KIC 006462874

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 ($S_\oplus$)
006462874-01	OBS	1231.01	22.342880	132.743757	2913.3	6.677	73.7	41.8	0.58	4260	3.04	6.03
006462874-02	OBS	No	380.245065	378.518686	5553.0	8.687	15.1	16.2	0.58	4260	4.21	0.14
006462874-03	OBS	1231.02	10.423579	138.017235	724.5	5.894	15.3	15.3	0.58	4260	1.89	16.65
006462874-04	OBS	No	372.535863	432.834919	3247.2	9.591	13.4	12.4	0.58	4260	3.69	0.14
006462874-05	OBS	No	54.319747	161.249629	932.7	8.627	8.3	9.2	0.58	4260	1.88	1.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006462874-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—EPHEM_MATCH
006462874-02	OBS	FP	0.00	1	0	1	1	INDIV_TRANS_RUBBLE_CHASES—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
006462874-03	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—EPHEM_MATCH
006462874-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006462874-05	OBS	FP	0.00	1	0	1	1	TRANS_GAPPED—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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 006462874-01

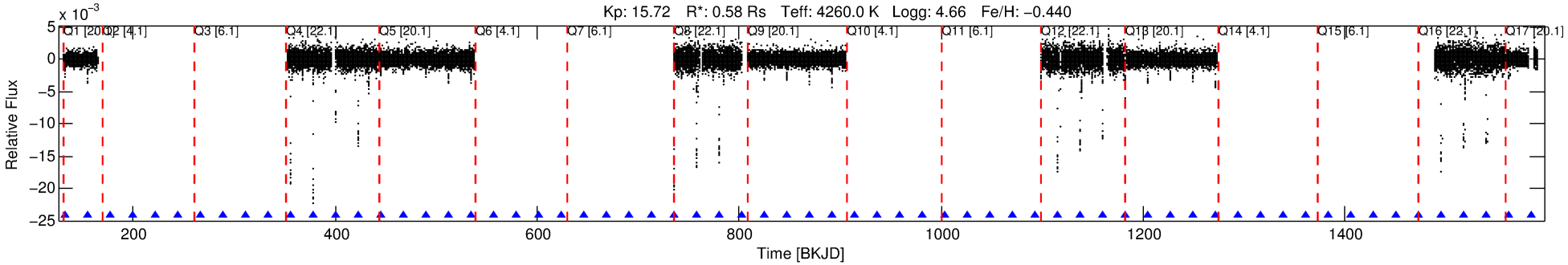
TCE (1)	KIC	Parent (2)	Parent KIC	P_1:P_2	Dist (″)	ΔRow	ΔCol	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
006462874-01	6462874	94.01	6462863	1:1	7.3	1	-1	12.21	15.72	1.95	Direct-PRF	0	0.12	0.05

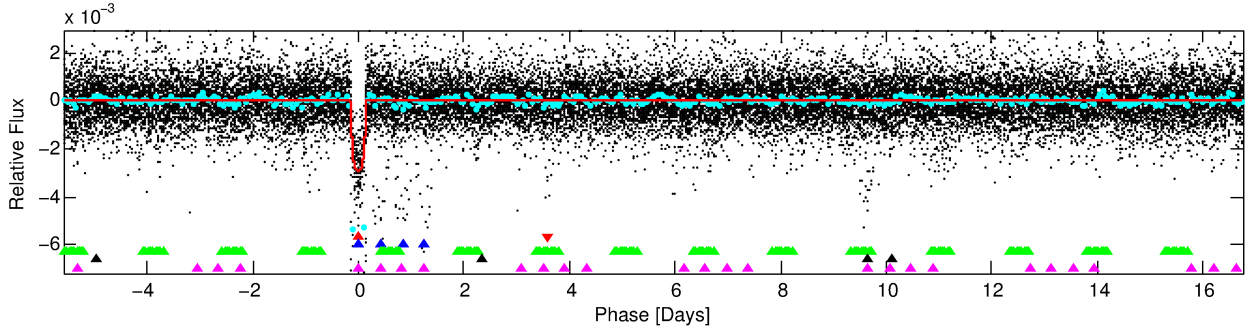
Notes: P_1:P_2 is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth dividied by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should recieve extra scrutiny, especially if the period ratio is very large.

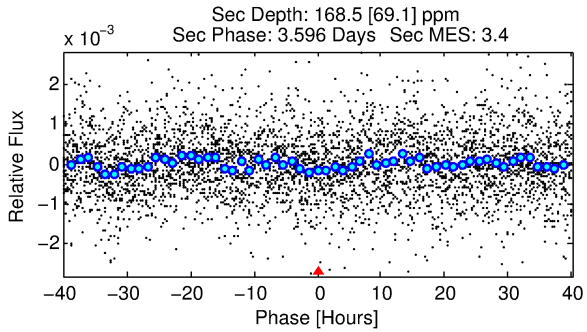
DV One-Page Summary

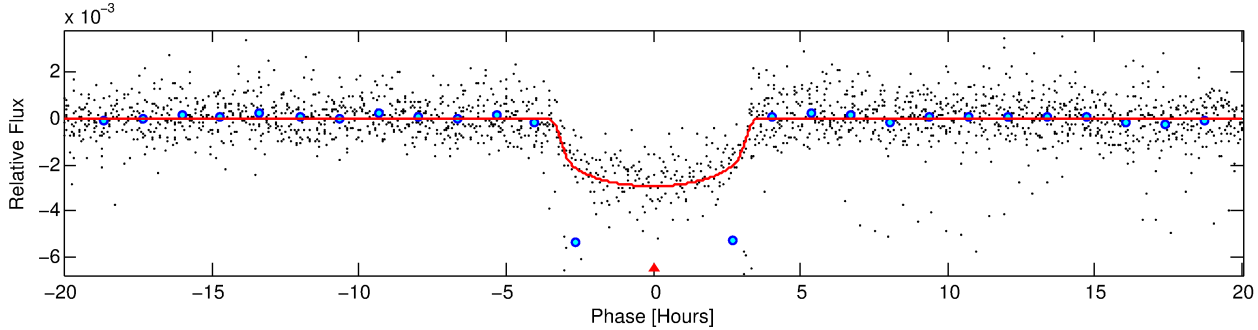
KIC: 6462874 Candidate: 1 of 5 Period: 22.343 d
KOI: K01231.01 Corr: 0.988

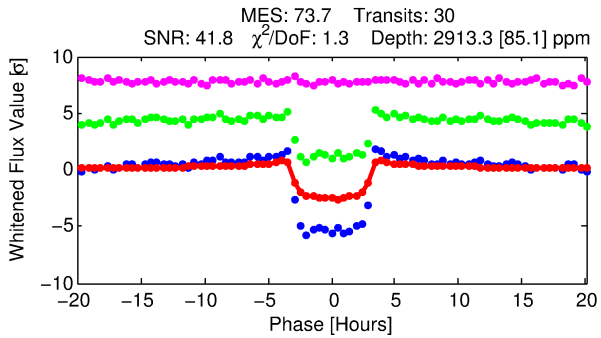
Kp: 15.72 R*: 0.58 Rs Teff: 4260.0 K Logg: 4.66 Fe/H: −0.440

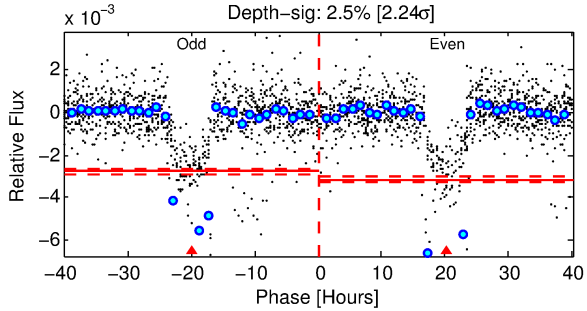


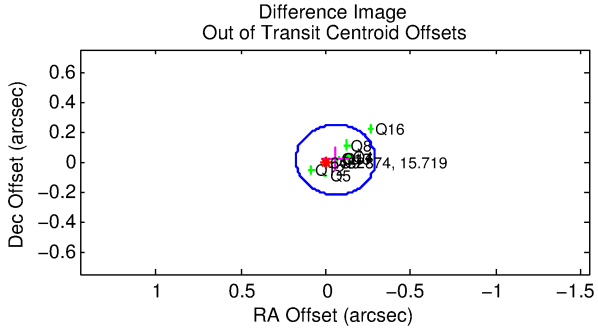












DV Fit Results:

Period = 22.34288 [0.00008] d
Epoch = 132.7438 [0.0029] BKJD
Rp/R* = 0.0480 [0.0102]
a/R* = 26.80 [19.01]
b = 0.00 [569.27]

Seff = 6.03 [1.05]
Teq = 400 [17] K
Rp = 3.04 [0.72] Re
a = 0.1284 [0.0106] AU

Ag = 165.79 [99.65] [1.65σ]
Teffp = 2216 [335] K [5.42σ]

DV Diagnostic Results:

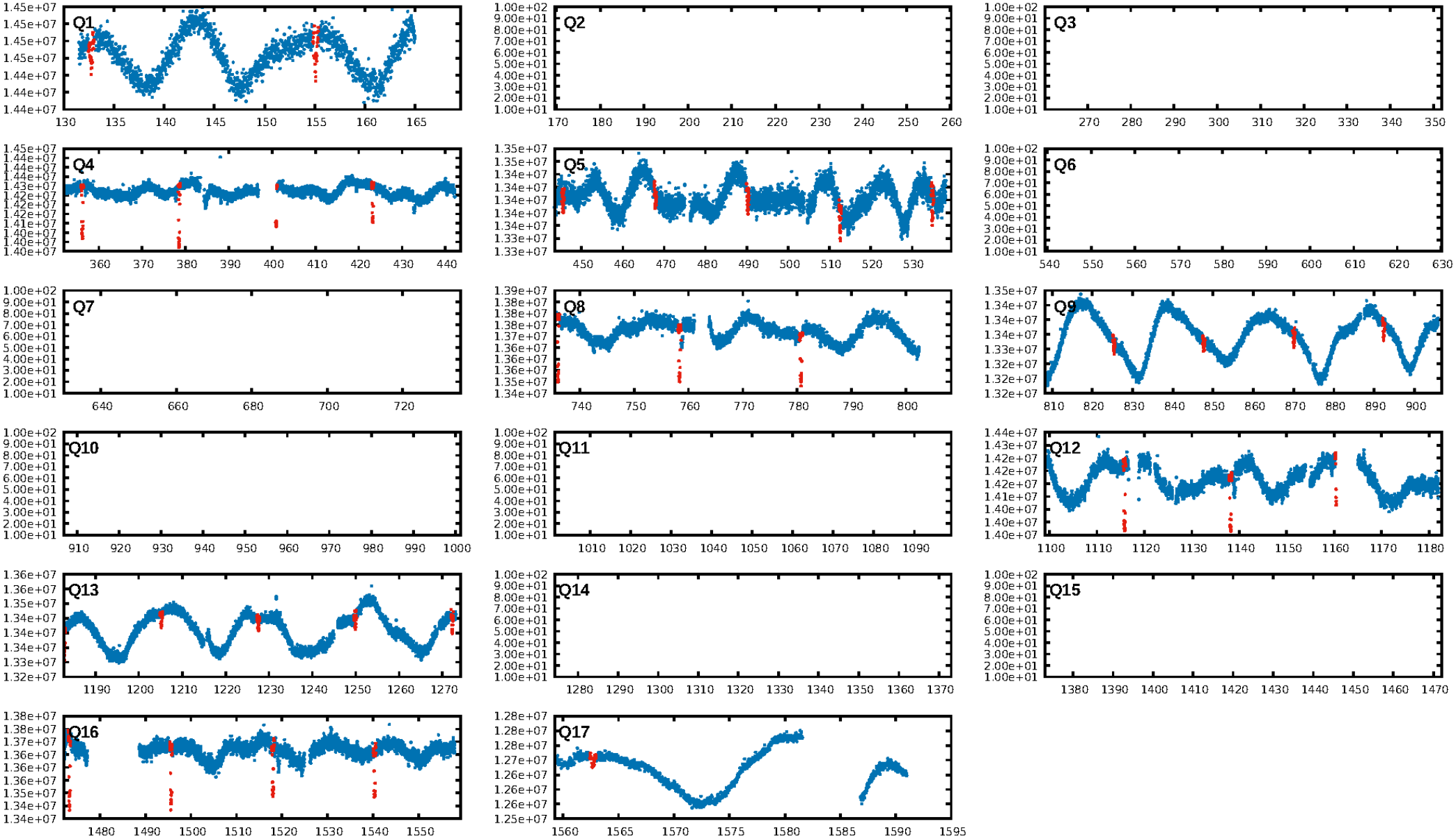
ShortPeriod−sig: 100.0% [32.12σ]
LongPeriod−sig: 100.0% [70.35σ]
ModelChiSquare2−sig: 0.0%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: 0.00e+00
RollingBand−fgt: 1.00 [27/27]
GhostDiagnostic−chr: −0.5151

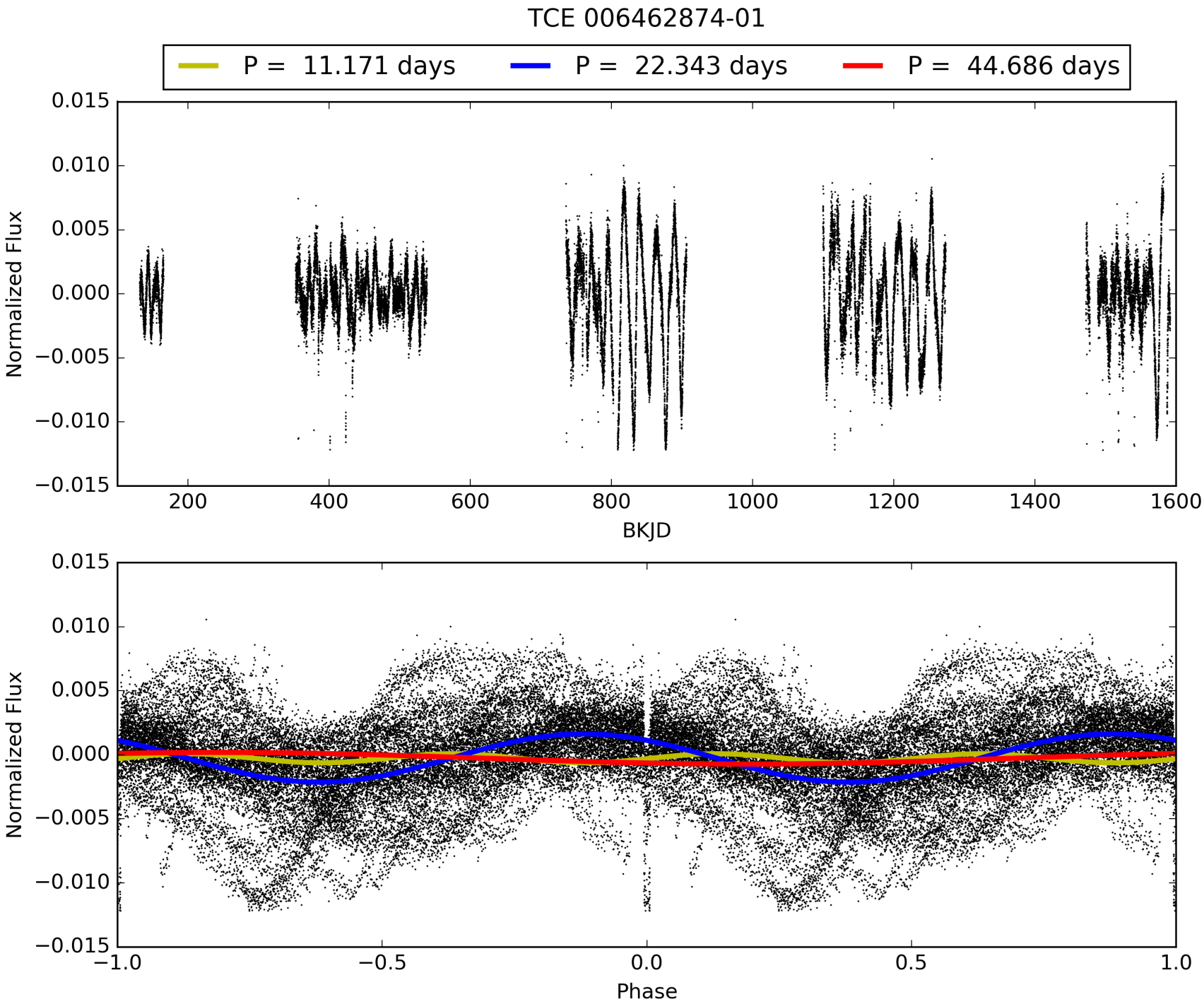
Centroid−sig: 0.0%
Centroid−so: 6.169 arcsec [166.15σ]
OotOffset−rm: 0.058 arcsec [0.75σ]
KicOffset−rm: 7.209 arcsec [95.09σ]
OotOffset−st: 0/0/4/4 [8]
KicOffset−st: 0/0/4/4 [8]
DiffImageQuality−fgm: 1.00 [8/8]
DiffImageOverlap−fno: 1.00 [9/9]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31−Jan−2016 03:36:04 Z

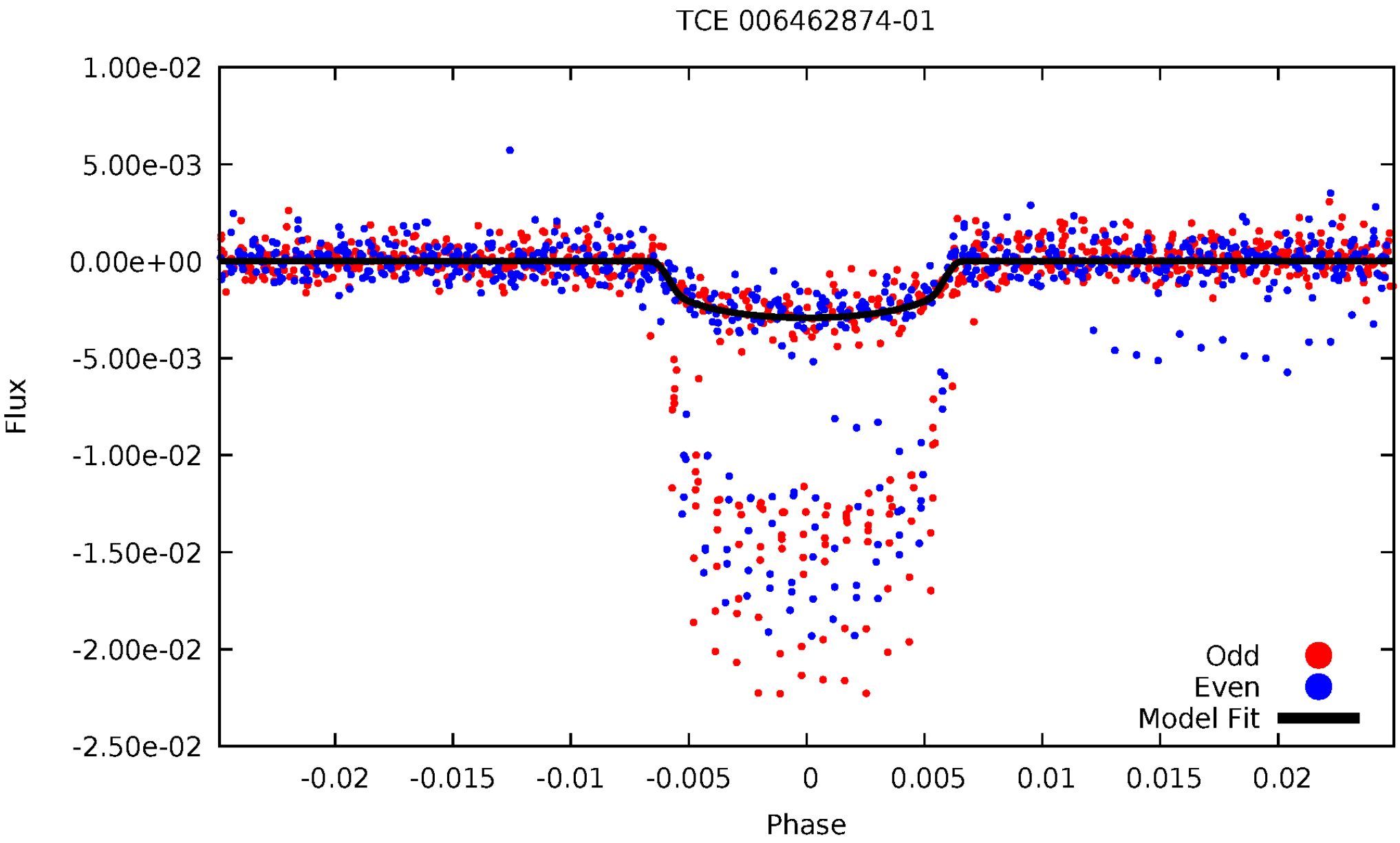
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006462874-01, PDC Light Curves

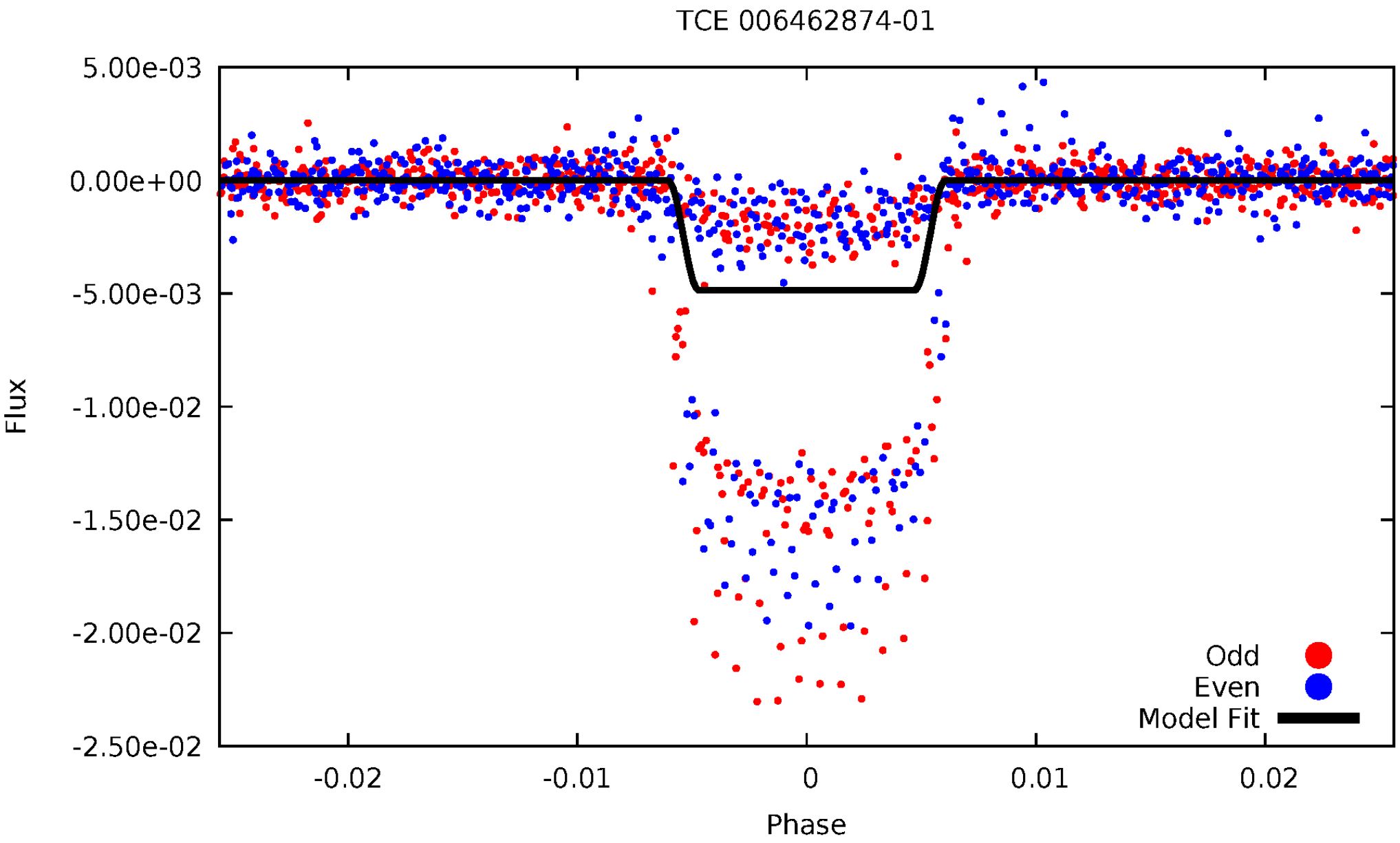



TCE 006462874-01
P = 11.171 days
P = 22.343 days
P = 44.686 days
Normalized Flux
BKJD
Normalized Flux
Phase

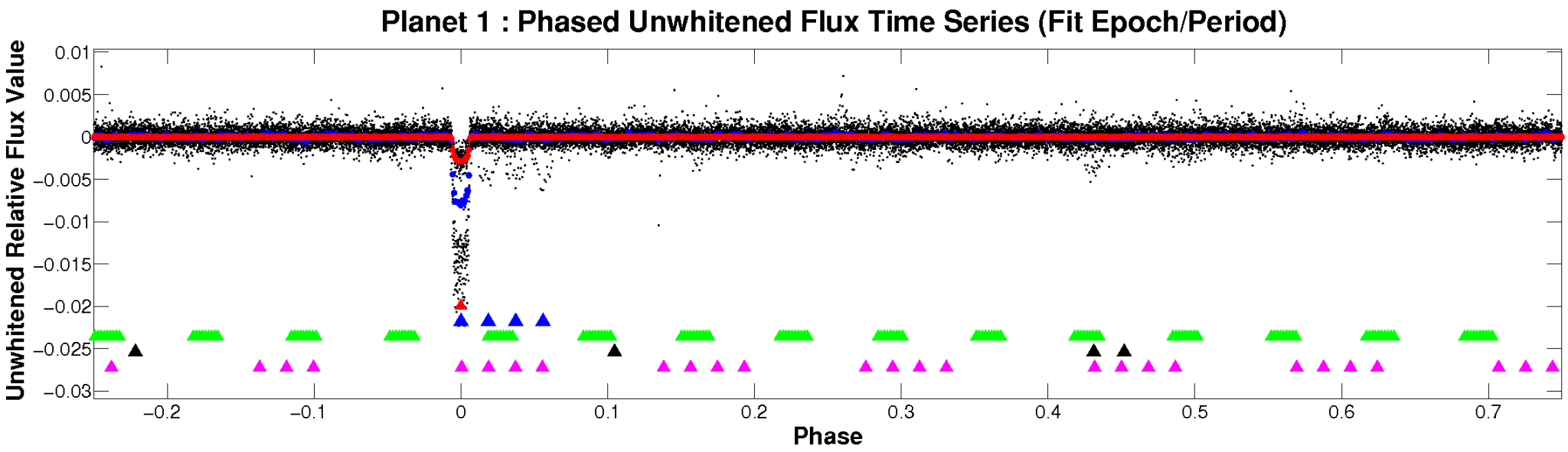
DV Odd/Even

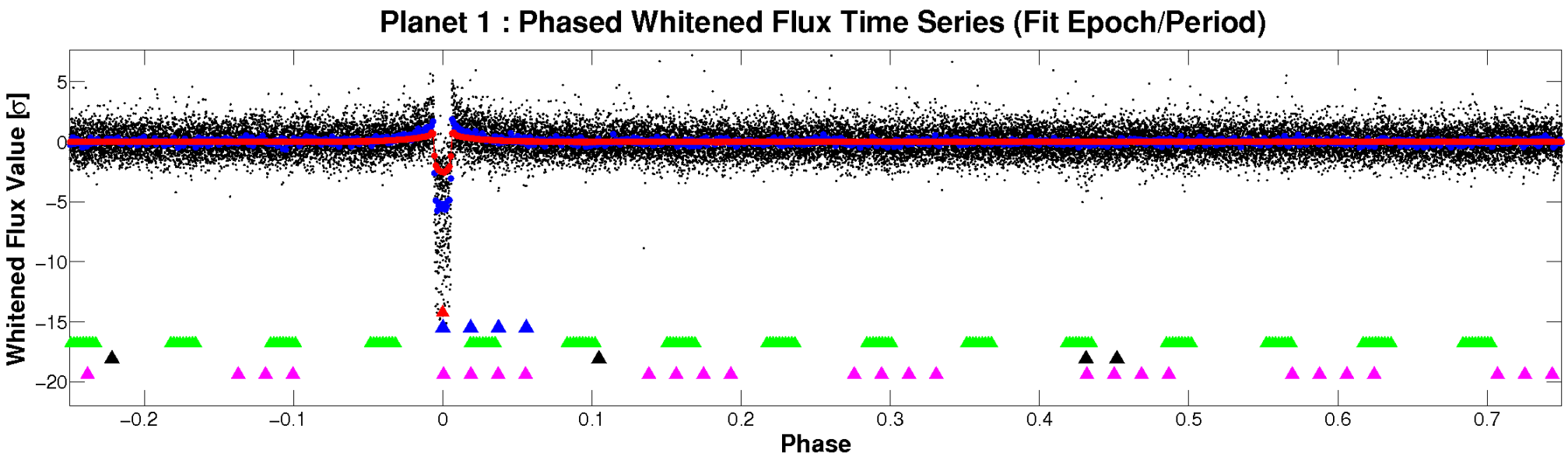

TCE 006462874-01
1.00e-02
5.00e-03
0.00e+00
-5.00e-03
-1.00e-02
-1.50e-02
-2.00e-02
-2.50e-02
Flux
-0.02
-0.015
-0.01
-0.005
0
0.005
0.01
0.015
0.02
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006462874-01
5.00e-03
0.00e+00
-5.00e-03
-1.00e-02
-1.50e-02
-2.00e-02
-2.50e-02
Flux
-0.02
-0.01
0
0.01
0.02
Phase
Odd
Even
Model Fit

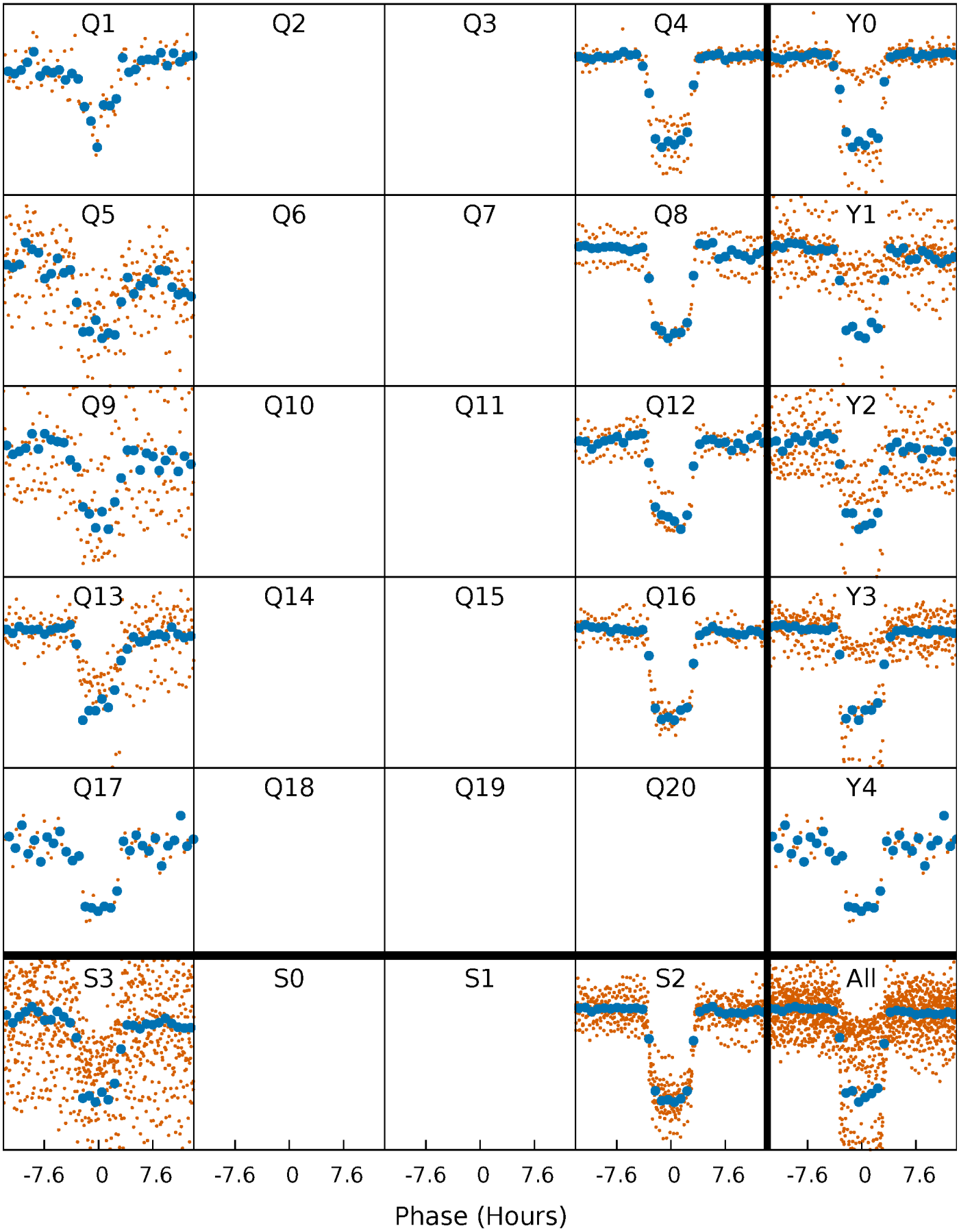
Non-Whitened Vs. Whitened Light Curve





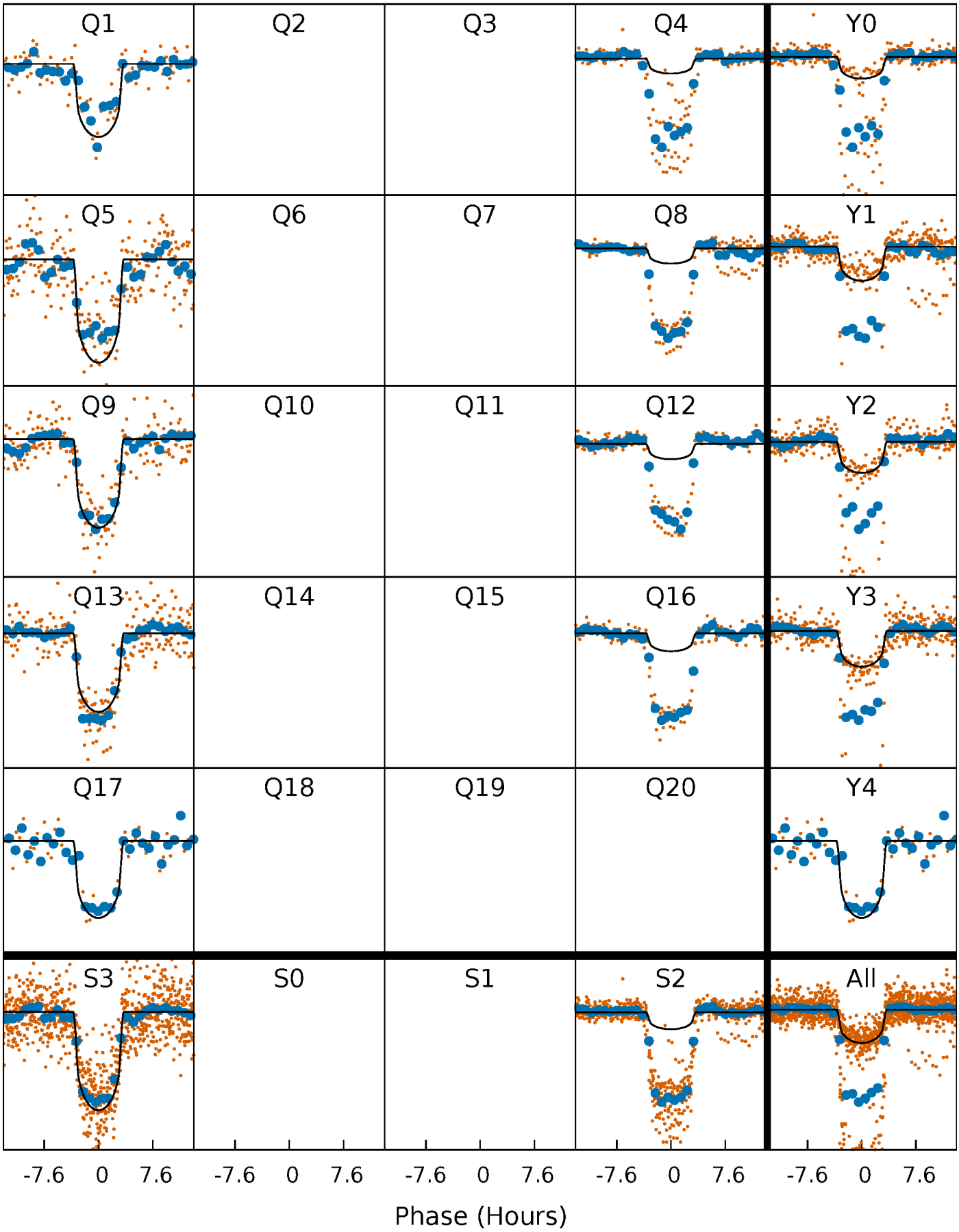
PDC Quarter-Phased Transit Curves

TCE 006462874-01 P= 22.342880 Days T_0=132.743757 (BKJD)



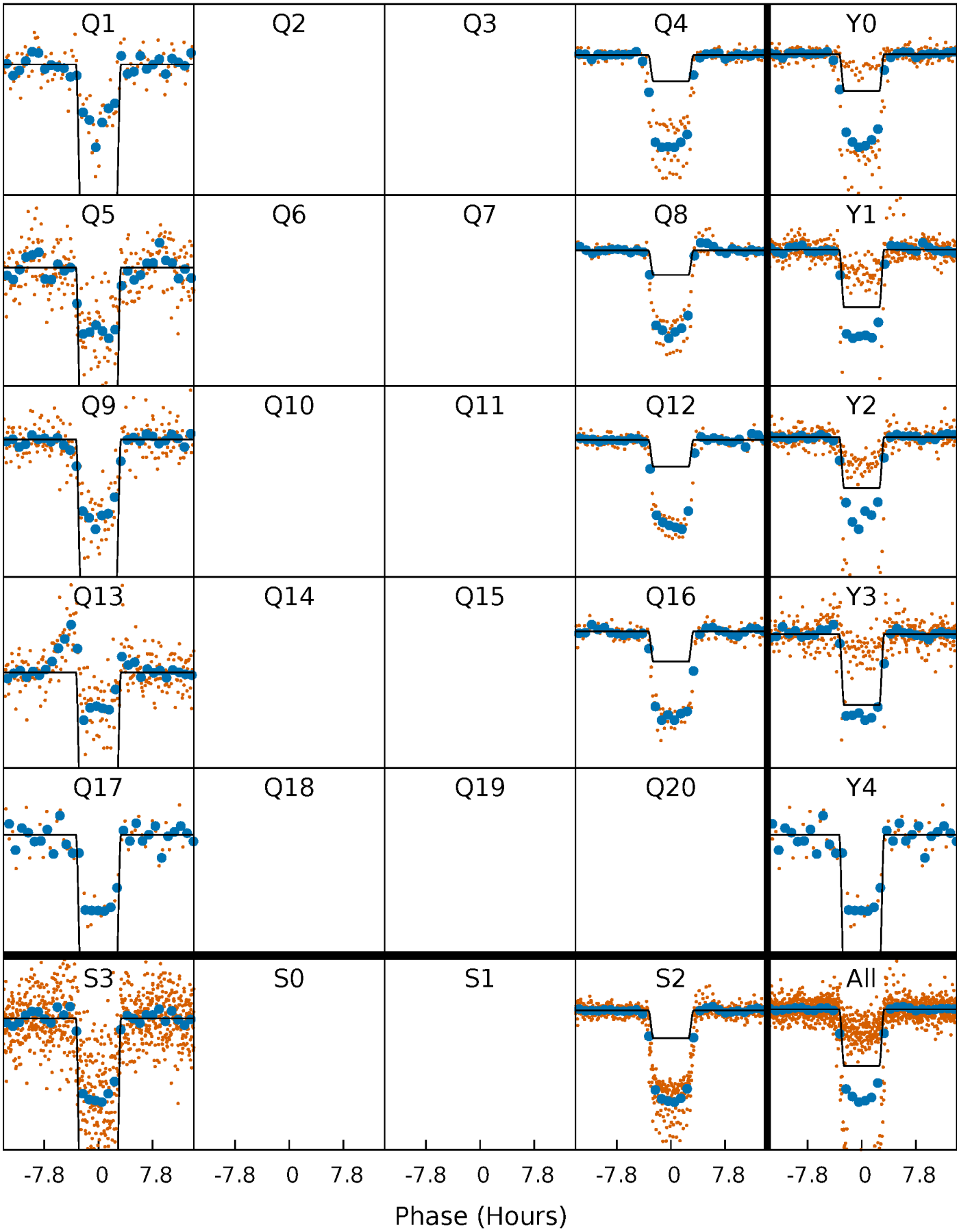
DV Quarter-Phased Transit Curves

TCE 006462874-01 P= 22.342880 Days T_0=132.743757 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

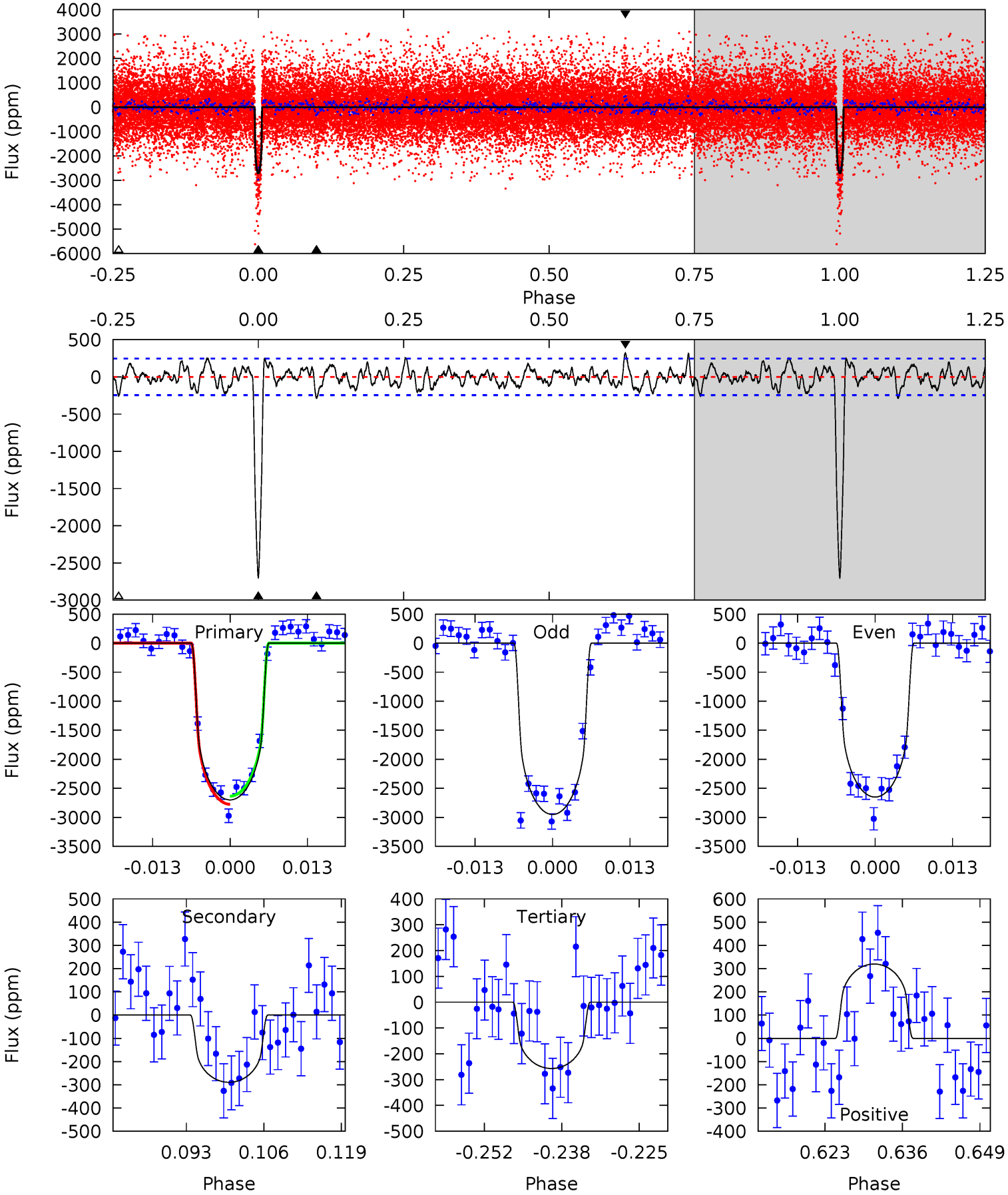
TCE 006462874-01 P= 22.342731 Days T_0=132.747977 (BKJD)



DV Model-Shift Uniqueness Test

006462874-01, P = 22.342880 Days, E = 110.400877 Days

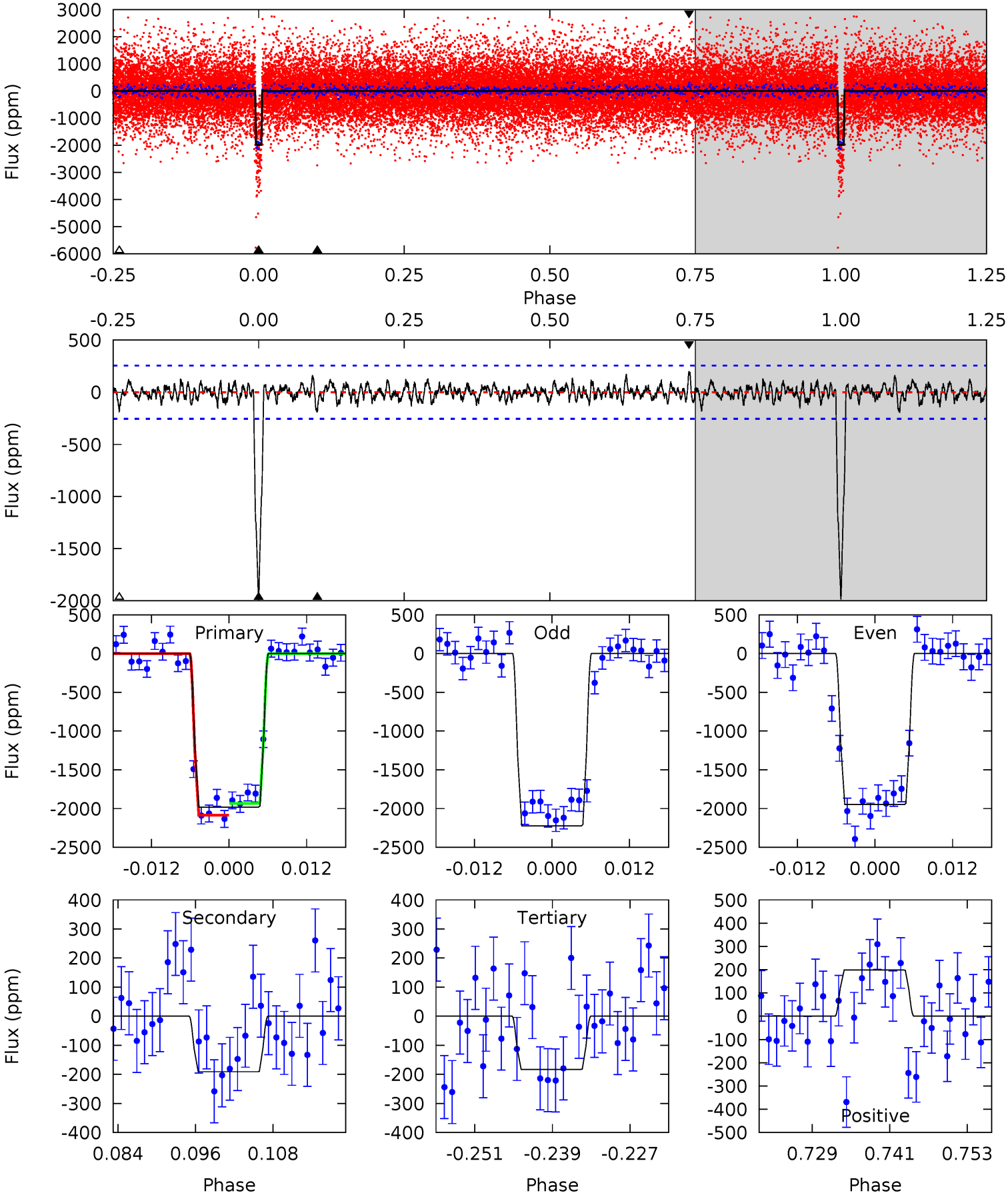
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.5	5.84	5.19	6.46	4.97	2.48	1.98	49.3	48.1	0.65	-0.62	3.00	2.46	0.11	1.43



Alt Model-Shift Uniqueness Test

006462874-01, P = 22.342731 Days, E = 110.405246 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.7	3.73	3.58	3.88	4.99	2.51	1.05	35.1	34.8	0.15	-0.15	2.68	2.90	0.09	1.46



Stellar Parameters For KIC 006462874

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	4260^{+115}_{-140}	$4.663^{+0.060}_{-0.024}$	$-0.440^{+0.300}_{-0.300}$	$0.580^{+0.044}_{-0.060}$	$0.565^{+0.061}_{-0.051}$	$4.072^{+1.203}_{-0.494}$
	+3%/-3%	+1%/-1%	+68%/-68%	+8%/-10%	+11%/-9%	+30%/-12%
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 006462874-01 / KOI 1231.01

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-289±50	$3.02^{+0.68}_{-0.65}$	554^{+19}_{-20}	3030^{+239}_{-192}	281^{+205}_{-101}
Alt.	-191±51	$4.37^{+0.66}_{-0.69}$	552^{+19}_{-19}	2597^{+142}_{-129}	92^{+44}_{-31}

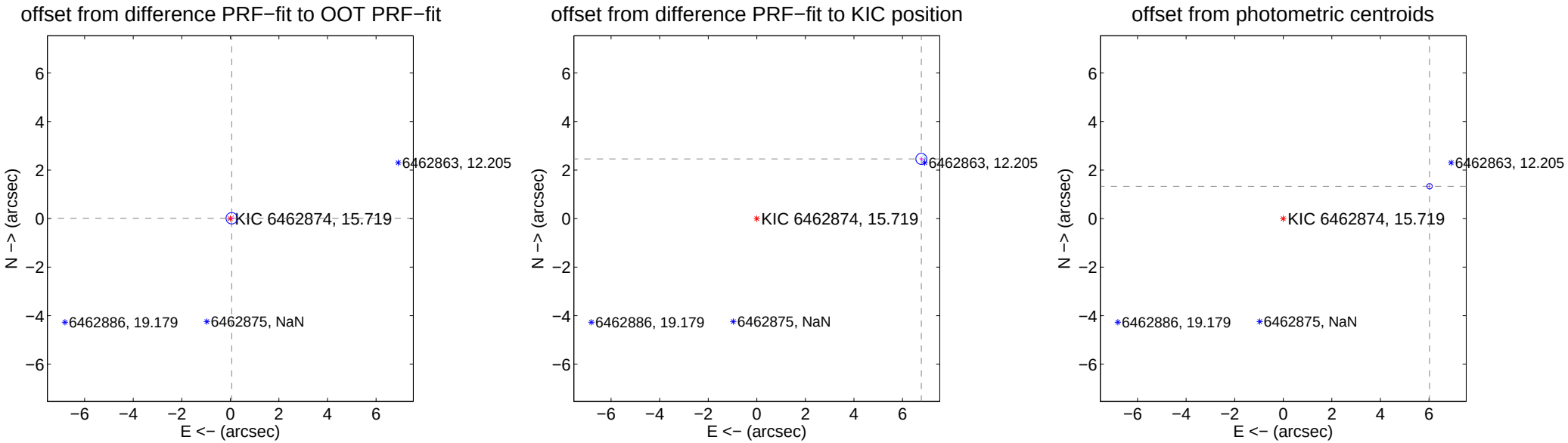
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

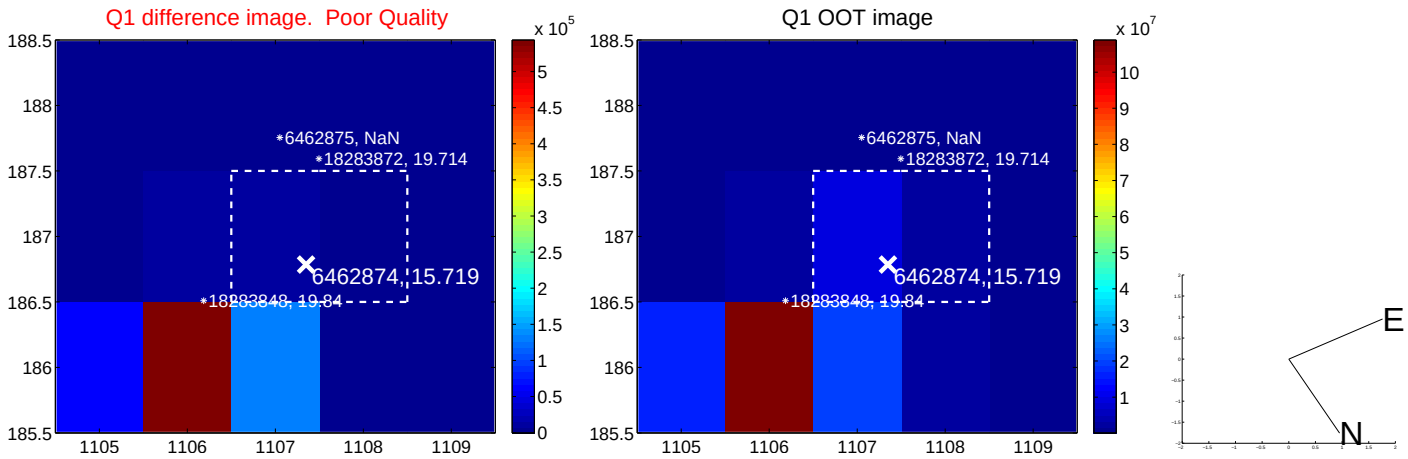
Supplemental centroid analysis for 006462874-01. Kepler magnitude: 15.72. Transit SNR 41.84
There are 8 quarters with good PRF difference image offsets
The OOT PRF centroid is offset from the target star catalog position by about 7.20 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

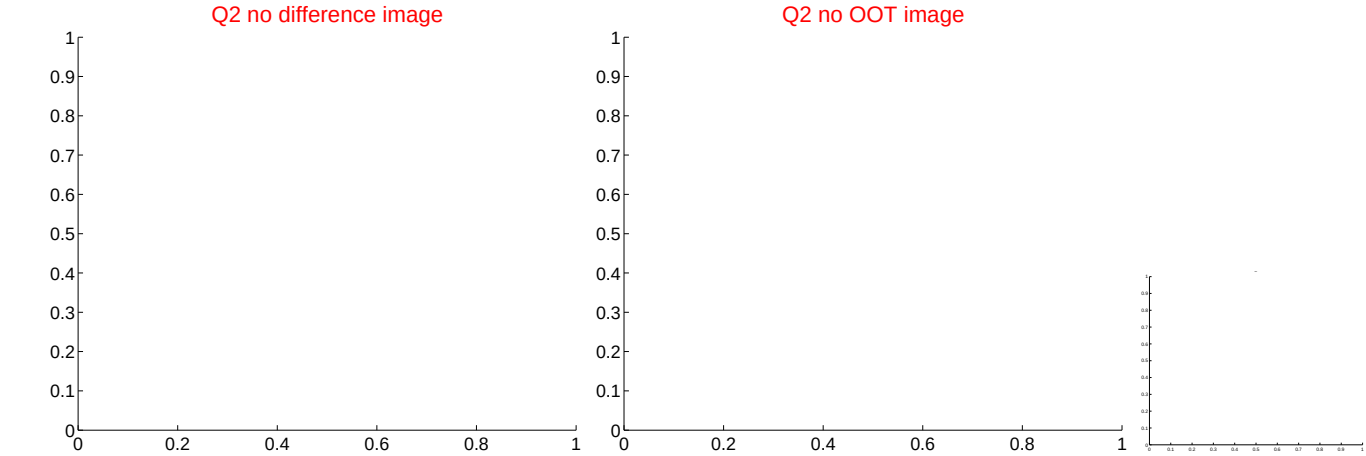
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.058 ± 0.078	0.75	-0.057 ± 0.075	0.014 ± 0.075
PRF-fit source offset from KIC position	7.209 ± 0.076	95.09	-6.777 ± 0.075	2.459 ± 0.071
photometric centroid source offset	6.17 ± 0.04	166.15	-6.02 ± 0.04	1.33 ± 0.02

