KIC 006674908

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 ($S_\oplus$)
006674908-01	OBS	6149.01	0.503200	131.906622	200.4	1.352	36.3	40.1	0.63	4013	1.10	817.86
006674908-02	OBS	No	259.442963	136.112959	728.6	4.491	13.4	6.1	0.63	4013	1.79	0.20
006674908-03	OBS	No	434.424560	272.003836	963.6	4.291	11.5	7.2	0.63	4013	2.10	0.10
006674908-04	OBS	No	422.769045	469.681101	1075.2	4.566	10.7	7.5	0.63	4013	2.40	0.10
006674908-05	OBS	No	527.862270	391.302998	1302.7	8.764	13.1	7.7	0.63	4013	2.69	0.08
006674908-06	OBS	No	272.402936	354.955473	354.5	4.352	8.6	3.0	0.63	4013	1.42	0.18
006674908-07	OBS	No	255.473691	321.569167	1110.4	6.166	9.9	8.3	0.63	4013	2.07	0.20
006674908-08	OBS	No	187.564877	216.768115	723.2	2.416	8.8	5.5	0.63	4013	1.74	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006674908-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
006674908-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS—HALO_GHOST
006674908-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006674908-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

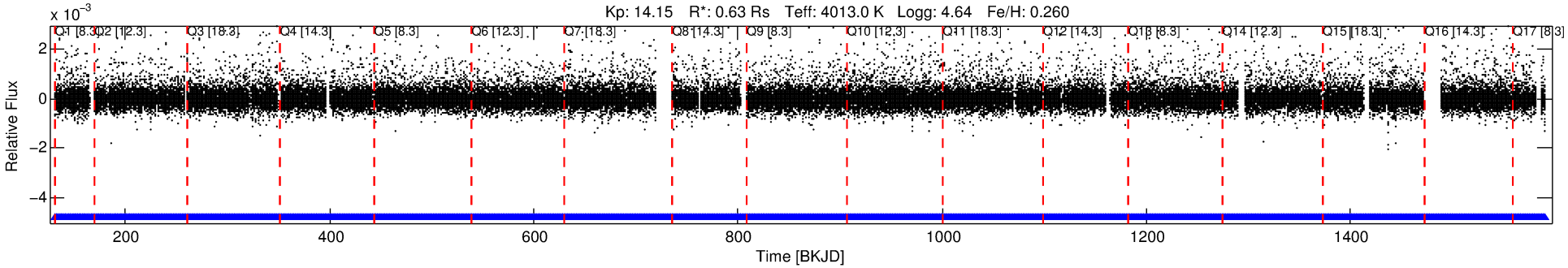
Ephemeris Match Information For 006674908-01

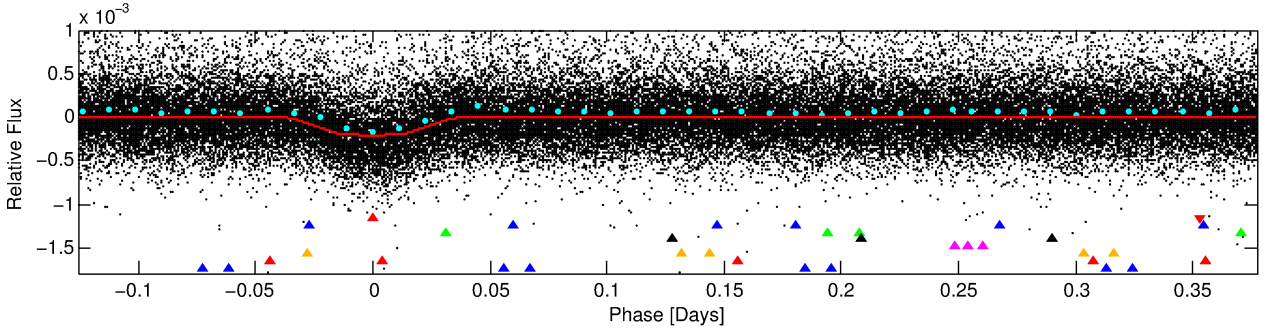
No Significant Match Found

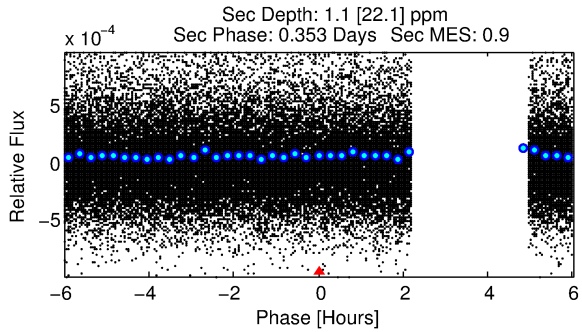
DV One-Page Summary

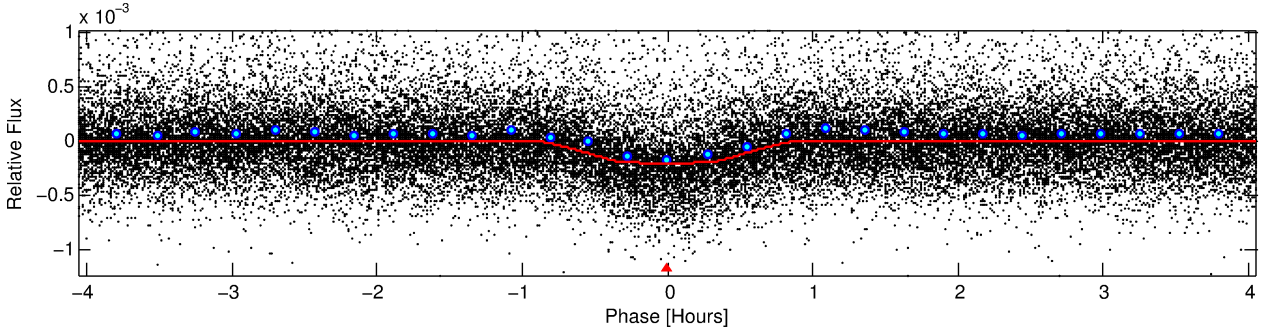
KIC: 6674908 Candidate: 1 of 8 Period: 0.503 d
KOI: K06149.01 Corr: 0.935

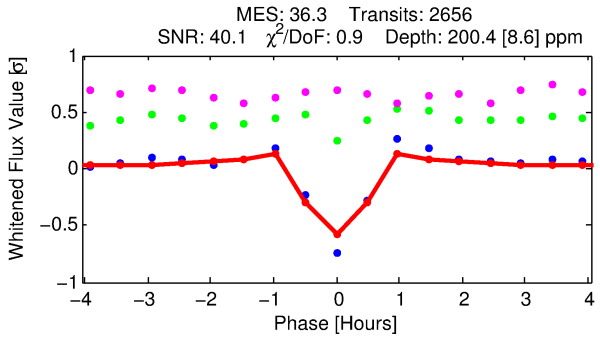
Kp: 14.15 R*: 0.63 Rs Teff: 4013.0 K Logg: 4.64 Fe/H: 0.260

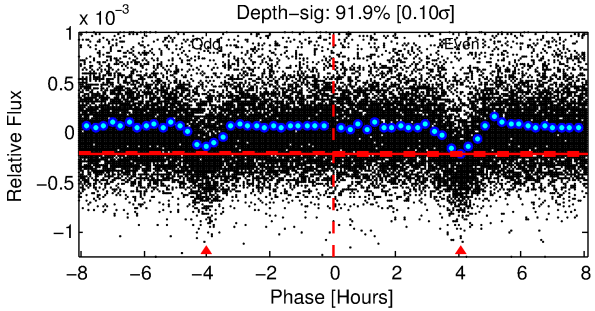


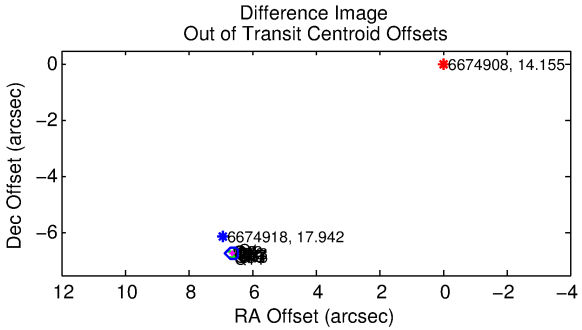












DV Fit Results:

Period = 0.50320 [0.00000] d
Epoch = 131.9066 [0.0004] BKJD
Rp/R* = 0.0160 [0.0041]
a/R* = 1.64 [1.01]
b = 0.90 [0.21]

Seff = 817.86 [152.50]
Teq = 1364 [64] K
Rp = 1.10 [0.31] Re
a = 0.0106 [0.0008] AU

Ag = 0.06 [1.13] [−0.83σ]
Teffp = 1037 [5012] K [−0.07σ]

DV Diagnostic Results:

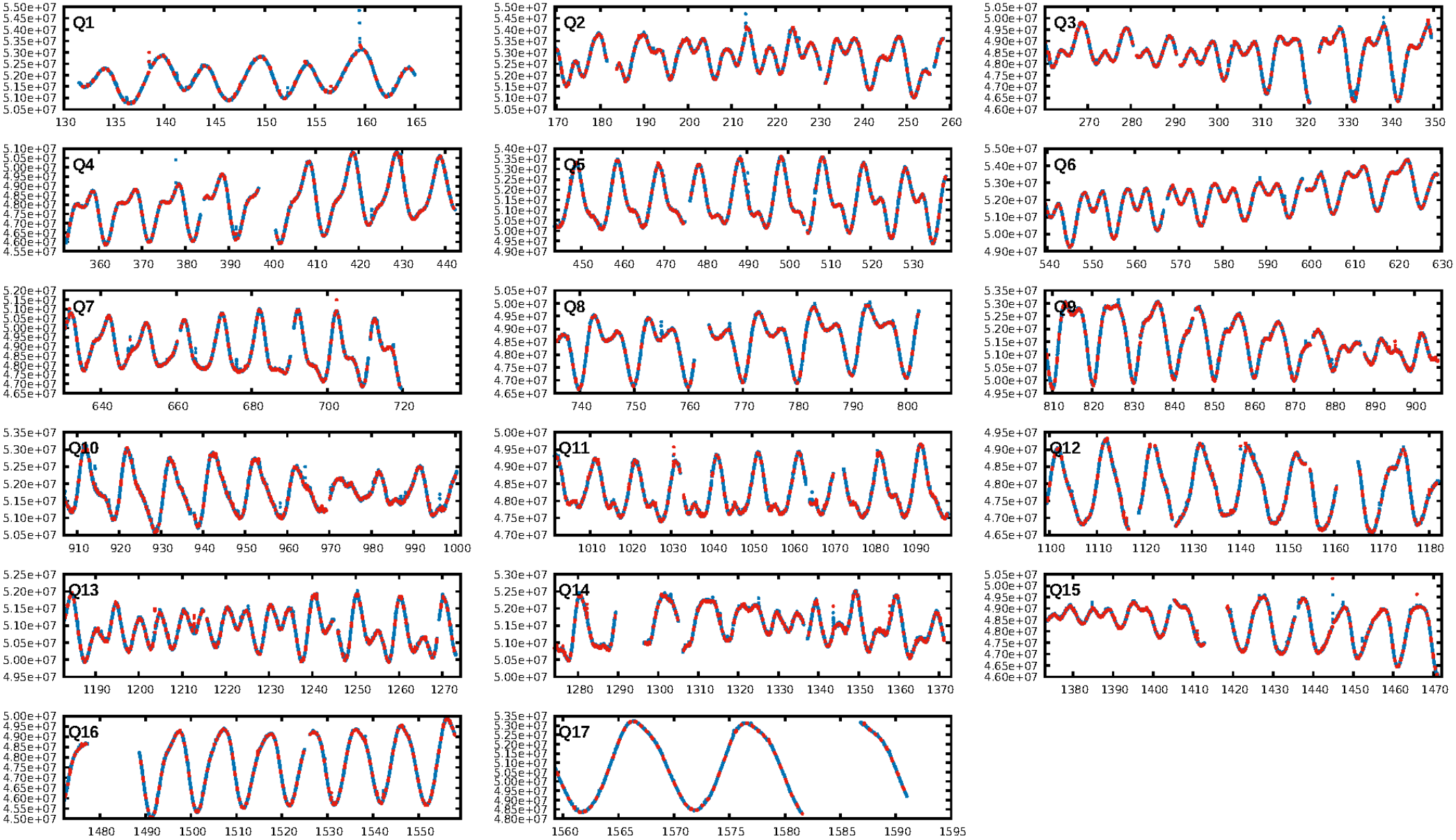
ShortPeriod−sig: N/A
LongPeriod−sig: 100.0% [1621.70σ]
ModelChiSquare2−sig: N/A
ModelChiSquareGof−sig: N/A
Bootstrap−pfa: 7.90e−173
RollingBand−fgt: 1.00 [2538/2538]
GhostDiagnostic−chr: −0.08635

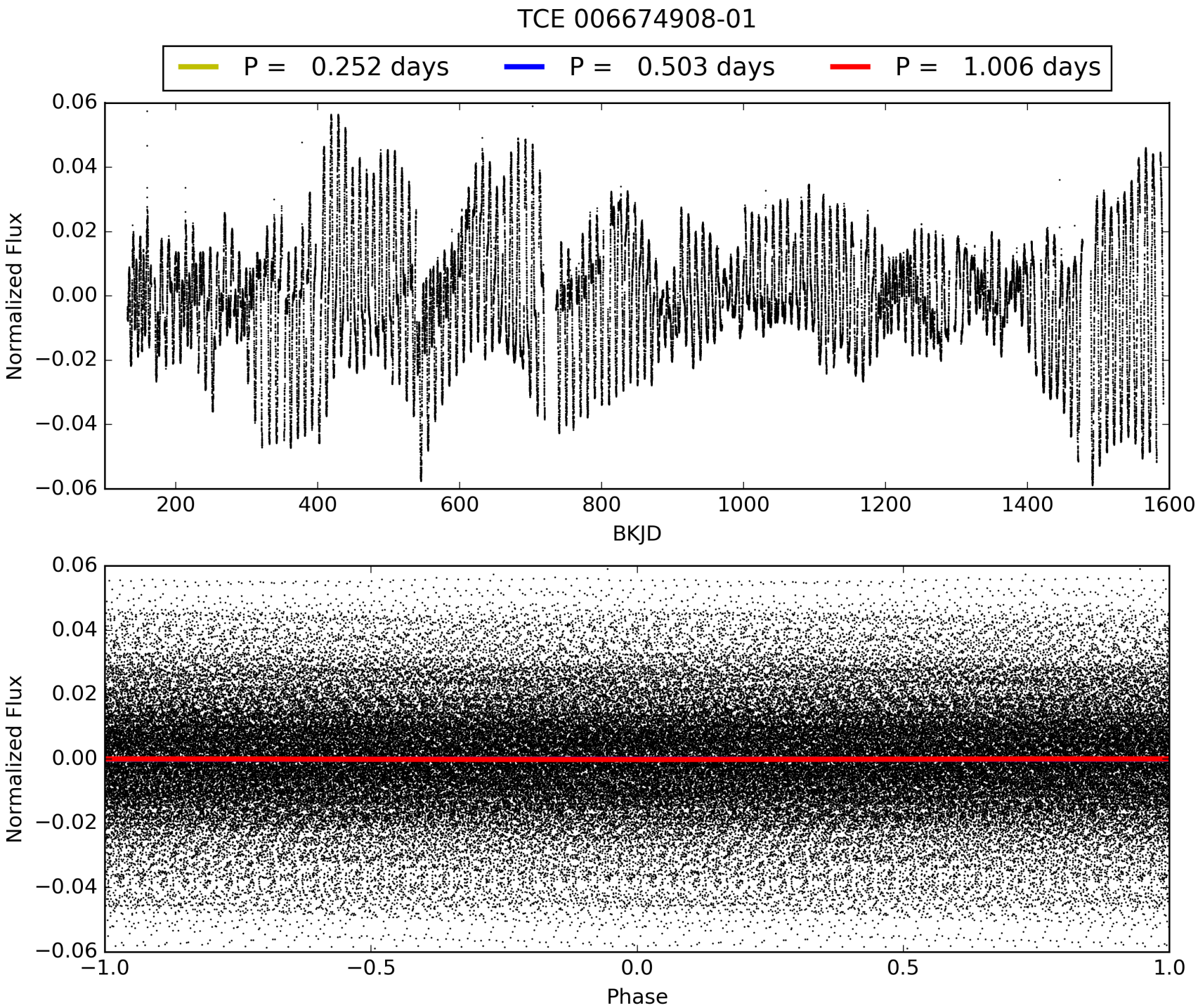
Centroid−sig: N/A
Centroid−so: 103.880 arcsec [484.48σ]
OotOffset−rm: 9.449 arcsec [137.04σ]
KicOffset−rm: 9.373 arcsec [123.75σ]
OotOffset−st: 4/4/4/5 [17]
KicOffset−st: 4/4/4/5 [17]
DiffImageQuality−fgm: 1.00 [17/17]
DiffImageOverlap−fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 03:29:37 Z

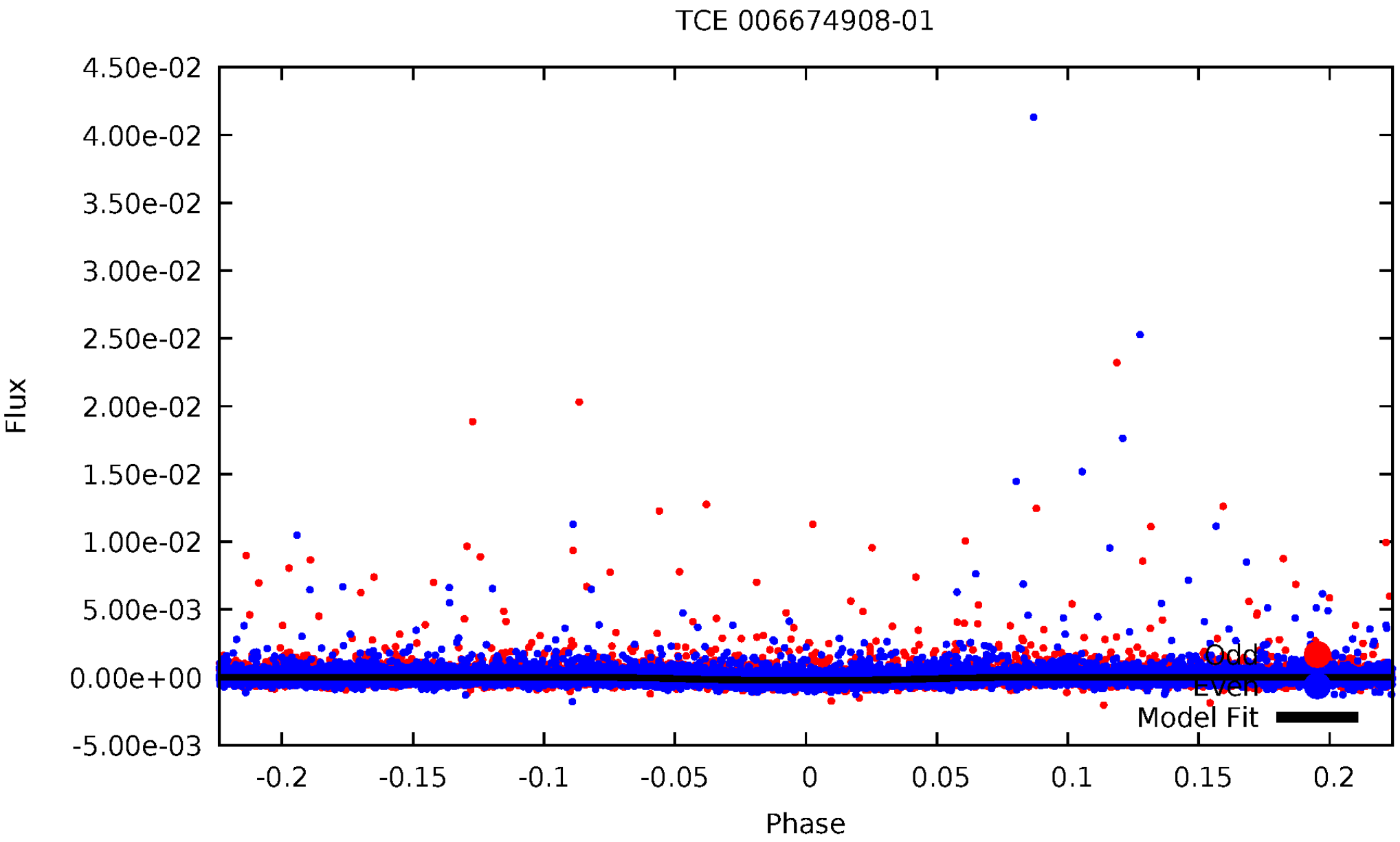
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006674908-01, PDC Light Curves




TCE 006674908-01
P = 0.252 days
P = 0.503 days
P = 1.006 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even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4.00e-02
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2.50e-02
2.00e-02
1.50e-02
1.00e-02
5.00e-03
0.00e+00
-5.00e-03
Flux
-0.2
-0.15
-0.1
-0.05
0
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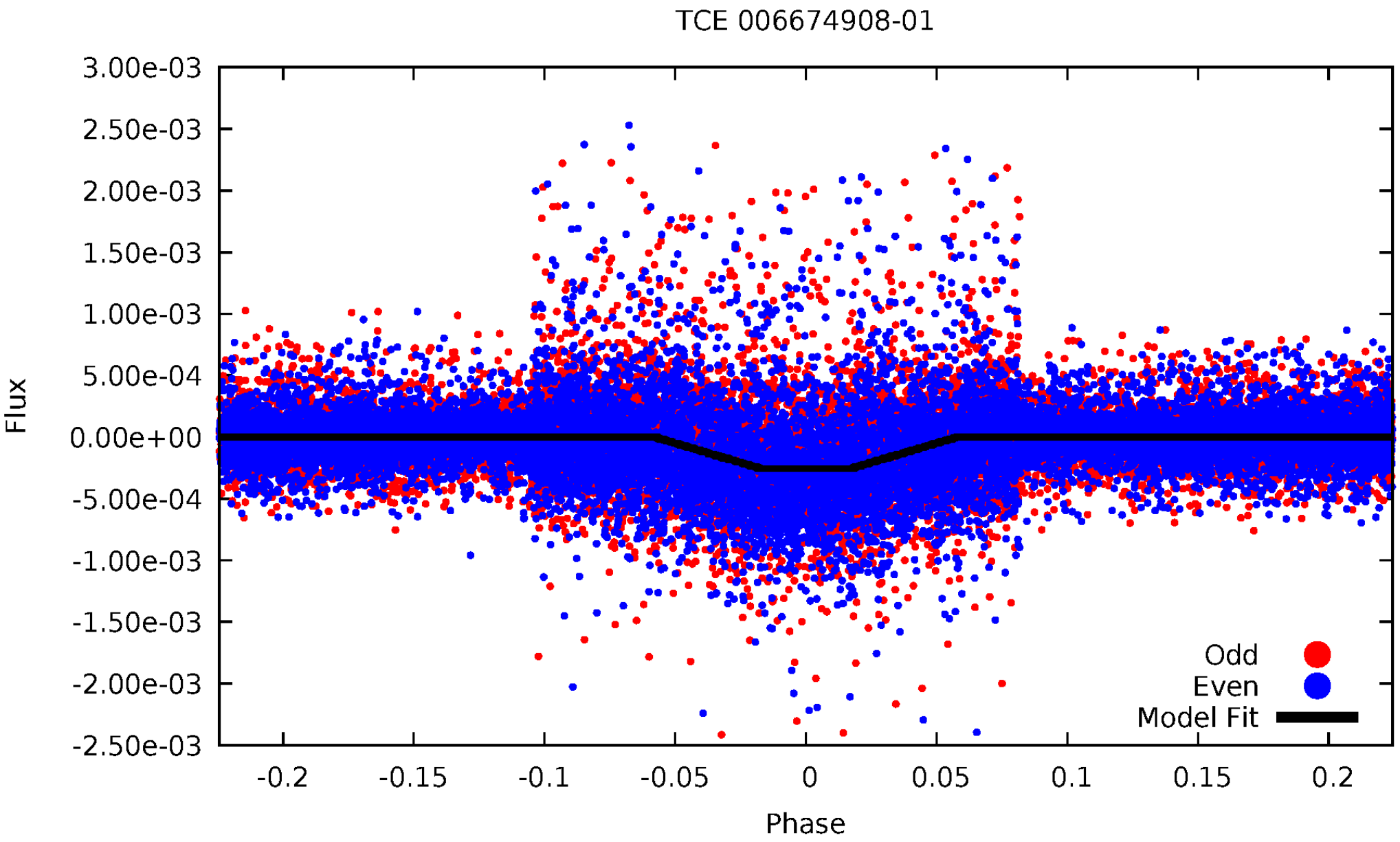
0.1
0.15
0.2
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006674908-01
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-1.00e-03
-1.50e-03
-2.00e-03
-2.50e-03
Flux
-0.2
-0.15
-0.1
-0.05
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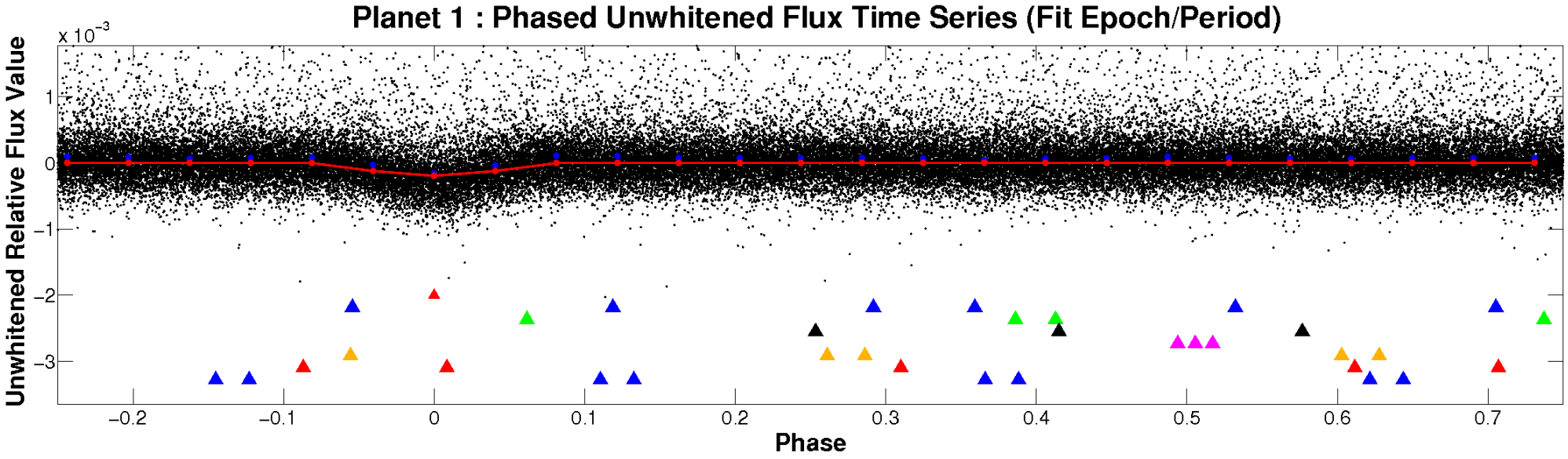
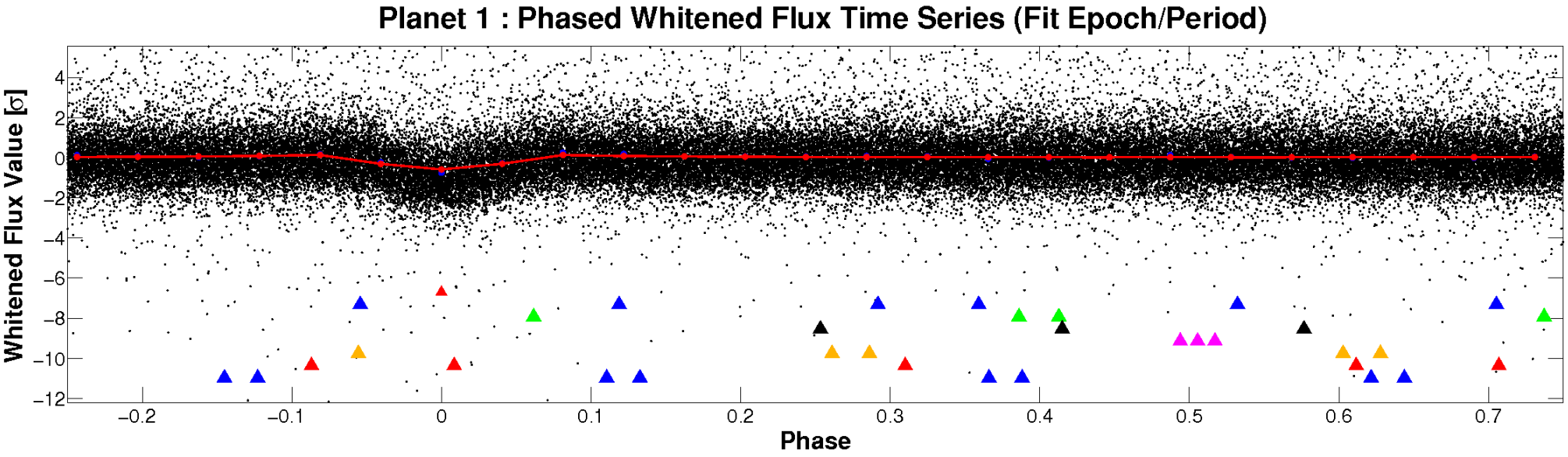
0.05
0.1
0.15
0.2
Phase
Odd
Even
Model Fit

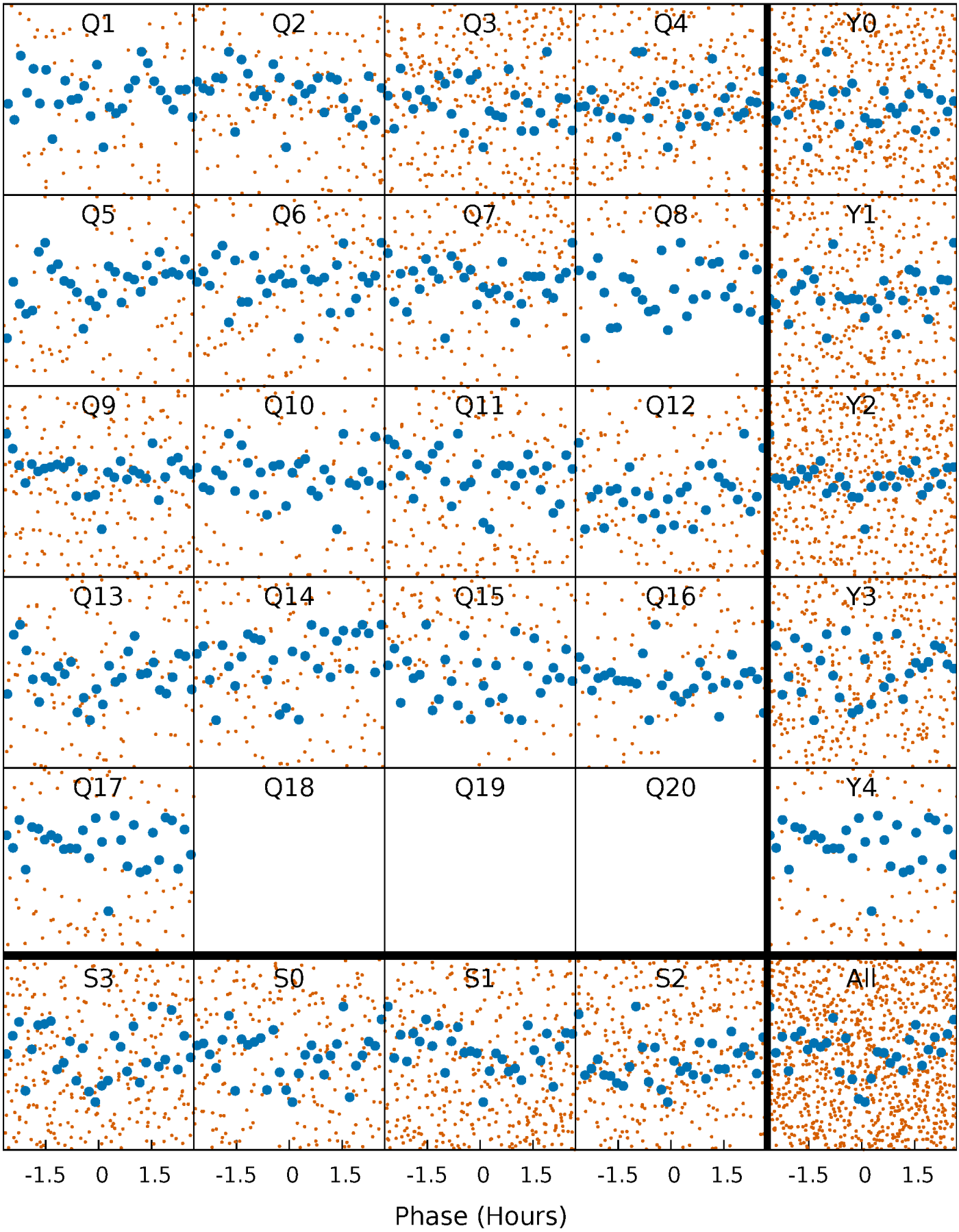
Non-Whitened Vs. Whitened Light Curve





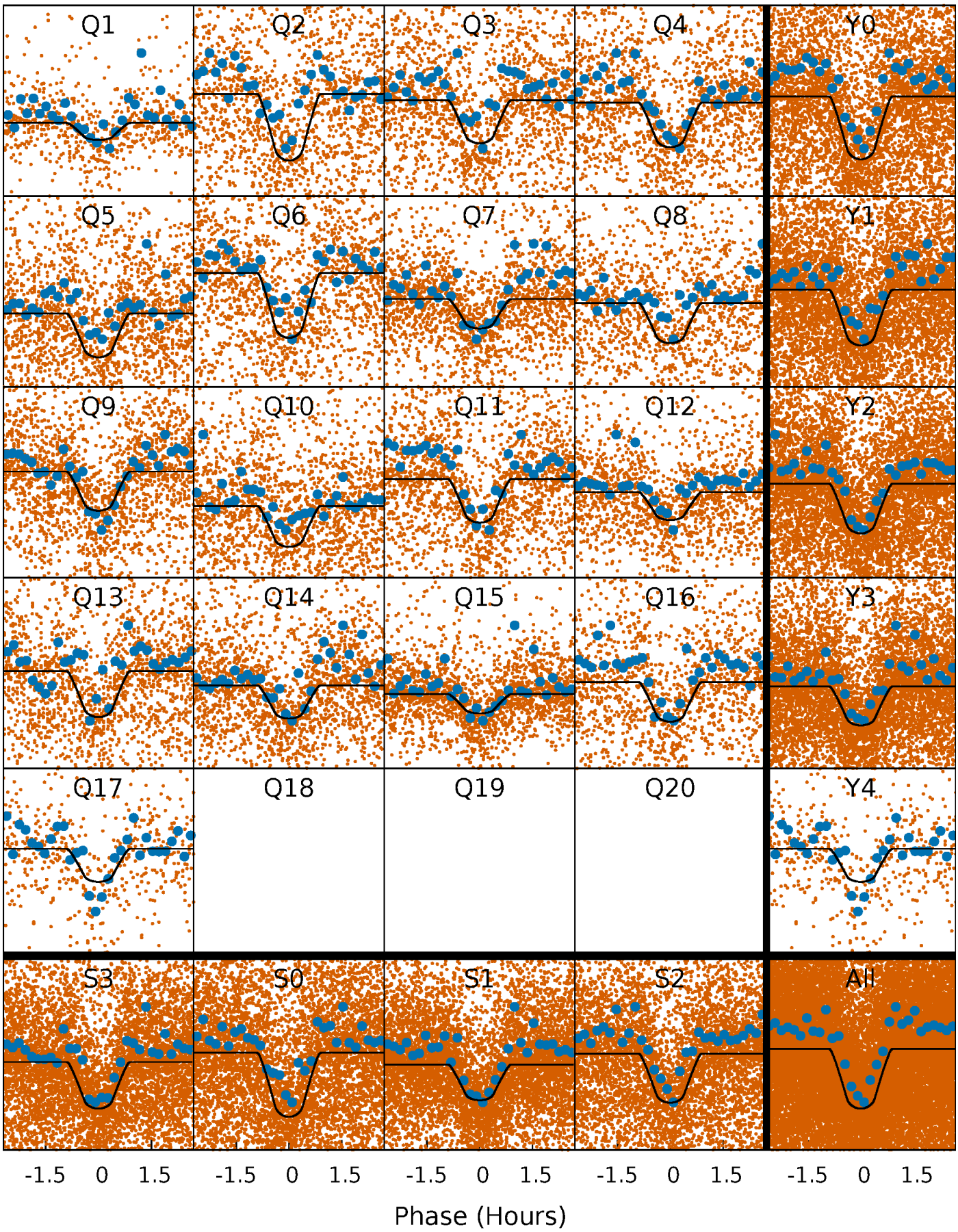
PDC Quarter-Phased Transit Curves

TCE 006674908-01 P= 0.503200 Days T_0=131.906622 (BKJD)



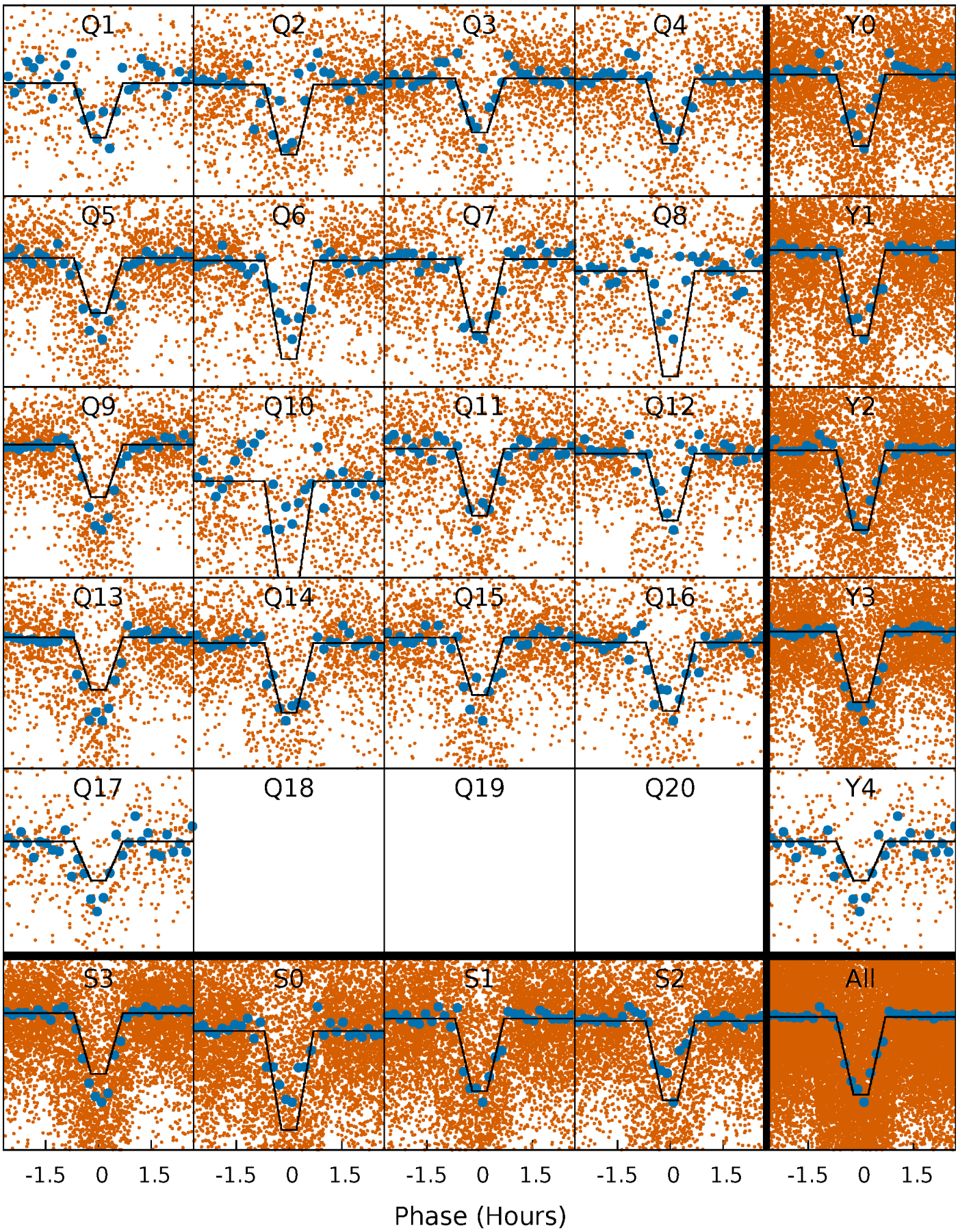
DV Quarter-Phased Transit Curves

TCE 006674908-01 P= 0.503200 Days T_0=131.906622 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

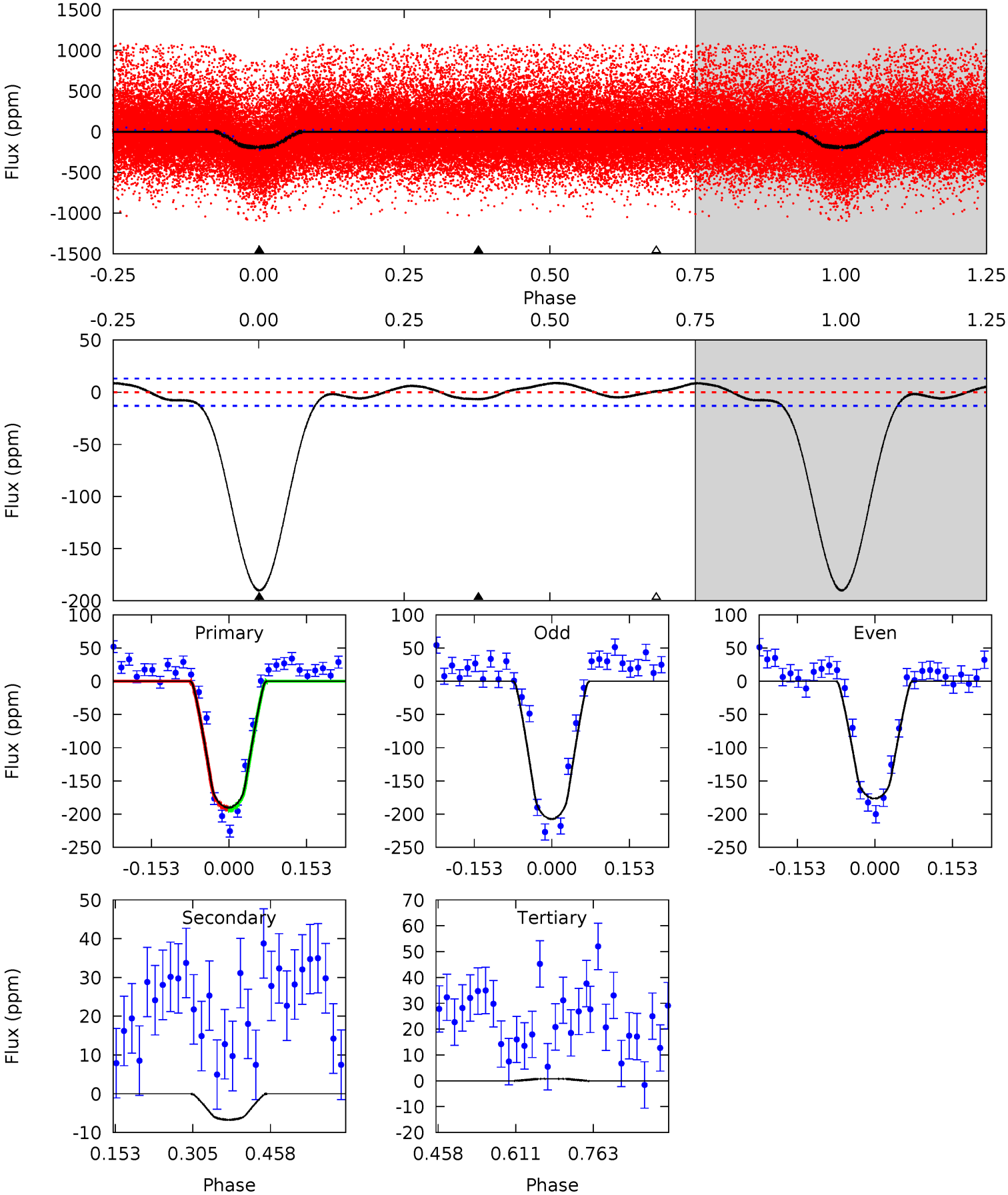
TCE 006674908-01 P= 0.503200 Days T_0=131.906616 (BKJD)



DV Model-Shift Uniqueness Test

006674908-01, P = 0.503200 Days, E = 131.403422 Days

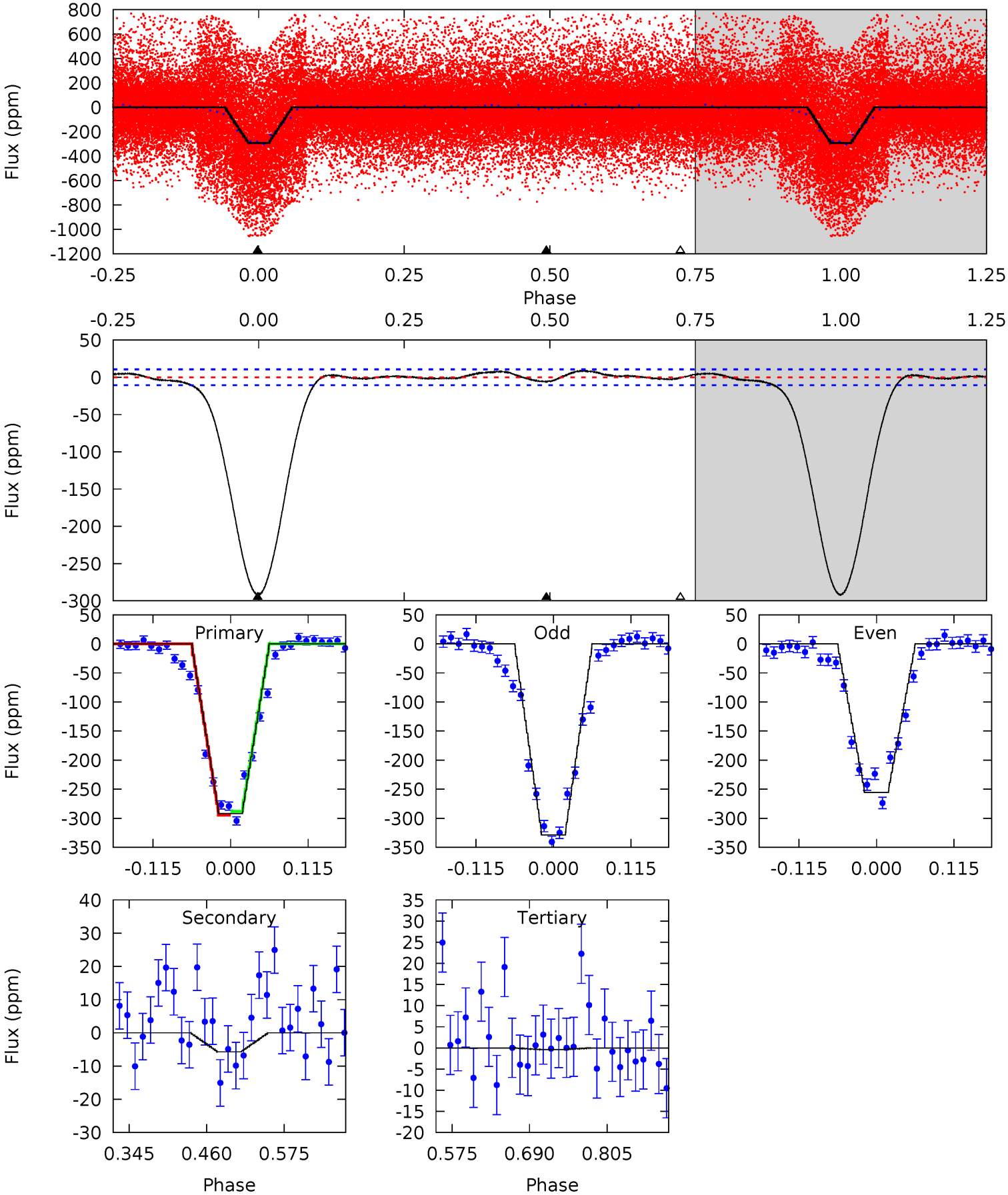
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
65.1	2.30	-0.27	0	4.48	1.43	1.59	65.4	65.1	2.57	2.30	5.28	0.61	0.04	0.24



Alt Model-Shift Uniqueness Test

006674908-01, P = 0.503200 Days, E = 131.403416 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
124.6	2.44	0.16	0	4.54	1.58	1.17	124.4	124.6	2.28	2.44	15.6	0.89	0.03	1.35



Stellar Parameters For KIC 006674908

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	4013^{+140}_{-154}	$4.639^{+0.053}_{-0.021}$	$0.260^{+0.200}_{-0.300}$	$0.630^{+0.029}_{-0.064}$	$0.630^{+0.042}_{-0.061}$	$3.552^{+0.893}_{-0.273}$
	+3%/-4%	+1%/-0%	+77%/-115%	+5%/-10%	+7%/-10%	+25%/-8%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006674908-01 / KOI 6149.01

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-7±3	$1.08^{+0.28}_{-0.29}$	1896^{+71}_{-83}	1921^{+506}_{-4068}	$0.349^{+0.346}_{-0.188}$
Alt.	-6±2	$1.07^{+0.29}_{-0.27}$	1890^{+77}_{-77}	1696^{+631}_{-3861}	$0.310^{+0.281}_{-0.165}$

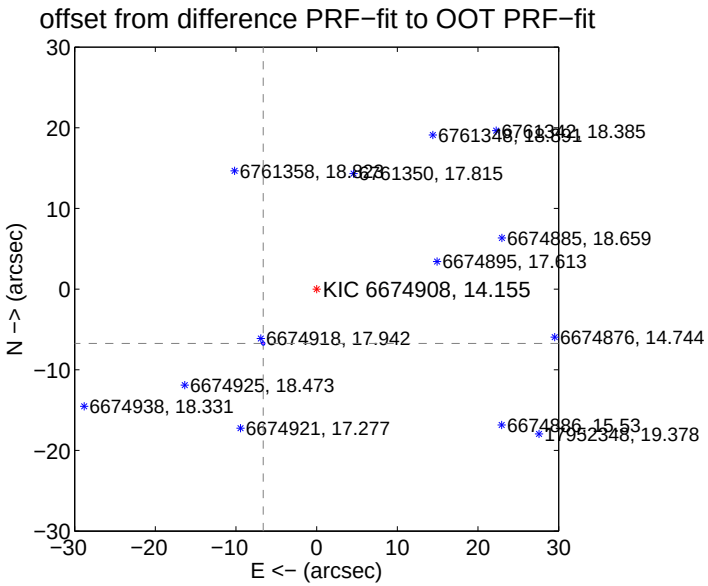
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

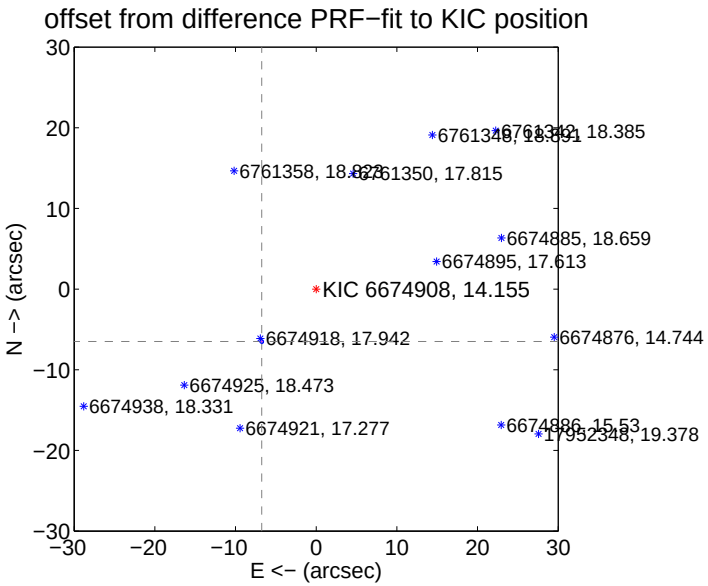
If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

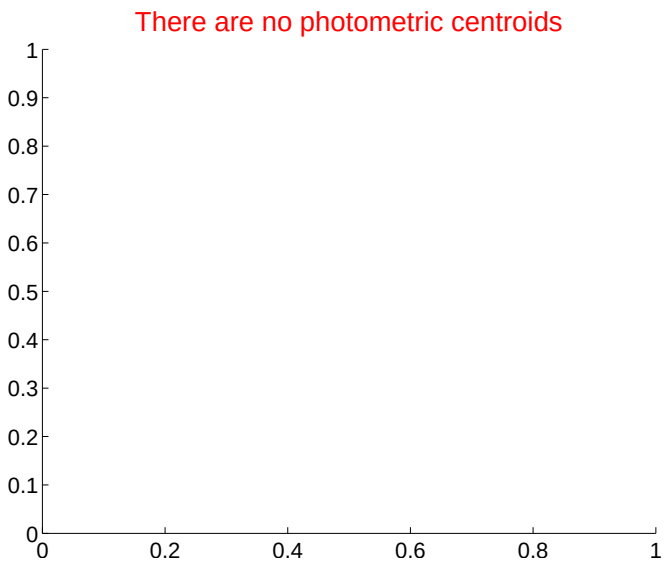
DV Centroid Data

Supplemental centroid analysis for 006674908-01. Kepler magnitude: 14.15. Transit SNR 40.13
There are 17 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.449 ± 0.069	137.04	6.621 ± 0.068	-6.742 ± 0.070
PRF-fit source offset from KIC position	9.373 ± 0.076	123.75	6.751 ± 0.074	-6.502 ± 0.077
photometric centroid source offset	—	—	—	—

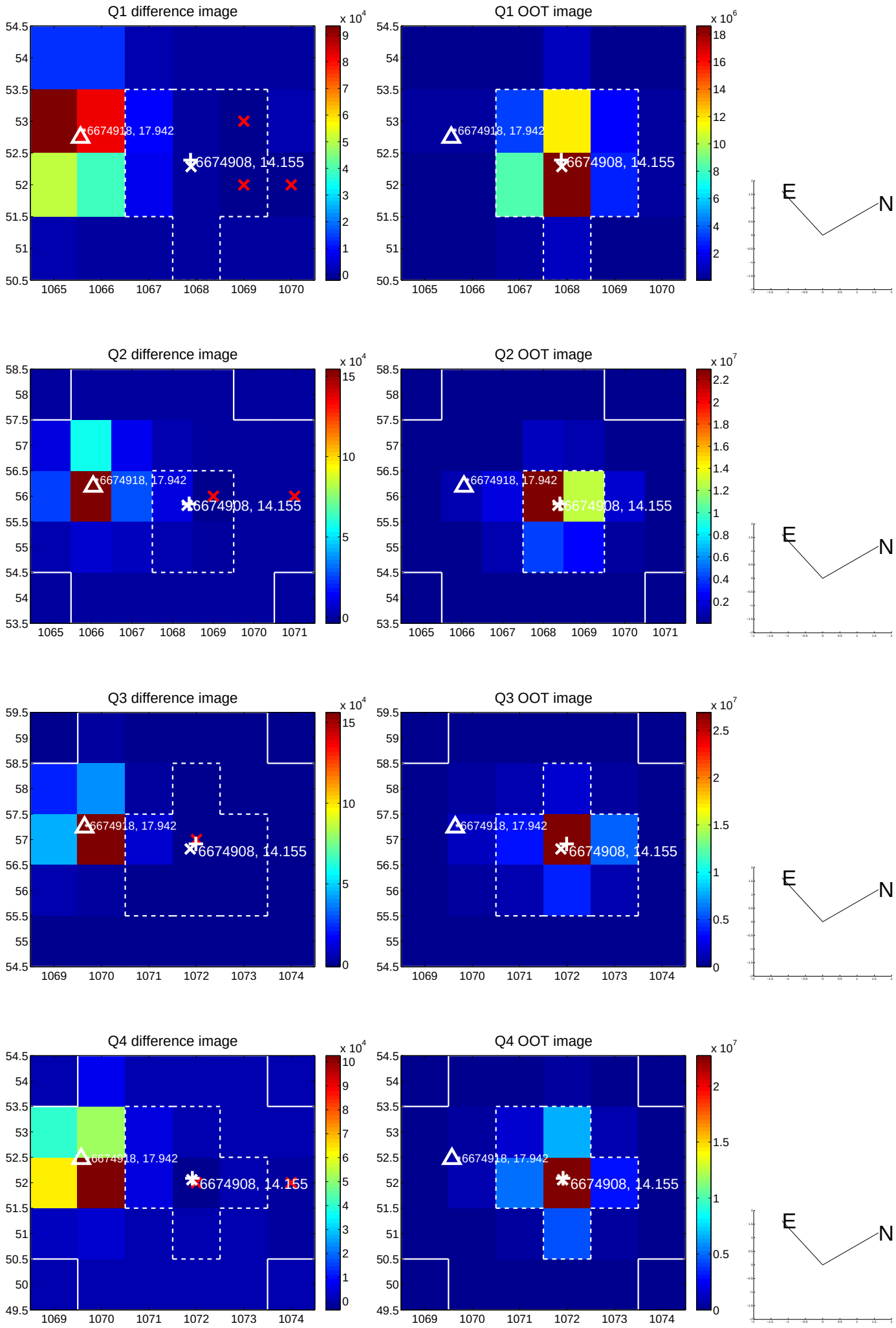




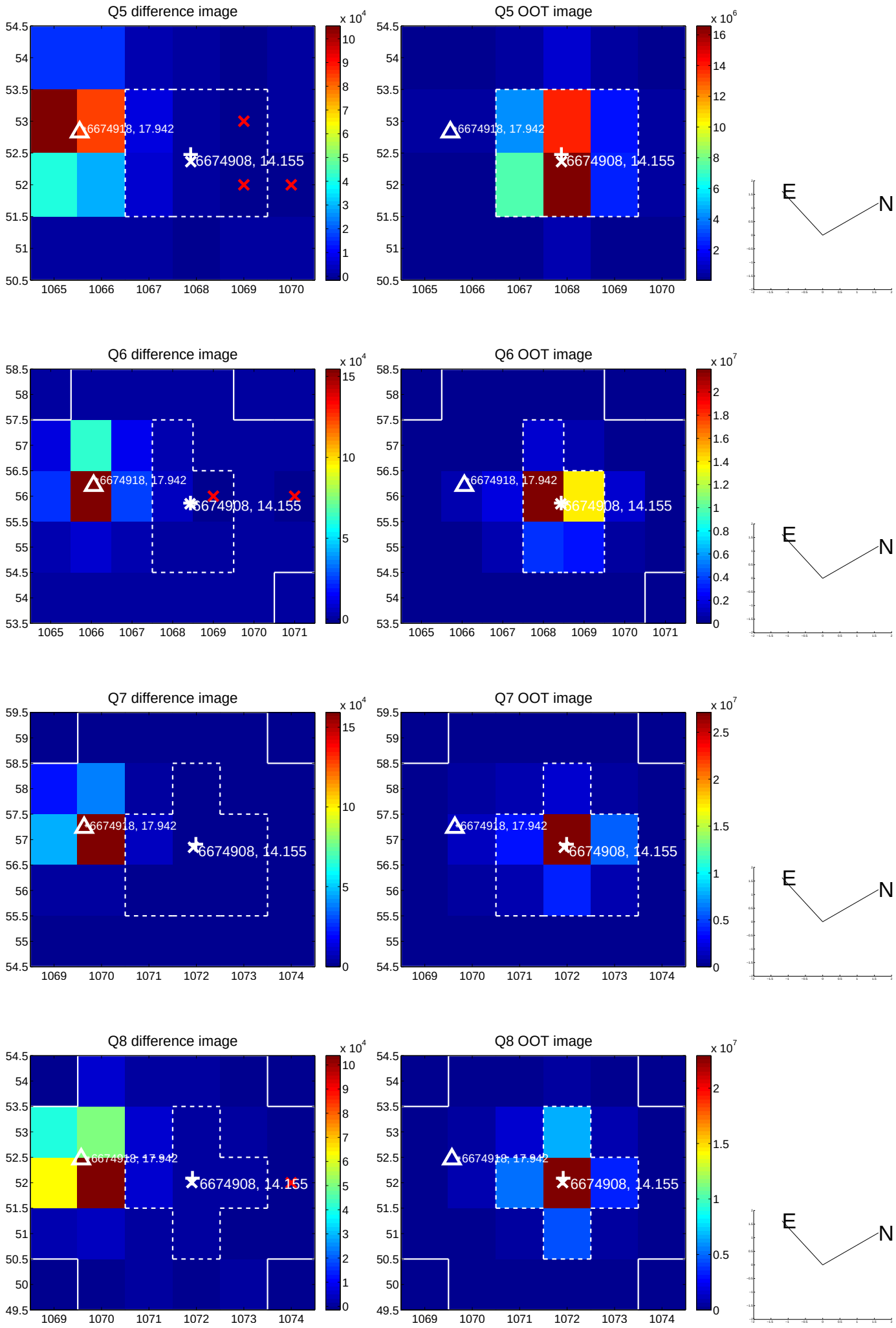


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

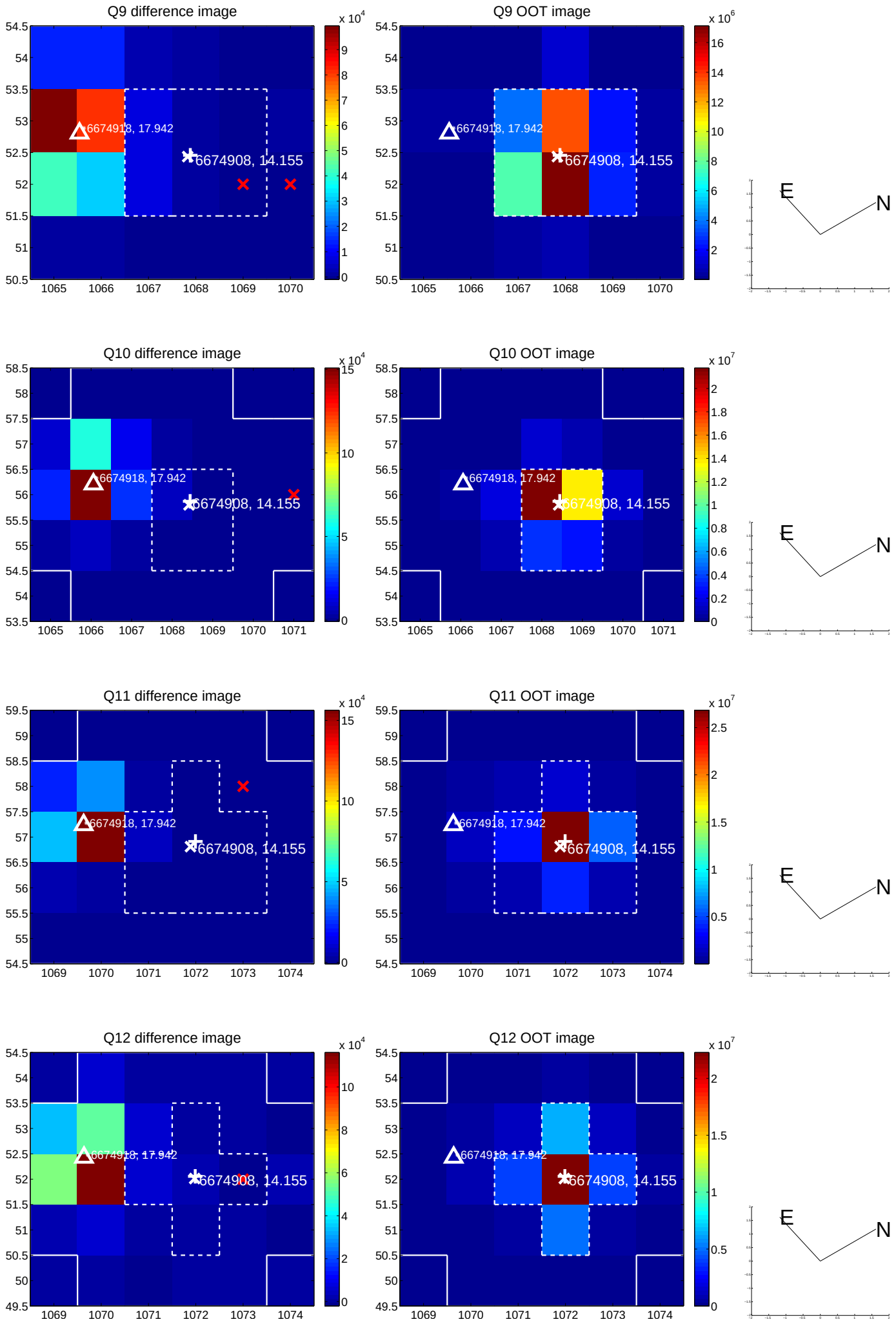
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



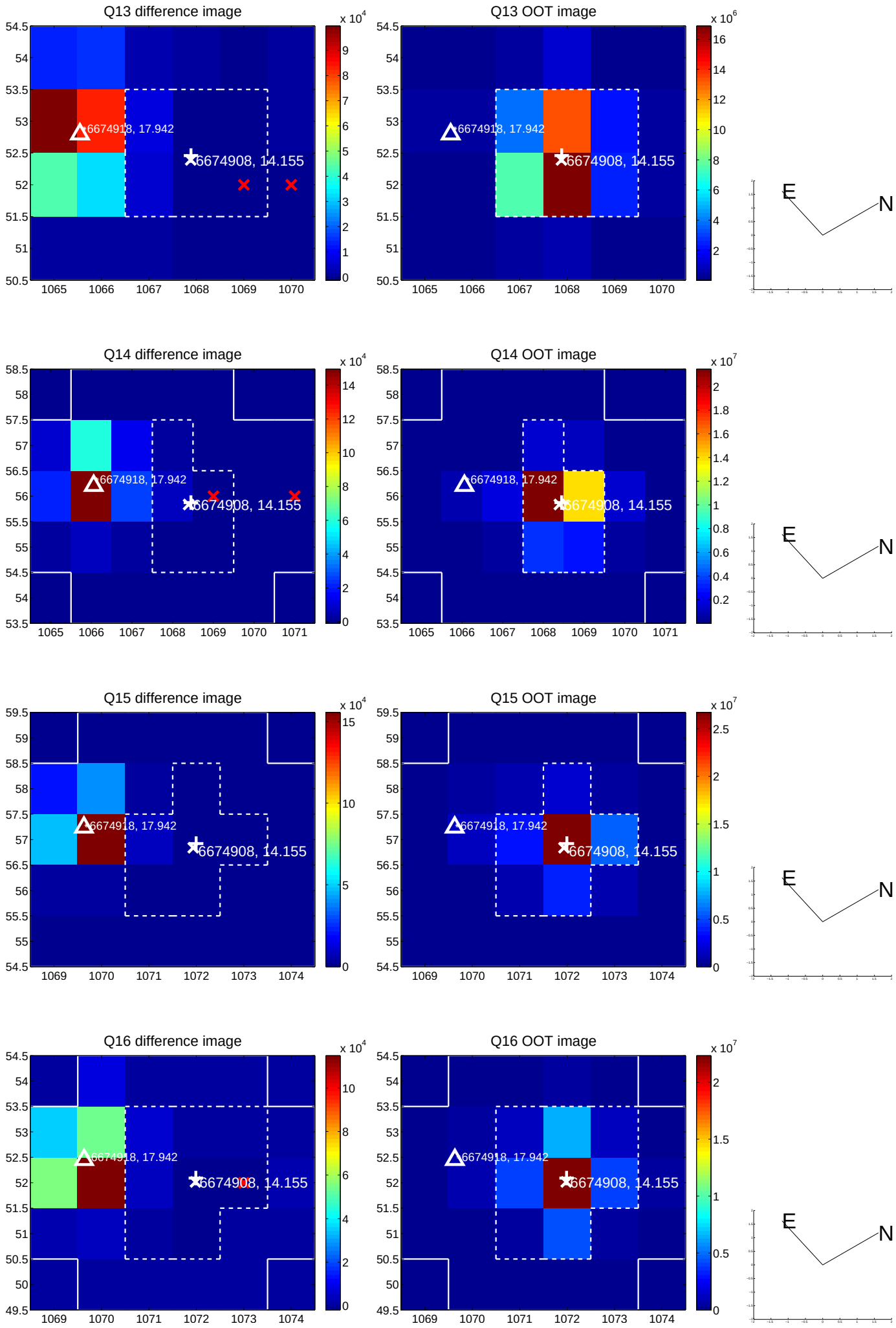
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



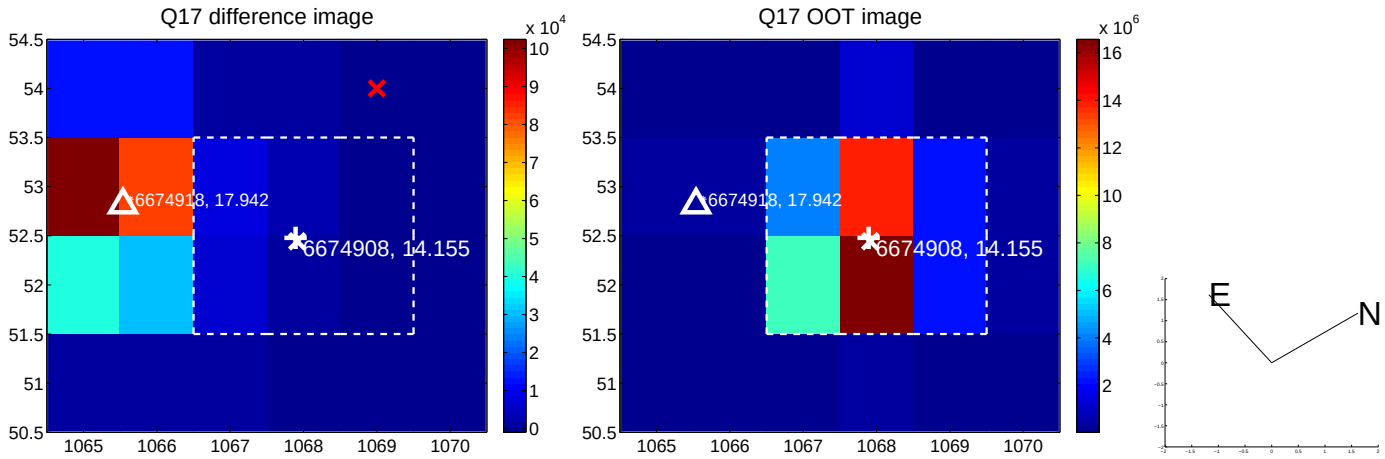
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

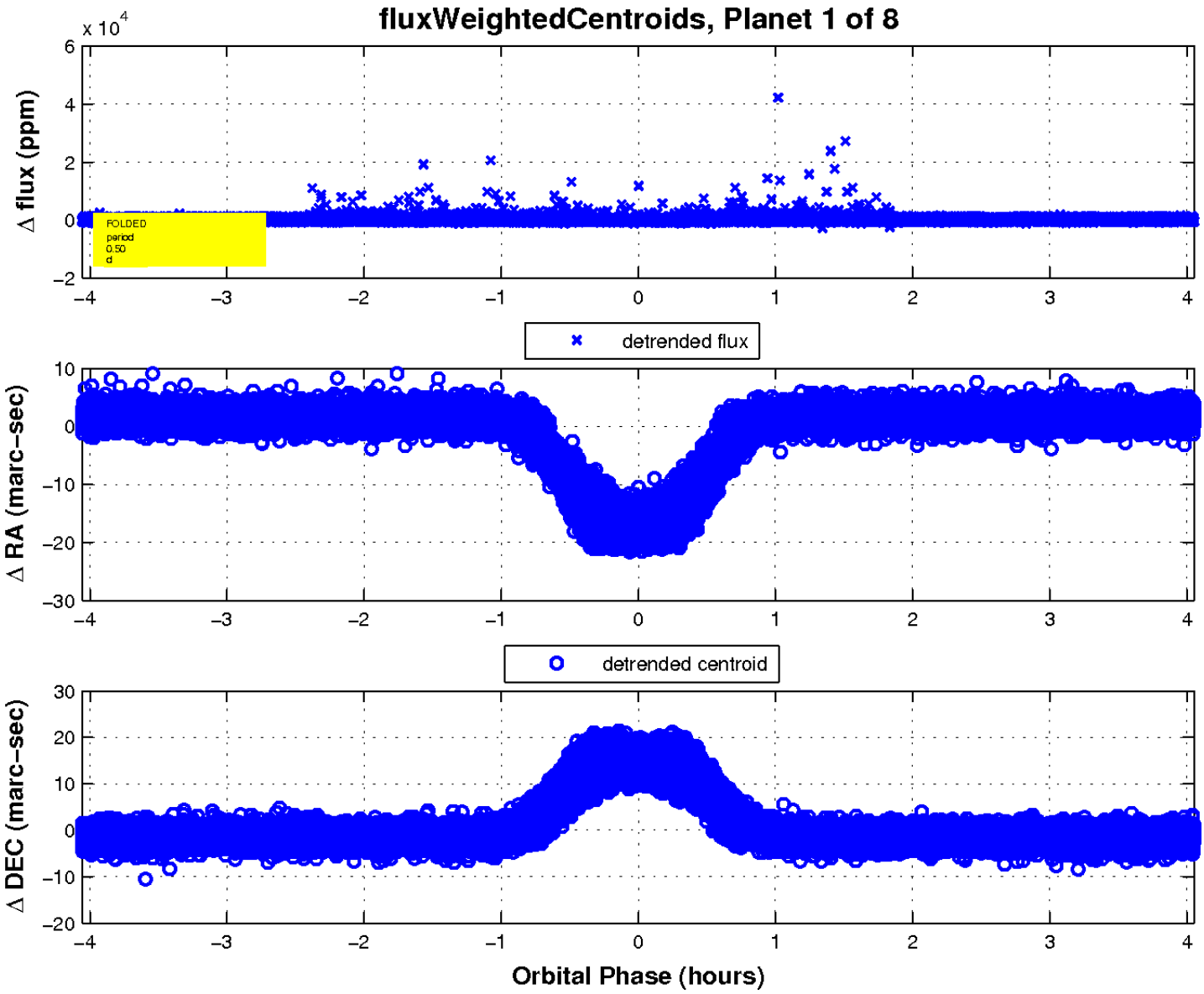


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

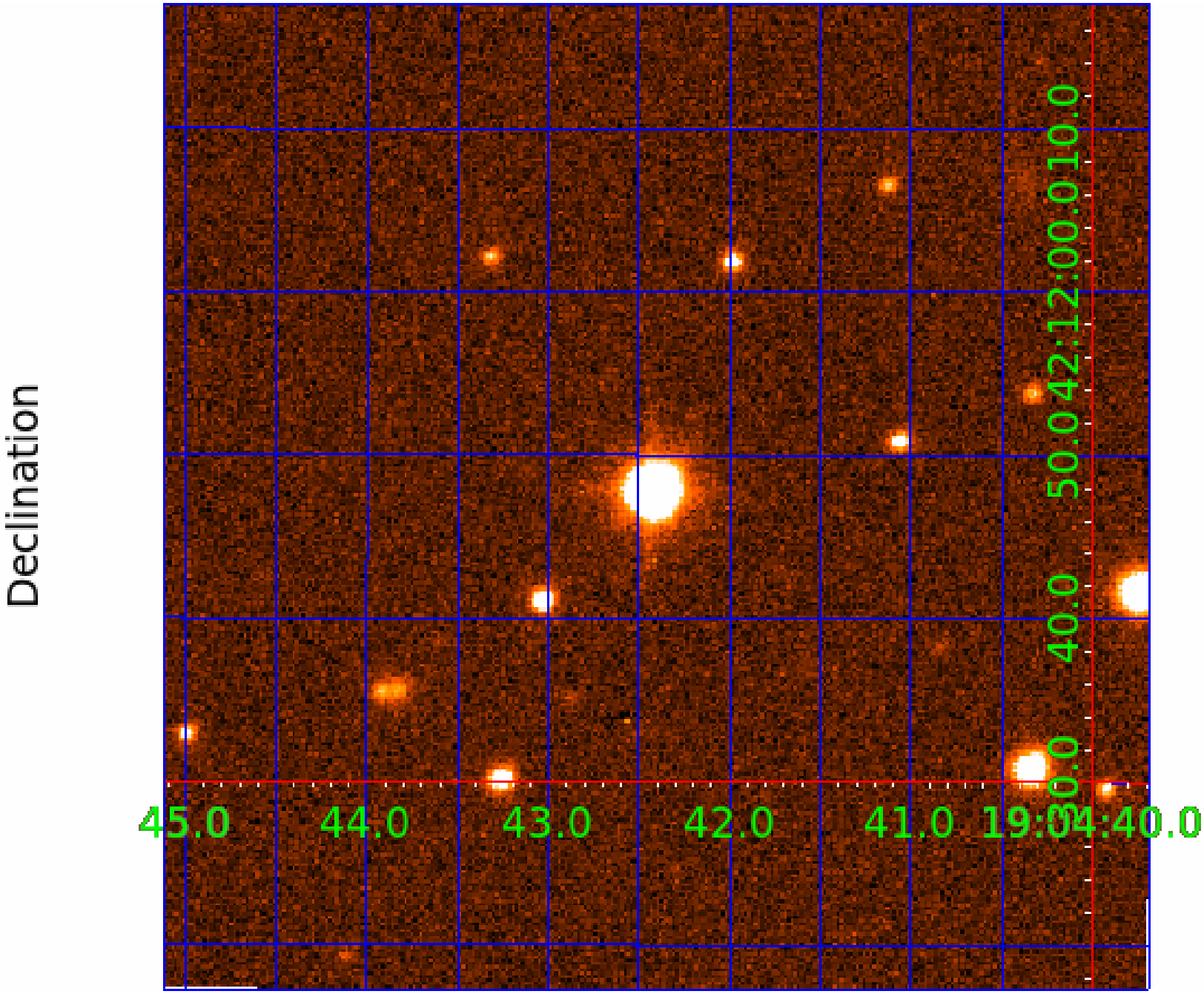


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image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44.0
43.0
42.0
41.0
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30.0
40.0
50.0
42:12:00.0
10.0

KIC 006674908

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 ($S_\oplus$)
006674908-01	OBS	6149.01	0.503200	131.906622	200.4	1.352	36.3	40.1	0.63	4013	1.10	817.86
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006674908-03	OBS	No	434.424560	272.003836	963.6	4.291	11.5	7.2	0.63	4013	2.10	0.10
006674908-04	OBS	No	422.769045	469.681101	1075.2	4.566	10.7	7.5	0.63	4013	2.40	0.10
006674908-05	OBS	No	527.862270	391.302998	1302.7	8.764	13.1	7.7	0.63	4013	2.69	0.08
006674908-06	OBS	No	272.402936	354.955473	354.5	4.352	8.6	3.0	0.63	4013	1.42	0.18
006674908-07	OBS	No	255.473691	321.569167	1110.4	6.166	9.9	8.3	0.63	4013	2.07	0.20
006674908-08	OBS	No	187.564877	216.768115	723.2	2.416	8.8	5.5	0.63	4013	1.74	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006674908-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
006674908-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS—HALO_GHOST
006674908-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006674908-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

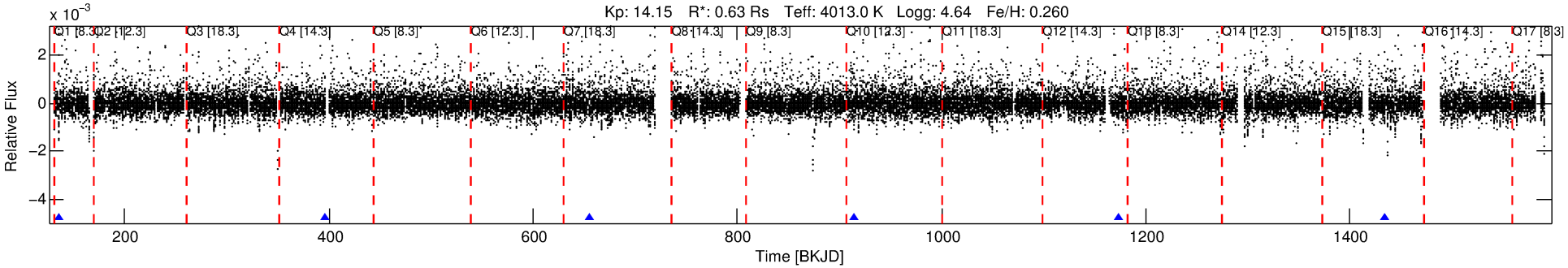
Ephemeris Match Information For 006674908-02

