KIC 006676725

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 ($S_\oplus$)
006676725-01	OBS	6755.01	1.428769	132.190421	63.9	5.715	10.8	11.3	1.03	6197	0.98	2155.91
006676725-02	OBS	No	298.264757	158.356835	583.5	5.419	12.3	5.0	1.03	6197	3.16	1.74
006676725-03	OBS	No	280.980528	227.946906	1856.2	6.210	15.5	11.1	1.03	6197	5.20	1.89
006676725-04	OBS	No	575.744539	235.588714	661.9	5.370	10.2	5.3	1.03	6197	2.67	0.72
006676725-05	OBS	No	227.491359	356.677682	602.6	7.145	9.5	4.4	1.03	6197	2.98	2.50
006676725-06	OBS	No	467.613116	485.478418	1964.0	36.211	8.6	4.1	1.03	6197	4.72	0.96
006676725-07	OBS	No	455.843842	405.549962	853.7	11.466	9.0	5.4	1.03	6197	3.21	0.99
006676725-08	OBS	No	419.555476	236.055898	605.4	7.500	9.0	-1.0	1.03	6197	2.55	1.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676725-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—CENT_UNRESOLVED_OFFSET—HALO_GHOST
006676725-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS
006676725-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006676725-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
006676725-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
006676725-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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.

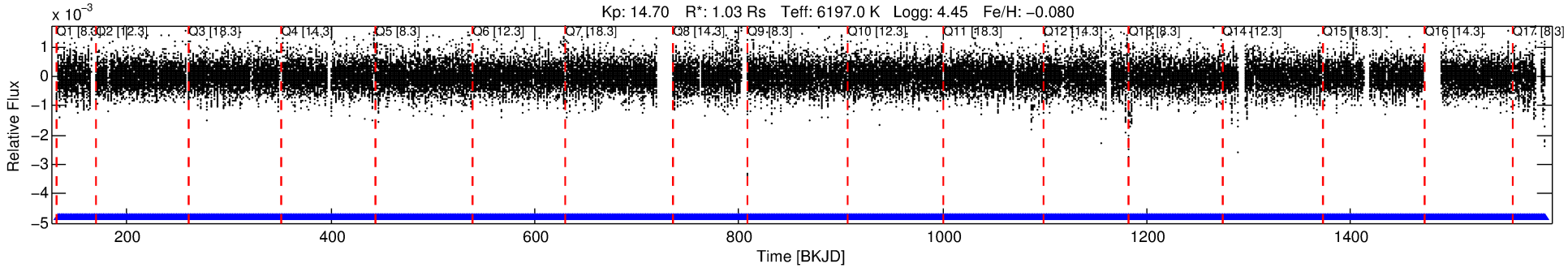
Ephemeris Match Information For 006676725-01

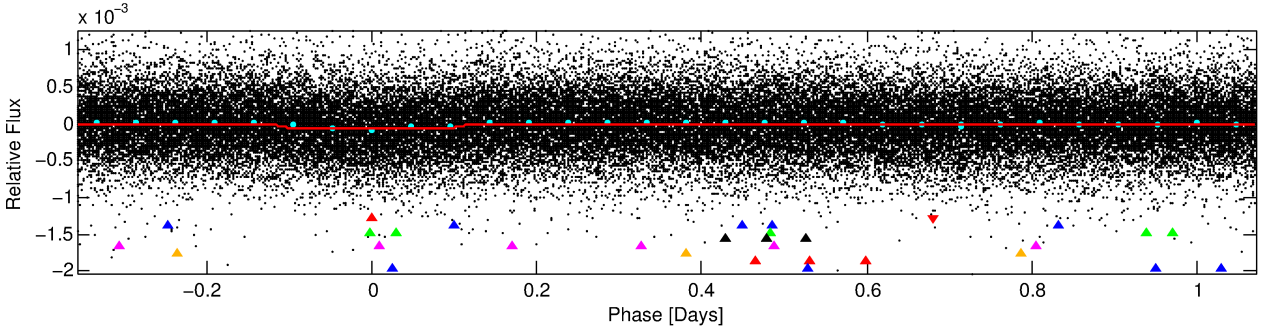
No Significant Match Found

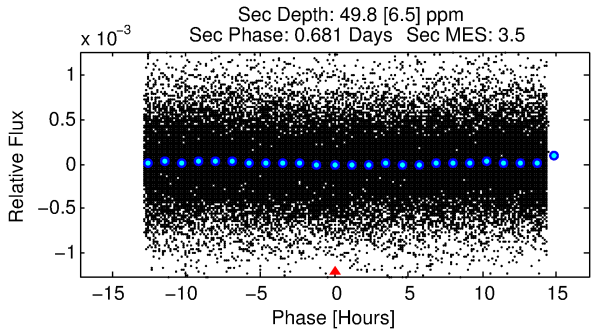
DV One-Page Summary

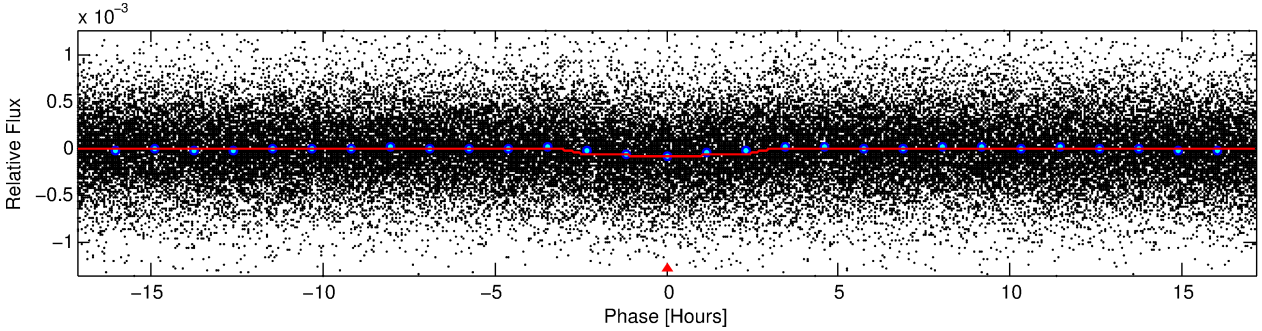
KIC: 6676725 Candidate: 1 of 8 Period: 1.429 d
KOI: K06755.01 Corr: 0.978

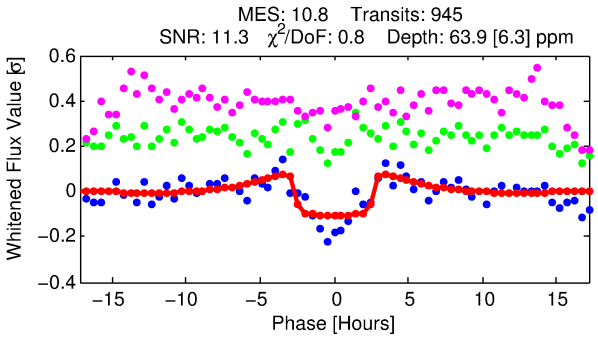
Kp: 14.70 R*: 1.03 Rs Teff: 6197.0 K Logg: 4.45 Fe/H: −0.080

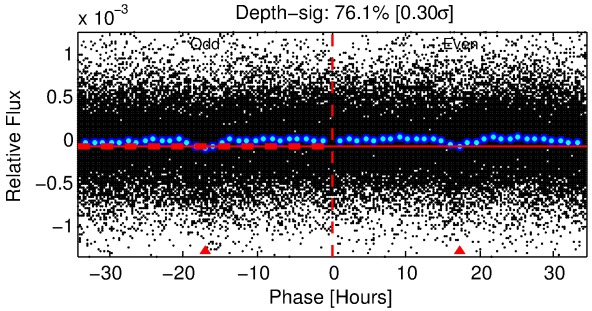


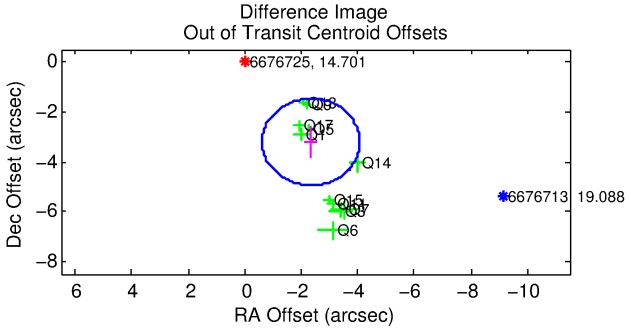












DV Fit Results:

Period = 1.42877 [0.00001] d
Epoch = 132.1904 [0.0033] BKJD
Rp/R* = 0.0087 [0.0018]
a/R* = 1.26 [0.51]
b = 0.91 [0.21]

Seff = 2155.91 [844.14]
Teq = 1738 [170] K
Rp = 0.98 [0.36] Re
a = 0.0256 [0.0064] AU

Ag = 18.72 [10.66] [1.66σ]
Teffp = 5588 [640] K [5.81σ]

DV Diagnostic Results:

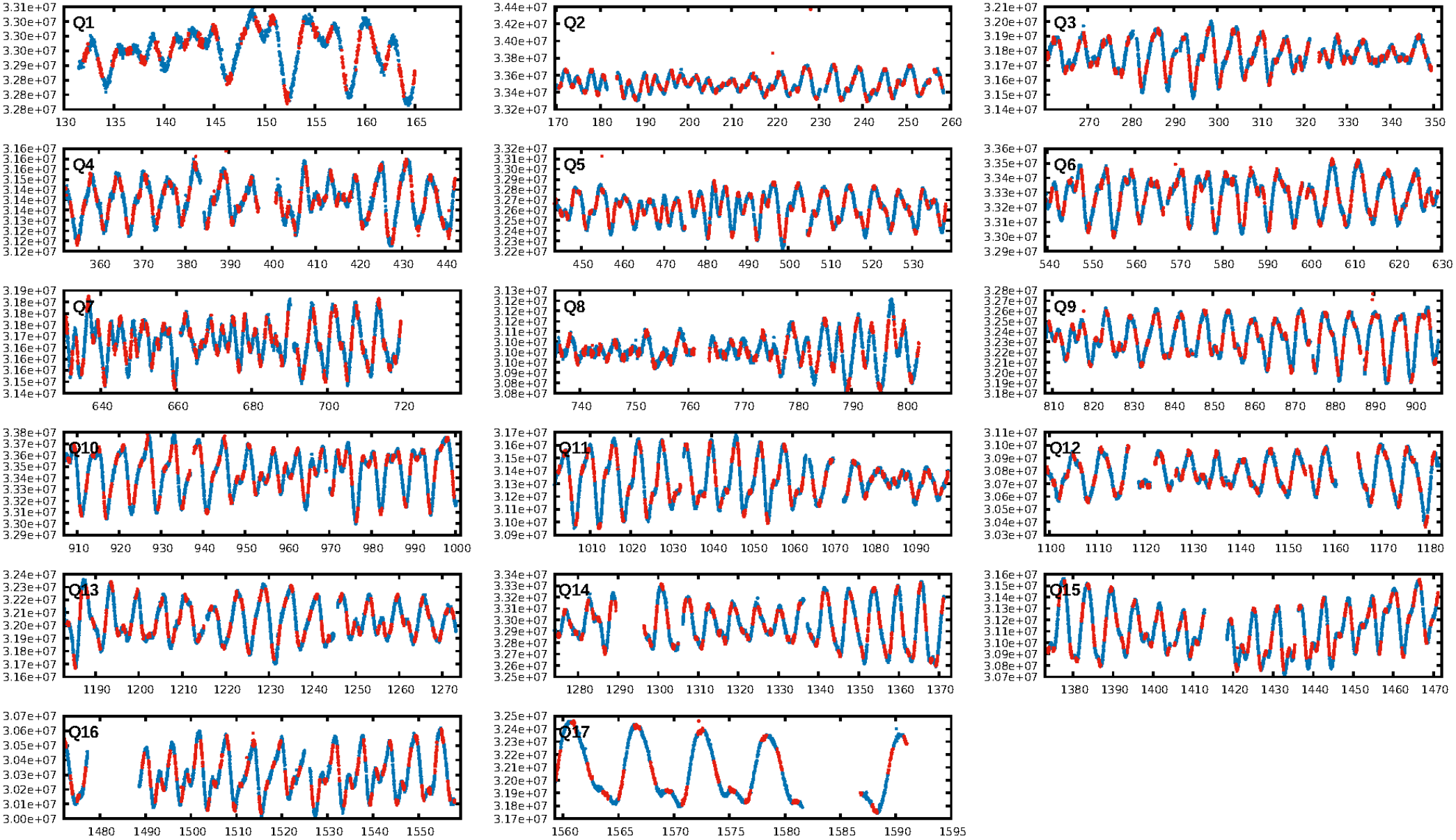
ShortPeriod−sig: N/A
LongPeriod−sig: 100.0% [592.97σ]
ModelChiSquare2−sig: N/A
ModelChiSquareGof−sig: N/A
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [902/902]
GhostDiagnostic−chr: 0.1582

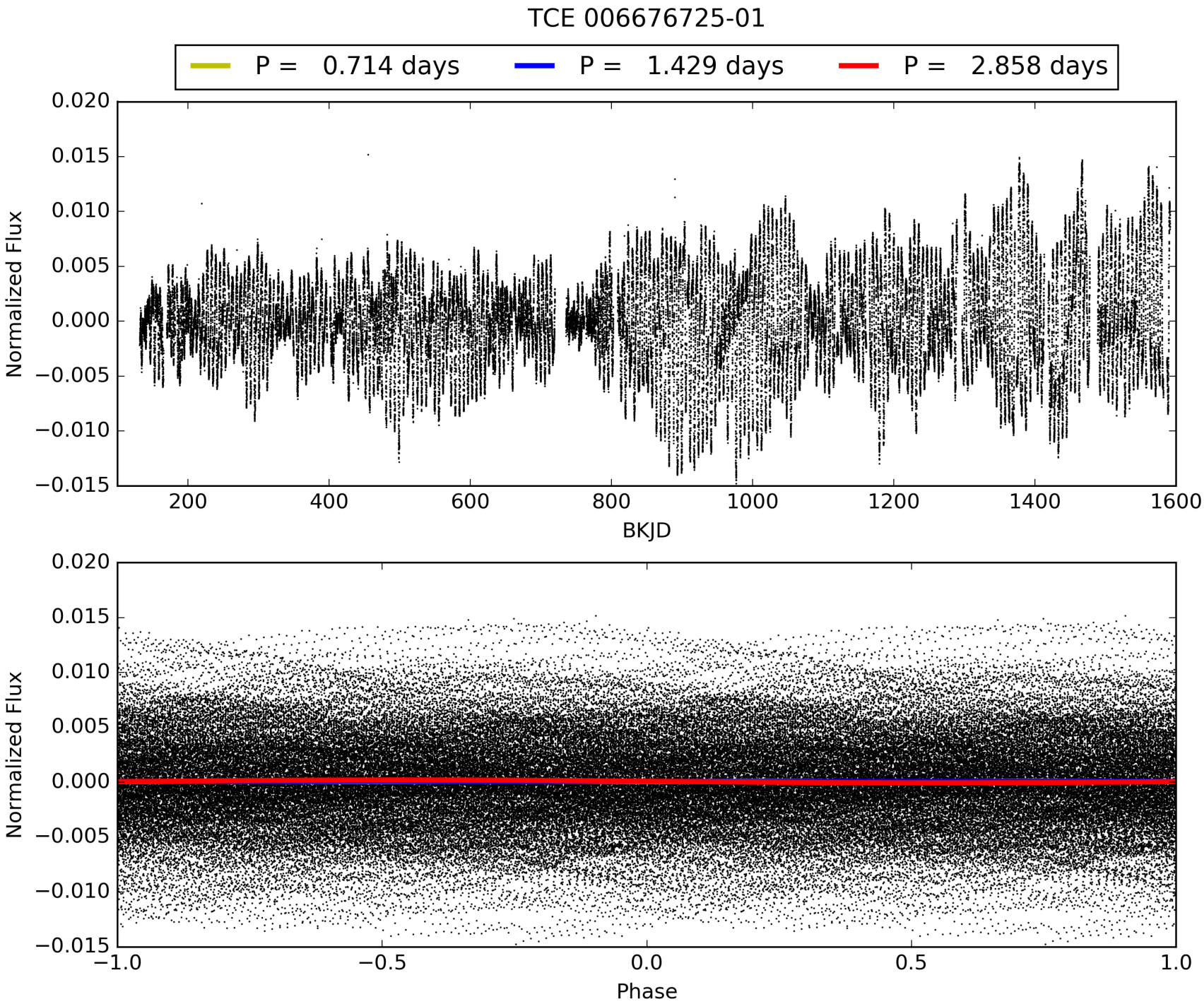
Centroid−sig: 0.0%
Centroid−so: 8.148 arcsec [11.24σ]
OotOffset−rm: 3.976 arcsec [6.88σ]
KicOffset−rm: 4.181 arcsec [7.96σ]
OotOffset−st: 2/4/0/5 [11]
KicOffset−st: 2/4/0/5 [11]
DiffImageQuality−fgm: 0.55 [6/11]
DiffImageOverlap−fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:17:24 Z

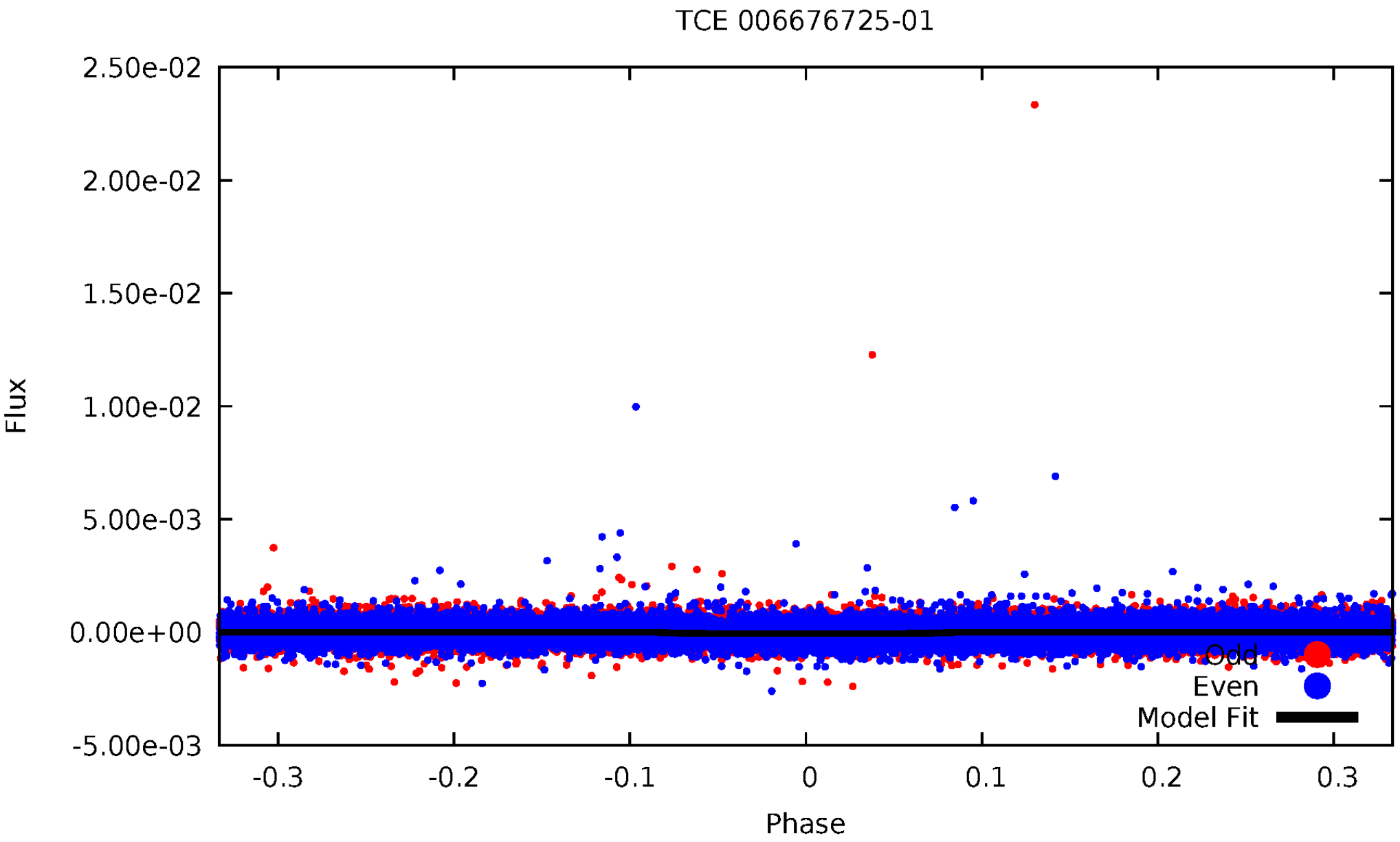
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006676725-01, PDC Light Curves




TCE 006676725-01
P = 0.714 days
P = 1.429 days
P = 2.858 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even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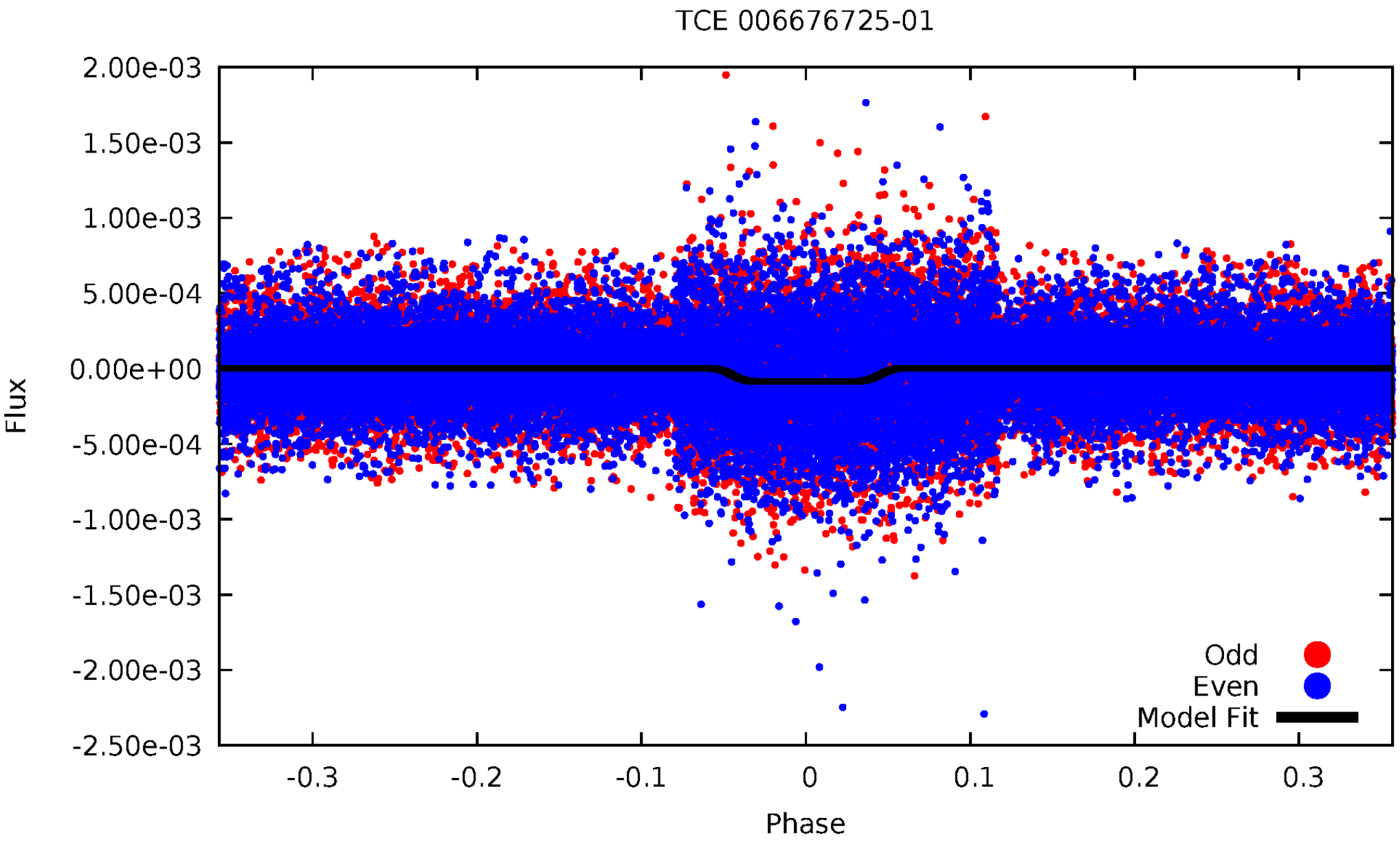
1.50e-02
1.00e-02
5.00e-03
0.00e+00
-5.00e-03
Flux
-0.3
-0.2
-0.1
0
0.1
0.2
0.3
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006676725-01
2.00e-03
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0.00e+00
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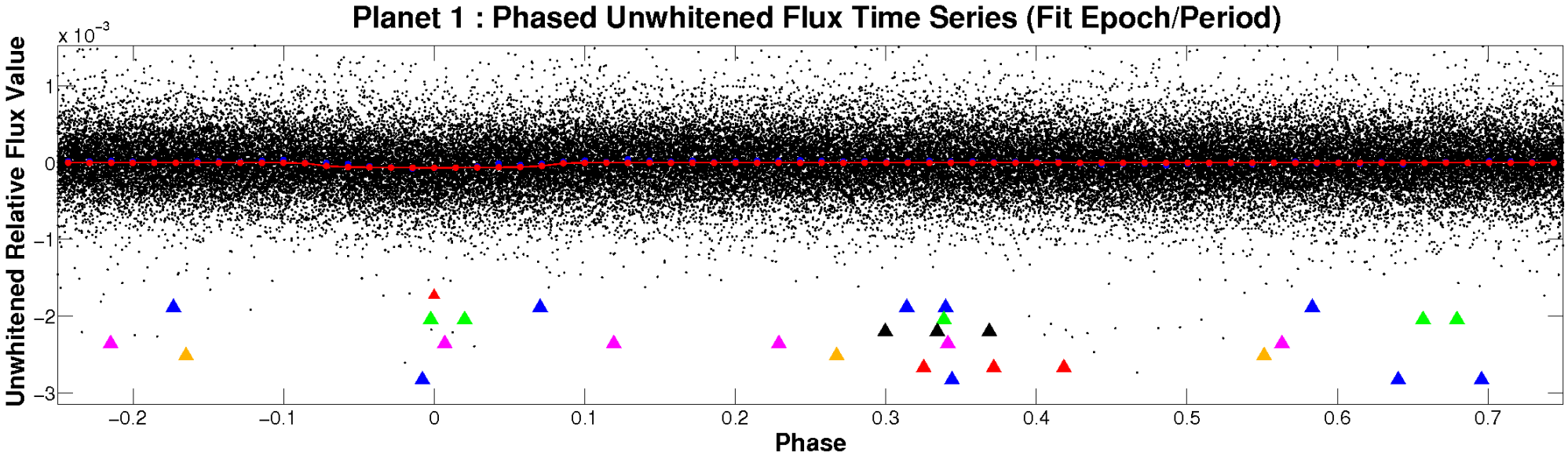
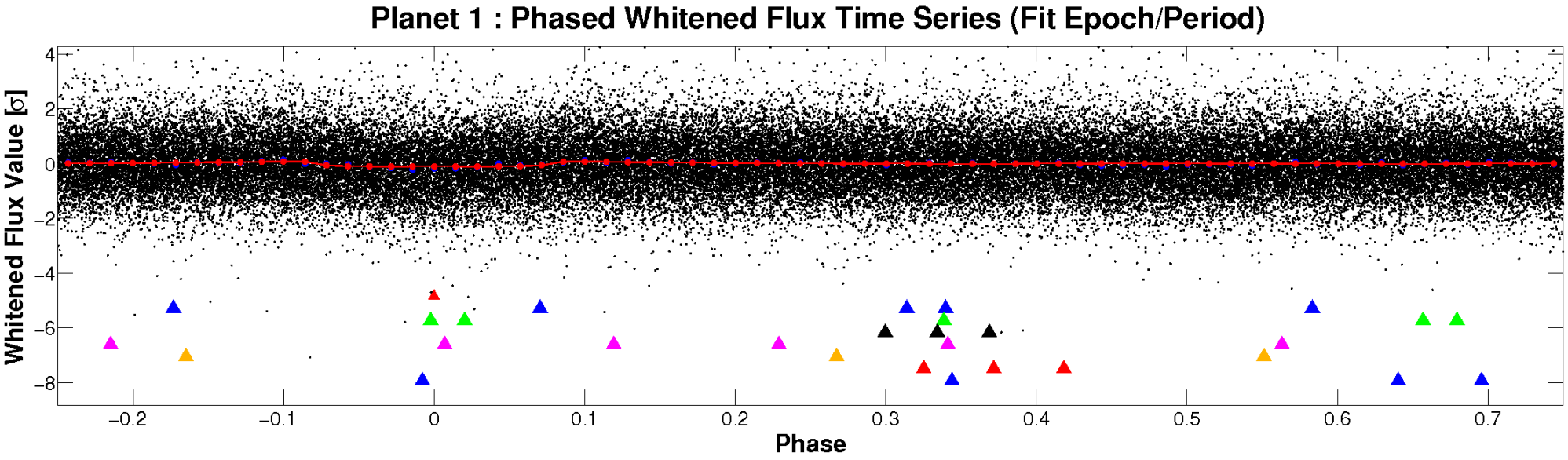
-1.50e-03
-2.00e-03
-2.50e-03
Flux
-0.3
-0.2
-0.1
0
0.1
0.2
0.3
Phase
Odd
Even
Model Fit

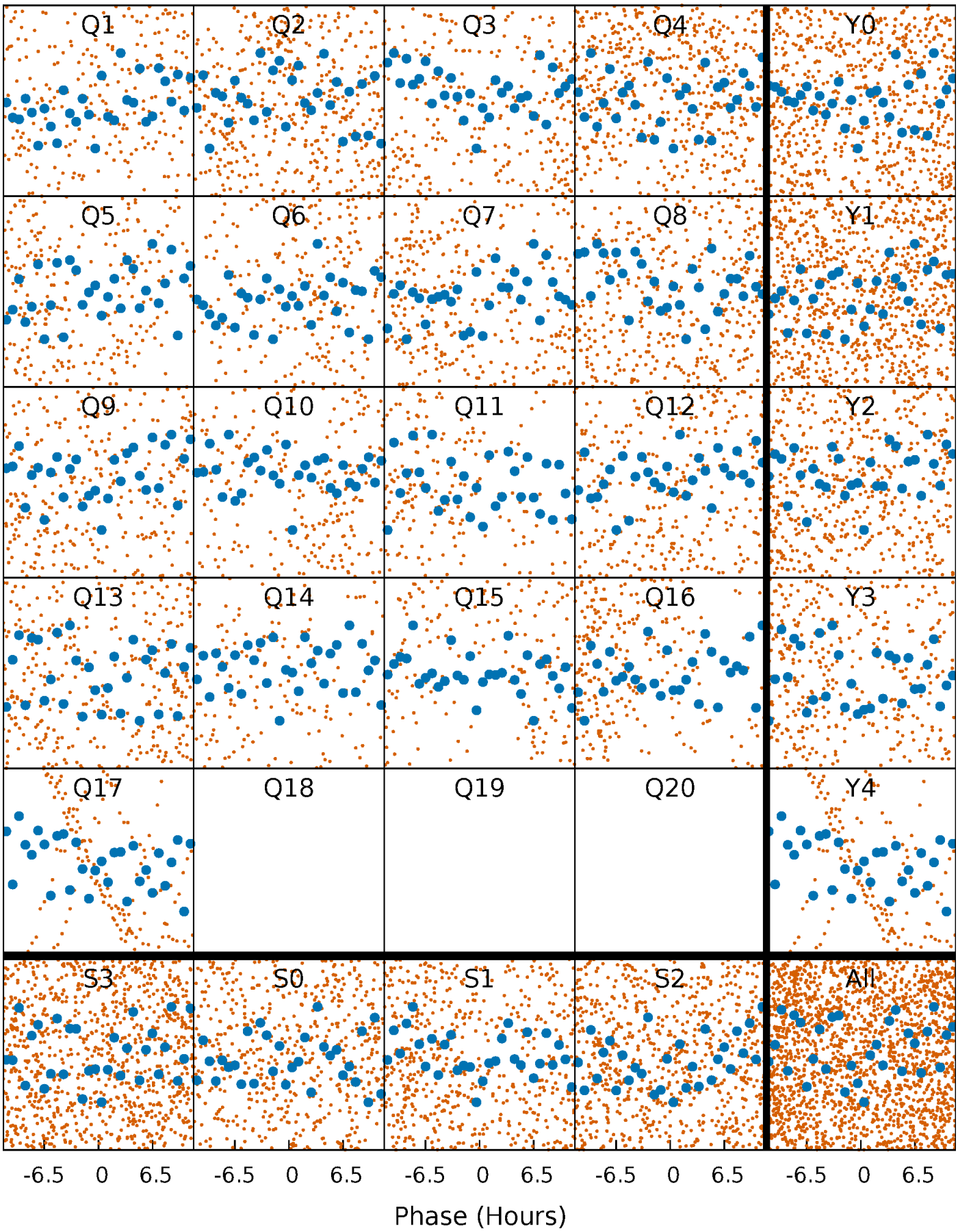
Non-Whitened Vs. Whitened Light Curve





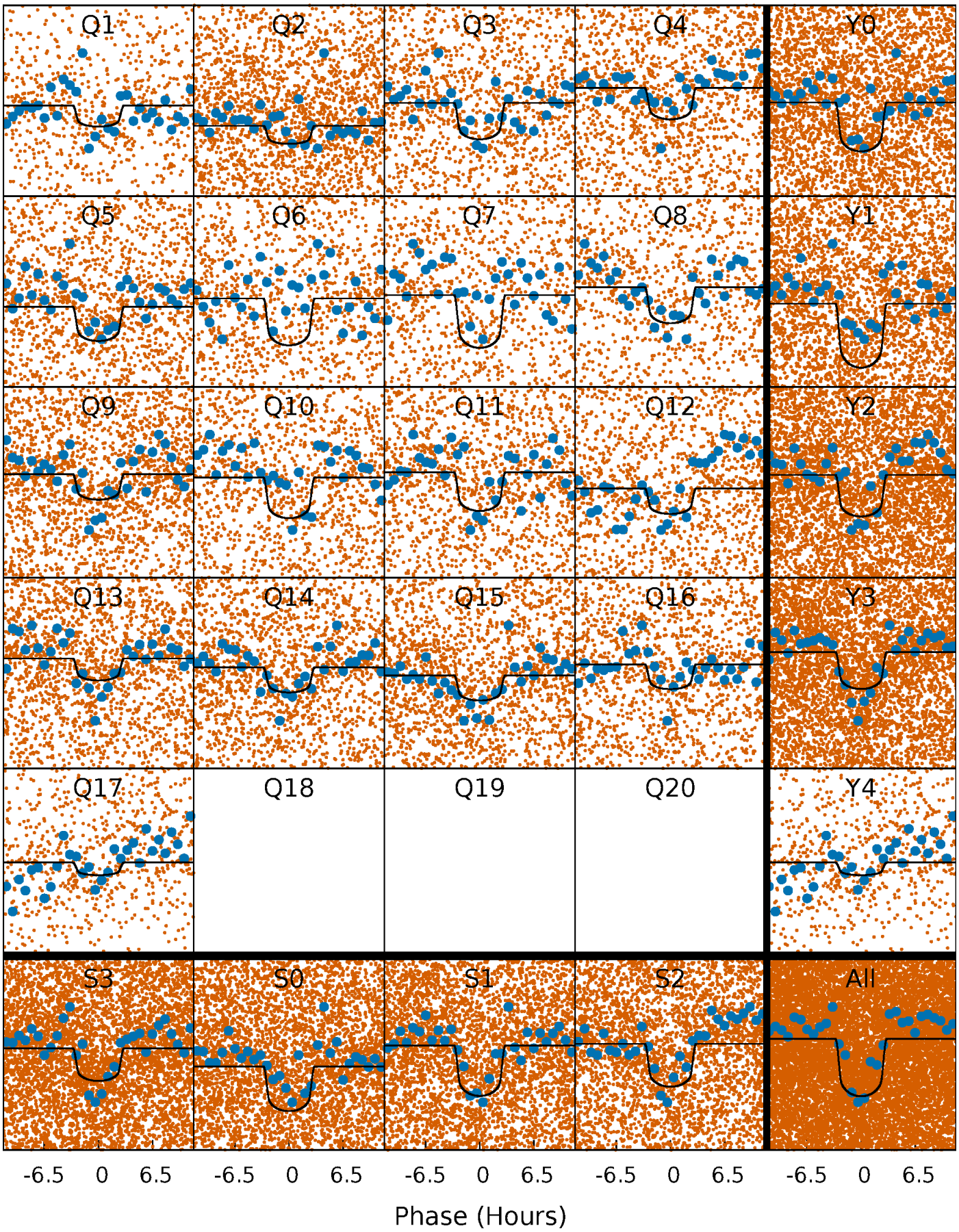
PDC Quarter-Phased Transit Curves

TCE 006676725-01 P= 1.428769 Days T_0=132.190421 (BKJD)