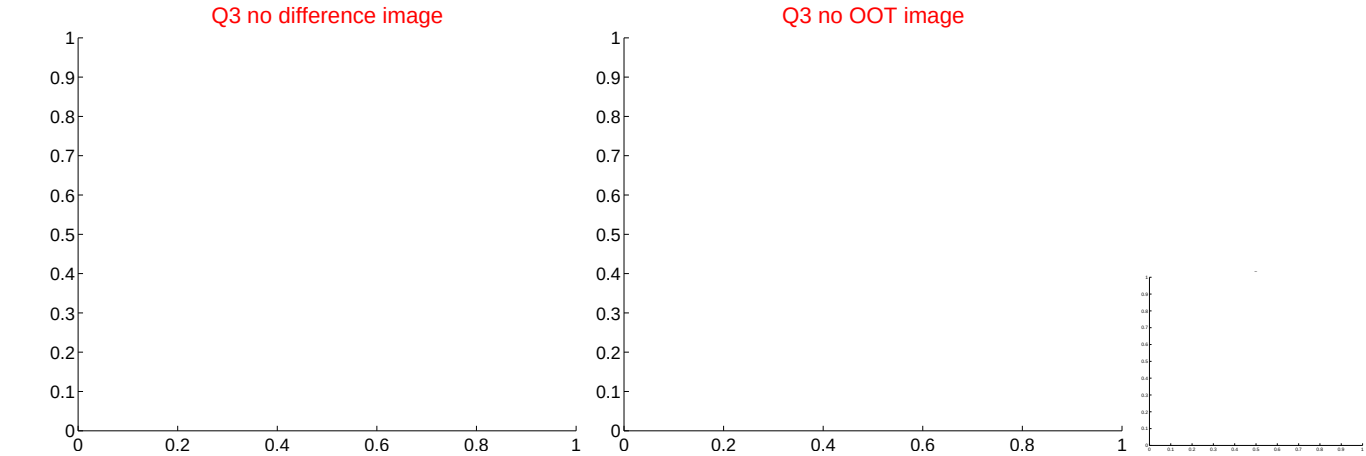


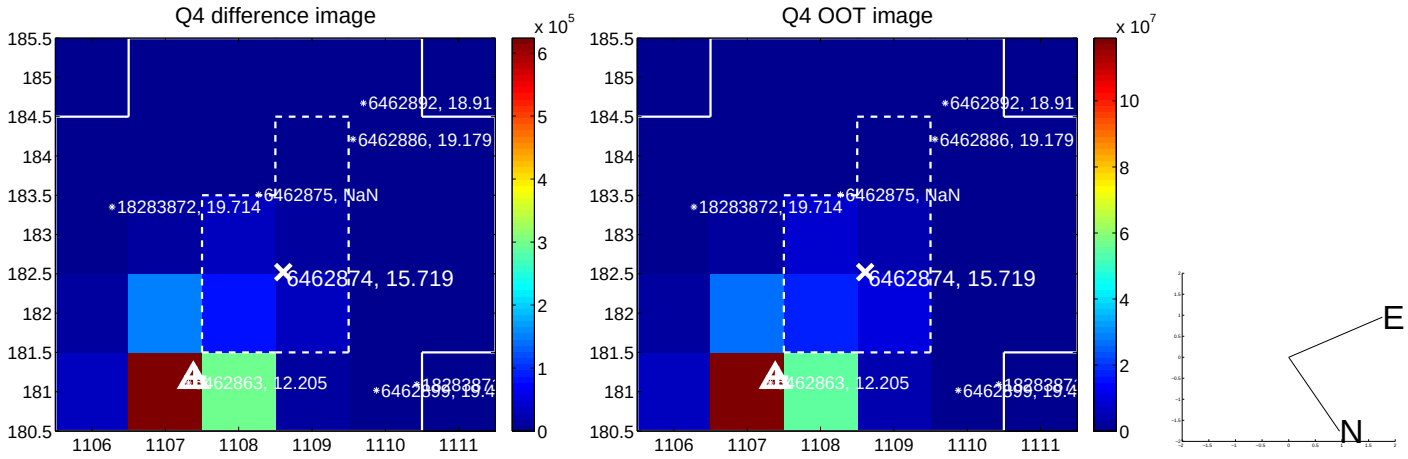
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

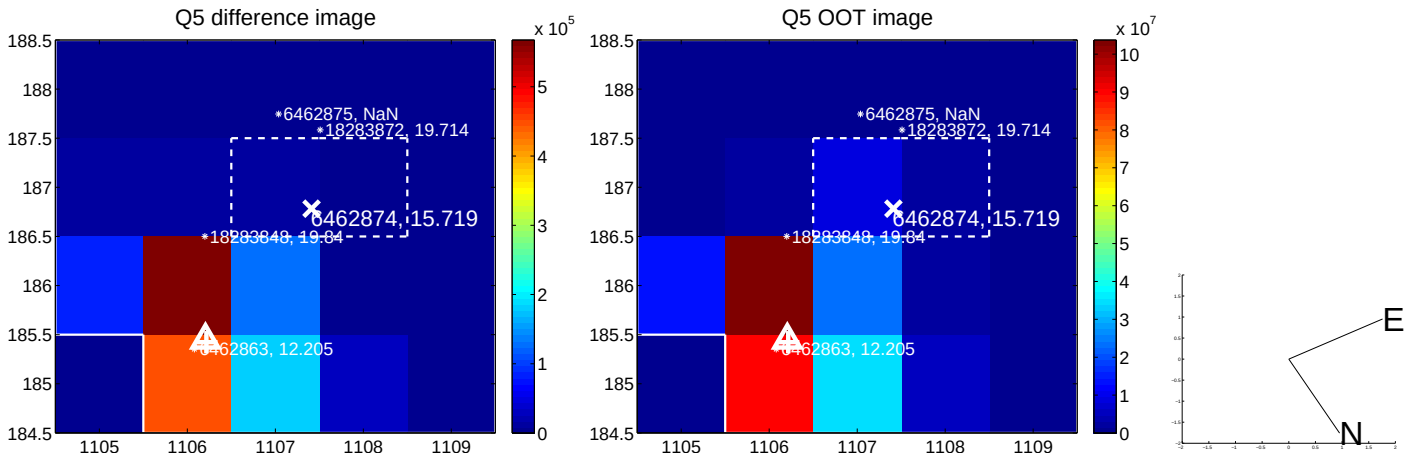


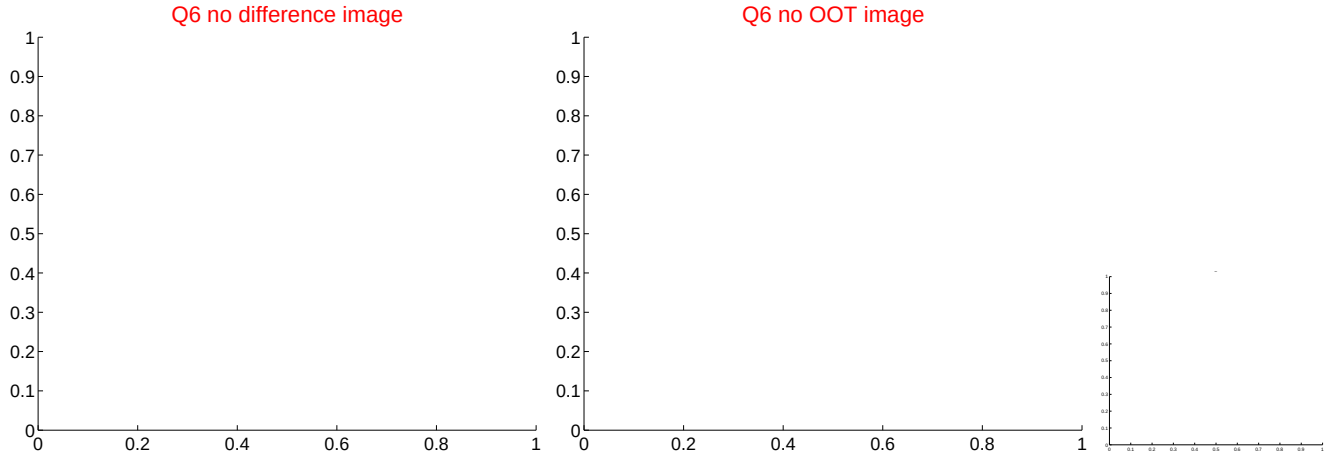


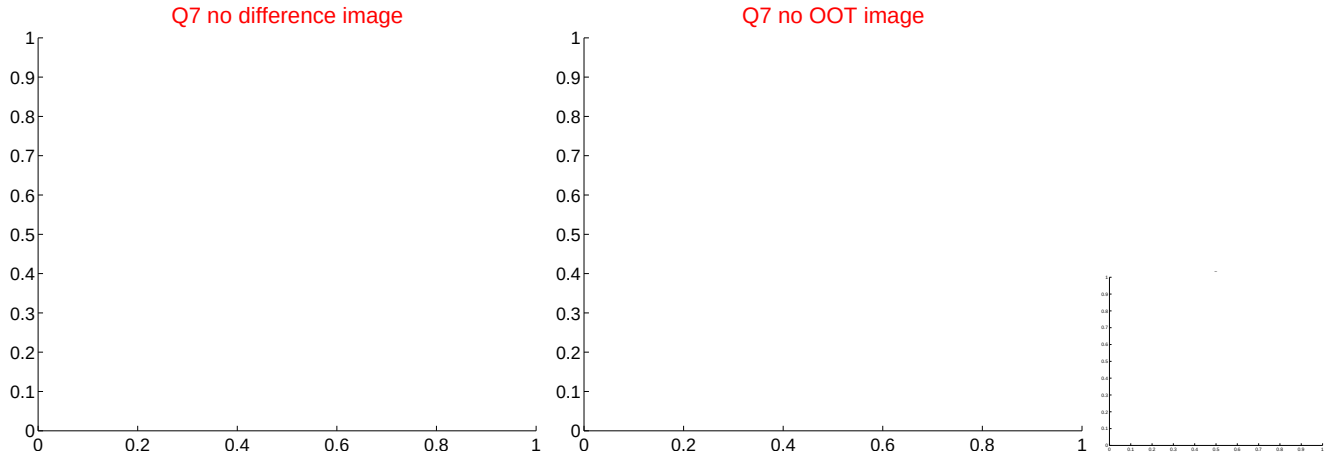


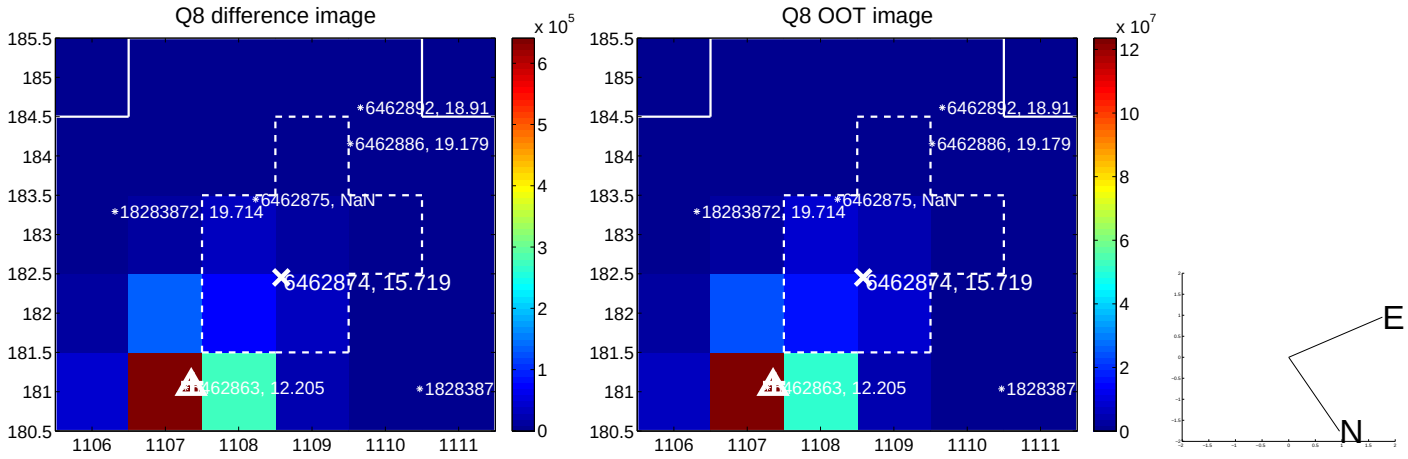


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

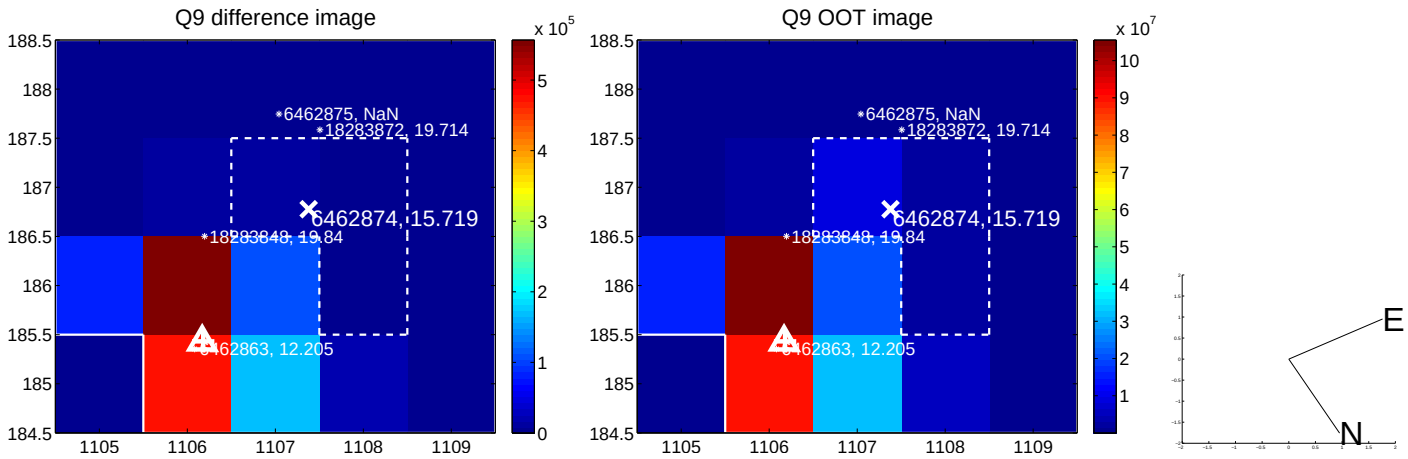


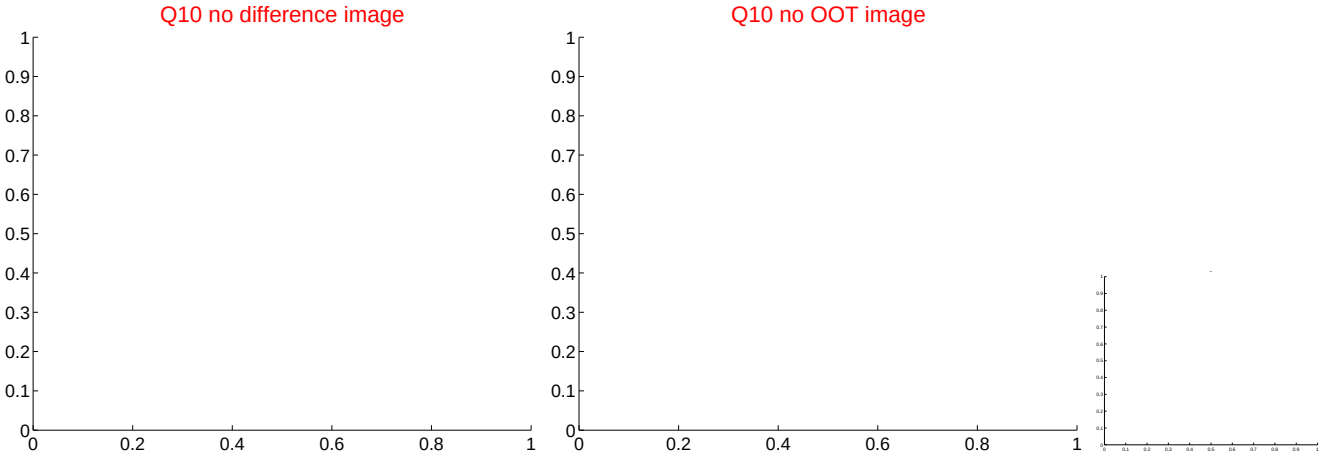


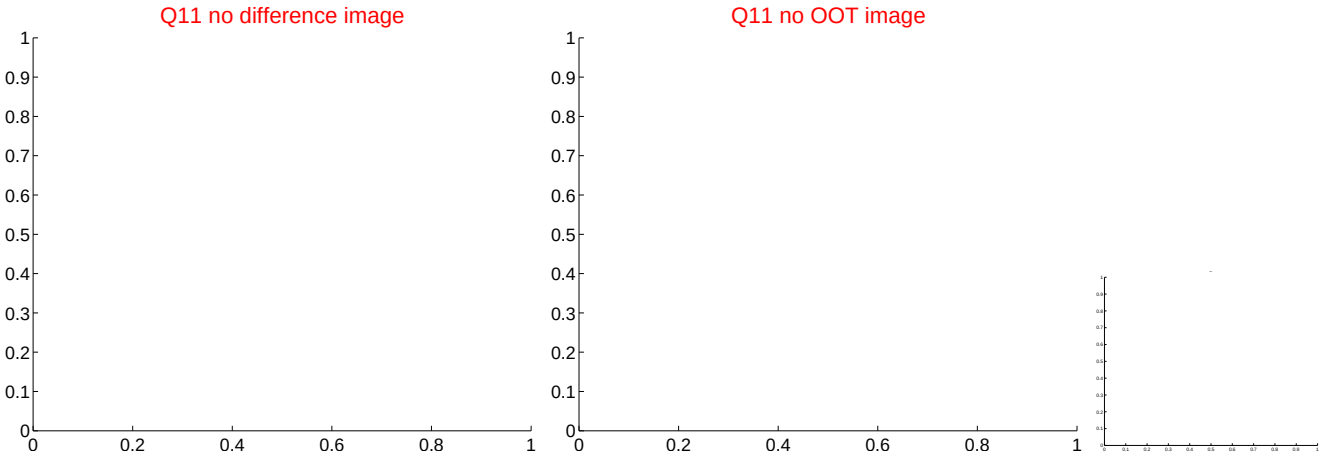


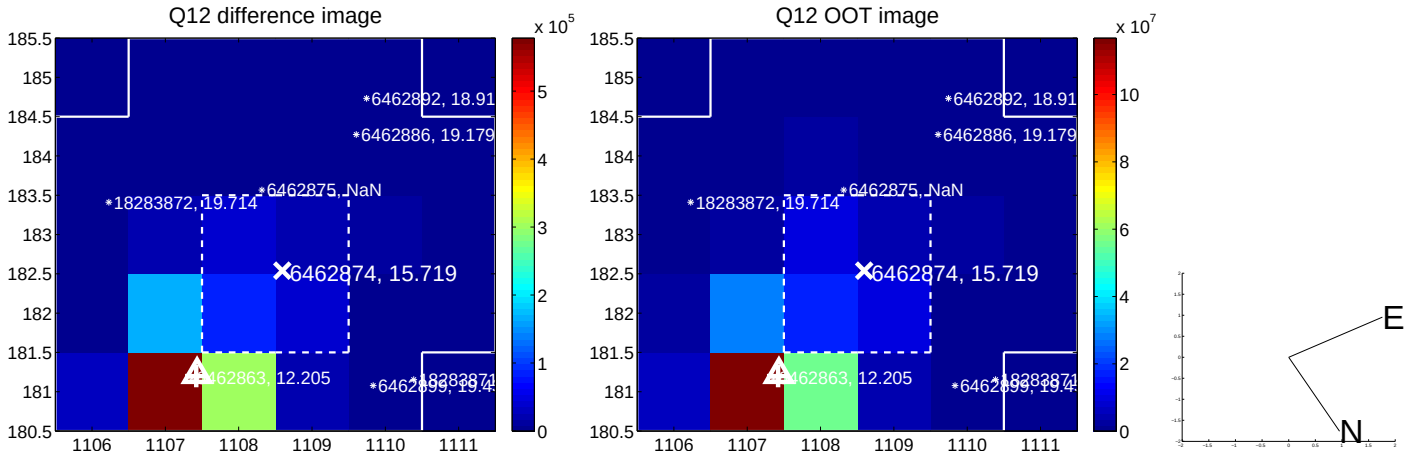


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

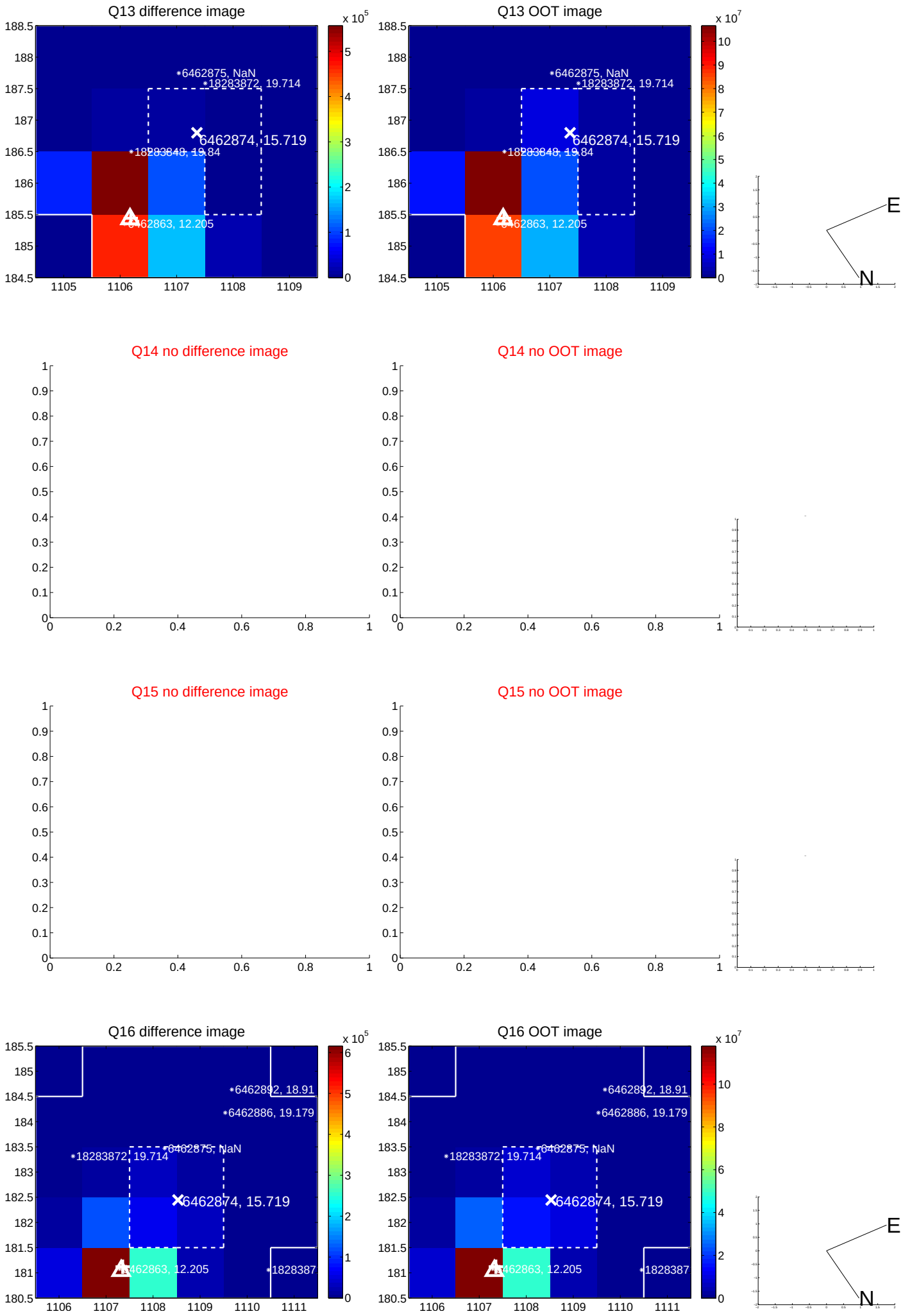




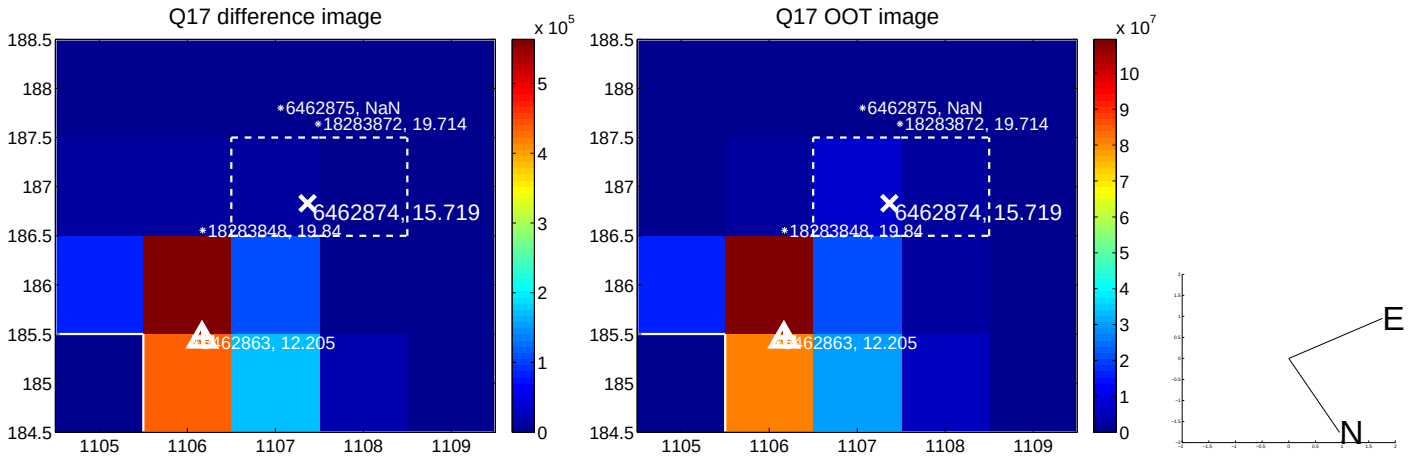


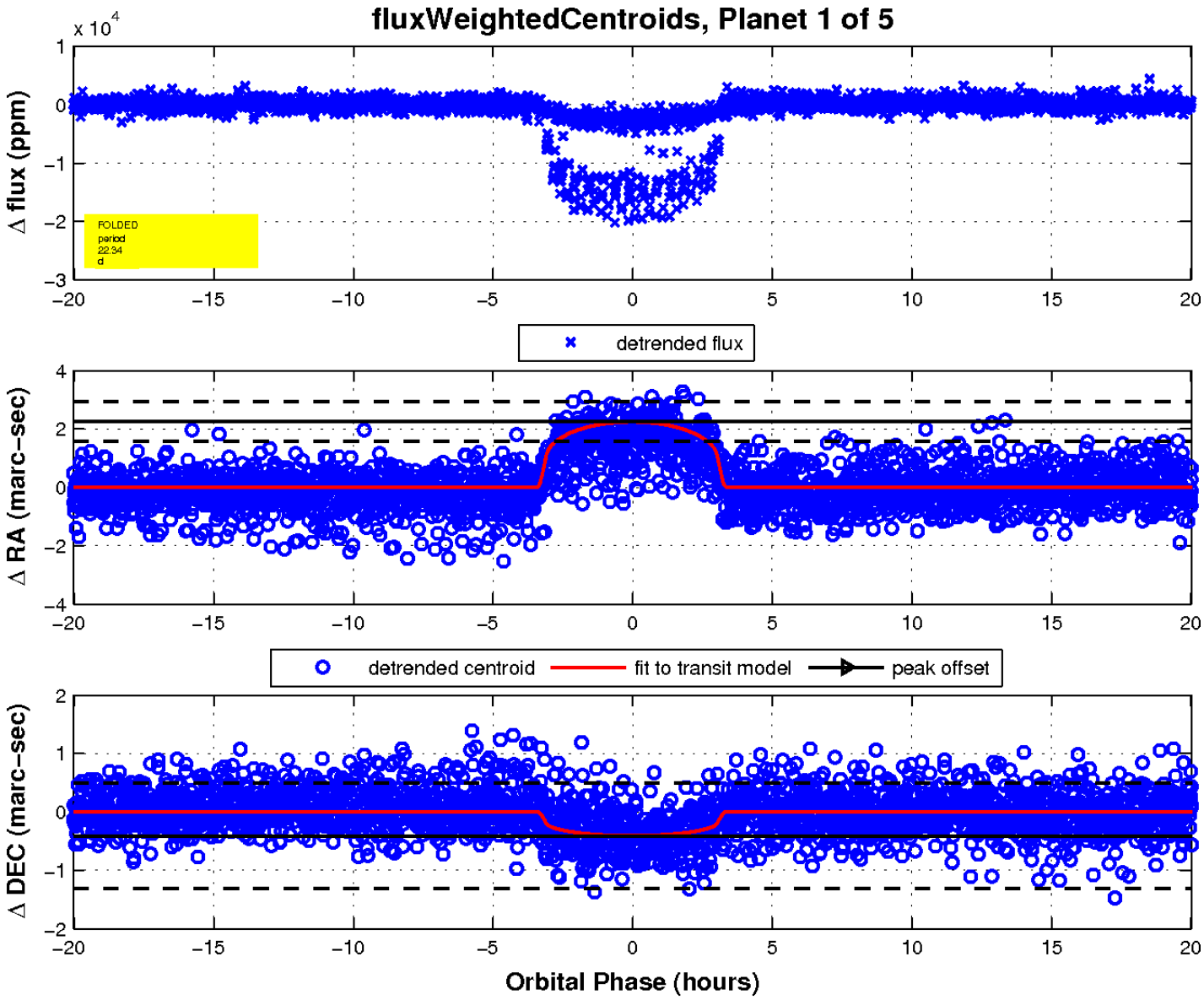


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

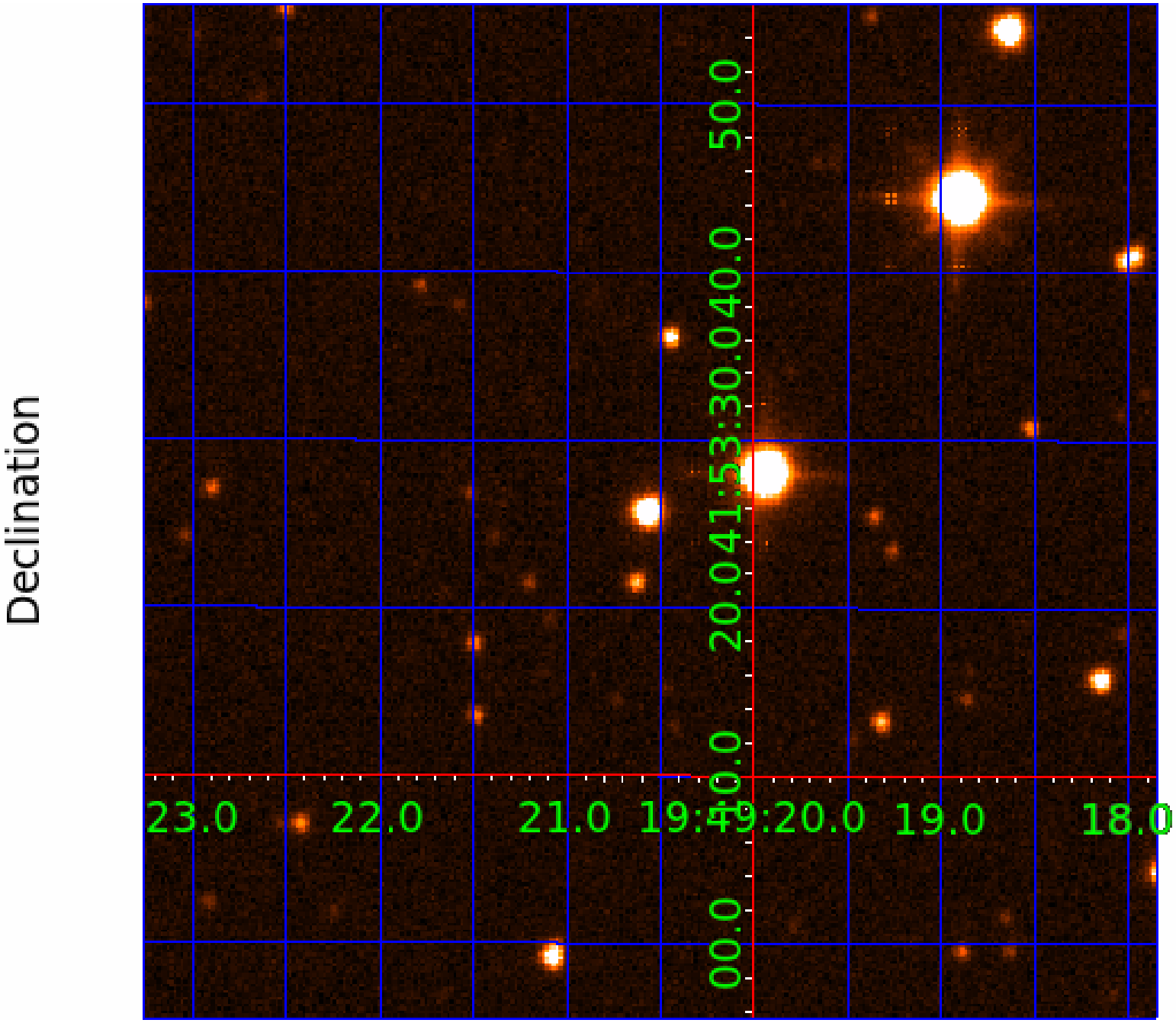


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image


Declination
50.0
40.0
53:30.0
41:
20.0
40.0
00.0
23.0
22.0
21.0
19:49:20.0
19.0
18.0

KIC 006462874

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 ($S_\oplus$)
006462874-01	OBS	1231.01	22.342880	132.743757	2913.3	6.677	73.7	41.8	0.58	4260	3.04	6.03
006462874-02	OBS	No	380.245065	378.518686	5553.0	8.687	15.1	16.2	0.58	4260	4.21	0.14
006462874-03	OBS	1231.02	10.423579	138.017235	724.5	5.894	15.3	15.3	0.58	4260	1.89	16.65
006462874-04	OBS	No	372.535863	432.834919	3247.2	9.591	13.4	12.4	0.58	4260	3.69	0.14
006462874-05	OBS	No	54.319747	161.249629	932.7	8.627	8.3	9.2	0.58	4260	1.88	1.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006462874-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—EPHEM_MATCH
006462874-02	OBS	FP	0.00	1	0	1	1	INDIV_TRANS_RUBBLE_CHASES—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
006462874-03	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—EPHEM_MATCH
006462874-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006462874-05	OBS	FP	0.00	1	0	1	1	TRANS_GAPPED—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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 006462874-02

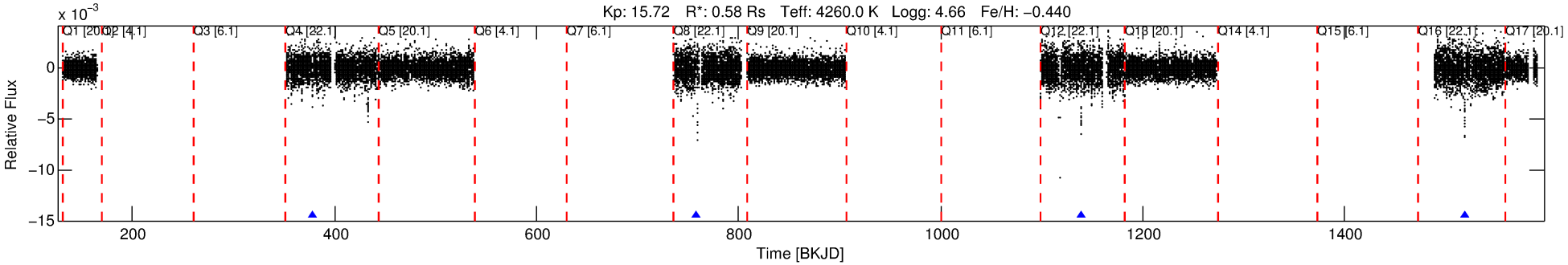
TCE (1)	KIC	Parent (2)	Parent KIC	P_1:P_2	Dist (″)	ΔRow	ΔCol	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
006462874-02	6462874	94.03	6462863	7:1	7.3	1	-1	12.21	15.72	3.61	Direct-PRF	0	1.94	0.02

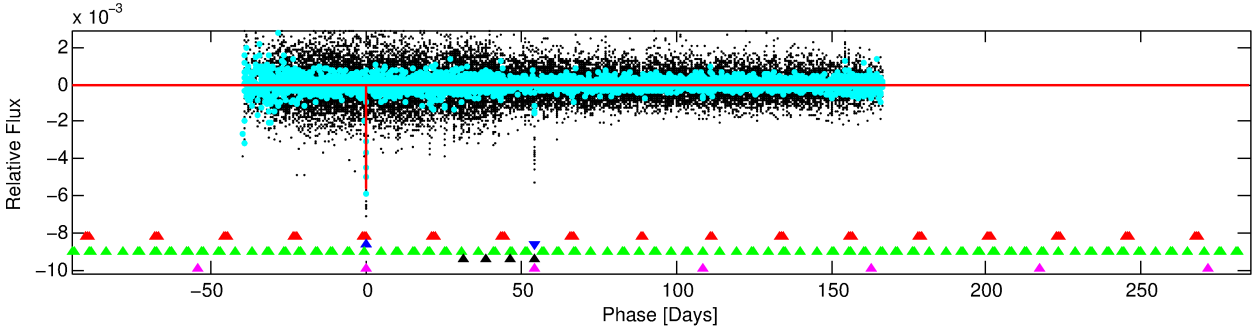
Notes: P_1:P_2 is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth dividied by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should recieve extra scrutiny, especially if the period ratio is very large.

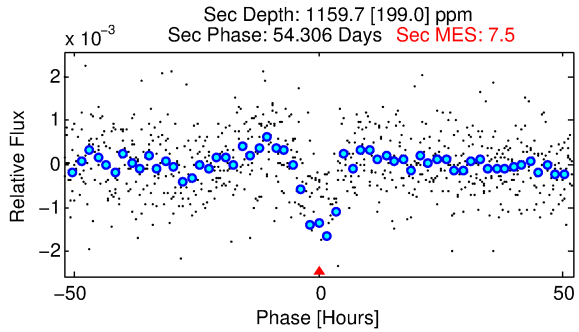
DV One-Page Summary

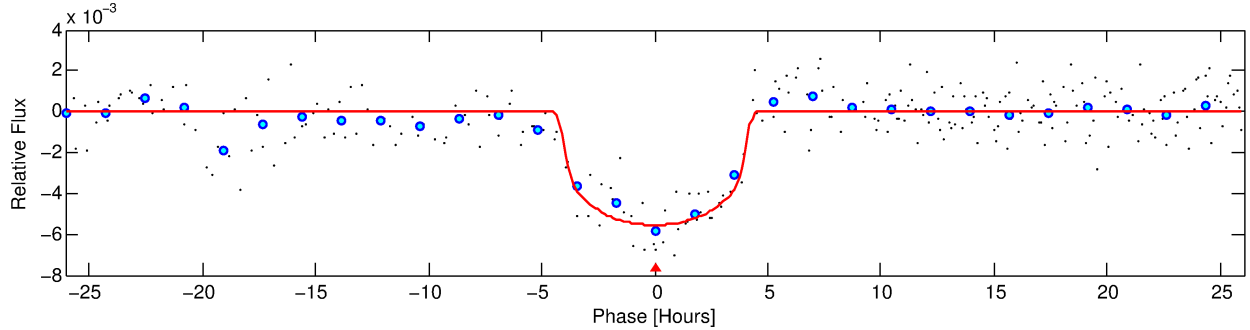
KIC: 6462874 Candidate: 2 of 5 Period: 380.245 d
KOI: K01231 Corr: No Ephemeris Match

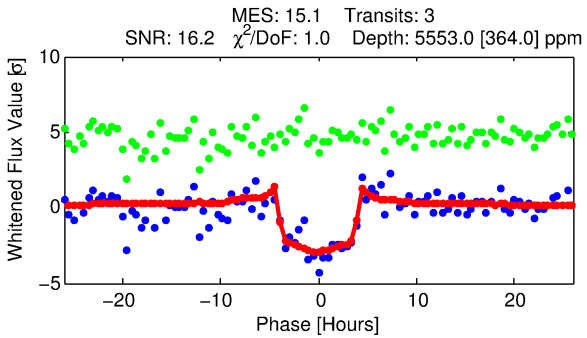
Kp: 15.72 R*: 0.58 Rs Teff: 4260.0 K Logg: 4.66 Fe/H: −0.440

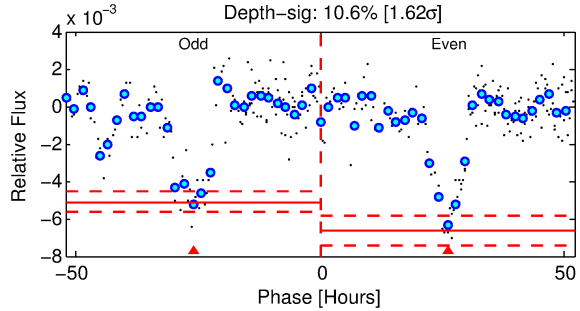


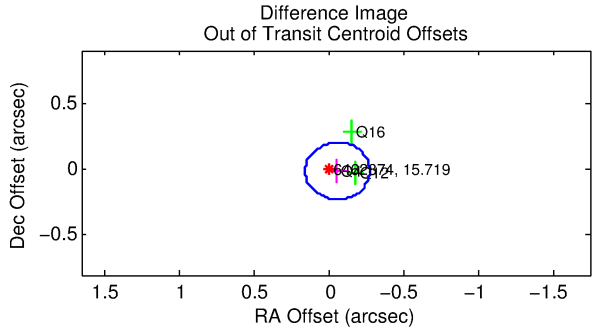












DV Fit Results:

Period = 380.24507 [0.00468] d
Epoch = 378.5187 [0.0118] BKJD
Rp/R* = 0.0665 [0.0141]
a/R* = 352.76 [249.97]
b = 0.16 [4.42]

Seff = 0.14 [0.02]
Teq = 155 [7] K
Rp = 4.21 [1.00] Re
a = 0.8492 [0.0704] AU

Ag = 26009.88 [12307.15] [2.11σ]
Teffp = 3050 [364] K [7.95σ]

DV Diagnostic Results:

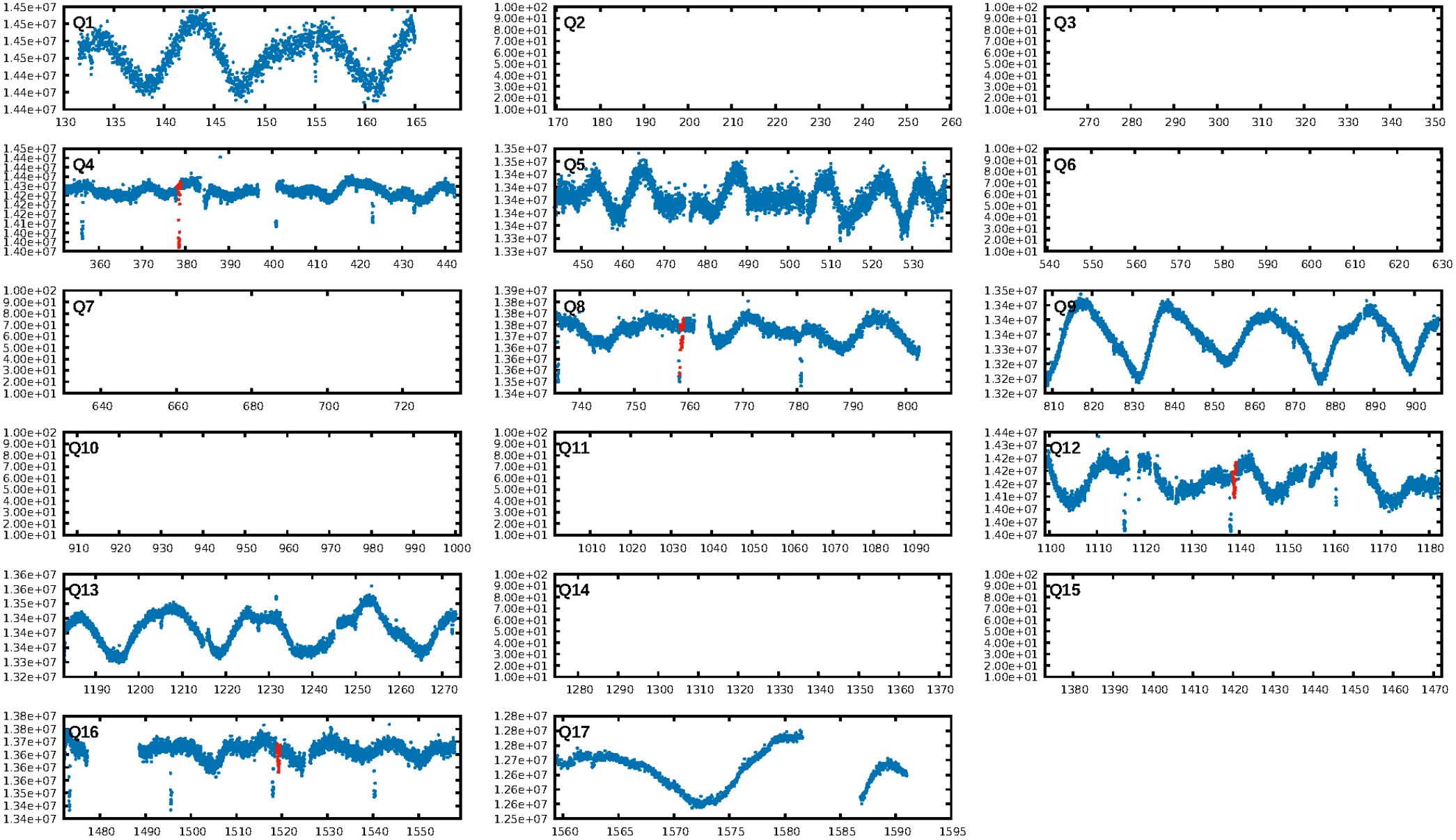
ShortPeriod−sig: 100.0% [14.30σ]
LongPeriod−sig: N/A
ModelChiSquare2−sig: 14.5%
ModelChiSquareGof−sig: 99.8%
Bootstrap−pfa: 1.35e−29
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: −0.09466

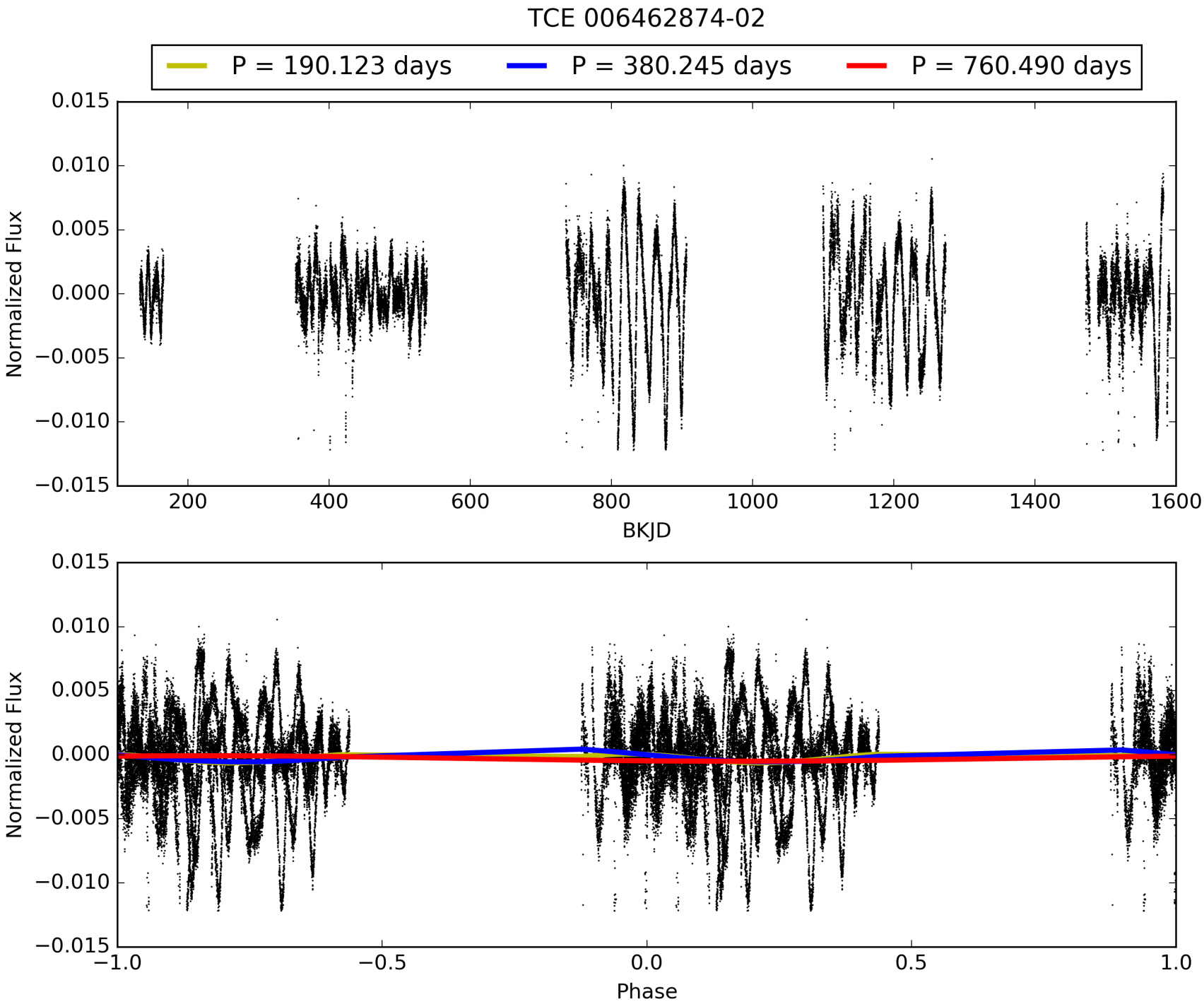
Centroid−sig: 0.3%
Centroid−so: 5.277 arcsec [83.13σ]
OotOffset−rm: 0.063 arcsec [0.88σ]
KicOffset−rm: 7.285 arcsec [100.64σ]
OotOffset−st: 0/0/3/0 [3]
KicOffset−st: 0/0/3/0 [3]
DiffImageQuality−fgm: 1.00 [3/3]
DiffImageOverlap−fno: 0.00 [0/4]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31−Jan−2016 03:36:14 Z

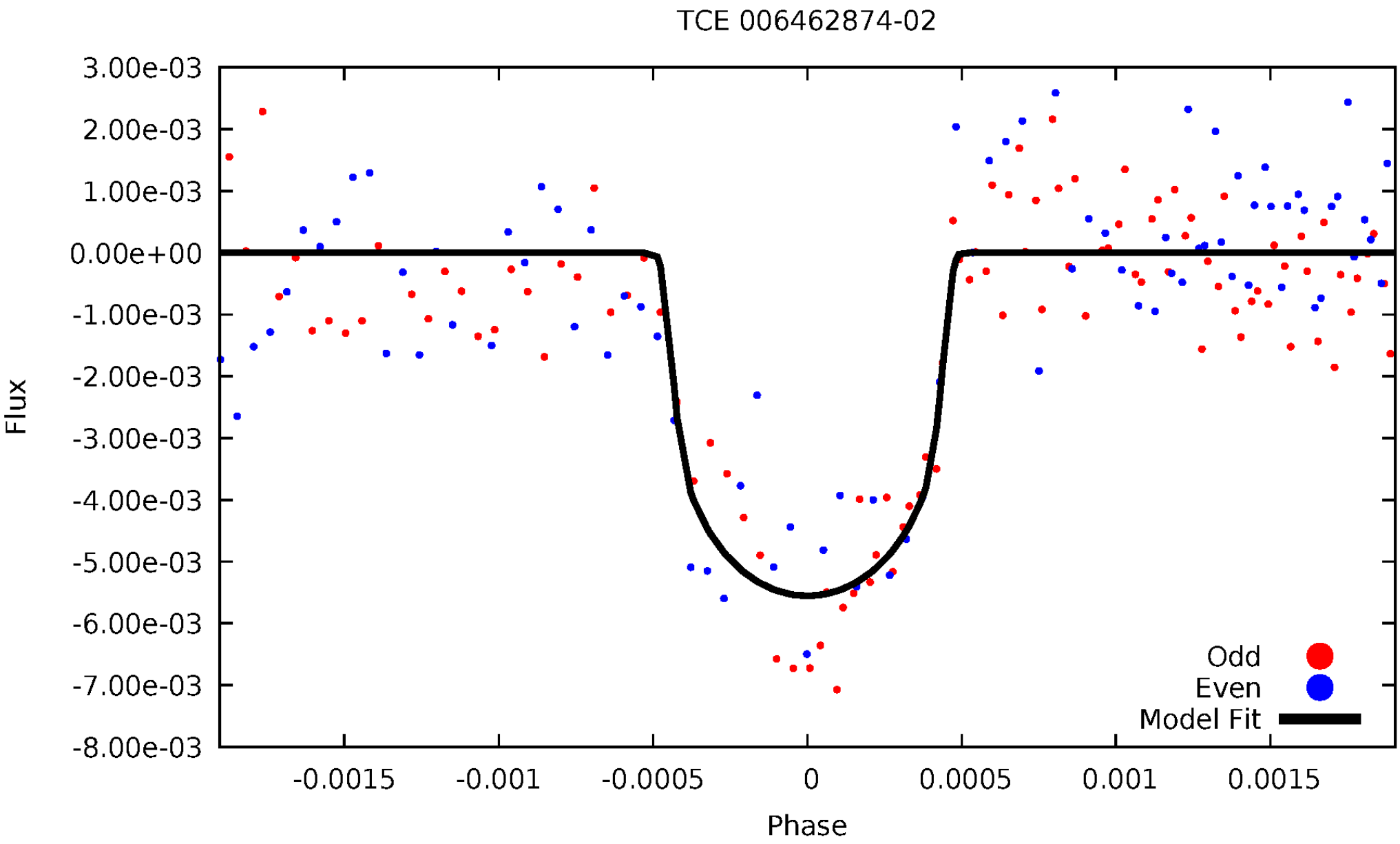
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006462874-02, PDC Light Curves

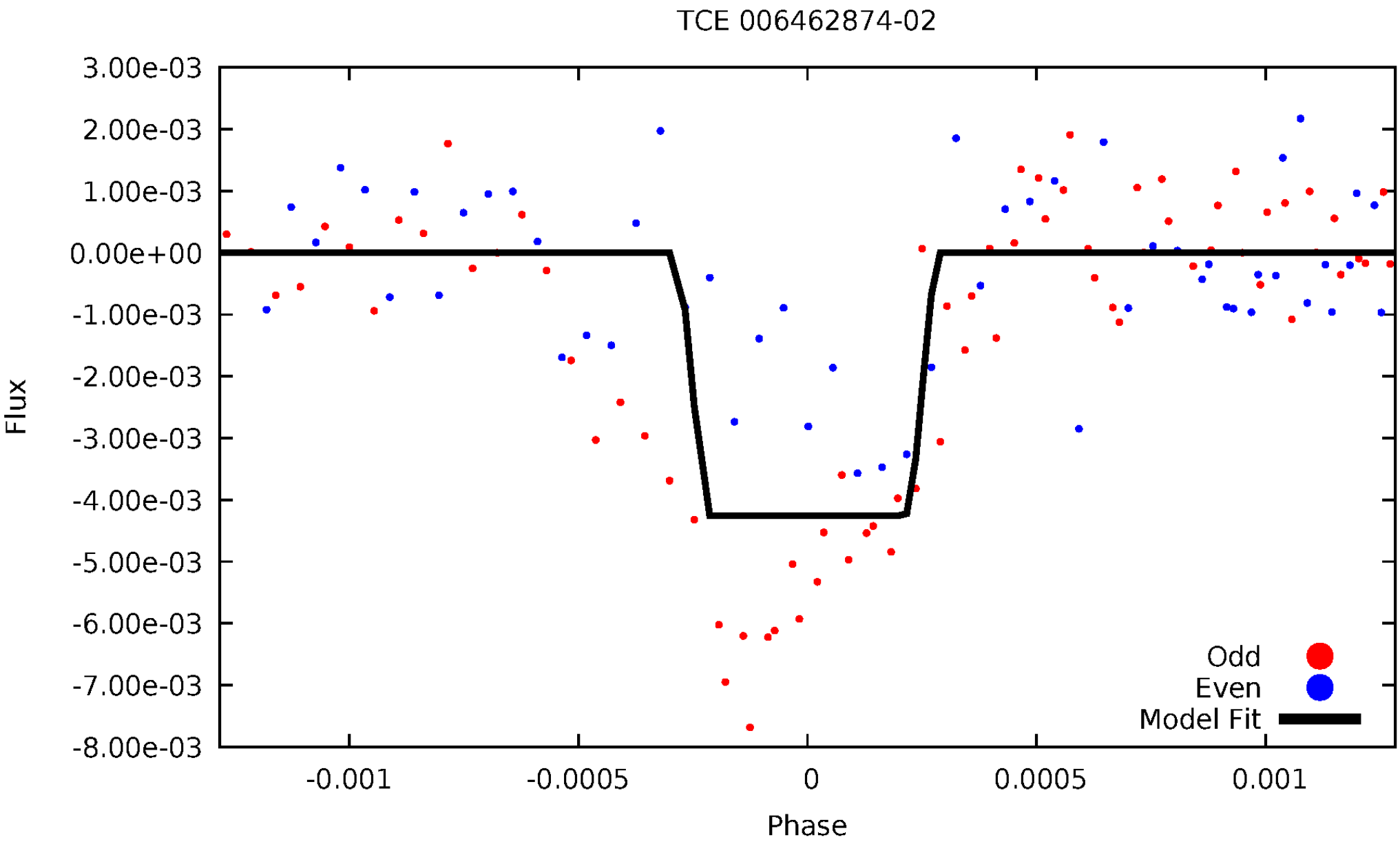



TCE 006462874-02
P = 190.123 days
P = 380.245 days
P = 760.490 days
Normalized Flux
BKJD
Normalized Flux
Phase