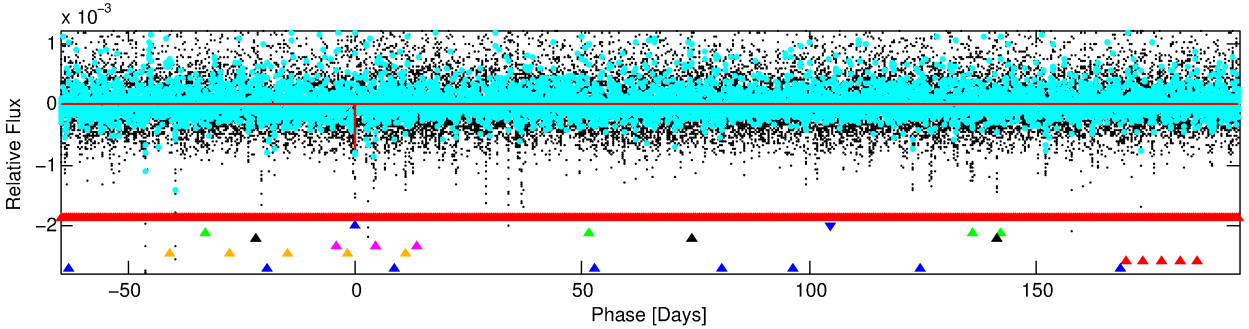
No Significant Match Found

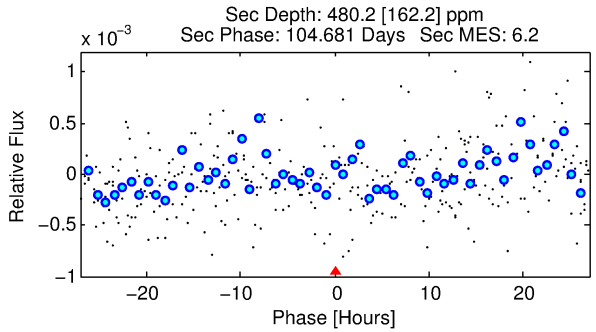
DV One-Page Summary

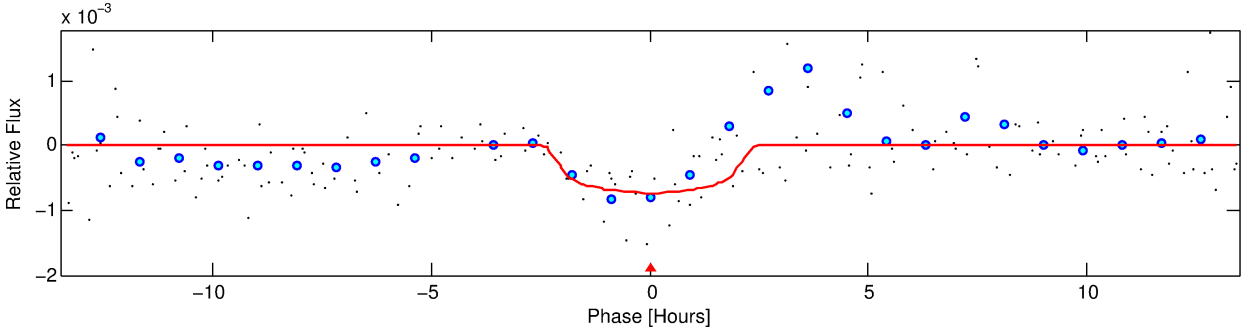
KIC: 6674908 Candidate: 2 of 8 Period: 259.443 d
KOI: K06149 Corr: No Ephemeris Match

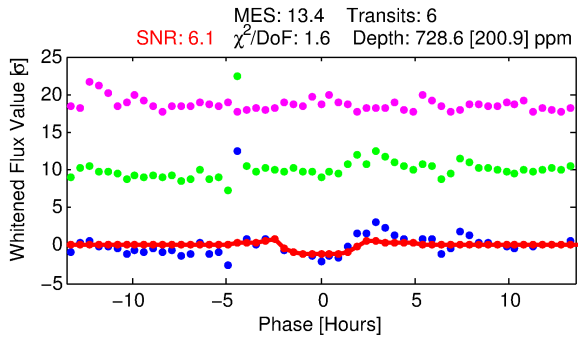
Kp: 14.15 R*: 0.63 Rs Teff: 4013.0 K Logg: 4.64 Fe/H: 0.260

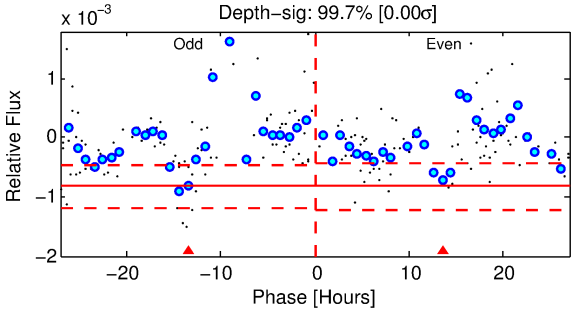


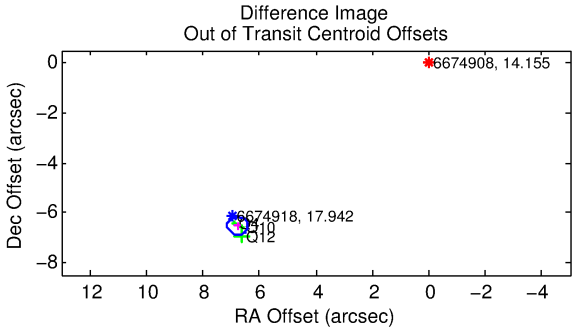












DV Fit Results:

Period = 259.44296 [0.00619] d
Epoch = 136.1130 [0.0174] BKJD
Rp/R* = 0.0260 [0.0523]
a/R* = 344.84 [2226.13]
b = 0.67 [5.54]

Seff = 0.20 [0.04]
Teq = 170 [8] K
Rp = 1.79 [3.60] Re
a = 0.6828 [0.0539] AU

Ag = 38425.23 [154927.45] [0.25σ]
Teffp = 3681 [3712] K [0.95σ]

DV Diagnostic Results:

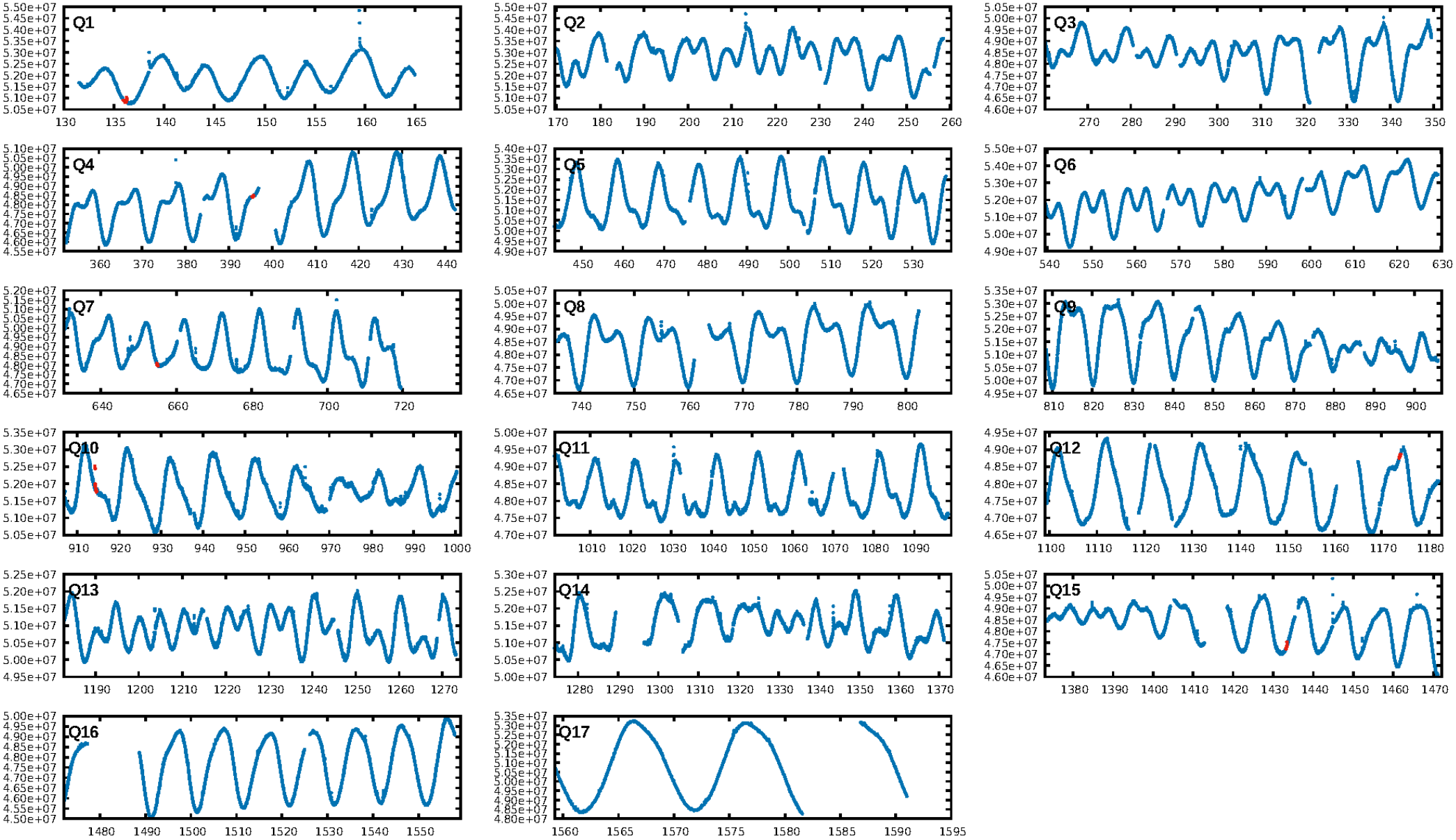
ShortPeriod−sig: 100.0% [12.49σ]
LongPeriod−sig: 100.0% [49.74σ]
ModelChiSquare2−sig: 0.0%
ModelChiSquareGof−sig: 96.0%
Bootstrap−pfa: 1.74e−17
RollingBand−fgt: 1.00 [5/5]
GhostDiagnostic−chr: 0.7184

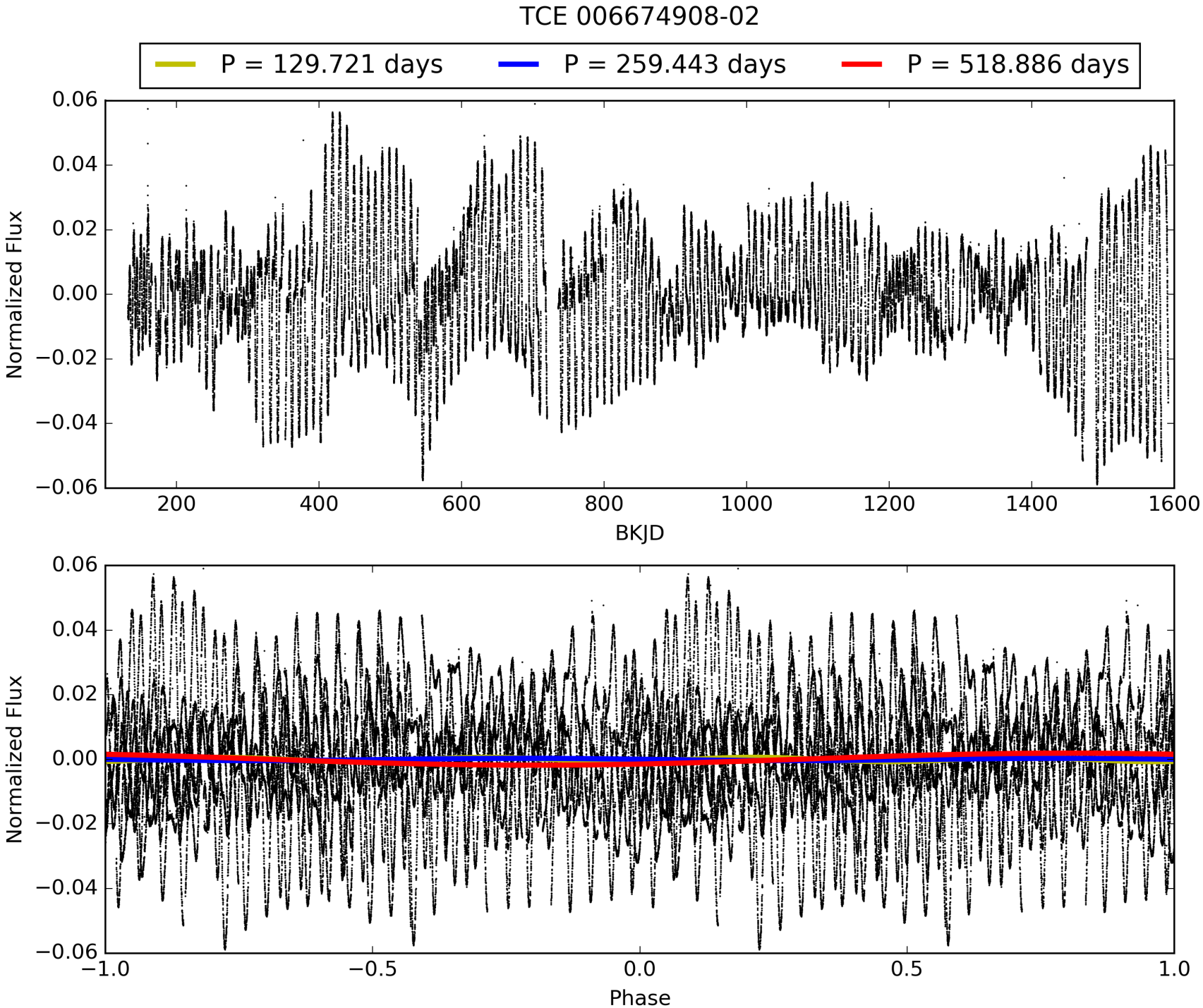
Centroid−sig: N/A
Centroid−so: 0.645 arcsec [0.84σ]
OotOffset−rm: 9.402 arcsec [79.81σ]
KicOffset−rm: 9.379 arcsec [79.61σ]
OotOffset−st: 1/0/2/0 [3]
KicOffset−st: 1/0/2/0 [3]
DiffImageQuality−fgm: 0.67 [2/3]
DiffImageOverlap−fno: 0.00 [0/6]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 03:29:49 Z

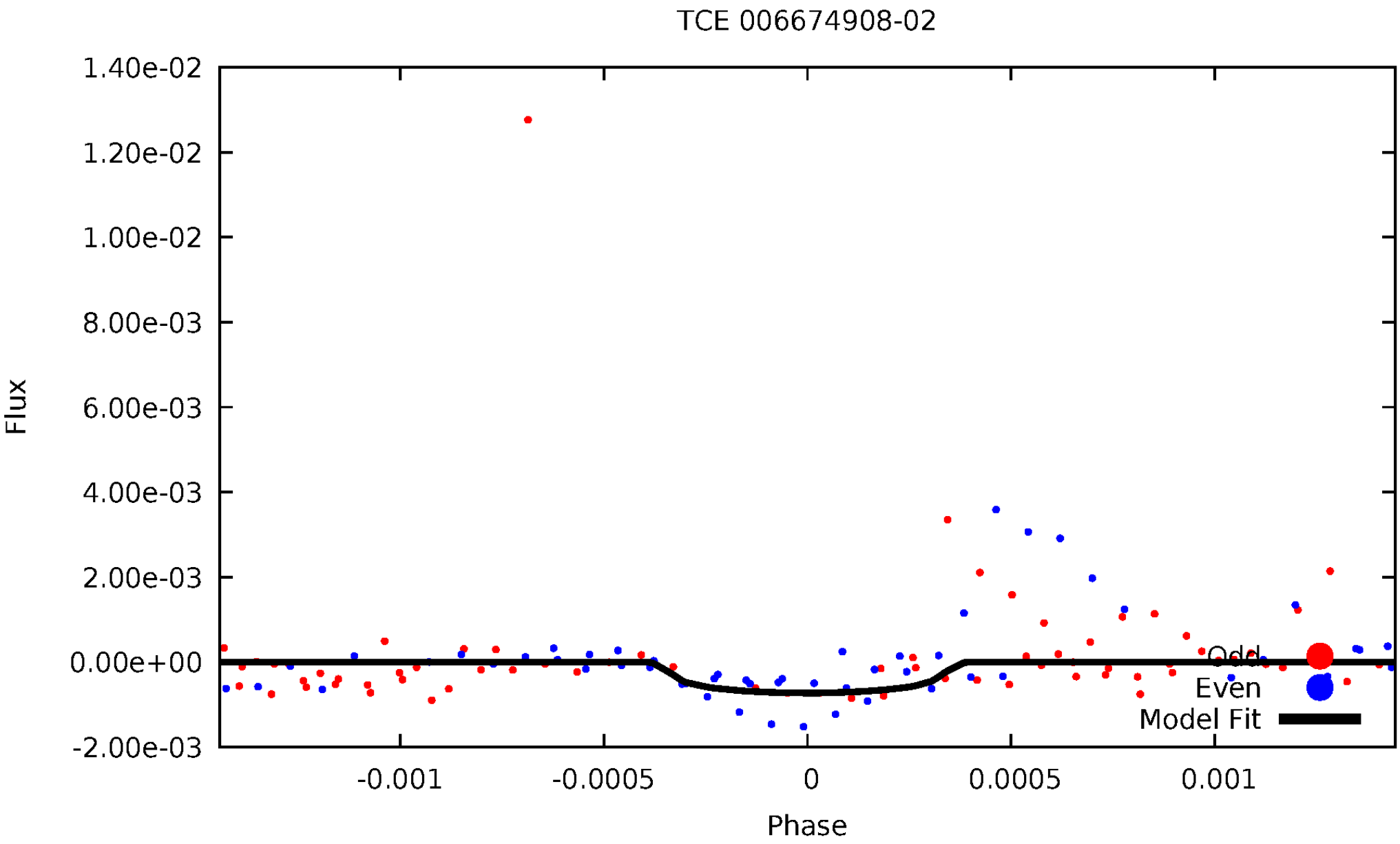
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006674908-02, PDC Light Curves

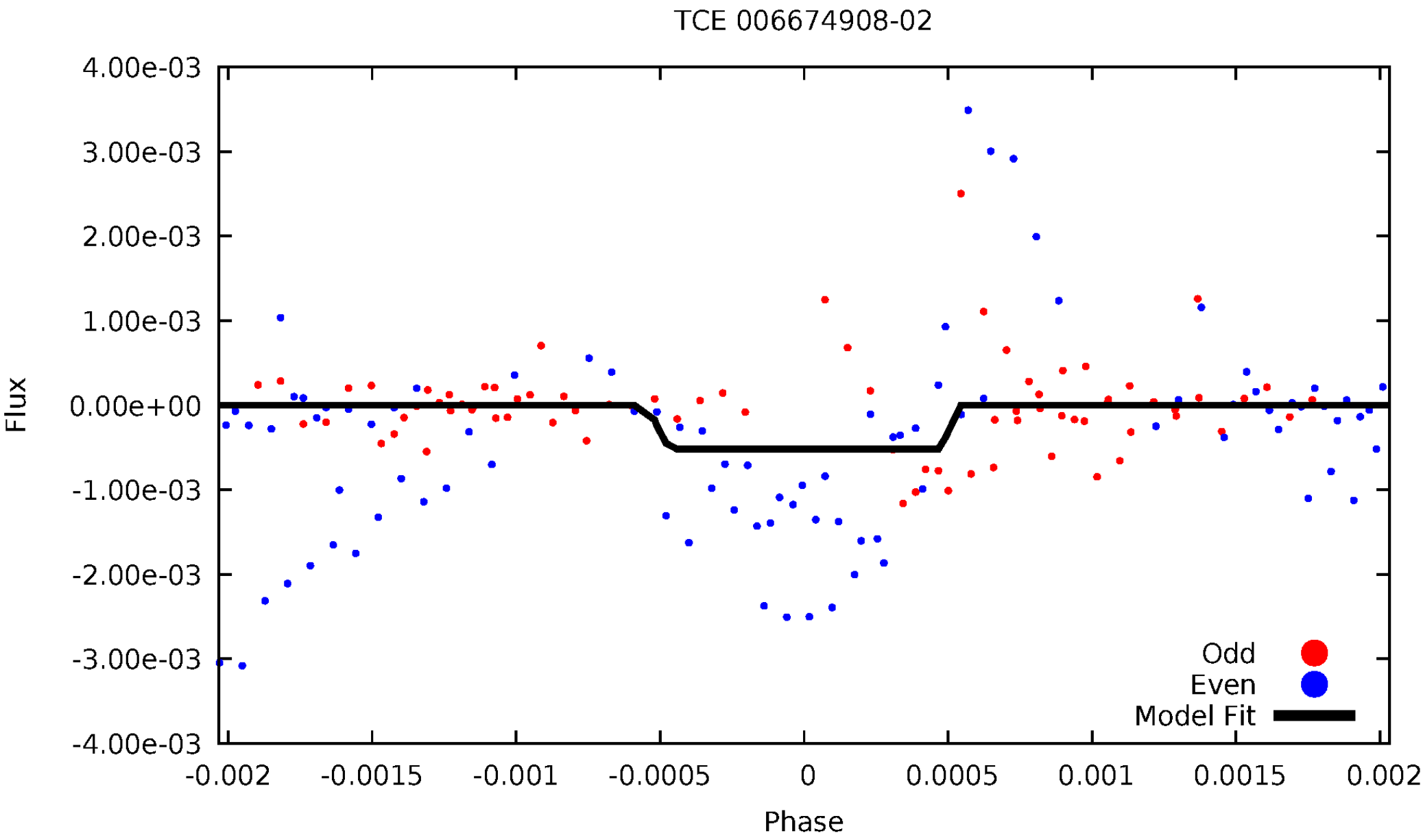



TCE 006674908-02
P = 129.721 days
P = 259.443 days
P = 518.886 days
Normalized Flux
BKJD
Normalized Flux
Phase

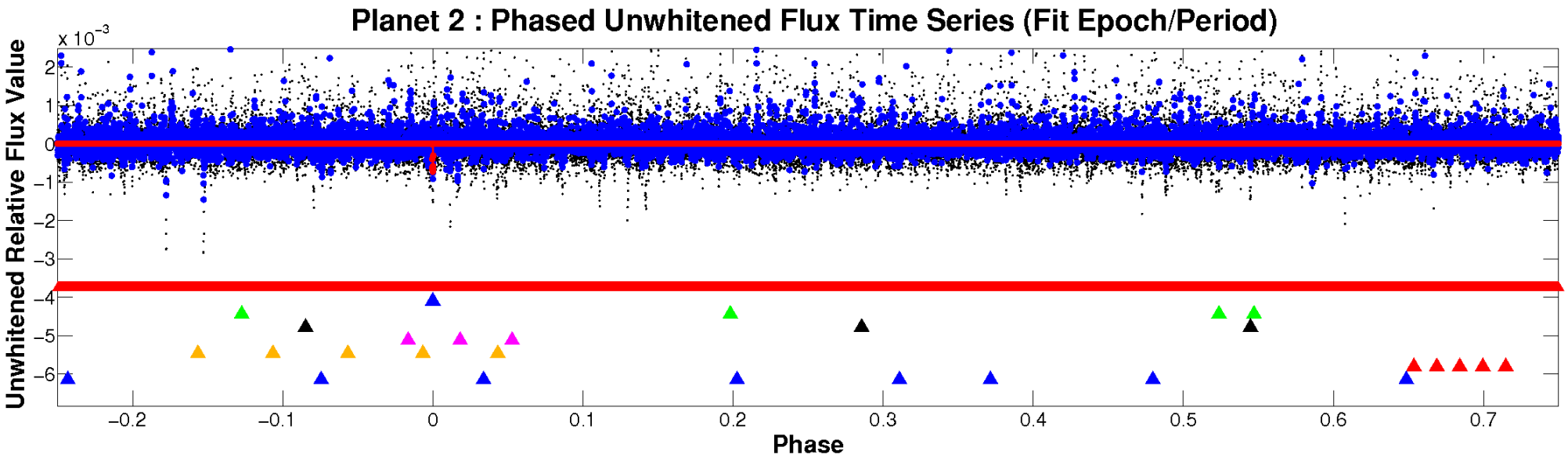
DV Odd/Even

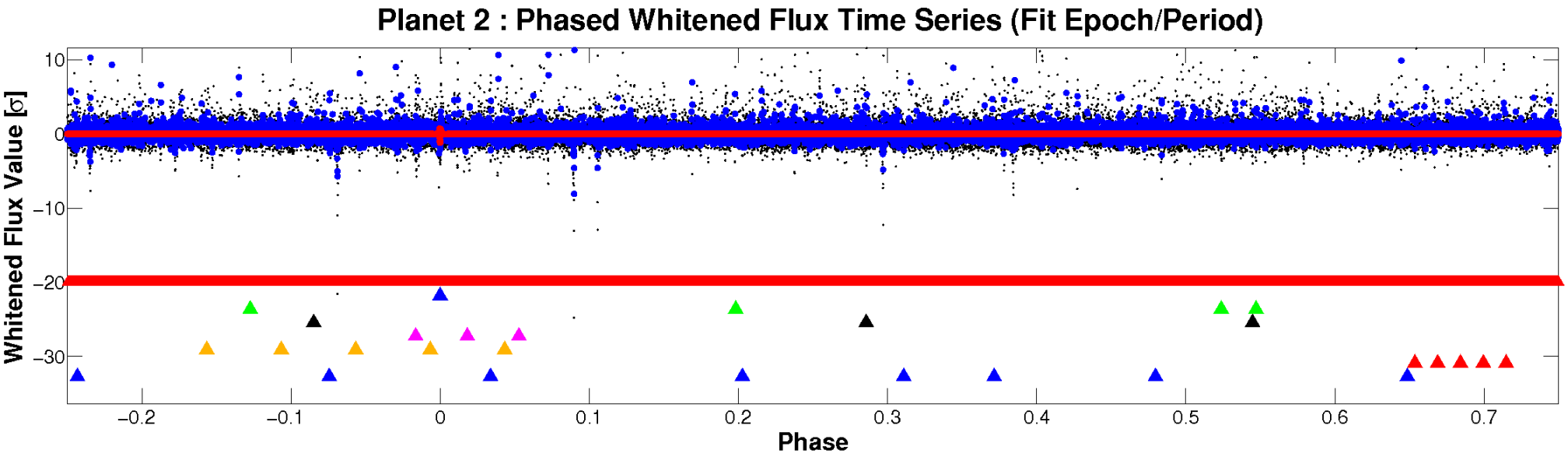

TCE 006674908-02
1.40e-02
1.20e-02
1.00e-02
8.00e-03
6.00e-03
4.00e-03
2.00e-03
0.00e+00
-2.00e-03
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006674908-02
4.00e-03
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
Flux
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit

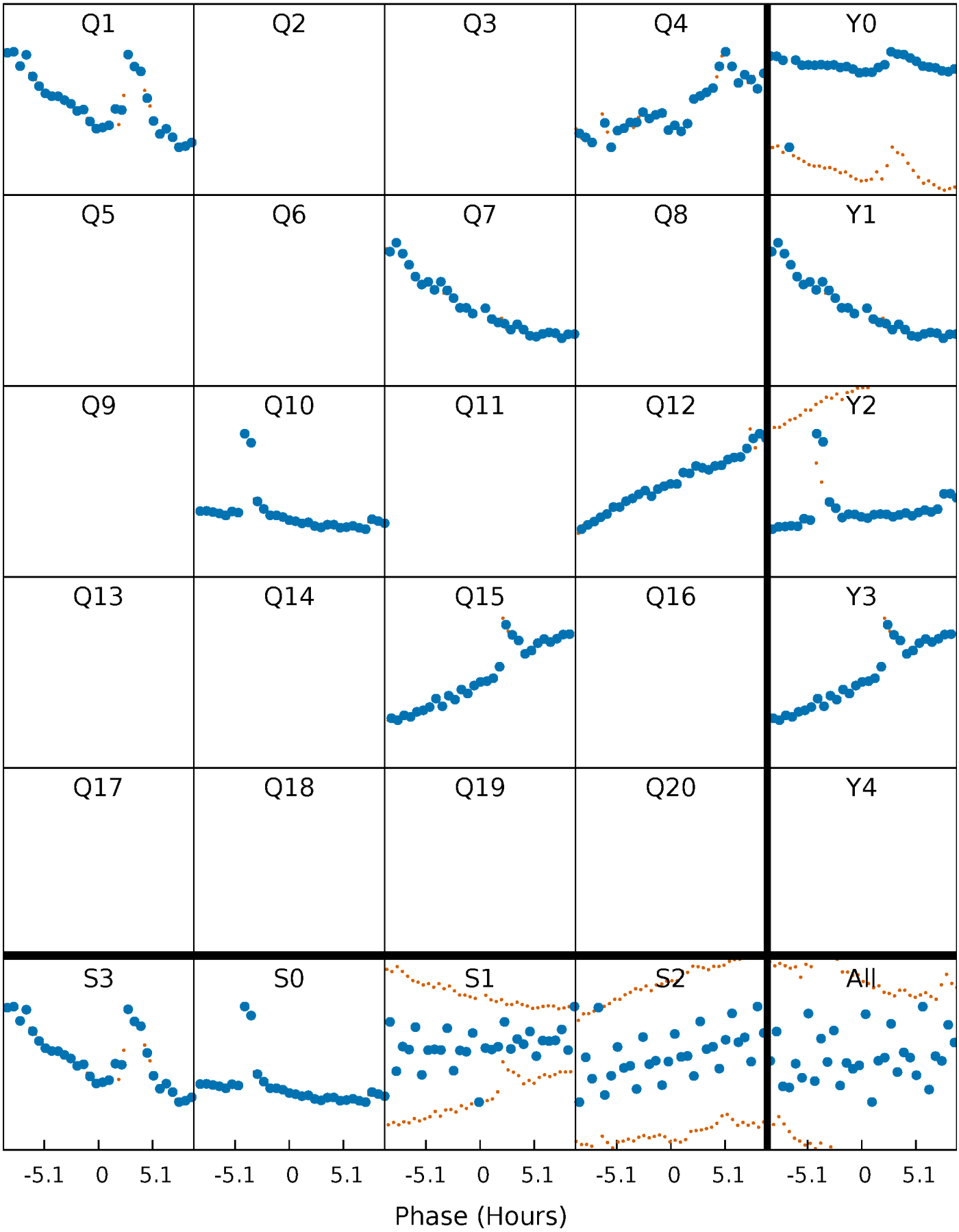
Non-Whitened Vs. Whitened Light Curve





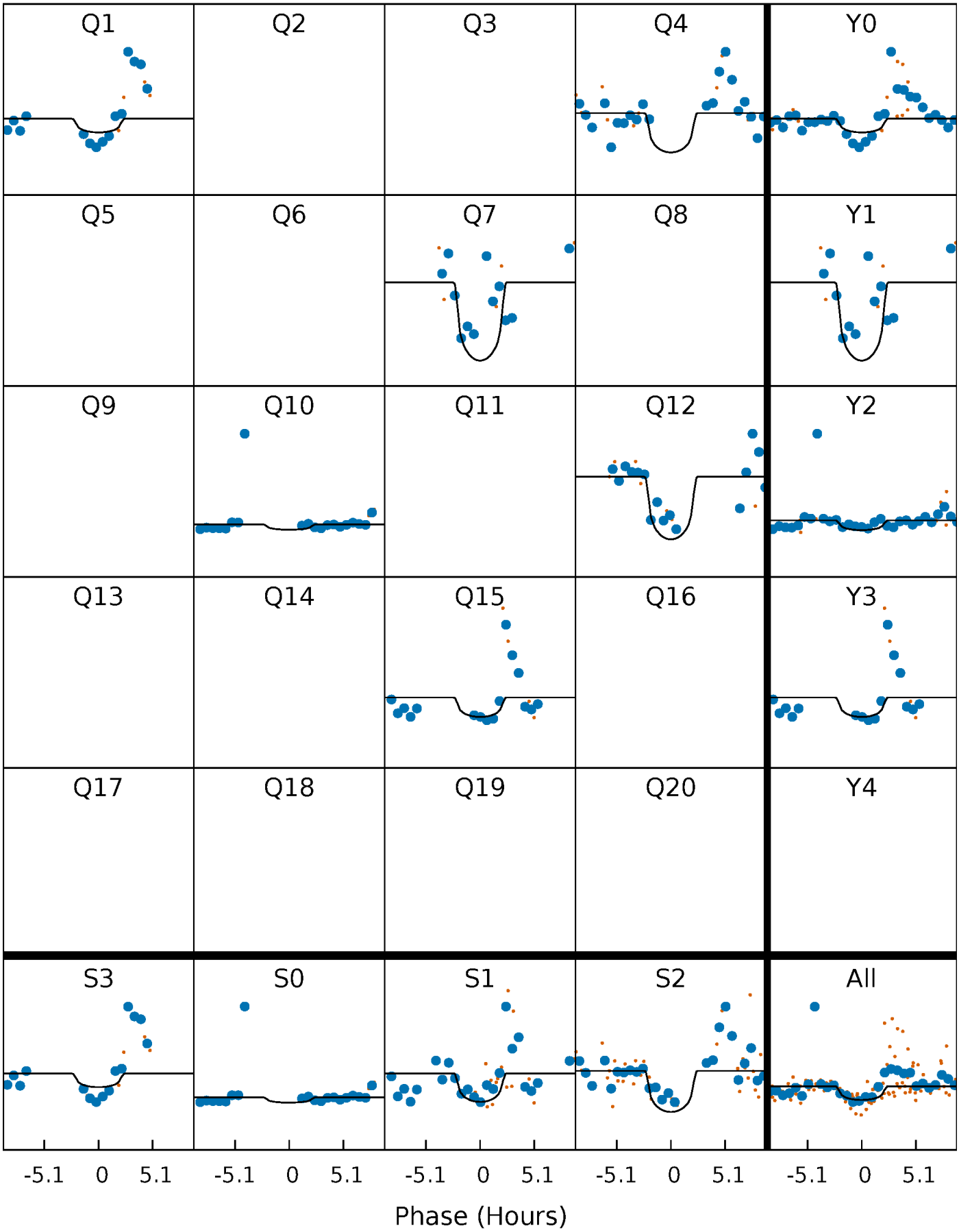
PDC Quarter-Phased Transit Curves

TCE 006674908-02 P=259.442963 Days T_0=136.112959 (BKJD)



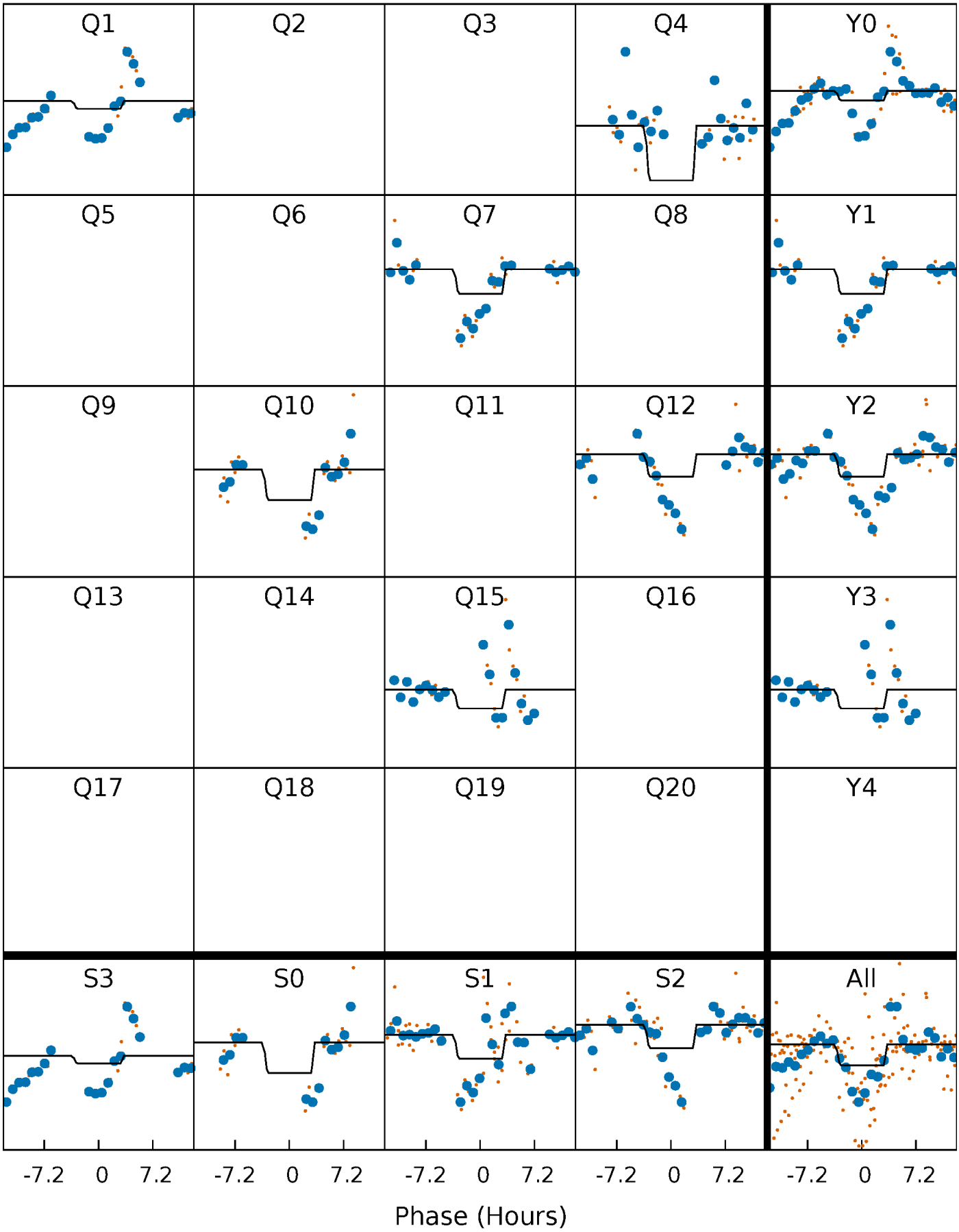
DV Quarter-Phased Transit Curves

TCE 006674908-02 P=259.442963 Days T_0=136.112959 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

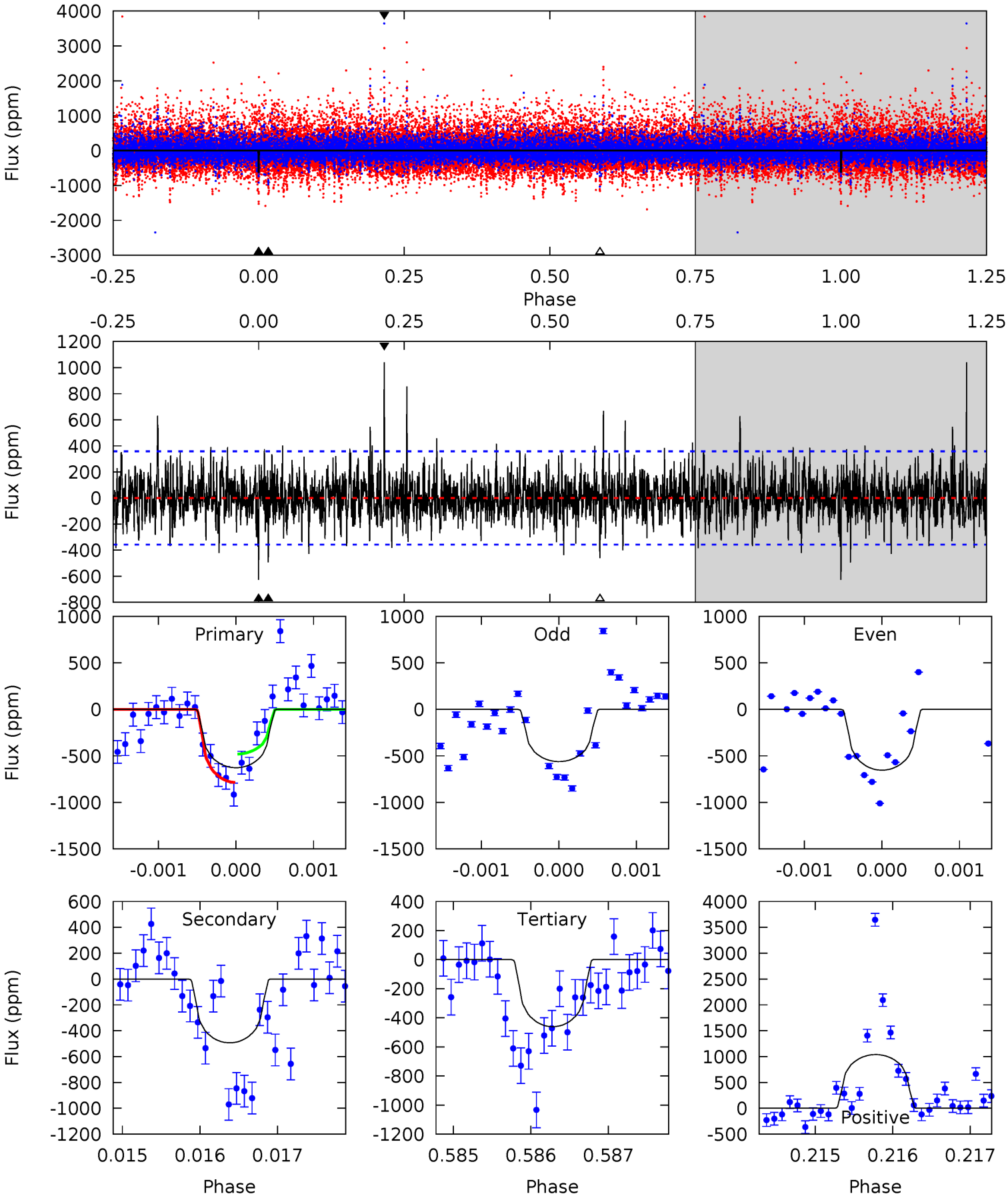
TCE 006674908-02 P=259.438100 Days T_0=136.085304 (BKJD)



DV Model-Shift Uniqueness Test

006674908-02, P = 259.442963 Days, E = 136.112959 Days

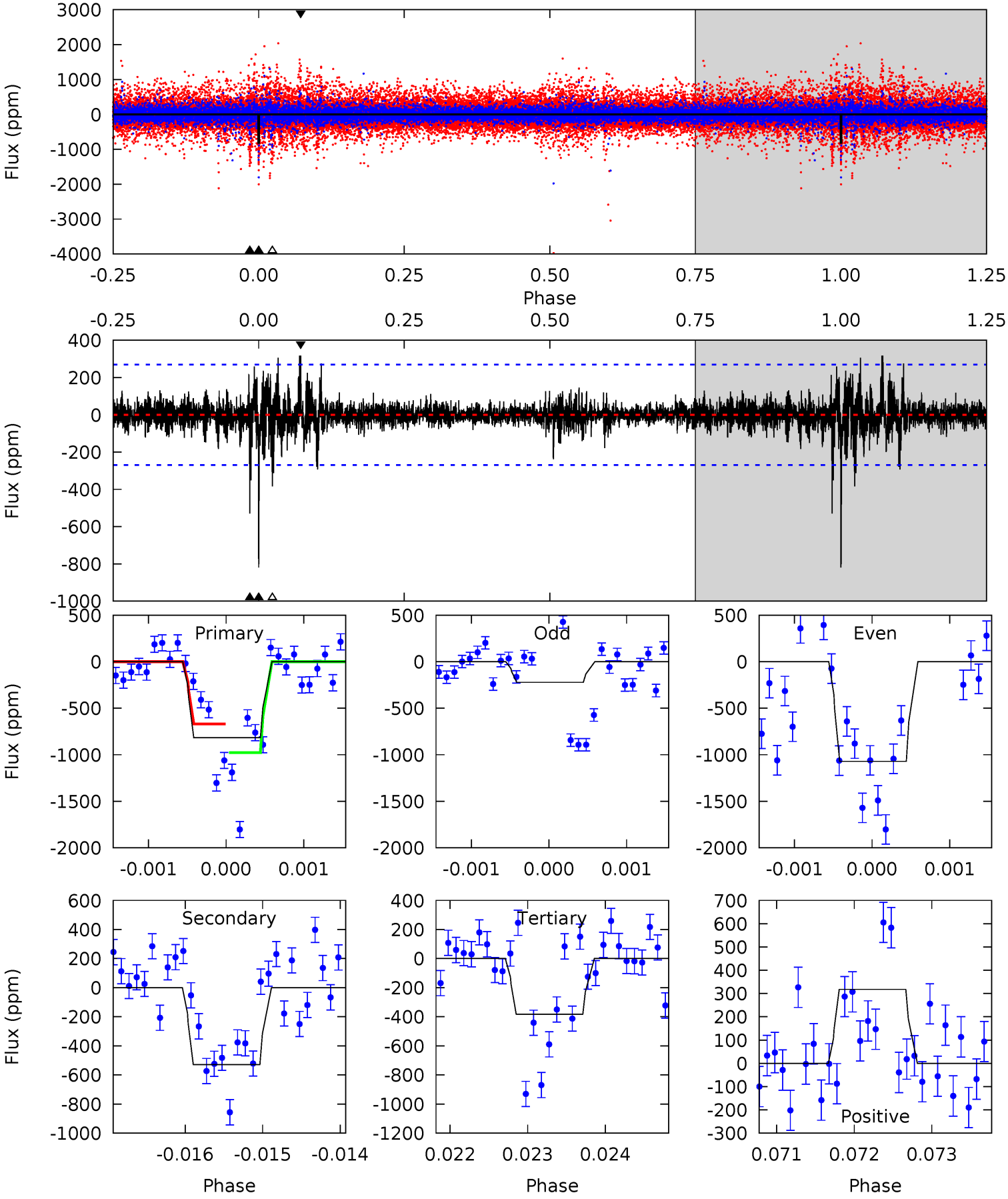
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.63	7.57	7.07	16.0	5.50	3.36	2.00	2.55	-6.32	0.49	-8.38	0.59	0.99	0.62	2.35



Alt Model-Shift Uniqueness Test

006674908-02, P = 259.438100 Days, E = 136.085304 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.5	10.7	7.73	6.42	5.44	3.28	1.05	8.79	10.1	2.95	4.26	7.39	0.82	0.28	3.13



Stellar Parameters For KIC 006674908

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	4013^{+140}_{-154}	$4.639^{+0.053}_{-0.021}$	$0.260^{+0.200}_{-0.300}$	$0.630^{+0.029}_{-0.064}$	$0.630^{+0.042}_{-0.061}$	$3.552^{+0.893}_{-0.273}$
	+3%/-4%	+1%/-0%	+77%/-115%	+5%/-10%	+7%/-10%	+25%/-8%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006674908-02 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-493±65	$3.37^{+2.86}_{-2.31}$	236^{+9}_{-10}	3072^{+1492}_{-455}	$11008^{+105685}_{-7842}$
Alt.	-529±50	$2.95^{+3.08}_{-1.97}$	236^{+10}_{-10}	3258^{+1503}_{-604}	$16324^{+126826}_{-12737}$

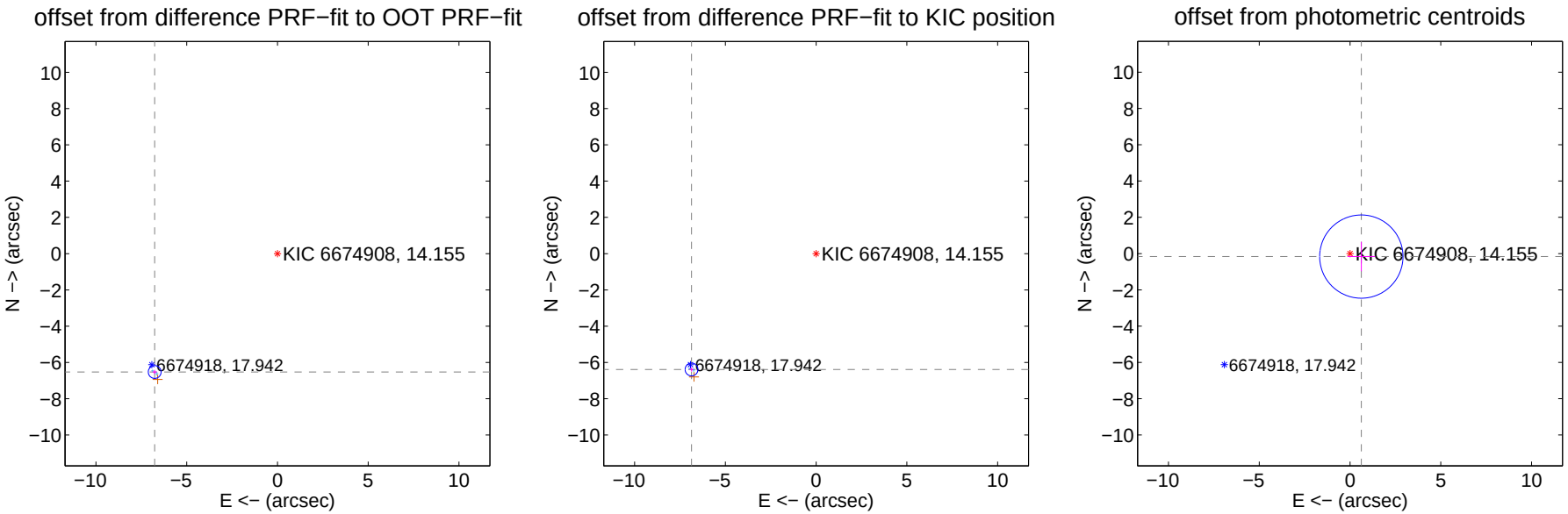
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

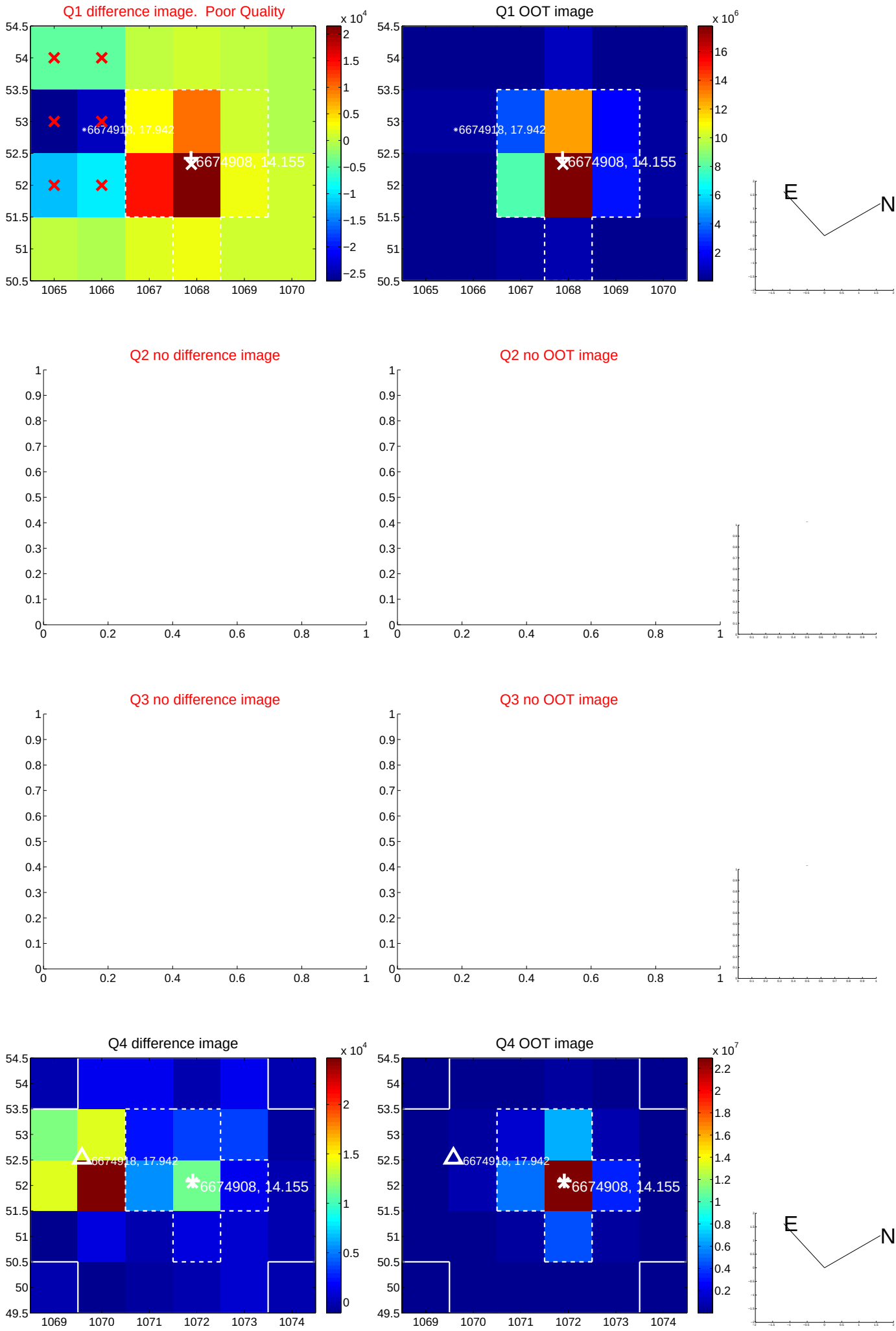
Supplemental centroid analysis for 006674908-02. Kepler magnitude: 14.15. Transit SNR 6.10
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.402 ± 0.118	79.81	6.766 ± 0.118	-6.528 ± 0.117
PRF-fit source offset from KIC position	9.379 ± 0.118	79.61	6.865 ± 0.118	-6.390 ± 0.117
photometric centroid source offset	0.64 ± 0.77	0.84	-0.62 ± 0.76	-0.17 ± 0.81

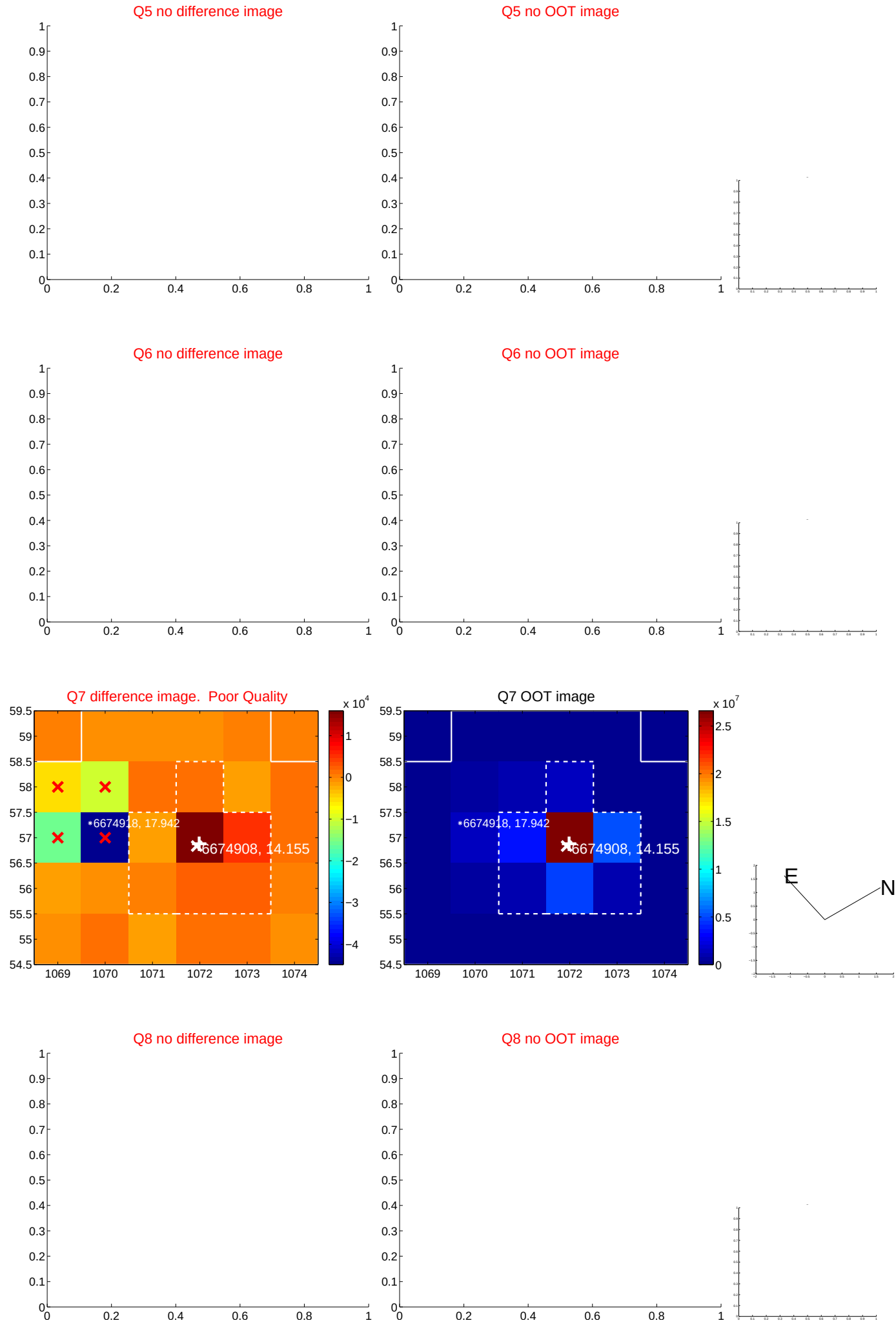


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

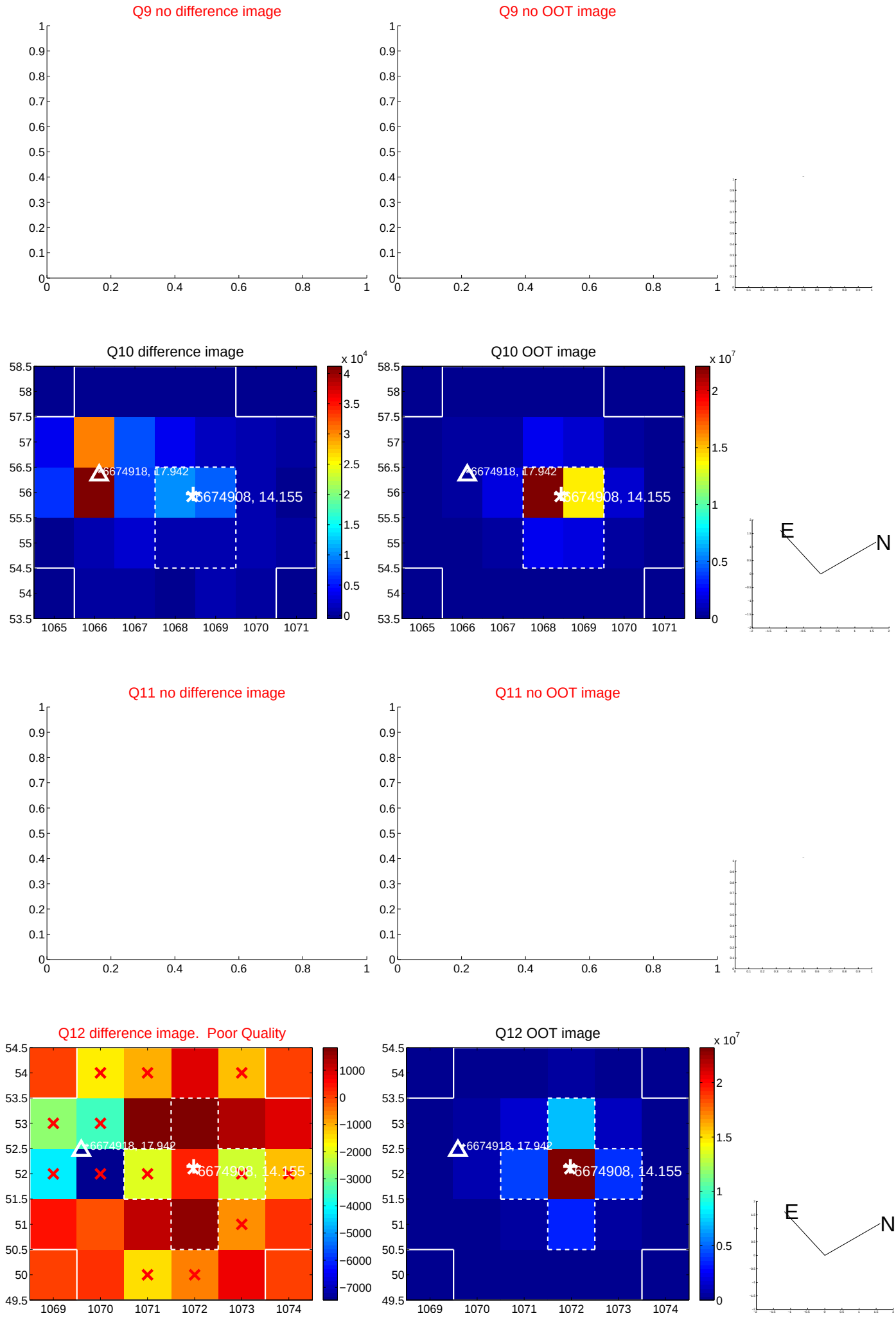
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



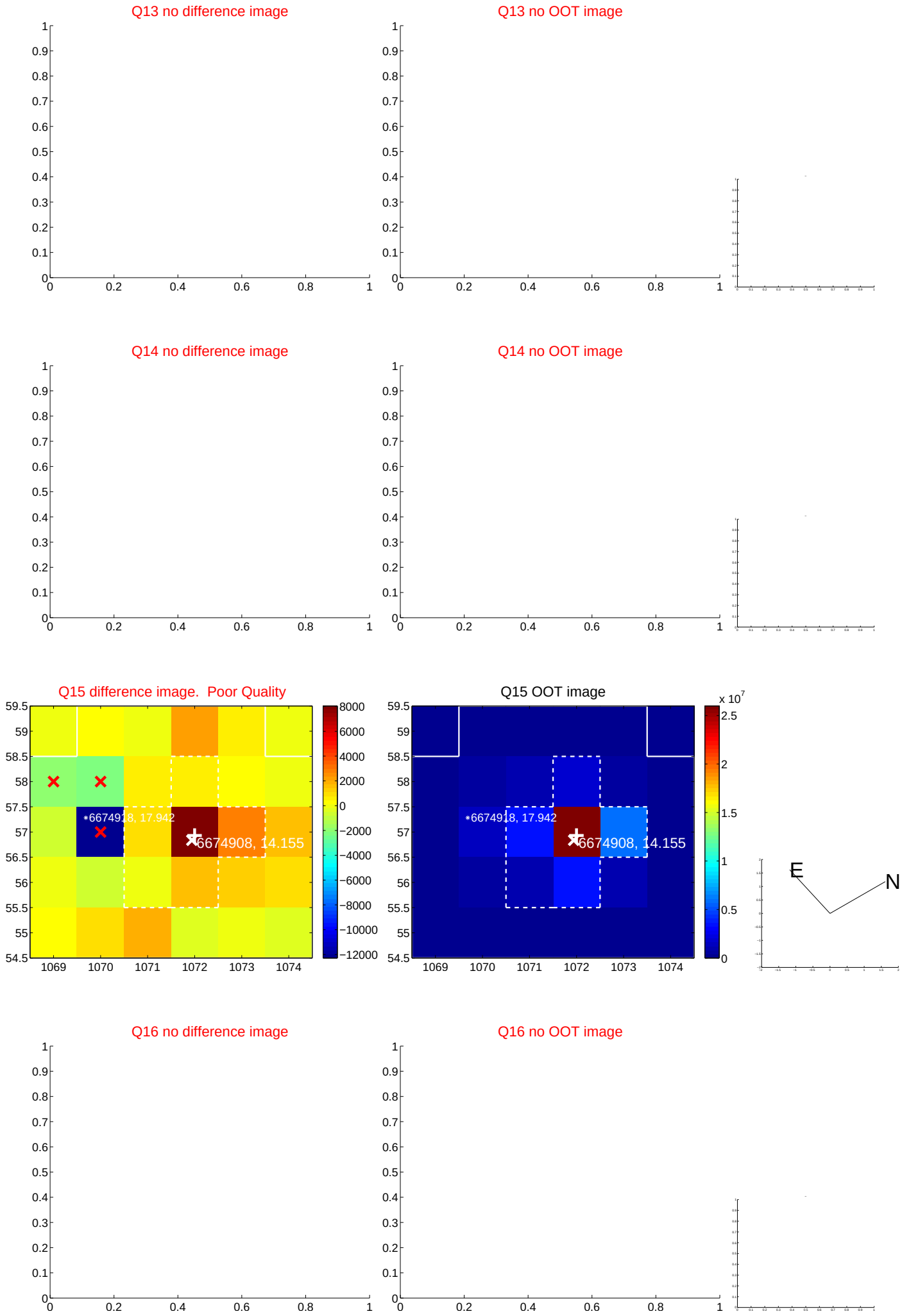
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



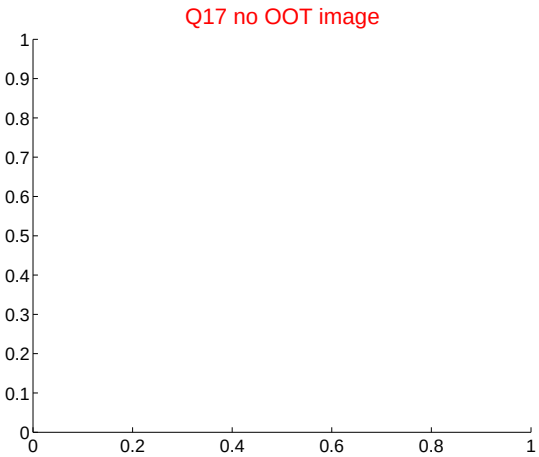
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

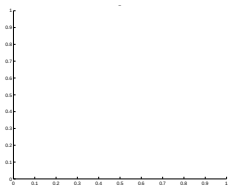


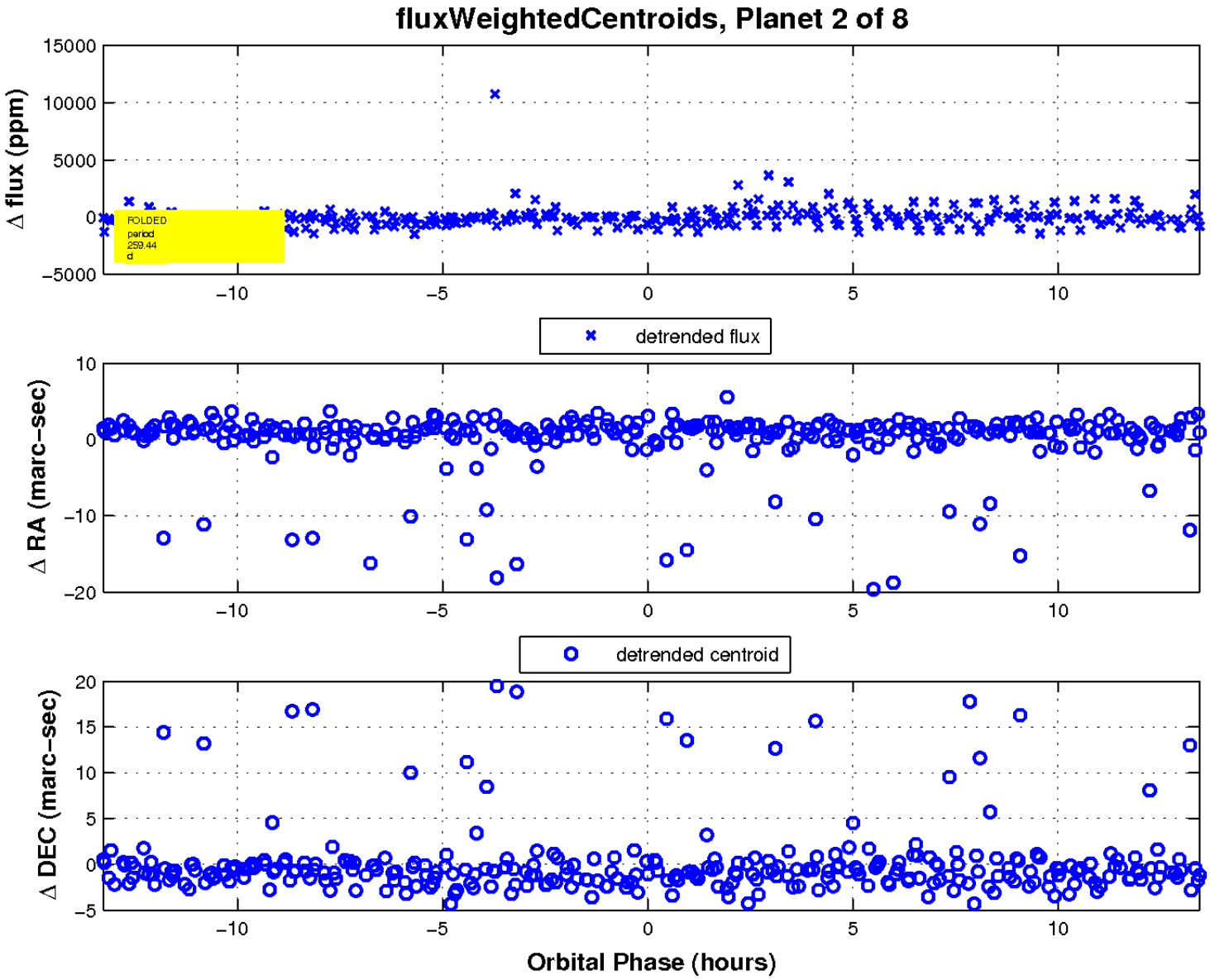
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



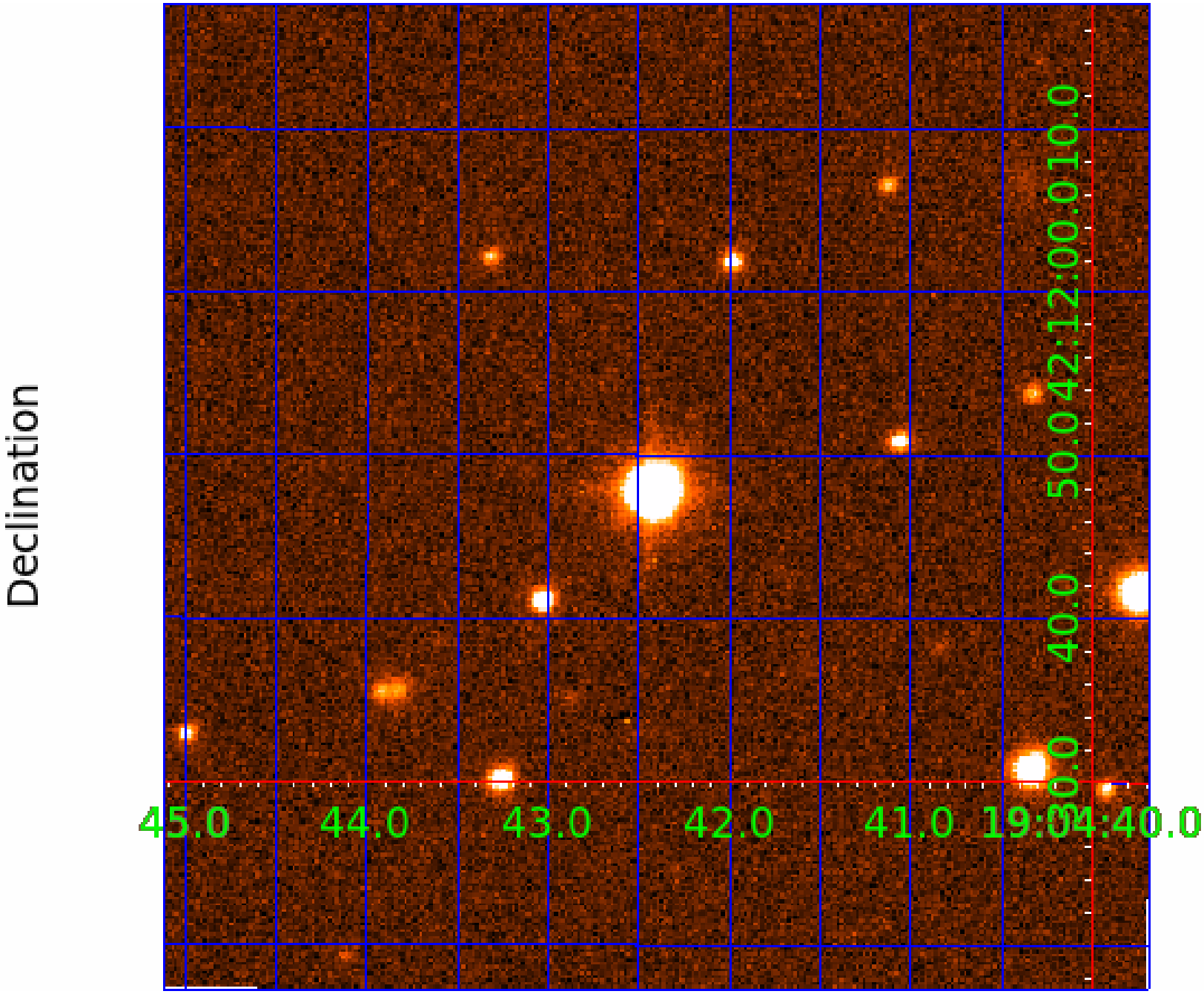
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image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45.0
44.0
43.0
42.0
41.0
19:04:40.0
30.0
40.0
50.0
42:12:00.0
10.0

KIC 006674908

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 ($S_\oplus$)
006674908-01	OBS	6149.01	0.503200	131.906622	200.4	1.352	36.3	40.1	0.63	4013	1.10	817.86
006674908-02	OBS	No	259.442963	136.112959	728.6	4.491	13.4	6.1	0.63	4013	1.79	0.20
006674908-03	OBS	No	434.424560	272.003836	963.6	4.291	11.5	7.2	0.63	4013	2.10	0.10
006674908-04	OBS	No	422.769045	469.681101	1075.2	4.566	10.7	7.5	0.63	4013	2.40	0.10
006674908-05	OBS	No	527.862270	391.302998	1302.7	8.764	13.1	7.7	0.63	4013	2.69	0.08
006674908-06	OBS	No	272.402936	354.955473	354.5	4.352	8.6	3.0	0.63	4013	1.42	0.18
006674908-07	OBS	No	255.473691	321.569167	1110.4	6.166	9.9	8.3	0.63	4013	2.07	0.20
006674908-08	OBS	No	187.564877	216.768115	723.2	2.416	8.8	5.5	0.63	4013	1.74	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006674908-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
006674908-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS—HALO_GHOST
006674908-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006674908-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

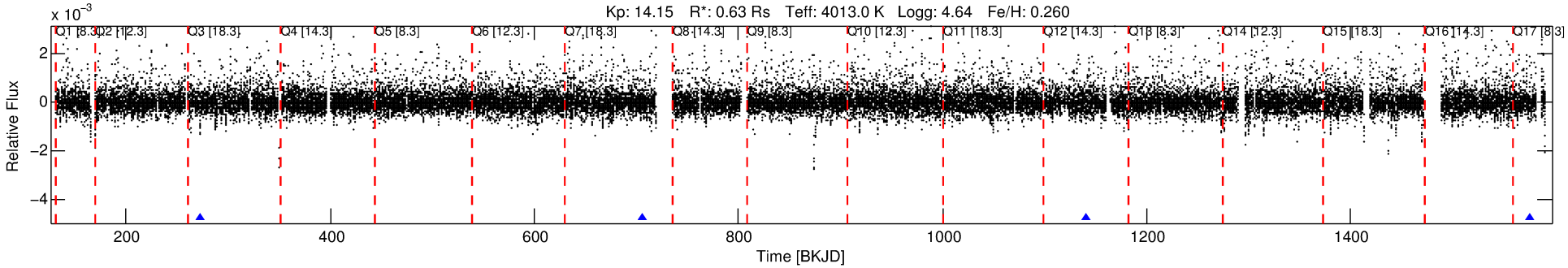
Ephemeris Match Information For 006674908-03

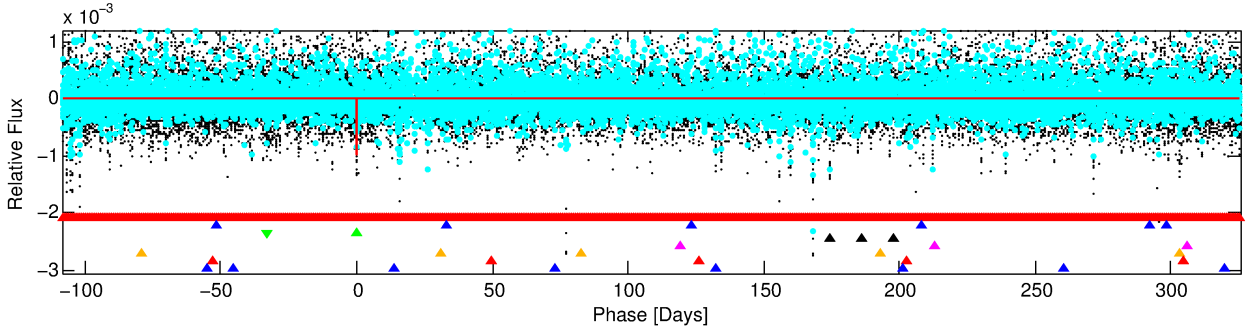
No Significant Match Found

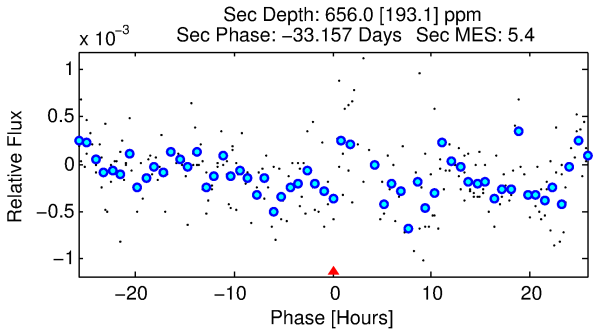
DV One-Page Summary

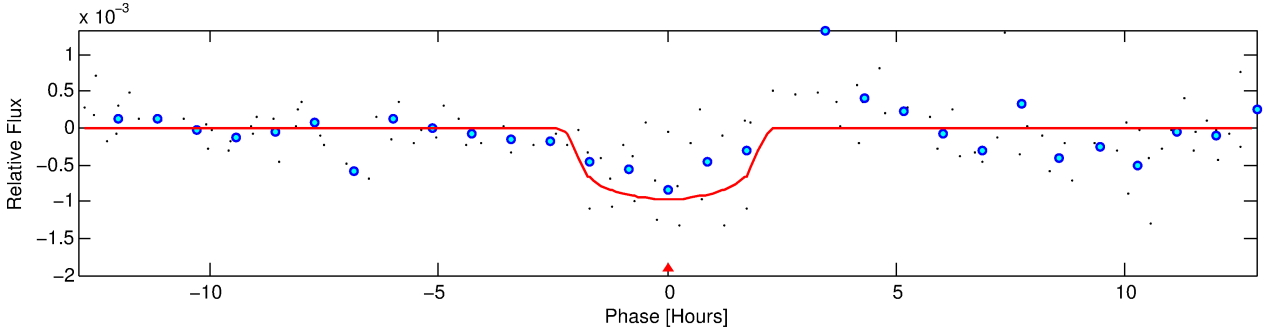
KIC: 6674908 Candidate: 3 of 8 Period: 434.425 d
KOI: K06149 Corr: No Ephemeris Match

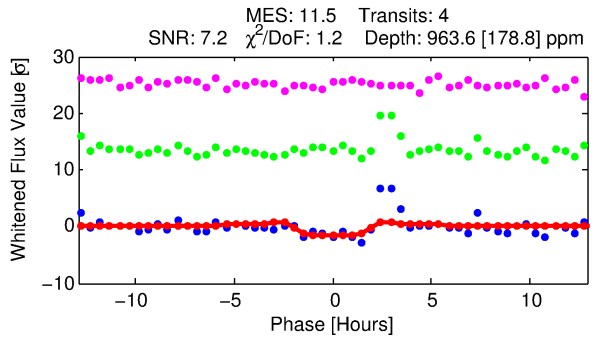
Kp: 14.15 R*: 0.63 Rs Teff: 4013.0 K Logg: 4.64 Fe/H: 0.260

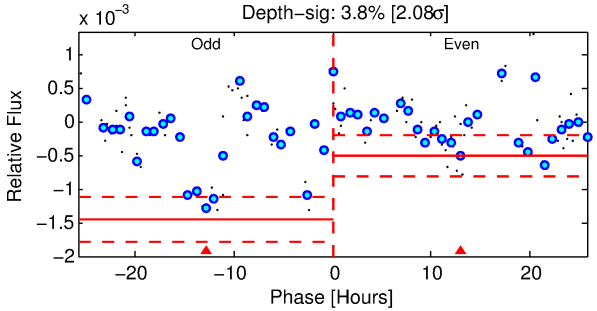


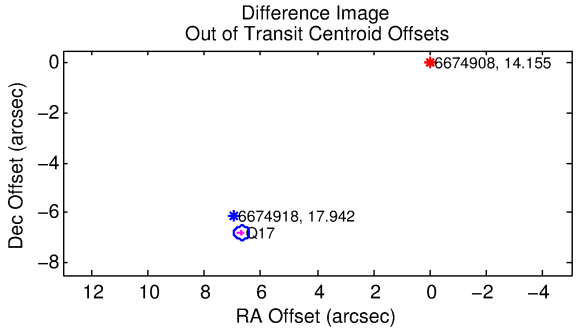












DV Fit Results:

Period = 434.42456 [0.00595] d
Epoch = 272.0038 [0.0105] BKJD
Rp/R* = 0.0306 [0.0346]
a/R* = 573.33 [2078.60]
b = 0.72 [2.53]

Seff = 0.10 [0.02]
Teq = 143 [7] K
Rp = 2.10 [2.39] Re
a = 0.9628 [0.0761] AU

Ag = 75715.97 [173191.66] [0.44σ]
Teffp = 3673 [2103] K [1.68σ]

DV Diagnostic Results:

