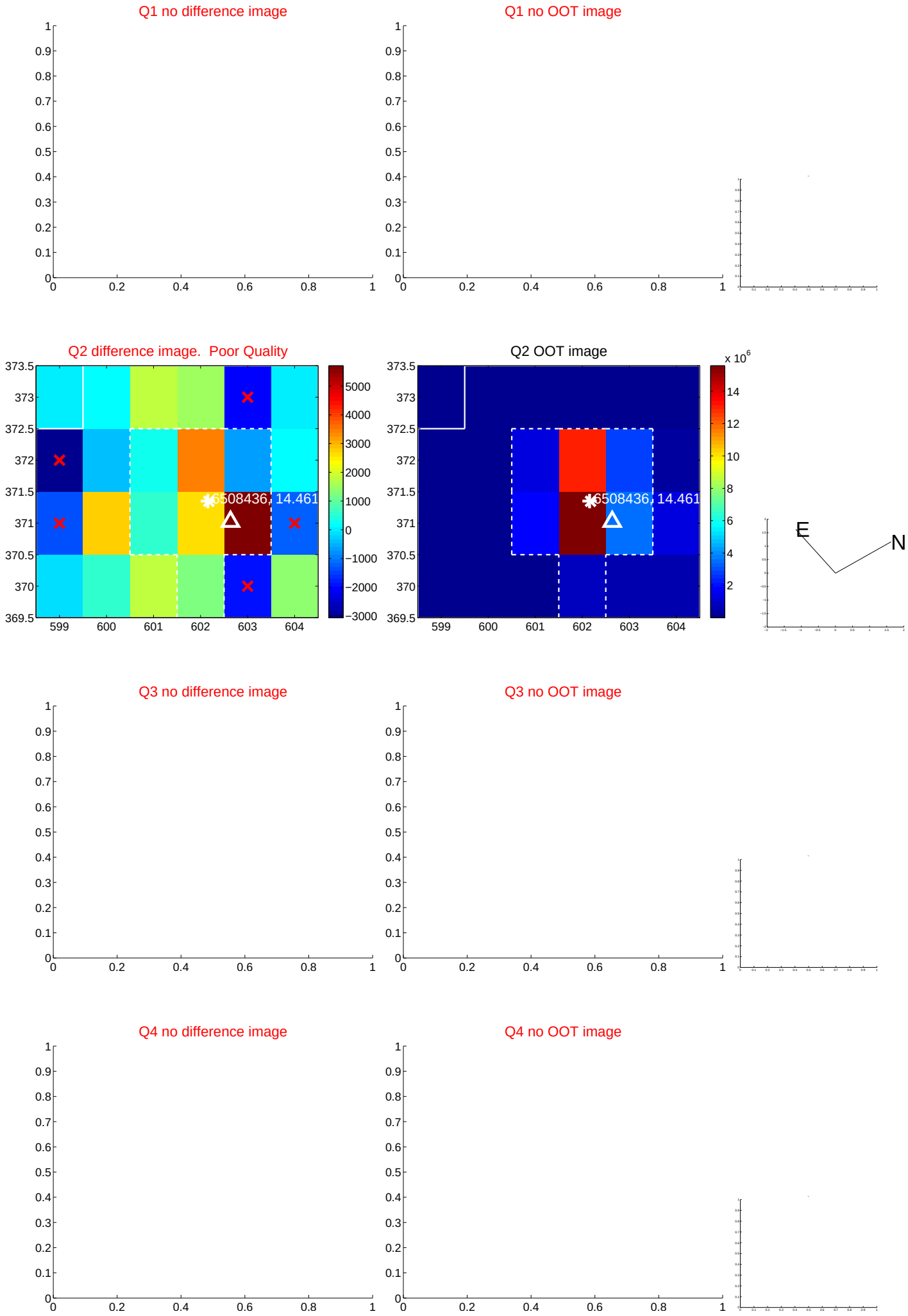
Supplemental centroid analysis for 006508436-03. Kepler magnitude: 14.46. Transit SNR -1.00
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.234 ± 0.455	0.51	-0.130 ± 0.485	-0.194 ± 0.441
PRF-fit source offset from KIC position	0.244 ± 0.447	0.55	-0.087 ± 0.485	-0.228 ± 0.441
photometric centroid source offset	2.58 ± 6.19	0.42	1.73 ± 5.91	1.91 ± 6.40

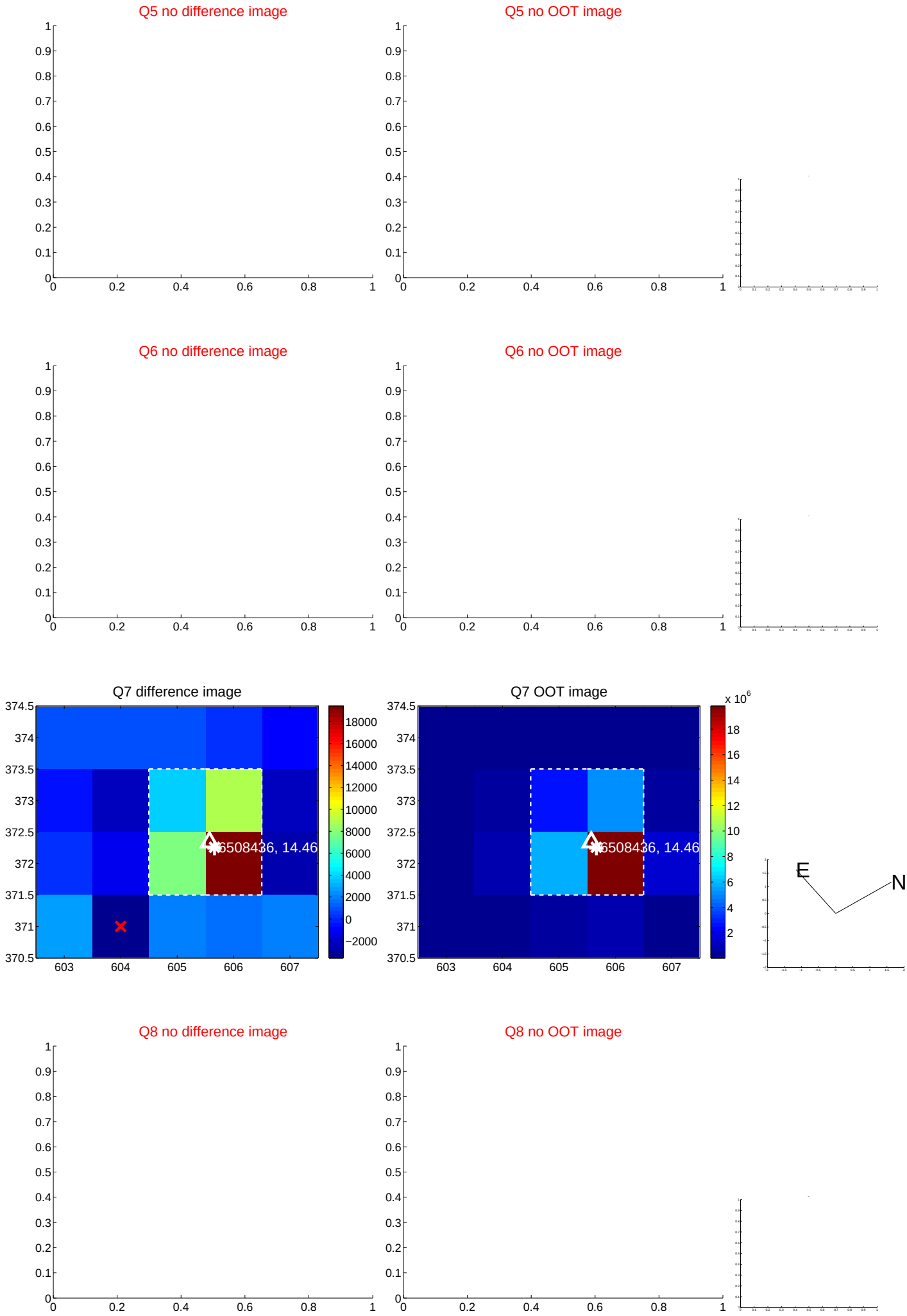


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

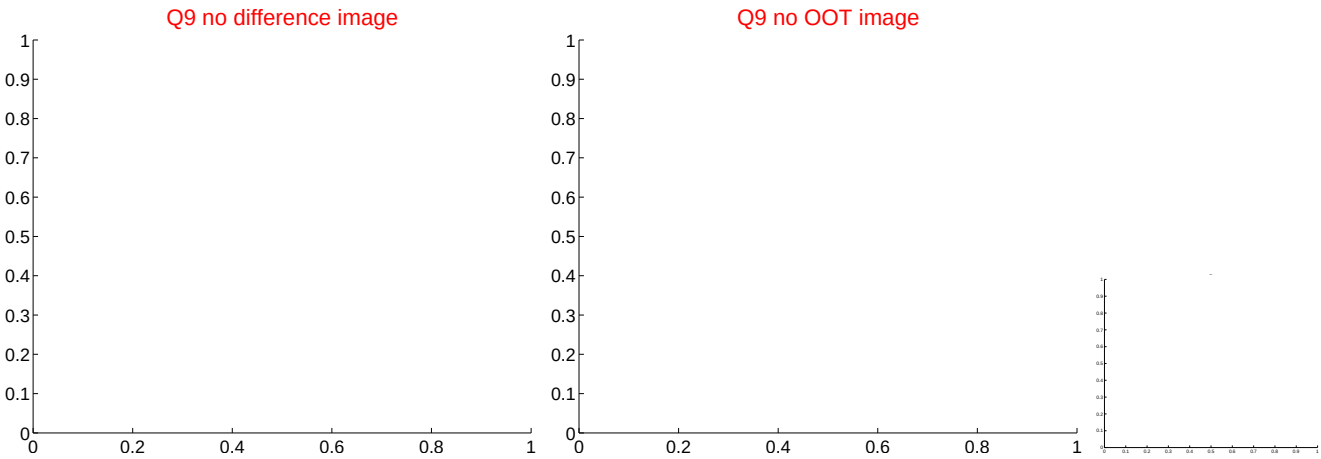
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

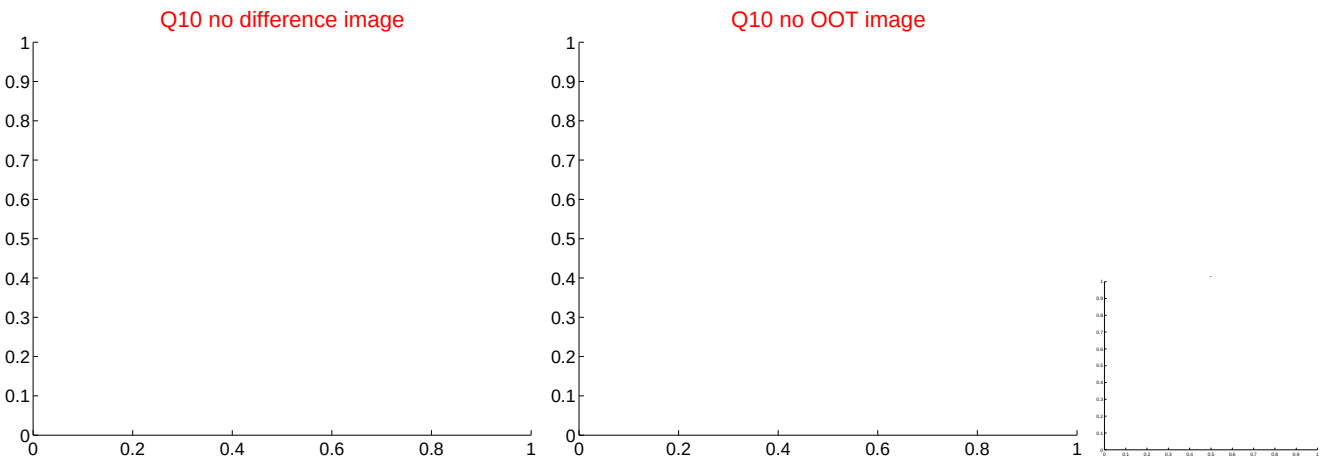


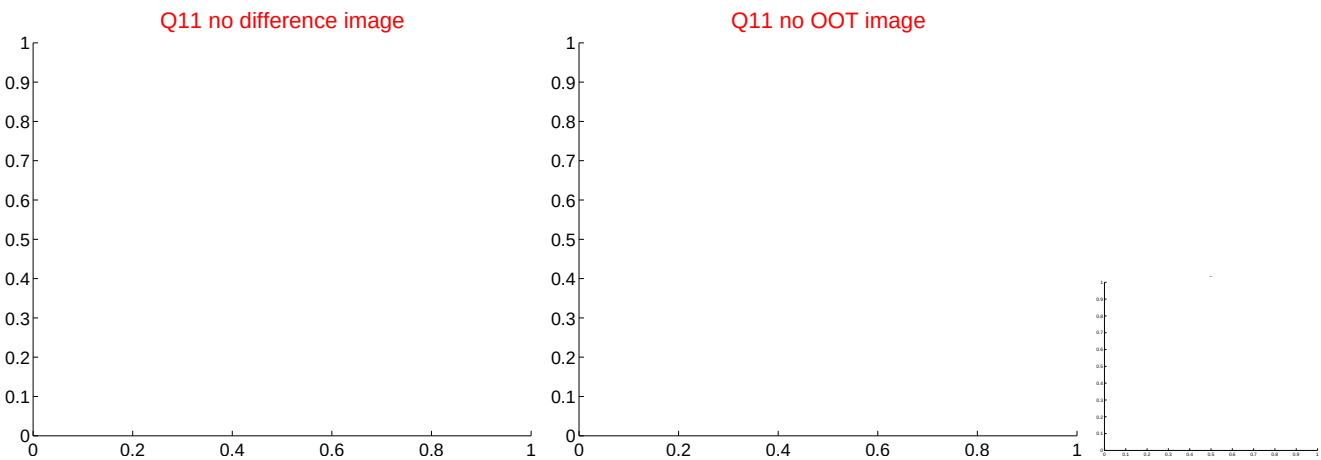
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

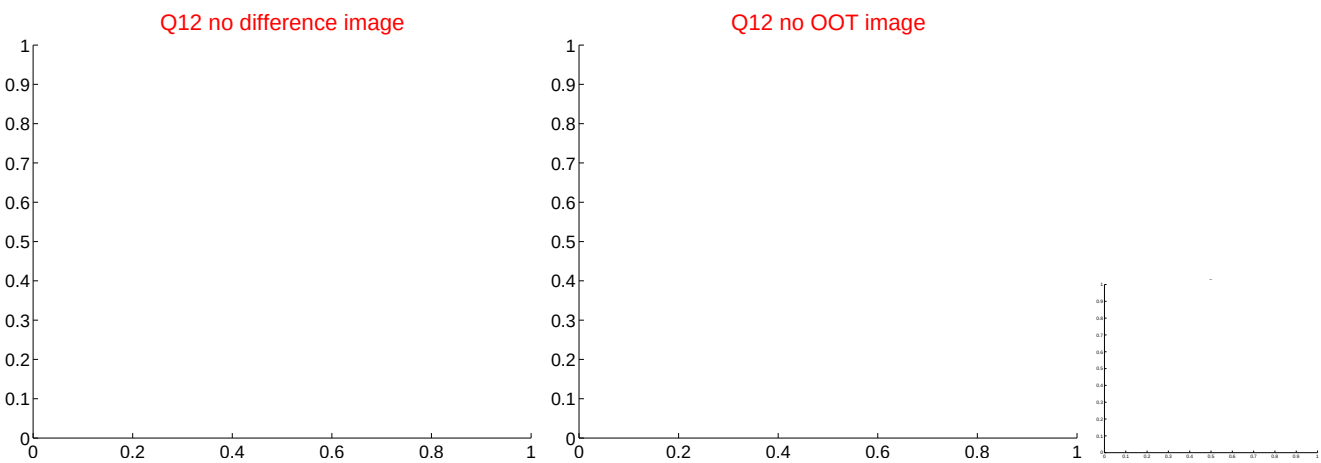


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

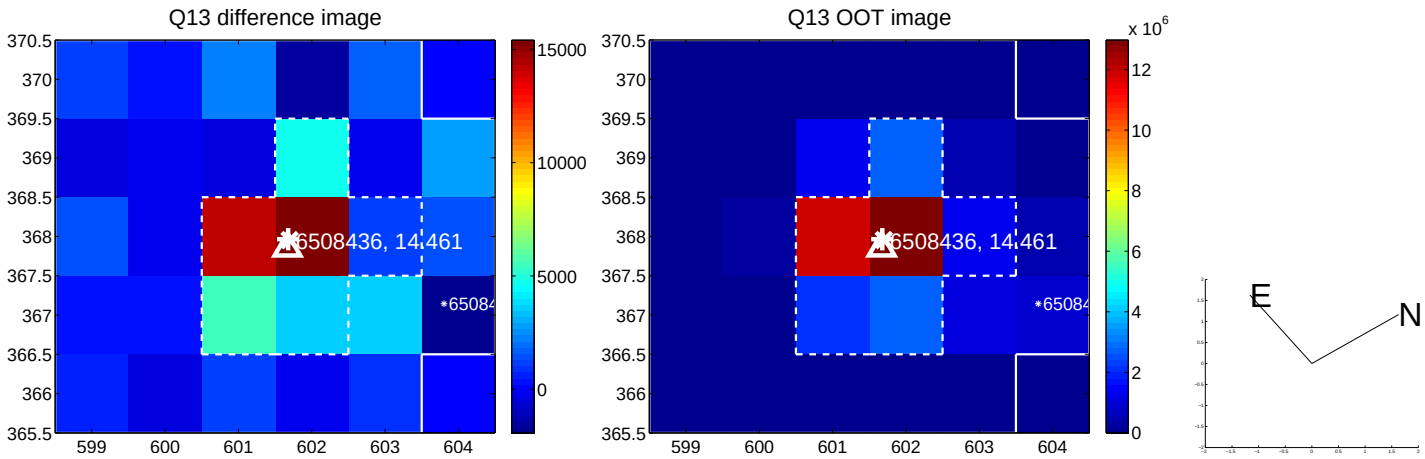


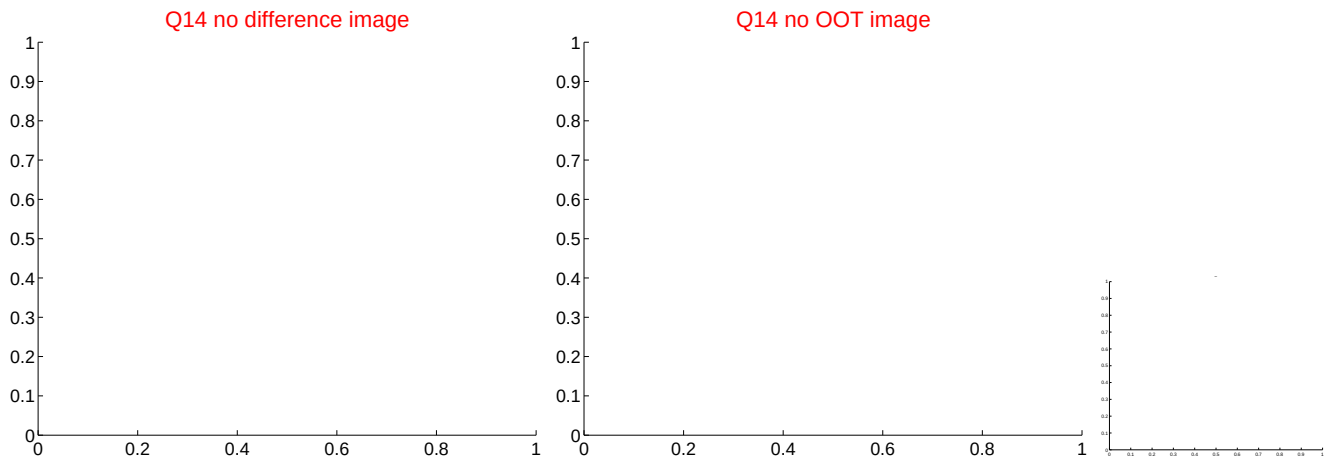


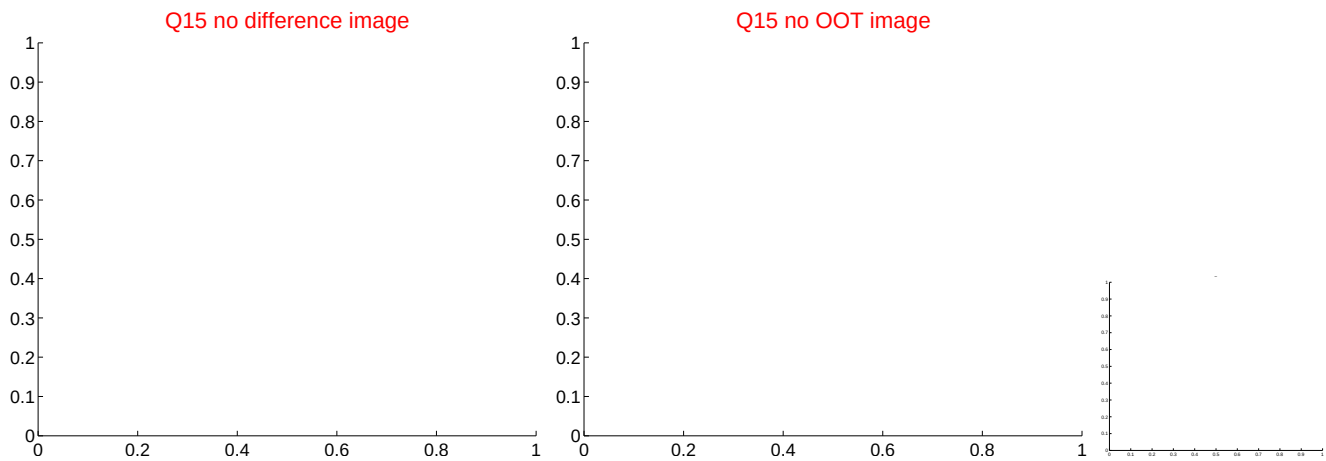


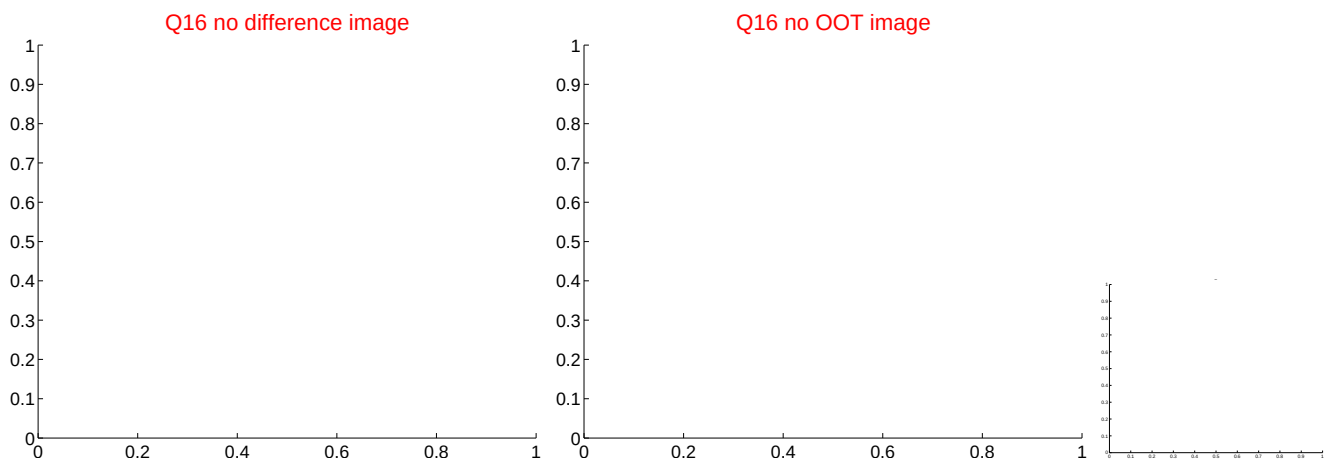


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

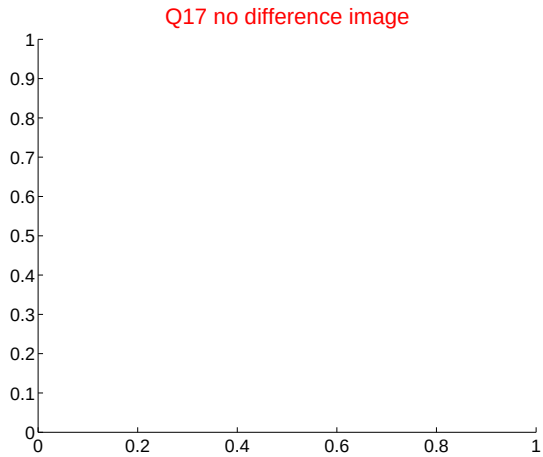


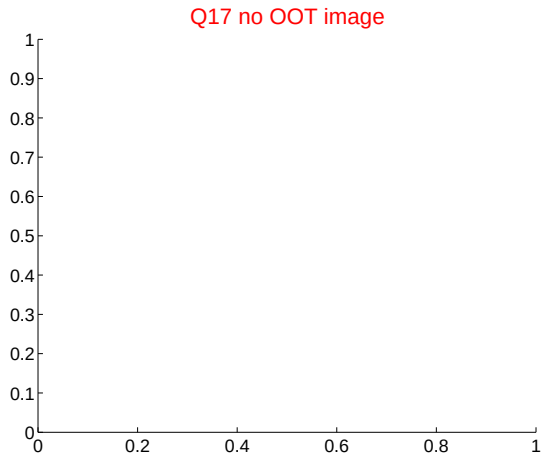


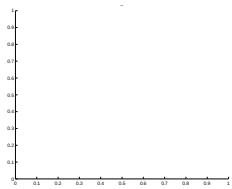


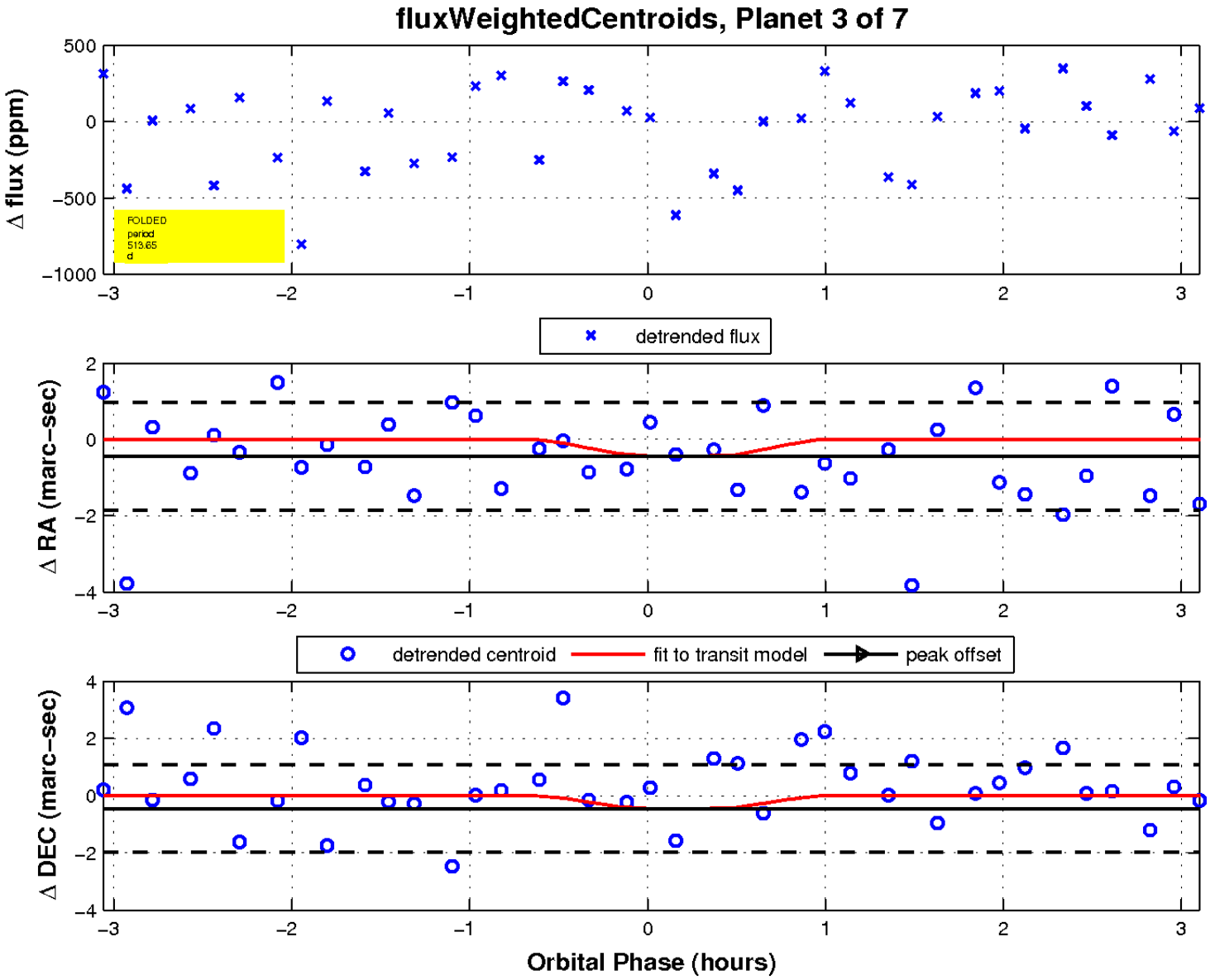


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

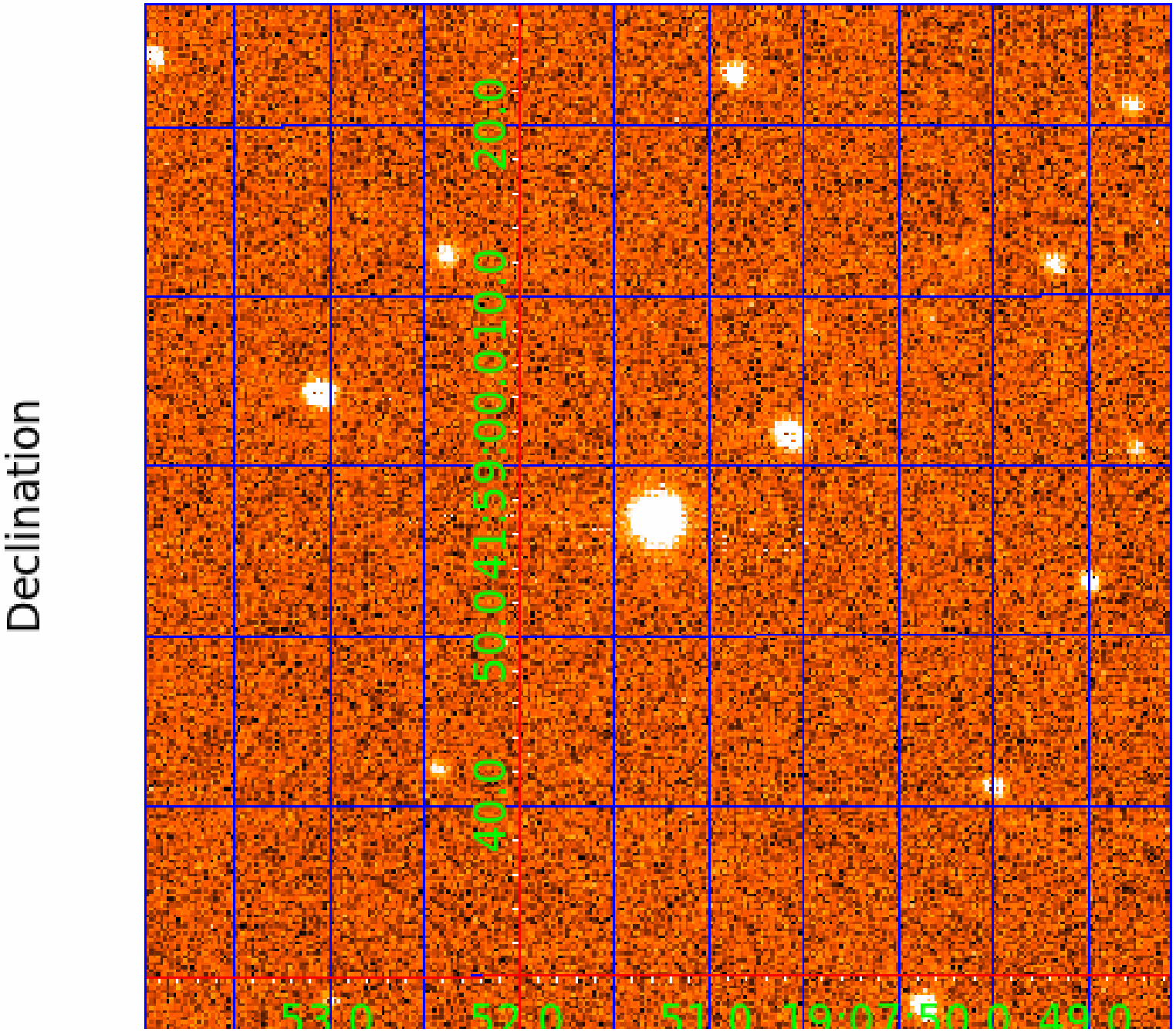








UKIRT Image



KIC 006508436

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 ($S_\oplus$)
006508436-01	OBS	No	336.785851	334.906102	996.7	2.958	16.4	6.1	0.83	5706	2.65	0.78
006508436-02	OBS	No	518.432935	311.515903	1109.7	12.659	12.2	5.6	0.83	5706	2.83	0.44
006508436-03	OBS	No	513.645209	173.668834	475.9	12.000	12.0	-1.0	0.83	5706	1.80	0.44
006508436-04	OBS	No	304.366537	380.965326	1023.3	3.033	11.4	6.3	0.83	5706	2.73	0.89
006508436-05	OBS	No	171.592974	226.839000	446.9	3.234	11.5	4.5	0.83	5706	1.83	1.91
006508436-06	OBS	No	464.338263	511.146777	409.1	8.995	11.3	2.2	0.83	5706	1.72	0.51
006508436-07	OBS	No	498.345043	506.977086	1005.2	5.496	11.7	5.7	0.83	5706	2.81	0.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006508436-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
006508436-04	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—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006508436-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

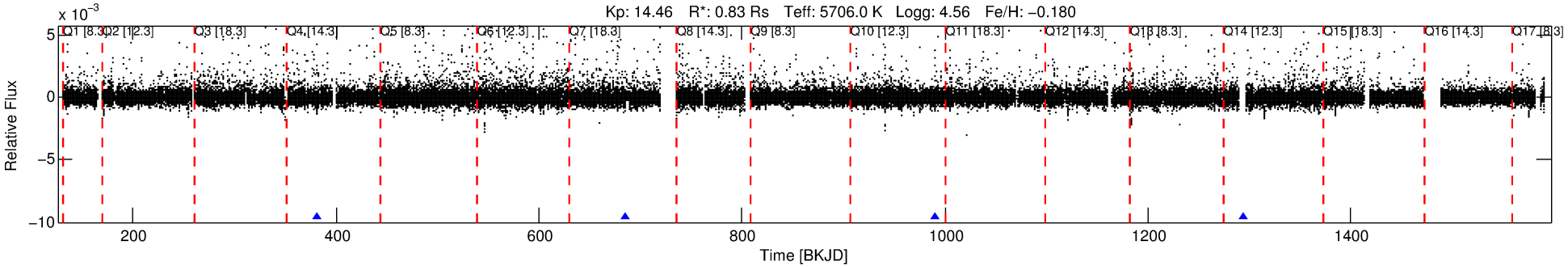
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

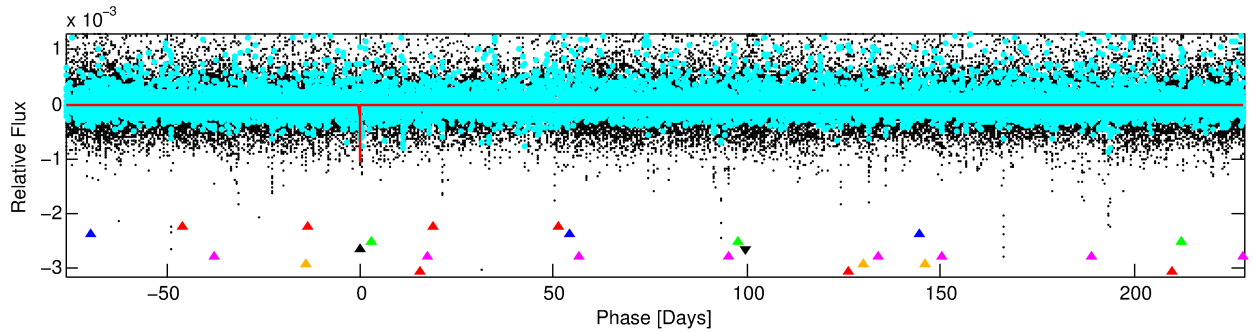
Ephemeris Match Information For 006508436-04

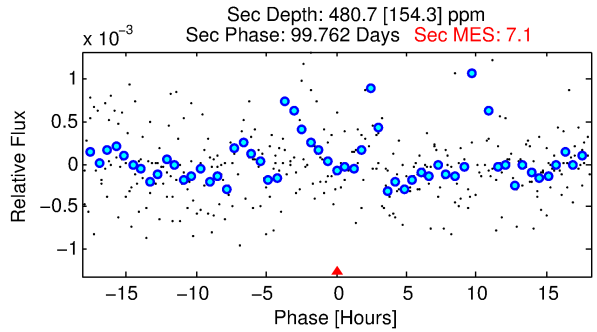
No Significant Match Found

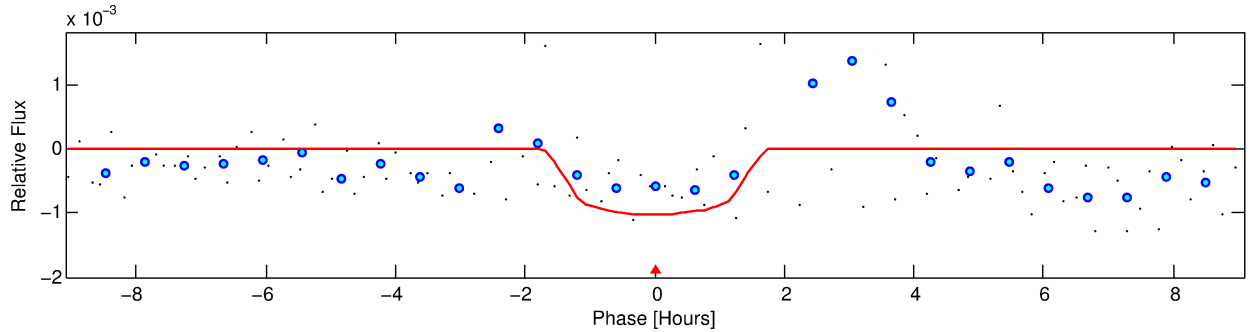
DV One-Page Summary

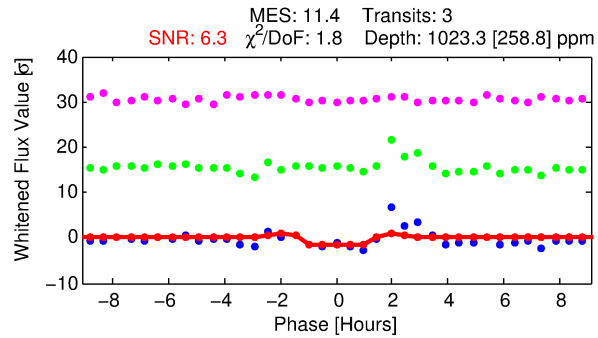
KIC: 6508436 Candidate: 4 of 7 Period: 304.367 d

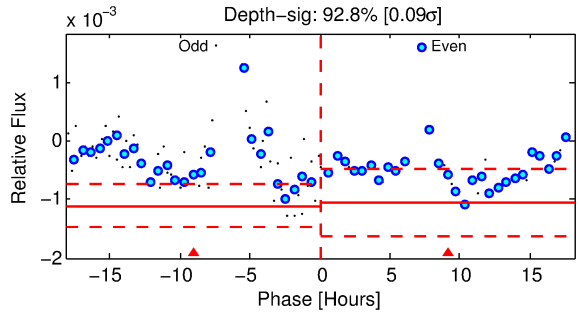


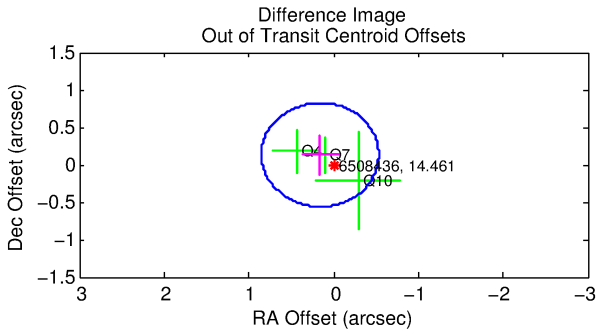












DV Fit Results:

Period = 304.36654 [0.00650] d
Epoch = 380.9653 [0.0098] BKJD
Rp/R* = 0.0300 [0.0583]
a/R* = 688.62 [5761.85]
b = 0.50 [12.52]

Seff = 0.89 [0.27]
Teq = 248 [19] K
Rp = 2.73 [5.34] Re
a = 0.8625 [0.1690] AU

Ag = 26377.20 [103148.86] [0.26σ]
Teffp = 4877 [4757] K [0.97σ]

DV Diagnostic Results:

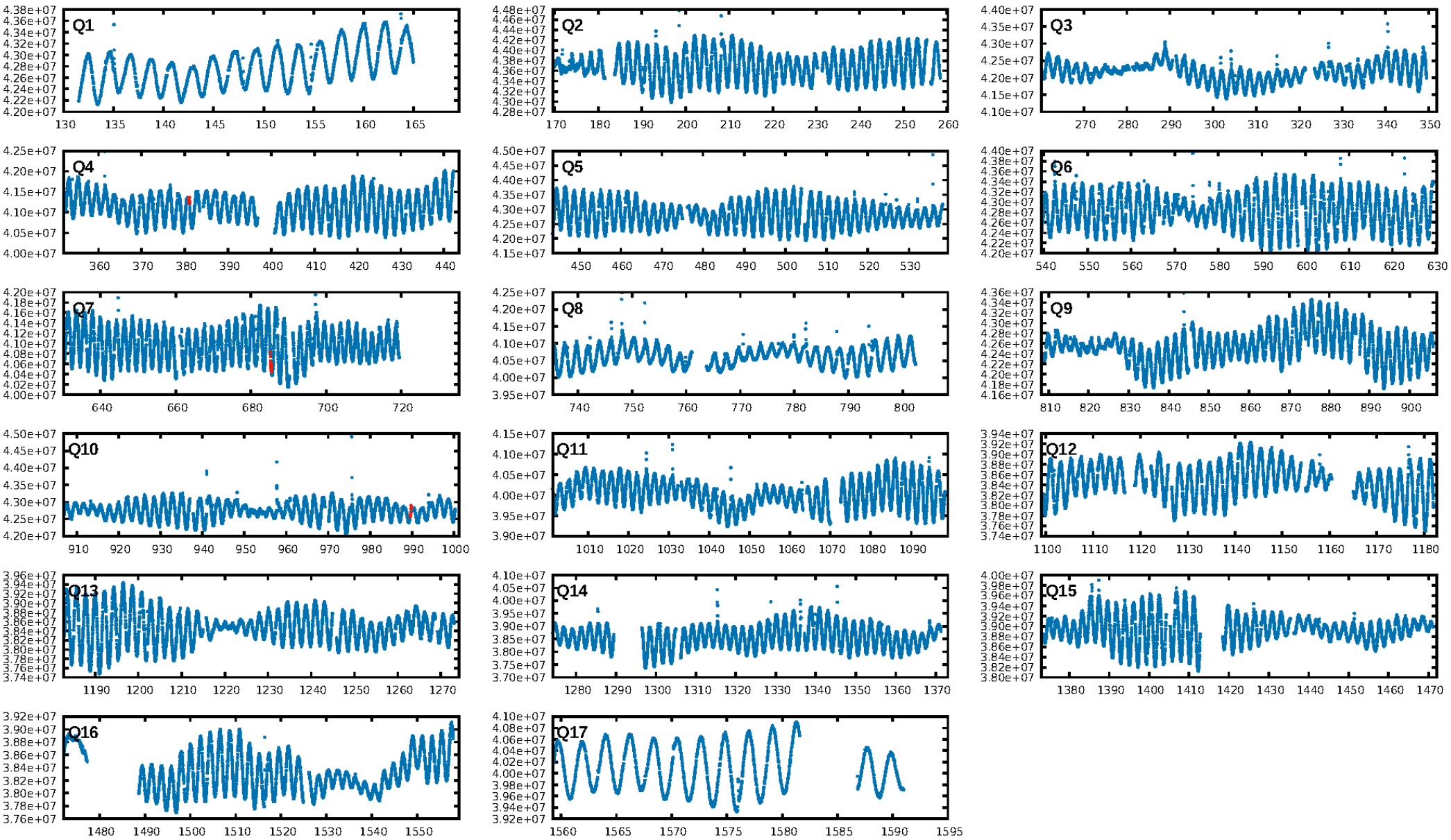
ShortPeriod−sig: 100.0% [718.75σ]
LongPeriod−sig: 100.0% [183.67σ]
ModelChiSquare2−sig: 76.3%
ModelChiSquareGof−sig: 84.9%
Bootstrap−pfa: 5.61e−10
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: 6.38