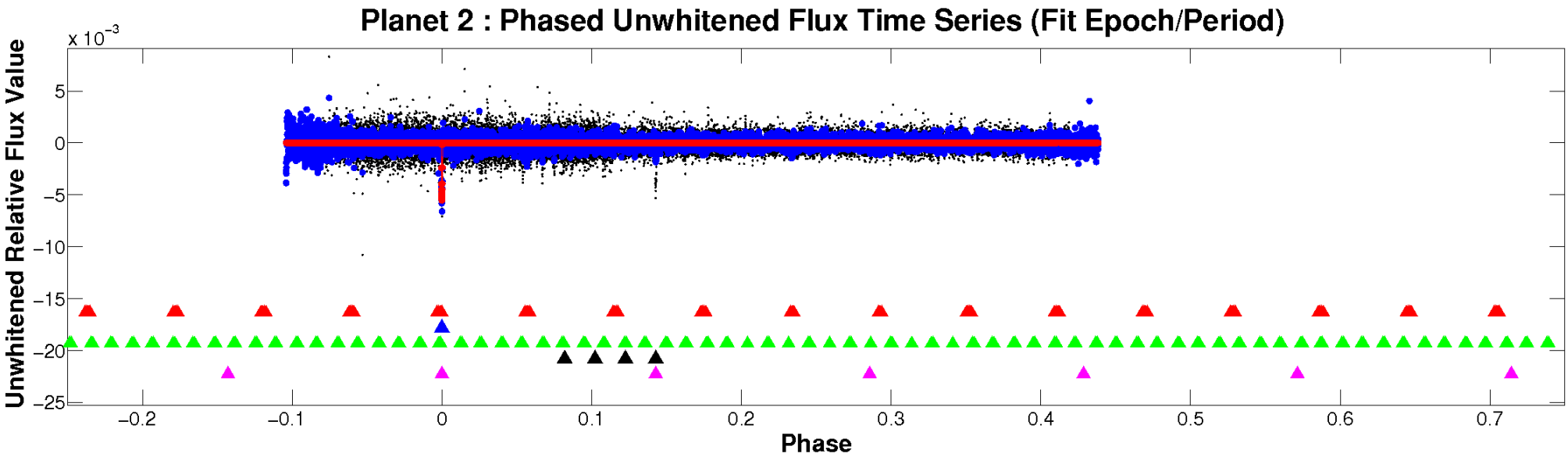
DV Odd/Even

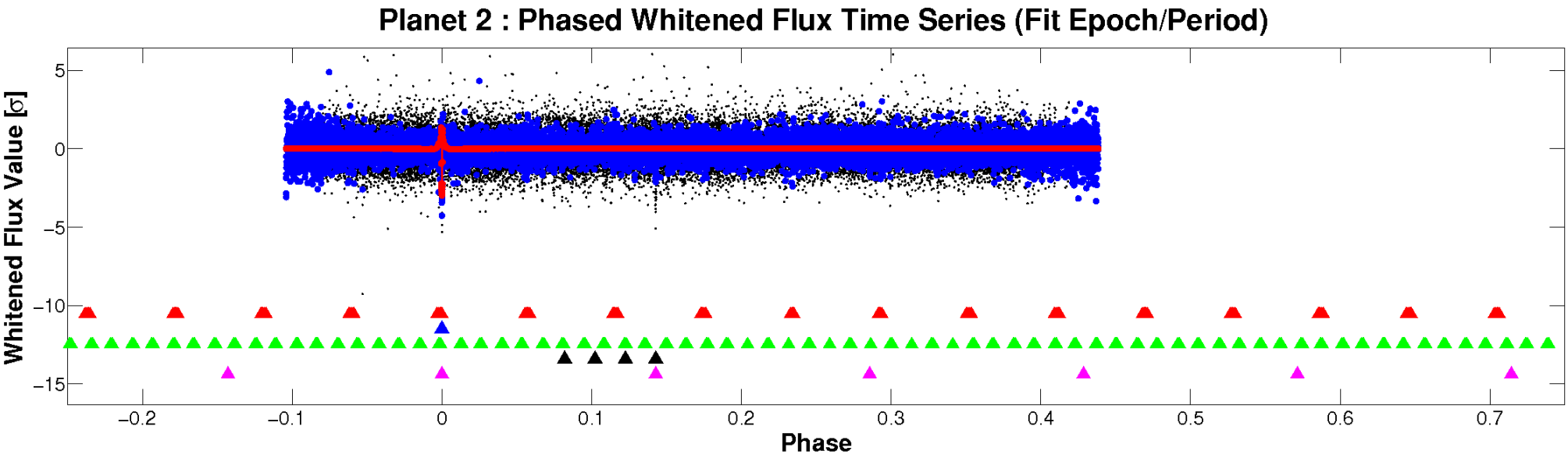

TCE 006462874-02
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
-5.00e-03
-6.00e-03
-7.00e-03
-8.00e-03
Flux
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006462874-02
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
-5.00e-03
-6.00e-03
-7.00e-03
-8.00e-03
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

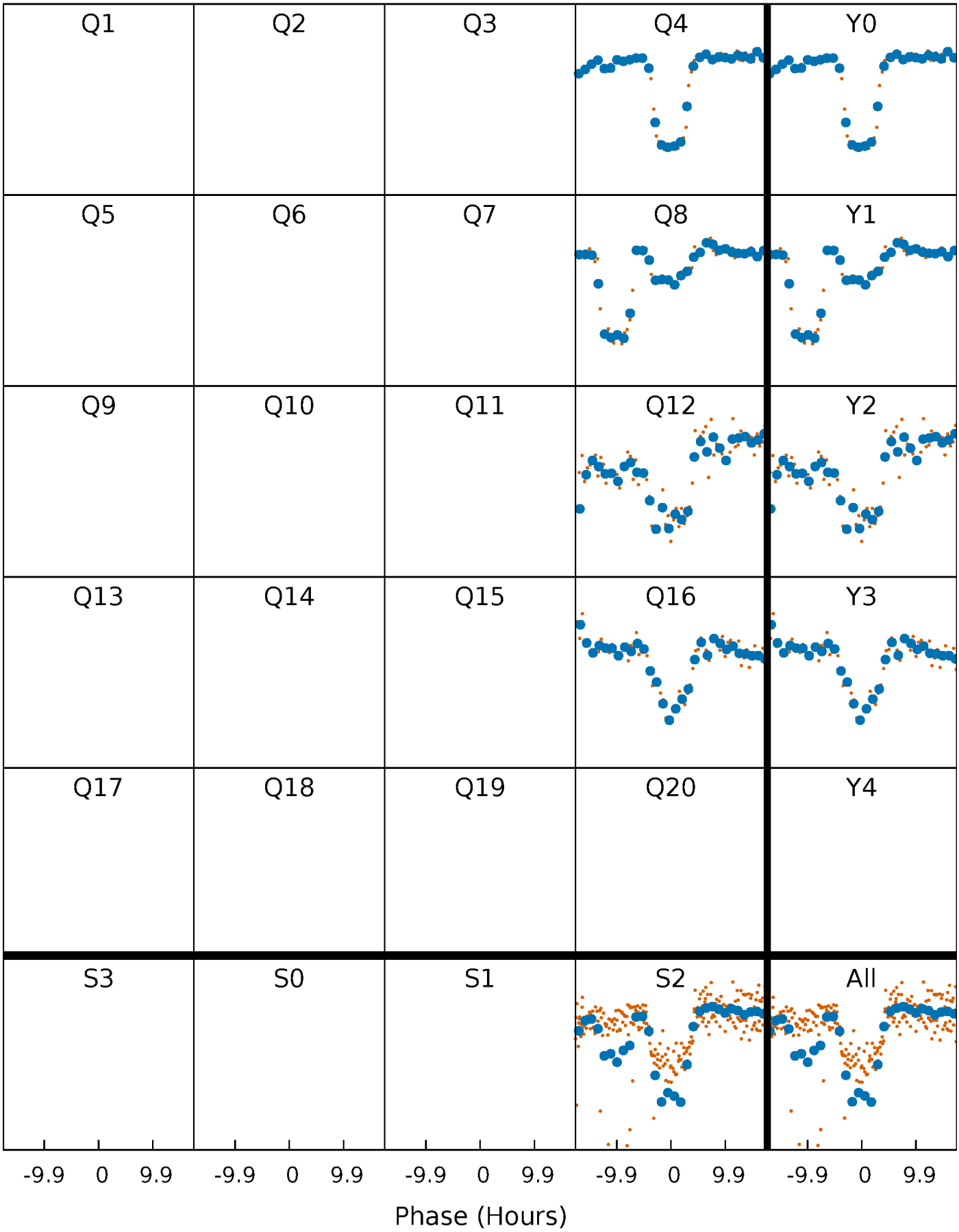
Non-Whitened Vs. Whitened Light Curve





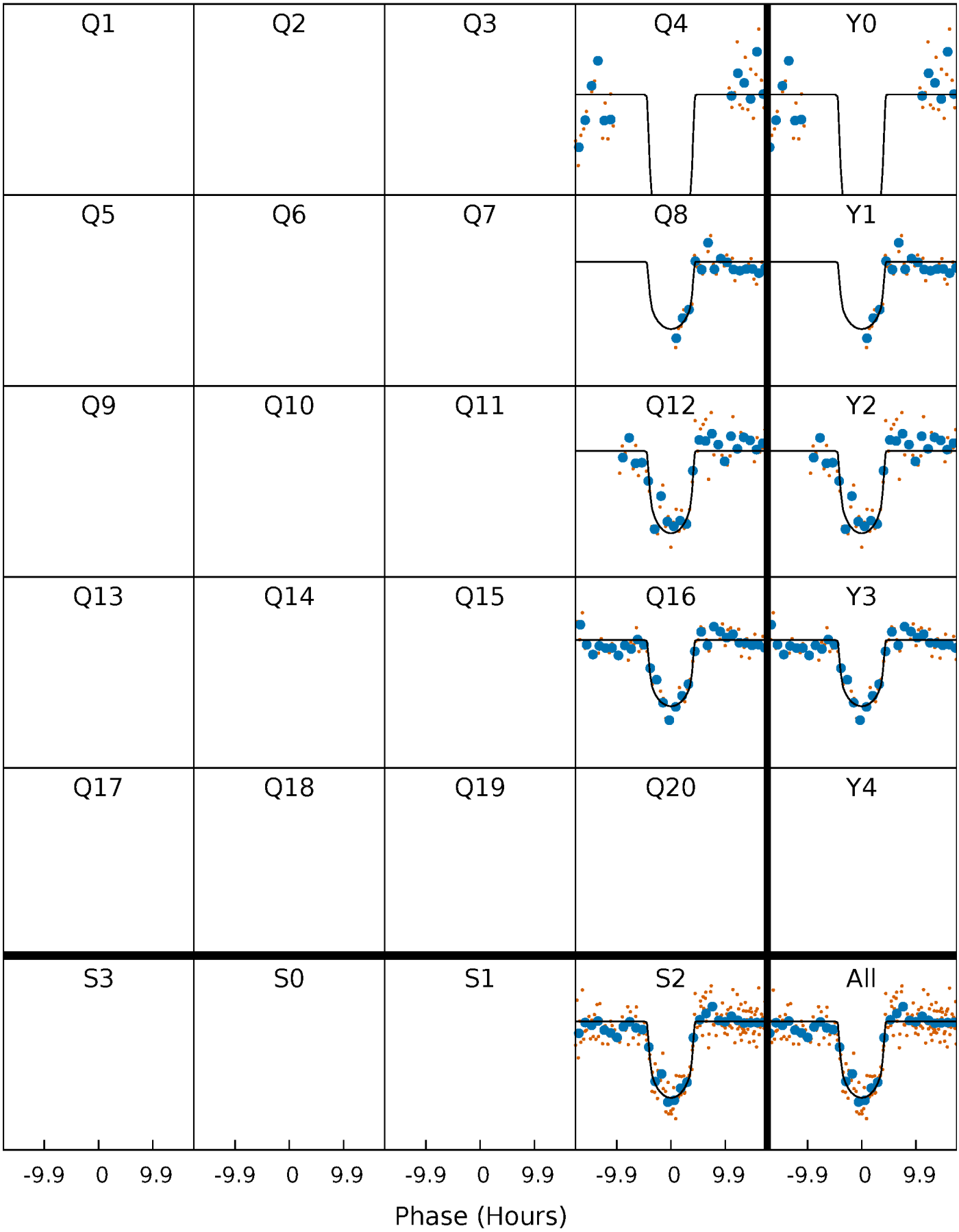
PDC Quarter-Phased Transit Curves

TCE 006462874-02 P=380.245065 Days T_0=378.518686 (BKJD)



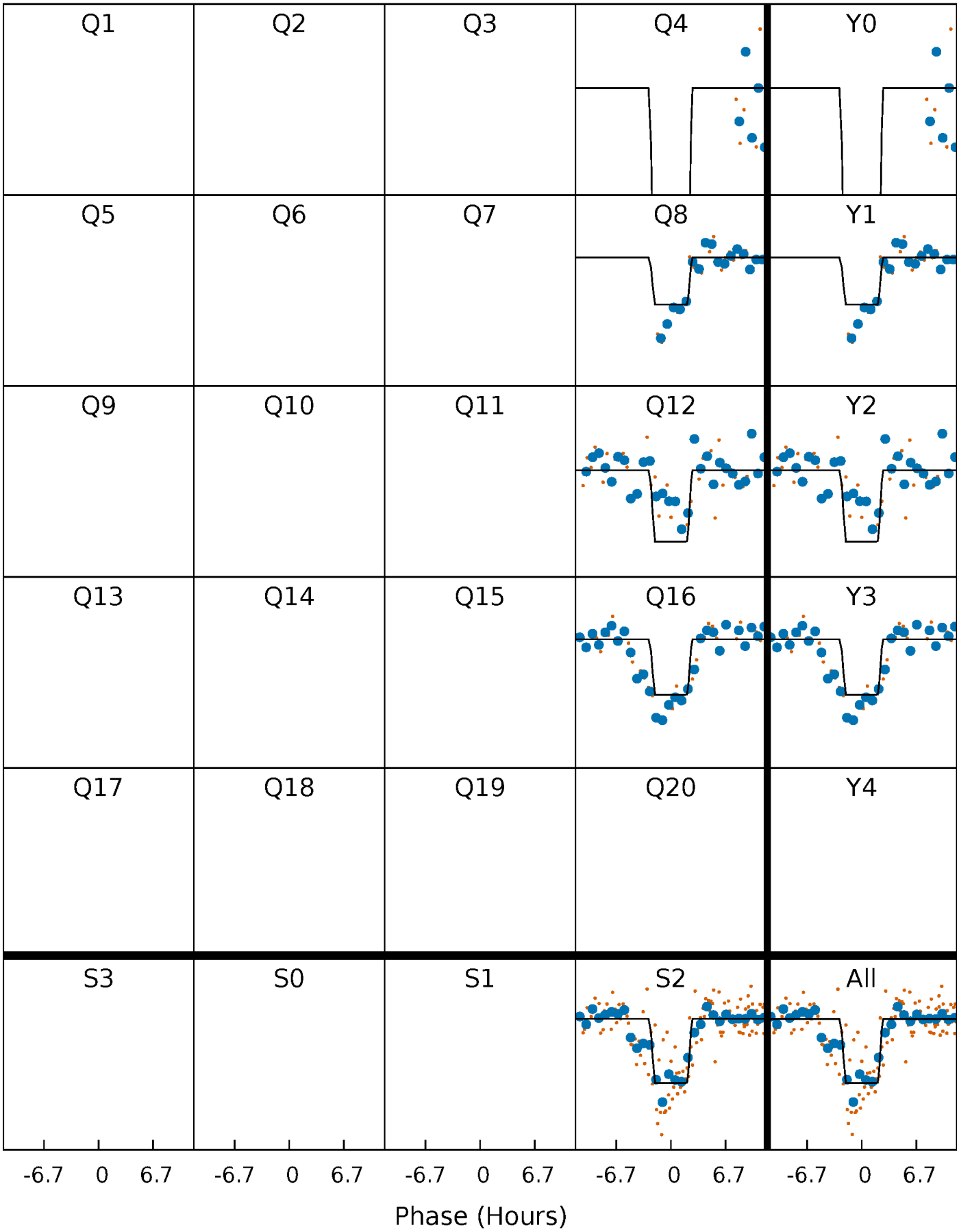
DV Quarter-Phased Transit Curves

TCE 006462874-02 P=380.245065 Days T_0=378.518686 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

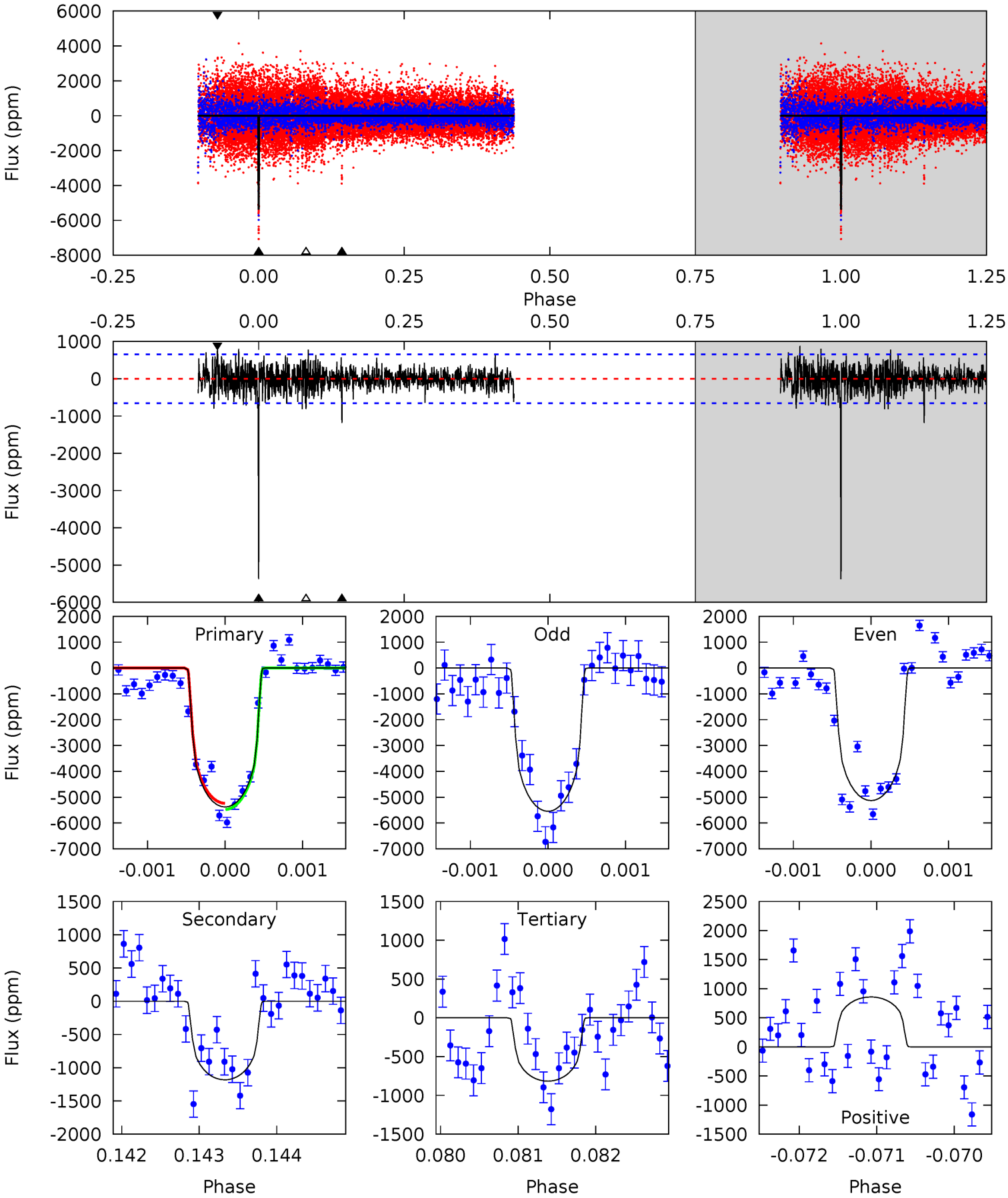
TCE 006462874-02 P=380.220873 Days T_0=378.626876 (BKJD)



DV Model-Shift Uniqueness Test

006462874-02, P = 380.245065 Days, E = 378.518686 Days

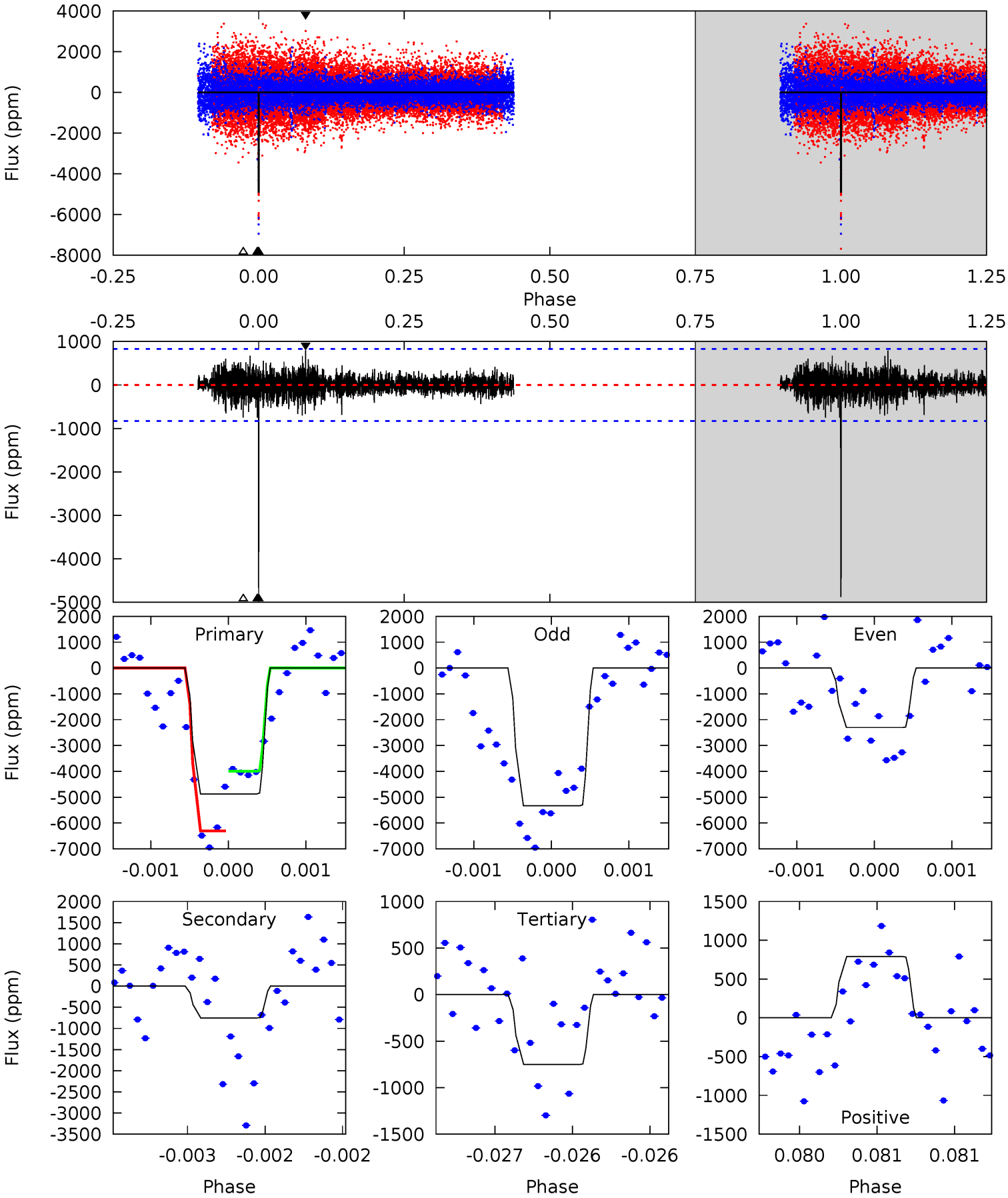
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.9	9.86	6.81	7.16	5.45	3.29	1.81	38.0	37.7	3.05	2.70	1.68	1.01	0.14	0.85



Alt Model-Shift Uniqueness Test

006462874-02, P = 380.220873 Days, E = 378.626876 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.7	5.05	5.04	5.30	5.56	3.46	1.08	27.7	27.4	0.01	-0.25	10.9	0.82	0.14	6.63



Stellar Parameters For KIC 006462874

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	4260^{+115}_{-140}	$4.663^{+0.060}_{-0.024}$	$-0.440^{+0.300}_{-0.300}$	$0.580^{+0.044}_{-0.060}$	$0.565^{+0.061}_{-0.051}$	$4.072^{+1.203}_{-0.494}$
	+3%/-3%	+1%/-1%	+68%/-68%	+8%/-10%	+11%/-9%	+30%/-12%
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 006462874-02 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1183±120	$4.16^{+0.91}_{-0.93}$	215^{+7}_{-8}	3412^{+283}_{-219}	27773^{+17656}_{-9620}
Alt.	-752±149	$4.07^{+0.90}_{-0.90}$	215^{+6}_{-8}	3199^{+243}_{-214}	18224^{+11469}_{-6555}

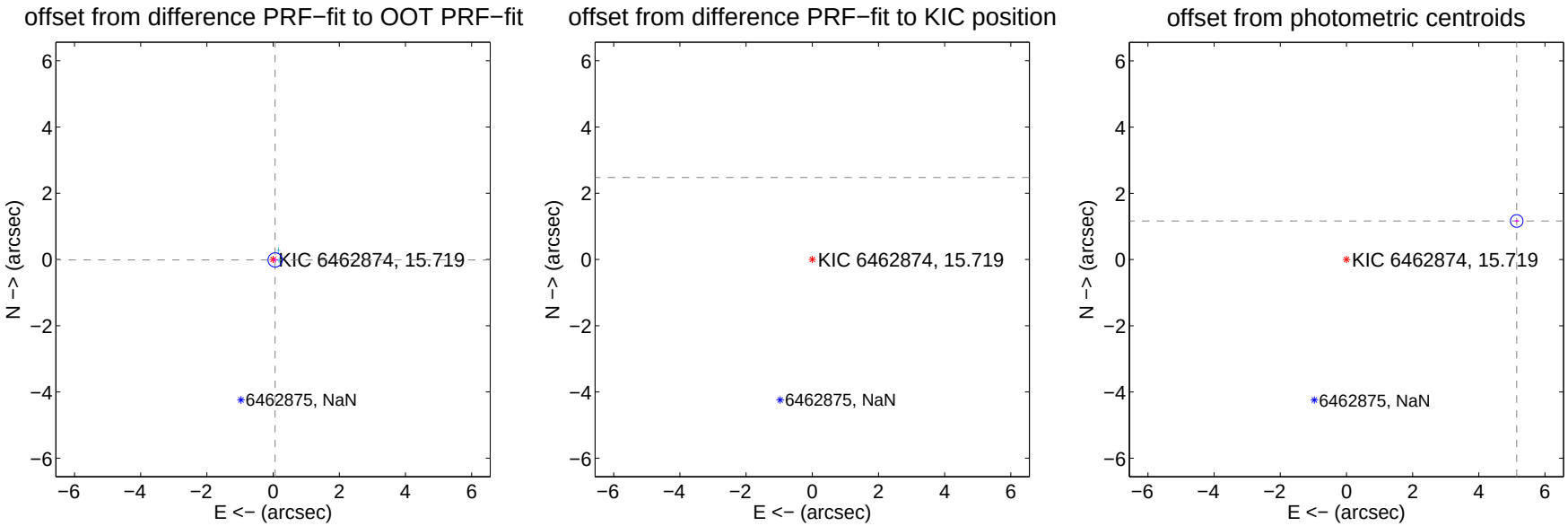
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

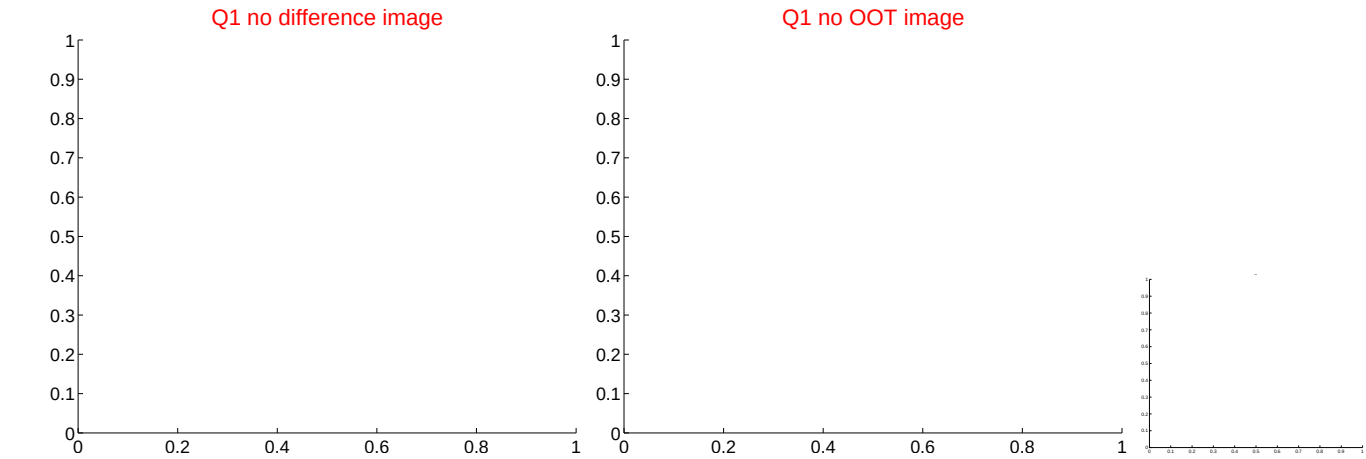
Supplemental centroid analysis for 006462874-02. Kepler magnitude: 15.72. Transit SNR 16.22
There are 3 quarters with good PRF difference image offsets
The OOT PRF centroid is offset from the target star catalog position by about 7.08 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

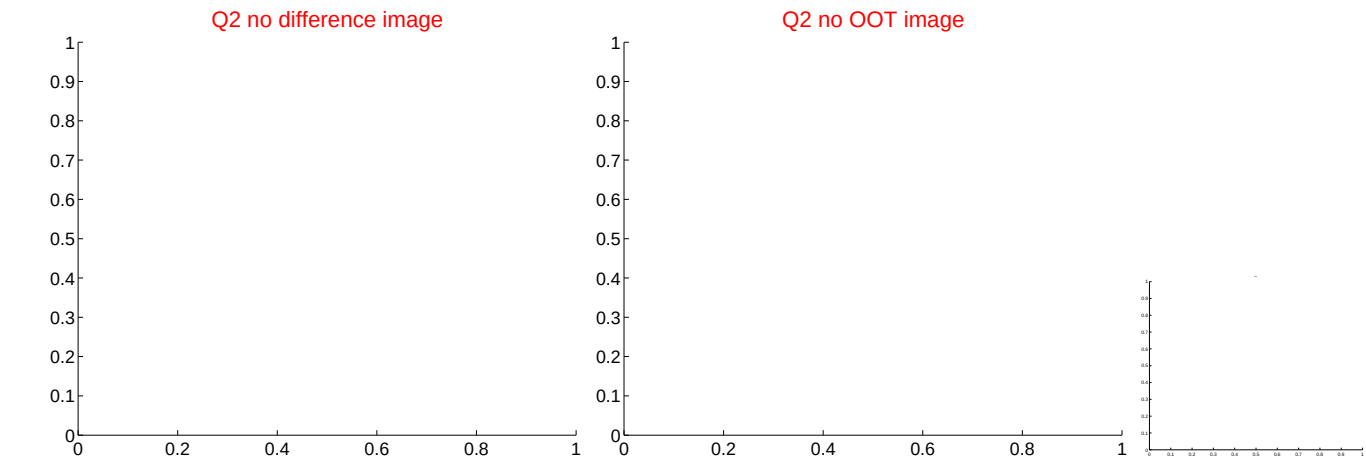
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.063 ± 0.072	0.88	-0.062 ± 0.071	-0.013 ± 0.079
PRF-fit source offset from KIC position	7.285 ± 0.072	100.64	-6.851 ± 0.071	2.477 ± 0.079
photometric centroid source offset	5.28 ± 0.06	83.13	-5.15 ± 0.06	1.17 ± 0.03

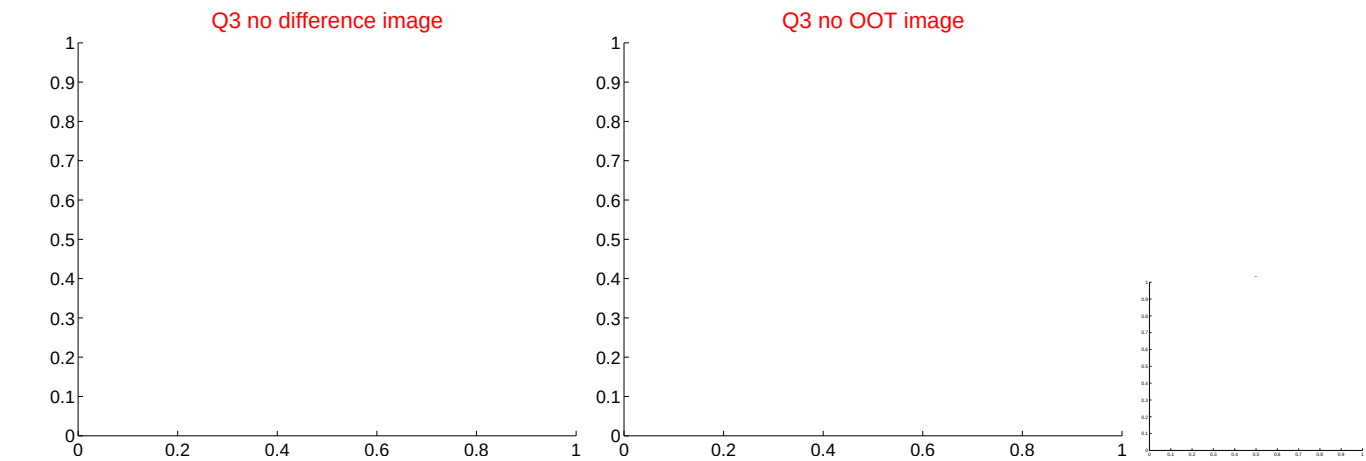


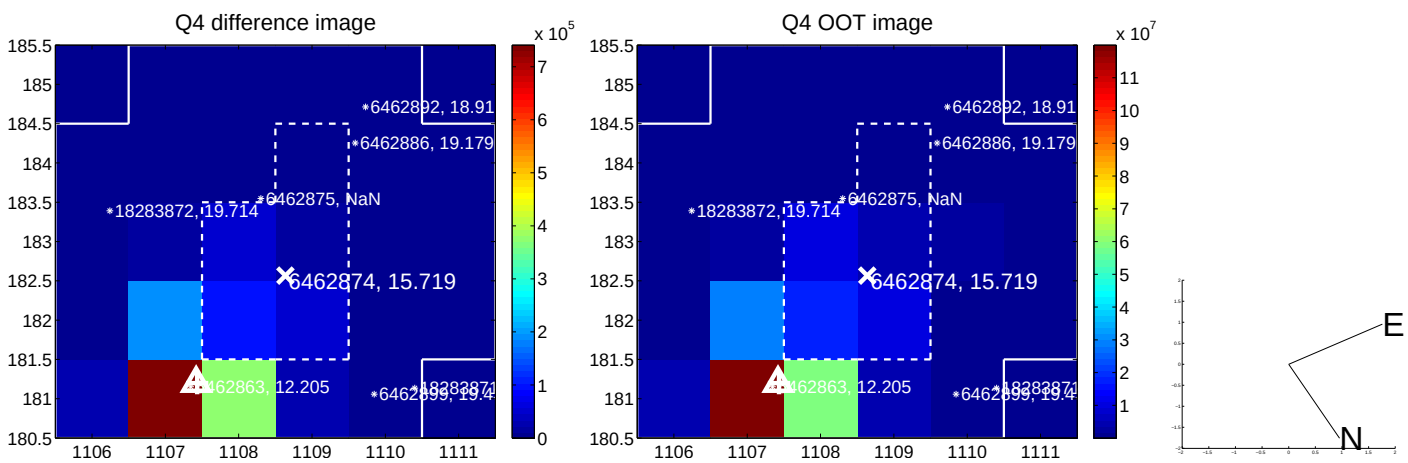
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