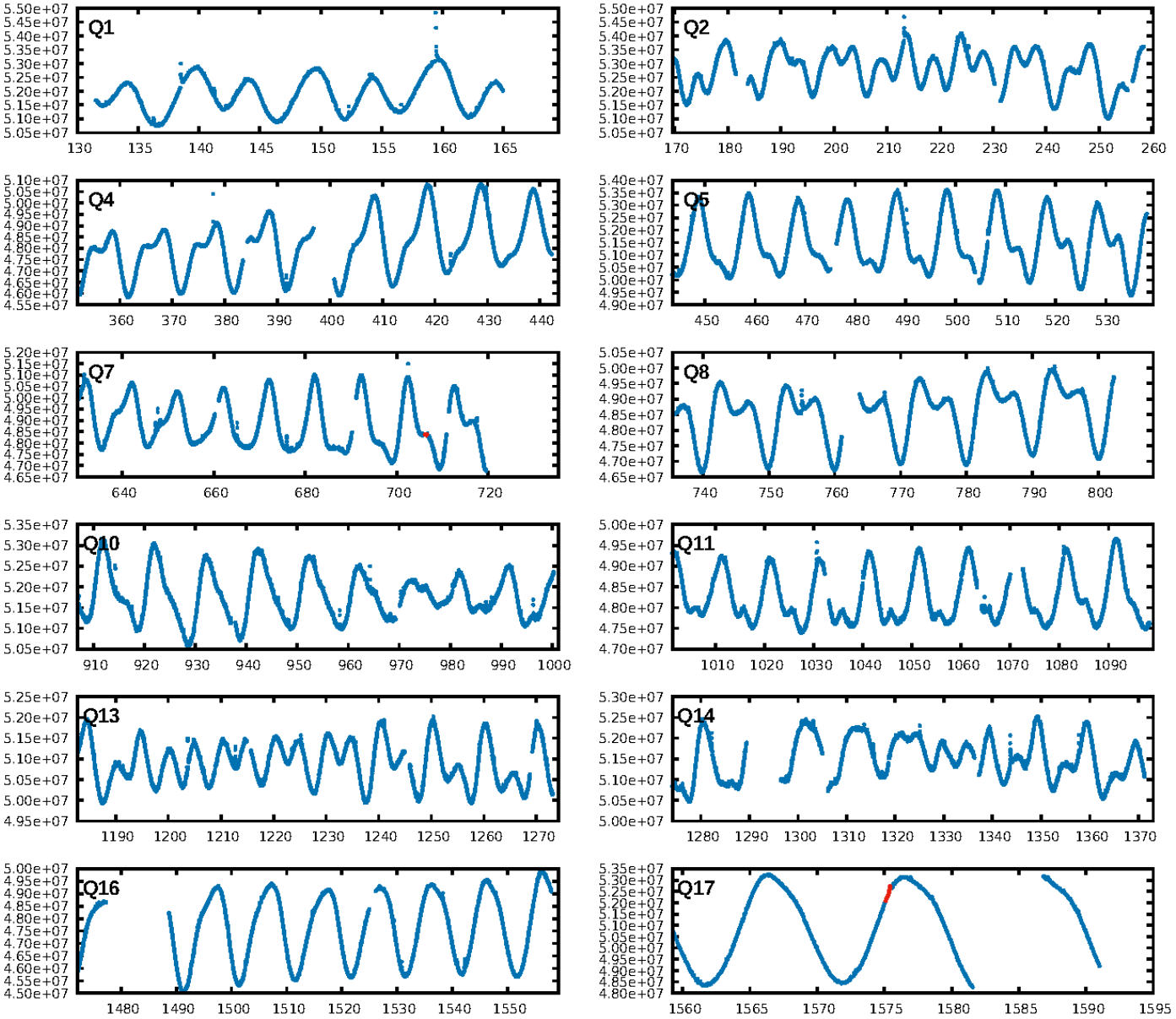
ShortPeriod−sig: 100.0% [44.64σ]
LongPeriod−sig: 100.0% [229.80σ]
ModelChiSquare2−sig: 1.2%
ModelChiSquareGof−sig: 97.4%
Bootstrap−pfa: 1.37e−12
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: −1.452

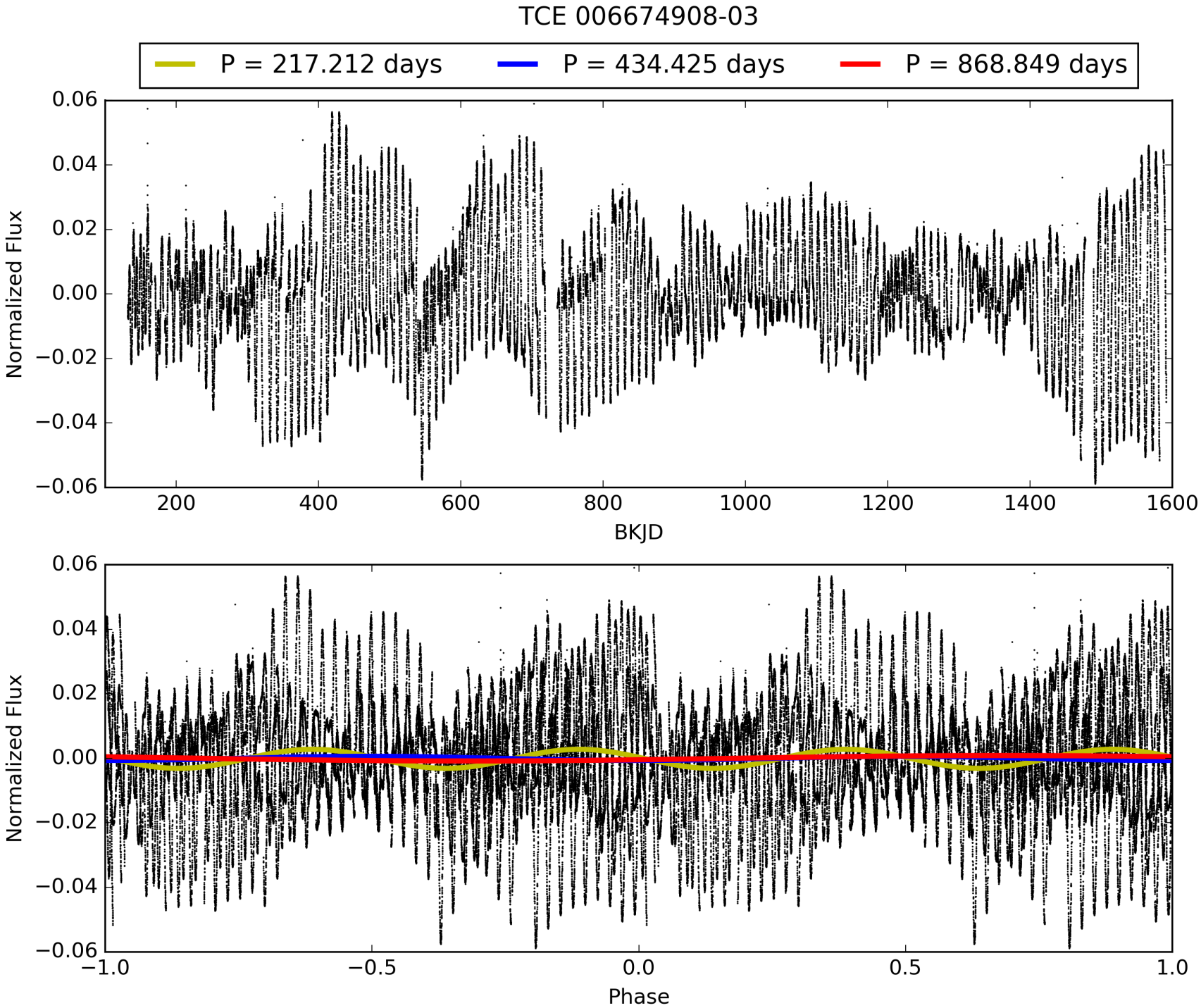
Centroid−sig: N/A
Centroid−so: 0.689 arcsec [0.83σ]
OotOffset−rm: 9.552 arcsec [105.74σ]
KicOffset−rm: 9.658 arcsec [106.88σ]
OotOffset−st: 0/0/0/1 [1]
KicOffset−st: 0/0/0/1 [1]
DiffImageQuality−fgm: 0.00 [0/1]
DiffImageOverlap−fno: 0.00 [0/4]

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

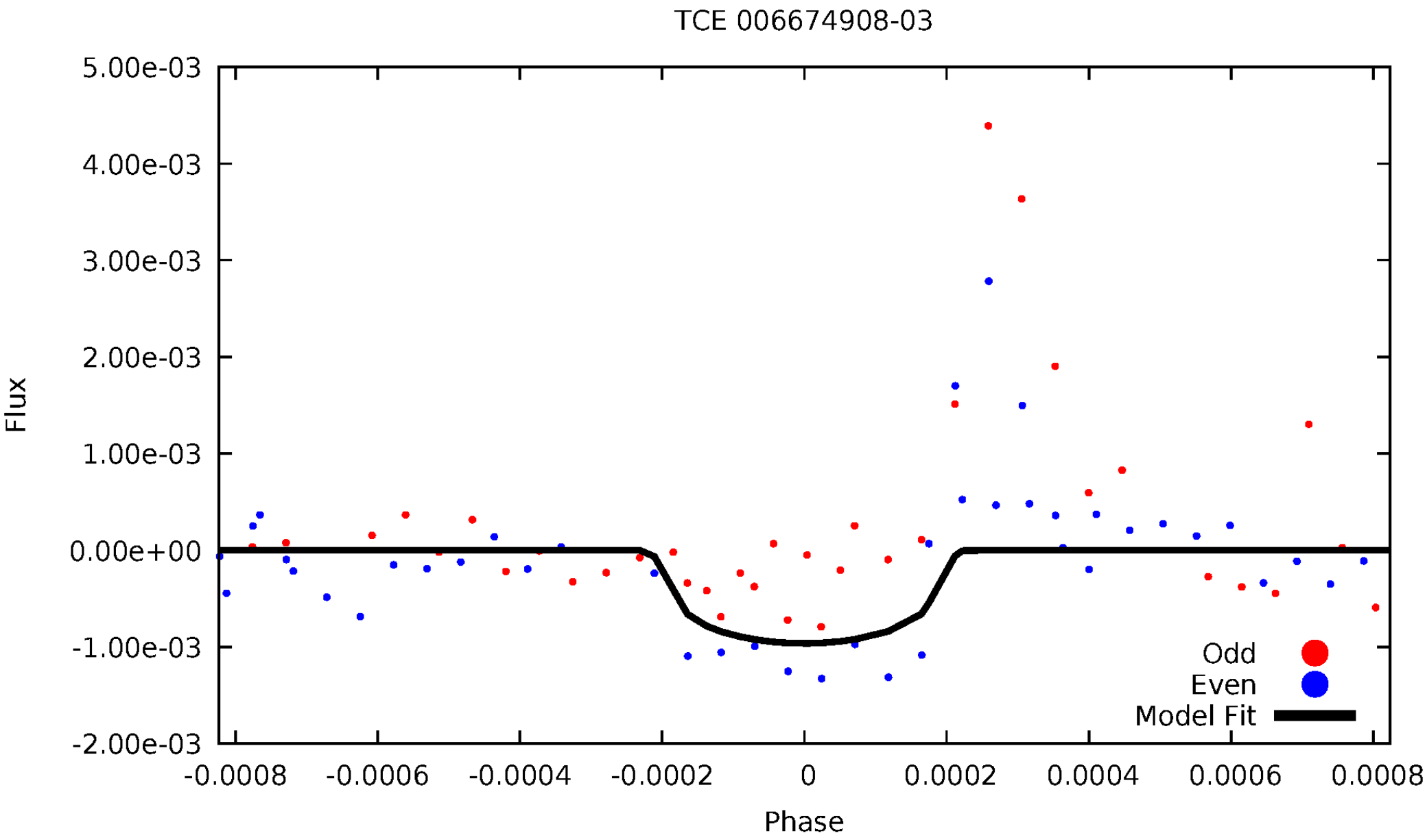
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006674908-03, PDC Light Curves

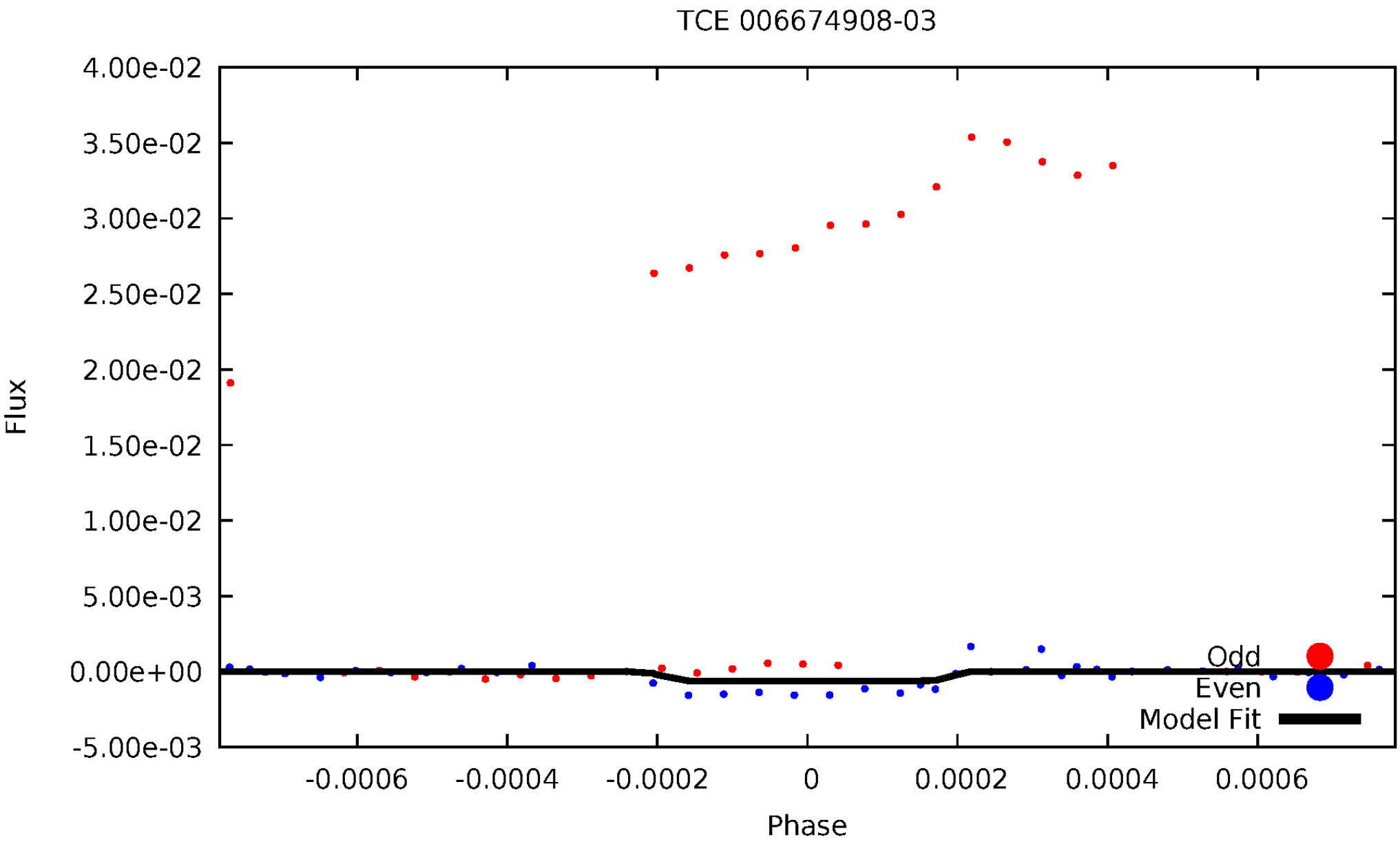



TCE 006674908-03
P = 217.212 days
P = 434.425 days
P = 868.849 days
Normalized Flux
BKJD
Normalized Flux
Phase

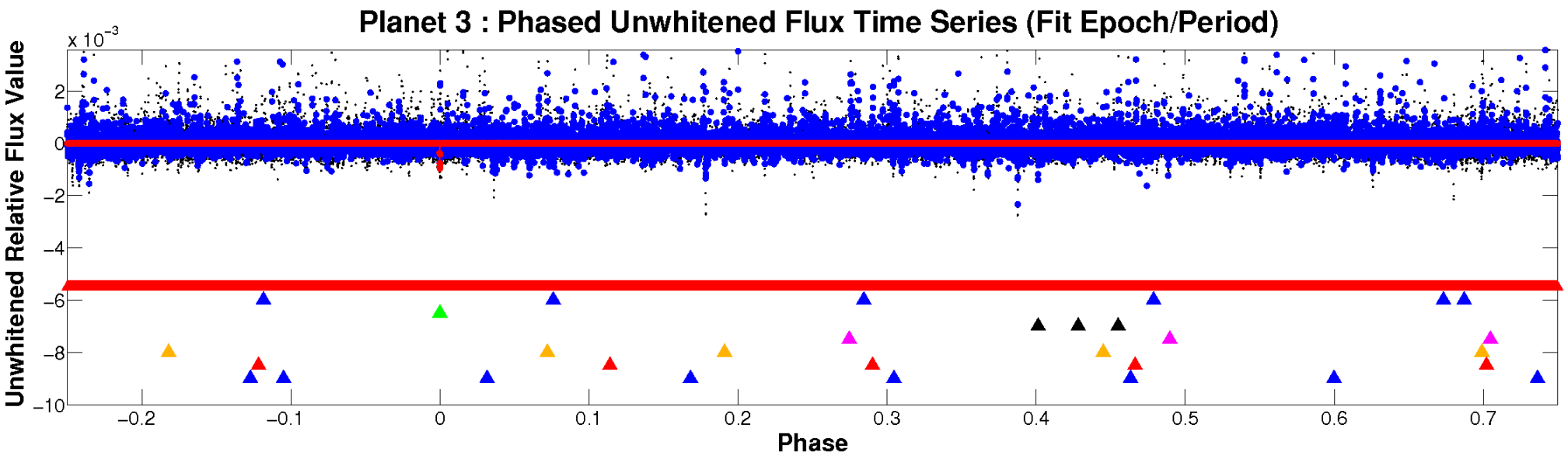
DV Odd/Even

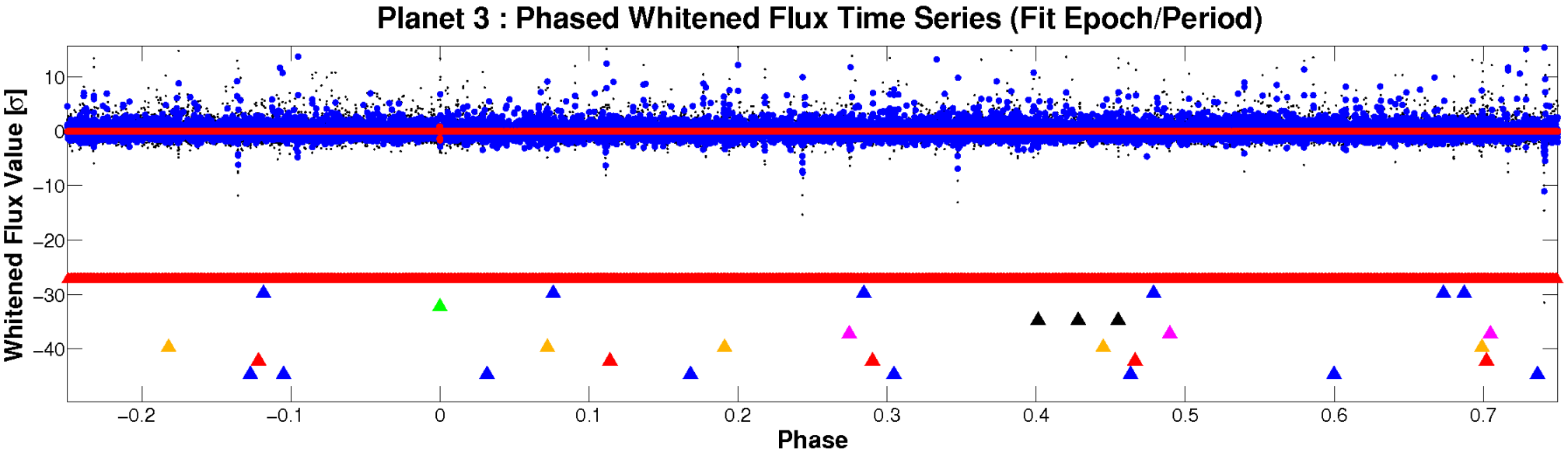

TCE 006674908-03
5.00e-03
4.00e-03
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
Flux
-0.0008
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
0.0008
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006674908-03
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
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
Phase
Odd
Even
Model Fit

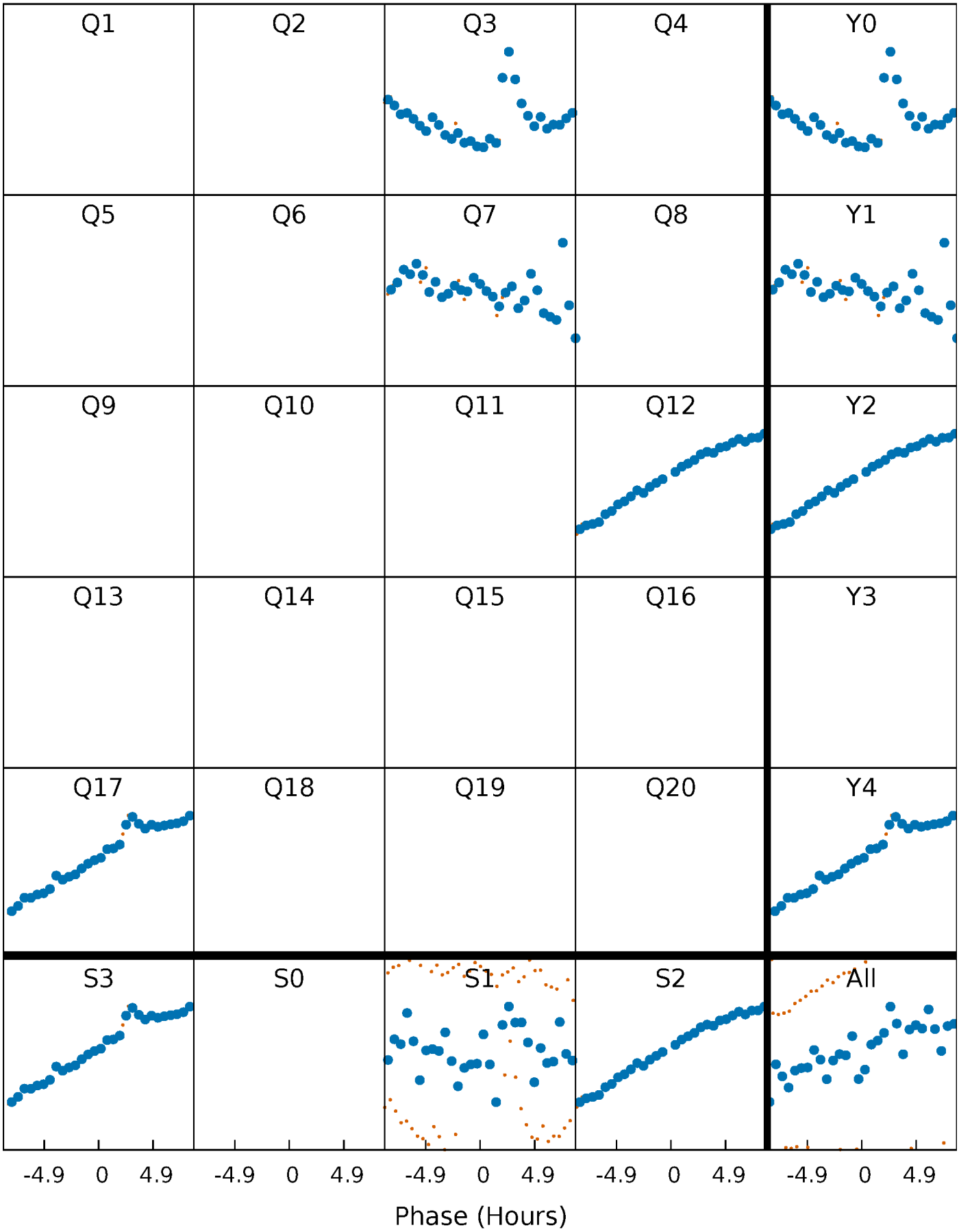
Non-Whitened Vs. Whitened Light Curve





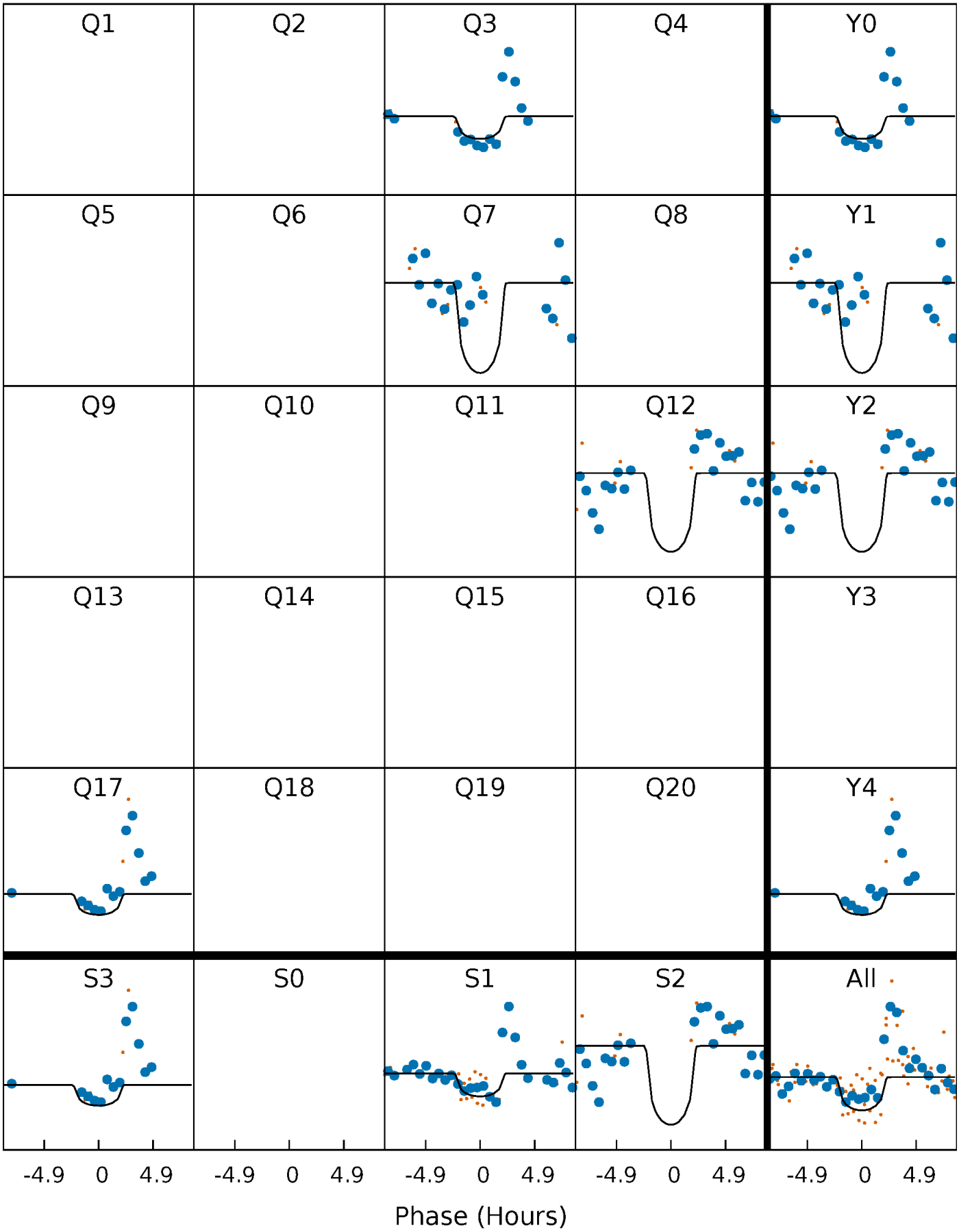
PDC Quarter-Phased Transit Curves

TCE 006674908-03 P=434.424560 Days T_0=272.003836 (BKJD)



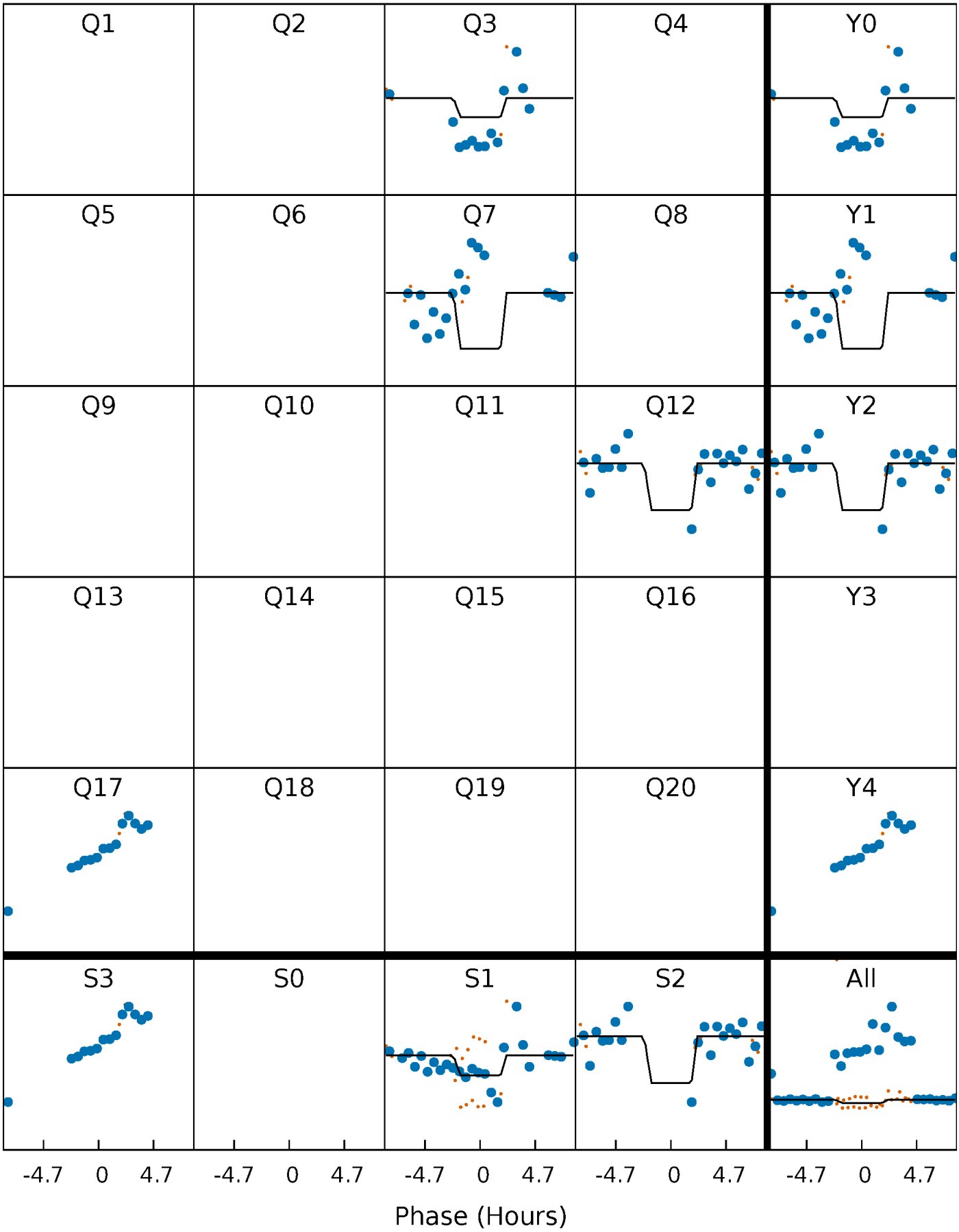
DV Quarter-Phased Transit Curves

TCE 006674908-03 P=434.424560 Days T_0=272.003836 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

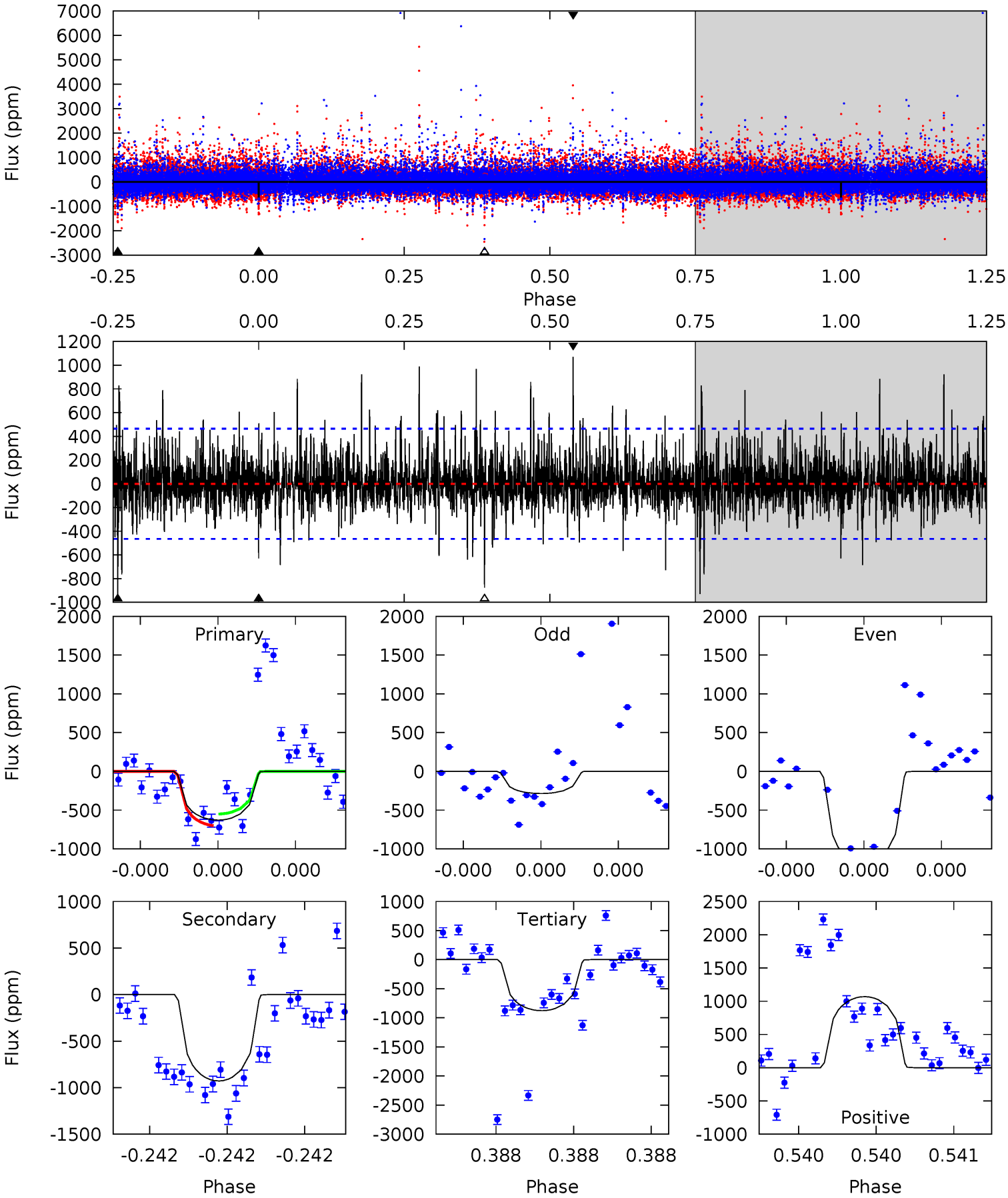
TCE 006674908-03 P=434.431108 Days T_0=272.001456 (BKJD)



DV Model-Shift Uniqueness Test

006674908-03, P = 434.424560 Days, E = 272.003836 Days

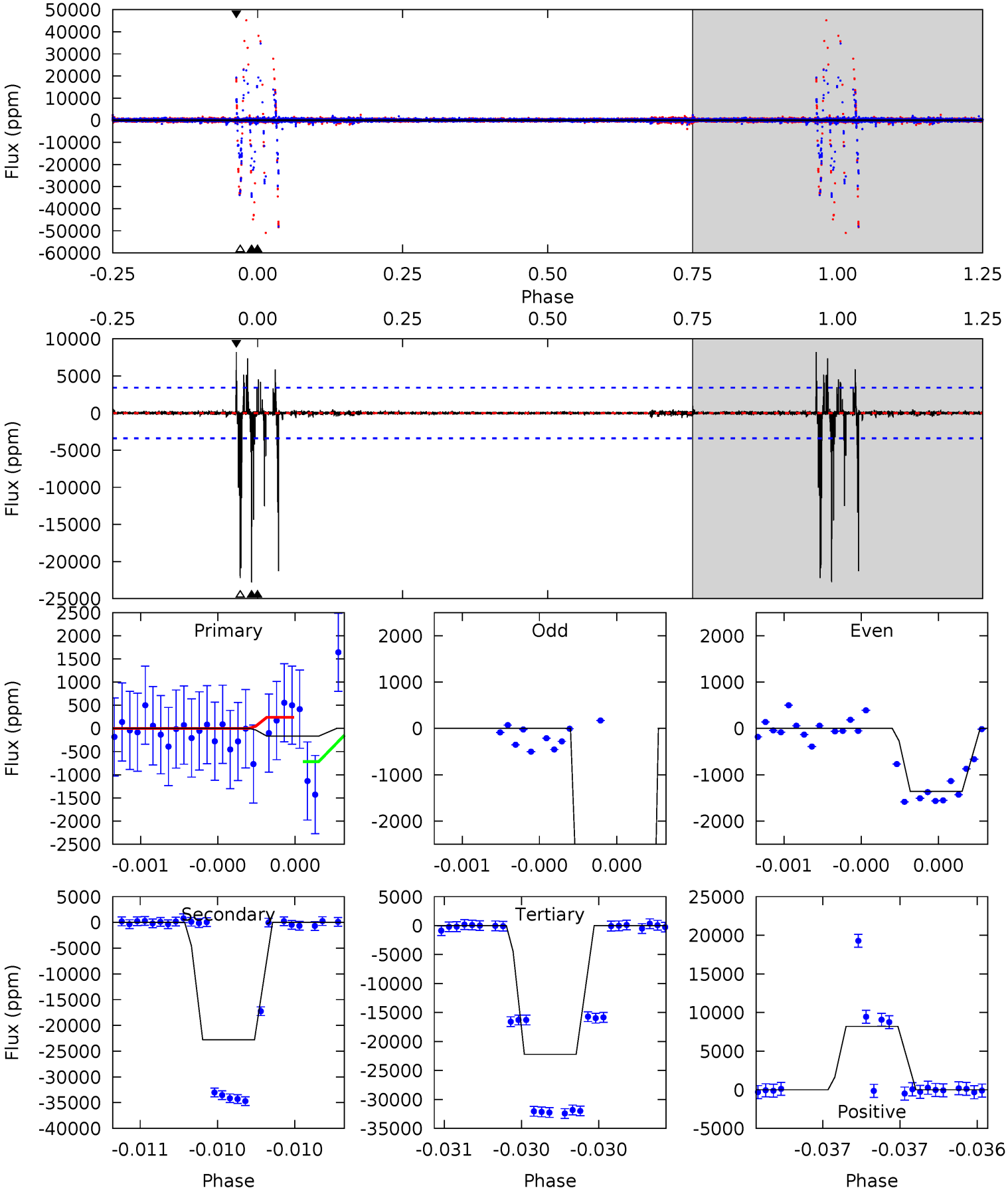
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.60	11.2	10.6	12.9	5.61	3.54	1.99	-3.00	-5.32	0.63	-1.69	4.75	1.55	0.54	0.92



Alt Model-Shift Uniqueness Test

006674908-03, P = 434.431108 Days, E = 272.001456 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.28	37.5	36.5	13.5	5.61	3.54	1.30	-36.3	-13.2	0.93	24.0	9.35	-28.4	0.26	0.43



Stellar Parameters For KIC 006674908

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	4013^{+140}_{-154}	$4.639^{+0.053}_{-0.021}$	$0.260^{+0.200}_{-0.300}$	$0.630^{+0.029}_{-0.064}$	$0.630^{+0.042}_{-0.061}$	$3.552^{+0.893}_{-0.273}$
	+3%/-4%	+1%/-0%	+77%/-115%	+5%/-10%	+7%/-10%	+25%/-8%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006674908-03 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-929±83	$2.56^{+2.11}_{-1.61}$	199^{+7}_{-8}	3752^{+1716}_{-643}	$72904^{+470980}_{-51202}$
Alt.	-22782±608	$2.43^{+1.88}_{-1.44}$	199^{+8}_{-8}	7807^{+7530}_{-2155}	$2002890^{+10310869}_{-1370704}$

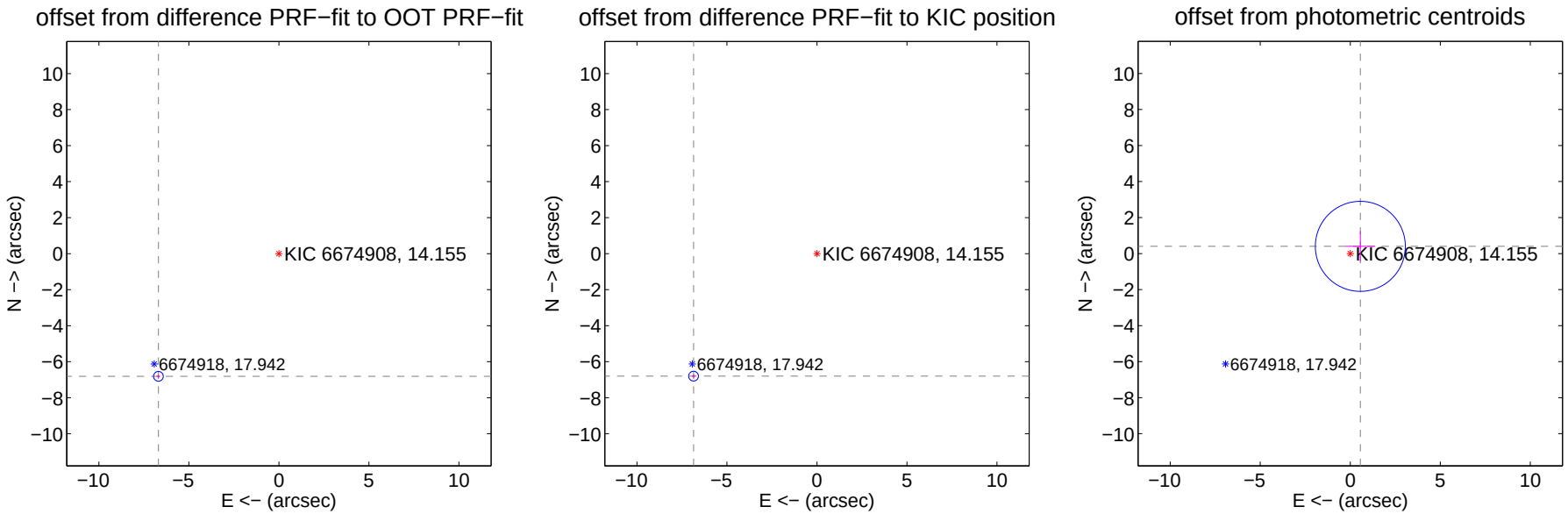
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

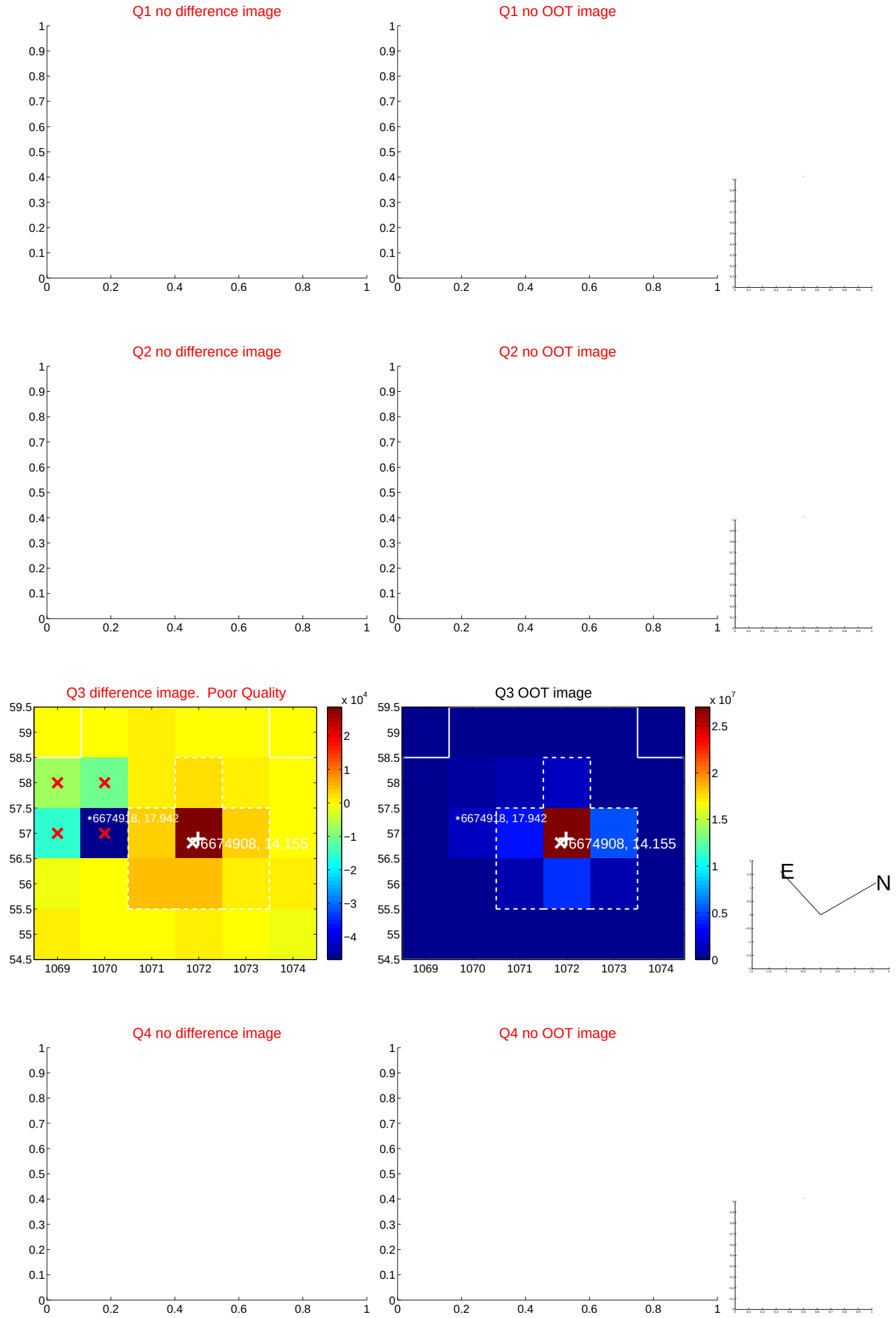
Supplemental centroid analysis for 006674908-03. Kepler magnitude: 14.15. Transit SNR 7.20
There are 0 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.552 ± 0.090	105.74	6.693 ± 0.092	-6.814 ± 0.089
PRF-fit source offset from KIC position	9.658 ± 0.090	106.88	6.855 ± 0.092	-6.803 ± 0.089
photometric centroid source offset	0.69 ± 0.83	0.83	-0.56 ± 0.83	0.40 ± 0.85

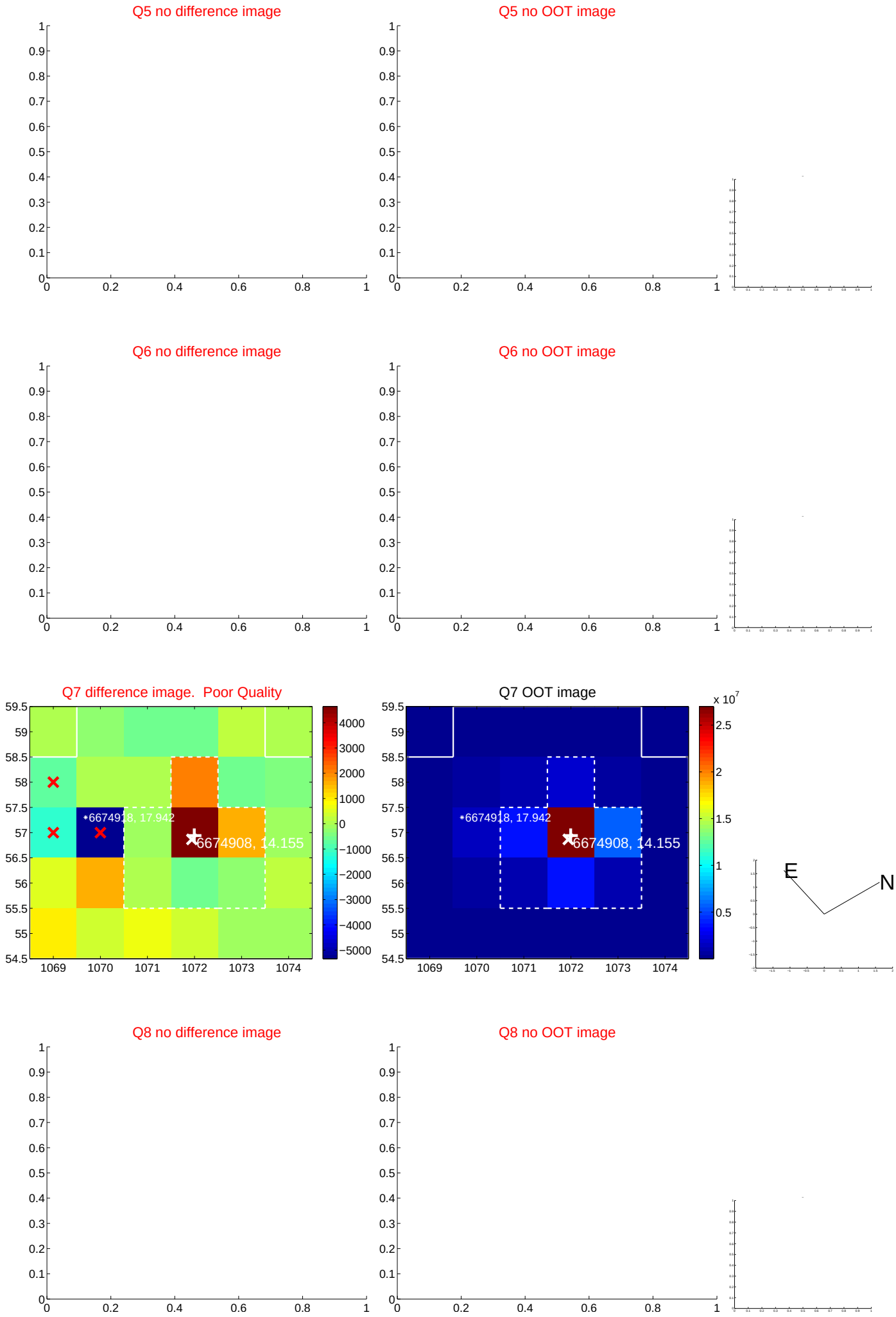


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

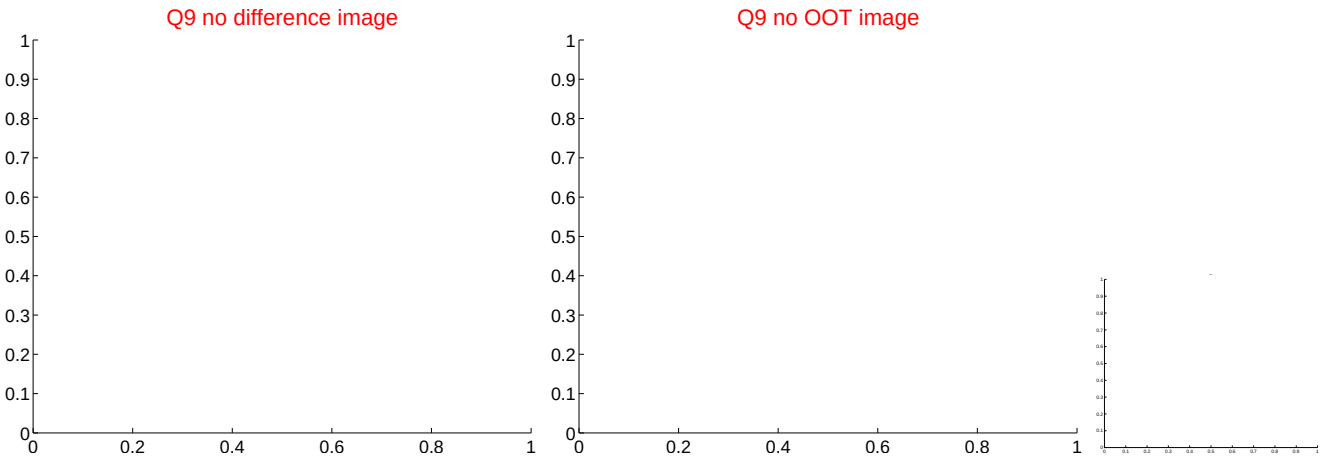
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

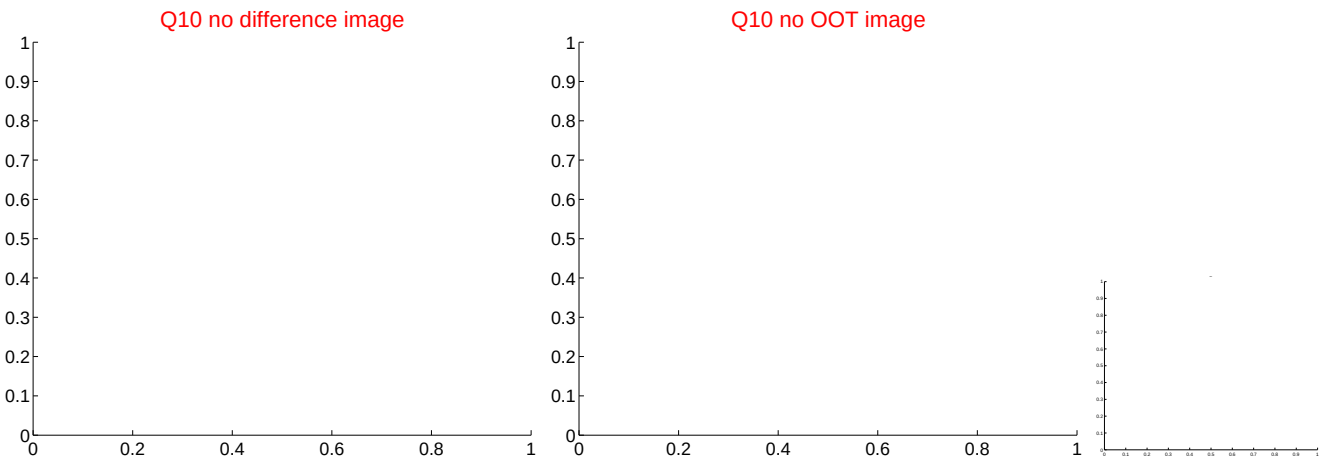


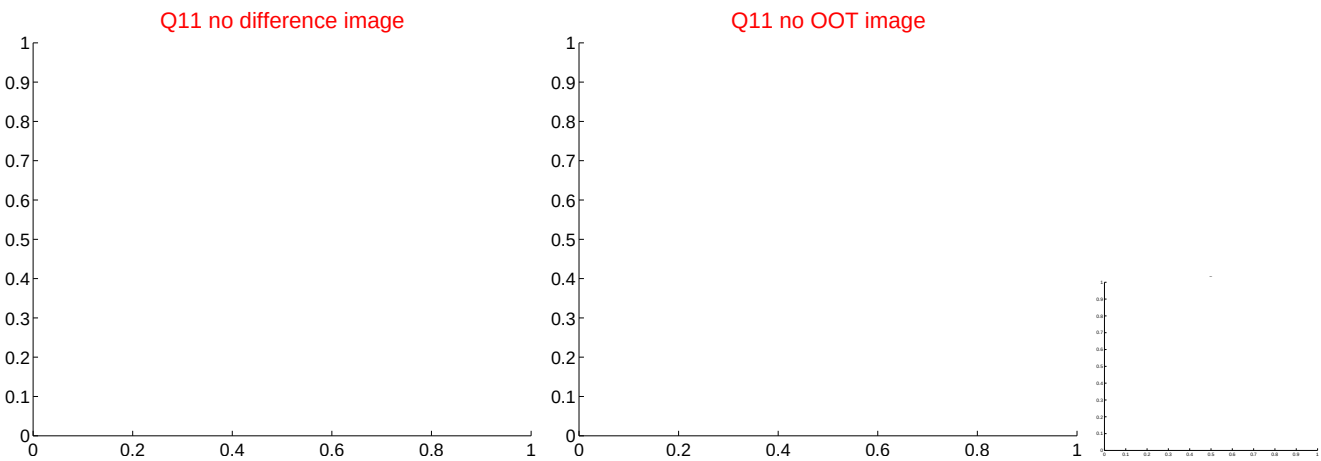
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

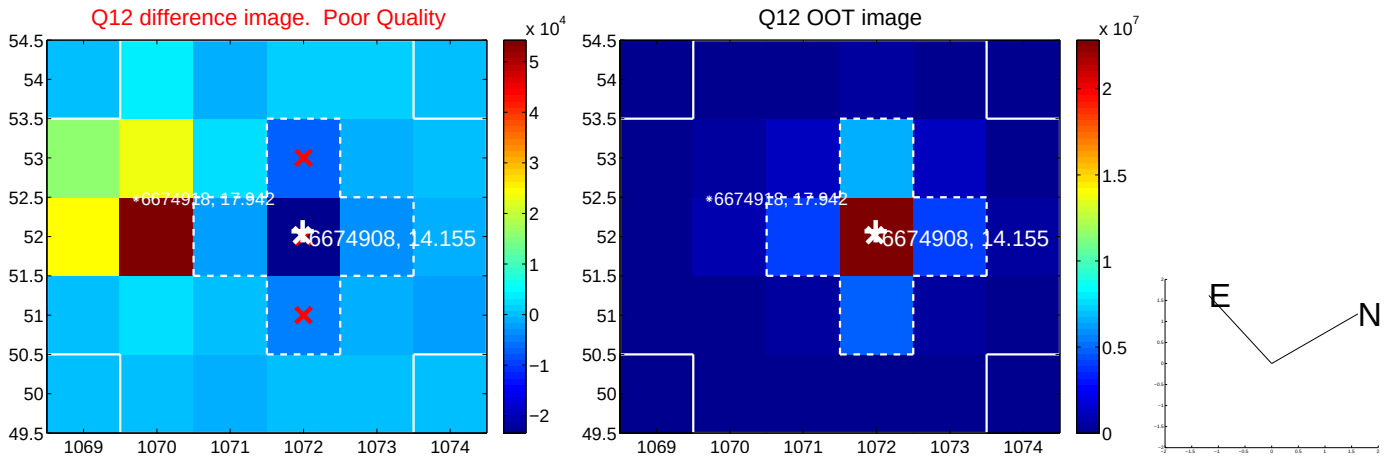


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

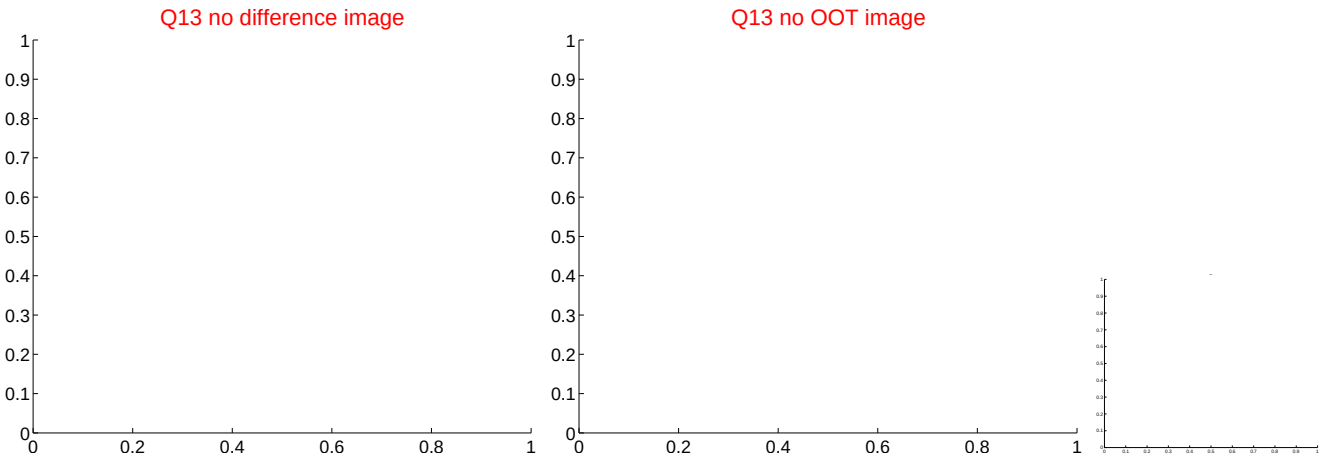


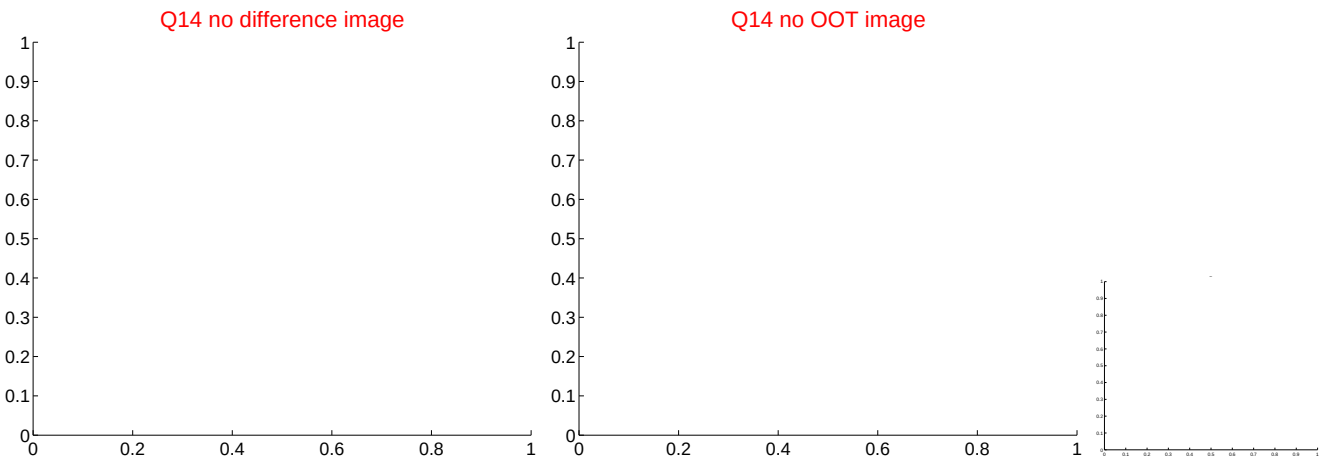


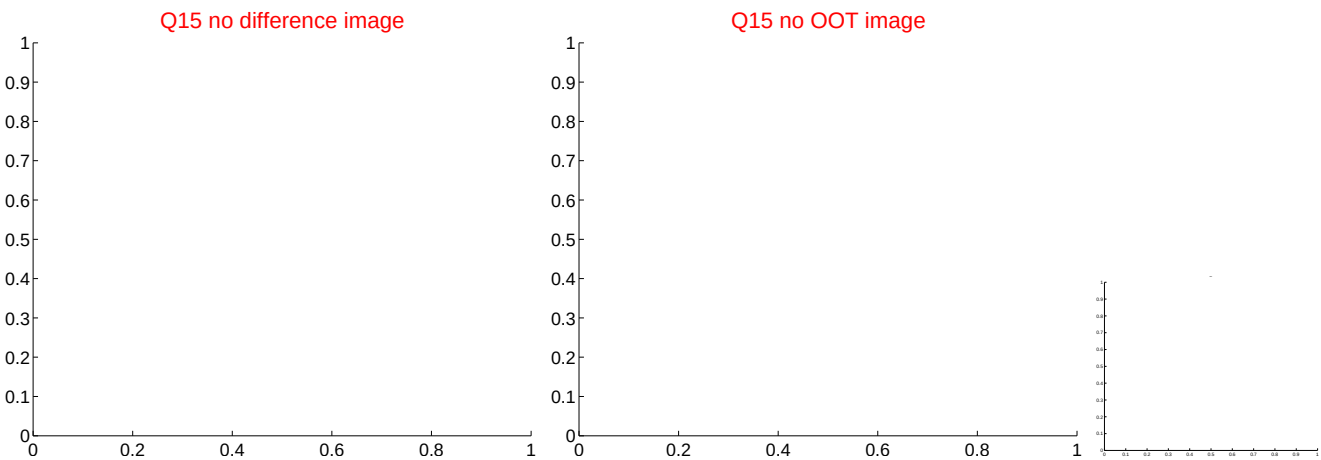


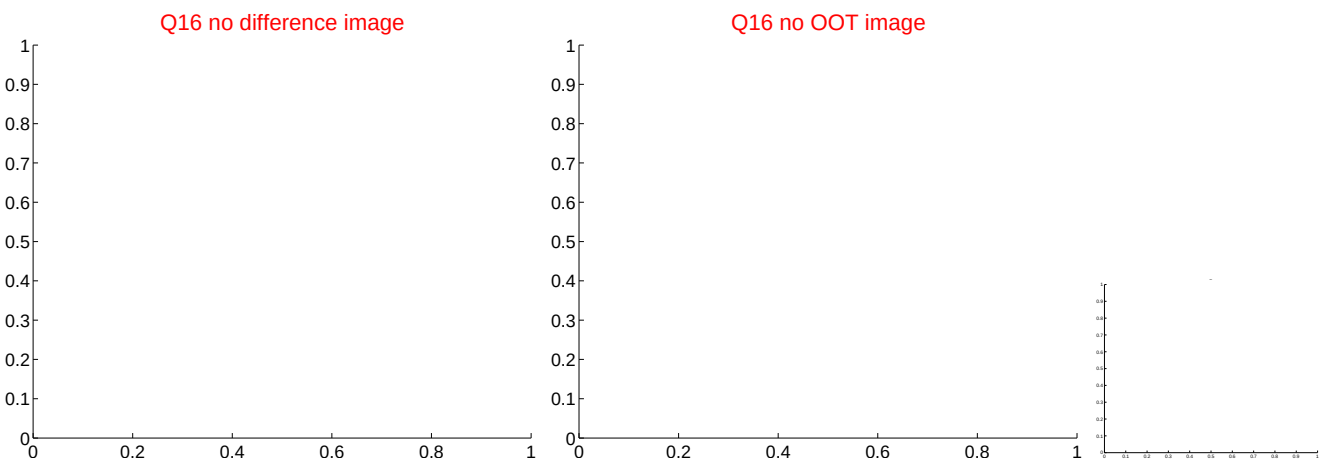


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

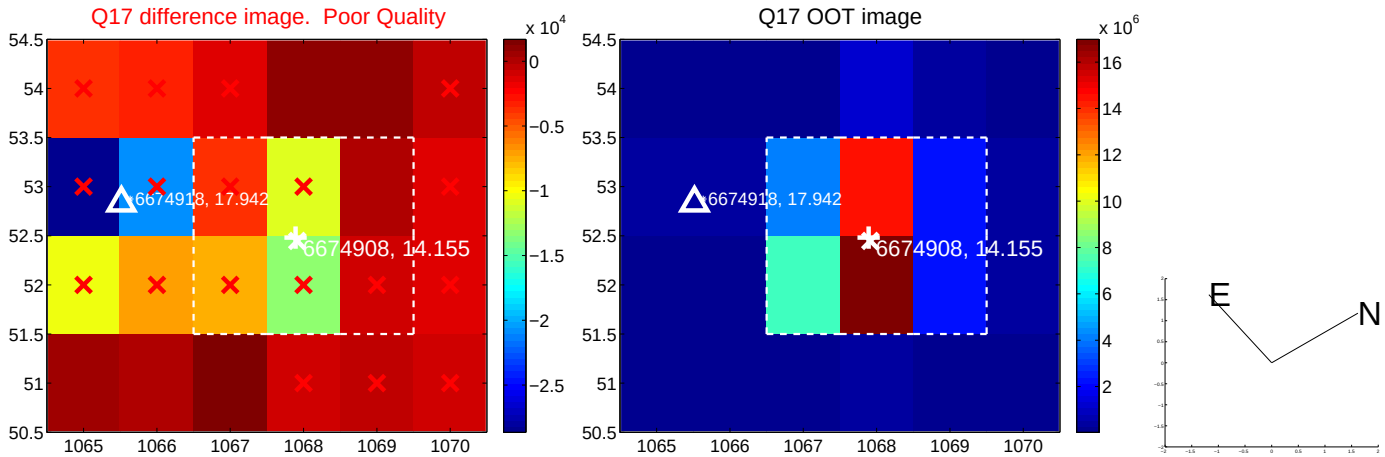


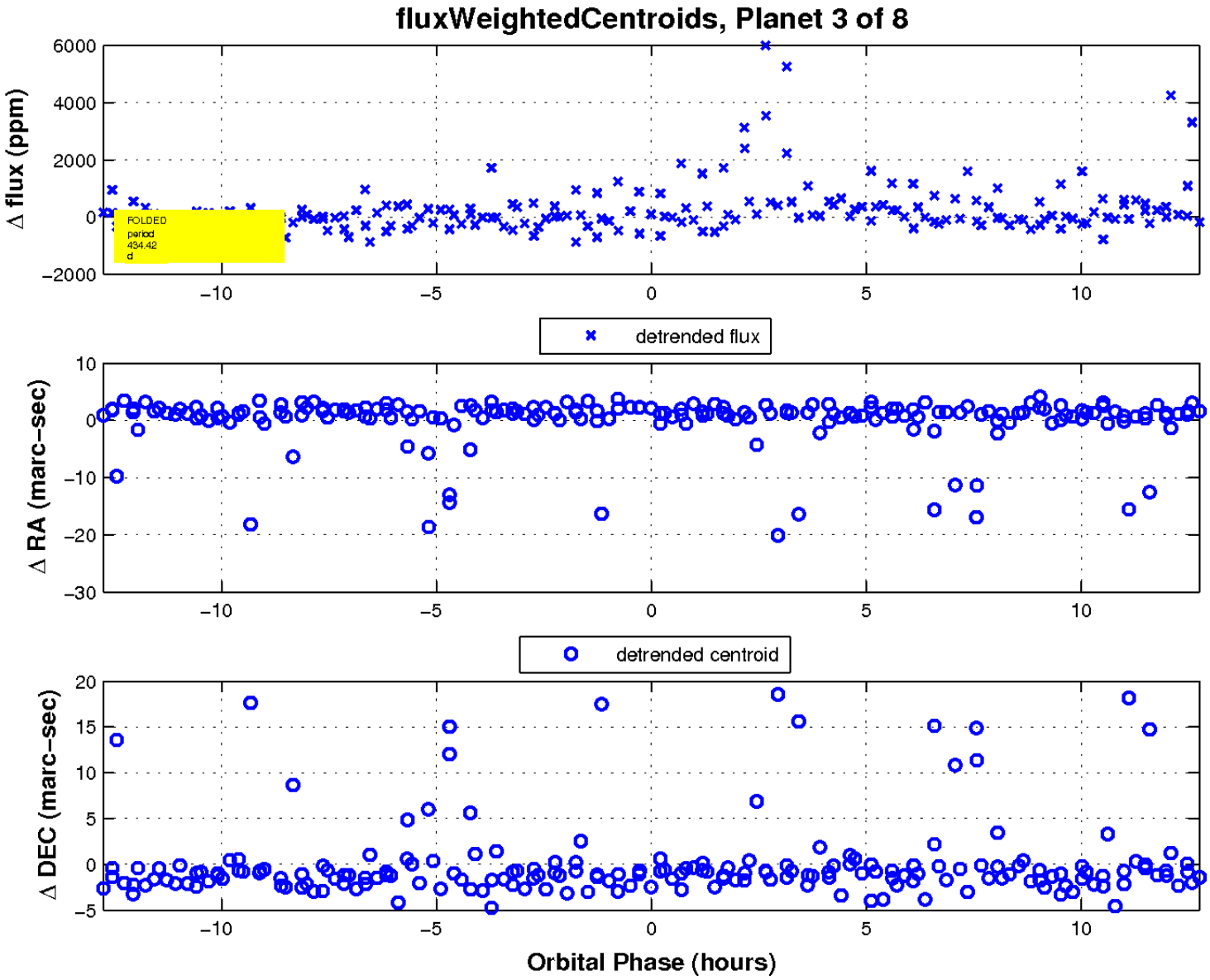




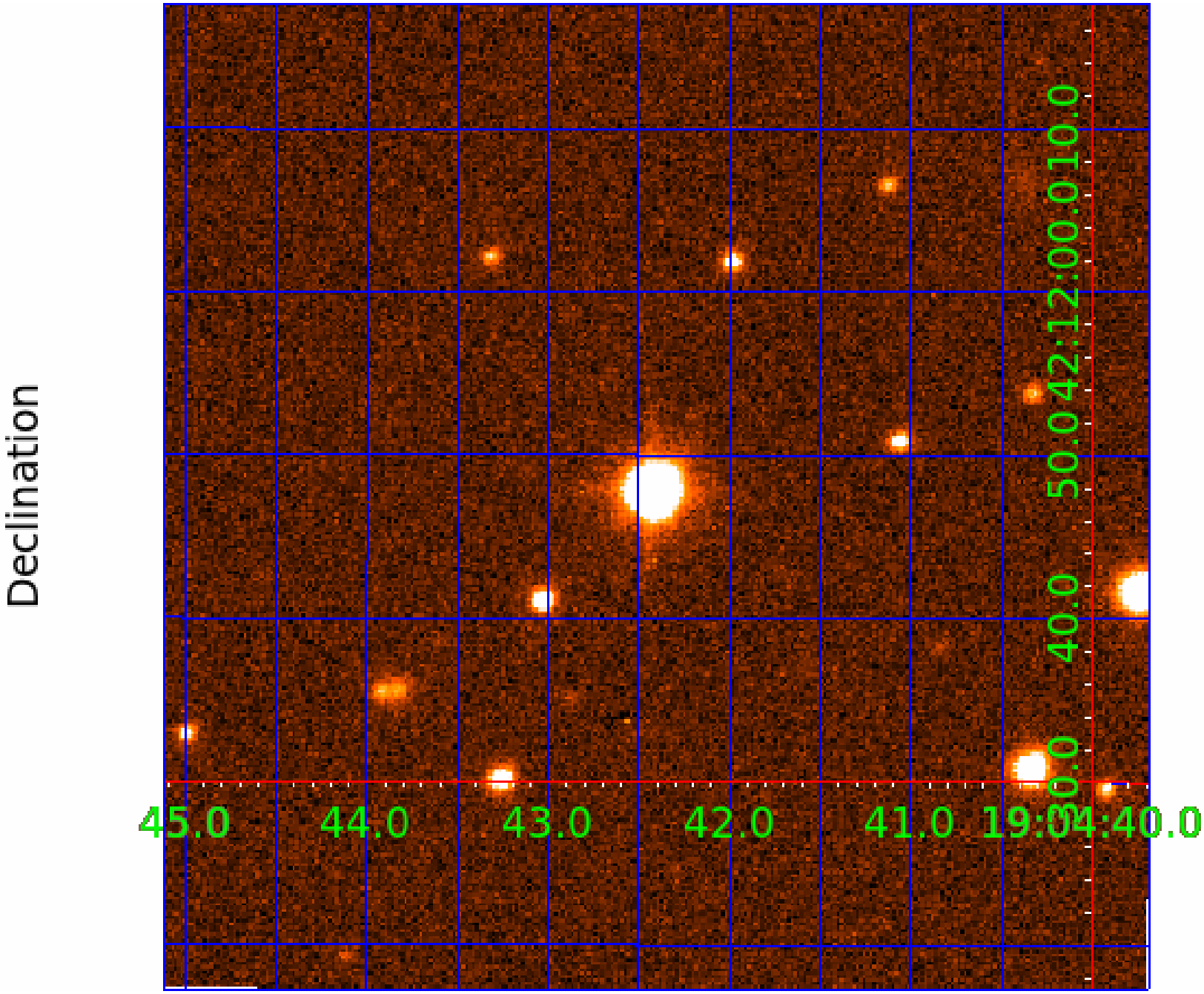


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image


Declination
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10.0

KIC 006674908

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 ($S_\oplus$)
006674908-01	OBS	6149.01	0.503200	131.906622	200.4	1.352	36.3	40.1	0.63	4013	1.10	817.86
006674908-02	OBS	No	259.442963	136.112959	728.6	4.491	13.4	6.1	0.63	4013	1.79	0.20
006674908-03	OBS	No	434.424560	272.003836	963.6	4.291	11.5	7.2	0.63	4013	2.10	0.10
006674908-04	OBS	No	422.769045	469.681101	1075.2	4.566	10.7	7.5	0.63	4013	2.40	0.10
006674908-05	OBS	No	527.862270	391.302998	1302.7	8.764	13.1	7.7	0.63	4013	2.69	0.08
006674908-06	OBS	No	272.402936	354.955473	354.5	4.352	8.6	3.0	0.63	4013	1.42	0.18
006674908-07	OBS	No	255.473691	321.569167	1110.4	6.166	9.9	8.3	0.63	4013	2.07	0.20
006674908-08	OBS	No	187.564877	216.768115	723.2	2.416	8.8	5.5	0.63	4013	1.74	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006674908-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
006674908-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS—HALO_GHOST
006674908-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006674908-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

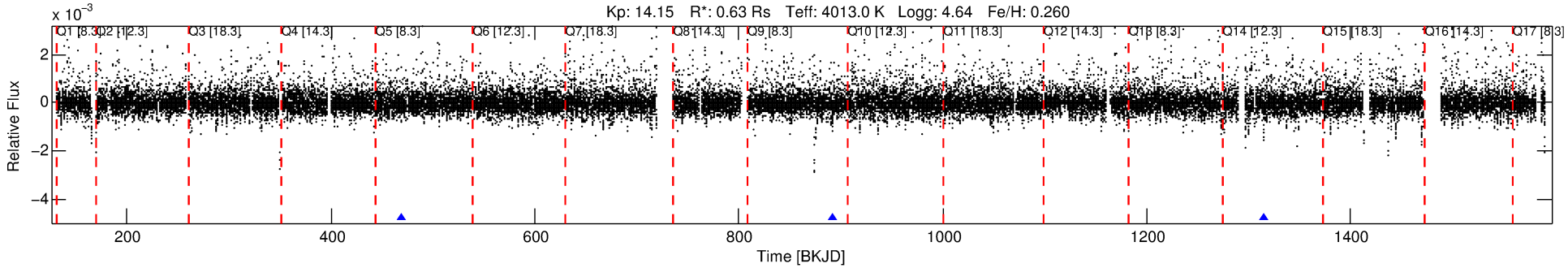
Ephemeris Match Information For 006674908-04

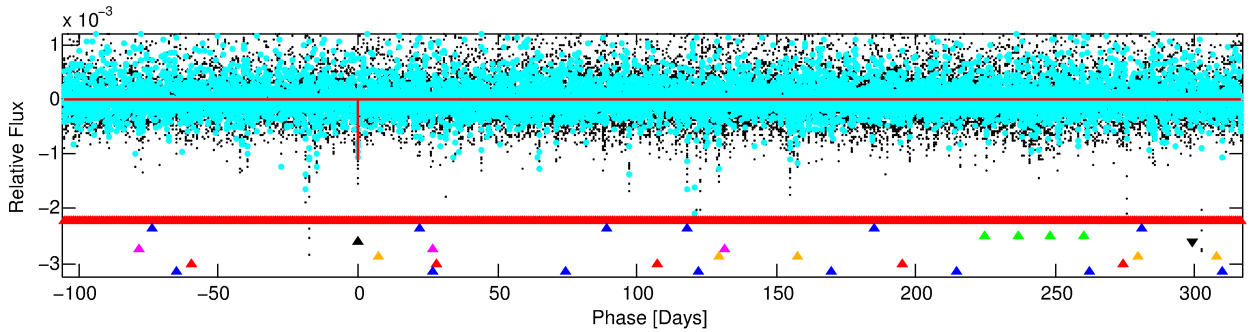
No Significant Match Found

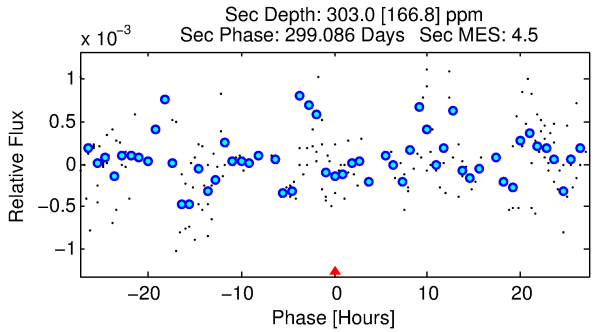
DV One-Page Summary

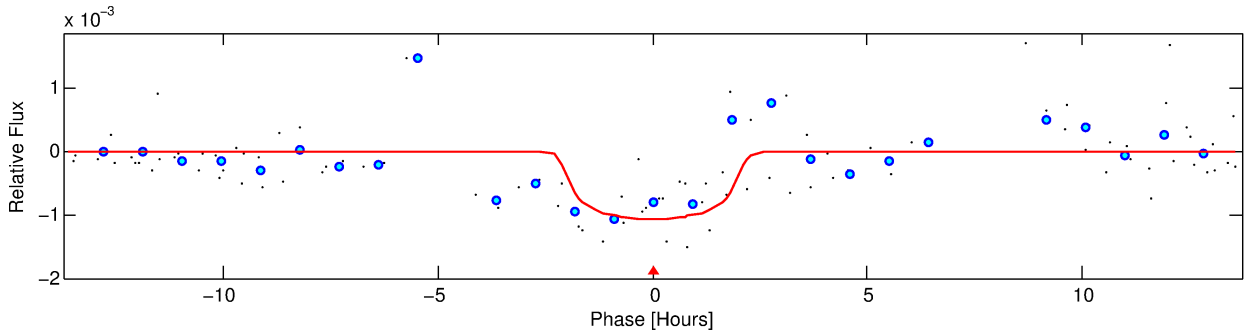
KIC: 6674908 Candidate: 4 of 8 Period: 422.769 d
KOI: K06149 Corr: No Ephemeris Match