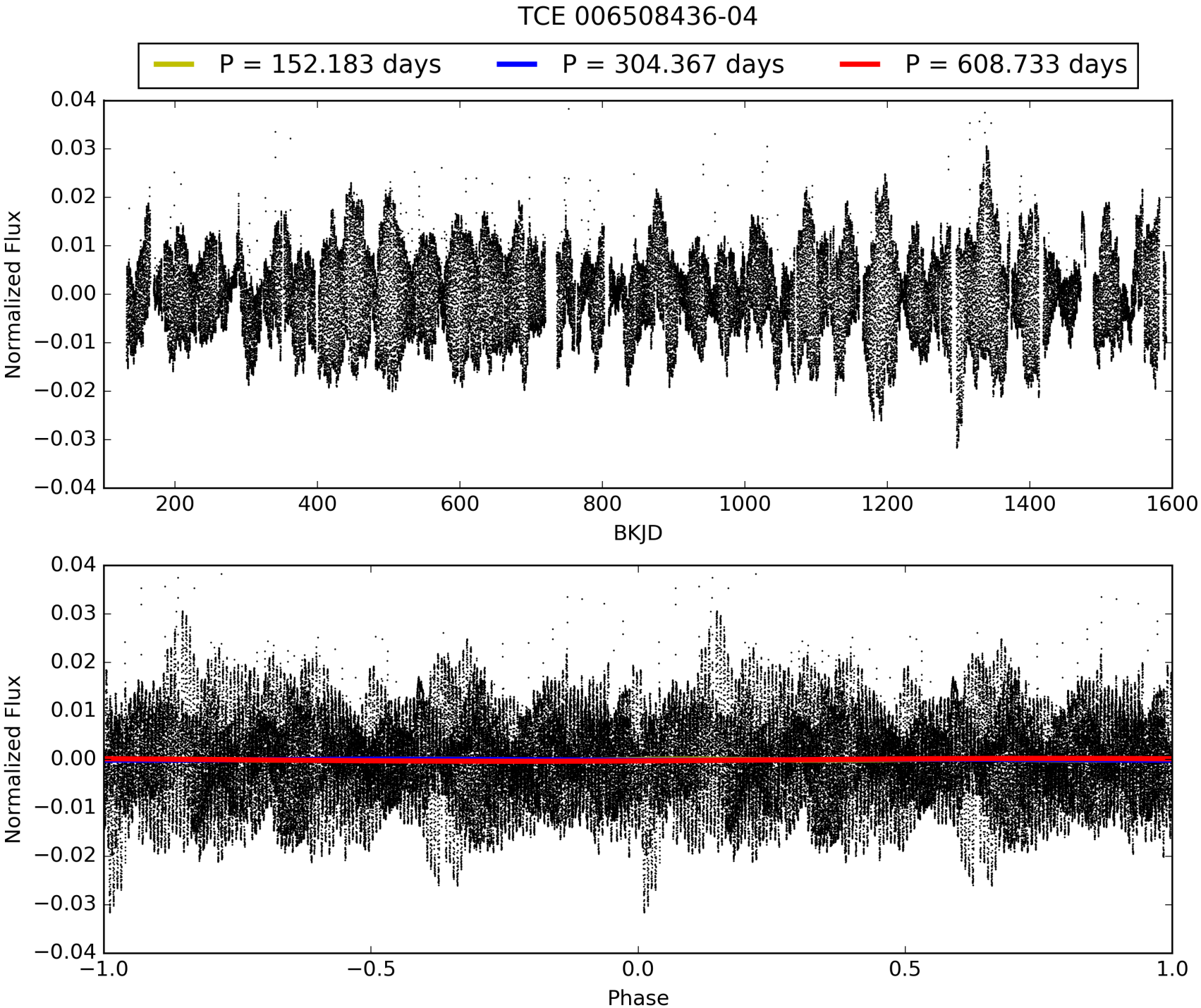
Centroid−sig: 1.0%
Centroid−so: 1.502 arcsec [1.81σ]
OotOffset−rm: 0.207 arcsec [0.90σ]
KicOffset−rm: 0.180 arcsec [0.78σ]
OotOffset−st: 1/1/1/0 [3]
KicOffset−st: 1/1/1/0 [3]
DiffImageQuality−fgm: 0.33 [1/3]
DiffImageOverlap−fno: 1.00 [3/3]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:03:08 Z

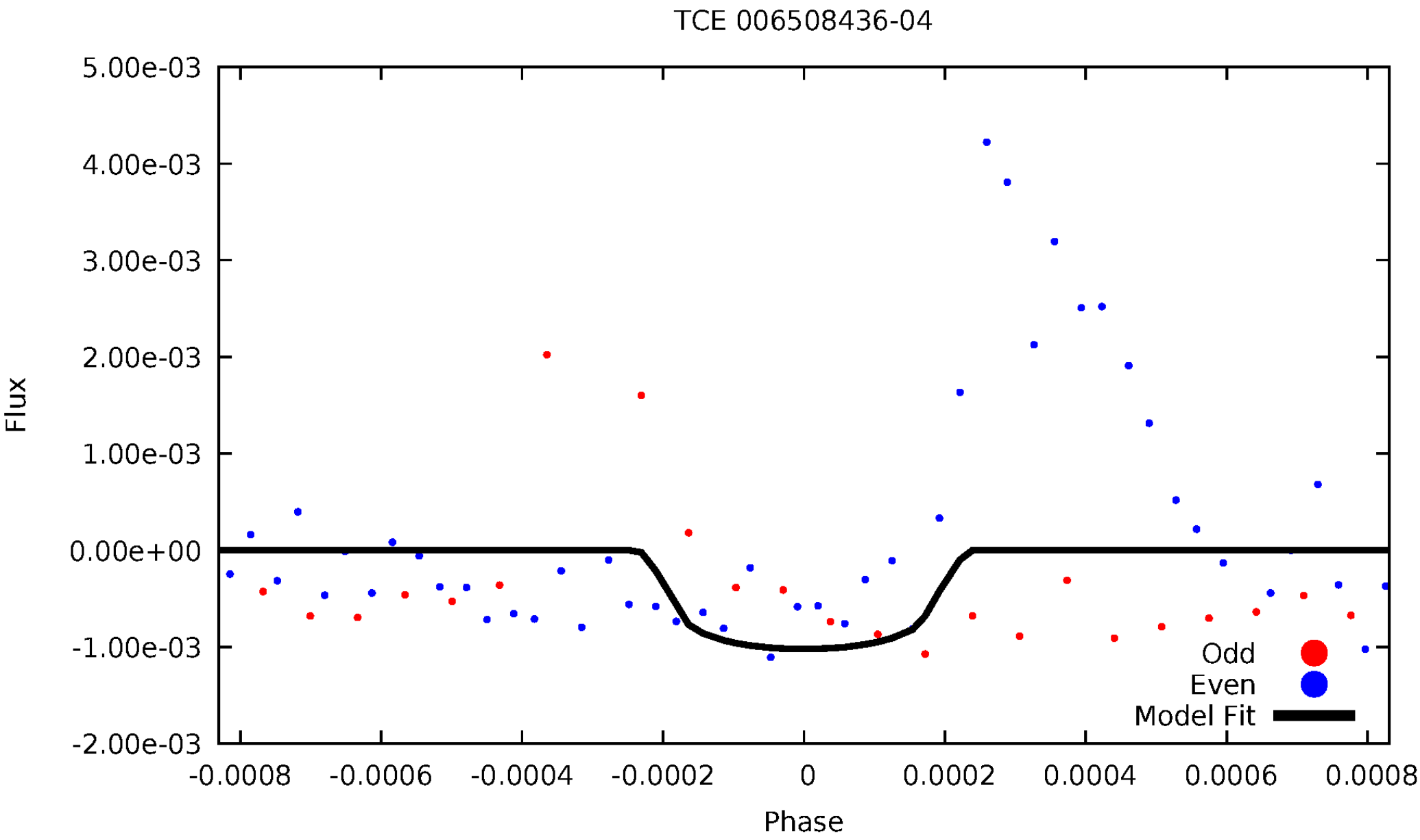
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006508436-04, PDC Light Curves




TCE 006508436-04
P = 152.183 days
P = 304.367 days
P = 608.733 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even


TCE 006508436-04
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4.00e-03
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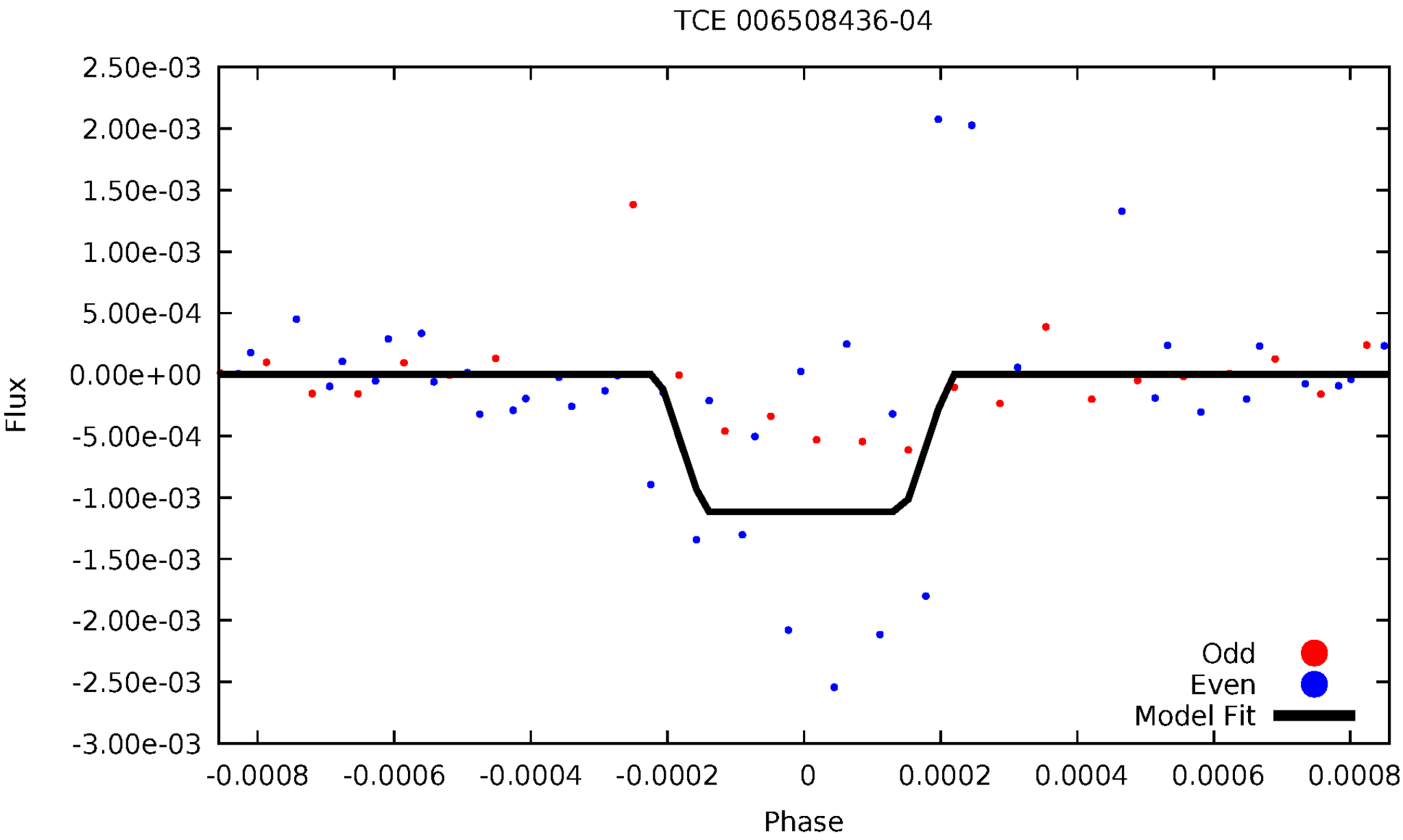
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
Flux
-0.0008
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
0.0008
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006508436-04
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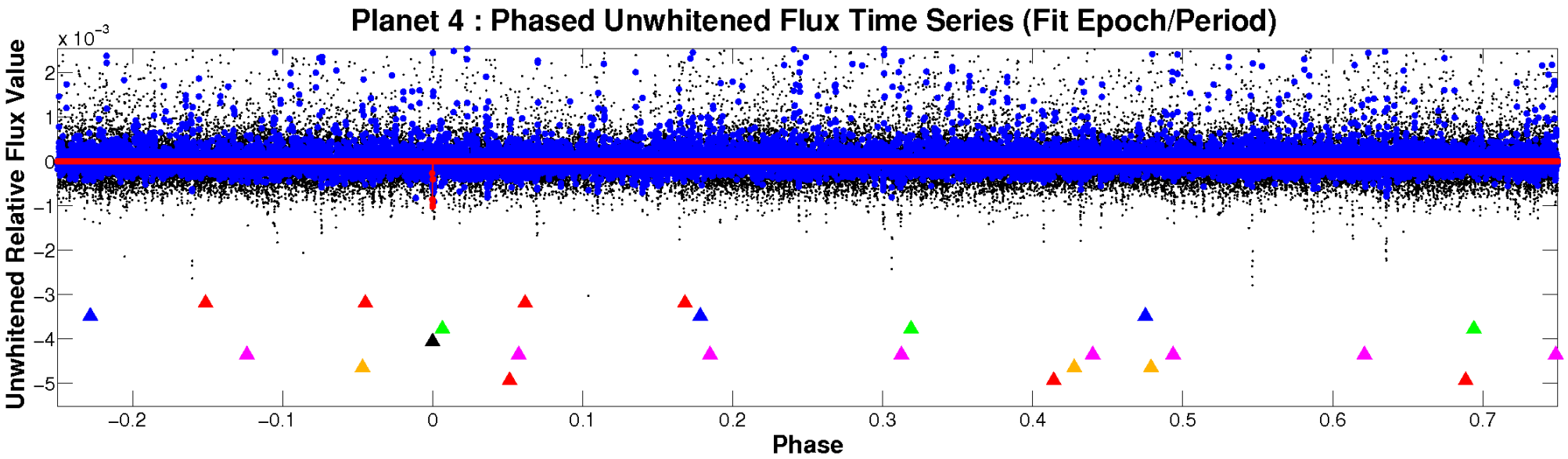
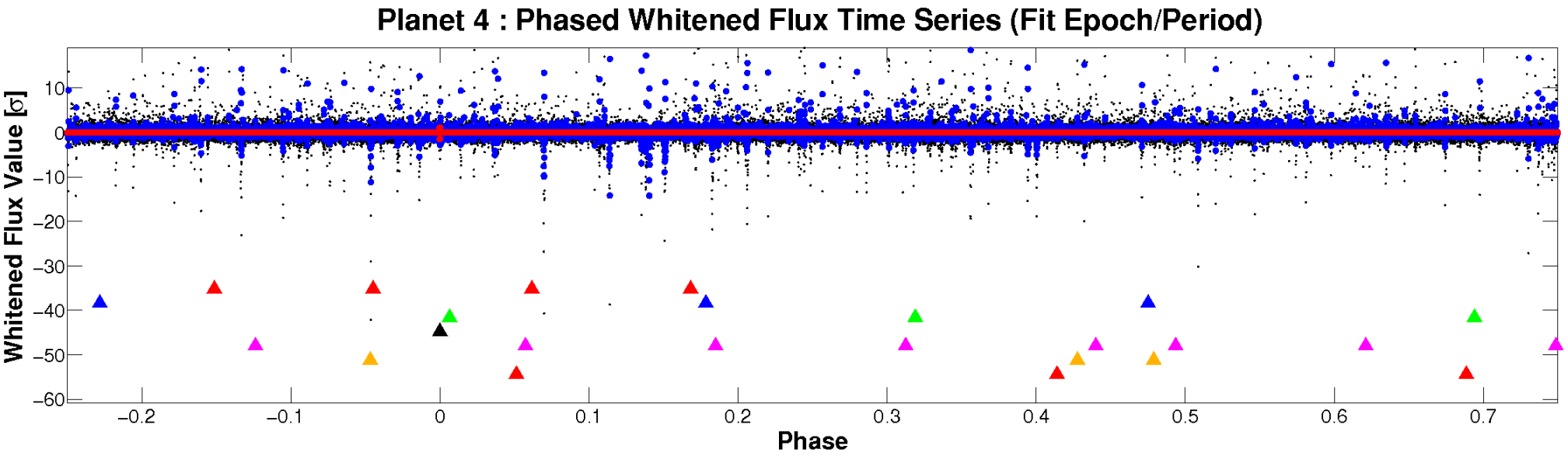
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
-2.50e-03
-3.00e-03
Flux
-0.0008
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
0.0008
Phase
Odd
Even
Model Fit

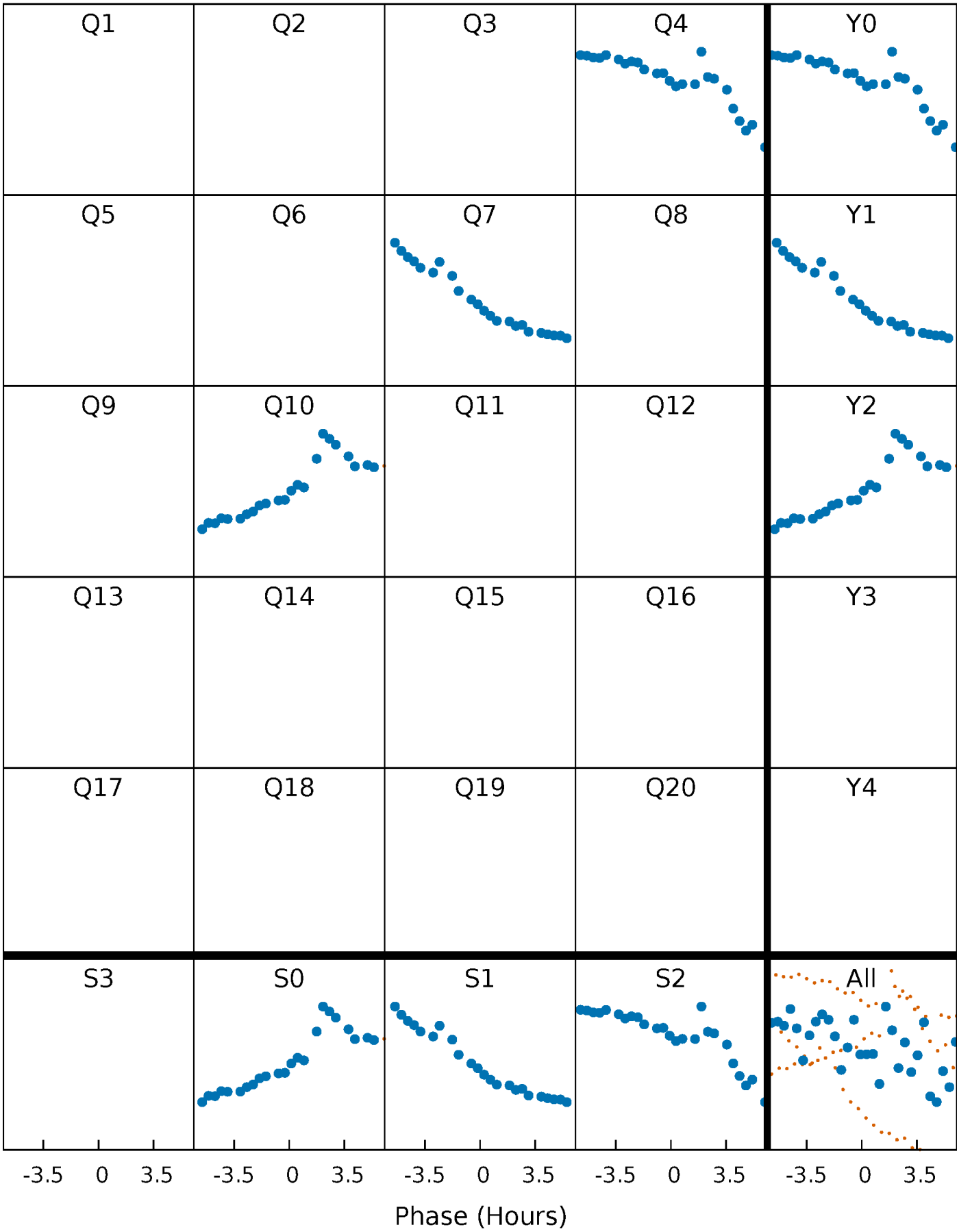
Non-Whitened Vs. Whitened Light Curve





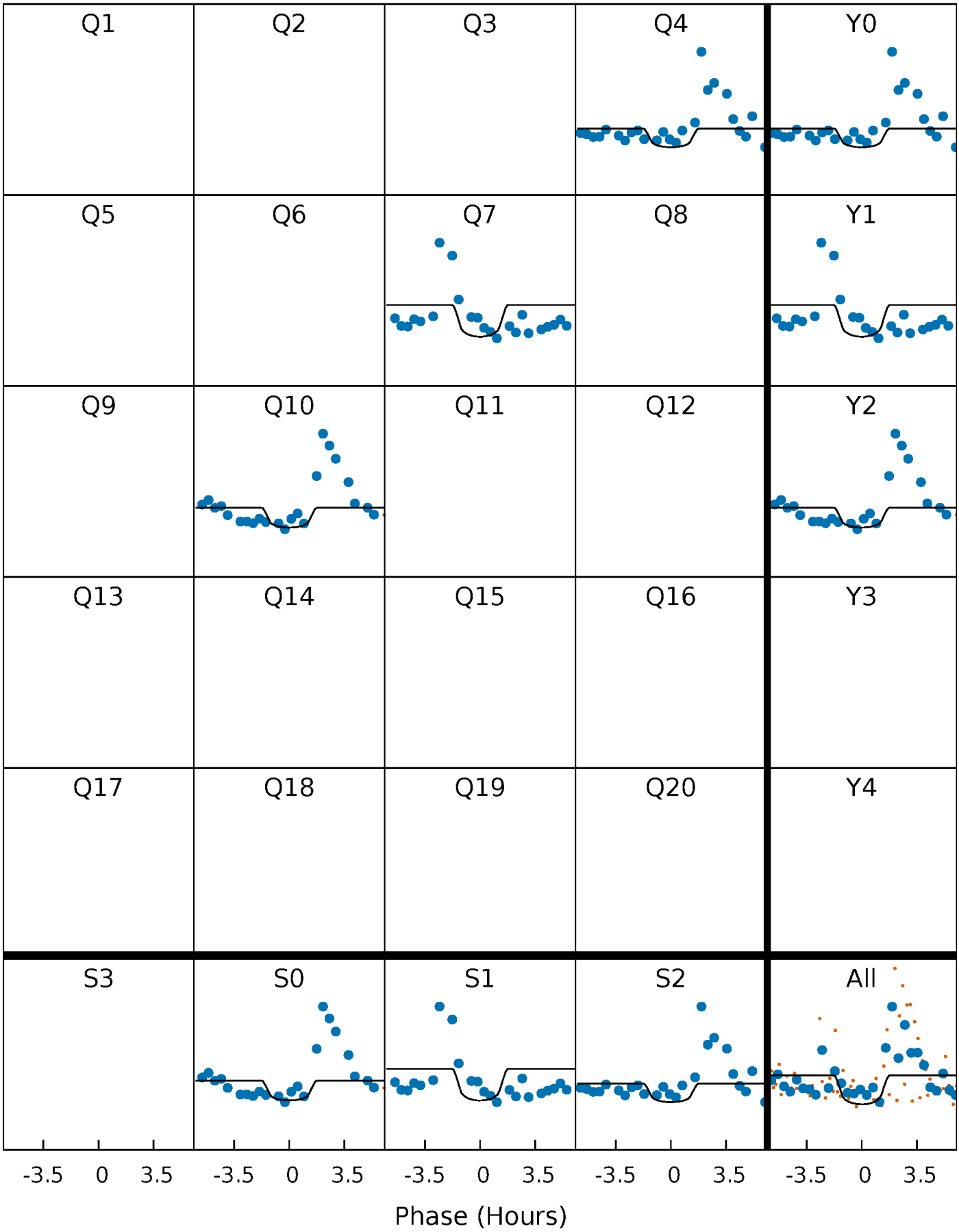
PDC Quarter-Phased Transit Curves

TCE 006508436-04 P=304.366537 Days T_0=380.965326 (BKJD)



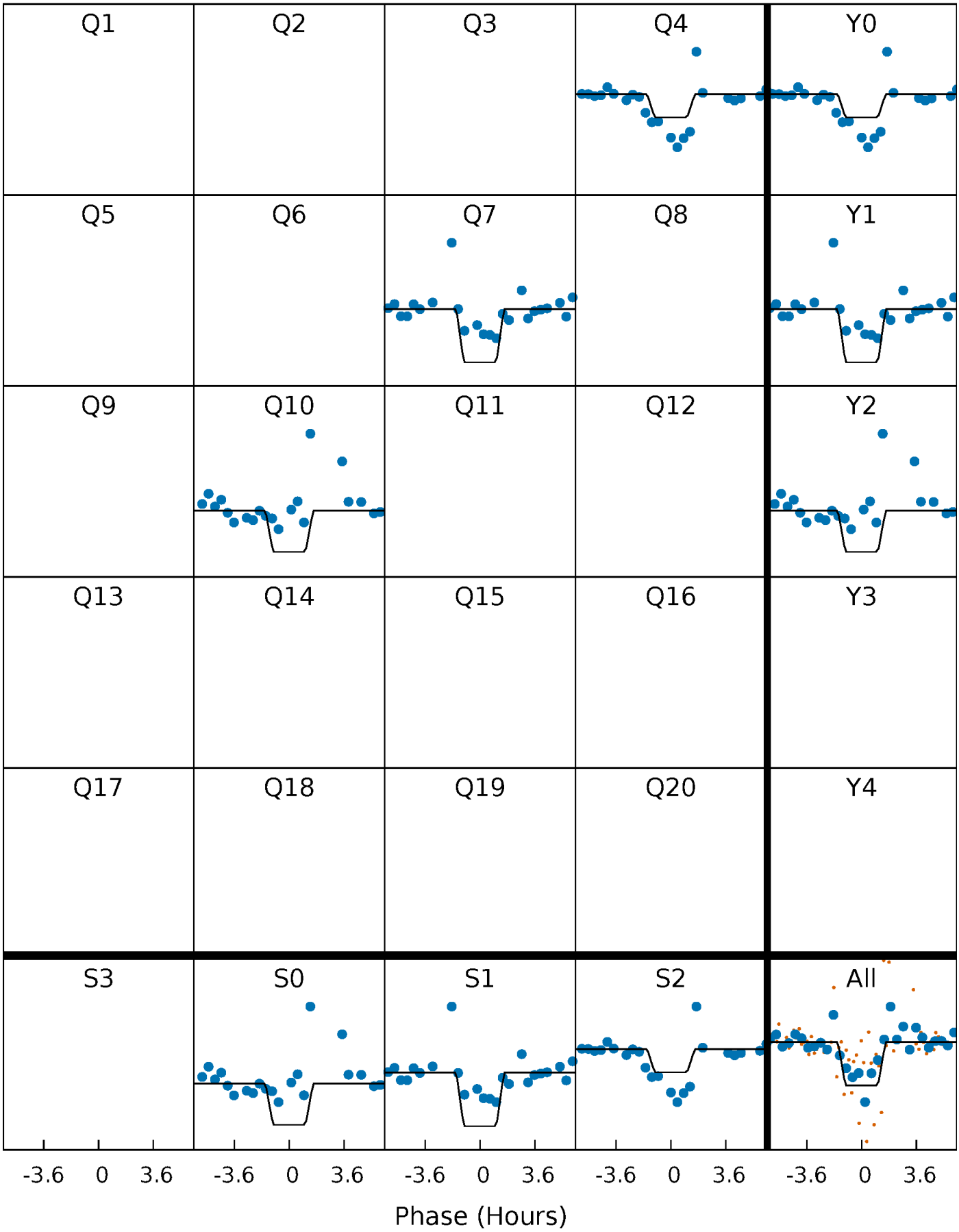
DV Quarter-Phased Transit Curves

TCE 006508436-04 P=304.366537 Days T_0=380.965326 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

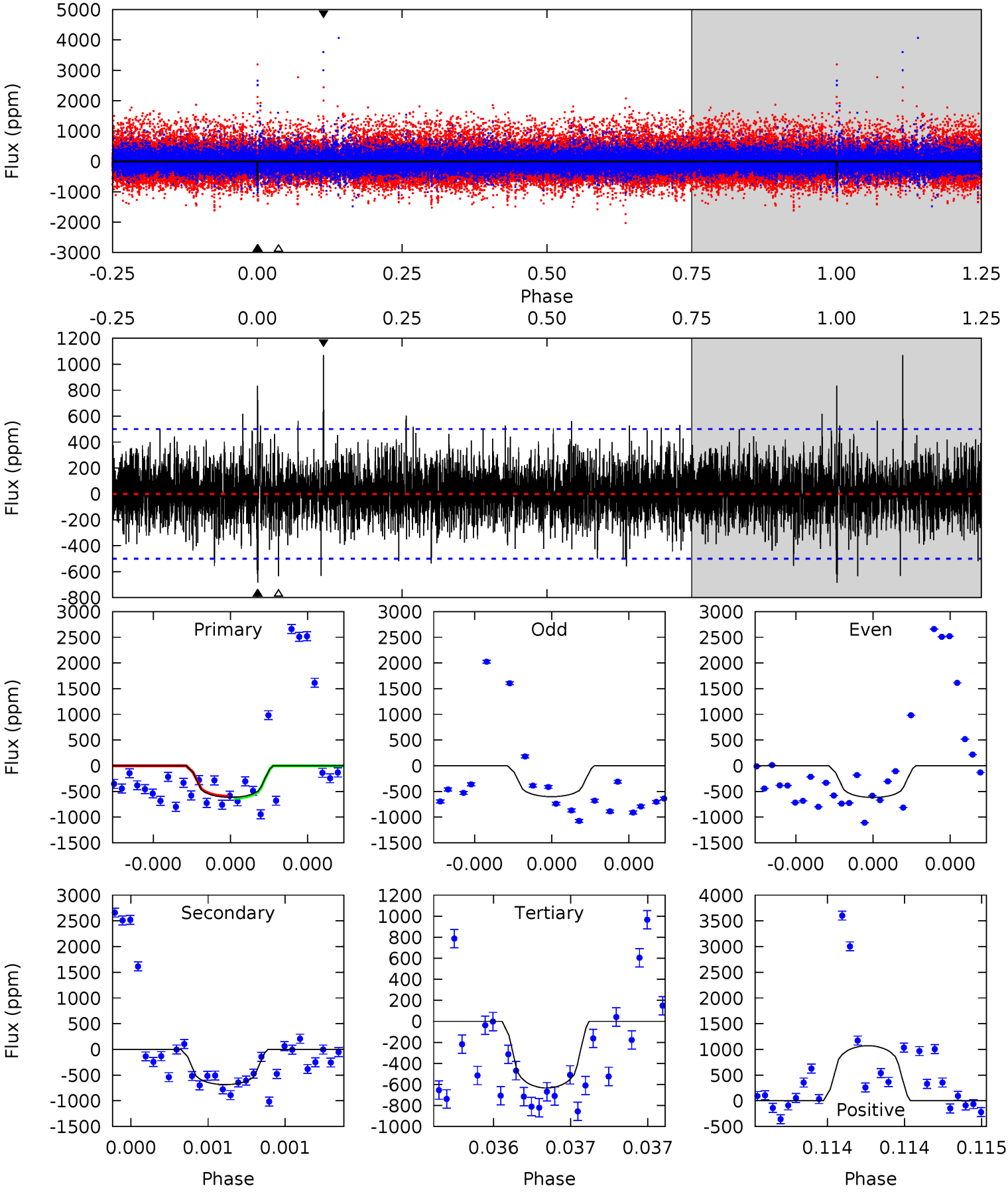
TCE 006508436-04 P=304.368172 Days T_0=380.969599 (BKJD)



DV Model-Shift Uniqueness Test

006508436-04, P = 304.366537 Days, E = 76.598789 Days

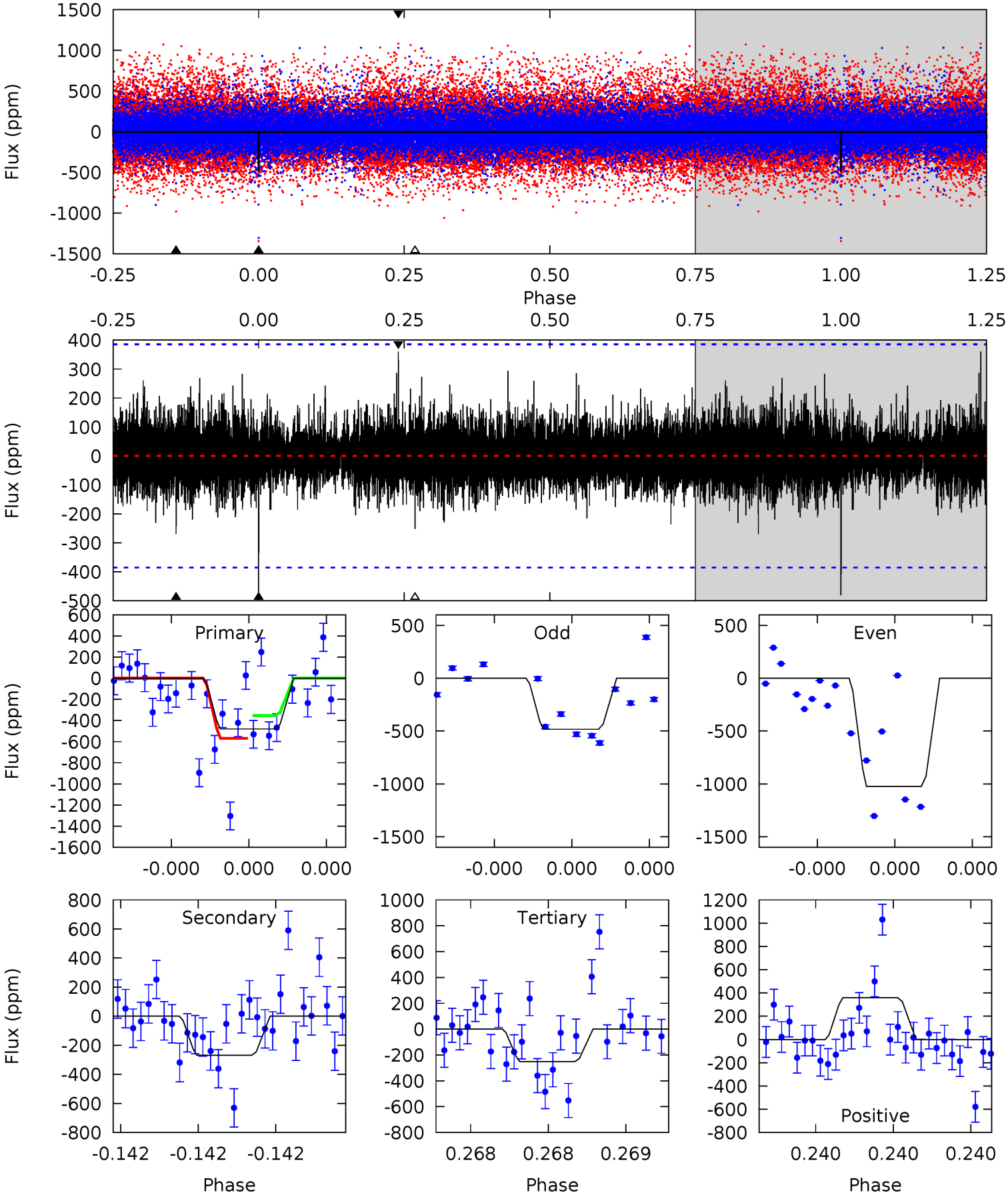
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.88	7.65	7.08	12.0	5.60	3.52	1.62	-0.20	-5.10	0.57	-4.33	0.07	1.01	0.61	0.24



Alt Model-Shift Uniqueness Test

006508436-04, P = 304.368172 Days, E = 76.601427 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.01	3.92	3.68	5.25	5.62	3.55	0.89	3.33	1.76	0.25	-1.33	3.99	1.77	0.43	1.56



Stellar Parameters For KIC 006508436

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	5706^{+152}_{-152}	$4.561^{+0.040}_{-0.160}$	$-0.180^{+0.300}_{-0.300}$	$0.834^{+0.191}_{-0.076}$	$0.930^{+0.092}_{-0.112}$	$2.255^{+0.469}_{-0.974}$
	+3%/-3%	+1%/-4%	+167%/-167%	+23%/-9%	+10%/-12%	+21%/-43%
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 006508436-04 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-684±89	$4.83^{+4.84}_{-3.13}$	352^{+18}_{-13}	4262^{+2670}_{-877}	11823^{+79972}_{-8825}
Alt.	-269±69	$5.16^{+4.75}_{-3.43}$	353^{+21}_{-14}	3580^{+1695}_{-678}	3992^{+30401}_{-3001}

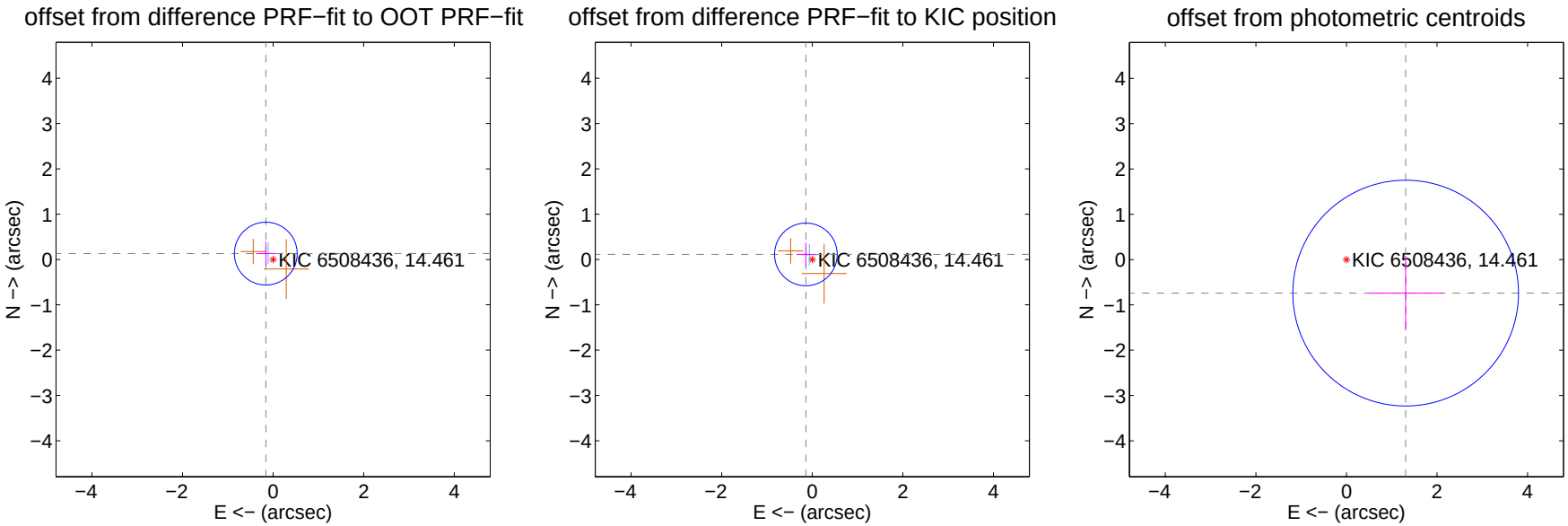
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

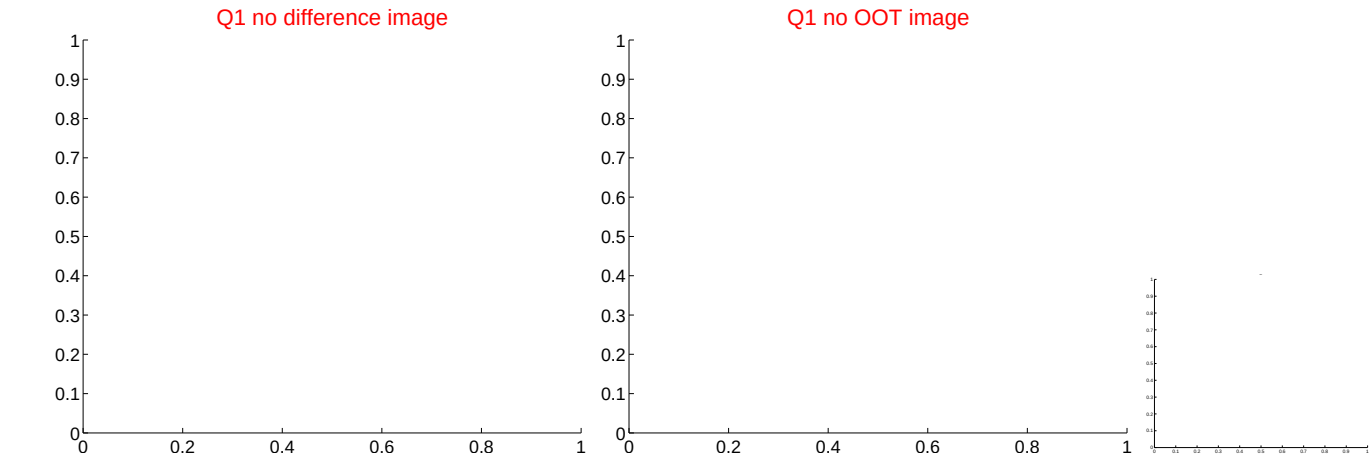
Supplemental centroid analysis for 006508436-04. Kepler magnitude: 14.46. Transit SNR 6.32
There are 1 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

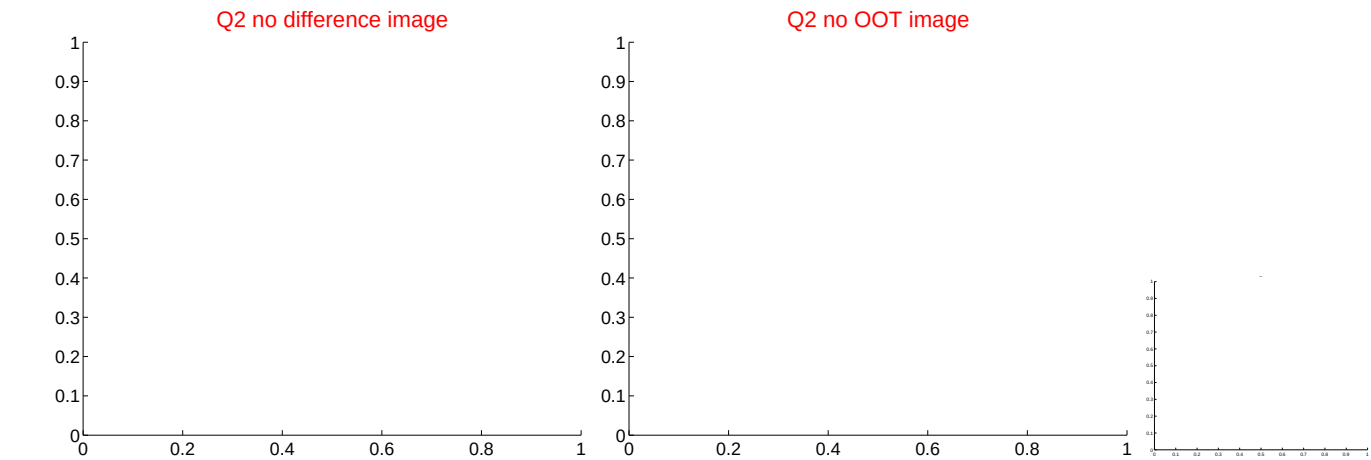
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.207 ± 0.231	0.90	0.161 ± 0.209	0.130 ± 0.260
PRF-fit source offset from KIC position	0.180 ± 0.230	0.78	0.141 ± 0.209	0.112 ± 0.260
photometric centroid source offset	1.50 ± 0.83	1.81	-1.31 ± 0.83	-0.74 ± 0.82