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

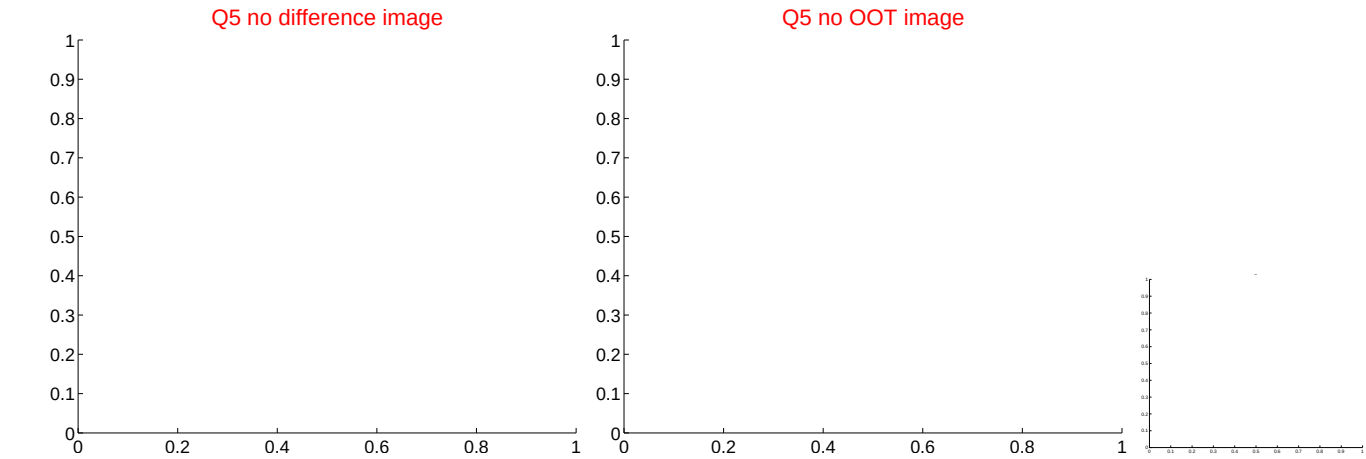


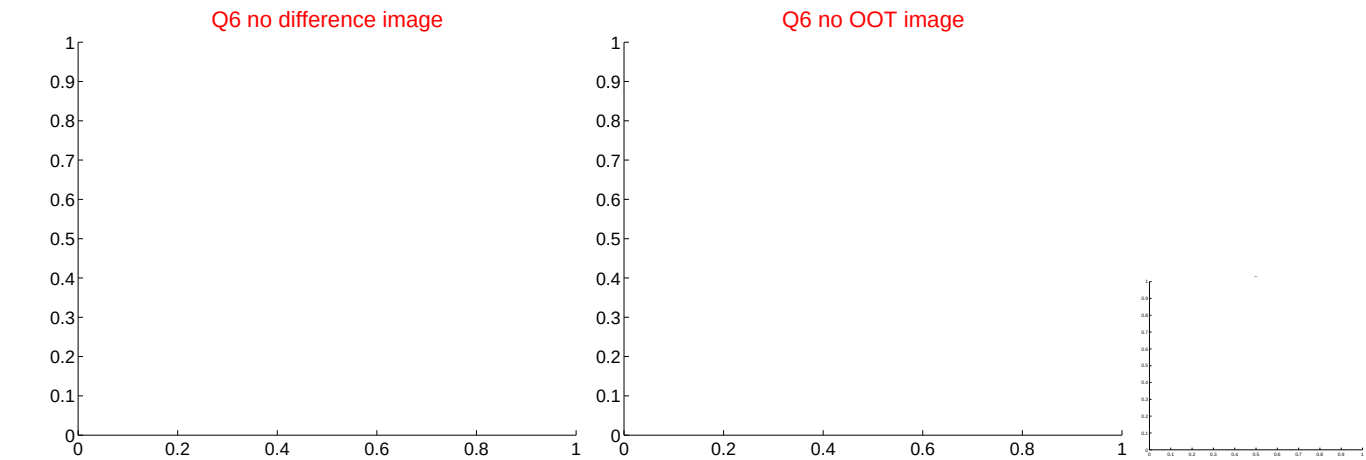


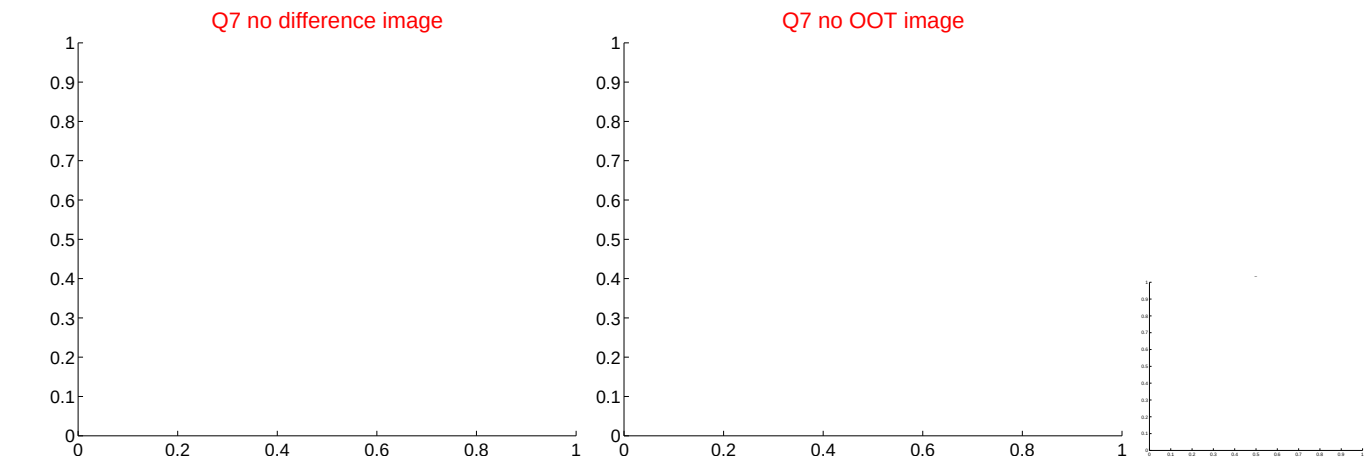


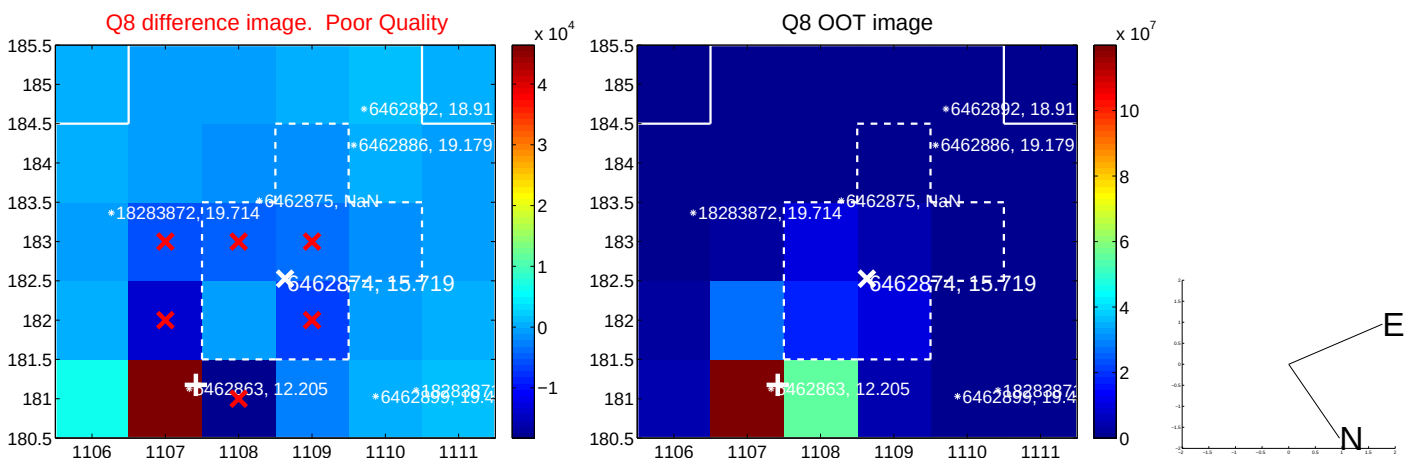


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

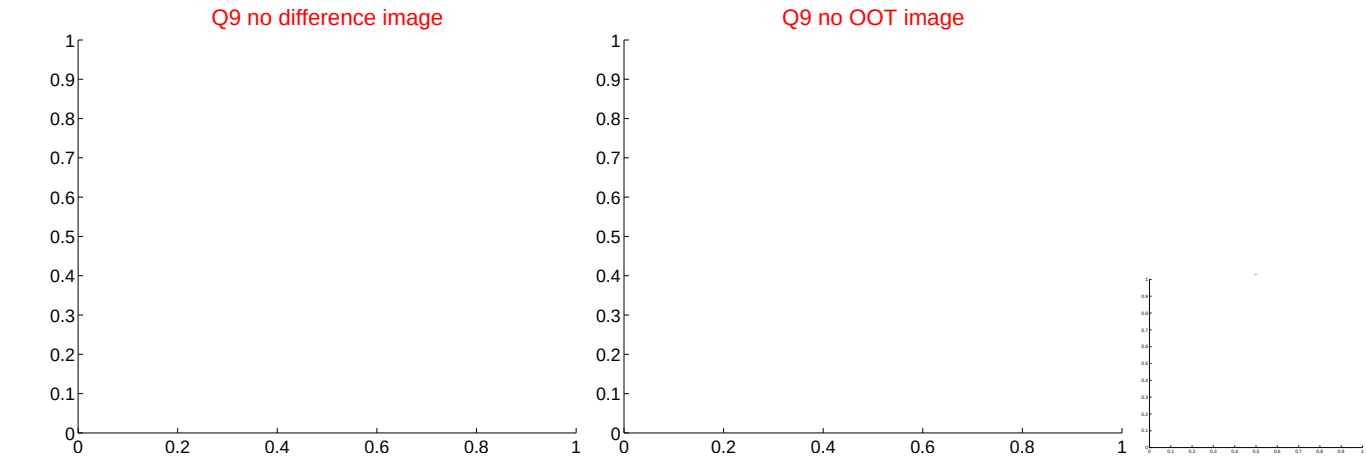


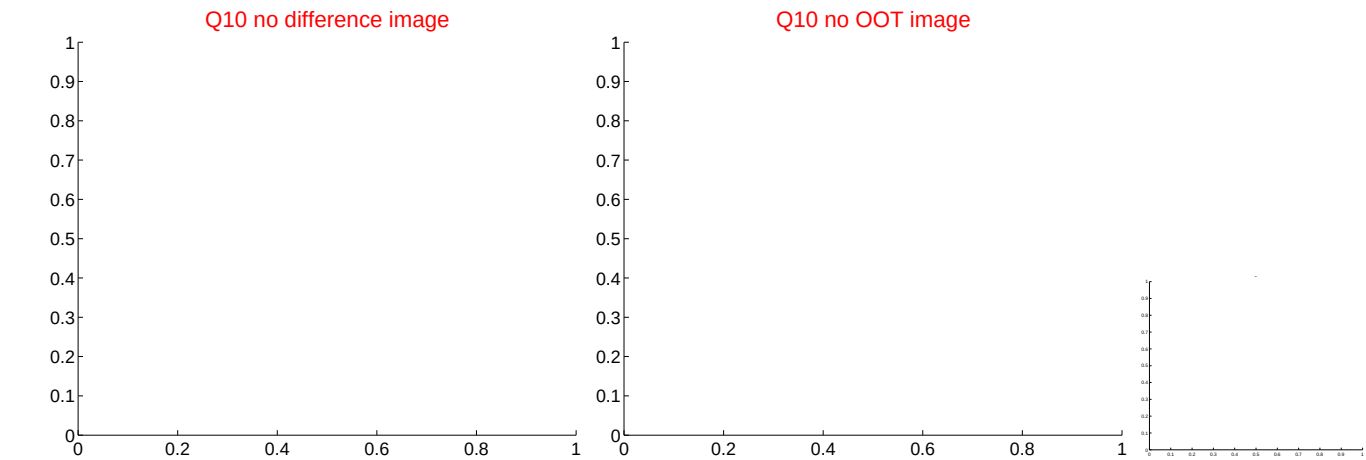


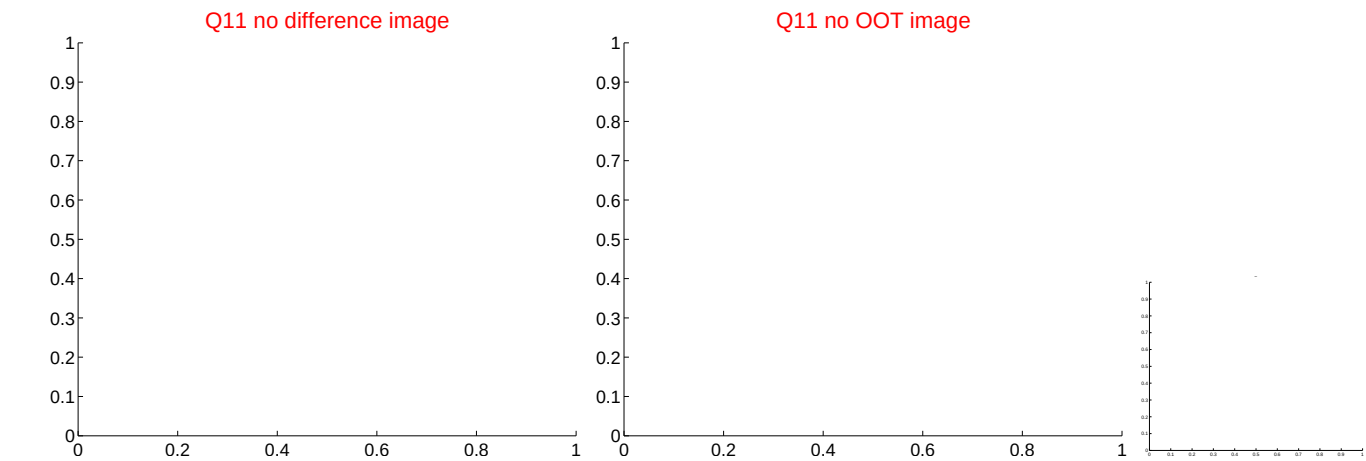


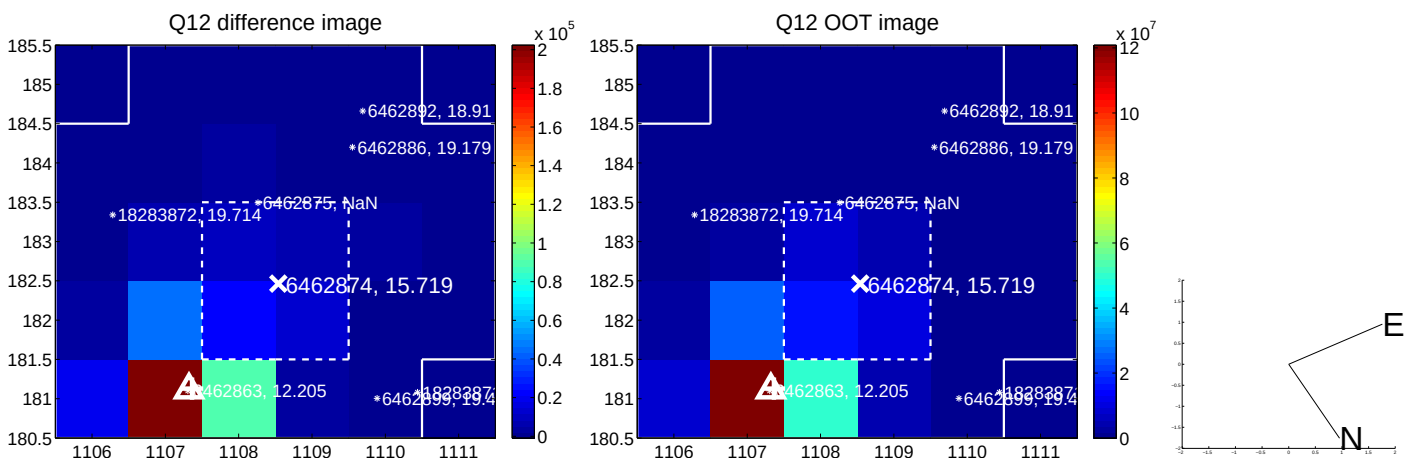


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

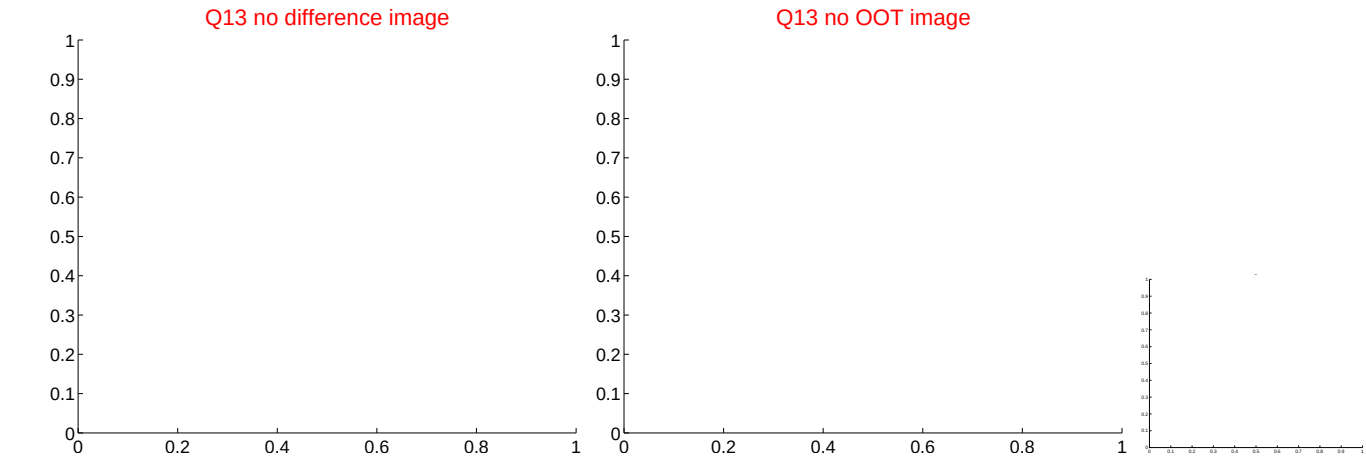


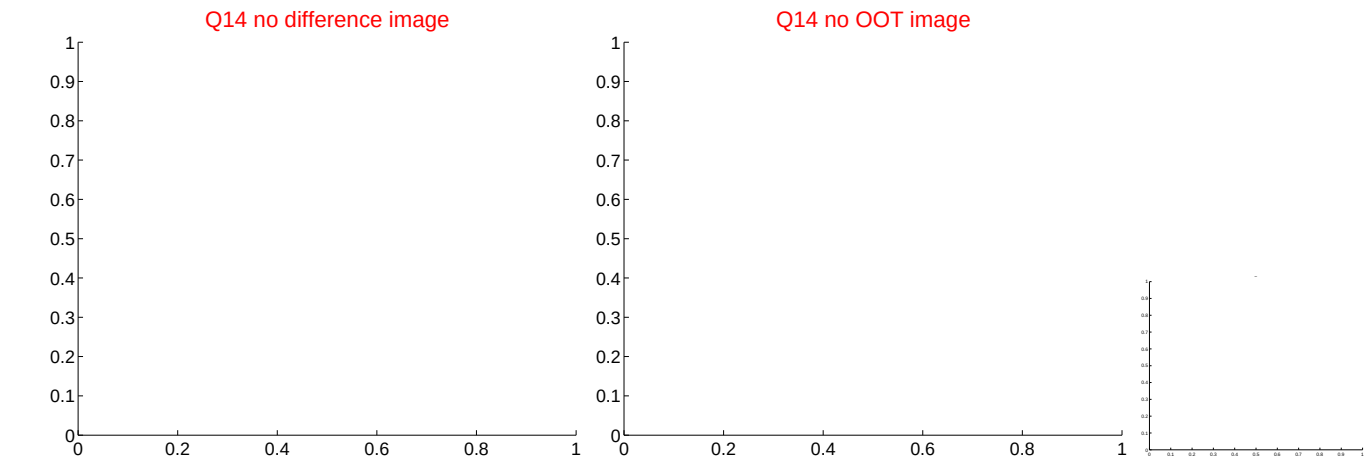


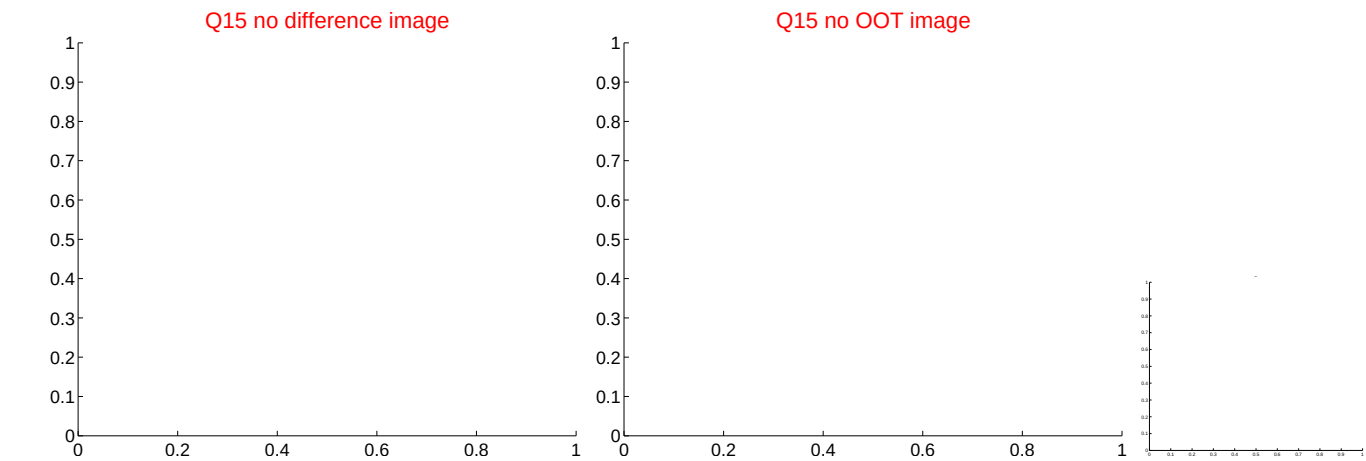


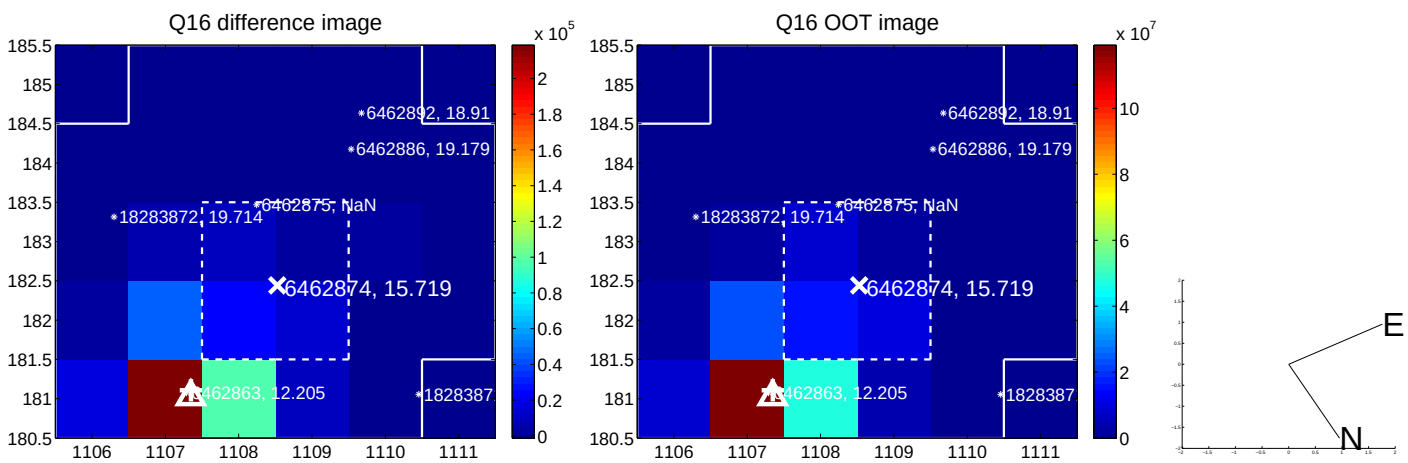


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

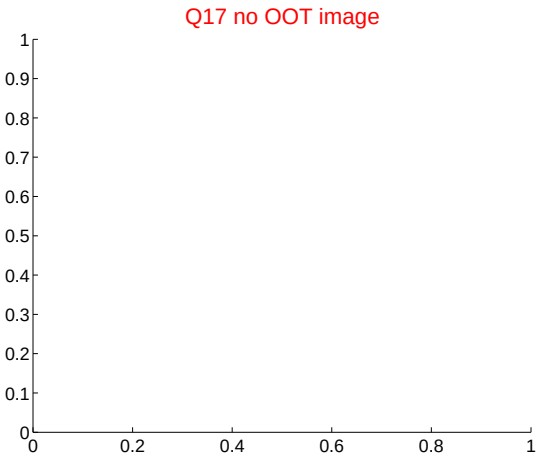


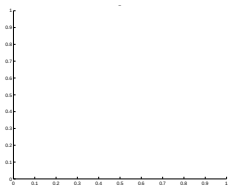


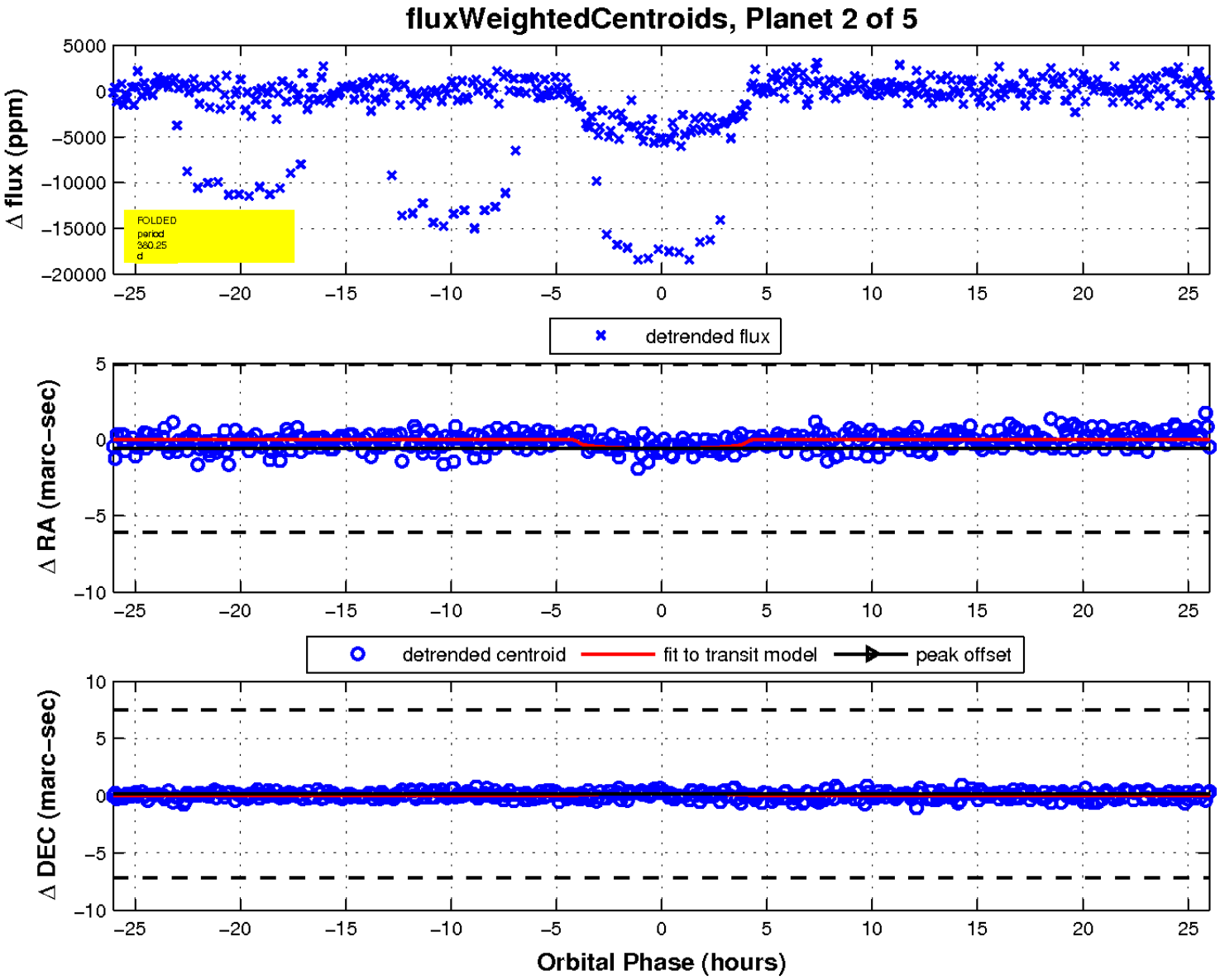




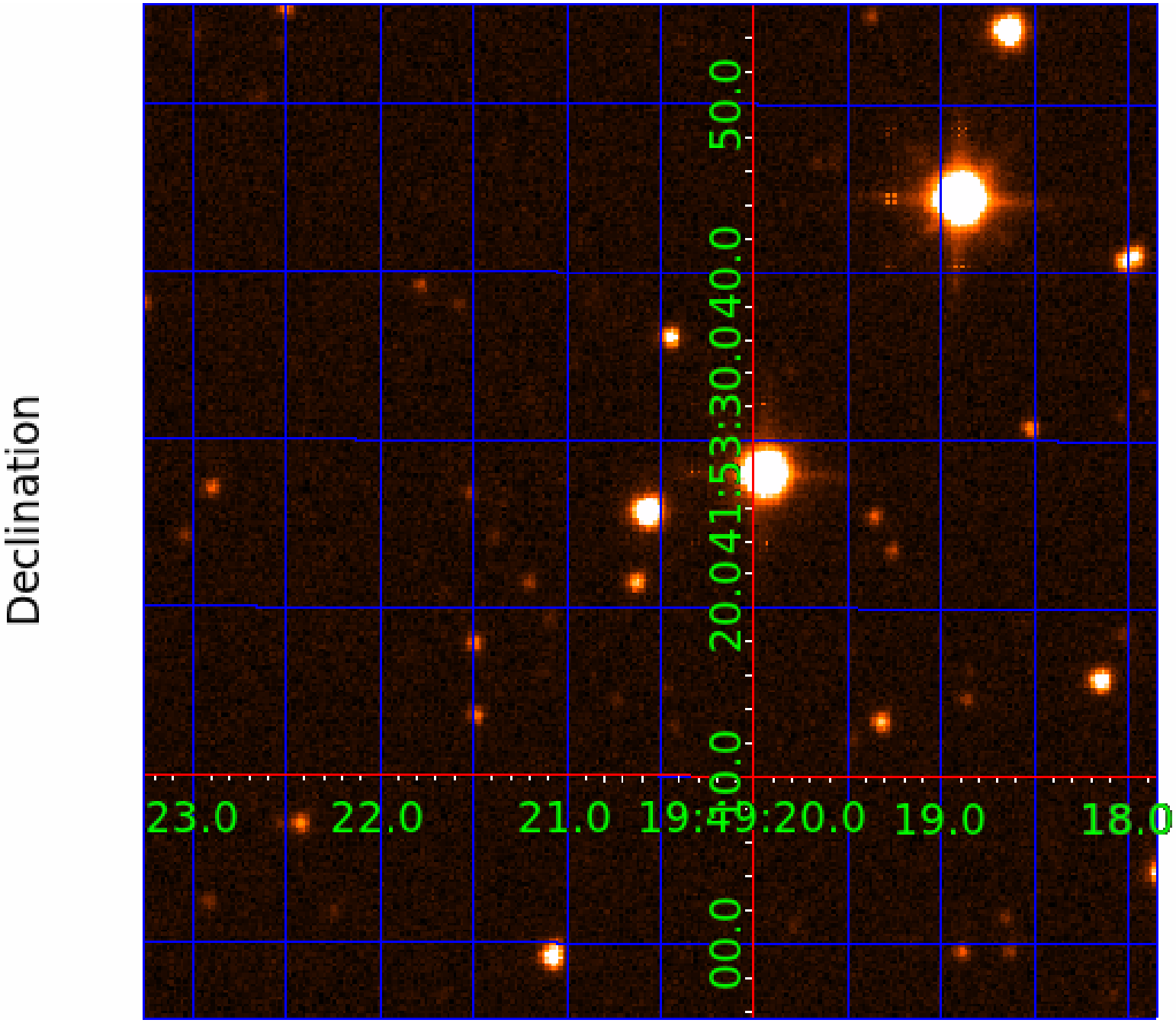
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image


Declination
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22.0
21.0
19:49:20.0
19.0
18.0

KIC 006462874

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 ($S_\oplus$)
006462874-01	OBS	1231.01	22.342880	132.743757	2913.3	6.677	73.7	41.8	0.58	4260	3.04	6.03
006462874-02	OBS	No	380.245065	378.518686	5553.0	8.687	15.1	16.2	0.58	4260	4.21	0.14
006462874-03	OBS	1231.02	10.423579	138.017235	724.5	5.894	15.3	15.3	0.58	4260	1.89	16.65
006462874-04	OBS	No	372.535863	432.834919	3247.2	9.591	13.4	12.4	0.58	4260	3.69	0.14
006462874-05	OBS	No	54.319747	161.249629	932.7	8.627	8.3	9.2	0.58	4260	1.88	1.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006462874-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—EPHEM_MATCH
006462874-02	OBS	FP	0.00	1	0	1	1	INDIV_TRANS_RUBBLE_CHASES—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
006462874-03	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—EPHEM_MATCH
006462874-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006462874-05	OBS	FP	0.00	1	0	1	1	TRANS_GAPPED—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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 006462874-03

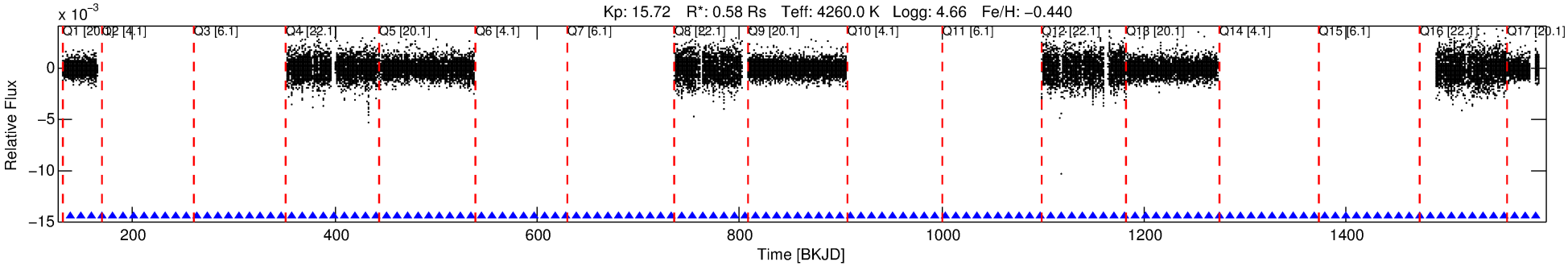
TCE (1)	KIC	Parent (2)	Parent KIC	P_1:P_2	Dist (″)	ΔRow	ΔCol	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
006462874-03	6462874	94.02	6462863	1:1	7.3	1	-1	12.21	15.72	1.10	Direct-PRF	0	0.36	0.25

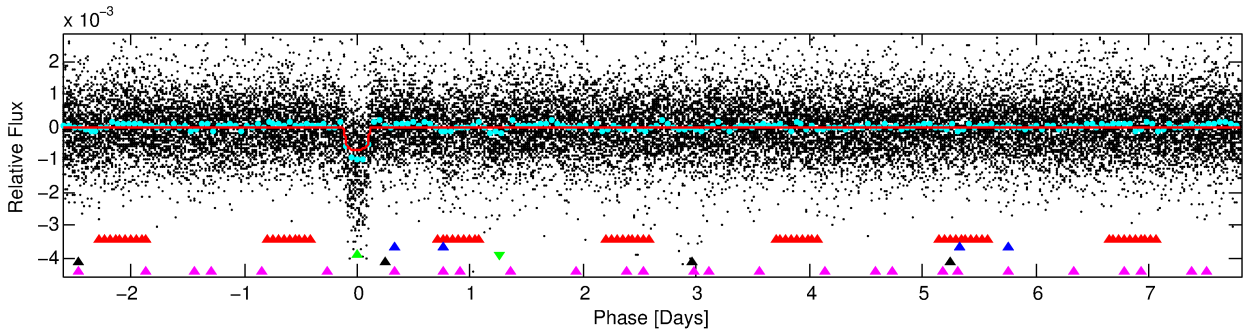
Notes: P_1:P_2 is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth dividied by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should recieve extra scrutiny, especially if the period ratio is very large.

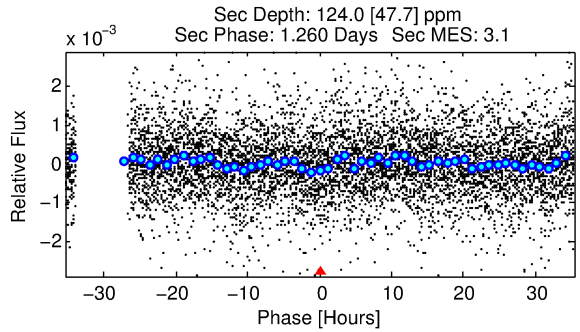
DV One-Page Summary

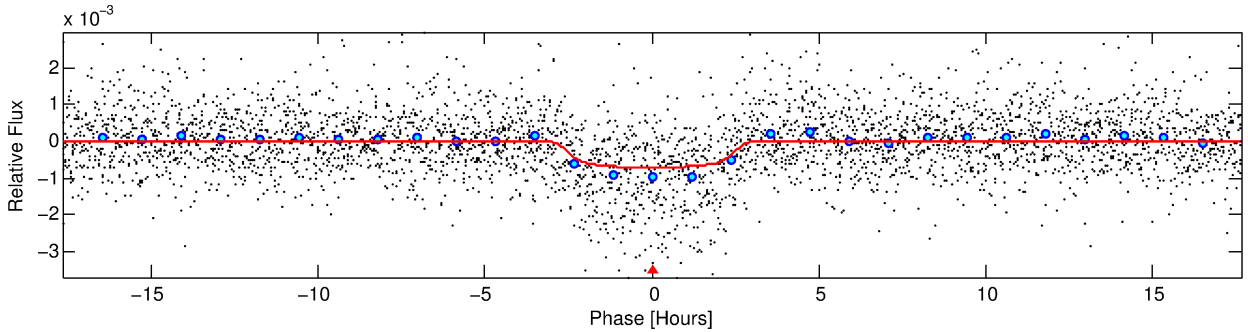
KIC: 6462874 Candidate: 3 of 5 Period: 10.424 d
KOI: K01231.02 Corr: 0.964

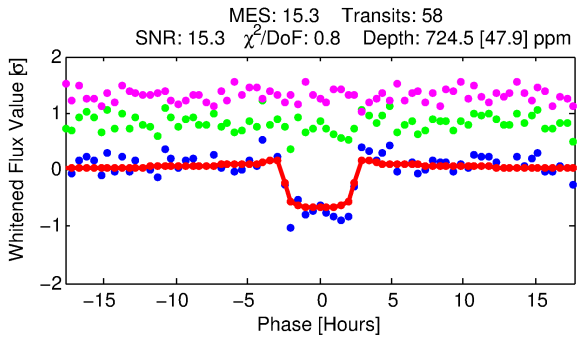
Kp: 15.72 R*: 0.58 Rs Teff: 4260.0 K Logg: 4.66 Fe/H: −0.440

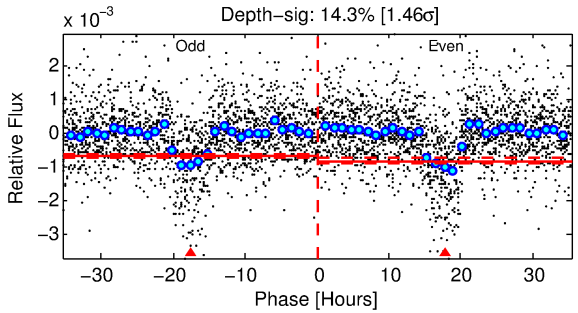


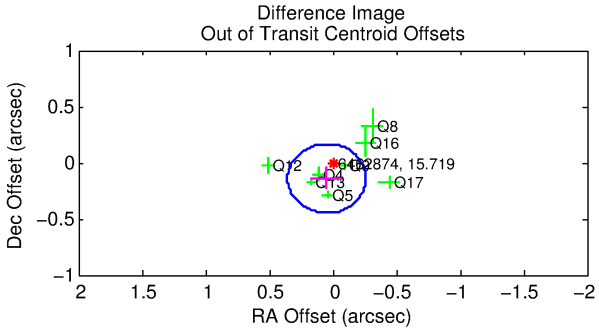












DV Fit Results:

Period = 10.42358 [0.00008] d
Epoch = 138.0172 [0.0062] BKJD
Rp/R* = 0.0298 [0.0025]
a/R* = 6.85 [2.00]
b = 0.90 [0.07]

Seff = 16.65 [2.91]
Teq = 515 [22] K
Rp = 1.89 [0.25] Re
a = 0.0772 [0.0064] AU

Ag = 114.06 [49.59] [2.28σ]
Teffp = 2603 [286] K [7.28σ]

DV Diagnostic Results:

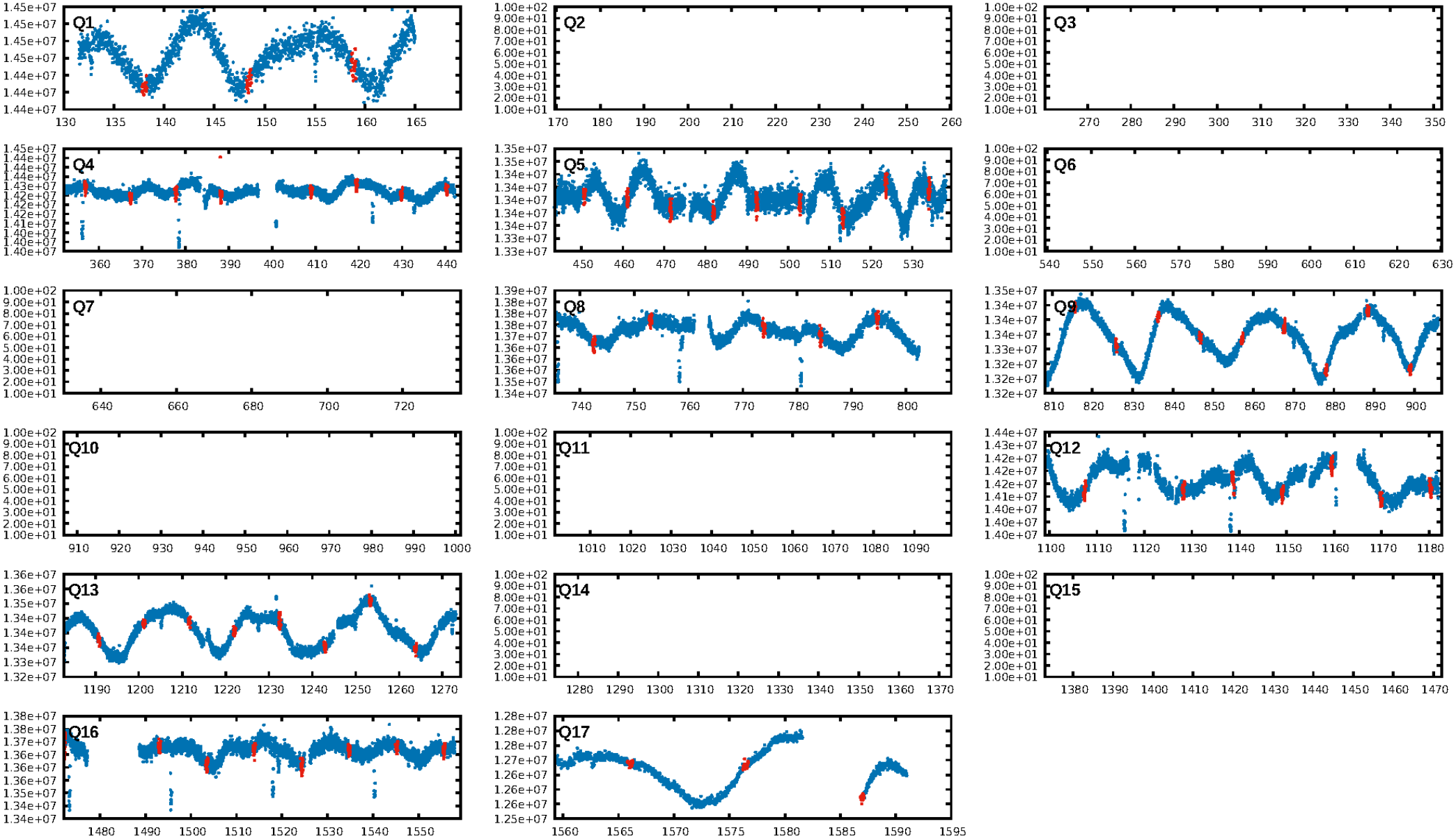
ShortPeriod−sig: N/A
LongPeriod−sig: 100.0% [32.12σ]
ModelChiSquare2−sig: 0.0%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: 1.10e−48
RollingBand−fgt: 1.00 [52/52]
GhostDiagnostic−chr: −0.5033

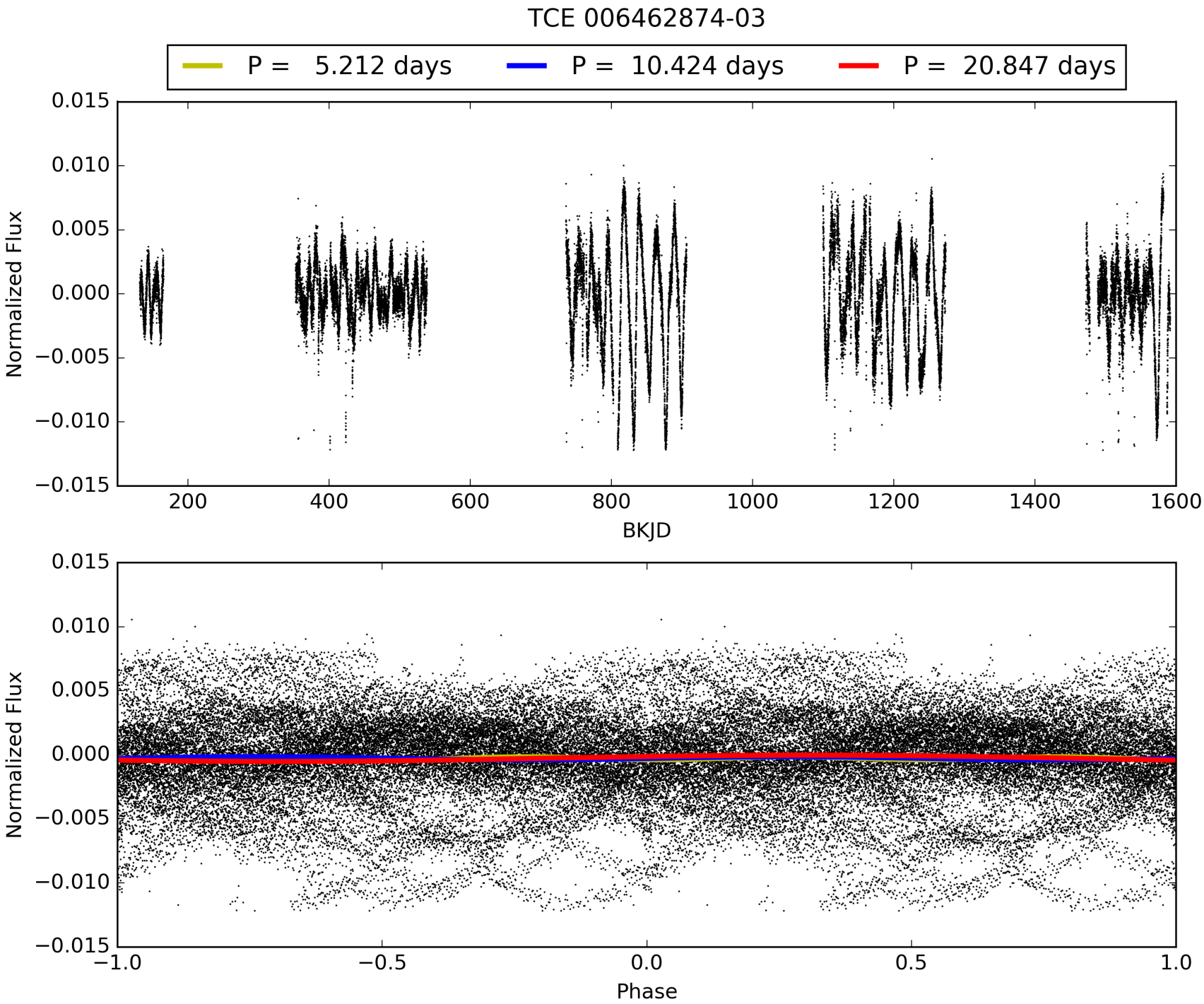
Centroid−sig: 0.0%
Centroid−so: 5.873 arcsec [55.03σ]
OotOffset−rm: 0.149 arcsec [1.45σ]
KicOffset−rm: 7.091 arcsec [52.91σ]
OotOffset−st: 0/0/4/4 [8]
KicOffset−st: 0/0/4/4 [8]
DiffImageQuality−fgm: 1.00 [8/8]
DiffImageOverlap−fno: 1.00 [9/9]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31−Jan−2016 03:36:21 Z

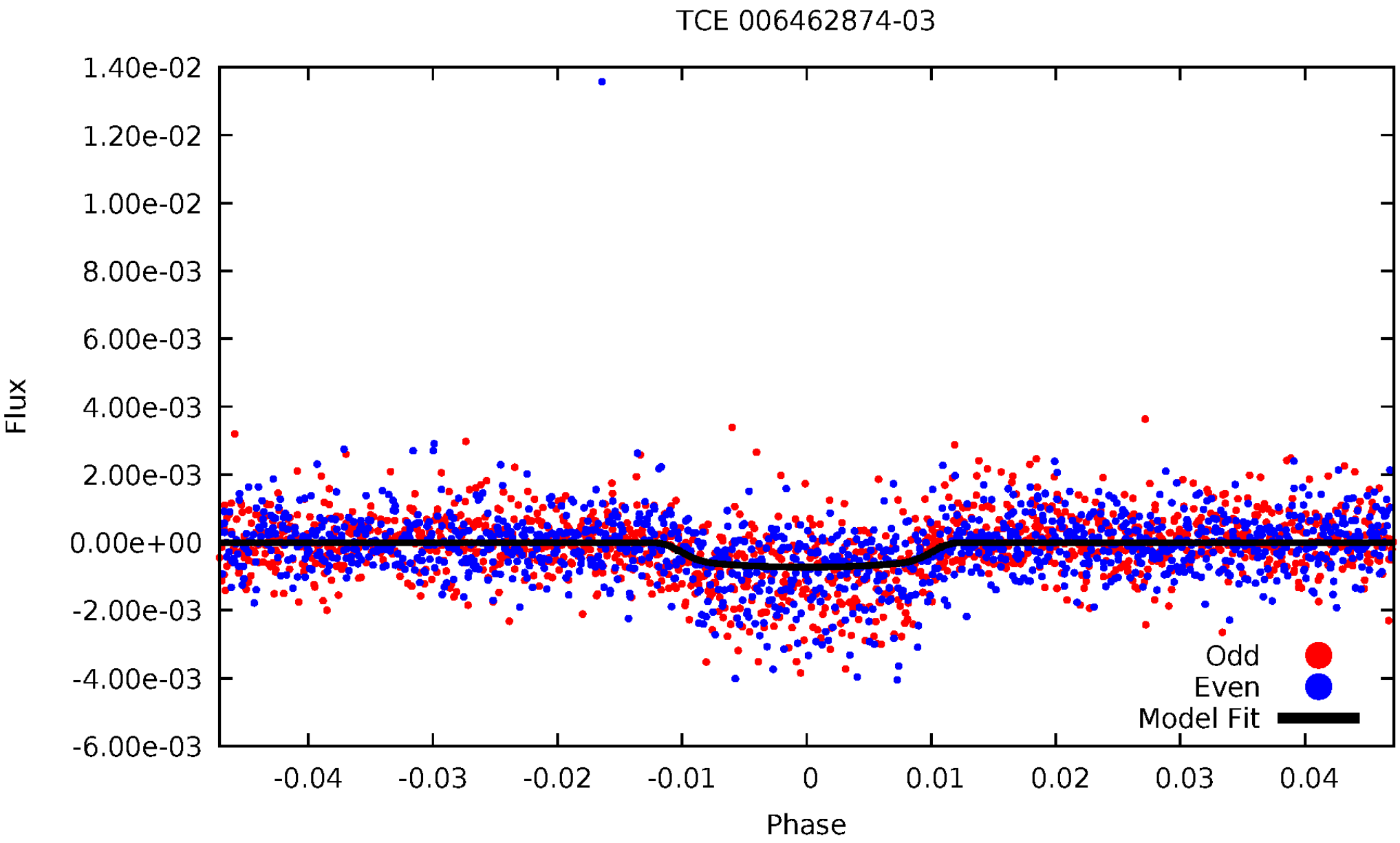
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006462874-03, PDC Light Curves




TCE 006462874-03
P = 5.212 days
P = 10.424 days
P = 20.847 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even


TCE 006462874-03
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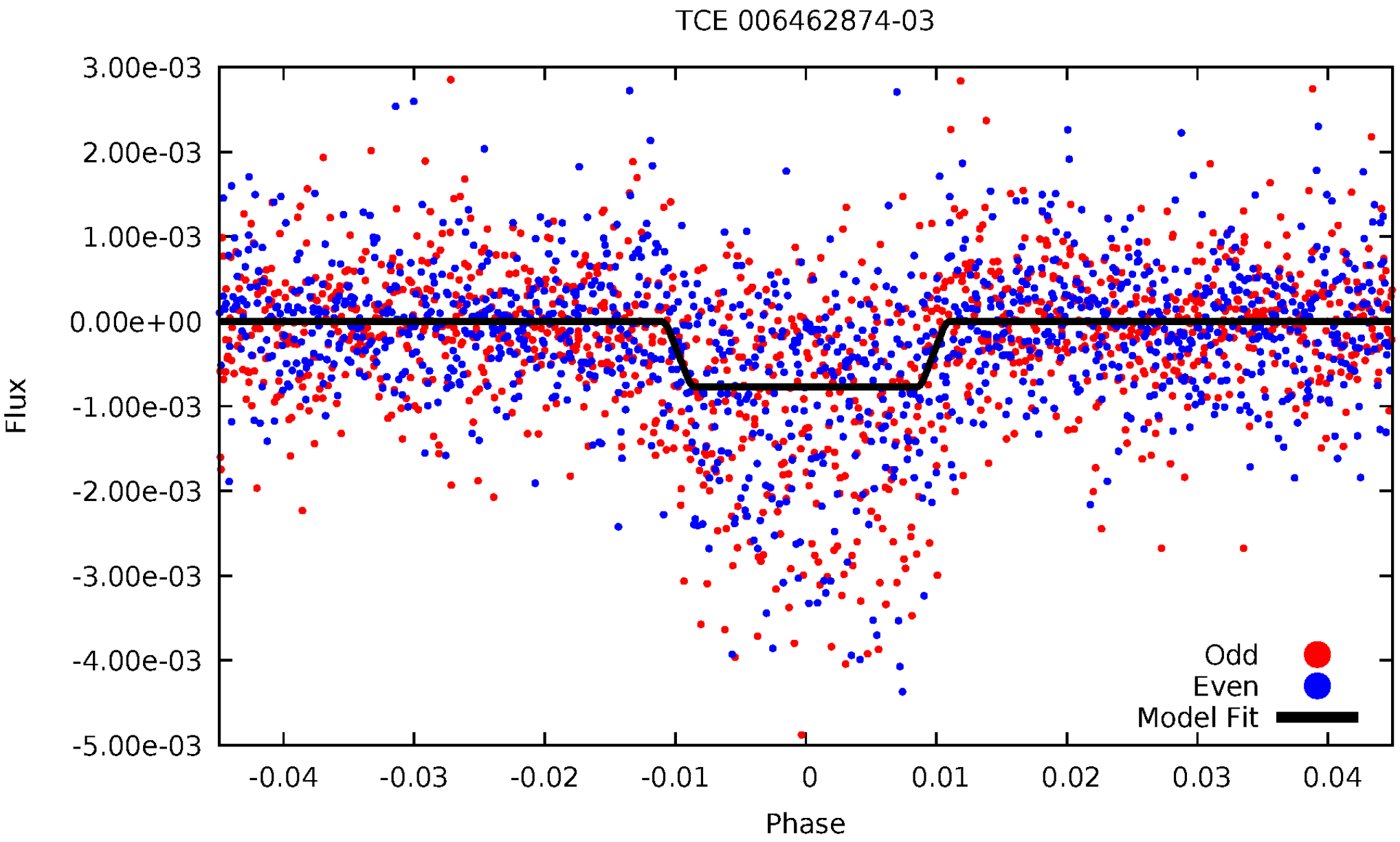
1.20e-02
1.00e-02
8.00e-03
6.00e-03
4.00e-03
2.00e-03
0.00e+00
-2.00e-03
-4.00e-03
-6.00e-03
Flux
-0.04
-0.03
-0.02
-0.01
0
0.01
0.02
0.03
0.04
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006462874-03
3.00e-03
2.00e-03
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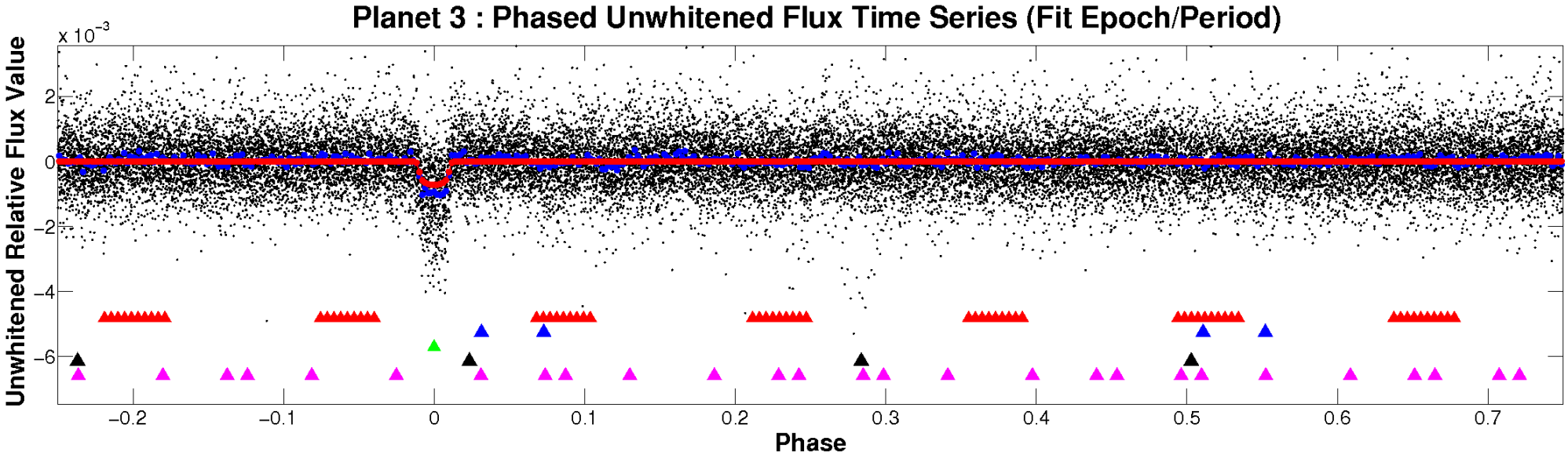
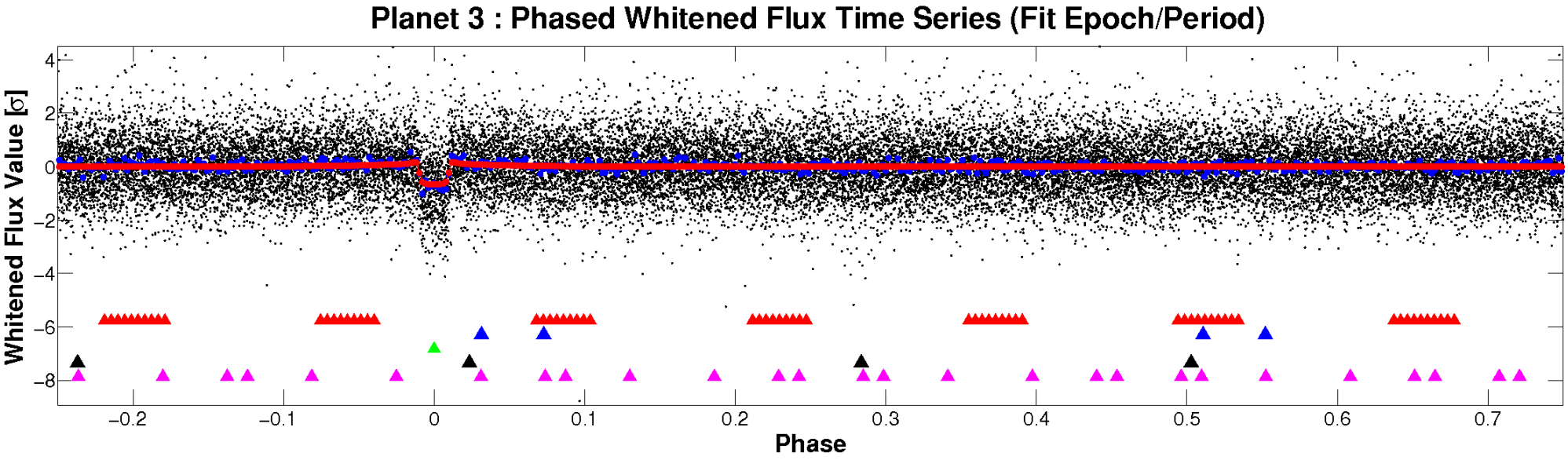
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
-5.00e-03
Flux
-0.04
-0.03
-0.02
-0.01
0
0.01
0.02
0.03
0.04
Phase
Odd
Even
Model Fit

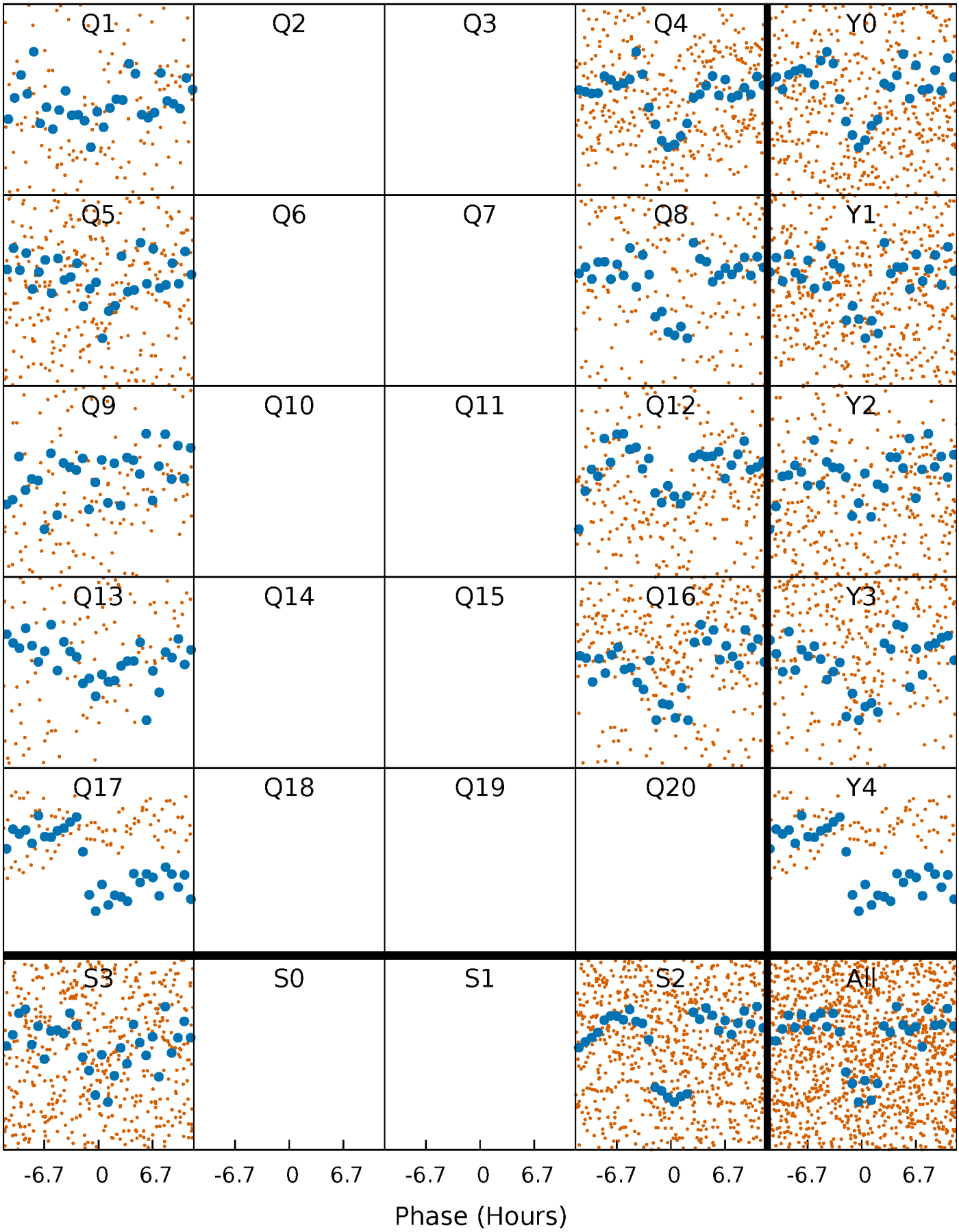
Non-Whitened Vs. Whitened Light Curve





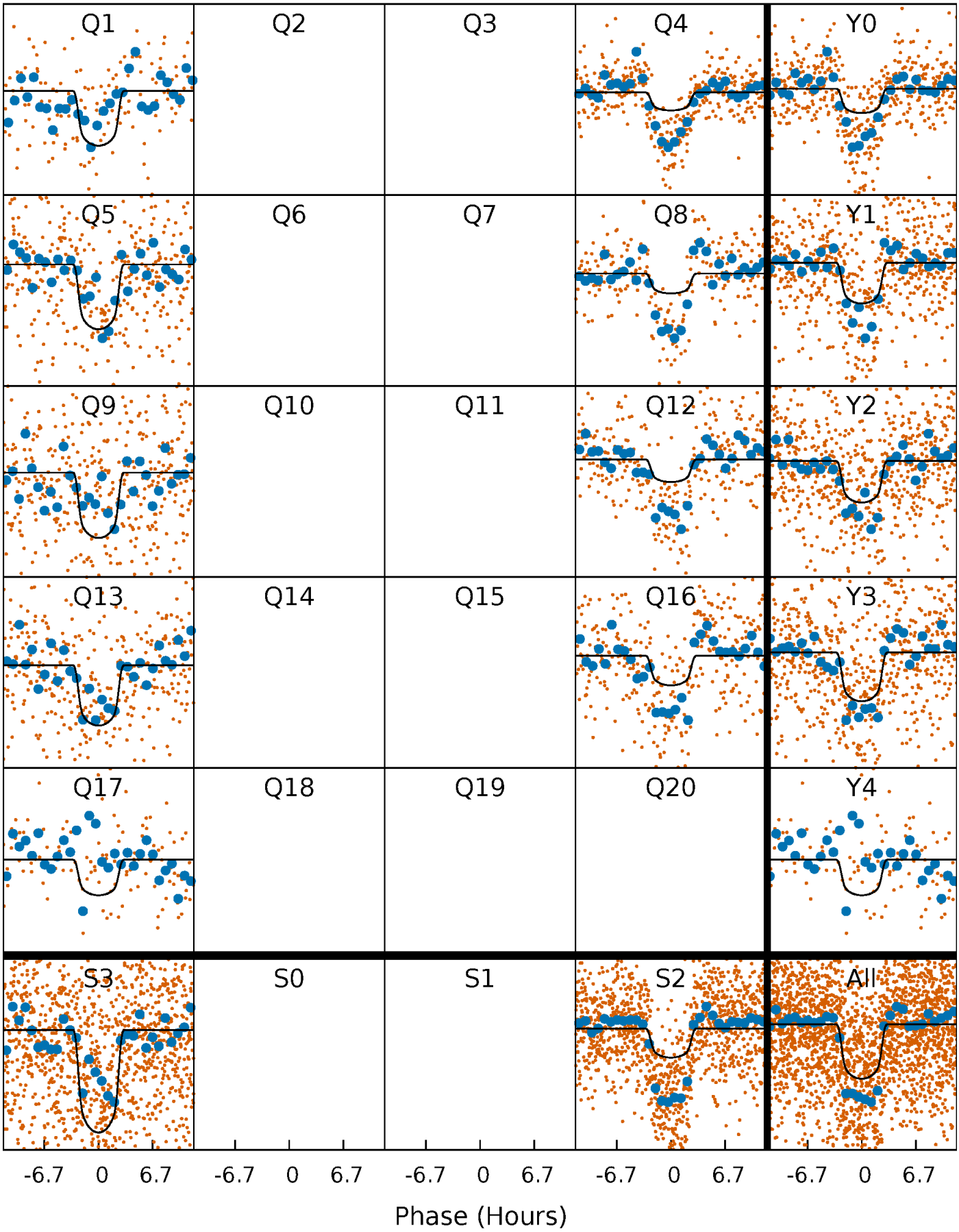
PDC Quarter-Phased Transit Curves

TCE 006462874-03 P= 10.423579 Days T_0=138.017235 (BKJD)



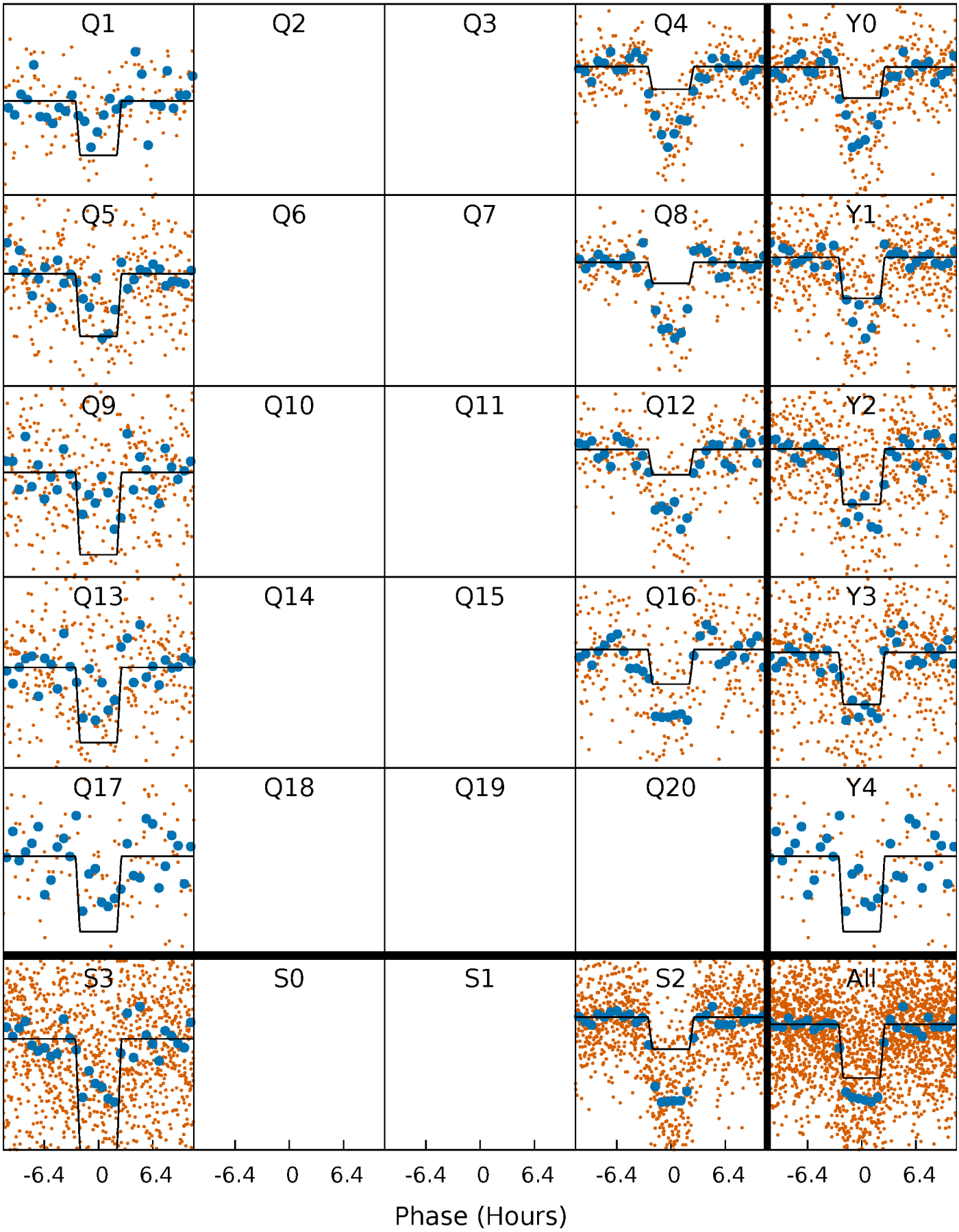
DV Quarter-Phased Transit Curves

TCE 006462874-03 P= 10.423579 Days T_0=138.017235 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

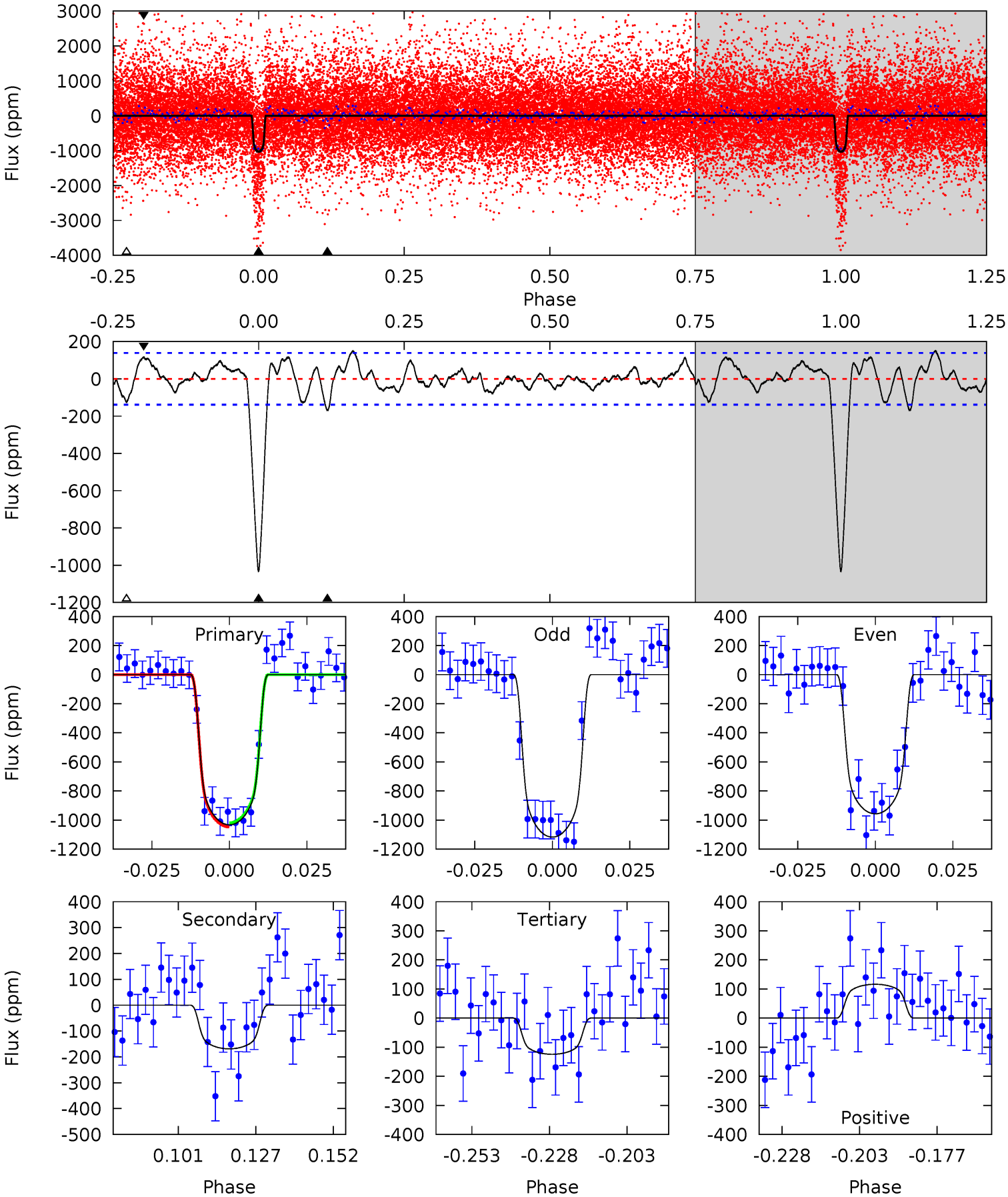
TCE 006462874-03 P= 10.423600 Days T_0=138.015089 (BKJD)