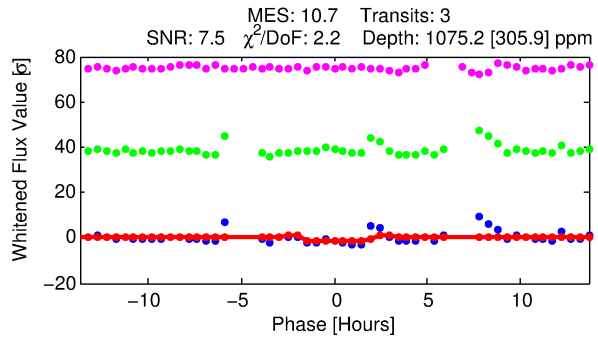
Kp: 14.15 R*: 0.63 Rs Teff: 4013.0 K Logg: 4.64 Fe/H: 0.260

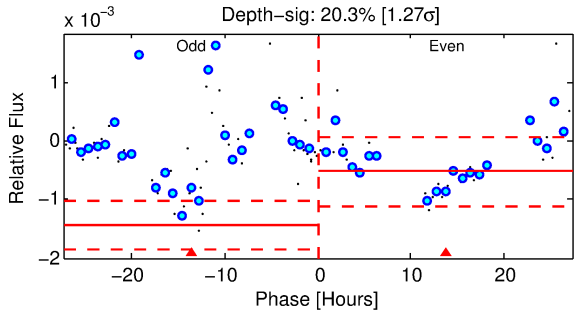


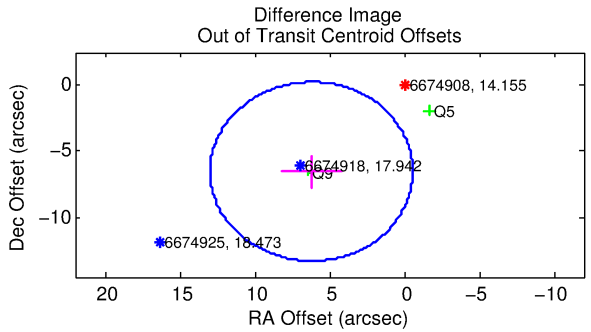












DV Fit Results:

Period = 422.76904 [0.01177] d
Epoch = 469.6811 [0.0174] BKJD
Rp/R* = 0.0349 [0.0152]
a/R* = 423.82 [565.41]
b = 0.84 [0.46]

Seff = 0.10 [0.02]
Teq = 145 [7] K
Rp = 2.40 [1.08] Re
a = 0.9455 [0.0747] AU

Ag = 25888.10 [26872.19] [0.96σ]
Teffp = 2834 [740] K [3.64σ]

DV Diagnostic Results:

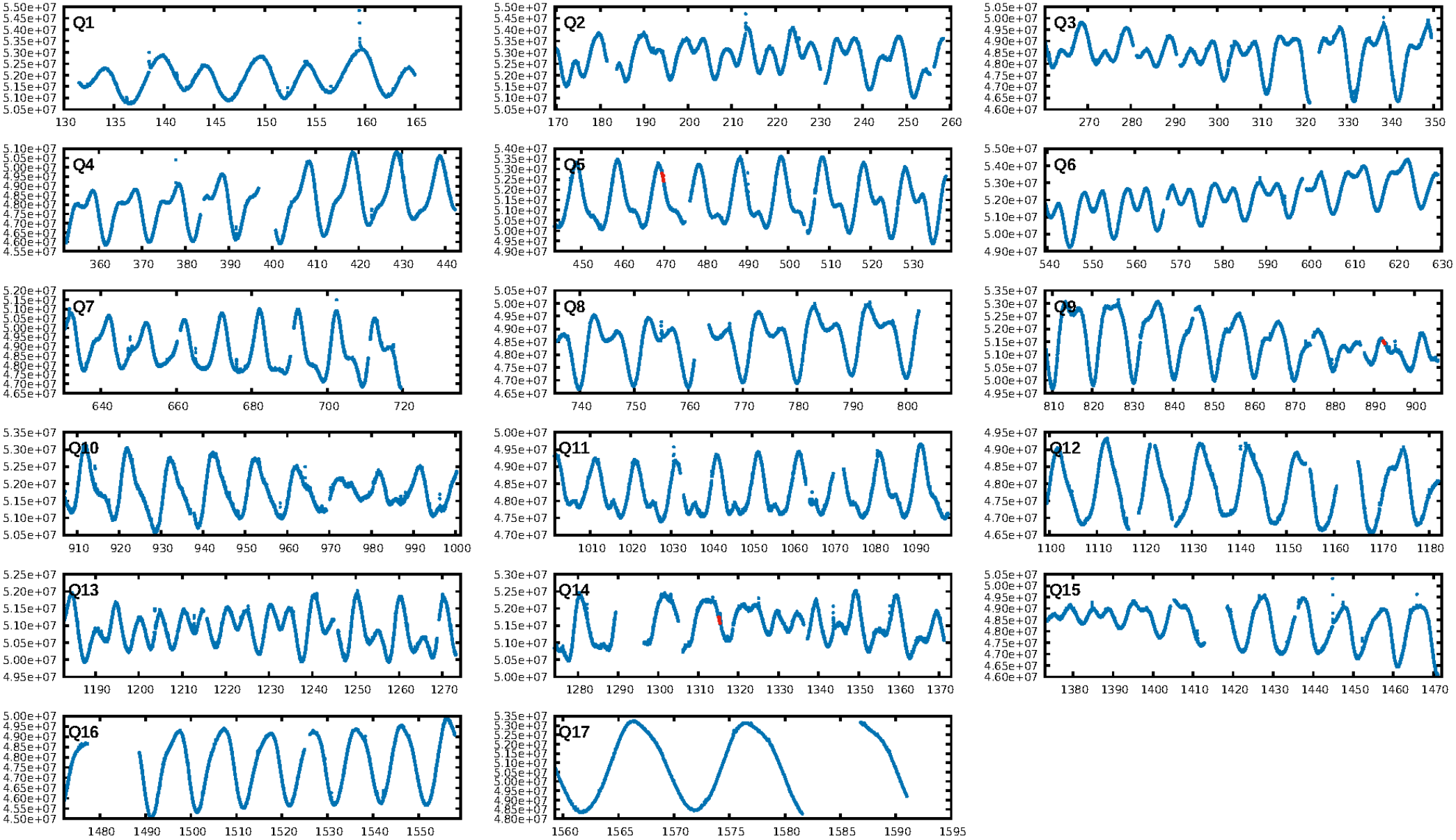
ShortPeriod−sig: 100.0% [572.09σ]
LongPeriod−sig: 100.0% [44.64σ]
ModelChiSquare2−sig: 0.6%
ModelChiSquareGof−sig: 17.8%
Bootstrap−pfa: 2.26e−11
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: 1.435

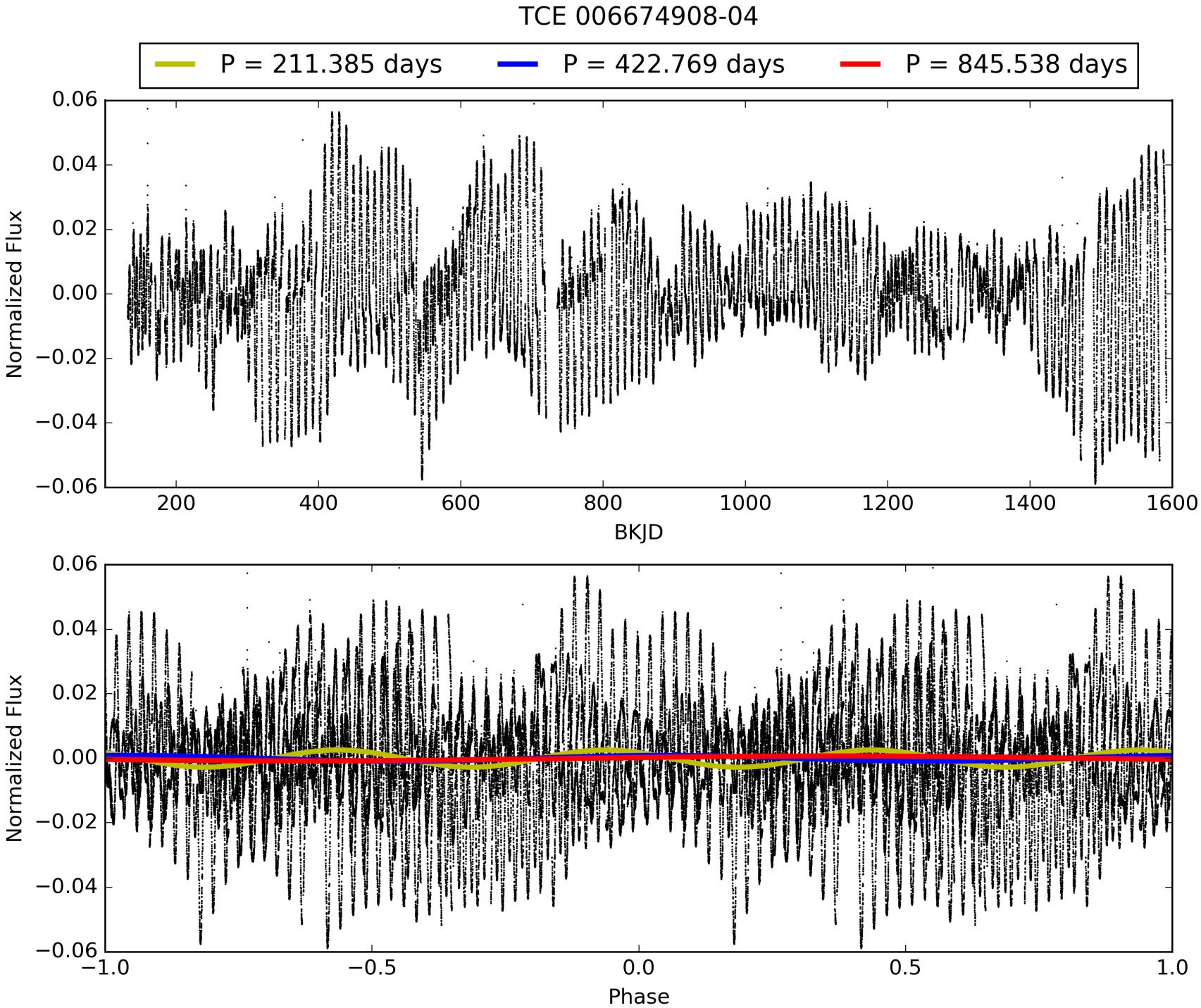
Centroid−sig: N/A
Centroid−so: 1.467 arcsec [2.28σ]
OotOffset−rm: 9.000 arcsec [3.99σ]
KicOffset−rm: 8.873 arcsec [3.99σ]
OotOffset−st: 0/0/0/2 [2]
KicOffset−st: 0/0/0/2 [2]
DiffImageQuality−fgm: 0.00 [0/2]
DiffImageOverlap−fno: 0.00 [0/3]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 03:30:11 Z

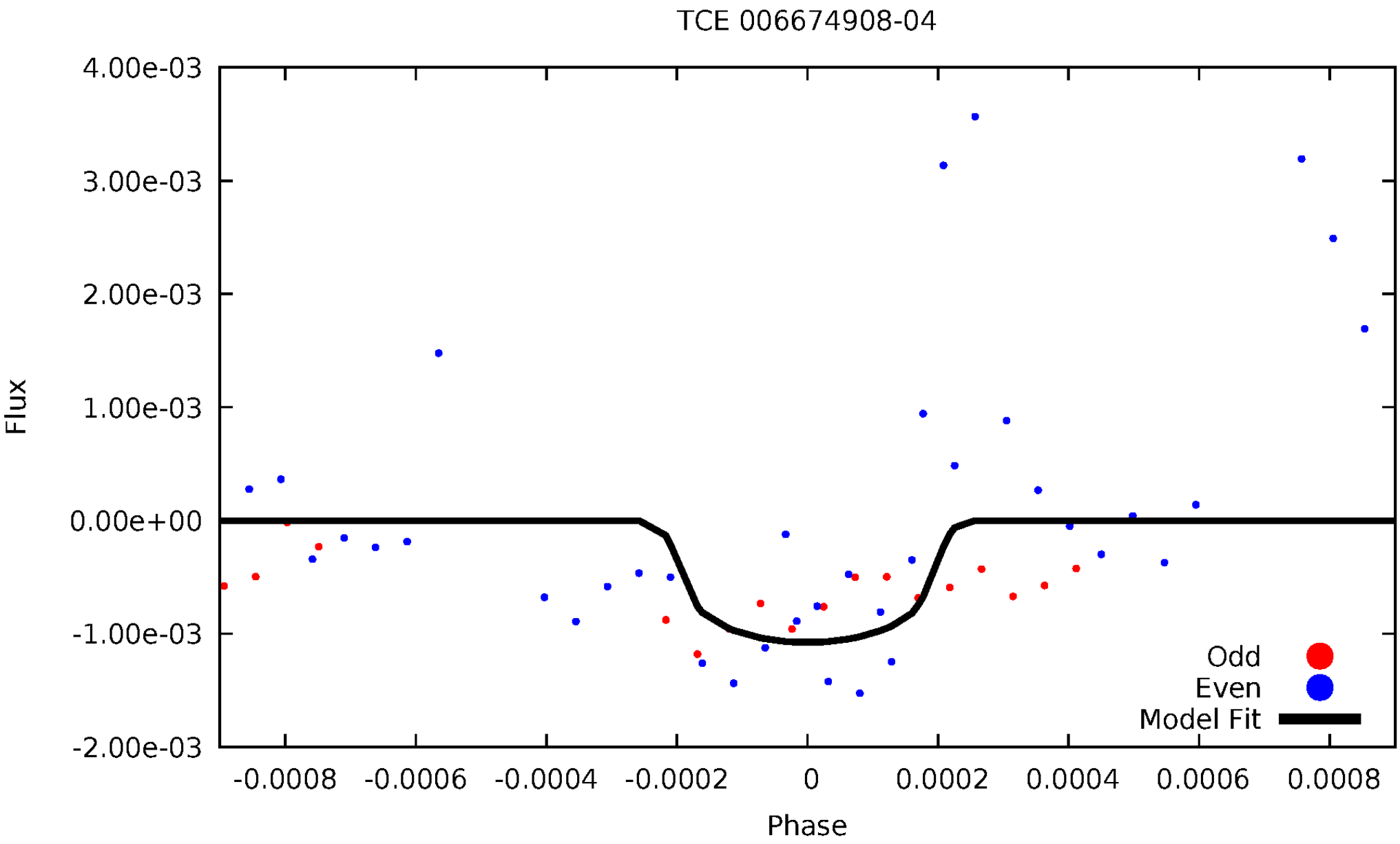
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006674908-04, PDC Light Curves




TCE 006674908-04
P = 211.385 days
P = 422.769 days
P = 845.538 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even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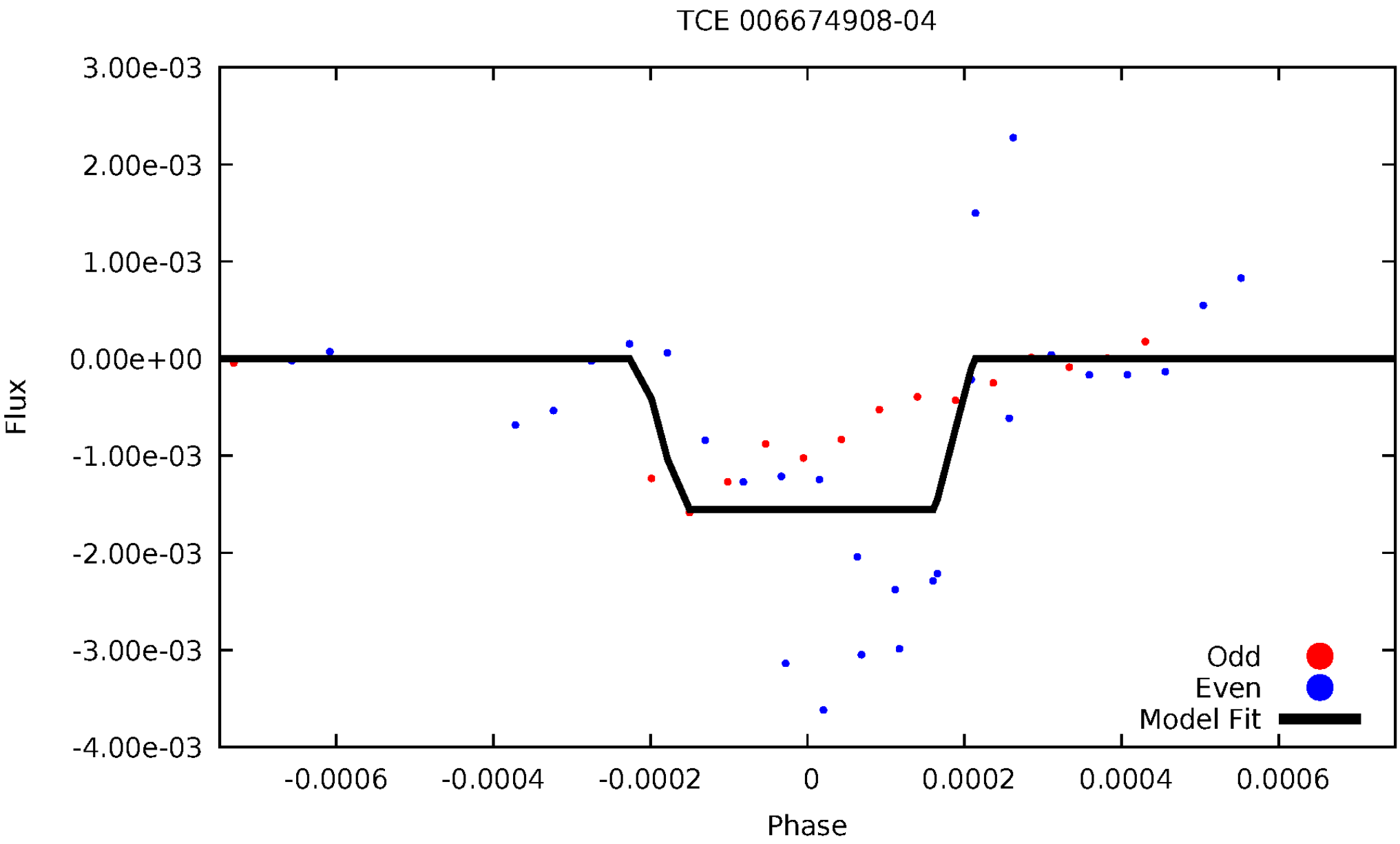
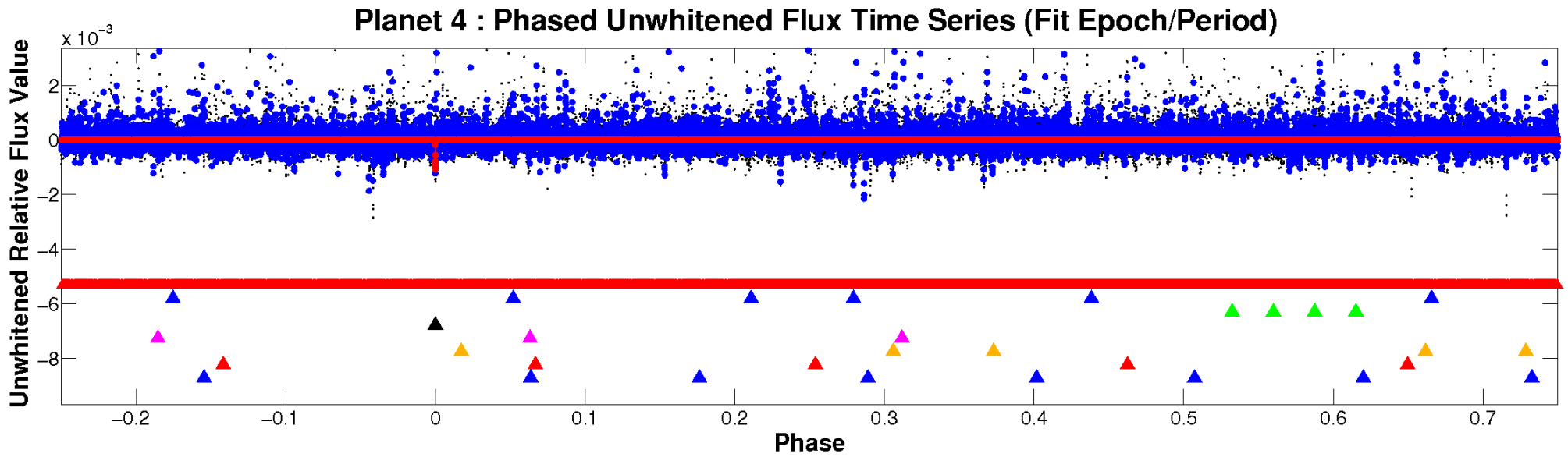
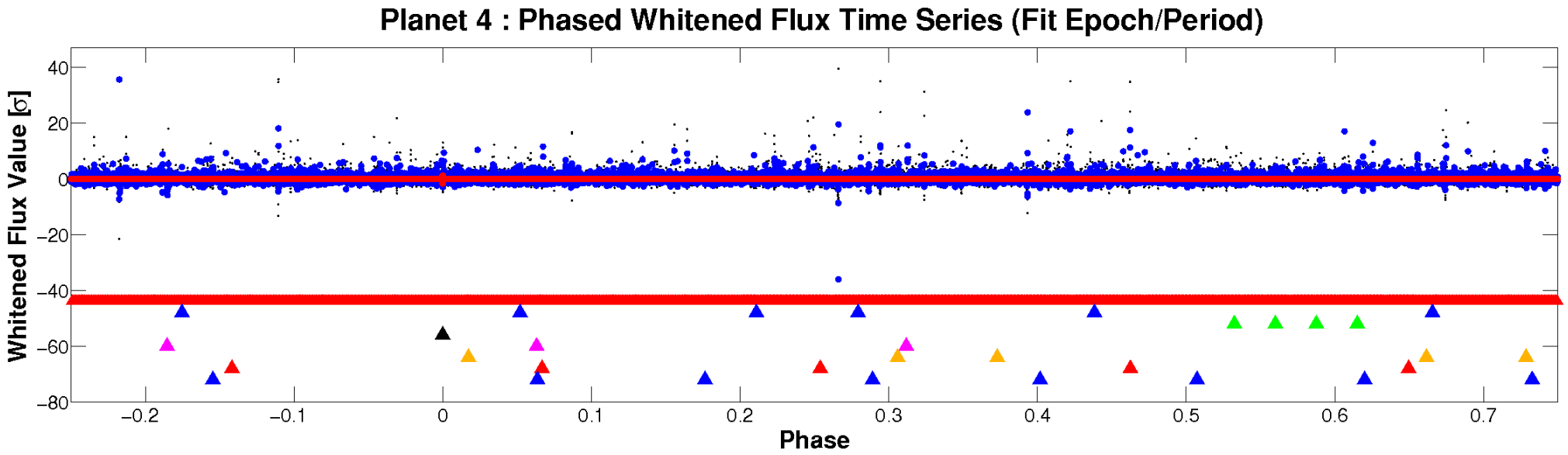
4.00e-03
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
Flux
-0.0008
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
0.0008
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006674908-04
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
Flux
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
Phase
Odd
Even
Model Fit

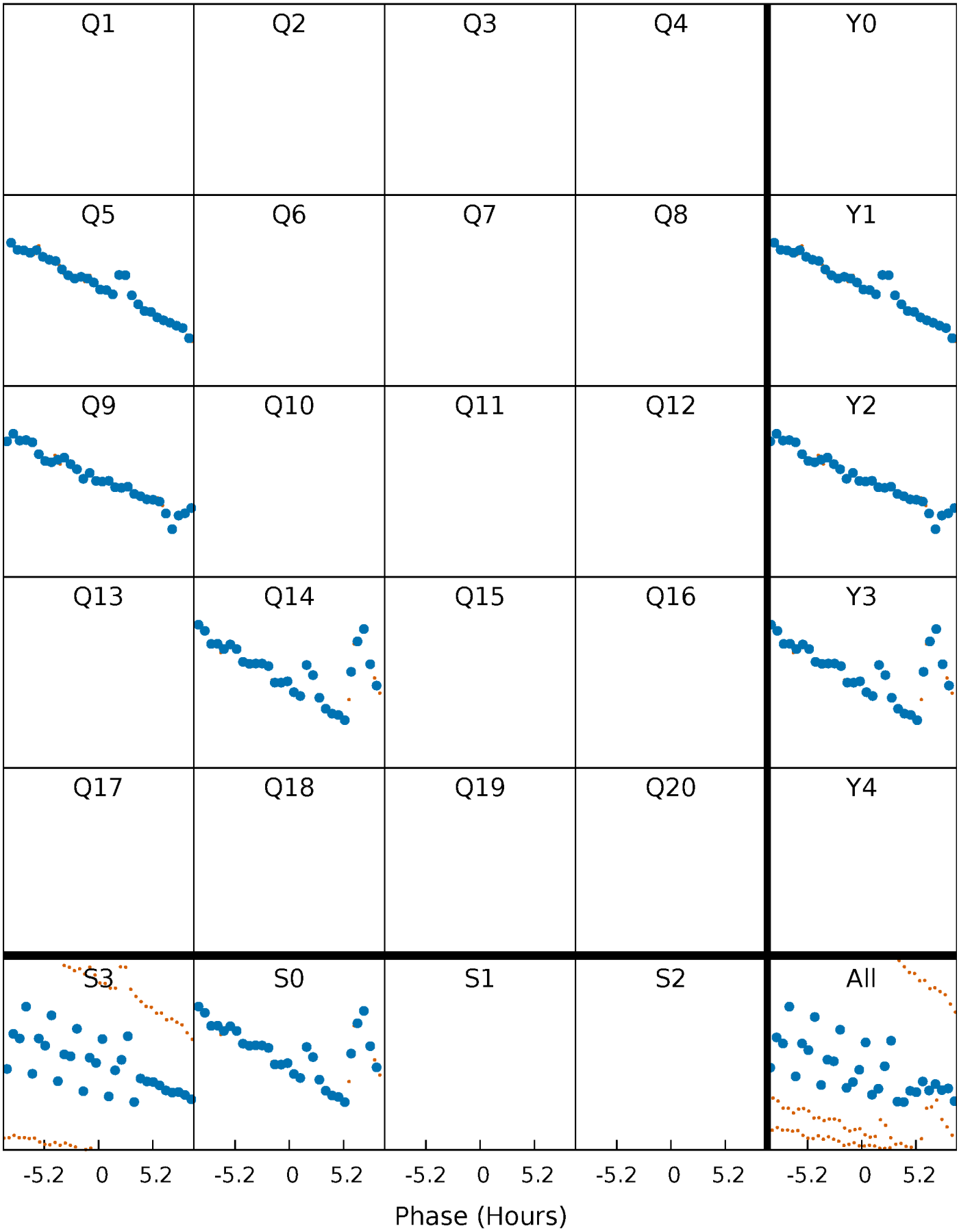
Non-Whitened Vs. Whitened Light Curve





PDC Quarter-Phased Transit Curves

TCE 006674908-04 P=422.769045 Days T_0=469.681101 (BKJD)



DV Quarter-Phased Transit Curves

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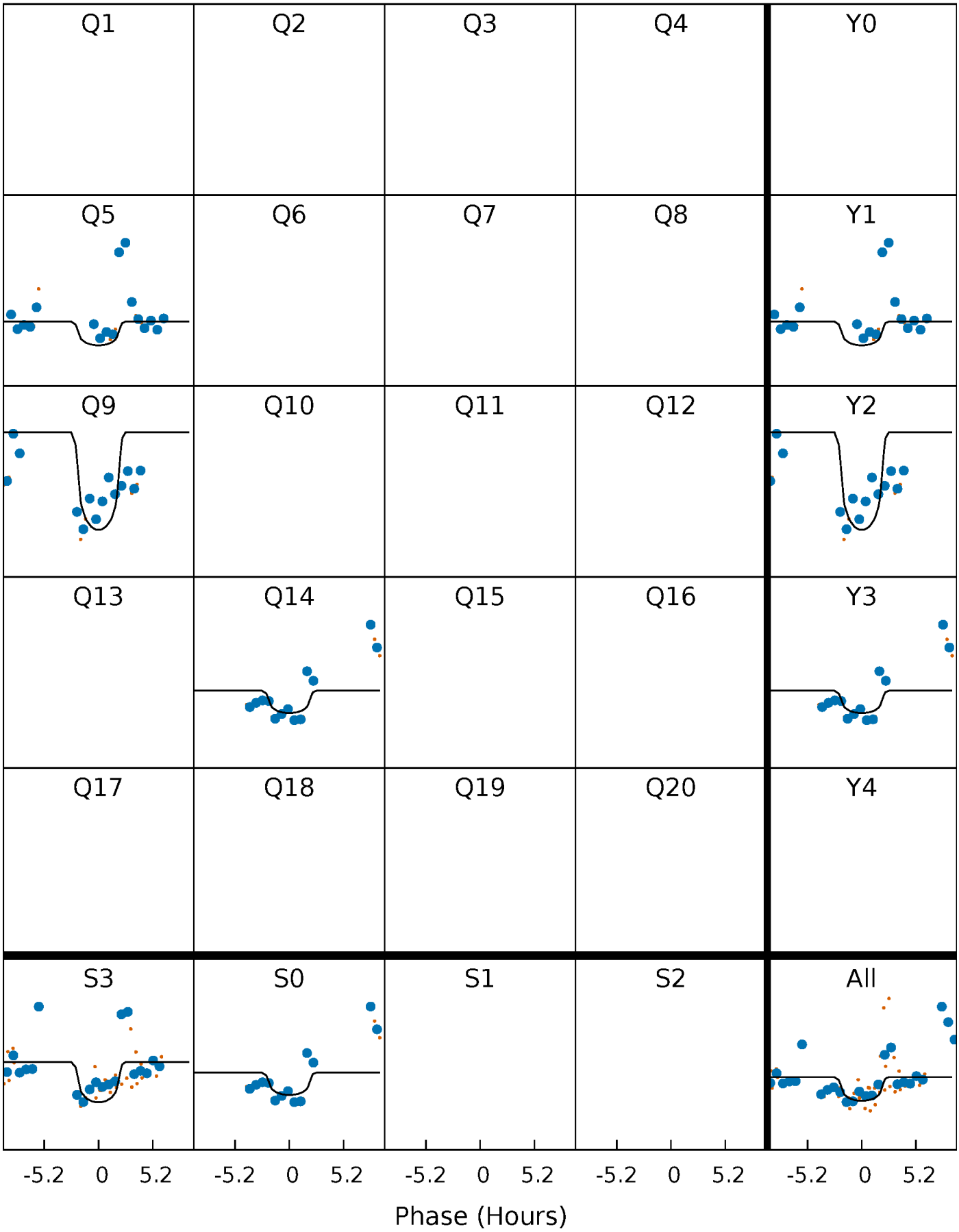
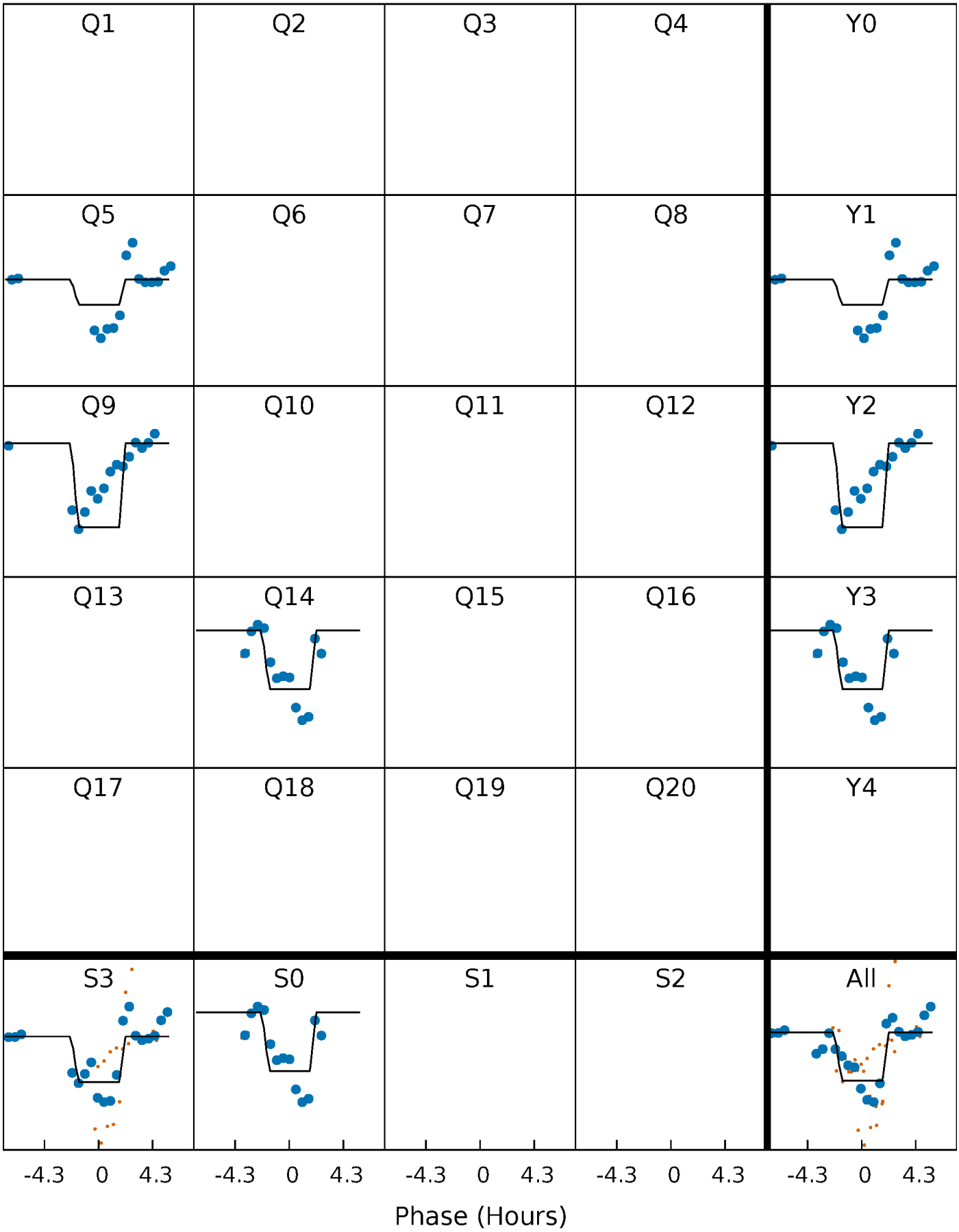


Alt. Detrend Quarter-Phased Transit Curves

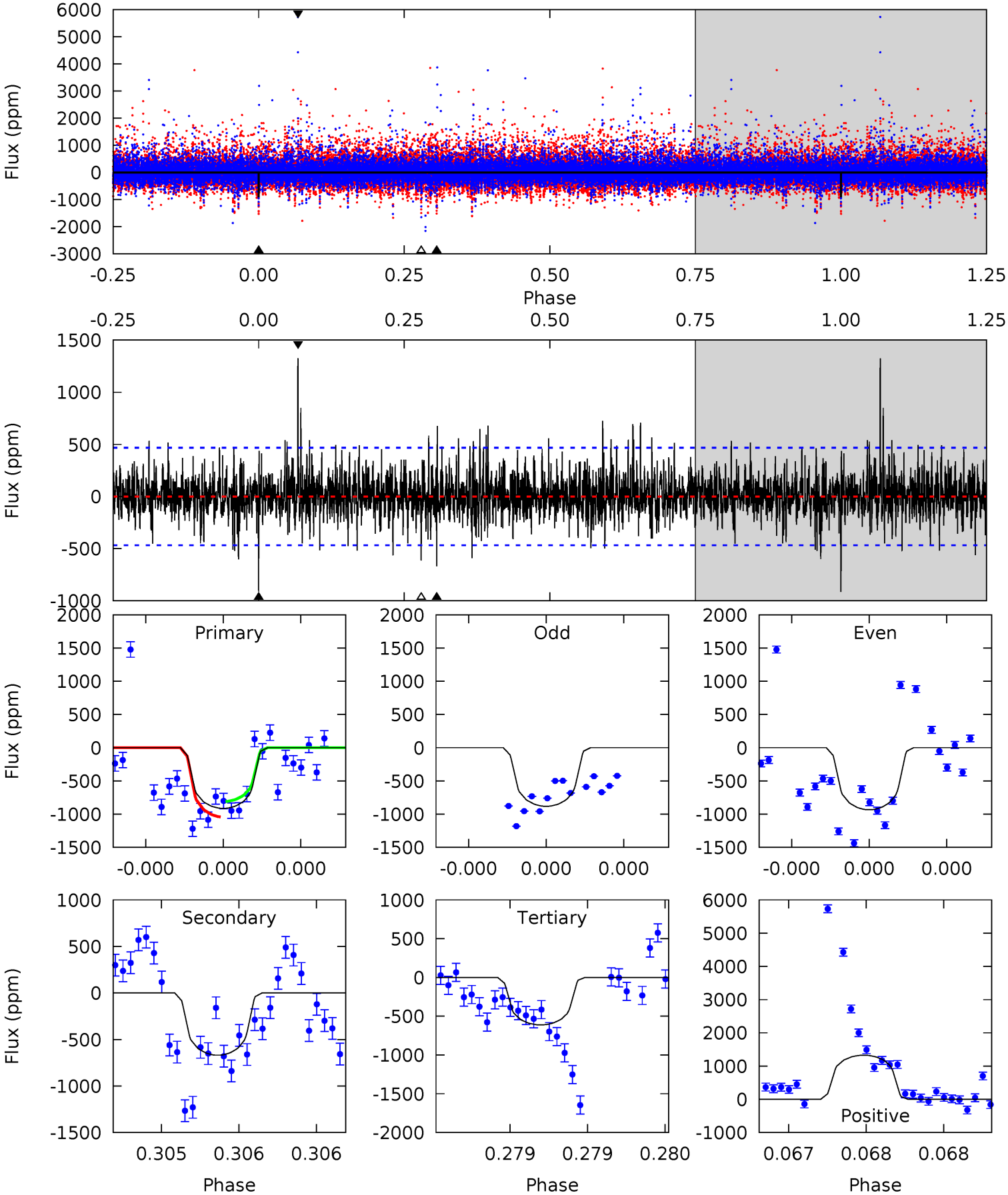
TCE 006674908-04 P=422.763545 Days T_0=469.678812 (BKJD)



DV Model-Shift Uniqueness Test

006674908-04, P = 422.769045 Days, E = 46.912056 Days

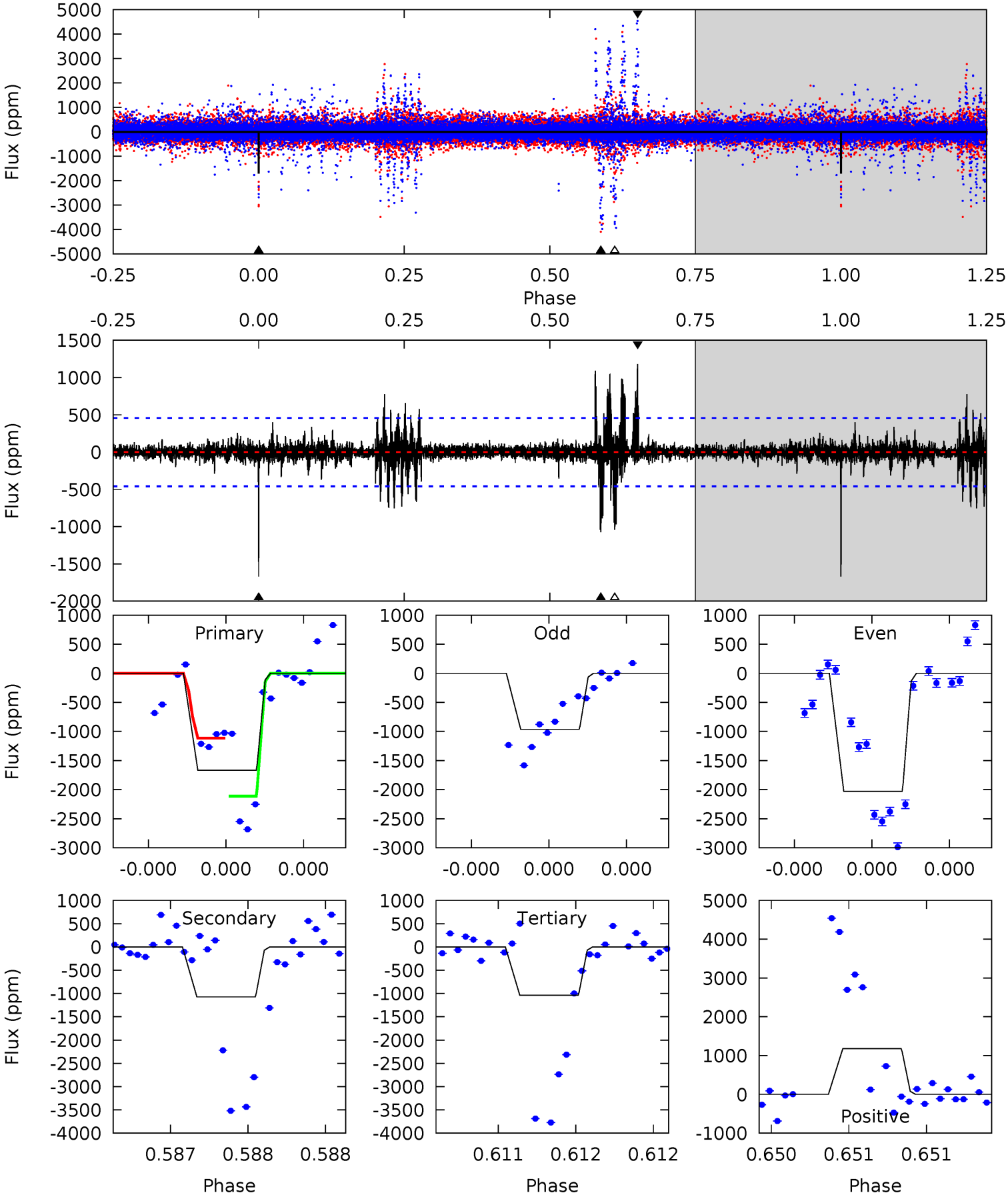
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	7.98	7.29	15.8	5.59	3.50	1.86	3.60	-4.91	0.68	-7.83	0.26	0.93	0.59	1.37



Alt Model-Shift Uniqueness Test

006674908-04, P = 422.763545 Days, E = 46.915267 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.4	13.1	12.7	14.4	5.61	3.53	1.53	7.68	5.98	0.42	-1.29	5.38	1.22	0.41	6.16



Stellar Parameters For KIC 006674908

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	4013^{+140}_{-154}	$4.639^{+0.053}_{-0.021}$	$0.260^{+0.200}_{-0.300}$	$0.630^{+0.029}_{-0.064}$	$0.630^{+0.042}_{-0.061}$	$3.552^{+0.893}_{-0.273}$
	+3%/-4%	+1%/-0%	+77%/-115%	+5%/-10%	+7%/-10%	+25%/-8%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006674908-04 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-668±84	$2.37^{+1.05}_{-0.99}$	201^{+8}_{-9}	3624^{+771}_{-421}	$58415^{+115346}_{-30489}$
Alt.	-1074±82	$2.78^{+0.94}_{-1.12}$	201^{+7}_{-8}	3738^{+733}_{-382}	$69835^{+124599}_{-31270}$

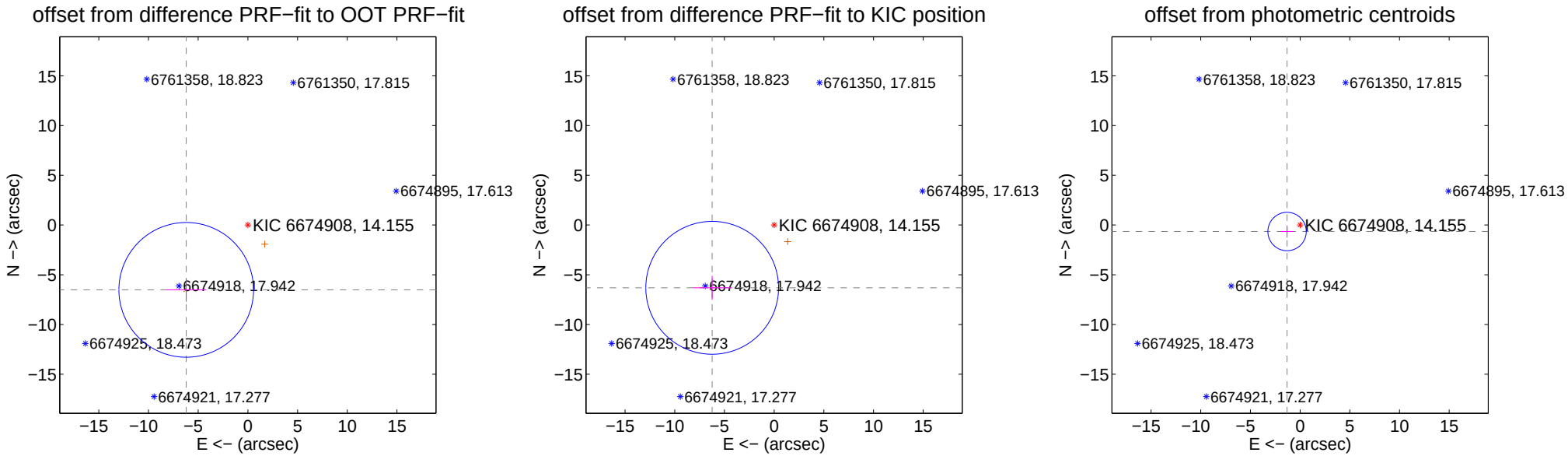
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

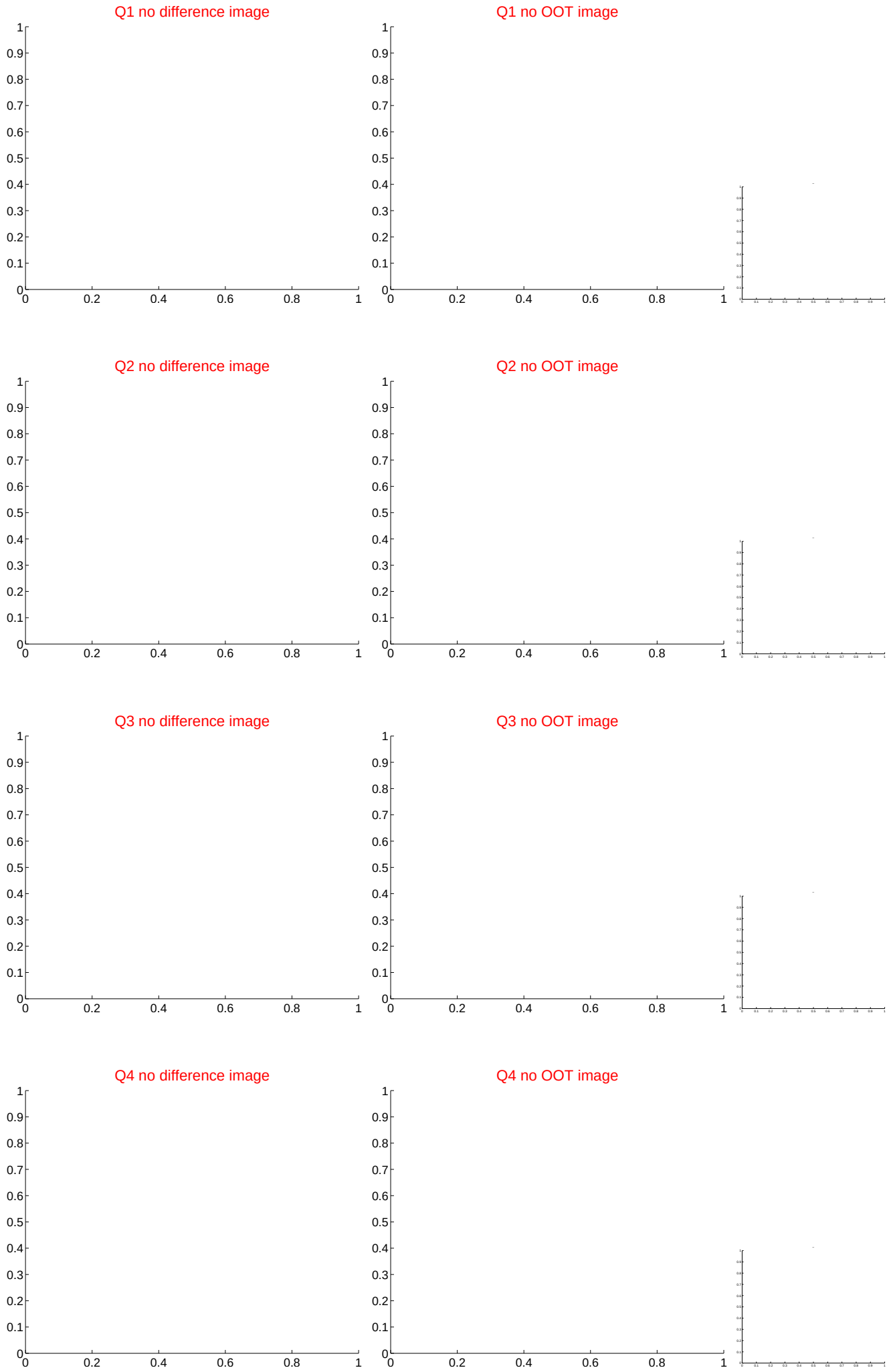
Supplemental centroid analysis for 006674908-04. Kepler magnitude: 14.15. Transit SNR 7.52
There are 0 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.000 ± 2.258	3.99	6.204 ± 2.027	-6.519 ± 1.190
PRF-fit source offset from KIC position	8.873 ± 2.226	3.99	6.235 ± 1.951	-6.313 ± 1.203
photometric centroid source offset	1.47 ± 0.64	2.28	1.31 ± 0.65	-0.65 ± 0.61

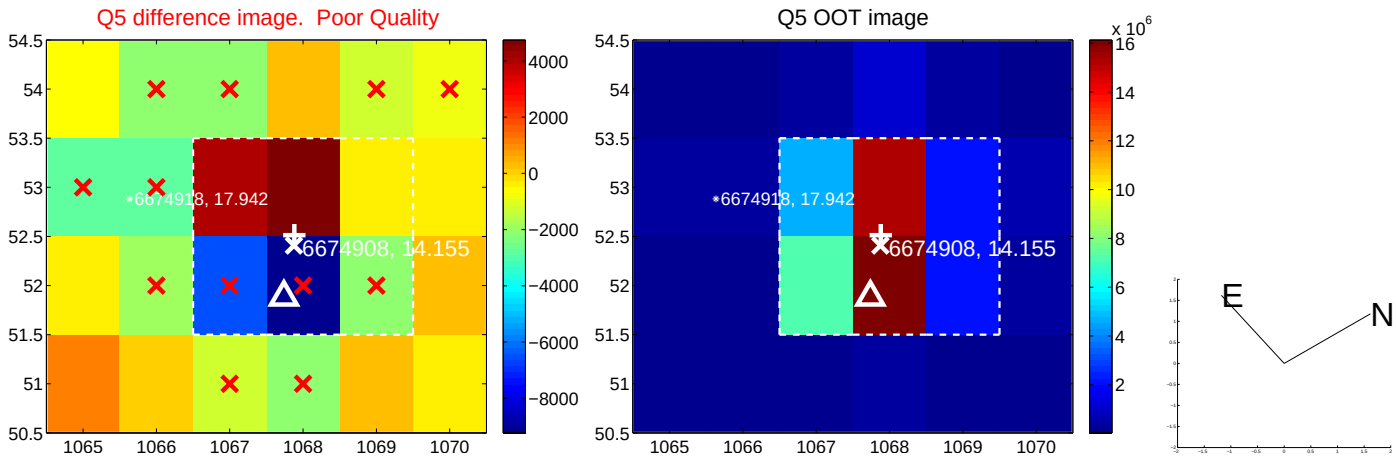


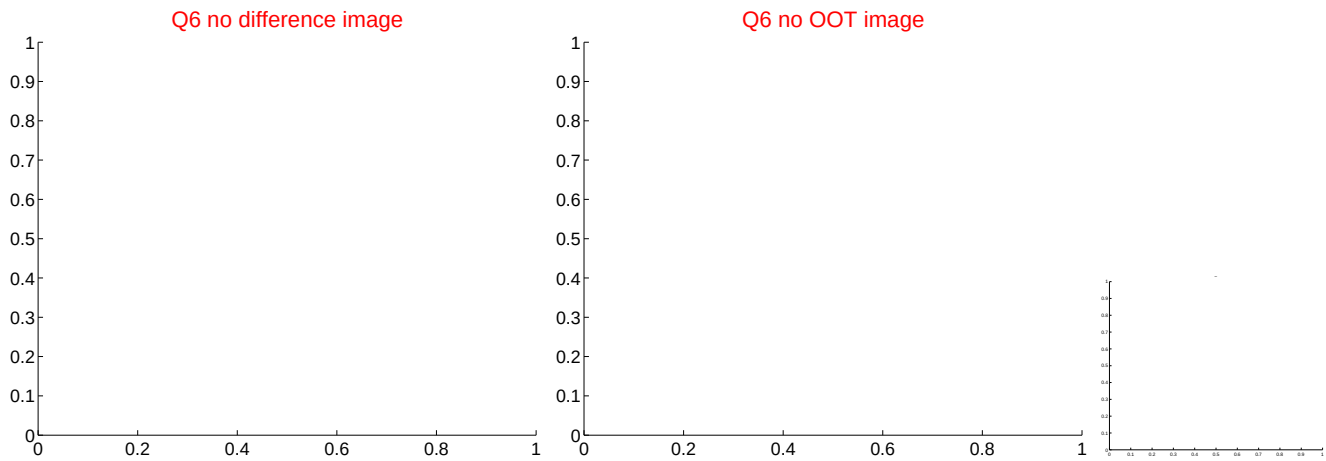
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

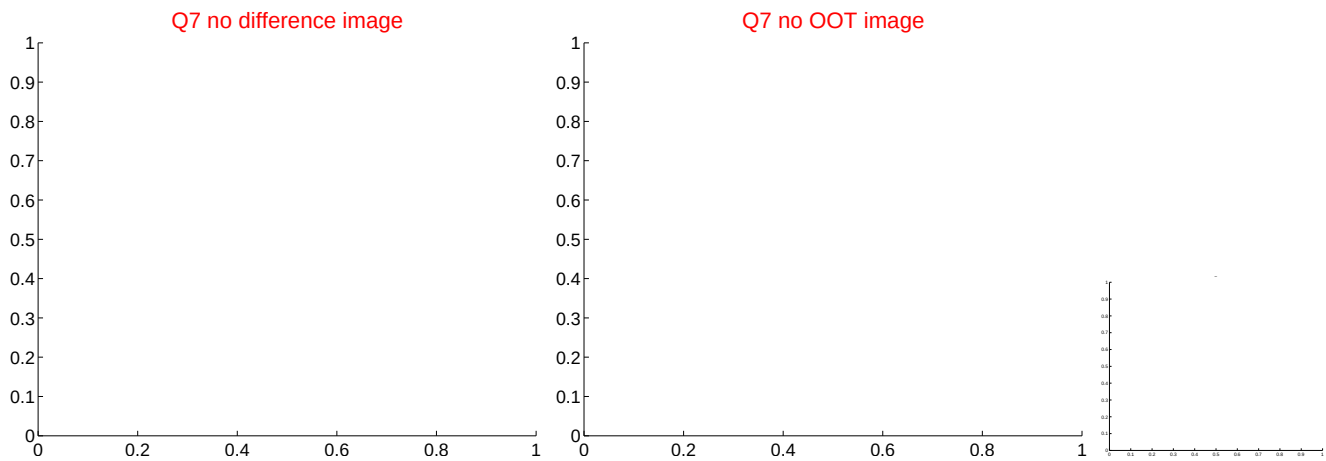
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

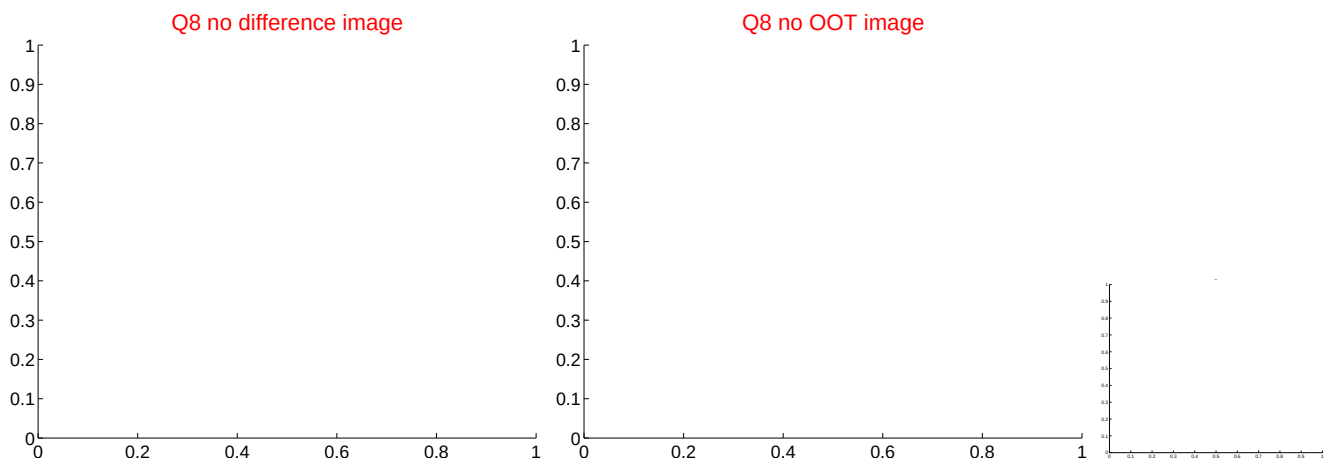


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

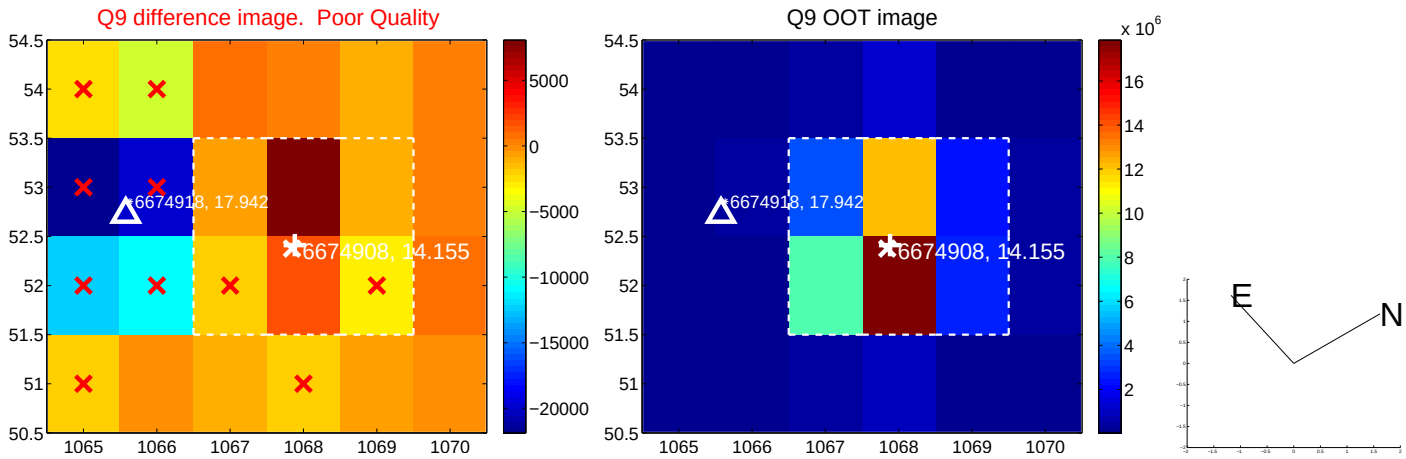


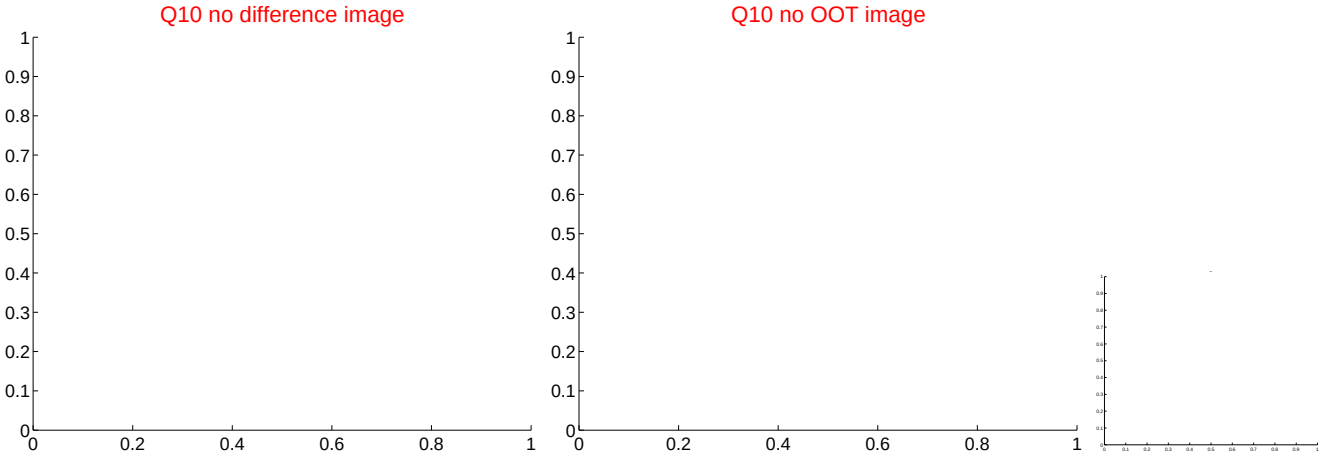


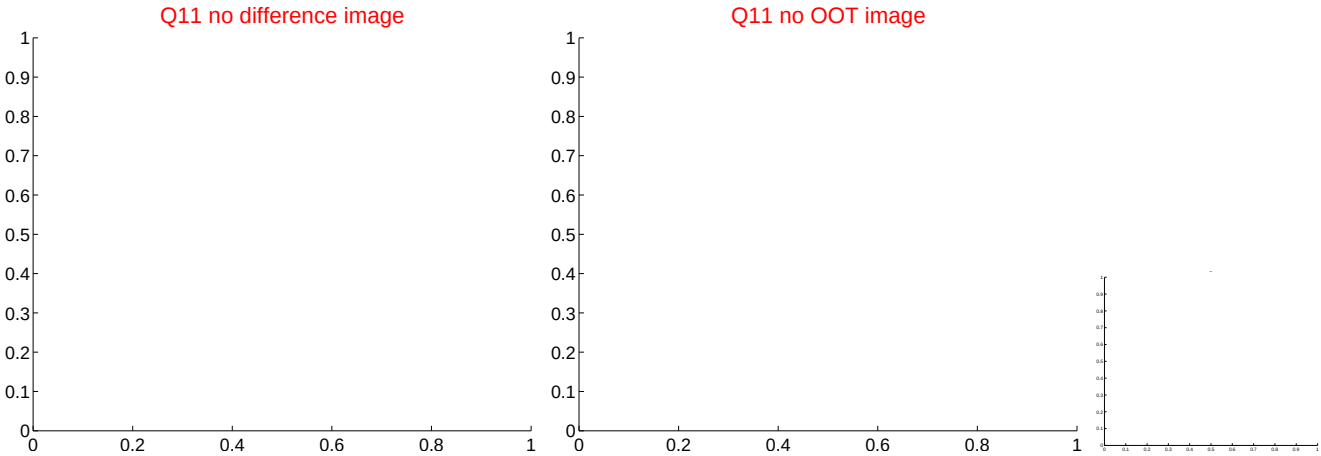


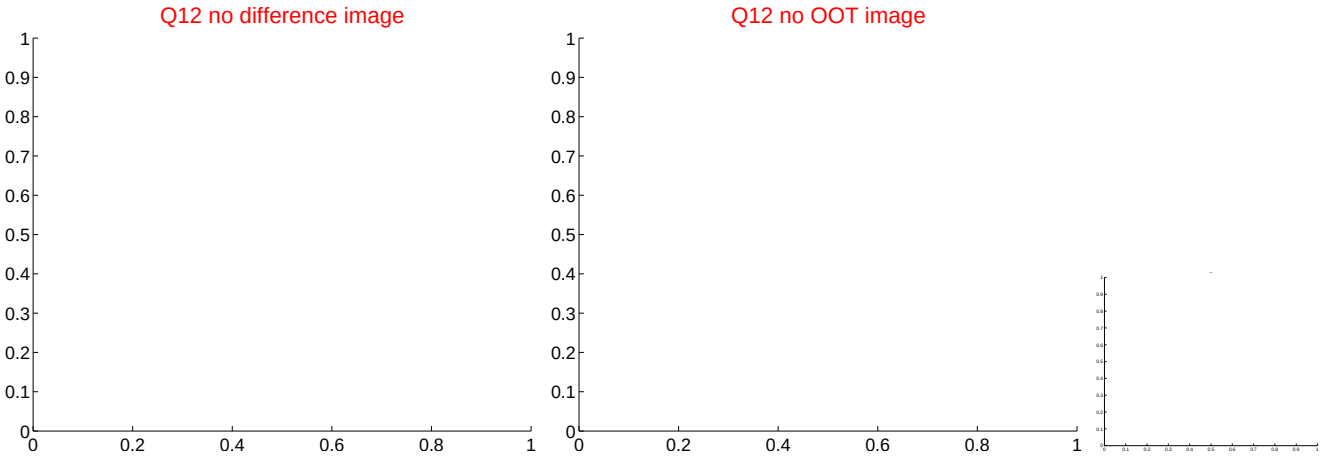


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

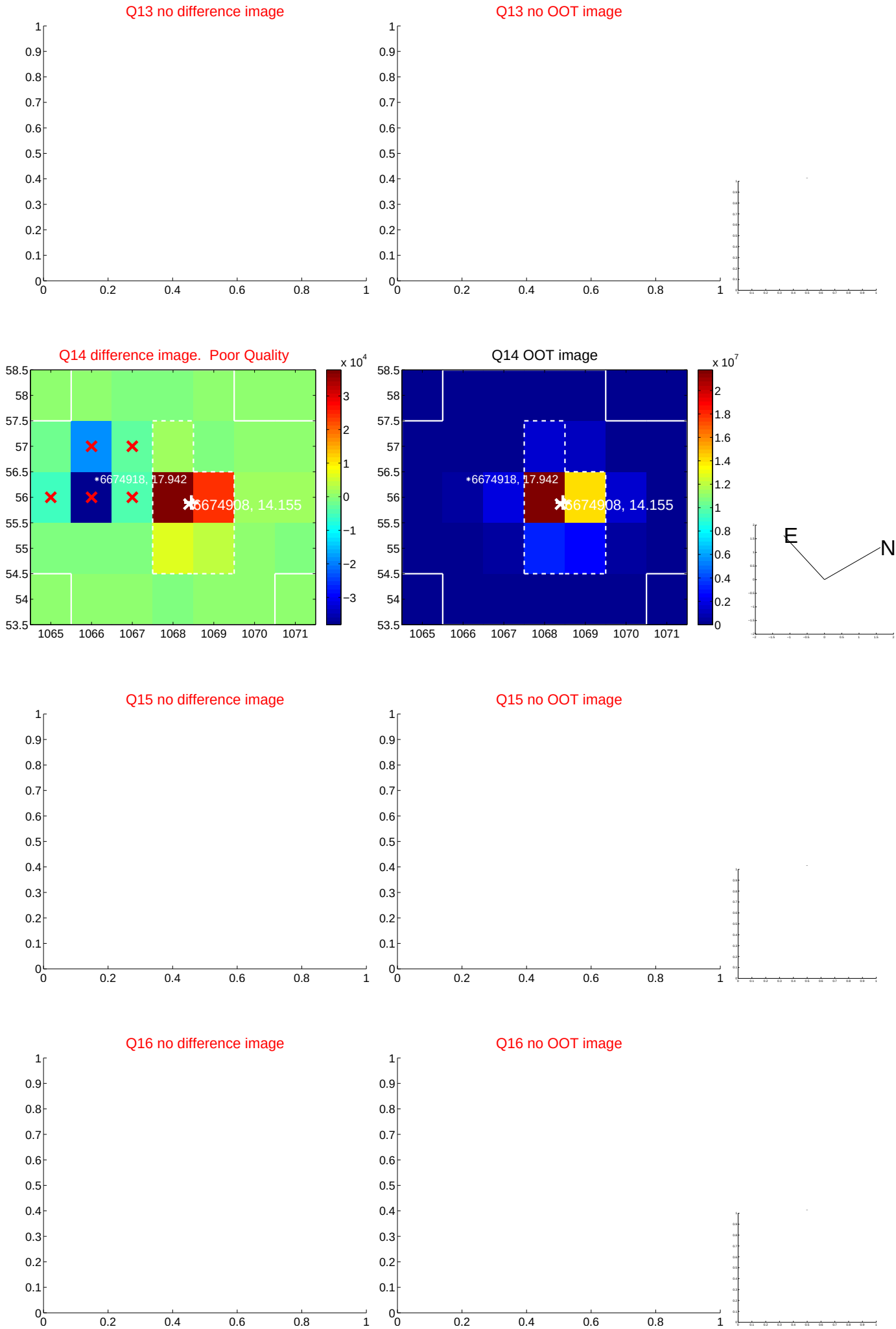




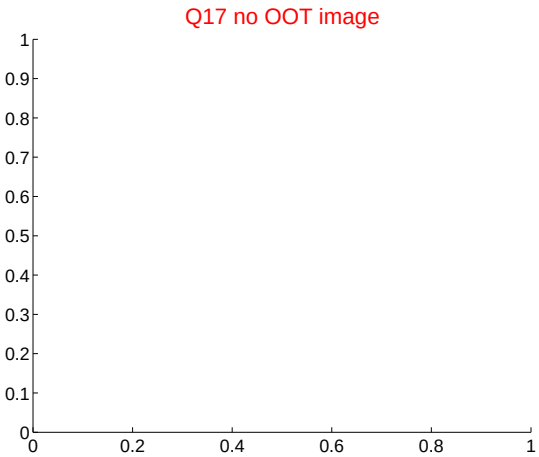


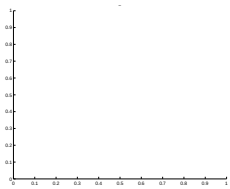


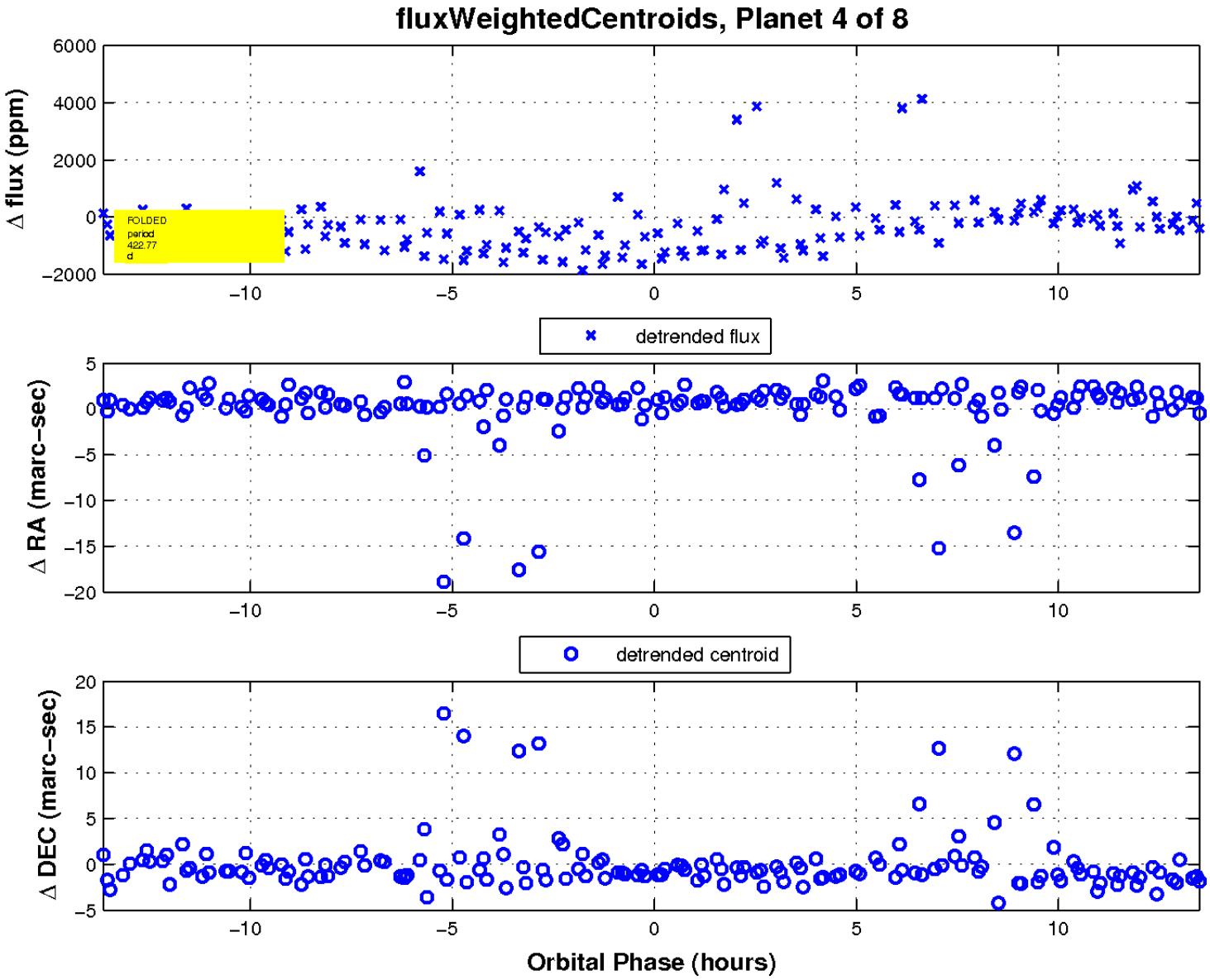
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



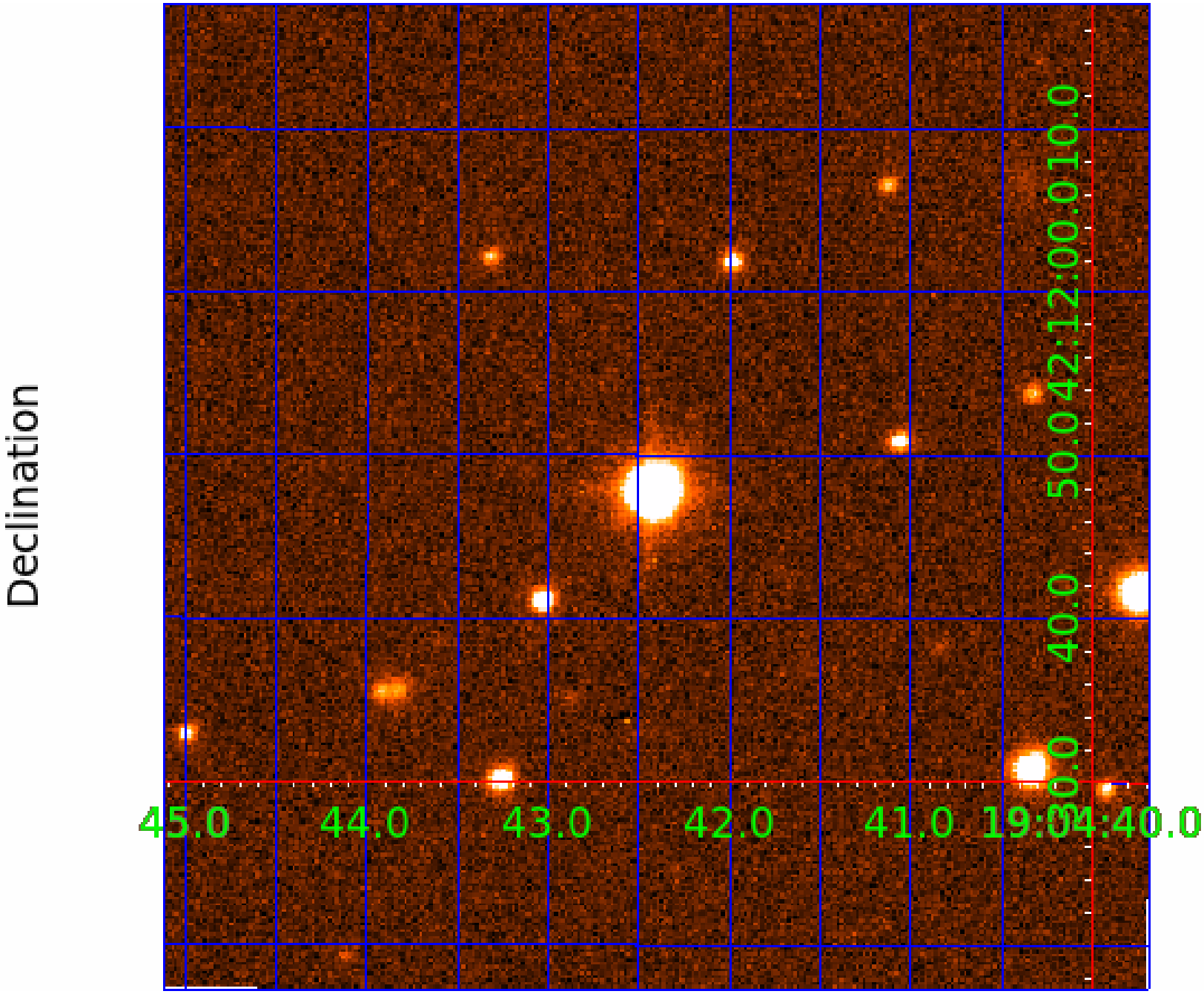
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image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40.0
50.0
42:12:00.0
10.0

KIC 006674908

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 ($S_\oplus$)
006674908-01	OBS	6149.01	0.503200	131.906622	200.4	1.352	36.3	40.1	0.63	4013	1.10	817.86
006674908-02	OBS	No	259.442963	136.112959	728.6	4.491	13.4	6.1	0.63	4013	1.79	0.20
006674908-03	OBS	No	434.424560	272.003836	963.6	4.291	11.5	7.2	0.63	4013	2.10	0.10
006674908-04	OBS	No	422.769045	469.681101	1075.2	4.566	10.7	7.5	0.63	4013	2.40	0.10
006674908-05	OBS	No	527.862270	391.302998	1302.7	8.764	13.1	7.7	0.63	4013	2.69	0.08
006674908-06	OBS	No	272.402936	354.955473	354.5	4.352	8.6	3.0	0.63	4013	1.42	0.18
006674908-07	OBS	No	255.473691	321.569167	1110.4	6.166	9.9	8.3	0.63	4013	2.07	0.20
006674908-08	OBS	No	187.564877	216.768115	723.2	2.416	8.8	5.5	0.63	4013	1.74	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006674908-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
006674908-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS—HALO_GHOST
006674908-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006674908-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

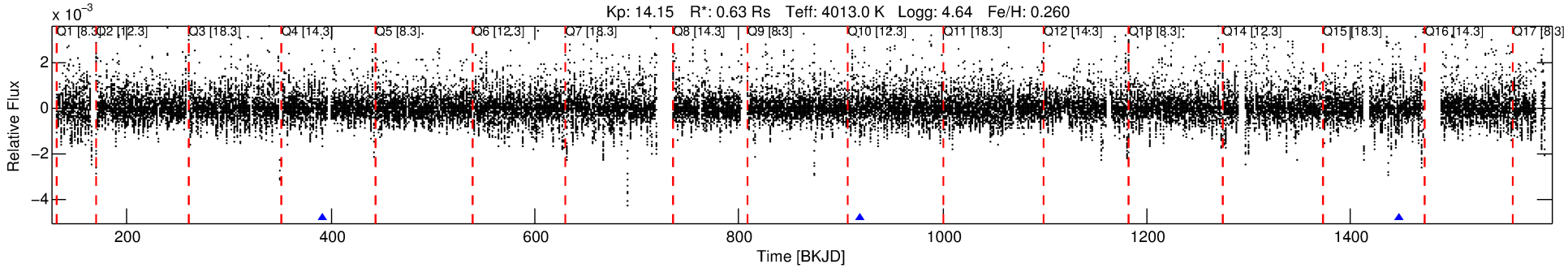
Ephemeris Match Information For 006674908-05