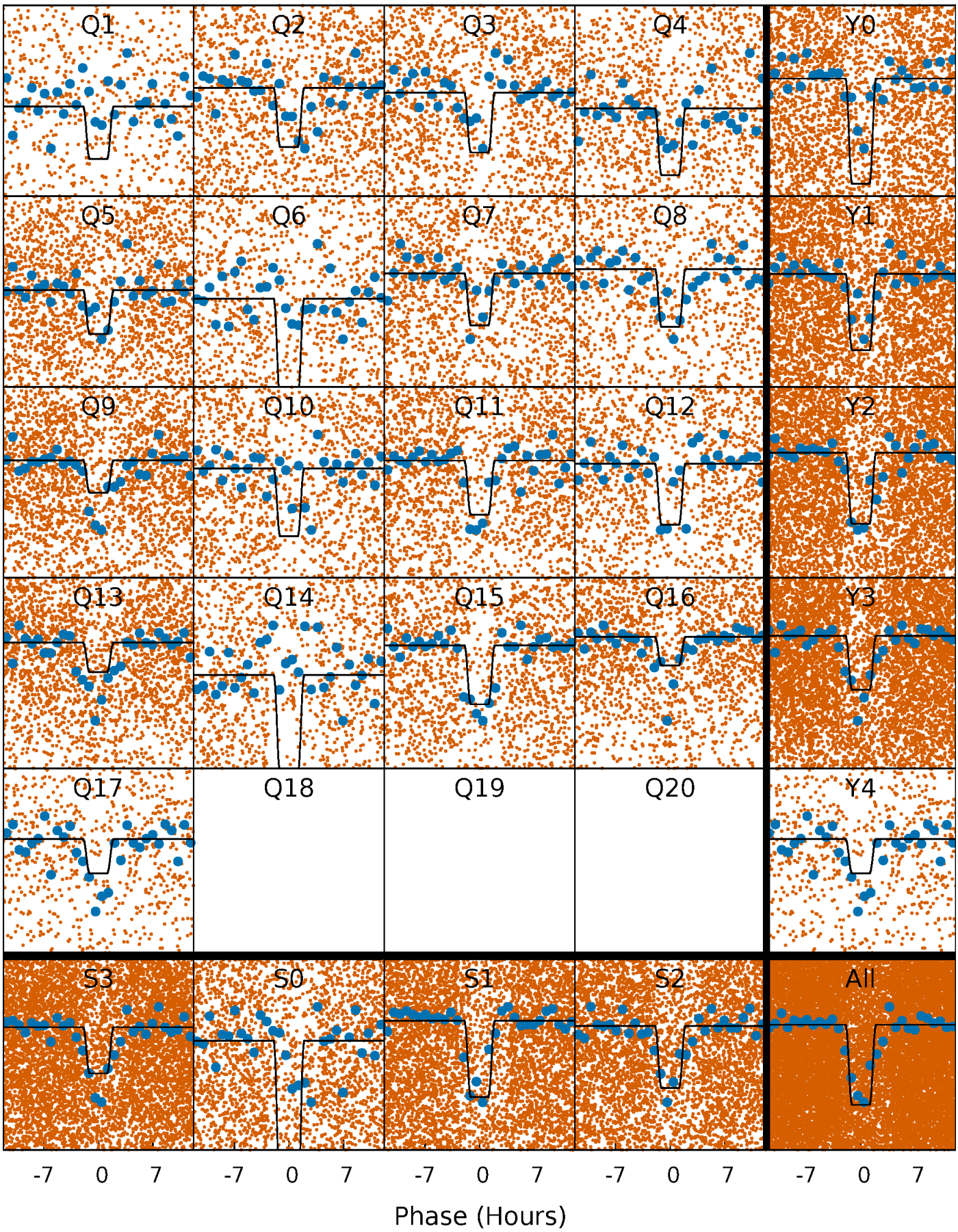
DV Quarter-Phased Transit Curves

TCE 006676725-01 P= 1.428769 Days T_0=132.190421 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

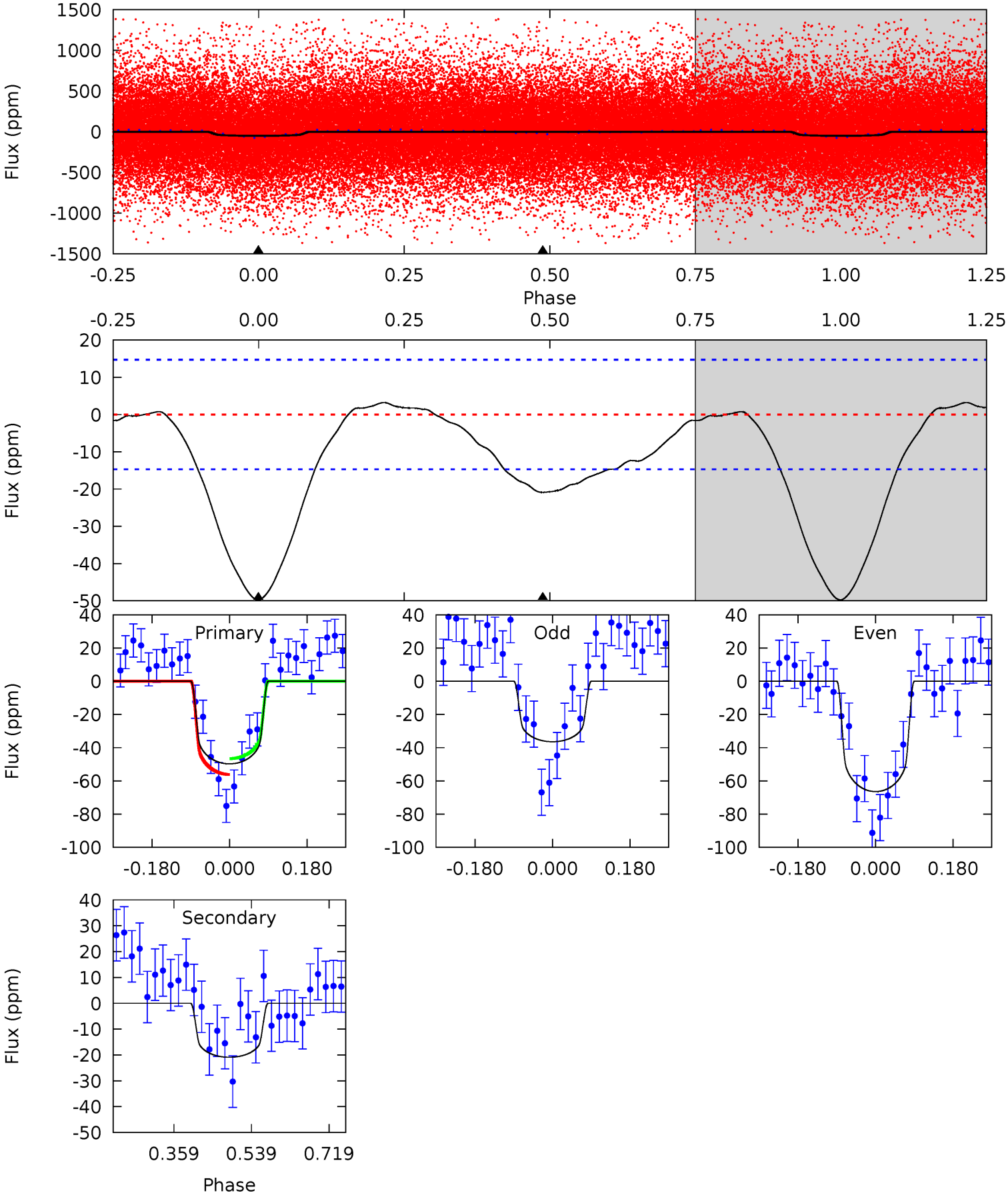
TCE 006676725-01 P= 1.428776 Days T_0=132.180756 (BKJD)



DV Model-Shift Uniqueness Test

006676725-01, P = 1.428769 Days, E = 130.761652 Days

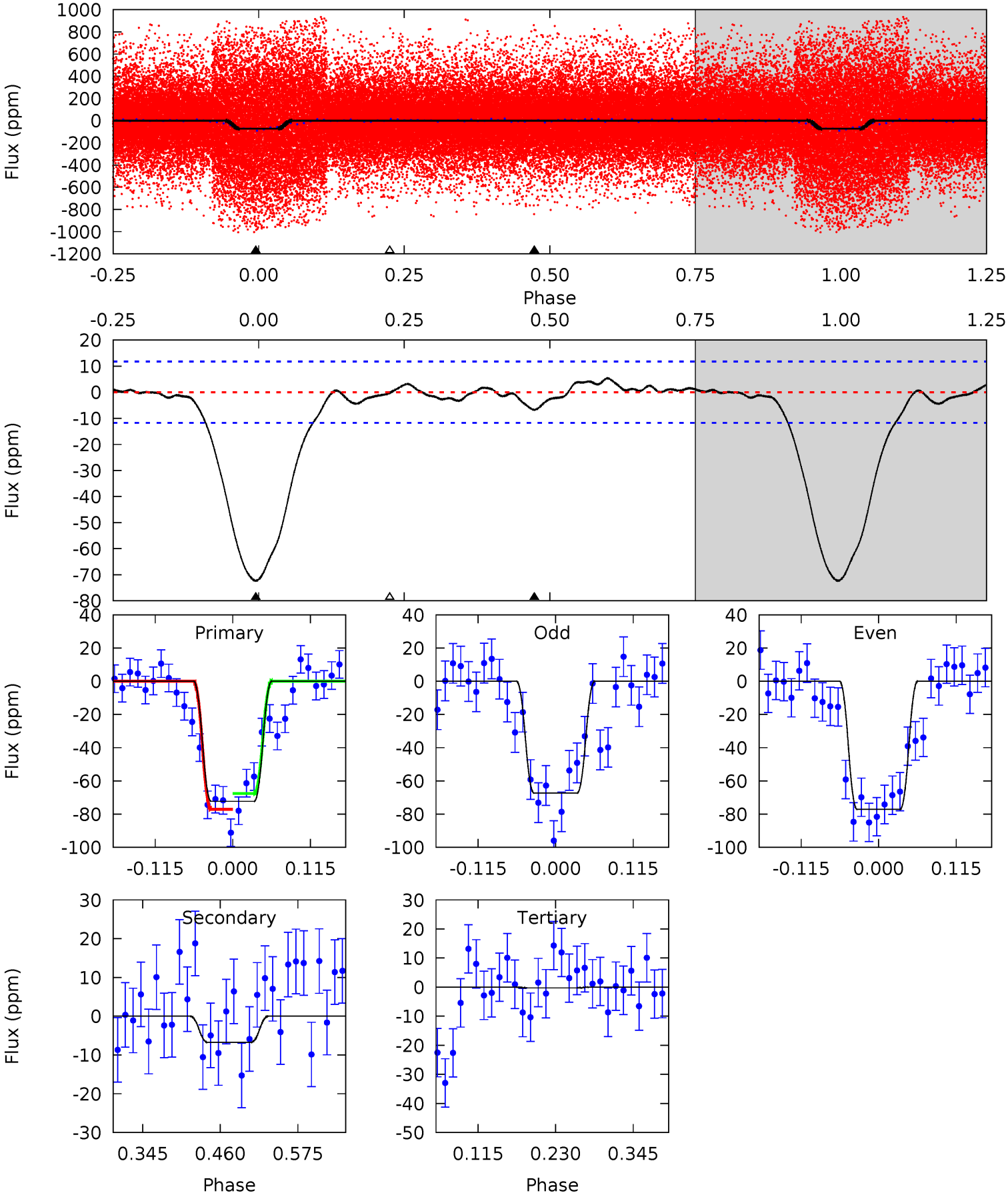
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.0	6.30	0	0	4.44	1.34	1.16	15.0	15.0	6.30	6.30	4.55	0.87	0.06	1.44



Alt Model-Shift Uniqueness Test

006676725-01, P = 1.428776 Days, E = 130.751980 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.9	2.61	0.11	0	4.54	1.58	0.78	27.8	27.9	2.50	2.61	1.88	1.10	0.07	1.85



Stellar Parameters For KIC 006676725

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6197^{+172}_{-216}	$4.449^{+0.050}_{-0.200}$	$-0.080^{+0.250}_{-0.300}$	$1.035^{+0.309}_{-0.111}$	$1.096^{+0.141}_{-0.141}$	$1.394^{+0.390}_{-0.735}$
	+3%/-3%	+1%/-4%	+312%/-375%	+30%/-11%	+13%/-13%	+28%/-53%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006676725-01 / KOI 6755.01

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-21±3	$1.01^{+0.26}_{-0.22}$	2489^{+156}_{-126}	4642^{+500}_{-424}	$7.119^{+4.702}_{-2.797}$
Alt.	-7±3	$1.06^{+0.28}_{-0.23}$	2478^{+174}_{-121}	3617^{+421}_{-426}	$2.052^{+1.705}_{-1.011}$

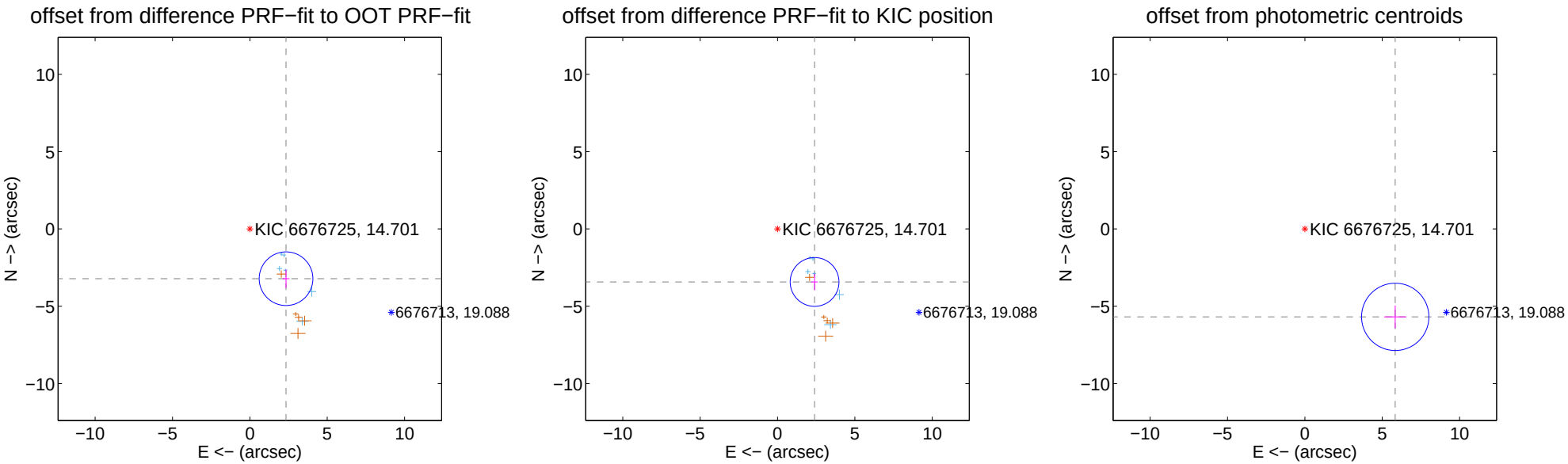
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

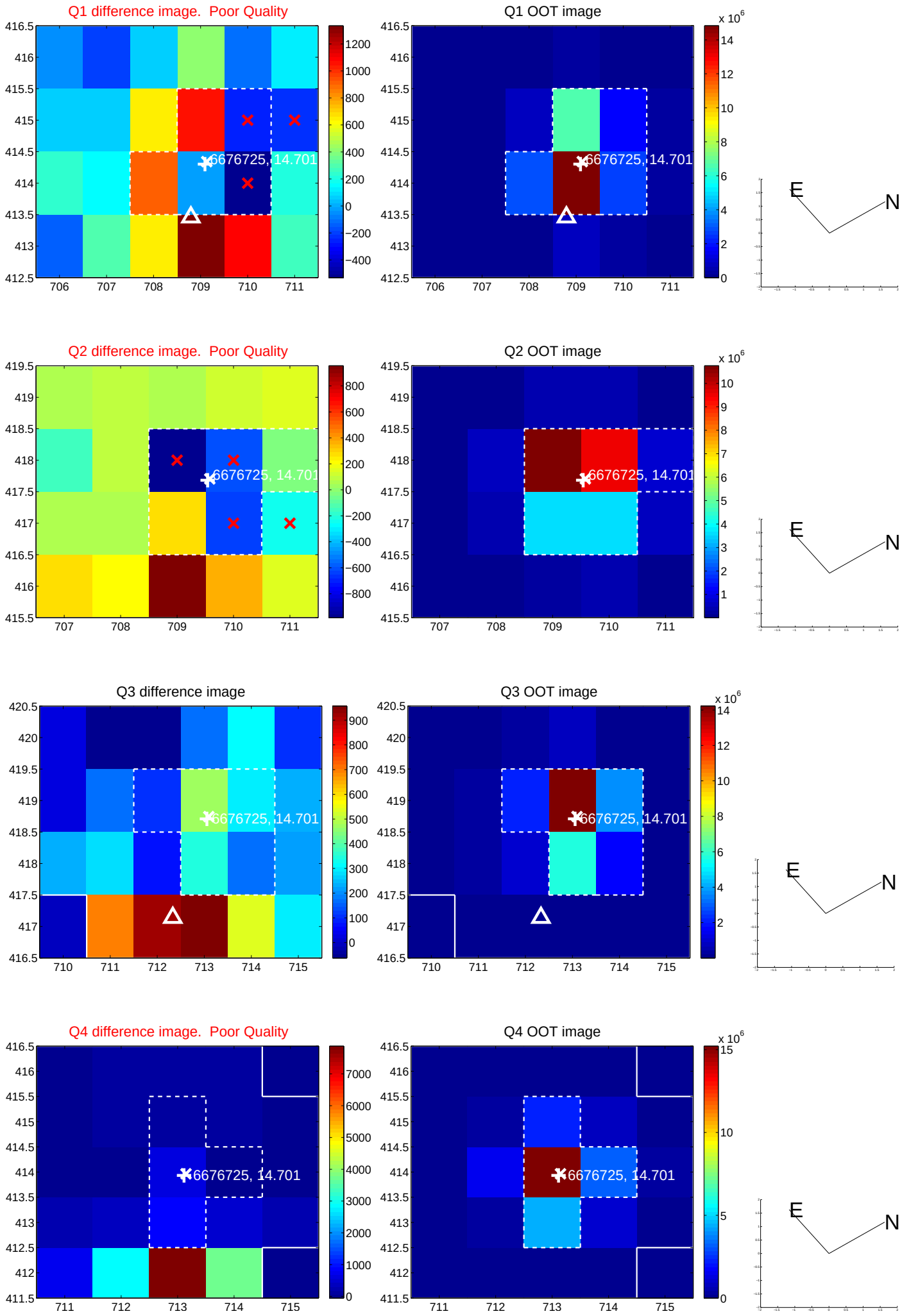
Supplemental centroid analysis for 006676725-01. Kepler magnitude: 14.70. Transit SNR 11.35
There are 6 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.976 ± 0.578	6.88	-2.338 ± 0.220	-3.216 ± 0.590
PRF-fit source offset from KIC position	4.181 ± 0.525	7.96	-2.395 ± 0.206	-3.427 ± 0.531
photometric centroid source offset	8.15 ± 0.73	11.24	-5.84 ± 0.72	-5.68 ± 0.73



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

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



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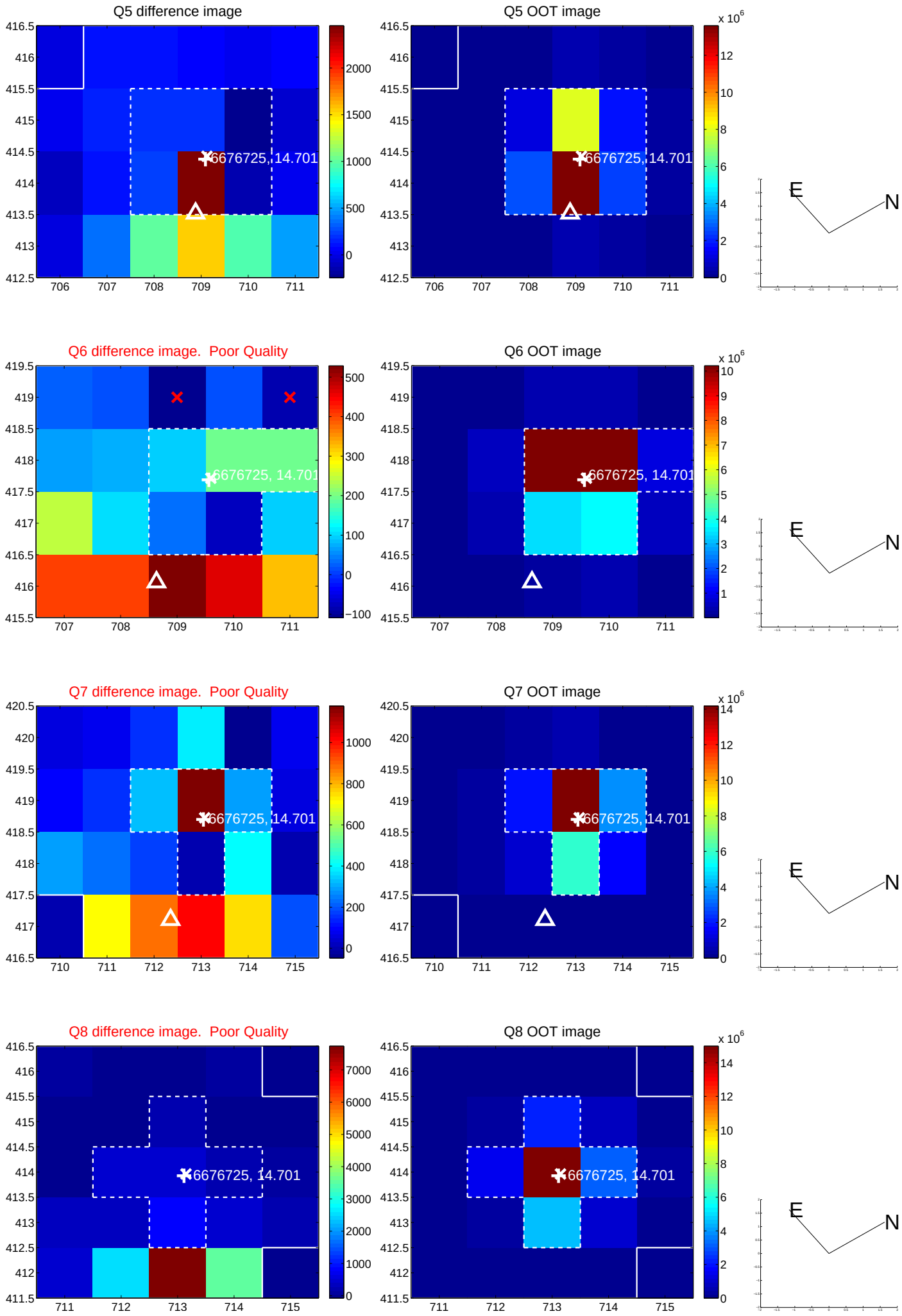
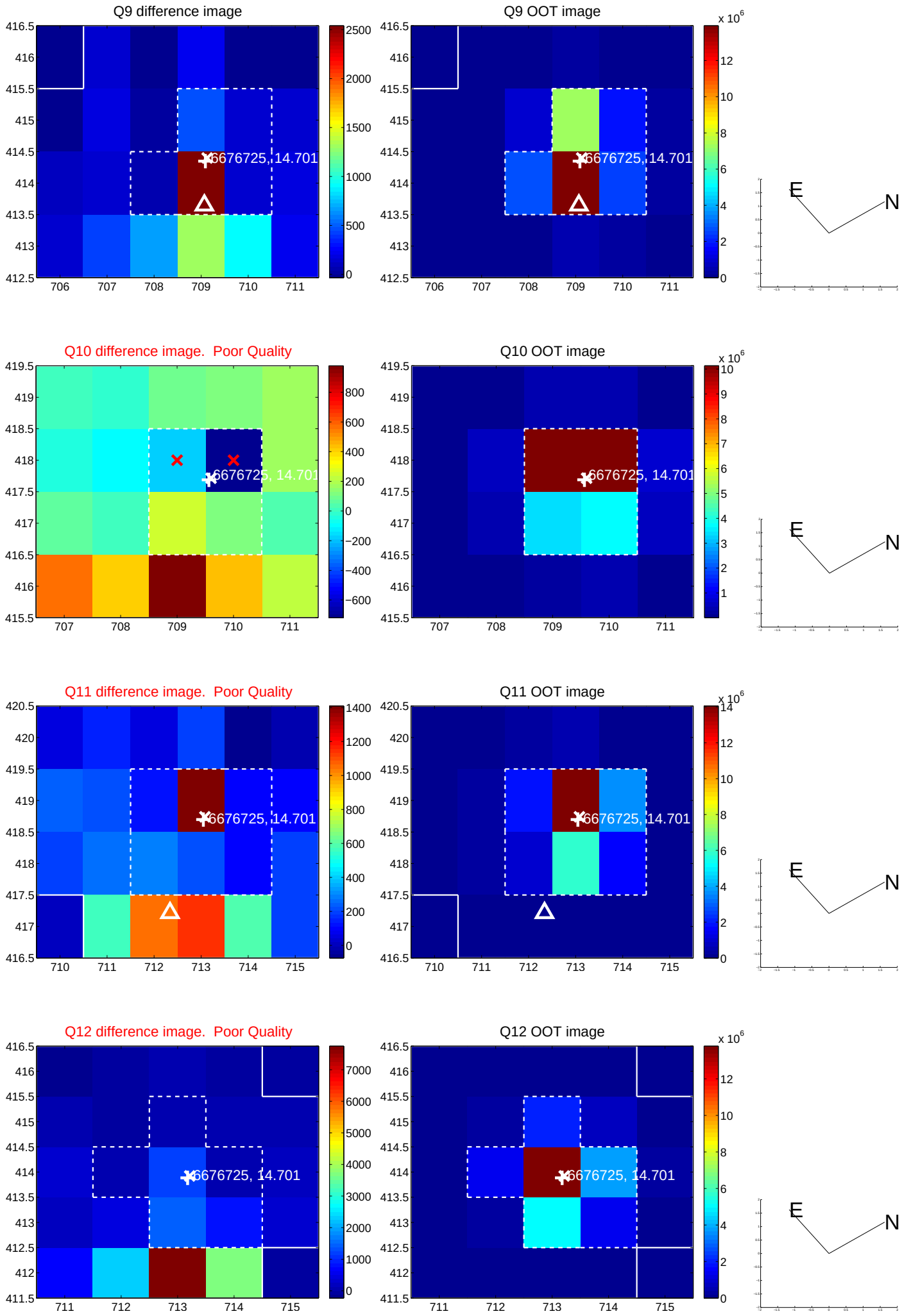
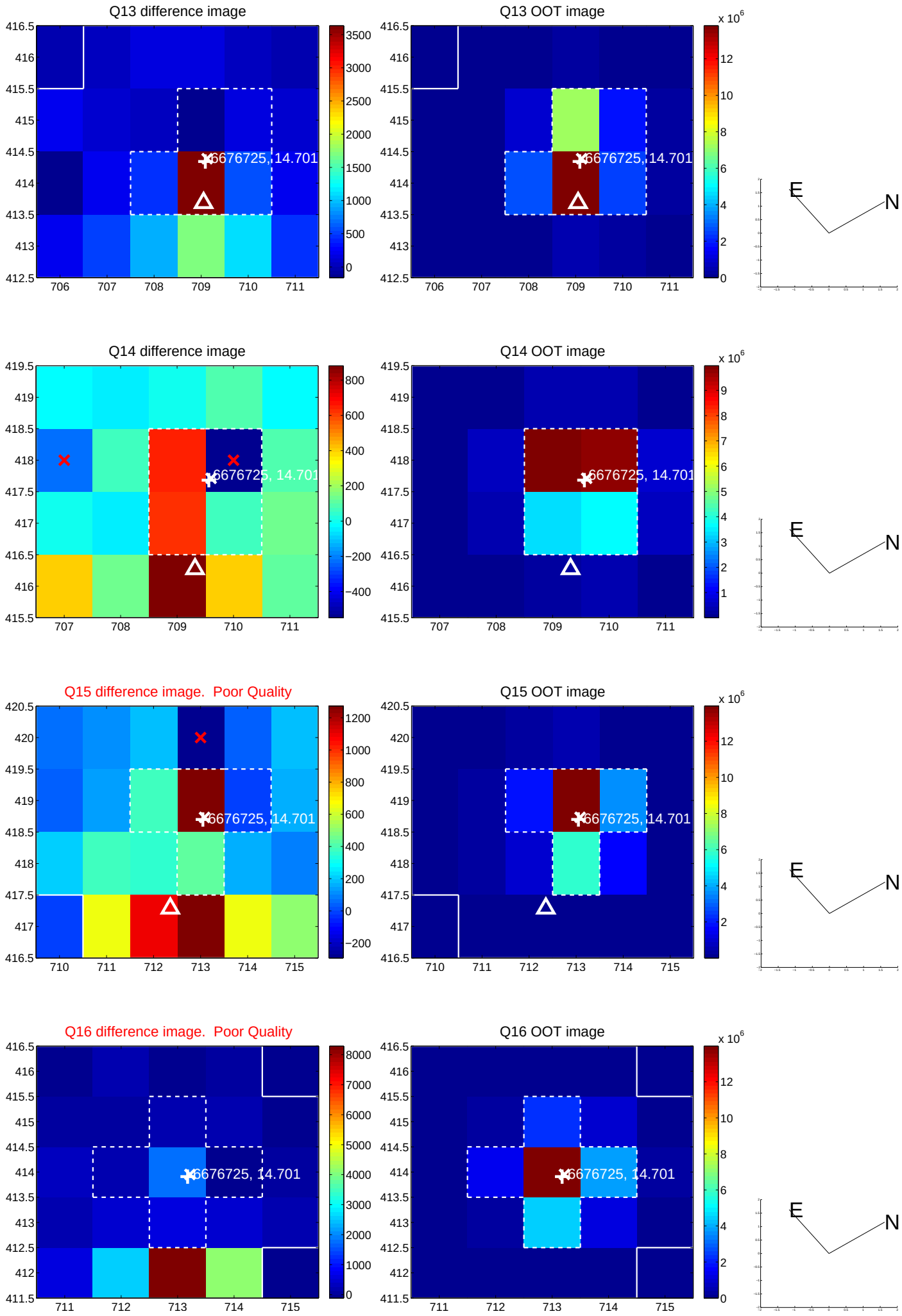


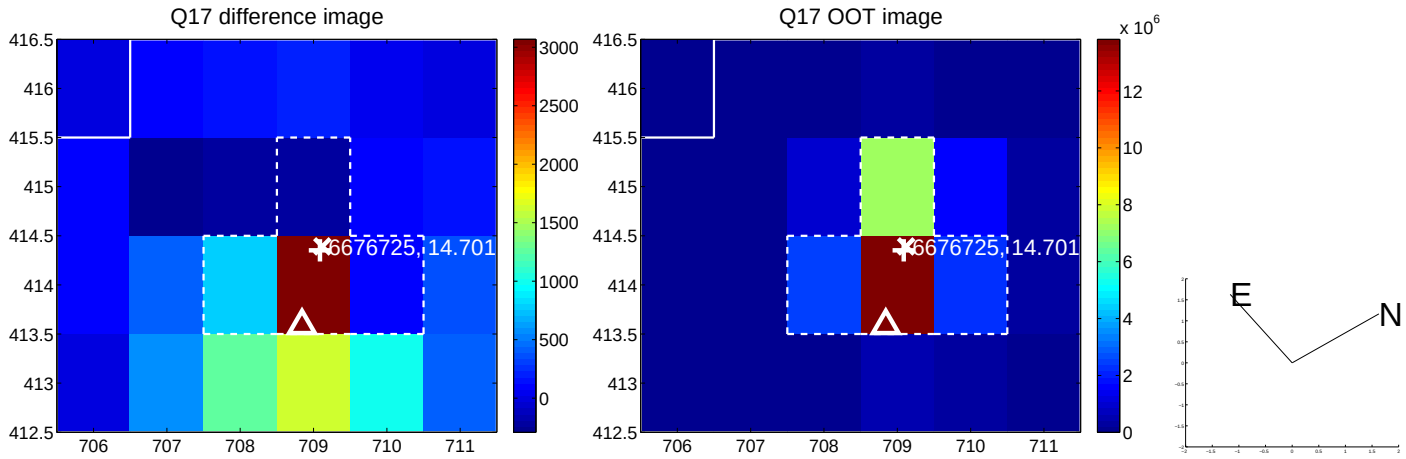
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

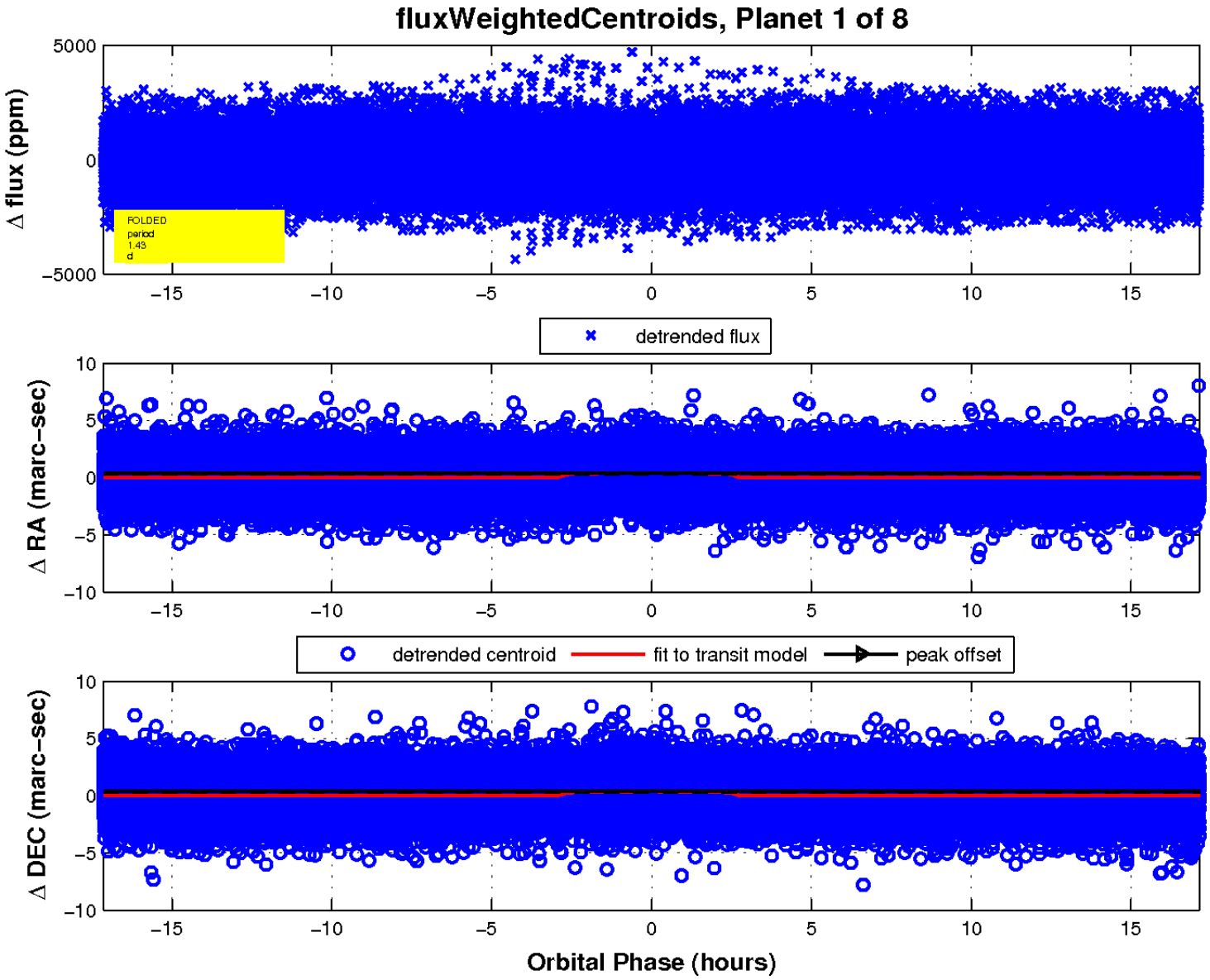


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

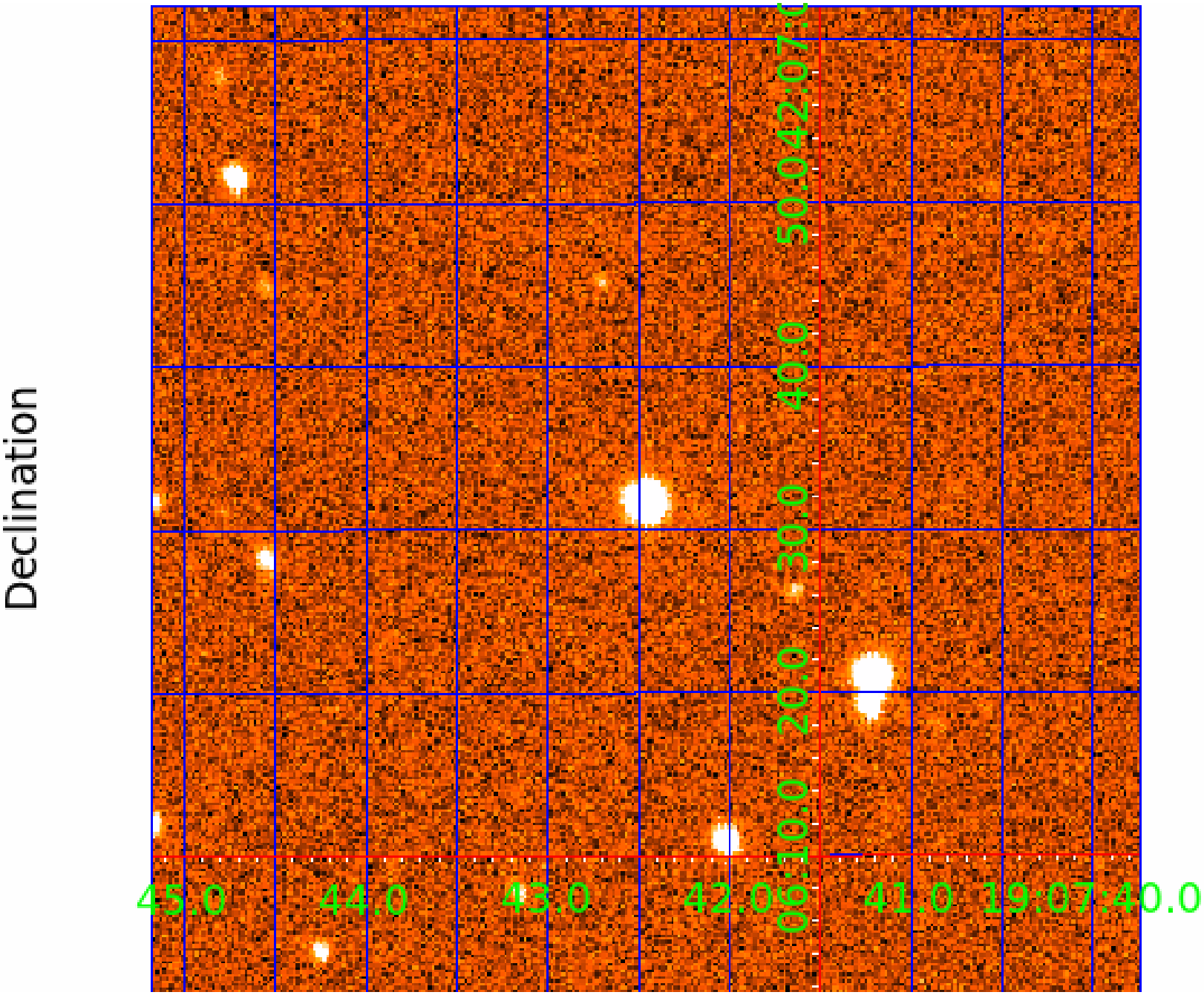


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image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19:07:40.0

KIC 006676725

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 ($S_\oplus$)
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Robovetter Results

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006676725-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—CENT_UNRESOLVED_OFFSET—HALO_GHOST
006676725-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS
006676725-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006676725-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
006676725-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
006676725-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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.