DV Model-Shift Uniqueness Test

006462874-03, P = 10.423579 Days, E = 127.593656 Days

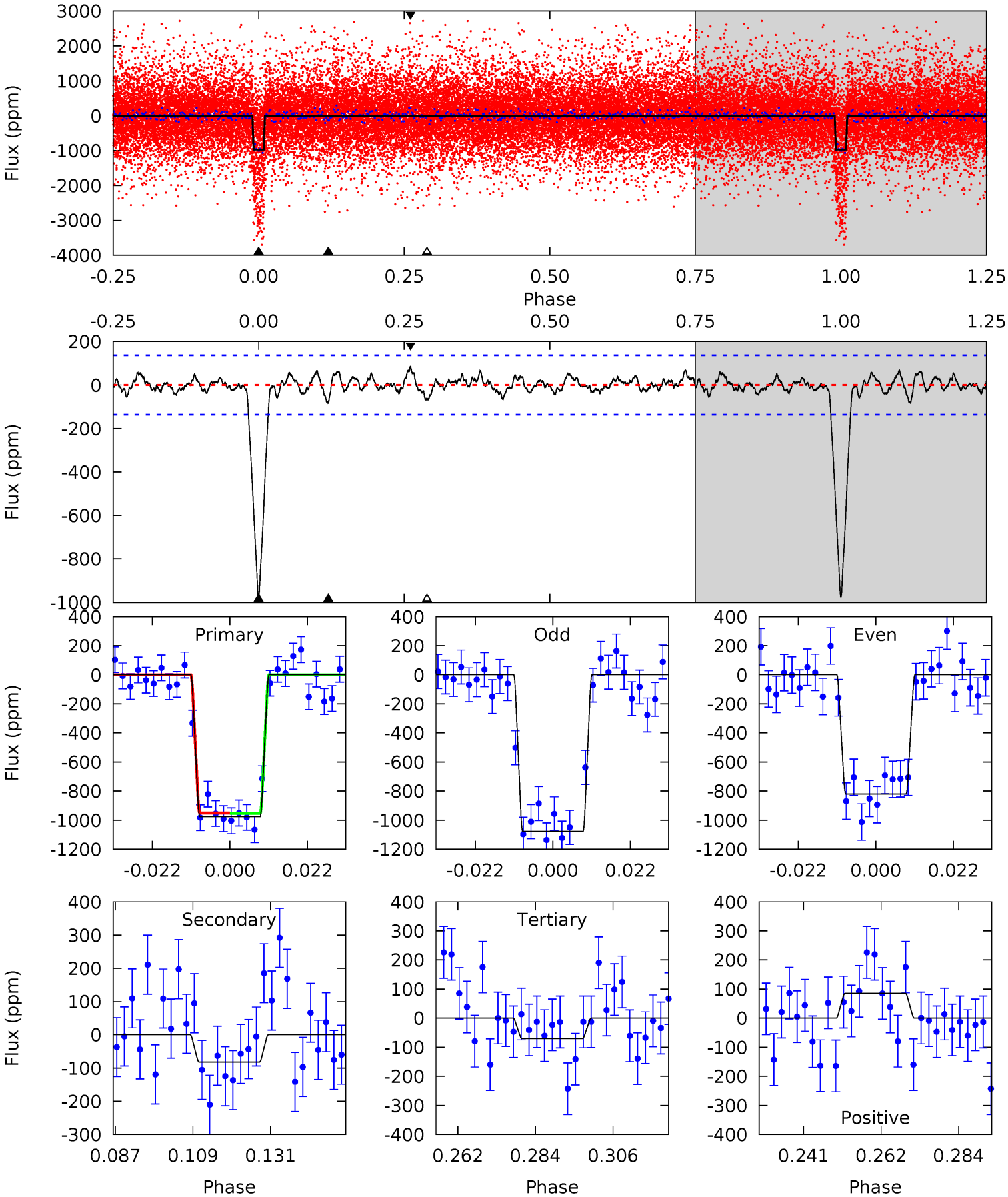
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.9	5.87	4.33	4.05	4.85	2.24	1.75	31.6	31.9	1.55	1.82	2.80	1.24	0.13	0.49



Alt Model-Shift Uniqueness Test

006462874-03, P = 10.423600 Days, E = 127.591489 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.8	2.93	2.52	3.04	4.87	2.29	0.92	32.3	31.8	0.41	-0.11	4.58	1.45	0.08	0.07



Stellar Parameters For KIC 006462874

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	4260^{+115}_{-140}	$4.663^{+0.060}_{-0.024}$	$-0.440^{+0.300}_{-0.300}$	$0.580^{+0.044}_{-0.060}$	$0.565^{+0.061}_{-0.051}$	$4.072^{+1.203}_{-0.494}$
	+3%/-3%	+1%/-1%	+68%/-68%	+8%/-10%	+11%/-9%	+30%/-12%
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 006462874-03 / KOI 1231.02

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-169±29	$1.87^{+0.18}_{-0.18}$	712^{+25}_{-23}	3221^{+152}_{-135}	161^{+45}_{-40}
Alt.	-82±28	$1.74^{+0.18}_{-0.18}$	713^{+24}_{-25}	2958^{+173}_{-190}	89^{+39}_{-33}

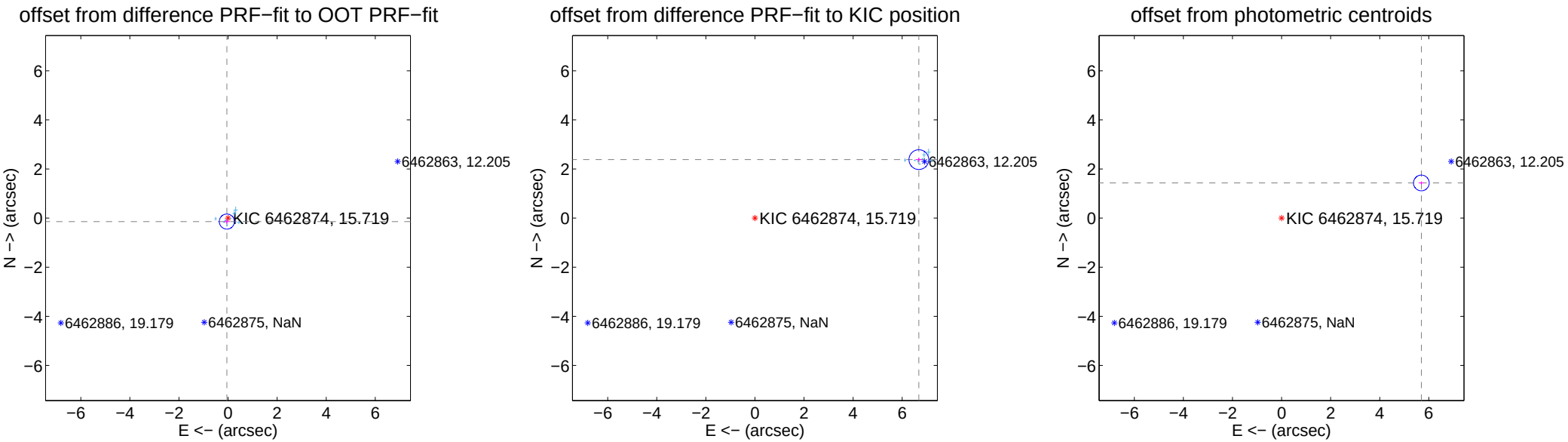
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

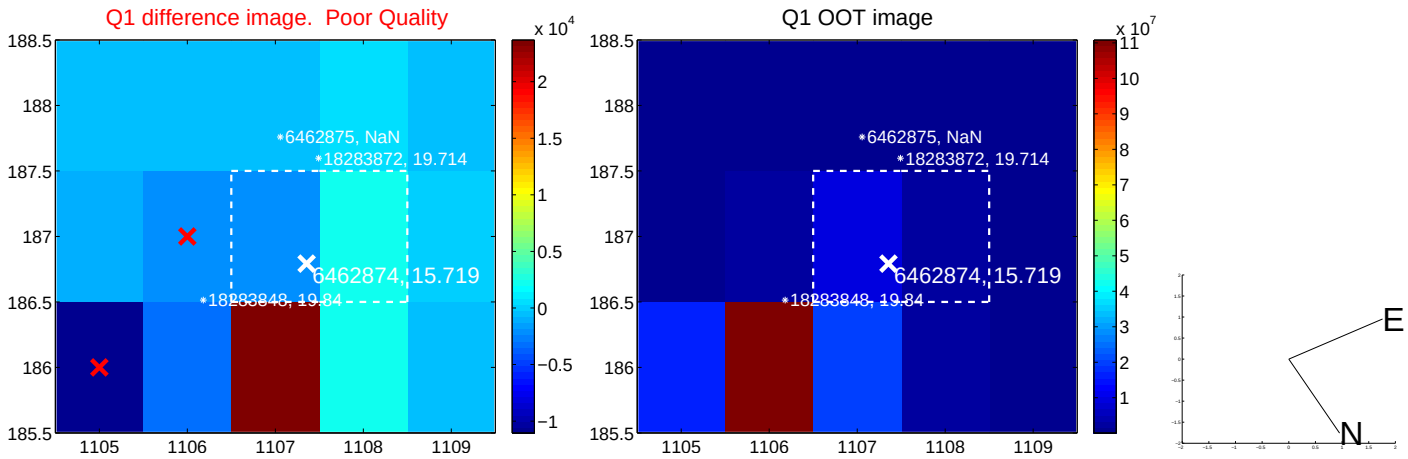
Supplemental centroid analysis for 006462874-03. Kepler magnitude: 15.72. Transit SNR 15.25
There are 8 quarters with good PRF difference image offsets
The OOT PRF centroid is offset from the target star catalog position by about 7.19 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

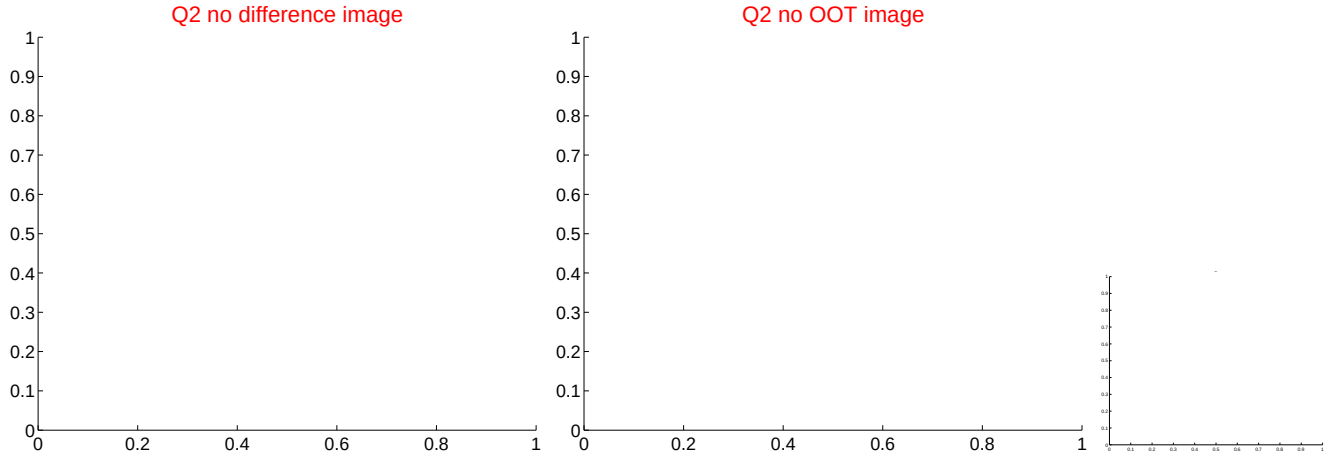
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.149 ± 0.102	1.45	0.048 ± 0.121	-0.141 ± 0.092
PRF-fit source offset from KIC position	7.091 ± 0.134	52.91	-6.679 ± 0.131	2.382 ± 0.084
photometric centroid source offset	5.87 ± 0.11	55.03	-5.70 ± 0.11	1.43 ± 0.06

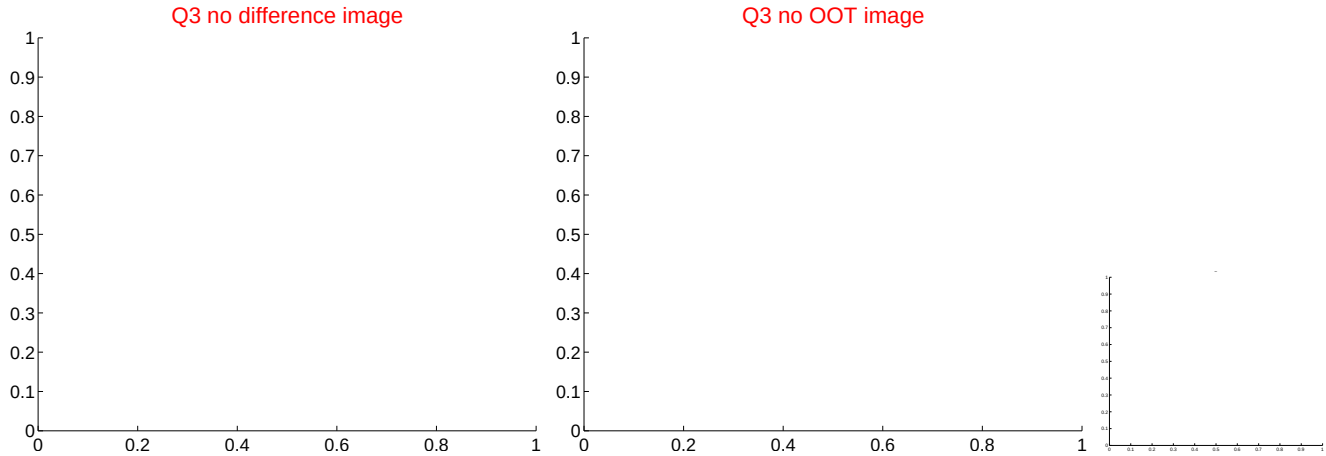


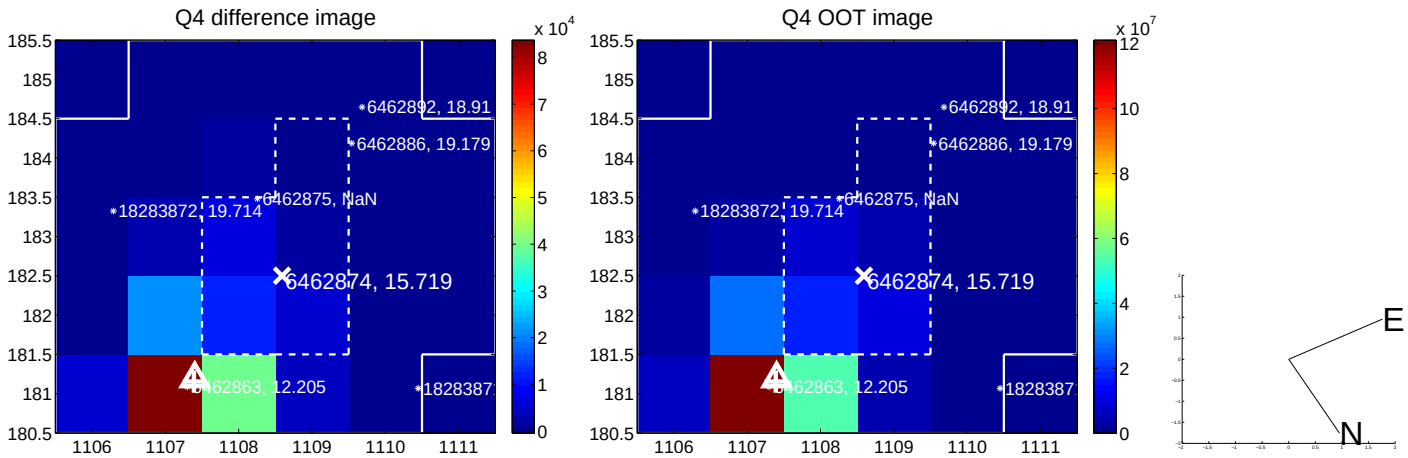
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

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

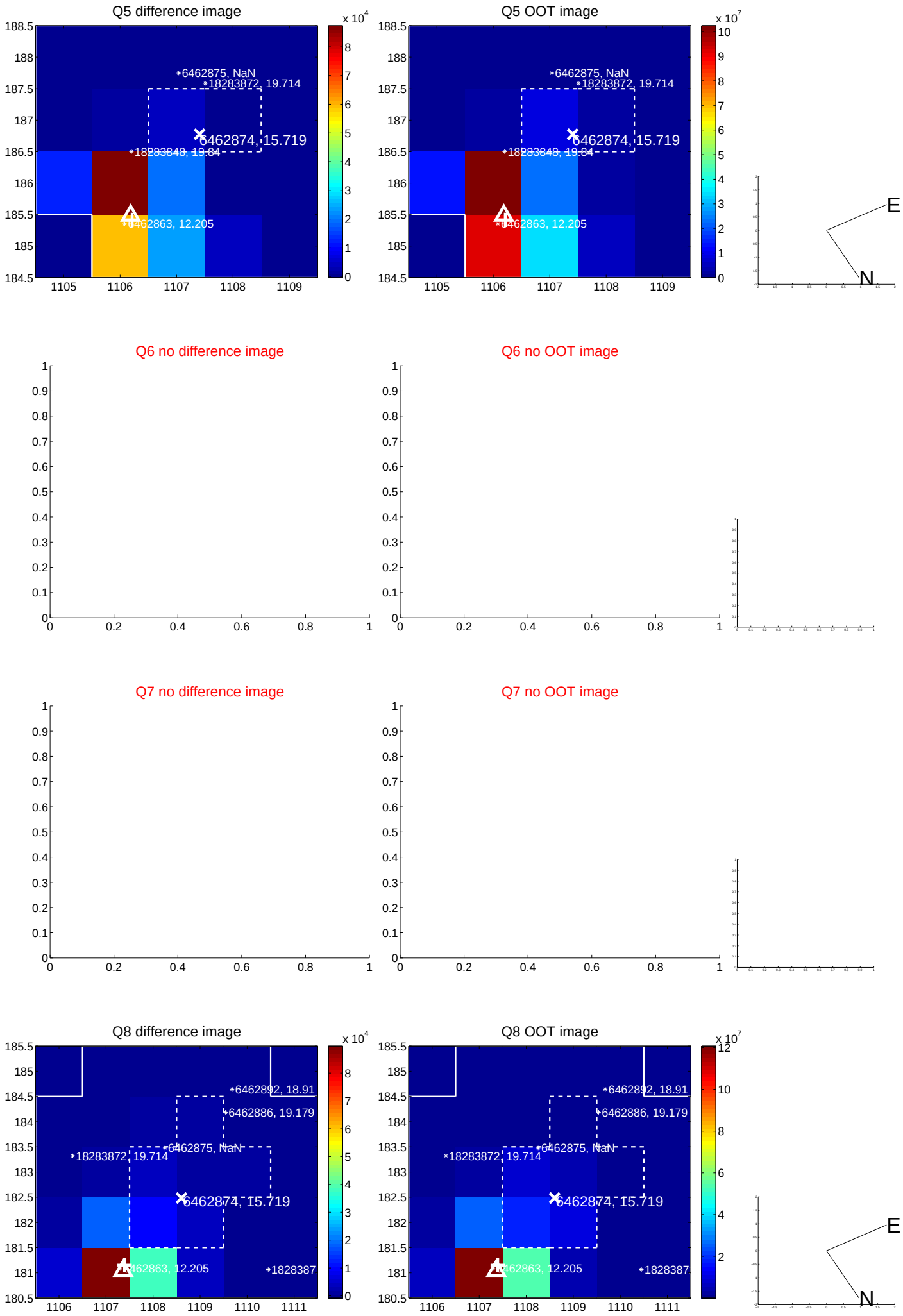




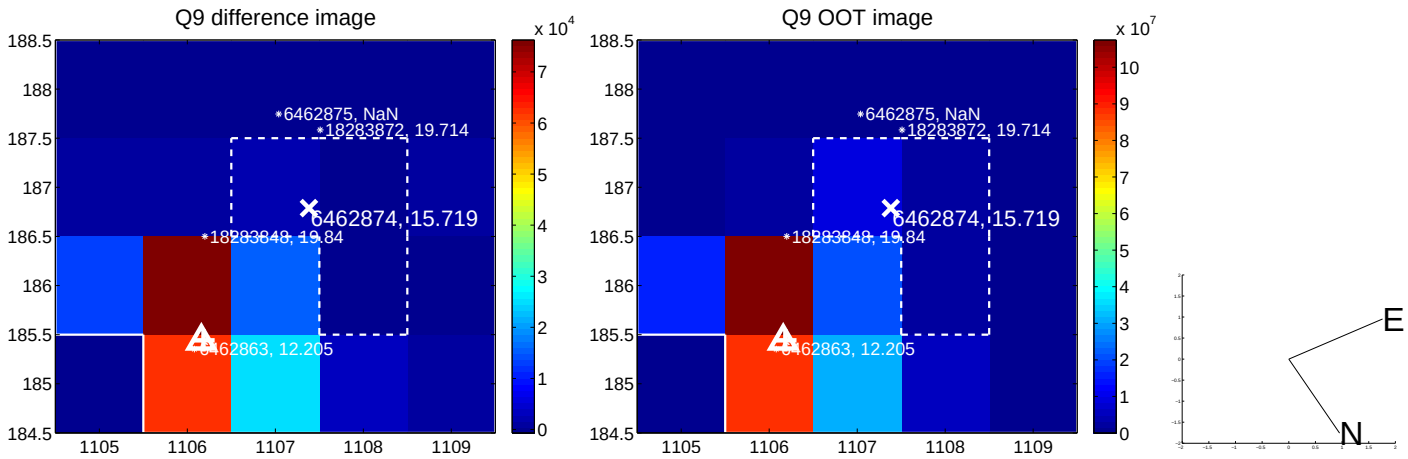


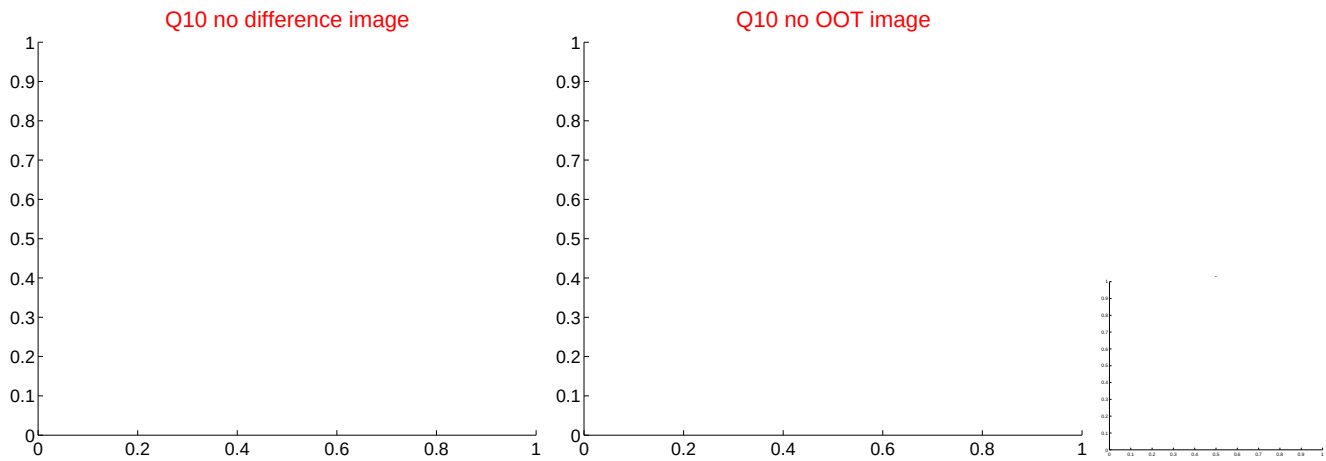


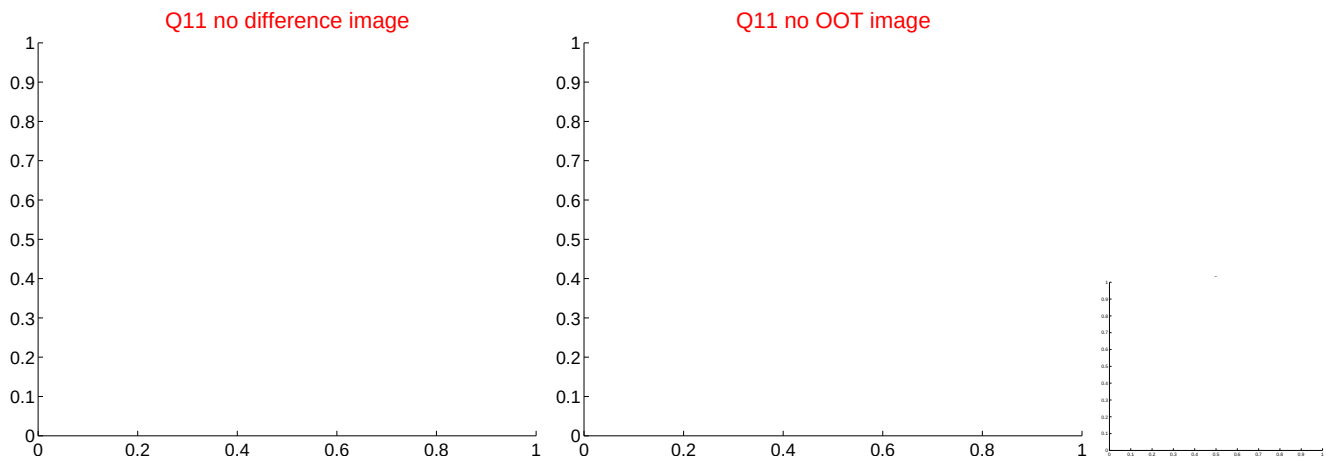
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

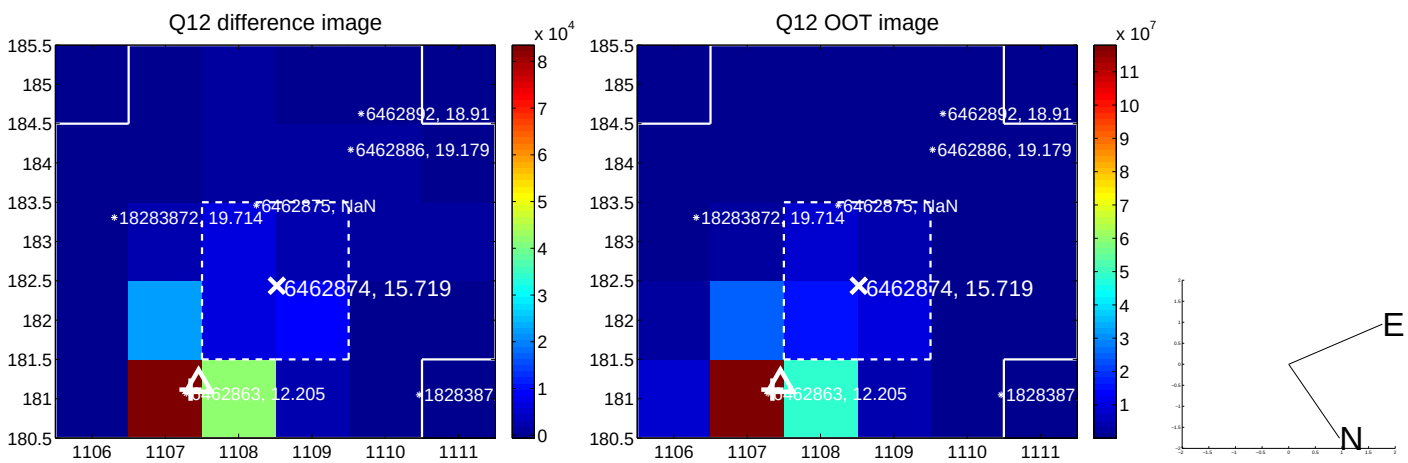


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

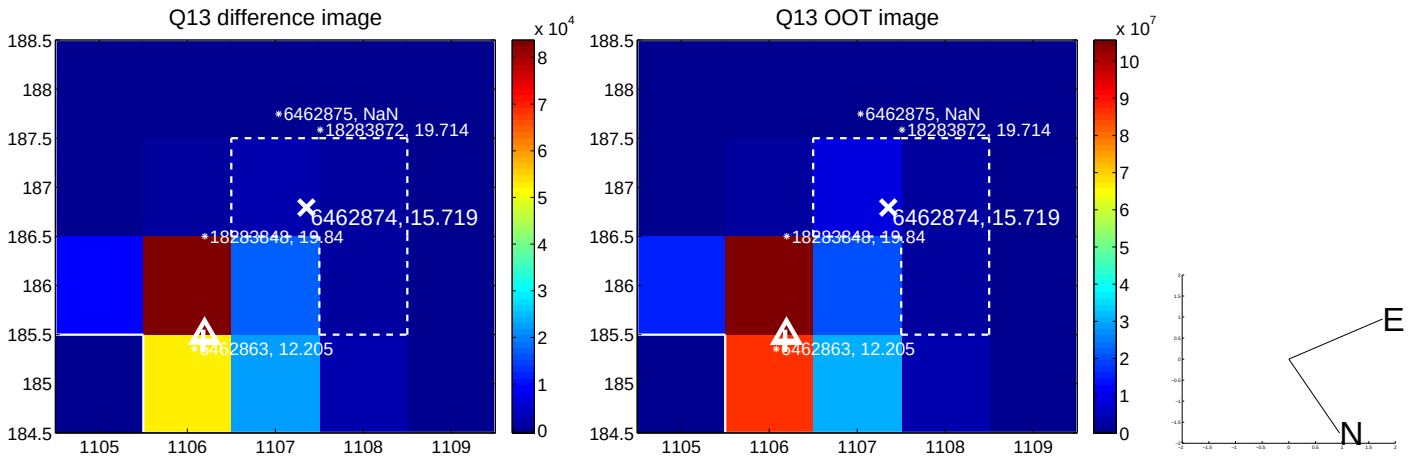


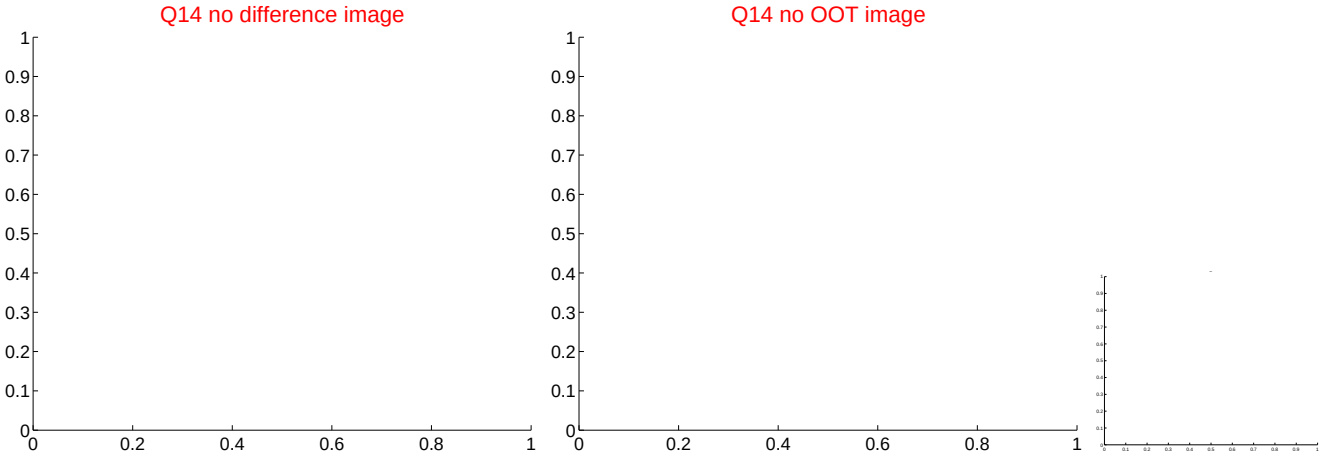


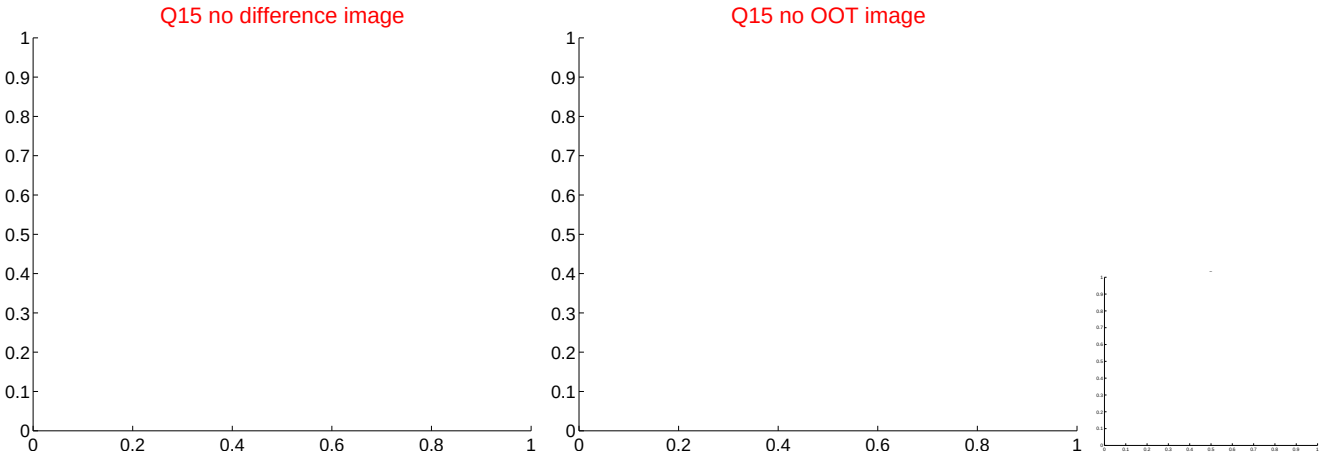


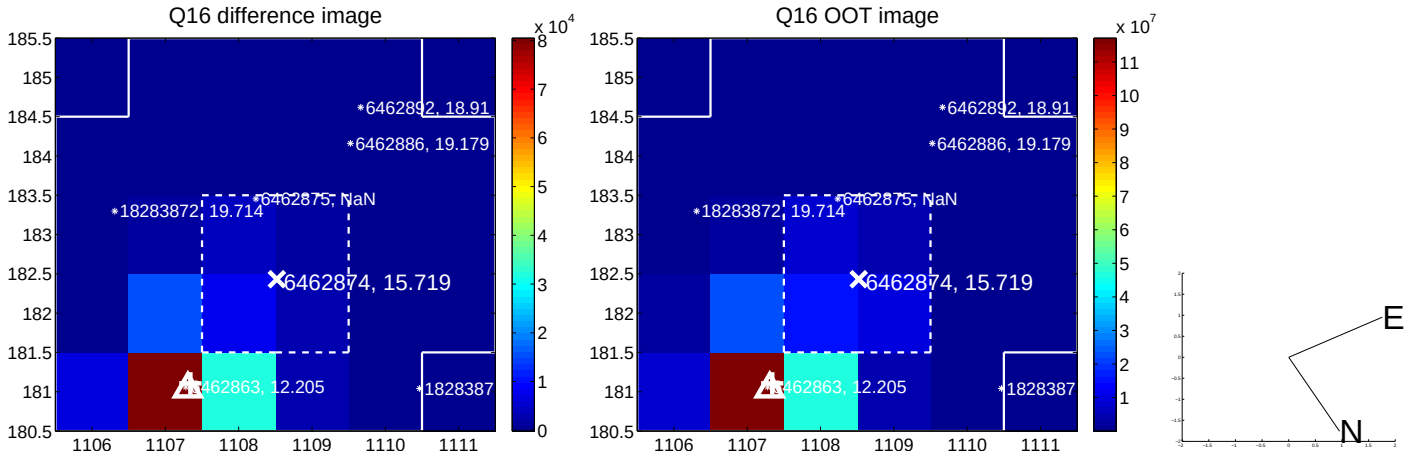


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

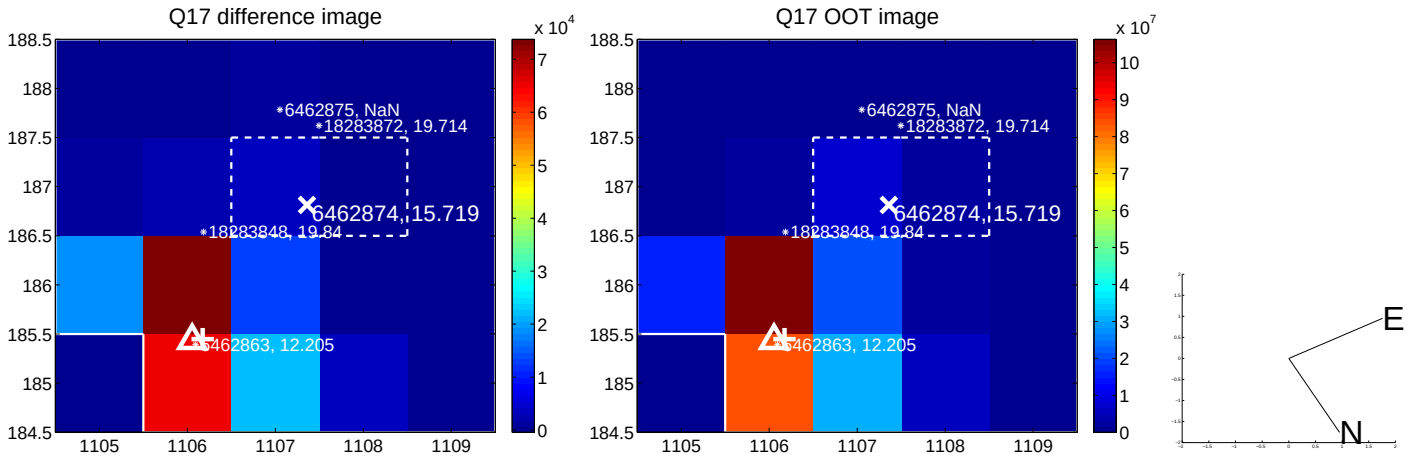


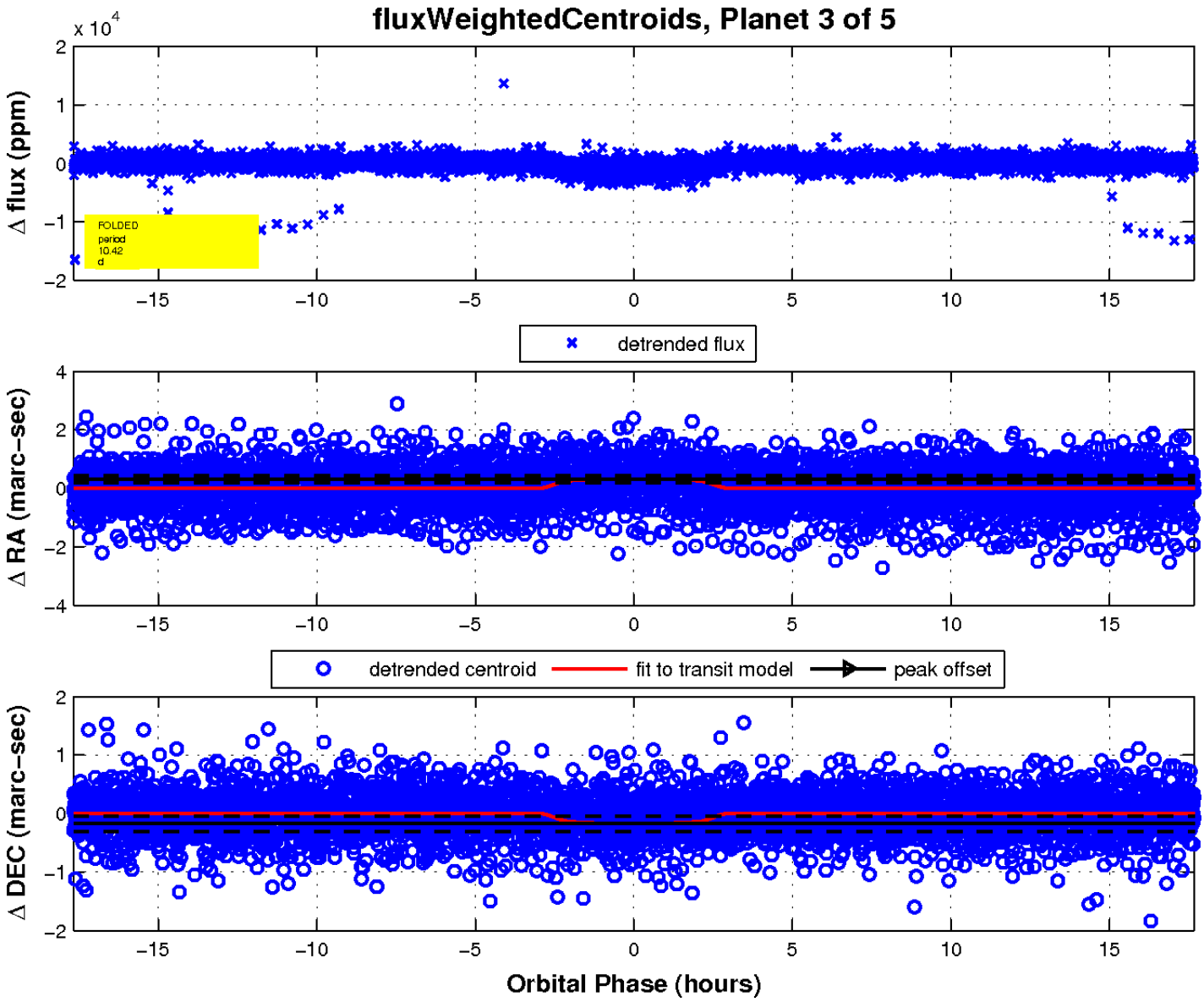




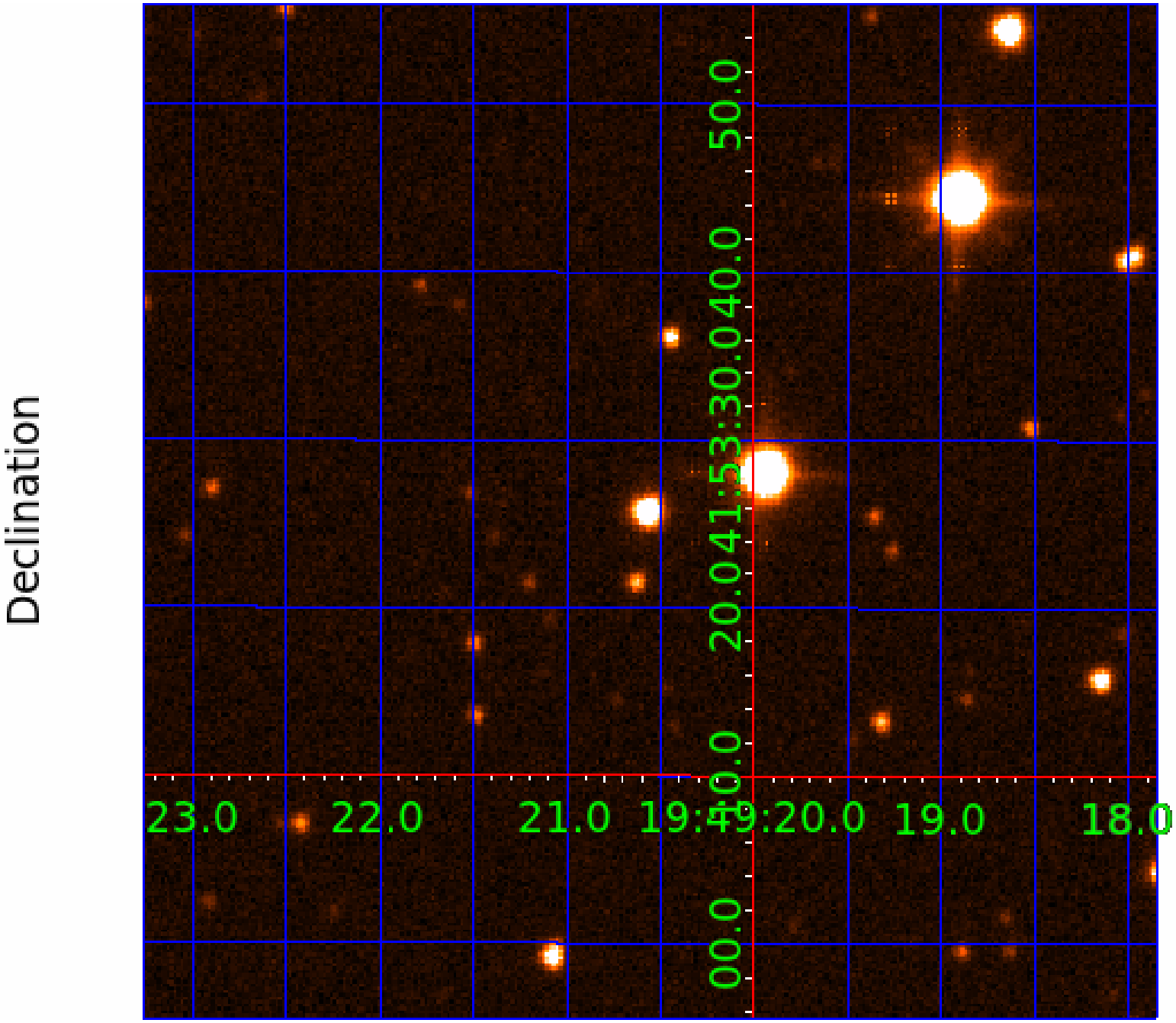


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image


Declination
50.0
40.0
53:30.0
41:
20.0
40.0
00.0
23.0
22.0
21.0
19:49:20.0
19.0
18.0

KIC 006462874

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 ($S_\oplus$)
006462874-01	OBS	1231.01	22.342880	132.743757	2913.3	6.677	73.7	41.8	0.58	4260	3.04	6.03
006462874-02	OBS	No	380.245065	378.518686	5553.0	8.687	15.1	16.2	0.58	4260	4.21	0.14
006462874-03	OBS	1231.02	10.423579	138.017235	724.5	5.894	15.3	15.3	0.58	4260	1.89	16.65
006462874-04	OBS	No	372.535863	432.834919	3247.2	9.591	13.4	12.4	0.58	4260	3.69	0.14
006462874-05	OBS	No	54.319747	161.249629	932.7	8.627	8.3	9.2	0.58	4260	1.88	1.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006462874-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—EPHEM_MATCH
006462874-02	OBS	FP	0.00	1	0	1	1	INDIV_TRANS_RUBBLE_CHASES—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
006462874-03	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—EPHEM_MATCH
006462874-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006462874-05	OBS	FP	0.00	1	0	1	1	TRANS_GAPPED—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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.

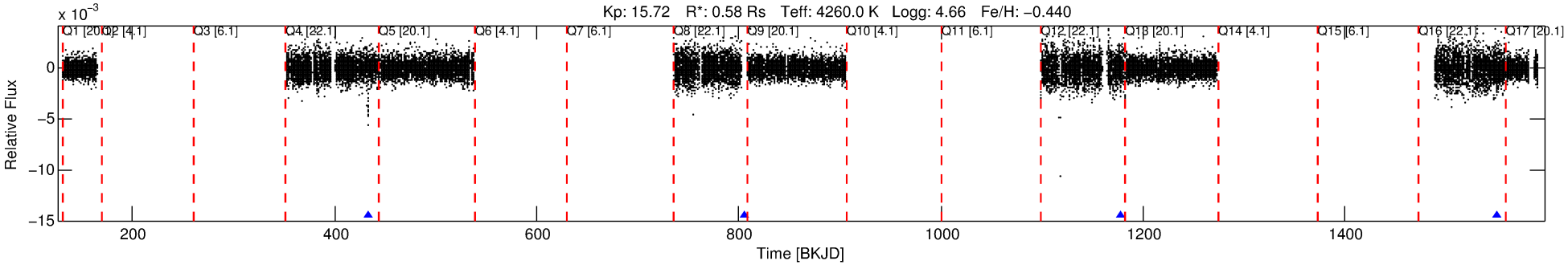
Ephemeris Match Information For 006462874-04

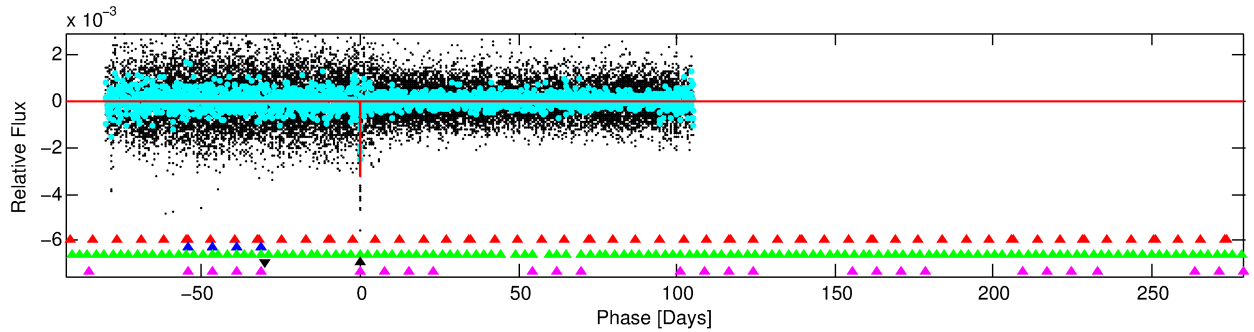
No Significant Match Found

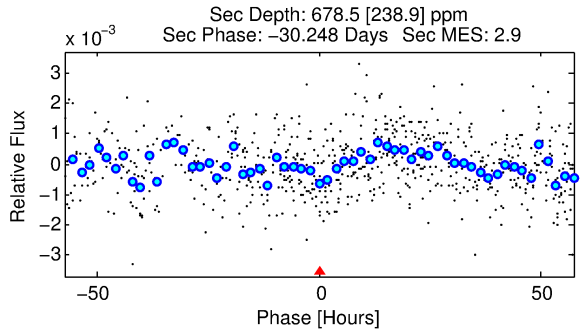
DV One-Page Summary

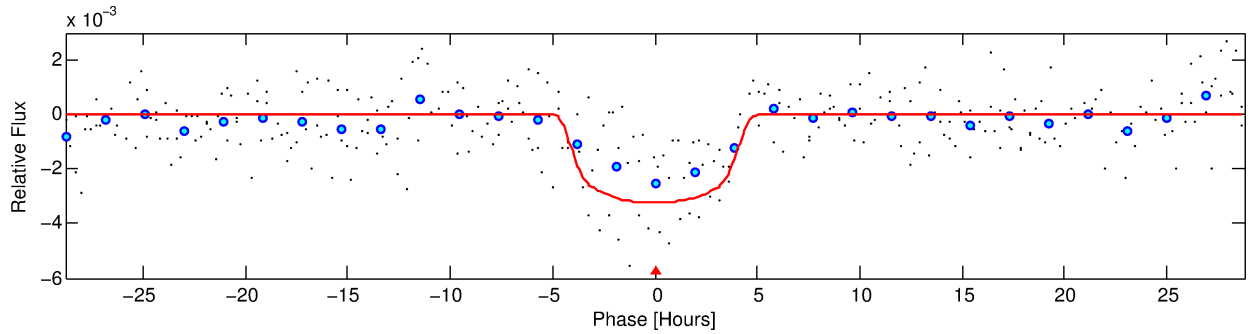
KIC: 6462874 Candidate: 4 of 5 Period: 372.536 d
KOI: K01231 Corr: No Ephemeris Match

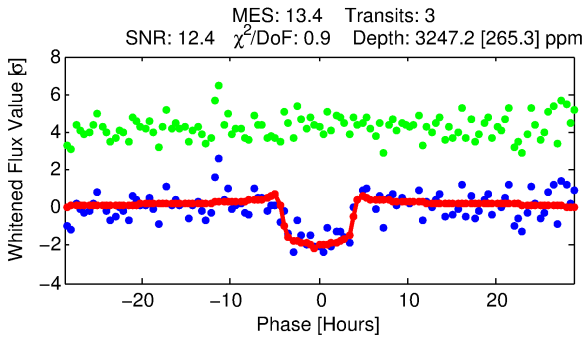
Kp: 15.72 R*: 0.58 Rs Teff: 4260.0 K Logg: 4.66 Fe/H: −0.440

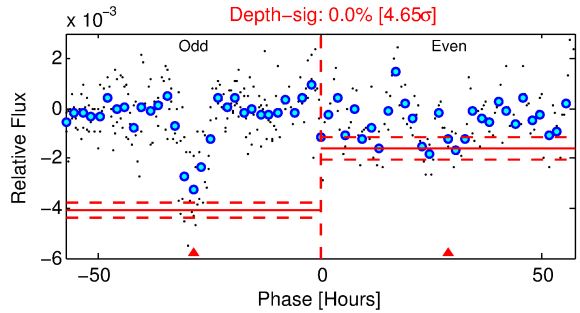












DV Fit Results:

Period = 372.53586 [0.00478] d
Epoch = 432.8349 [0.0090] BKJD
Rp/R* = 0.0582 [0.0050]
a/R* = 207.89 [55.61]
b = 0.79 [0.13]

Seff = 0.14 [0.02]
Teq = 156 [7] K
Rp = 3.69 [0.50] Re
a = 0.8377 [0.0695] AU

Ag = 19283.20 [7873.85] [2.45σ]
Teffp = 2849 [294] K [9.15σ]

DV Diagnostic Results:

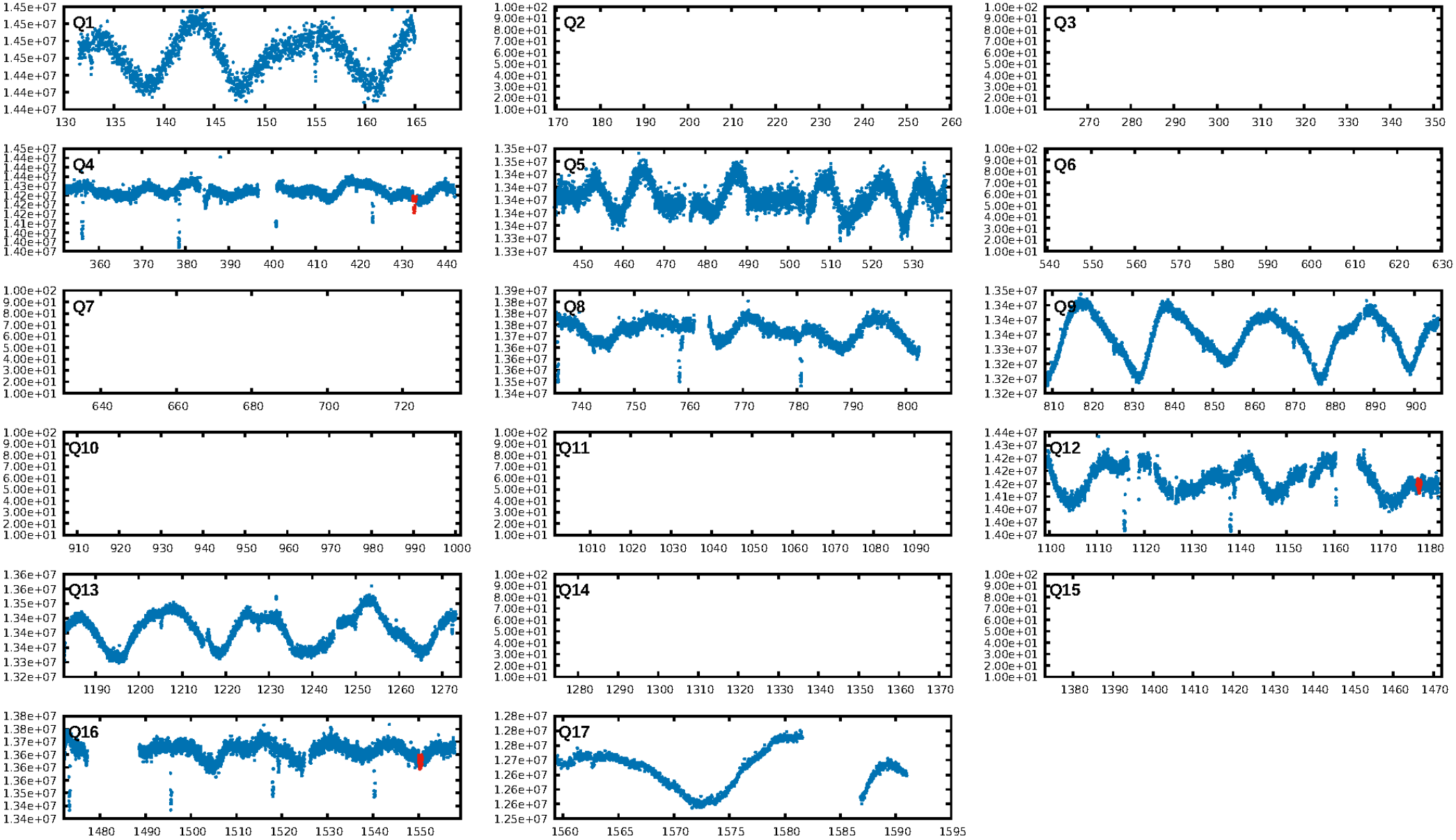
ShortPeriod−sig: 100.0% [592.05σ]
LongPeriod−sig: 100.0% [14.30σ]
ModelChiSquare2−sig: 0.0%
ModelChiSquareGof−sig: 95.8%
Bootstrap−pfa: 3.53e−22
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: 1.076