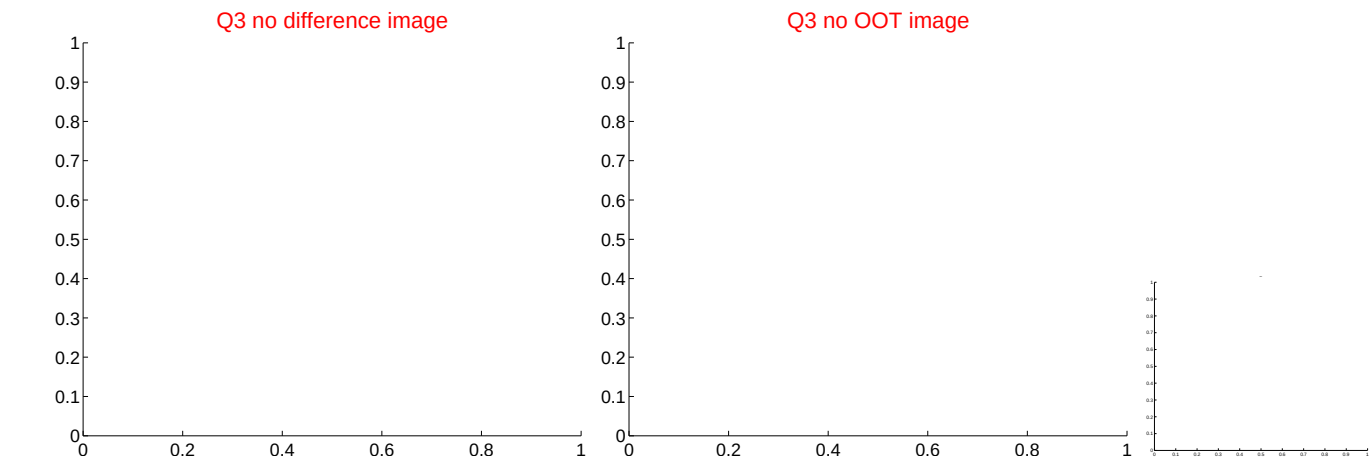


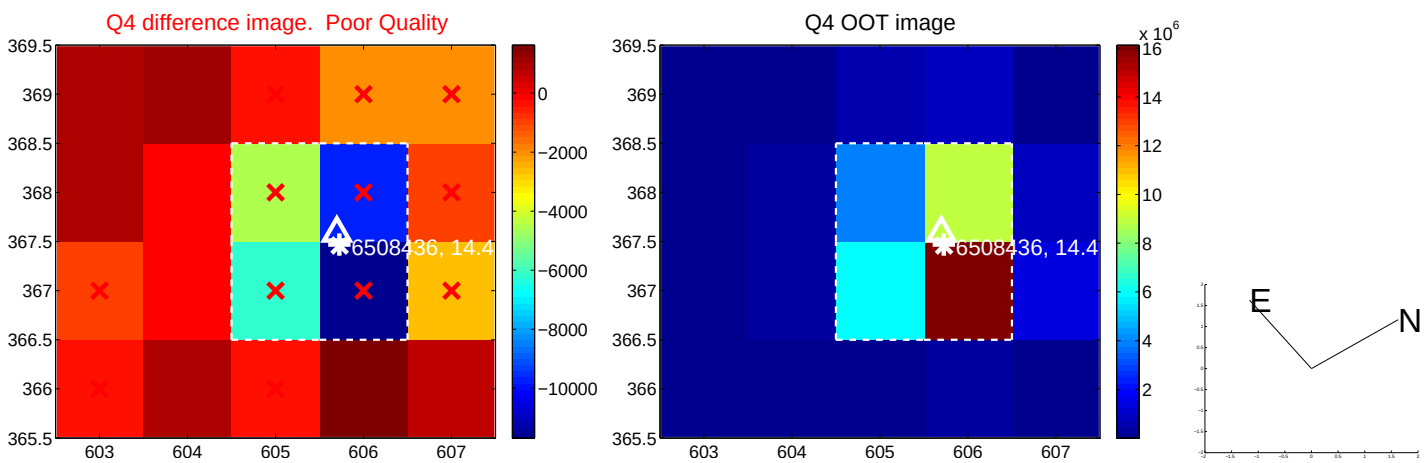
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

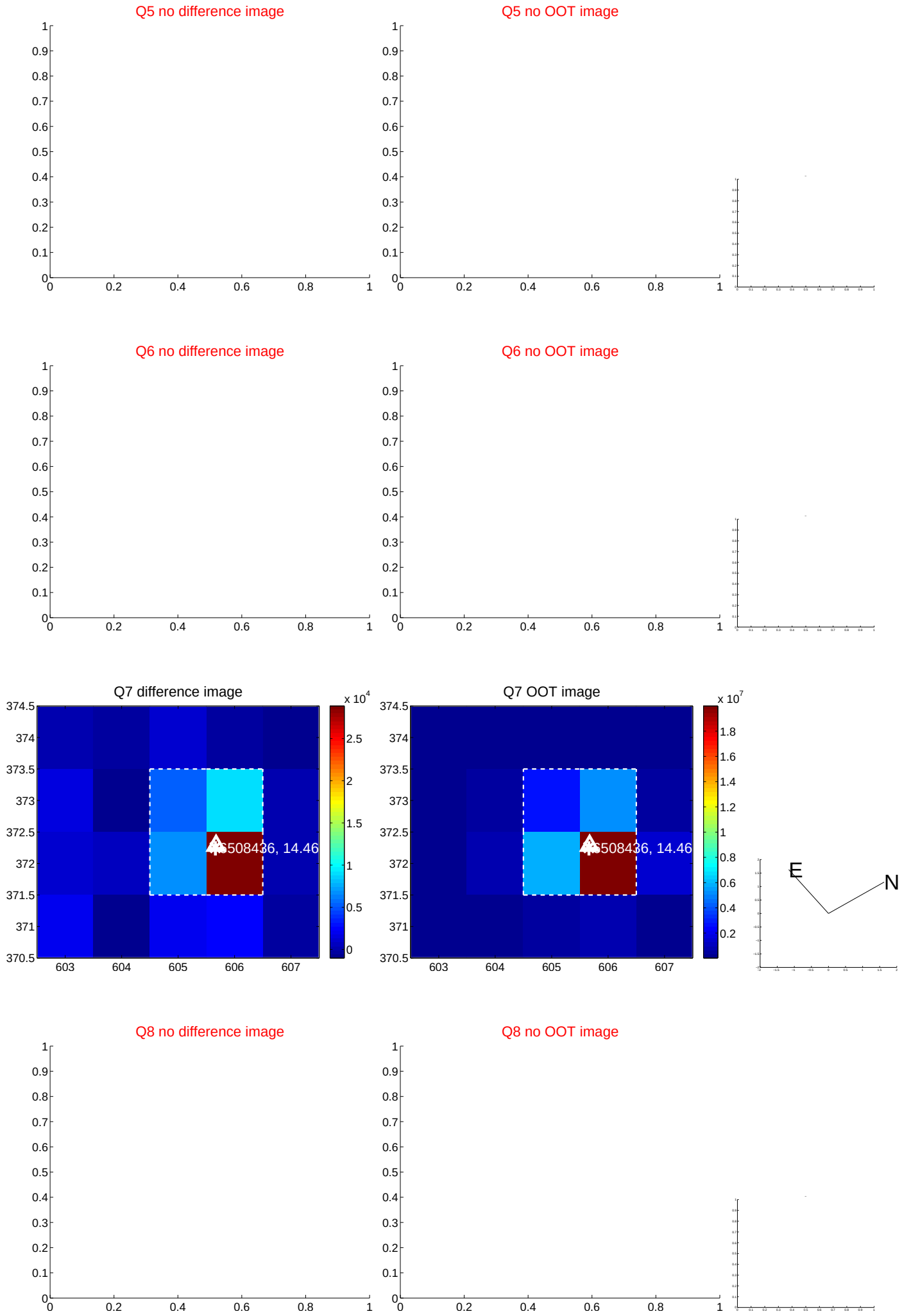




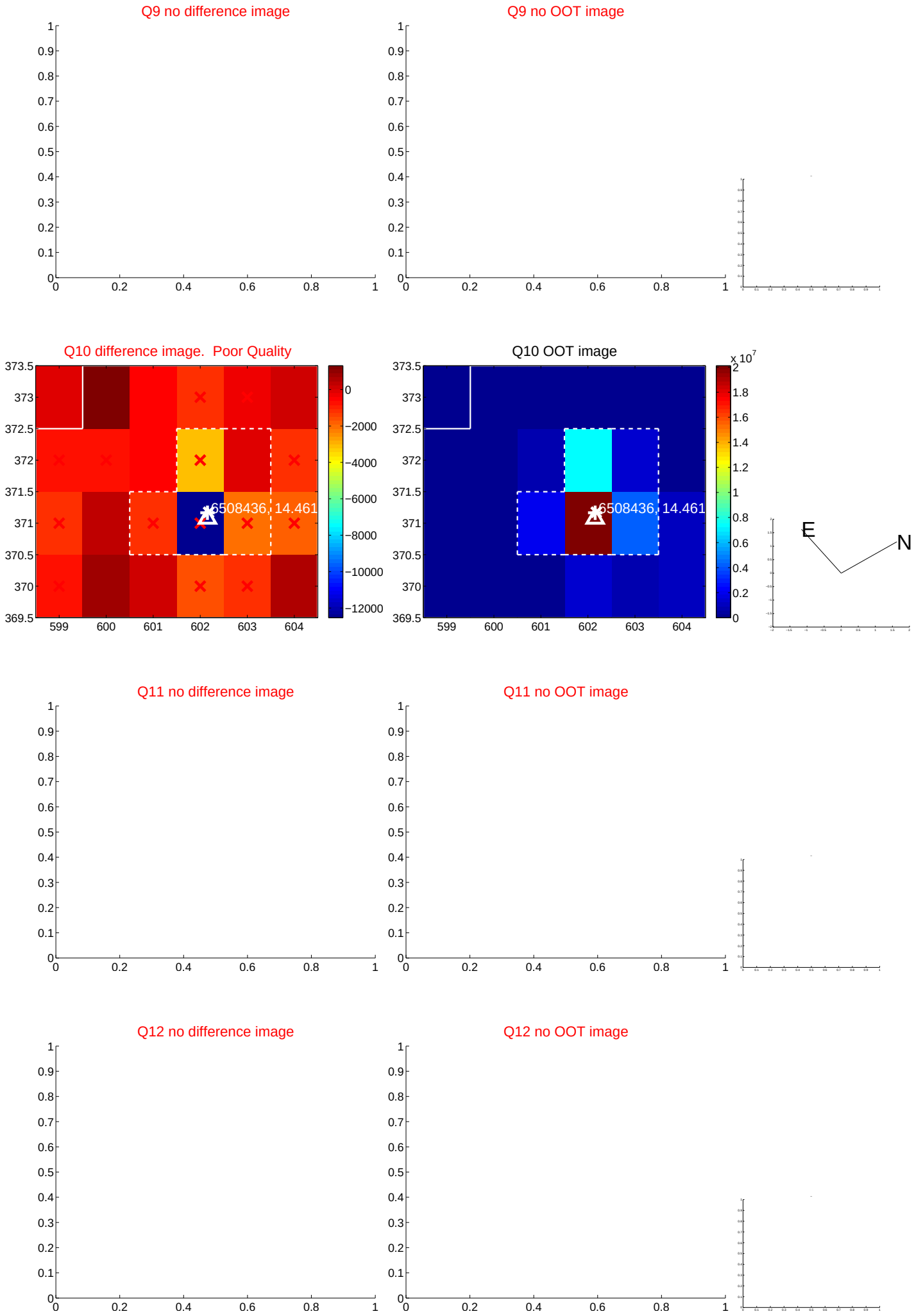




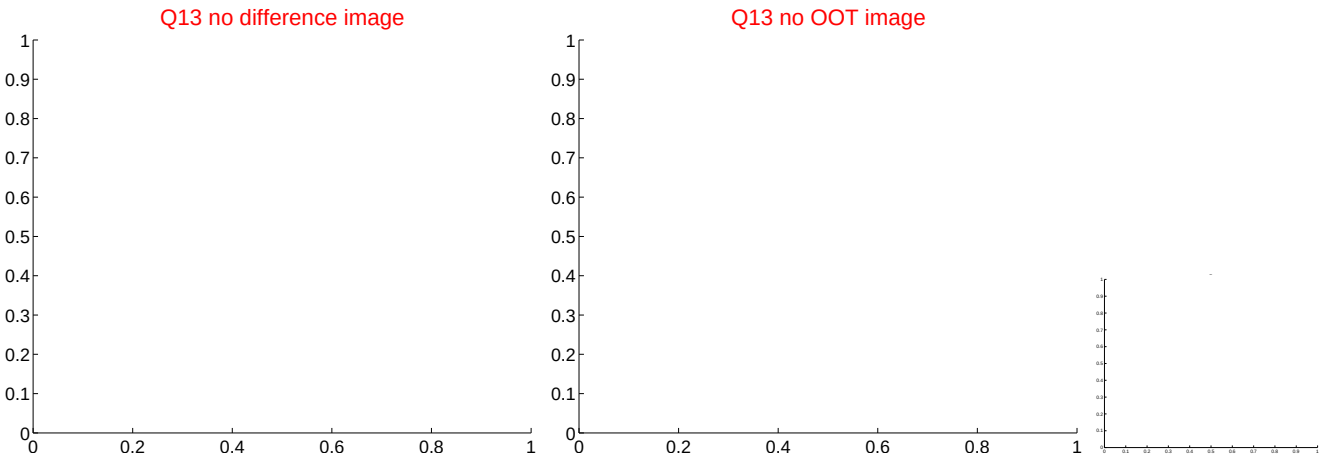
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

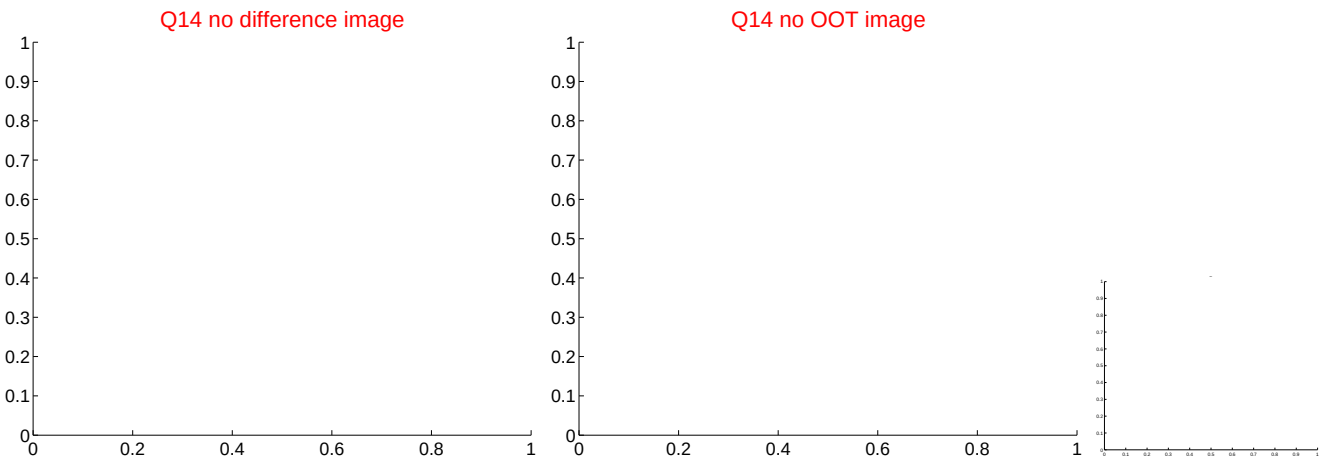


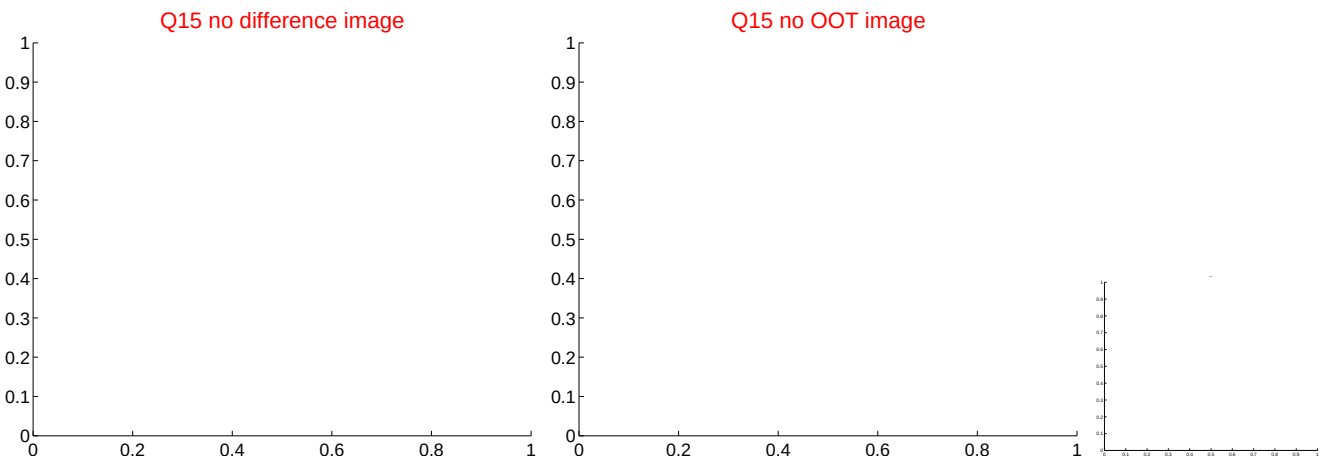
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

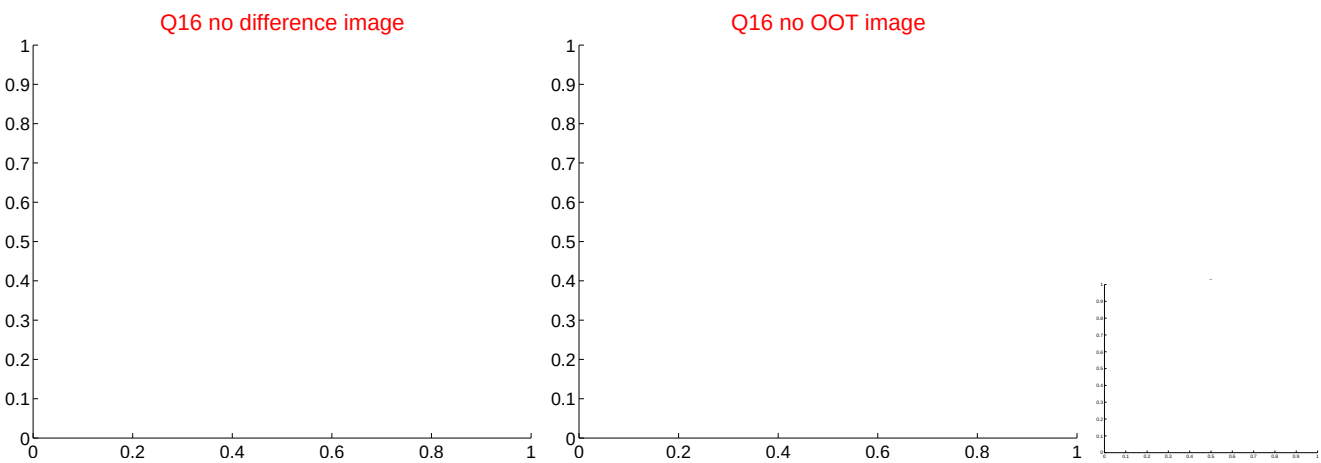


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

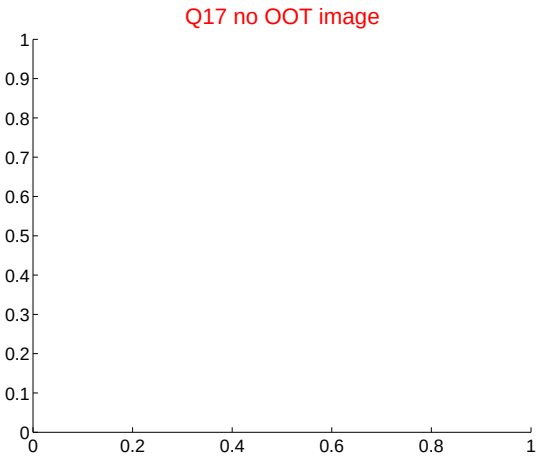


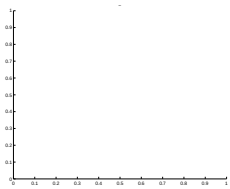


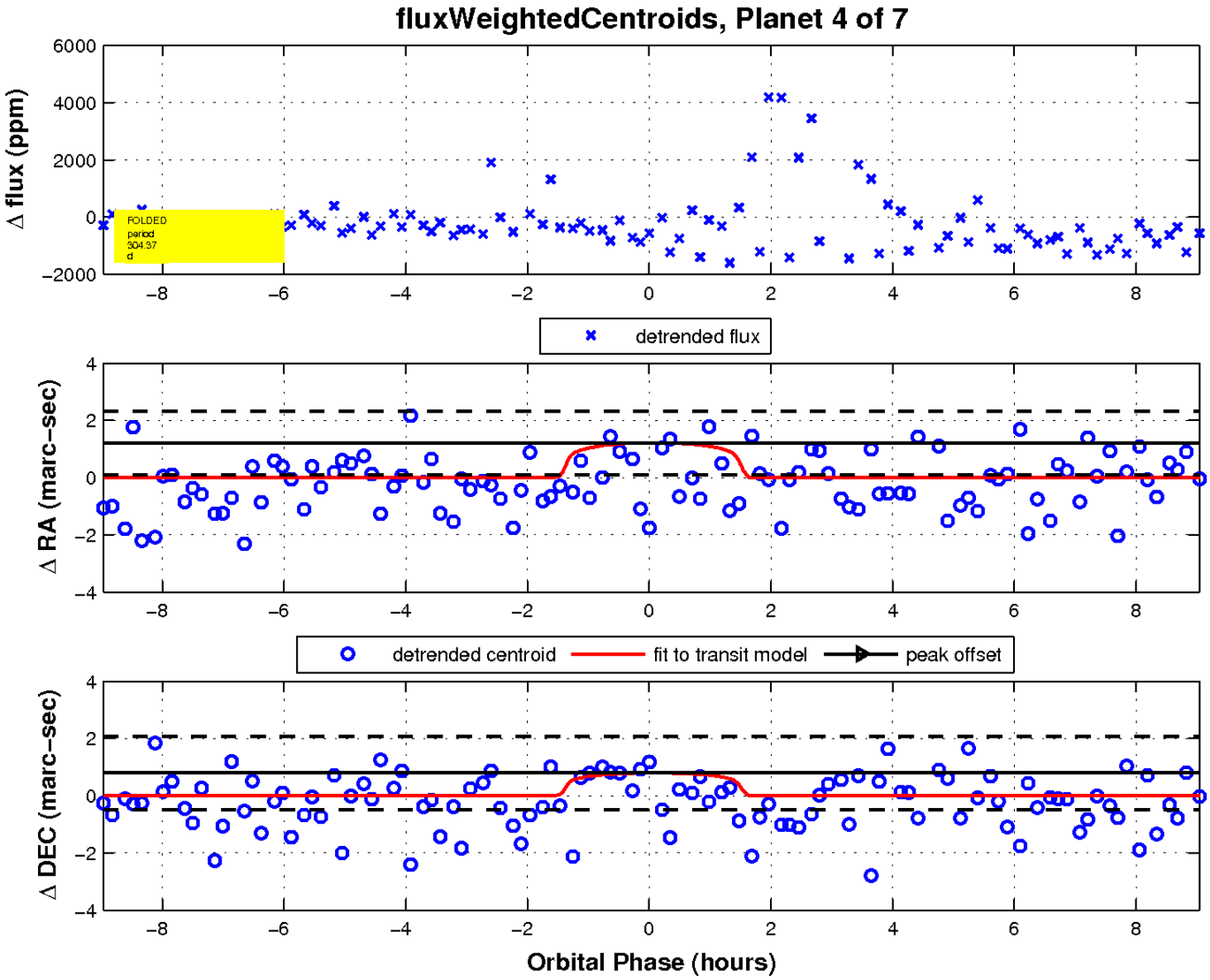




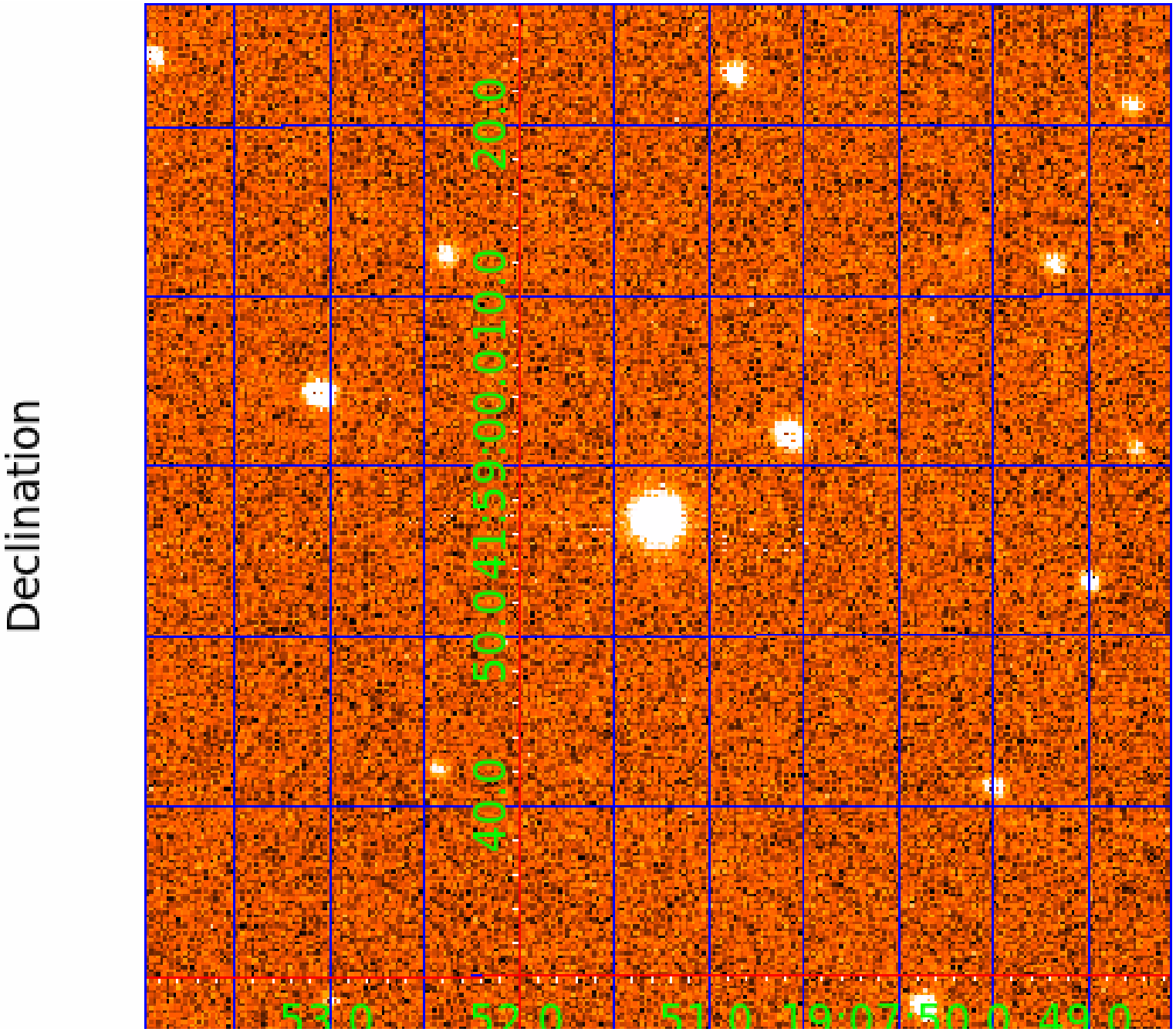
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image



KIC 006508436

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 ($S_\oplus$)
006508436-01	OBS	No	336.785851	334.906102	996.7	2.958	16.4	6.1	0.83	5706	2.65	0.78
006508436-02	OBS	No	518.432935	311.515903	1109.7	12.659	12.2	5.6	0.83	5706	2.83	0.44
006508436-03	OBS	No	513.645209	173.668834	475.9	12.000	12.0	-1.0	0.83	5706	1.80	0.44
006508436-04	OBS	No	304.366537	380.965326	1023.3	3.033	11.4	6.3	0.83	5706	2.73	0.89
006508436-05	OBS	No	171.592974	226.839000	446.9	3.234	11.5	4.5	0.83	5706	1.83	1.91
006508436-06	OBS	No	464.338263	511.146777	409.1	8.995	11.3	2.2	0.83	5706	1.72	0.51
006508436-07	OBS	No	498.345043	506.977086	1005.2	5.496	11.7	5.7	0.83	5706	2.81	0.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006508436-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
006508436-04	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—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006508436-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

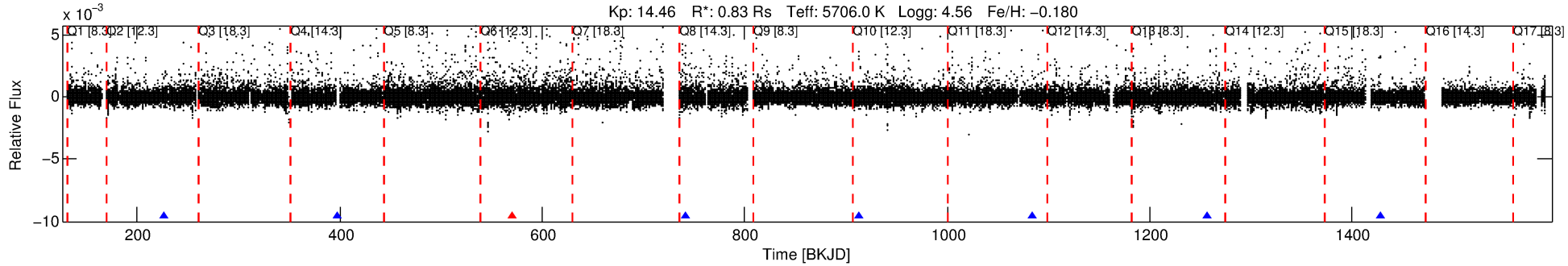
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

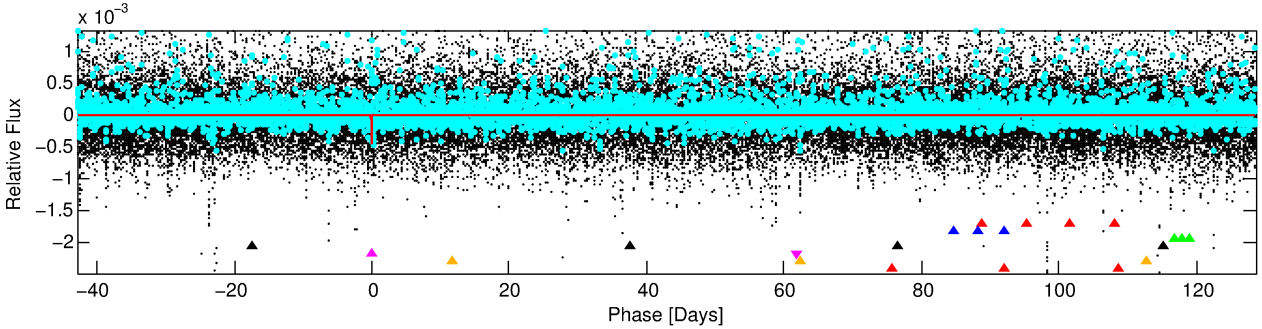
Ephemeris Match Information For 006508436-05

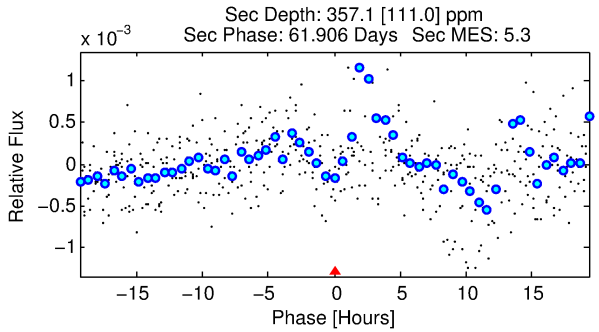
No Significant Match Found

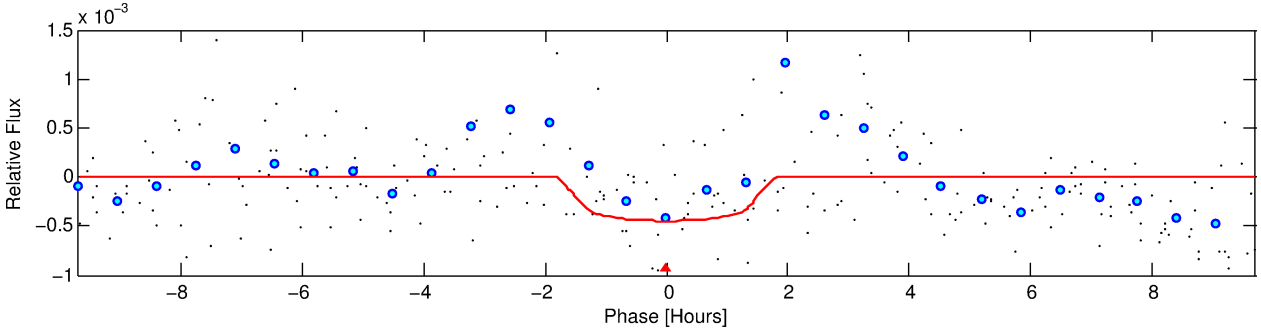
DV One-Page Summary

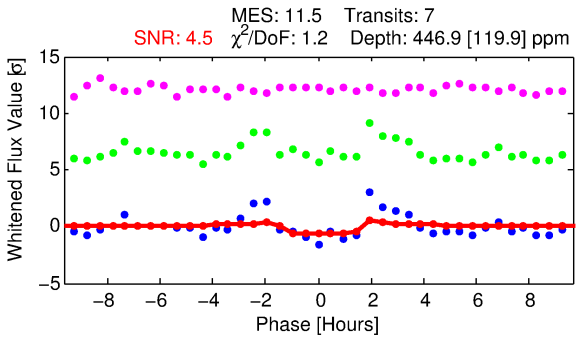
KIC: 6508436 Candidate: 5 of 7 Period: 171.593 d

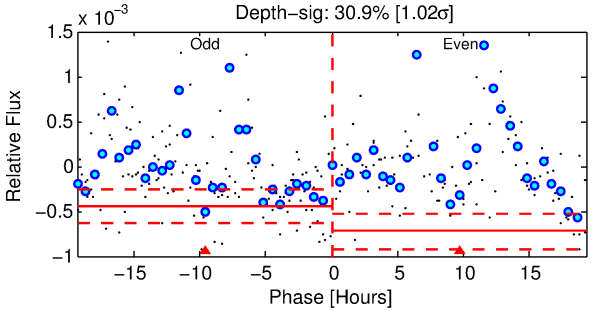


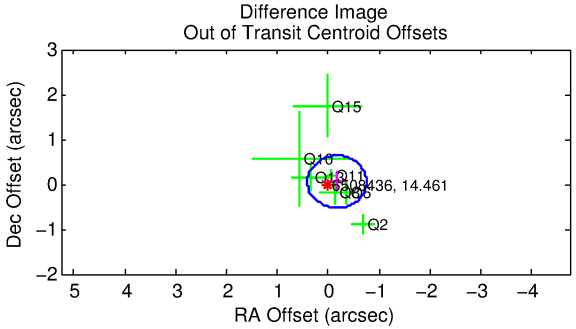












DV Fit Results:

Period = 171.59297 [0.00343] d
Epoch = 226.8390 [0.0157] BKJD
Rp/R* = 0.0202 [0.0470]
a/R* = 334.65 [3406.18]
b = 0.60 [11.02]

Seff = 1.91 [0.59]
Teq = 300 [23] K
Rp = 1.84 [4.30] Re
a = 0.5886 [0.1153] AU

Ag = 20198.78 [94614.98] [0.21σ]
Teffp = 5523 [6457] K [0.81σ]

DV Diagnostic Results:

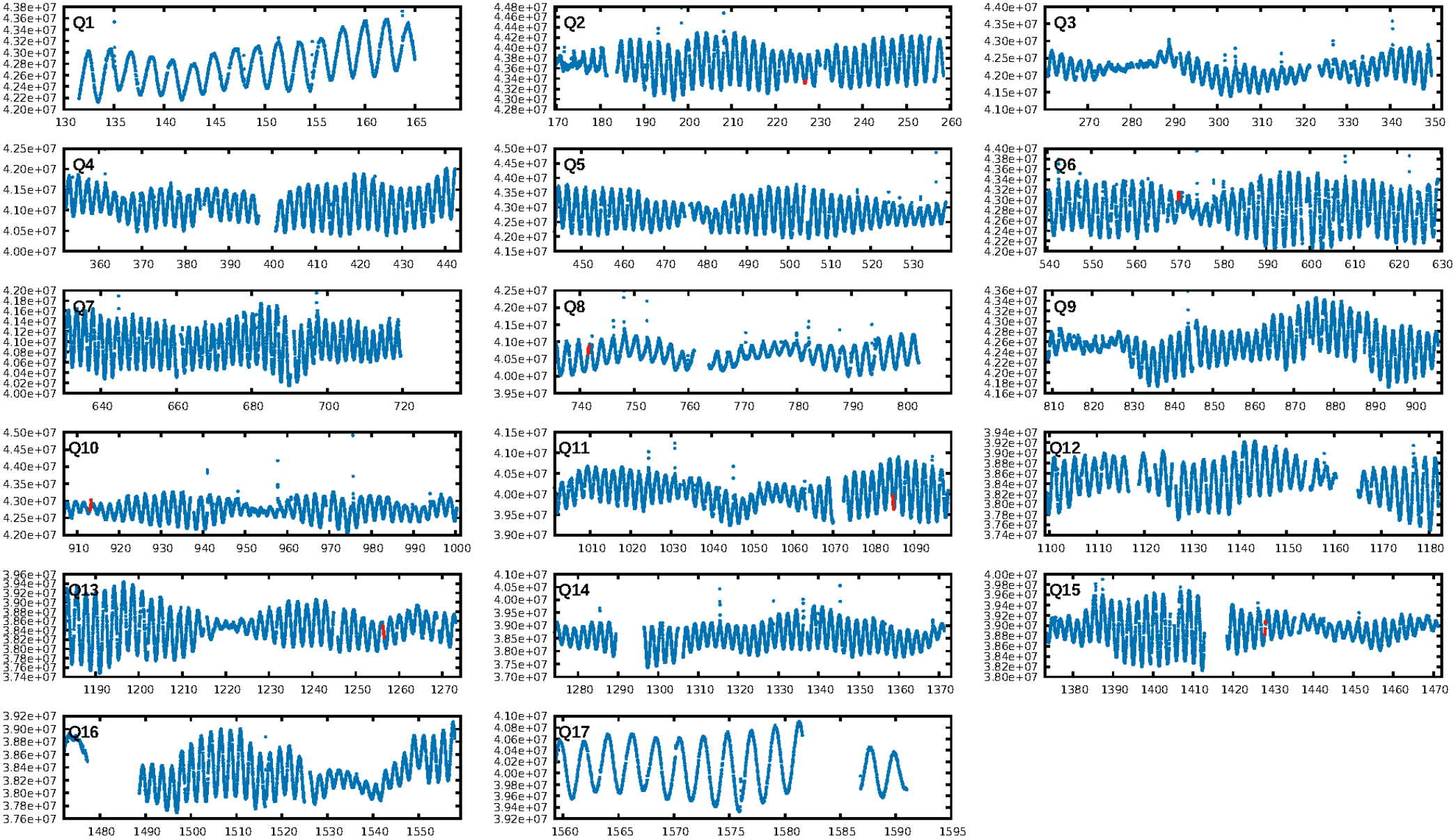
ShortPeriod−sig: N/A
LongPeriod−sig: 100.0% [718.75σ]
ModelChiSquare2−sig: 9.9%
ModelChiSquareGof−sig: 75.1%
Bootstrap−pfa: 1.05e−11
RollingBand−fgt: 0.86 [6/7]
GhostDiagnostic−chr: −0.6718

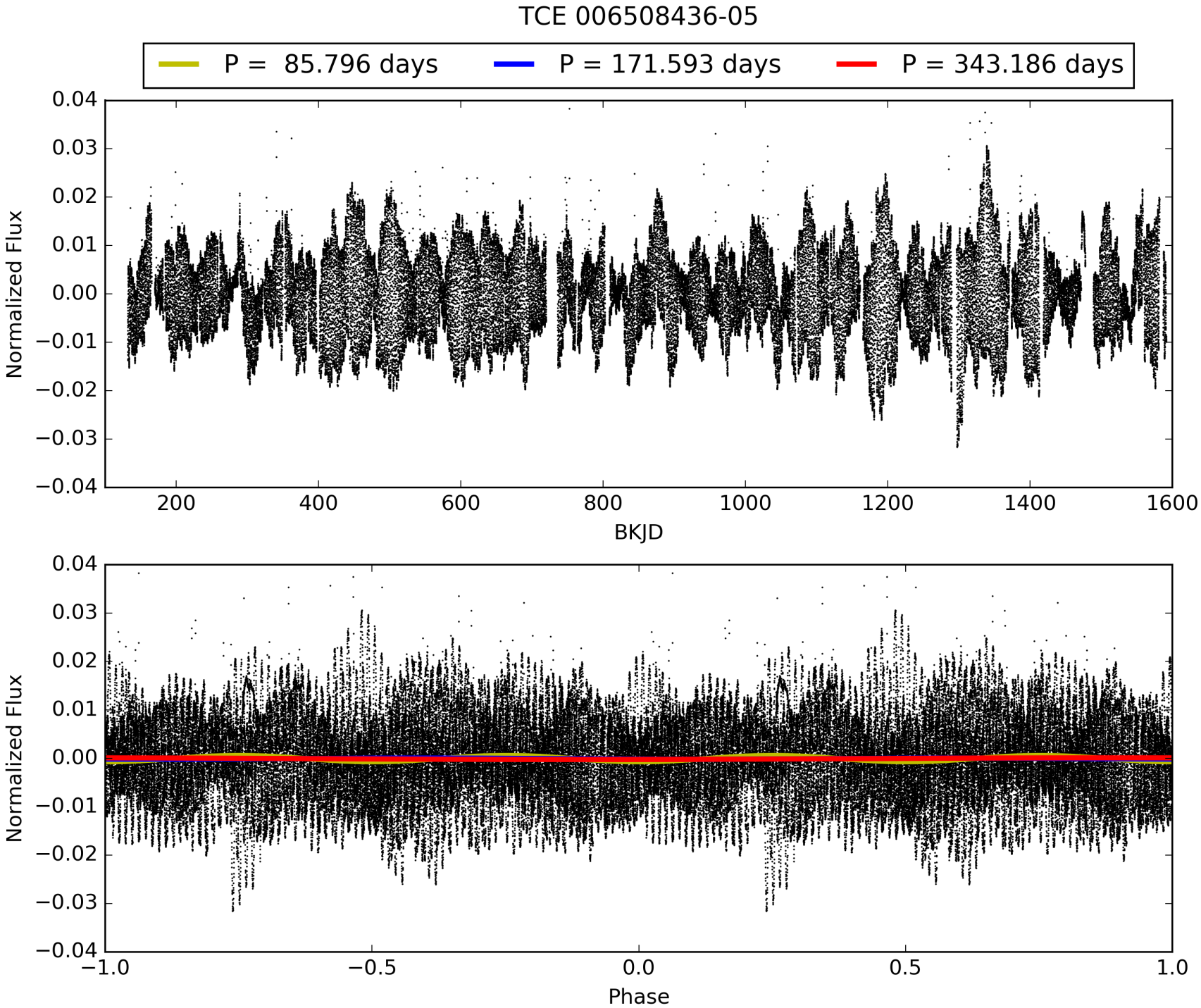
Centroid−sig: 3.7%
Centroid−so: 1.881 arcsec [1.47σ]
OotOffset−rm: 0.177 arcsec [0.91σ]
KicOffset−rm: 0.170 arcsec [0.88σ]
OotOffset−st: 3/2/1/1 [7]
KicOffset−st: 3/2/1/1 [7]
DiffImageQuality−fgm: 0.29 [2/7]
DiffImageOverlap−fno: 1.00 [7/7]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:03:19 Z

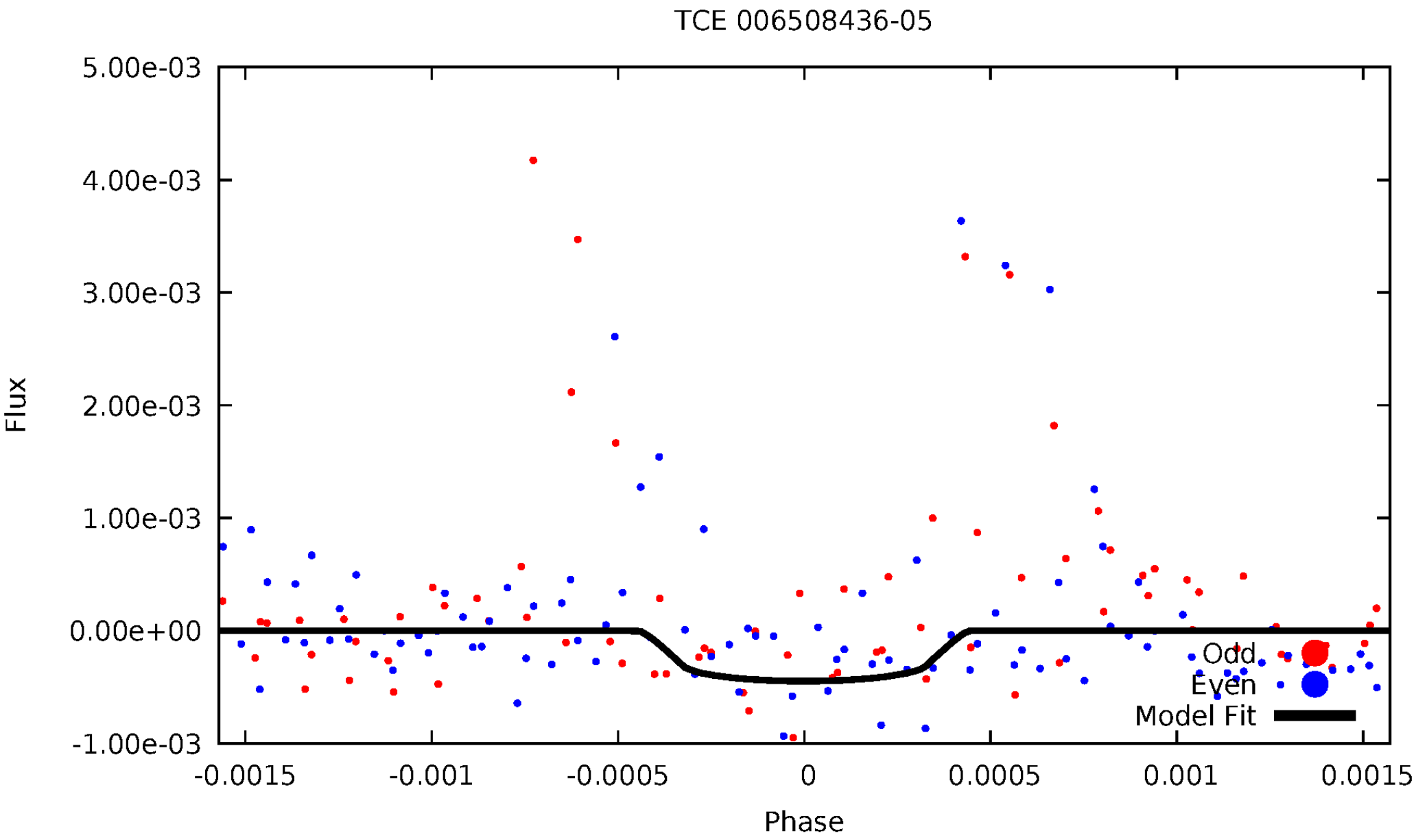
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006508436-05, PDC Light Curves