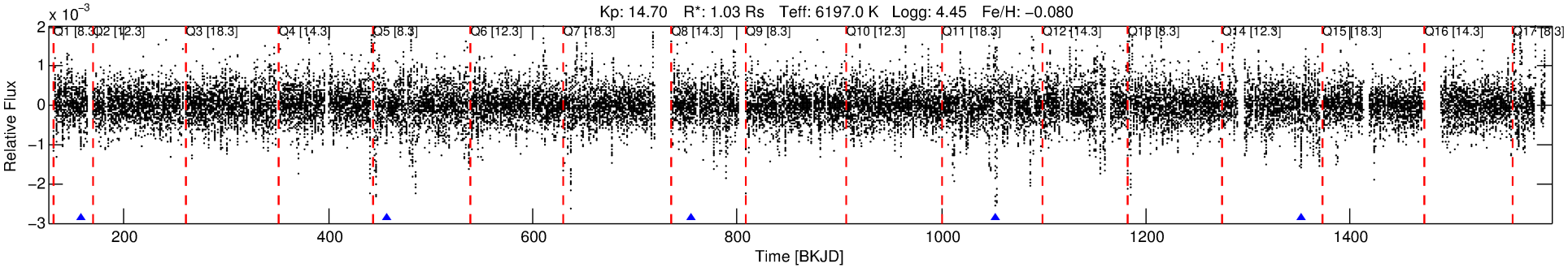
Ephemeris Match Information For 006676725-02

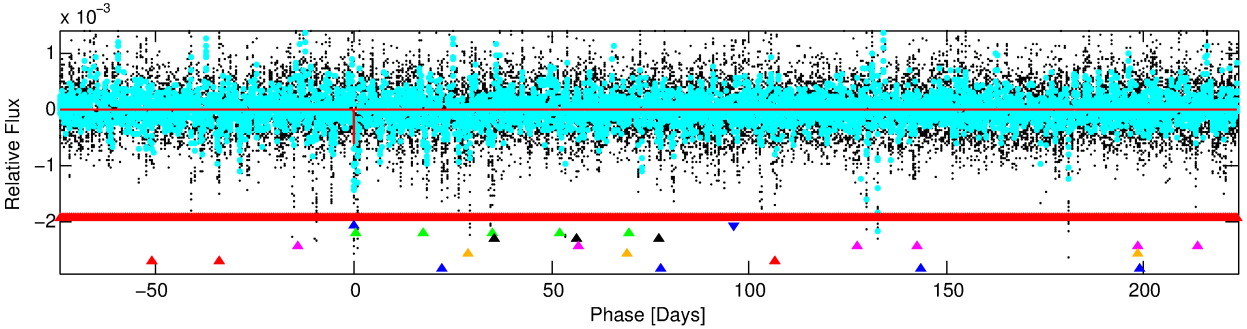
No Significant Match Found

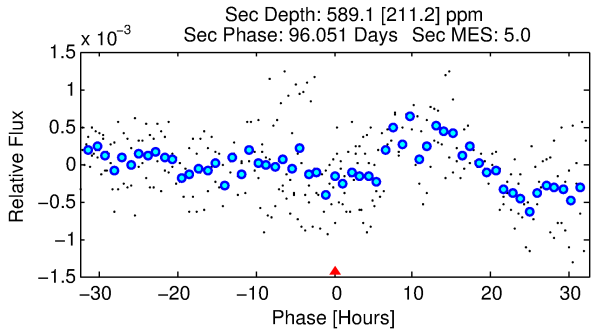
DV One-Page Summary

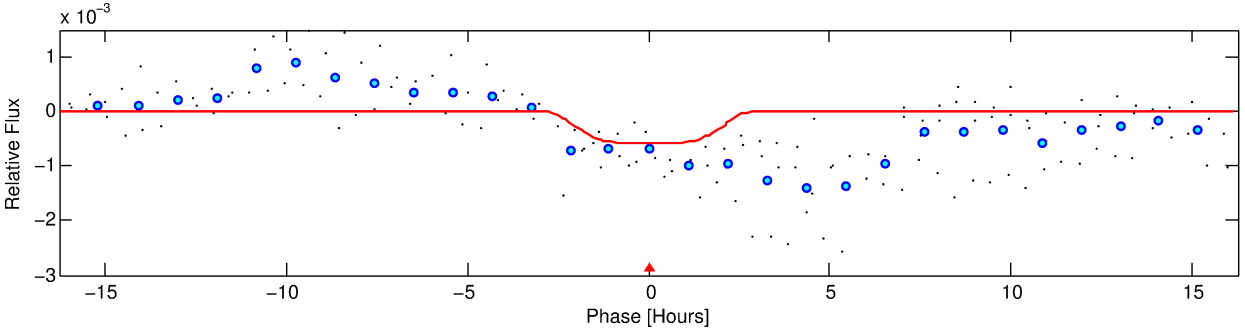
KIC: 6676725 Candidate: 2 of 8 Period: 298.265 d
KOI: K06755 Corr: No Ephemeris Match

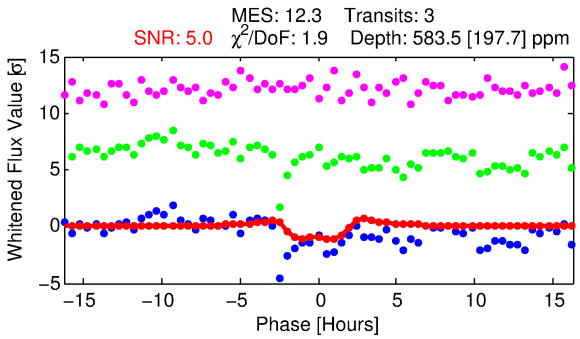
Kp: 14.70 R*: 1.03 Rs Teff: 6197.0 K Logg: 4.45 Fe/H: −0.080

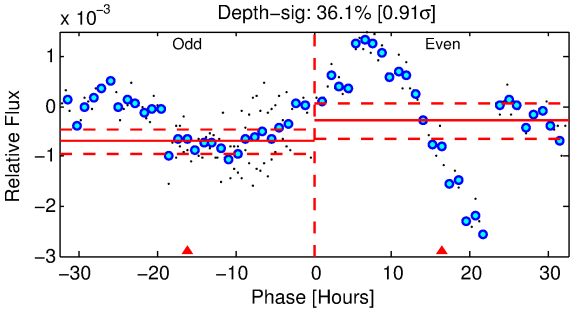


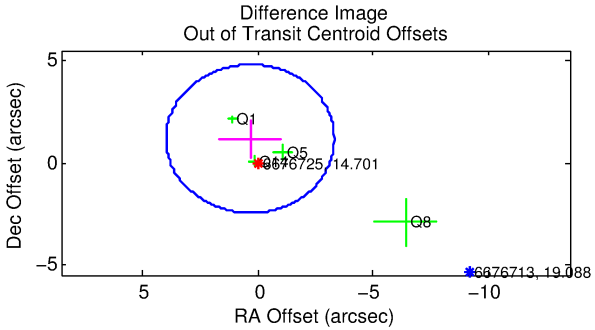












DV Fit Results:

Period = 298.26476 [0.00735] d
Epoch = 158.3568 [0.0216] BKJD
Rp/R* = 0.0280 [0.0061]
a/R* = 159.31 [83.82]
b = 0.96 [0.05]

Seff = 1.74 [0.68]
Teq = 293 [29] K
Rp = 3.16 [1.17] Re
a = 0.9017 [0.2266] AU

Ag = 26434.84 [17748.26] [1.49σ]
Teffp = 5774 [837] K [6.54σ]

DV Diagnostic Results:

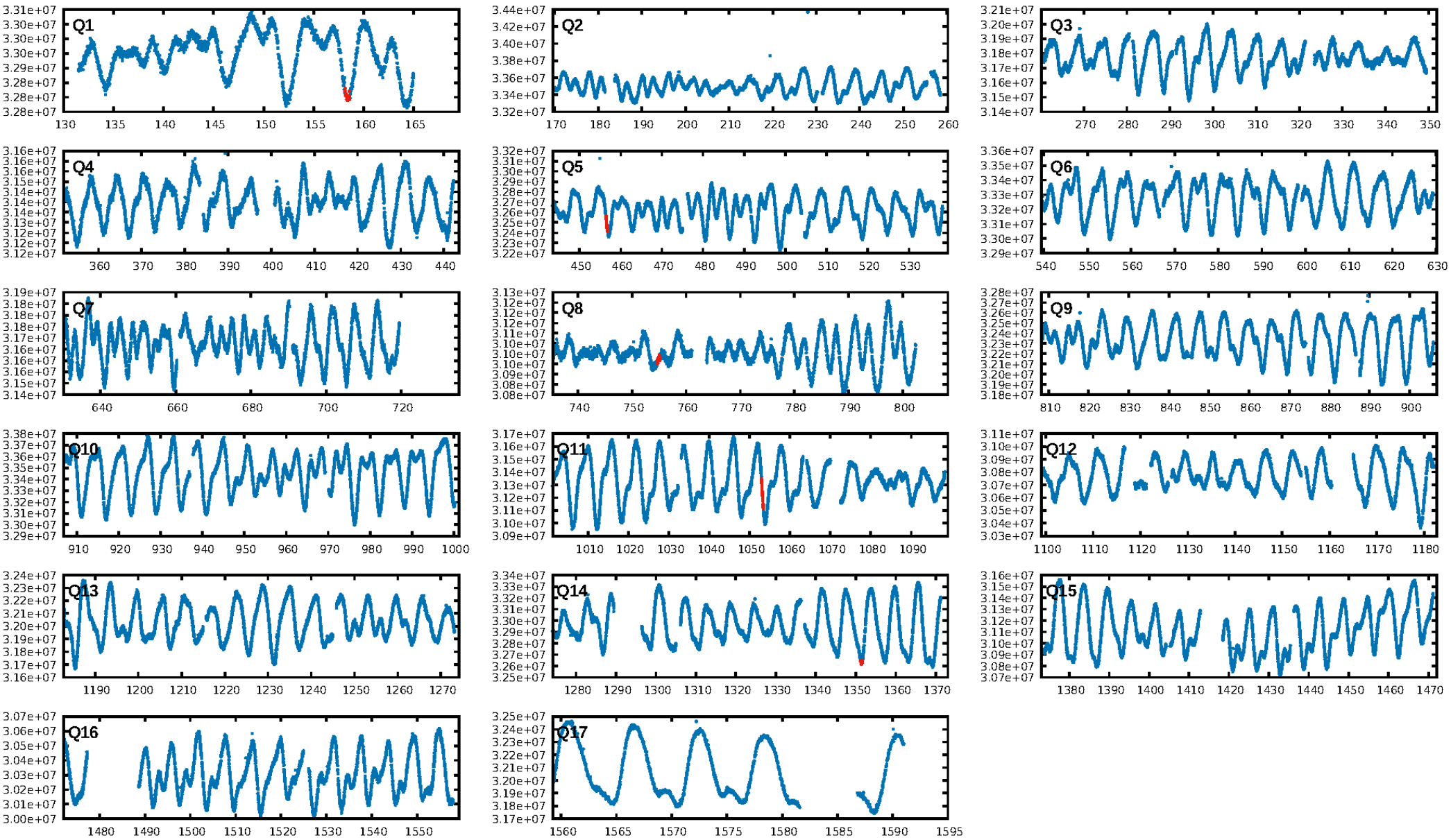
ShortPeriod−sig: 100.0% [50.33σ]
LongPeriod−sig: 100.0% [314.59σ]
ModelChiSquare2−sig: 0.0%
ModelChiSquareGof−sig: 62.2%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [2/2]
GhostDiagnostic−chr: −0.3184

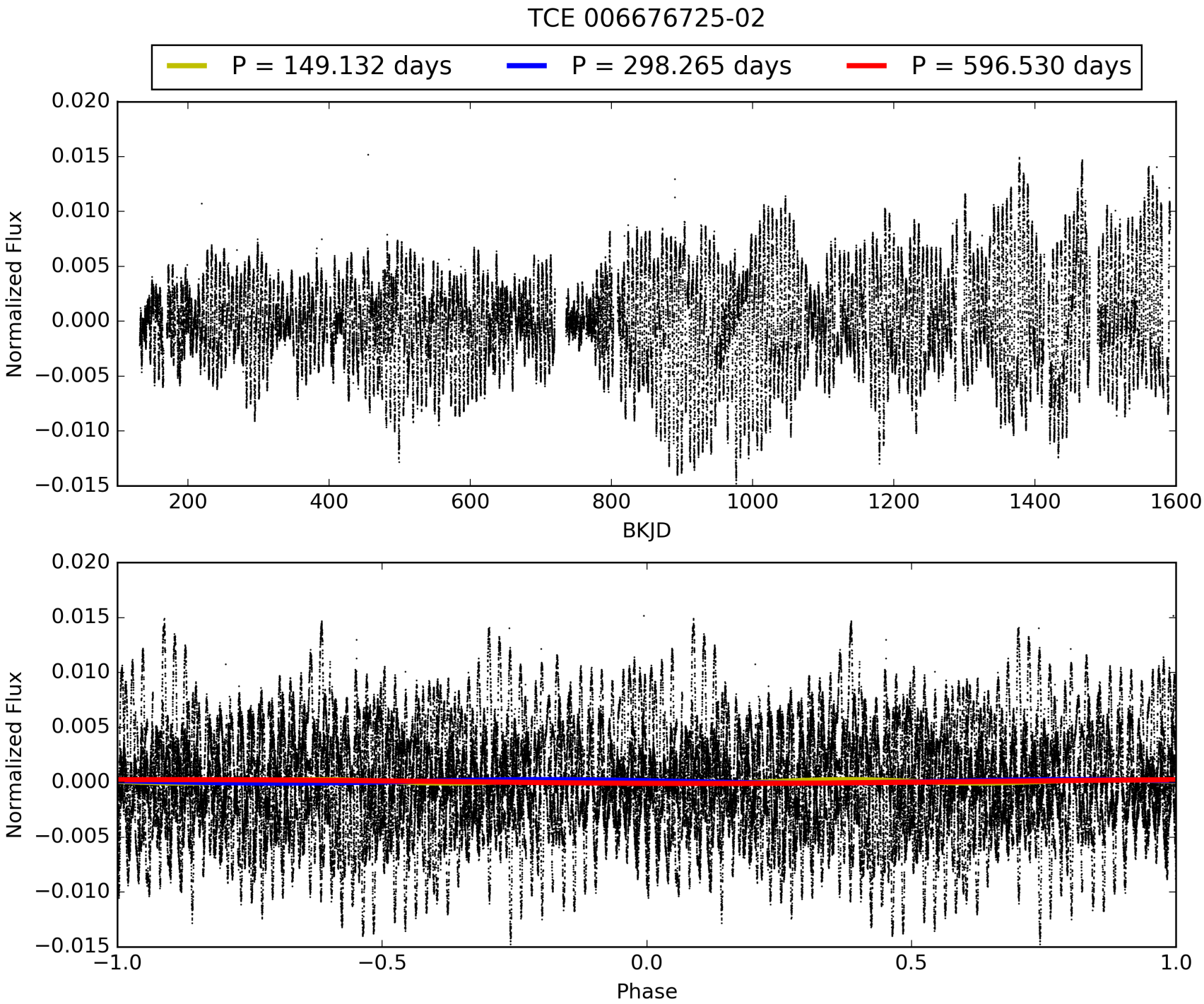
Centroid−sig: 3.3%
Centroid−so: 2.064 arcsec [1.61σ]
OotOffset−rm: 1.214 arcsec [1.00σ]
KicOffset−rm: 1.013 arcsec [0.93σ]
OotOffset−st: 1/0/1/2 [4]
KicOffset−st: 1/0/1/2 [4]
DiffImageQuality−fgm: 0.75 [3/4]
DiffImageOverlap−fno: 0.00 [0/5]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:17:36 Z

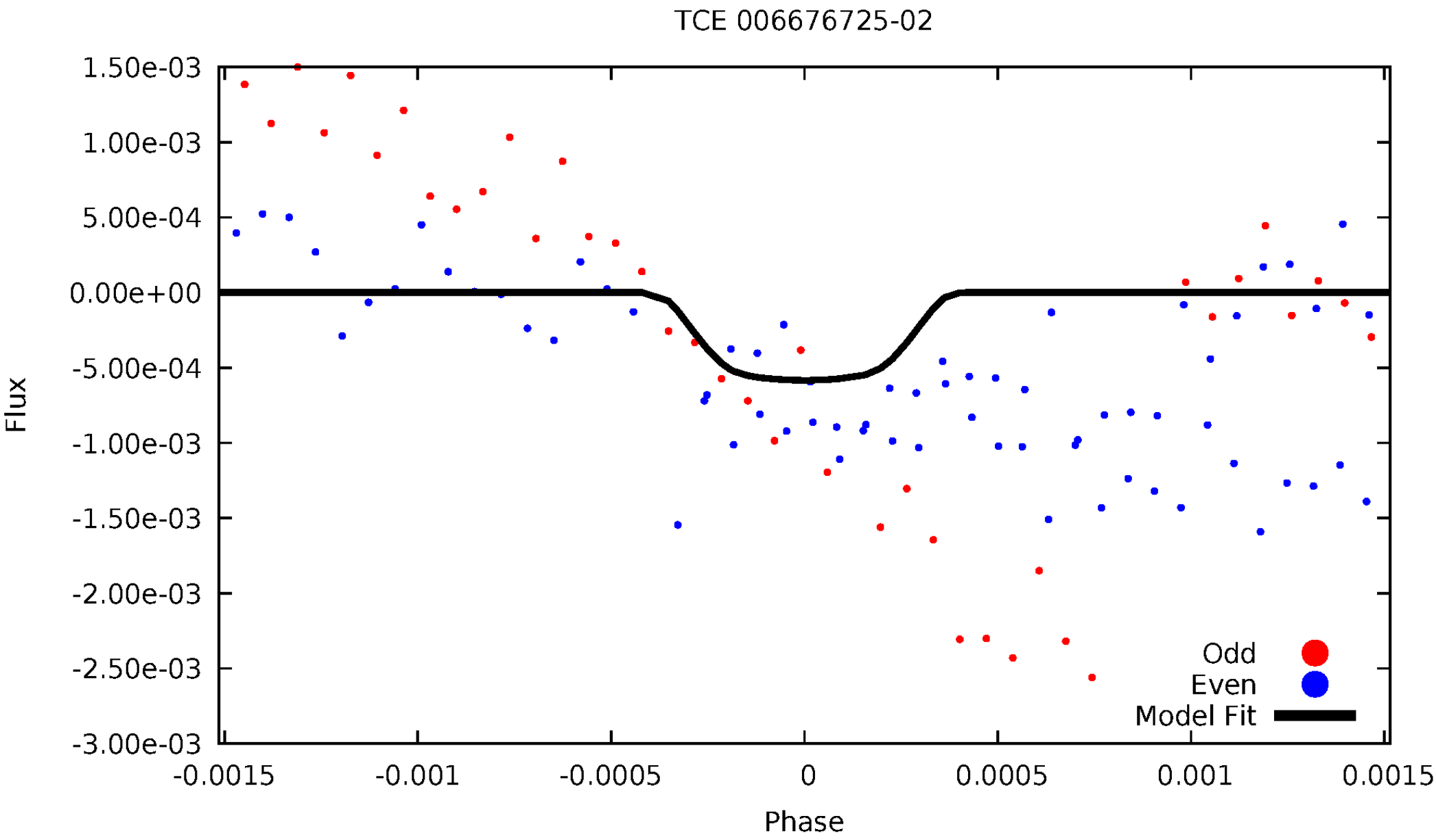
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006676725-02, PDC Light Curves

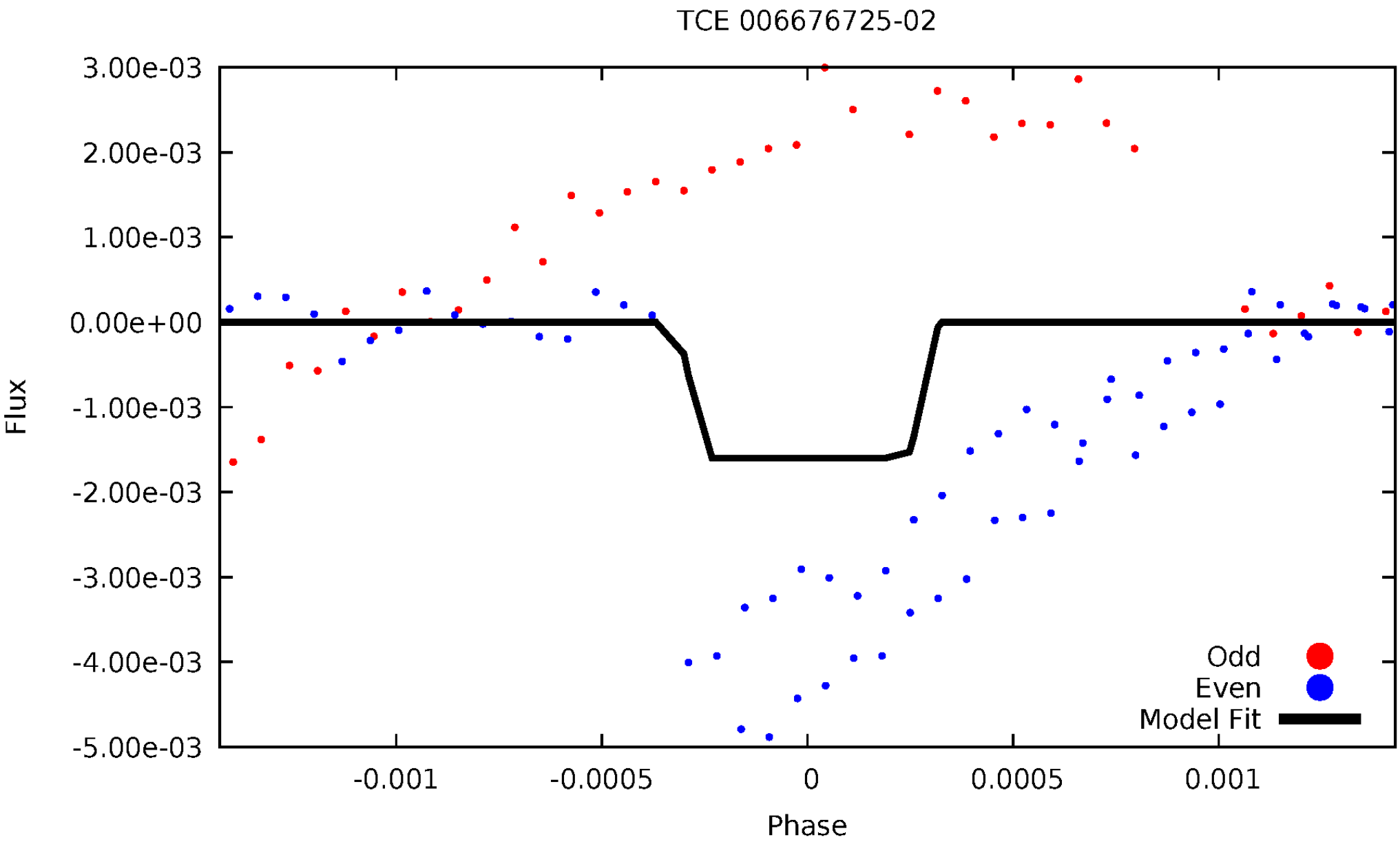



TCE 006676725-02
P = 149.132 days
P = 298.265 days
P = 596.530 days
Normalized Flux
BKJD
Normalized Flux
Phase

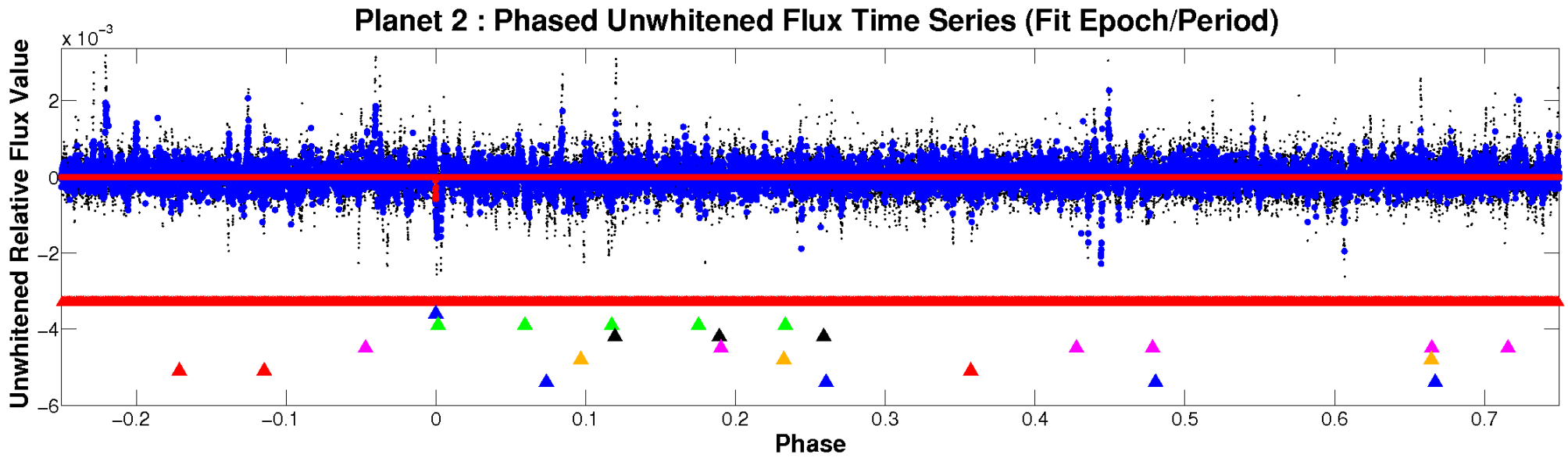
DV Odd/Even

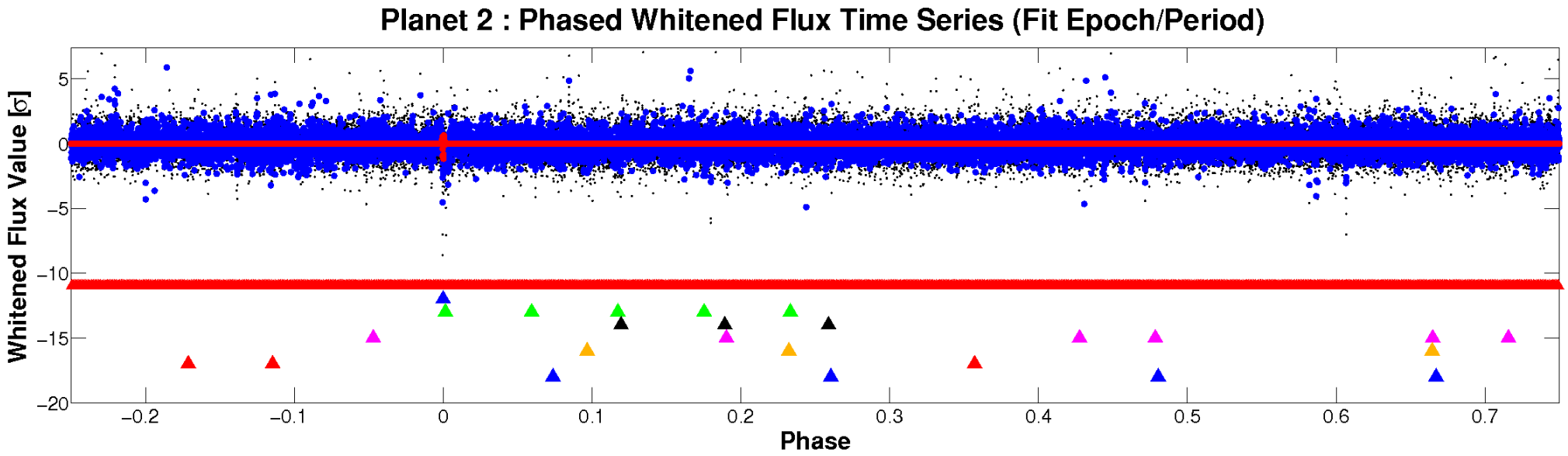

TCE 006676725-02
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
-2.50e-03
-3.00e-03
Flux
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006676725-02
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
-5.00e-03
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

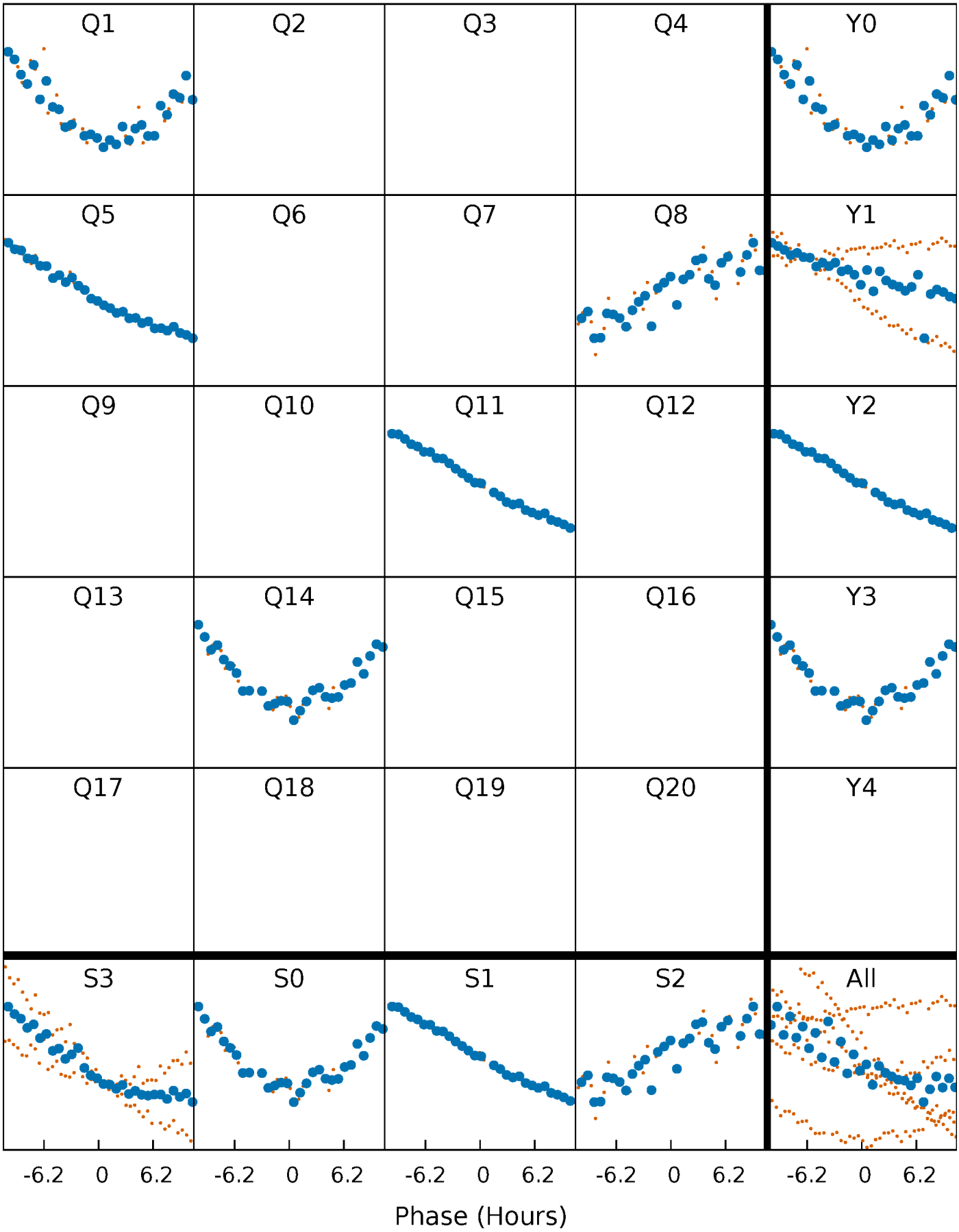
Non-Whitened Vs. Whitened Light Curve





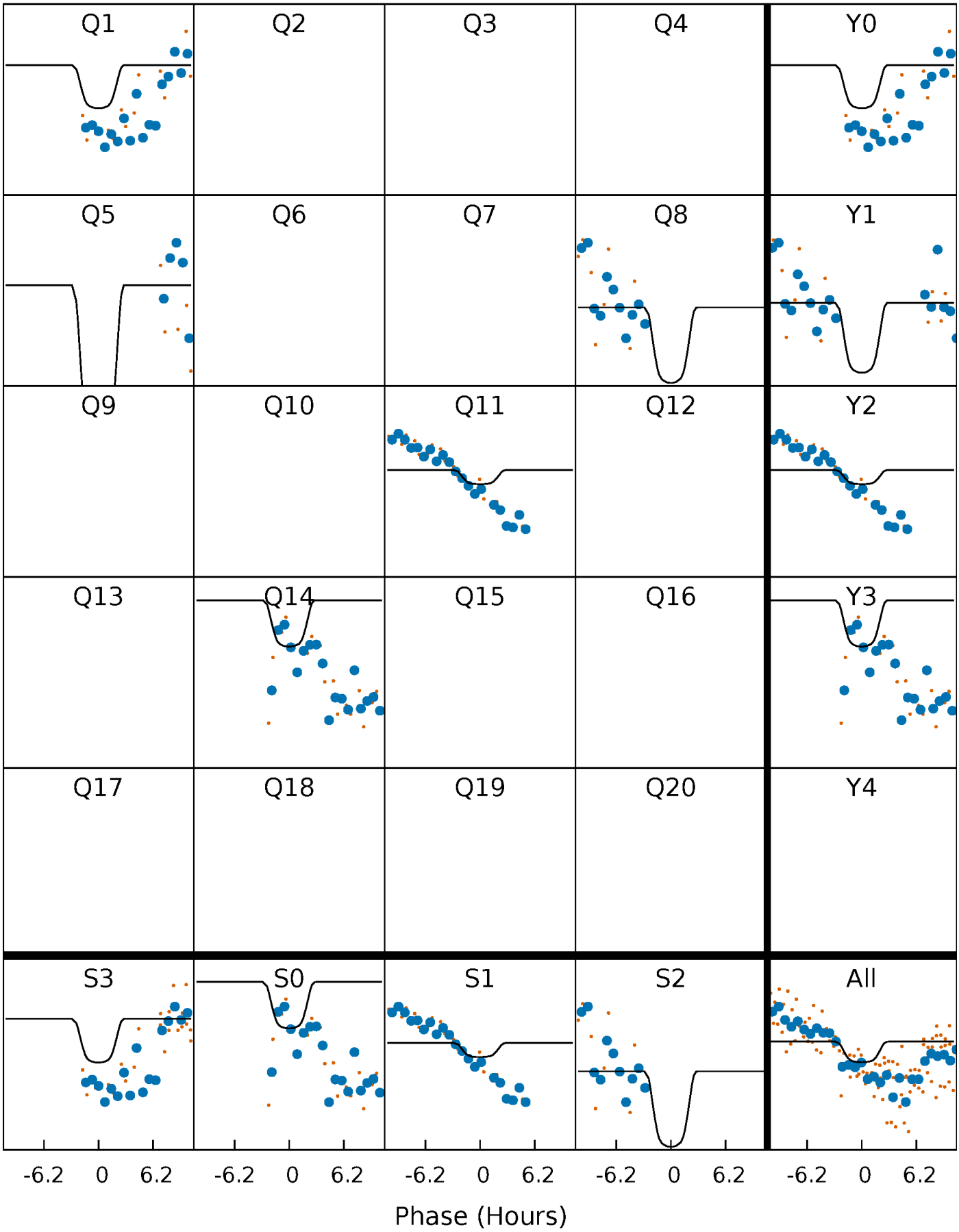
PDC Quarter-Phased Transit Curves

TCE 006676725-02 P=298.264757 Days T_0=158.356835 (BKJD)



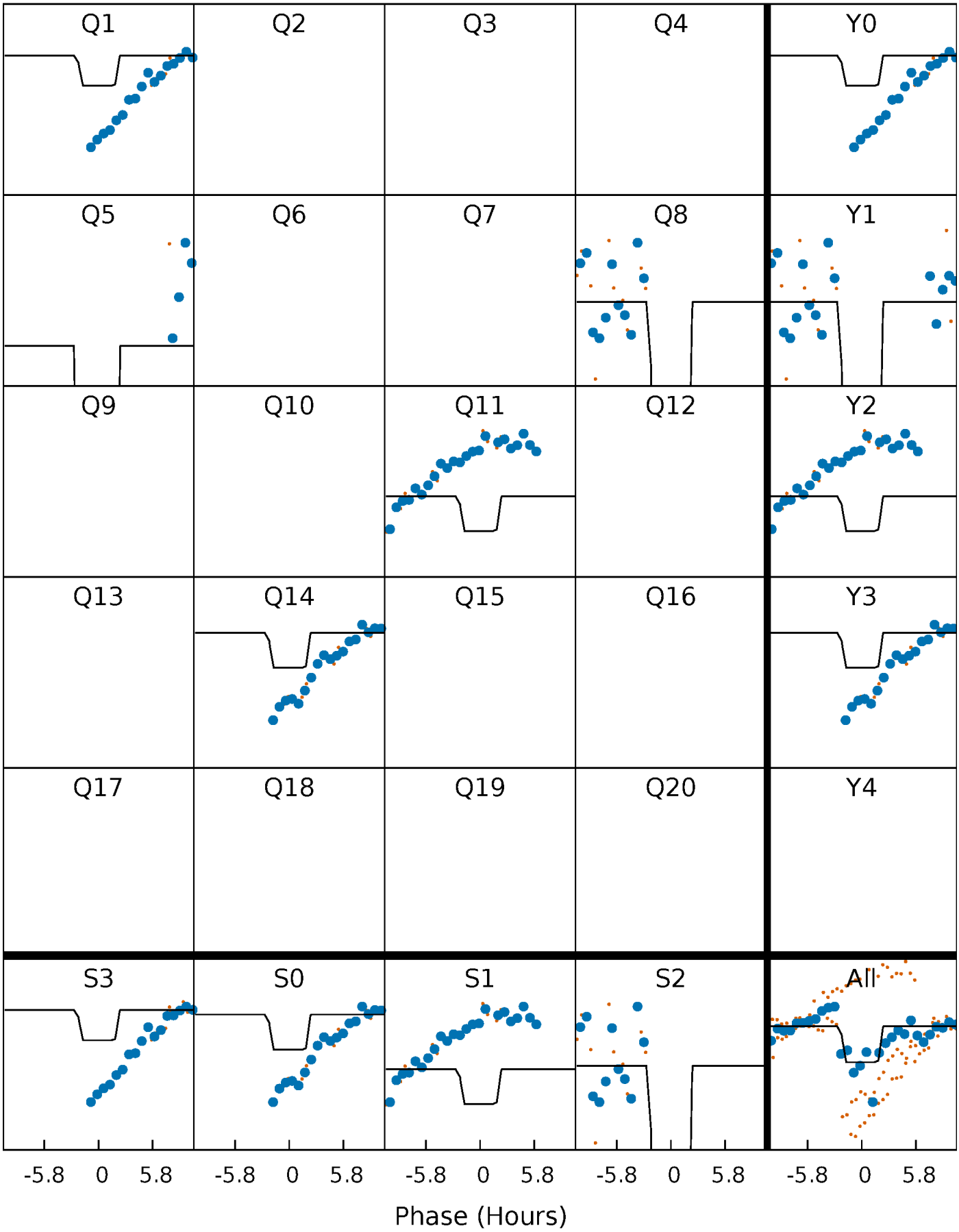
DV Quarter-Phased Transit Curves

TCE 006676725-02 P=298.264757 Days T_0=158.356835 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