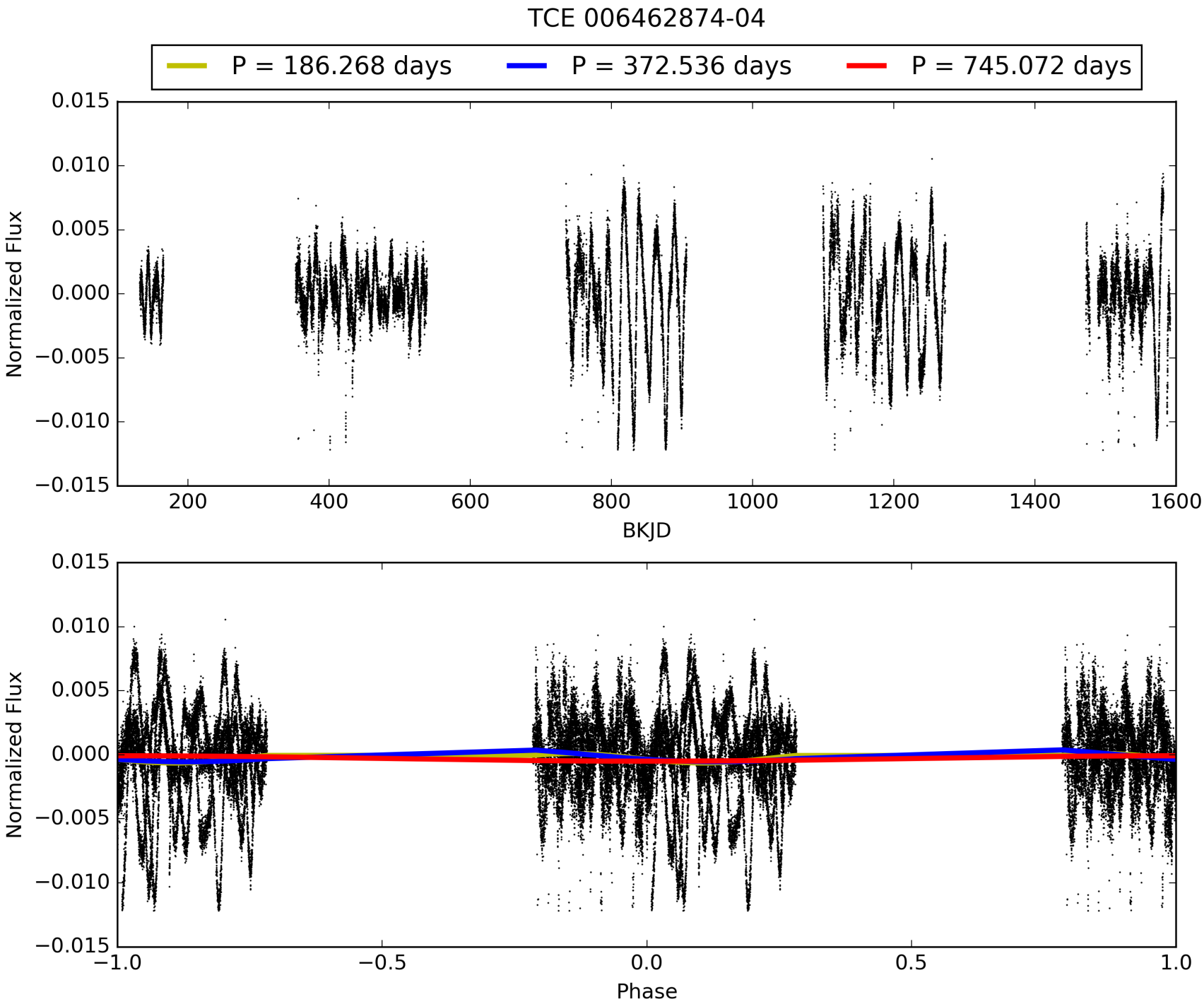
Centroid−sig: 90.7%
Centroid−so: 5.360 arcsec [51.25σ]
OotOffset−rm: N/A
KicOffset−rm: N/A
OotOffset−st: 0/0/0/0 [0]
KicOffset−st: 0/0/0/0 [0]
DiffImageQuality−fgm: N/A
DiffImageOverlap−fno: 0.50 [1/2]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 −− Date Generated: 31−Jan−2016 03:36:27 Z

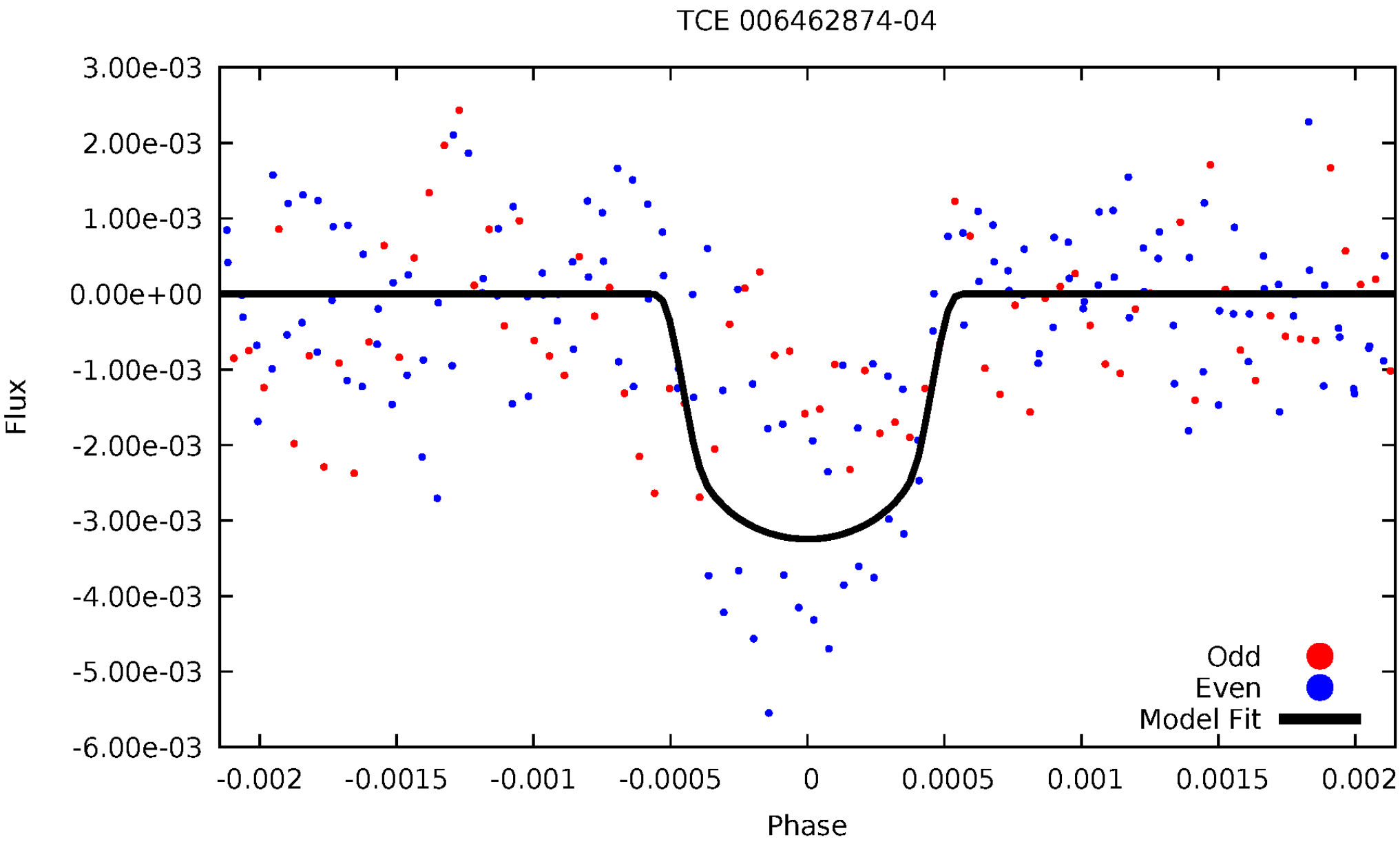
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006462874-04, PDC Light Curves

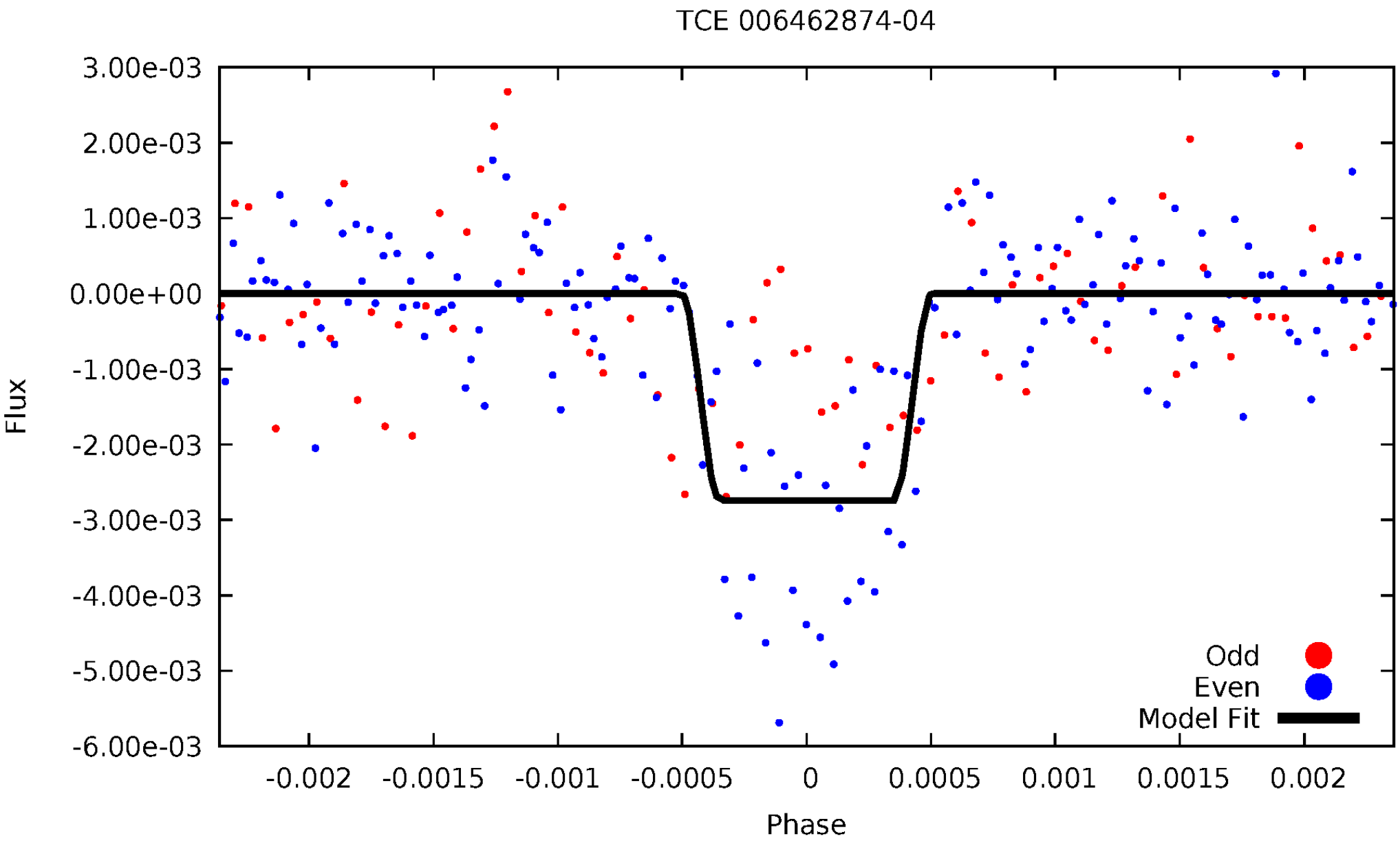



TCE 006462874-04
P = 186.268 days
P = 372.536 days
P = 745.072 days
Normalized Flux
BKJD
Normalized Flux
Phase

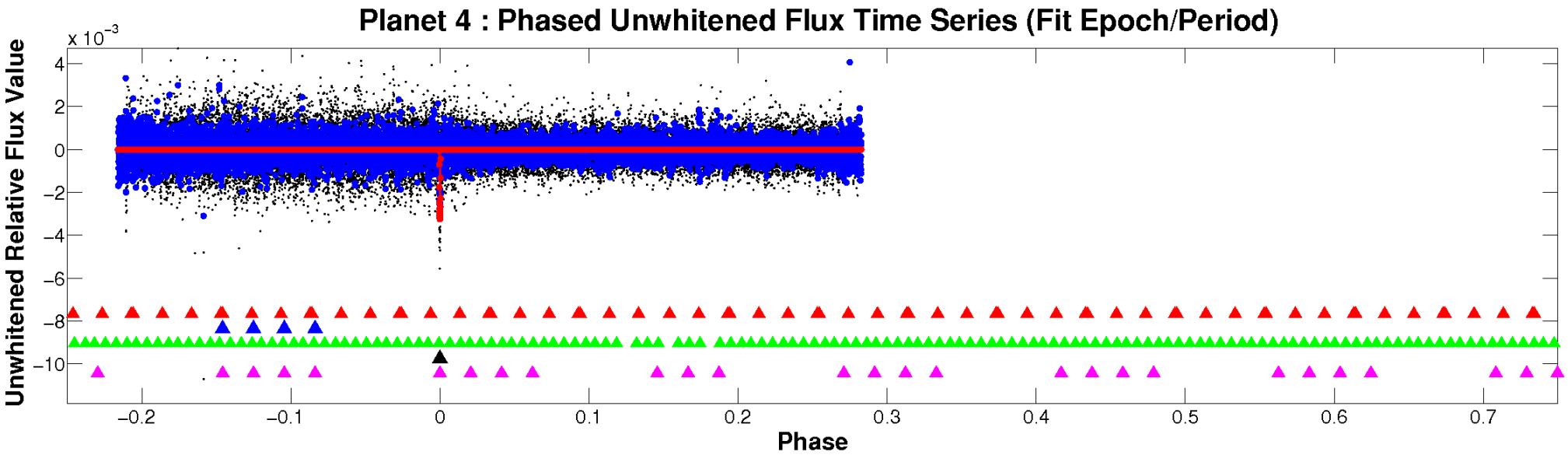
DV Odd/Even

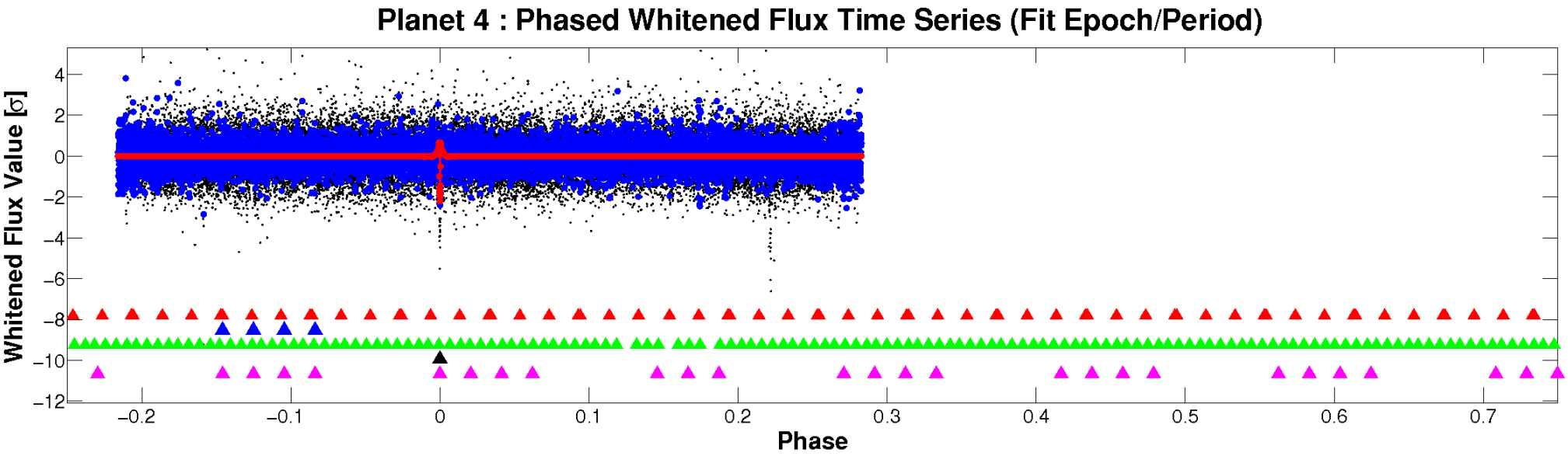

TCE 006462874-04
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
-5.00e-03
-6.00e-03
Flux
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006462874-04
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
-5.00e-03
-6.00e-03
Flux
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit

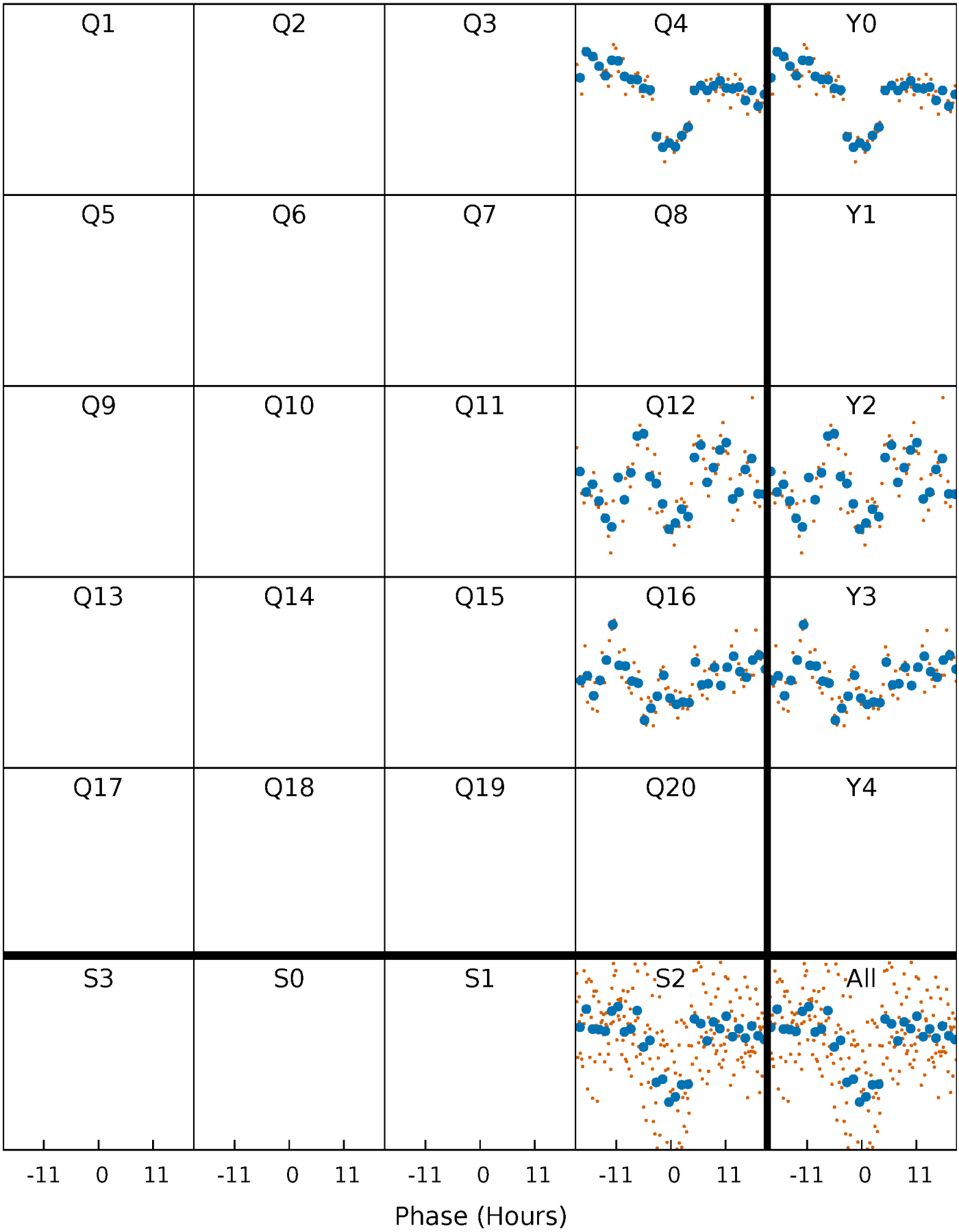
Non-Whitened Vs. Whitened Light Curve





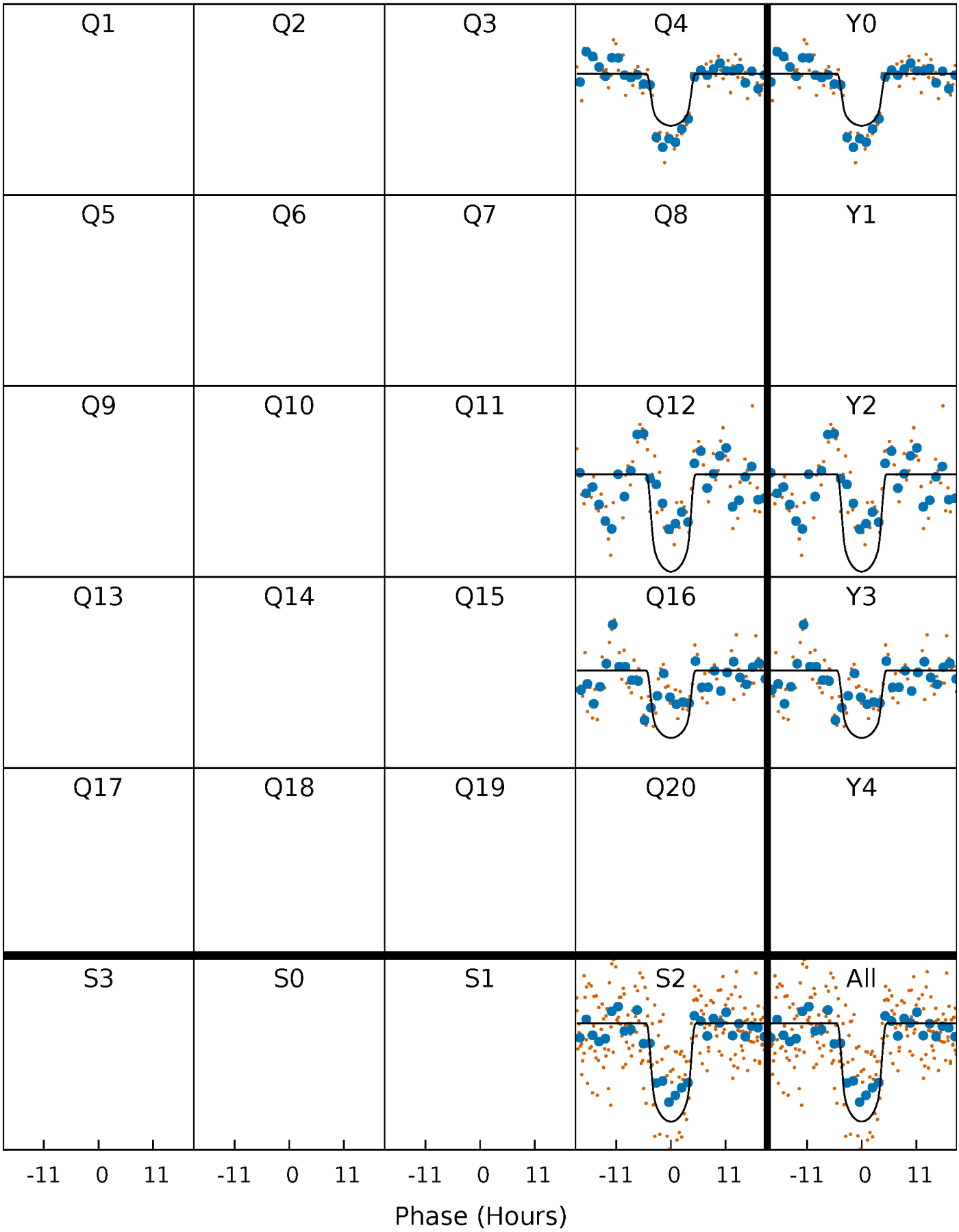
PDC Quarter-Phased Transit Curves

TCE 006462874-04 P=372.535863 Days T_0=432.834919 (BKJD)



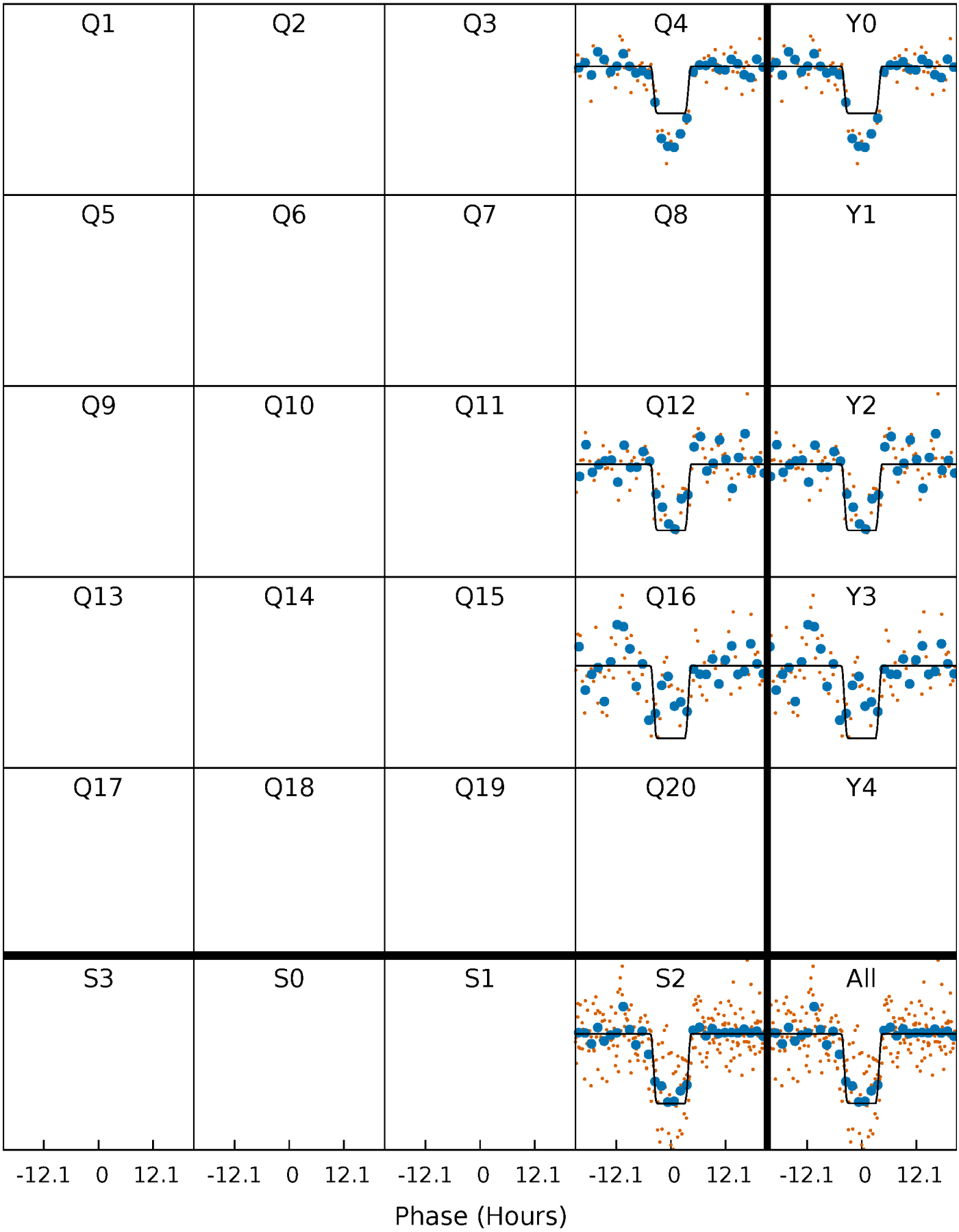
DV Quarter-Phased Transit Curves

TCE 006462874-04 P=372.535863 Days T_0=432.834919 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

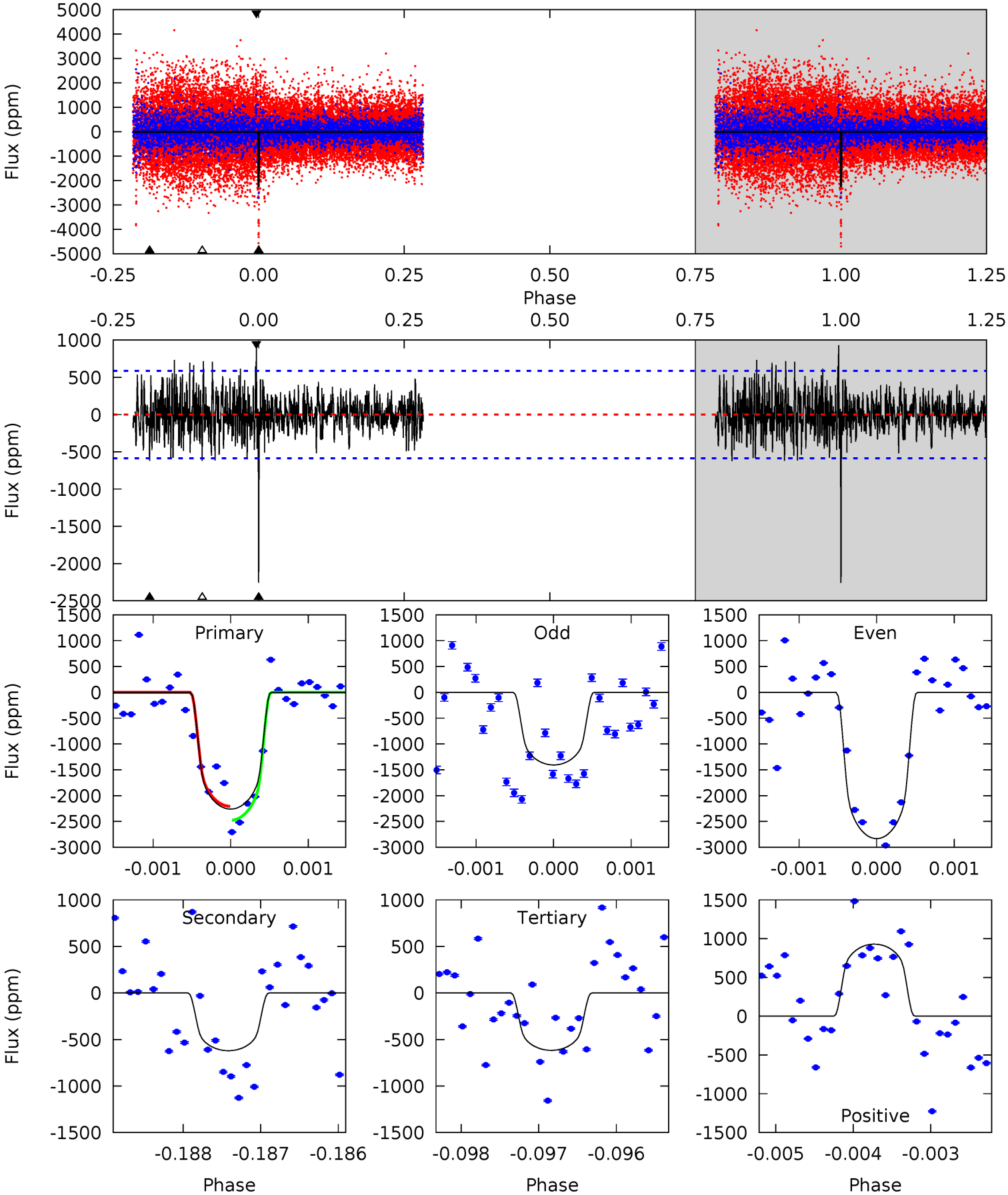
TCE 006462874-04 P=372.531044 Days T_0=432.823373 (BKJD)



DV Model-Shift Uniqueness Test

006462874-04, P = 372.535863 Days, E = 60.299056 Days

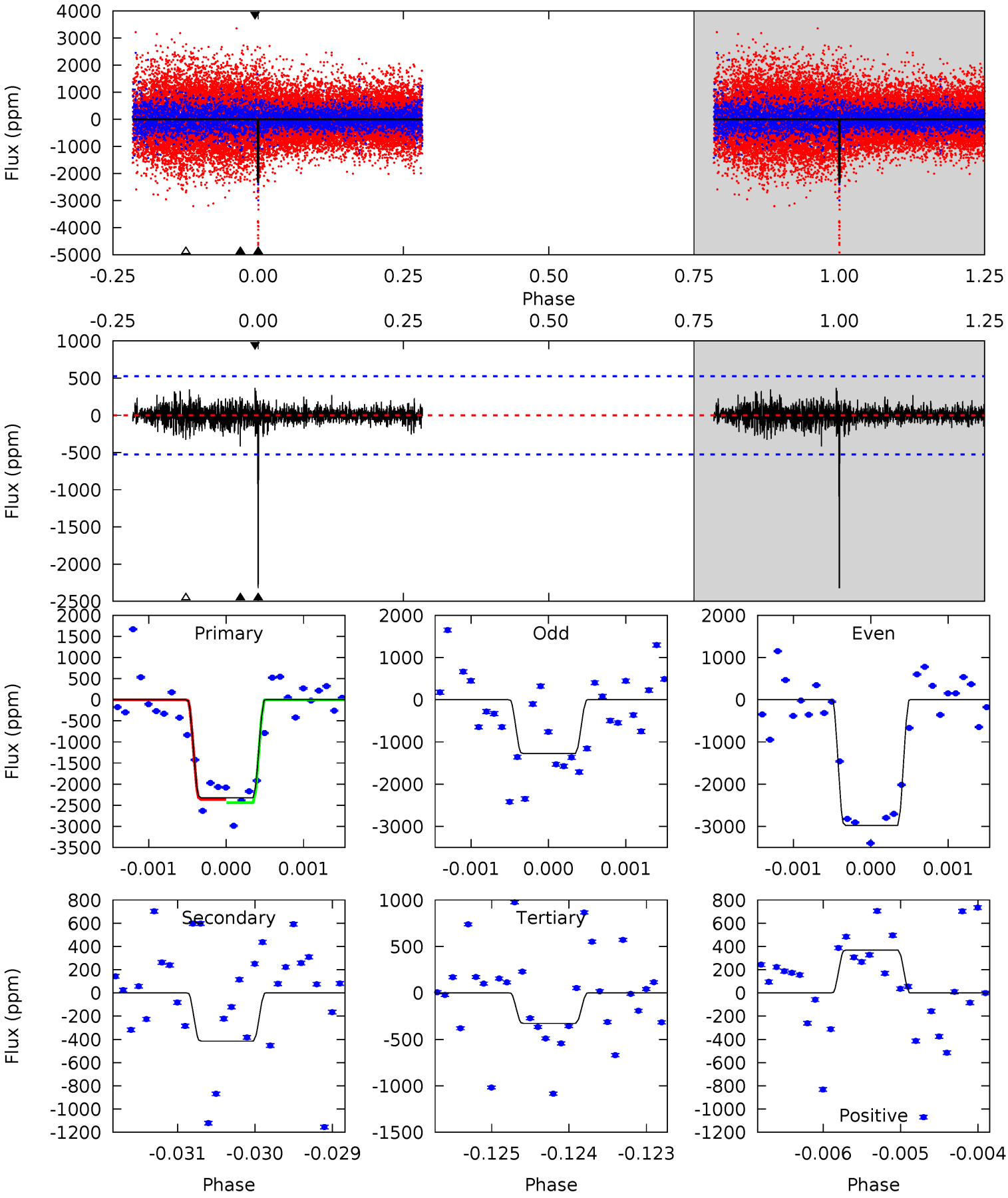
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	5.75	5.71	8.61	5.44	3.27	1.90	15.2	12.3	0.04	-2.86	6.26	1.65	0.29	1.20



Alt Model-Shift Uniqueness Test

006462874-04, P = 372.531044 Days, E = 60.292329 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.0	4.30	3.40	3.82	5.45	3.29	0.85	20.6	20.2	0.90	0.48	8.45	1.33	0.14	0.38



Stellar Parameters For KIC 006462874

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	4260^{+115}_{-140}	$4.663^{+0.060}_{-0.024}$	$-0.440^{+0.300}_{-0.300}$	$0.580^{+0.044}_{-0.060}$	$0.565^{+0.061}_{-0.051}$	$4.072^{+1.203}_{-0.494}$
	+3%/-3%	+1%/-1%	+68%/-68%	+8%/-10%	+11%/-9%	+30%/-12%
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 006462874-04 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-621±108	$3.67^{+0.35}_{-0.38}$	216^{+8}_{-8}	3203^{+136}_{-149}	17904^{+5356}_{-3966}
Alt.	-415±97	$3.28^{+0.36}_{-0.34}$	217^{+7}_{-8}	3111^{+178}_{-154}	14739^{+5893}_{-4081}

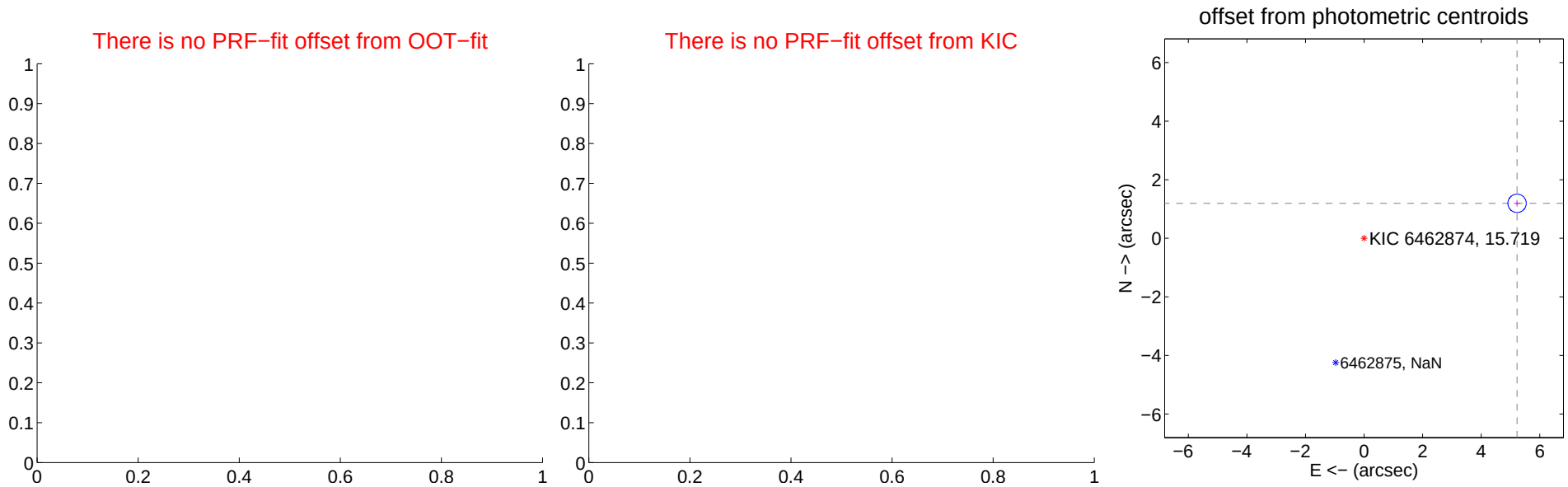
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

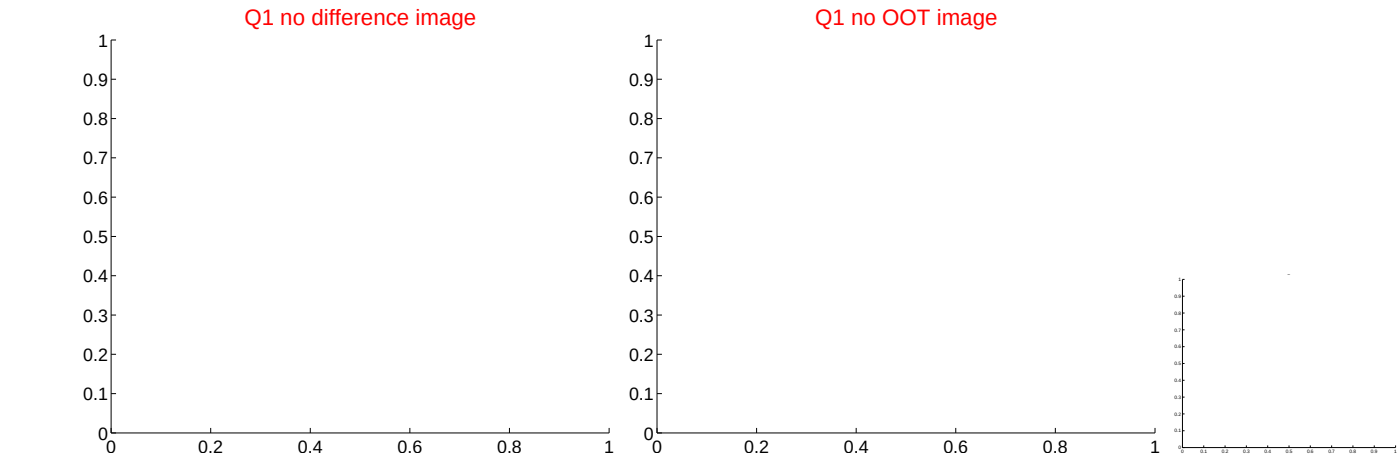
Supplemental centroid analysis for 006462874-04. Kepler magnitude: 15.72. Transit SNR 12.40
There are 0 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

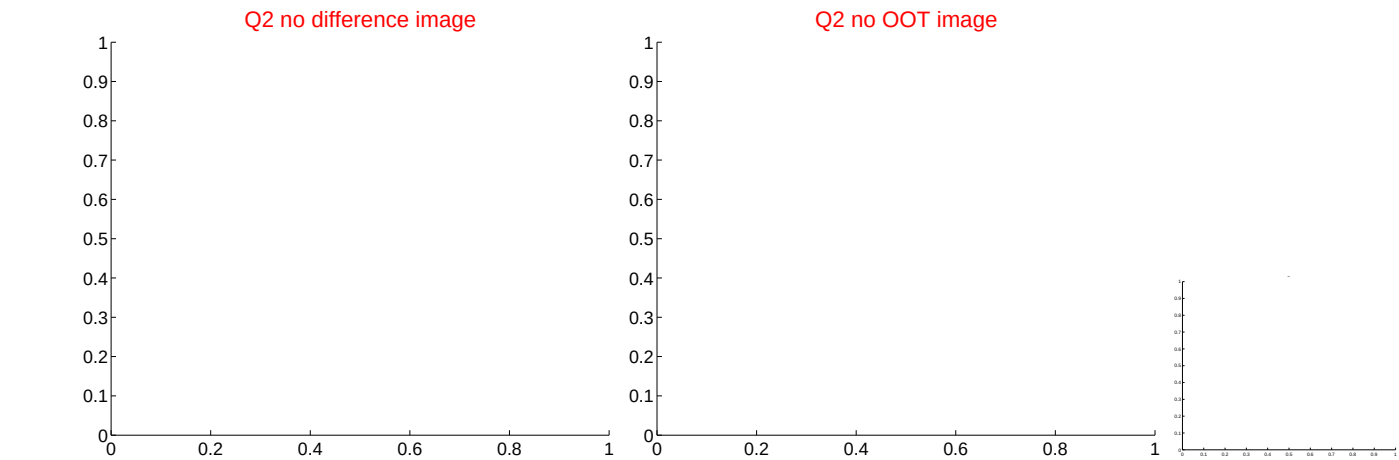
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	5.36 ± 0.10	51.25	-5.23 ± 0.11	1.19 ± 0.06

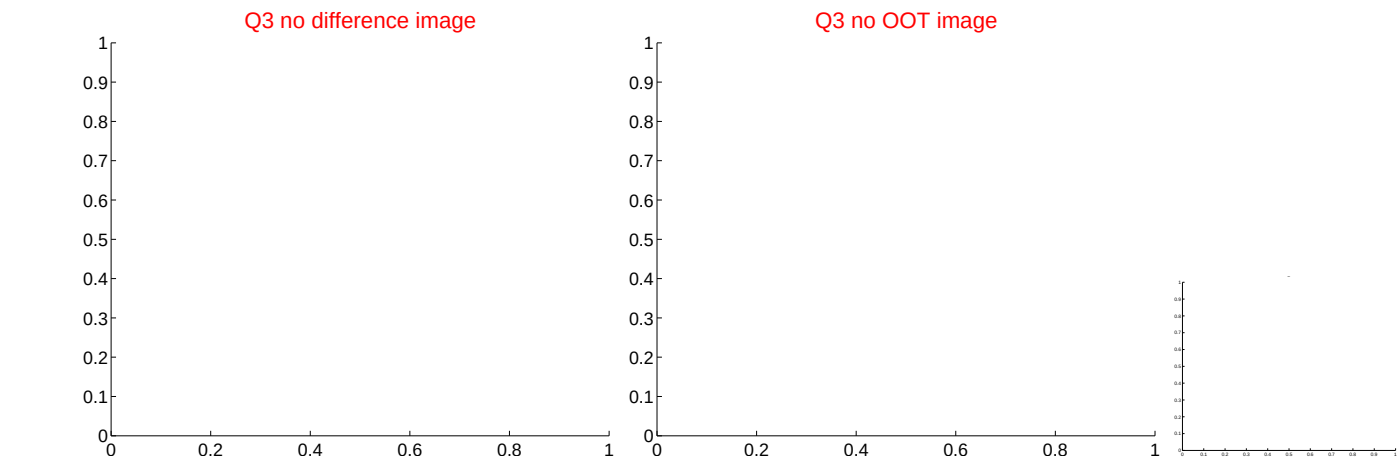


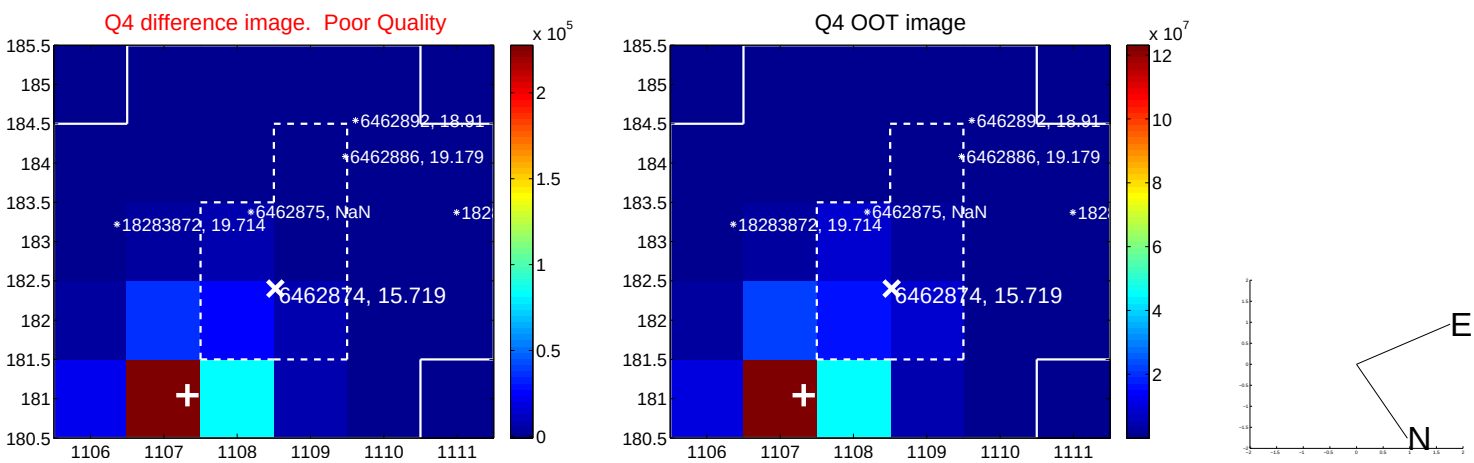
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