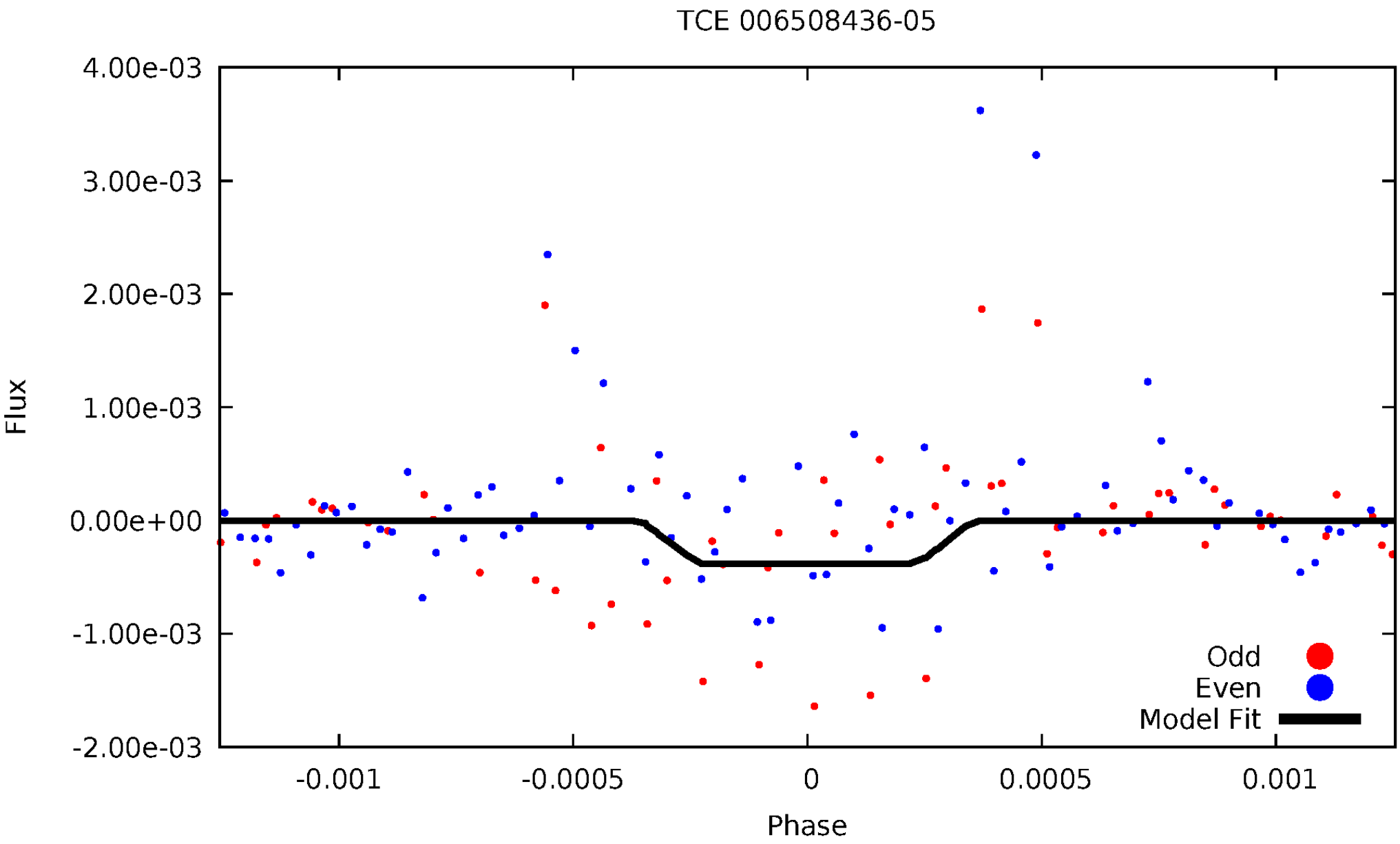



TCE 006508436-05
P = 85.796 days
P = 171.593 days
P = 343.186 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even


TCE 006508436-05
5.00e-03
4.00e-03
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
Flux
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
Phase
Odd
Even
Model Fit

ALT Odd/Even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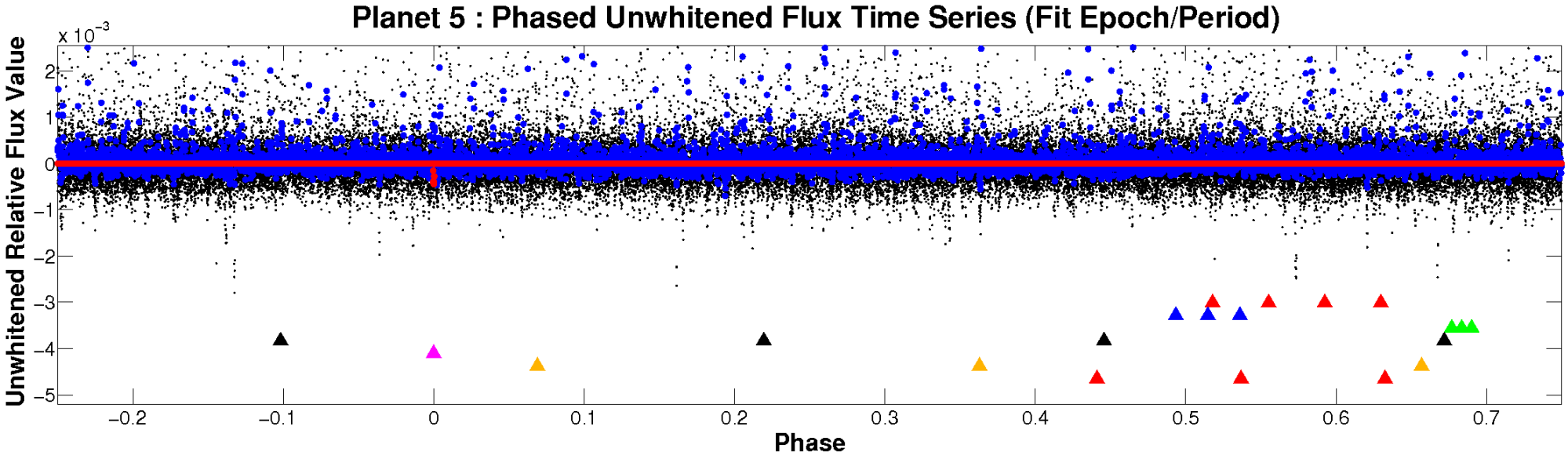
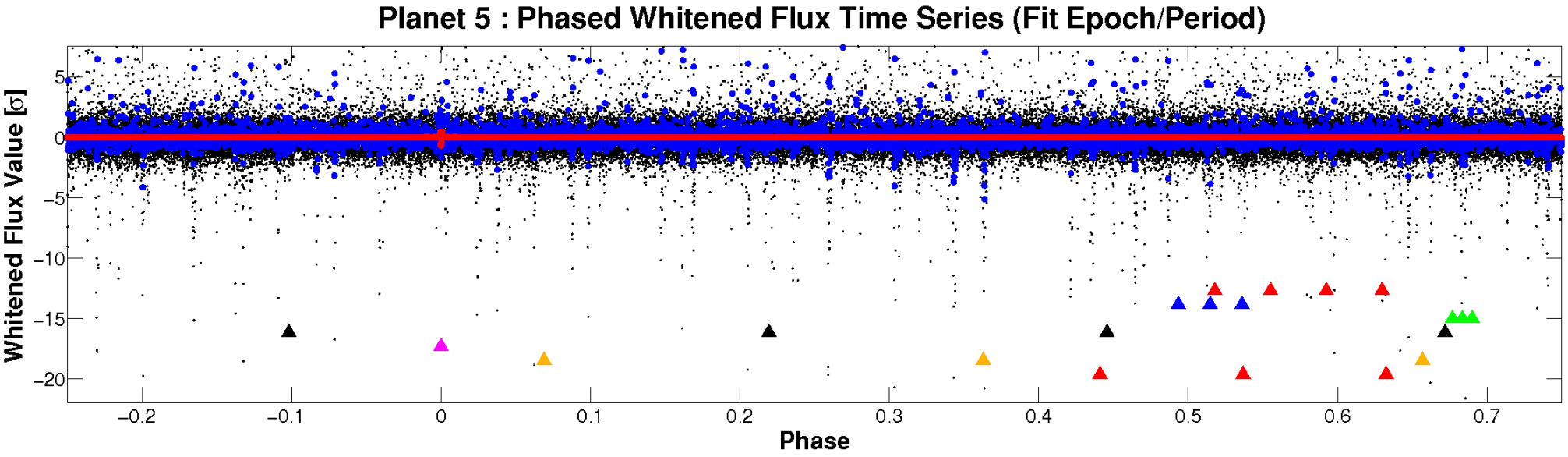
4.00e-03
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

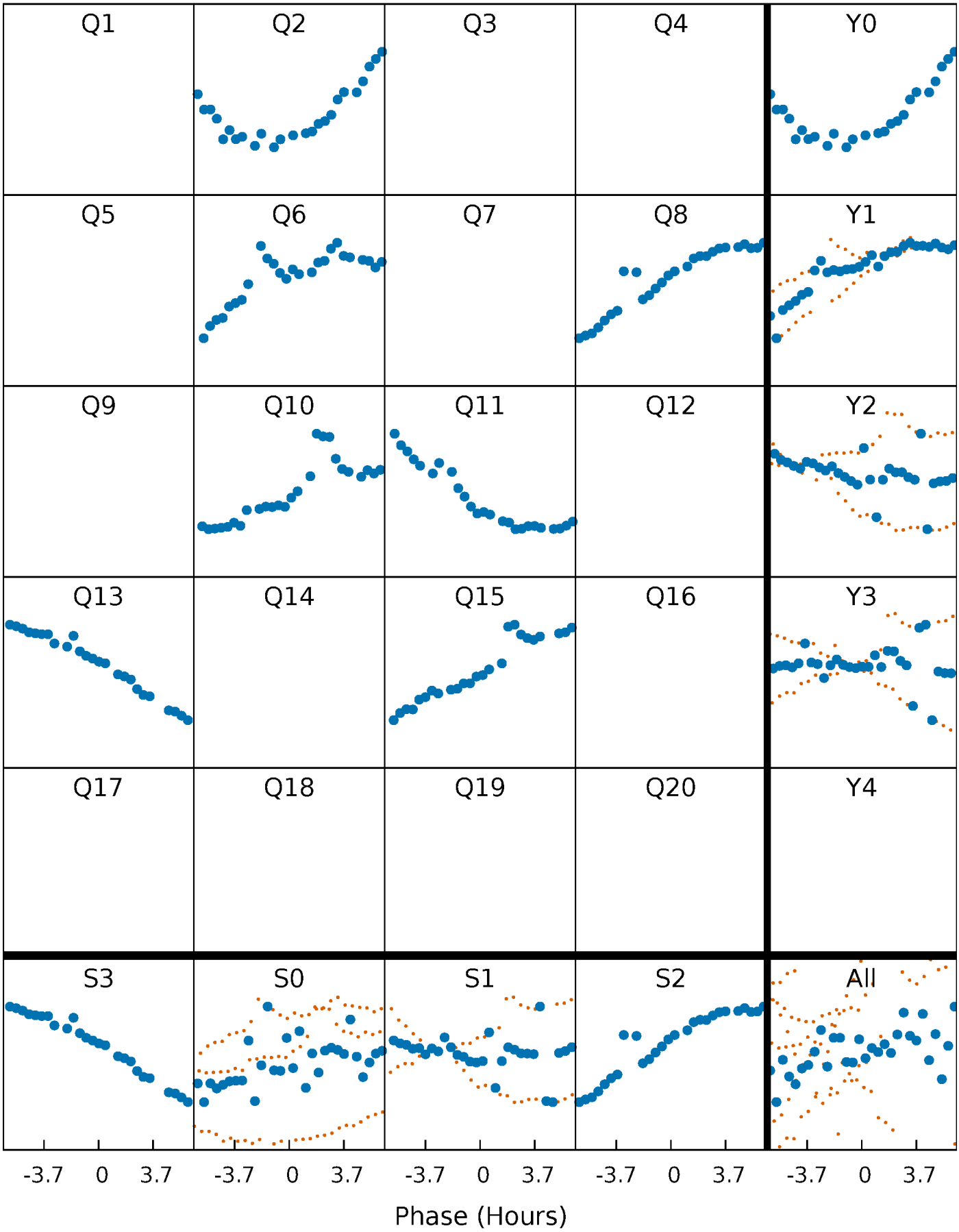
Non-Whitened Vs. Whitened Light Curve





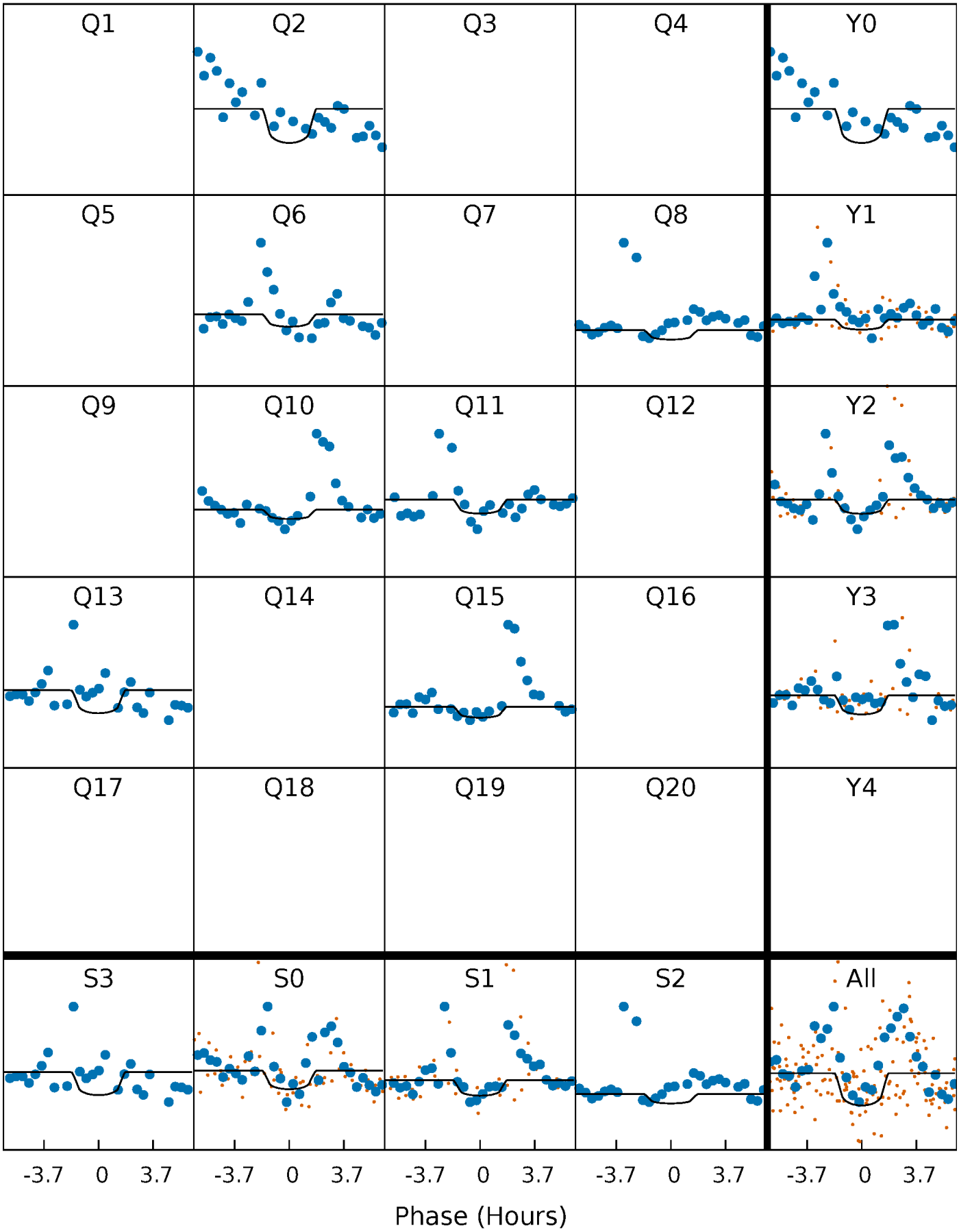
PDC Quarter-Phased Transit Curves

TCE 006508436-05 P=171.592974 Days T_0=226.839000 (BKJD)



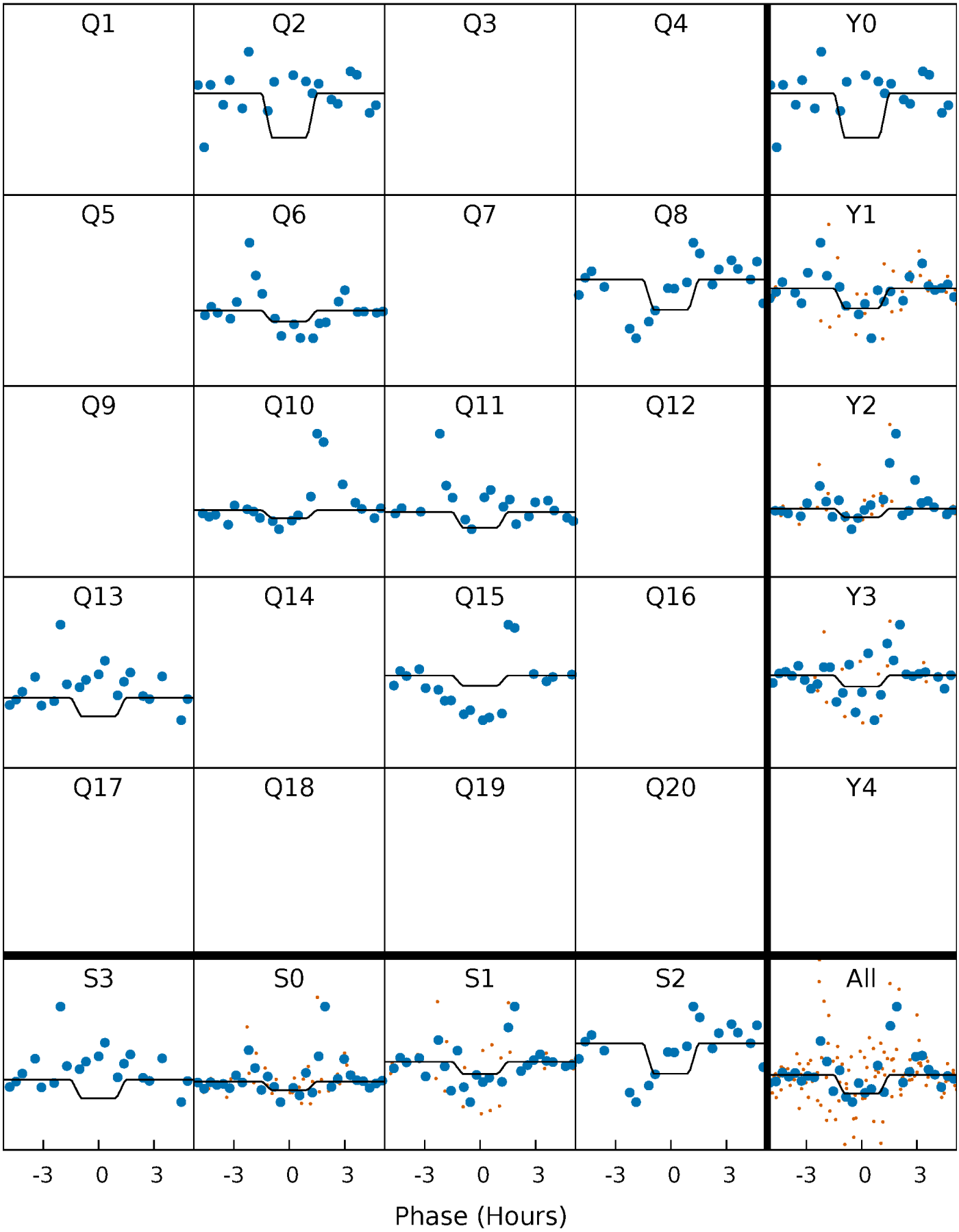
DV Quarter-Phased Transit Curves

TCE 006508436-05 P=171.592974 Days T_0=226.839000 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

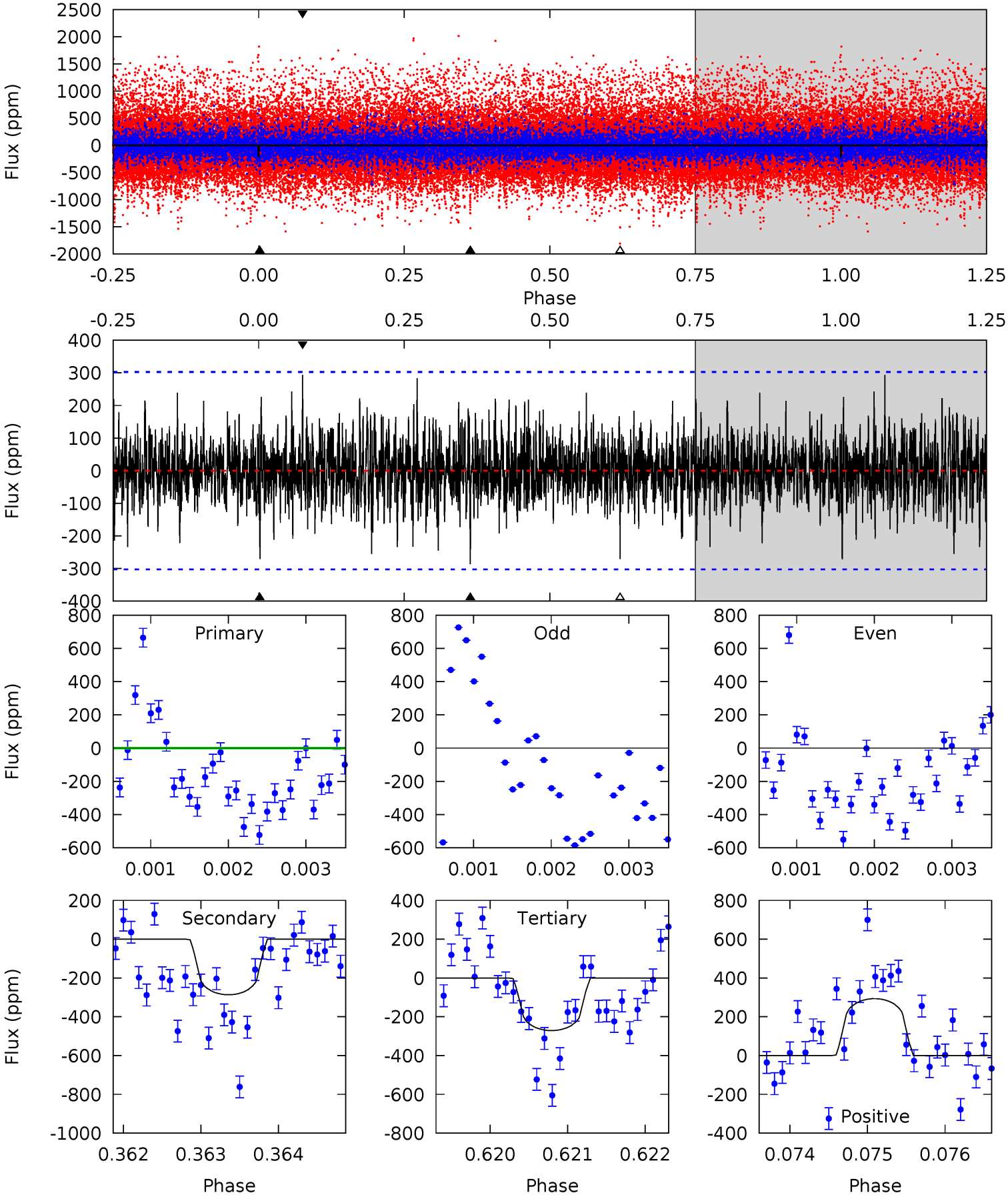
TCE 006508436-05 P=171.593419 Days T_0=226.846017 (BKJD)



DV Model-Shift Uniqueness Test

006508436-05, P = 171.592974 Days, E = 55.246026 Days

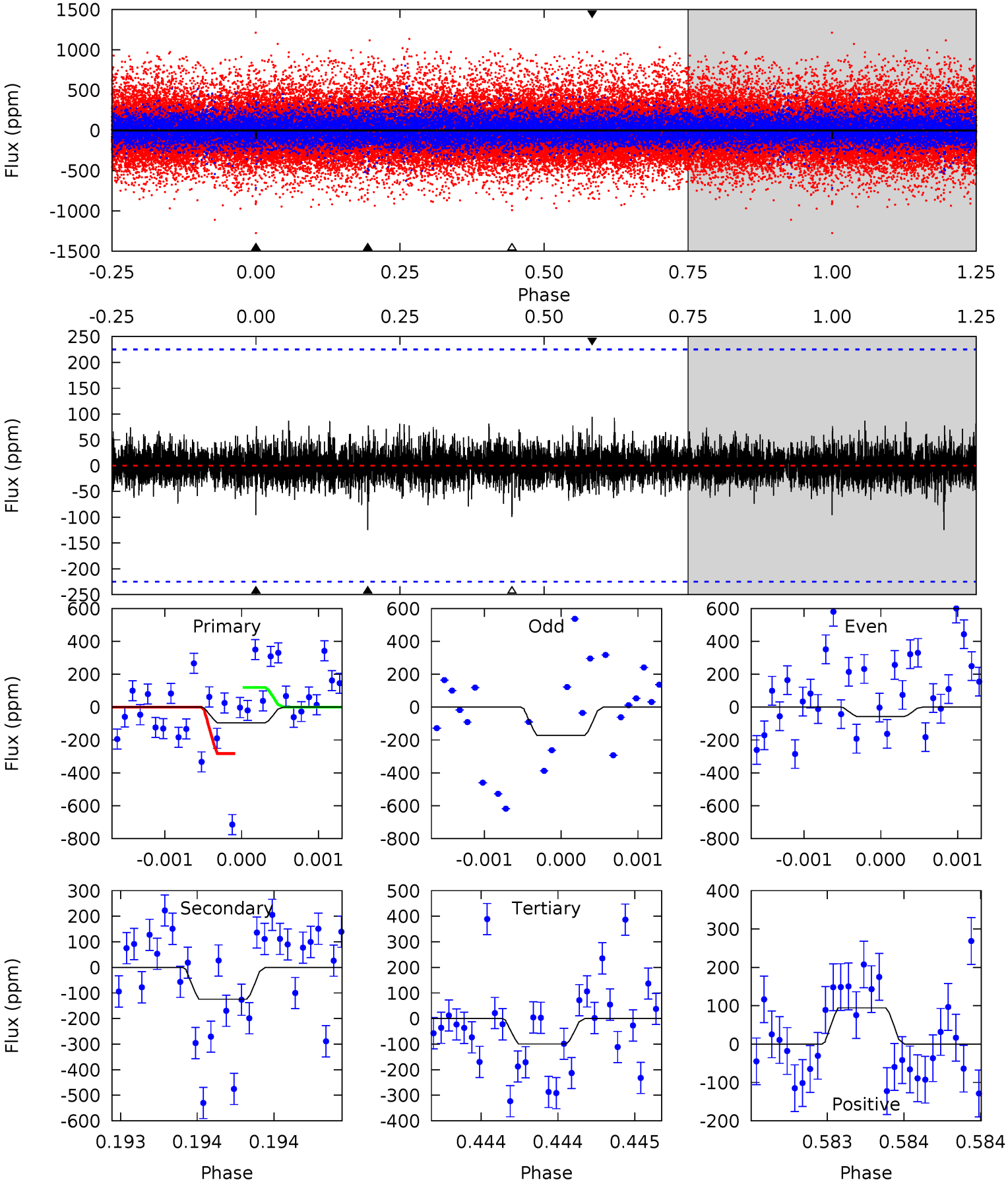
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.57	5.18	4.90	5.31	5.47	3.32	1.27	-1.33	-1.74	0.28	-0.13	0.28	0.85	0.51	0.80



Alt Model-Shift Uniqueness Test

006508436-05, P = 171.593419 Days, E = 55.252598 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.34	3.05	2.43	2.31	5.51	3.38	0.54	-0.09	0.03	0.62	0.74	1.42	2.02	0.43	0



Stellar Parameters For KIC 006508436

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	5706^{+152}_{-152}	$4.561^{+0.040}_{-0.160}$	$-0.180^{+0.300}_{-0.300}$	$0.834^{+0.191}_{-0.076}$	$0.930^{+0.092}_{-0.112}$	$2.255^{+0.469}_{-0.974}$
	+3%/-3%	+1%/-4%	+167%/-167%	+23%/-9%	+10%/-12%	+21%/-43%
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 006508436-05 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-287±55	$3.83^{+3.68}_{-2.62}$	427^{+23}_{-16}	3993^{+2548}_{-788}	3701^{+32277}_{-2779}
Alt.	-125±41	$3.94^{+3.88}_{-2.77}$	425^{+24}_{-17}	3407^{+2036}_{-607}	1393^{+16161}_{-1040}

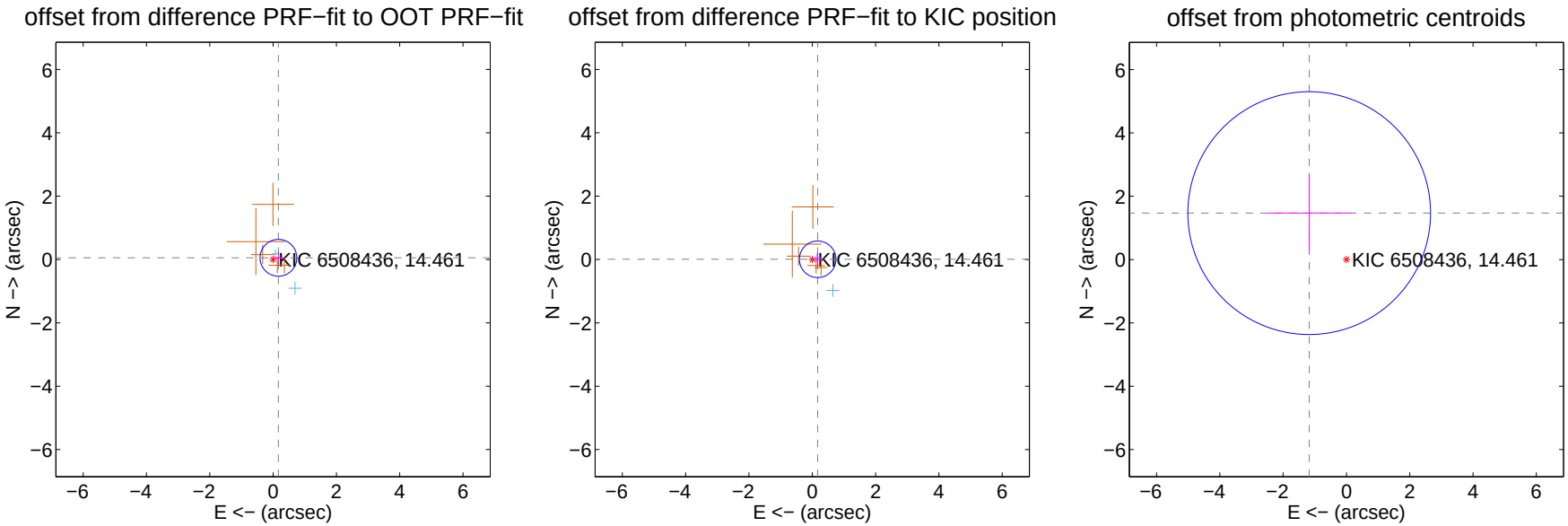
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

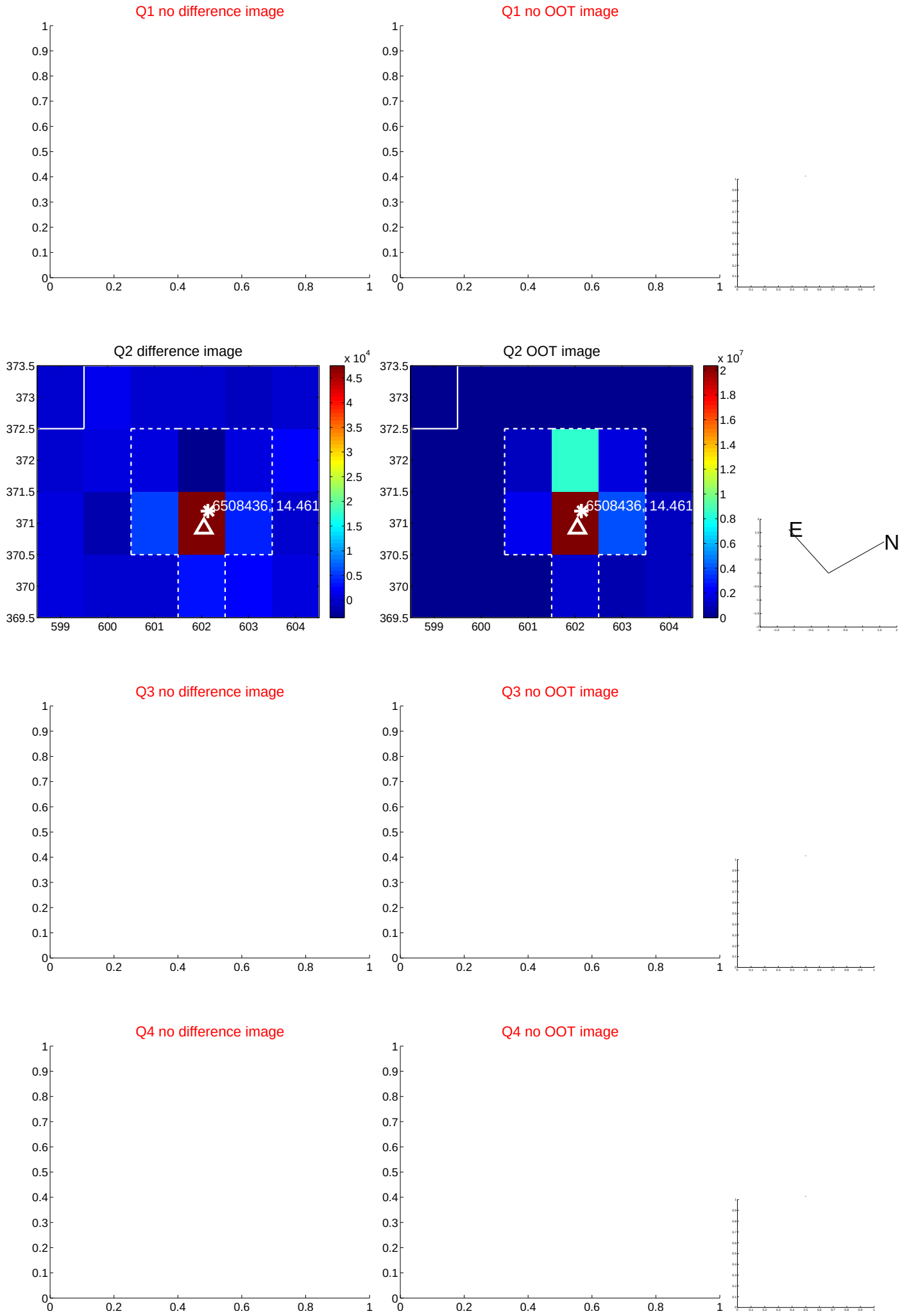
Supplemental centroid analysis for 006508436-05. Kepler magnitude: 14.46. Transit SNR 4.48
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.177 ± 0.194	0.91	-0.169 ± 0.192	0.054 ± 0.206
PRF-fit source offset from KIC position	0.170 ± 0.192	0.88	-0.170 ± 0.192	0.007 ± 0.206
photometric centroid source offset	1.88 ± 1.28	1.47	1.18 ± 1.32	1.47 ± 1.25

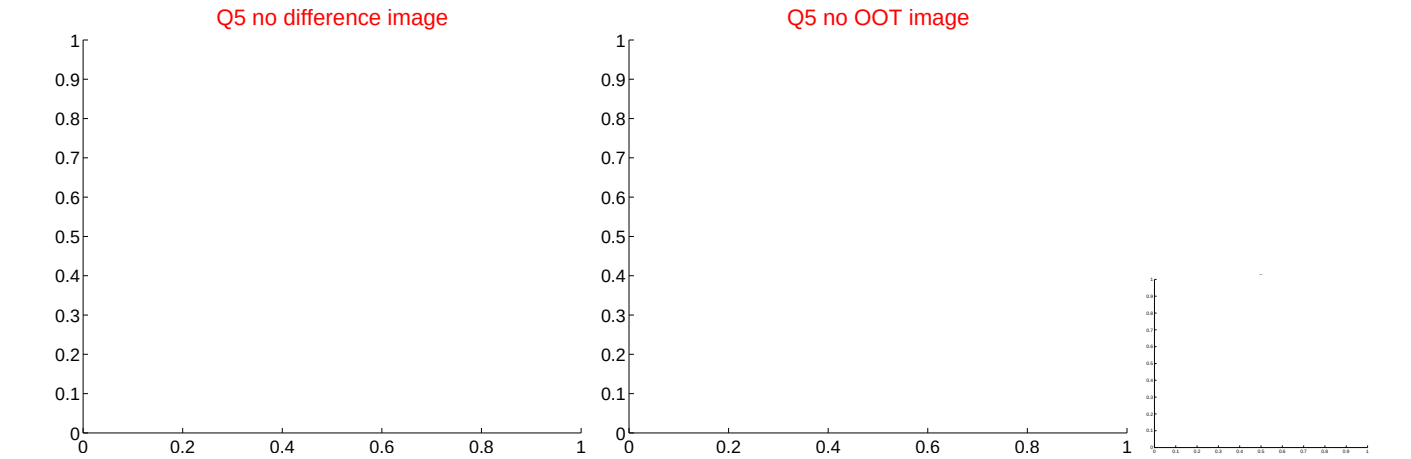


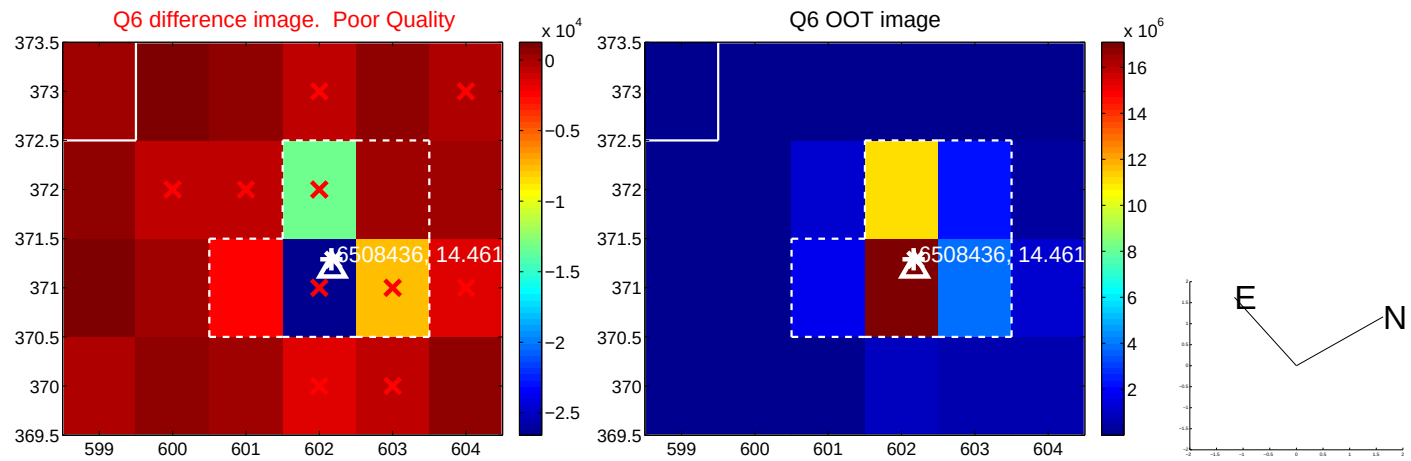
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

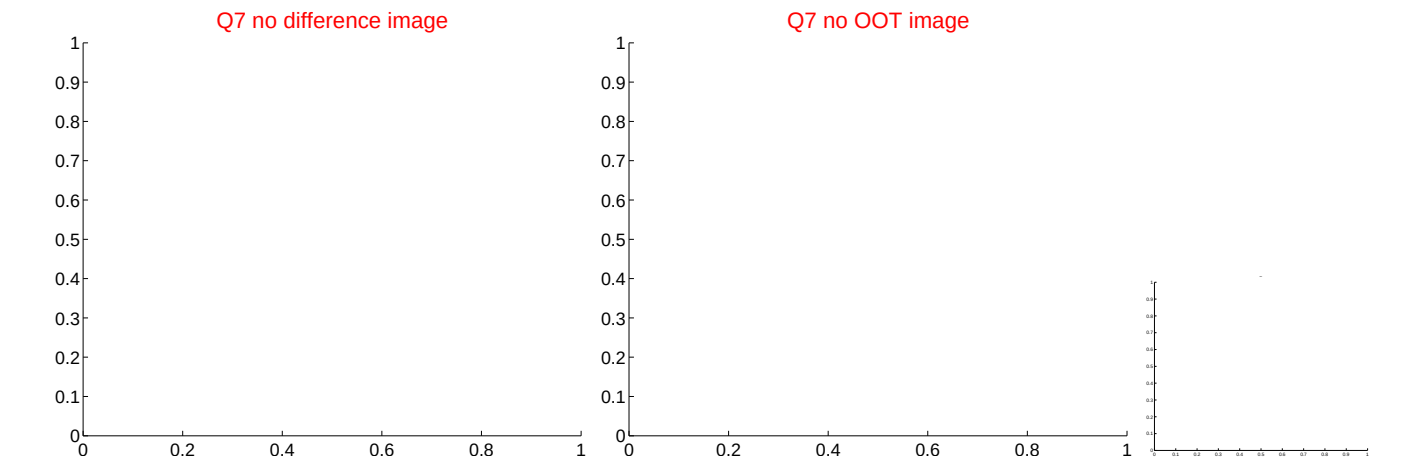
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