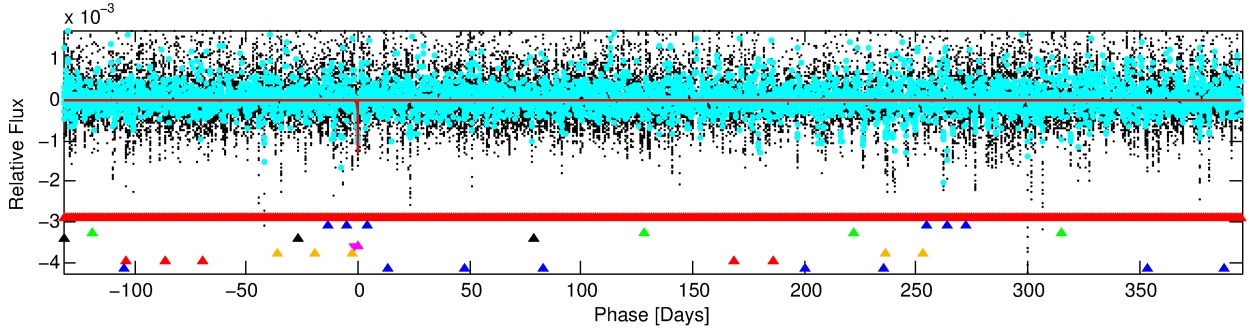
No Significant Match Found

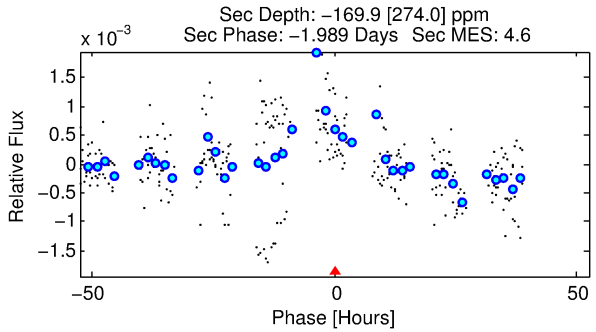
DV One-Page Summary

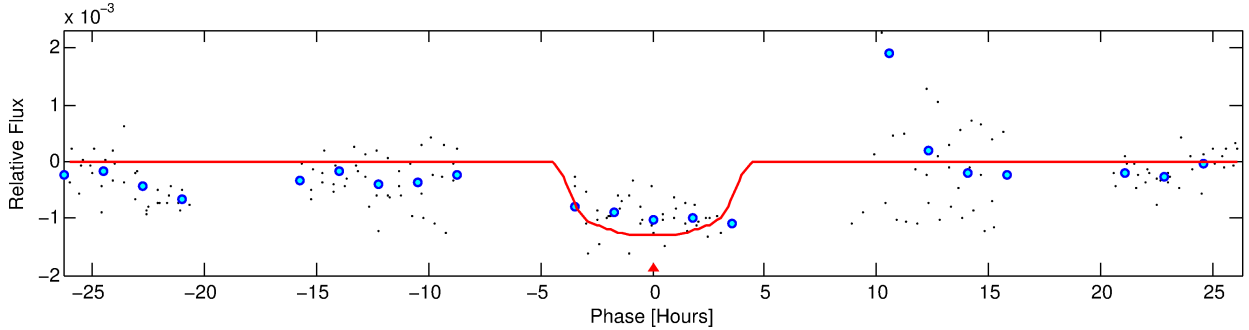
KIC: 6674908 Candidate: 5 of 8 Period: 527.862 d
KOI: K06149 Corr: No Ephemeris Match

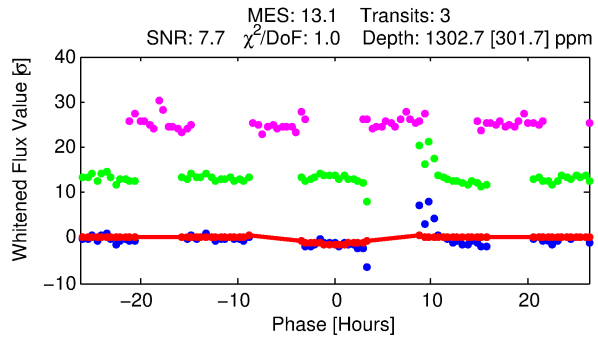
Kp: 14.15 R*: 0.63 Rs Teff: 4013.0 K Logg: 4.64 Fe/H: 0.260

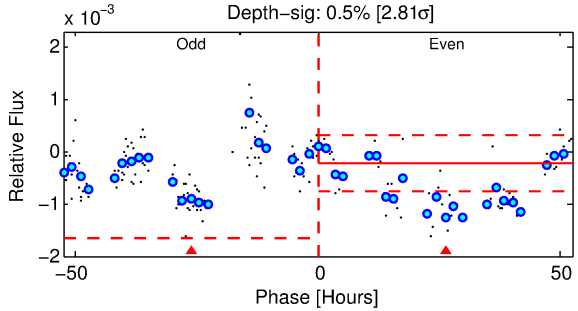


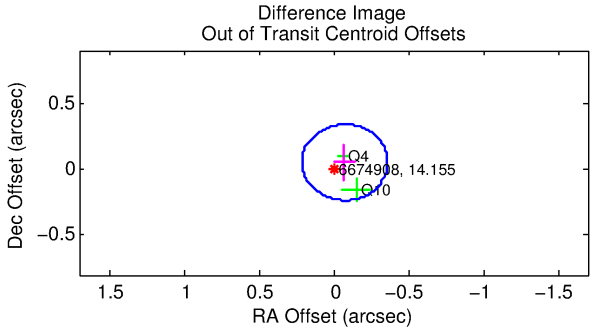












DV Fit Results:

Period = 527.86227 [0.01523] d
Epoch = 391.3030 [0.0165] BKJD
Rp/R* = 0.0392 [0.0204]
a/R* = 263.39 [485.04]
b = 0.87 [0.46]

Seff = 0.08 [0.01]
Teq = 134 [6] K
Rp = 2.69 [1.43] Re
a = 1.0963 [0.0866] AU

Ag = N/A
Teffp = N/A

DV Diagnostic Results:

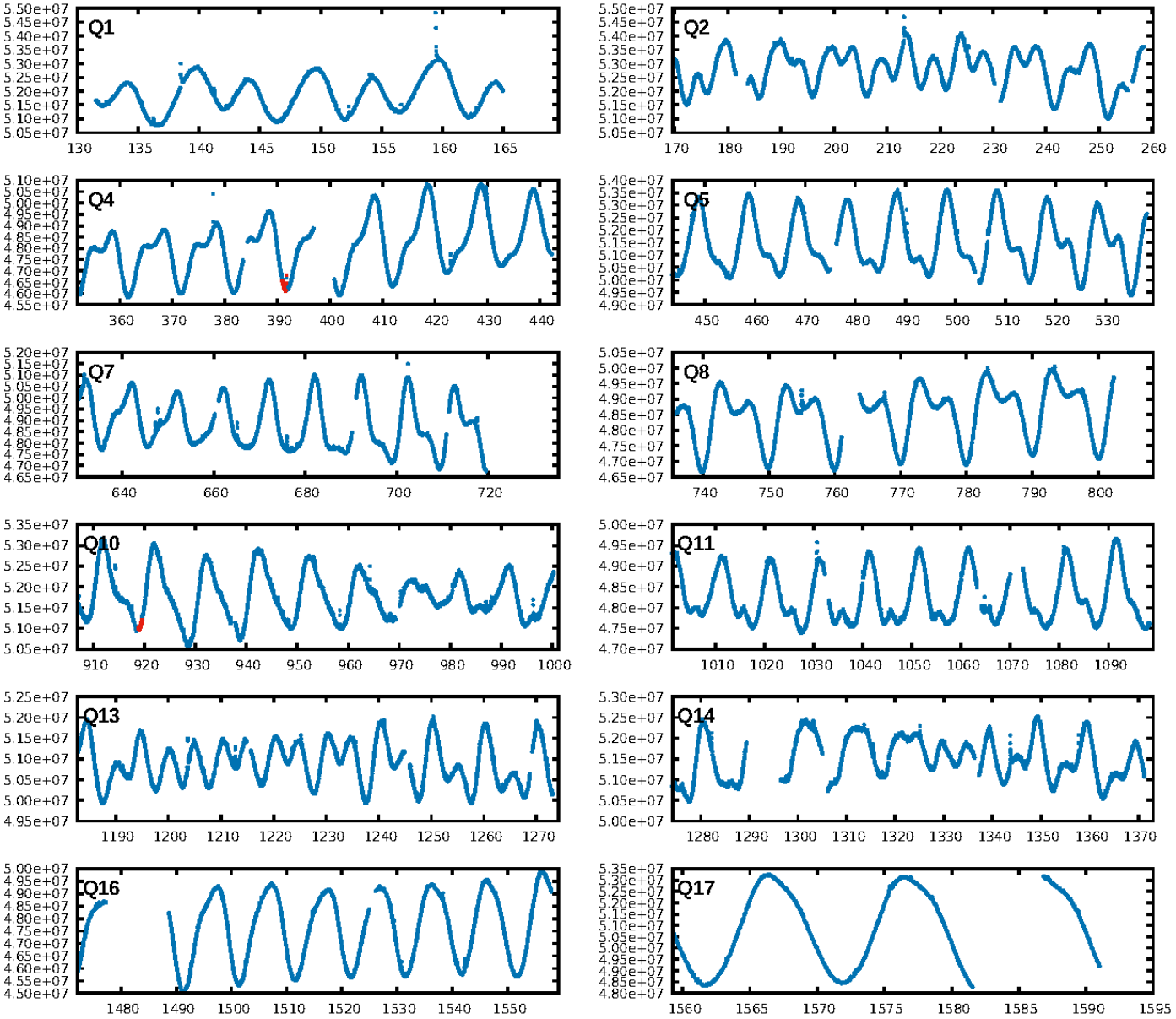
ShortPeriod−sig: 100.0% [229.80σ]
LongPeriod−sig: N/A
ModelChiSquare2−sig: 0.4%
ModelChiSquareGof−sig: 99.9%
Bootstrap−pfa: 7.76e−13
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: −0.1505

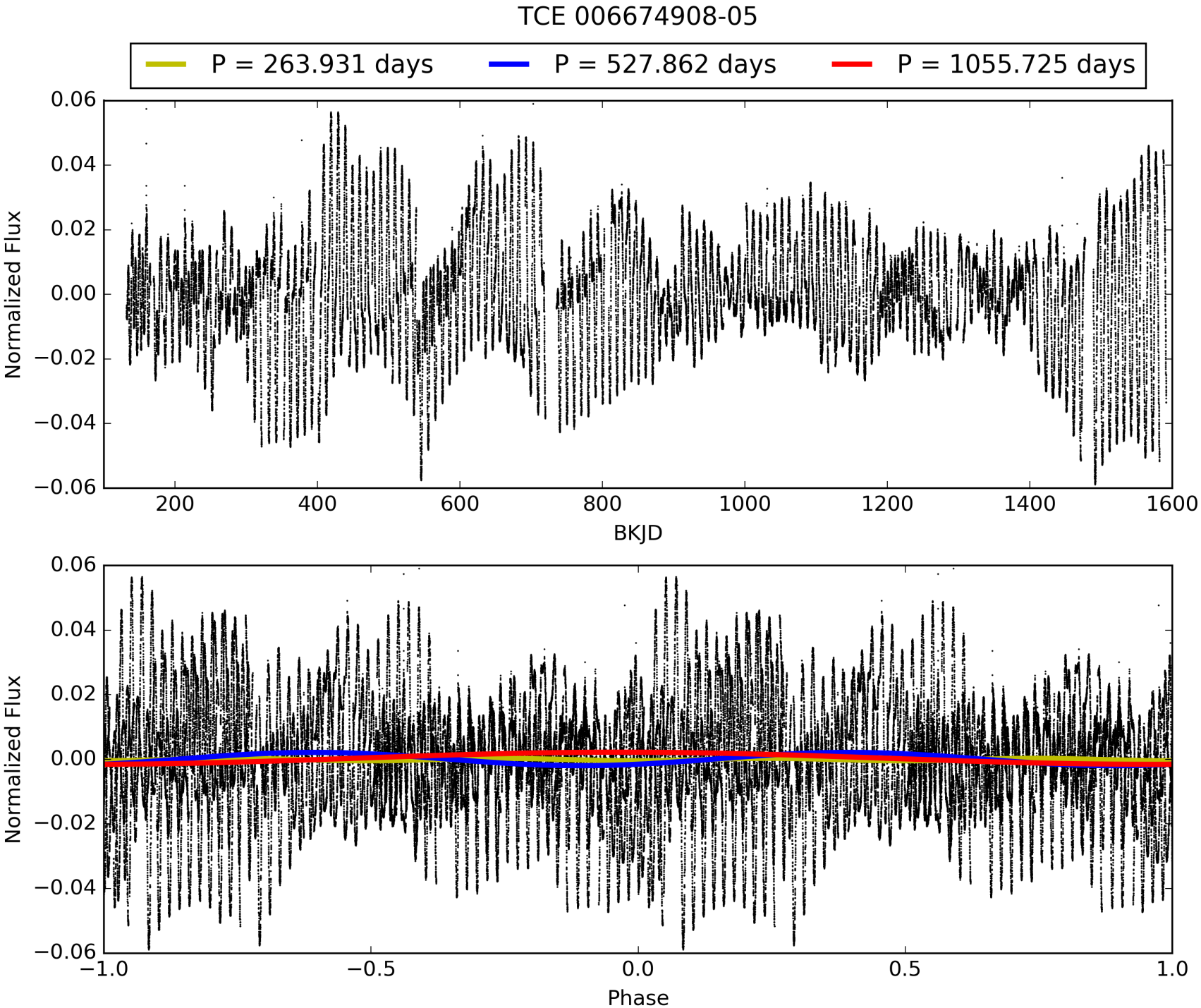
Centroid−sig: N/A
Centroid−so: 0.933 arcsec [2.09σ]
OotOffset−rm: 0.091 arcsec [0.95σ]
KicOffset−rm: 0.177 arcsec [1.89σ]
OotOffset−st: 1/0/1/0 [2]
KicOffset−st: 1/0/1/0 [2]
DiffImageQuality−fgm: 1.00 [2/2]
DiffImageOverlap−fno: 0.00 [0/3]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 03:30:20 Z

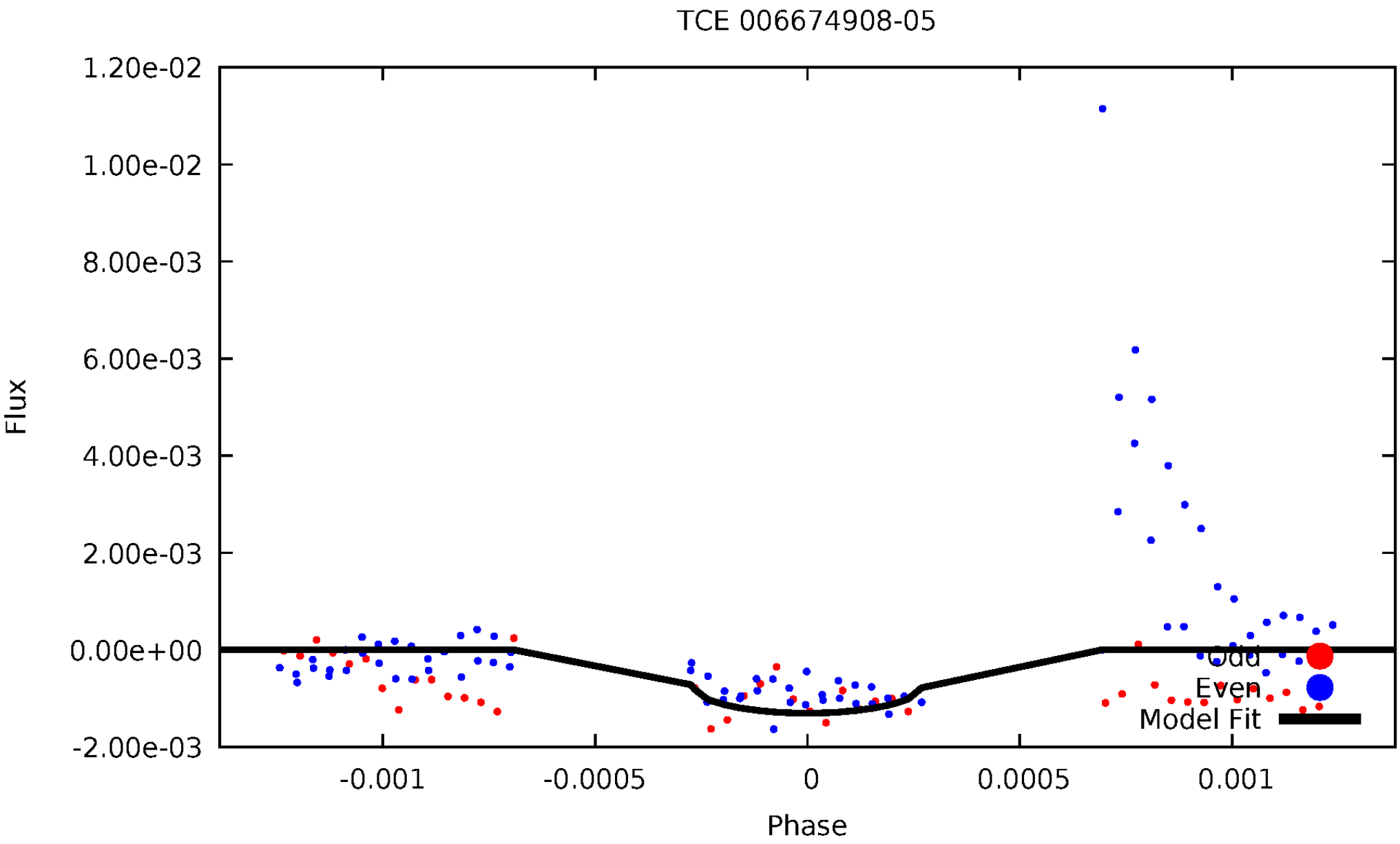
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006674908-05, PDC Light Curves




TCE 006674908-05
P = 263.931 days
P = 527.862 days
P = 1055.725 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even


TCE 006674908-05
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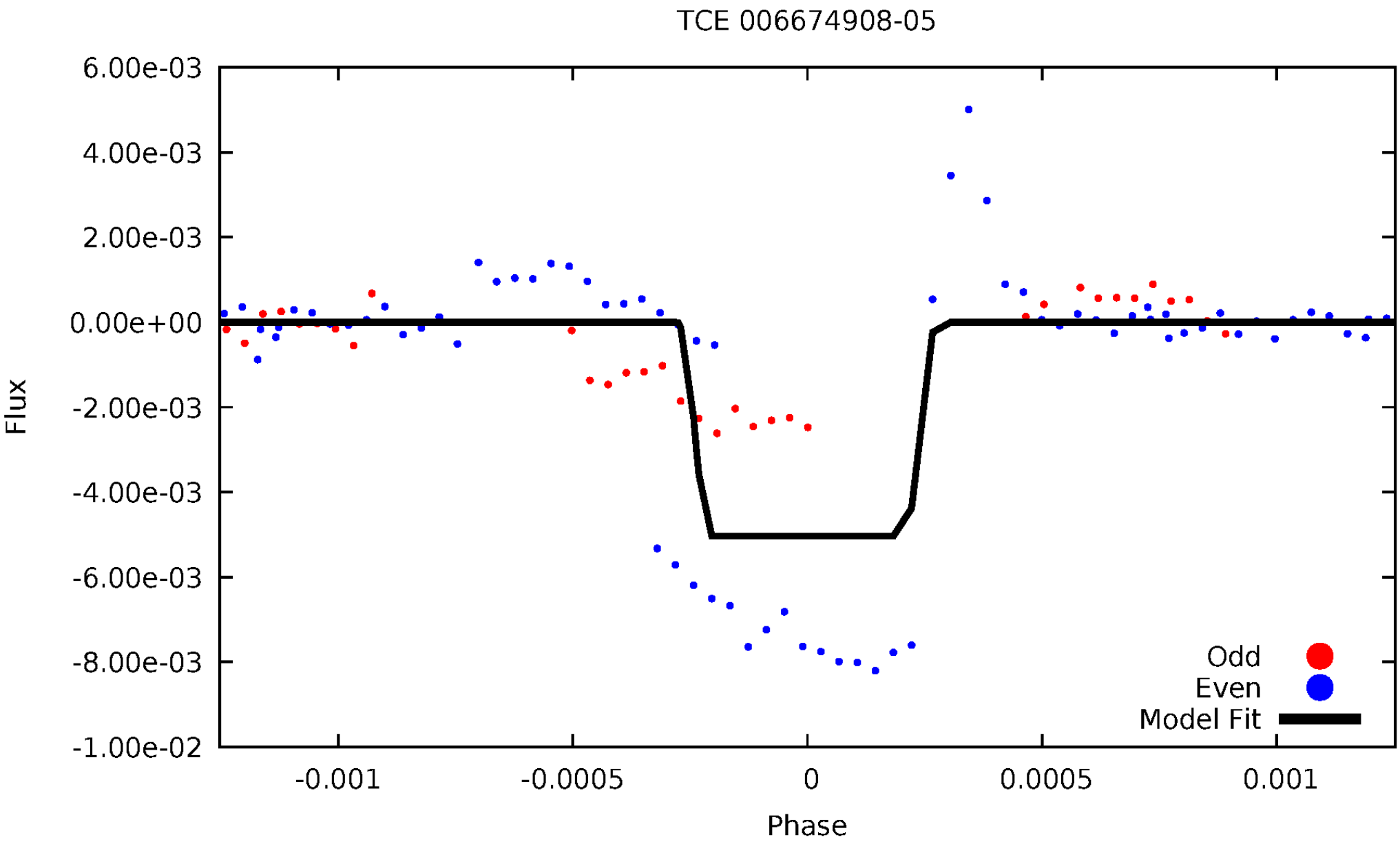
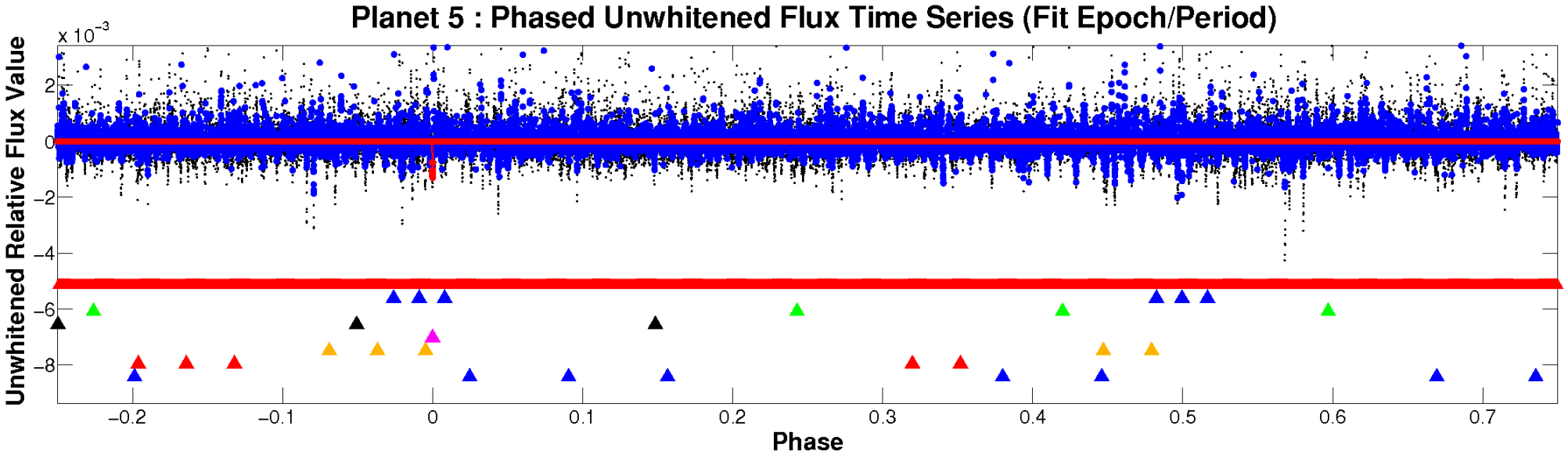
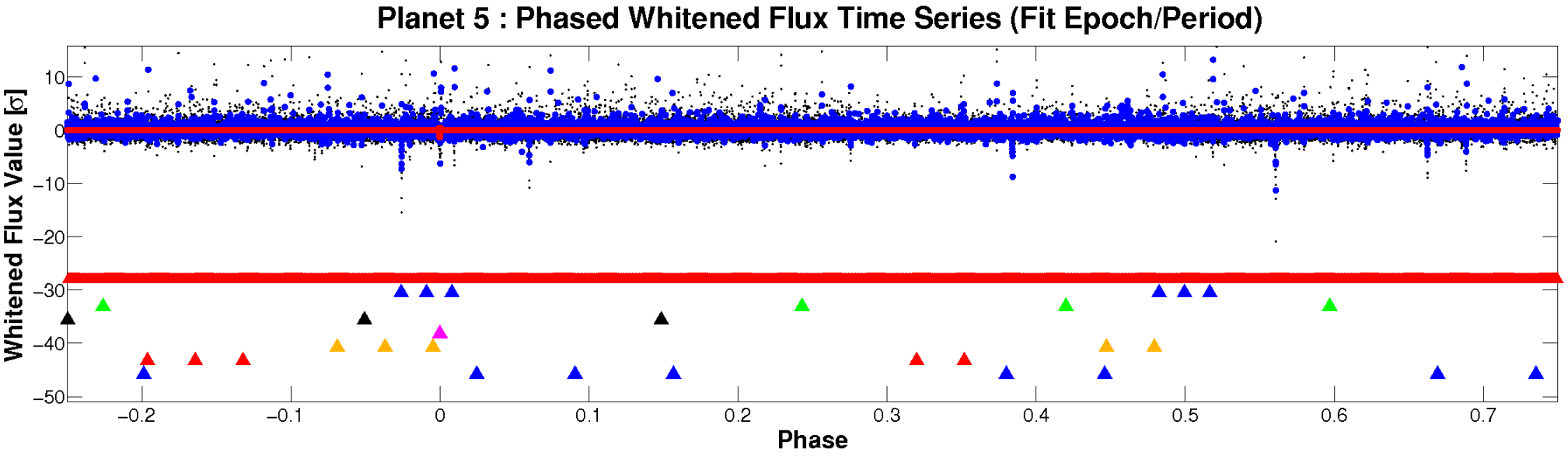
1.00e-02
8.00e-03
6.00e-03
4.00e-03
2.00e-03
0.00e+00
-2.00e-03
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006674908-05
6.00e-03
4.00e-03
2.00e-03
0.00e+00
-2.00e-03
-4.00e-03
-6.00e-03
-8.00e-03
-1.00e-02
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

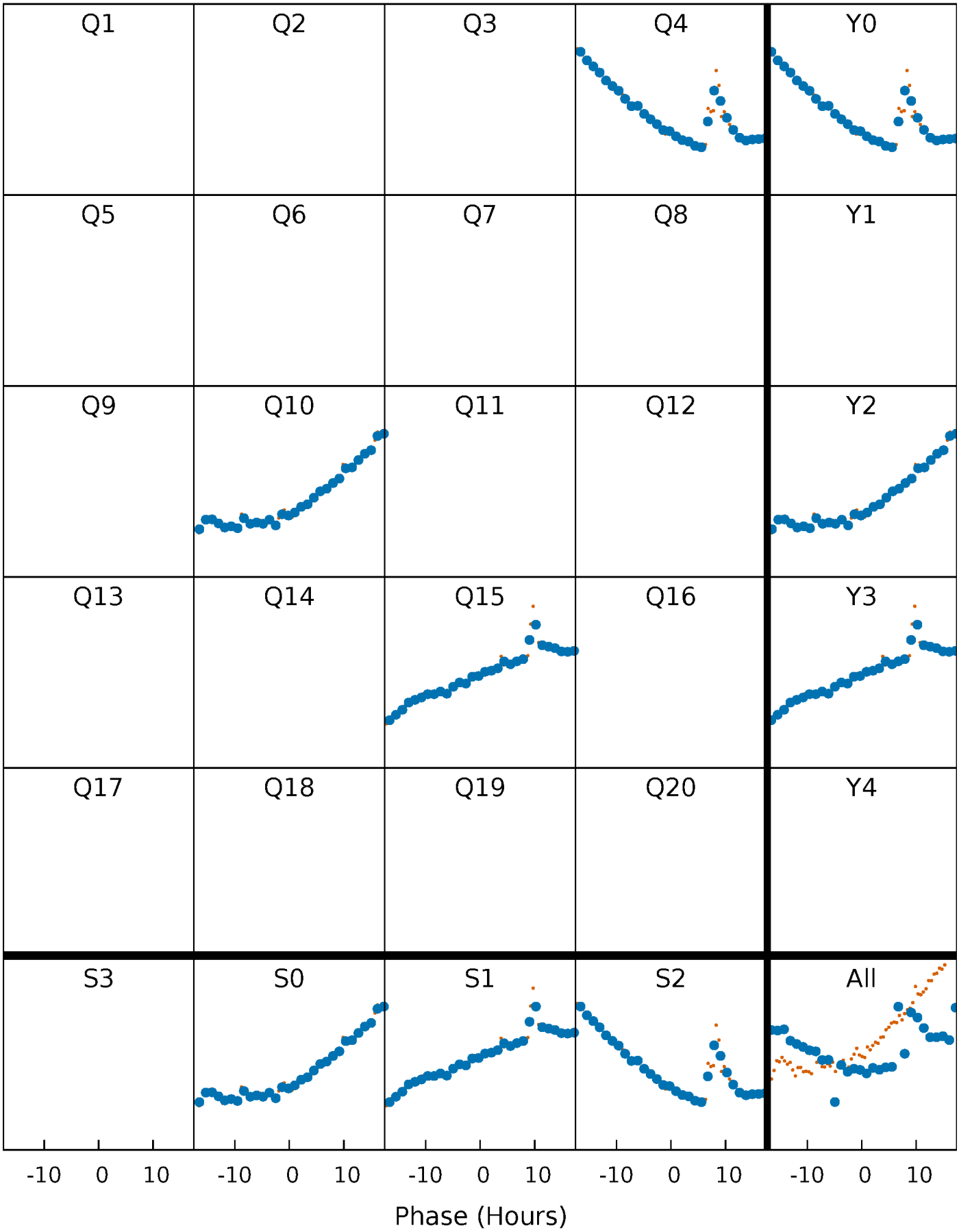
Non-Whitened Vs. Whitened Light Curve





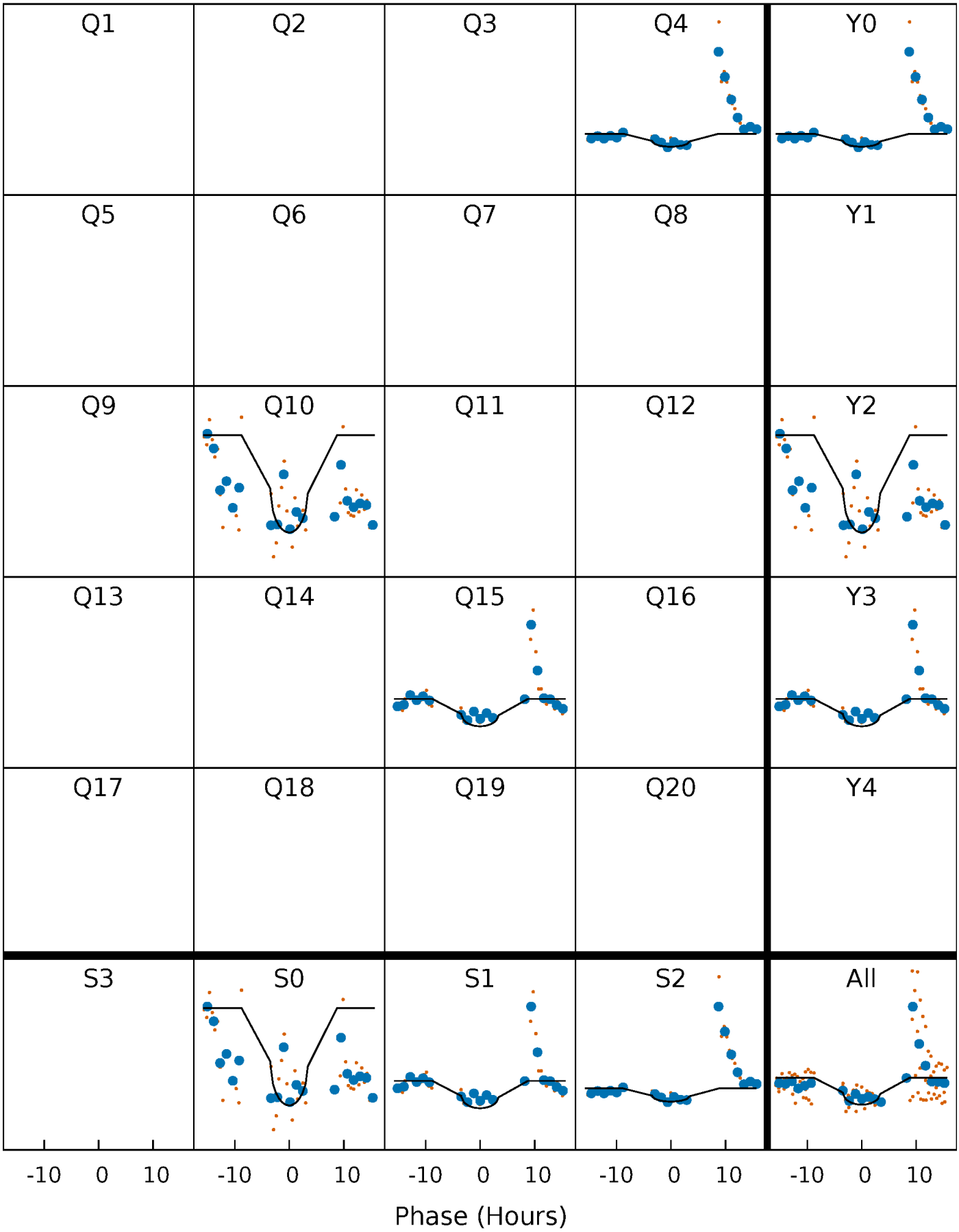
PDC Quarter-Phased Transit Curves

TCE 006674908-05 P=527.862270 Days T_0=391.302998 (BKJD)



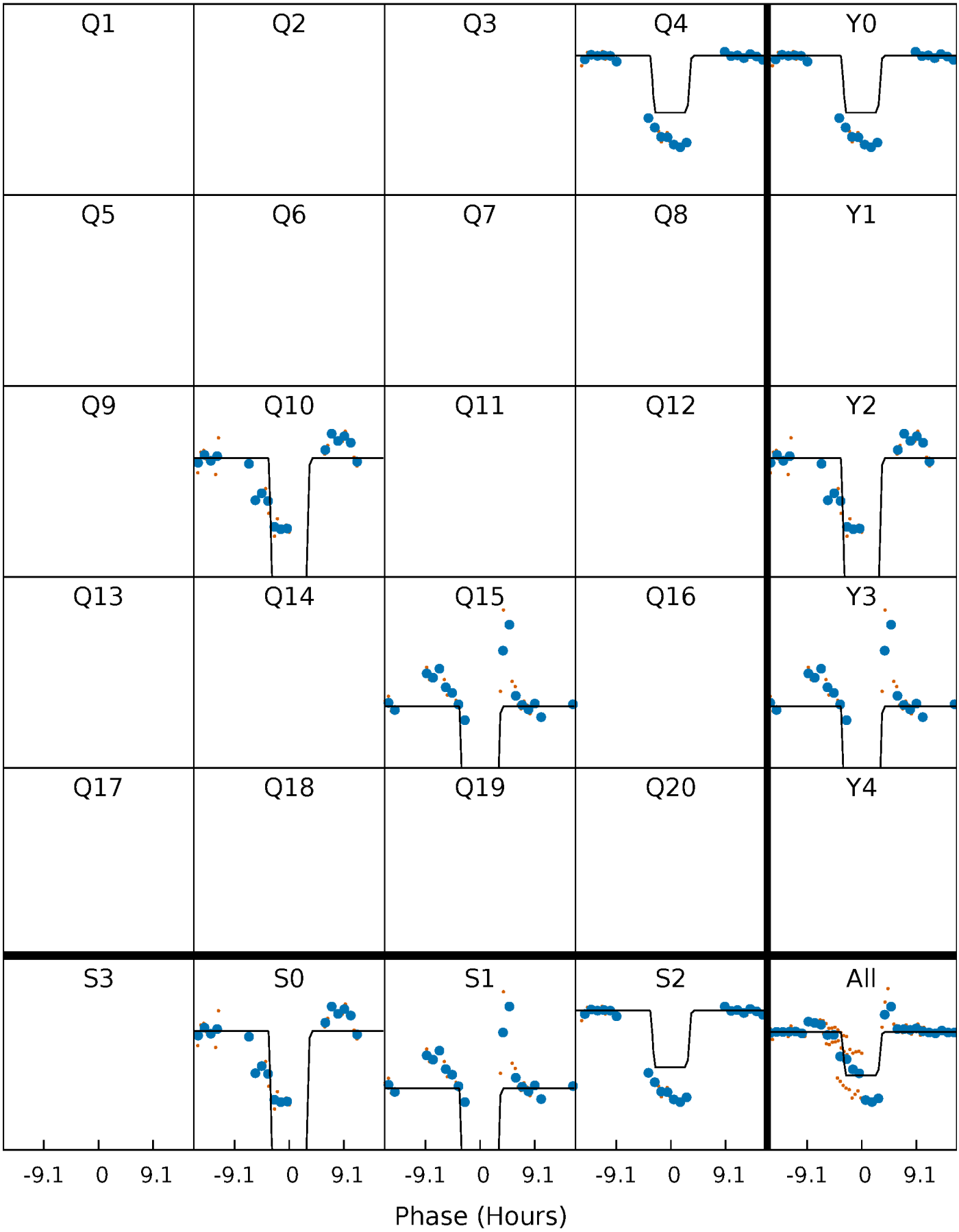
DV Quarter-Phased Transit Curves

TCE 006674908-05 P=527.862270 Days T_0=391.302998 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

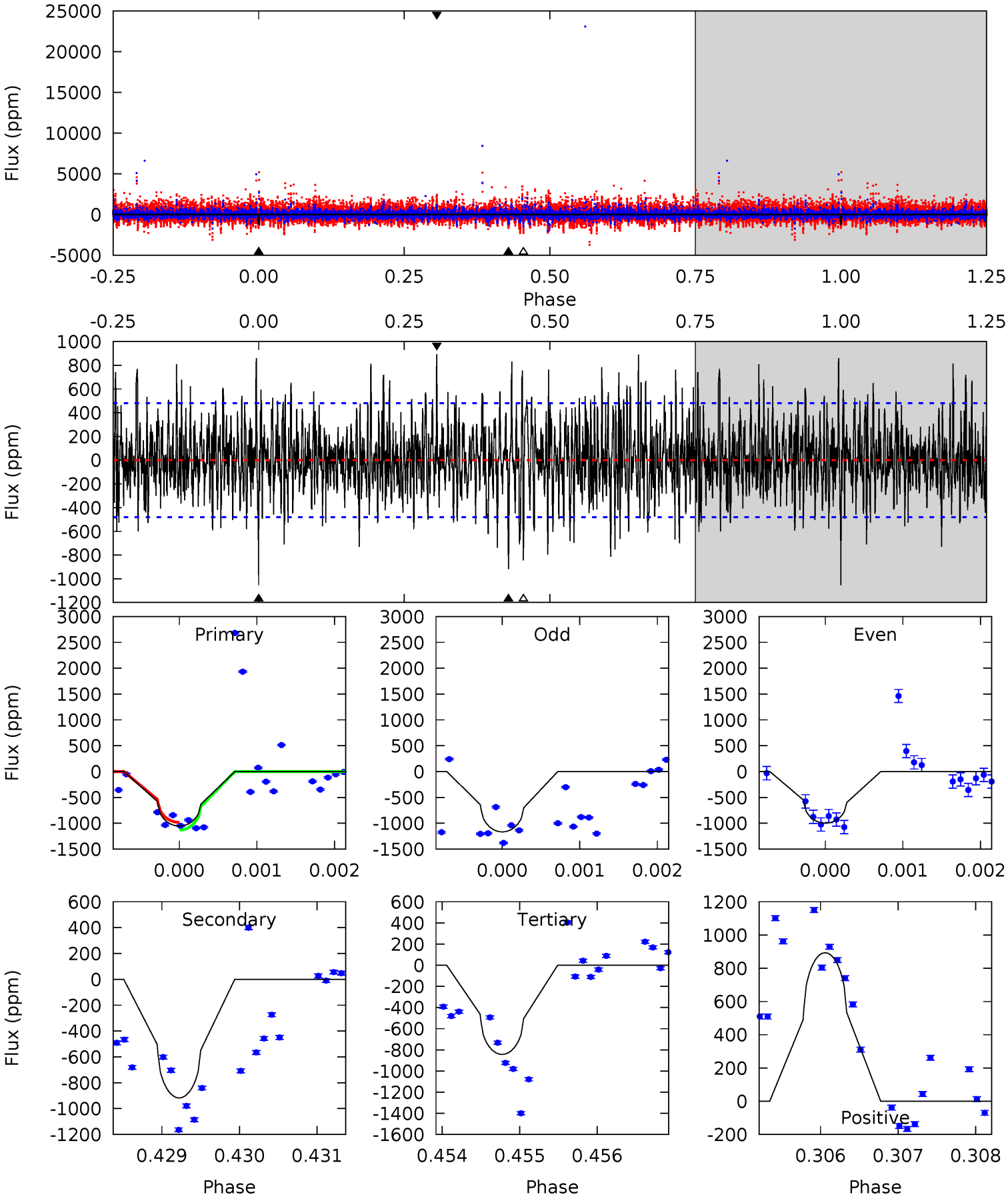
TCE 006674908-05 P=527.962323 Days T_0=391.327860 (BKJD)



DV Model-Shift Uniqueness Test

006674908-05, P = 527.862270 Days, E = 391.302998 Days

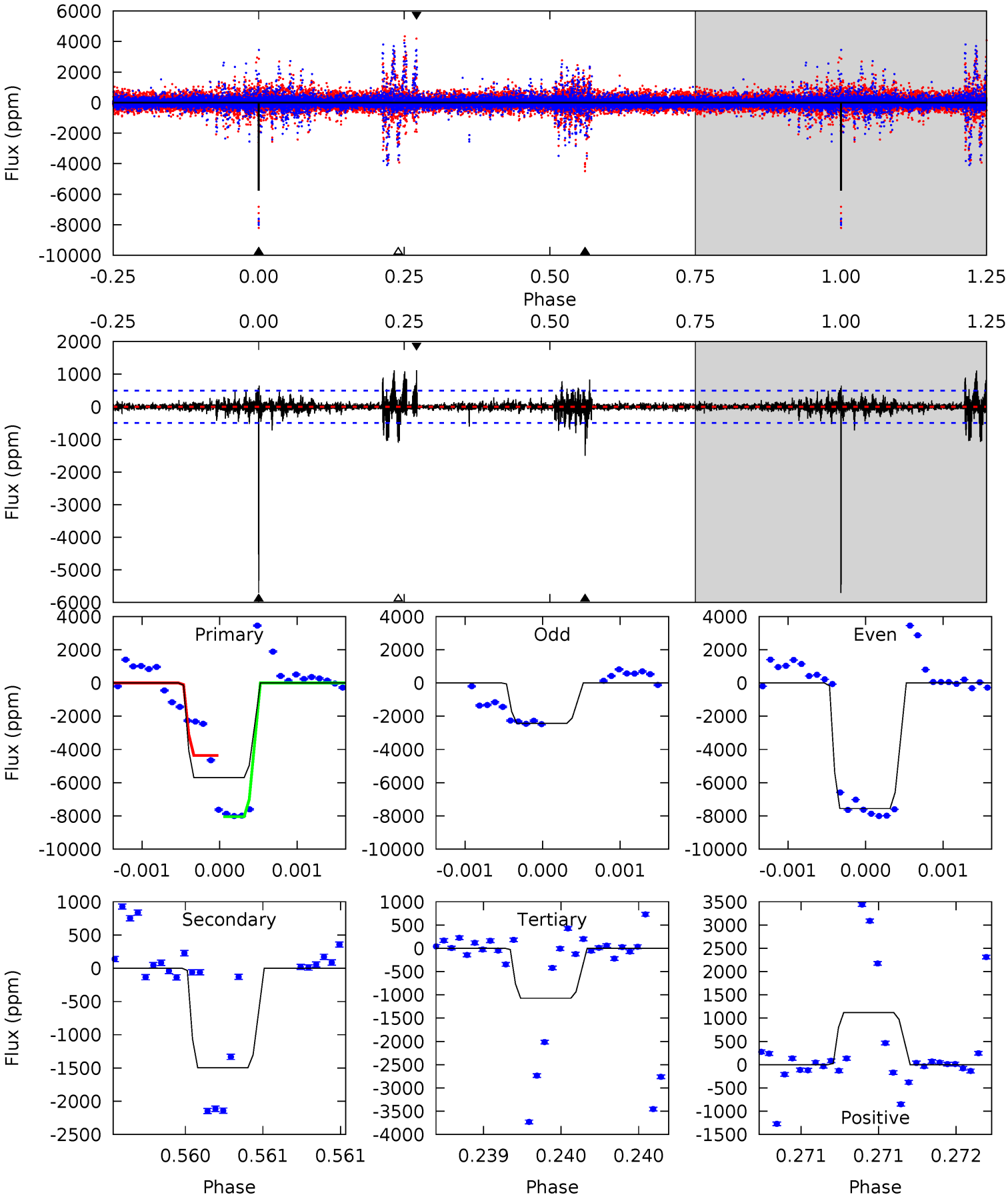
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	10.4	9.57	10.1	5.46	3.30	2.82	2.39	1.82	0.84	0.27	0.83	0.98	0.46	0.84



Alt Model-Shift Uniqueness Test

006674908-05, P = 527.962323 Days, E = 391.327860 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
63.9	16.8	12.0	12.5	5.55	3.44	1.49	51.9	51.4	4.74	4.26	31.8	1.46	0.16	19.0



Stellar Parameters For KIC 006674908

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	4013^{+140}_{-154}	$4.639^{+0.053}_{-0.021}$	$0.260^{+0.200}_{-0.300}$	$0.630^{+0.029}_{-0.064}$	$0.630^{+0.042}_{-0.061}$	$3.552^{+0.893}_{-0.273}$
	+3%/-4%	+1%/-0%	+77%/-115%	+5%/-10%	+7%/-10%	+25%/-8%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006674908-05 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-917±88	$2.75^{+1.37}_{-1.25}$	186^{+7}_{-7}	3640^{+858}_{-452}	$80958^{+191027}_{-45168}$
Alt.	-1497±89	$4.83^{+1.48}_{-1.47}$	186^{+7}_{-8}	3284^{+394}_{-259}	42876^{+43459}_{-17756}

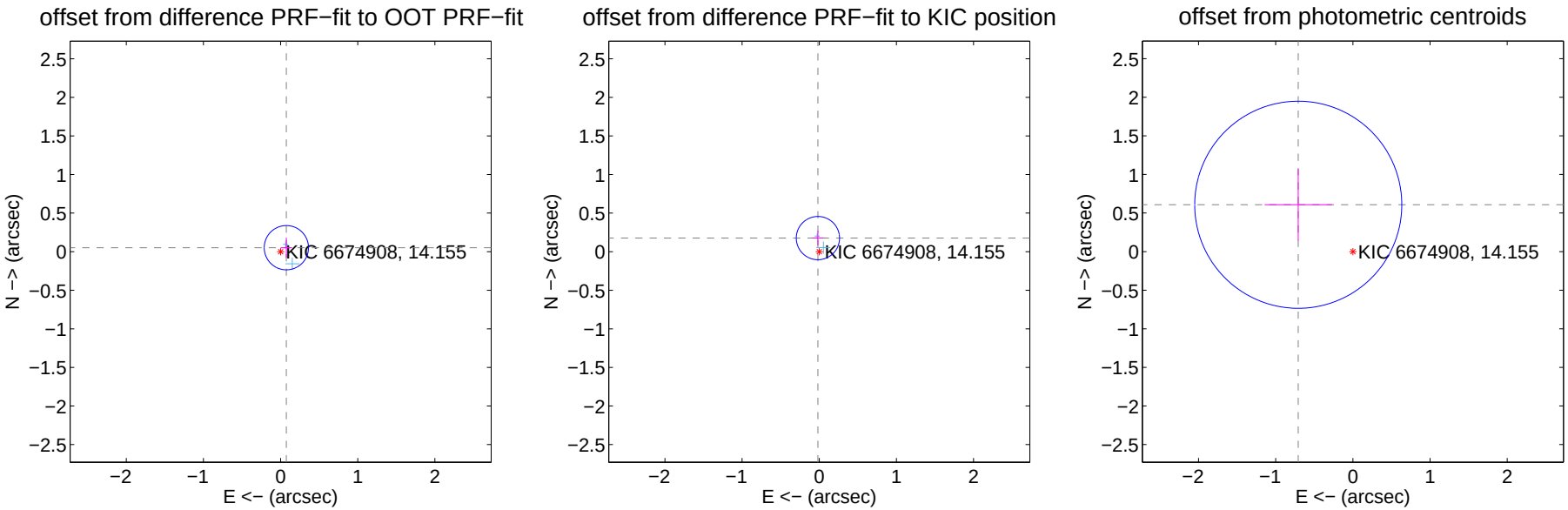
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

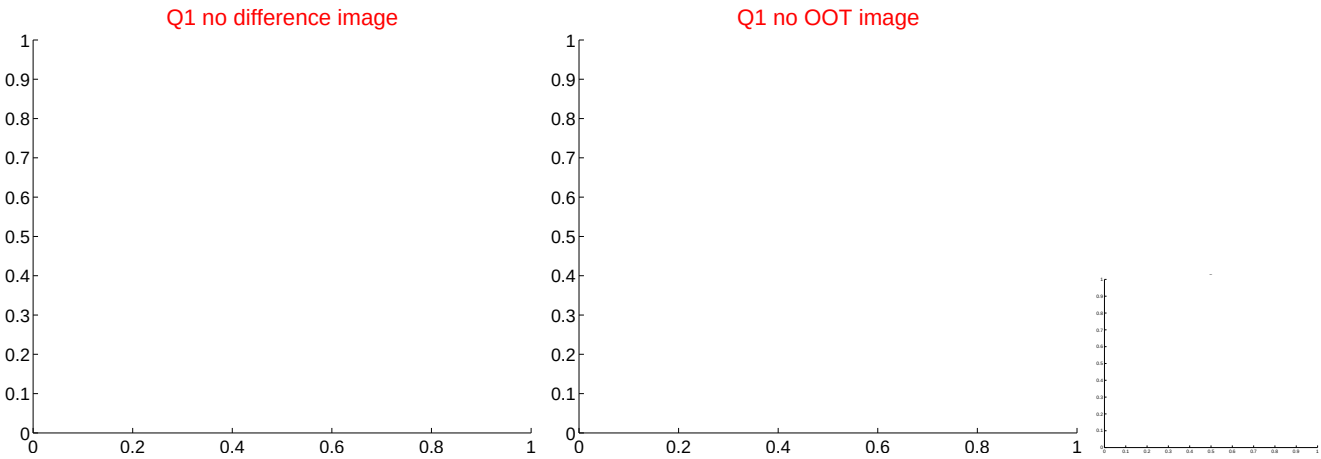
Supplemental centroid analysis for 006674908-05. Kepler magnitude: 14.15. Transit SNR 7.67
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

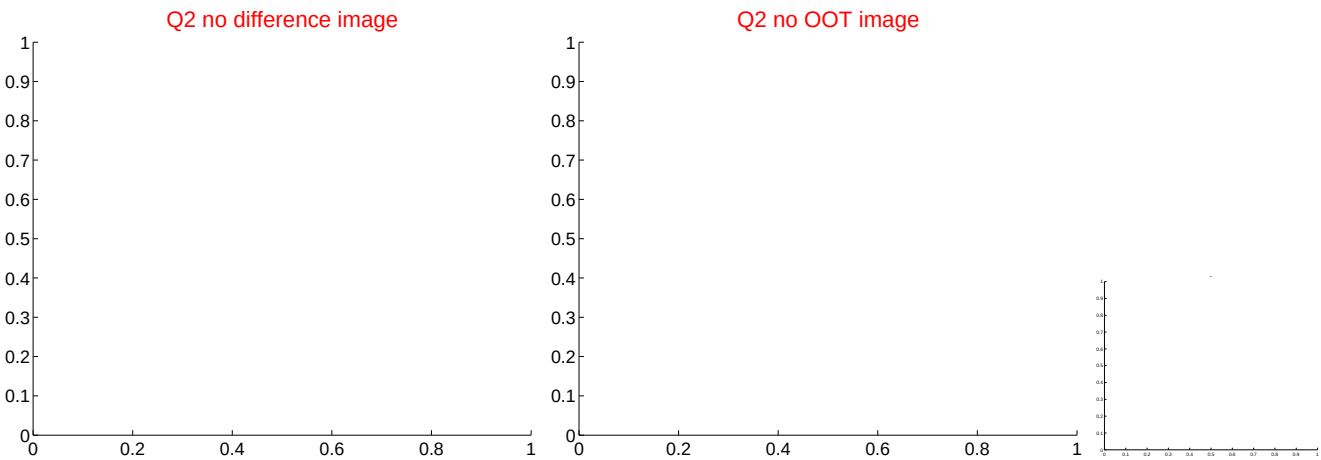
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.091 ± 0.096	0.95	-0.075 ± 0.074	0.052 ± 0.130
PRF-fit source offset from KIC position	0.177 ± 0.093	1.89	0.017 ± 0.073	0.176 ± 0.094
photometric centroid source offset	0.93 ± 0.45	2.09	0.71 ± 0.44	0.61 ± 0.46

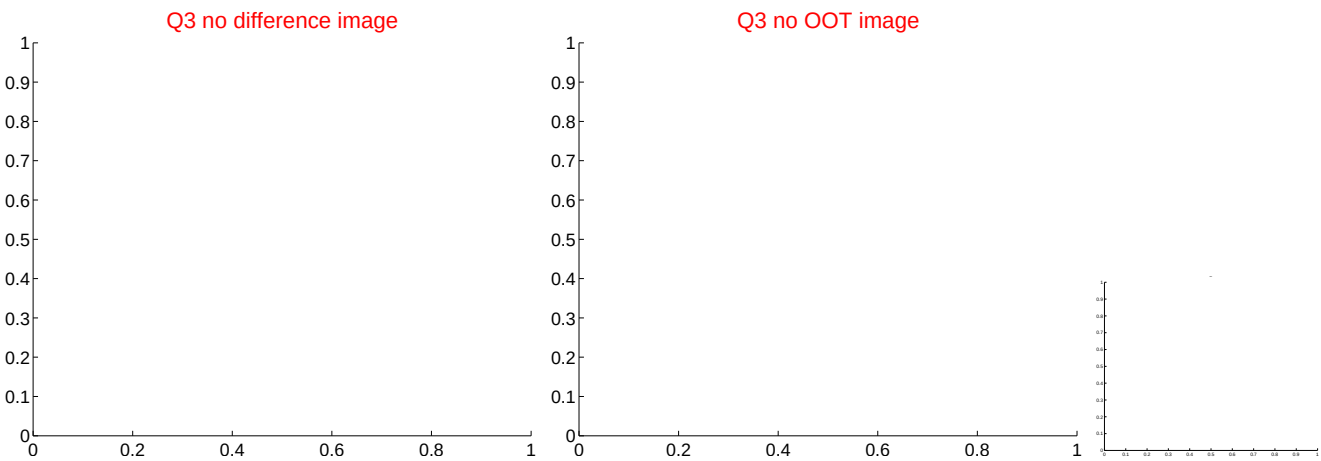


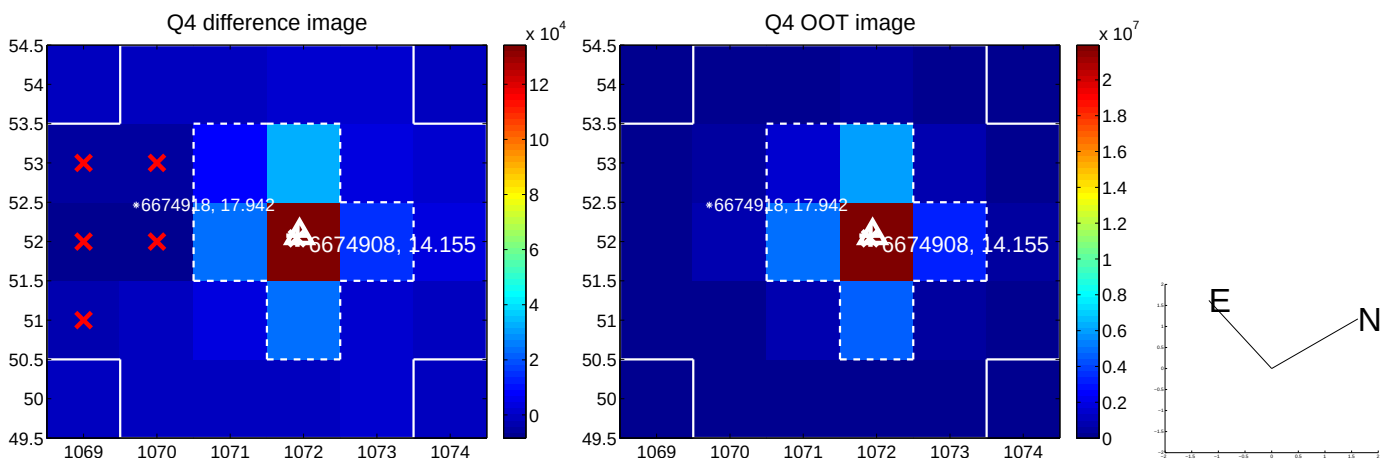
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

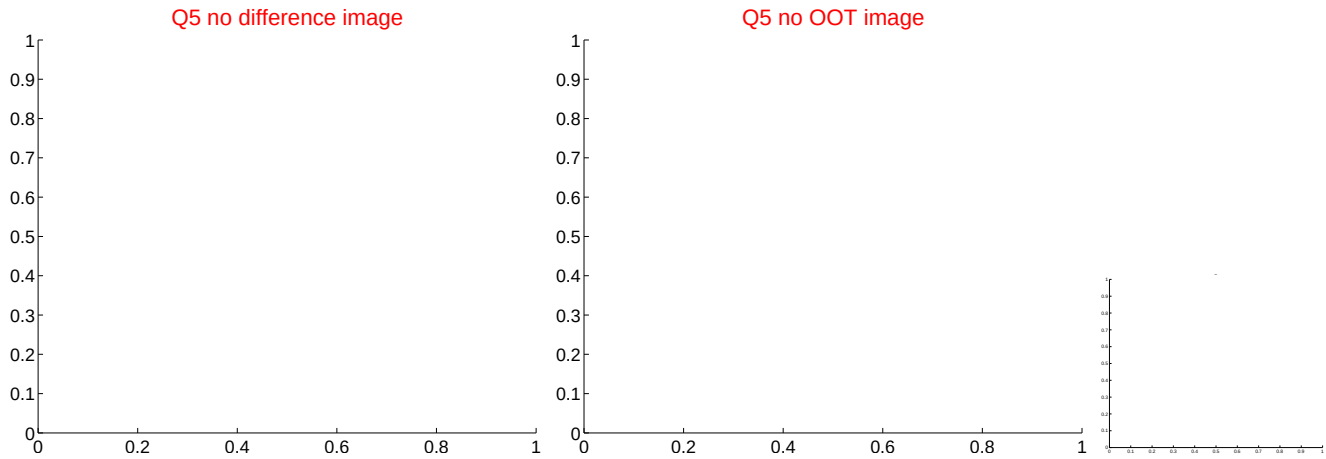


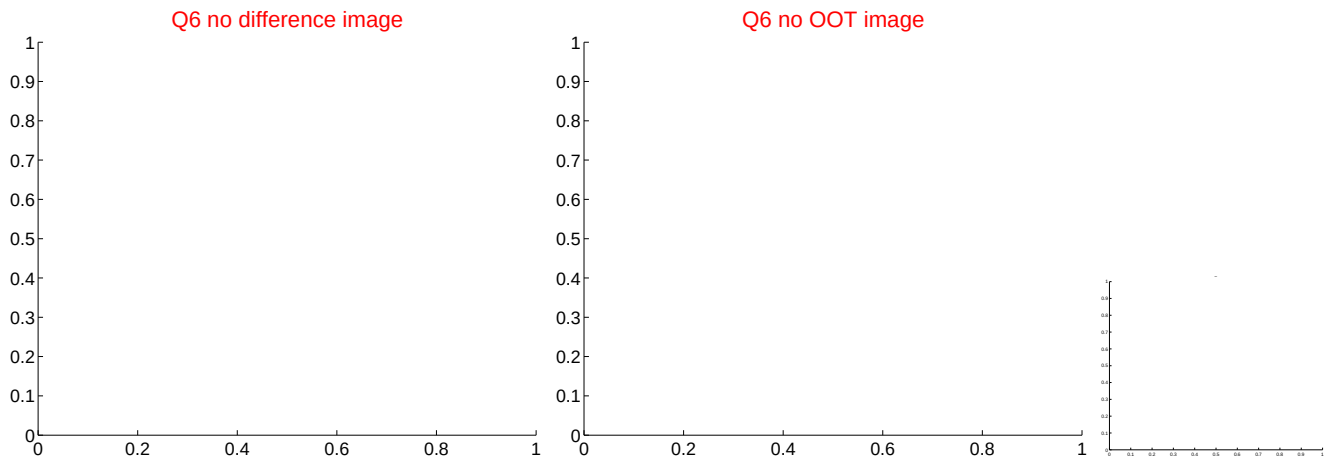


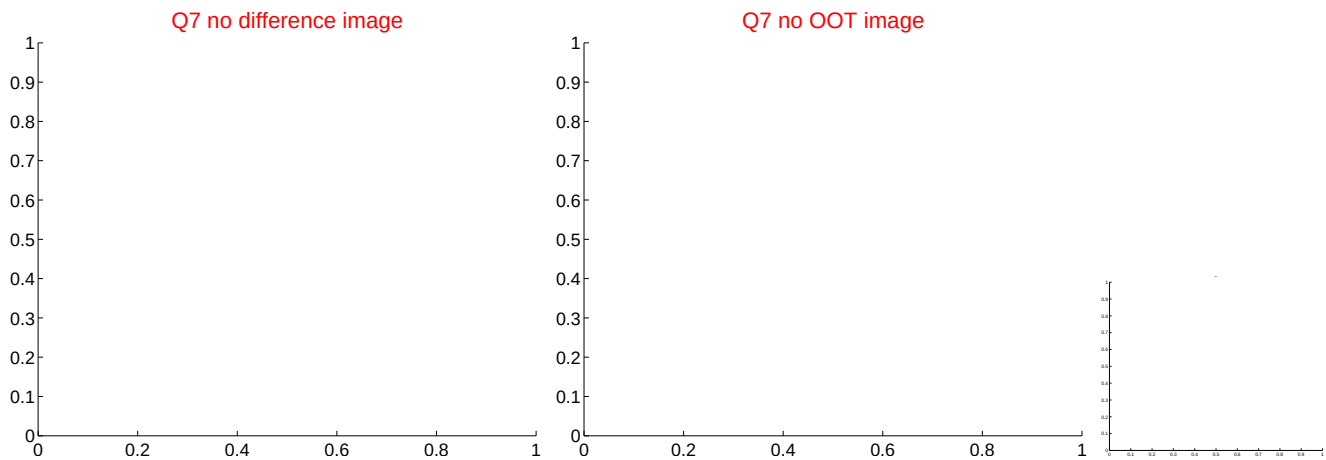


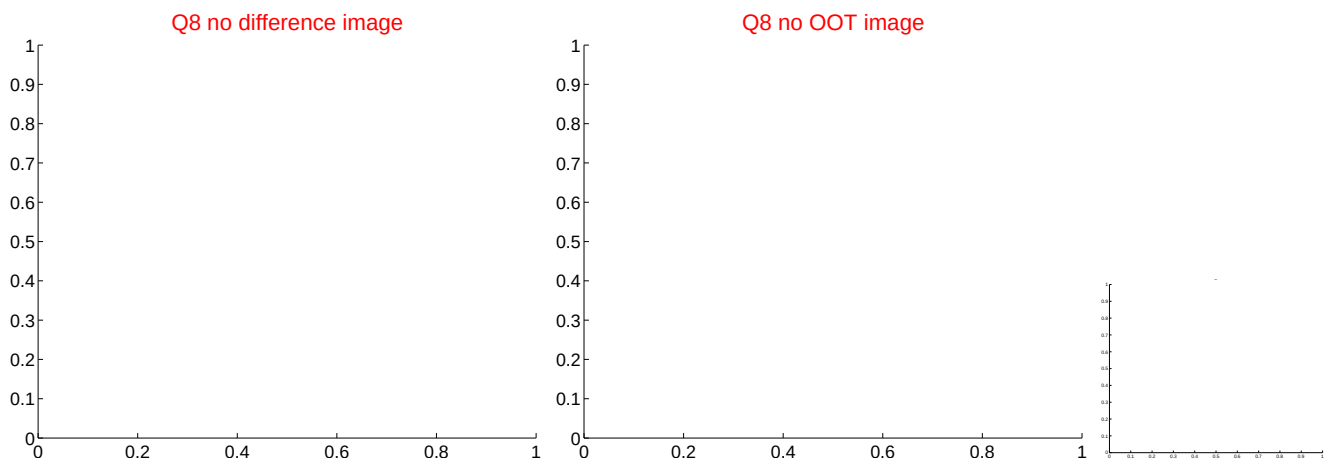


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

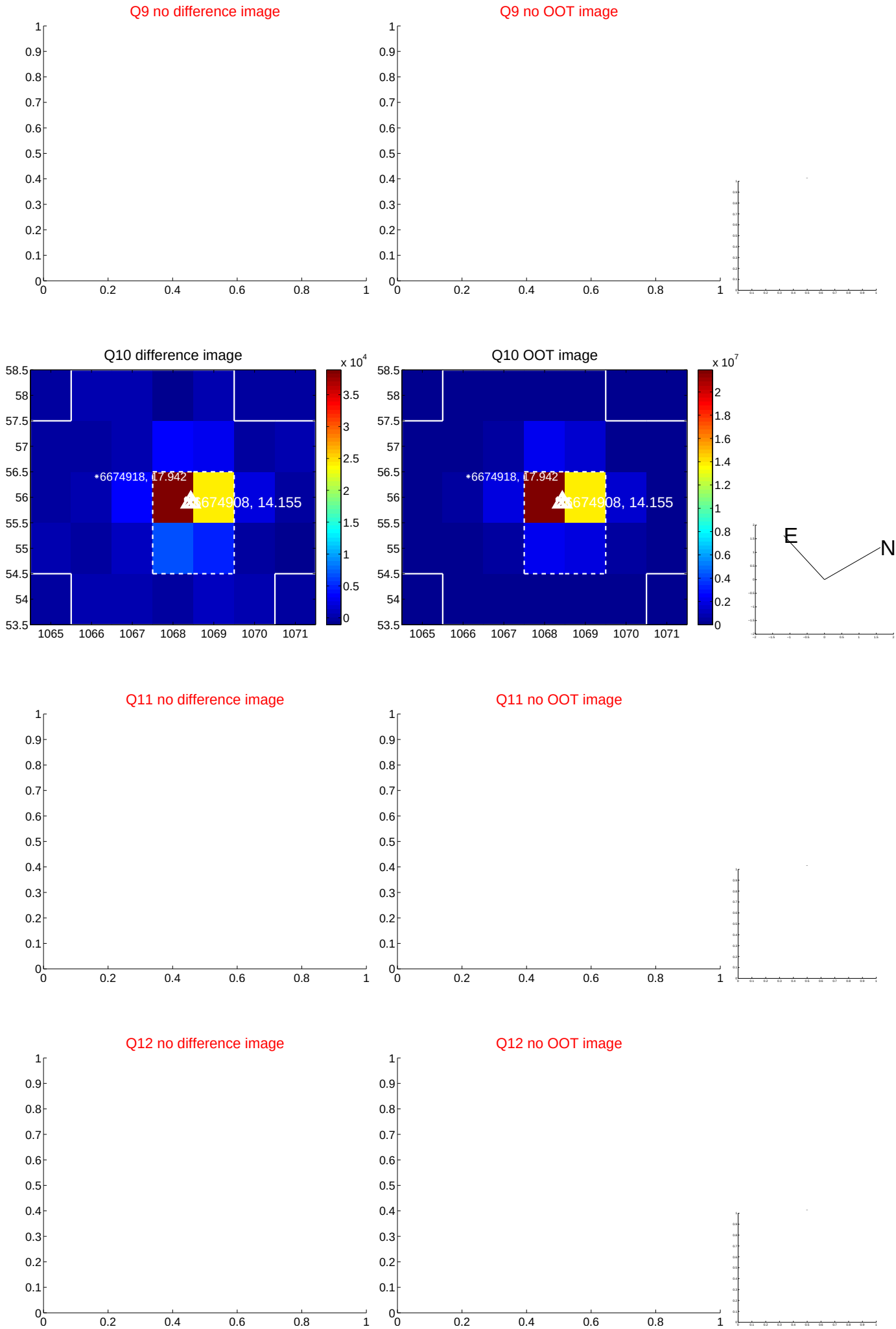




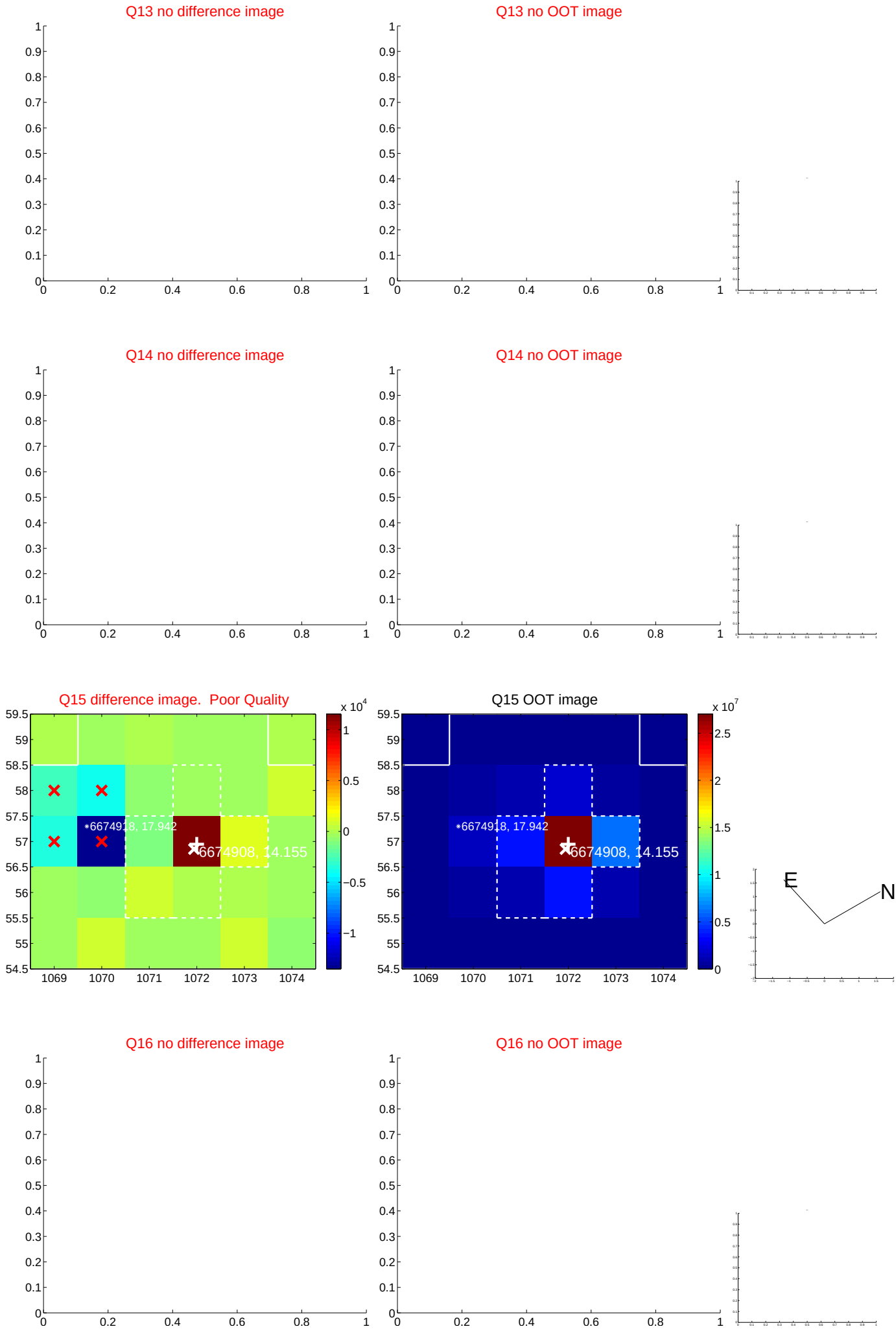




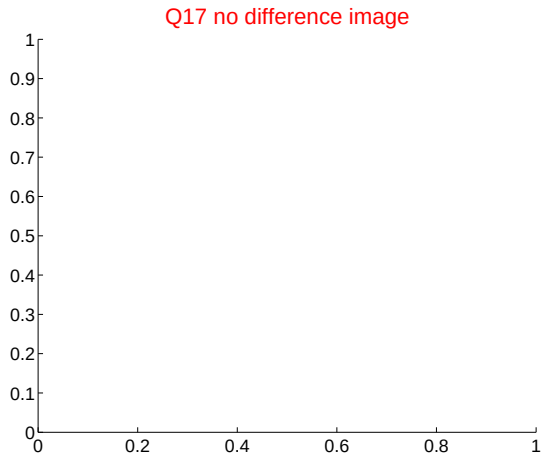
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

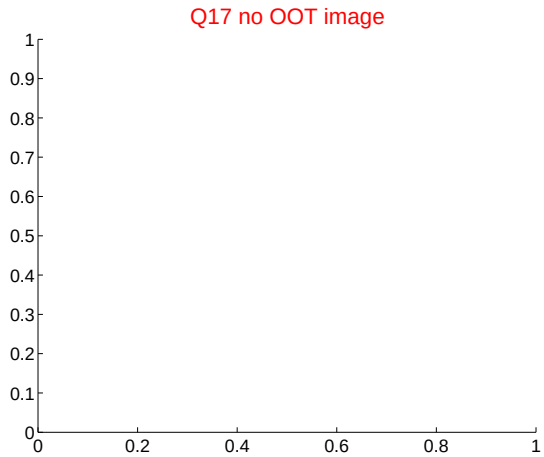


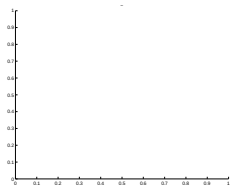
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

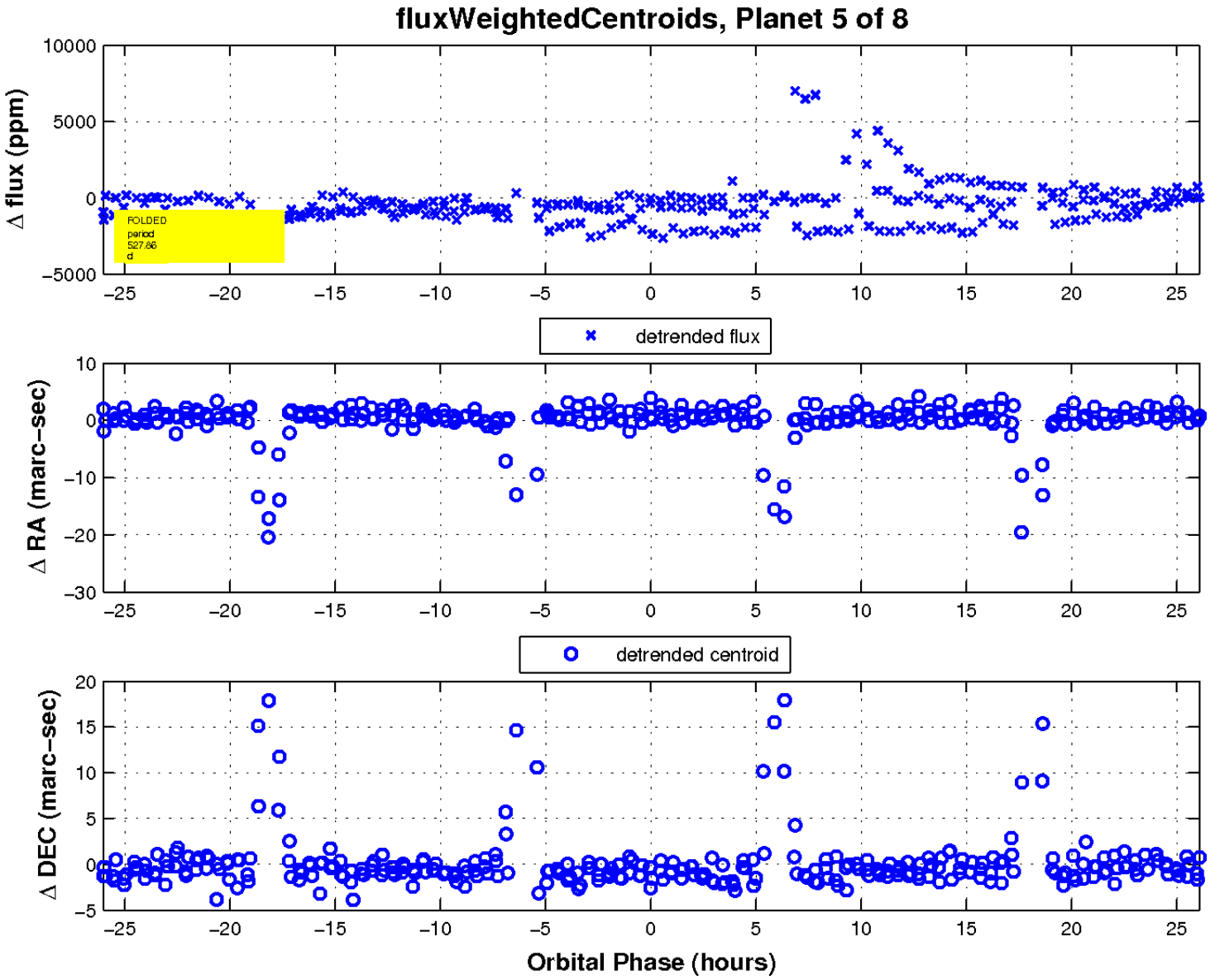


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

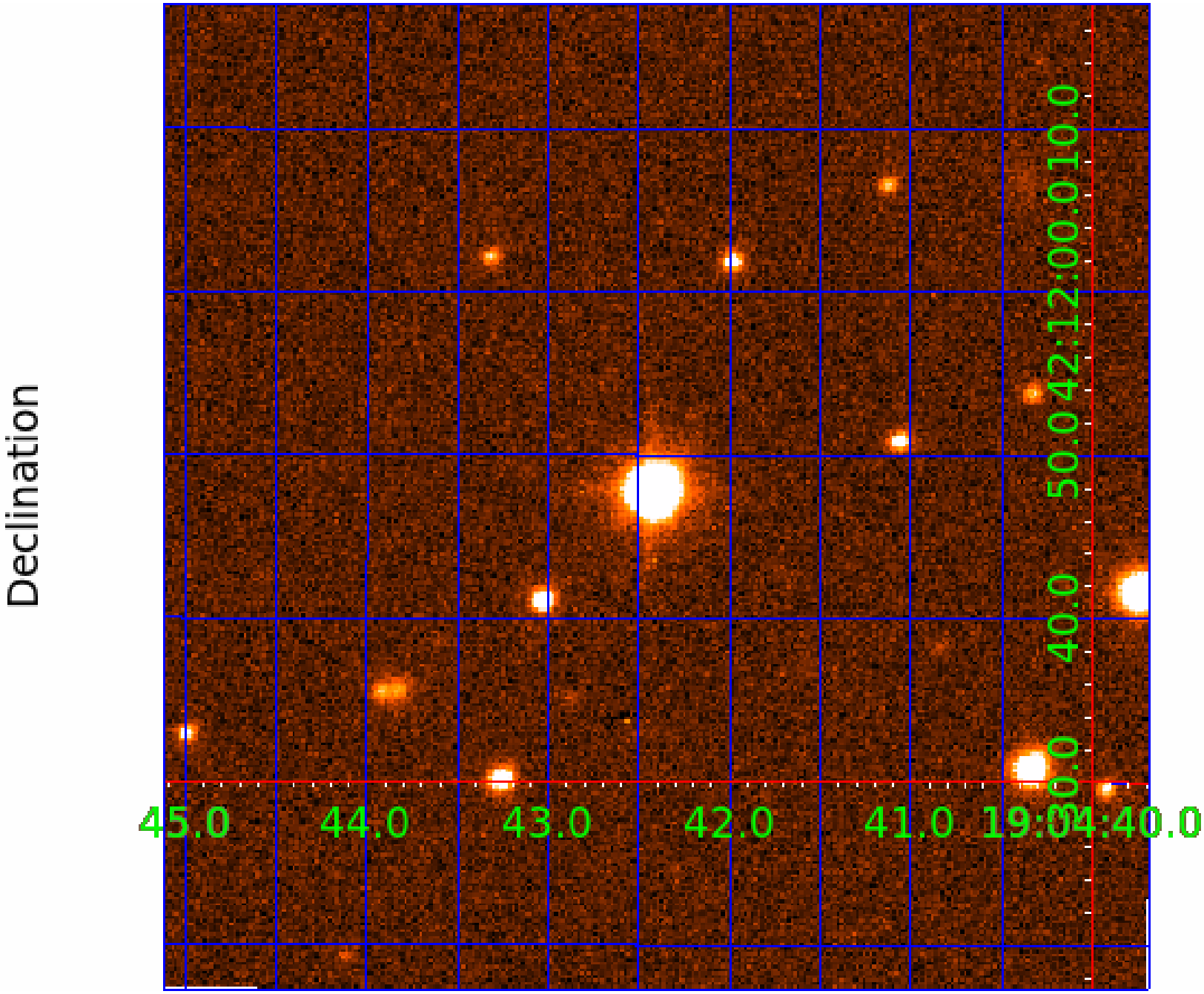








UKIRT Image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KIC 006674908

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 ($S_\oplus$)
006674908-01	OBS	6149.01	0.503200	131.906622	200.4	1.352	36.3	40.1	0.63	4013	1.10	817.86
006674908-02	OBS	No	259.442963	136.112959	728.6	4.491	13.4	6.1	0.63	4013	1.79	0.20
006674908-03	OBS	No	434.424560	272.003836	963.6	4.291	11.5	7.2	0.63	4013	2.10	0.10
006674908-04	OBS	No	422.769045	469.681101	1075.2	4.566	10.7	7.5	0.63	4013	2.40	0.10
006674908-05	OBS	No	527.862270	391.302998	1302.7	8.764	13.1	7.7	0.63	4013	2.69	0.08
006674908-06	OBS	No	272.402936	354.955473	354.5	4.352	8.6	3.0	0.63	4013	1.42	0.18
006674908-07	OBS	No	255.473691	321.569167	1110.4	6.166	9.9	8.3	0.63	4013	2.07	0.20
006674908-08	OBS	No	187.564877	216.768115	723.2	2.416	8.8	5.5	0.63	4013	1.74	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006674908-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
006674908-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS—HALO_GHOST
006674908-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006674908-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