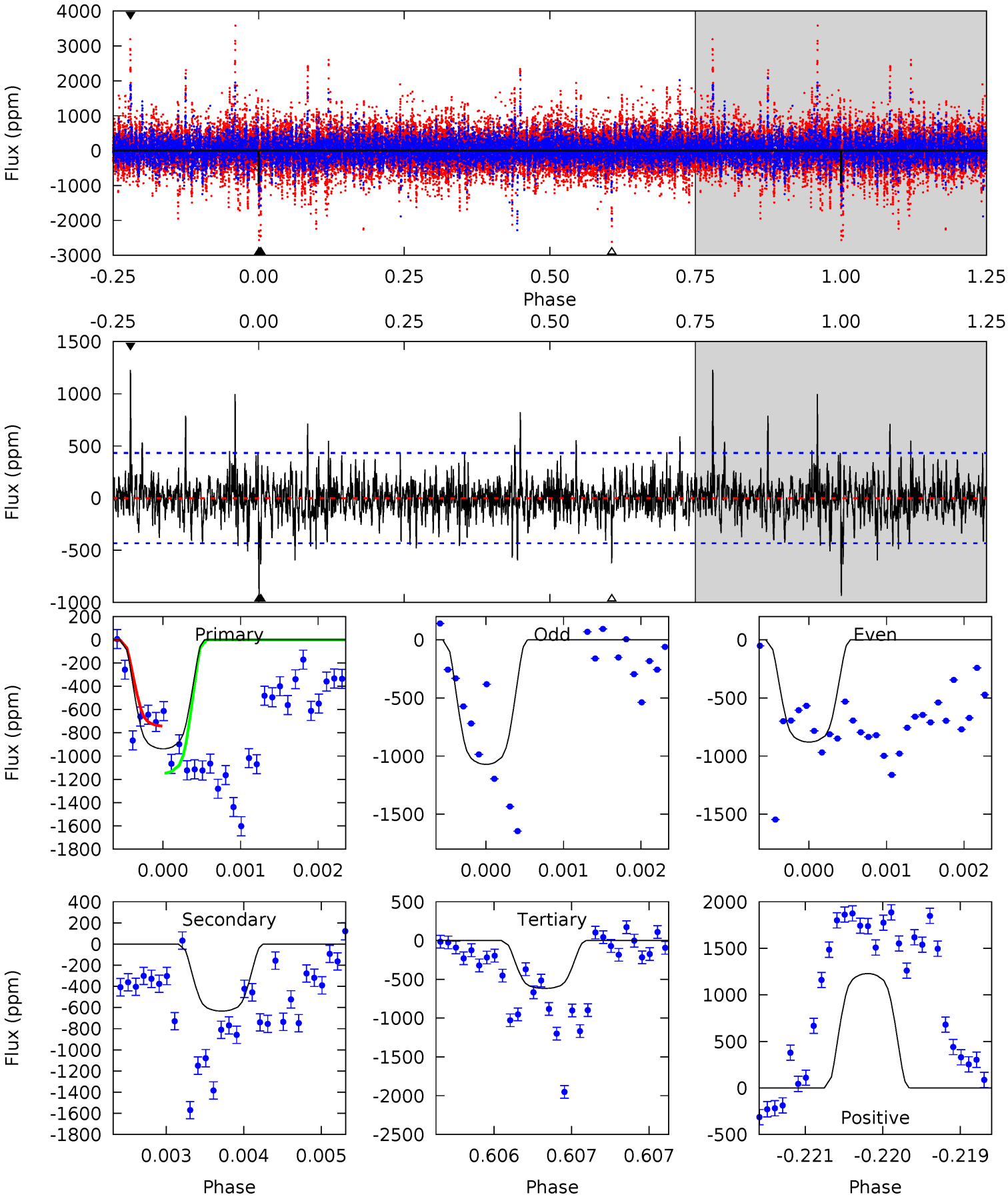
TCE 006676725-02 P=298.268675 Days T_0=158.329761 (BKJD)



DV Model-Shift Uniqueness Test

006676725-02, P = 298.264757 Days, E = 158.356835 Days

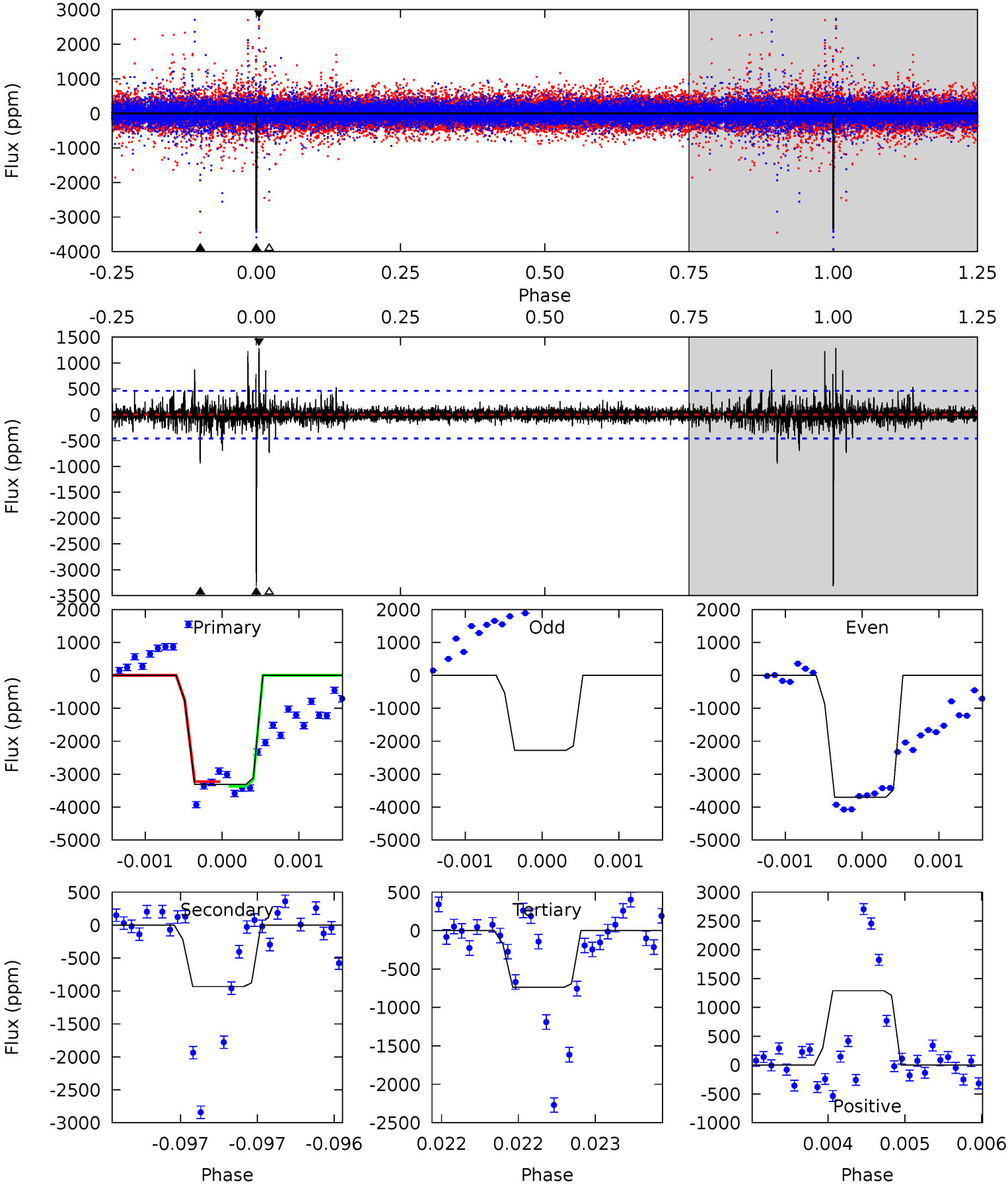
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	8.06	7.86	15.6	5.50	3.37	1.91	4.07	-3.70	0.20	-7.57	1.07	0.90	0.57	2.58



Alt Model-Shift Uniqueness Test

006676725-02, P = 298.268675 Days, E = 158.329761 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.8	11.2	8.86	15.5	5.54	3.42	1.13	31.0	24.3	2.35	-4.28	10.4	0.54	0.28	0.81



Stellar Parameters For KIC 006676725

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6197^{+172}_{-216}	$4.449^{+0.050}_{-0.200}$	$-0.080^{+0.250}_{-0.300}$	$1.035^{+0.309}_{-0.111}$	$1.096^{+0.141}_{-0.141}$	$1.394^{+0.390}_{-0.735}$
	+3%/-3%	+1%/-4%	+312%/-375%	+30%/-11%	+13%/-13%	+28%/-53%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006676725-02 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-634±79	$3.32^{+0.88}_{-0.82}$	417^{+30}_{-18}	5928^{+797}_{-622}	25667^{+17667}_{-9862}
Alt.	-933±83	$4.67^{+1.01}_{-0.84}$	417^{+29}_{-20}	5462^{+465}_{-401}	18691^{+9072}_{-5774}

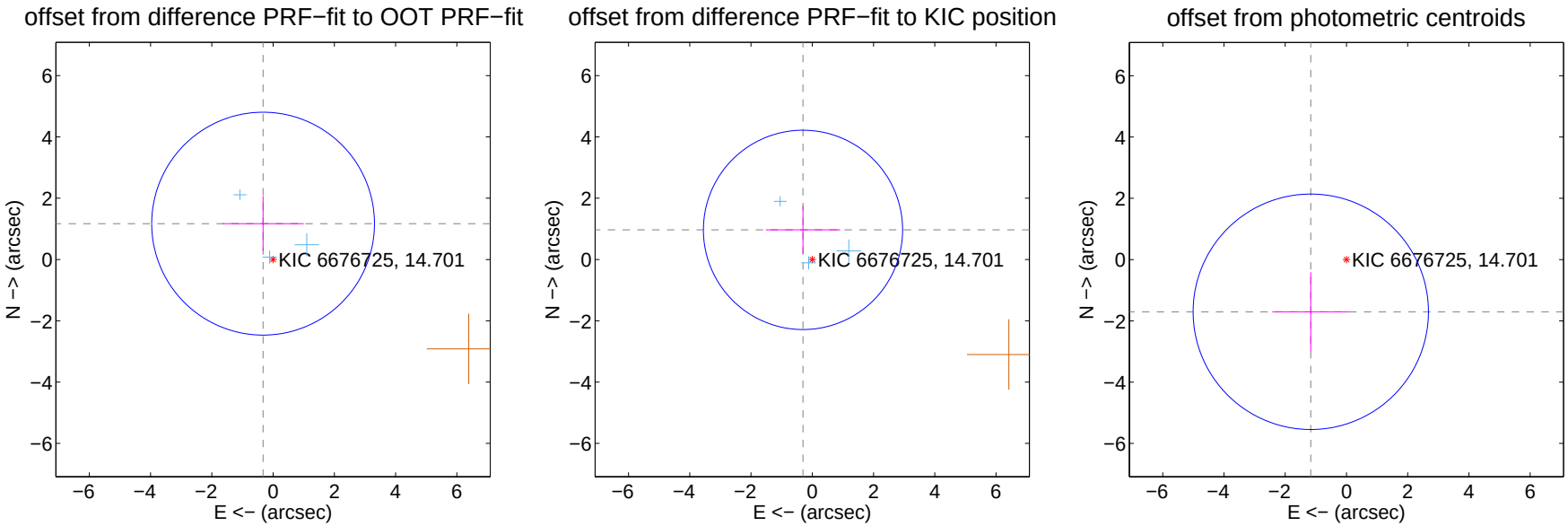
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

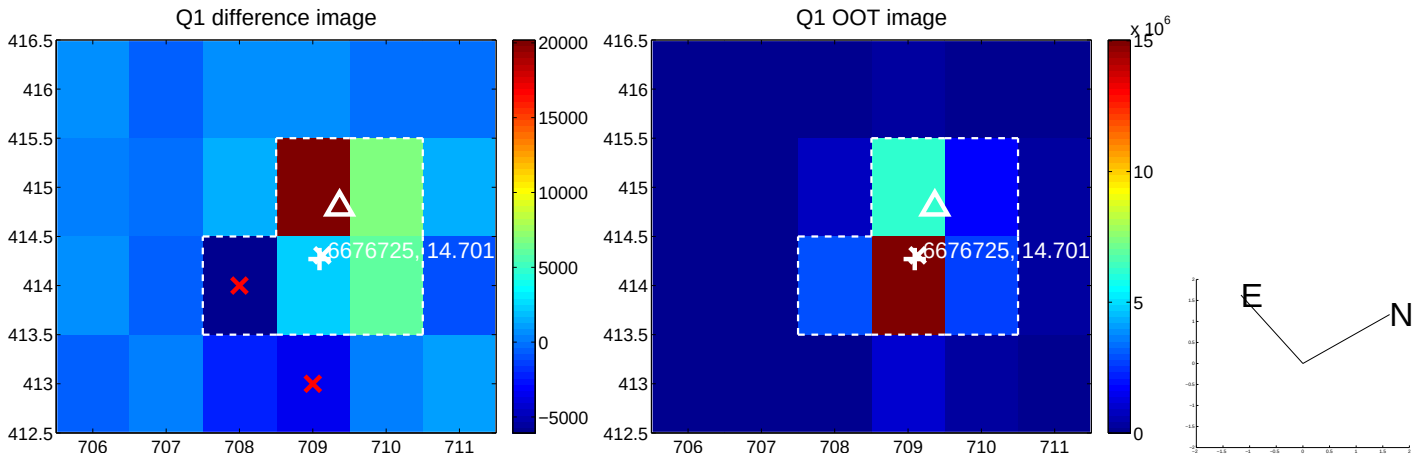
Supplemental centroid analysis for 006676725-02. Kepler magnitude: 14.70. Transit SNR 5.00
There are 3 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

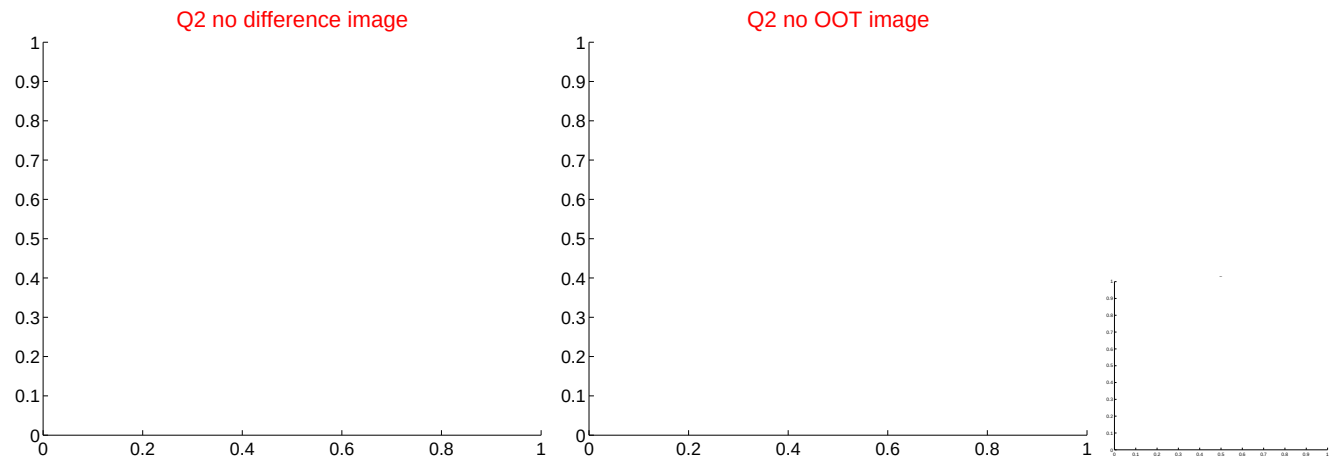
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.214 ± 1.212	1.00	0.327 ± 1.328	1.169 ± 0.897
PRF-fit source offset from KIC position	1.013 ± 1.084	0.93	0.303 ± 1.214	0.966 ± 0.779
photometric centroid source offset	2.06 ± 1.28	1.61	1.17 ± 1.26	-1.70 ± 1.29

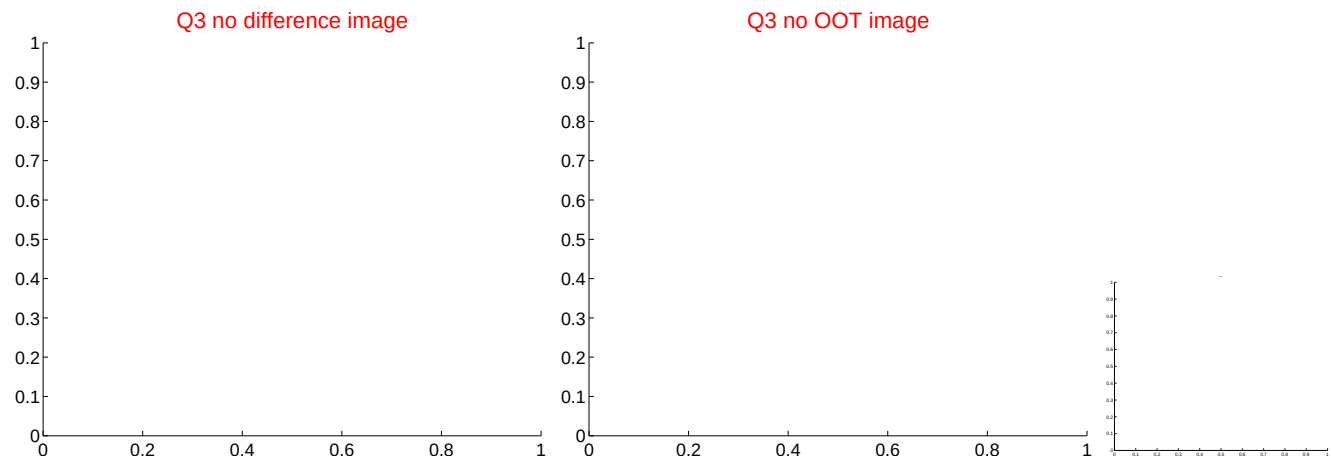


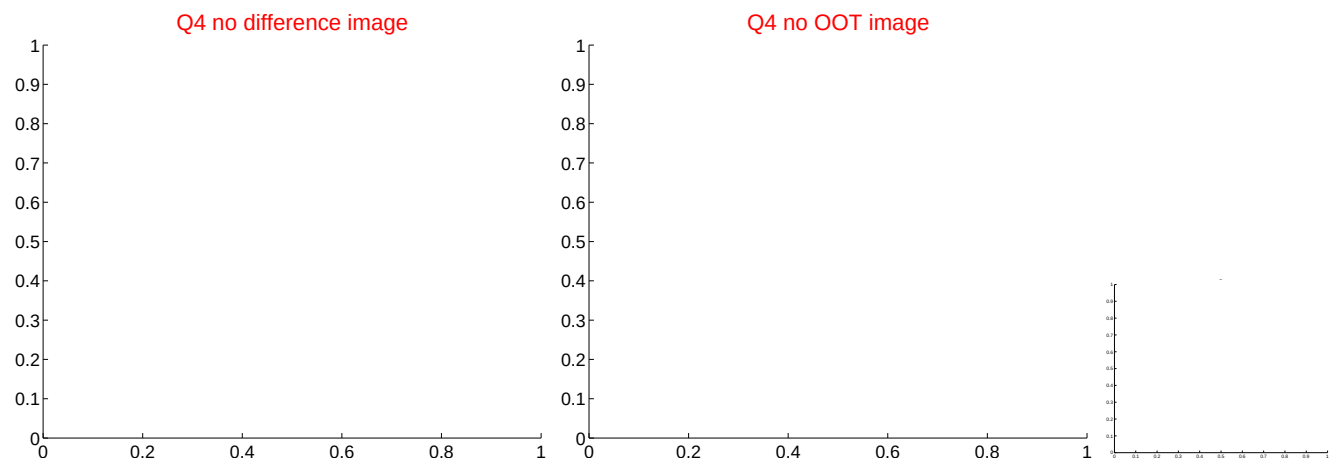
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

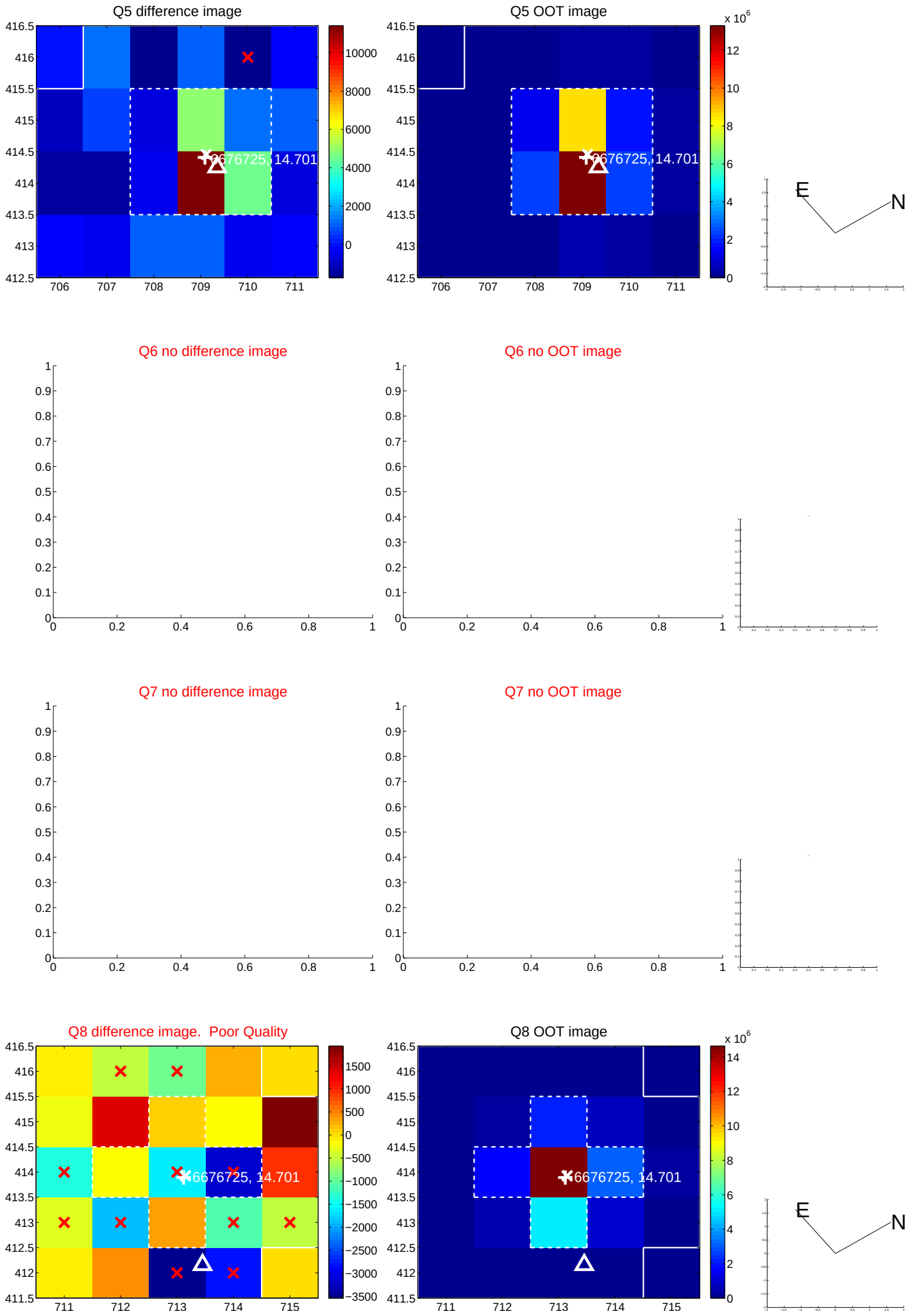




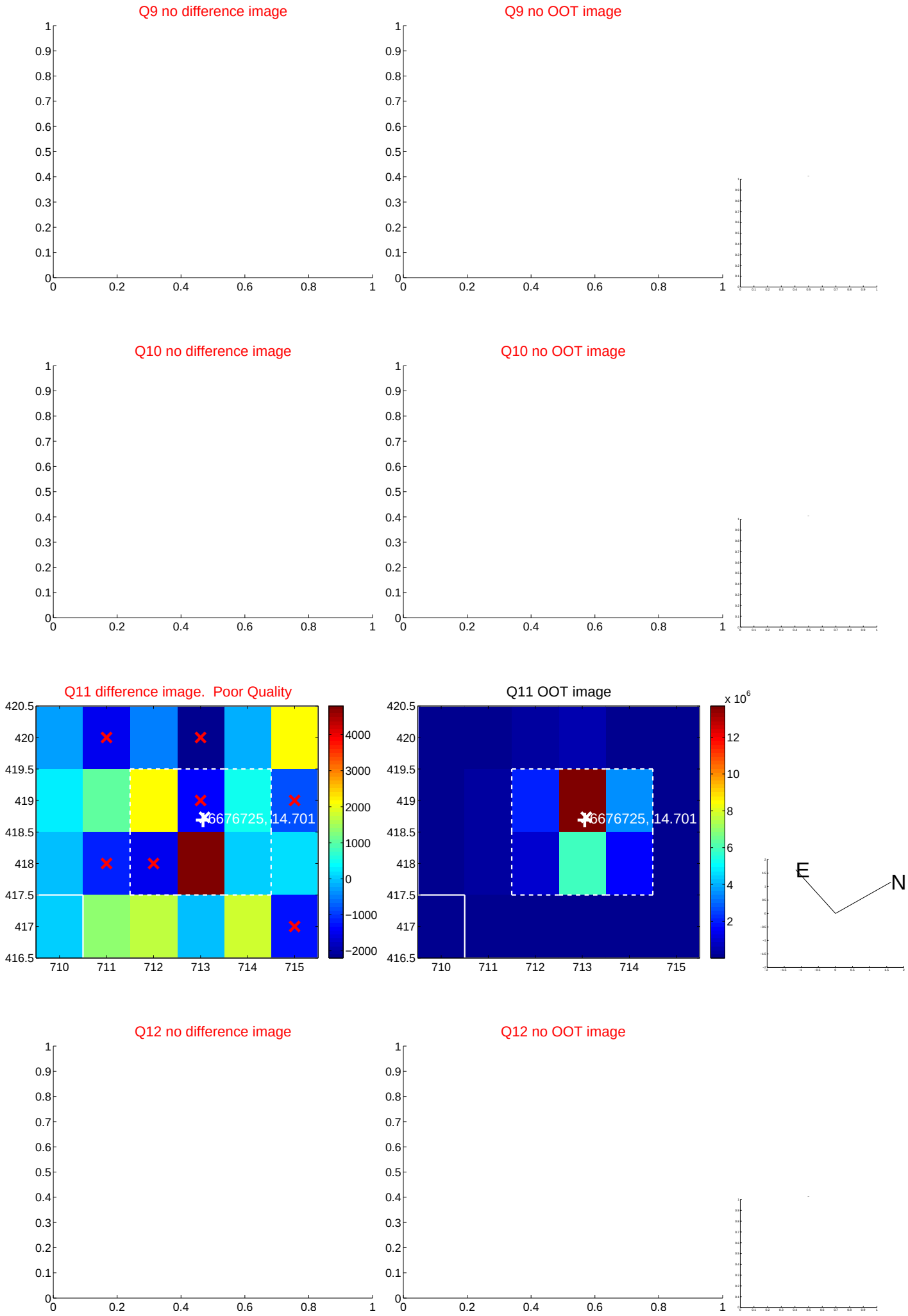




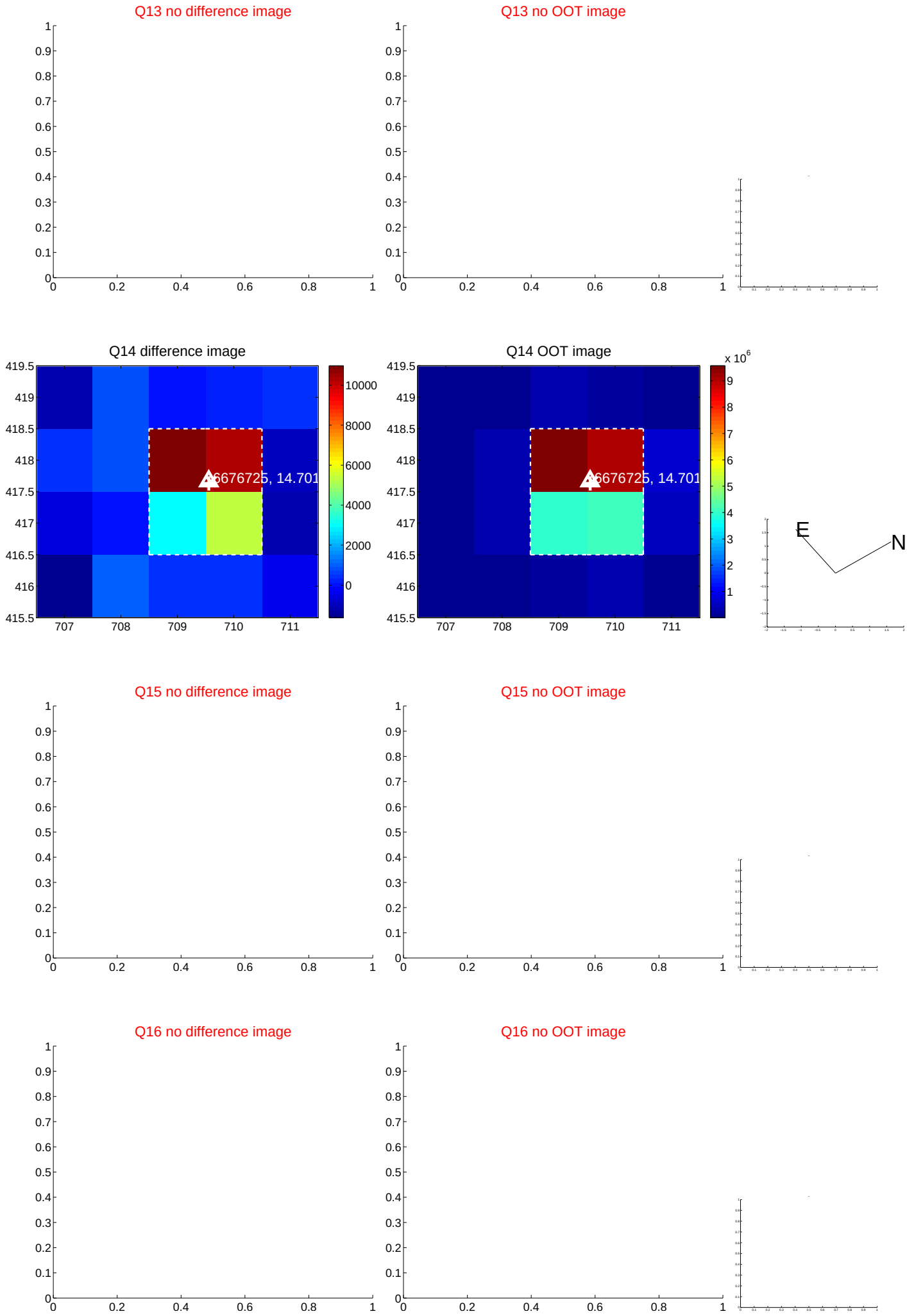
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



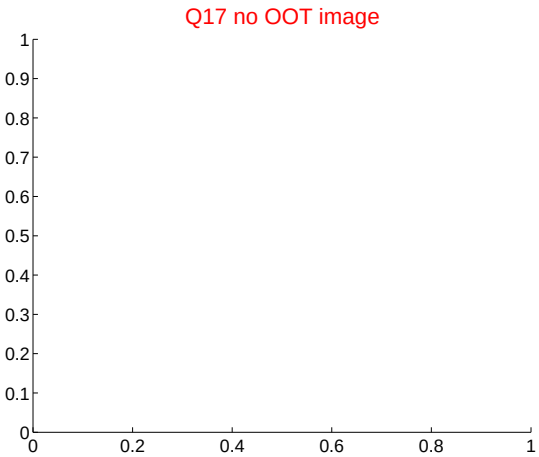
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

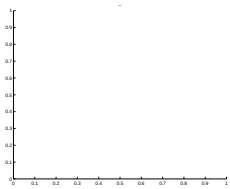


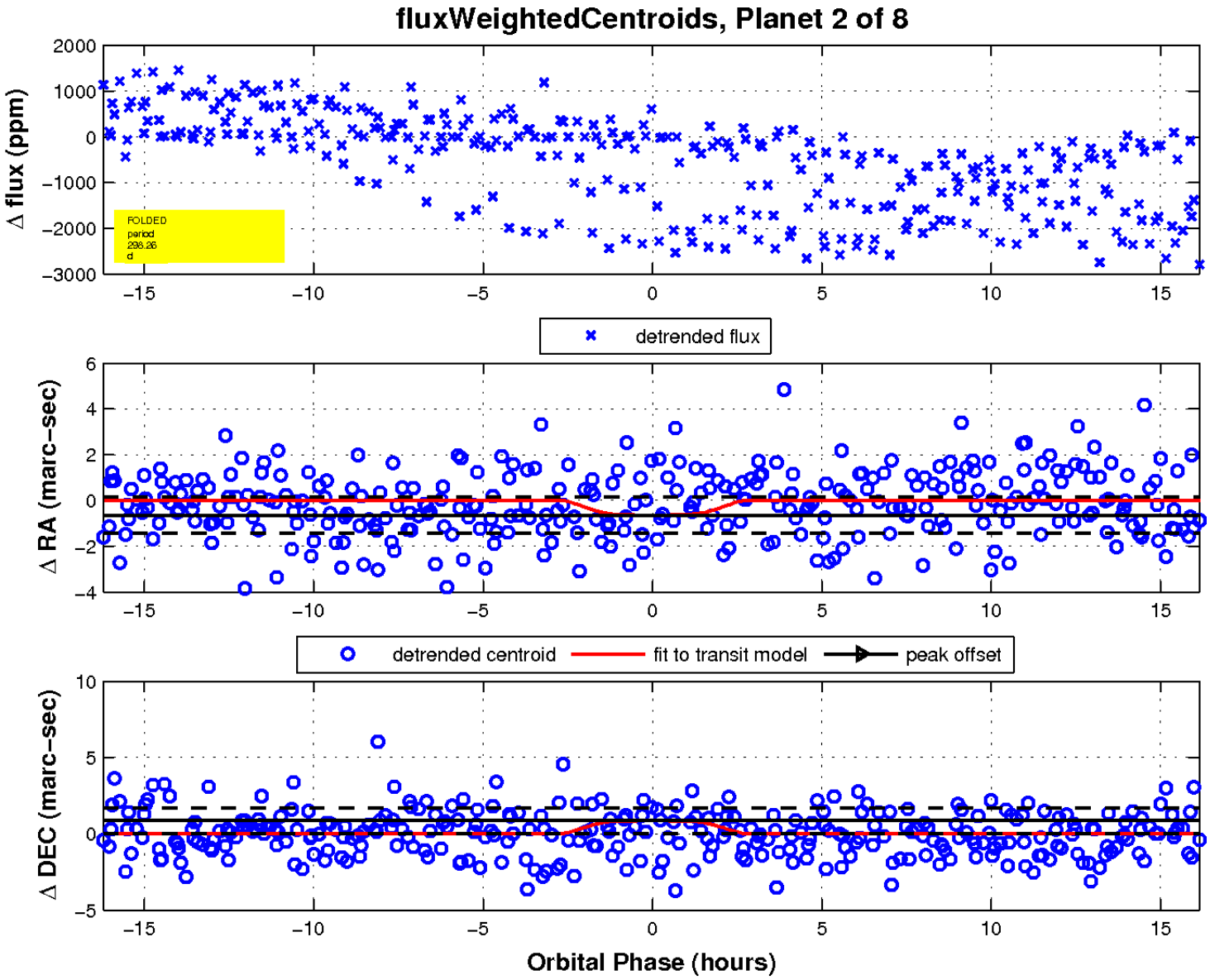
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



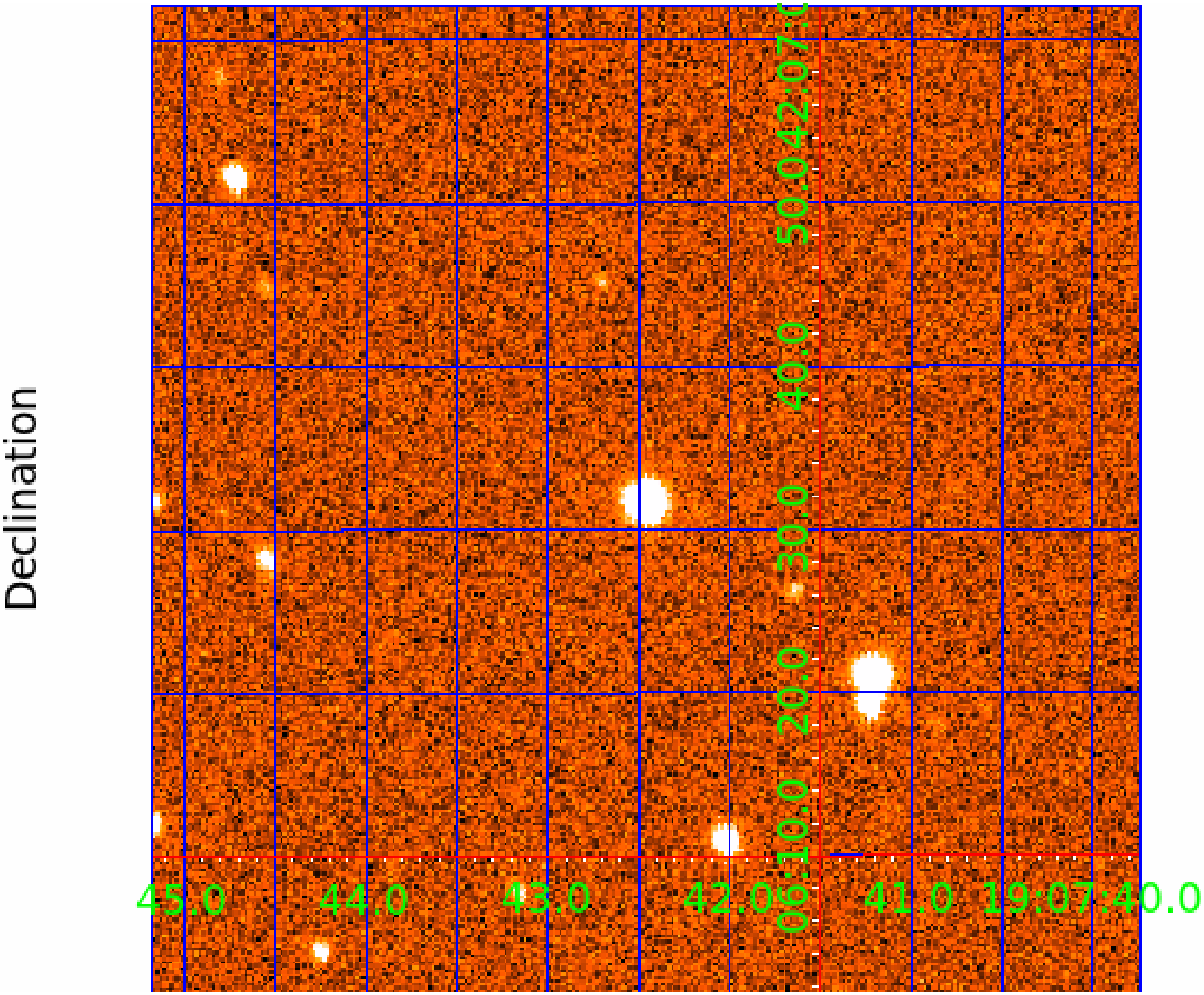
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image


Declination
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10.0
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43.0
42.0
41.0
19:07:40.0

KIC 006676725

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 ($S_\oplus$)
006676725-01	OBS	6755.01	1.428769	132.190421	63.9	5.715	10.8	11.3	1.03	6197	0.98	2155.91
006676725-02	OBS	No	298.264757	158.356835	583.5	5.419	12.3	5.0	1.03	6197	3.16	1.74
006676725-03	OBS	No	280.980528	227.946906	1856.2	6.210	15.5	11.1	1.03	6197	5.20	1.89
006676725-04	OBS	No	575.744539	235.588714	661.9	5.370	10.2	5.3	1.03	6197	2.67	0.72
006676725-05	OBS	No	227.491359	356.677682	602.6	7.145	9.5	4.4	1.03	6197	2.98	2.50
006676725-06	OBS	No	467.613116	485.478418	1964.0	36.211	8.6	4.1	1.03	6197	4.72	0.96
006676725-07	OBS	No	455.843842	405.549962	853.7	11.466	9.0	5.4	1.03	6197	3.21	0.99
006676725-08	OBS	No	419.555476	236.055898	605.4	7.500	9.0	-1.0	1.03	6197	2.55	1.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676725-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—CENT_UNRESOLVED_OFFSET—HALO_GHOST
006676725-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS
006676725-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006676725-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
006676725-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
006676725-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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.