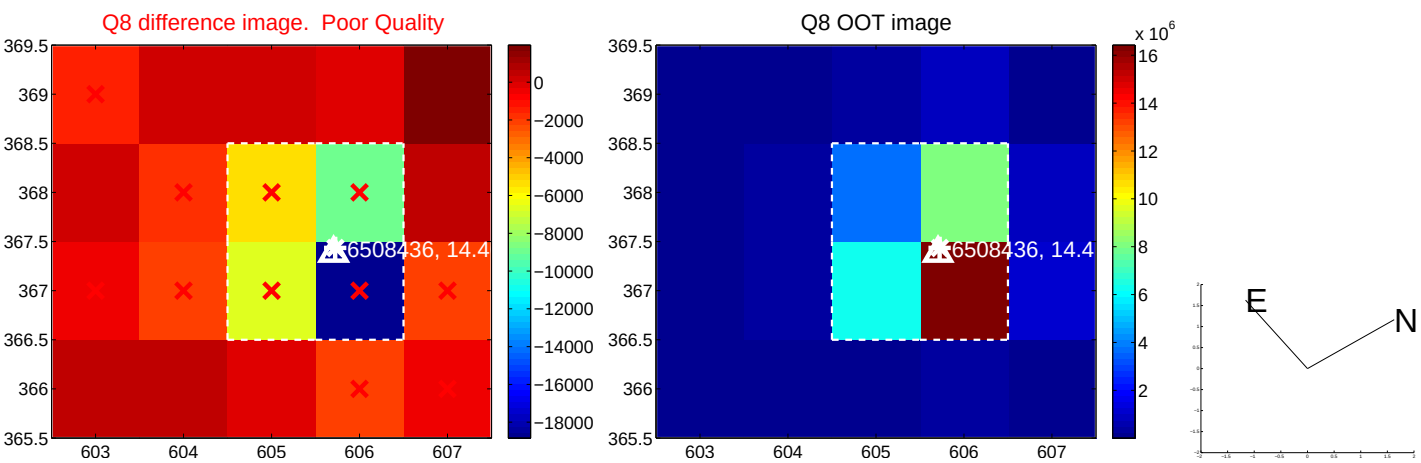


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

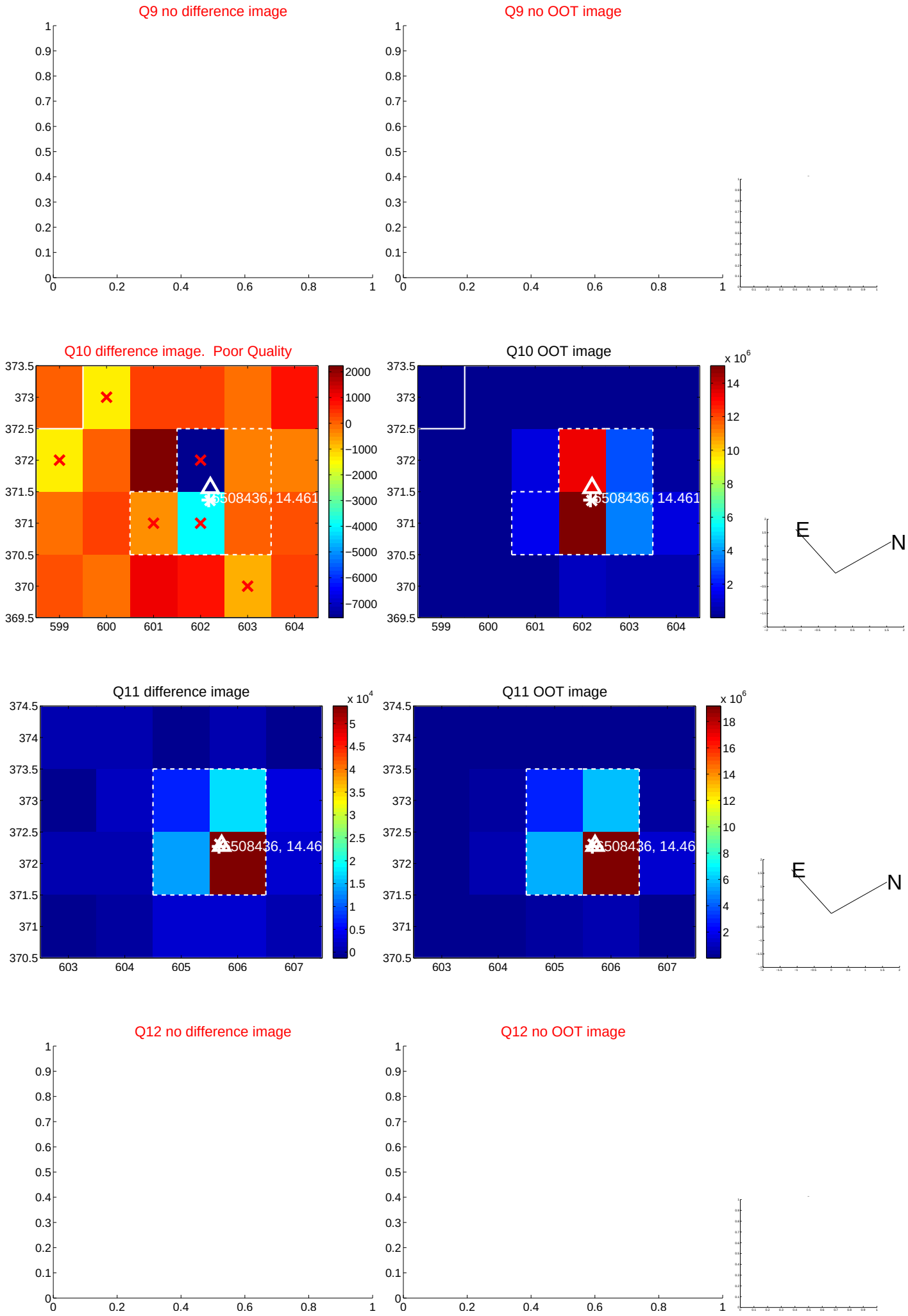




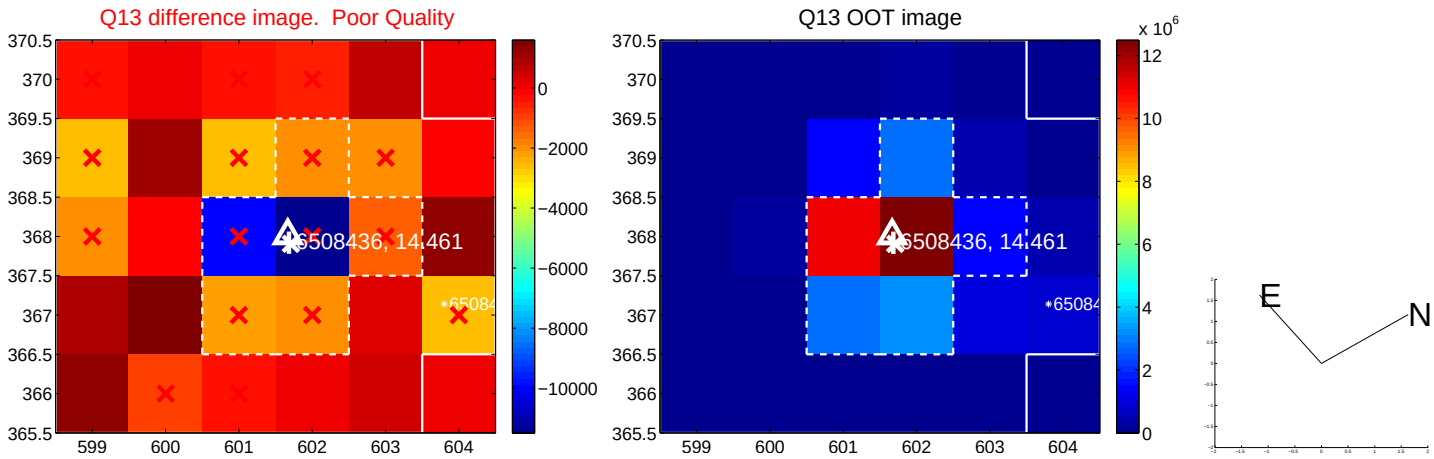


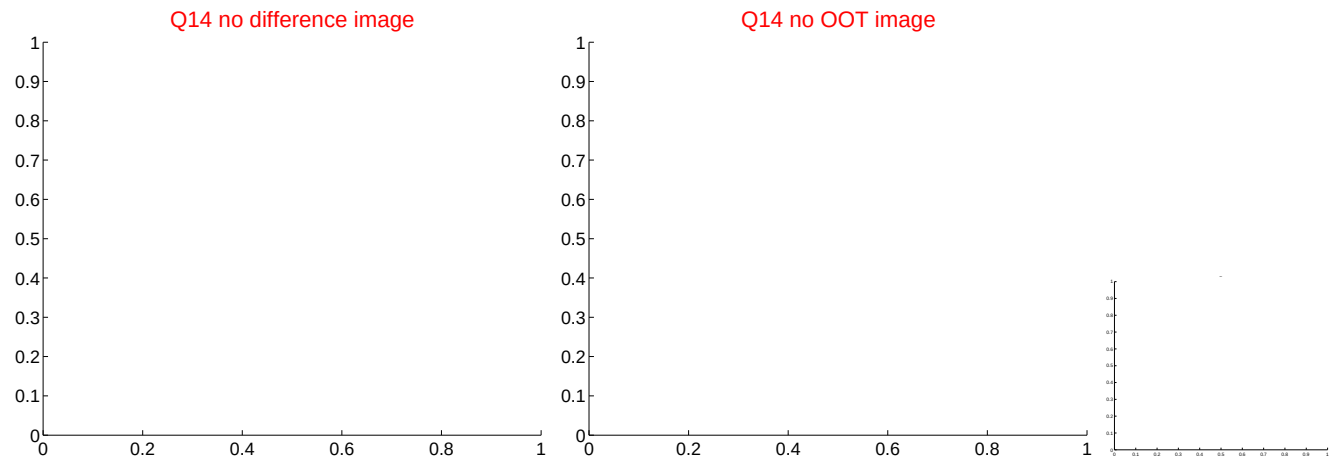


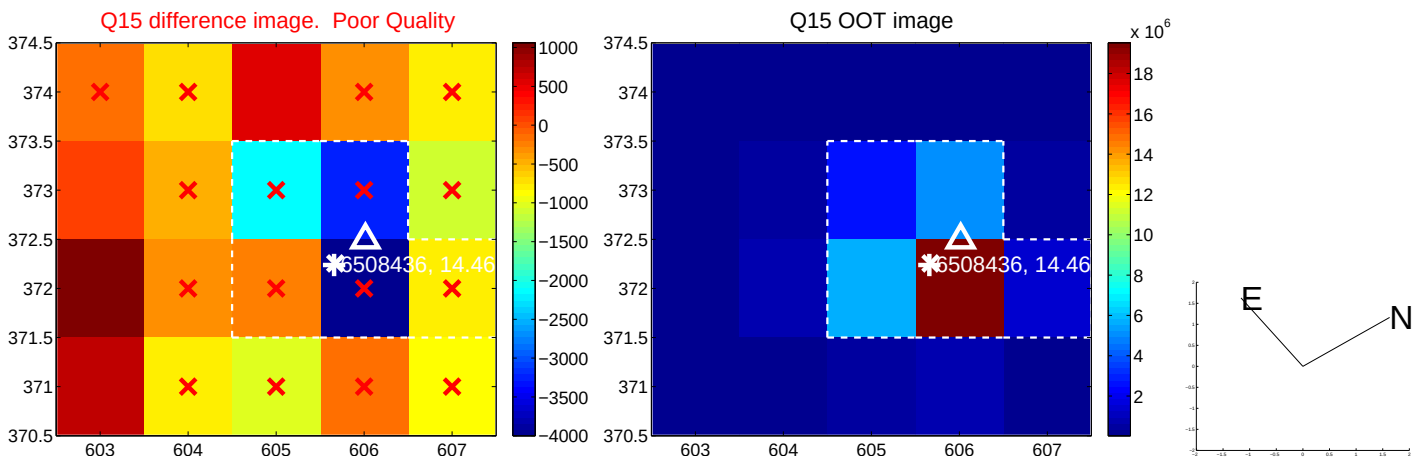
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

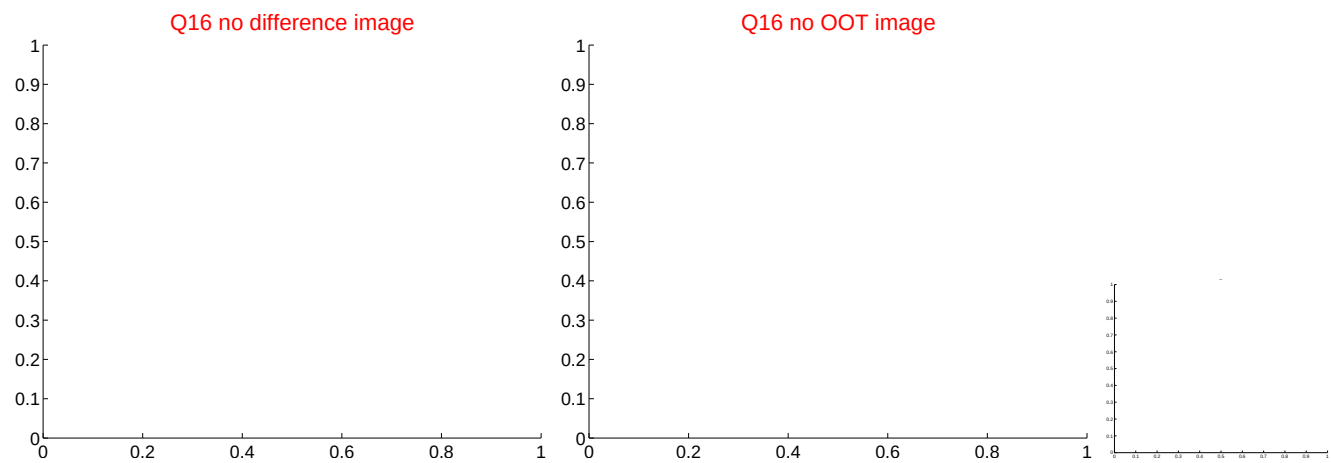


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

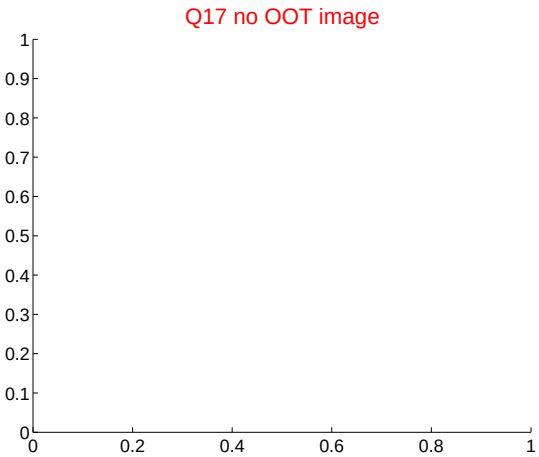


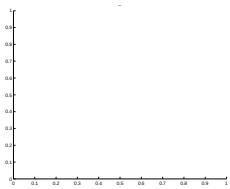


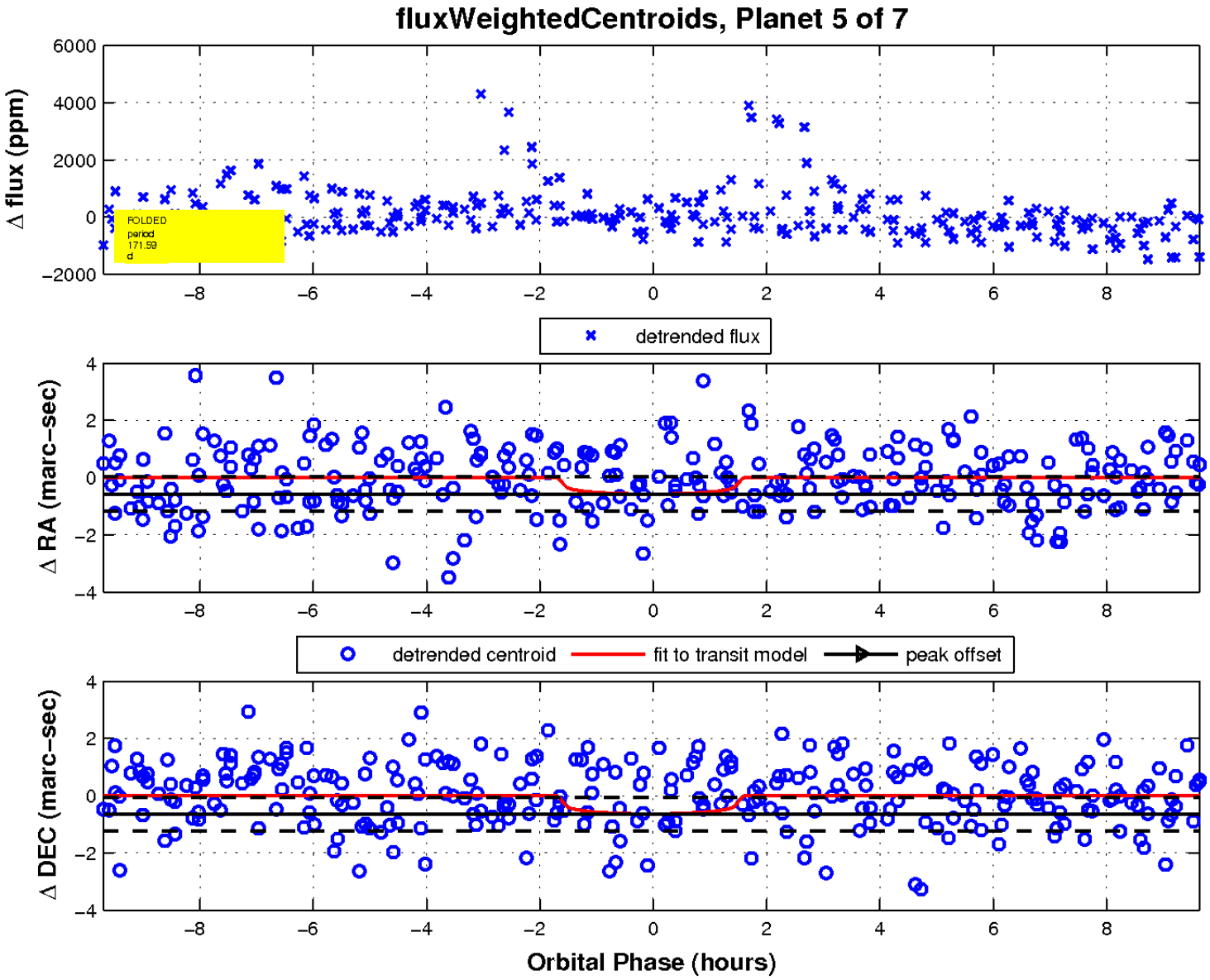




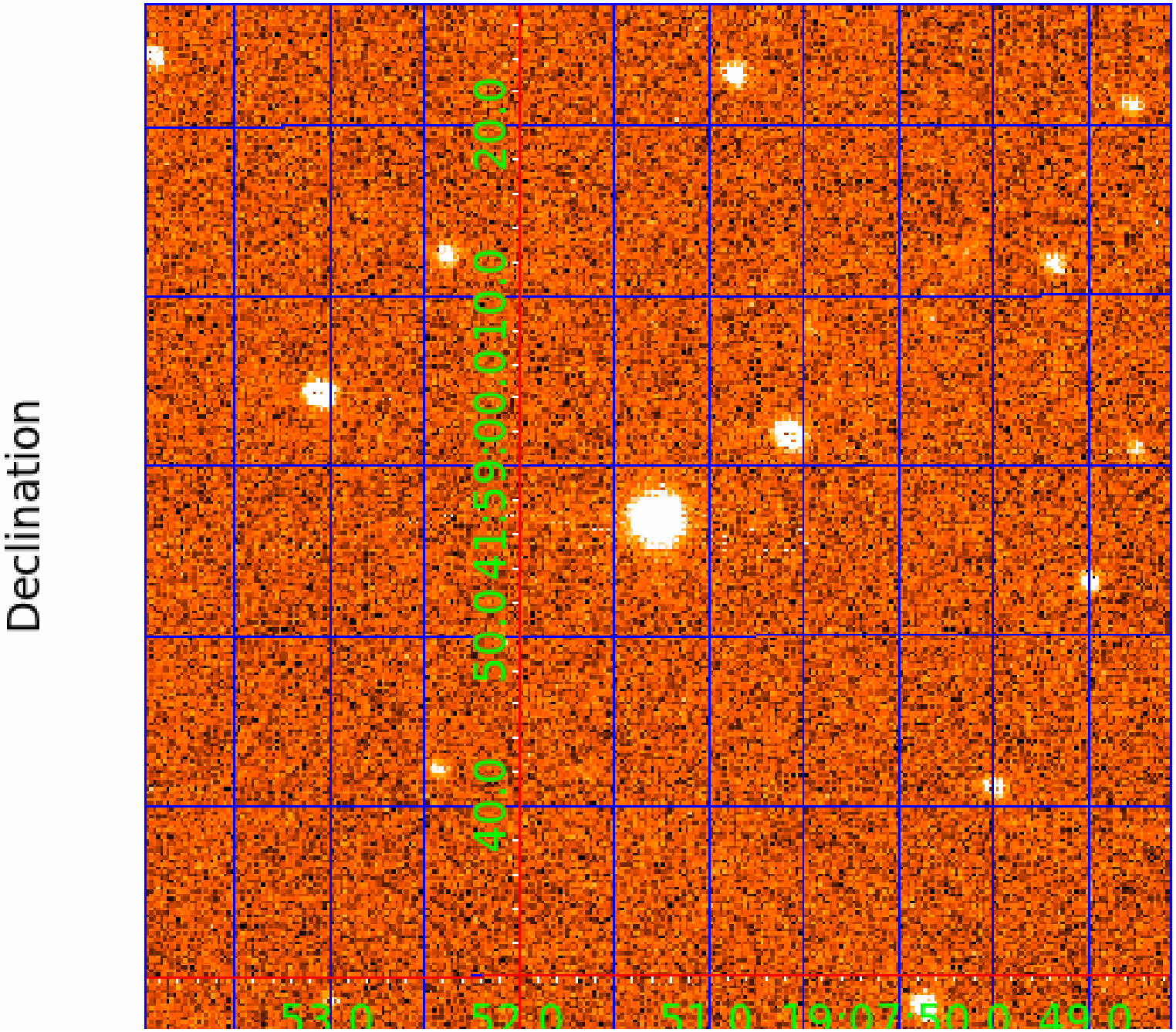
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image



KIC 006508436

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 ($S_\oplus$)
006508436-01	OBS	No	336.785851	334.906102	996.7	2.958	16.4	6.1	0.83	5706	2.65	0.78
006508436-02	OBS	No	518.432935	311.515903	1109.7	12.659	12.2	5.6	0.83	5706	2.83	0.44
006508436-03	OBS	No	513.645209	173.668834	475.9	12.000	12.0	-1.0	0.83	5706	1.80	0.44
006508436-04	OBS	No	304.366537	380.965326	1023.3	3.033	11.4	6.3	0.83	5706	2.73	0.89
006508436-05	OBS	No	171.592974	226.839000	446.9	3.234	11.5	4.5	0.83	5706	1.83	1.91
006508436-06	OBS	No	464.338263	511.146777	409.1	8.995	11.3	2.2	0.83	5706	1.72	0.51
006508436-07	OBS	No	498.345043	506.977086	1005.2	5.496	11.7	5.7	0.83	5706	2.81	0.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006508436-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
006508436-04	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—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006508436-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

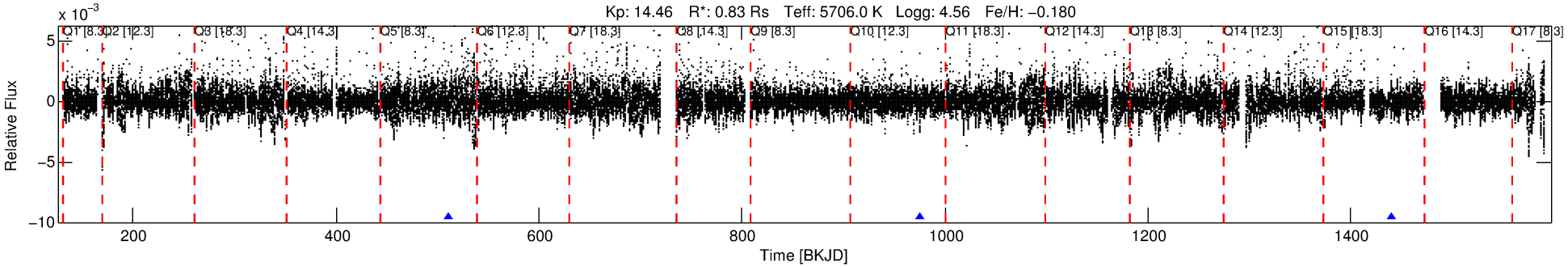
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

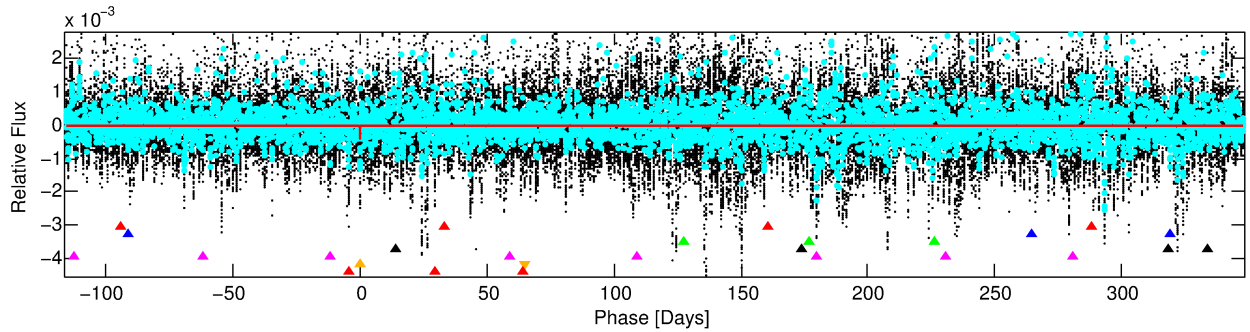
Ephemeris Match Information For 006508436-06

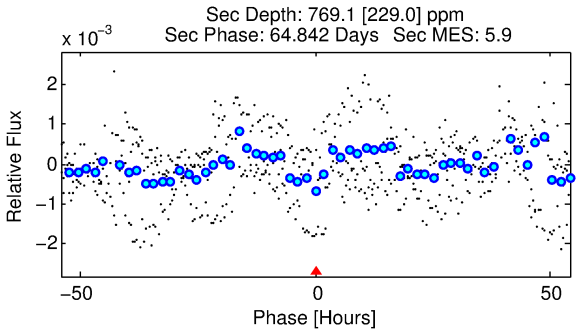
No Significant Match Found

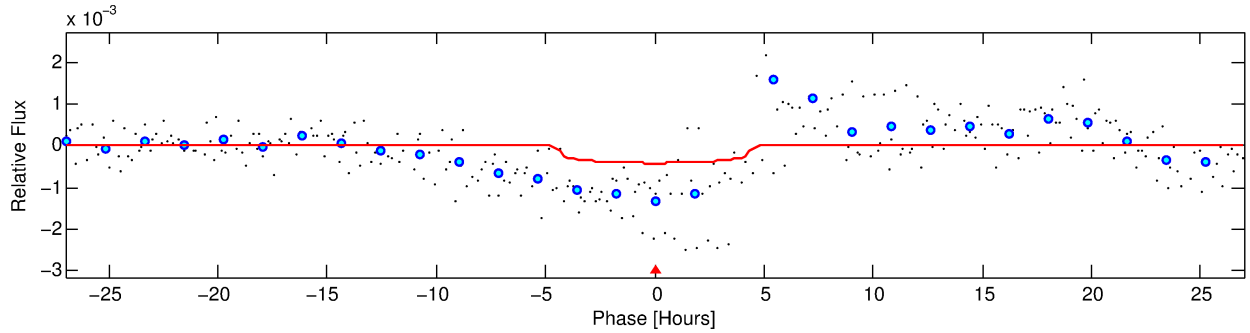
DV One-Page Summary

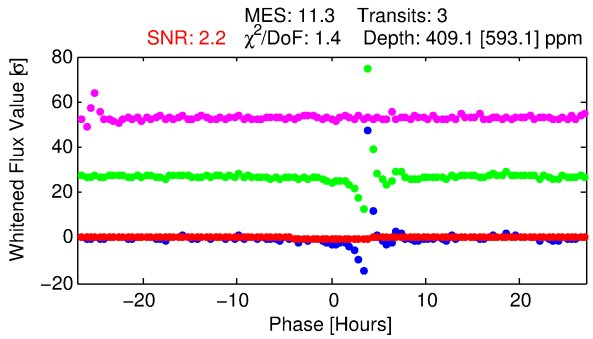
KIC: 6508436 Candidate: 6 of 7 Period: 464.338 d

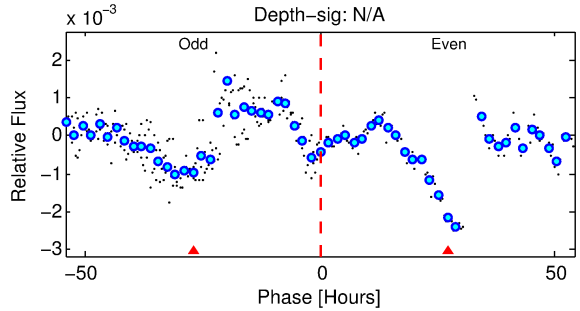


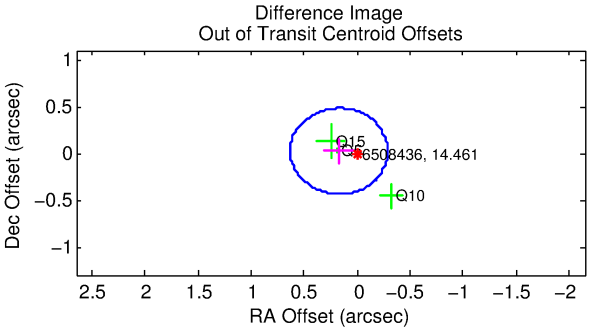












DV Fit Results:

Period = 464.33826 [0.04847] d
Epoch = 511.1468 [0.0611] BKJD
Rp/R* = 0.0188 [0.0848]
a/R* = 357.50 [6886.92]
b = 0.46 [32.60]

Seff = 0.51 [0.16]
Teq = 215 [17] K
Rp = 1.72 [7.73] Re
a = 1.1430 [0.2239] AU

Ag = 187869.79 [1693315.65] [0.11σ]
Teffp = 6922 [15589] K [0.43σ]

DV Diagnostic Results:

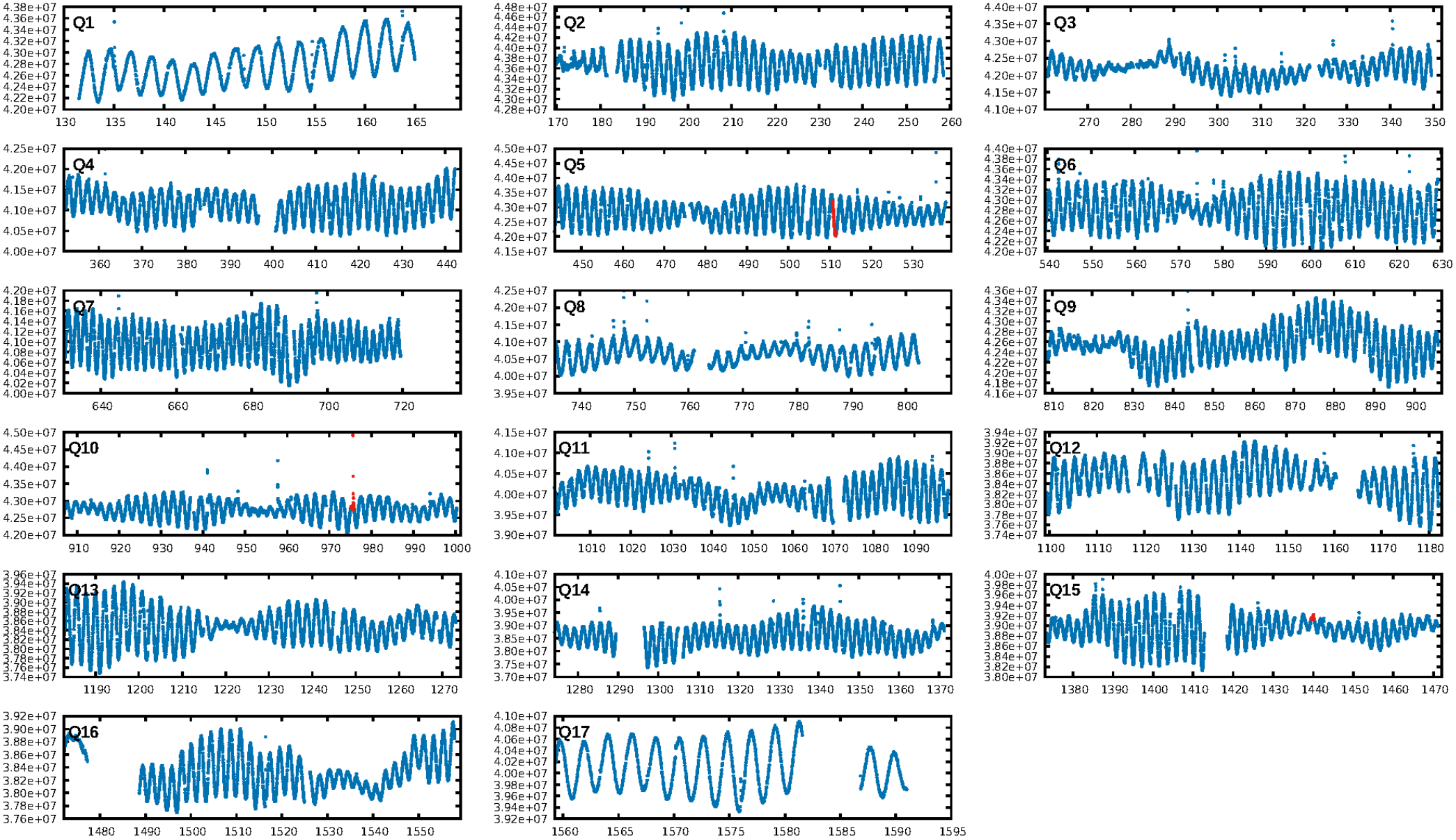
ShortPeriod−sig: 100.0% [323.28σ]
LongPeriod−sig: 100.0% [77.42σ]
ModelChiSquare2−sig: 10.6%
ModelChiSquareGof−sig: 87.2%
Bootstrap−pfa: 1.96e−08
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: 4.662

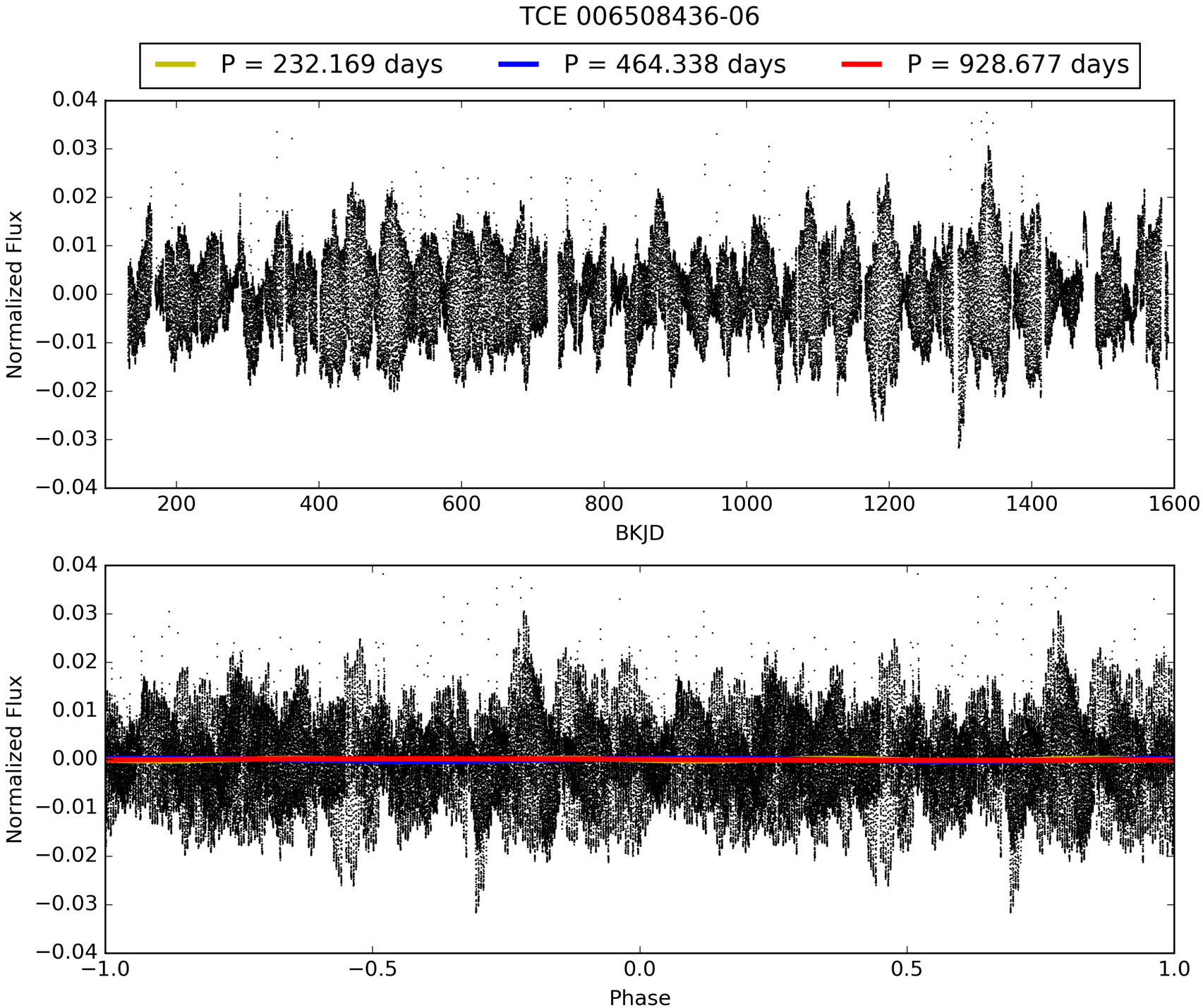
Centroid−sig: 11.8%
Centroid−so: 2.066 arcsec [1.34σ]
OotOffset−rm: 0.173 arcsec [1.13σ]
KicOffset−rm: 0.235 arcsec [1.58σ]
OotOffset−st: 1/1/0/1 [3]
KicOffset−st: 1/1/0/1 [3]
DiffImageQuality−fgm: 0.33 [1/3]
DiffImageOverlap−fno: 1.00 [3/3]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:03:30 Z

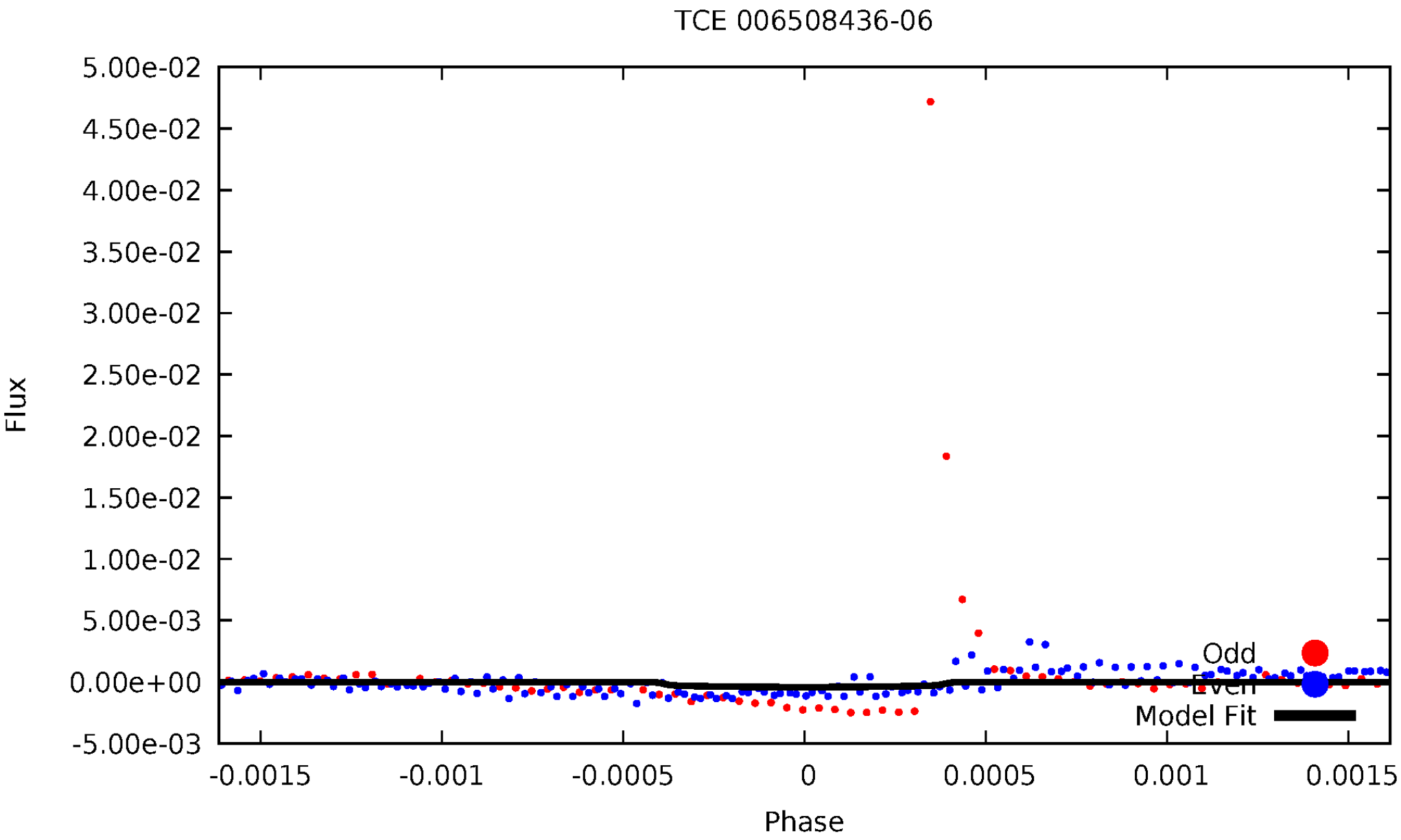
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006508436-06, PDC Light Curves

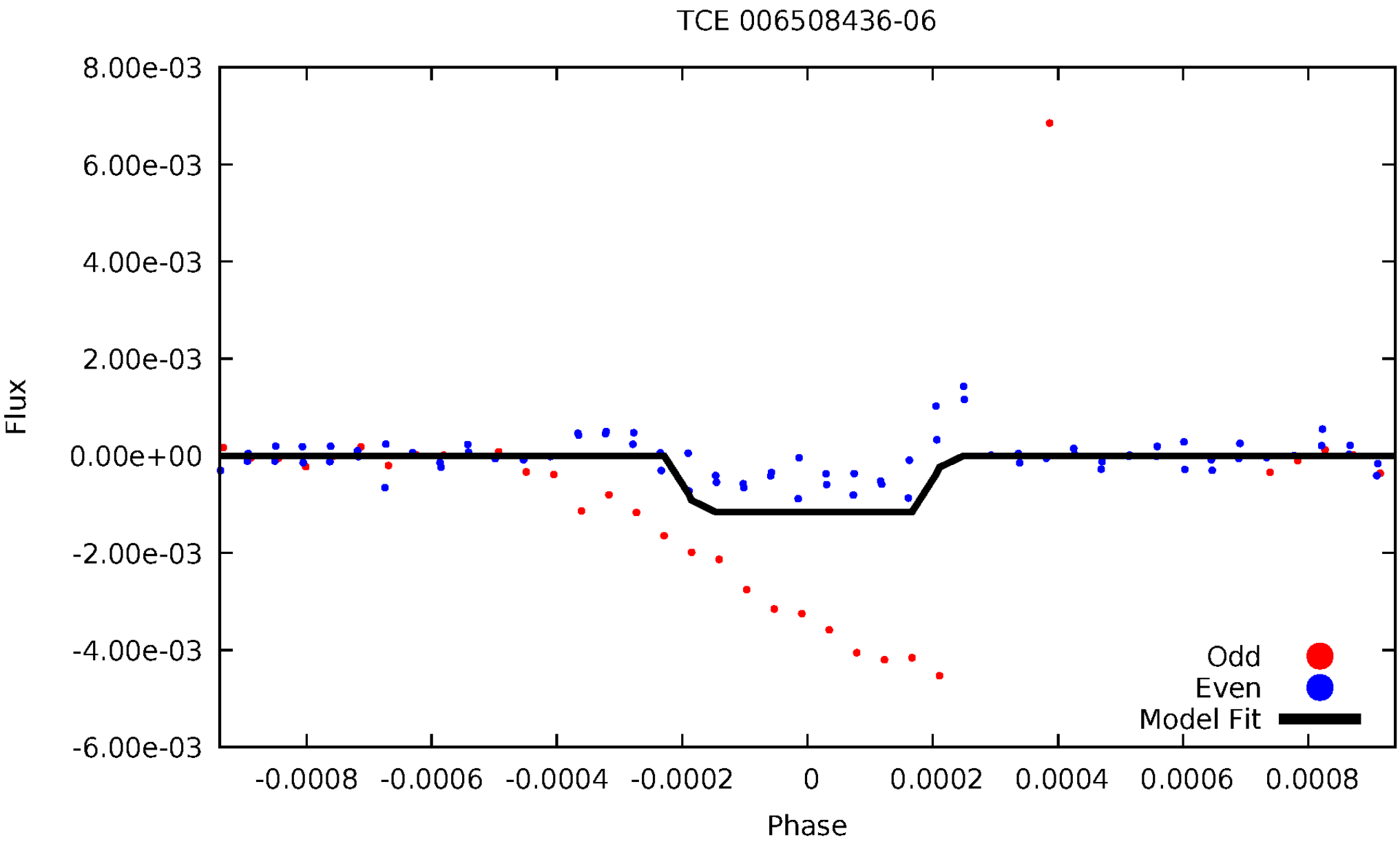



TCE 006508436-06
P = 232.169 days
P = 464.338 days
P = 928.677 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even


TCE 006508436-06
5.00e-02
4.50e-02
4.00e-02
3.50e-02
3.00e-02
2.50e-02
2.00e-02
1.50e-02
1.00e-02
5.00e-03
0.00e+00
-5.00e-03
Flux
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
Phase
Odd
Even
Model Fit