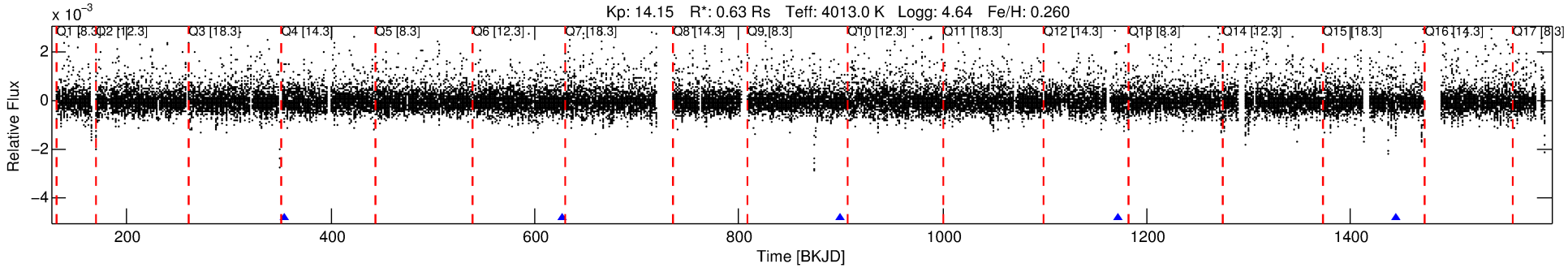
Ephemeris Match Information For 006674908-06

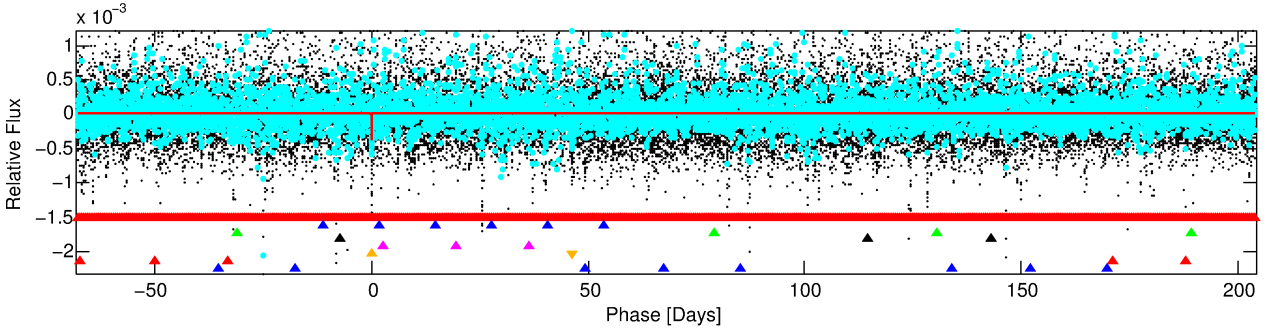
No Significant Match Found

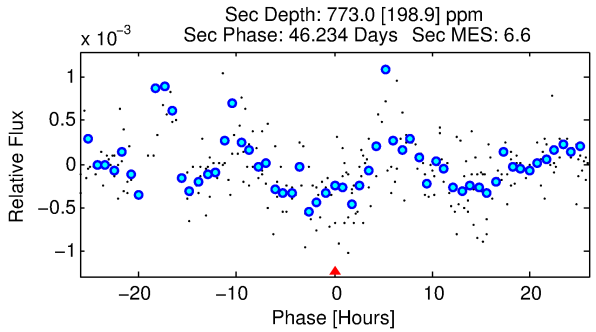
DV One-Page Summary

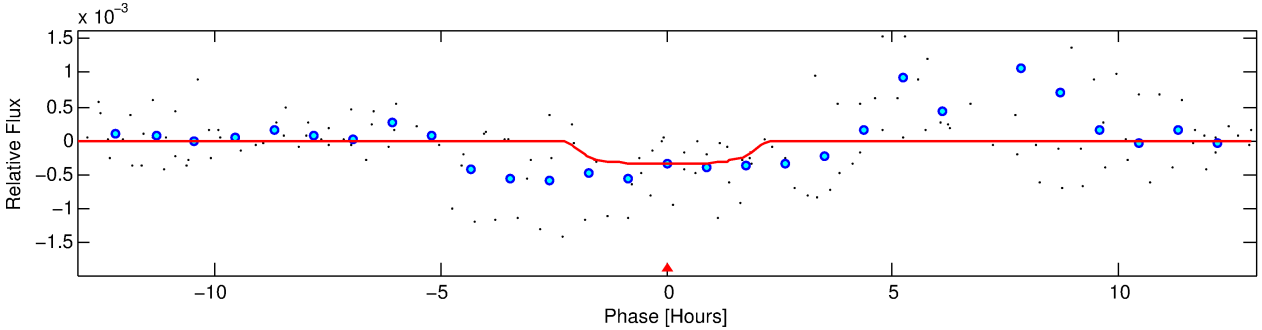
KIC: 6674908 Candidate: 6 of 8 Period: 272.403 d
KOI: K06149 Corr: No Ephemeris Match

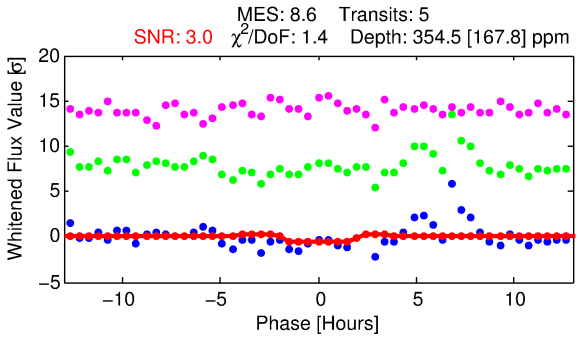
Kp: 14.15 R*: 0.63 Rs Teff: 4013.0 K Logg: 4.64 Fe/H: 0.260

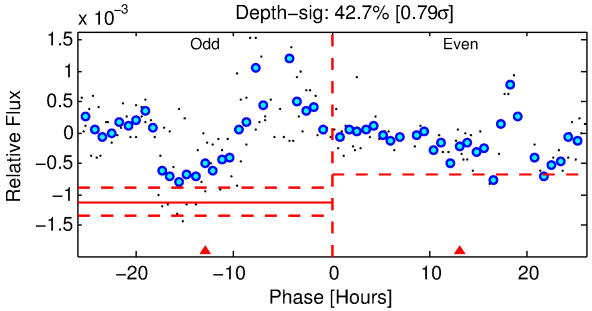


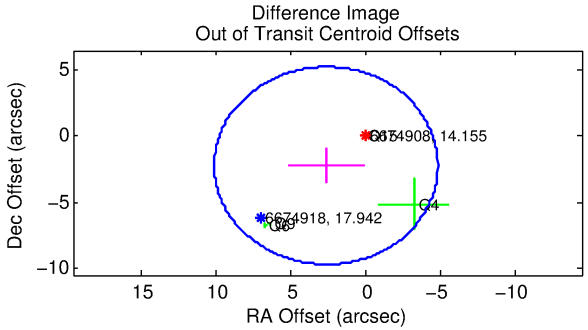












DV Fit Results:

Period = 272.40294 [0.01381] d
Epoch = 354.9555 [0.0287] BKJD
Rp/R* = 0.0207 [0.0301]
a/R* = 246.82 [1286.99]
b = 0.88 [1.36]

Seff = 0.19 [0.03]
Teq = 167 [8] K
Rp = 1.42 [2.07] Re
a = 0.7053 [0.0557] AU

Ag = 104379.38 [304642.30] [0.34σ]
Teffp = 4650 [3395] K [1.32σ]

DV Diagnostic Results:

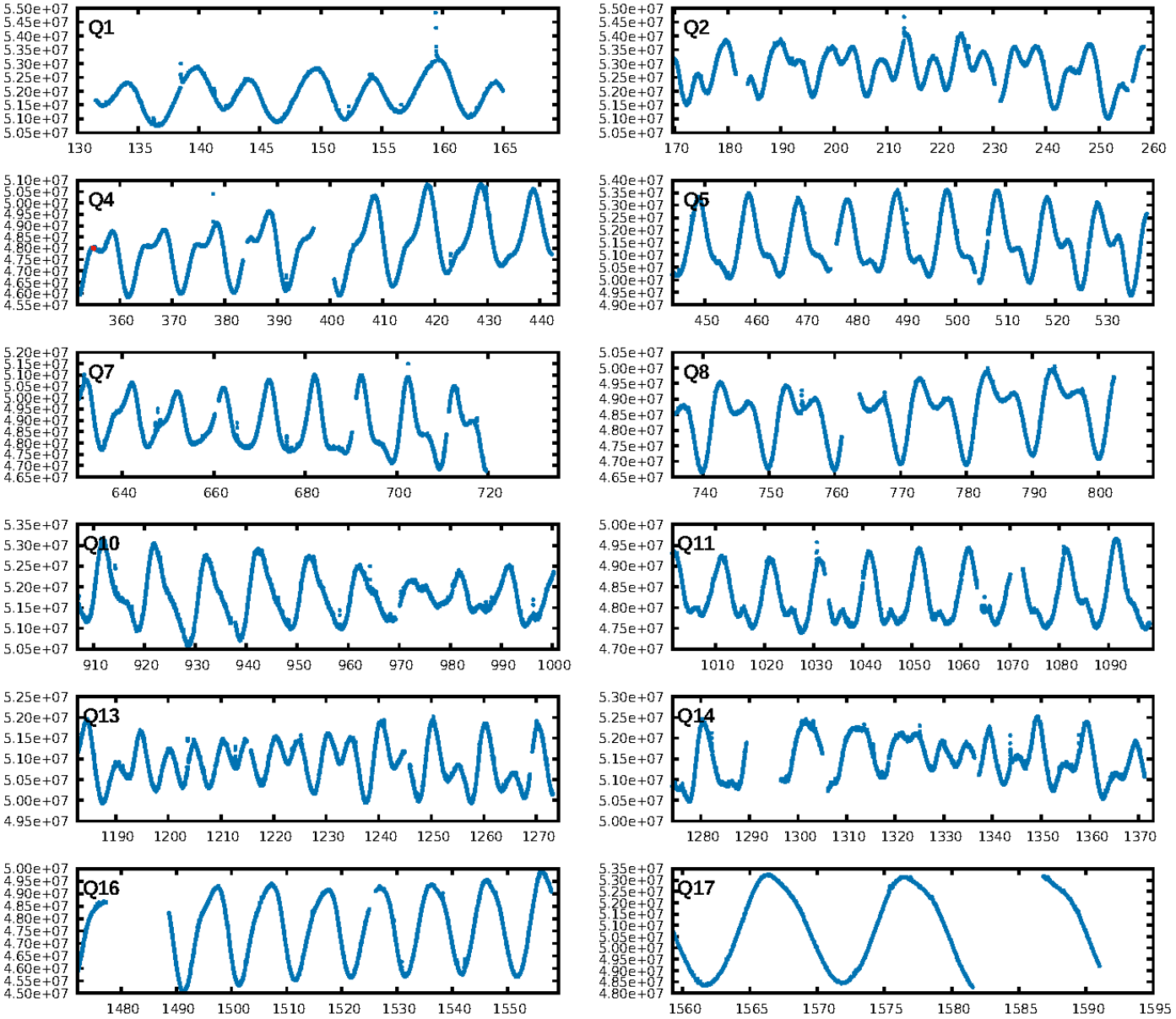
ShortPeriod−sig: 100.0% [49.74σ]
LongPeriod−sig: 100.0% [572.09σ]
ModelChiSquare2−sig: 16.1%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: 7.96e−08
RollingBand−fgt: 1.00 [5/5]
GhostDiagnostic−chr: −4.013

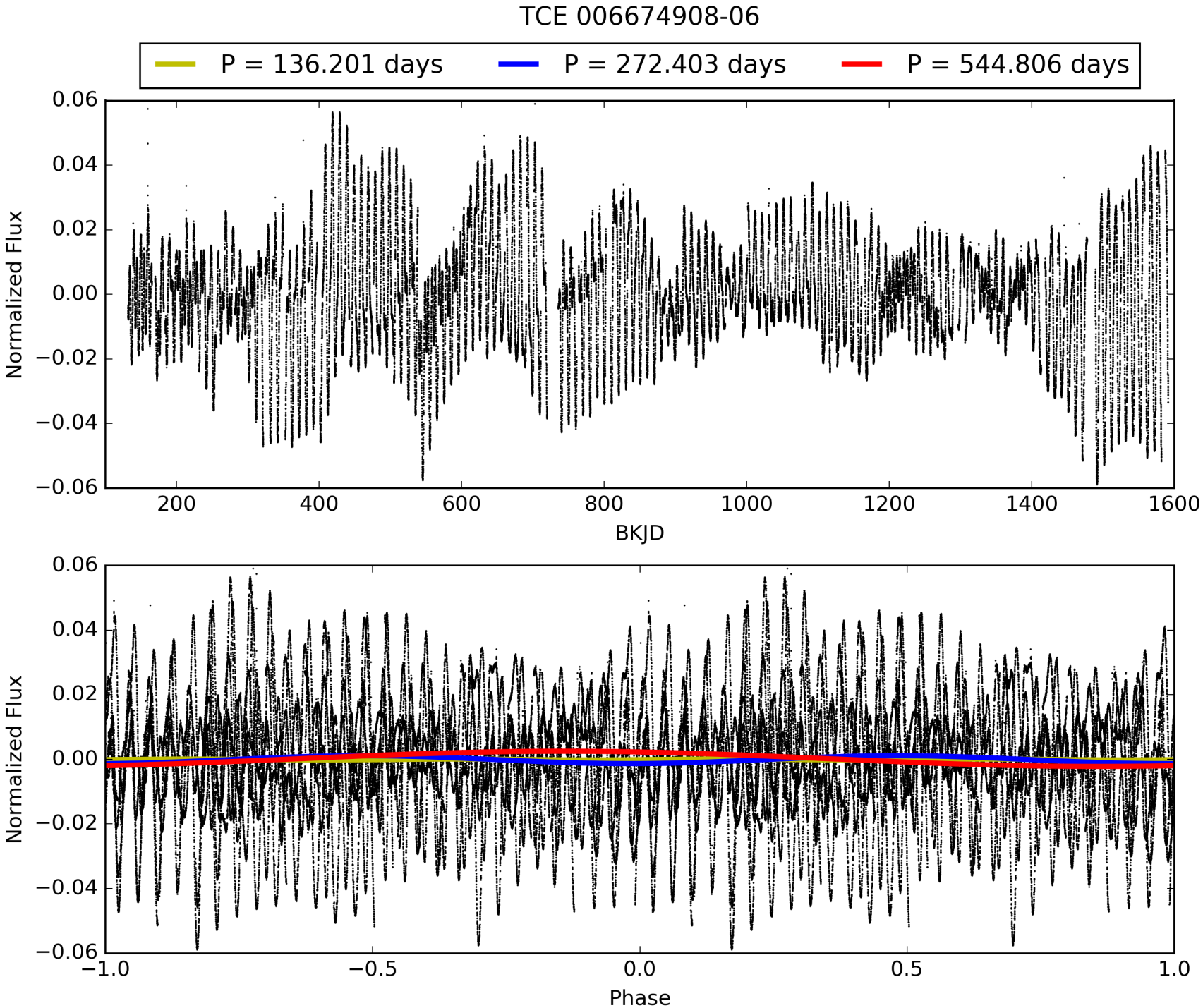
Centroid−sig: N/A
Centroid−so: 1.186 arcsec [0.62σ]
OotOffset−rm: 3.413 arcsec [1.37σ]
KicOffset−rm: 3.308 arcsec [1.60σ]
OotOffset−st: 1/1/1/1 [4]
KicOffset−st: 1/1/1/1 [4]
DiffImageQuality−fgm: 0.50 [2/4]
DiffImageOverlap−fno: 0.00 [0/4]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 03:30:29 Z

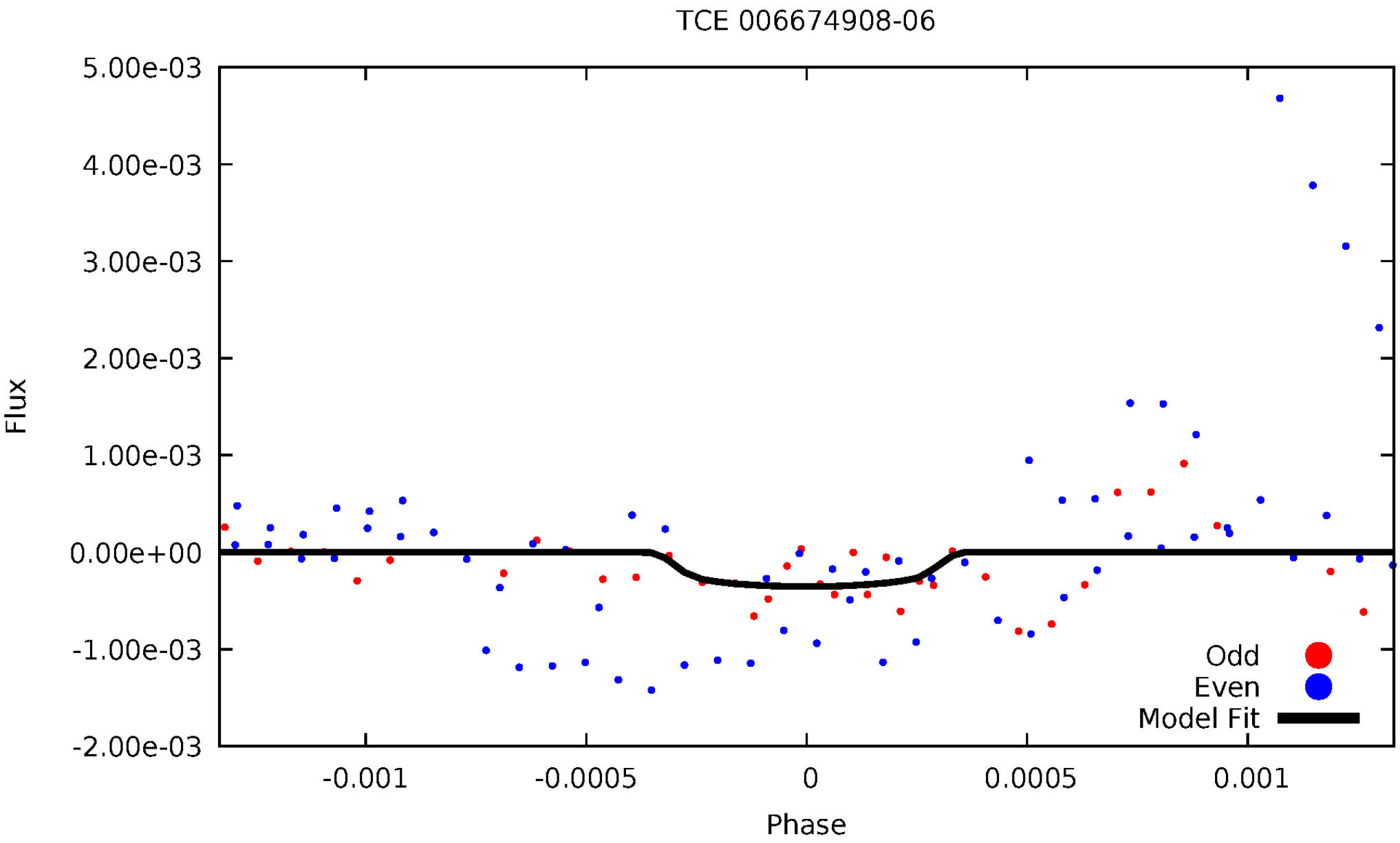
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006674908-06, PDC Light Curves




TCE 006674908-06
P = 136.201 days
P = 272.403 days
P = 544.806 days
Normalized Flux
BKJD
Normalized Flux
Phase

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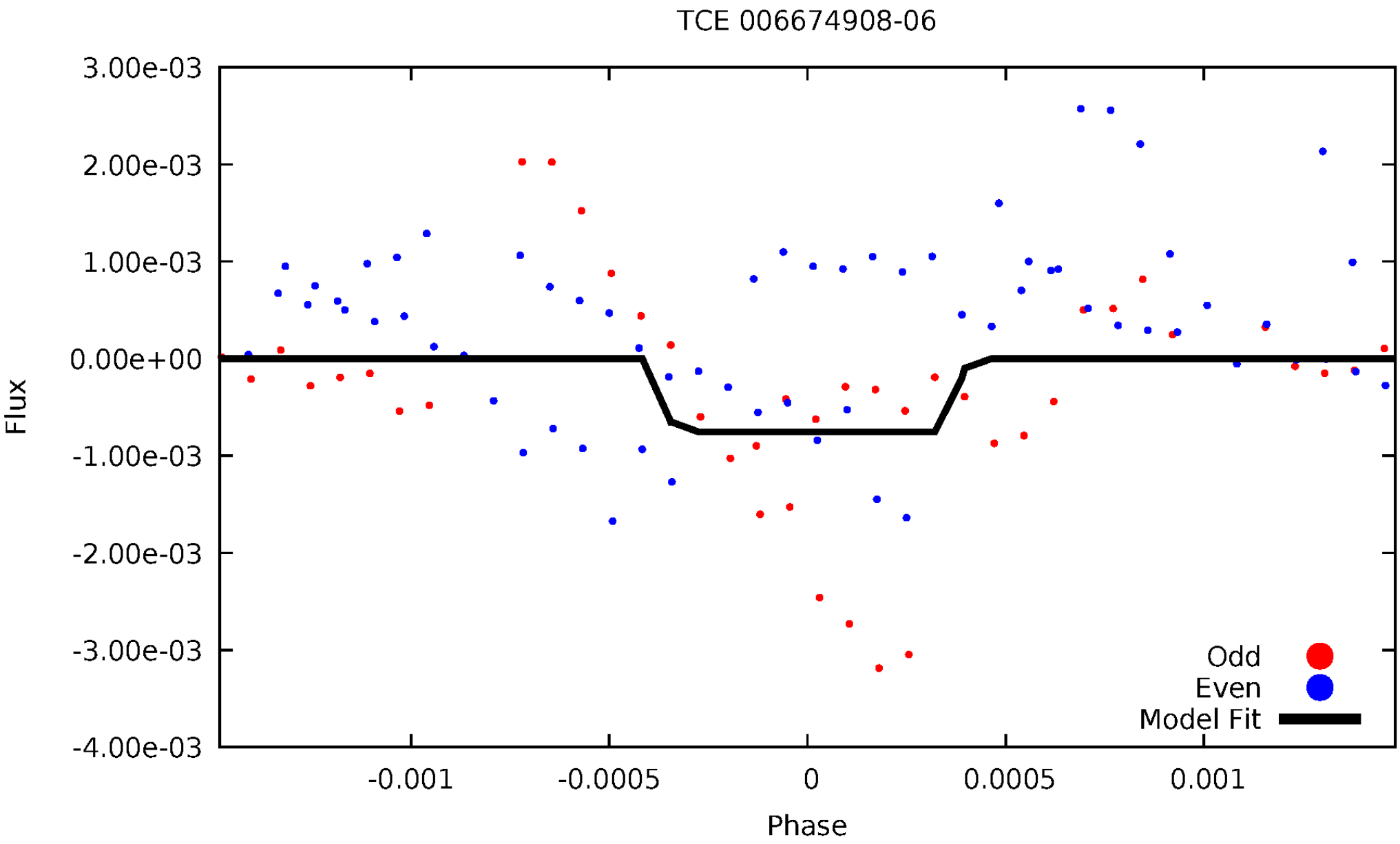
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006674908-06
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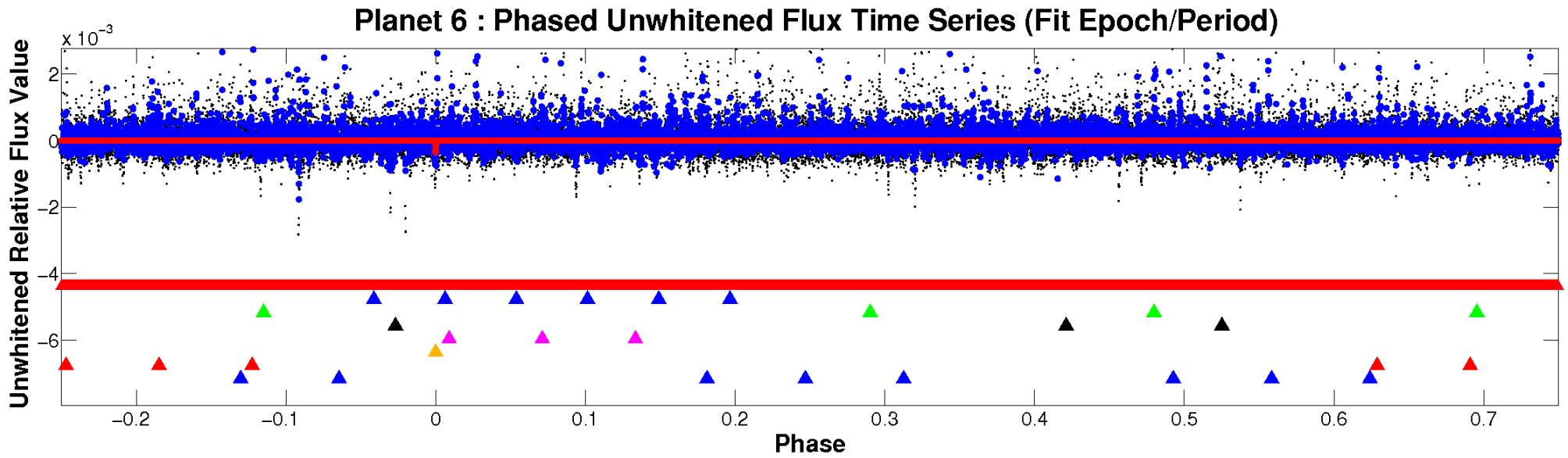
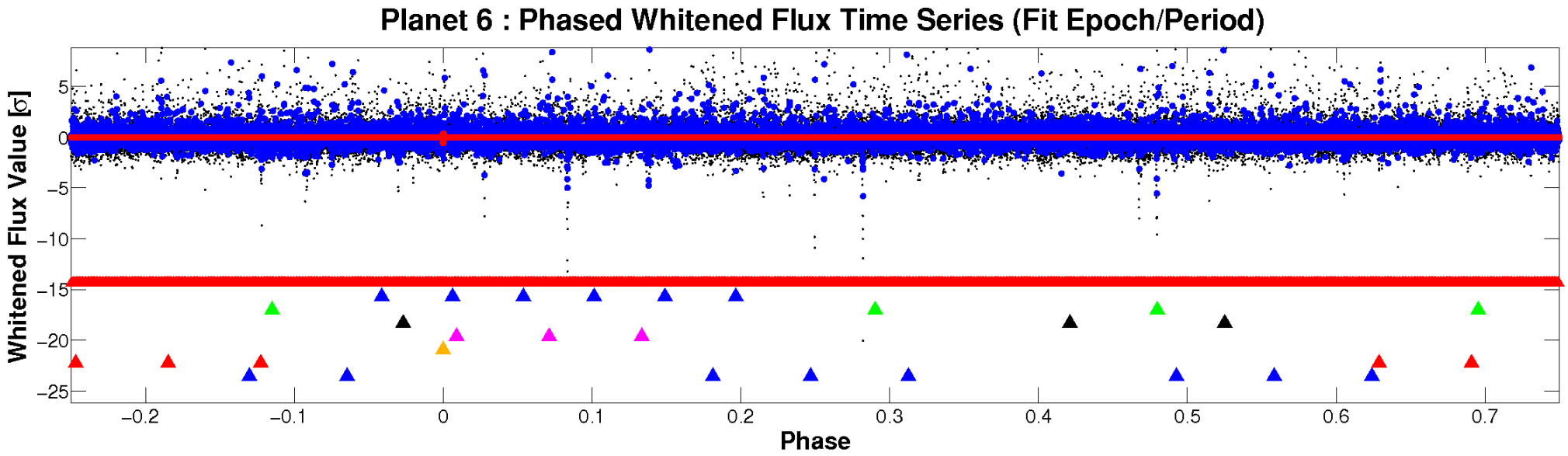
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

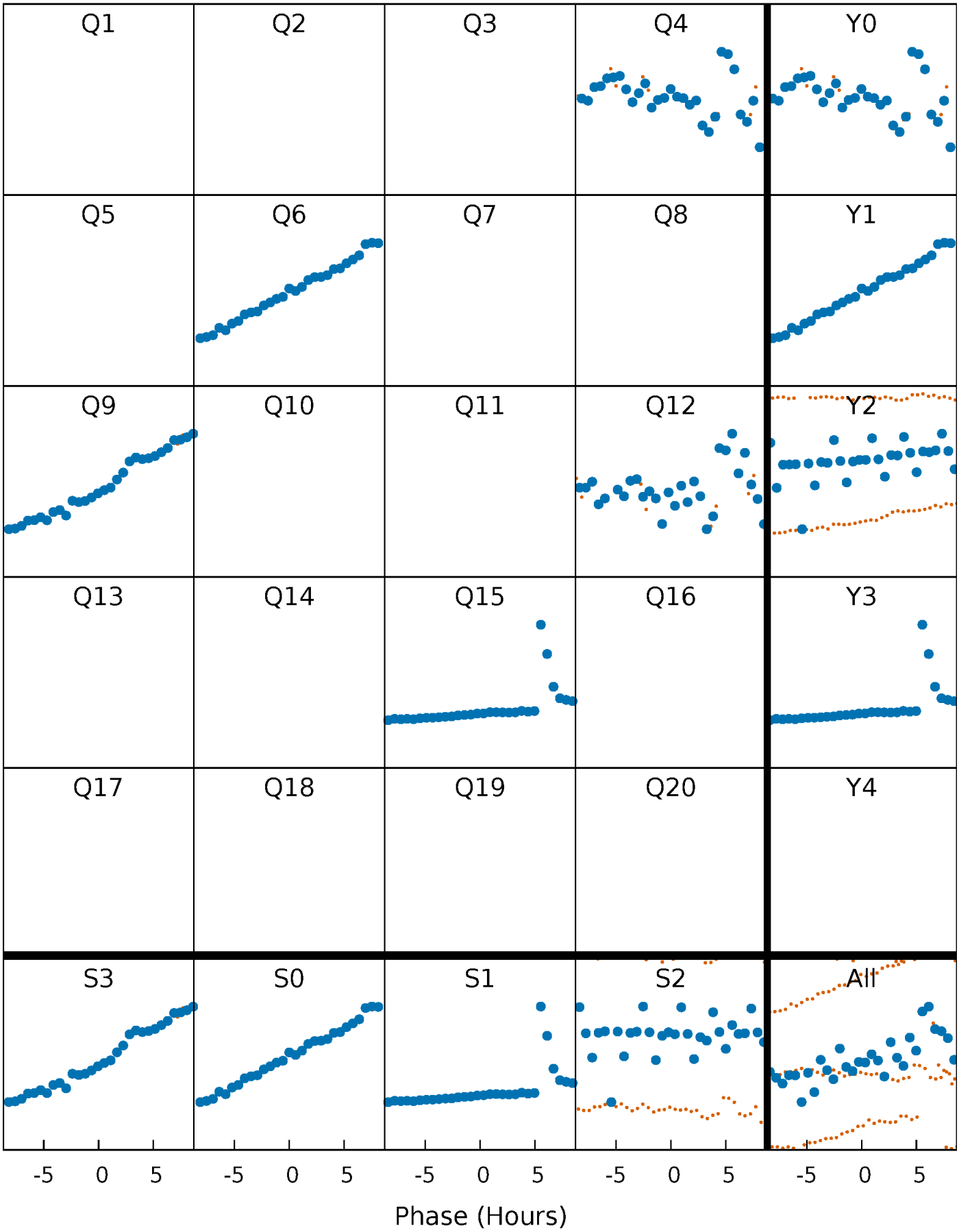
Non-Whitened Vs. Whitened Light Curve





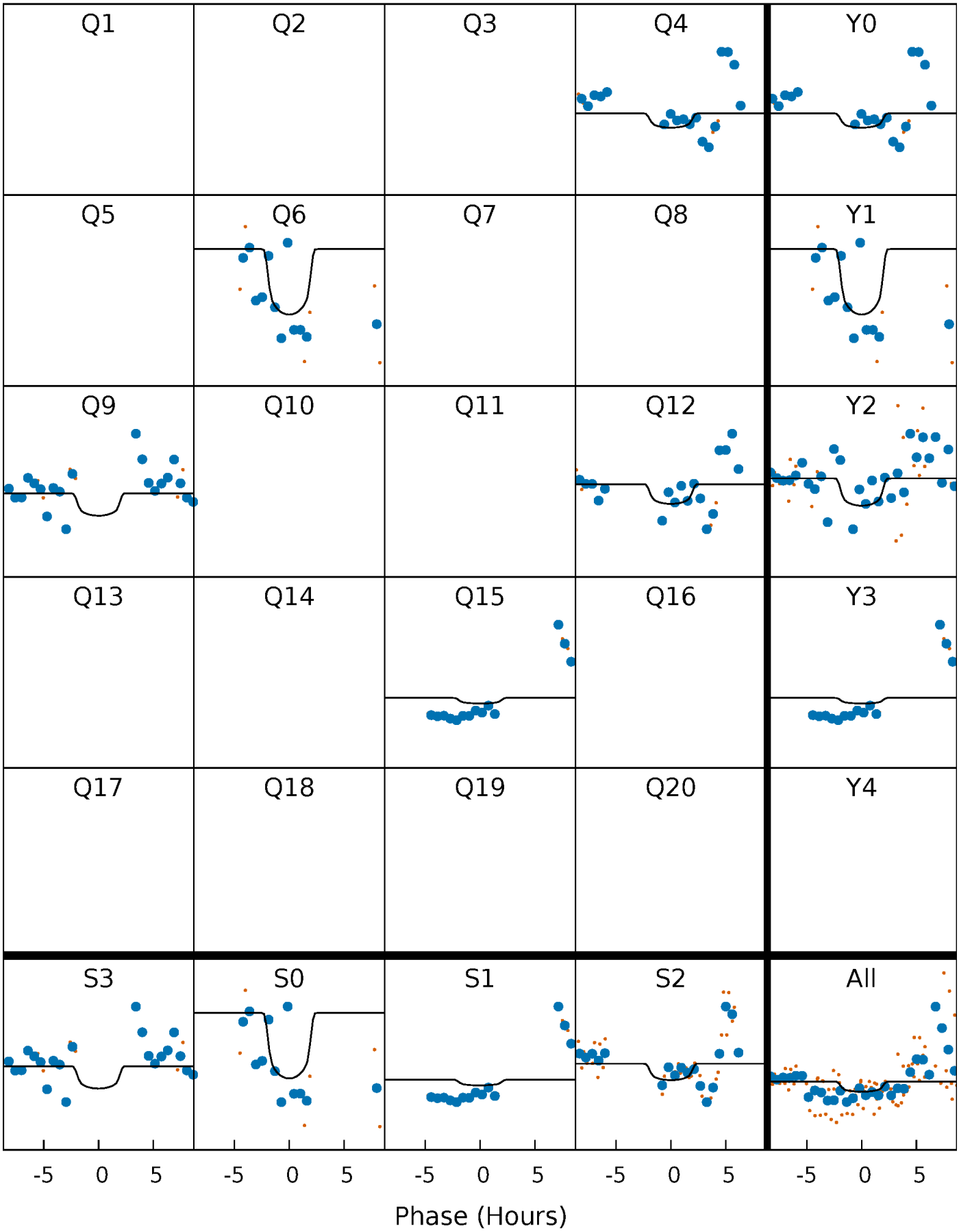
PDC Quarter-Phased Transit Curves

TCE 006674908-06 P=272.402936 Days T_0=354.955473 (BKJD)



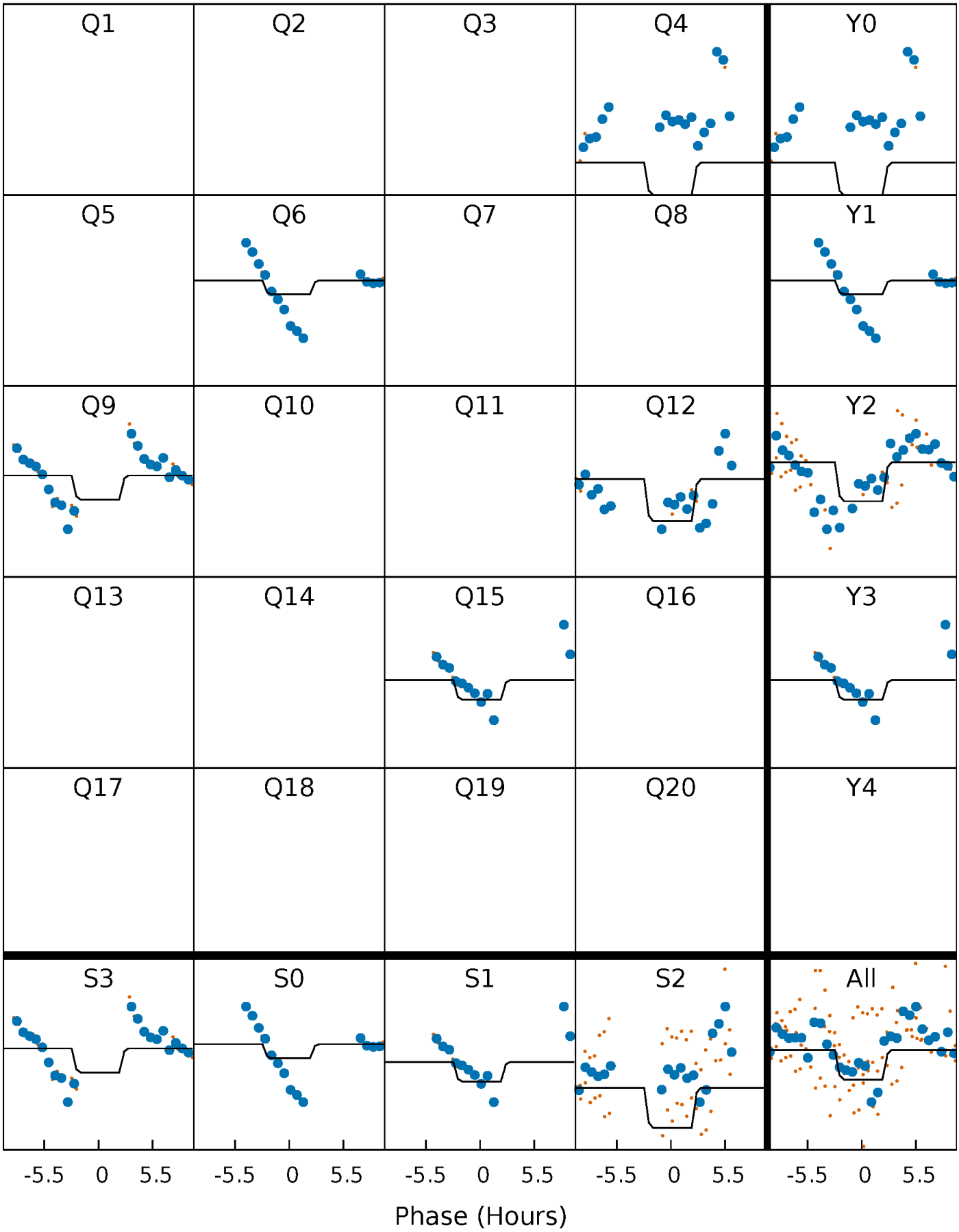
DV Quarter-Phased Transit Curves

TCE 006674908-06 P=272.402936 Days T_0=354.955473 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

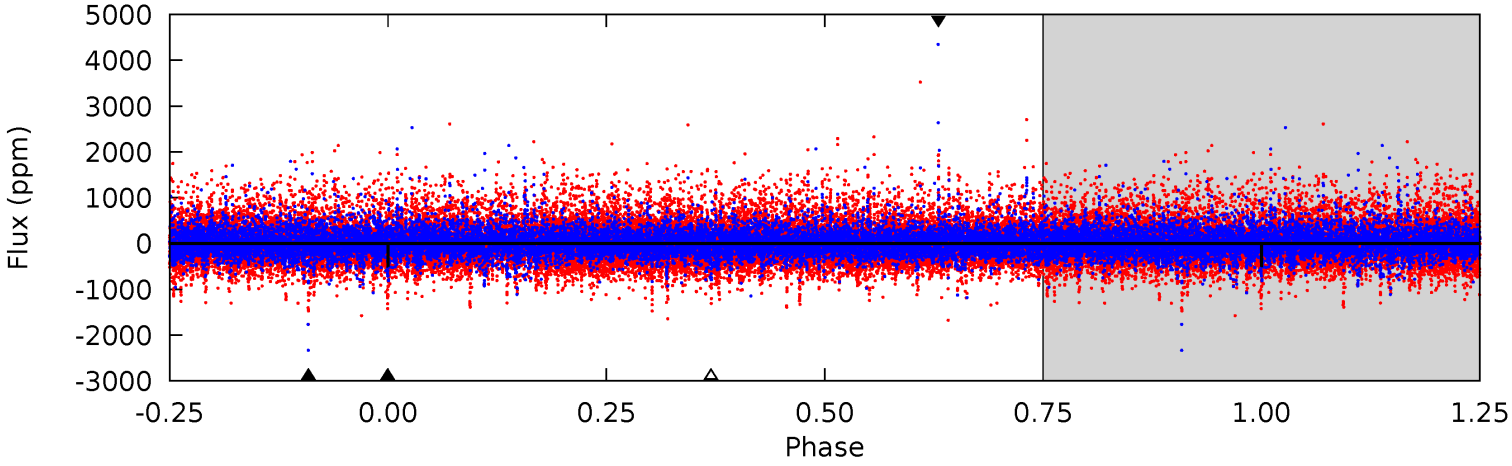
TCE 006674908-06 P=272.399788 Days T_0=354.967498 (BKJD)

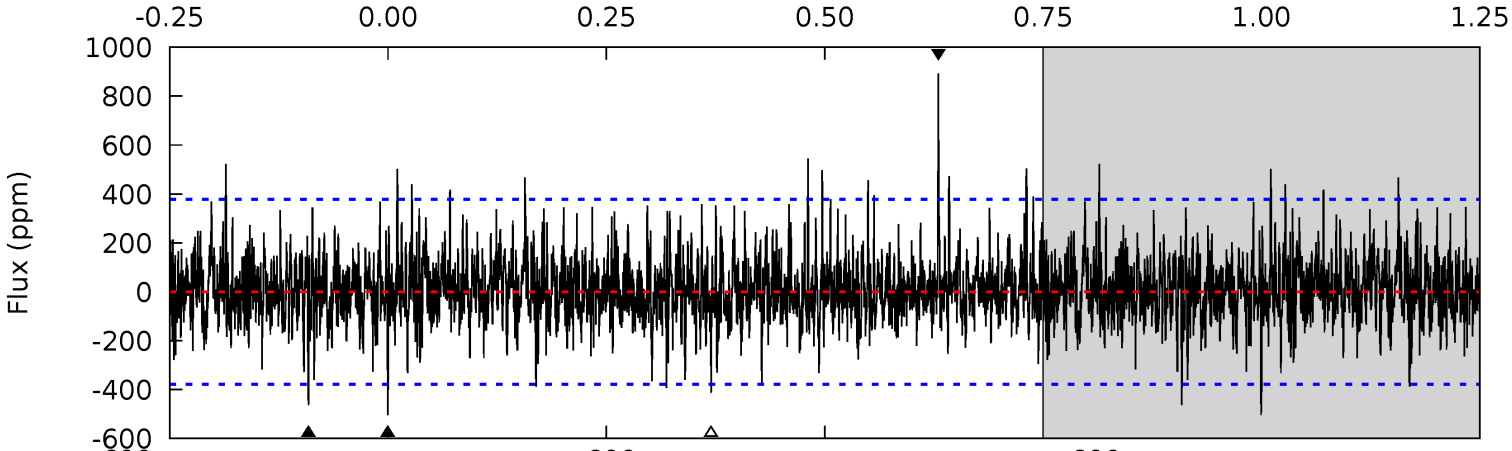


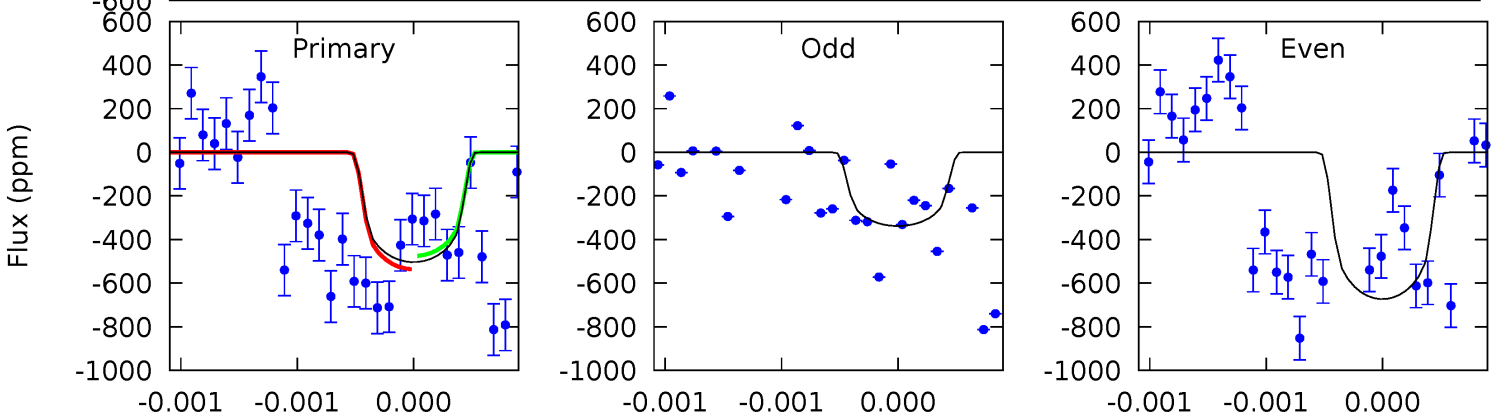
DV Model-Shift Uniqueness Test

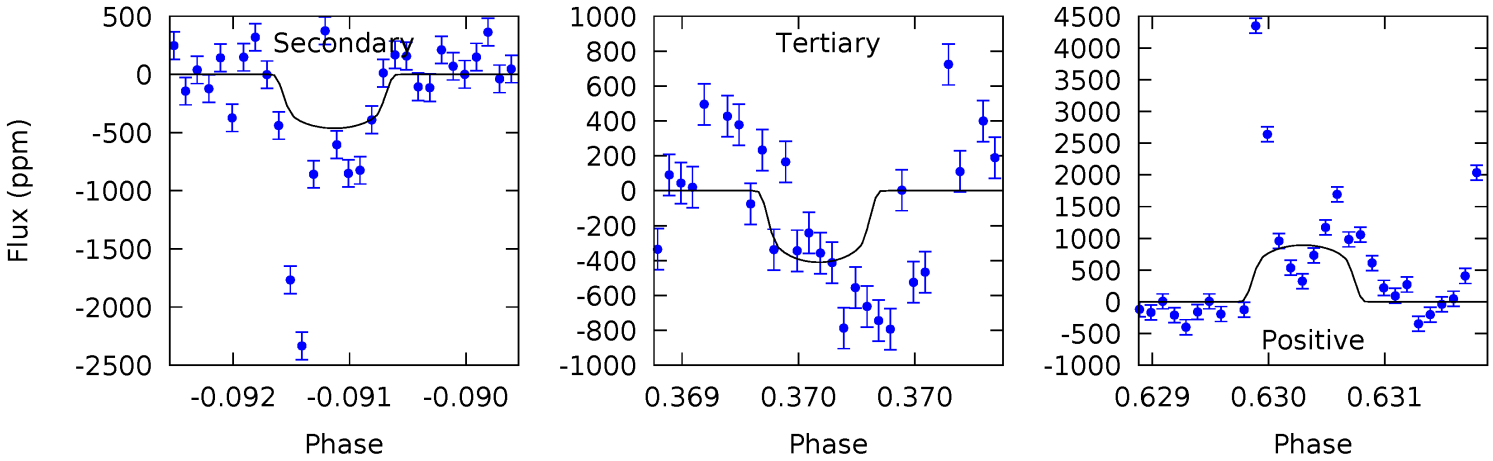
006674908-06, P = 272.402936 Days, E = 82.552537 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.35	6.76	5.98	13.0	5.52	3.40	1.71	1.37	-5.68	0.78	-6.27	2.14	1.43	0.64	0.45





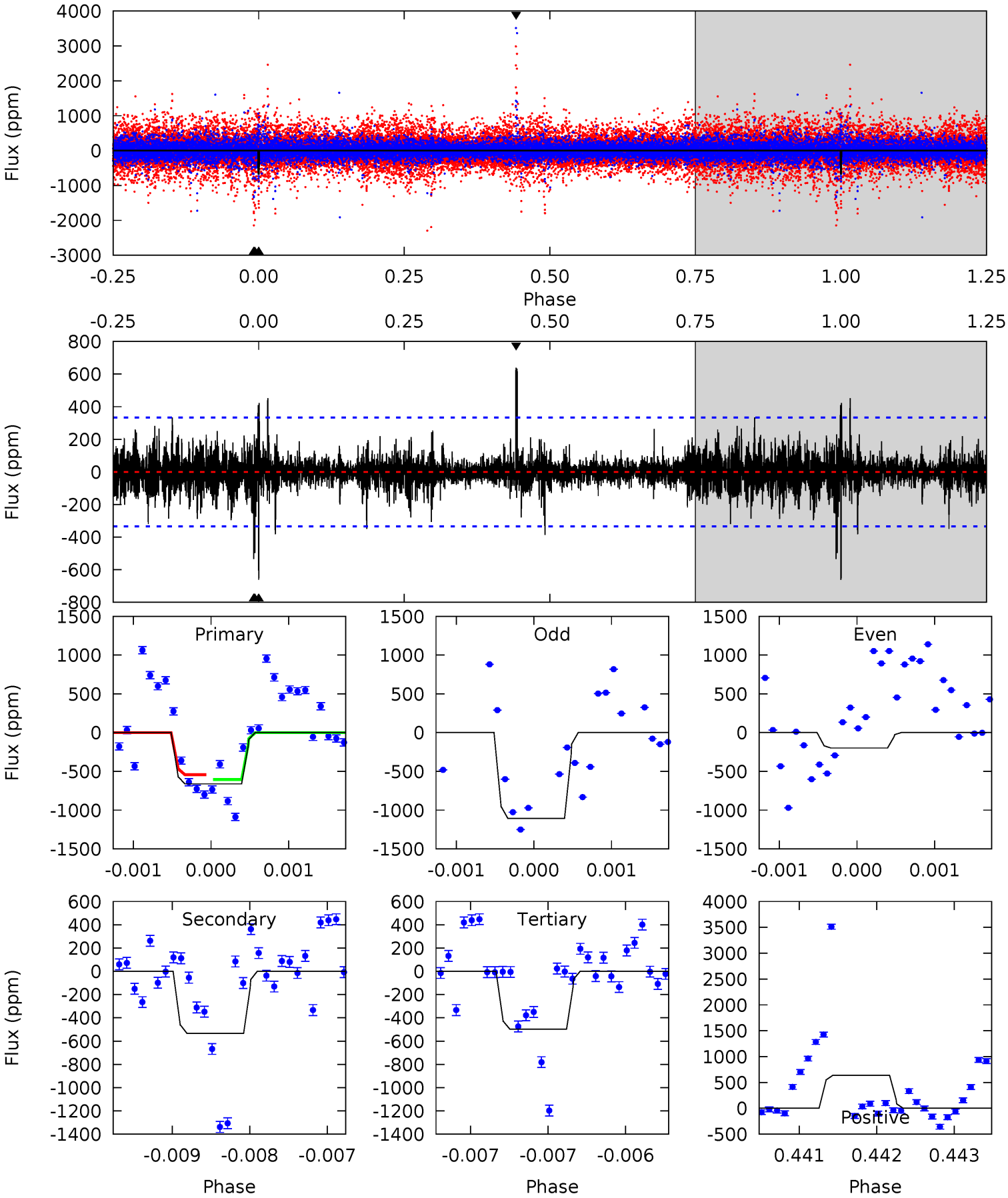




Alt Model-Shift Uniqueness Test

006674908-06, P = 272.399788 Days, E = 82.567710 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	8.76	8.17	10.5	5.49	3.35	1.18	2.69	0.37	0.59	-1.73	6.51	0.87	0.49	0



Stellar Parameters For KIC 006674908

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	4013^{+140}_{-154}	$4.639^{+0.053}_{-0.021}$	$0.260^{+0.200}_{-0.300}$	$0.630^{+0.029}_{-0.064}$	$0.630^{+0.042}_{-0.061}$	$3.552^{+0.893}_{-0.273}$
	+3%/-4%	+1%/-0%	+77%/-115%	+5%/-10%	+7%/-10%	+25%/-8%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006674908-06 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-463±69	$2.16^{+1.72}_{-1.39}$	233^{+8}_{-10}	3533^{+1563}_{-598}	$27964^{+185002}_{-19493}$
Alt.	-533±61	$2.37^{+1.55}_{-1.45}$	232^{+9}_{-10}	3491^{+1516}_{-502}	$25523^{+143921}_{-16141}$

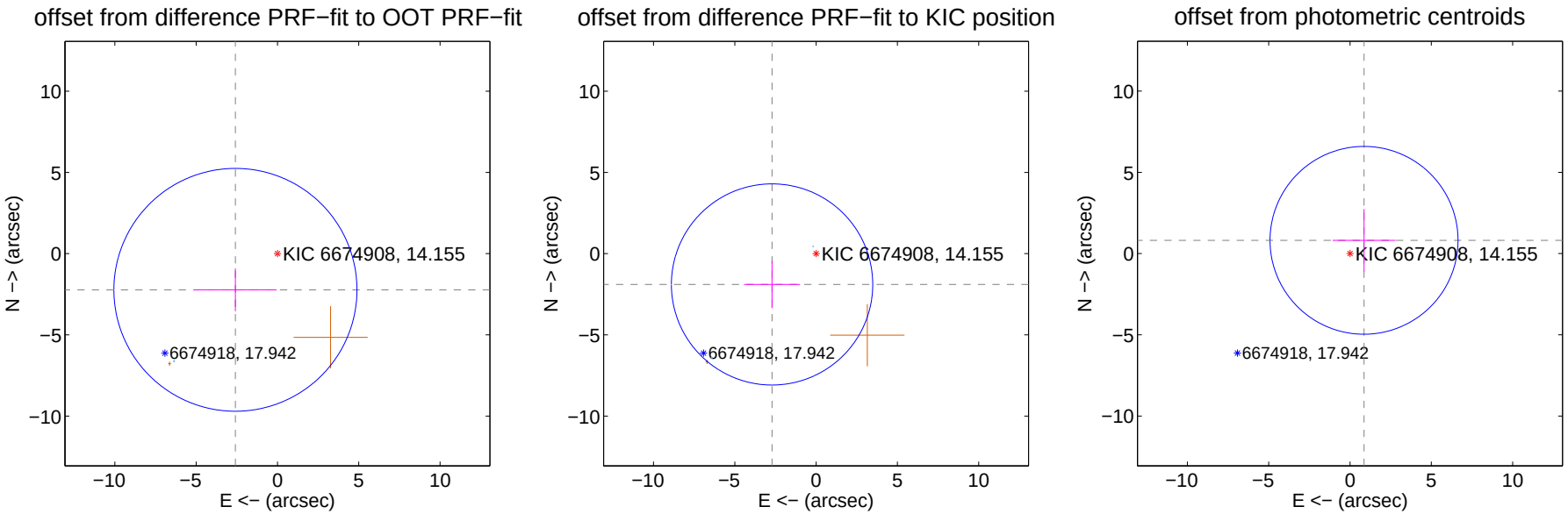
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

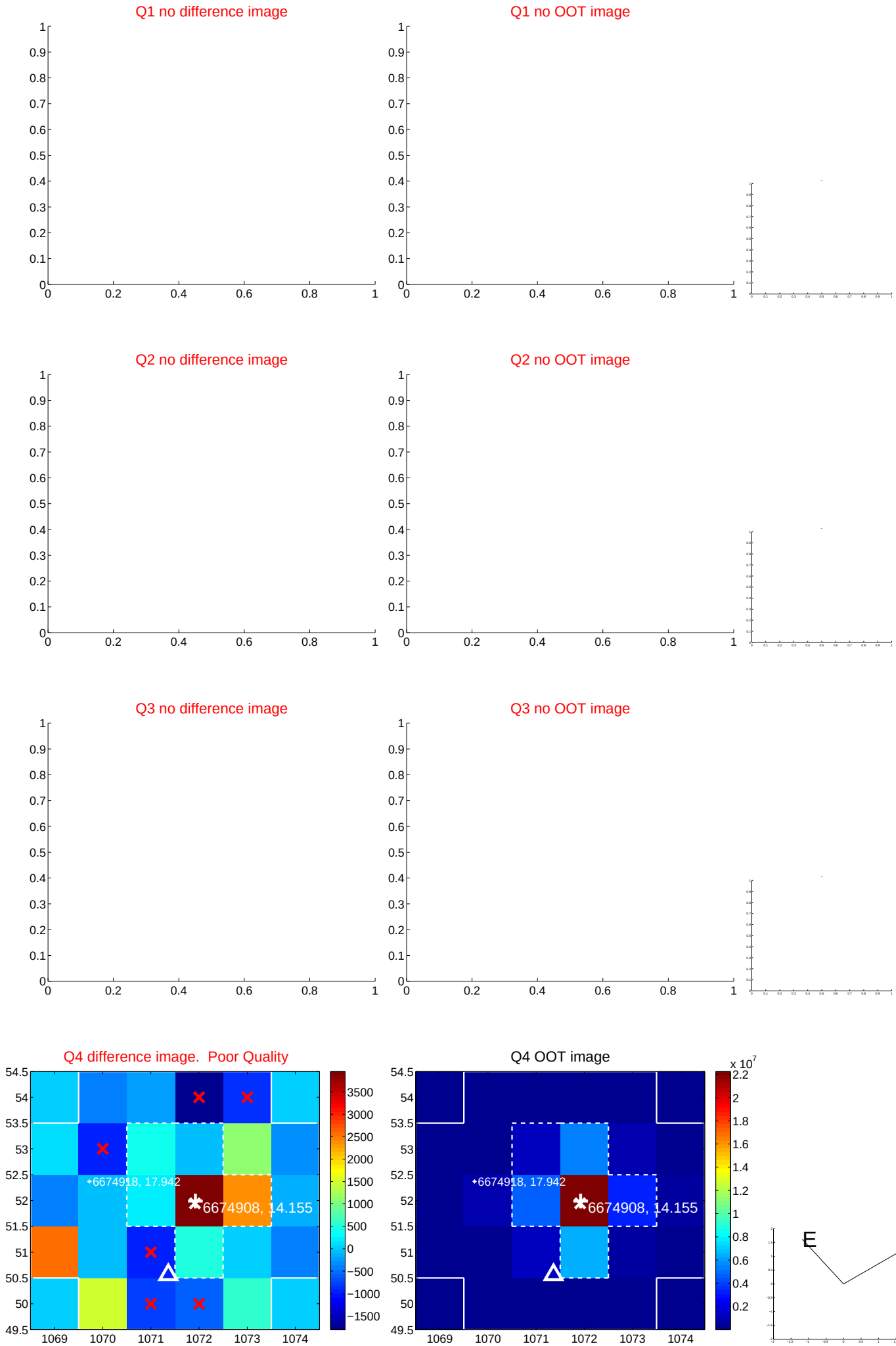
Supplemental centroid analysis for 006674908-06. Kepler magnitude: 14.15. Transit SNR 2.99
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.44 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.413 ± 2.492	1.37	2.585 ± 2.535	-2.228 ± 1.317
PRF-fit source offset from KIC position	3.308 ± 2.064	1.60	2.710 ± 1.722	-1.897 ± 1.456
photometric centroid source offset	1.19 ± 1.93	0.62	-0.86 ± 1.93	0.82 ± 1.92

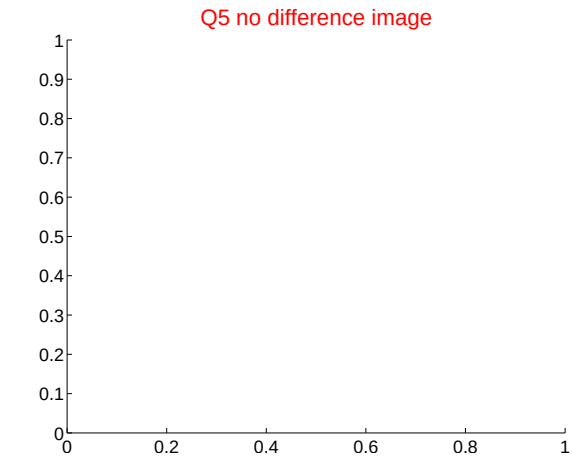


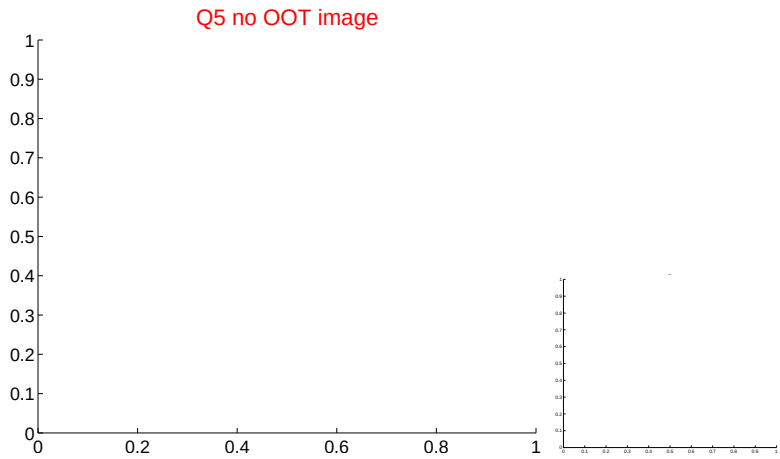
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

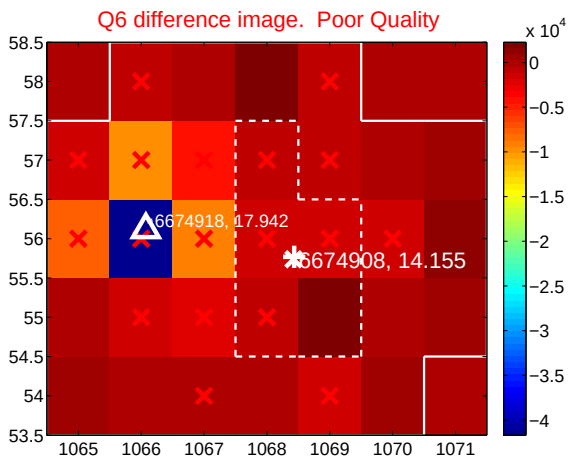
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

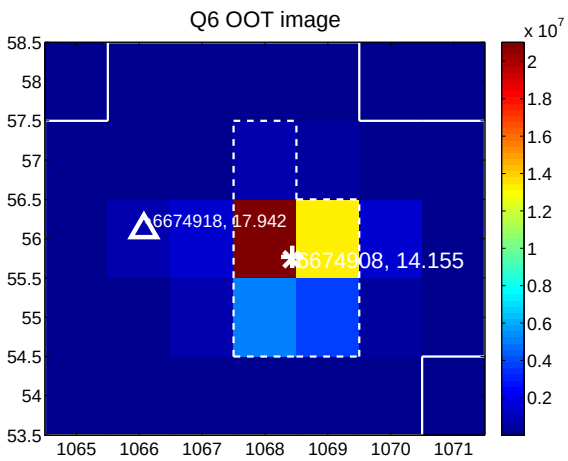


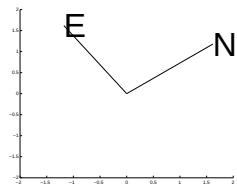
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

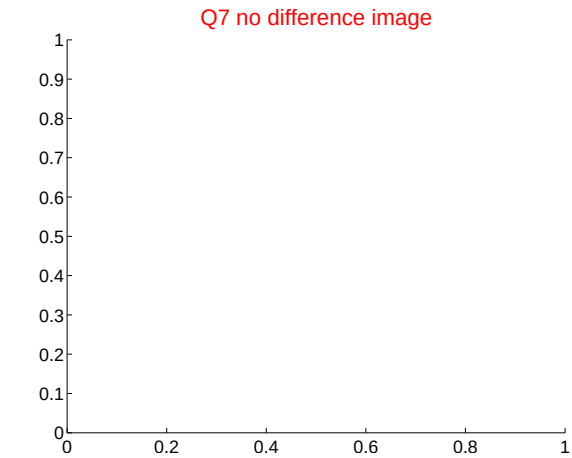


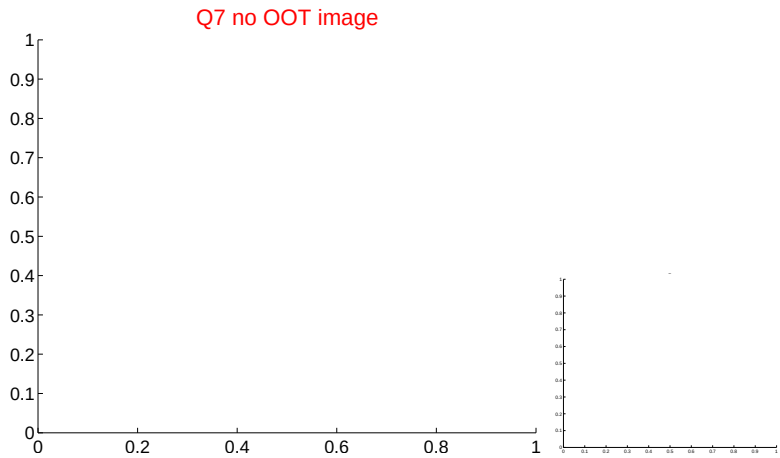


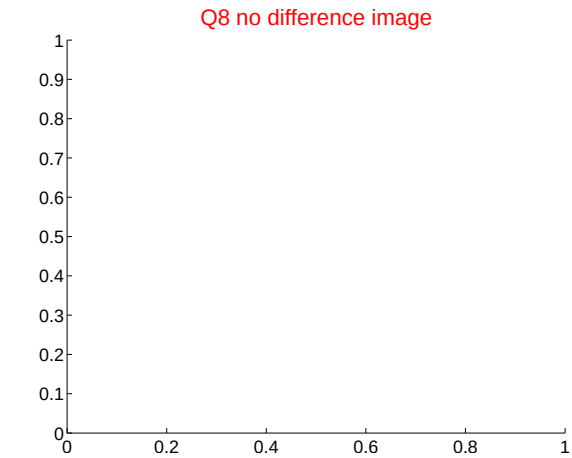


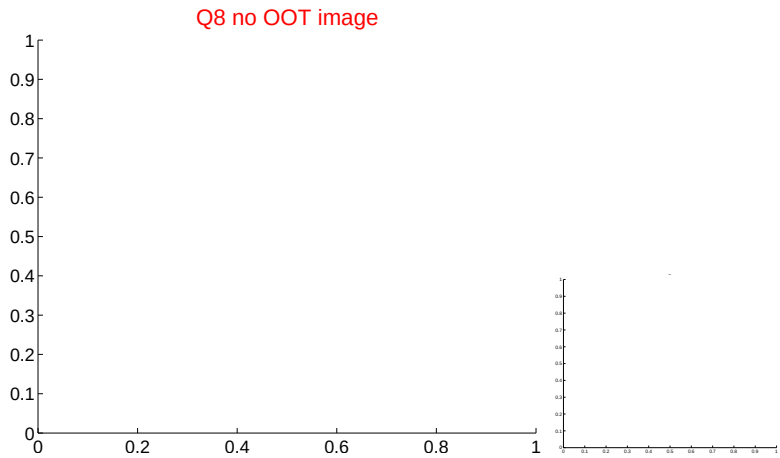




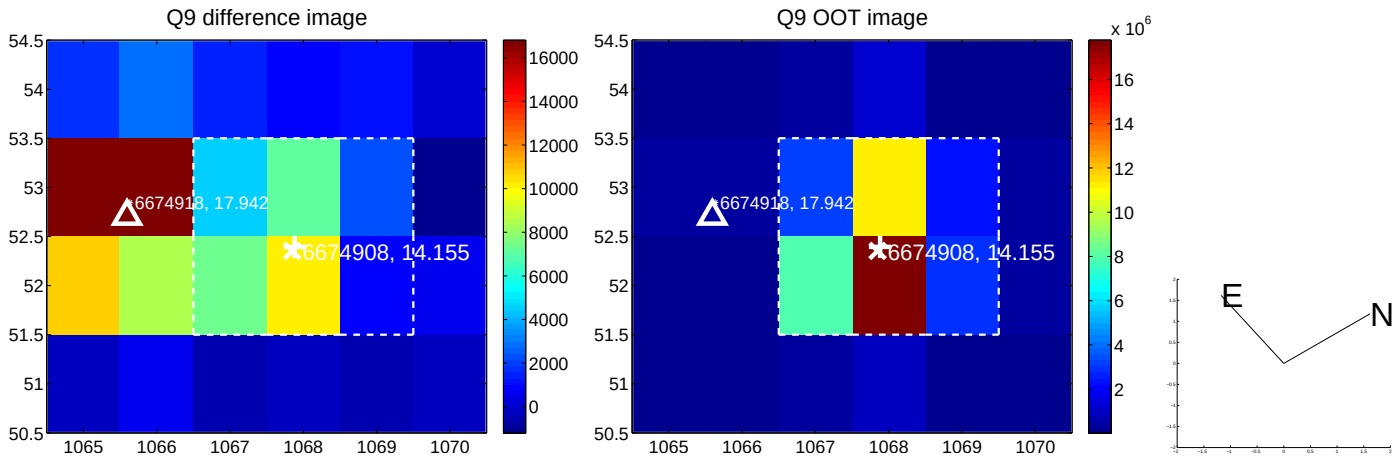


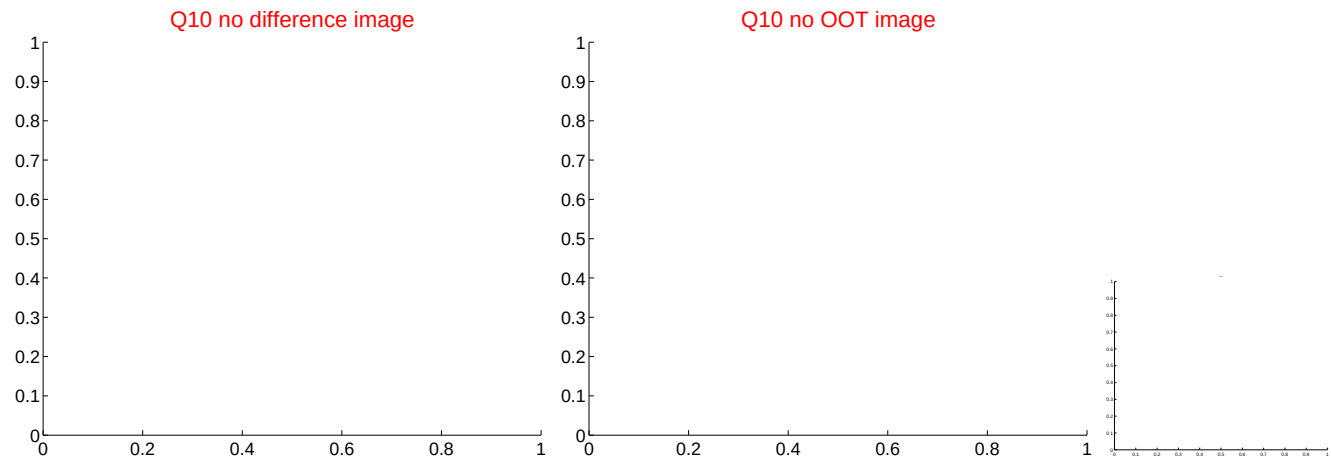


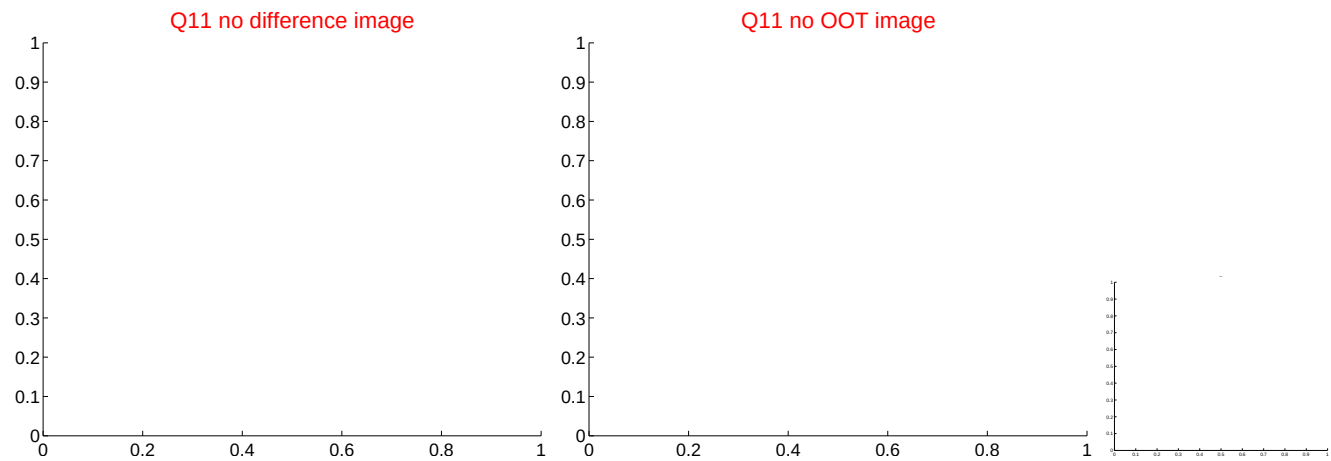


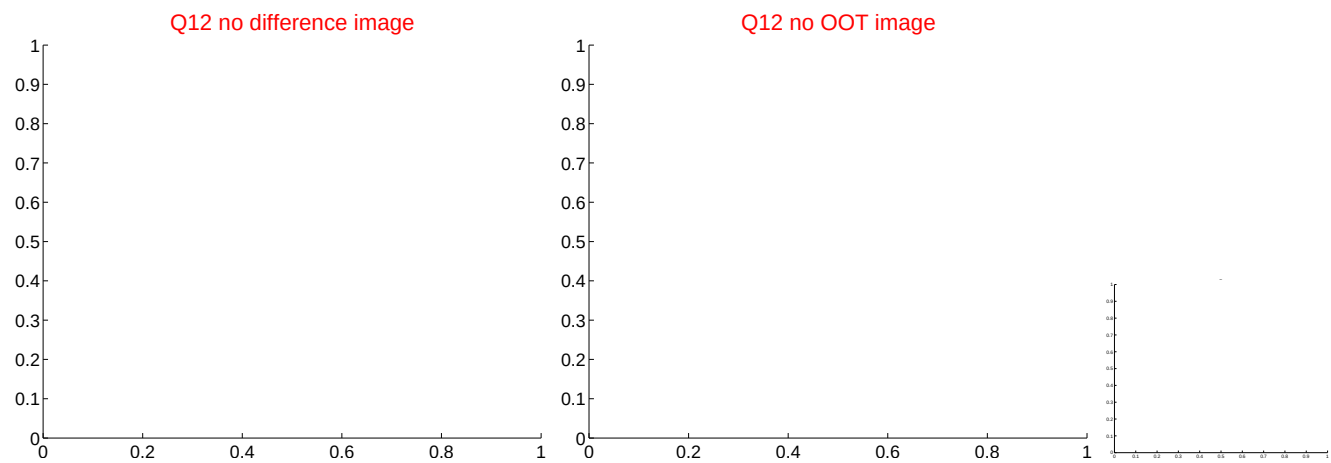


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

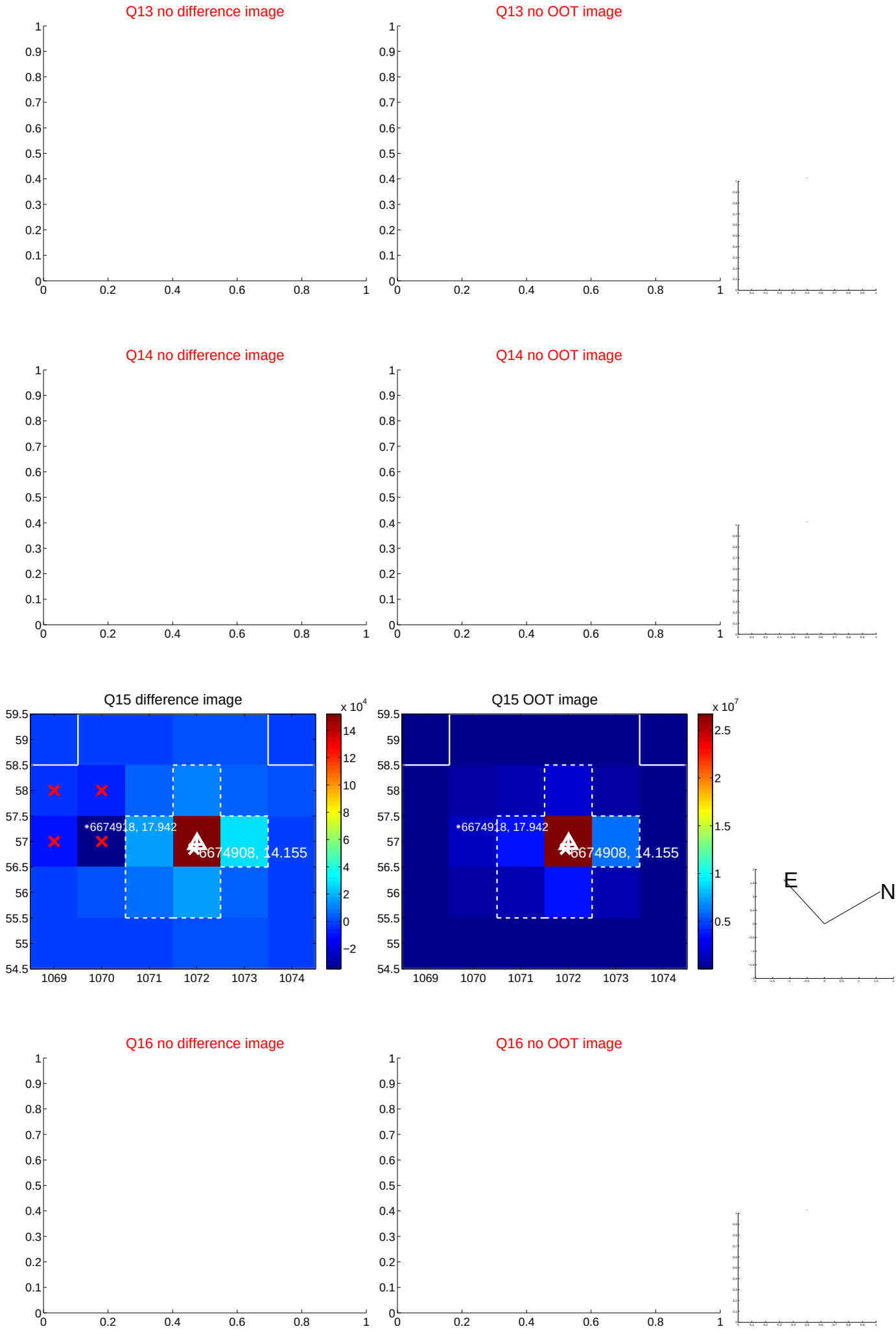




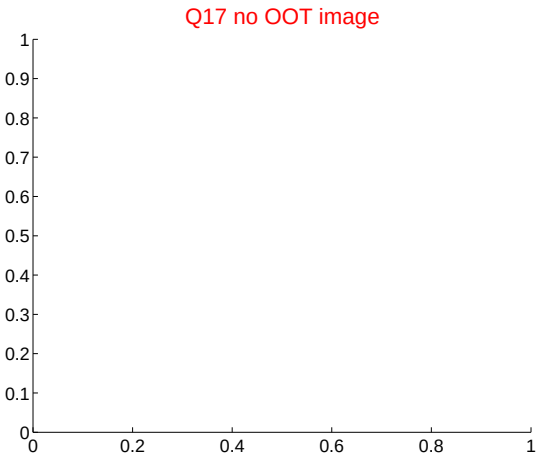


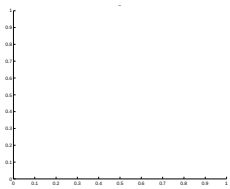


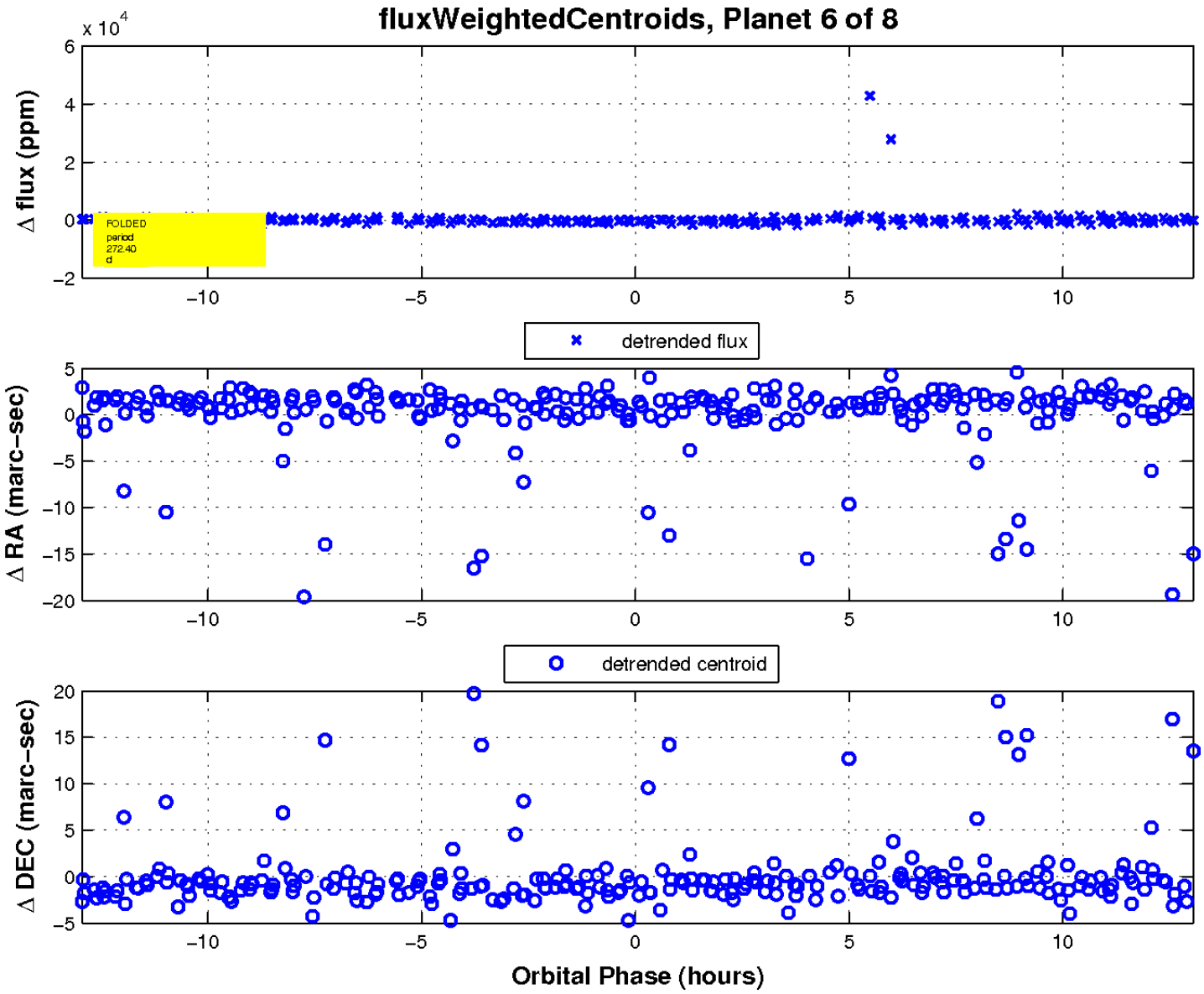
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