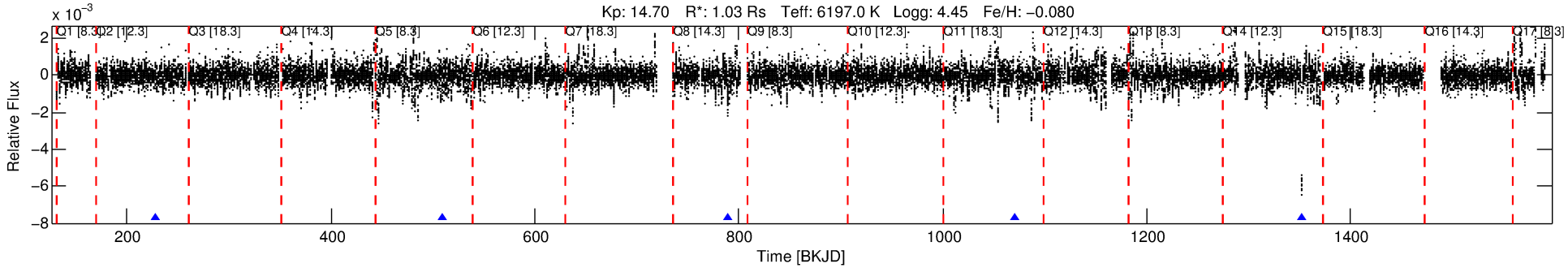
Ephemeris Match Information For 006676725-03

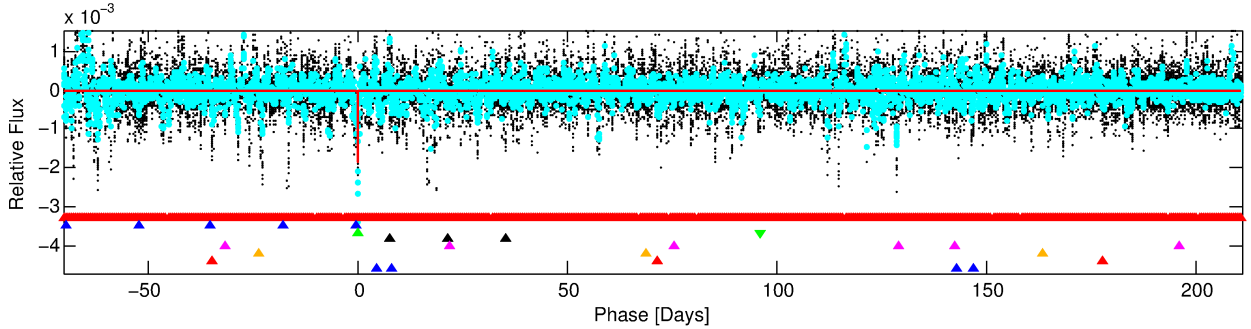
No Significant Match Found

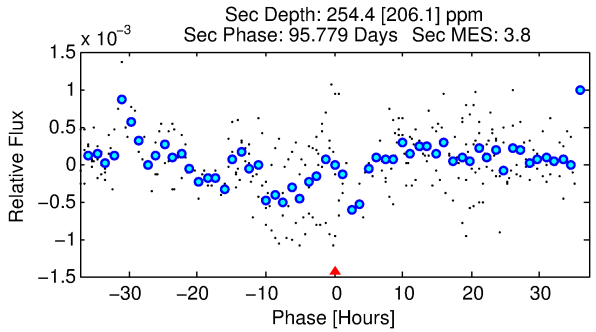
DV One-Page Summary

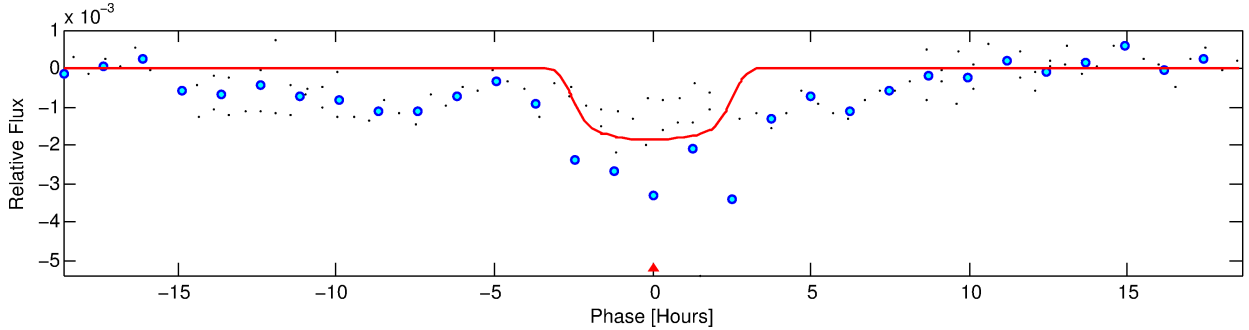
KIC: 6676725 Candidate: 3 of 8 Period: 280.981 d
KOI: K06755 Corr: No Ephemeris Match

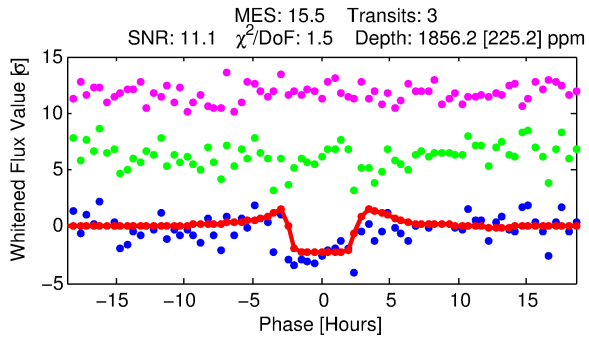
Kp: 14.70 R*: 1.03 Rs Teff: 6197.0 K Logg: 4.45 Fe/H: −0.080

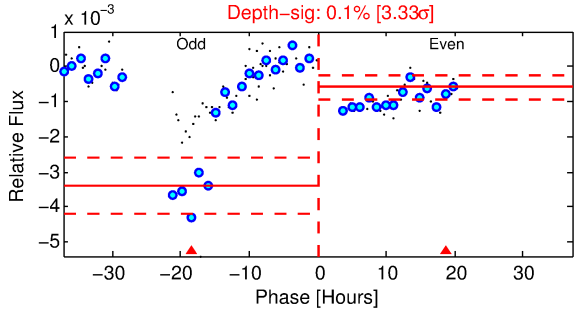


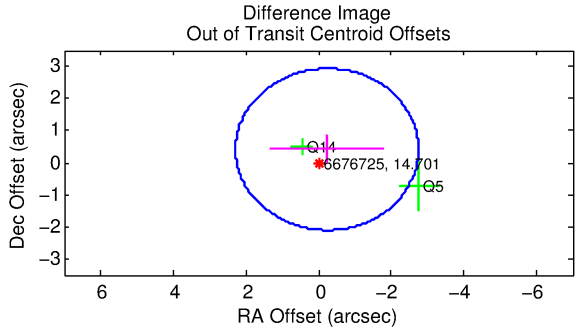












DV Fit Results:

Period = 280.98053 [0.00394] d
Epoch = 227.9469 [0.0127] BKJD
Rp/R* = 0.0460 [0.0041]
a/R* = 190.87 [53.49]
b = 0.89 [0.07]

Seff = 1.89 [0.74]
Teq = 299 [29] K
Rp = 5.20 [1.62] Re
a = 0.8665 [0.2178] AU

Ag = 3888.00 [3524.79] [1.10σ]
Teffp = 3648 [767] K [4.36σ]

DV Diagnostic Results:

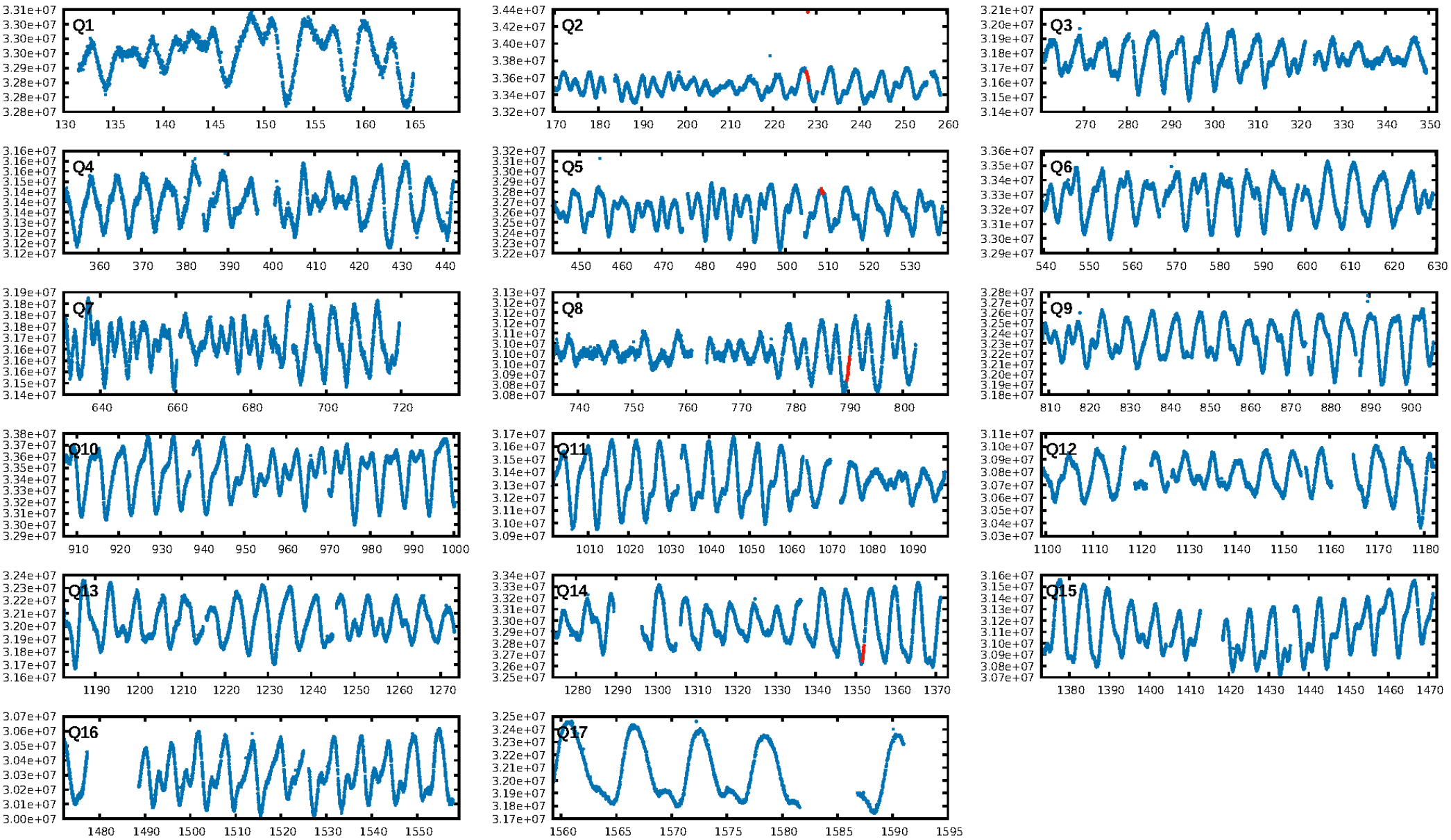
ShortPeriod−sig: 100.0% [135.61σ]
LongPeriod−sig: 100.0% [50.33σ]
ModelChiSquare2−sig: 0.0%
ModelChiSquareGof−sig: 13.4%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: 3.019

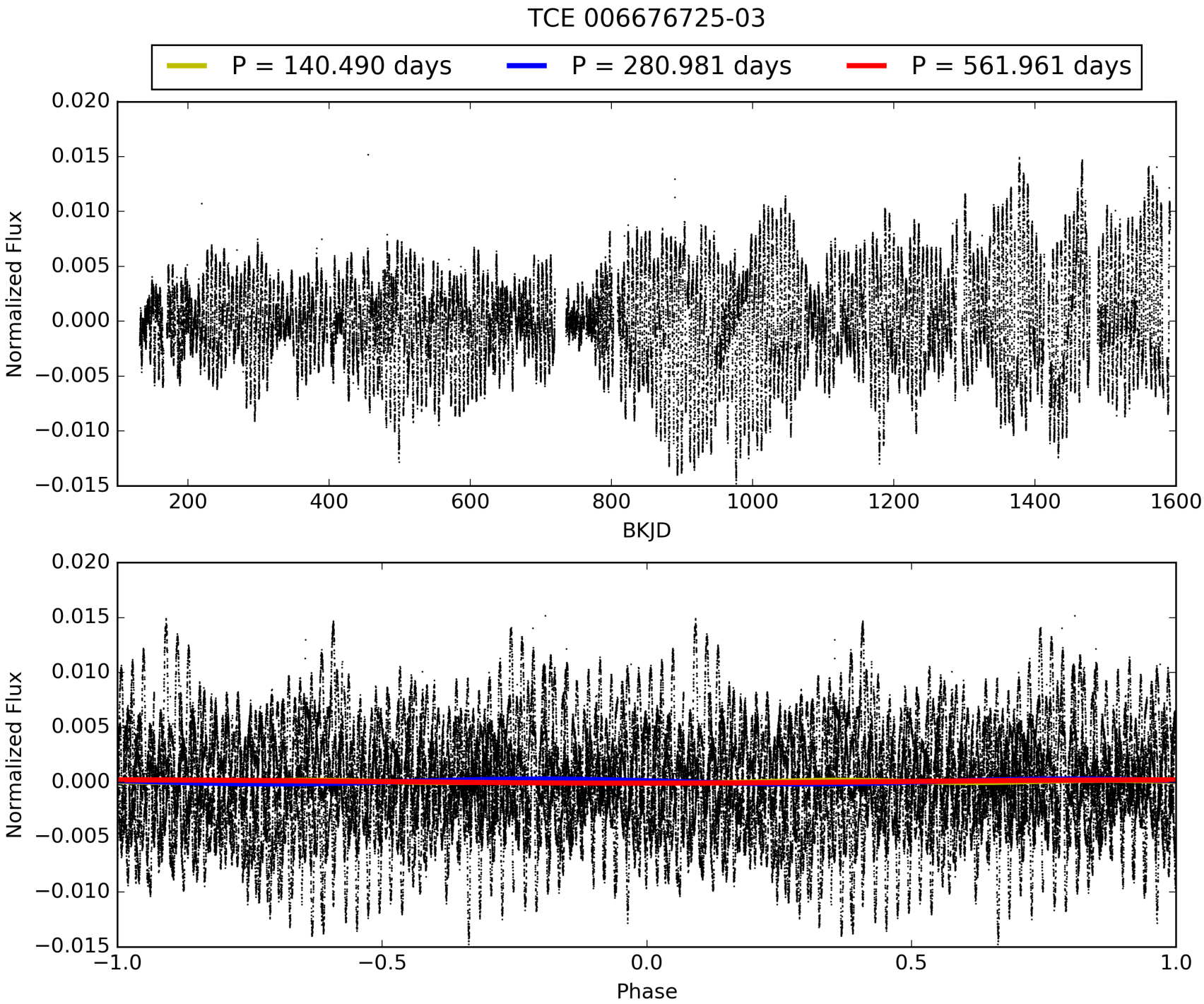
Centroid−sig: 77.5%
Centroid−so: 0.356 arcsec [0.91σ]
OotOffset−rm: 0.474 arcsec [0.56σ]
KicOffset−rm: 0.330 arcsec [0.27σ]
OotOffset−st: 1/0/0/1 [2]
KicOffset−st: 1/0/0/1 [2]
DiffImageQuality−fgm: 0.50 [1/2]
DiffImageOverlap−fno: 0.00 [0/4]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:17:43 Z

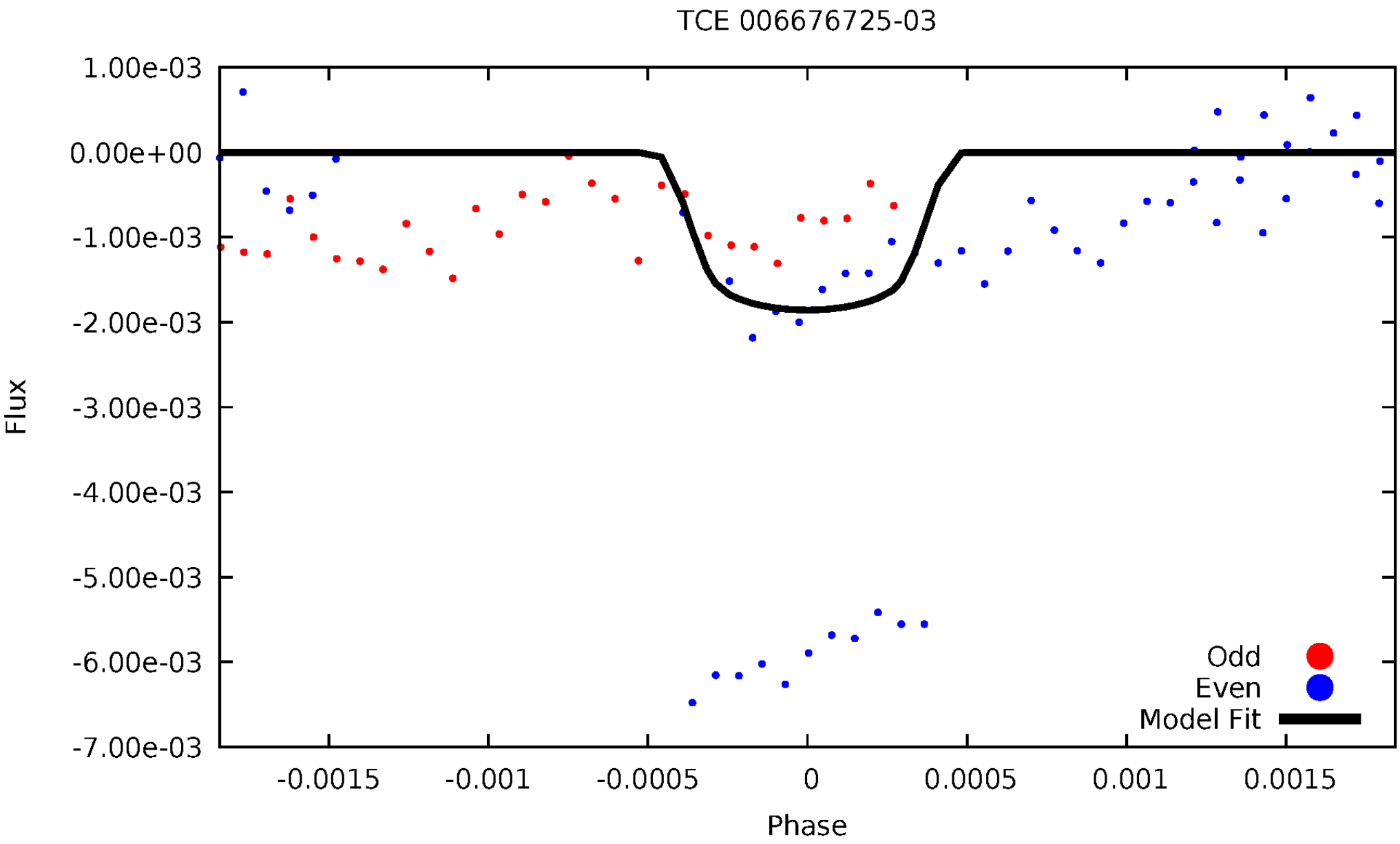
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006676725-03, PDC Light Curves

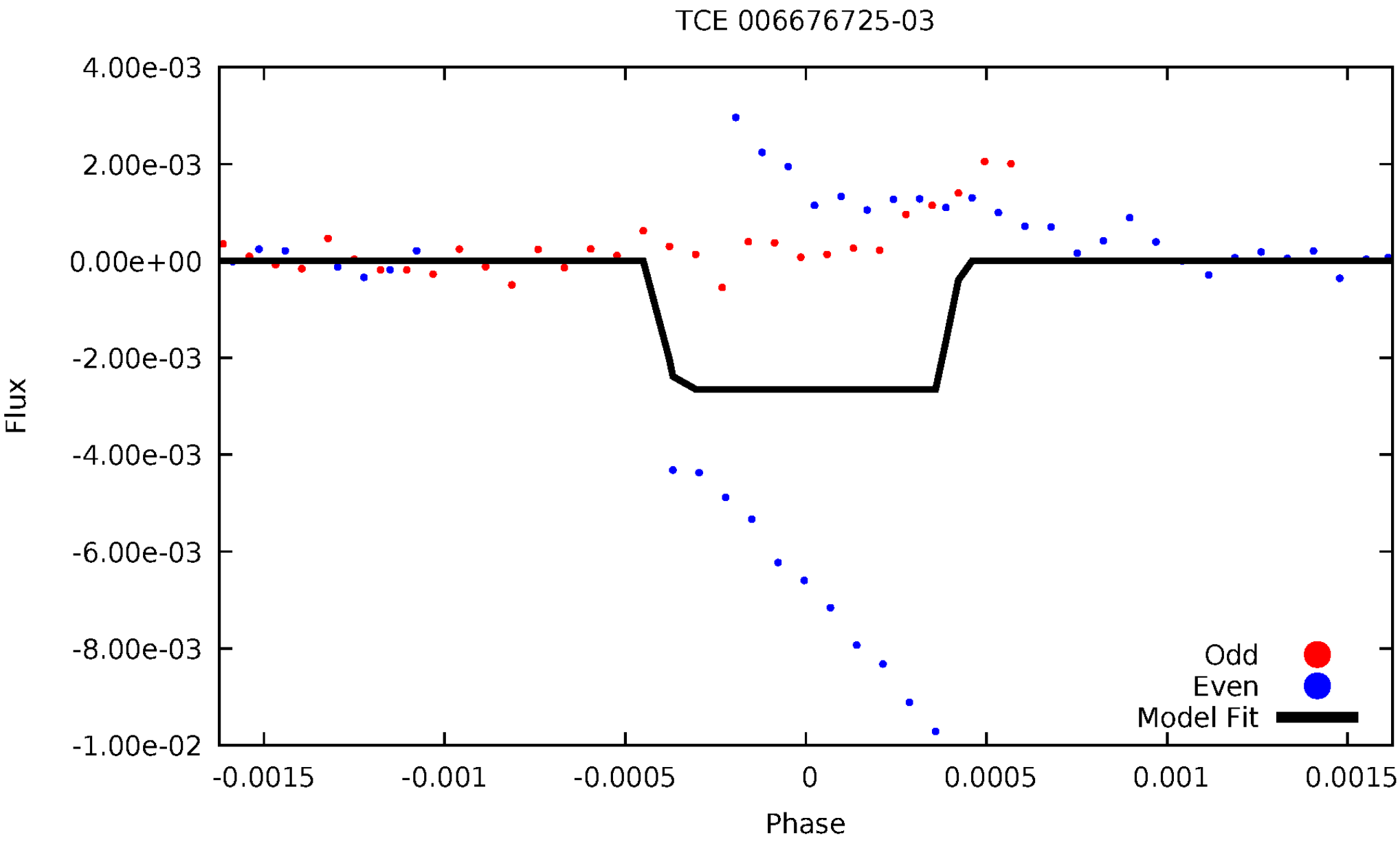



TCE 006676725-03
P = 140.490 days
P = 280.981 days
P = 561.961 days
Normalized Flux
BKJD
Normalized Flux
Phase

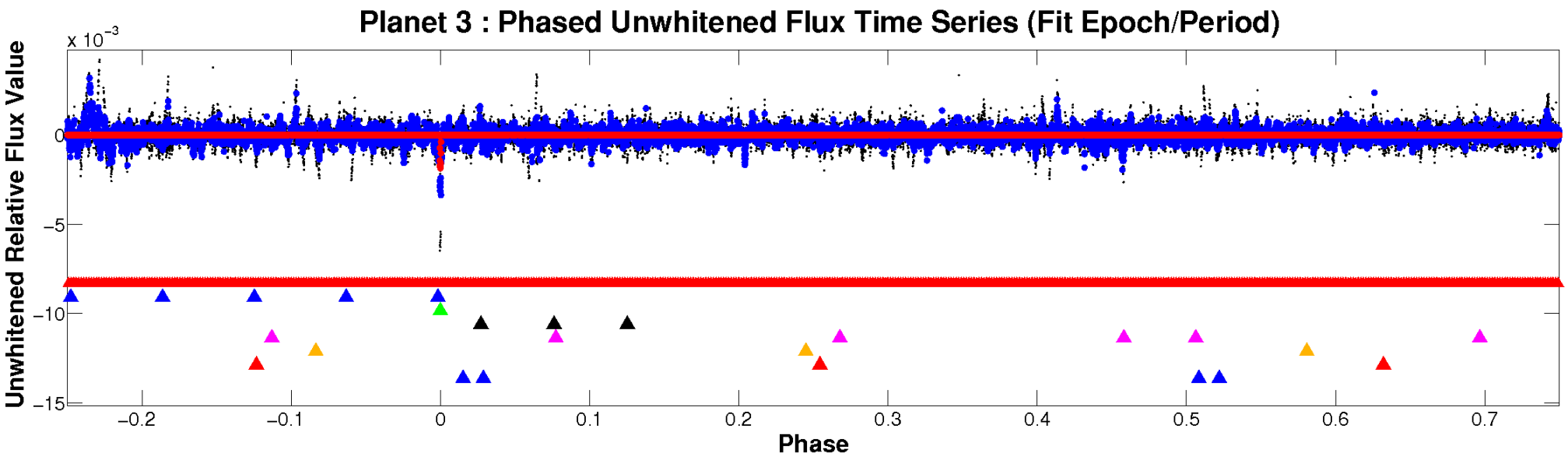
DV Odd/Even

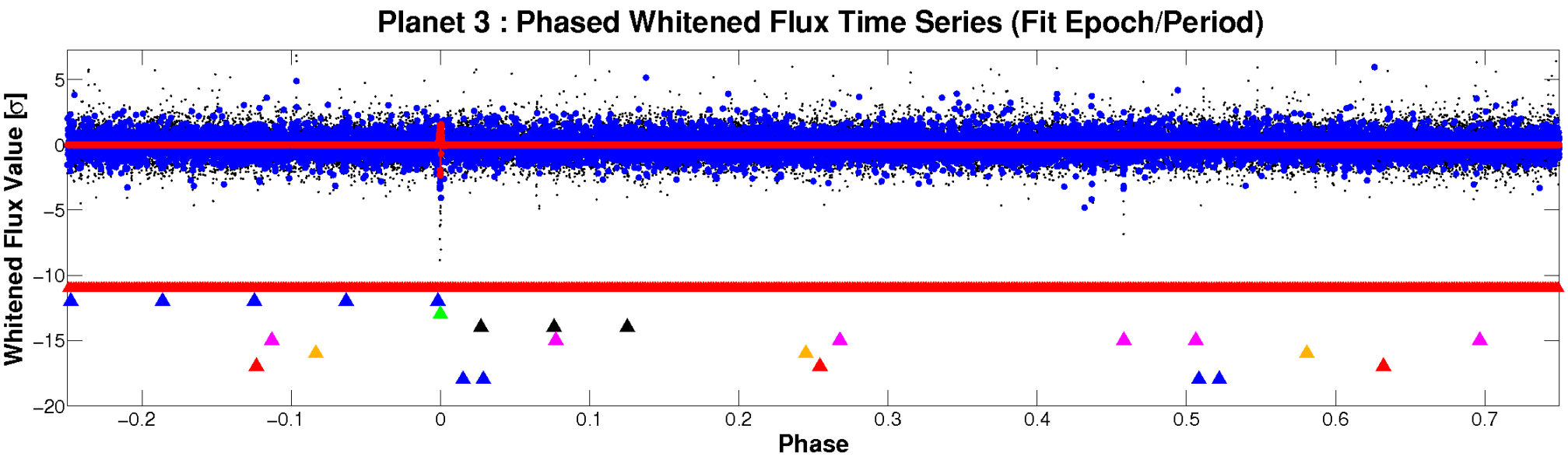

TCE 006676725-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
-5.00e-03
-6.00e-03
-7.00e-03
Flux
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006676725-03
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
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
Phase
Odd
Even
Model Fit

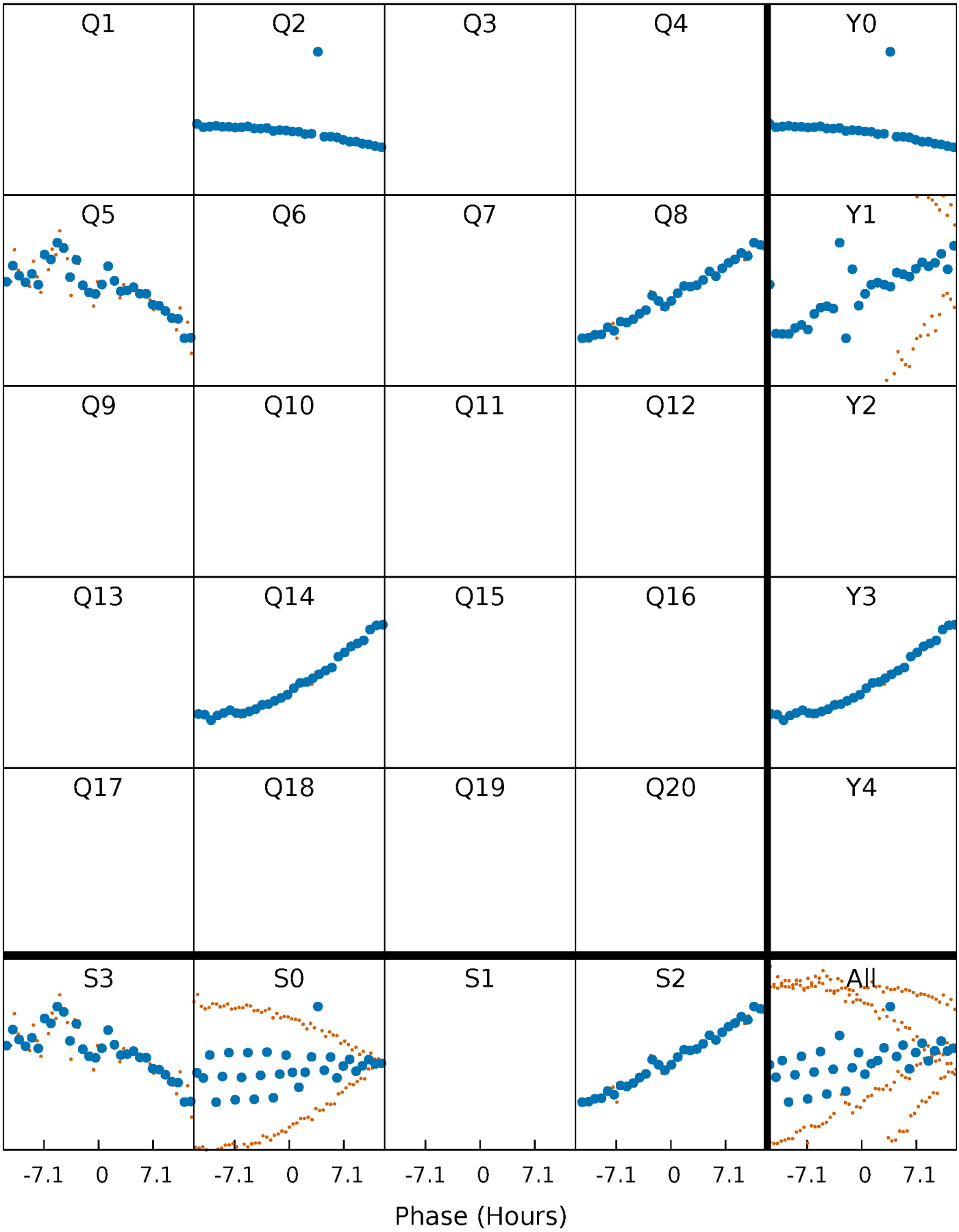
Non-Whitened Vs. Whitened Light Curve





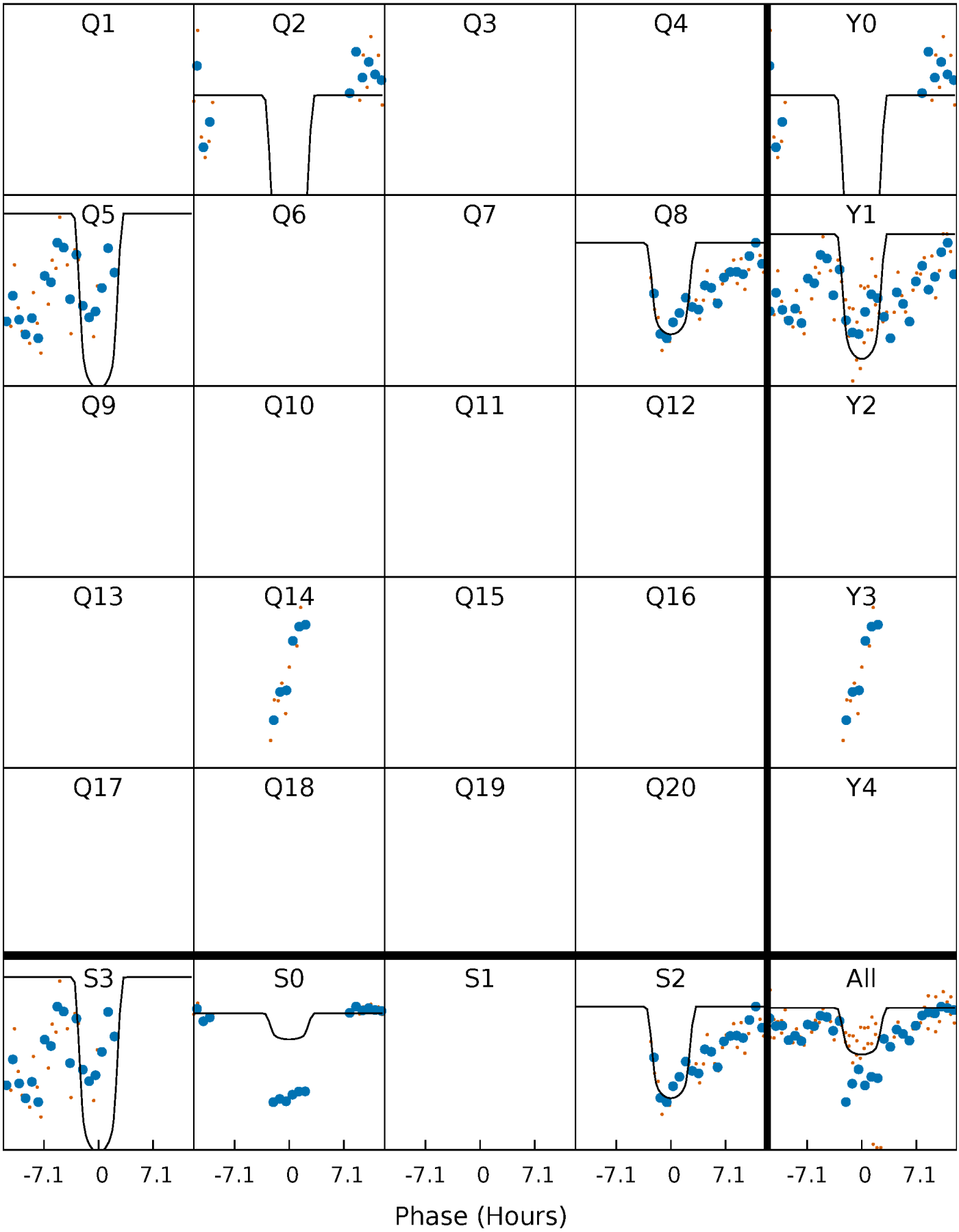
PDC Quarter-Phased Transit Curves

TCE 006676725-03 P=280.980528 Days T_0=227.946906 (BKJD)