ALT Odd/Even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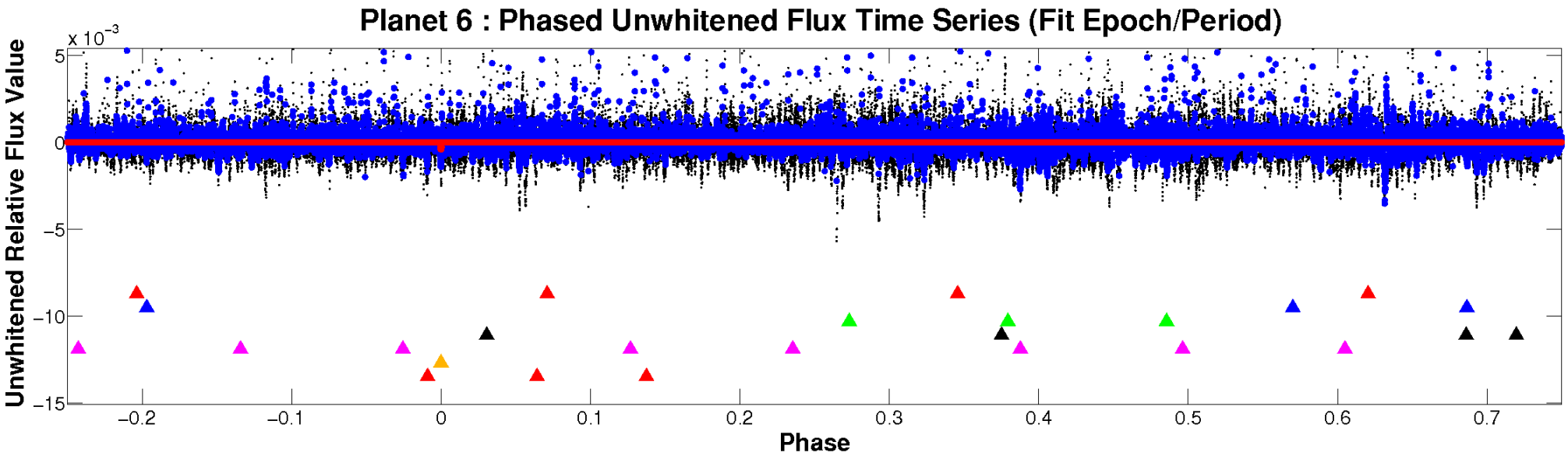
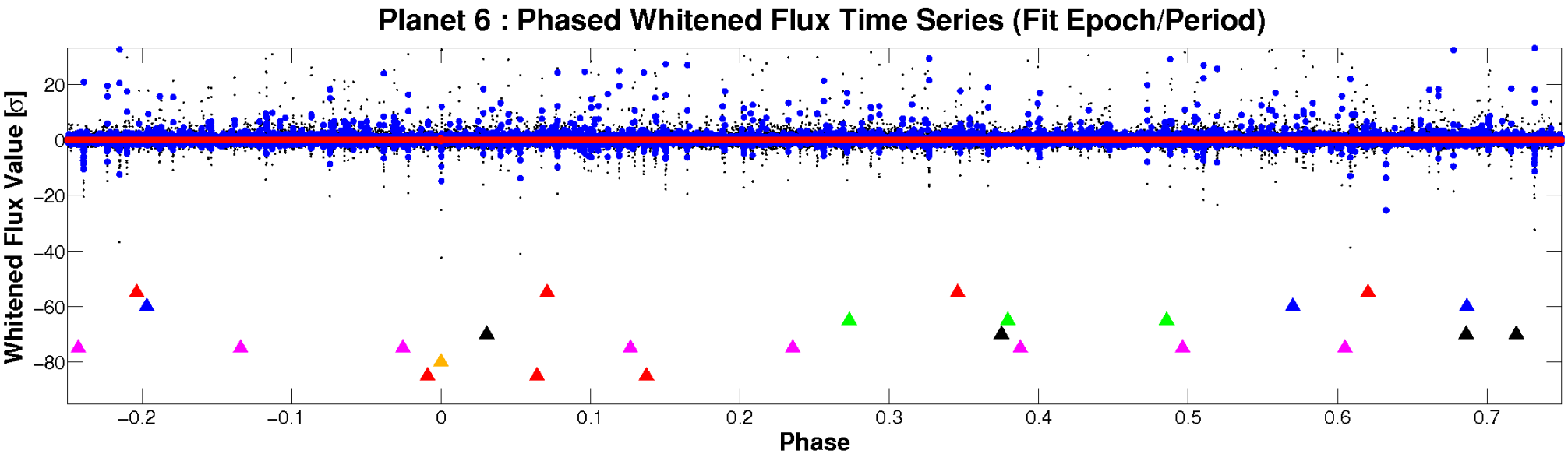
8.00e-03
6.00e-03
4.00e-03
2.00e-03
0.00e+00
-2.00e-03
-4.00e-03
-6.00e-03
Flux
-0.0008
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
0.0008
Phase
Odd
Even
Model Fit

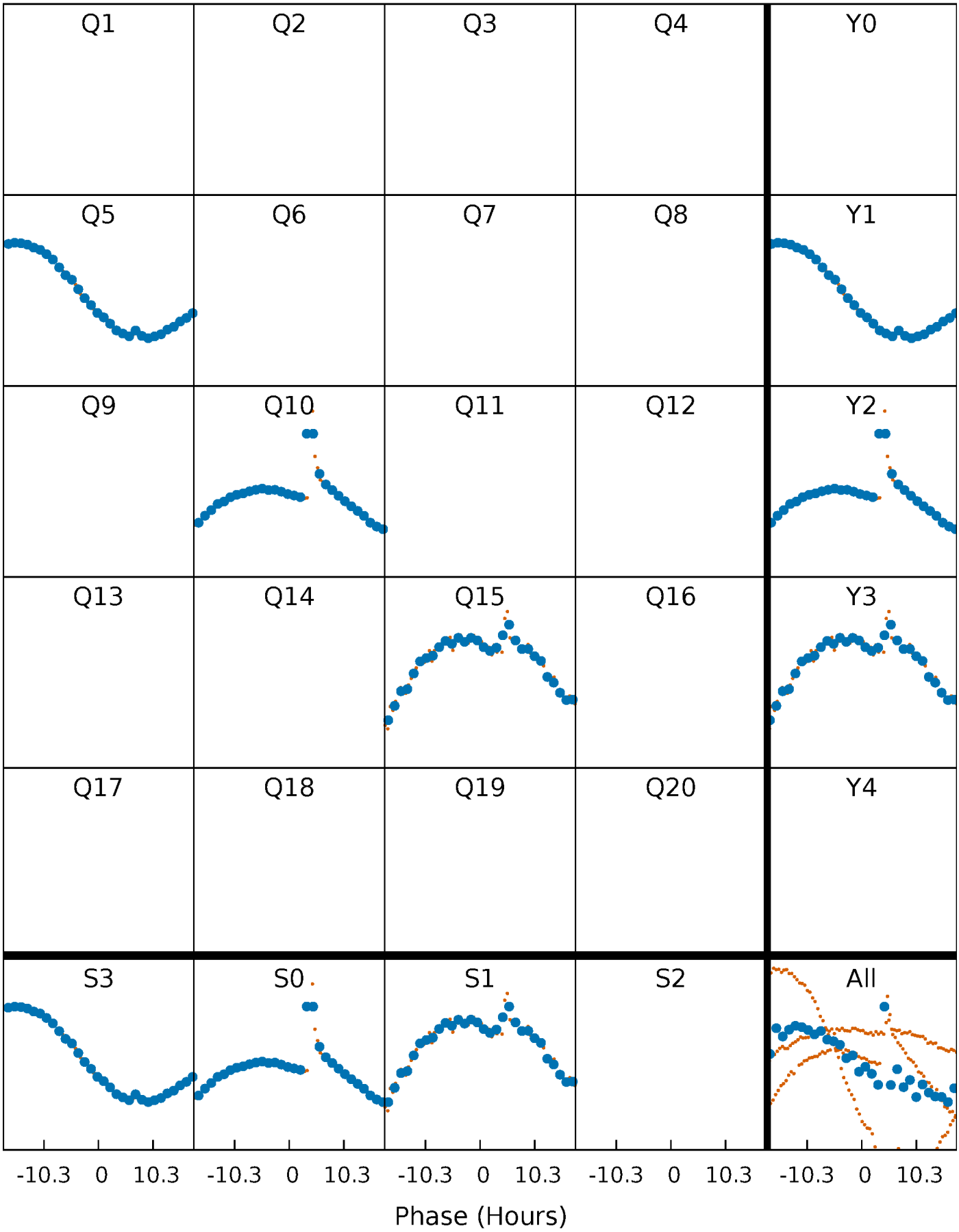
Non-Whitened Vs. Whitened Light Curve





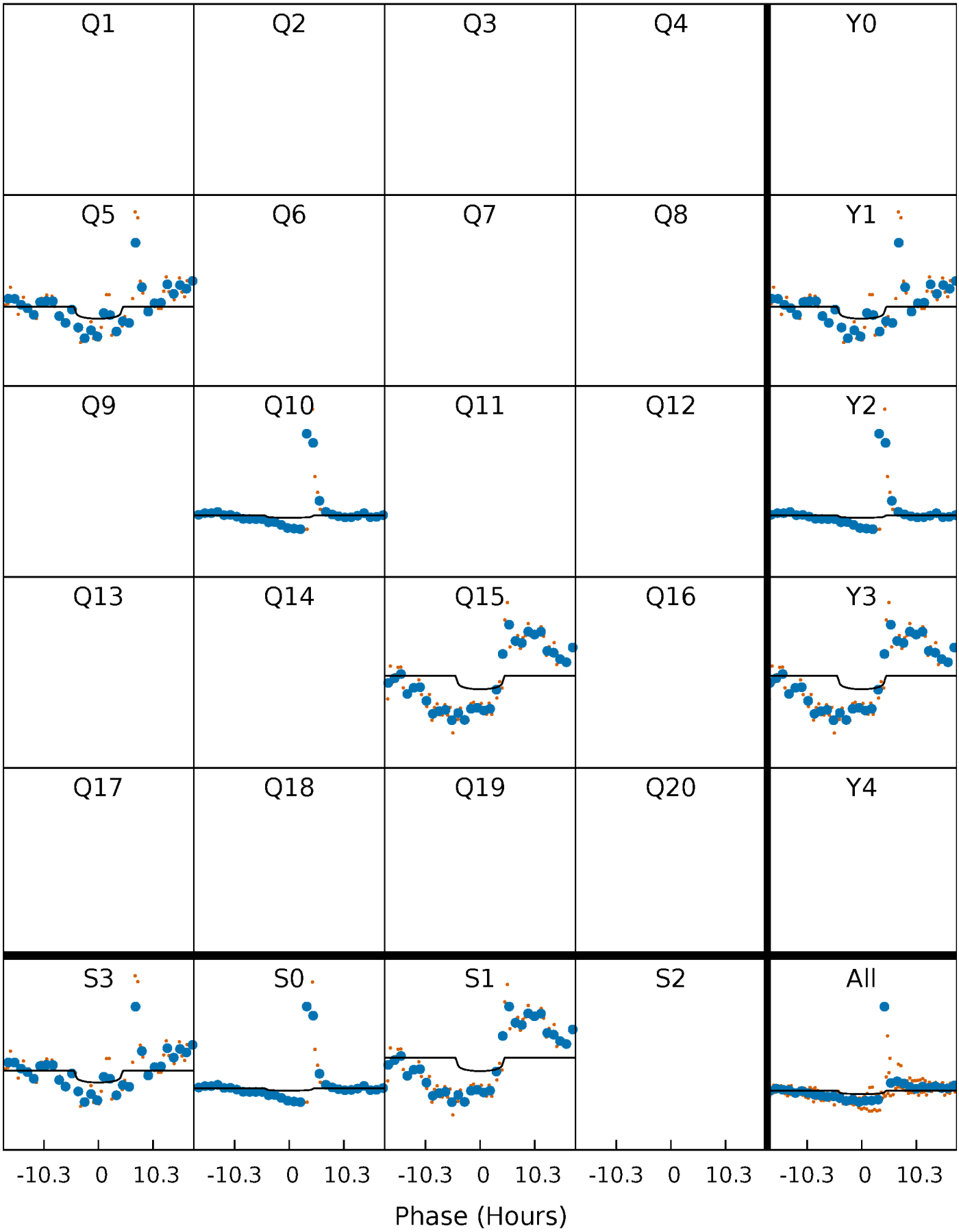
PDC Quarter-Phased Transit Curves

TCE 006508436-06 P=464.338263 Days T_0=511.146777 (BKJD)



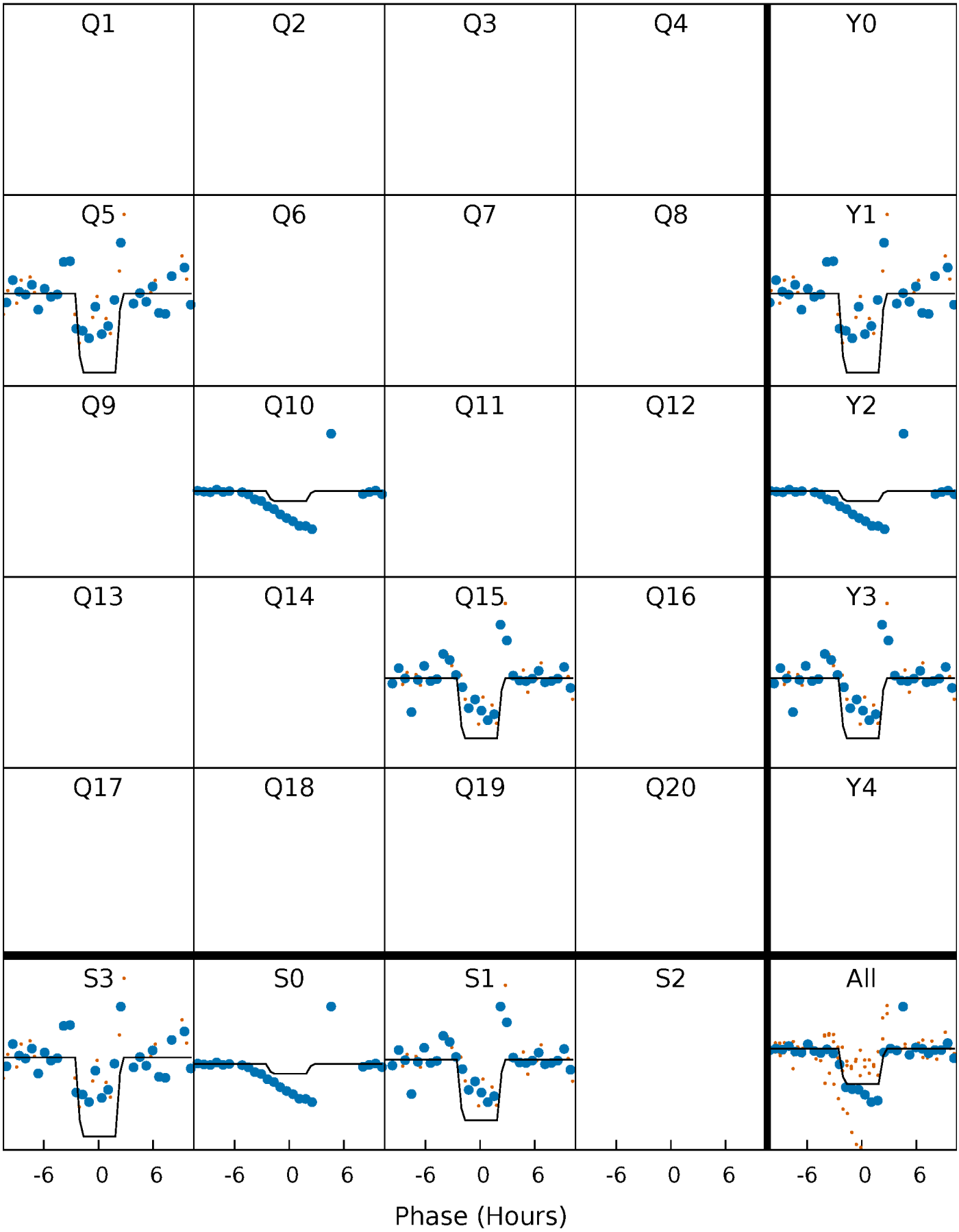
DV Quarter-Phased Transit Curves

TCE 006508436-06 P=464.338263 Days T_0=511.146777 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

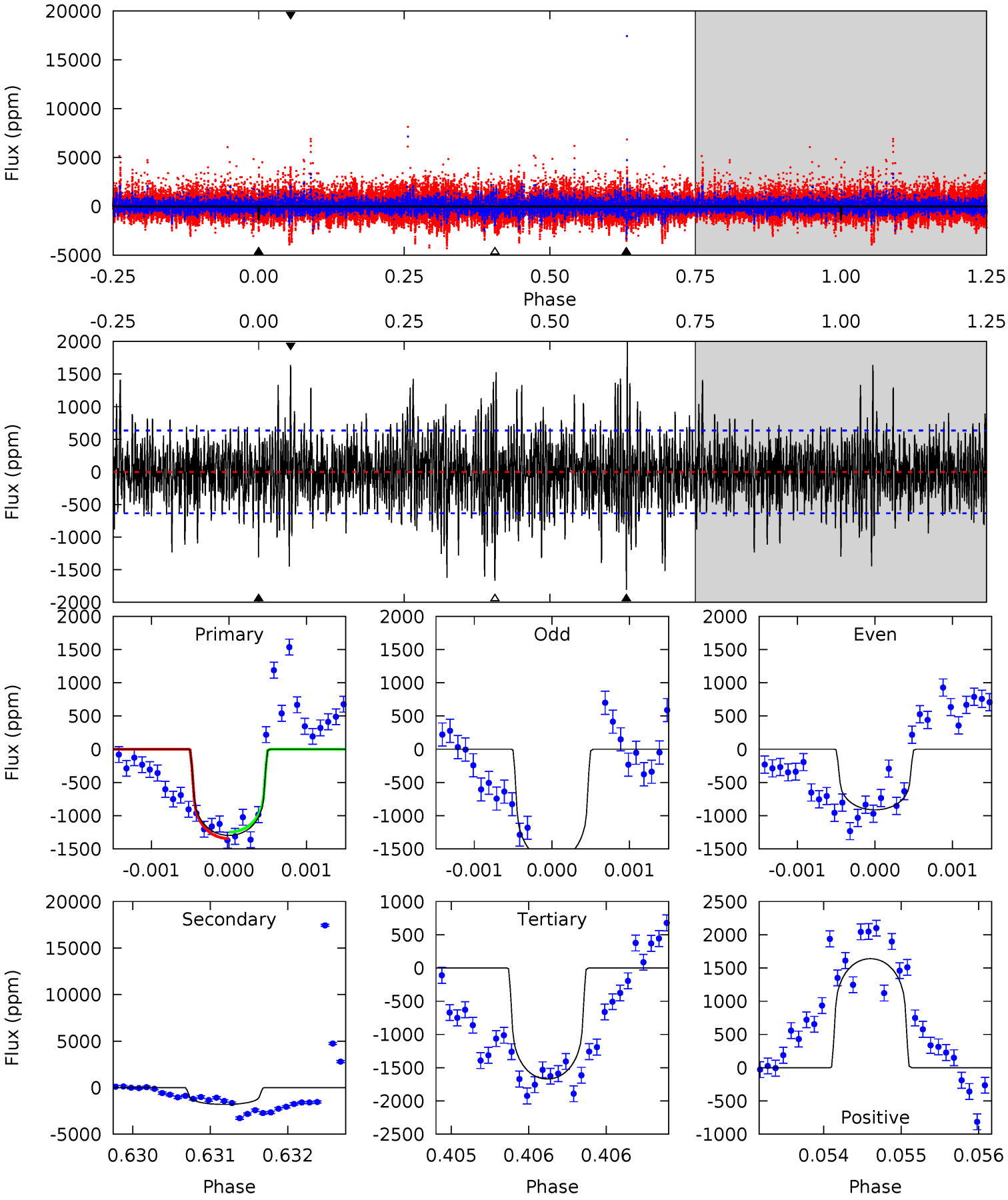
TCE 006508436-06 P=464.413952 Days T_0=511.093781 (BKJD)



DV Model-Shift Uniqueness Test

006508436-06, P = 464.338263 Days, E = 46.808514 Days

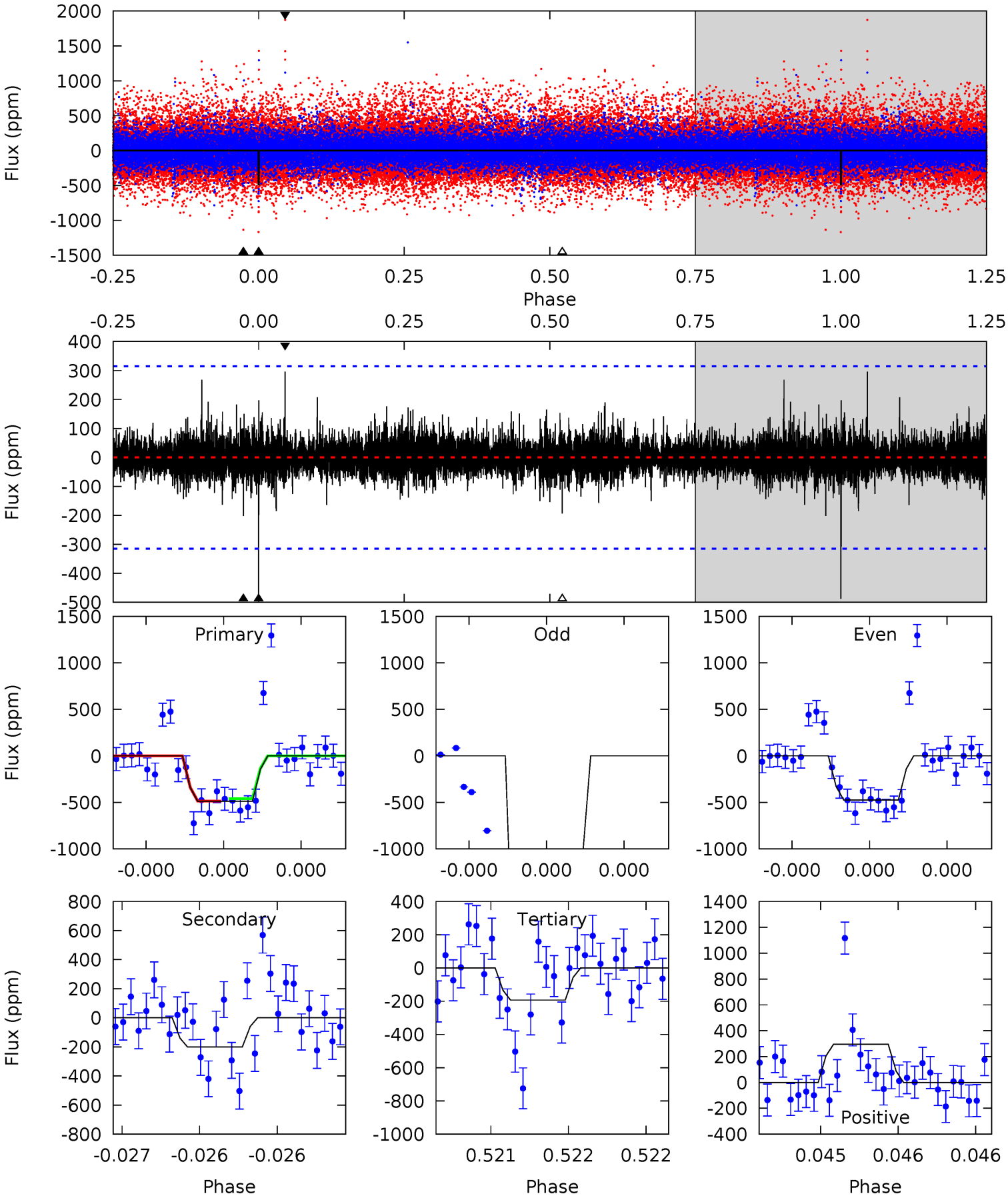
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	15.6	14.4	14.2	5.48	3.34	3.65	-3.22	-2.96	1.17	1.43	2.71	0.46	0.53	0.42



Alt Model-Shift Uniqueness Test

006508436-06, P = 464.413952 Days, E = 46.679829 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.68	3.58	3.43	5.25	5.60	3.52	0.68	5.24	3.43	0.14	-1.68	28.2	2.79	0.38	0



Stellar Parameters For KIC 006508436

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	5706^{+152}_{-152}	$4.561^{+0.040}_{-0.160}$	$-0.180^{+0.300}_{-0.300}$	$0.834^{+0.191}_{-0.076}$	$0.930^{+0.092}_{-0.112}$	$2.255^{+0.469}_{-0.974}$
	+3%/-3%	+1%/-4%	+167%/-167%	+23%/-9%	+10%/-12%	+21%/-43%
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 006508436-06 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1805±116	$6.09^{+6.11}_{-4.24}$	306^{+16}_{-12}	4765^{+3954}_{-1074}	$33179^{+358419}_{-24479}$
Alt.	-201±56	$6.67^{+6.65}_{-4.36}$	306^{+17}_{-13}	3135^{+1337}_{-531}	2988^{+22168}_{-2248}

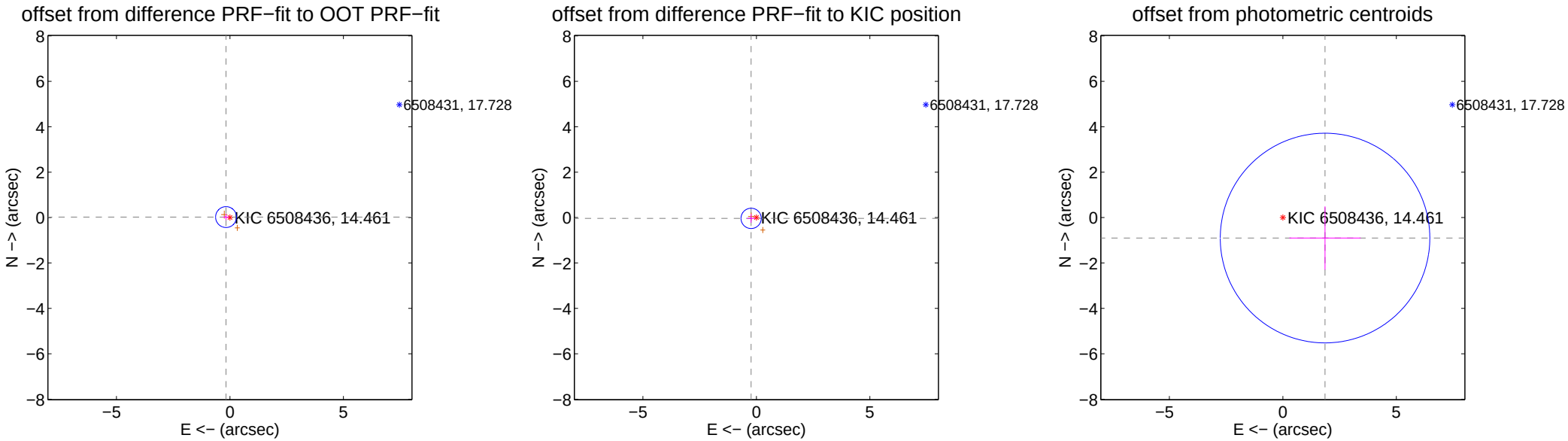
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

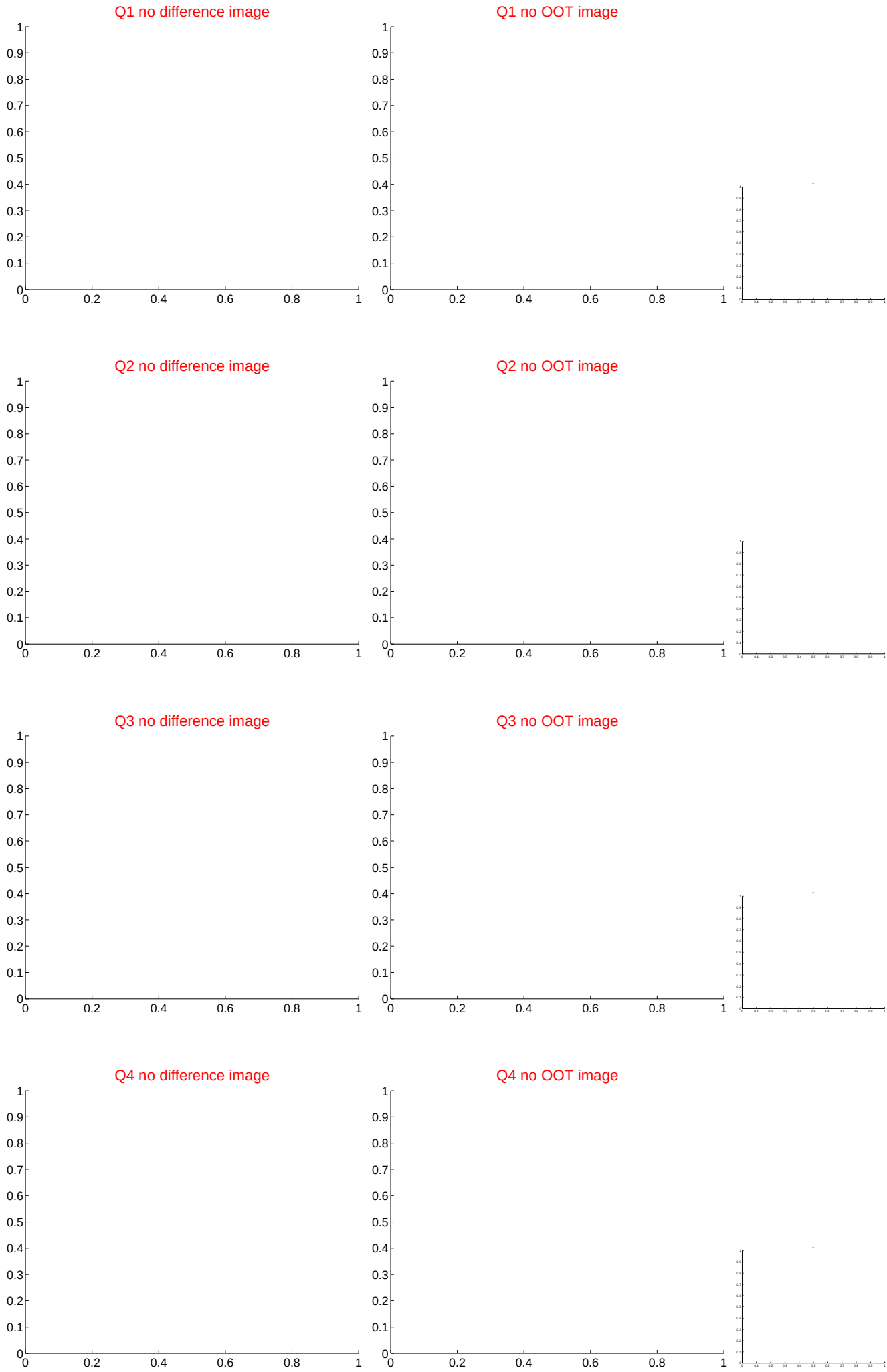
Supplemental centroid analysis for 006508436-06. Kepler magnitude: 14.46. Transit SNR 2.25
There are 1 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.173 ± 0.153	1.13	0.172 ± 0.141	0.022 ± 0.136
PRF-fit source offset from KIC position	0.235 ± 0.149	1.58	0.232 ± 0.175	-0.036 ± 0.188
photometric centroid source offset	2.07 ± 1.54	1.34	-1.86 ± 1.57	-0.90 ± 1.39

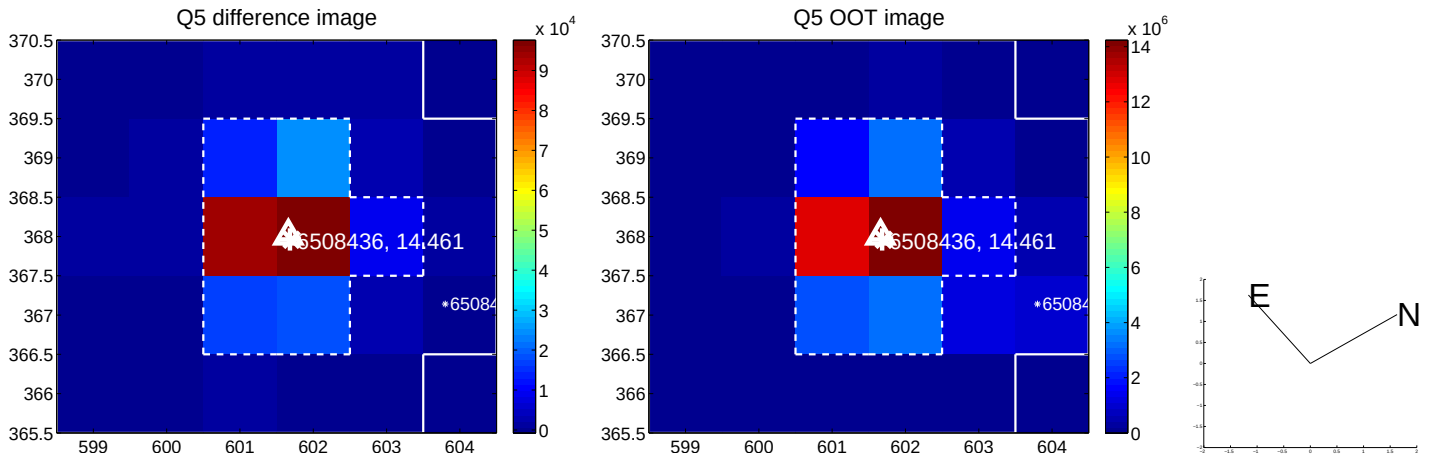


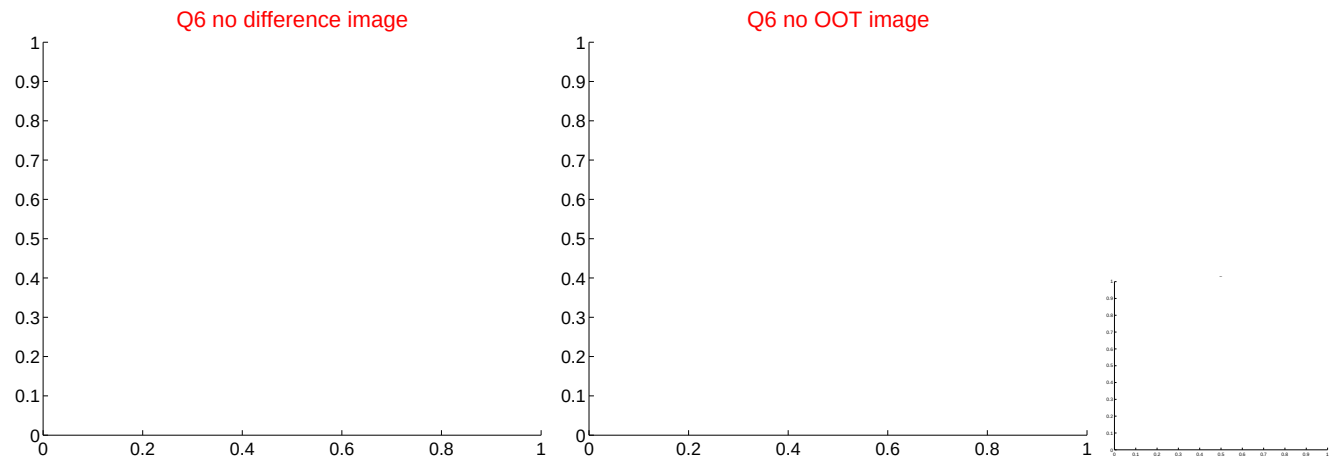
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

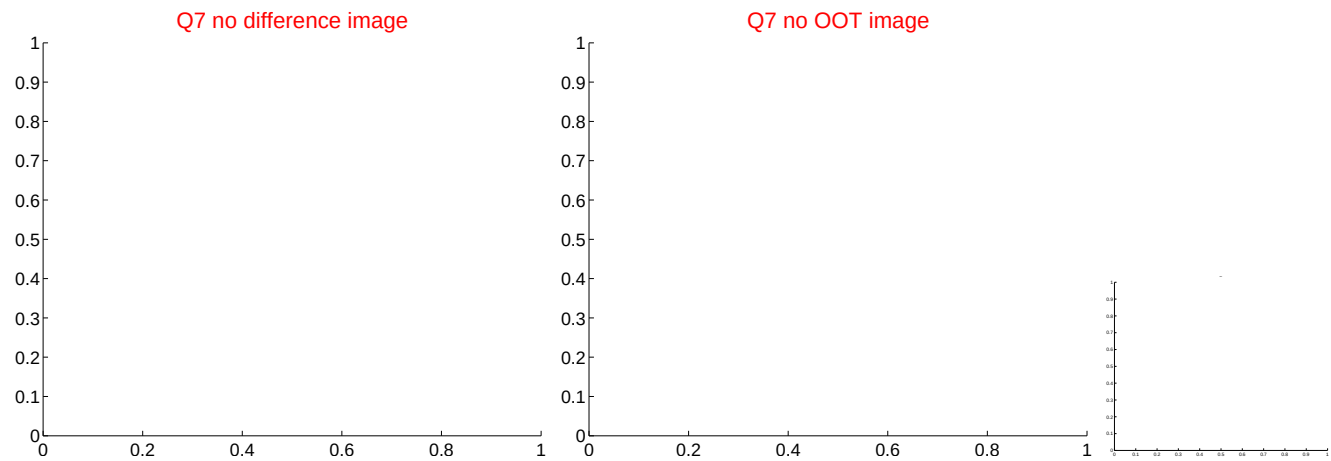
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

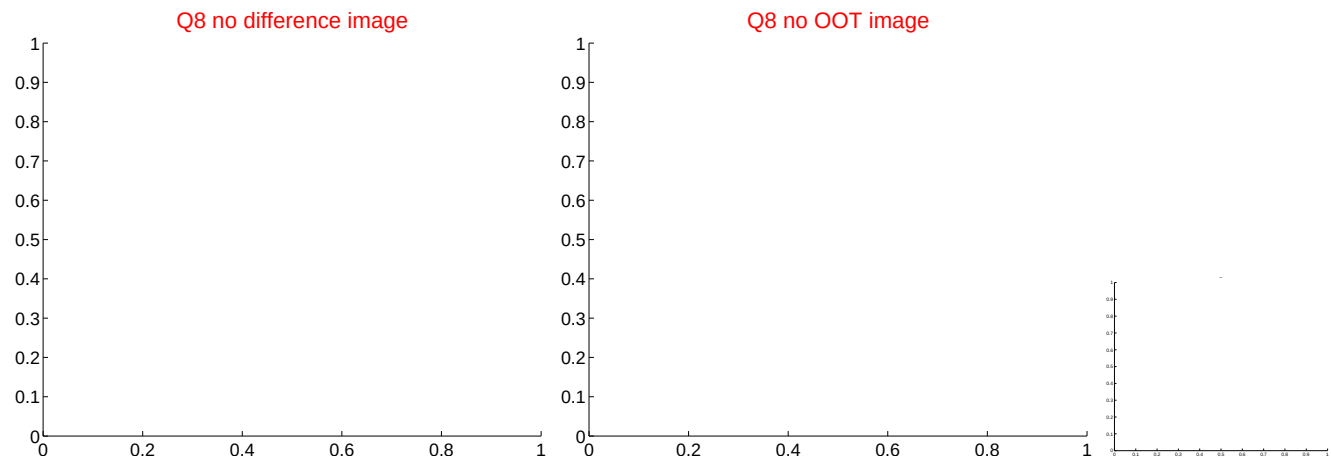


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

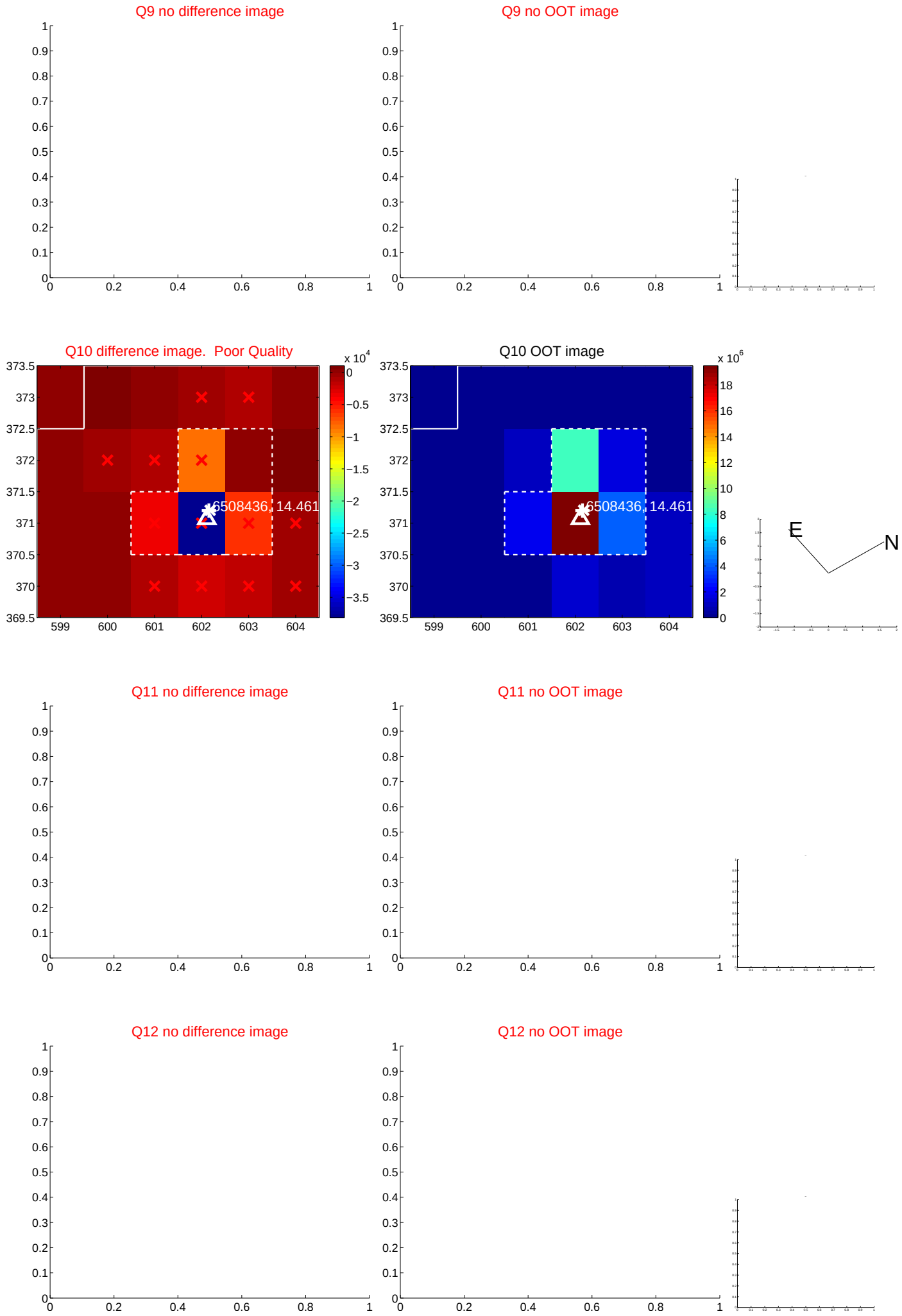








white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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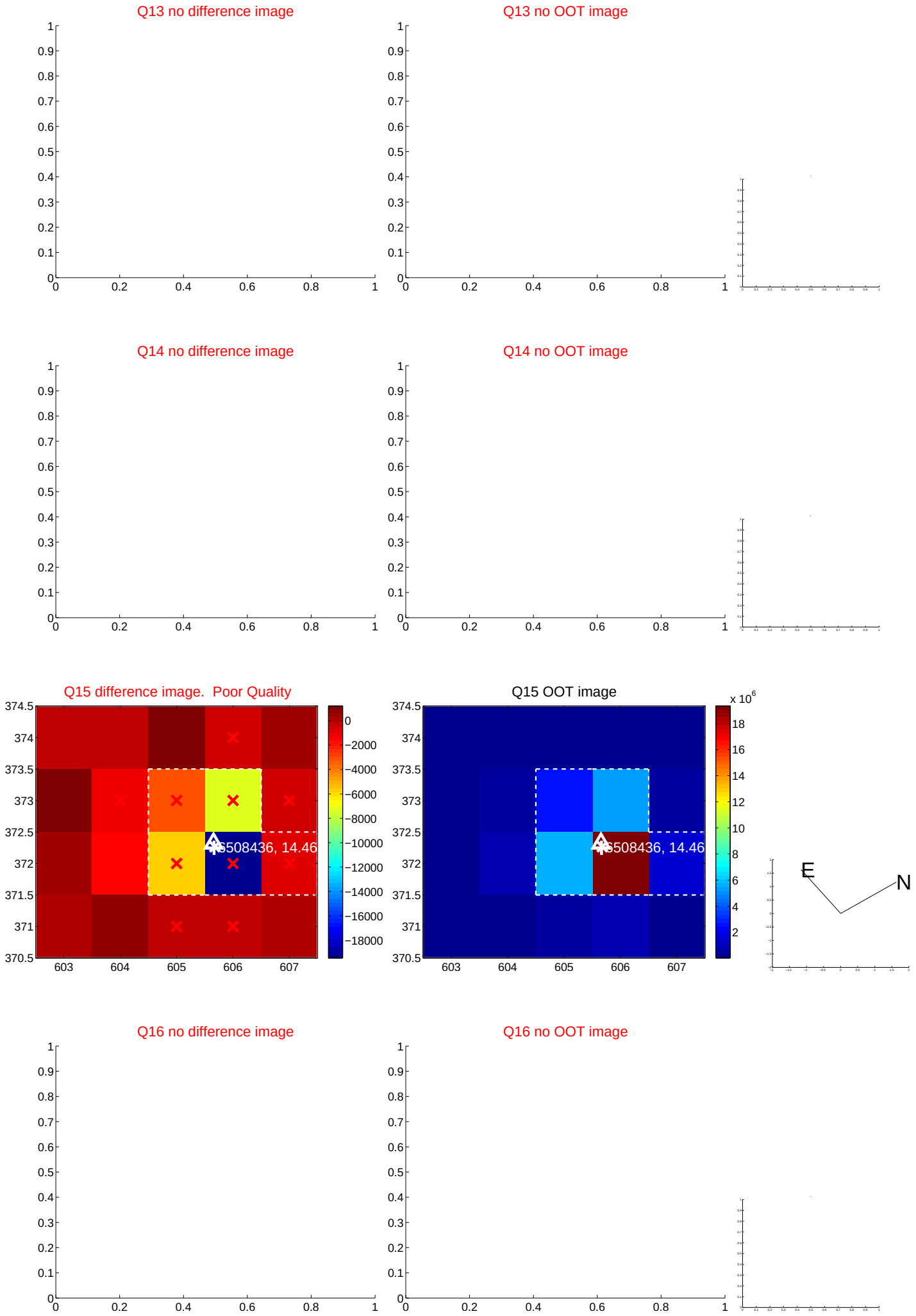
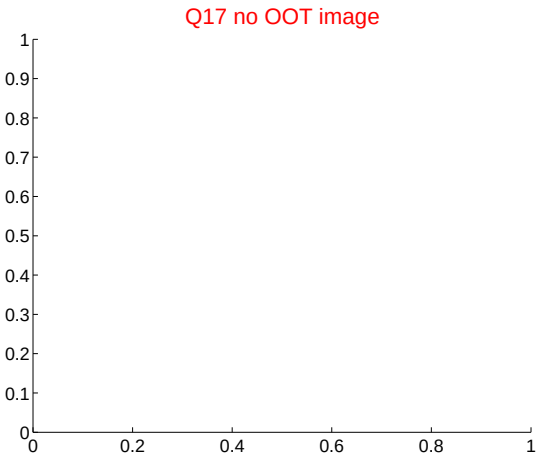
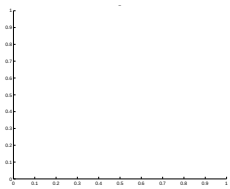
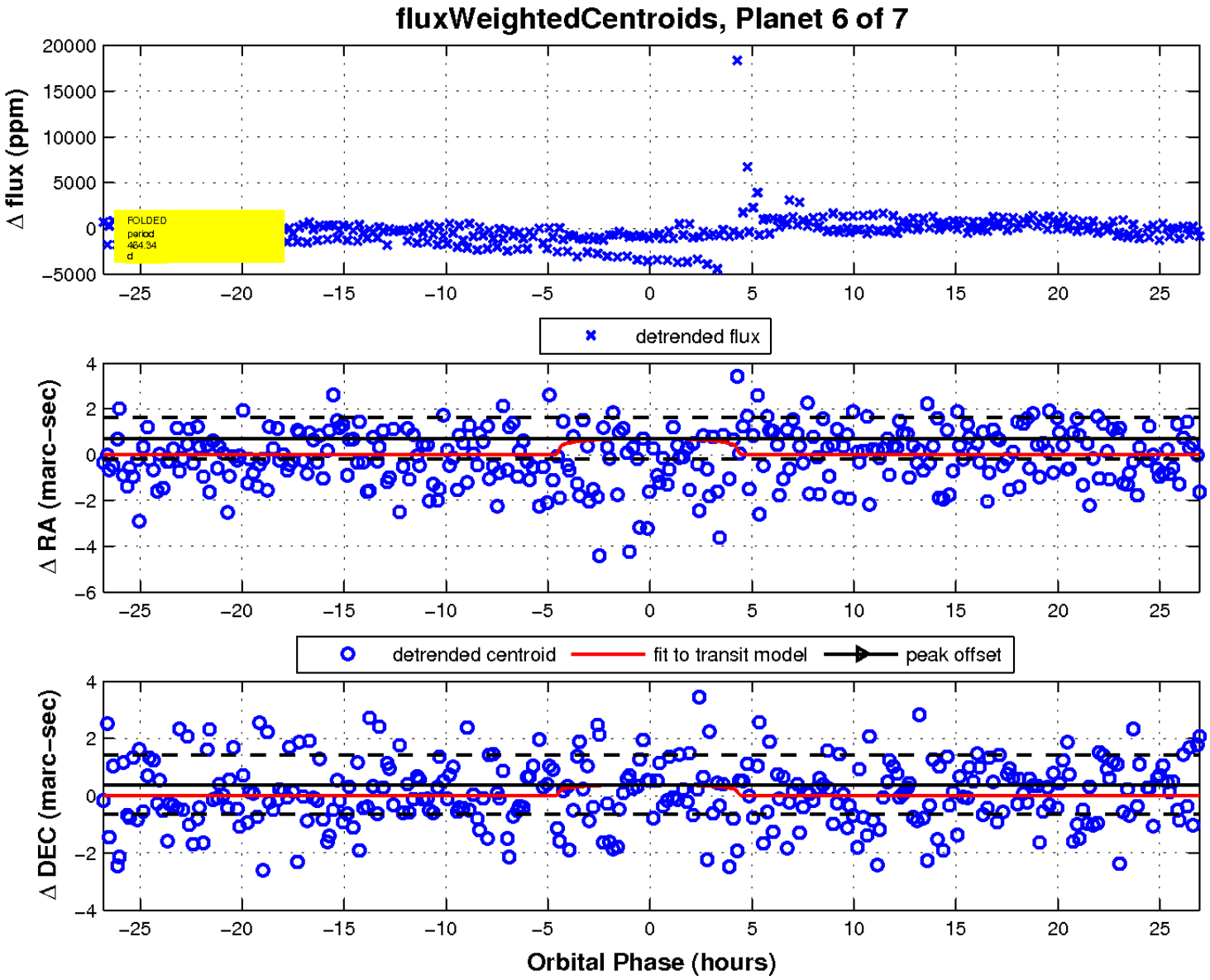