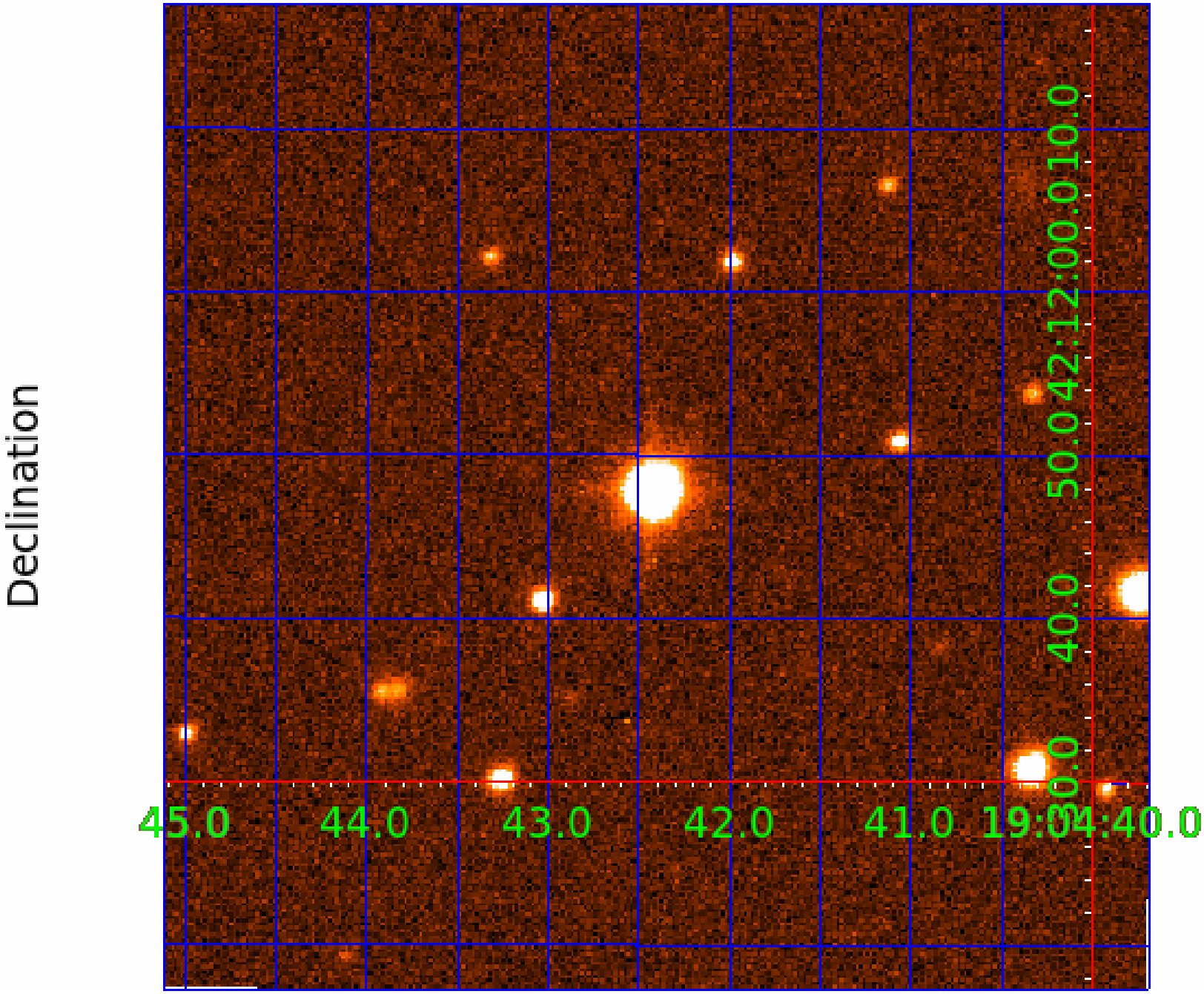
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image


Declination
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44.0
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42.0
41.0
19:04:40.0
30.0
40.0
50.0
42:12:00.0
10.0

KIC 006674908

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 ($S_\oplus$)
006674908-01	OBS	6149.01	0.503200	131.906622	200.4	1.352	36.3	40.1	0.63	4013	1.10	817.86
006674908-02	OBS	No	259.442963	136.112959	728.6	4.491	13.4	6.1	0.63	4013	1.79	0.20
006674908-03	OBS	No	434.424560	272.003836	963.6	4.291	11.5	7.2	0.63	4013	2.10	0.10
006674908-04	OBS	No	422.769045	469.681101	1075.2	4.566	10.7	7.5	0.63	4013	2.40	0.10
006674908-05	OBS	No	527.862270	391.302998	1302.7	8.764	13.1	7.7	0.63	4013	2.69	0.08
006674908-06	OBS	No	272.402936	354.955473	354.5	4.352	8.6	3.0	0.63	4013	1.42	0.18
006674908-07	OBS	No	255.473691	321.569167	1110.4	6.166	9.9	8.3	0.63	4013	2.07	0.20
006674908-08	OBS	No	187.564877	216.768115	723.2	2.416	8.8	5.5	0.63	4013	1.74	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006674908-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
006674908-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS—HALO_GHOST
006674908-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006674908-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

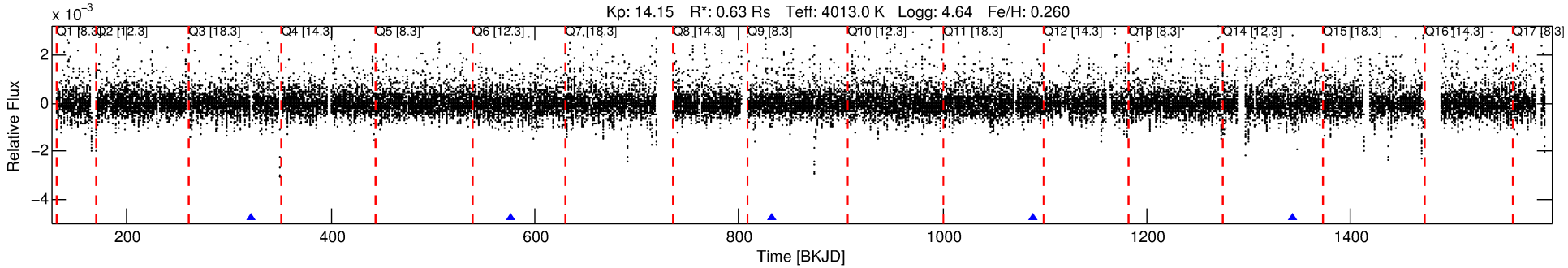
Ephemeris Match Information For 006674908-07

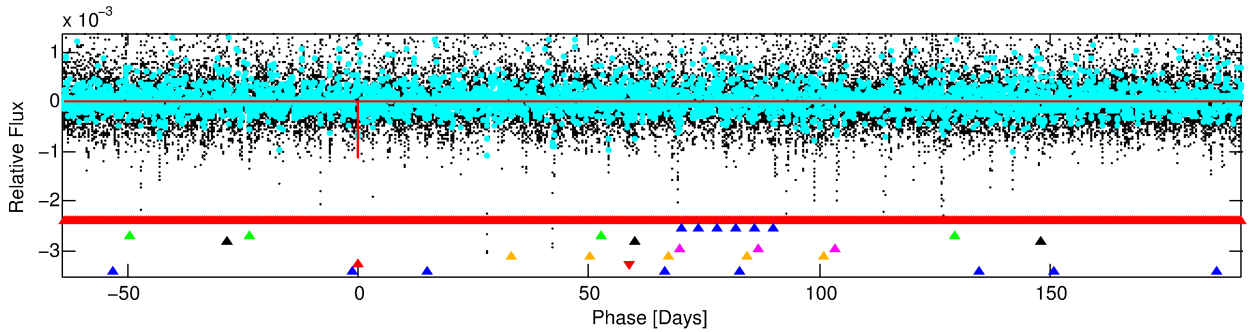
No Significant Match Found

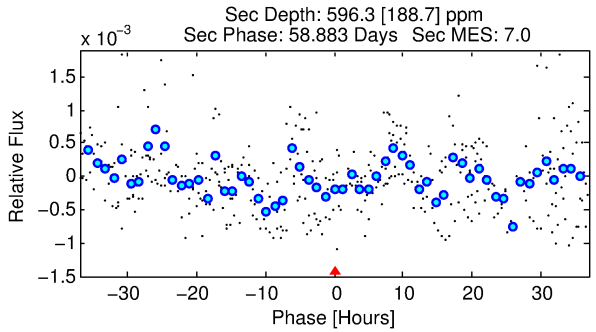
DV One-Page Summary

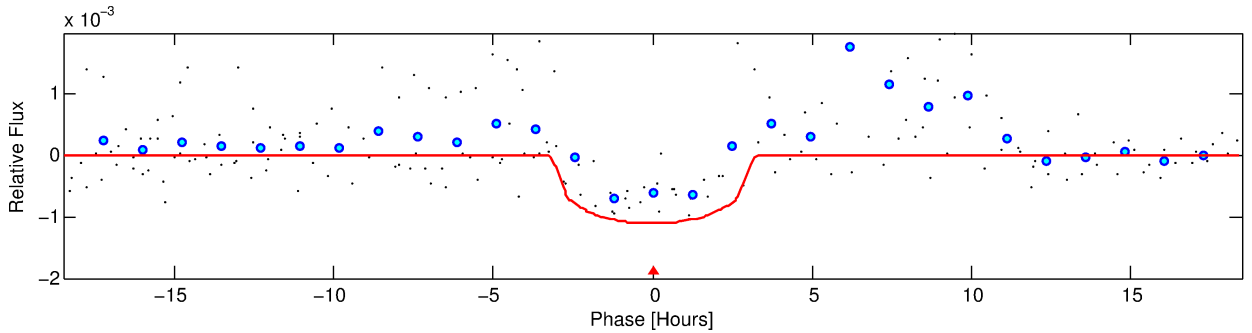
KIC: 6674908 Candidate: 7 of 8 Period: 255.474 d
KOI: K06149 Corr: No Ephemeris Match

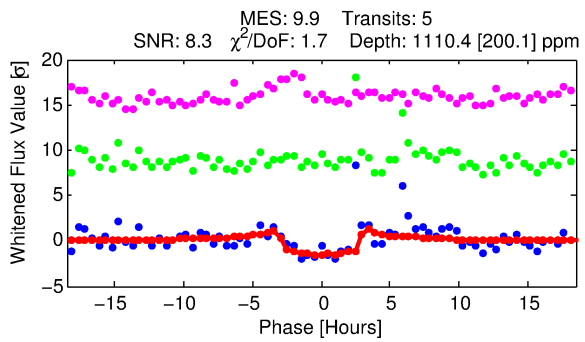
Kp: 14.15 R*: 0.63 Rs Teff: 4013.0 K Logg: 4.64 Fe/H: 0.260

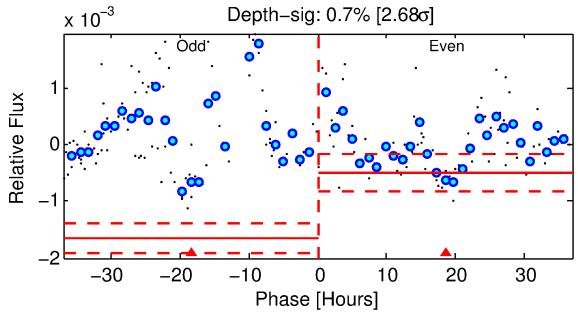


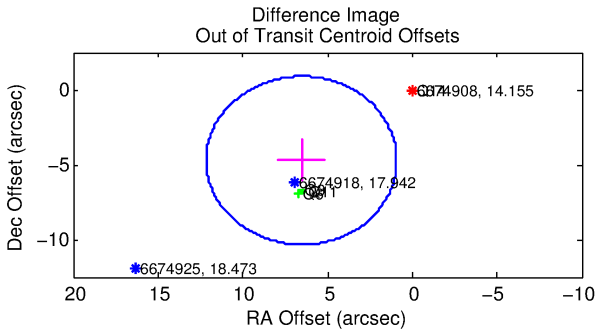












DV Fit Results:

Period = 255.47369 [0.00517] d
Epoch = 321.5692 [0.0137] BKJD
Rp/R* = 0.0301 [0.0447]
a/R* = 300.83 [1363.31]
b = 0.40 [9.79]

Seff = 0.20 [0.04]
Teq = 171 [8] K
Rp = 2.07 [3.08] Re
a = 0.6758 [0.0534] AU

Ag = 34976.13 [104521.72] [0.33σ]
Teffp = 3614 [2702] K [1.27σ]

DV Diagnostic Results:

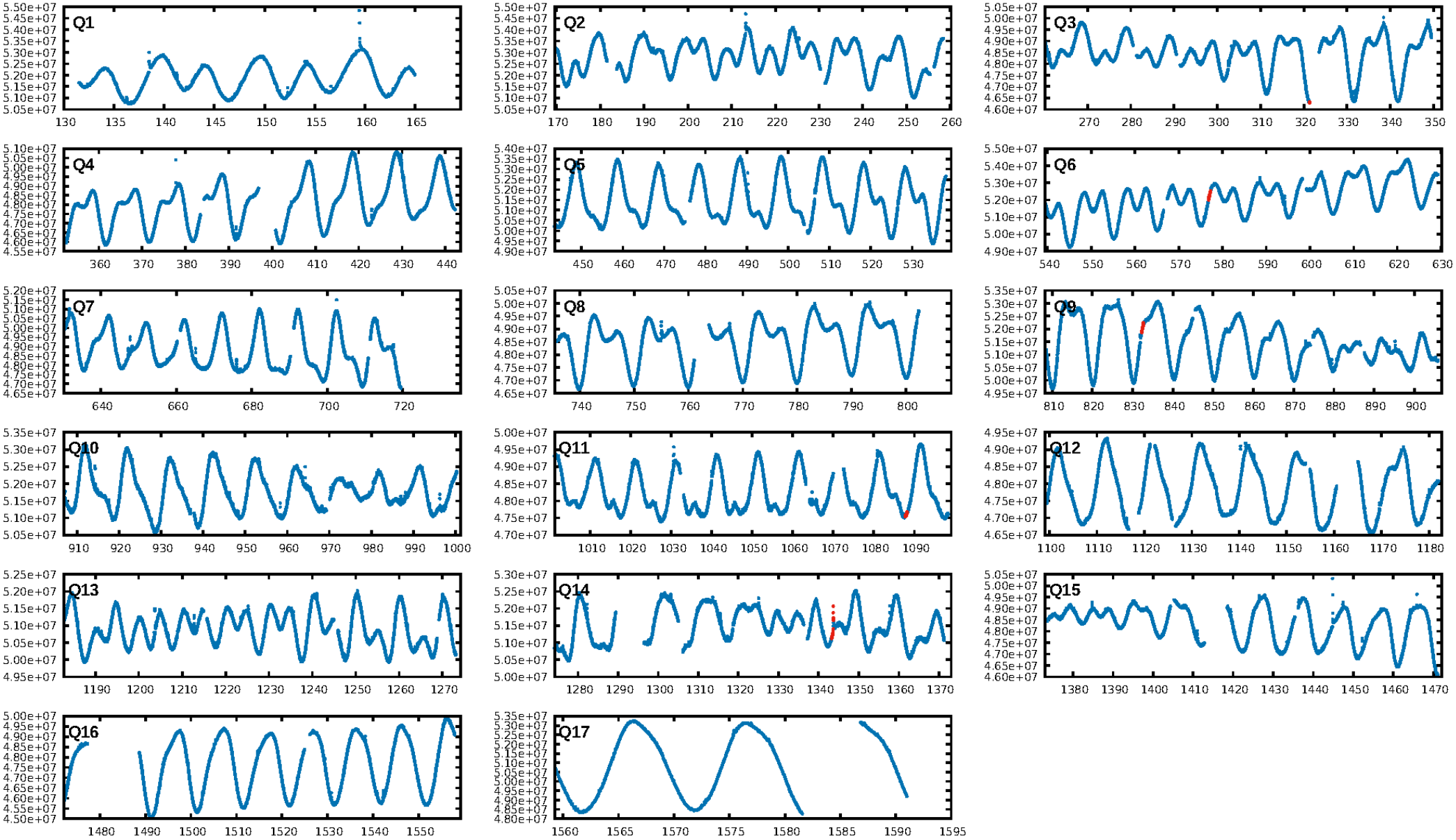
ShortPeriod−sig: 100.0% [246.12σ]
LongPeriod−sig: 100.0% [12.49σ]
ModelChiSquare2−sig: 0.9%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: 8.22e−11
RollingBand−fgt: 1.00 [5/5]
GhostDiagnostic−chr: 0.3939

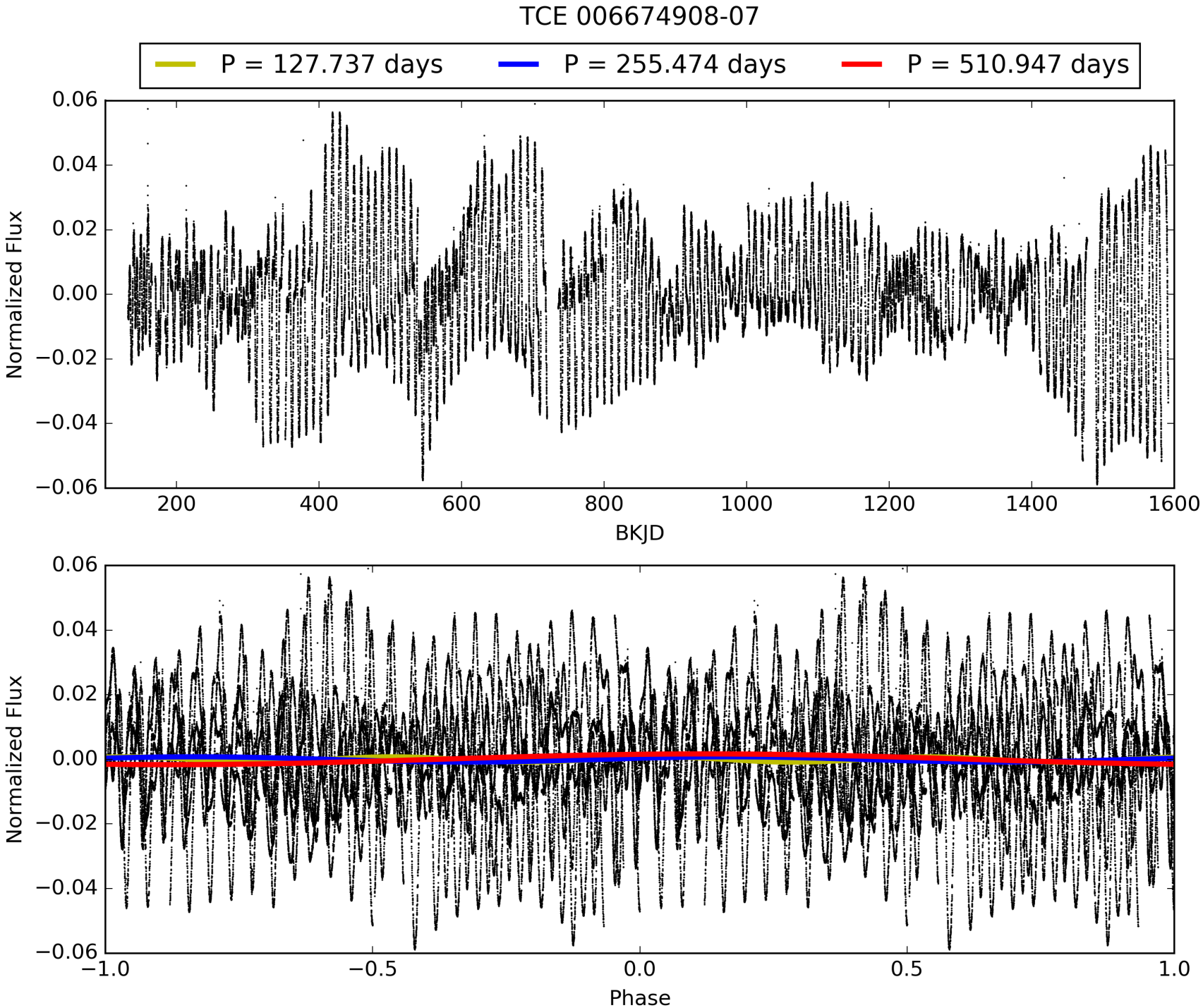
Centroid−sig: N/A
Centroid−so: 0.898 arcsec [1.88σ]
OotOffset−rm: 8.066 arcsec [4.31σ]
KicOffset−rm: 7.902 arcsec [3.89σ]
OotOffset−st: 2/1/0/1 [4]
KicOffset−st: 2/1/0/1 [4]
DiffImageQuality−fgm: 0.50 [2/4]
DiffImageOverlap−fno: 0.00 [0/4]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 03:30:37 Z

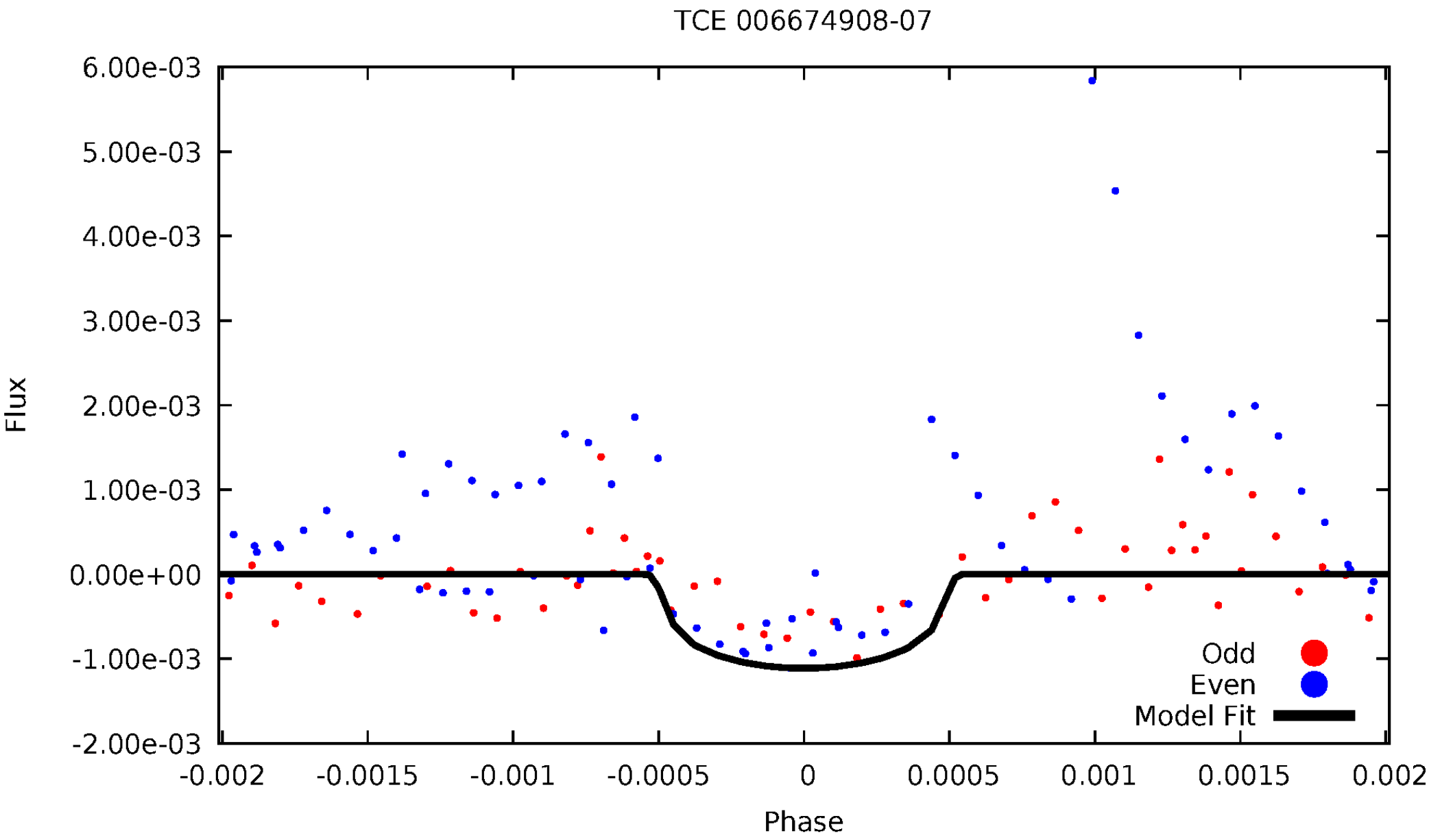
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006674908-07, PDC Light Curves

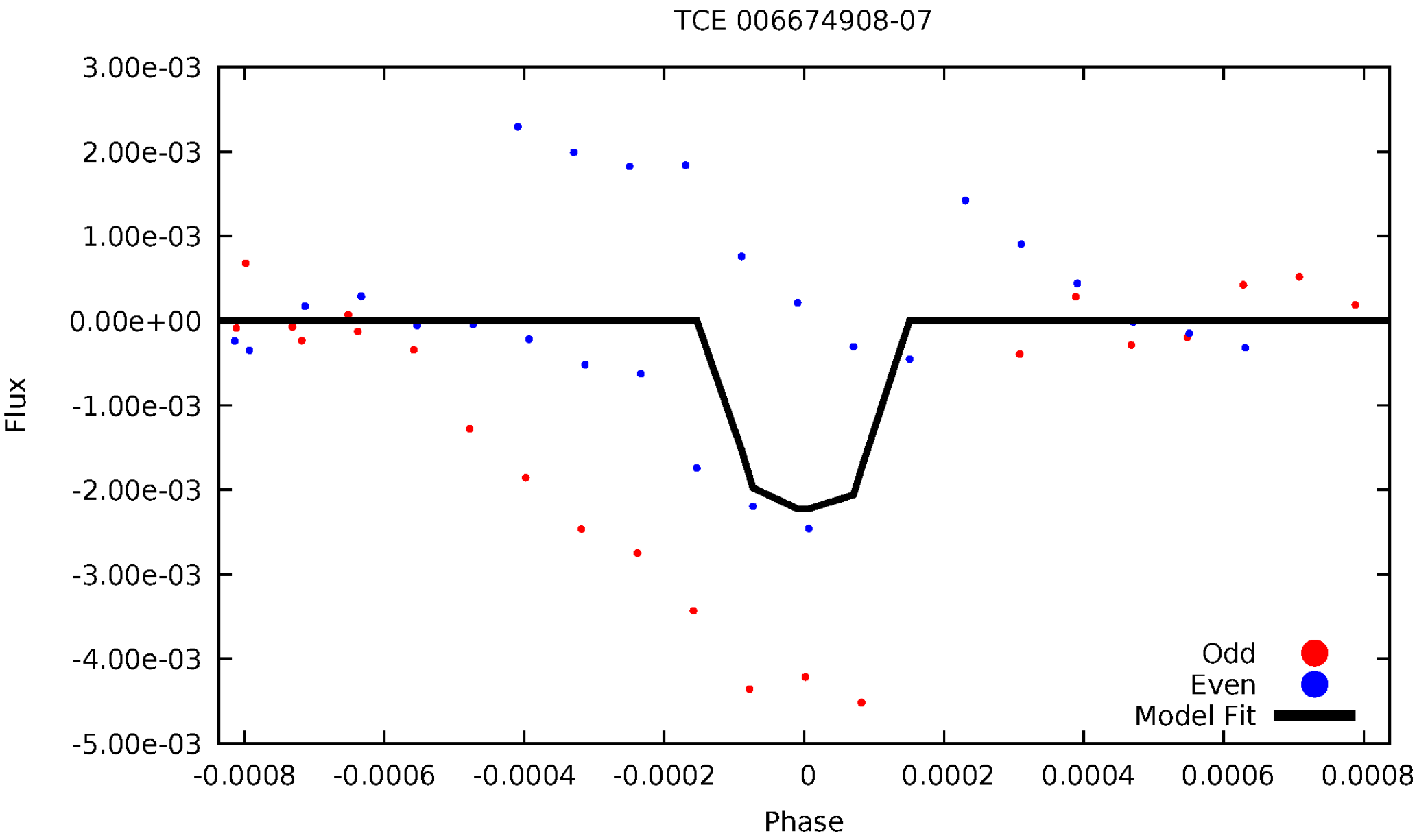



TCE 006674908-07
P = 127.737 days
P = 255.474 days
P = 510.947 days
Normalized Flux
BKJD
Normalized Flux
Phase

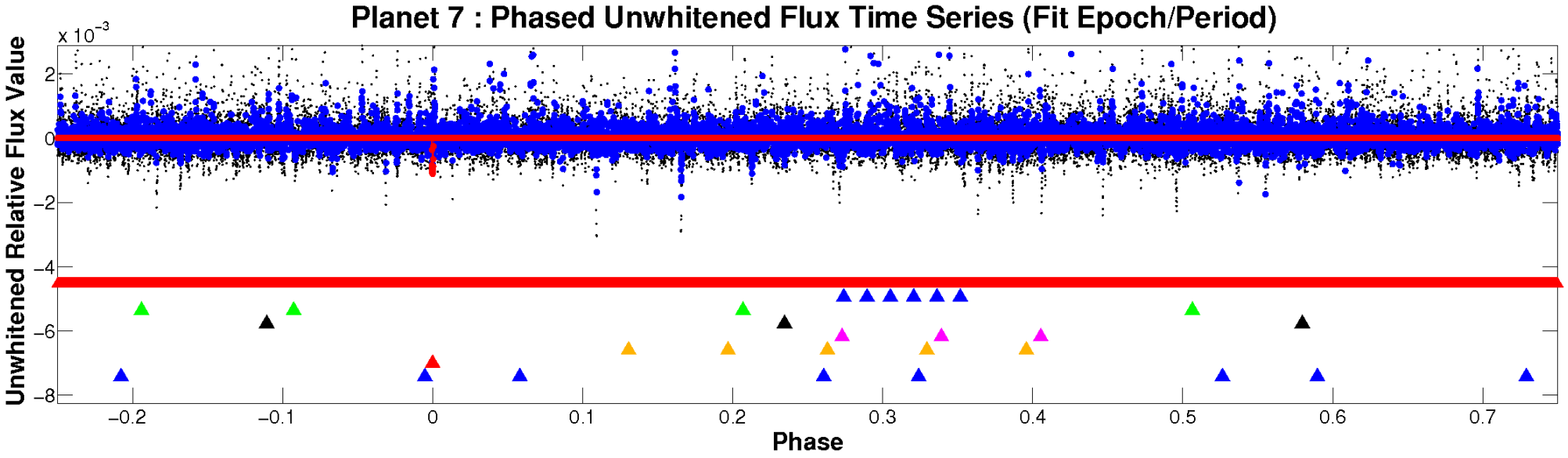
DV Odd/Even

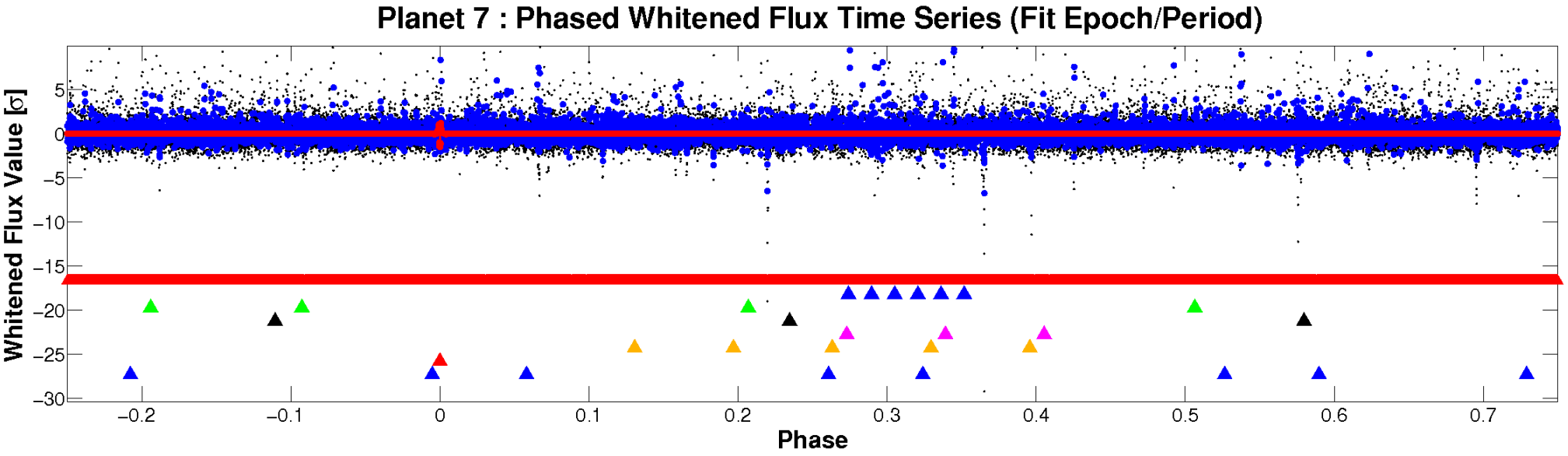

TCE 006674908-07
6.00e-03
5.00e-03
4.00e-03
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
Flux
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006674908-07
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
Flux
-0.0008
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
0.0008
Phase
Odd
Even
Model Fit

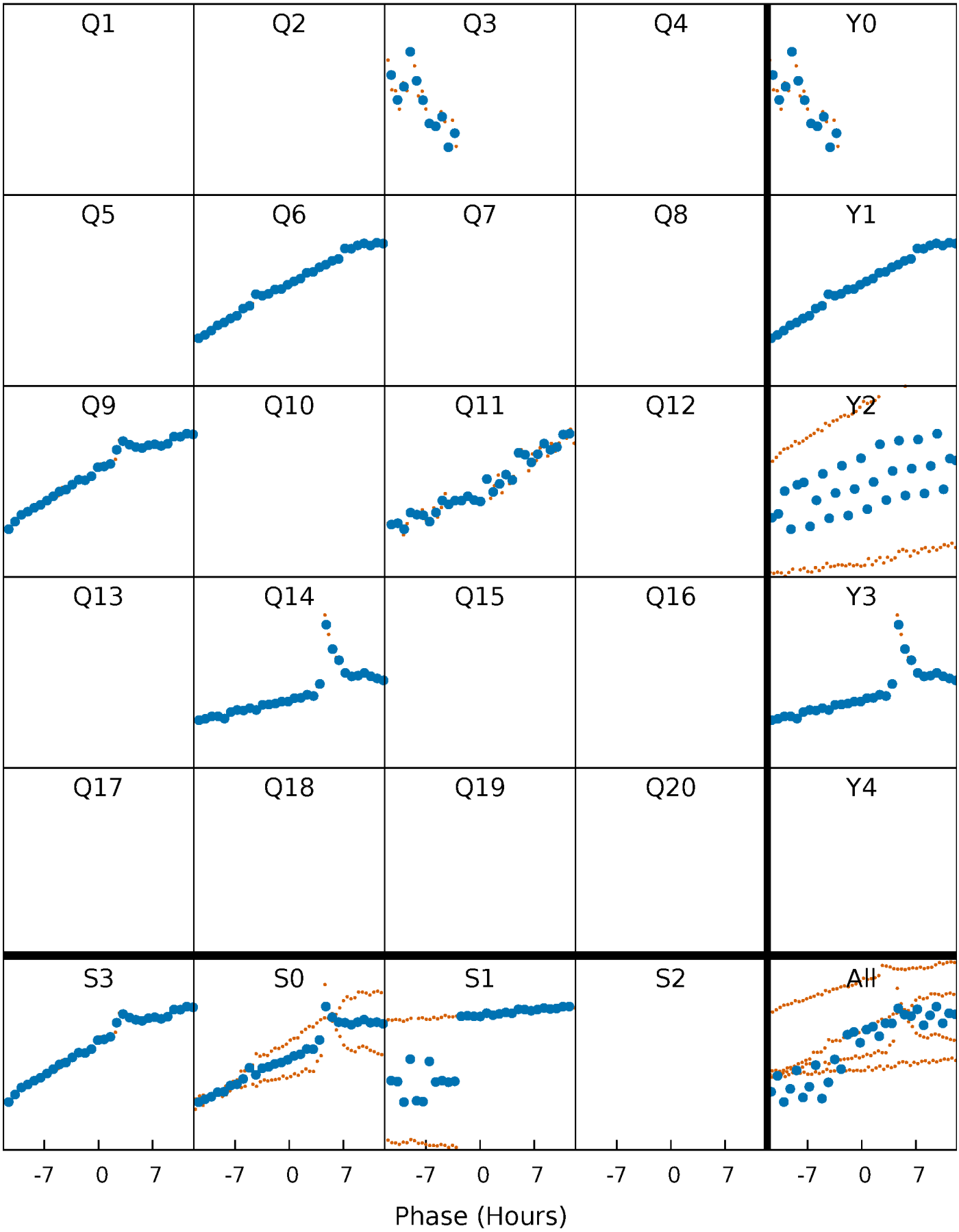
Non-Whitened Vs. Whitened Light Curve





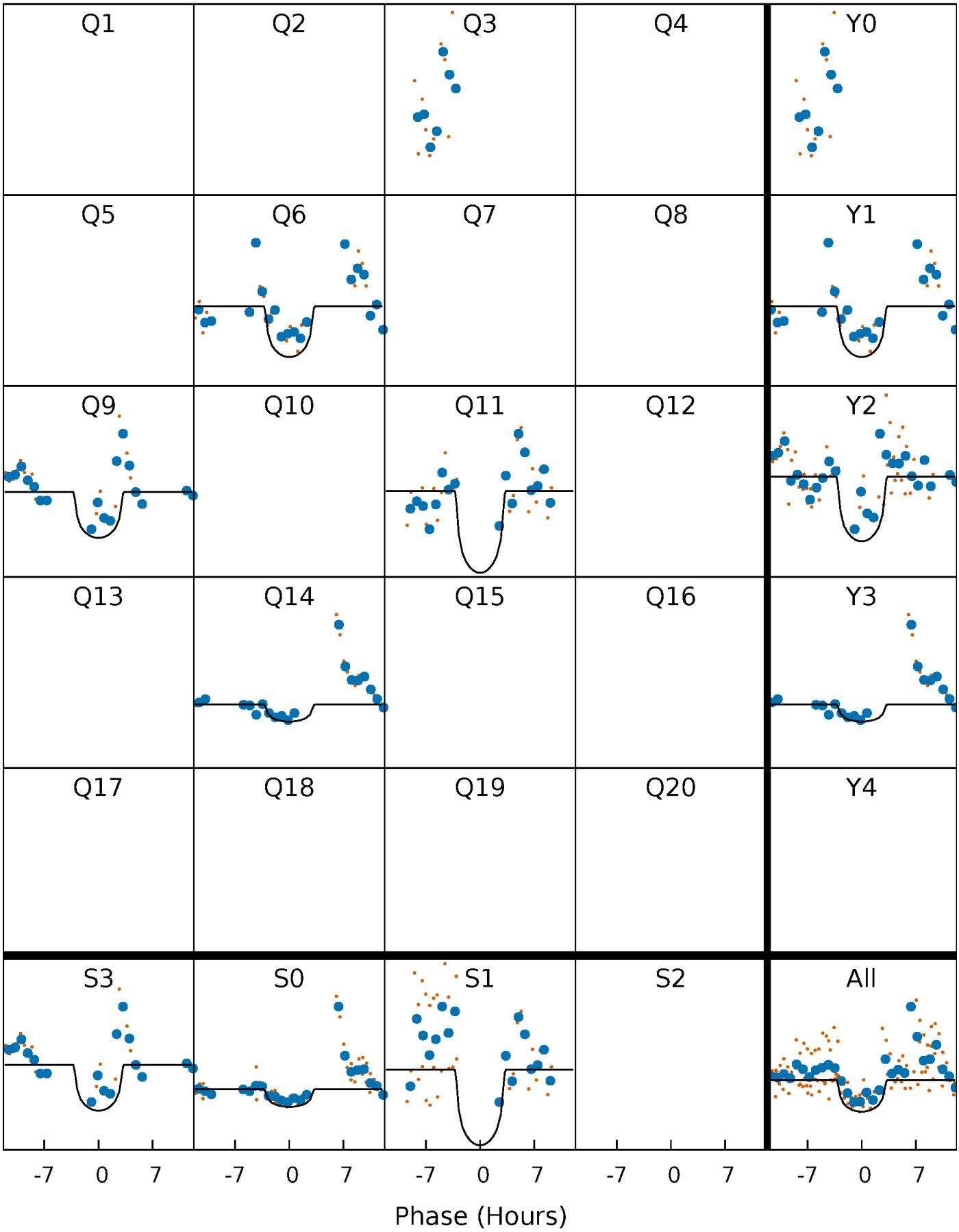
PDC Quarter-Phased Transit Curves

TCE 006674908-07 P=255.473691 Days T_0=321.569167 (BKJD)



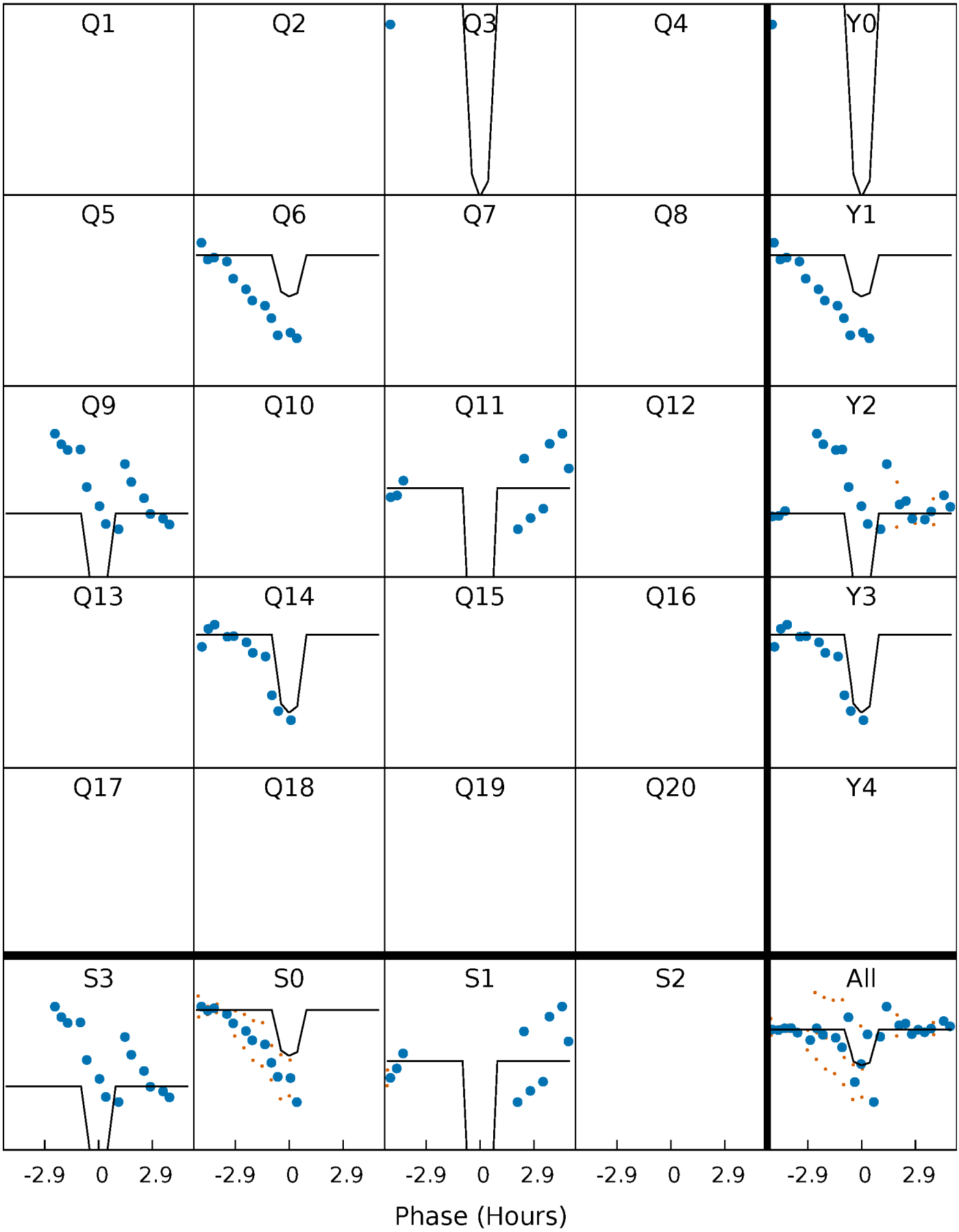
DV Quarter-Phased Transit Curves

TCE 006674908-07 P=255.473691 Days T_0=321.569167 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

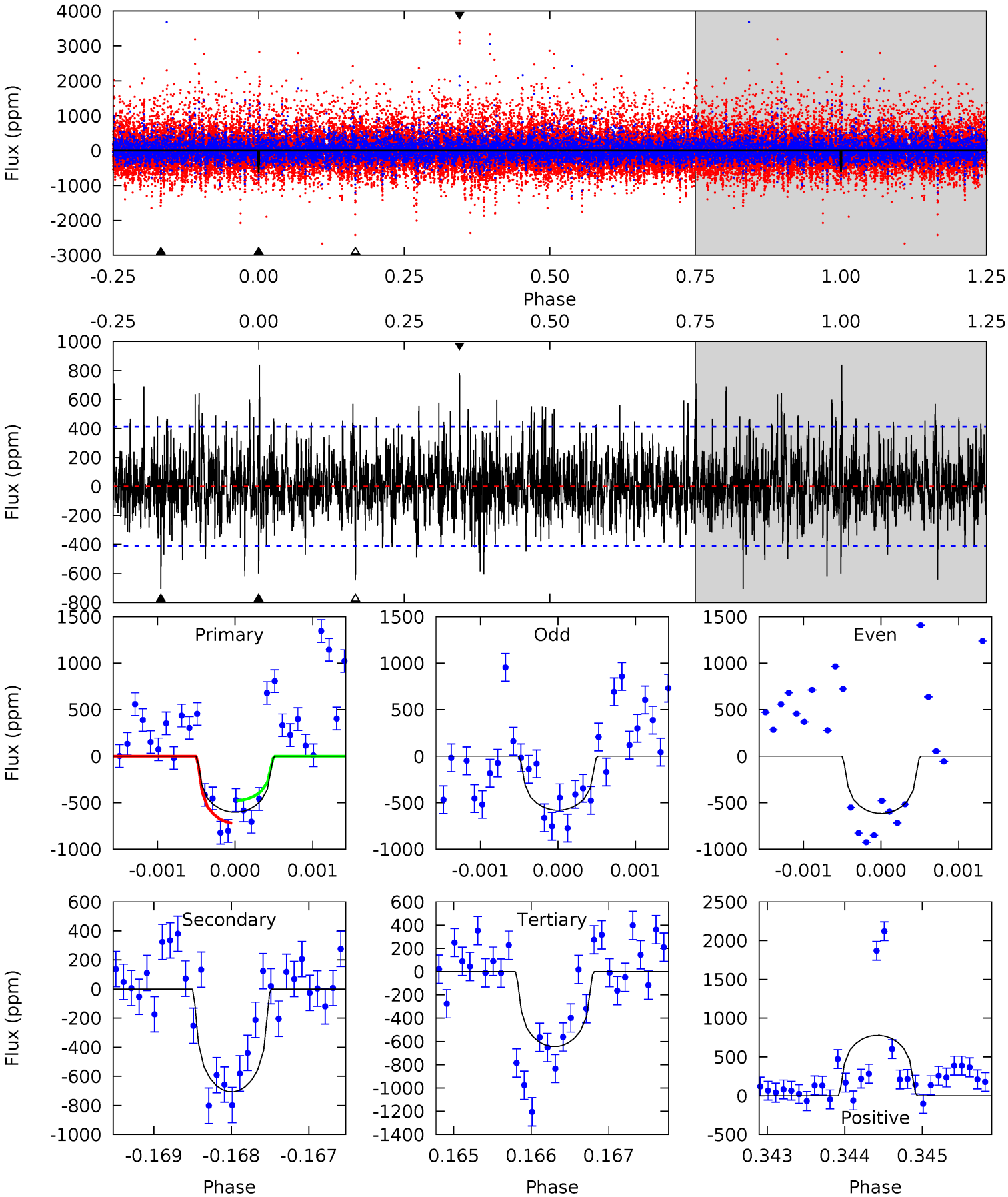
TCE 006674908-07 P=255.460367 Days T_0=321.649048 (BKJD)



DV Model-Shift Uniqueness Test

006674908-07, P = 255.473691 Days, E = 66.095476 Days

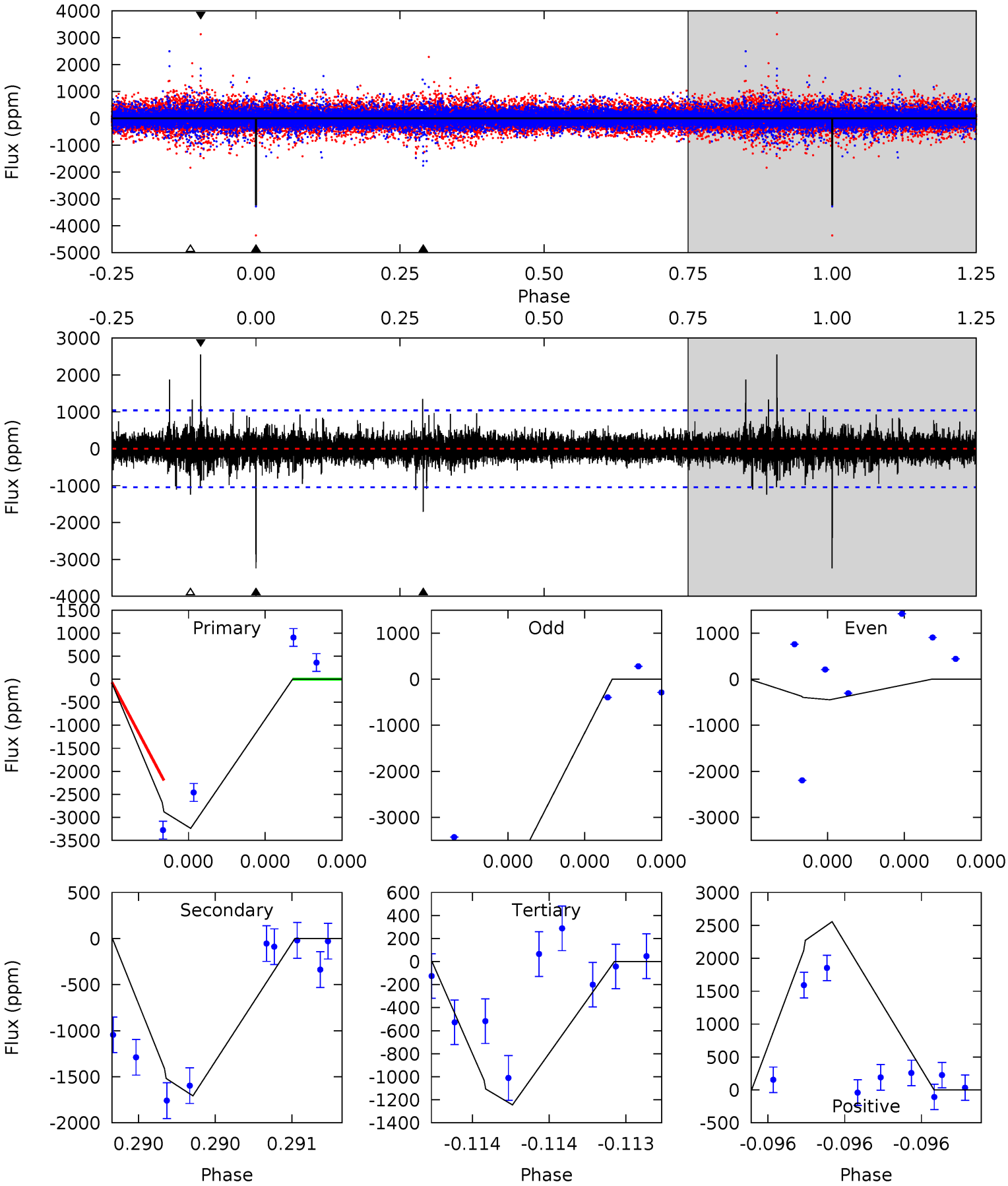
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.95	9.33	8.50	10.3	5.44	3.28	2.24	-0.56	-2.33	0.82	-0.95	0.21	0.96	0.54	1.60



Alt Model-Shift Uniqueness Test

006674908-07, P = 255.460367 Days, E = 66.188681 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.7	9.35	6.81	14.0	5.71	3.68	0.94	10.9	3.74	2.54	-4.64	8.31	0.97	0.44	0



Stellar Parameters For KIC 006674908

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	4013^{+140}_{-154}	$4.639^{+0.053}_{-0.021}$	$0.260^{+0.200}_{-0.300}$	$0.630^{+0.029}_{-0.064}$	$0.630^{+0.042}_{-0.061}$	$3.552^{+0.893}_{-0.273}$
	+3%/-4%	+1%/-0%	+77%/-115%	+5%/-10%	+7%/-10%	+25%/-8%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006674908-07 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-707±76	$3.13^{+2.48}_{-2.10}$	236^{+10}_{-9}	3345^{+1628}_{-549}	$18431^{+150093}_{-12819}$
Alt.	-1708±183	$3.71^{+2.93}_{-2.36}$	237^{+9}_{-10}	3669^{+1678}_{-630}	$31364^{+201610}_{-21484}$

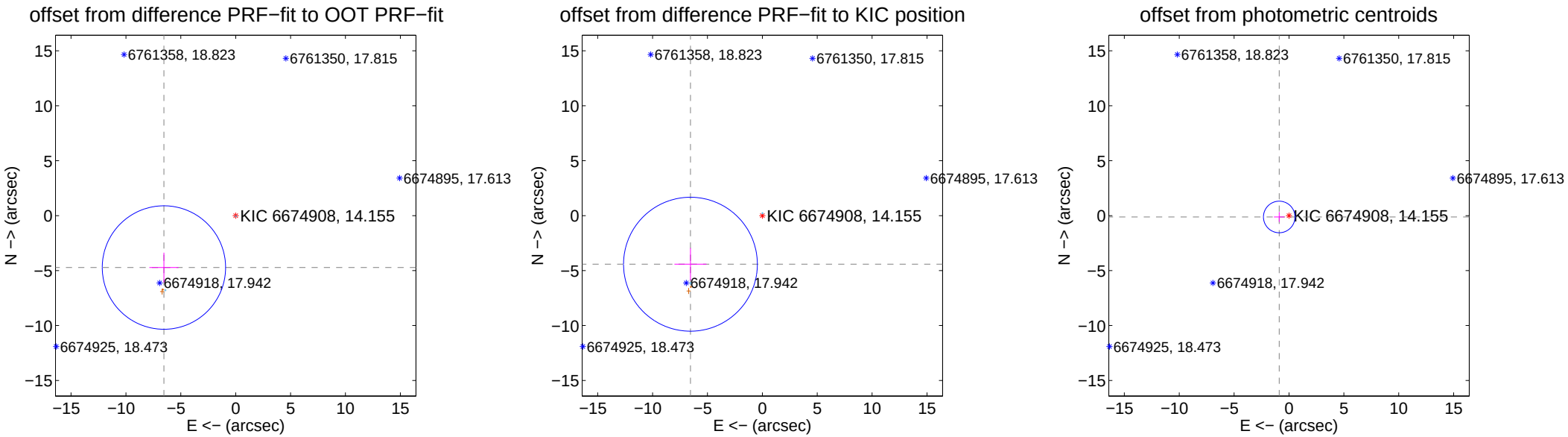
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

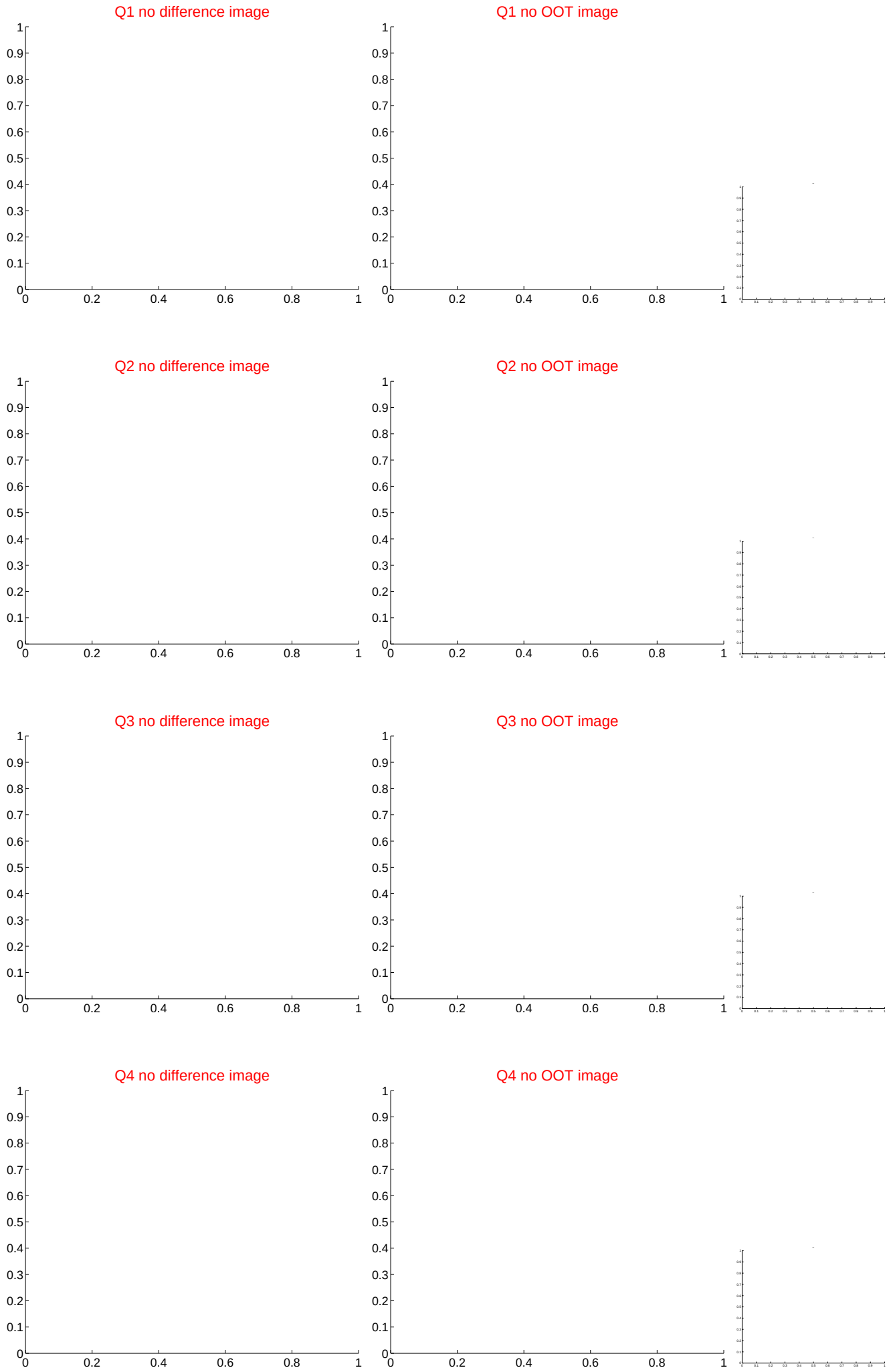
Supplemental centroid analysis for 006674908-07. Kepler magnitude: 14.15. Transit SNR 8.27
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.066 ± 1.873	4.31	6.539 ± 1.332	-4.723 ± 1.357
PRF-fit source offset from KIC position	7.902 ± 2.032	3.89	6.549 ± 1.459	-4.421 ± 1.473
photometric centroid source offset	0.90 ± 0.48	1.88	0.89 ± 0.48	-0.12 ± 0.45

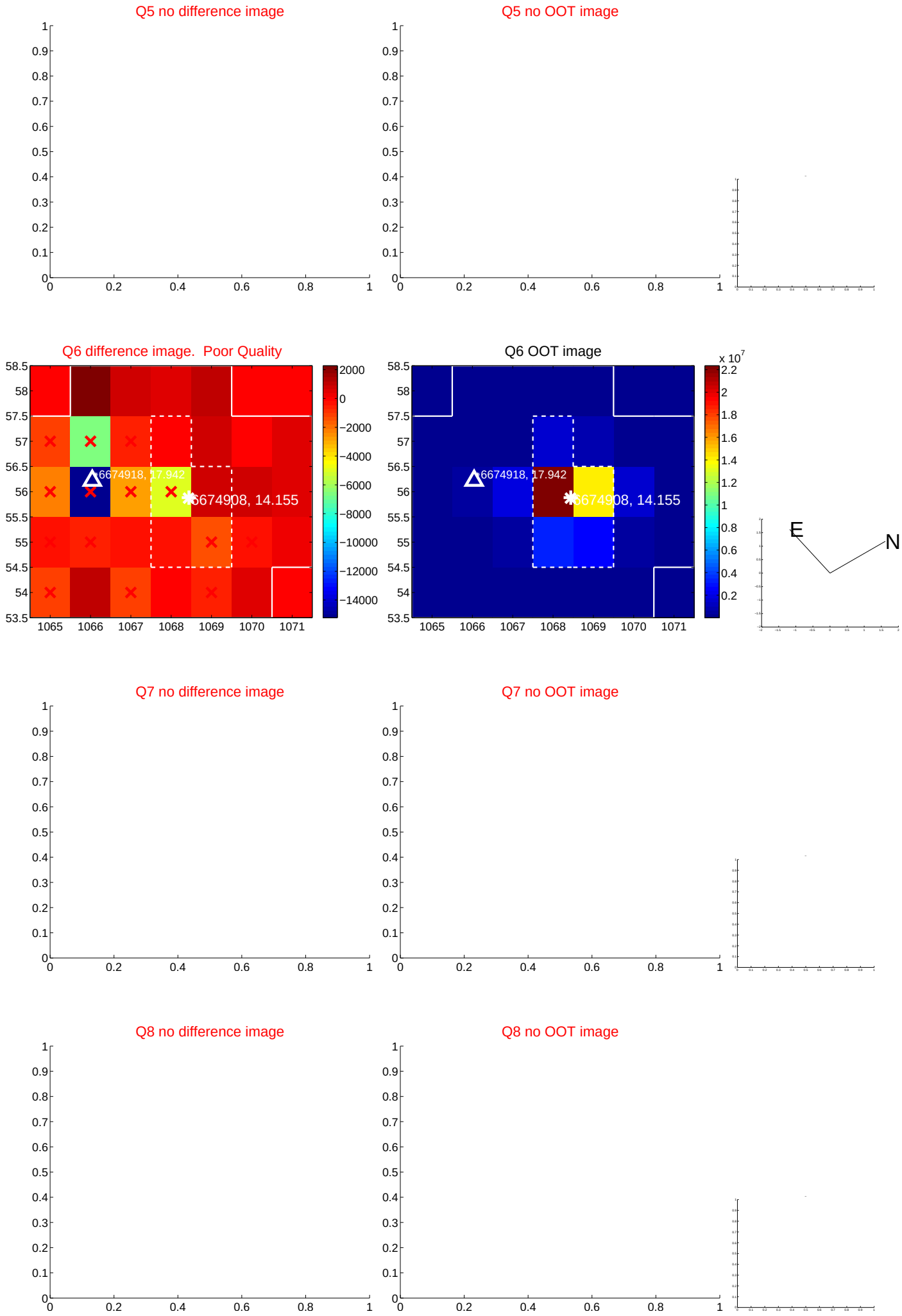


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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



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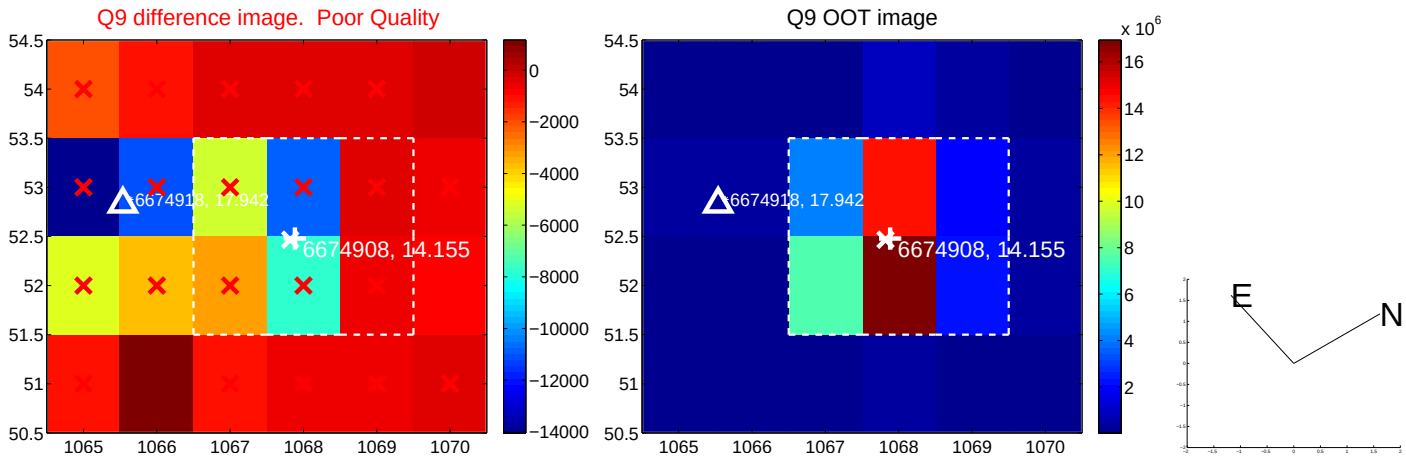
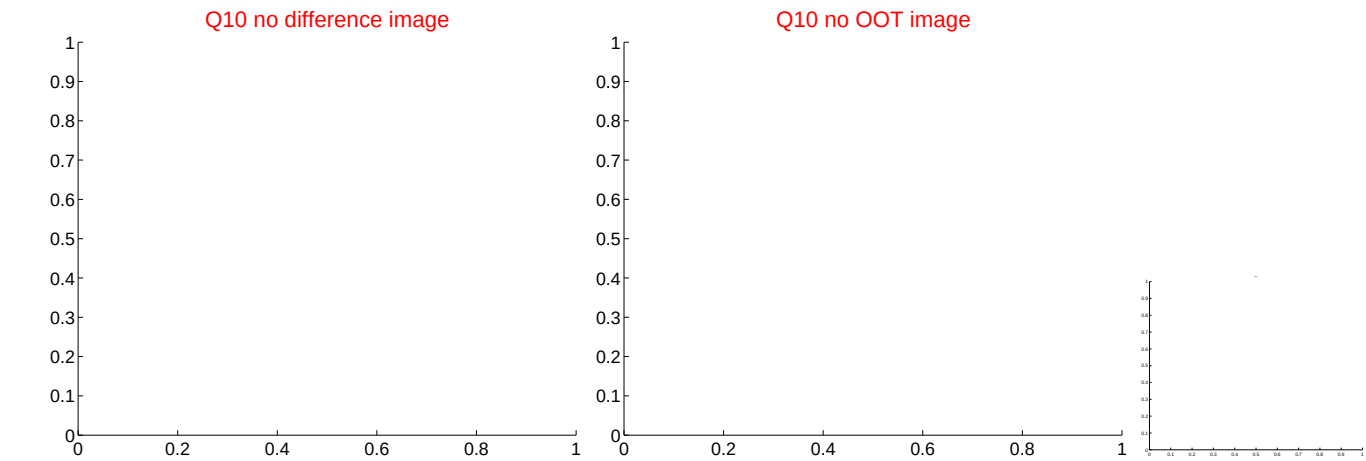
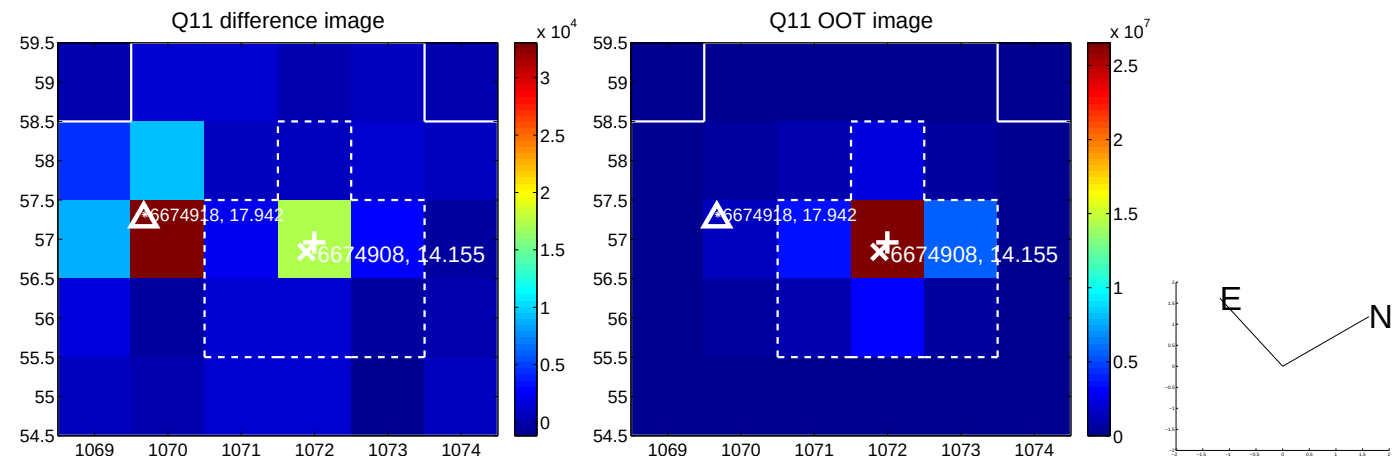
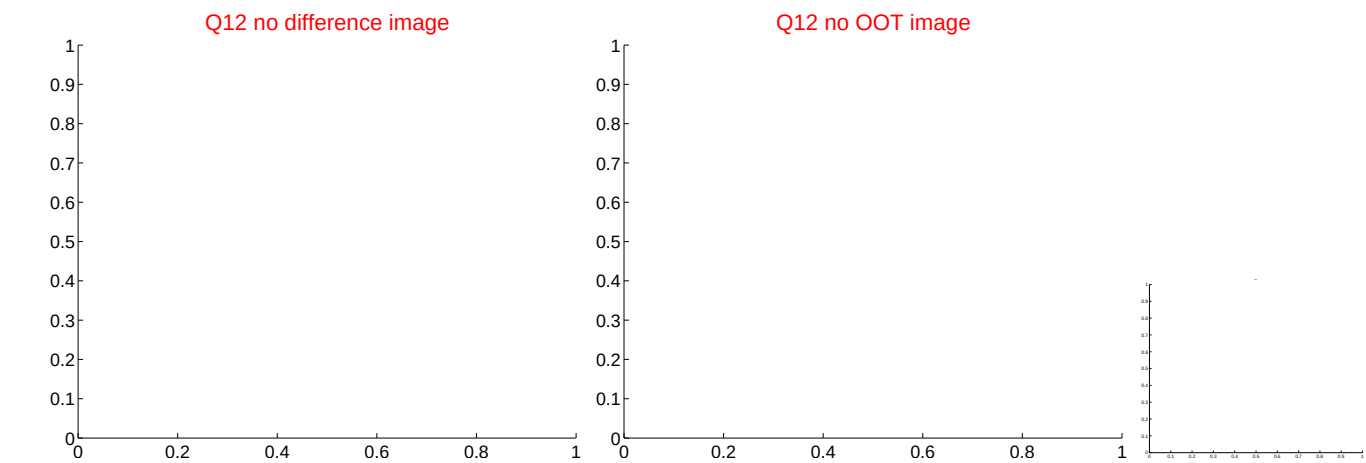
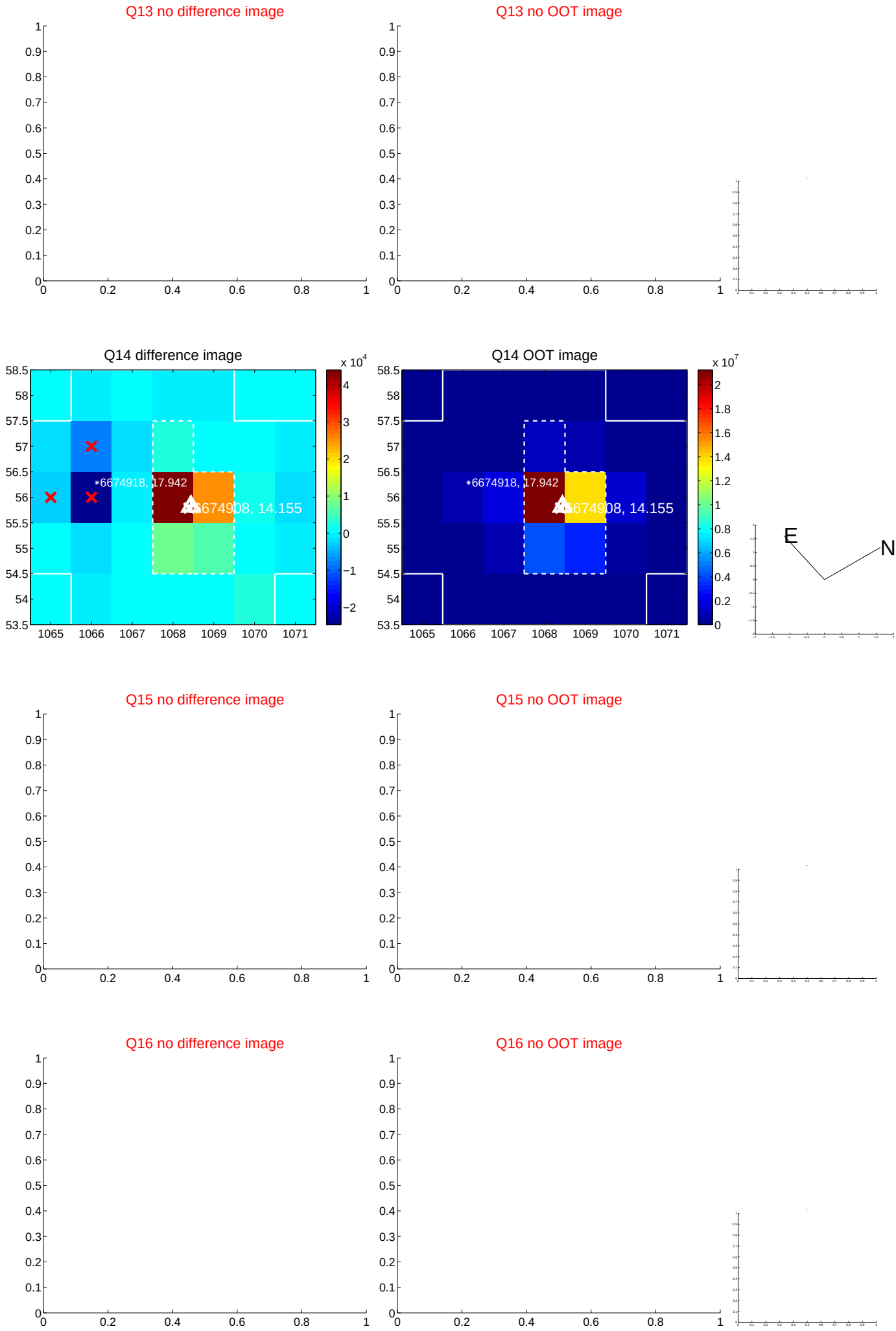




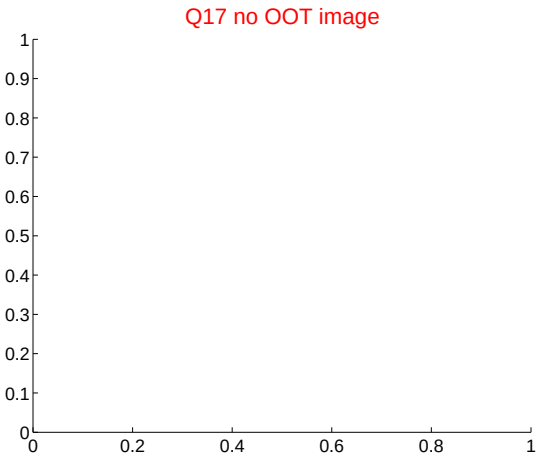


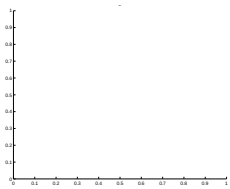


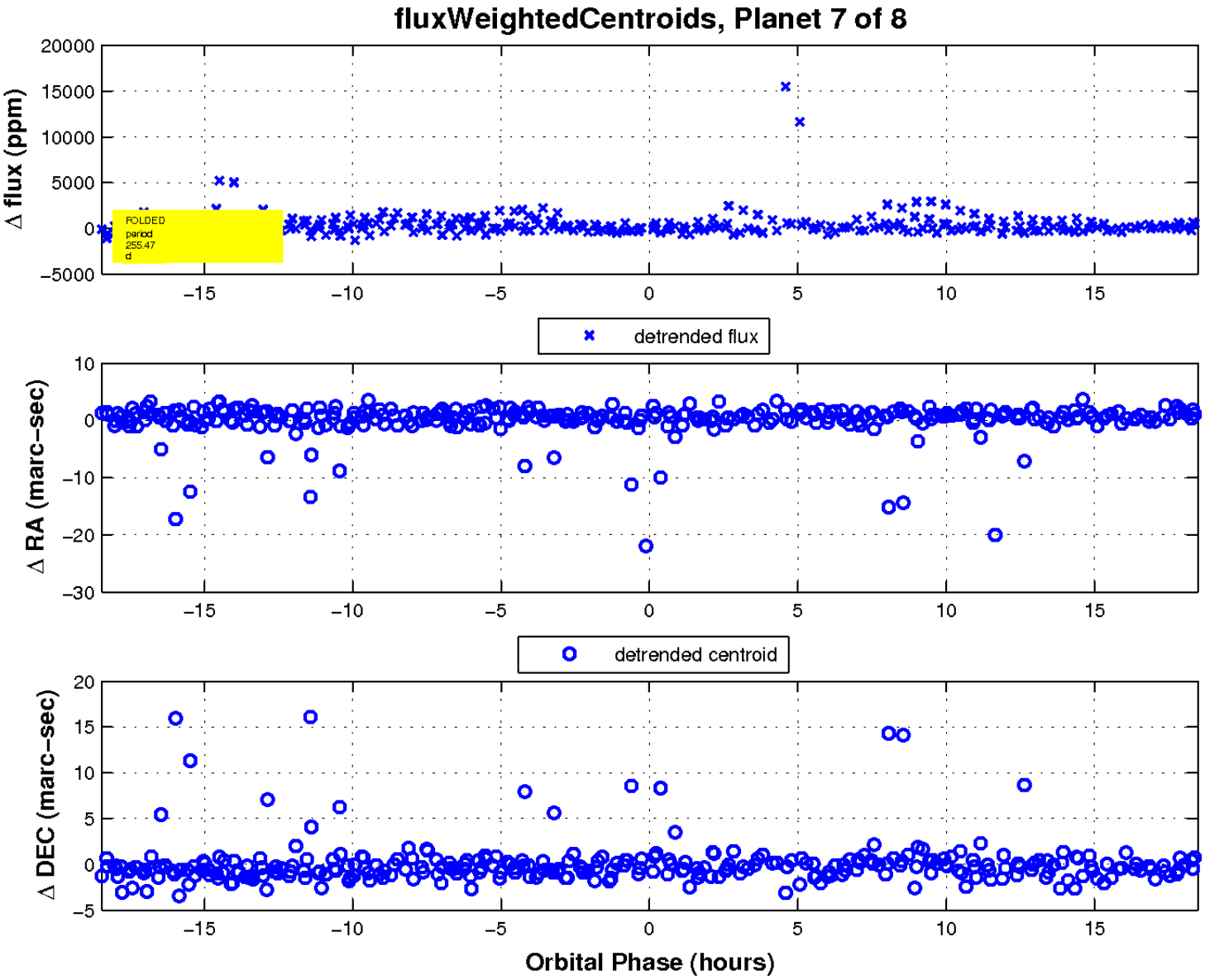
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