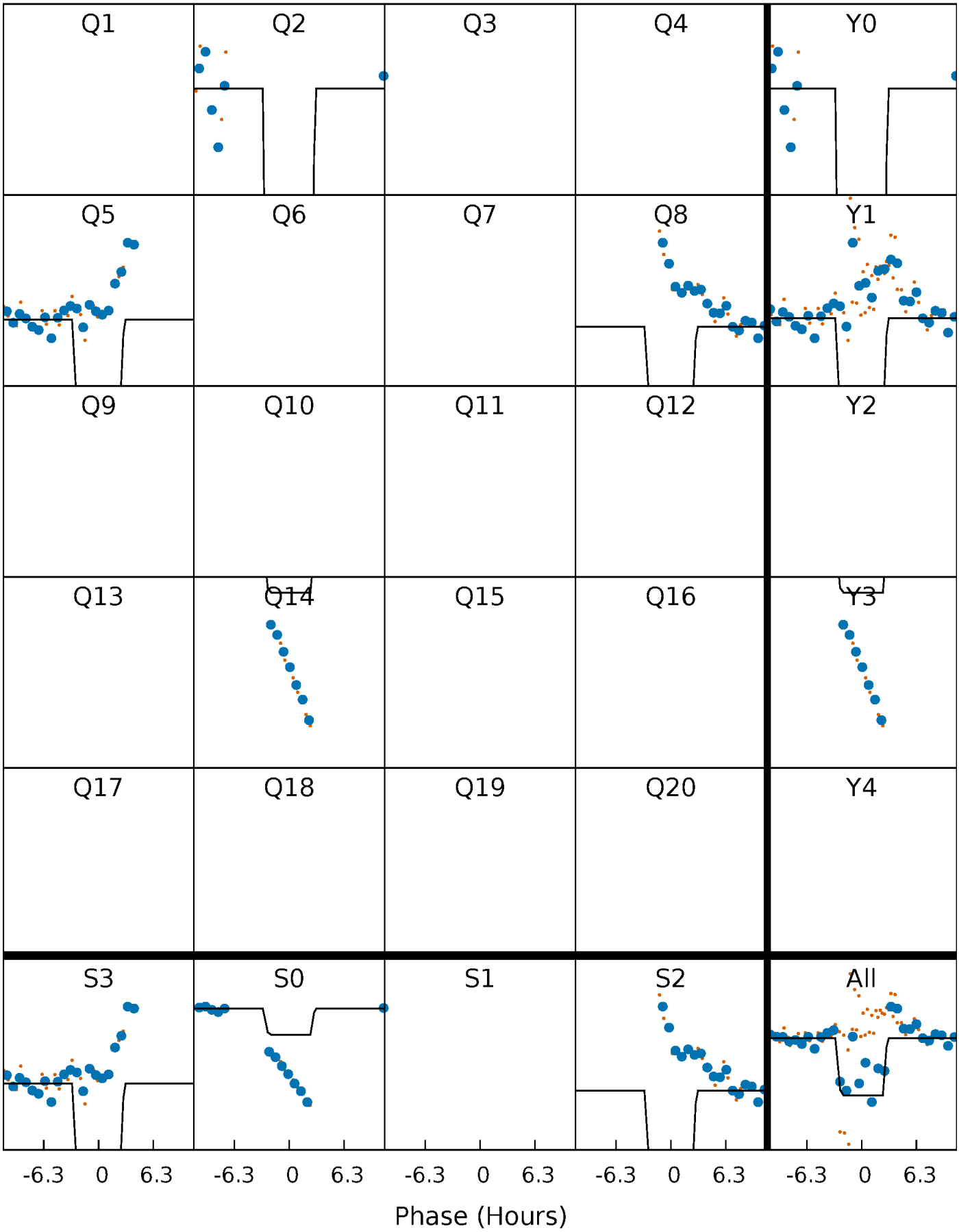
DV Quarter-Phased Transit Curves

TCE 006676725-03 P=280.980528 Days T_0=227.946906 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

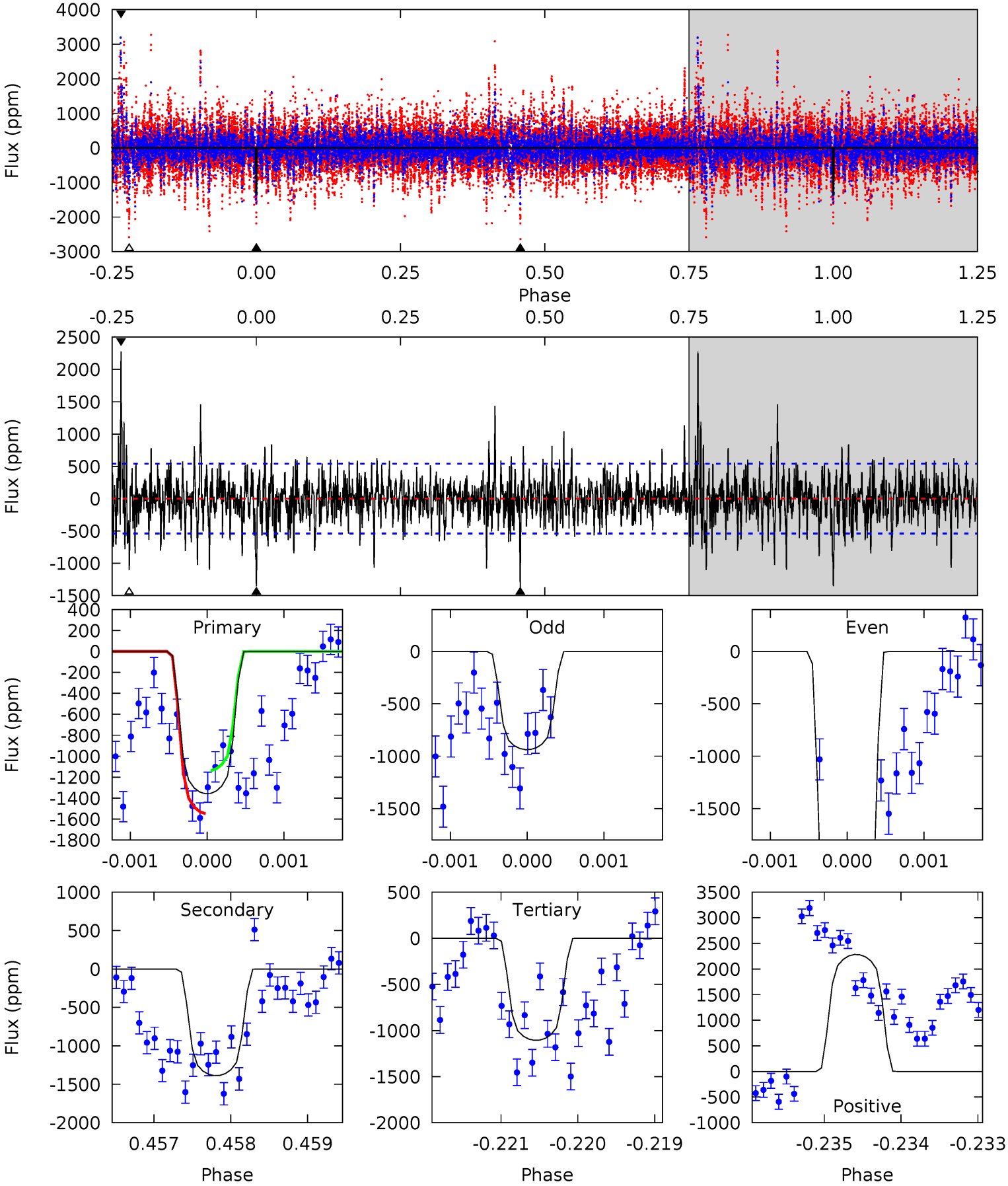
TCE 006676725-03 P=281.009128 Days T_0=227.834605 (BKJD)



DV Model-Shift Uniqueness Test

006676725-03, P = 280.980528 Days, E = 227.946906 Days

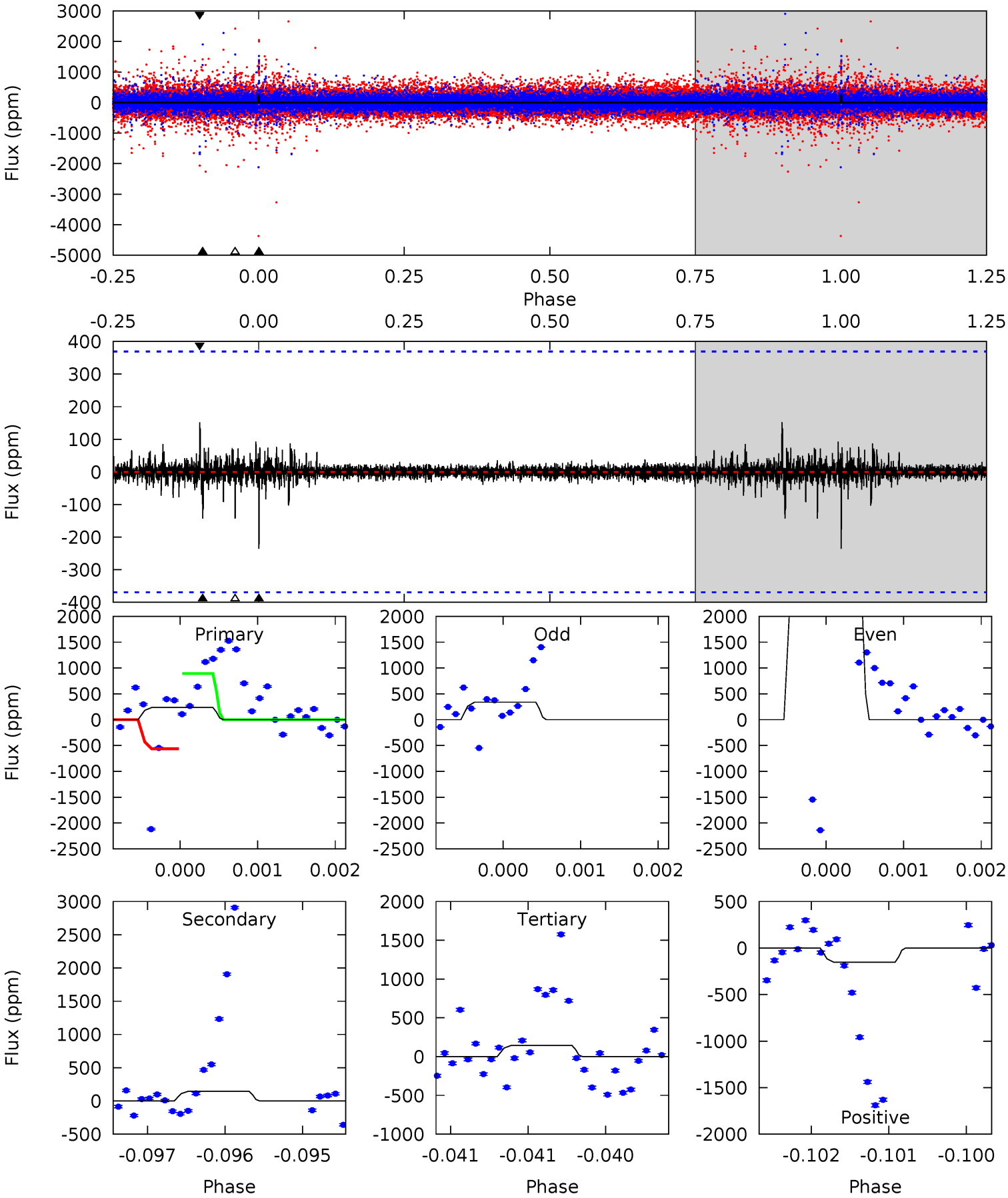
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	14.0	11.1	23.0	5.45	3.29	2.72	2.54	-9.31	2.83	-9.02	15.7	1.76	0.62	2.08



Alt Model-Shift Uniqueness Test

006676725-03, P = 281.009128 Days, E = 227.834605 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.50	2.13	2.12	2.26	5.48	3.34	0.22	1.37	1.23	0.00	-0.13	26.0	-4.71	0.39	0



Stellar Parameters For KIC 006676725

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6197^{+172}_{-216}	$4.449^{+0.050}_{-0.200}$	$-0.080^{+0.250}_{-0.300}$	$1.035^{+0.309}_{-0.111}$	$1.096^{+0.141}_{-0.141}$	$1.394^{+0.390}_{-0.735}$
	+3%/-3%	+1%/-4%	+312%/-375%	+30%/-11%	+13%/-13%	+28%/-53%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006676725-03 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1384±99	$5.36^{+0.86}_{-0.64}$	423^{+30}_{-19}	5567^{+291}_{-285}	19400^{+5572}_{-4915}
Alt.	-143±67	$6.03^{+0.97}_{-0.73}$	426^{+29}_{-20}	3456^{+267}_{-340}	1503^{+971}_{-749}

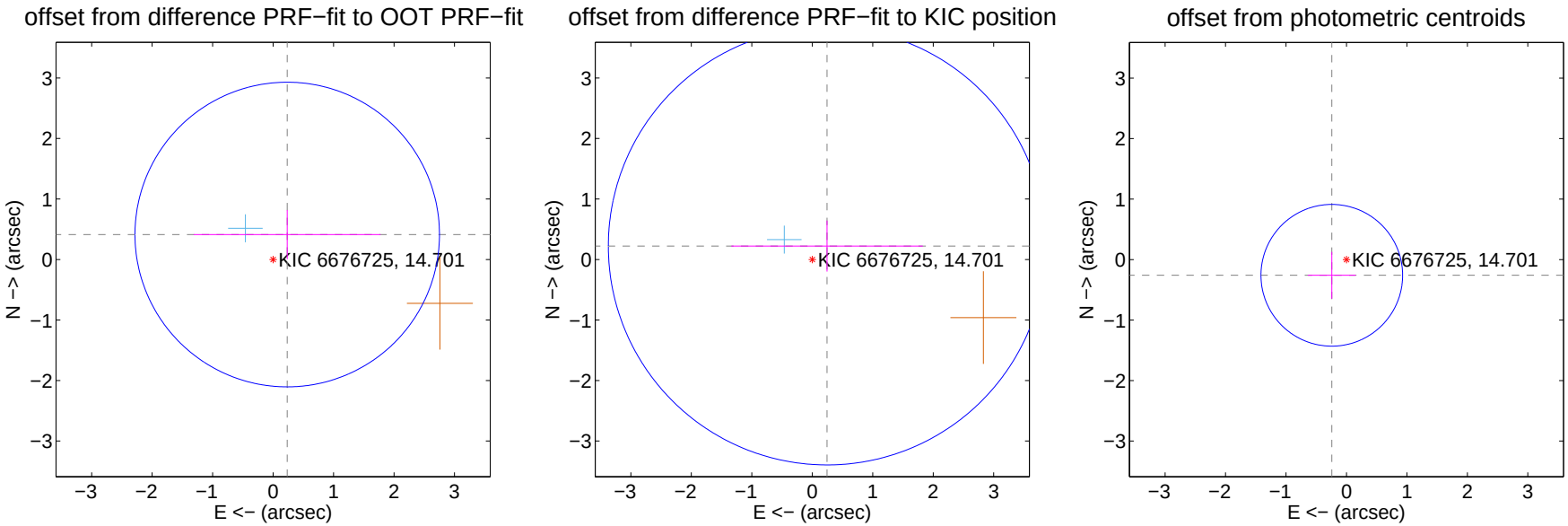
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

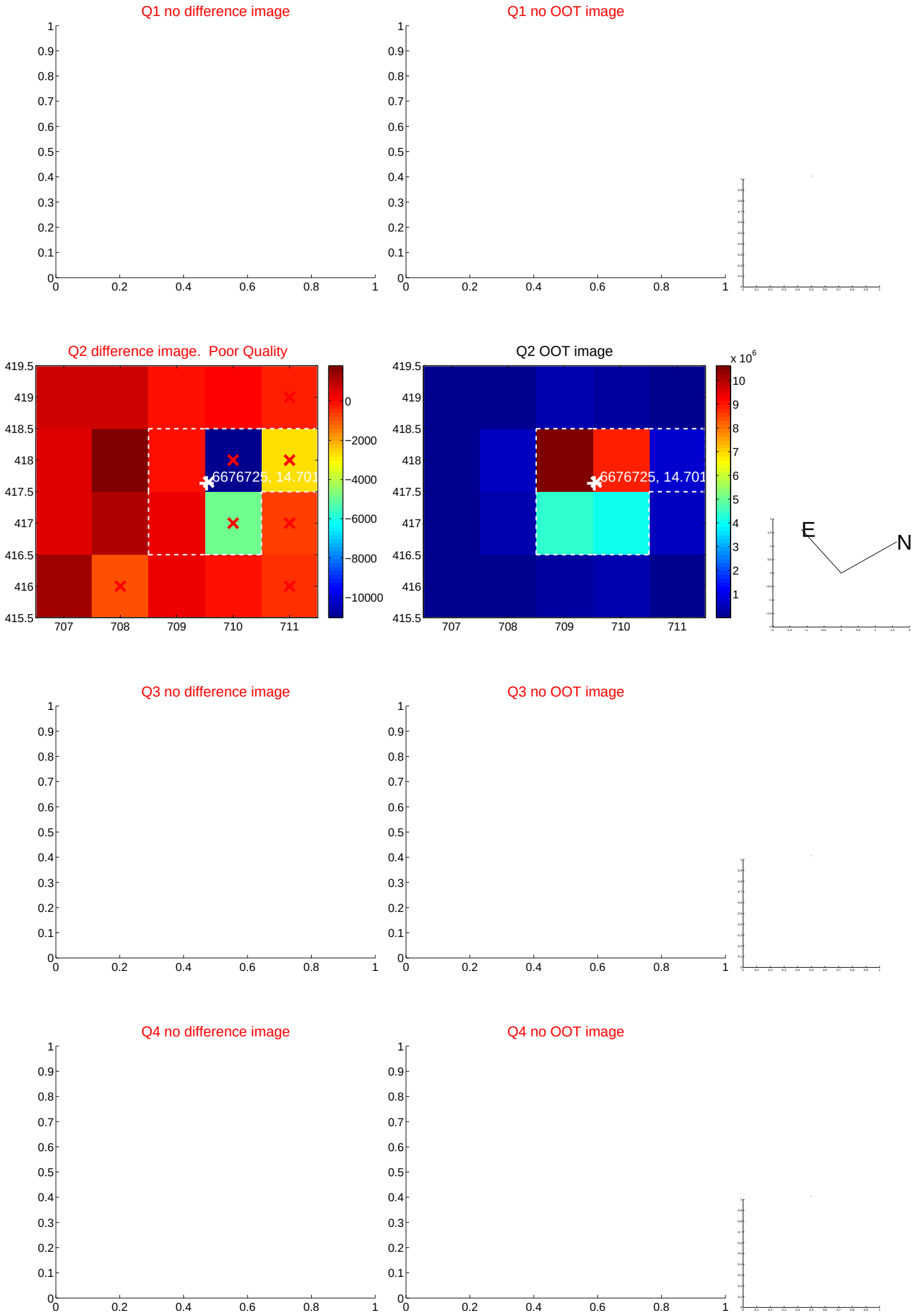
Supplemental centroid analysis for 006676725-03. Kepler magnitude: 14.70. Transit SNR 11.09
There are 1 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.474 ± 0.839	0.56	-0.234 ± 1.545	0.413 ± 0.406
PRF-fit source offset from KIC position	0.330 ± 1.206	0.27	-0.244 ± 1.582	0.222 ± 0.422
photometric centroid source offset	0.36 ± 0.39	0.91	0.24 ± 0.39	-0.26 ± 0.39

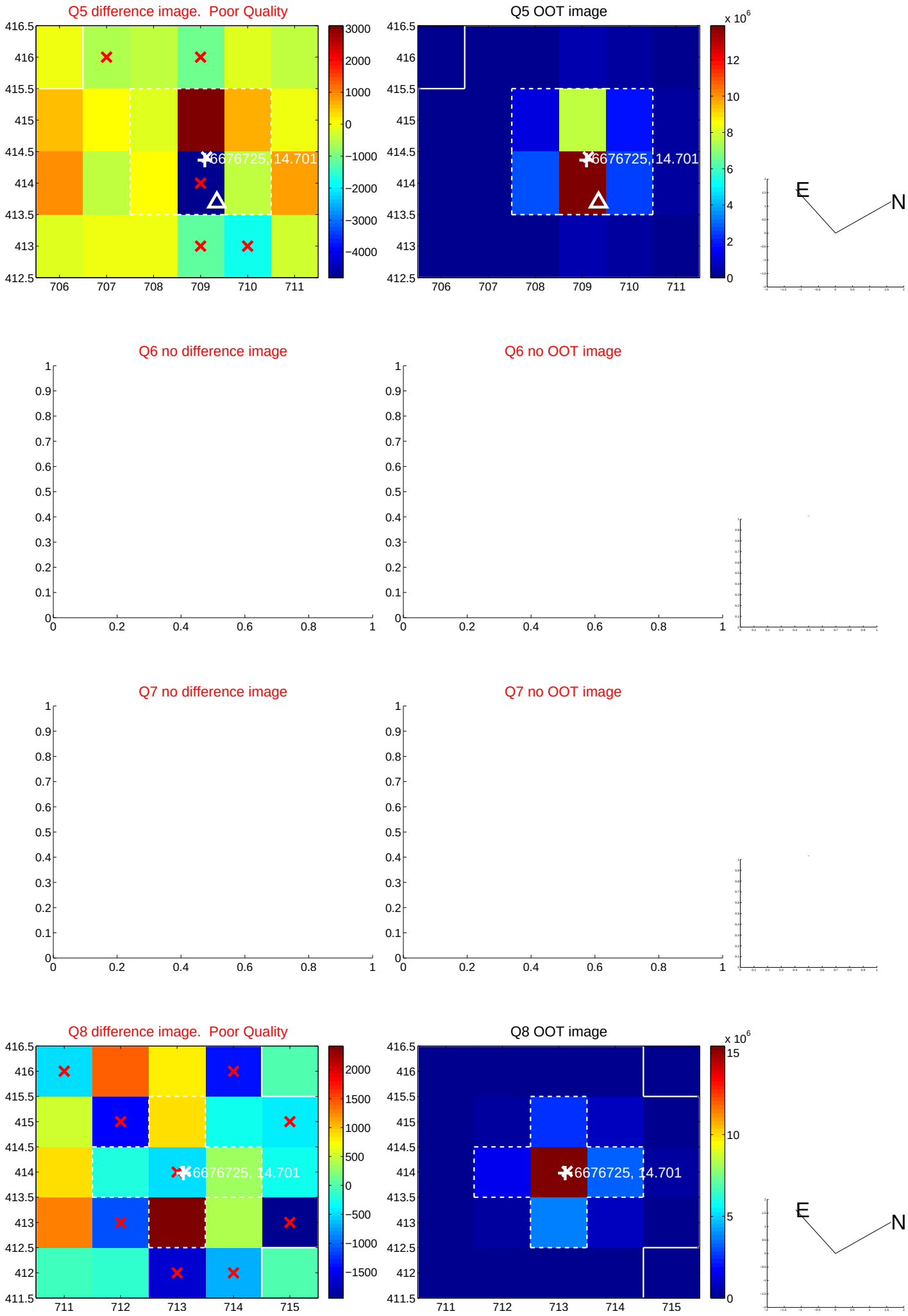


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

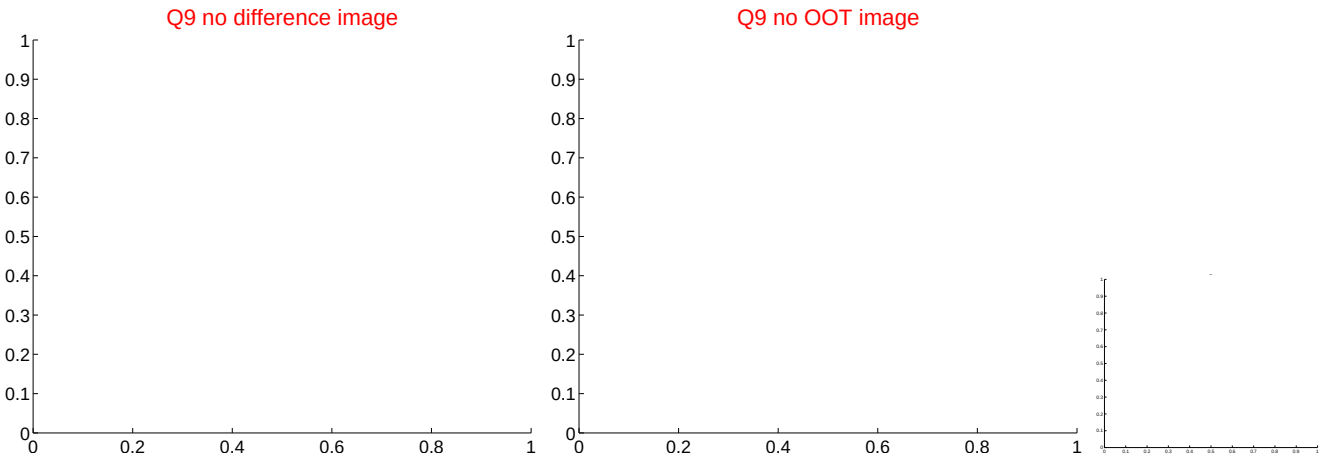
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

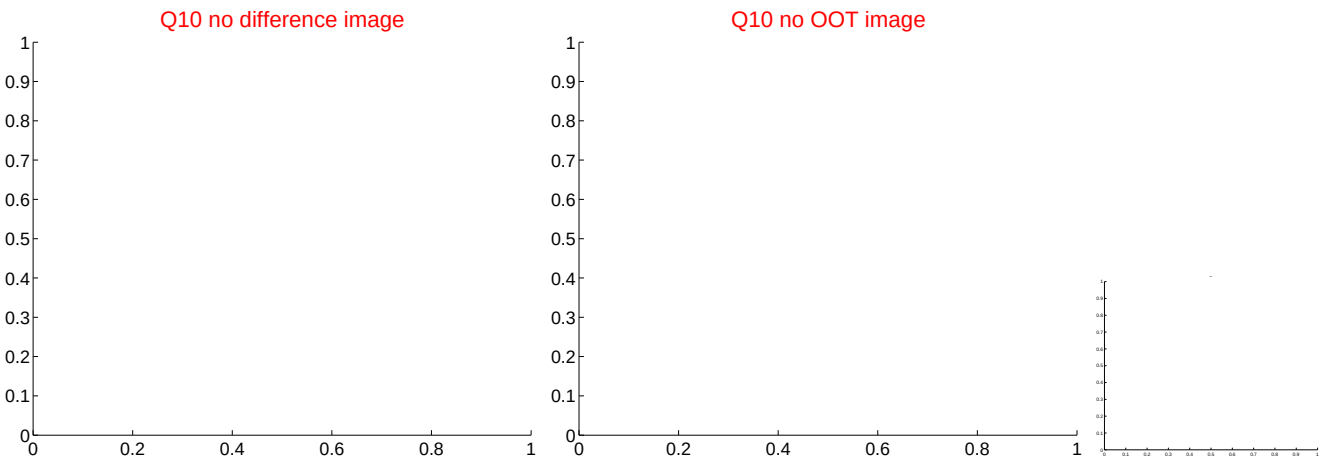


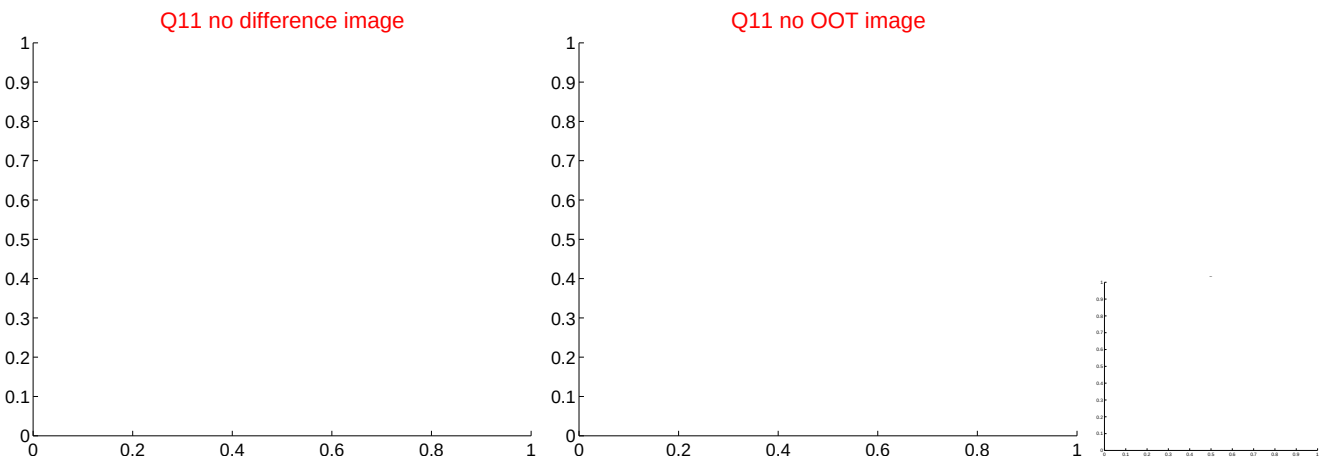
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