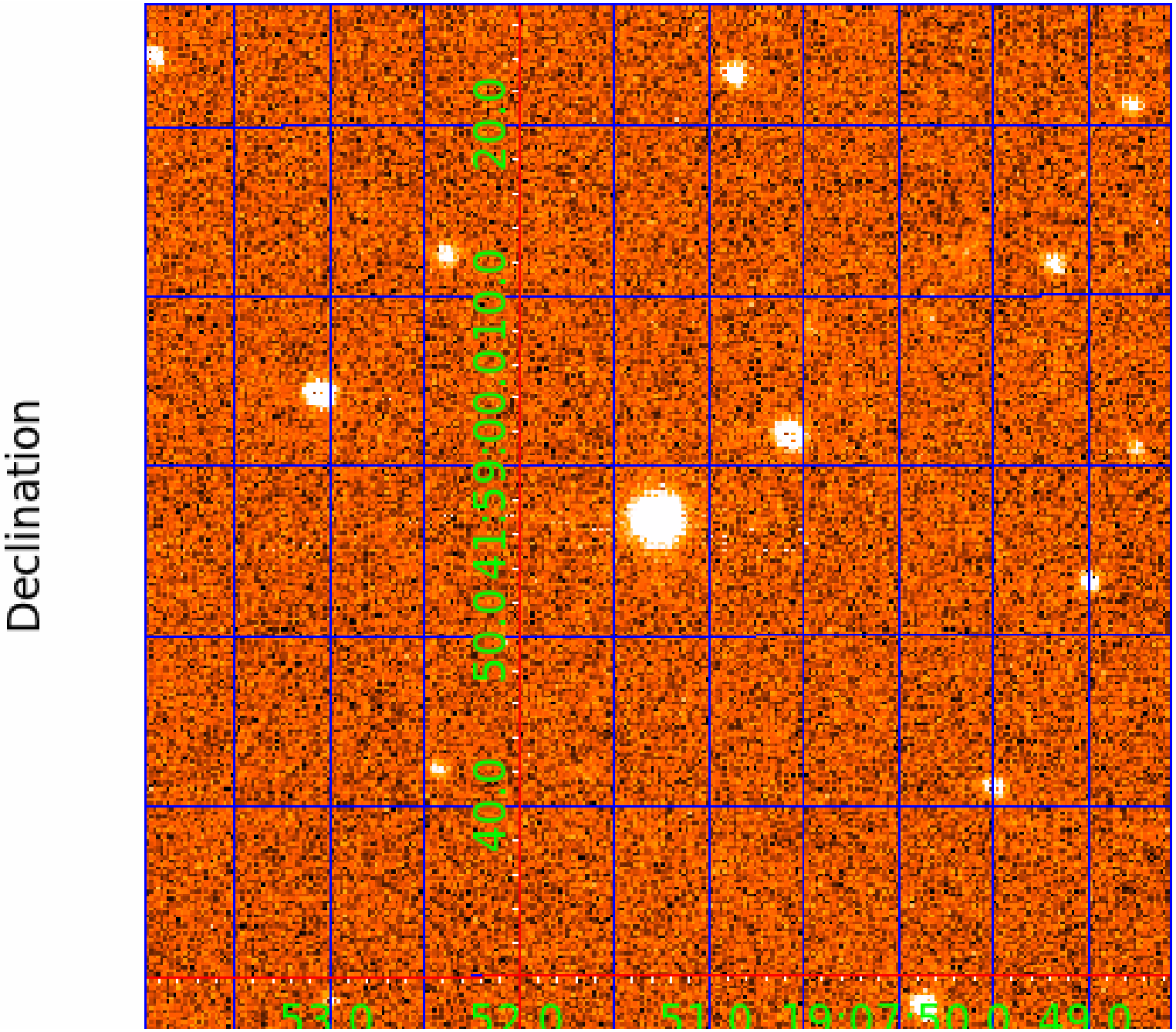
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image



KIC 006508436

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 ($S_\oplus$)
006508436-01	OBS	No	336.785851	334.906102	996.7	2.958	16.4	6.1	0.83	5706	2.65	0.78
006508436-02	OBS	No	518.432935	311.515903	1109.7	12.659	12.2	5.6	0.83	5706	2.83	0.44
006508436-03	OBS	No	513.645209	173.668834	475.9	12.000	12.0	-1.0	0.83	5706	1.80	0.44
006508436-04	OBS	No	304.366537	380.965326	1023.3	3.033	11.4	6.3	0.83	5706	2.73	0.89
006508436-05	OBS	No	171.592974	226.839000	446.9	3.234	11.5	4.5	0.83	5706	1.83	1.91
006508436-06	OBS	No	464.338263	511.146777	409.1	8.995	11.3	2.2	0.83	5706	1.72	0.51
006508436-07	OBS	No	498.345043	506.977086	1005.2	5.496	11.7	5.7	0.83	5706	2.81	0.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006508436-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
006508436-04	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—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006508436-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006508436-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

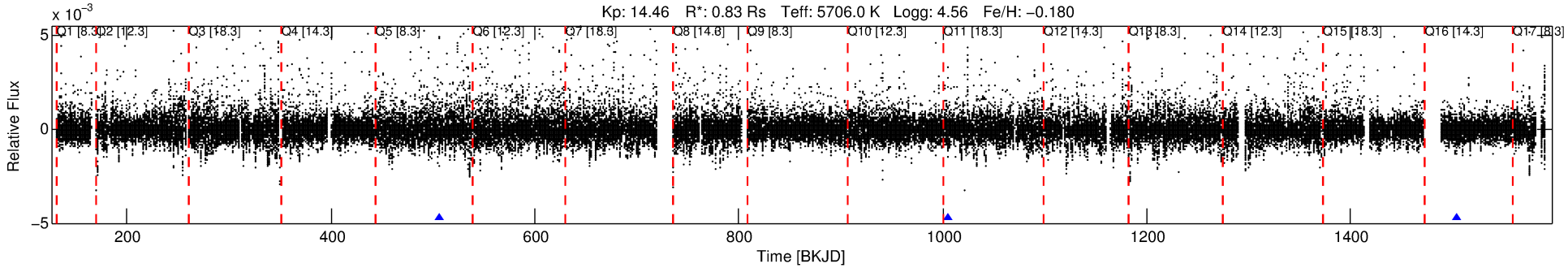
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

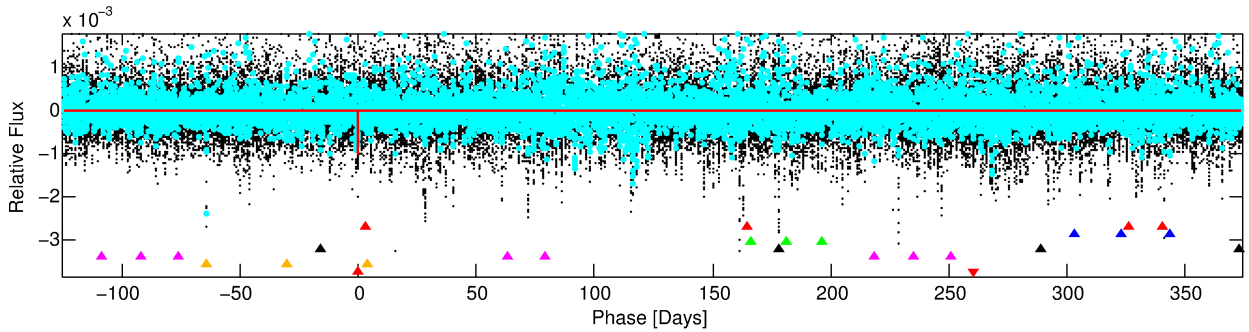
Ephemeris Match Information For 006508436-07

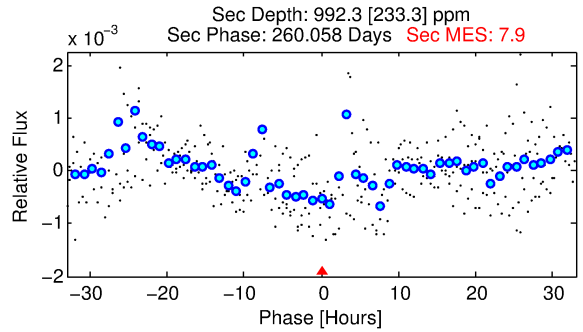
No Significant Match Found

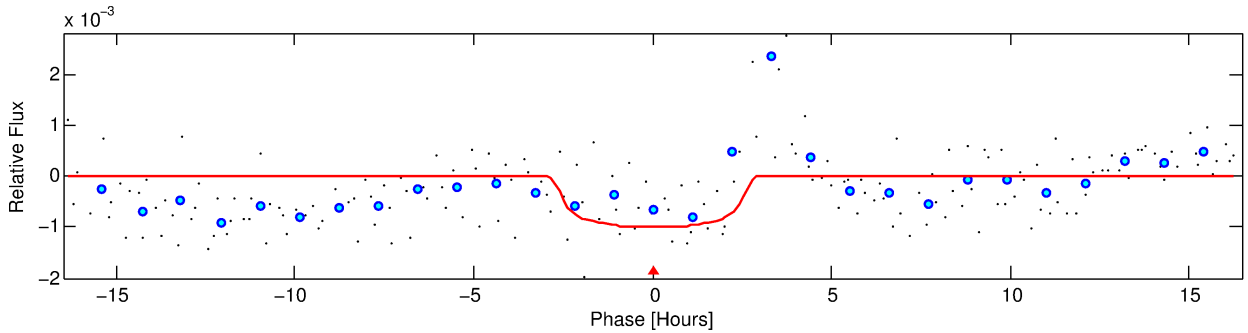
DV One-Page Summary

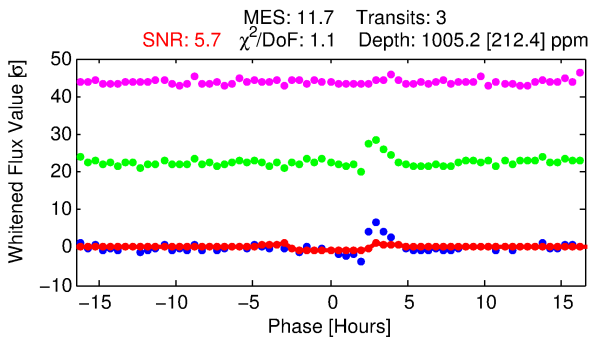
KIC: 6508436 Candidate: 7 of 7 Period: 498.345 d

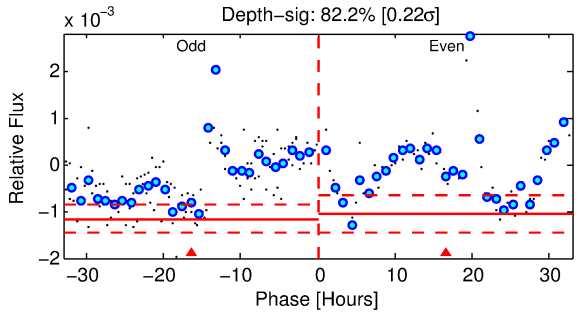


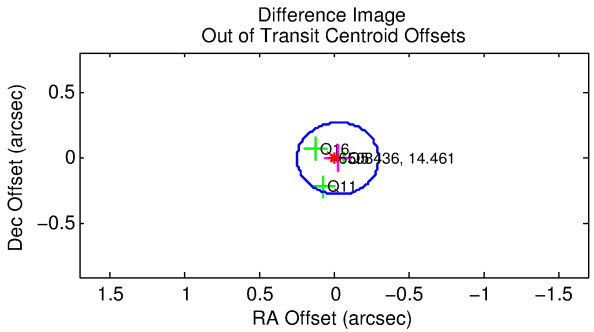












DV Fit Results:

Period = 498.34504 [0.00691] d
Epoch = 506.9771 [0.0099] BKJD
Rp/R* = 0.0308 [0.0212]
a/R* = 536.52 [1553.23]
b = 0.68 [2.30]

Seff = 0.46 [0.14]
Teq = 210 [16] K
Rp = 2.81 [2.04] Re
a = 1.1981 [0.2348] AU

Ag = 99477.24 [141898.77] [0.70σ]
Teffp = 5767 [2020] K [2.75σ]

DV Diagnostic Results:

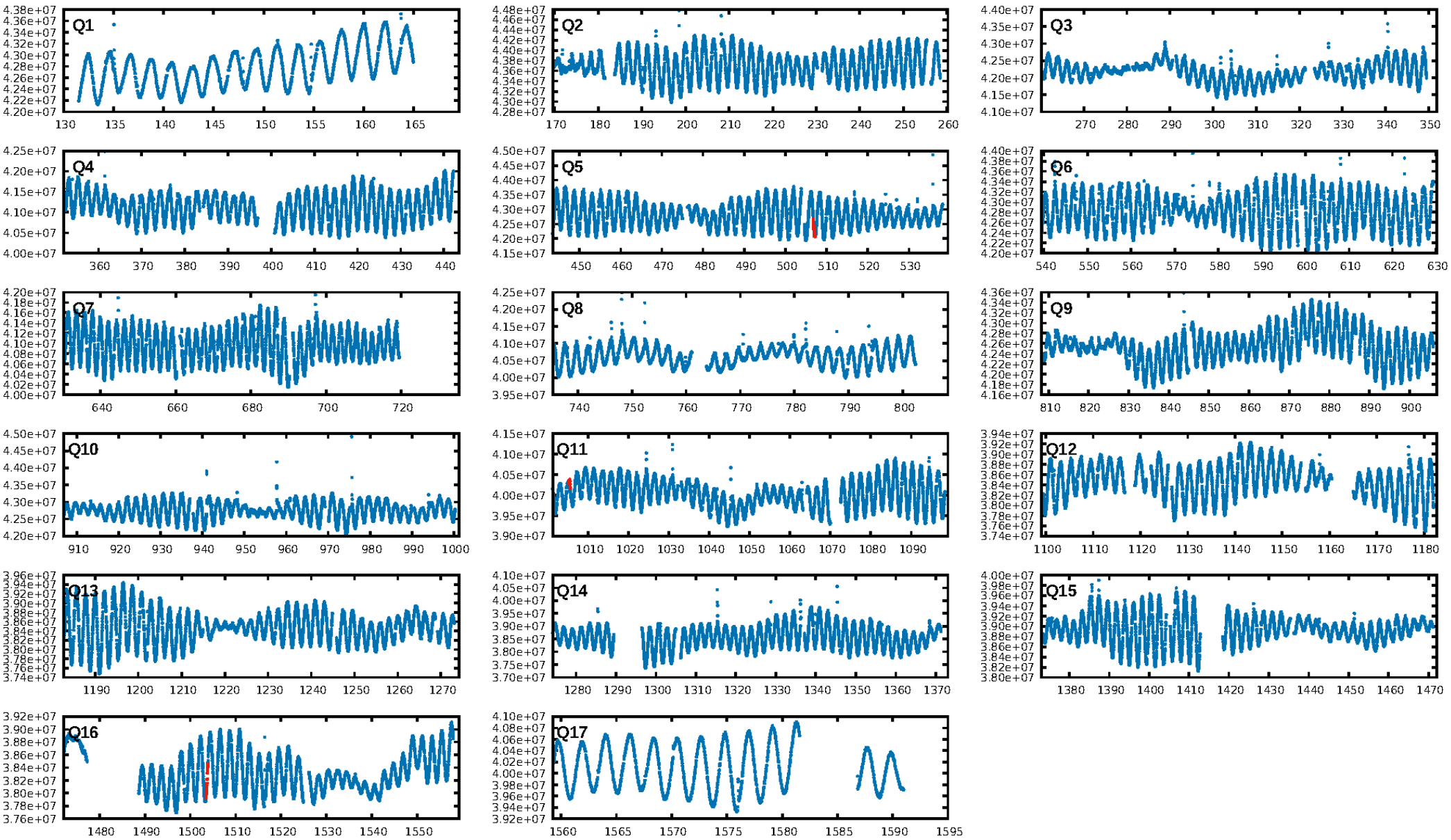
ShortPeriod−sig: 100.0% [77.42σ]
LongPeriod−sig: 100.0% [27.82σ]
ModelChiSquare2−sig: 15.6%
ModelChiSquareGof−sig: 74.7%
Bootstrap−pfa: 8.25e−09
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: 0.176

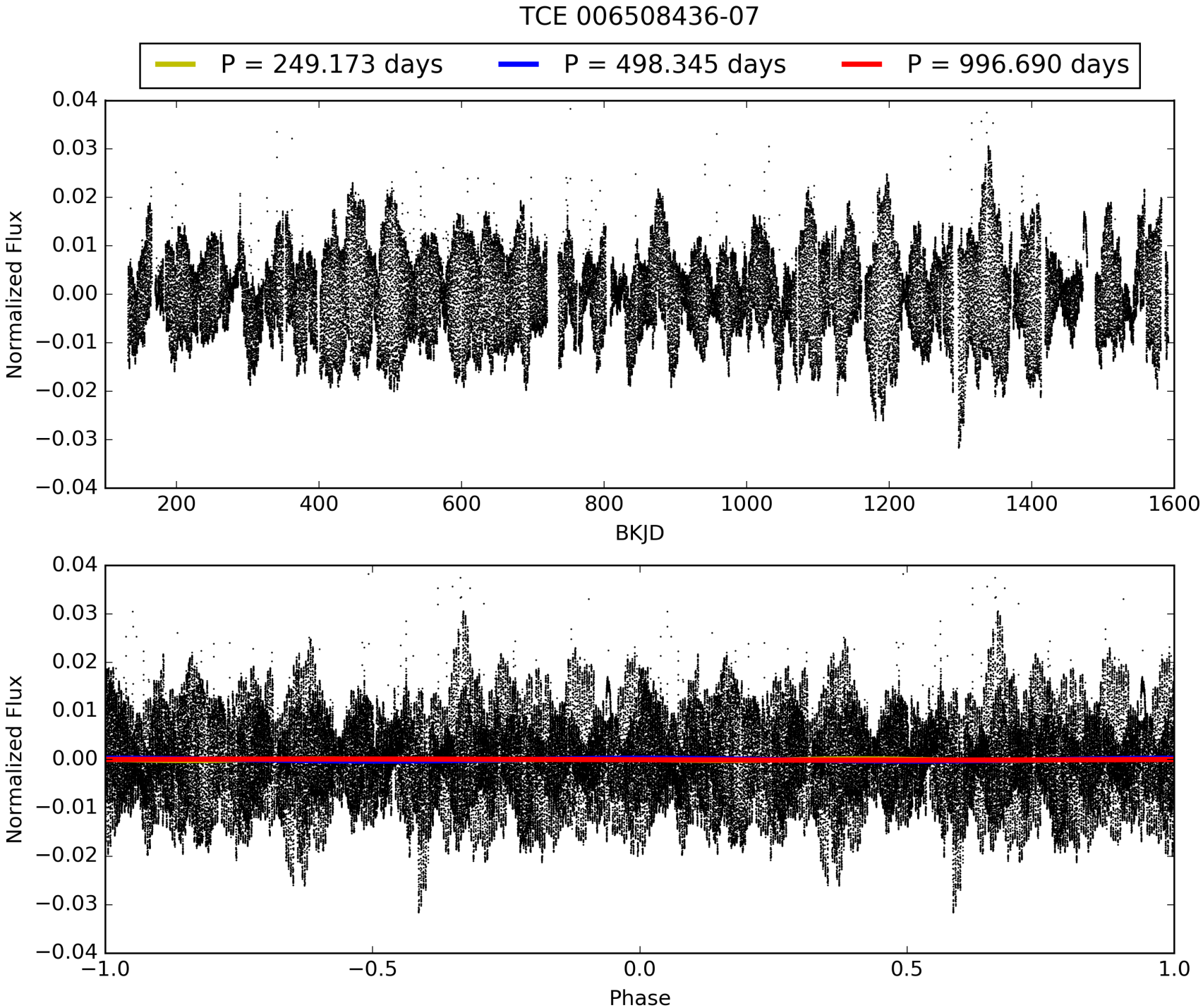
Centroid−sig: 75.8%
Centroid−so: 0.257 arcsec [0.37σ]
OotOffset−rm: 0.029 arcsec [0.32σ]
KicOffset−rm: 0.068 arcsec [0.67σ]
OotOffset−st: 0/1/1/1 [3]
KicOffset−st: 0/1/1/1 [3]
DiffImageQuality−fgm: 0.67 [2/3]
DiffImageOverlap−fno: 1.00 [3/3]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:03:44 Z

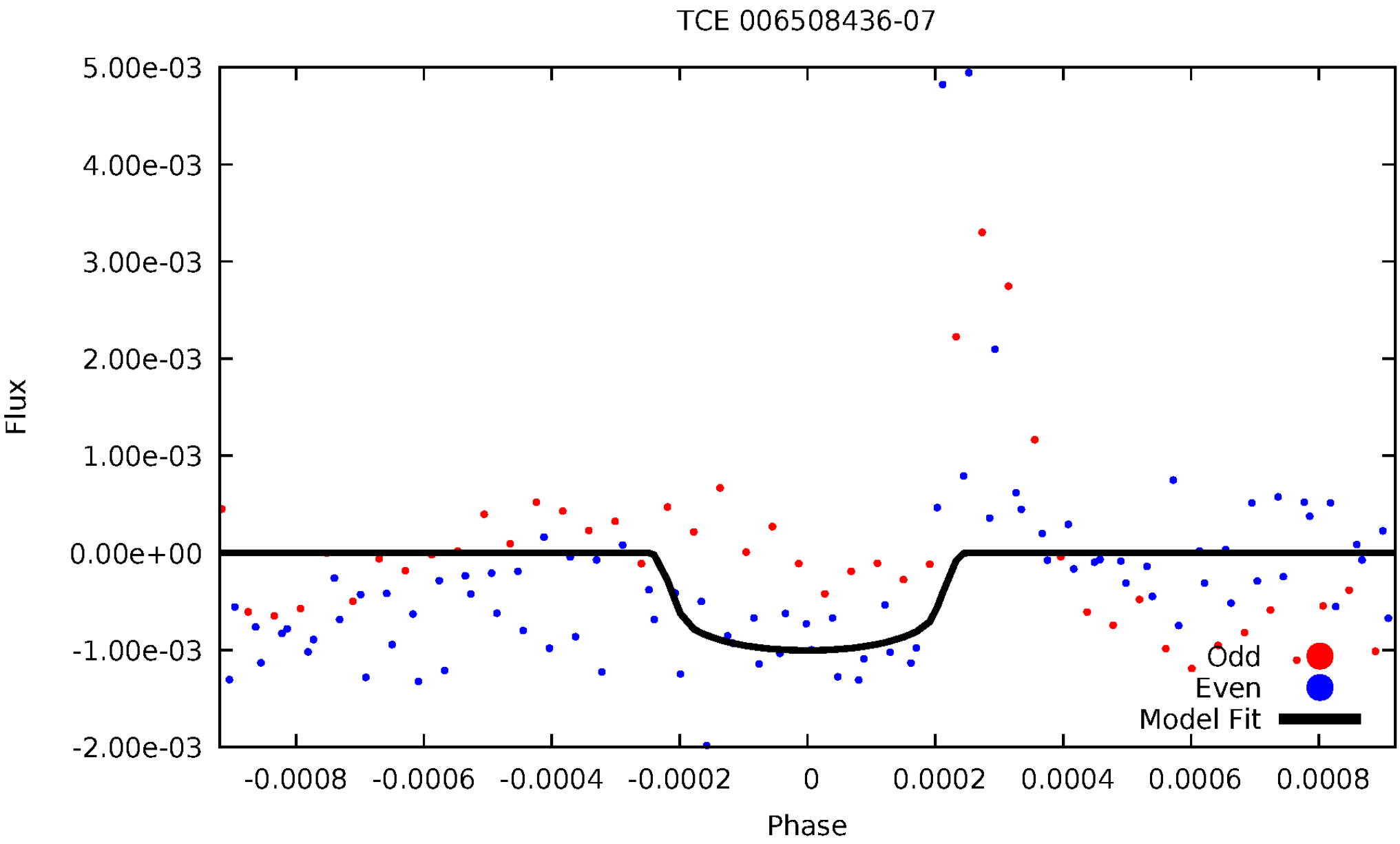
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006508436-07, PDC Light Curves

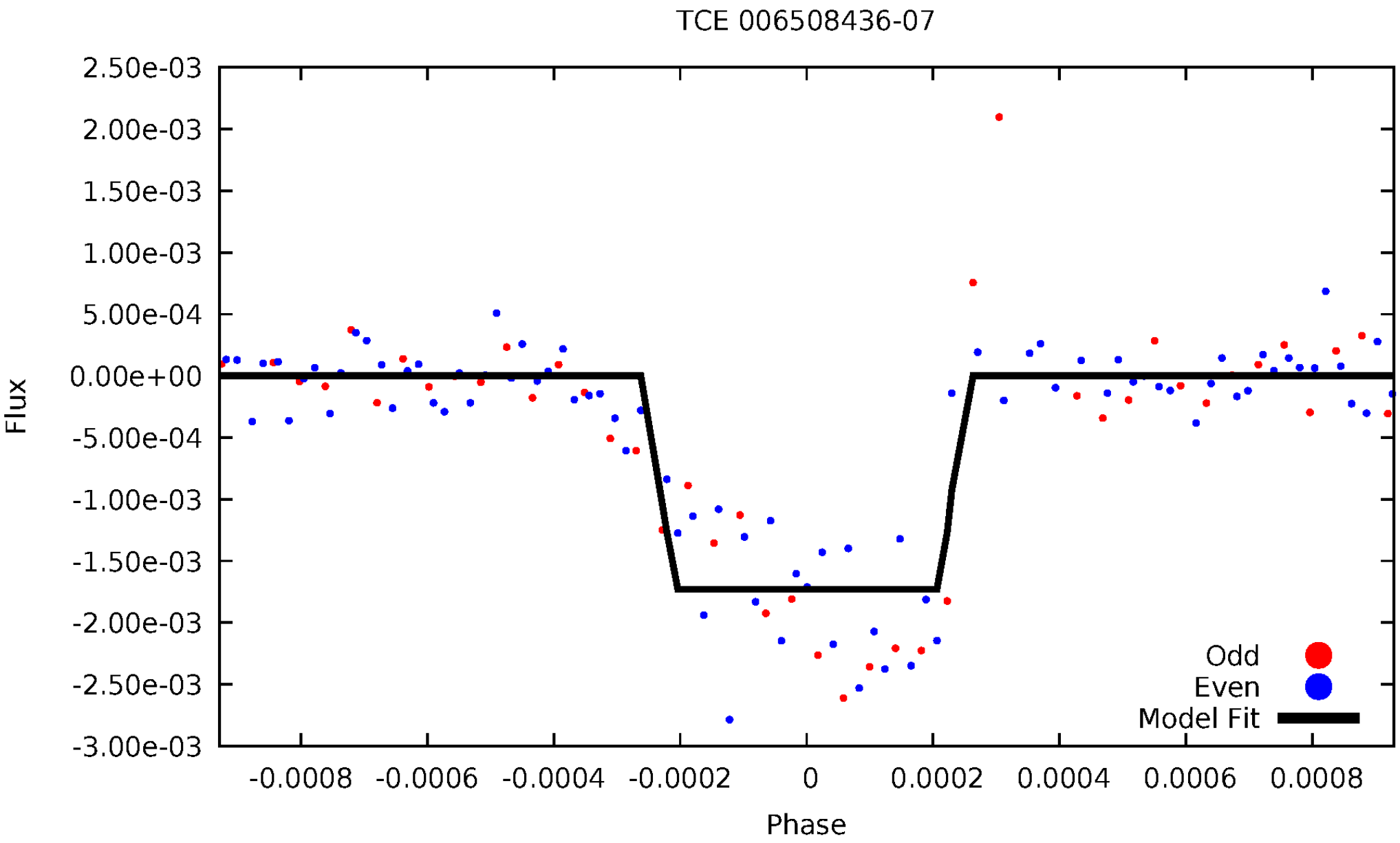



TCE 006508436-07
P = 249.173 days
P = 498.345 days
P = 996.690 days
Normalized Flux
BKJD
Normalized Flux
Phase

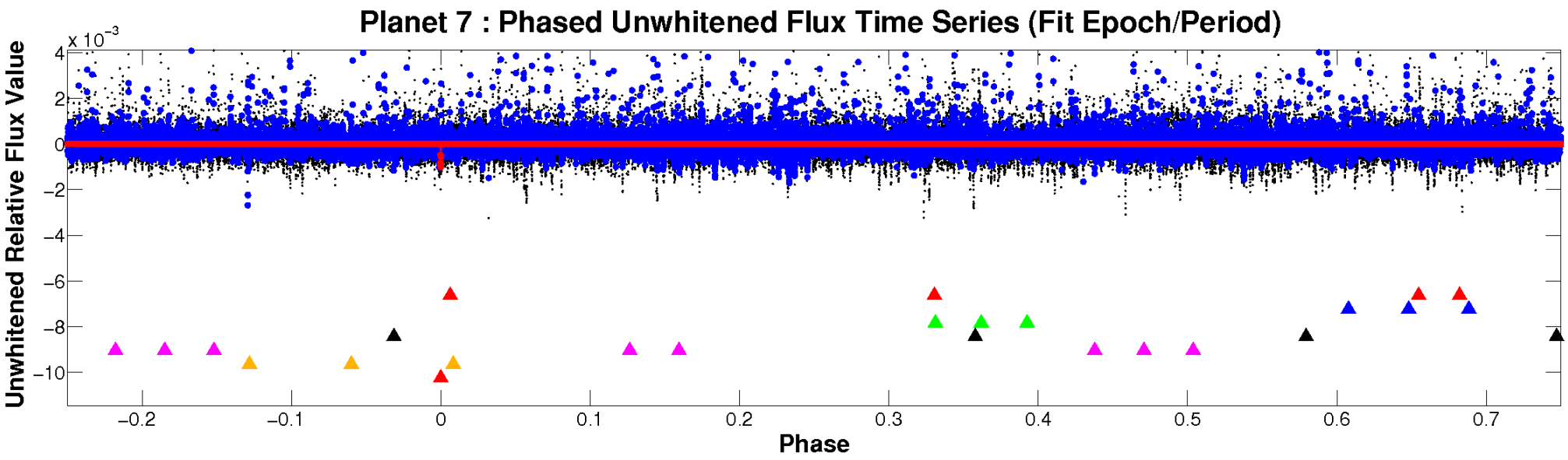
DV Odd/Even

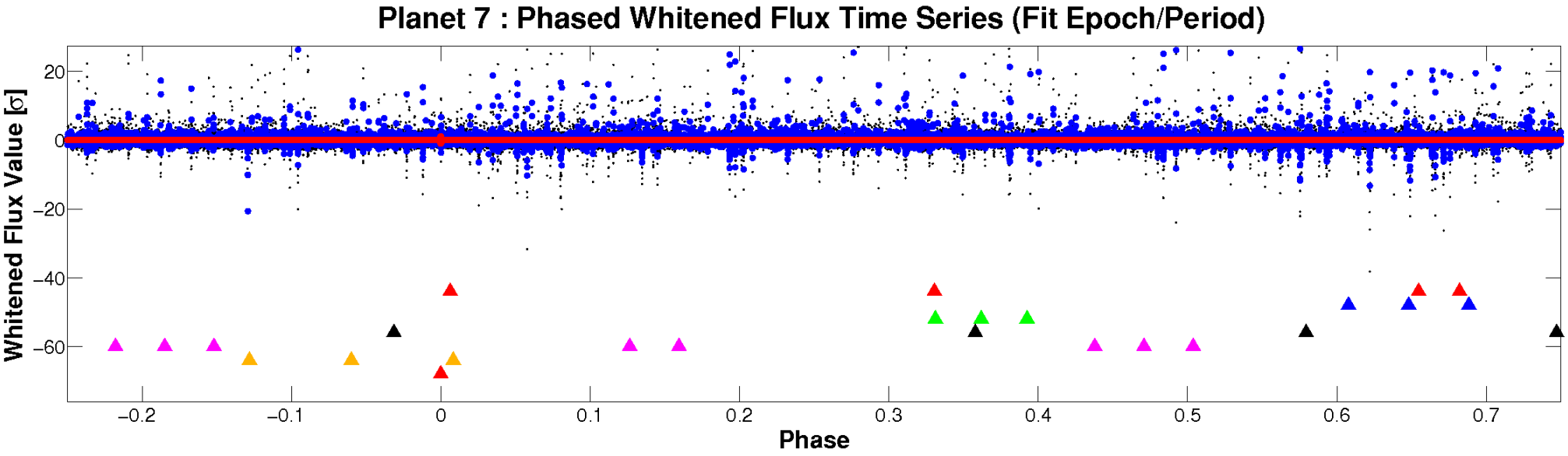

TCE 006508436-07
5.00e-03
4.00e-03
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
Flux
-0.0008
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
0.0008
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006508436-07
2.50e-03
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
-2.50e-03
-3.00e-03
Flux
-0.0008
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
0.0008
Phase
Odd
Even
Model Fit

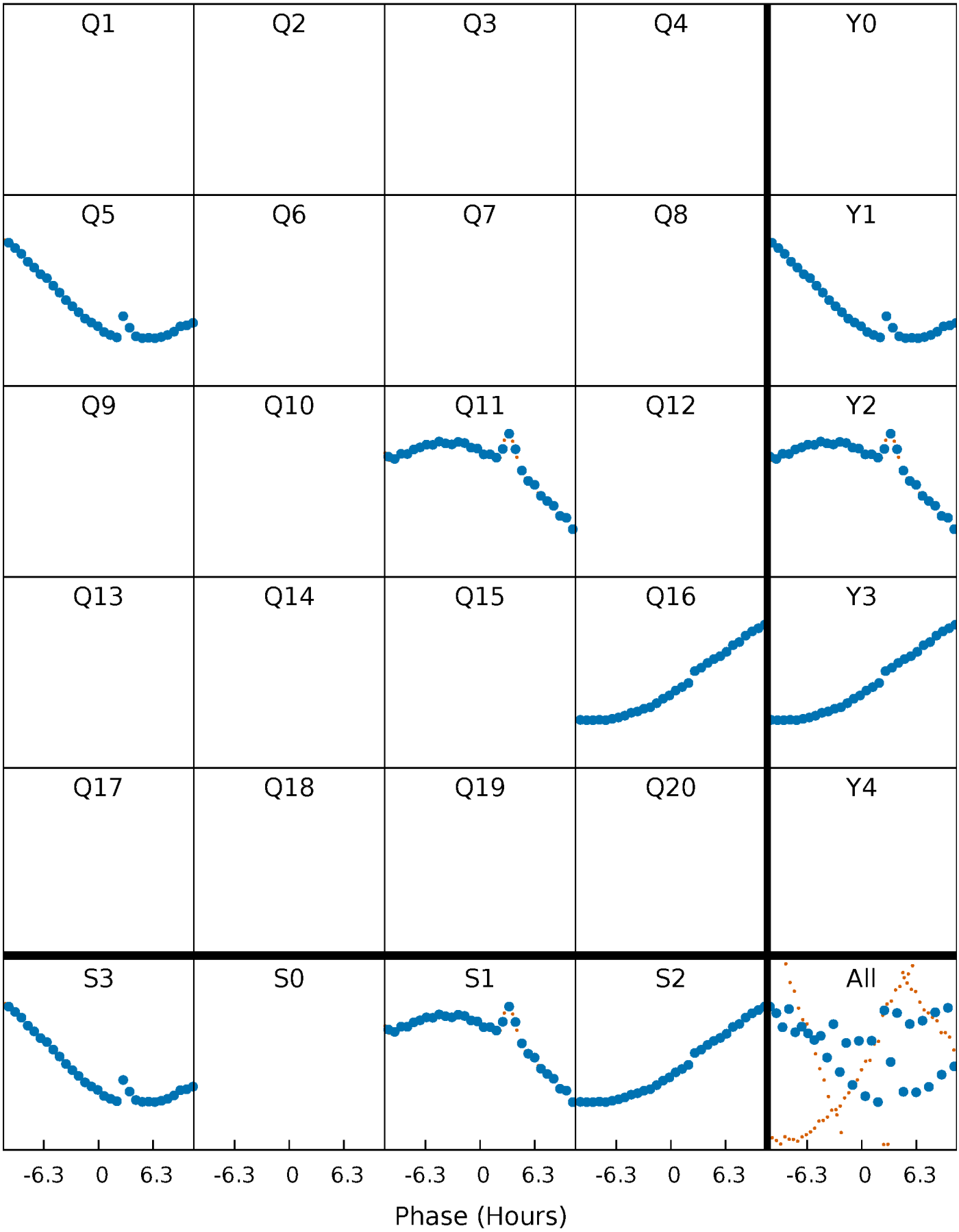
Non-Whitened Vs. Whitened Light Curve





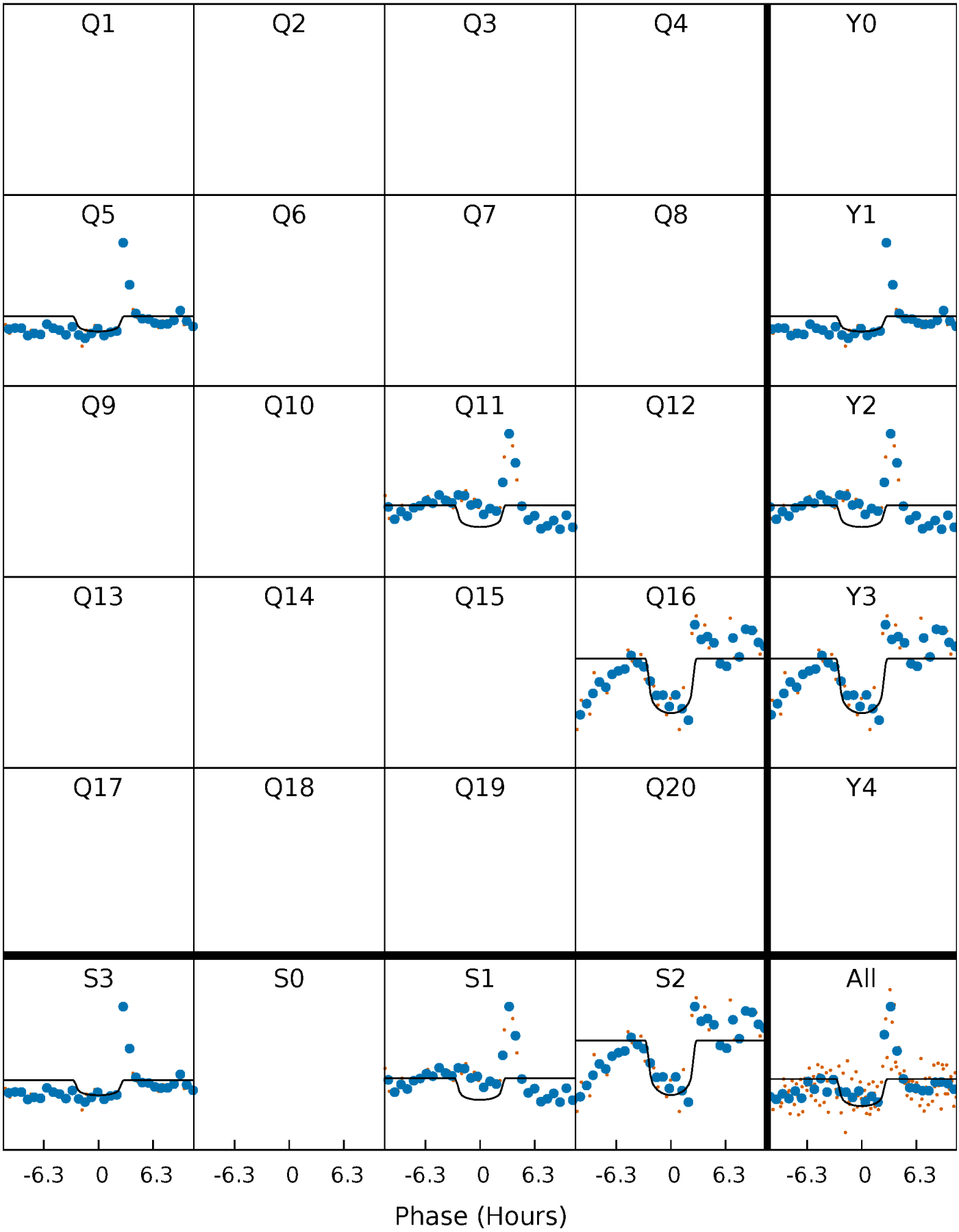
PDC Quarter-Phased Transit Curves

TCE 006508436-07 P=498.345043 Days T_0=506.977086 (BKJD)