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

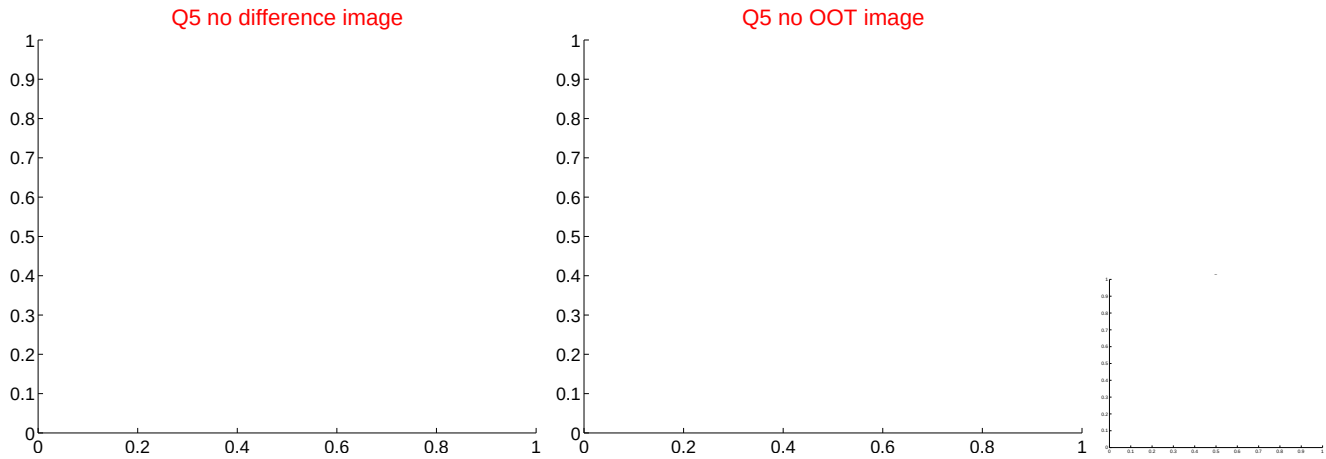


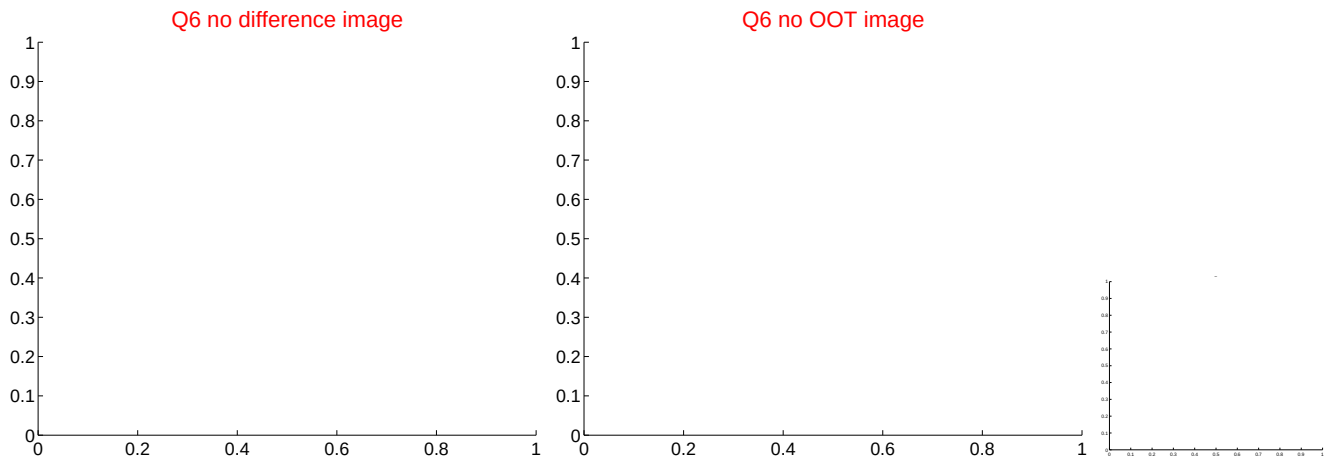


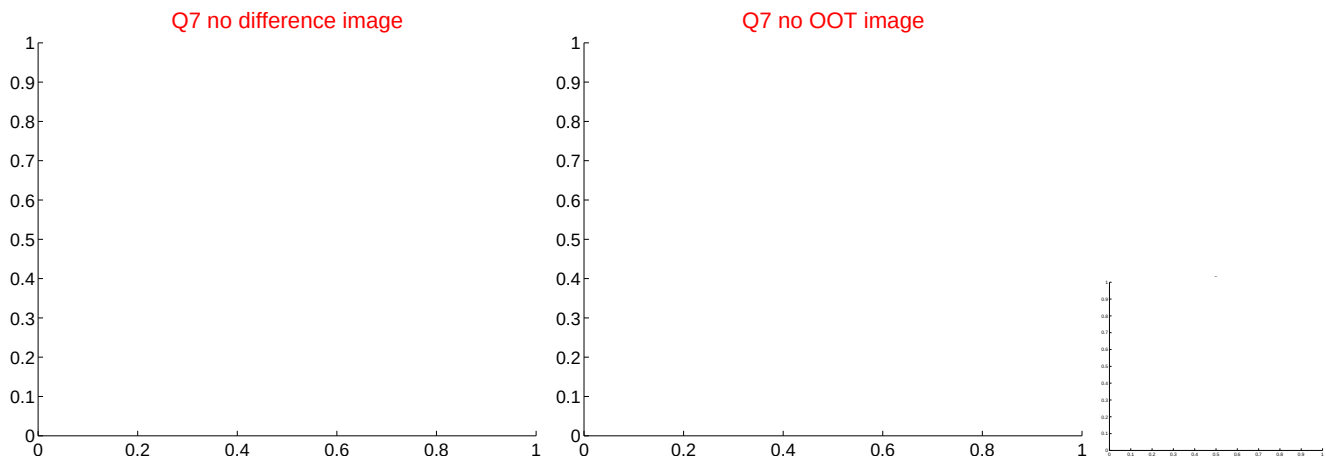


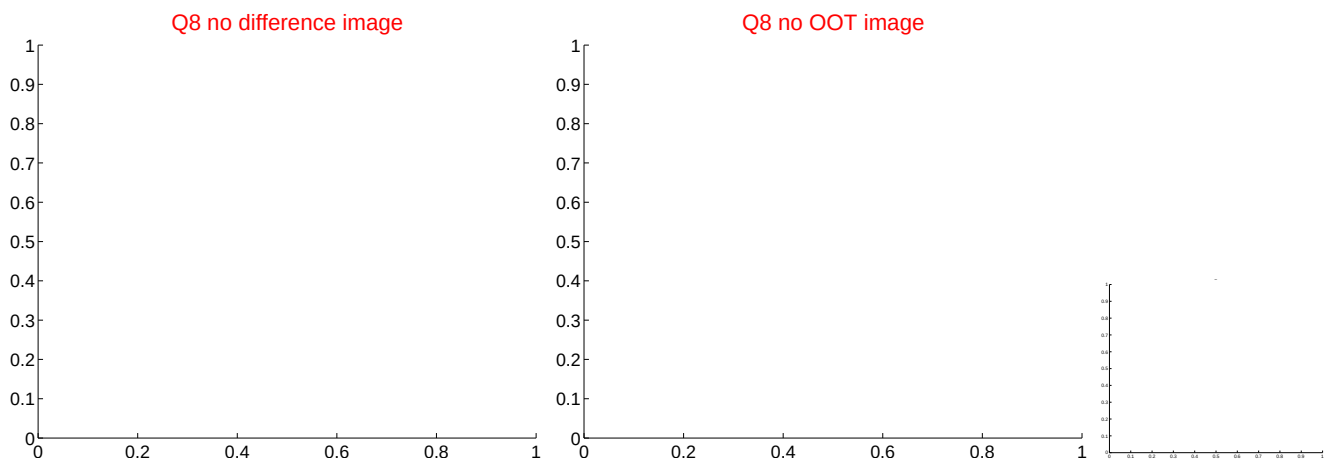


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

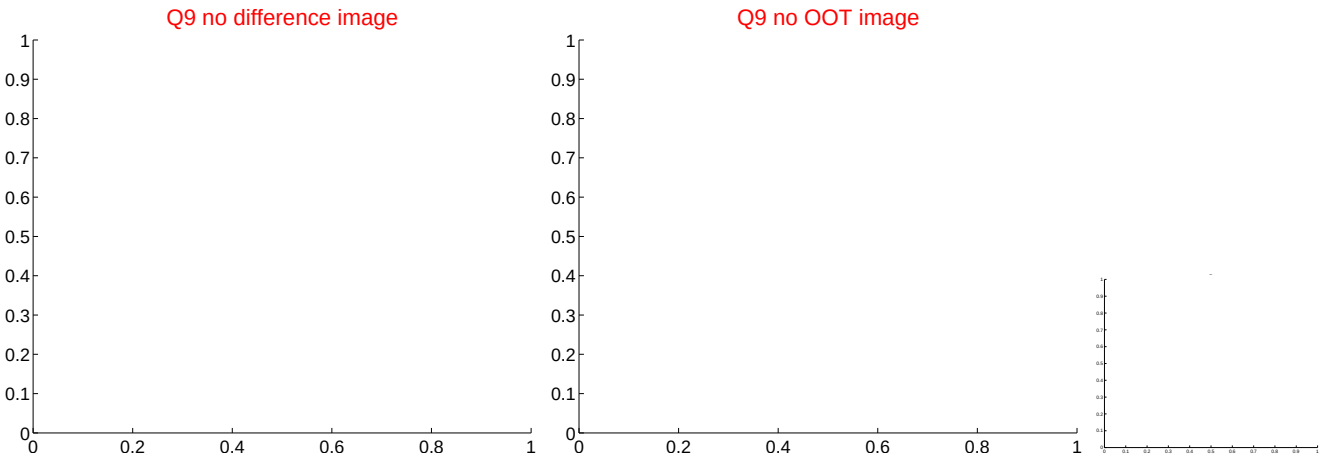


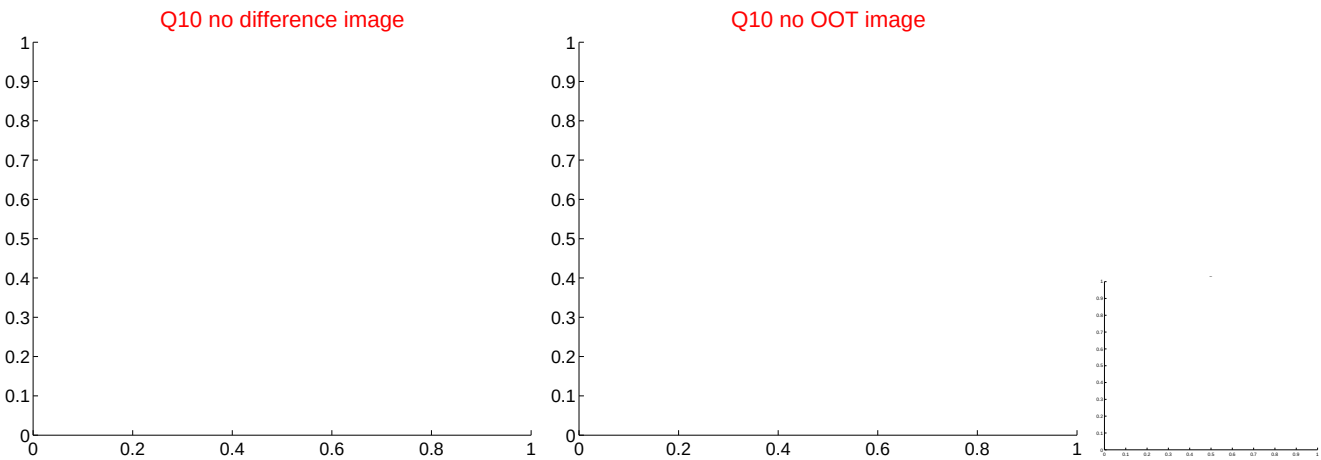


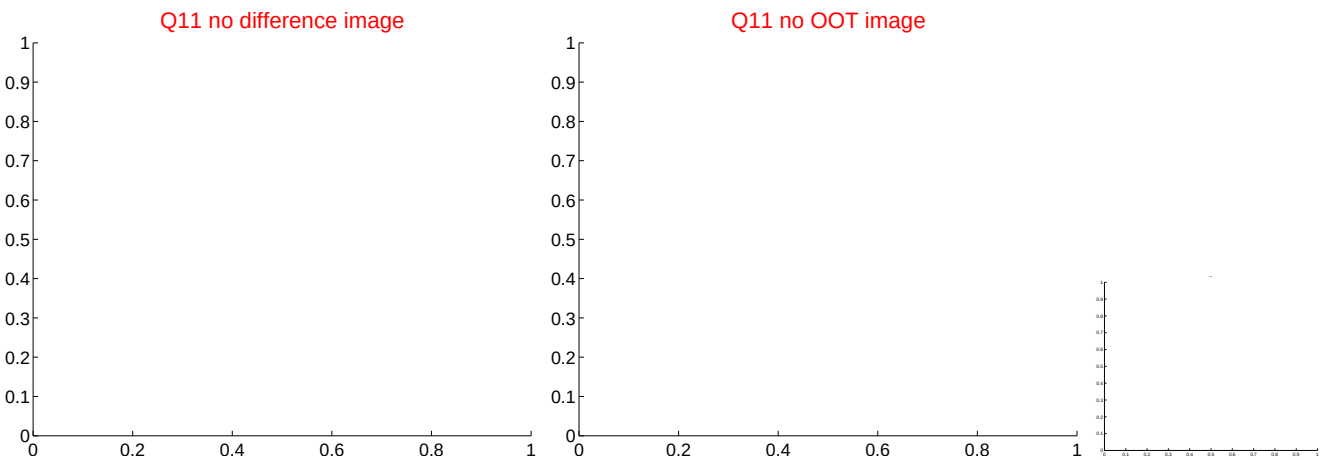


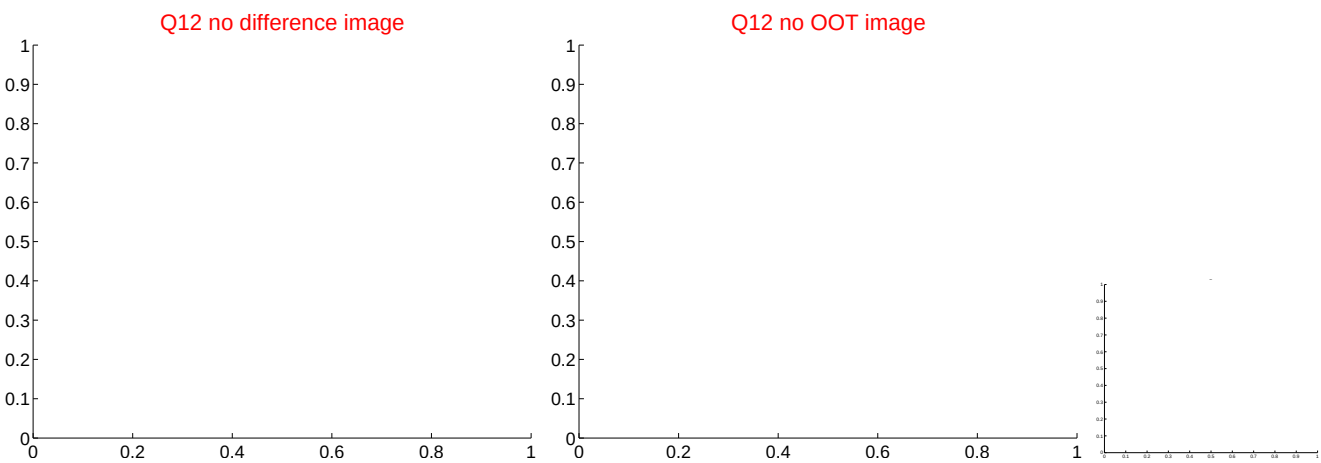


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

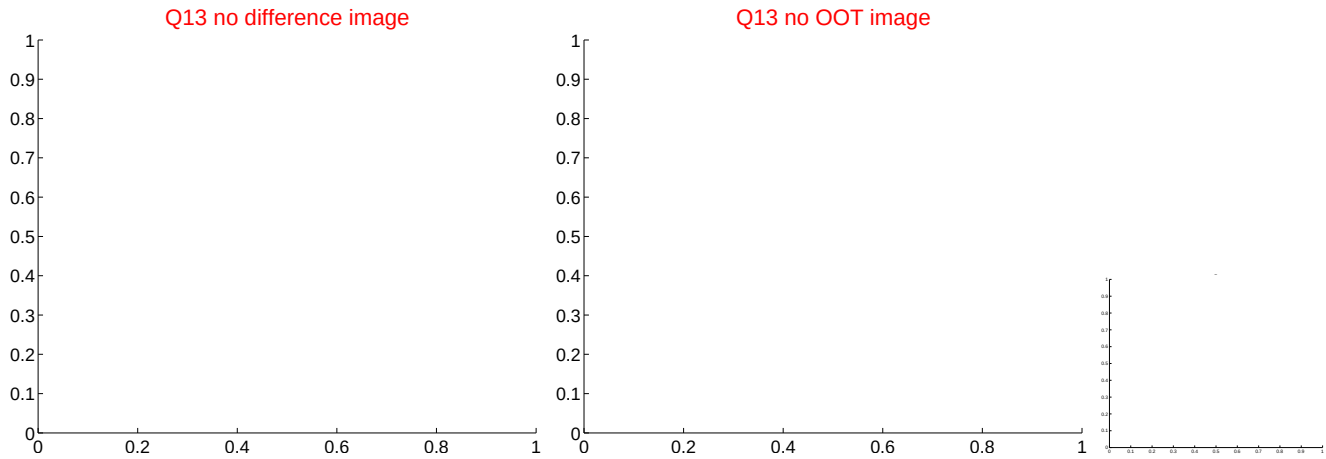


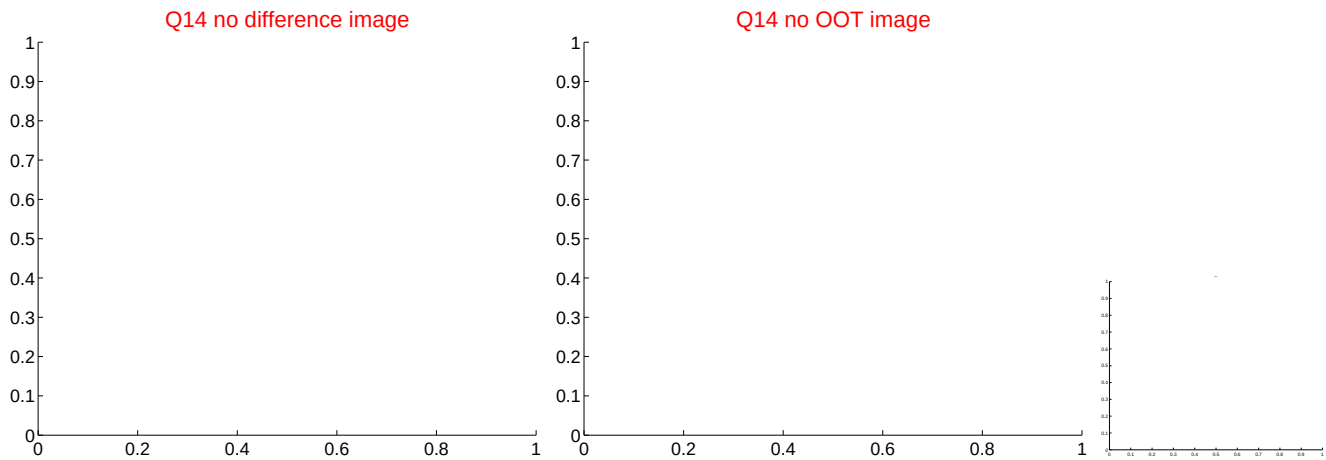


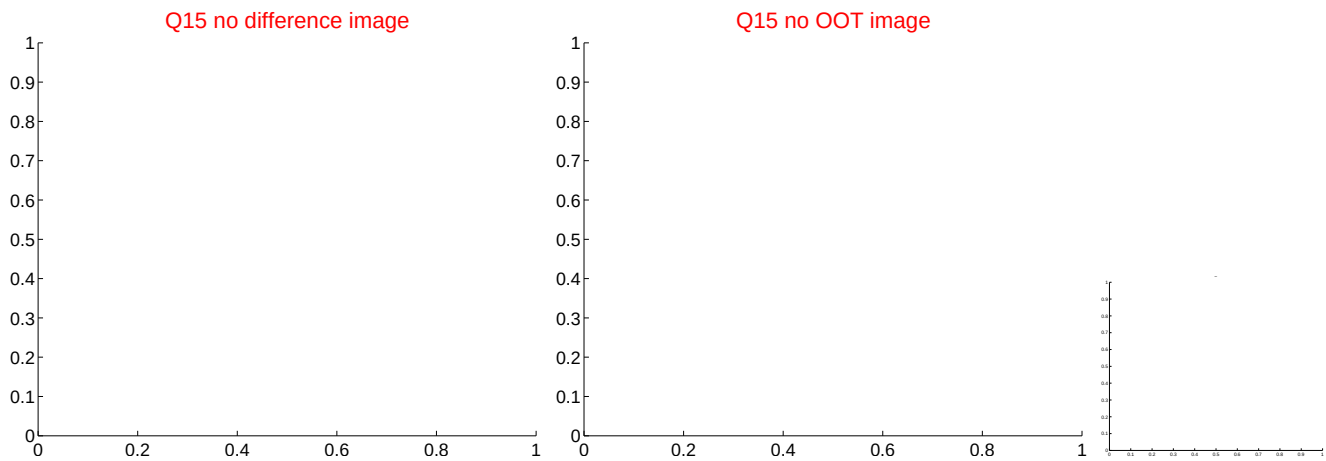


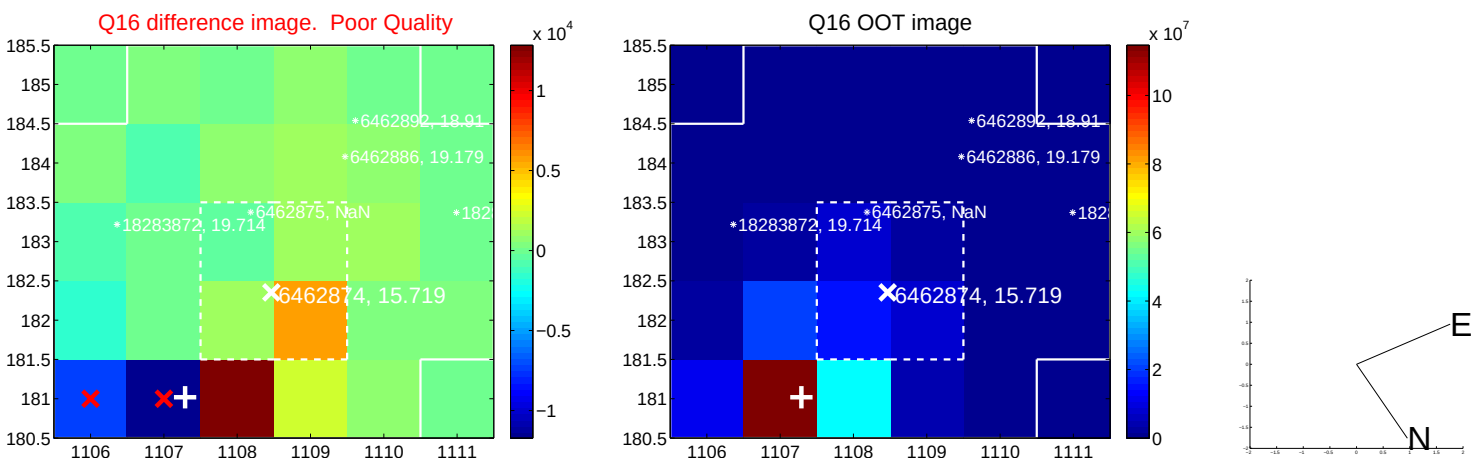


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

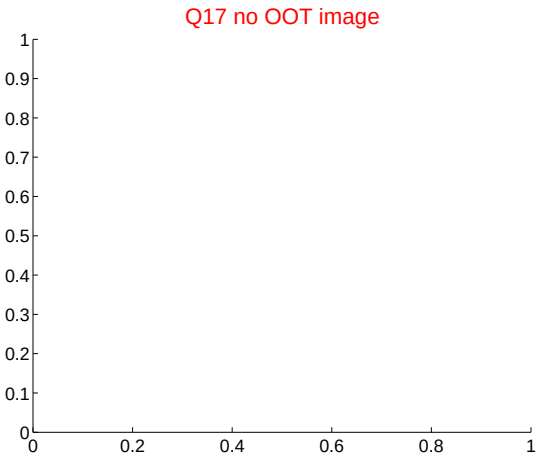


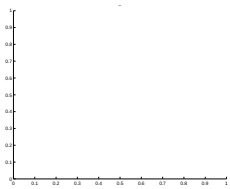


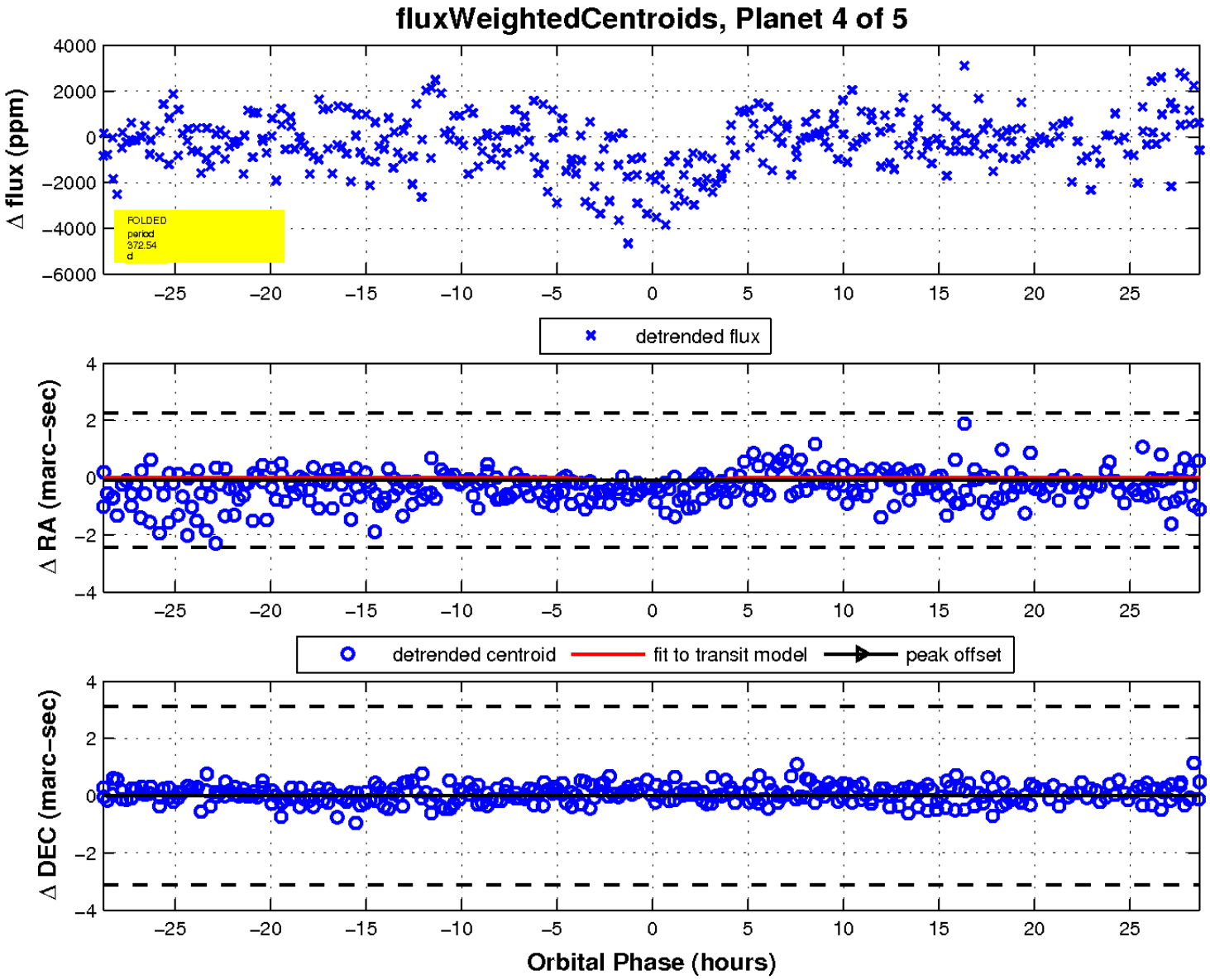




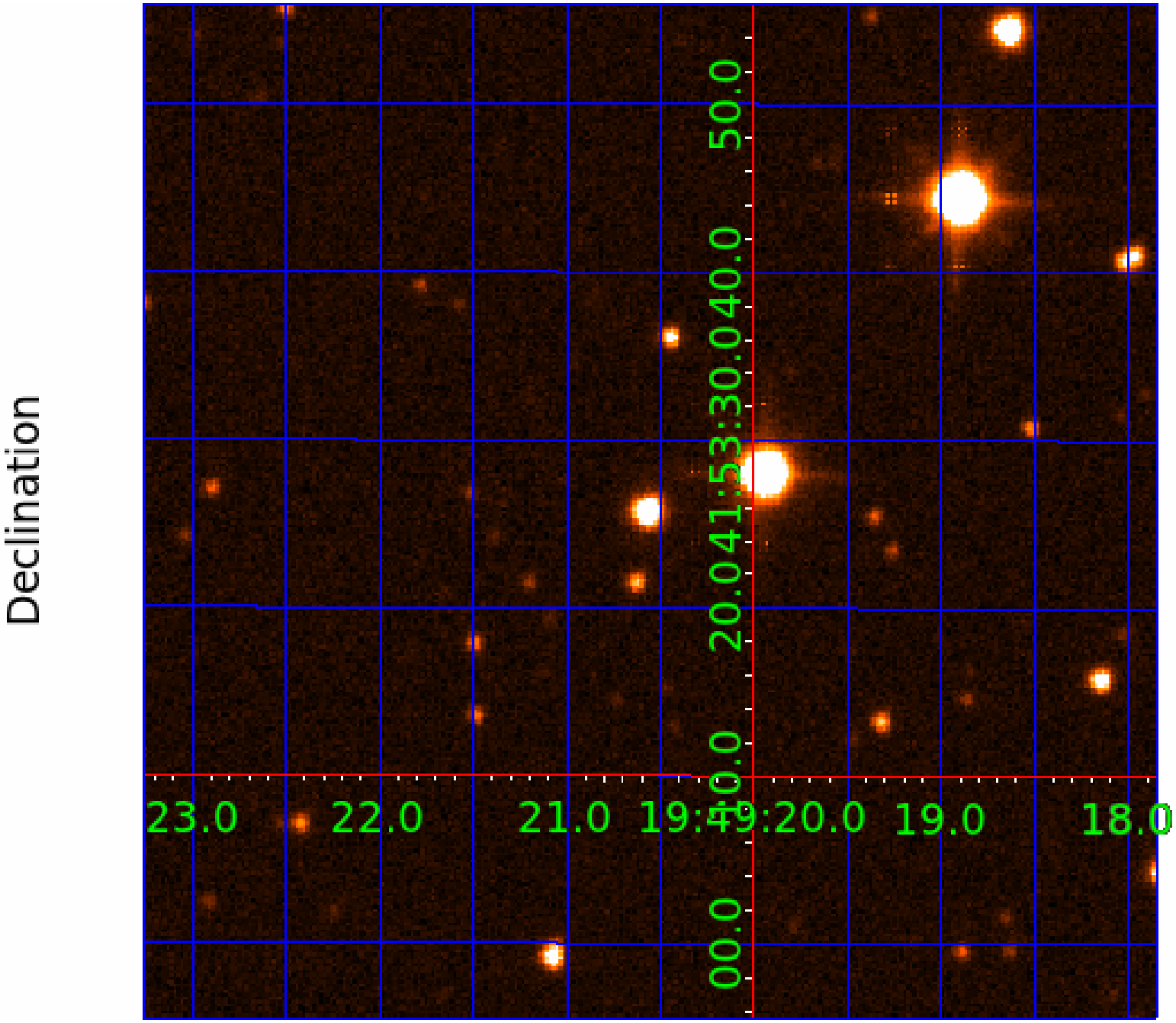
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image


Declination
50.0
40.0
53:30.0
41:
20.0
40.0
00.0
23.0
22.0
21.0
19:49:20.0
19.0
18.0

KIC 006462874

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 ($S_\oplus$)
006462874-01	OBS	1231.01	22.342880	132.743757	2913.3	6.677	73.7	41.8	0.58	4260	3.04	6.03
006462874-02	OBS	No	380.245065	378.518686	5553.0	8.687	15.1	16.2	0.58	4260	4.21	0.14
006462874-03	OBS	1231.02	10.423579	138.017235	724.5	5.894	15.3	15.3	0.58	4260	1.89	16.65
006462874-04	OBS	No	372.535863	432.834919	3247.2	9.591	13.4	12.4	0.58	4260	3.69	0.14
006462874-05	OBS	No	54.319747	161.249629	932.7	8.627	8.3	9.2	0.58	4260	1.88	1.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006462874-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—EPHEM_MATCH
006462874-02	OBS	FP	0.00	1	0	1	1	INDIV_TRANS_RUBBLE_CHASES—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
006462874-03	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—EPHEM_MATCH
006462874-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006462874-05	OBS	FP	0.00	1	0	1	1	TRANS_GAPPED—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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 006462874-05

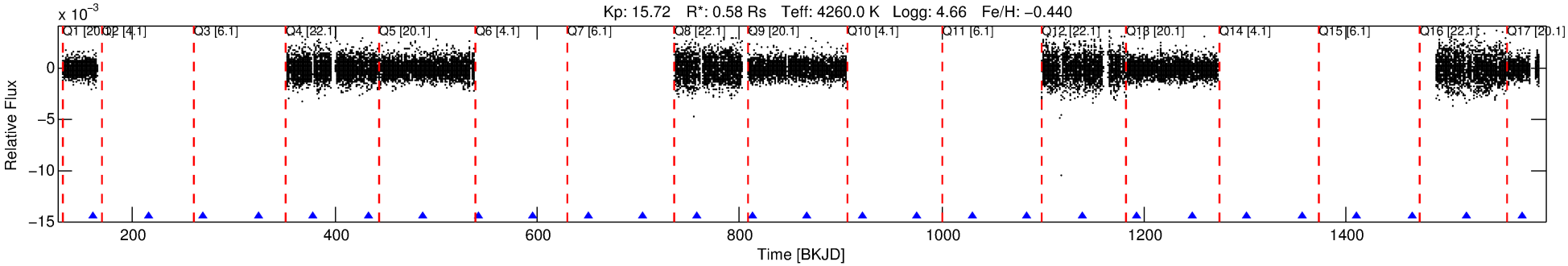
TCE (1)	KIC	Parent (2)	Parent KIC	P_1:P_2	Dist (″)	ΔRow	ΔCol	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
006462874-05	6462874	94.03	6462863	1:1	7.3	1	-1	12.21	15.72	2.14	Direct-PRF	0	0.09	0.17

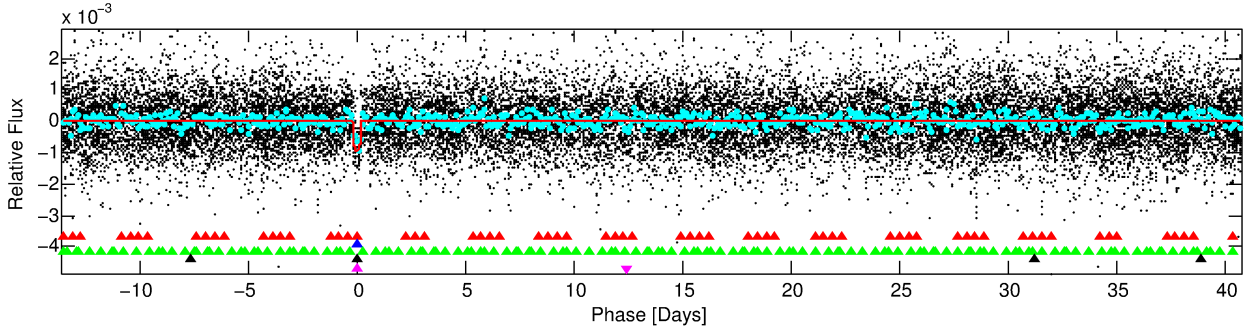
Notes: P_1:P_2 is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth dividied by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should recieve extra scrutiny, especially if the period ratio is very large.

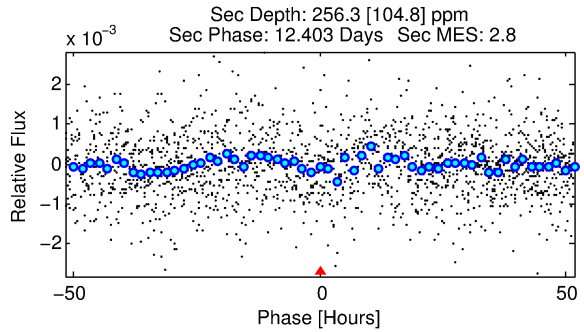
DV One-Page Summary

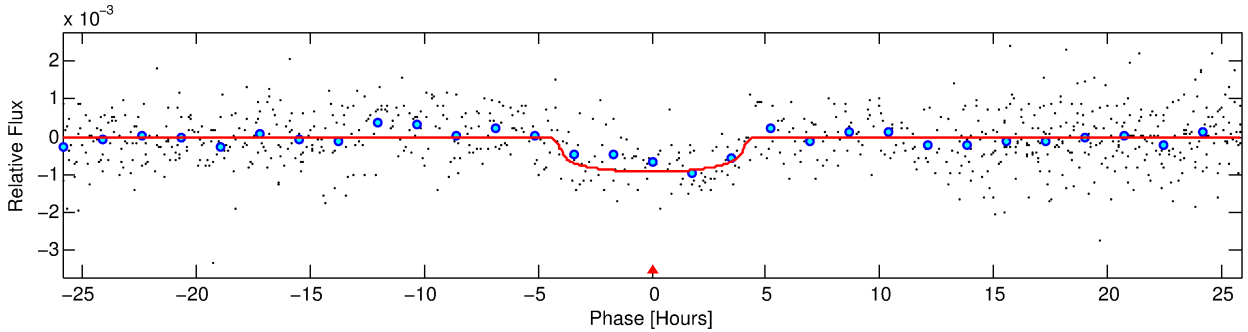
KIC: 6462874 Candidate: 5 of 5 Period: 54.320 d
KOI: K01231 Corr: No Ephemeris Match

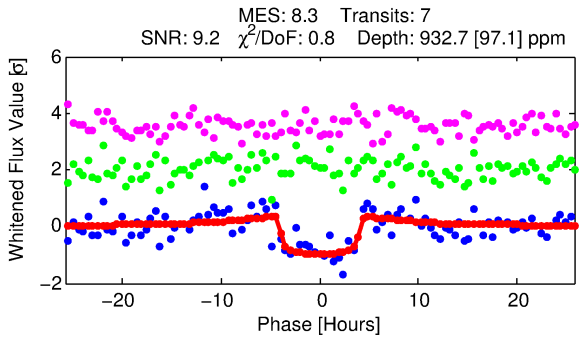
Kp: 15.72 R*: 0.58 Rs Teff: 4260.0 K Logg: 4.66 Fe/H: −0.440

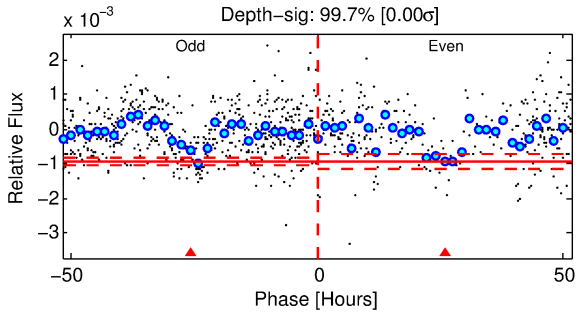


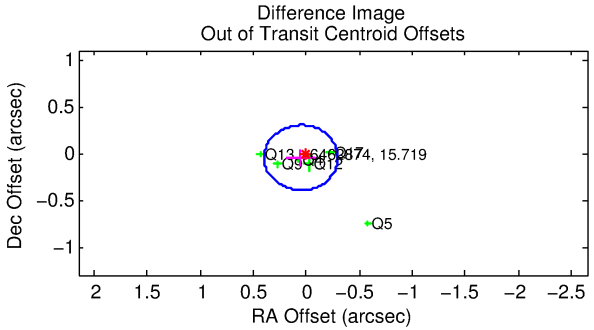












DV Fit Results:

Period = 54.31975 [0.00073] d
Epoch = 161.2496 [0.0123] BKJD
Rp/R* = 0.0297 [0.0141]
a/R* = 37.11 [63.91]
b = 0.68 [1.38]

Seff = 1.84 [0.32]
Teq = 297 [13] K
Rp = 1.88 [0.92] Re
a = 0.2321 [0.0192] AU

Ag = 2150.36 [2242.97] [0.96σ]
Teffp = 3128 [817] K [3.46σ]

DV Diagnostic Results:

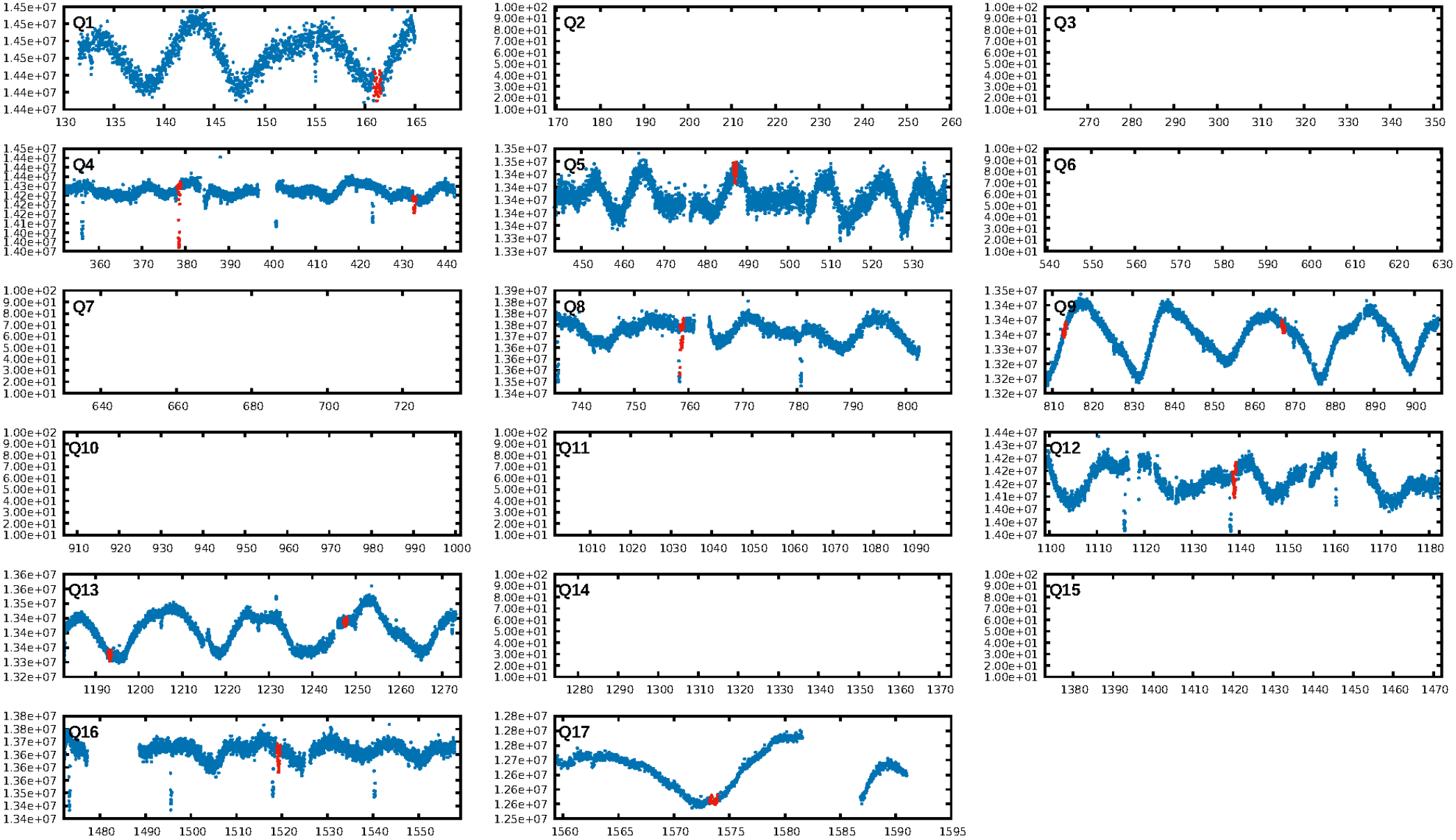
ShortPeriod−sig: 100.0% [70.35σ]
LongPeriod−sig: 100.0% [592.05σ]
ModelChiSquare2−sig: 78.3%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: 6.91e−15
RollingBand−fgt: 1.00 [5/5]
GhostDiagnostic−chr: −0.4614

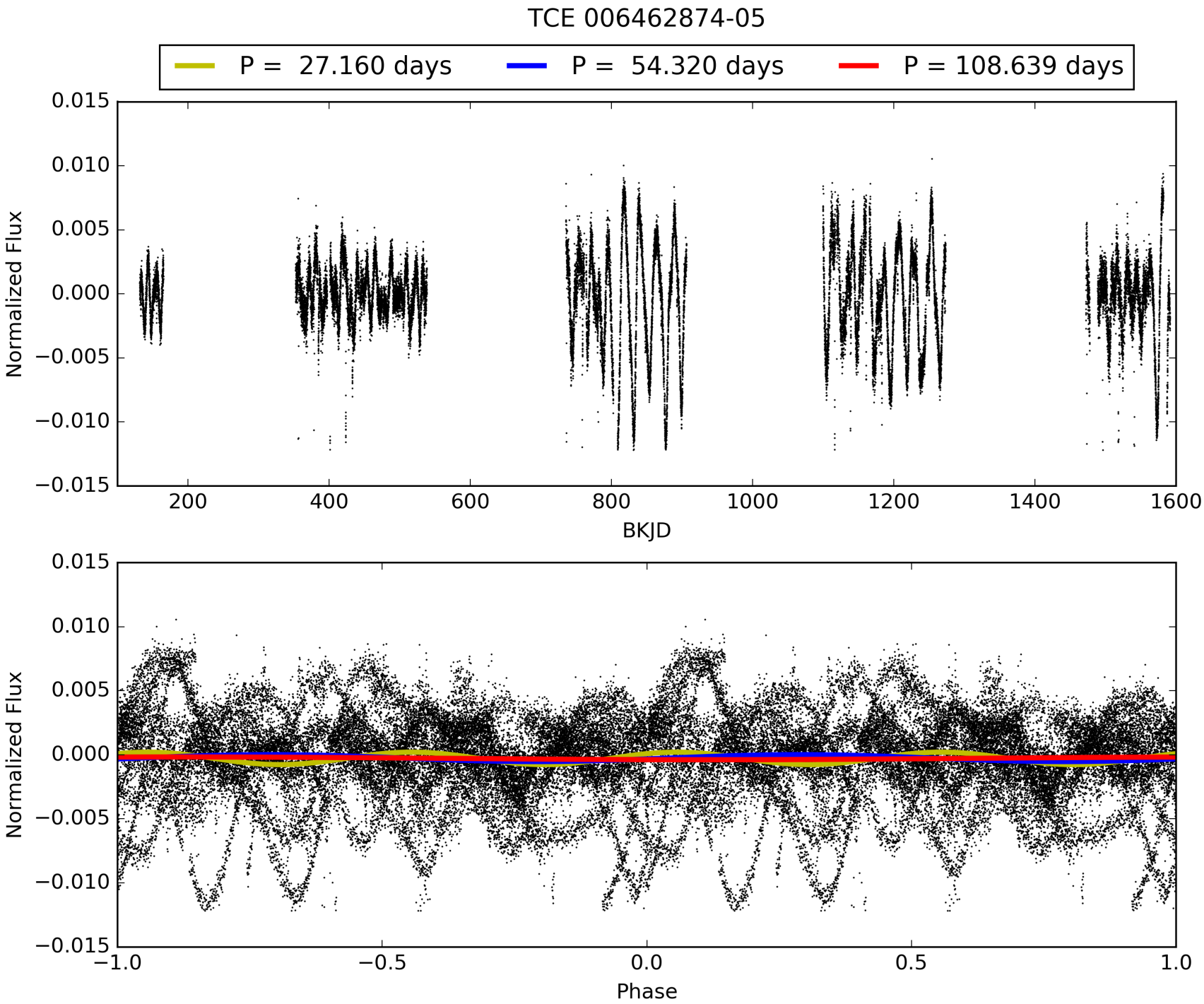
Centroid−sig: 0.0%
Centroid−so: 6.371 arcsec [29.92σ]
OotOffset−rm: 0.071 arcsec [0.61σ]
KicOffset−rm: 7.101 arcsec [51.81σ]
OotOffset−st: 0/0/2/4 [6]
KicOffset−st: 0/0/2/4 [6]
DiffImageQuality−fgm: 1.00 [6/6]
DiffImageOverlap−fno: 0.56 [5/9]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 −− Date Generated: 31−Jan−2016 03:36:31 Z

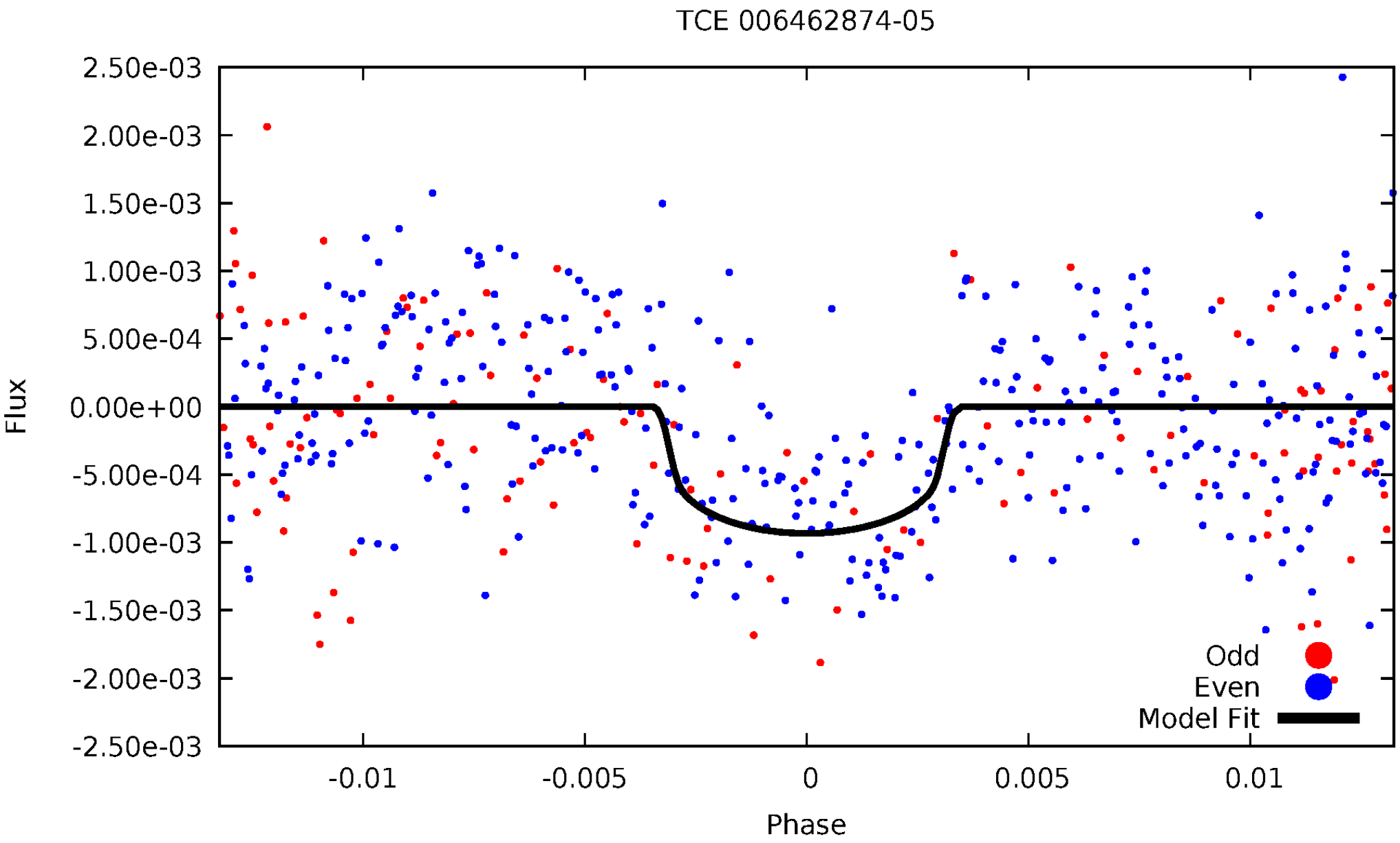
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006462874-05, PDC Light Curves

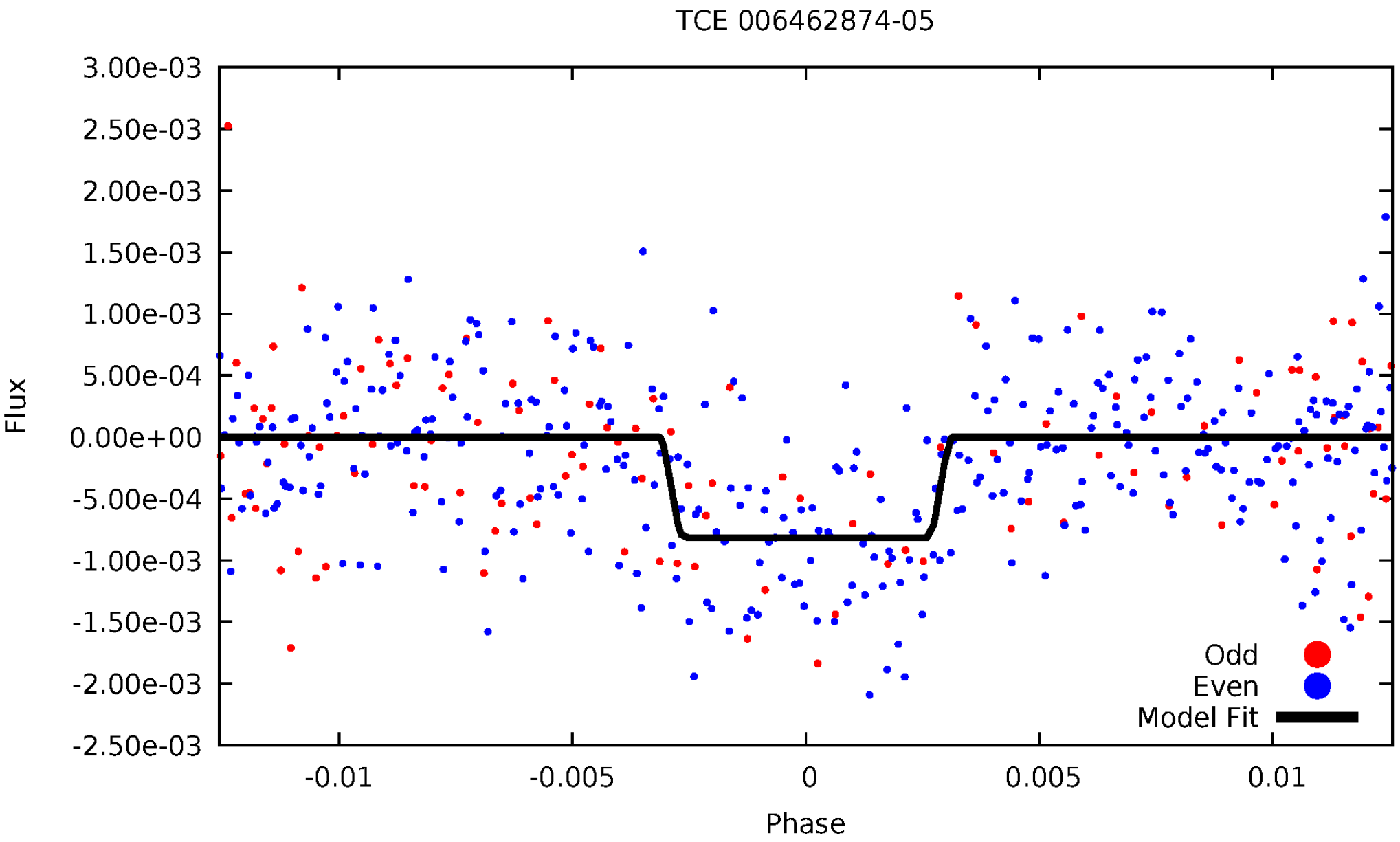



TCE 006462874-05
P = 27.160 days
P = 54.320 days
P = 108.639 days
Normalized Flux
BKJD
Normalized Flux
Phase

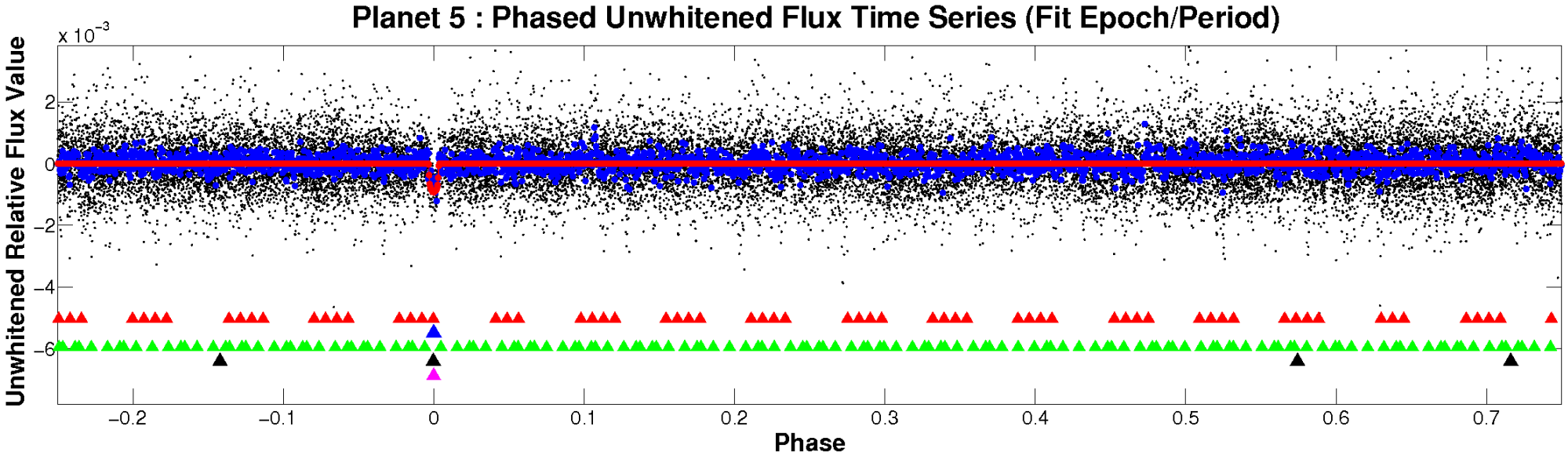
DV Odd/Even

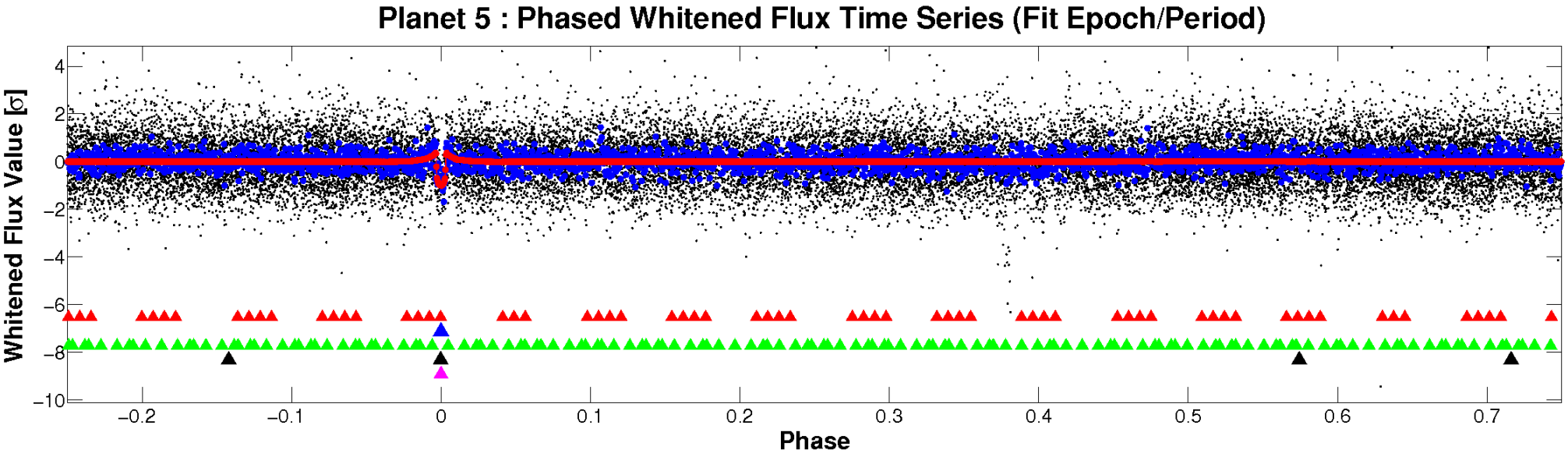

TCE 006462874-05
2.50e-03
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
-2.50e-03
Flux
-0.01
-0.005
0
0.005
0.01
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006462874-05
3.00e-03
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
Flux
-0.01
-0.005
0
0.005
0.01
Phase
Odd
Even
Model Fit