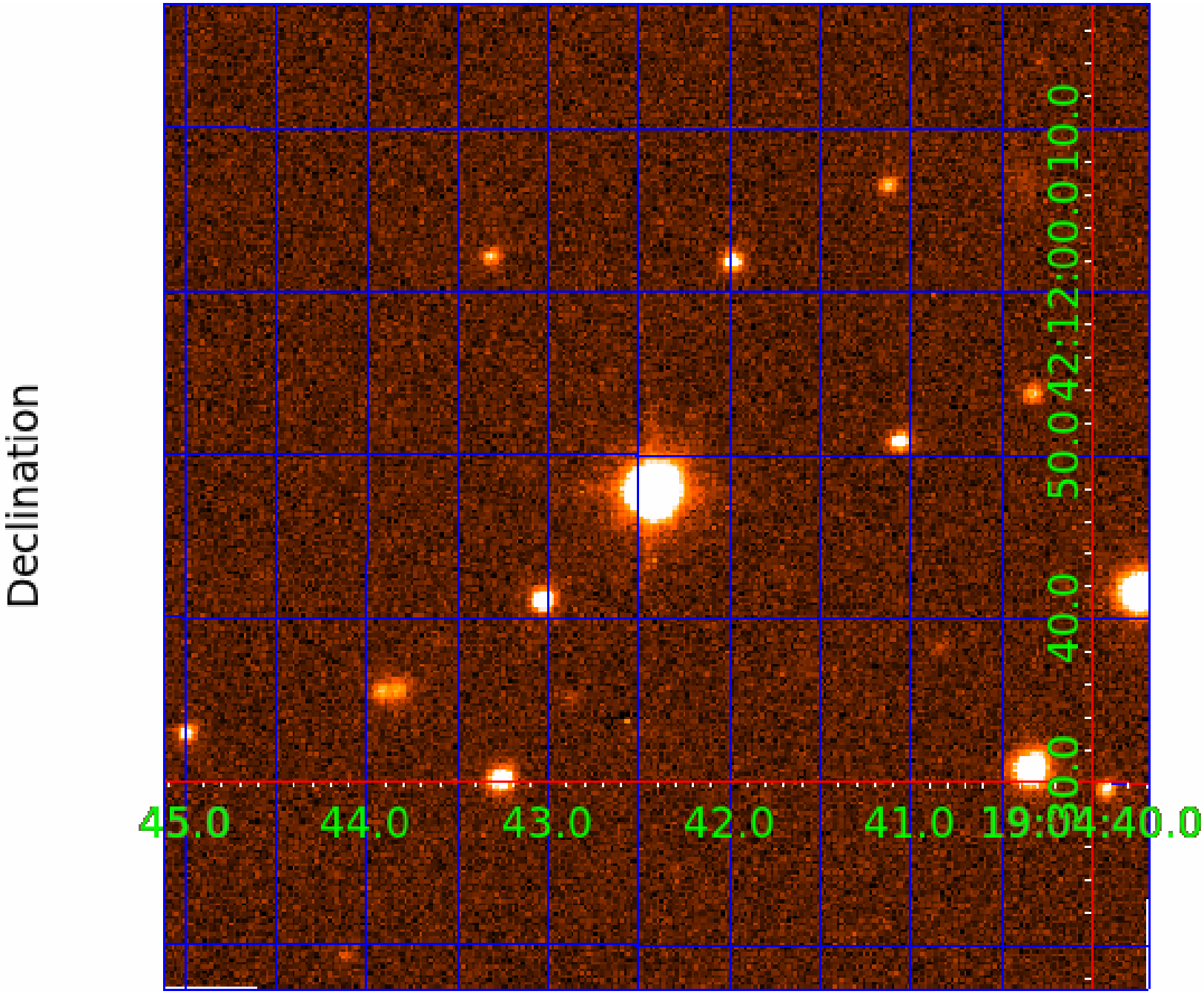
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image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41.0
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10.0

KIC 006674908

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 ($S_\oplus$)
006674908-01	OBS	6149.01	0.503200	131.906622	200.4	1.352	36.3	40.1	0.63	4013	1.10	817.86
006674908-02	OBS	No	259.442963	136.112959	728.6	4.491	13.4	6.1	0.63	4013	1.79	0.20
006674908-03	OBS	No	434.424560	272.003836	963.6	4.291	11.5	7.2	0.63	4013	2.10	0.10
006674908-04	OBS	No	422.769045	469.681101	1075.2	4.566	10.7	7.5	0.63	4013	2.40	0.10
006674908-05	OBS	No	527.862270	391.302998	1302.7	8.764	13.1	7.7	0.63	4013	2.69	0.08
006674908-06	OBS	No	272.402936	354.955473	354.5	4.352	8.6	3.0	0.63	4013	1.42	0.18
006674908-07	OBS	No	255.473691	321.569167	1110.4	6.166	9.9	8.3	0.63	4013	2.07	0.20
006674908-08	OBS	No	187.564877	216.768115	723.2	2.416	8.8	5.5	0.63	4013	1.74	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006674908-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
006674908-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS—HALO_GHOST
006674908-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006674908-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006674908-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

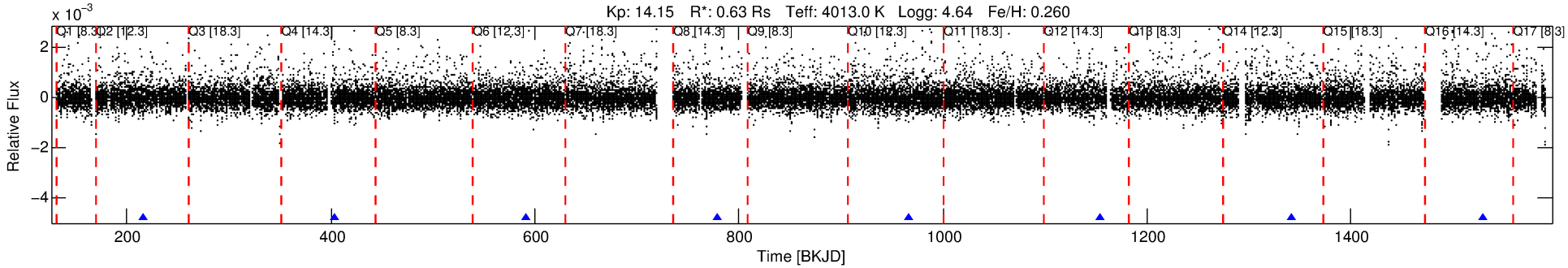
Ephemeris Match Information For 006674908-08

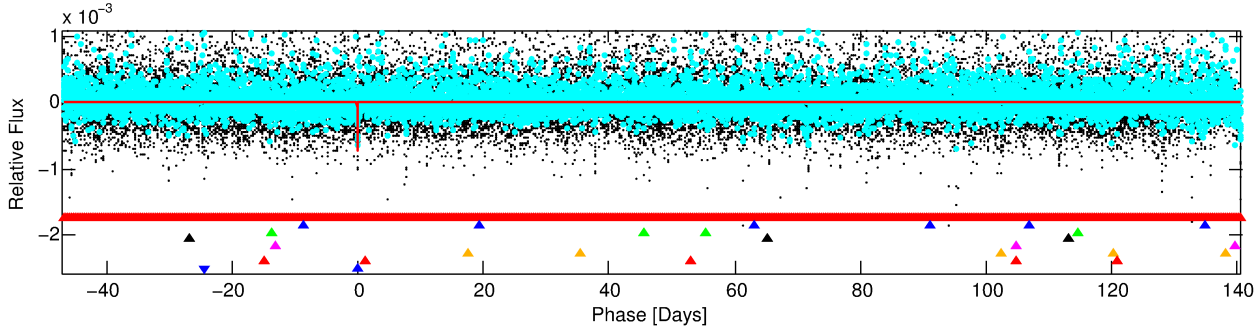
No Significant Match Found

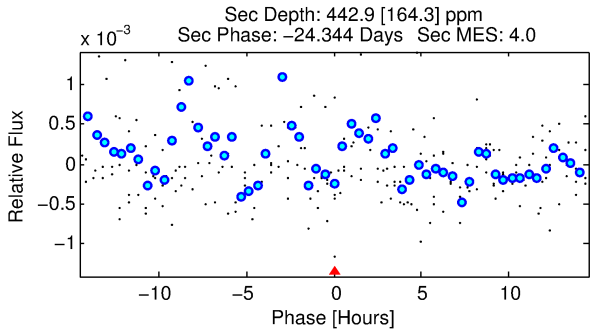
DV One-Page Summary

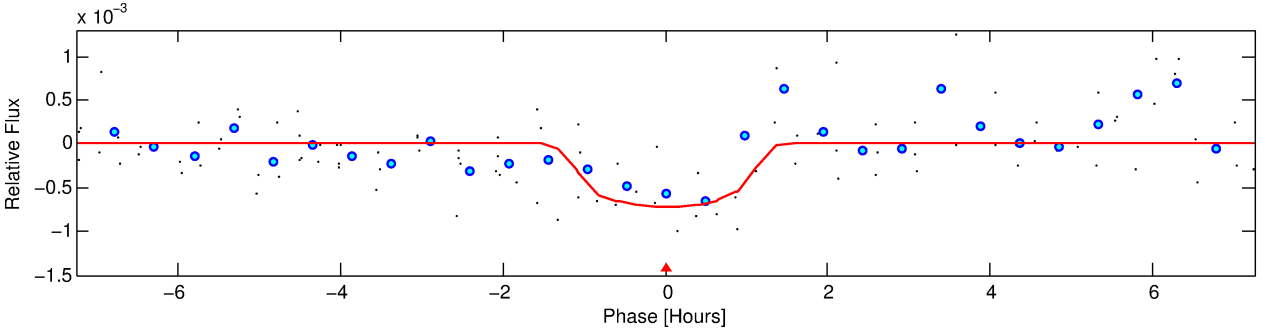
KIC: 6674908 Candidate: 8 of 8 Period: 187.565 d
KOI: K06149 Corr: No Ephemeris Match

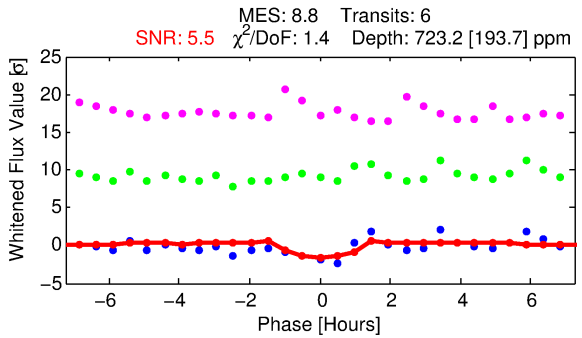
Kp: 14.15 R*: 0.63 Rs Teff: 4013.0 K Logg: 4.64 Fe/H: 0.260

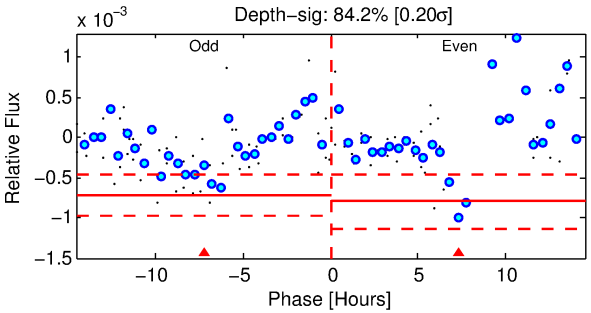


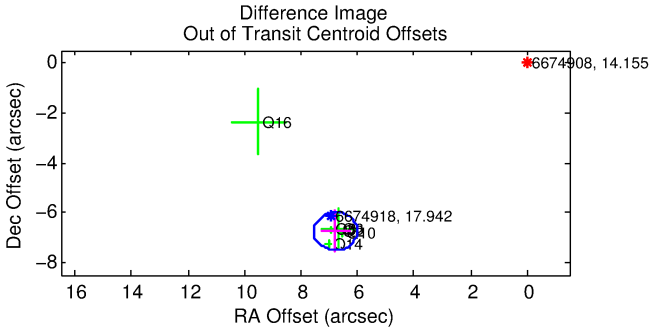












DV Fit Results:

Period = 187.56488 [0.00258] d
Epoch = 216.7681 [0.0075] BKJD
Rp/R* = 0.0254 [0.0578]
a/R* = 498.46 [3618.84]
b = 0.59 [8.28]

Seff = 0.30 [0.06]
Teq = 189 [9] K
Rp = 1.74 [3.98] Re
a = 0.5500 [0.0435] AU

Ag = 24255.80 [111003.49] [0.22σ]
Teffp = 3656 [4184] K [0.83σ]

DV Diagnostic Results:

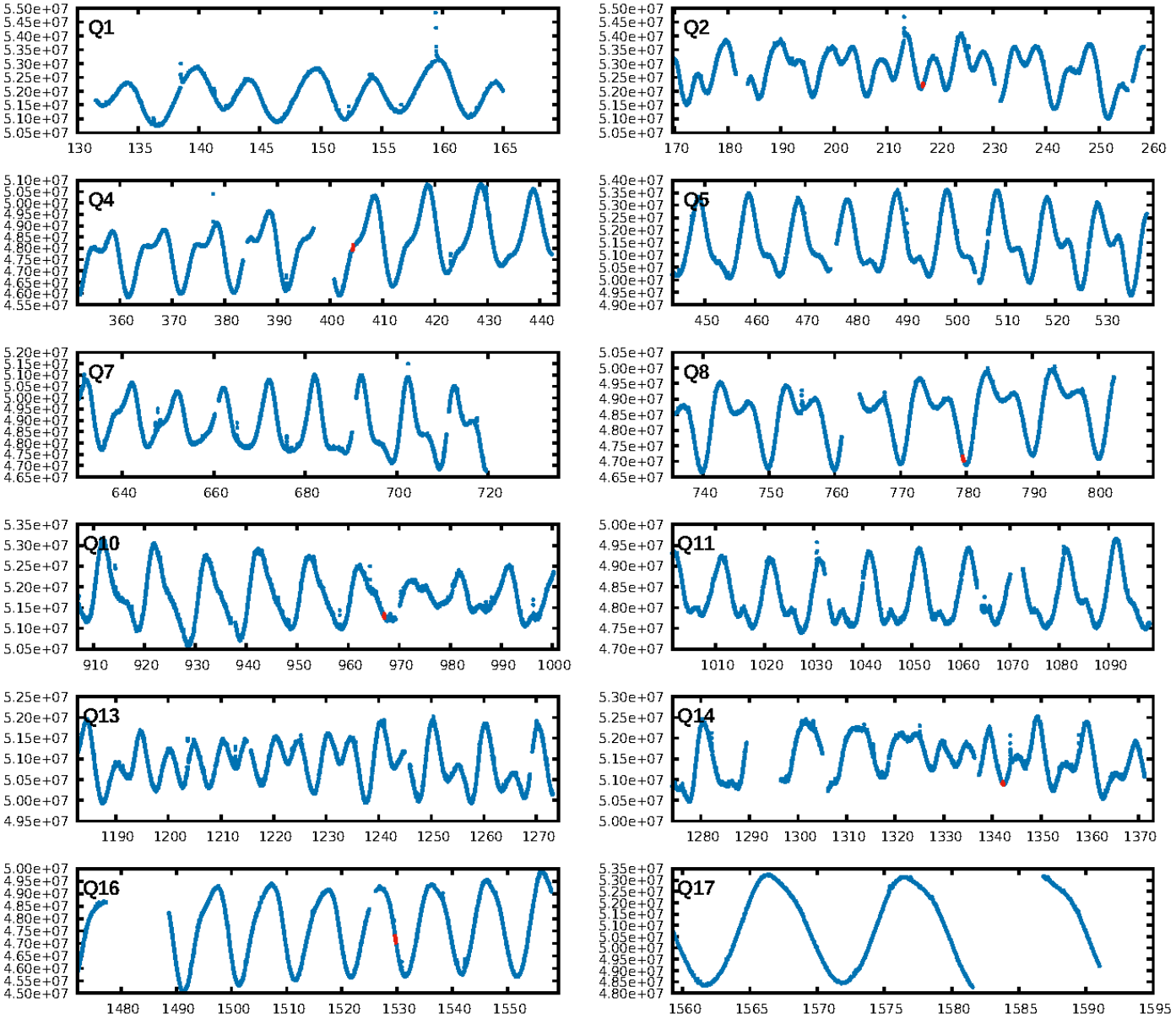
ShortPeriod−sig: 100.0% [1621.70σ]
LongPeriod−sig: 100.0% [246.12σ]
ModelChiSquare2−sig: 87.8%
ModelChiSquareGof−sig: 99.5%
Bootstrap−pfa: 3.94e−10
RollingBand−fgt: 1.00 [6/6]
GhostDiagnostic−chr: −0.1066

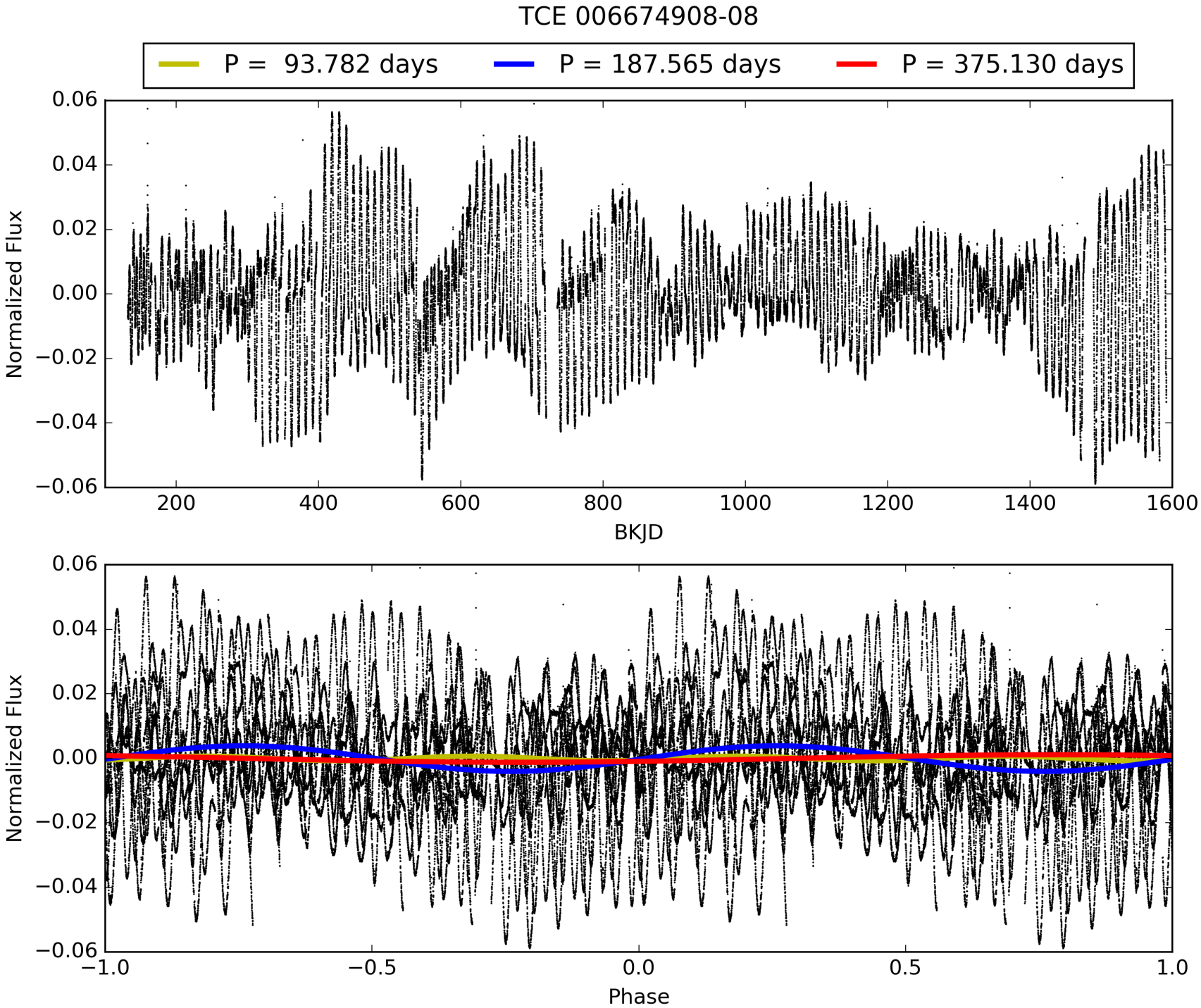
Centroid−sig: N/A
Centroid−so: 1.772 arcsec [2.27σ]
OotOffset−rm: 9.569 arcsec [37.46σ]
KicOffset−rm: 9.464 arcsec [40.03σ]
OotOffset−st: 4/0/2/0 [6]
KicOffset−st: 4/0/2/0 [6]
DiffImageQuality−fgm: 0.50 [3/6]
DiffImageOverlap−fno: 0.00 [0/7]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 03:30:46 Z

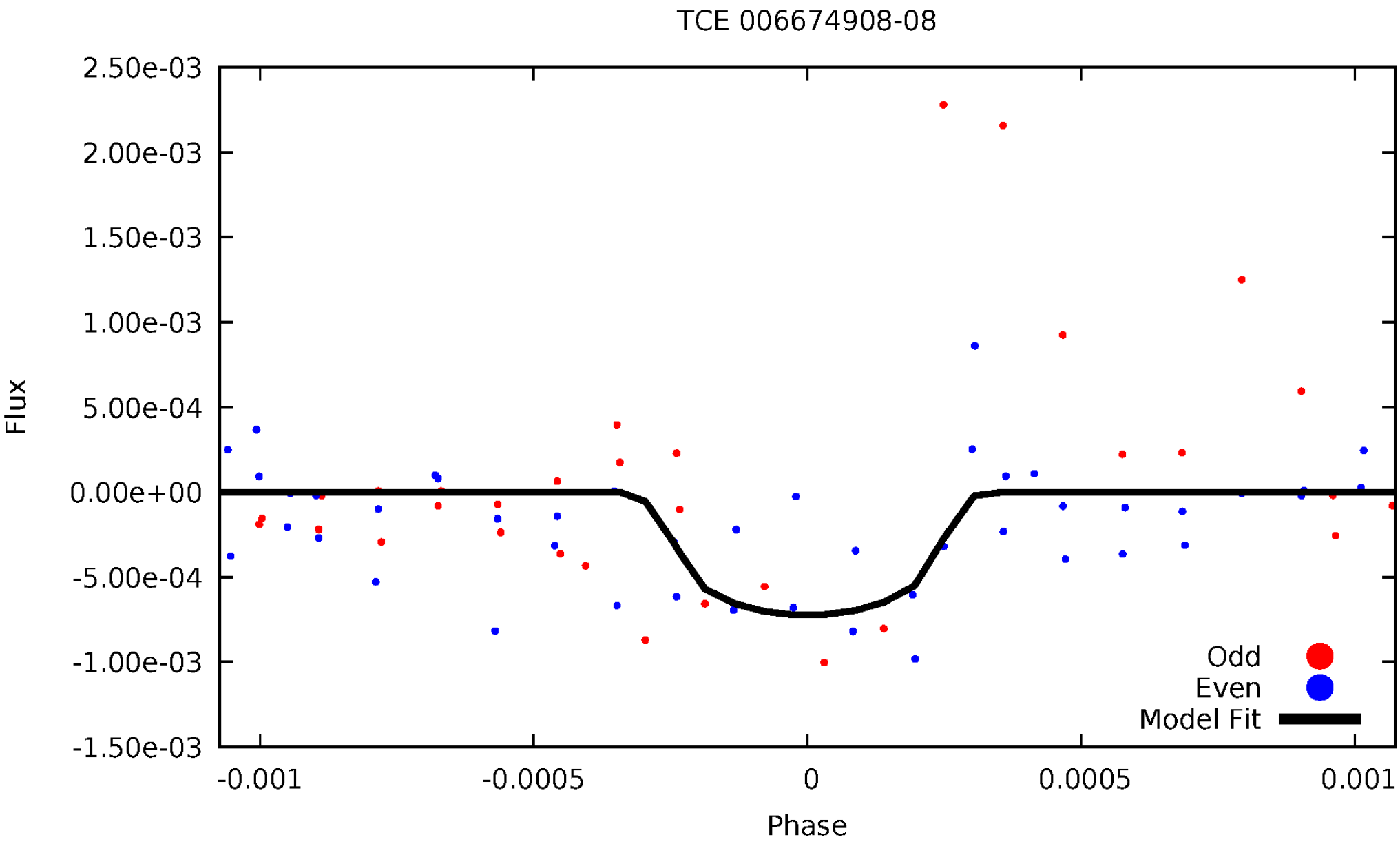
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006674908-08, PDC Light Curves




TCE 006674908-08
P = 93.782 days
P = 187.565 days
P = 375.130 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even


TCE 006674908-08
2.50e-03
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5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
Flux
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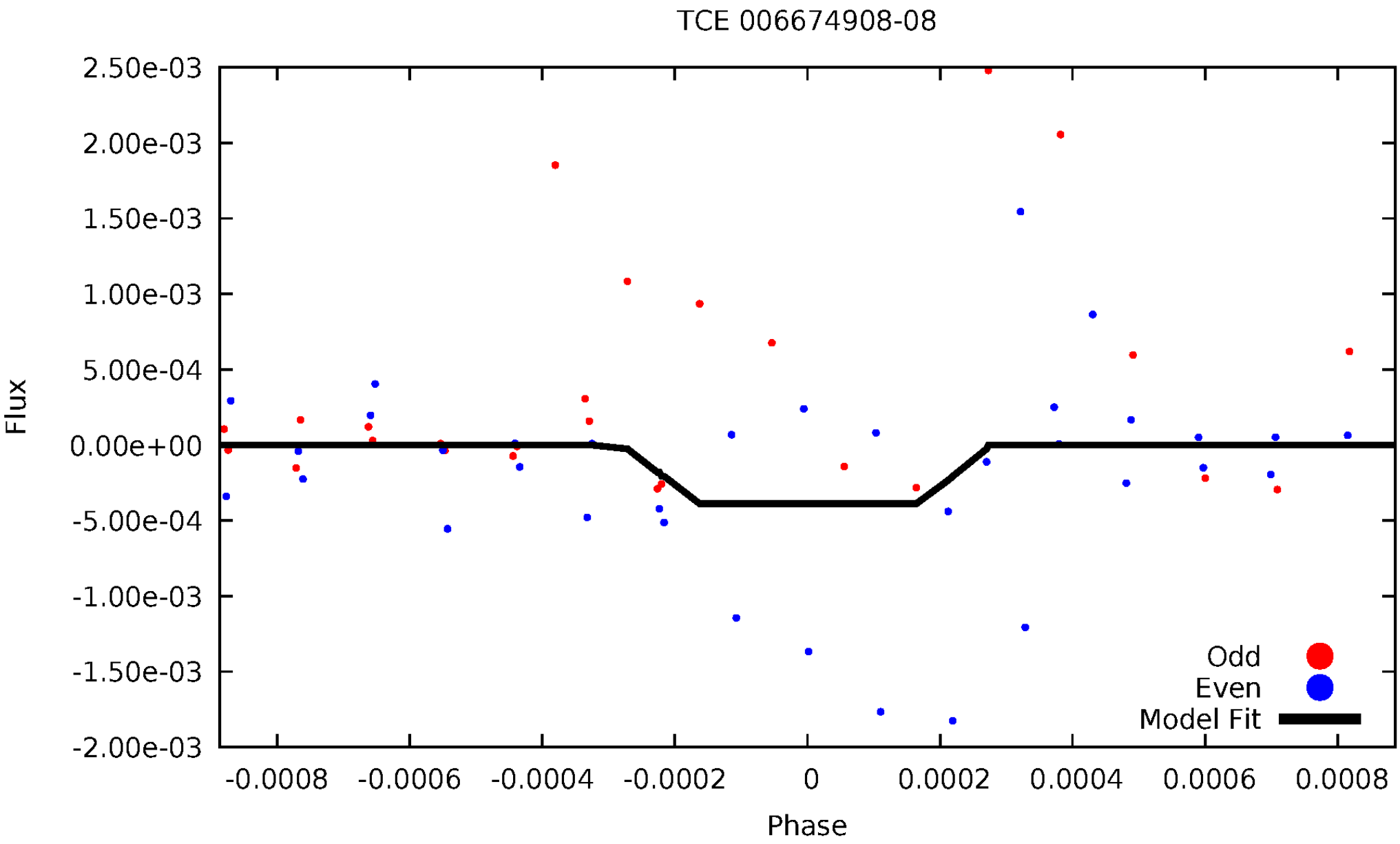
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006674908-08
2.50e-03
2.00e-03
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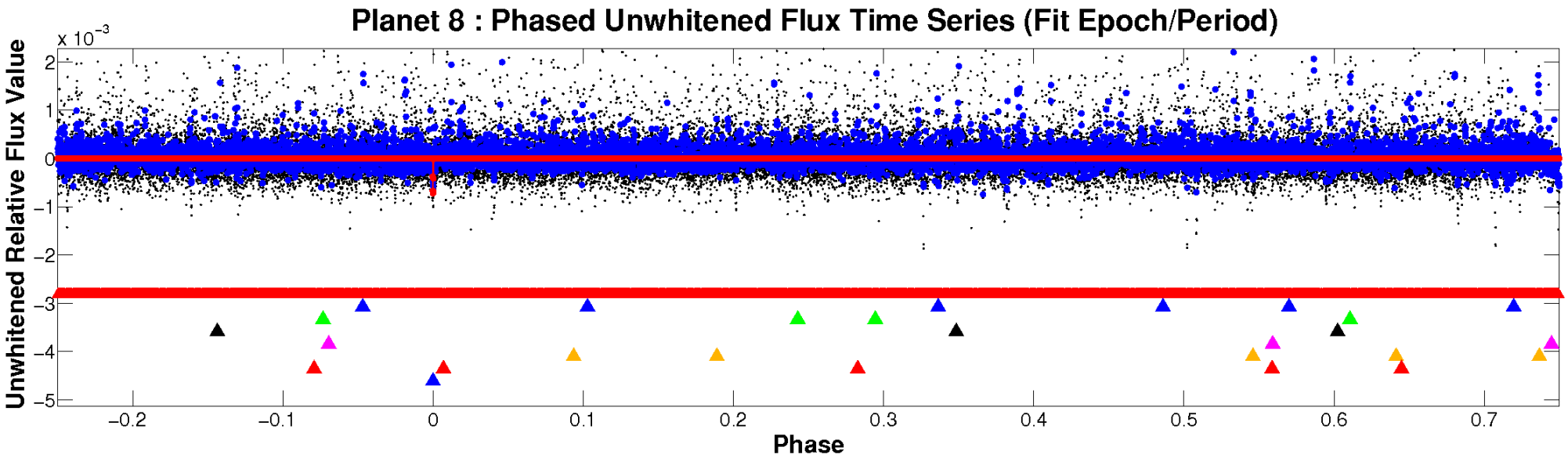
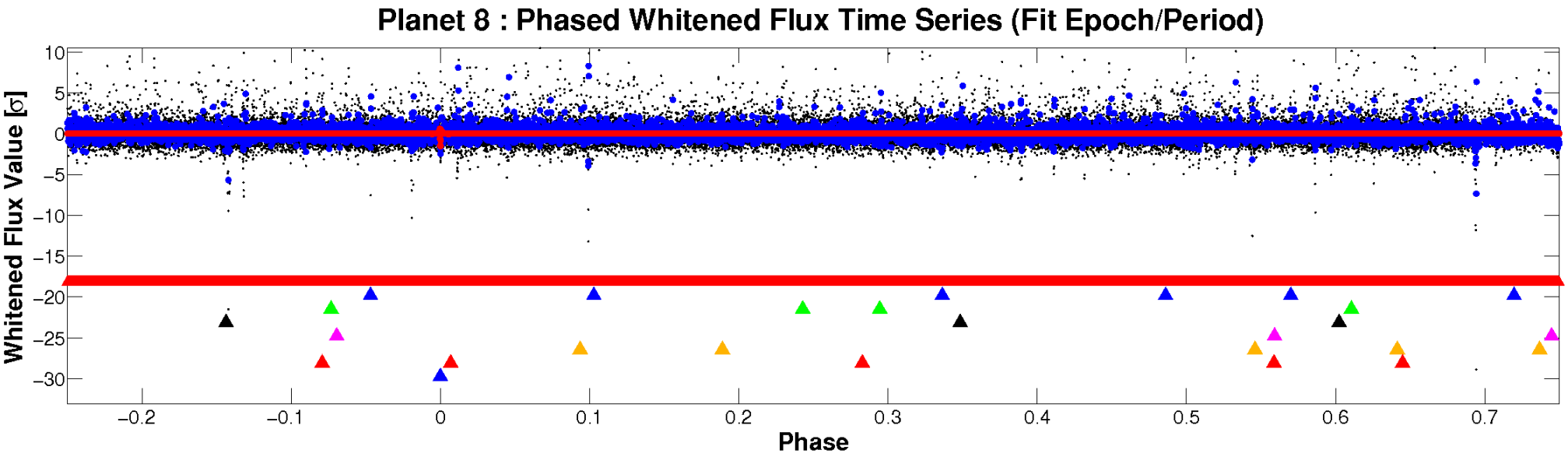
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
Flux
-0.0008
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
0.0008
Phase
Odd
Even
Model Fit

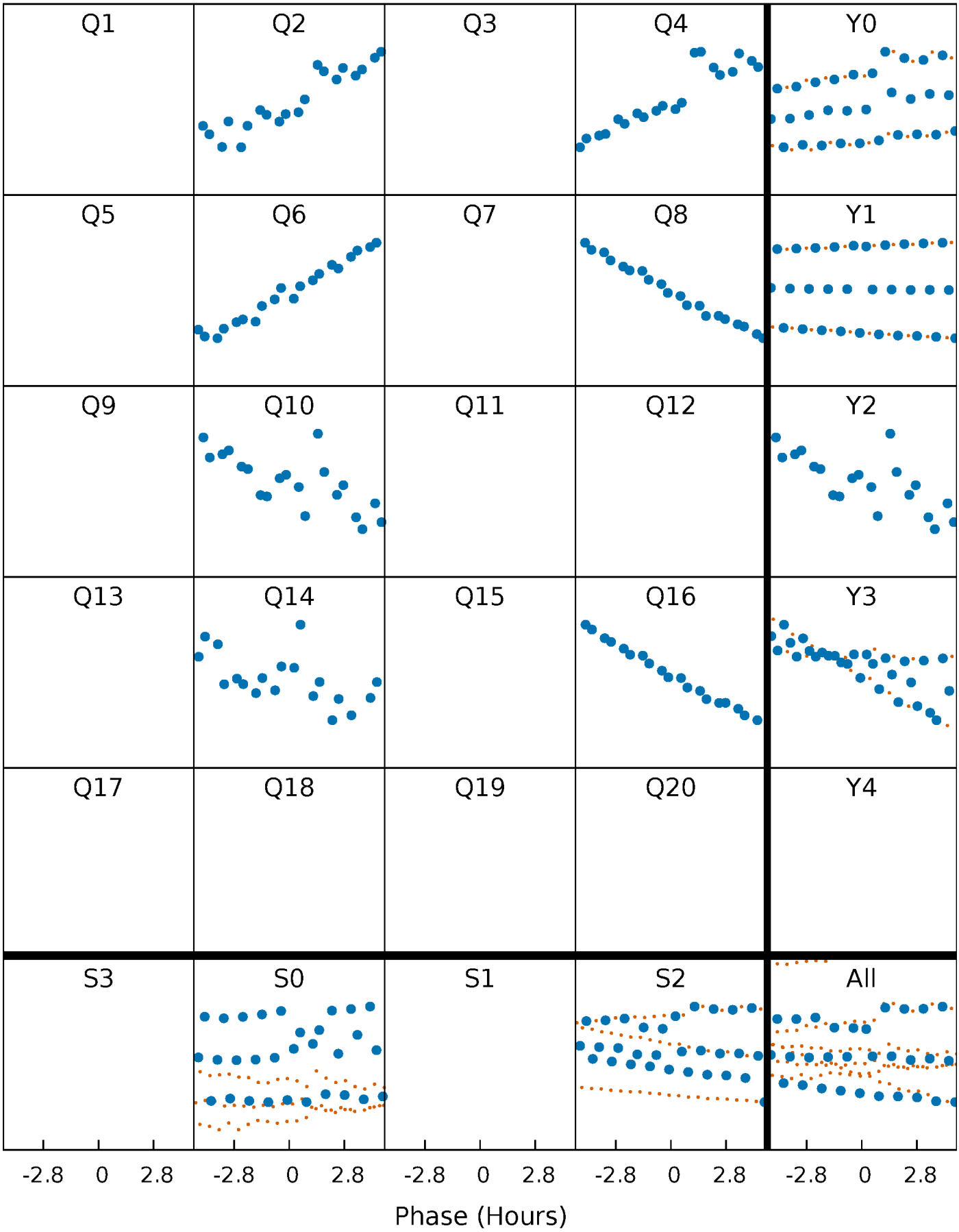
Non-Whitened Vs. Whitened Light Curve





PDC Quarter-Phased Transit Curves

TCE 006674908-08 P=187.564877 Days T_0=216.768115 (BKJD)



DV Quarter-Phased Transit Curves

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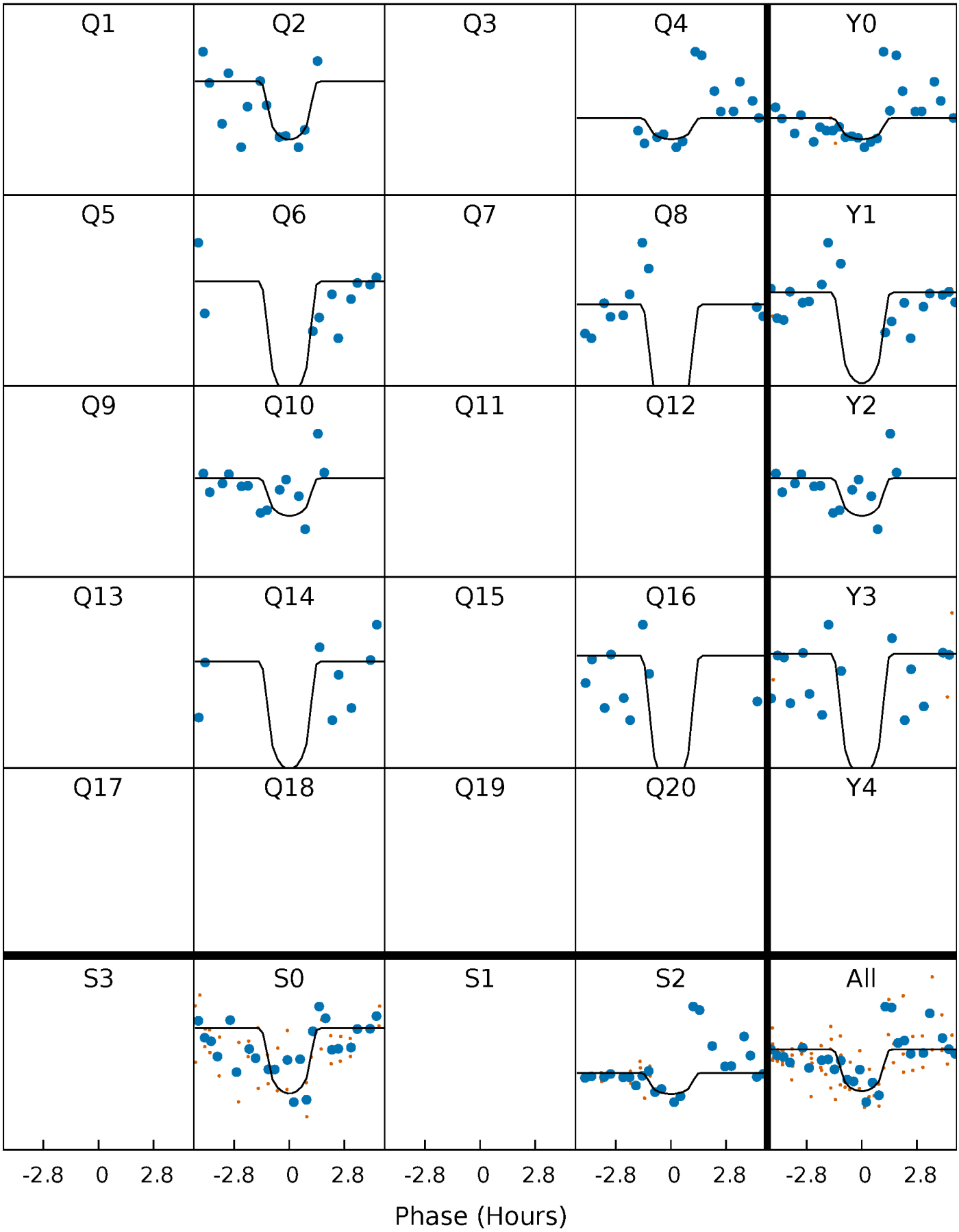
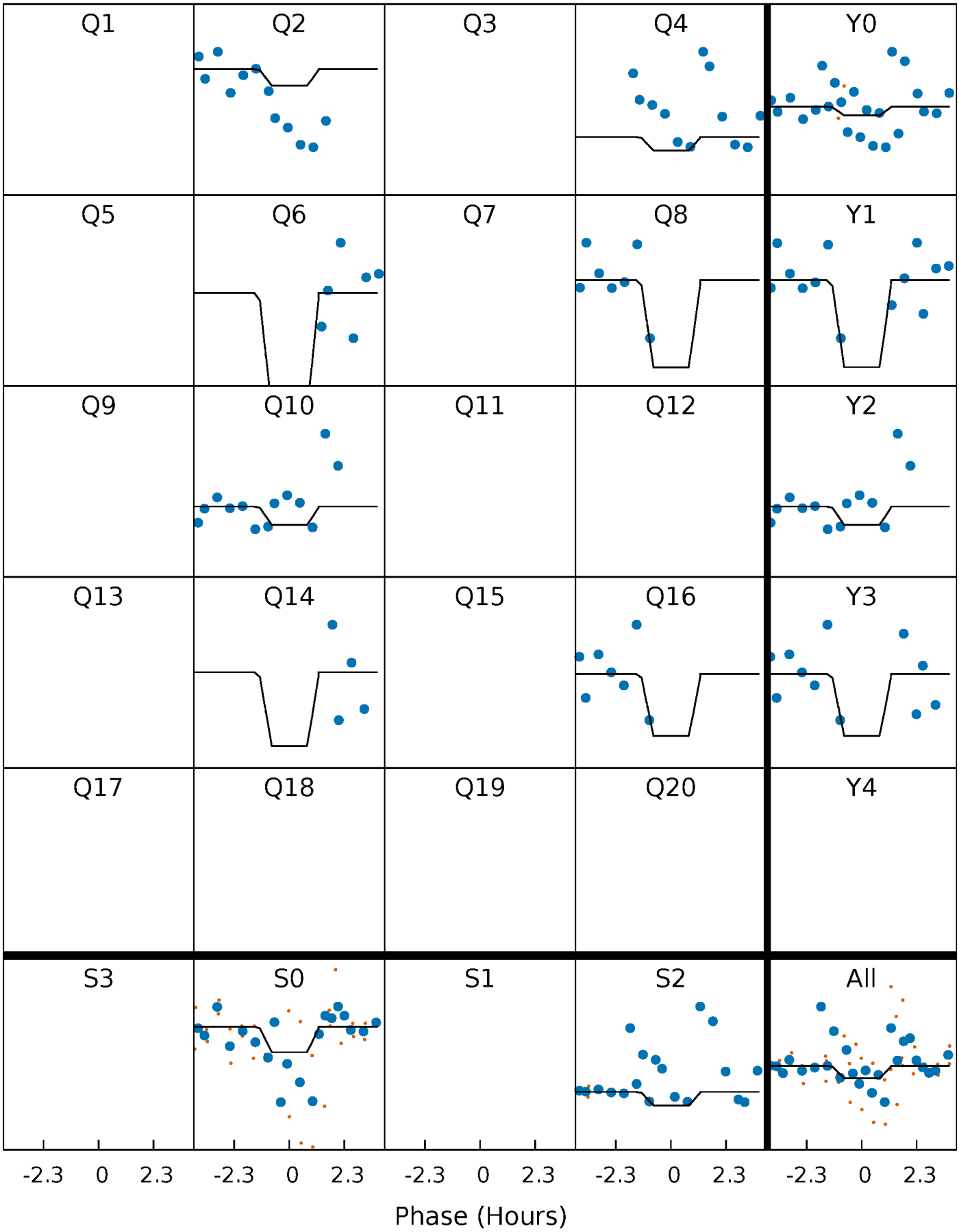


Alt. Detrend Quarter-Phased Transit Curves

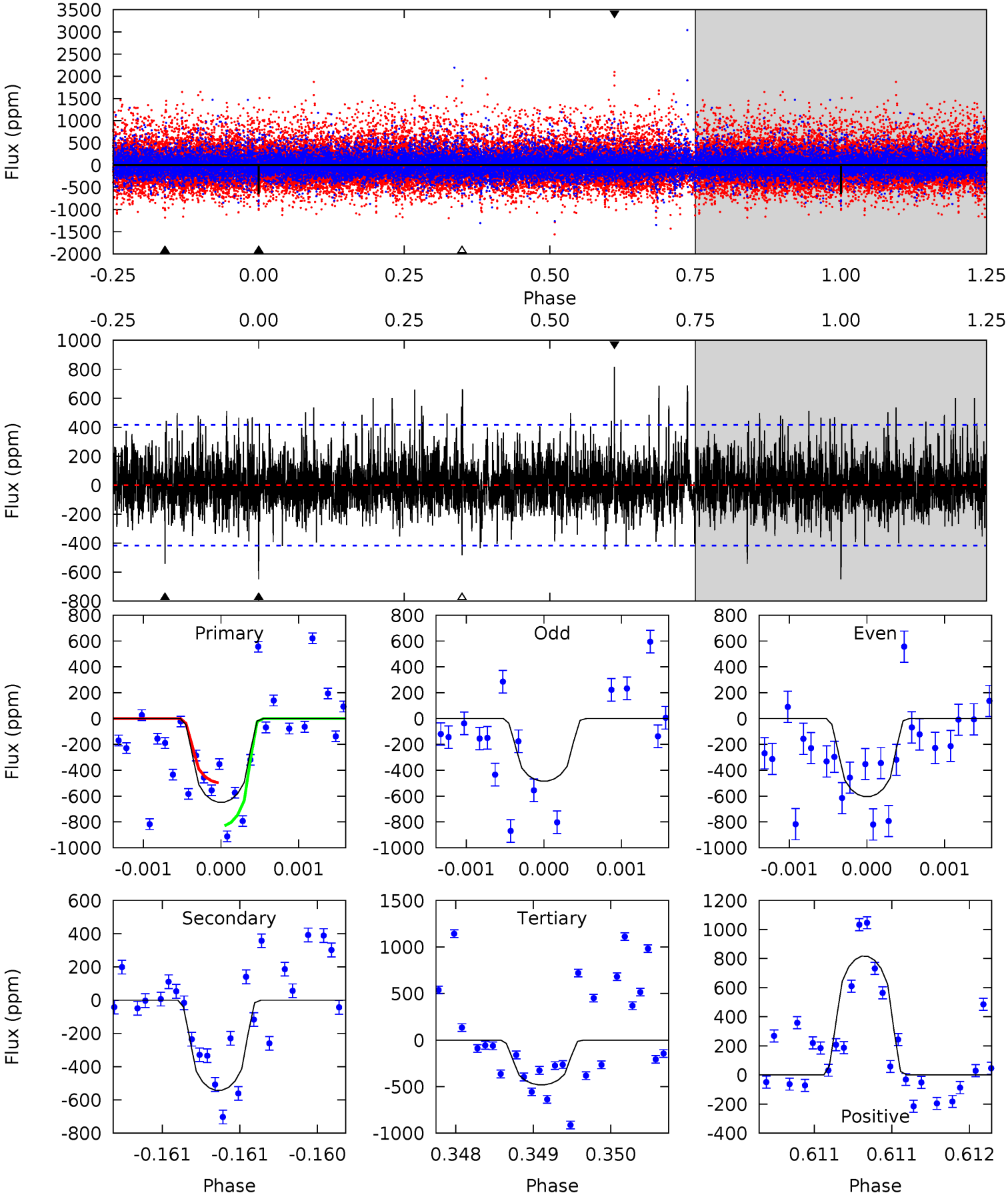
TCE 006674908-08 P=187.565426 Days T_0=216.762967 (BKJD)



DV Model-Shift Uniqueness Test

006674908-08, P = 187.564877 Days, E = 29.203238 Days

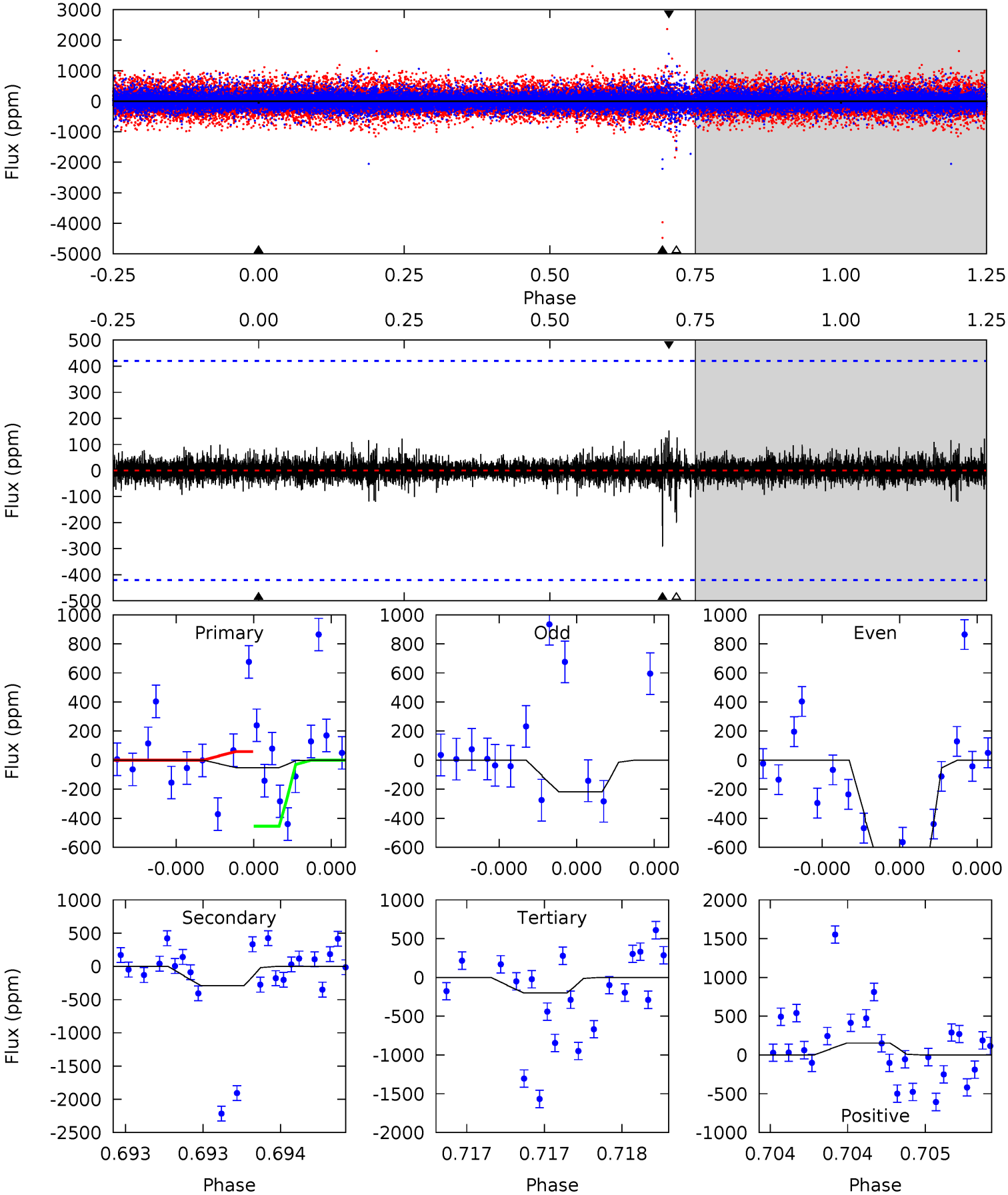
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.60	7.21	6.38	10.8	5.53	3.41	1.72	2.22	-2.24	0.82	-3.64	0.74	1.04	0.56	2.24



Alt Model-Shift Uniqueness Test

006674908-08, P = 187.565426 Days, E = 29.197541 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.68	3.83	2.66	2.03	5.57	3.48	0.32	-1.97	-1.35	1.18	1.81	3.62	20.1	0.35	2.75



Stellar Parameters For KIC 006674908

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	4013^{+140}_{-154}	$4.639^{+0.053}_{-0.021}$	$0.260^{+0.200}_{-0.300}$	$0.630^{+0.029}_{-0.064}$	$0.630^{+0.042}_{-0.061}$	$3.552^{+0.893}_{-0.273}$
	+3%/-4%	+1%/-0%	+77%/-115%	+5%/-10%	+7%/-10%	+25%/-8%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006674908-08 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-543±75	$3.56^{+3.19}_{-2.27}$	263^{+10}_{-12}	3097^{+1261}_{-501}	7404^{+48526}_{-5455}
Alt.	-289±75	$3.14^{+3.17}_{-2.25}$	263^{+9}_{-11}	2920^{+1424}_{-492}	4919^{+51710}_{-3763}

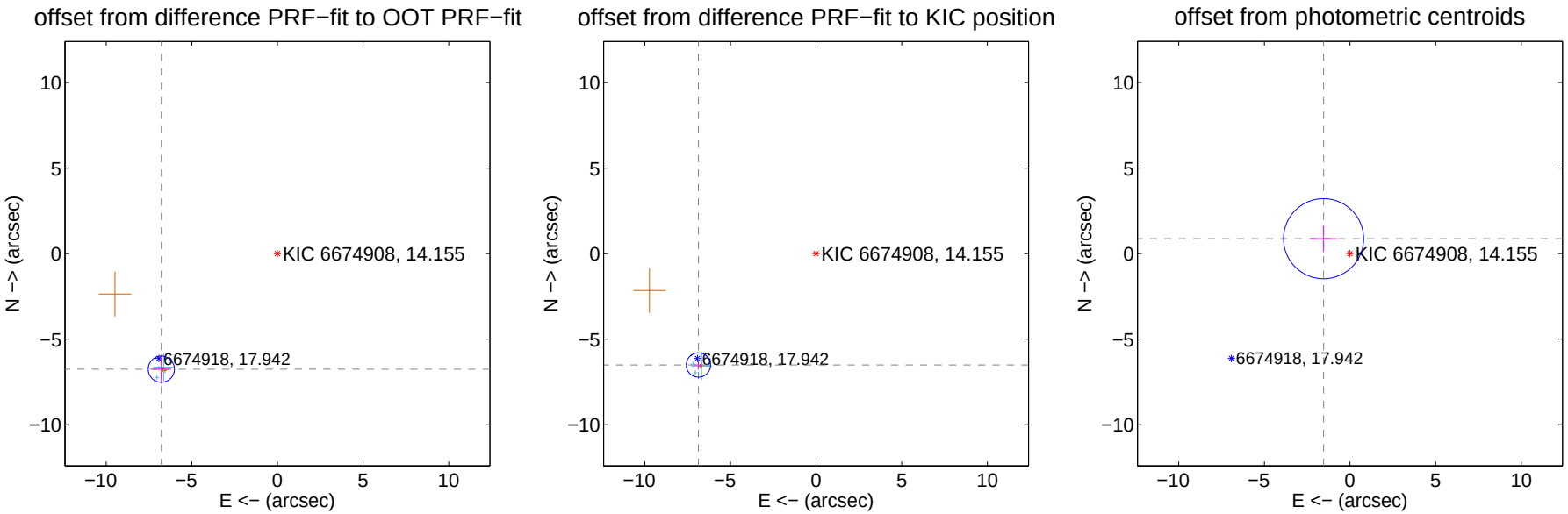
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

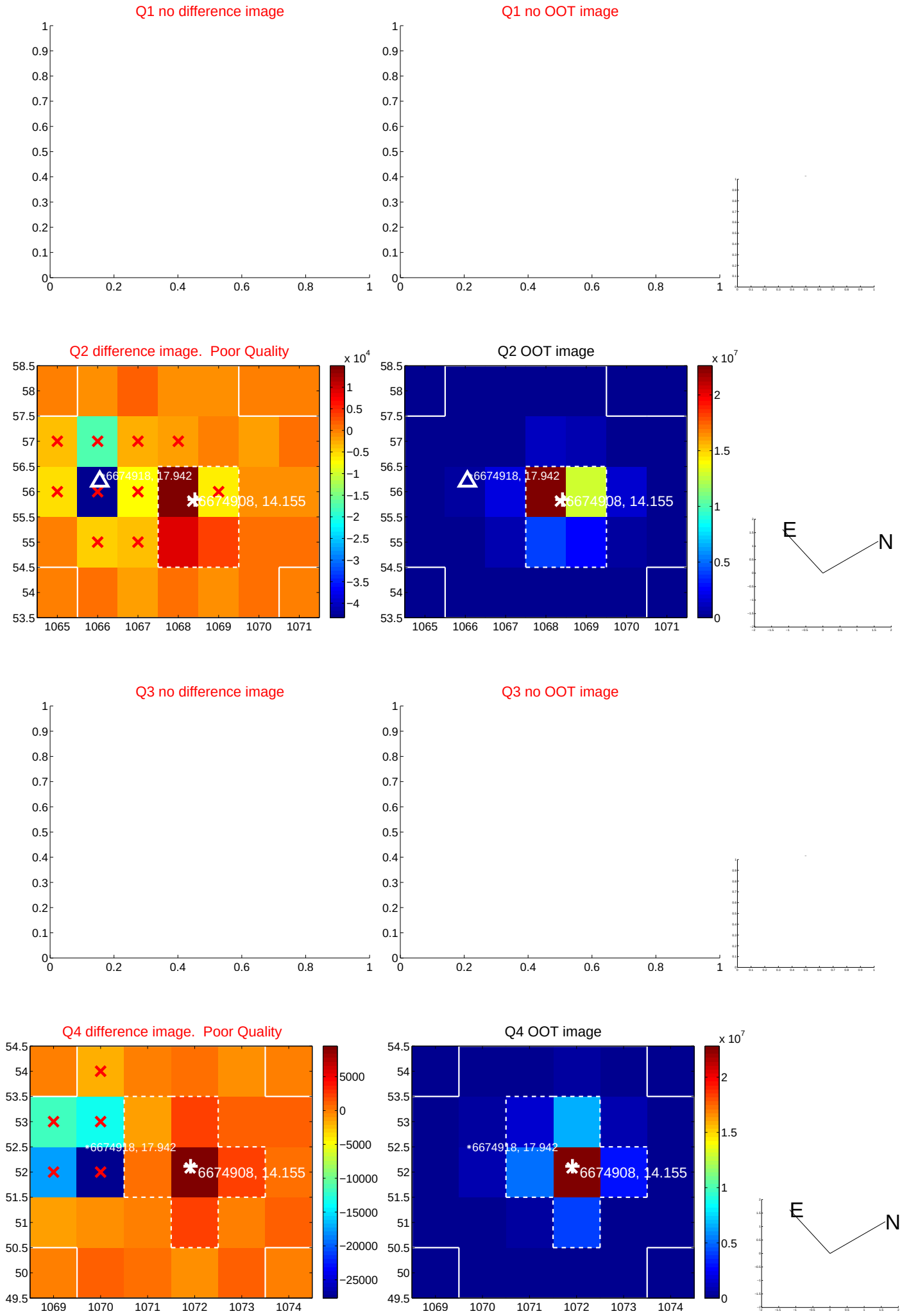
Supplemental centroid analysis for 006674908-08. Kepler magnitude: 14.15. Transit SNR 5.47
There are 3 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.569 ± 0.255	37.46	6.781 ± 0.520	-6.752 ± 0.845
PRF-fit source offset from KIC position	9.464 ± 0.236	40.03	6.872 ± 0.203	-6.507 ± 0.269
photometric centroid source offset	1.77 ± 0.78	2.27	1.54 ± 0.78	0.87 ± 0.78

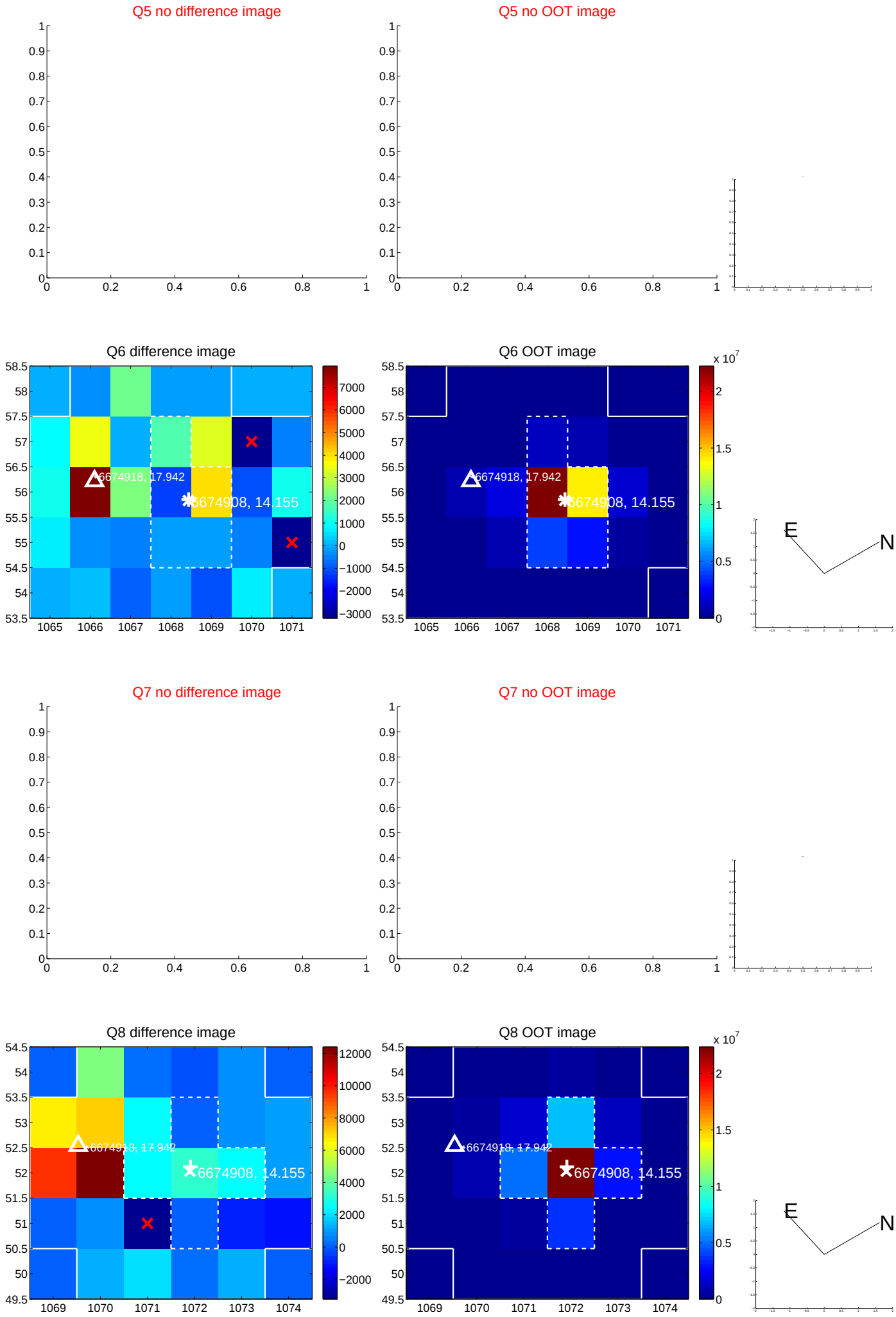


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

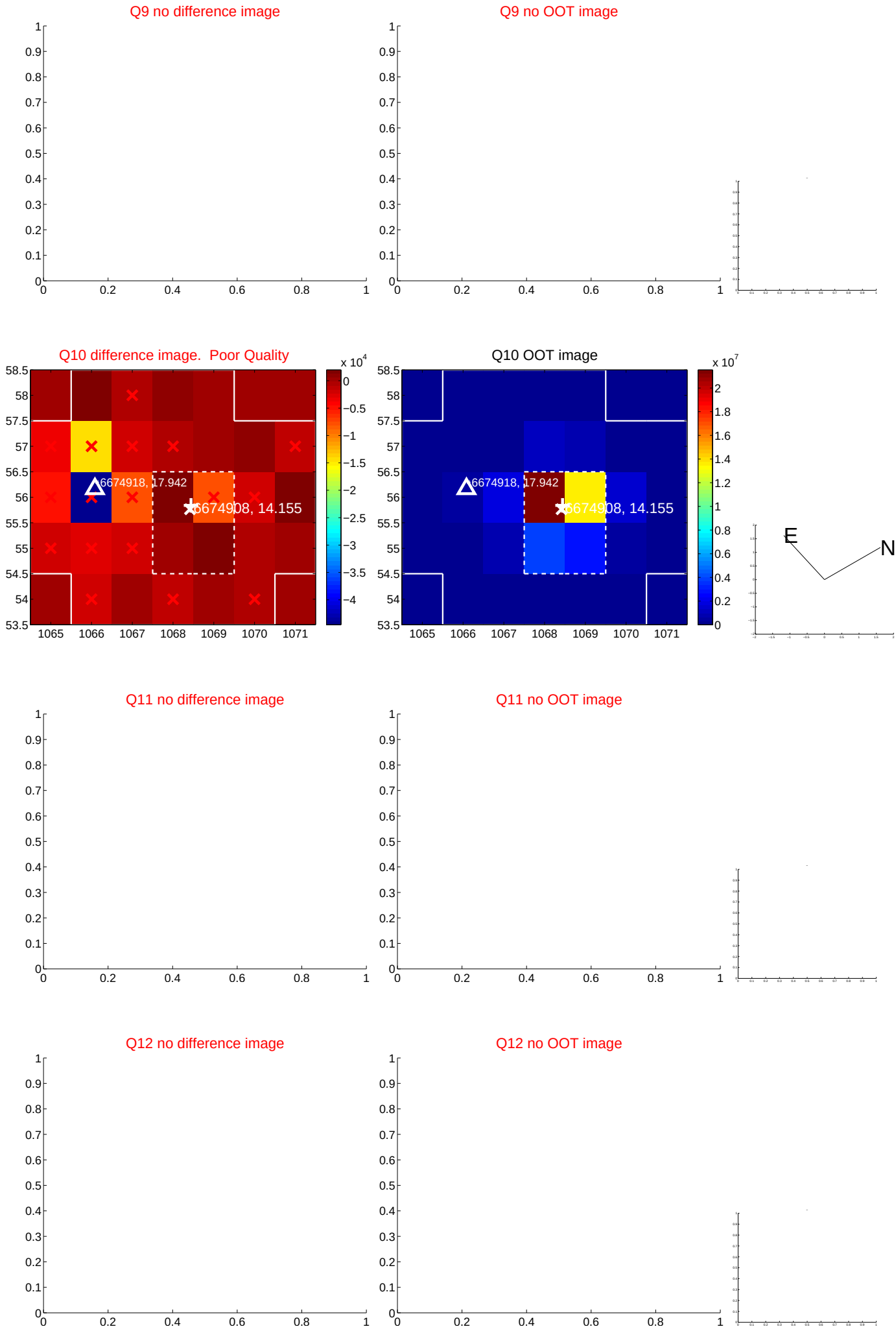
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



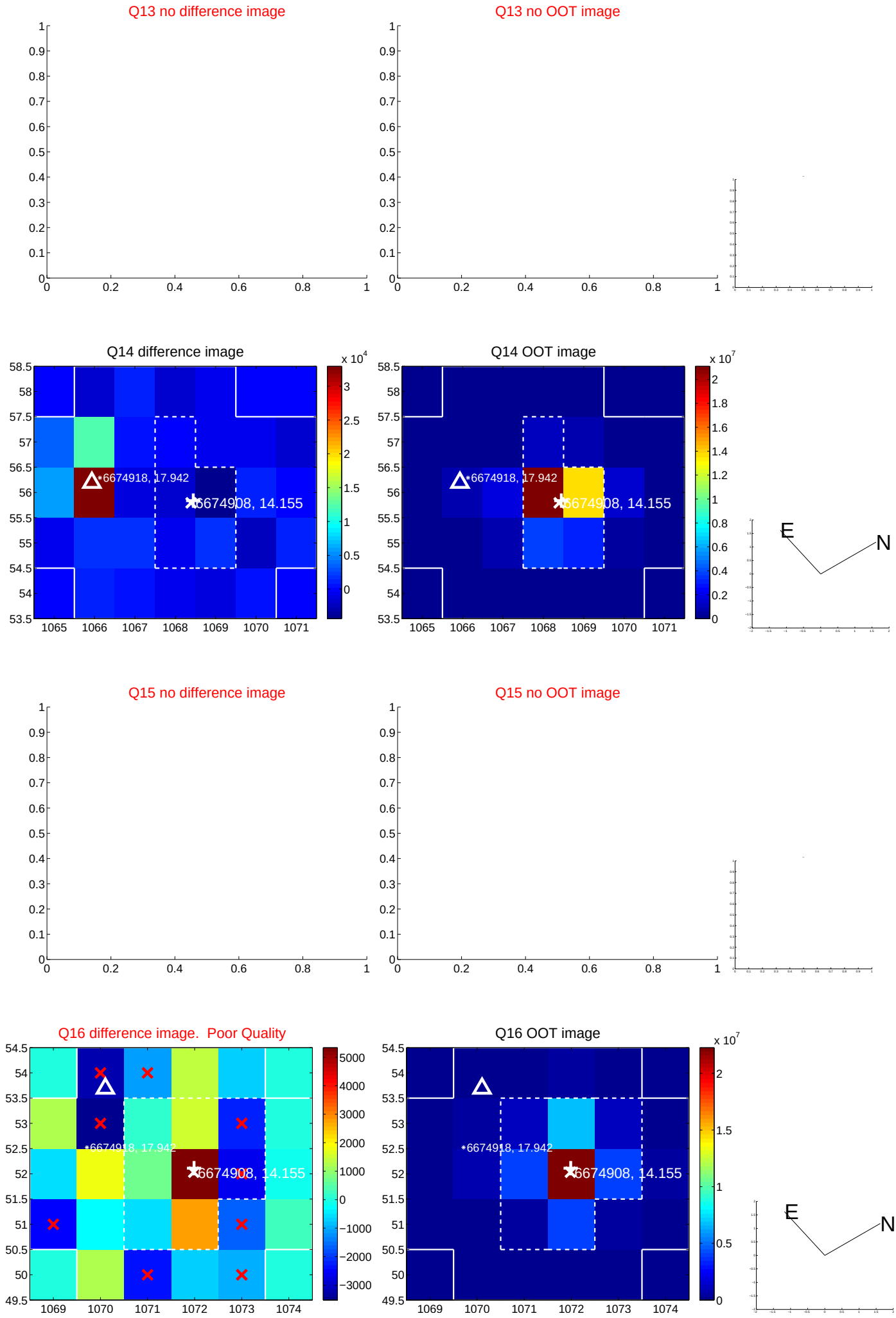
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



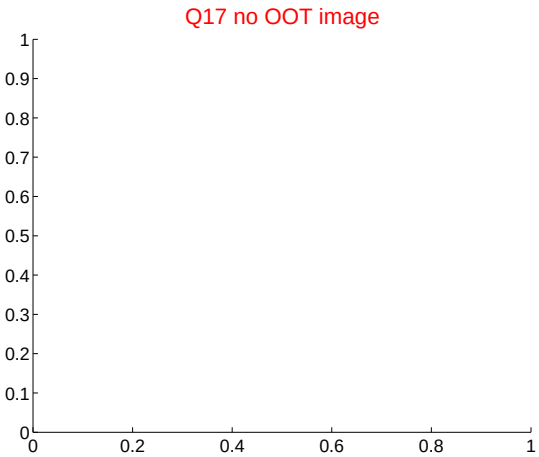
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

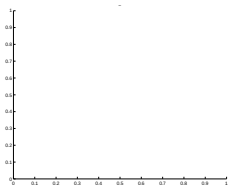


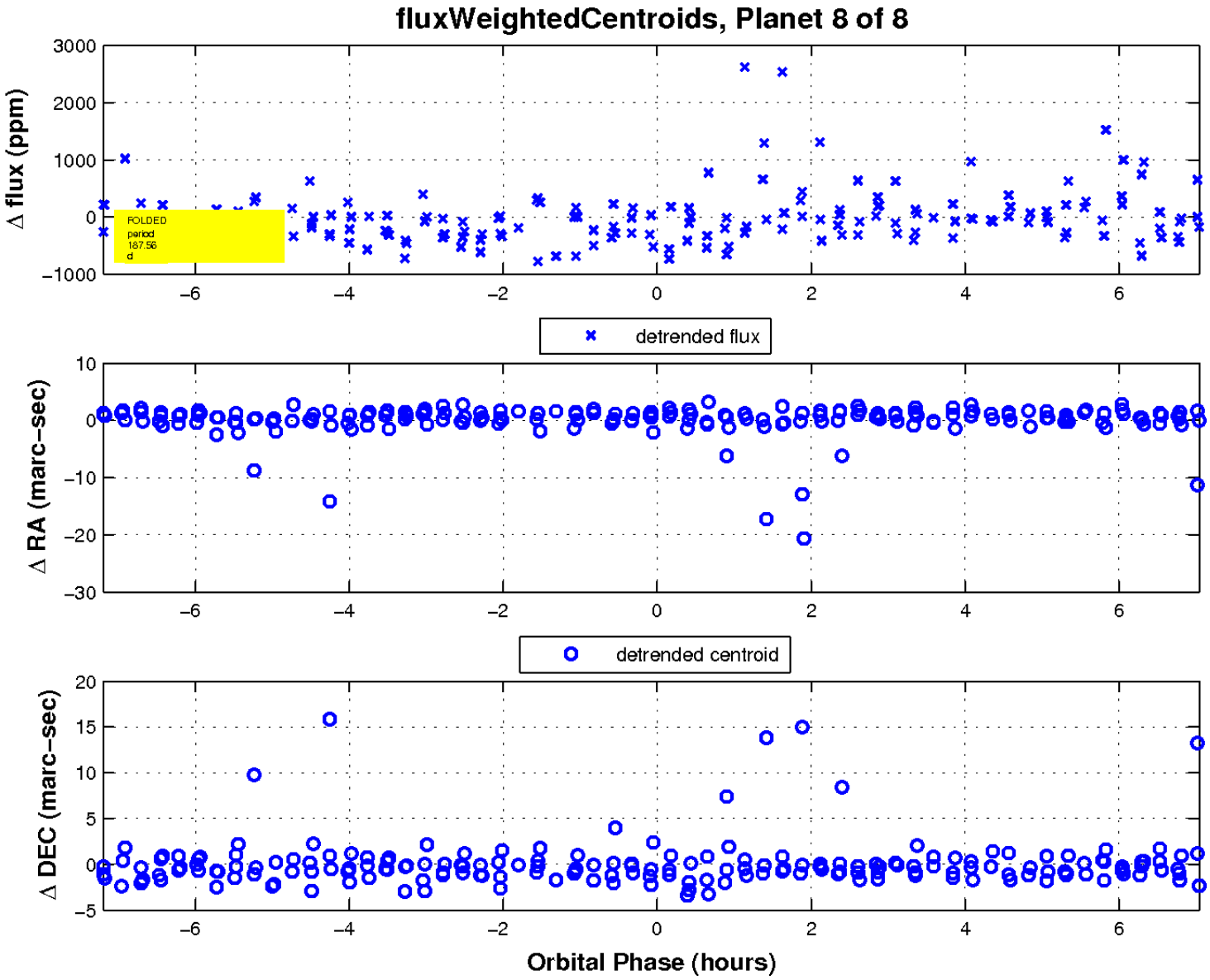
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



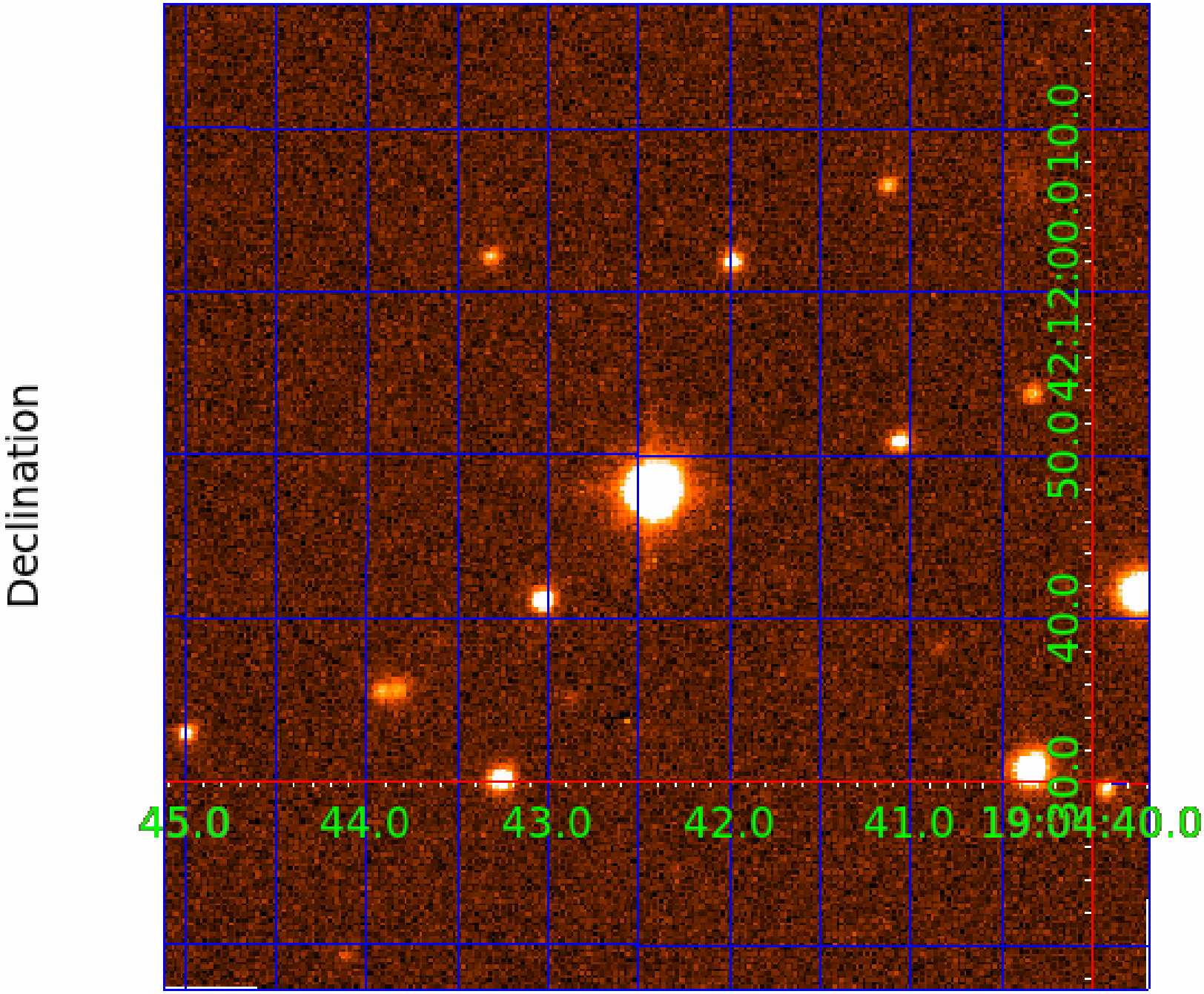
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image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