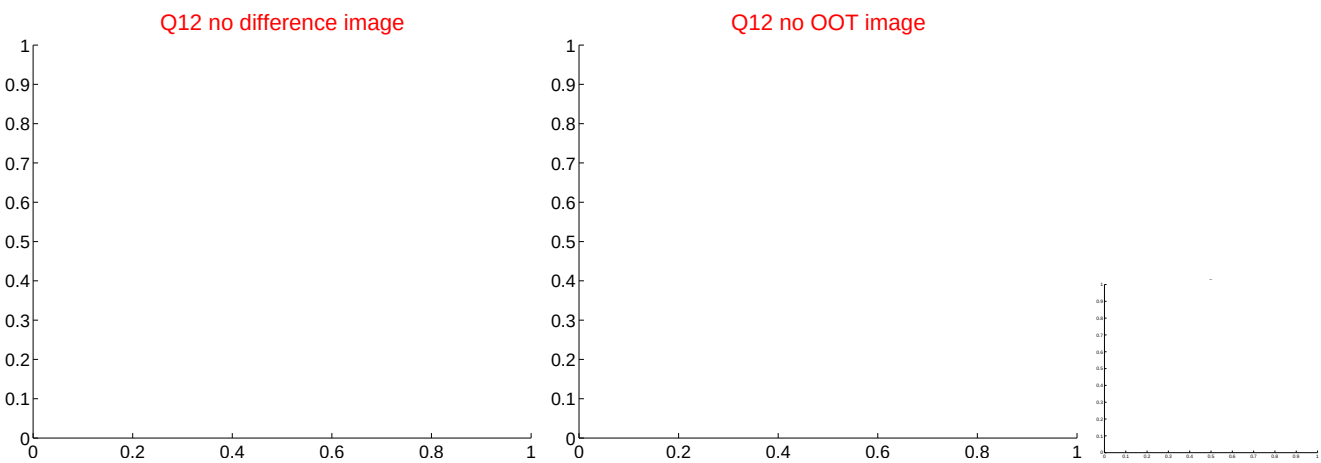


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

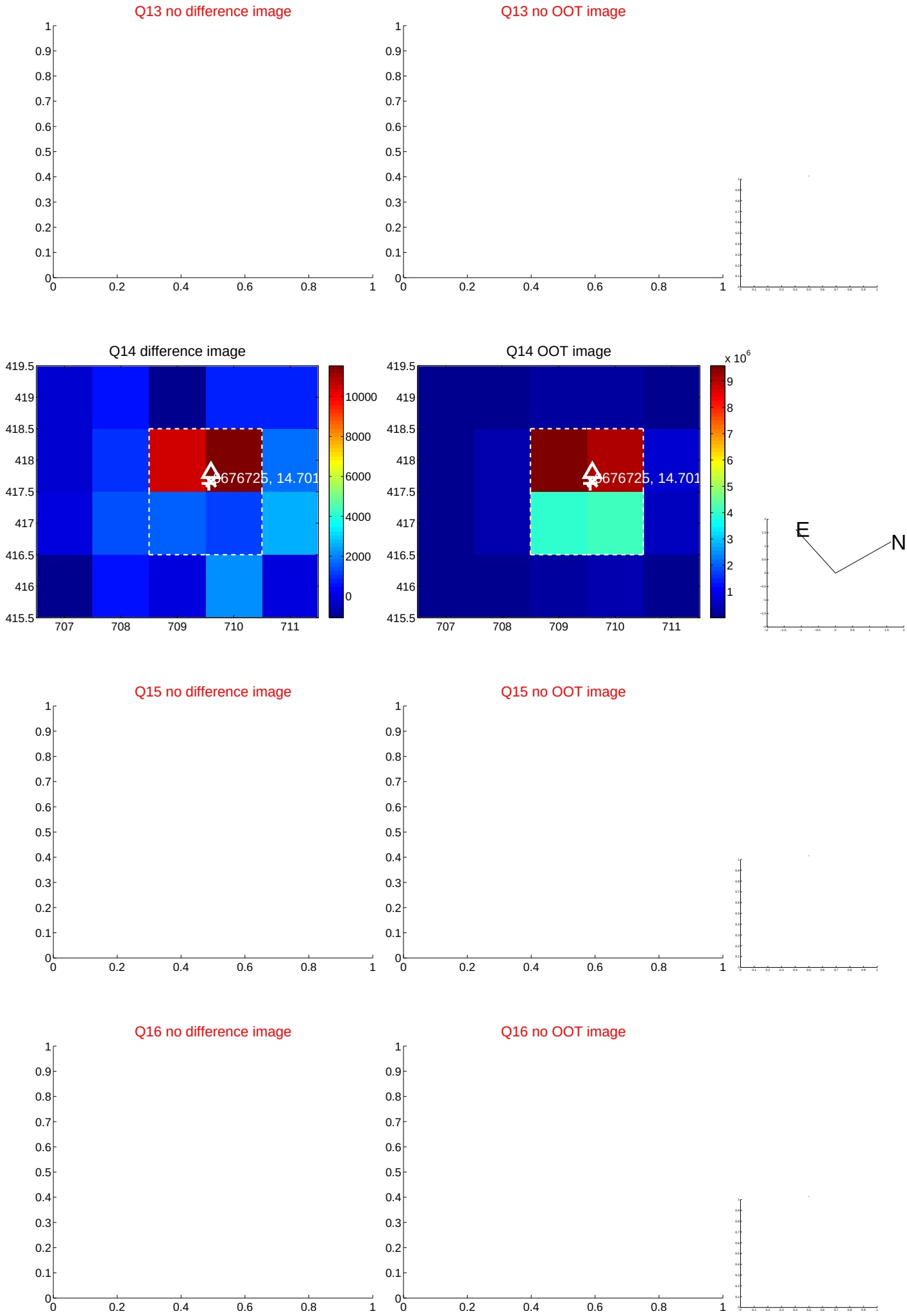




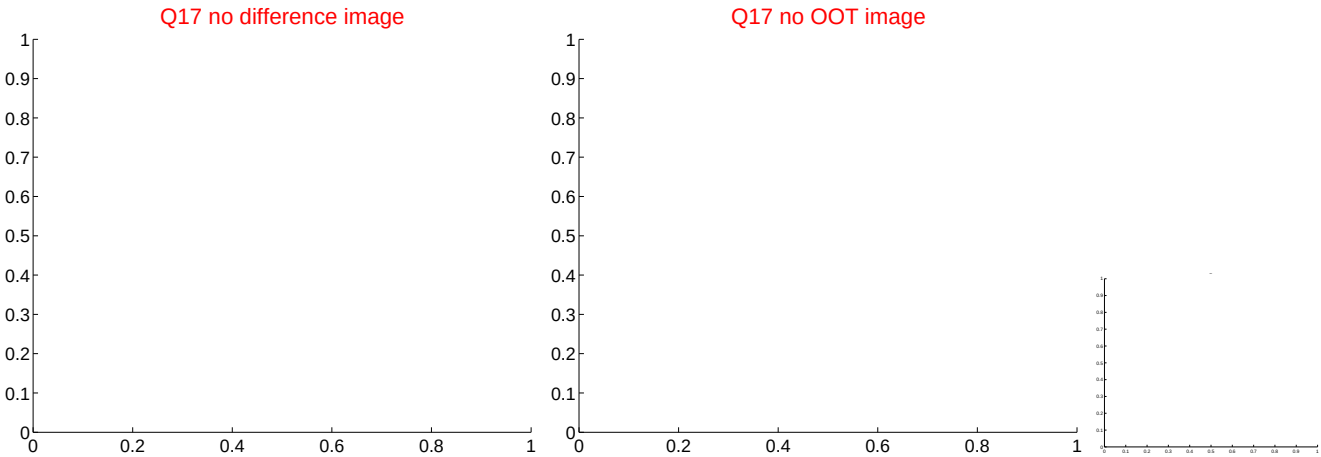


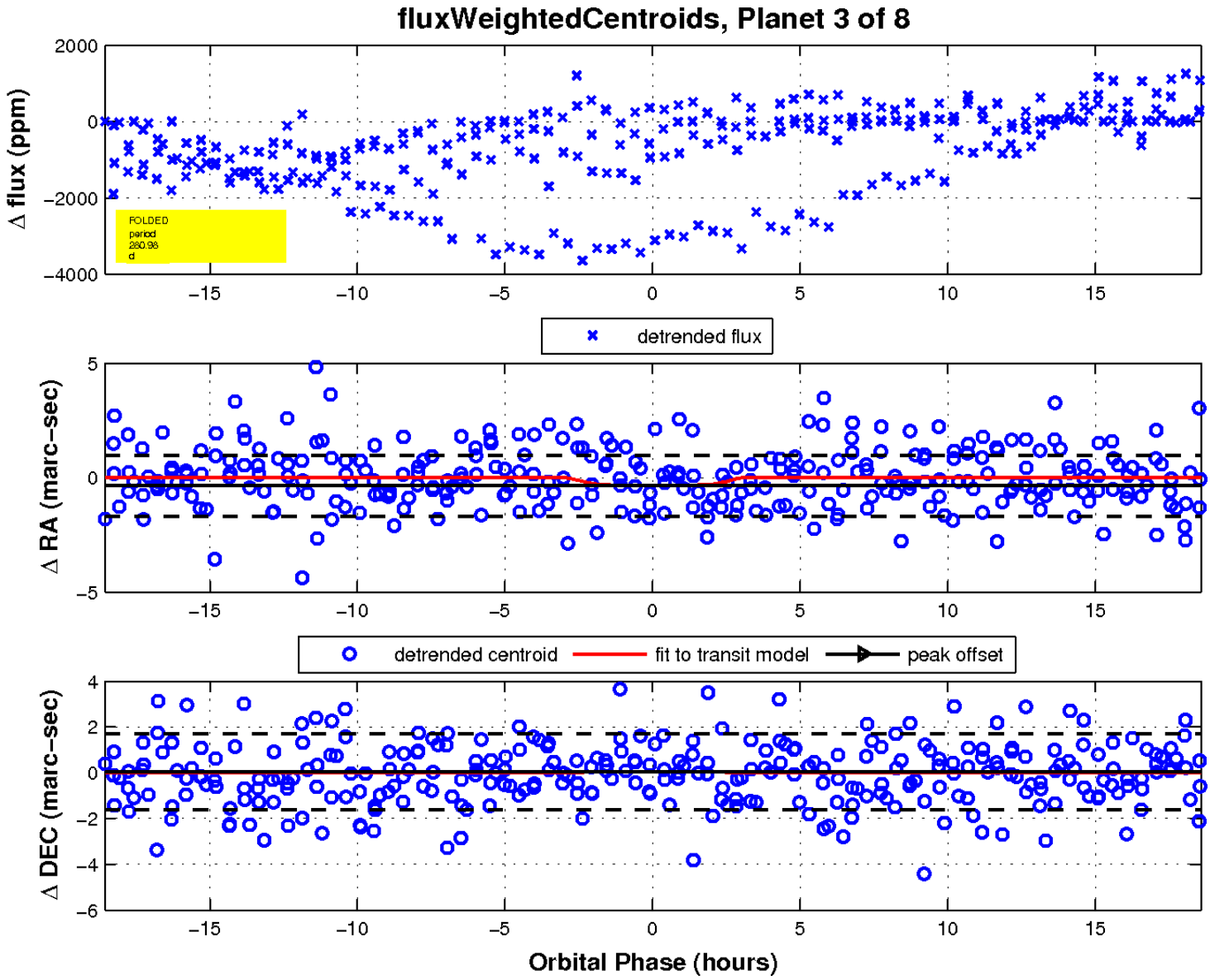


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

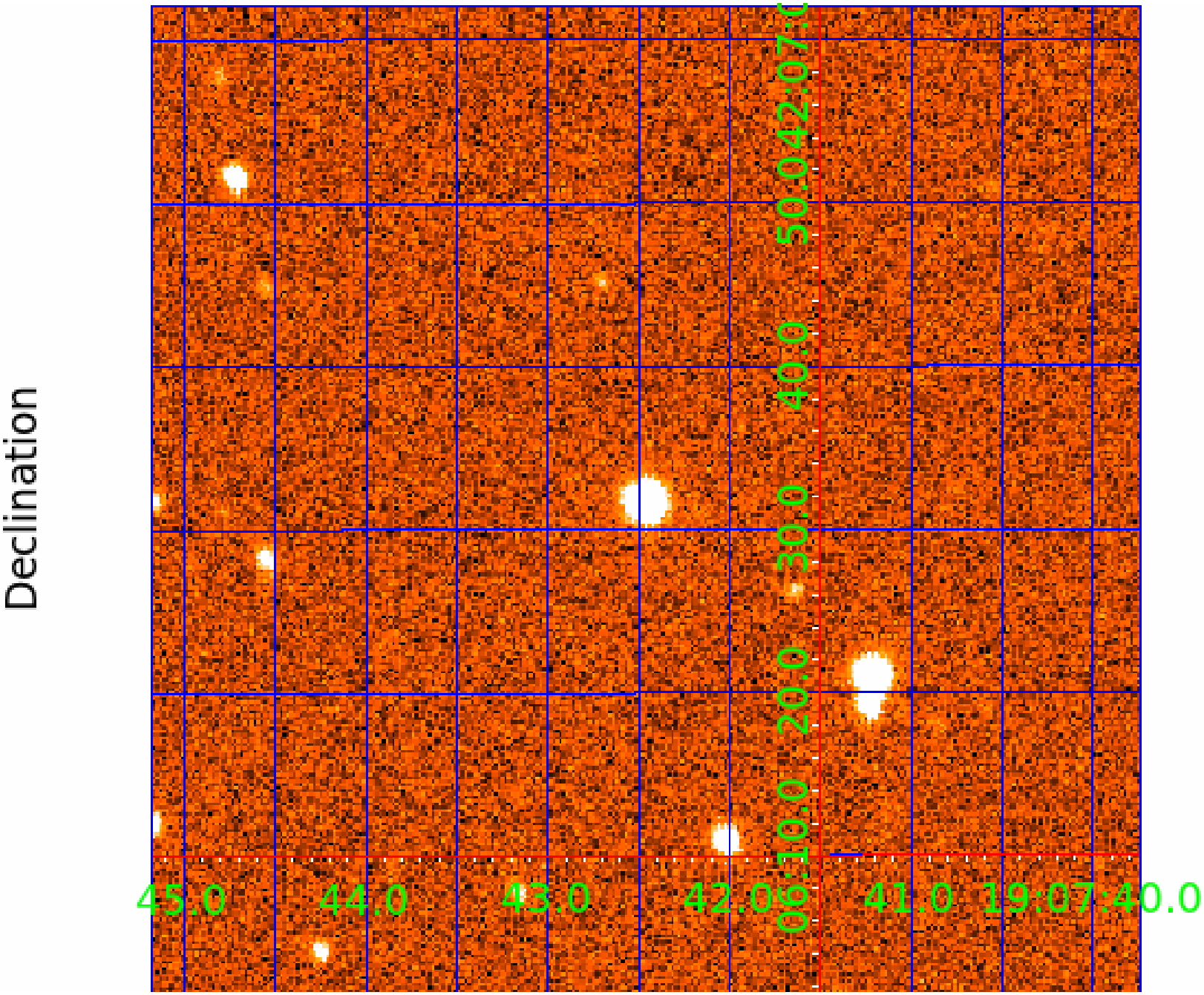


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image


Declination
06:10:50.0
40.0
30.0
20.0
10.0
45.0
44.0
43.0
42.0
41.0
19:07:40.0

KIC 006676725

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 ($S_\oplus$)
006676725-01	OBS	6755.01	1.428769	132.190421	63.9	5.715	10.8	11.3	1.03	6197	0.98	2155.91
006676725-02	OBS	No	298.264757	158.356835	583.5	5.419	12.3	5.0	1.03	6197	3.16	1.74
006676725-03	OBS	No	280.980528	227.946906	1856.2	6.210	15.5	11.1	1.03	6197	5.20	1.89
006676725-04	OBS	No	575.744539	235.588714	661.9	5.370	10.2	5.3	1.03	6197	2.67	0.72
006676725-05	OBS	No	227.491359	356.677682	602.6	7.145	9.5	4.4	1.03	6197	2.98	2.50
006676725-06	OBS	No	467.613116	485.478418	1964.0	36.211	8.6	4.1	1.03	6197	4.72	0.96
006676725-07	OBS	No	455.843842	405.549962	853.7	11.466	9.0	5.4	1.03	6197	3.21	0.99
006676725-08	OBS	No	419.555476	236.055898	605.4	7.500	9.0	-1.0	1.03	6197	2.55	1.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676725-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—CENT_UNRESOLVED_OFFSET—HALO_GHOST
006676725-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS
006676725-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006676725-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
006676725-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
006676725-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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.

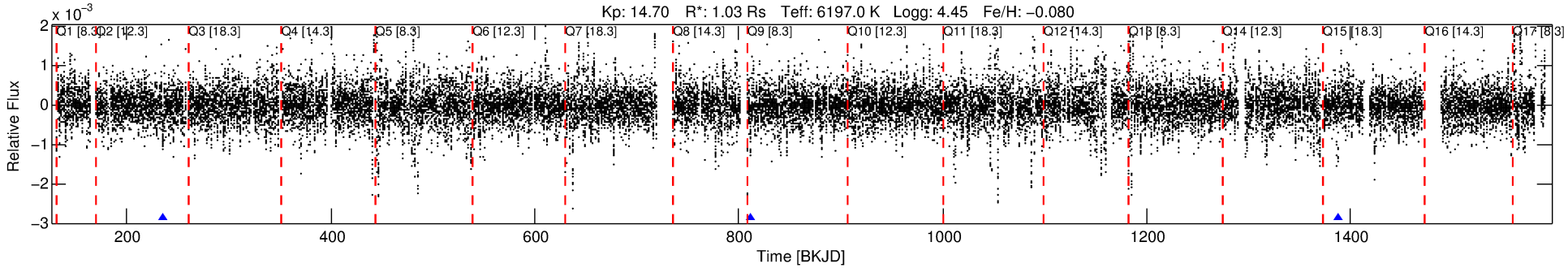
Ephemeris Match Information For 006676725-04

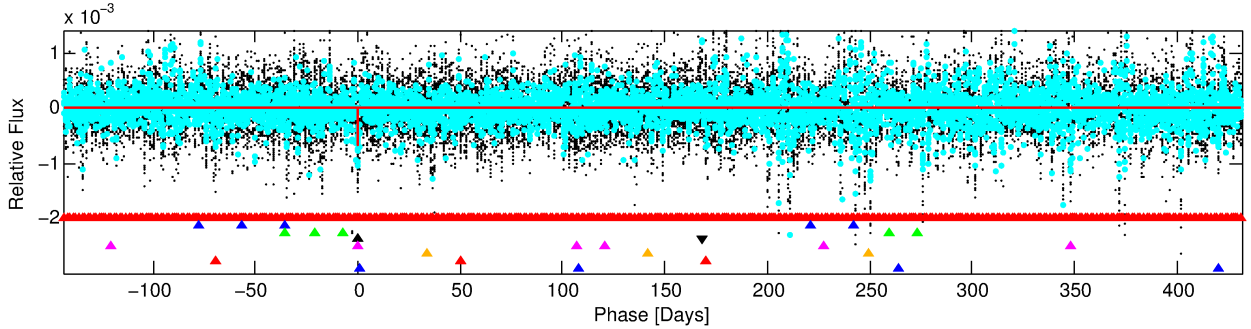
No Significant Match Found

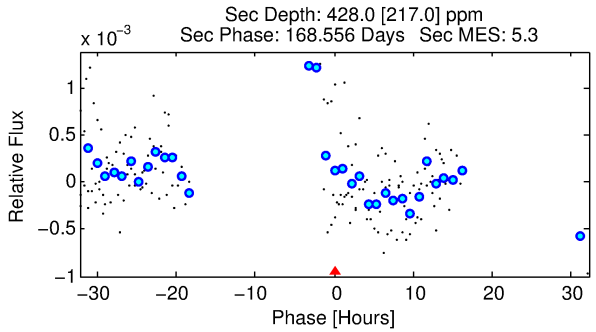
DV One-Page Summary

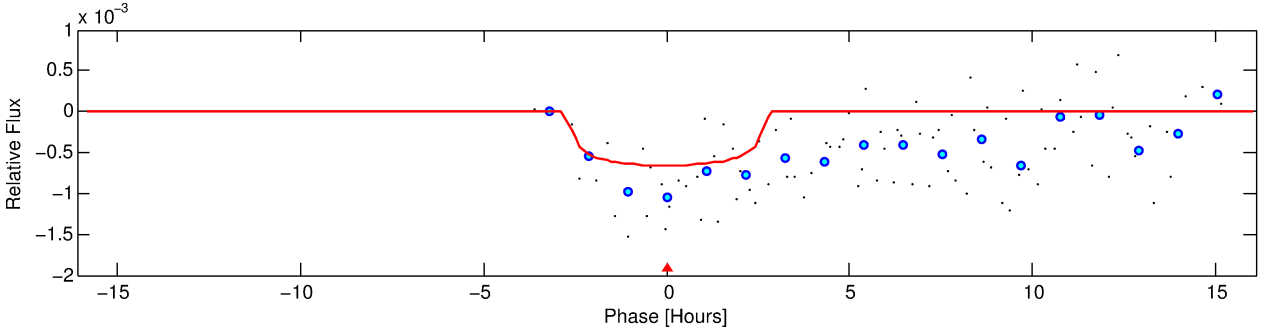
KIC: 6676725 Candidate: 4 of 8 Period: 575.745 d
KOI: K06755 Corr: No Ephemeris Match

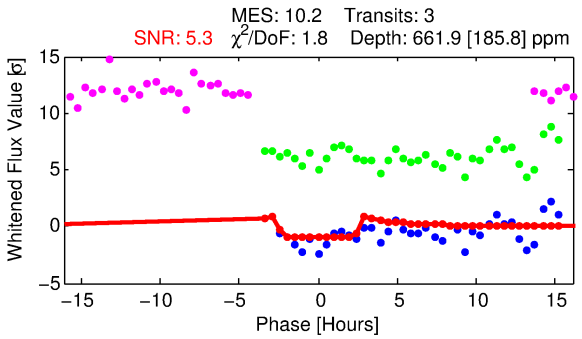
Kp: 14.70 R*: 1.03 Rs Teff: 6197.0 K Logg: 4.45 Fe/H: −0.080

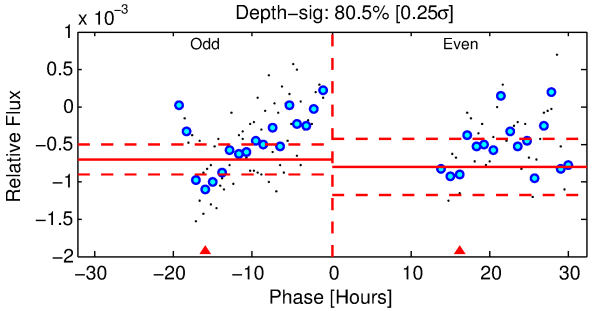


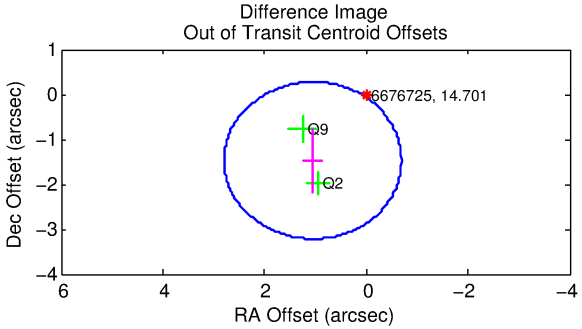












DV Fit Results:

Period = 575.74454 [0.01107] d
Epoch = 235.5887 [0.0116] BKJD
Rp/R* = 0.0236 [0.0922]
a/R* = 824.82 [15914.59]
b = 0.18 [101.45]

Seff = 0.72 [0.28]
Teq = 235 [23] K
Rp = 2.67 [10.44] Re
a = 1.3979 [0.3514] AU

Ag = 64514.36 [504535.84] [0.13σ]
Teffp = 5797 [11322] K [0.49σ]

DV Diagnostic Results:

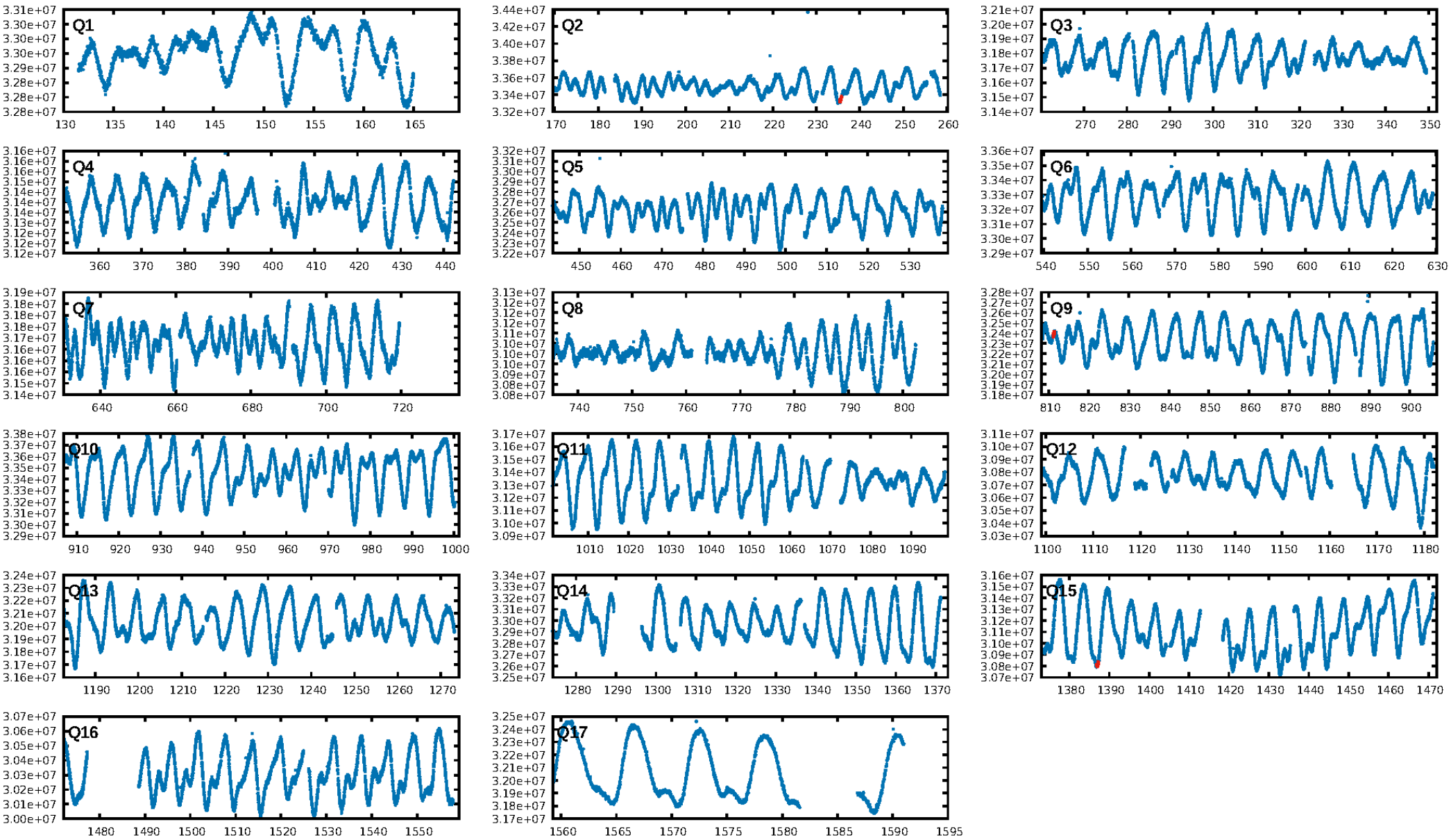
ShortPeriod−sig: 100.0% [70.89σ]
LongPeriod−sig: N/A
ModelChiSquare2−sig: 0.2%
ModelChiSquareGof−sig: 41.7%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: −1.741

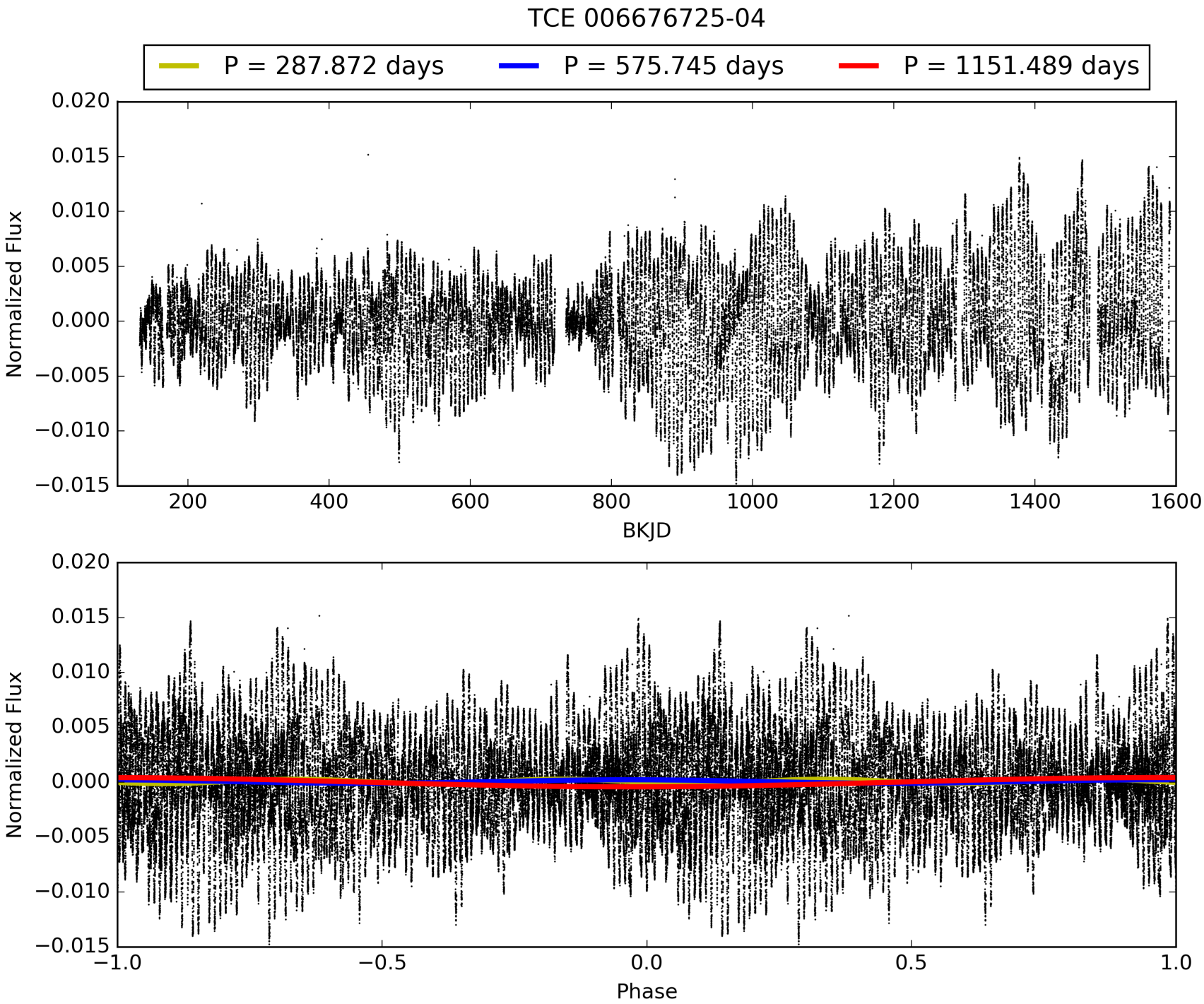
Centroid−sig: 2.2%
Centroid−so: 2.036 arcsec [1.63σ]
OotOffset−rm: 1.811 arcsec [3.11σ]
KicOffset−rm: 1.962 arcsec [3.46σ]
OotOffset−st: 1/0/0/1 [2]
KicOffset−st: 1/0/0/1 [2]
DiffImageQuality−fgm: 0.50 [1/2]
DiffImageOverlap−fno: 0.00 [0/2]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:17:53 Z

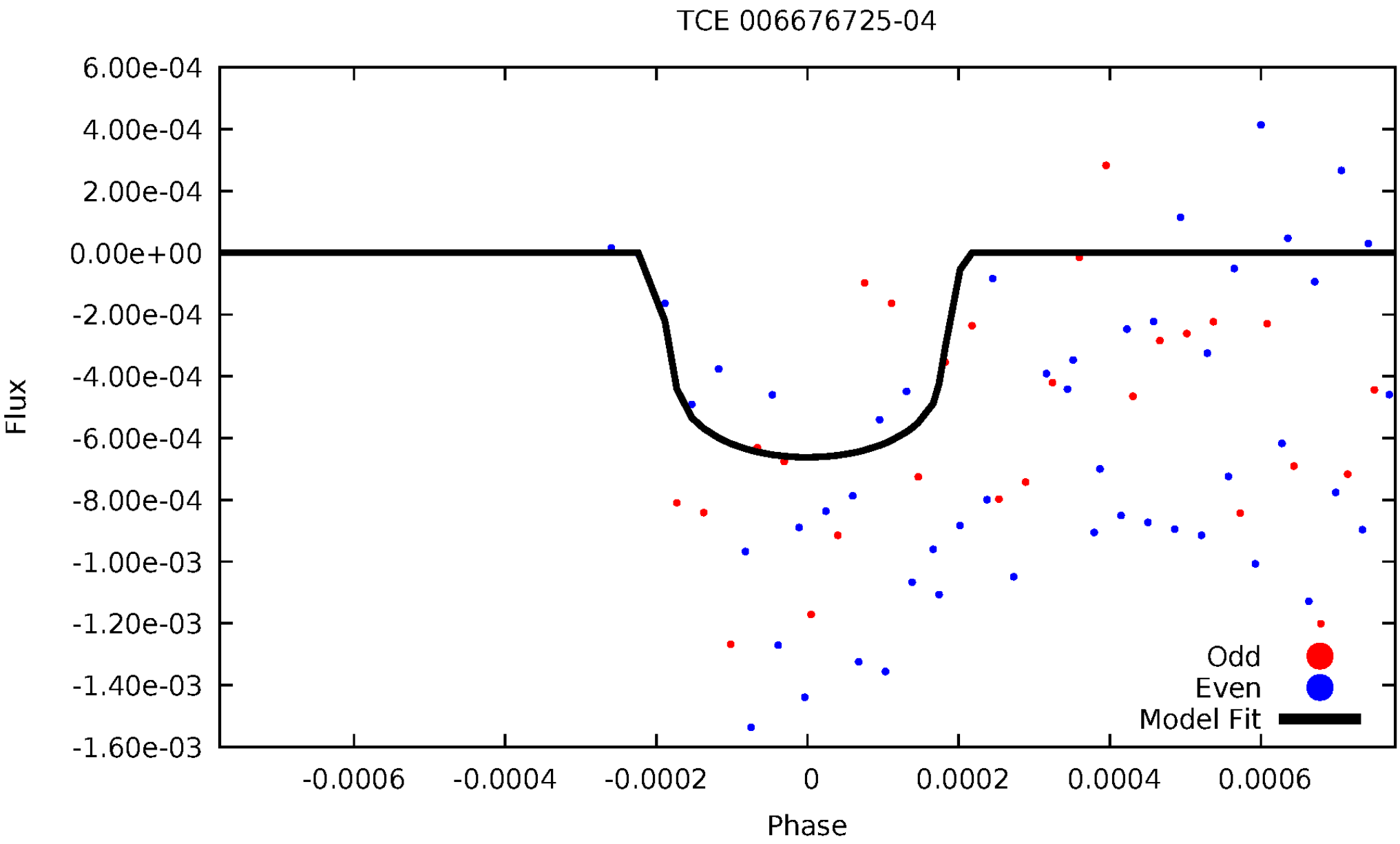
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006676725-04, PDC Light Curves

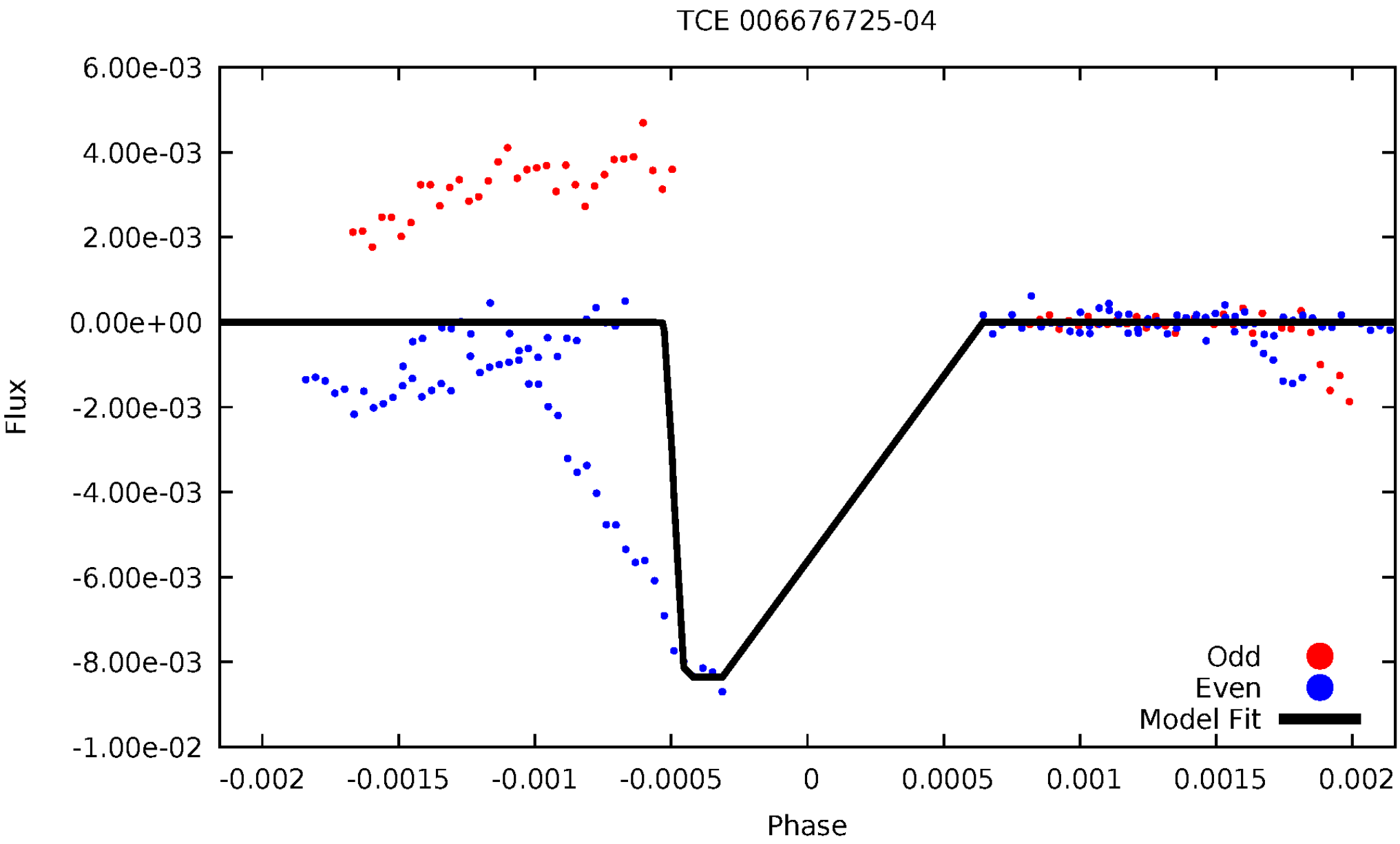



TCE 006676725-04
P = 287.872 days
P = 575.745 days
P = 1151.489 days
Normalized Flux
BKJD
Phase

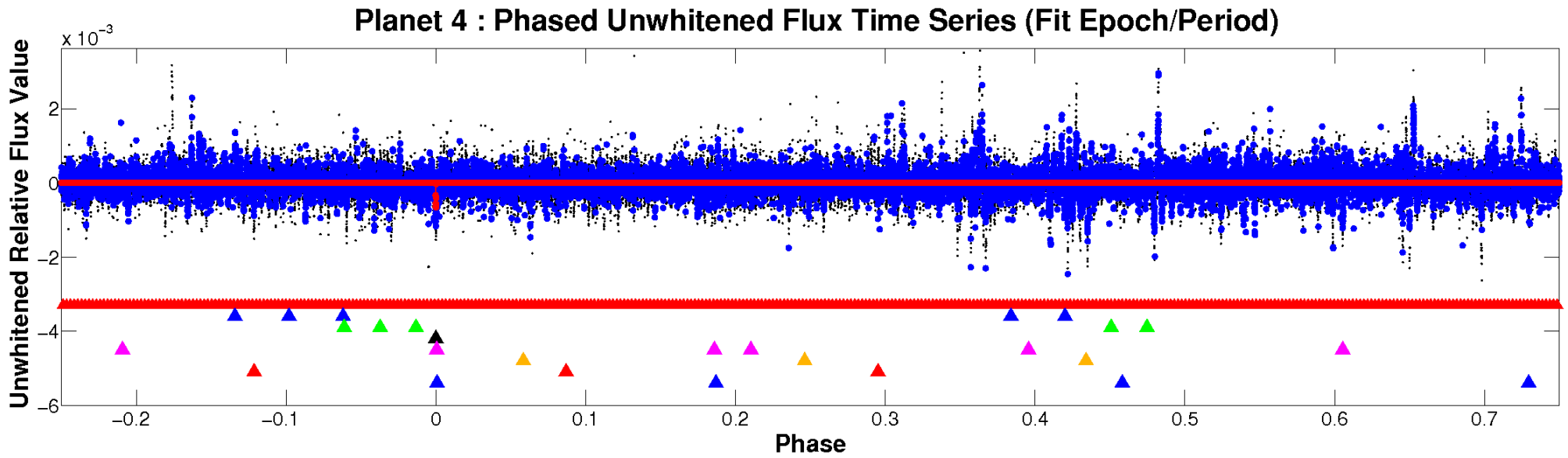
DV Odd/Even

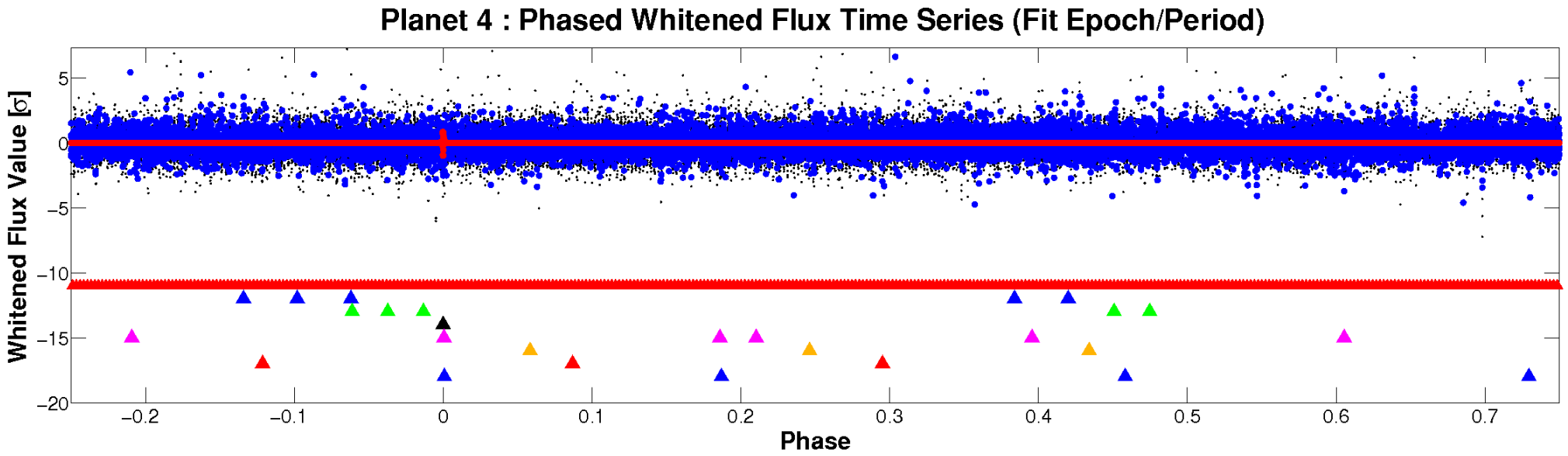

TCE 006676725-04
6.00e-04
4.00e-04
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
-1.00e-03
-1.20e-03
-1.40e-03
-1.60e-03
Flux
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006676725-04
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
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit