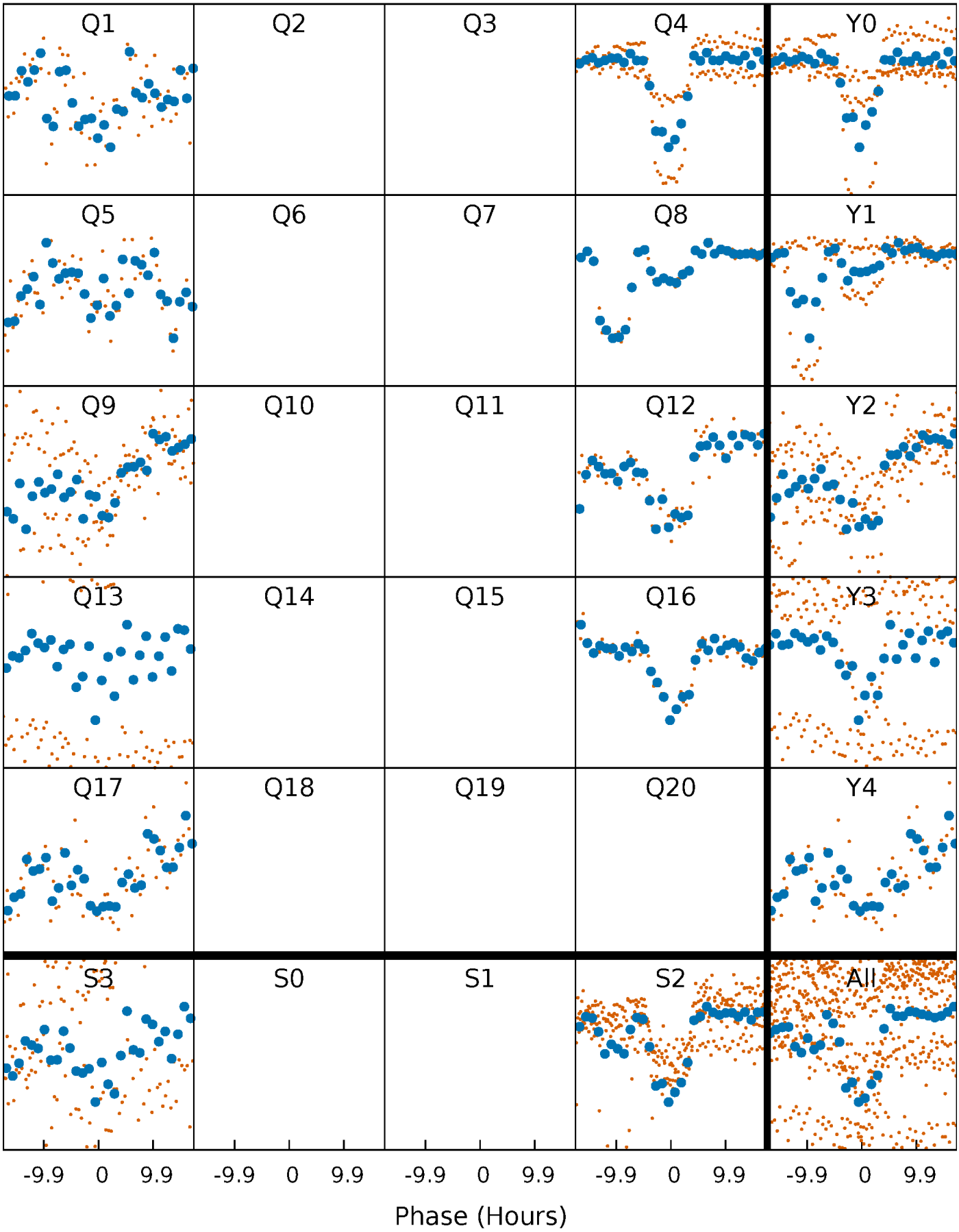
Non-Whitened Vs. Whitened Light Curve





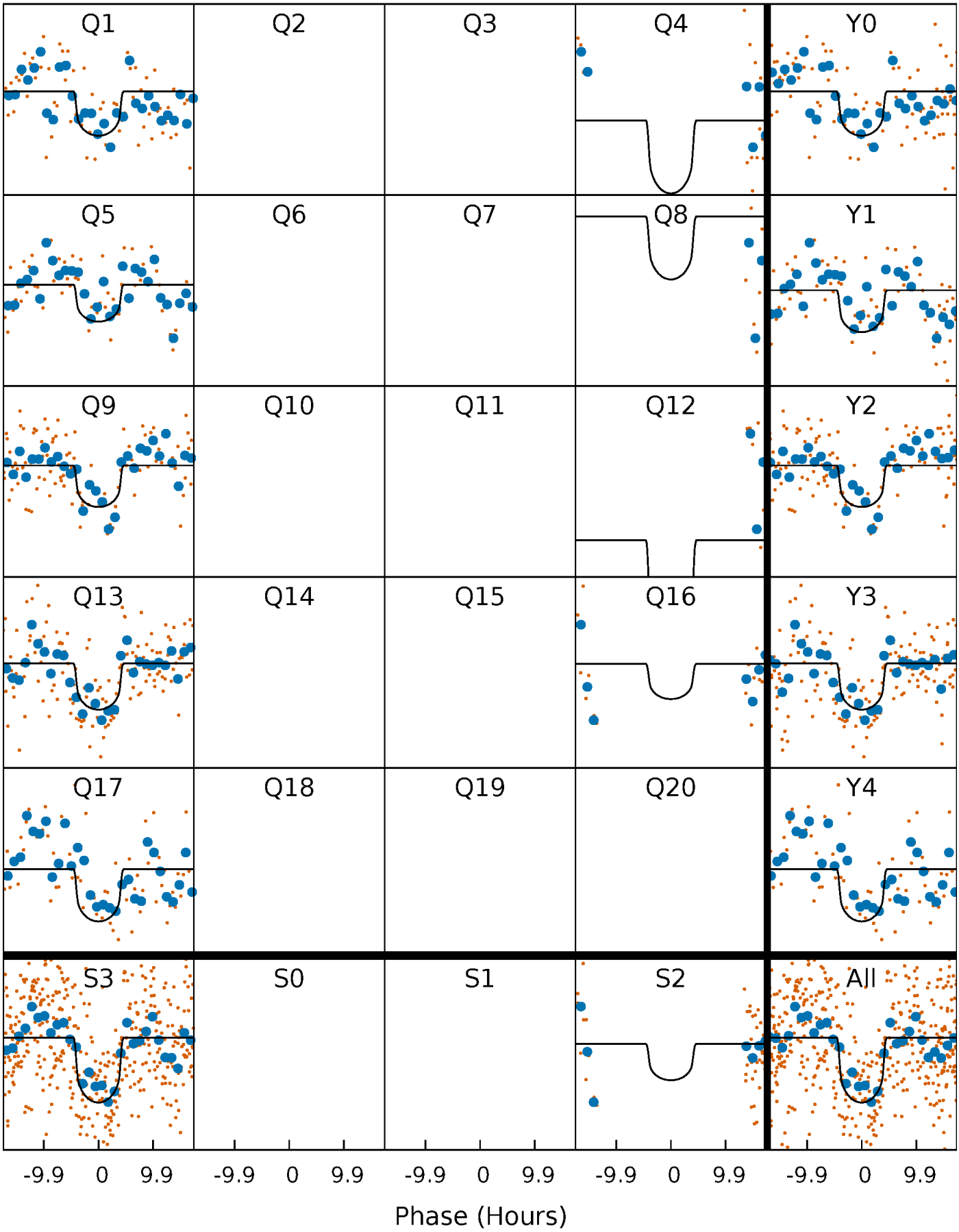
PDC Quarter-Phased Transit Curves

TCE 006462874-05 P= 54.319747 Days T_0=161.249629 (BKJD)



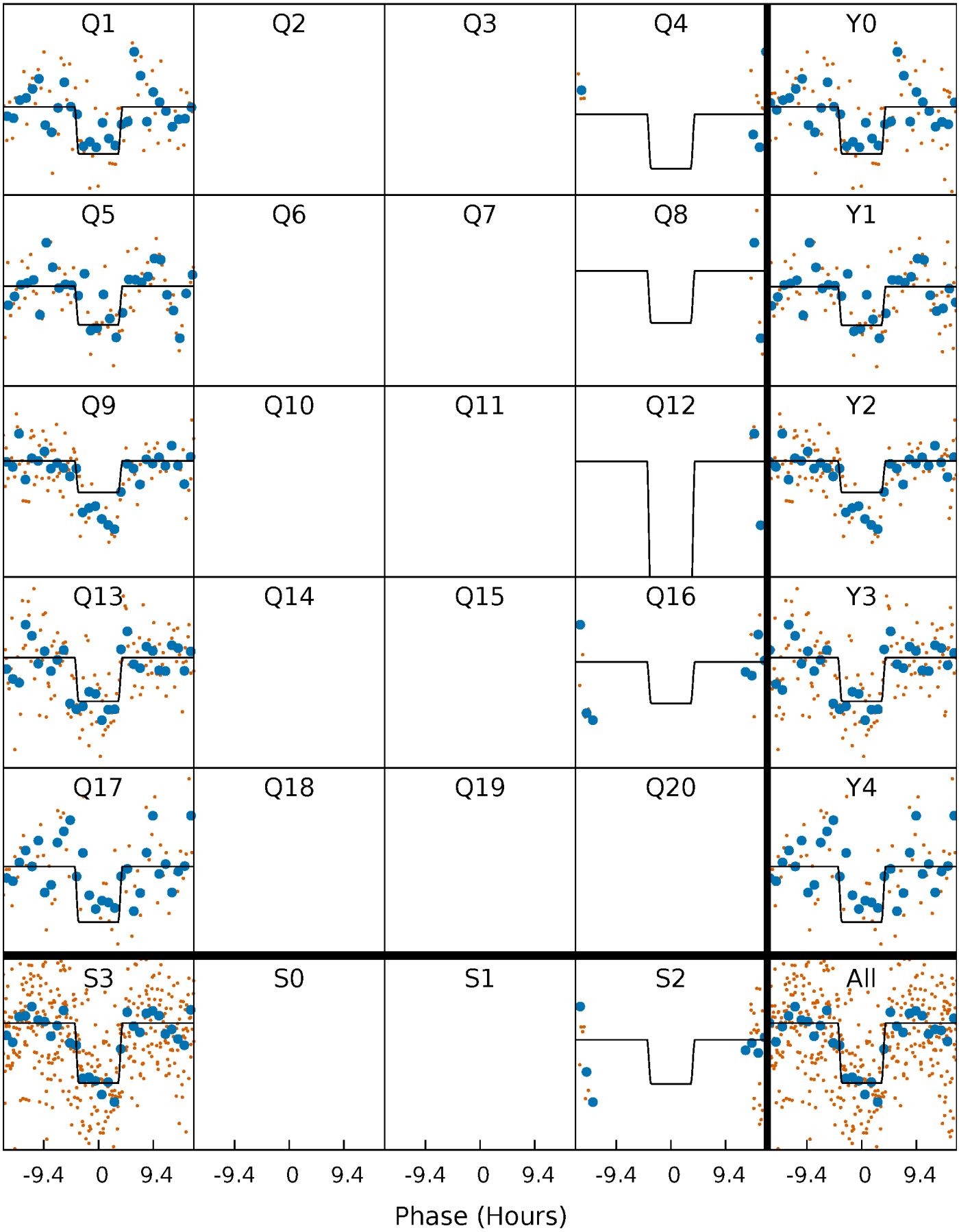
DV Quarter-Phased Transit Curves

TCE 006462874-05 P= 54.319747 Days T_0=161.249629 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

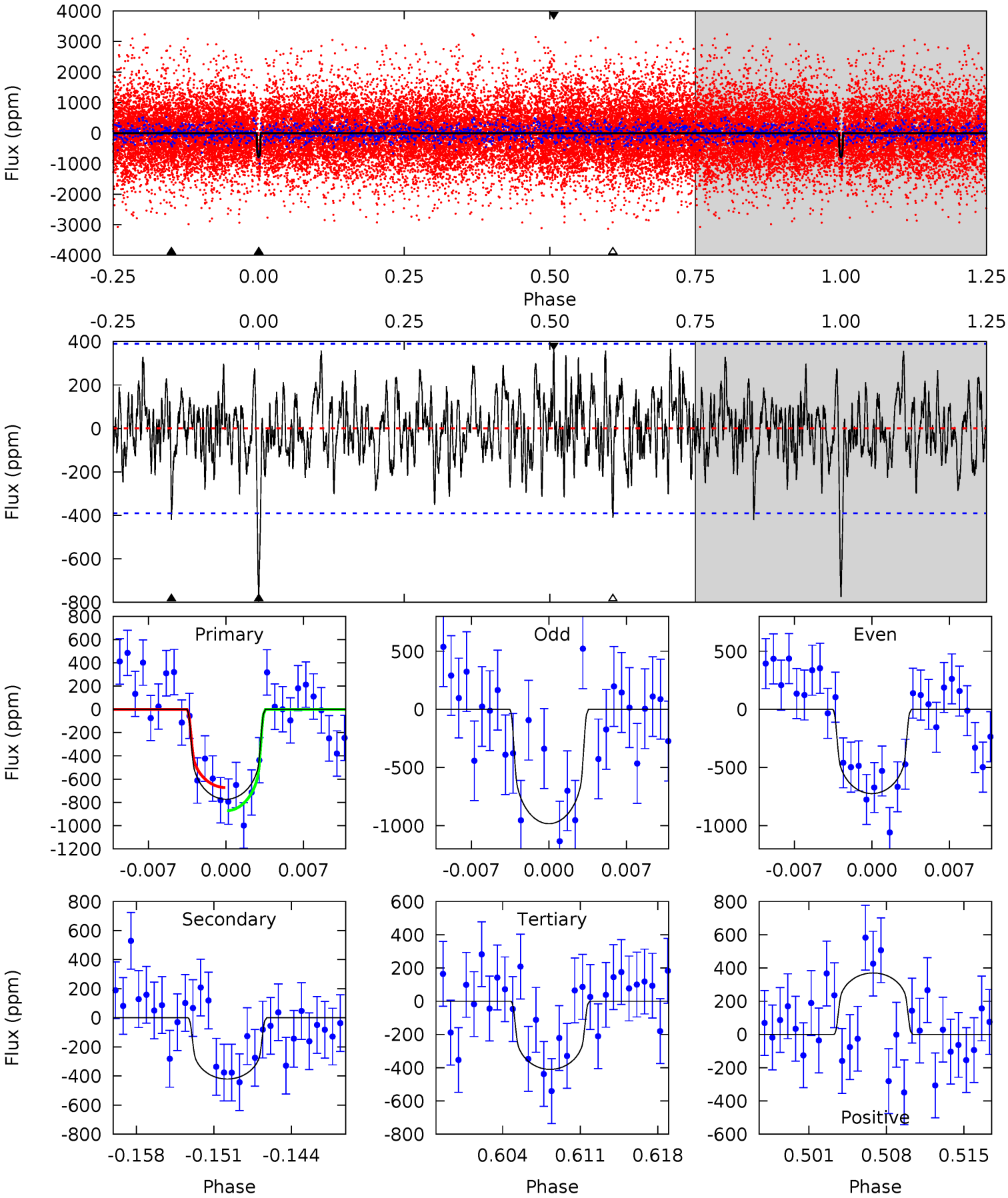
TCE 006462874-05 P= 54.321156 Days T_0=161.225860 (BKJD)



DV Model-Shift Uniqueness Test

006462874-05, P = 54.319747 Days, E = 106.929882 Days

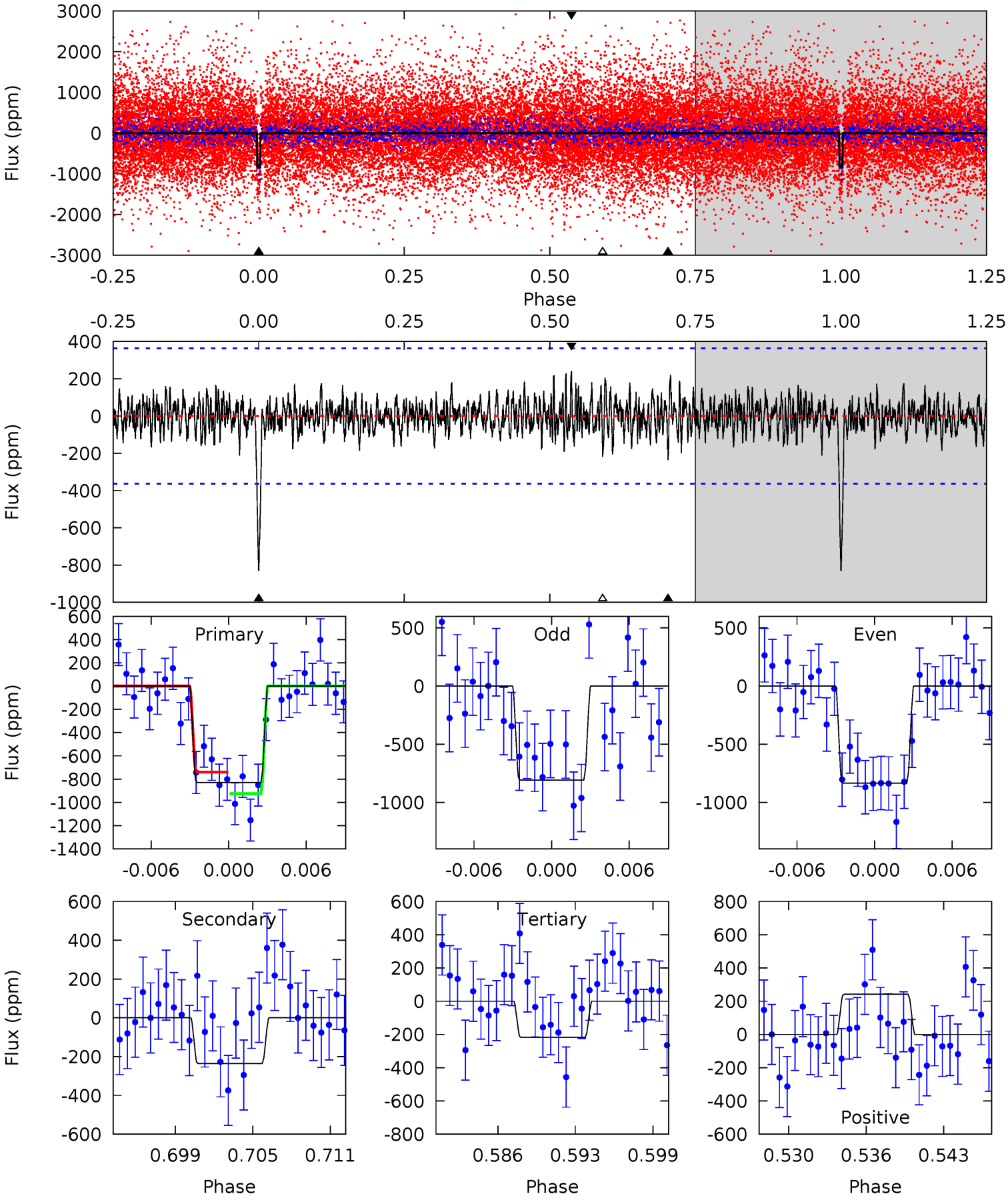
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	5.50	5.36	4.83	5.10	2.70	1.64	4.75	5.27	0.14	0.67	1.30	0.92	0.32	1.31



Alt Model-Shift Uniqueness Test

006462874-05, P = 54.321156 Days, E = 106.904704 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	3.32	3.07	3.40	5.12	2.74	0.99	8.61	8.28	0.26	-0.08	0.14	1.15	0.23	1.31



Stellar Parameters For KIC 006462874

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	4260^{+115}_{-140}	$4.663^{+0.060}_{-0.024}$	$-0.440^{+0.300}_{-0.300}$	$0.580^{+0.044}_{-0.060}$	$0.565^{+0.061}_{-0.051}$	$4.072^{+1.203}_{-0.494}$
	+3%/-3%	+1%/-1%	+68%/-68%	+8%/-10%	+11%/-9%	+30%/-12%
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 006462874-05 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-421±77	$1.90^{+0.86}_{-0.87}$	411^{+14}_{-14}	3709^{+959}_{-445}	3434^{+8765}_{-1777}
Alt.	-236±71	$1.83^{+0.87}_{-0.89}$	412^{+12}_{-15}	3403^{+884}_{-399}	2017^{+6118}_{-1146}

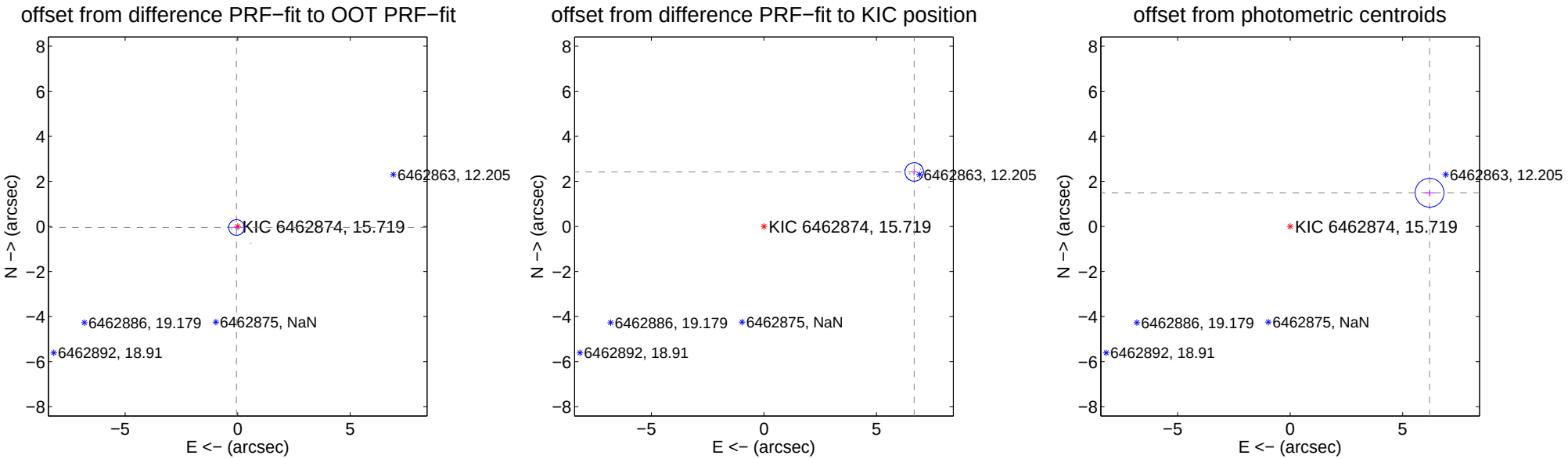
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

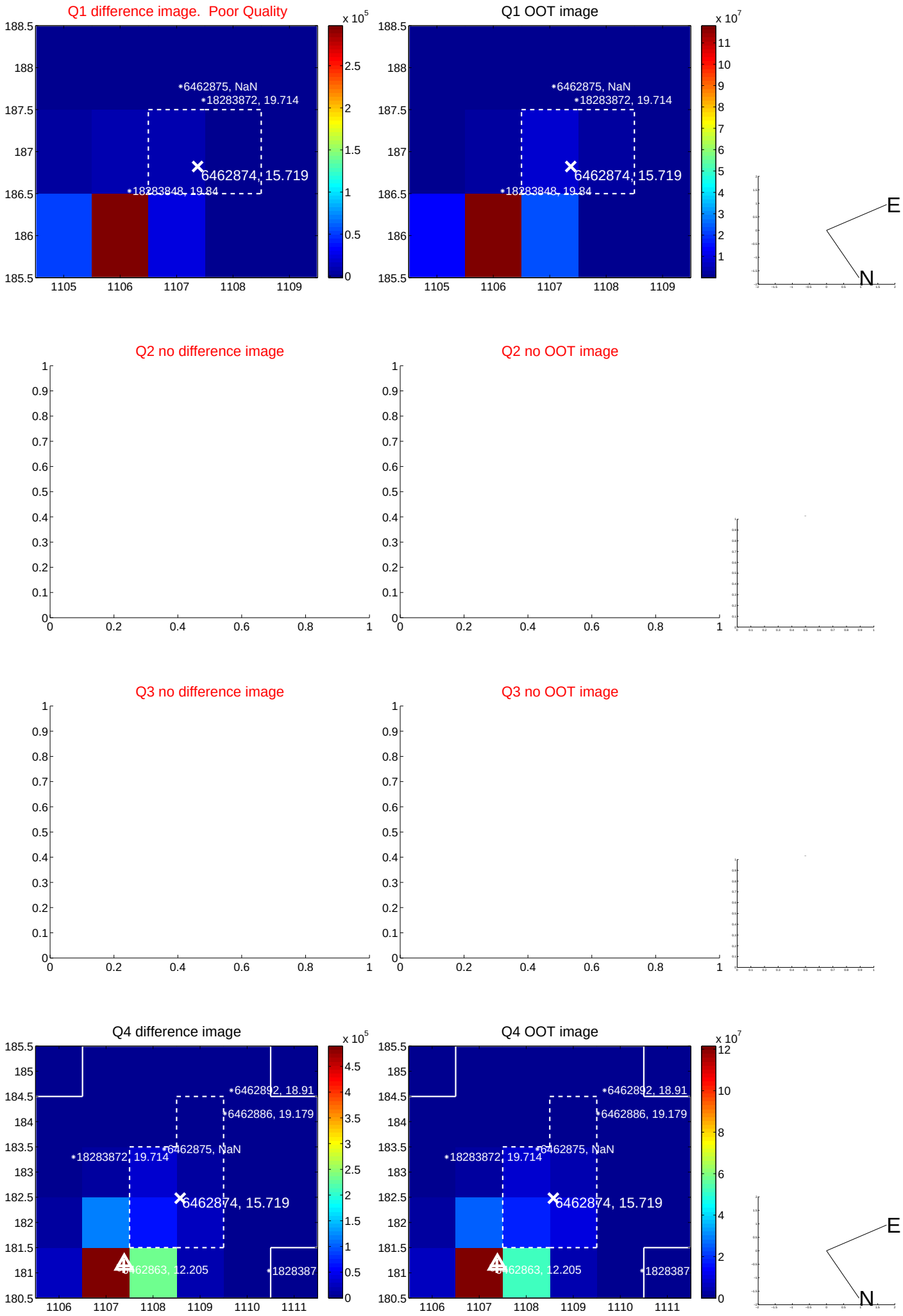
Supplemental centroid analysis for 006462874-05. Kepler magnitude: 15.72. Transit SNR 9.17
There are 6 quarters with good PRF difference image offsets
The OOT PRF centroid is offset from the target star catalog position by about 7.19 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.071 ± 0.116	0.61	0.052 ± 0.136	-0.047 ± 0.085
PRF-fit source offset from KIC position	7.101 ± 0.137	51.81	-6.676 ± 0.142	2.420 ± 0.095
photometric centroid source offset	6.37 ± 0.21	29.92	-6.19 ± 0.22	1.49 ± 0.13



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.



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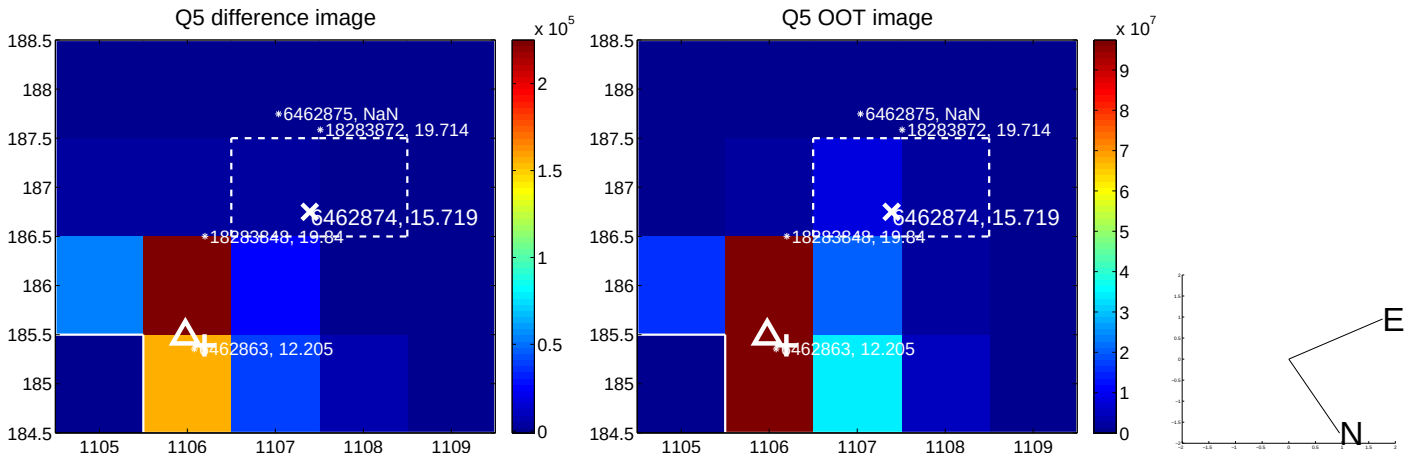

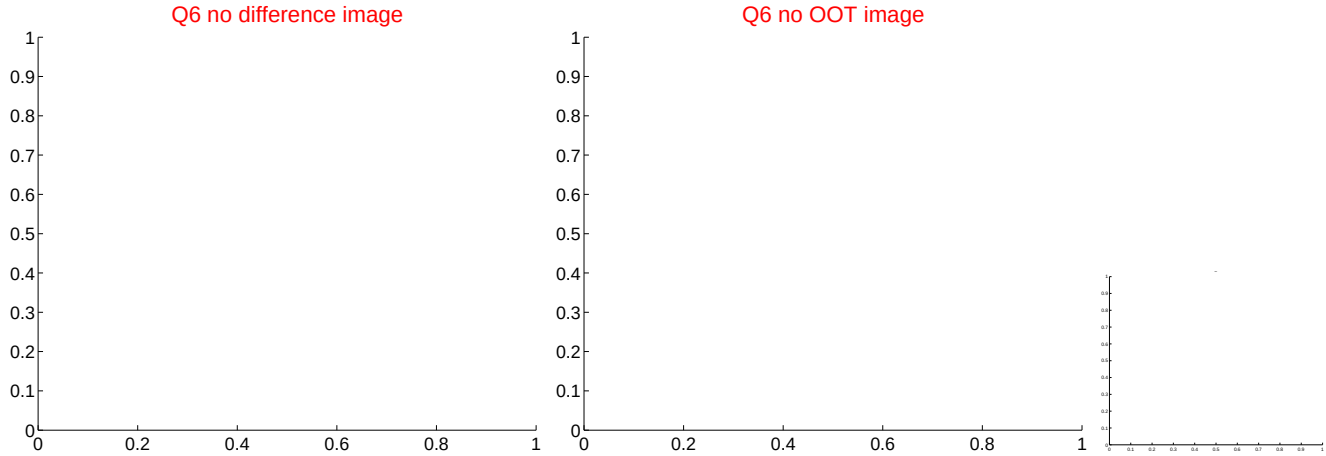

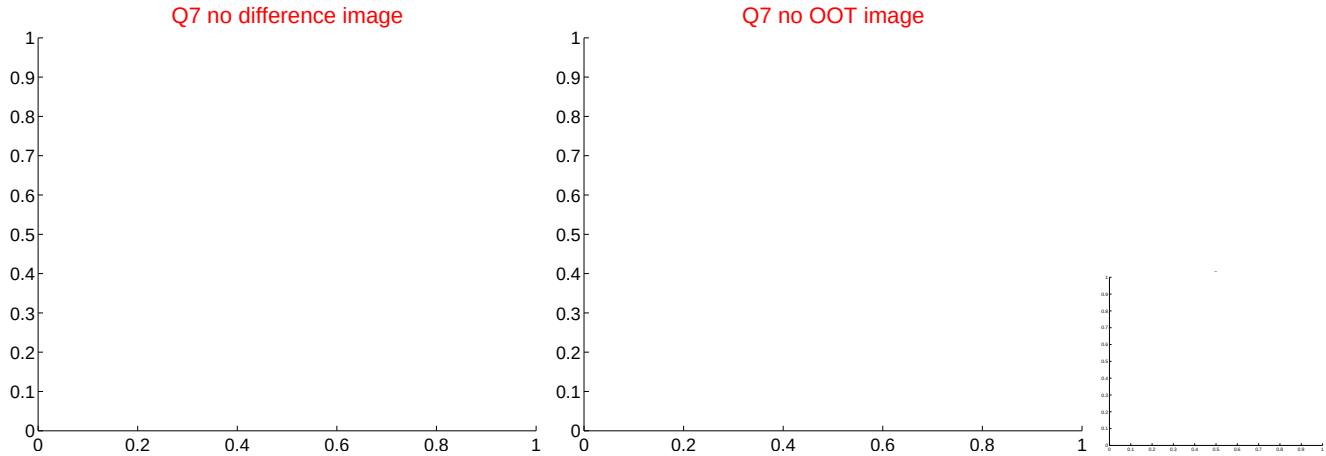

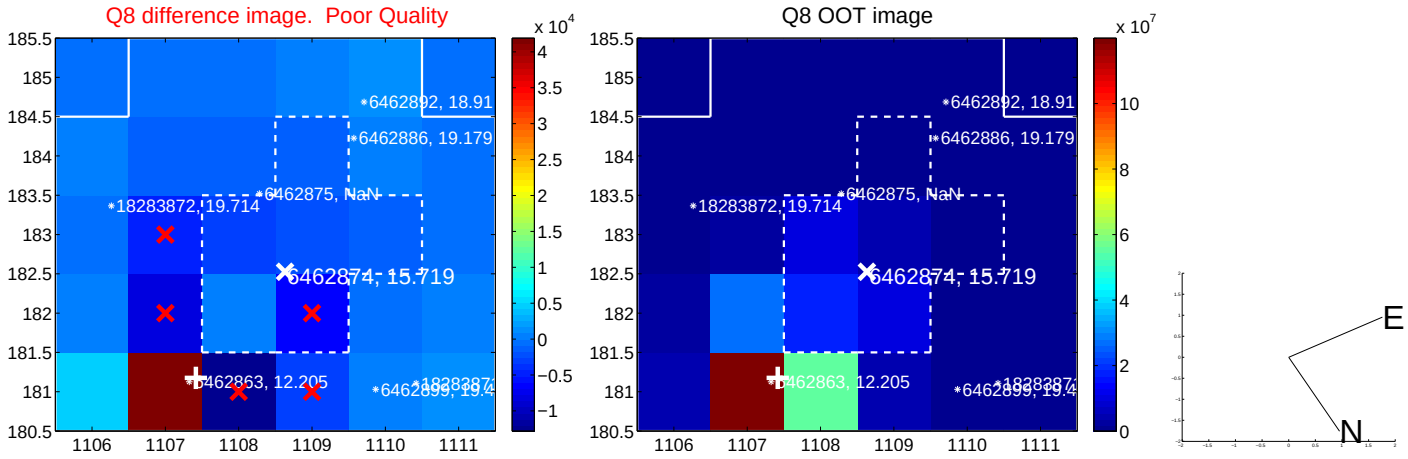

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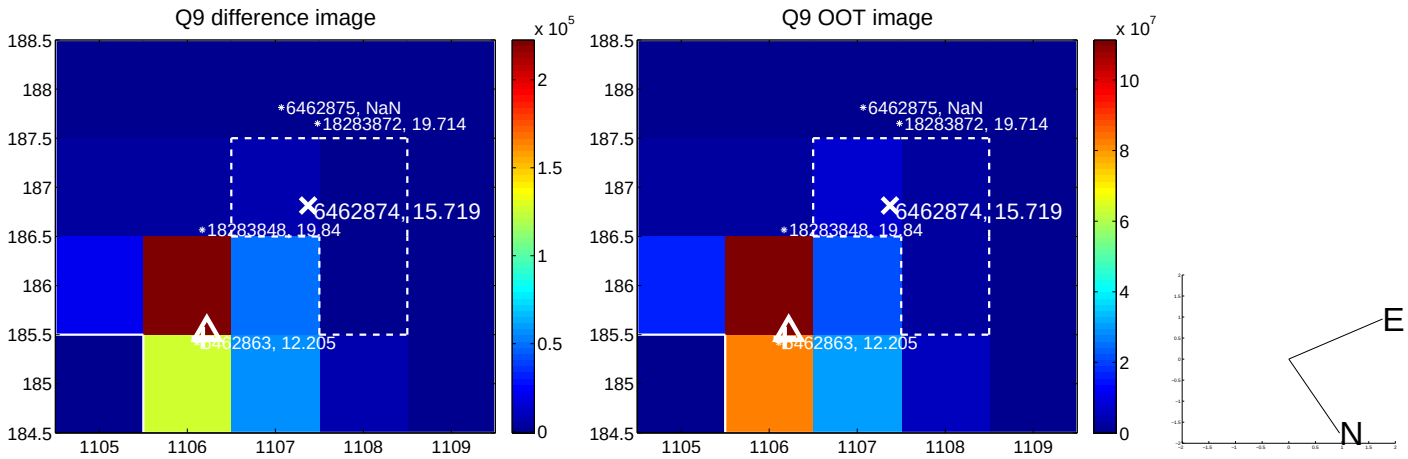

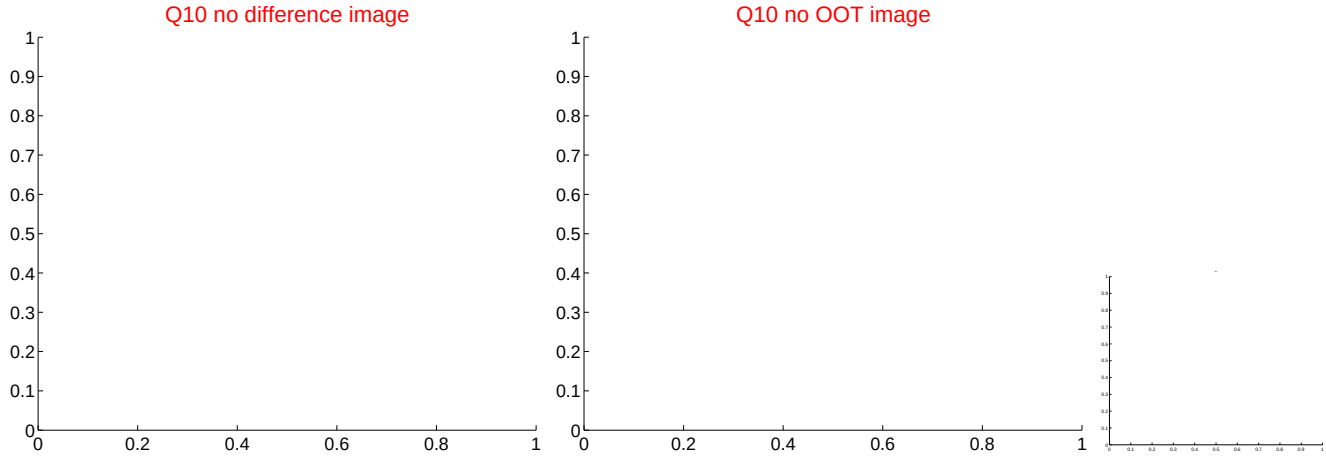

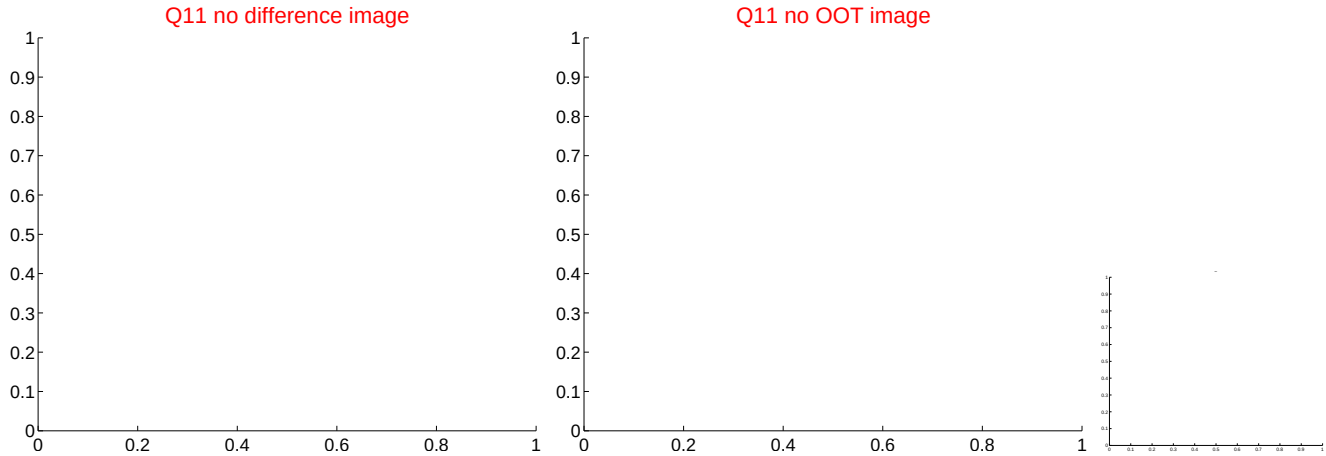

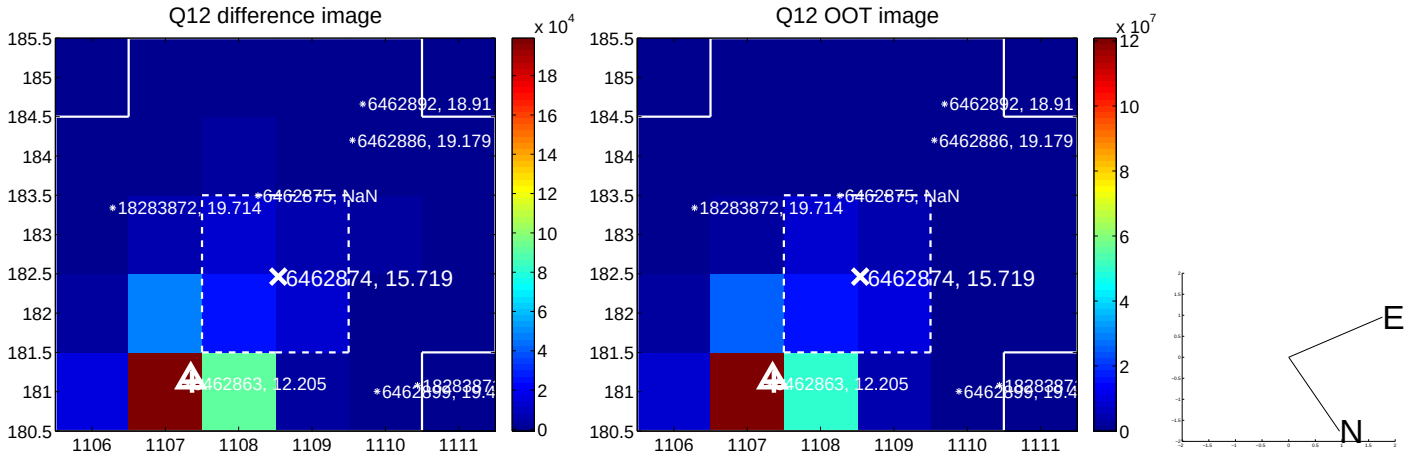

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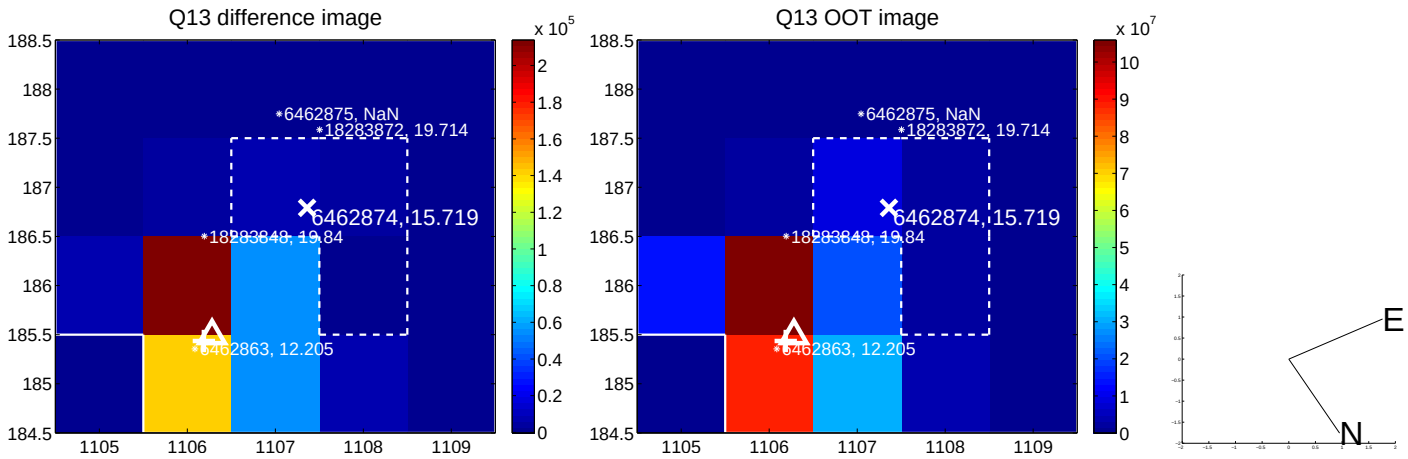

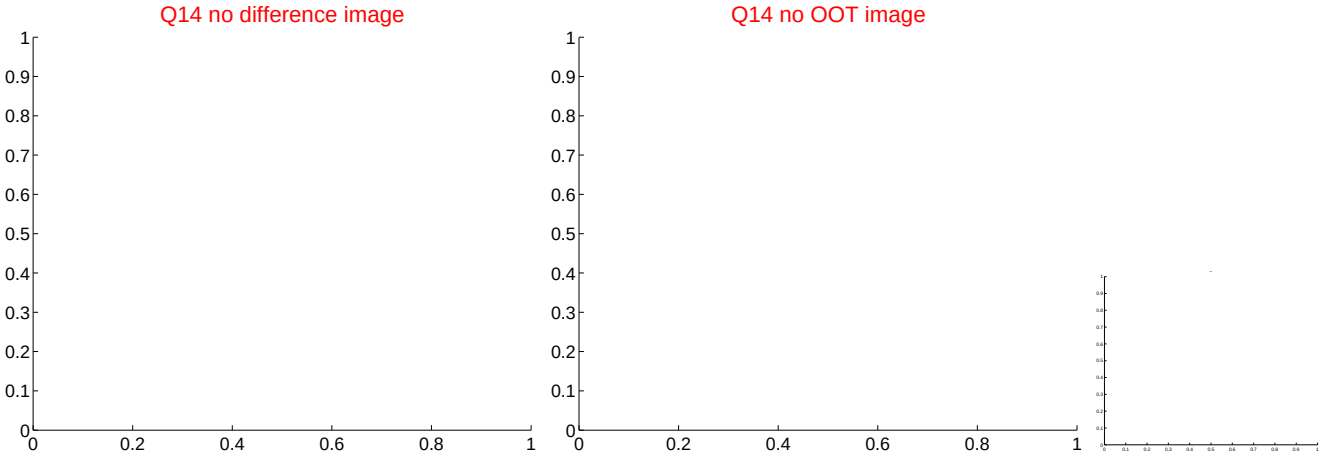

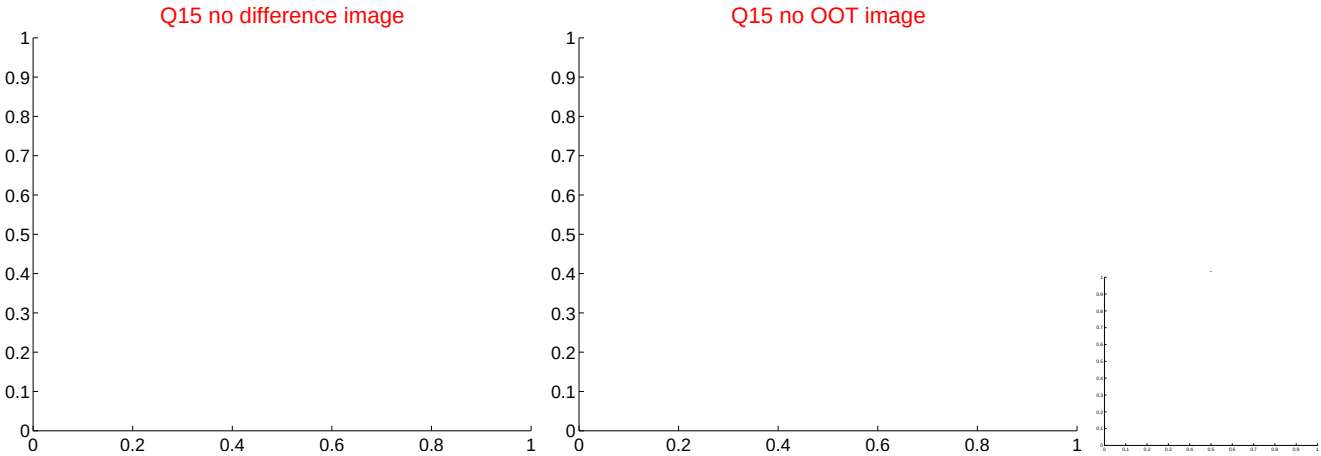

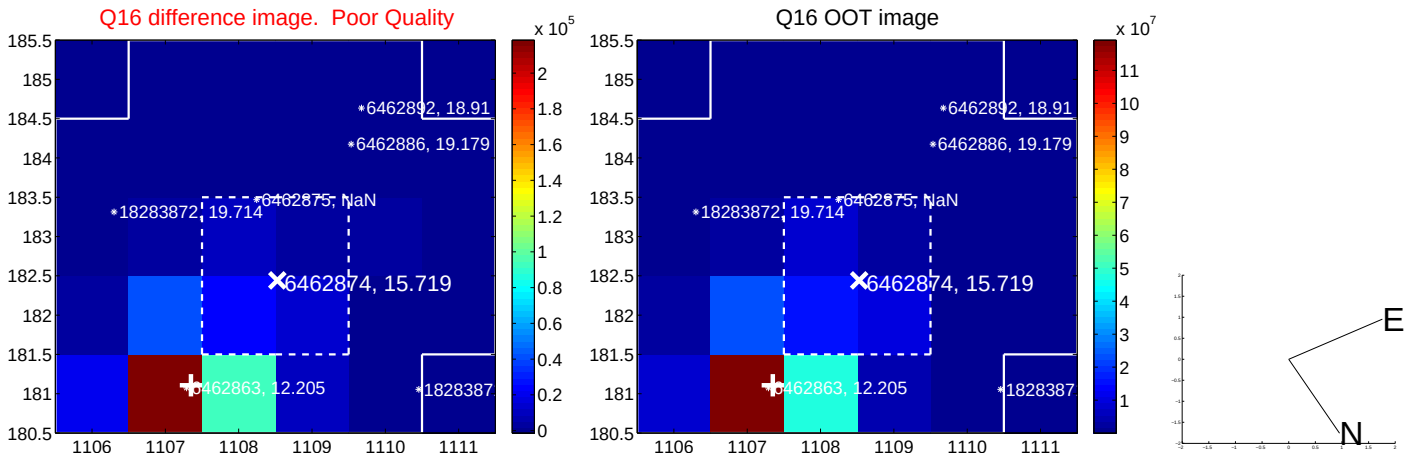

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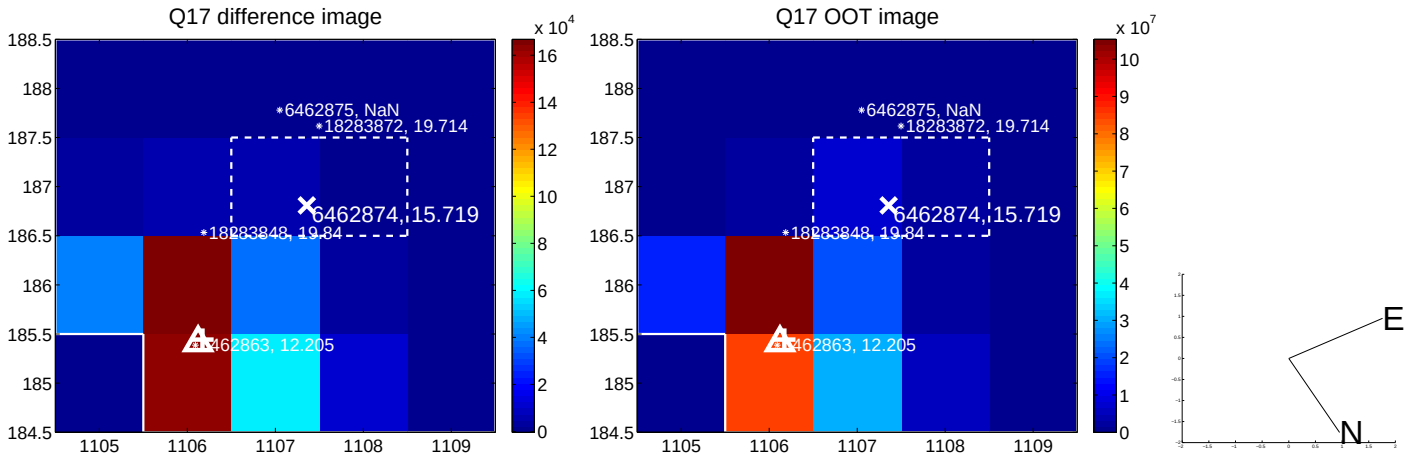
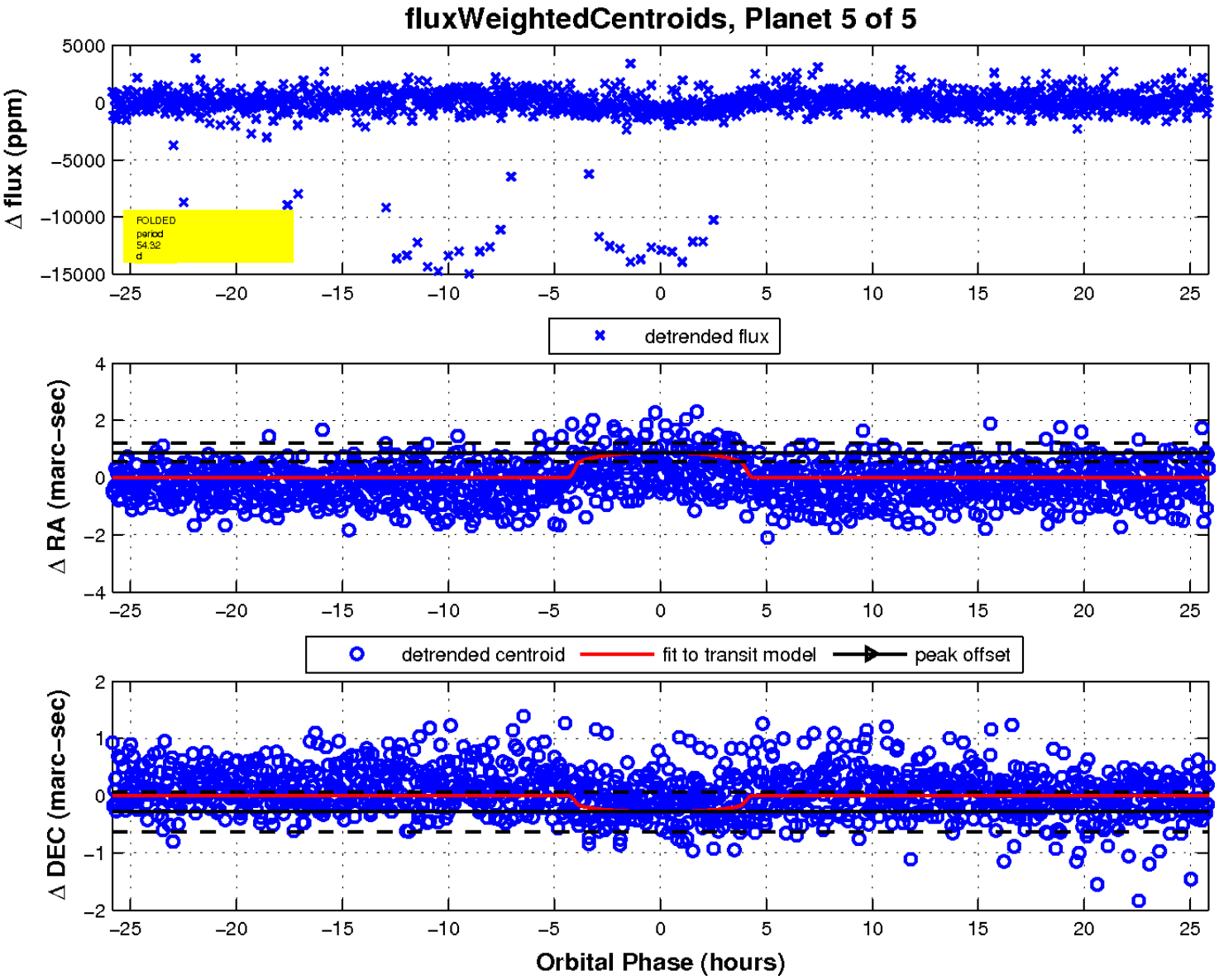
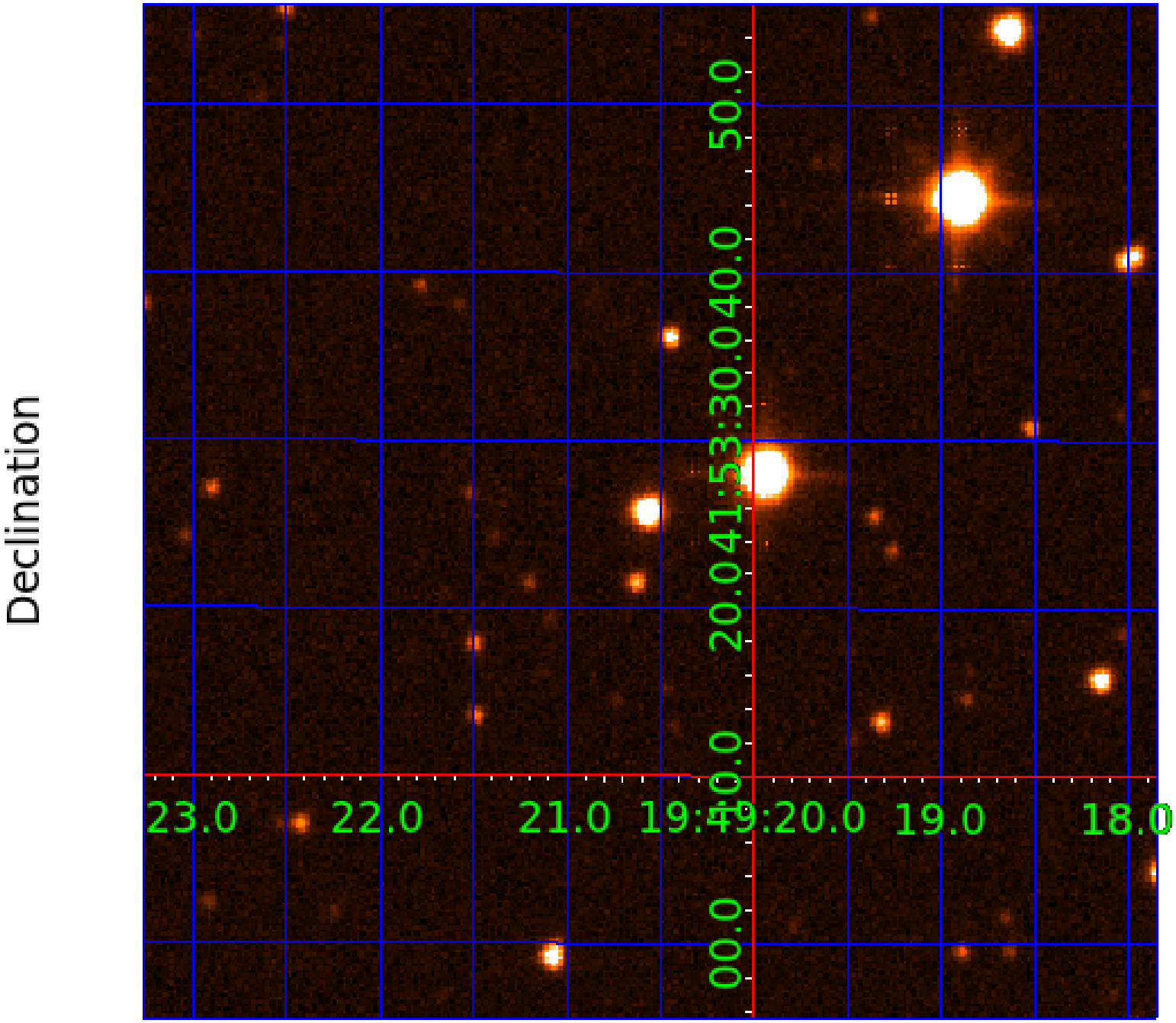




UKIRT Image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