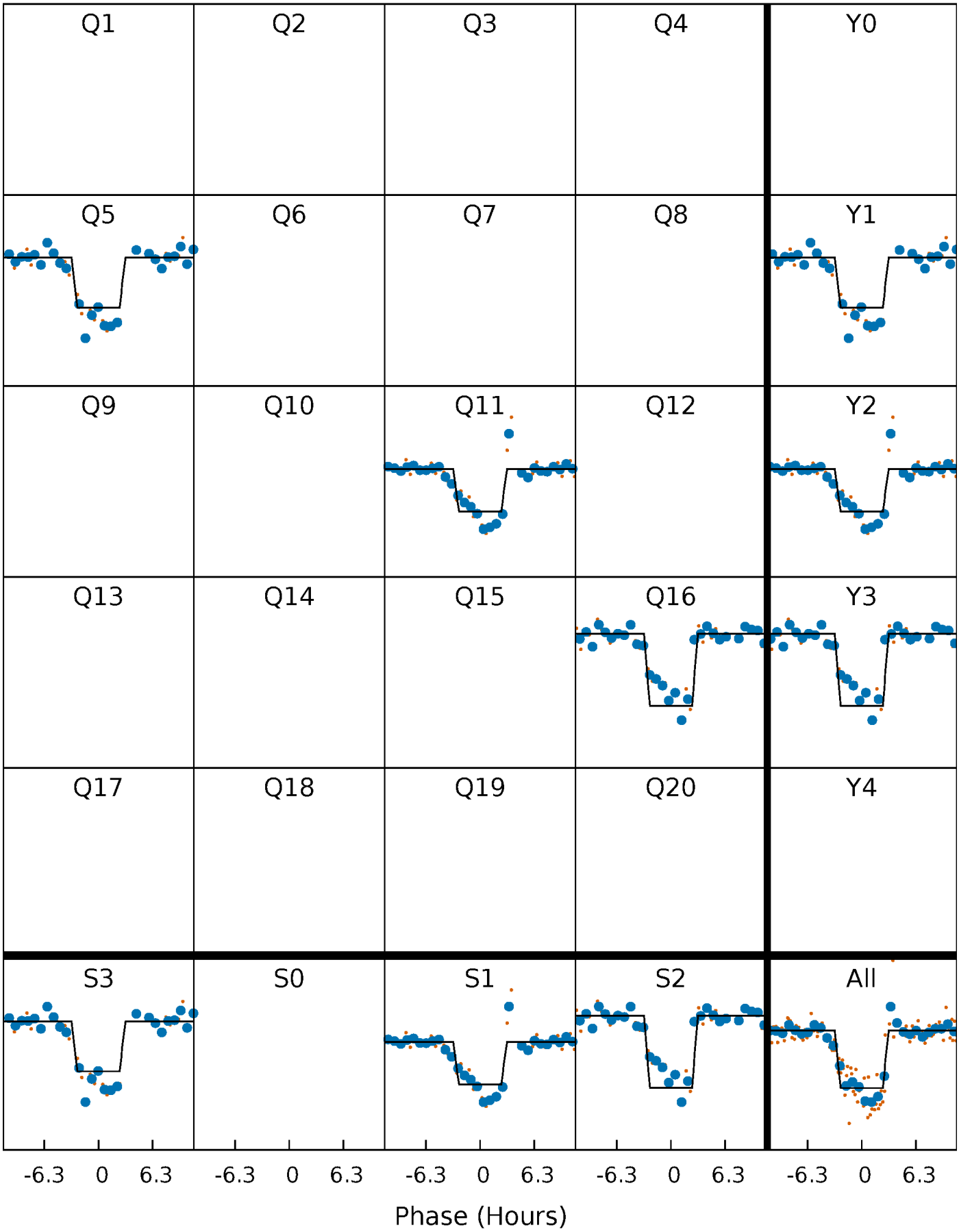
DV Quarter-Phased Transit Curves

TCE 006508436-07 P=498.345043 Days T_0=506.977086 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

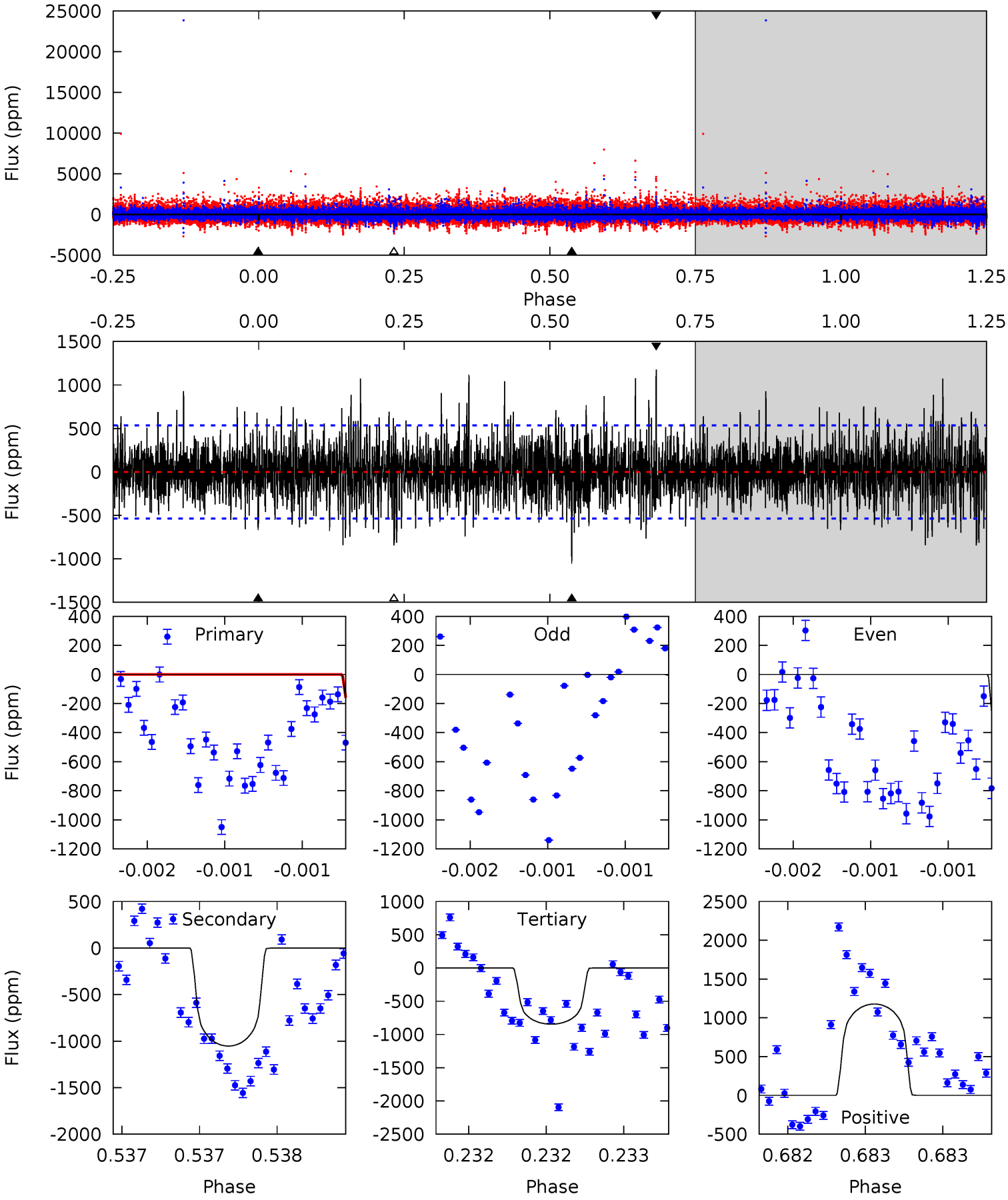
TCE 006508436-07 P=498.347284 Days T_0=506.959313 (BKJD)



DV Model-Shift Uniqueness Test

006508436-07, P = 498.345043 Days, E = 8.632043 Days

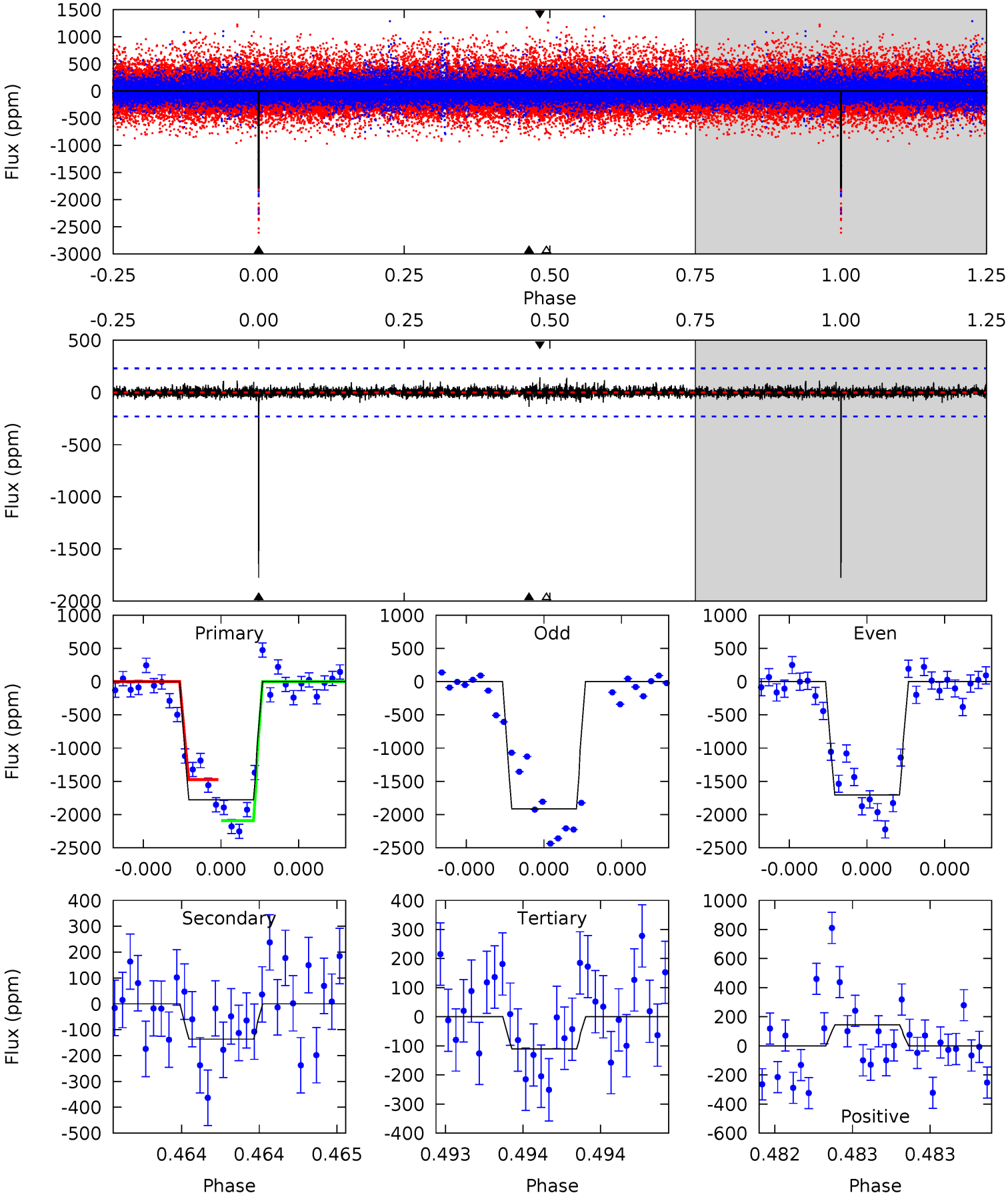
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.94	11.0	8.80	12.3	5.57	3.48	2.44	-1.85	-5.31	2.16	-1.30	4.08	0.71	0.53	0.69



Alt Model-Shift Uniqueness Test

006508436-07, P = 498.347284 Days, E = 8.612029 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.0	3.30	2.67	3.49	5.58	3.49	0.55	40.3	39.5	0.63	-0.19	2.31	0.94	0.08	7.37



Stellar Parameters For KIC 006508436

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	5706^{+152}_{-152}	$4.561^{+0.040}_{-0.160}$	$-0.180^{+0.300}_{-0.300}$	$0.834^{+0.191}_{-0.076}$	$0.930^{+0.092}_{-0.112}$	$2.255^{+0.469}_{-0.974}$
	+3%/-3%	+1%/-4%	+167%/-167%	+23%/-9%	+10%/-12%	+21%/-43%
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 006508436-07 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1053±96	$3.06^{+2.20}_{-1.64}$	300^{+16}_{-13}	5738^{+3008}_{-1196}	$87030^{+313685}_{-57750}$
Alt.	-137±41	$3.94^{+2.08}_{-1.94}$	298^{+18}_{-11}	3455^{+979}_{-418}	6295^{+20796}_{-3644}

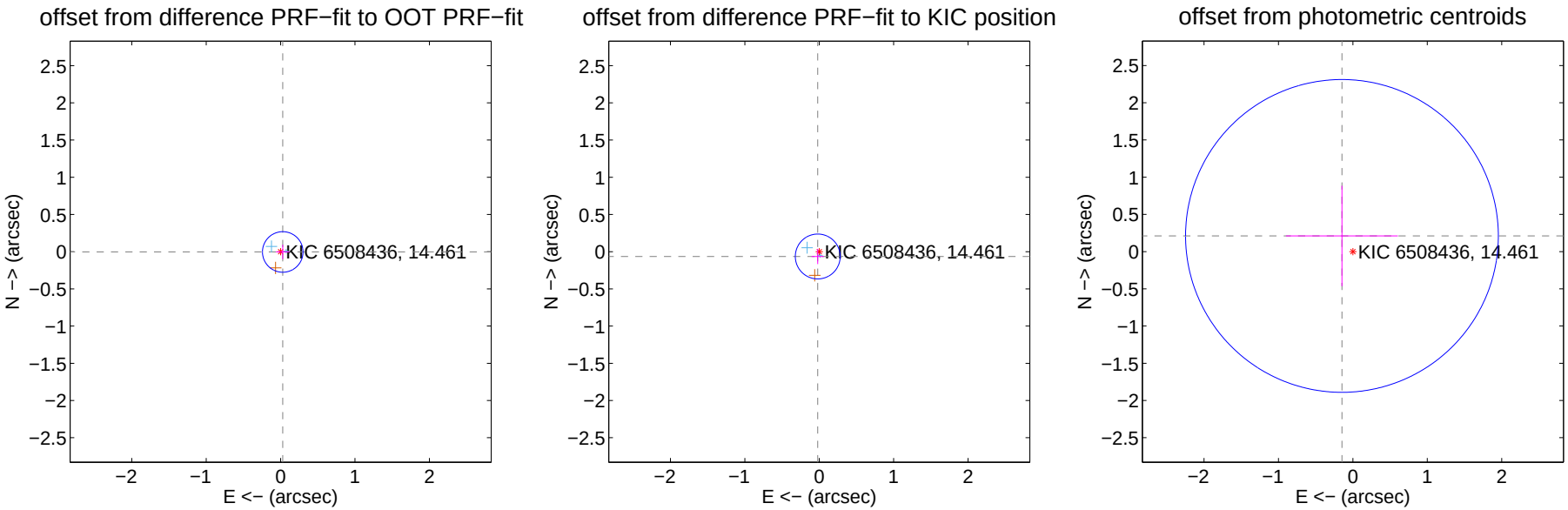
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

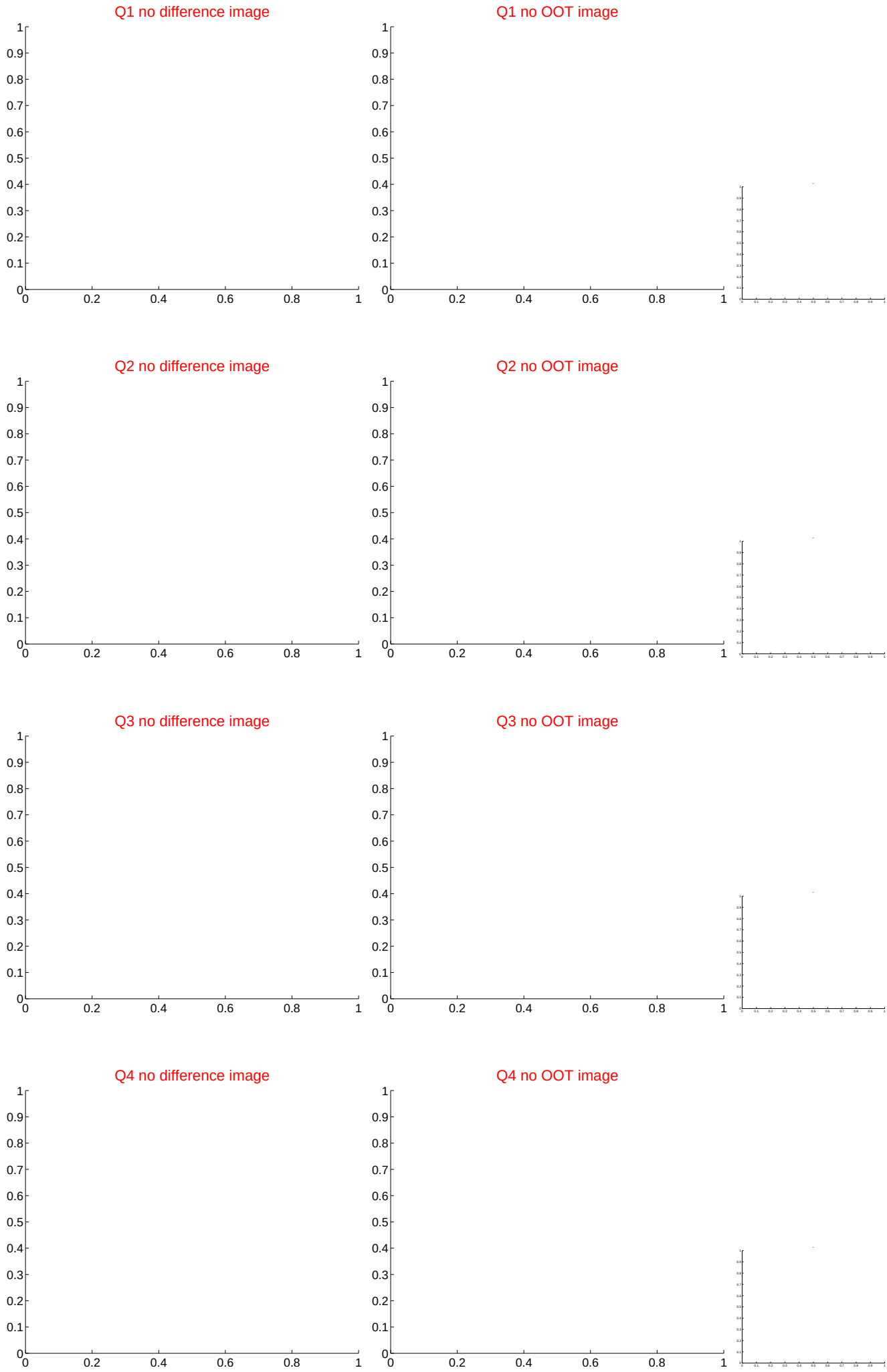
Supplemental centroid analysis for 006508436-07. Kepler magnitude: 14.46. Transit SNR 5.71
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.029 ± 0.091	0.32	-0.029 ± 0.091	-0.004 ± 0.096
PRF-fit source offset from KIC position	0.068 ± 0.101	0.67	0.020 ± 0.082	-0.065 ± 0.102
photometric centroid source offset	0.26 ± 0.70	0.37	0.15 ± 0.75	0.21 ± 0.67

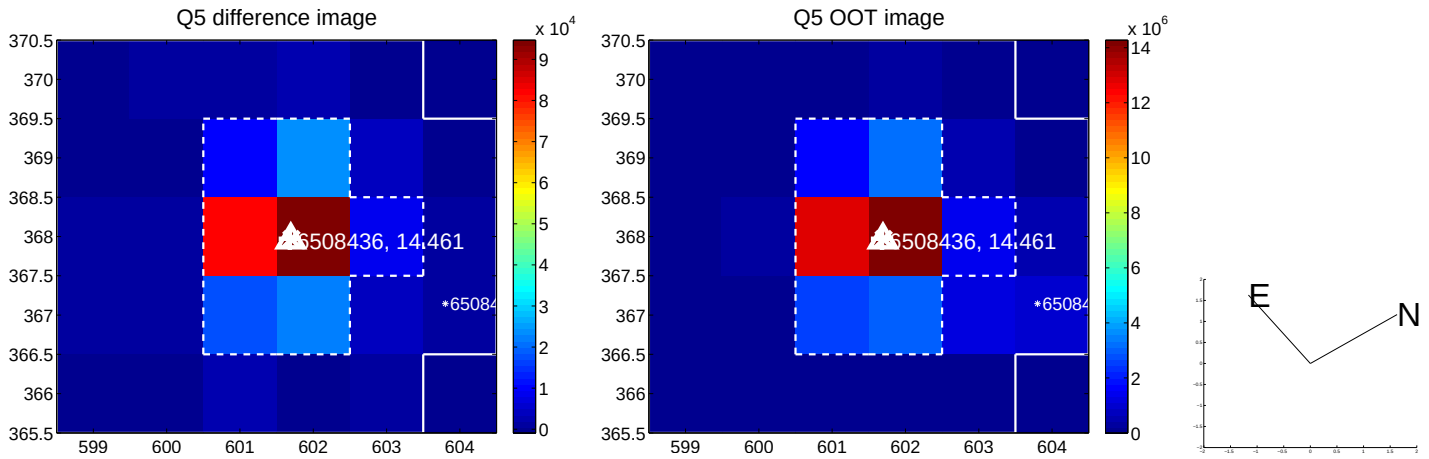


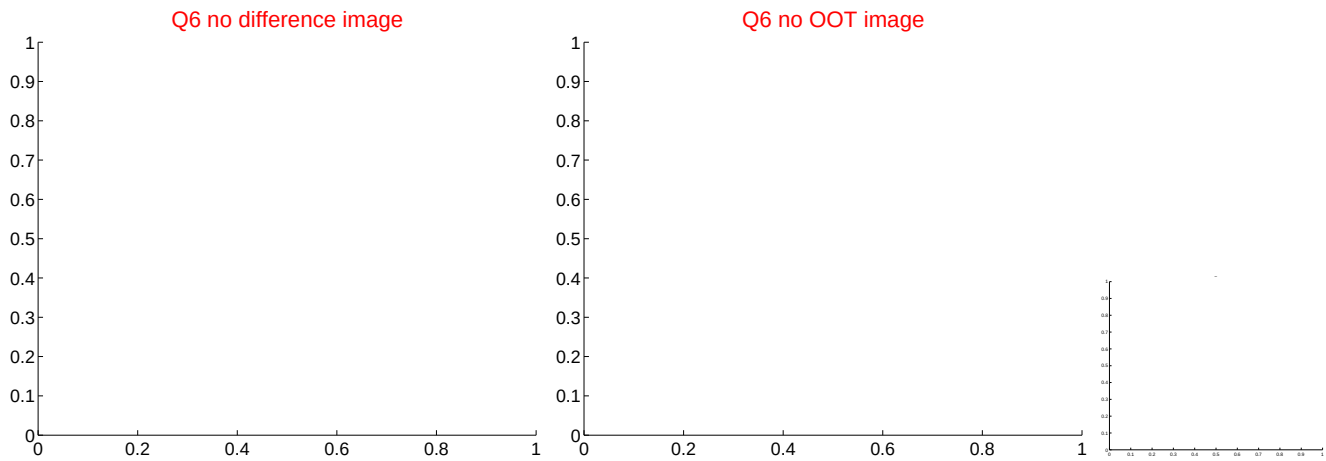
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

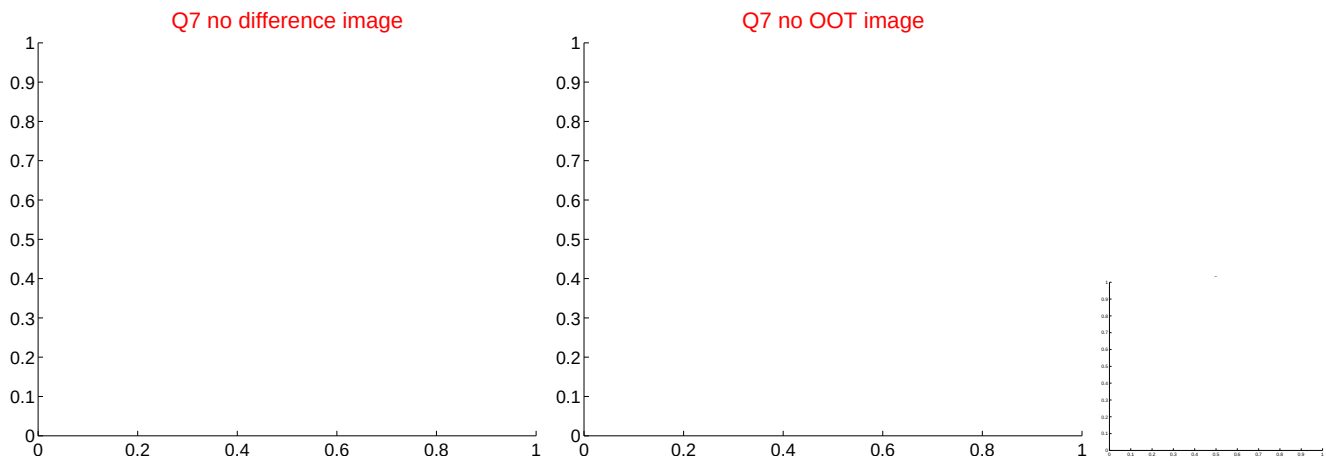
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

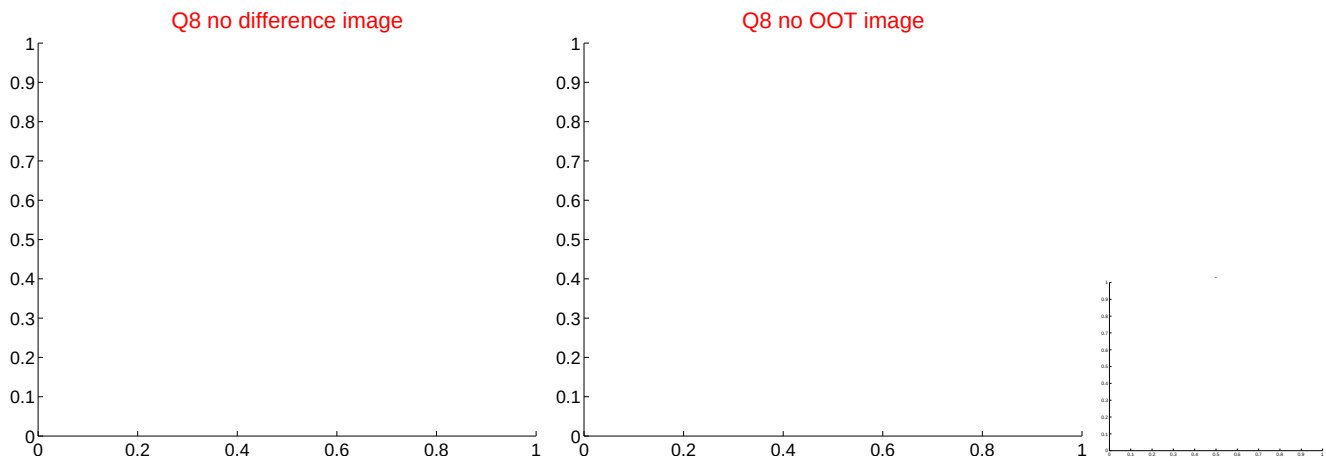


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

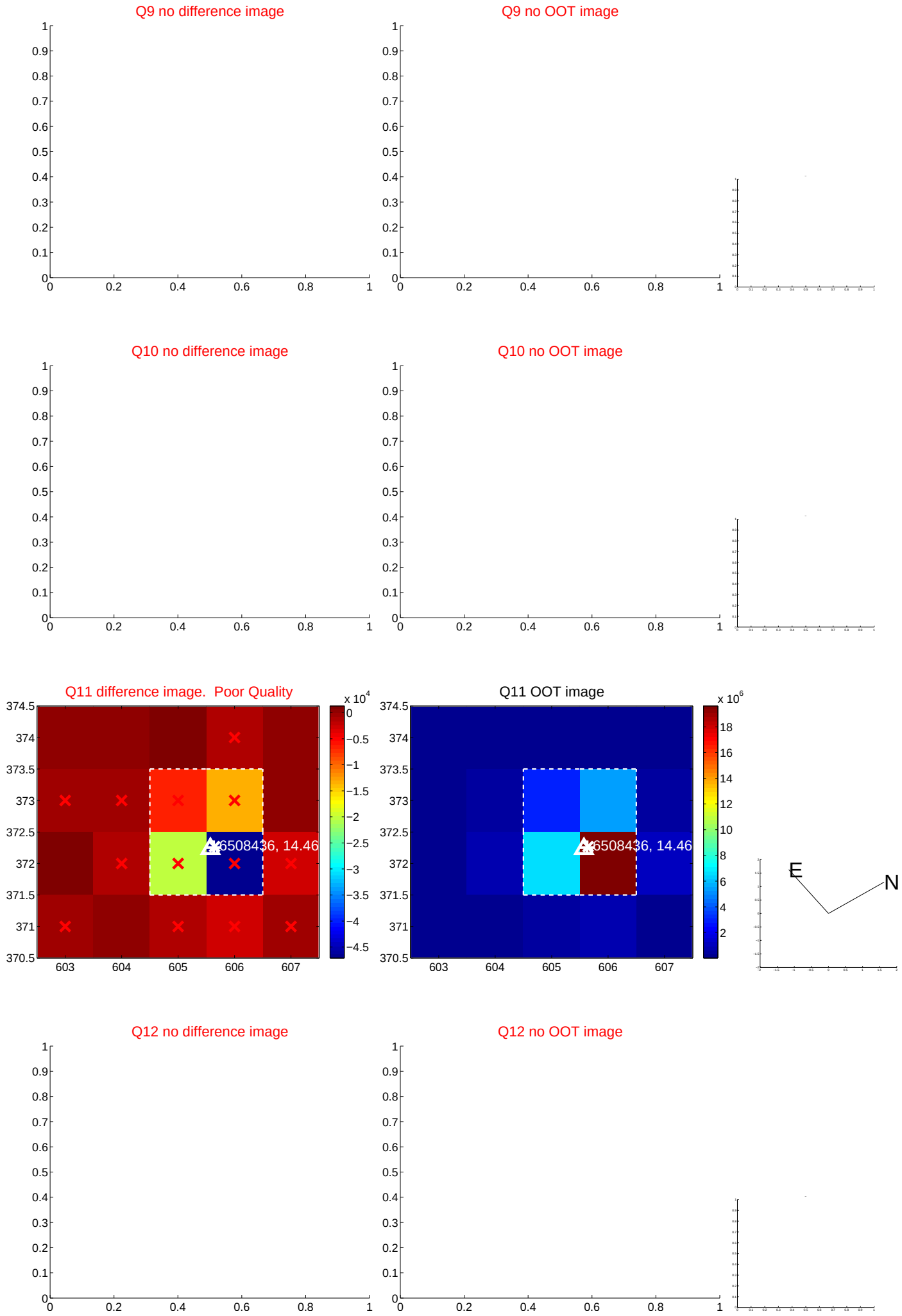




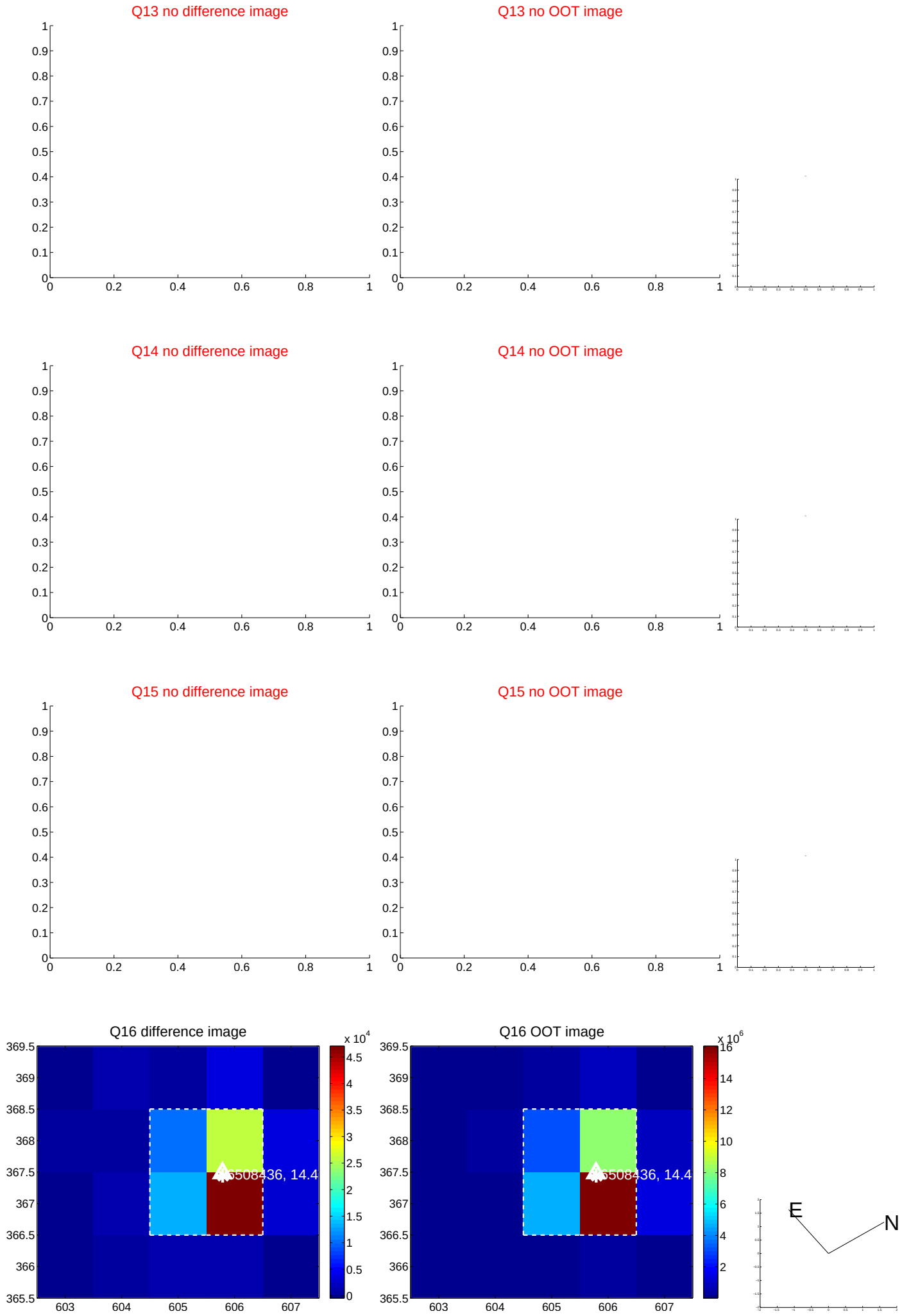




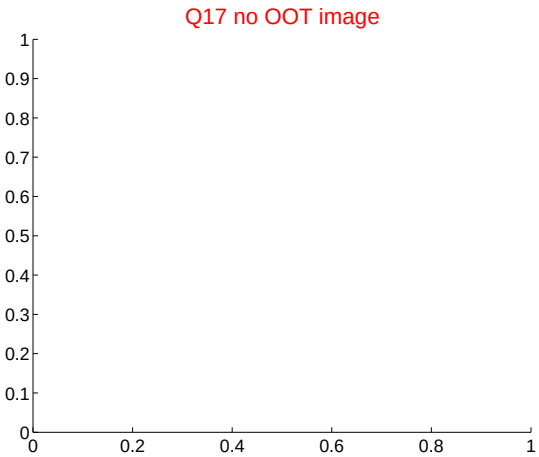
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

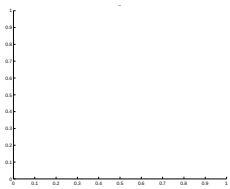


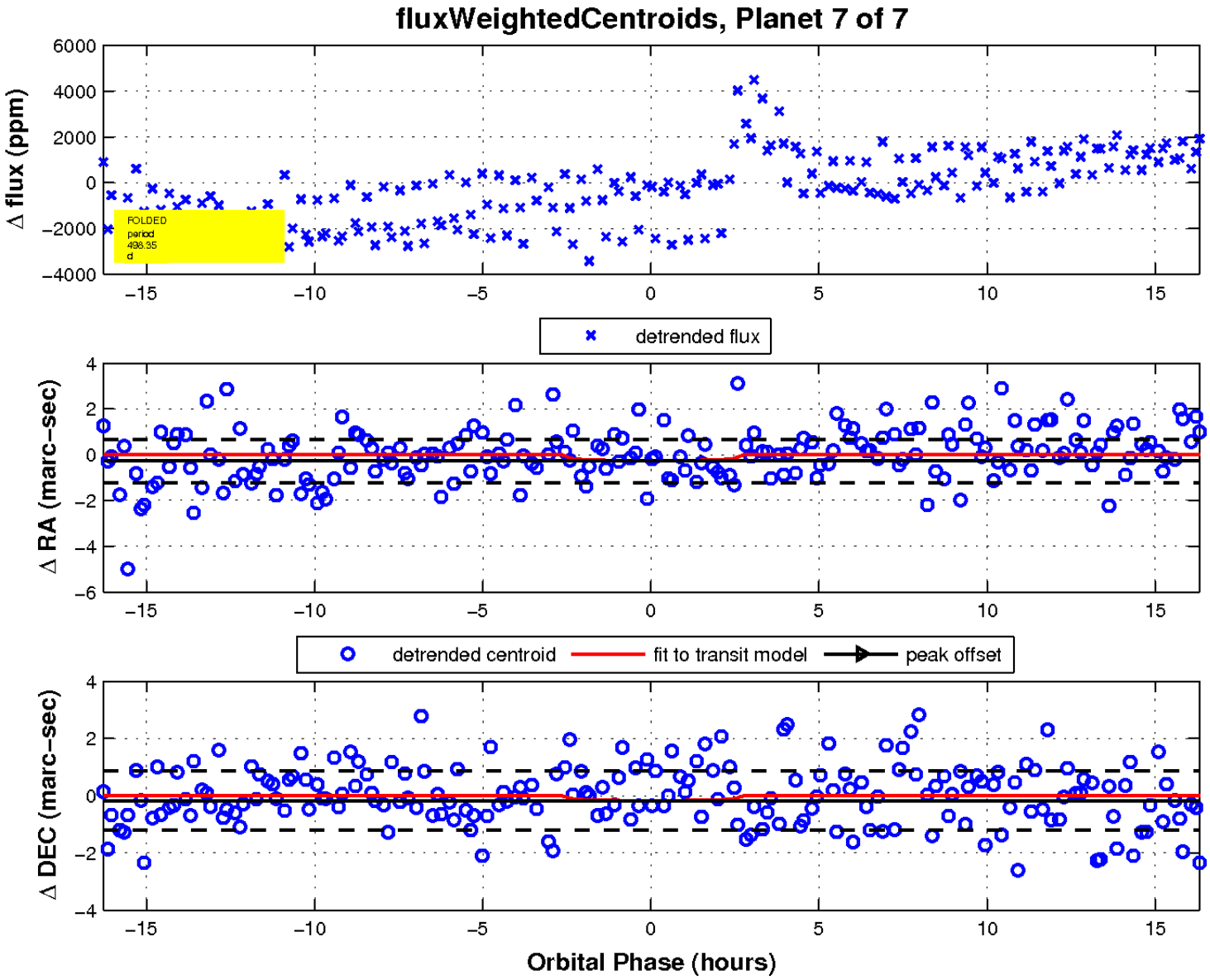
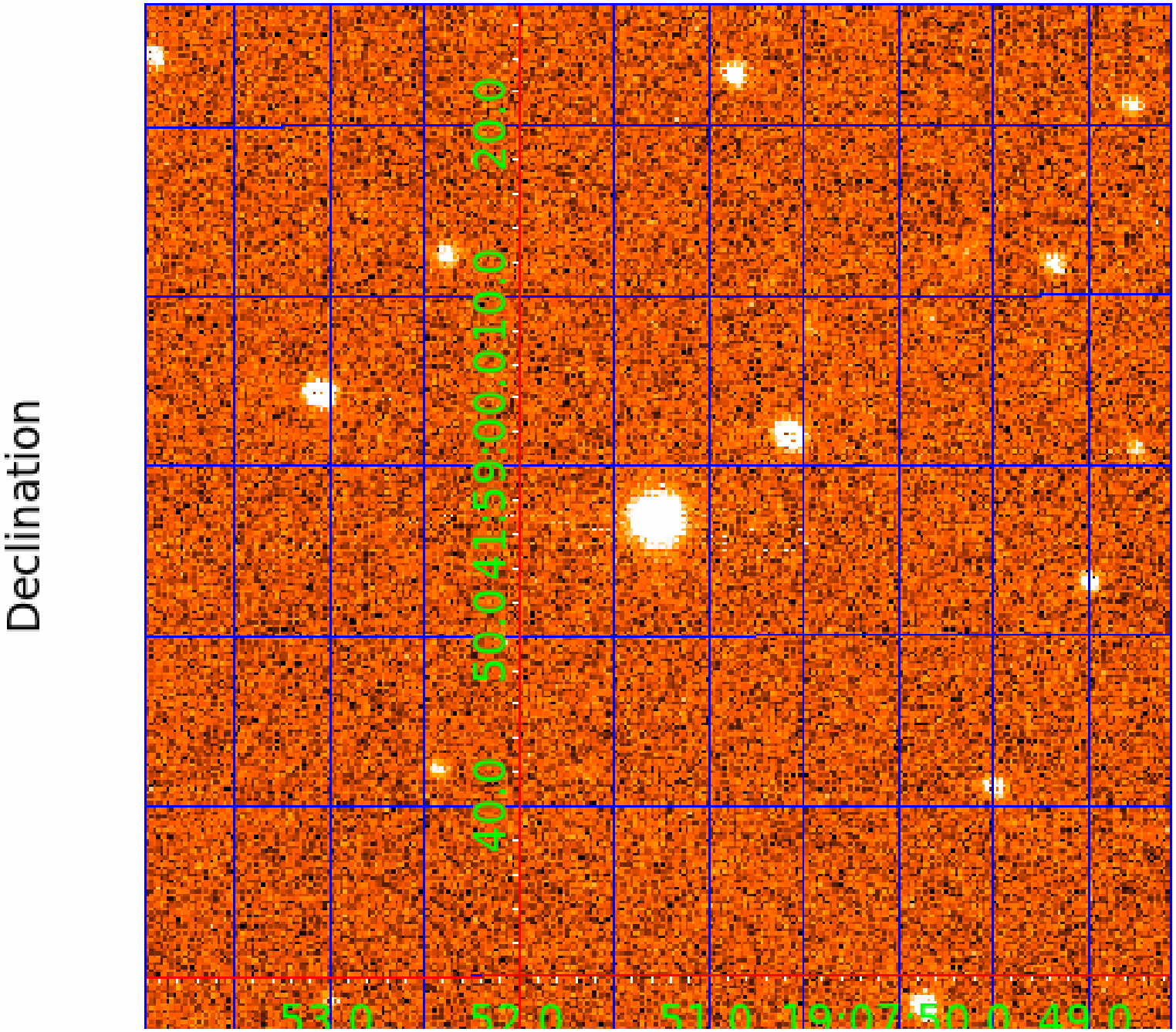
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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







UKIRT Image