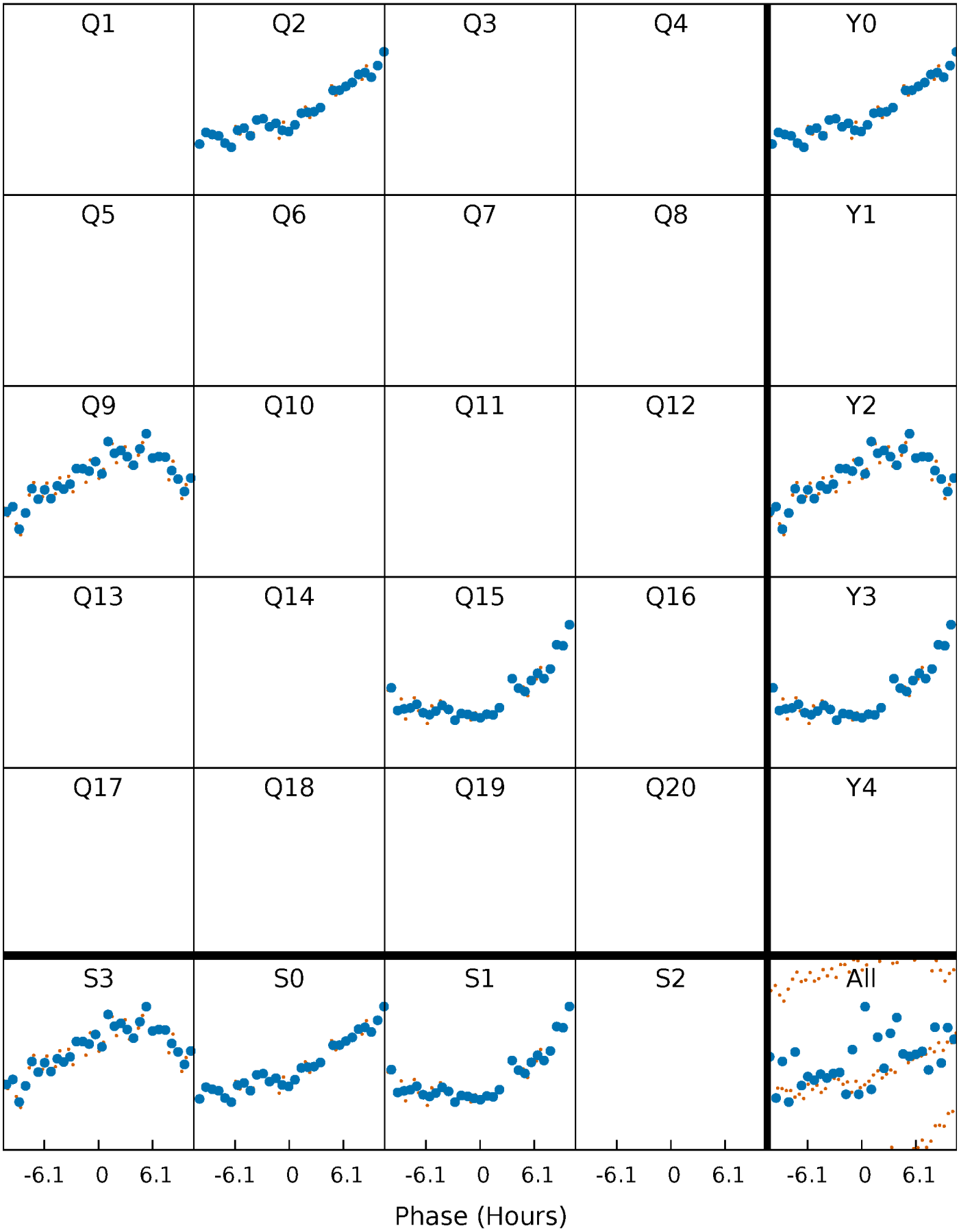
Non-Whitened Vs. Whitened Light Curve





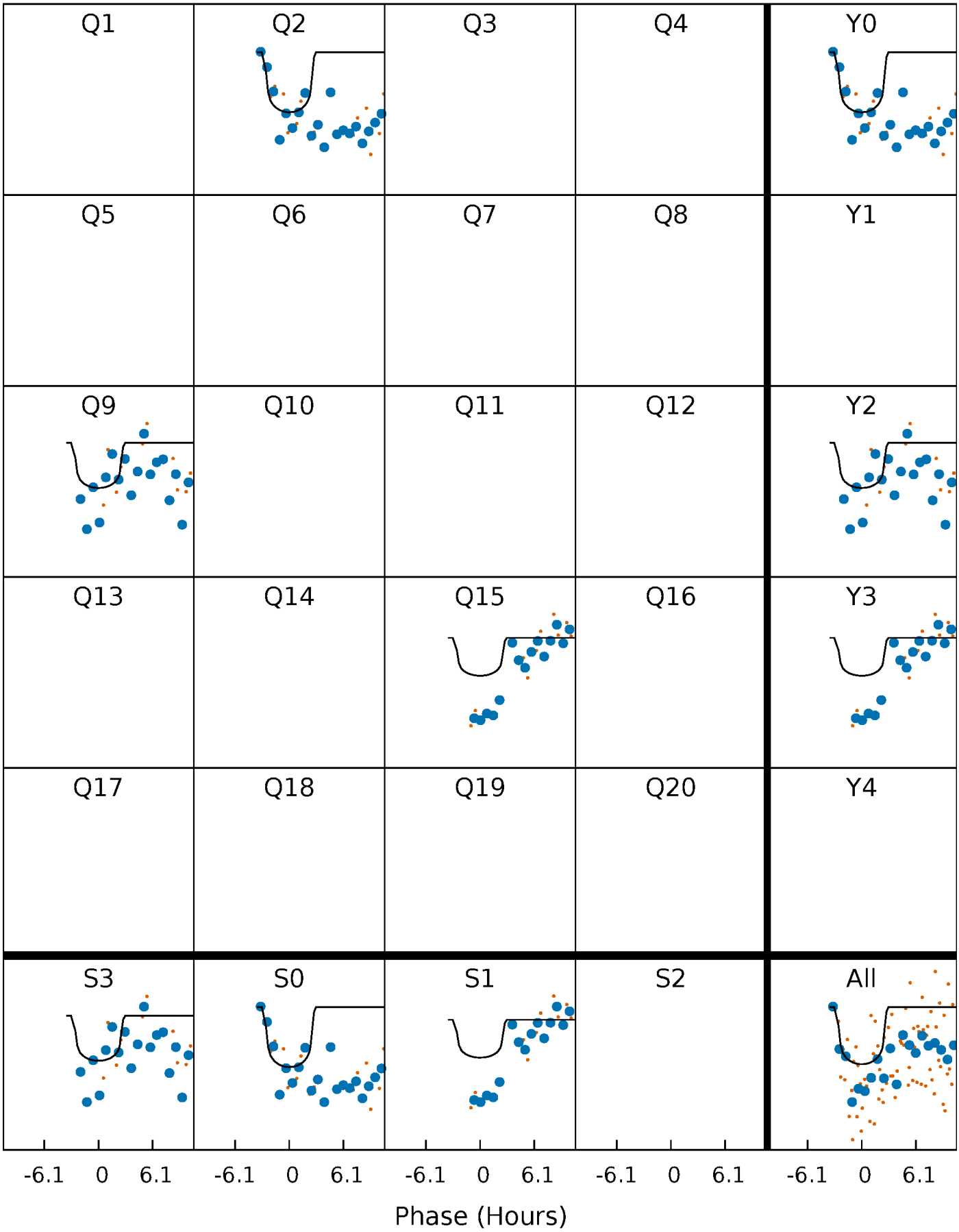
PDC Quarter-Phased Transit Curves

TCE 006676725-04 P=575.744539 Days T_0=235.588714 (BKJD)



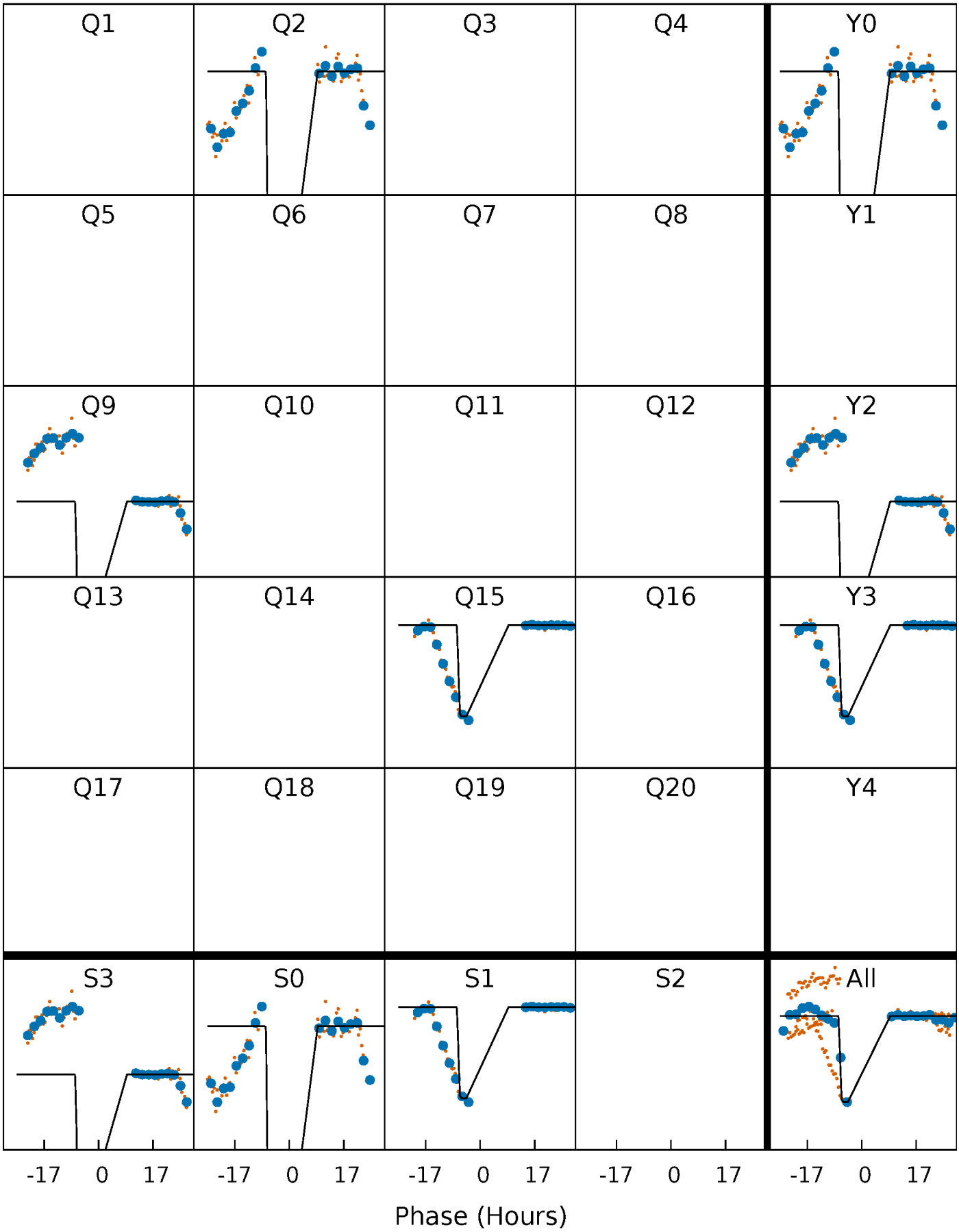
DV Quarter-Phased Transit Curves

TCE 006676725-04 P=575.744539 Days T_0=235.588714 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

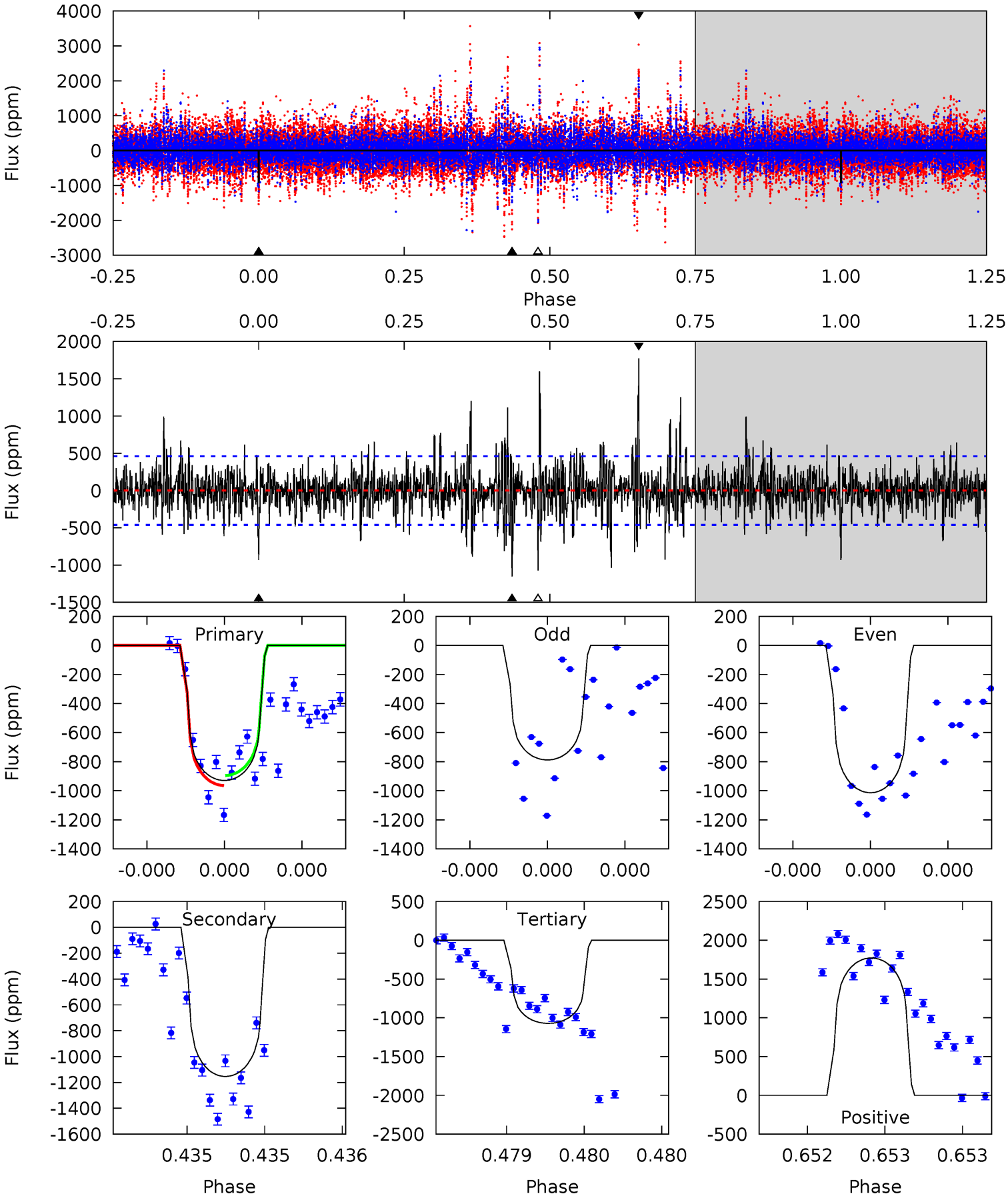
TCE 006676725-04 P=575.695119 Days T_0=236.498734 (BKJD)



DV Model-Shift Uniqueness Test

006676725-04, P = 575.744539 Days, E = 235.588714 Days

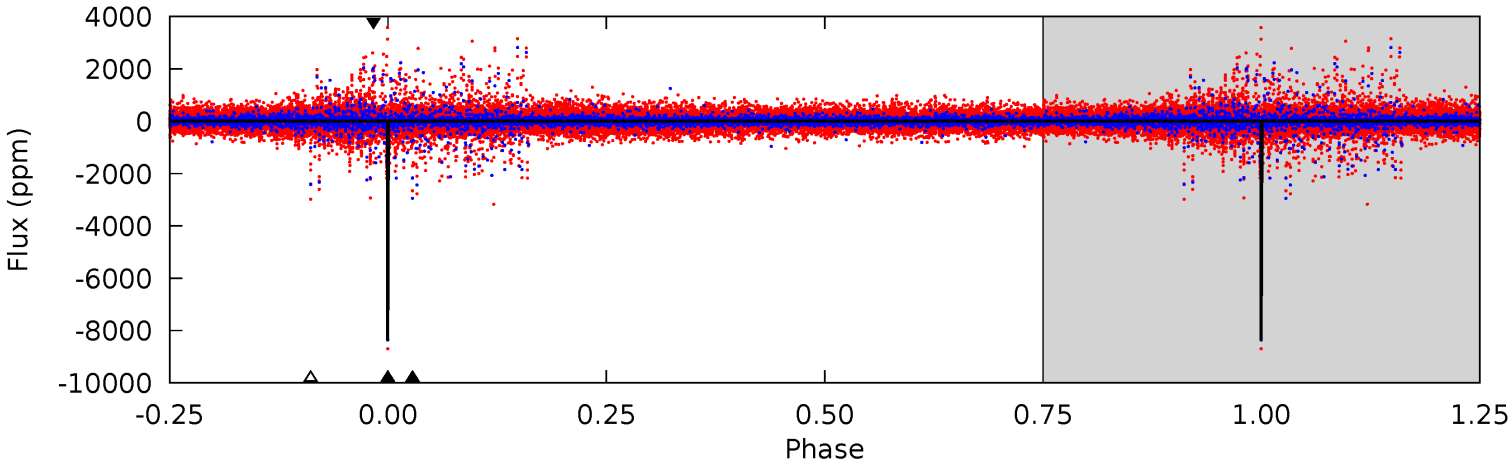
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	14.1	13.1	21.6	5.62	3.55	2.83	-1.74	-10.3	1.00	-7.54	1.34	1.25	0.61	0.42

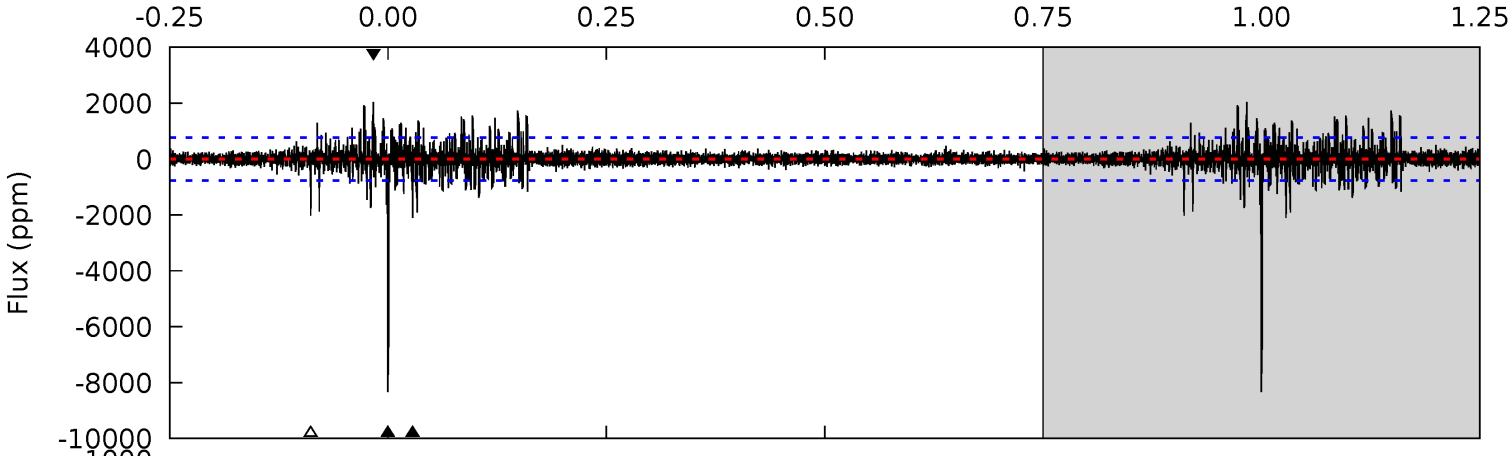


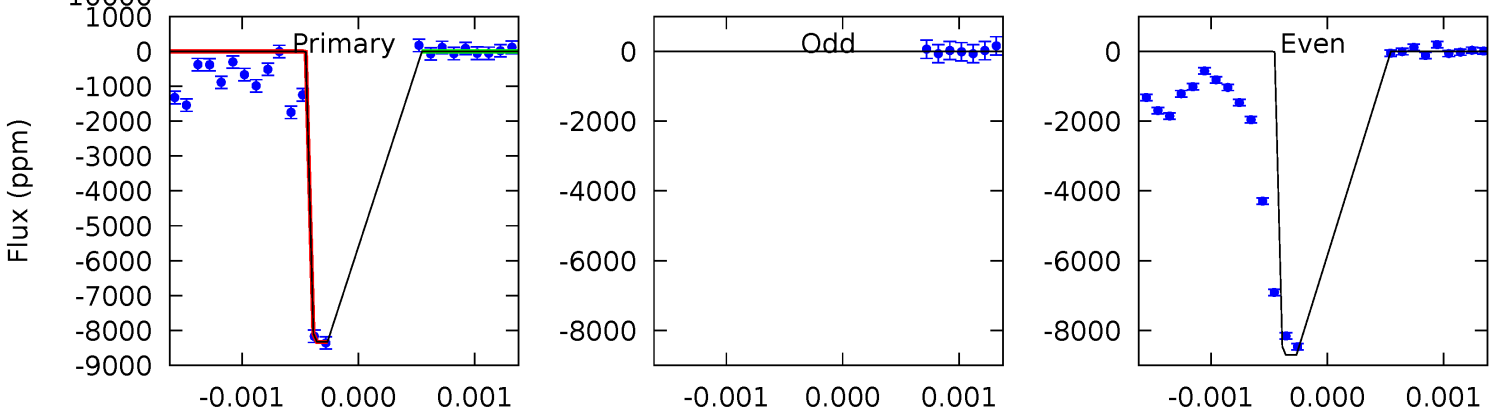
Alt Model-Shift Uniqueness Test

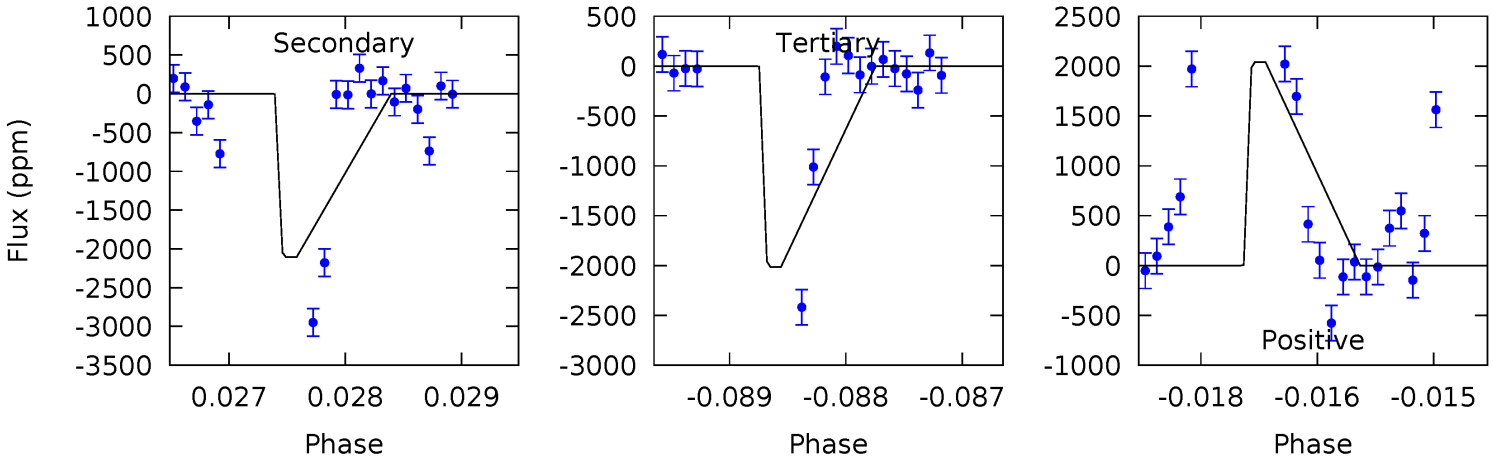
006676725-04, P = 575.695119 Days, E = 236.498734 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.7	14.8	14.2	14.4	5.42	3.24	1.22	44.5	44.3	0.65	0.47	0	0	0.20	0









Stellar Parameters For KIC 006676725

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6197^{+172}_{-216}	$4.449^{+0.050}_{-0.200}$	$-0.080^{+0.250}_{-0.300}$	$1.035^{+0.309}_{-0.111}$	$1.096^{+0.141}_{-0.141}$	$1.394^{+0.390}_{-0.735}$
	+3%/-3%	+1%/-4%	+312%/-375%	+30%/-11%	+13%/-13%	+28%/-53%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006676725-04 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1154±82	$8.92^{+8.34}_{-6.27}$	337^{+23}_{-18}	4367^{+3279}_{-874}	$15243^{+153815}_{-11183}$
Alt.	-2107±142	$12.95^{+10.80}_{-8.08}$	336^{+24}_{-16}	4264^{+2218}_{-793}	13511^{+77996}_{-9573}

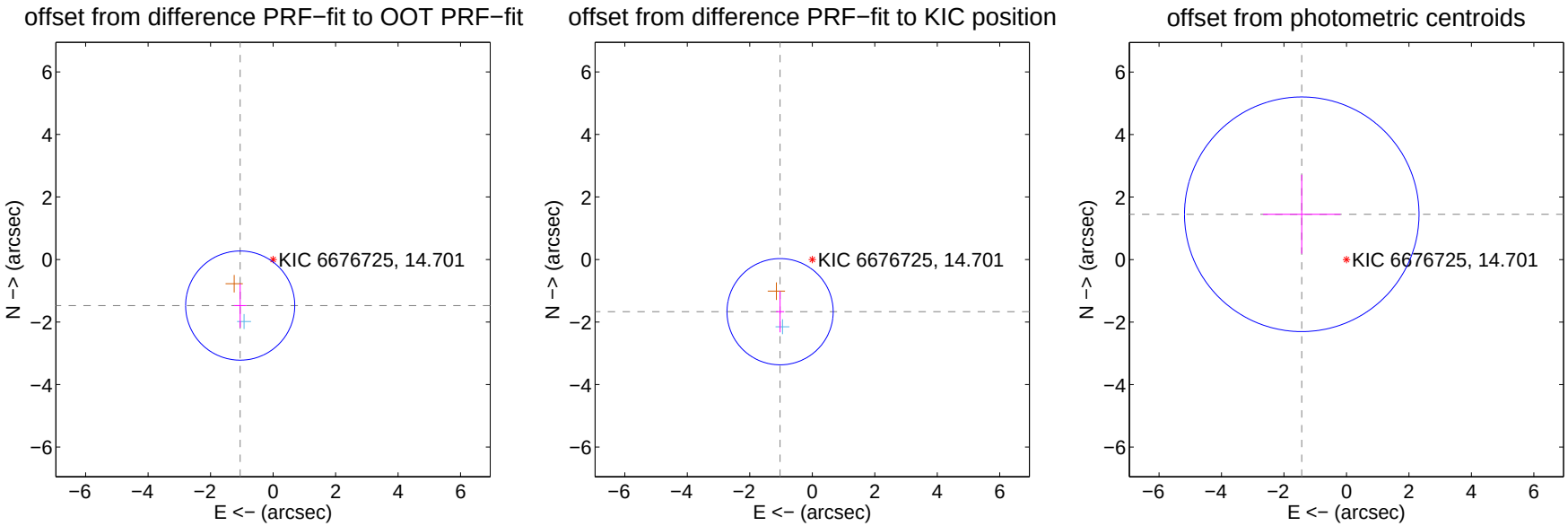
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

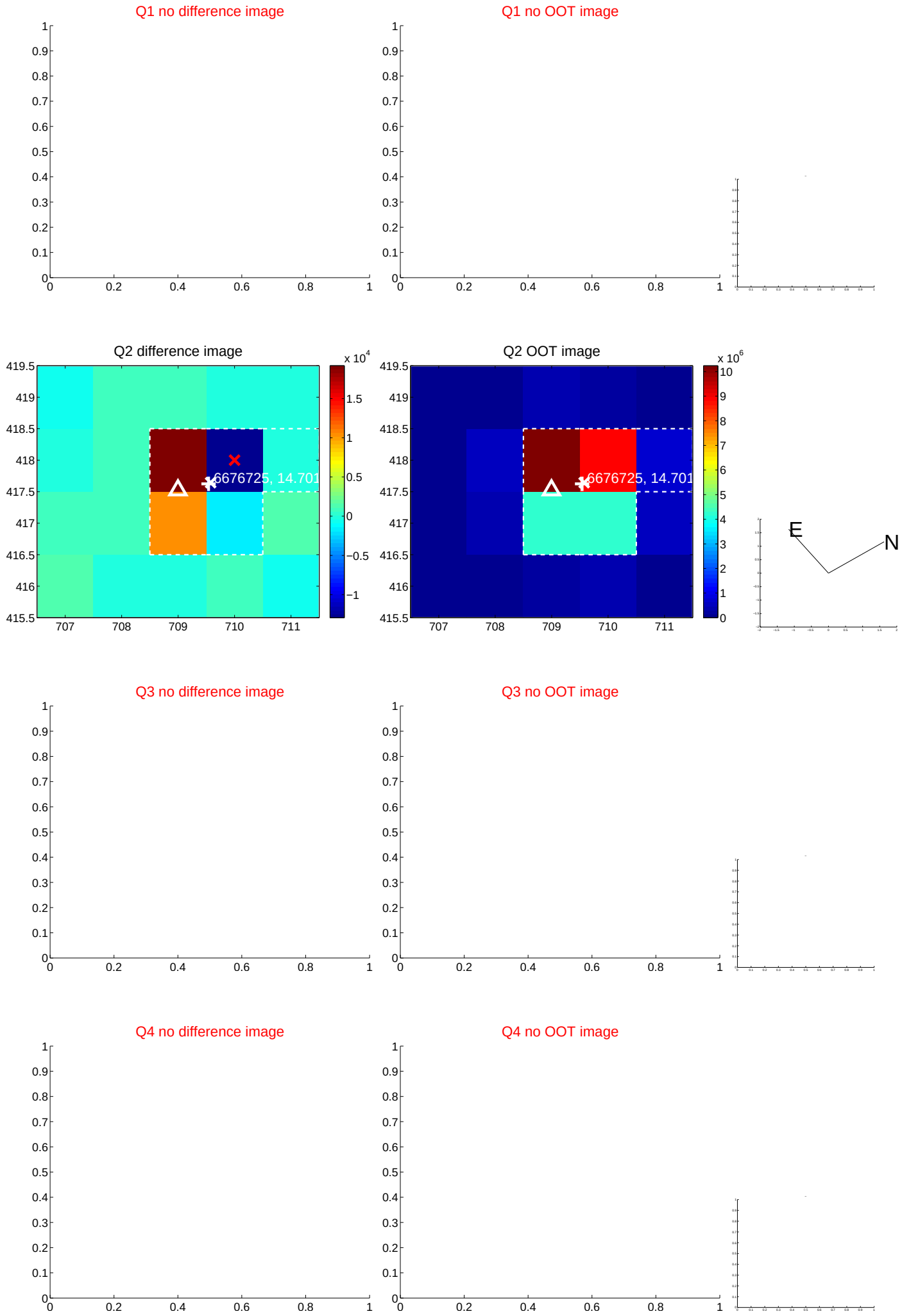
Supplemental centroid analysis for 006676725-04. Kepler magnitude: 14.70. Transit SNR 5.33
There are 1 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.811 ± 0.582	3.11	1.053 ± 0.192	-1.474 ± 0.702
PRF-fit source offset from KIC position	1.962 ± 0.566	3.46	1.030 ± 0.130	-1.670 ± 0.660
photometric centroid source offset	2.04 ± 1.25	1.63	1.43 ± 1.24	1.45 ± 1.26

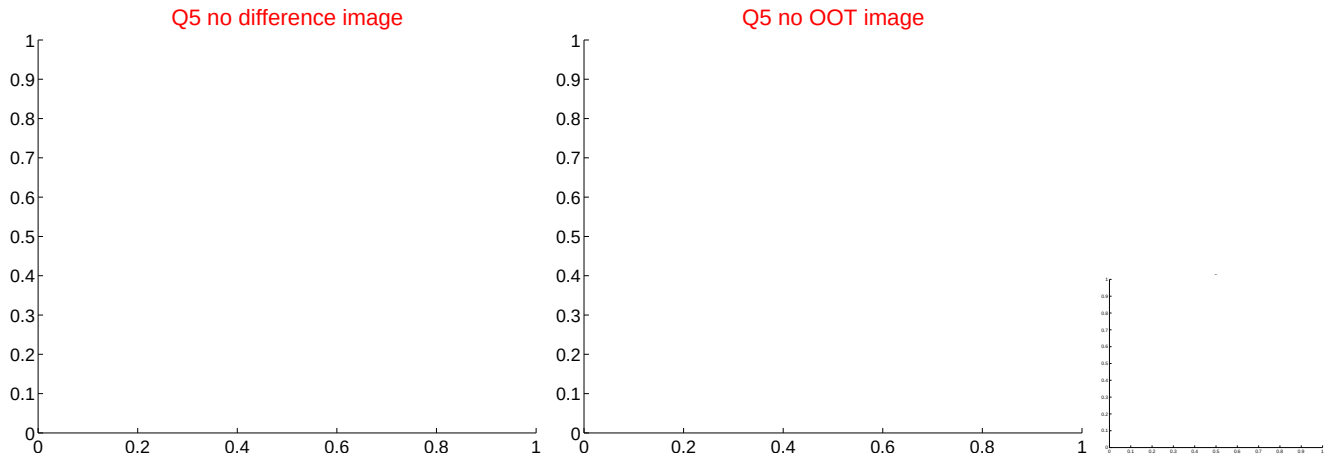


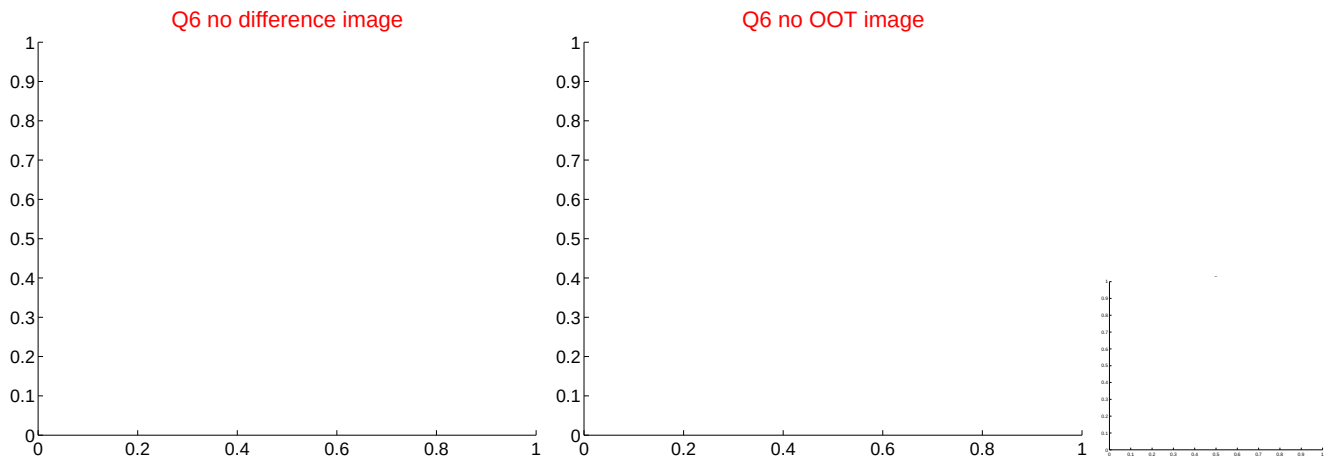
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

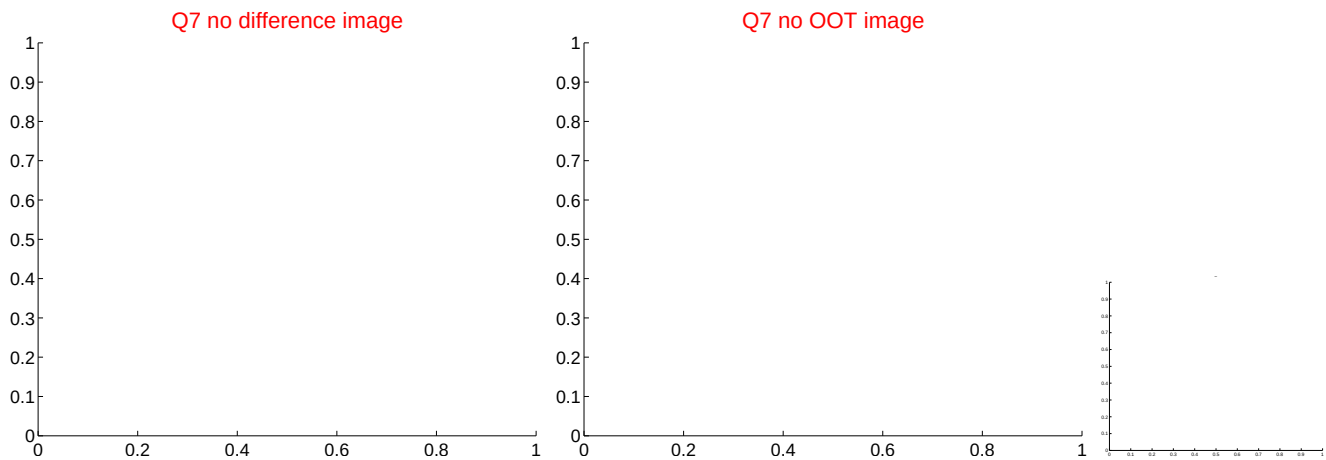
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

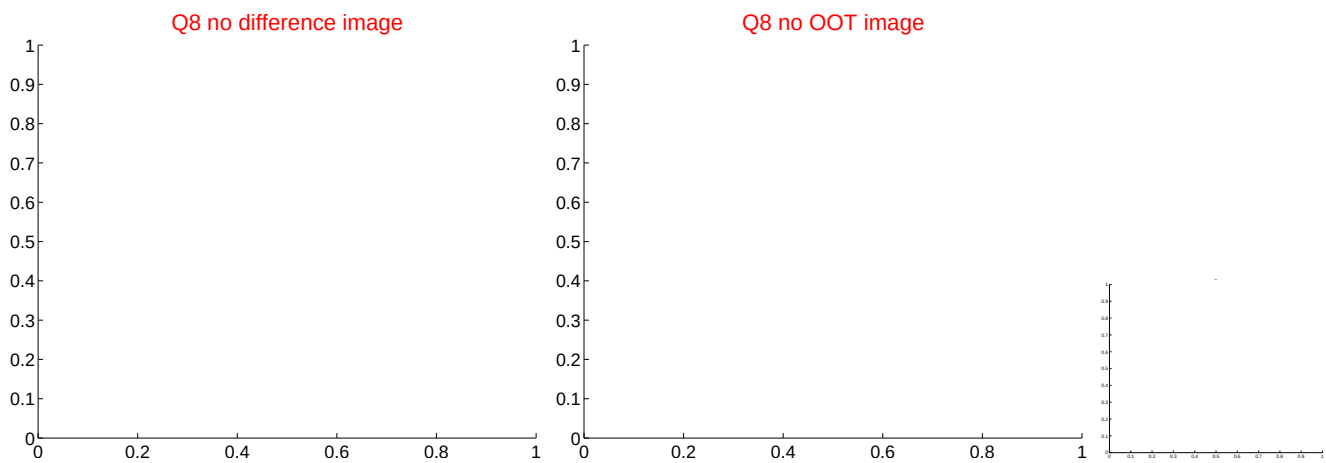


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

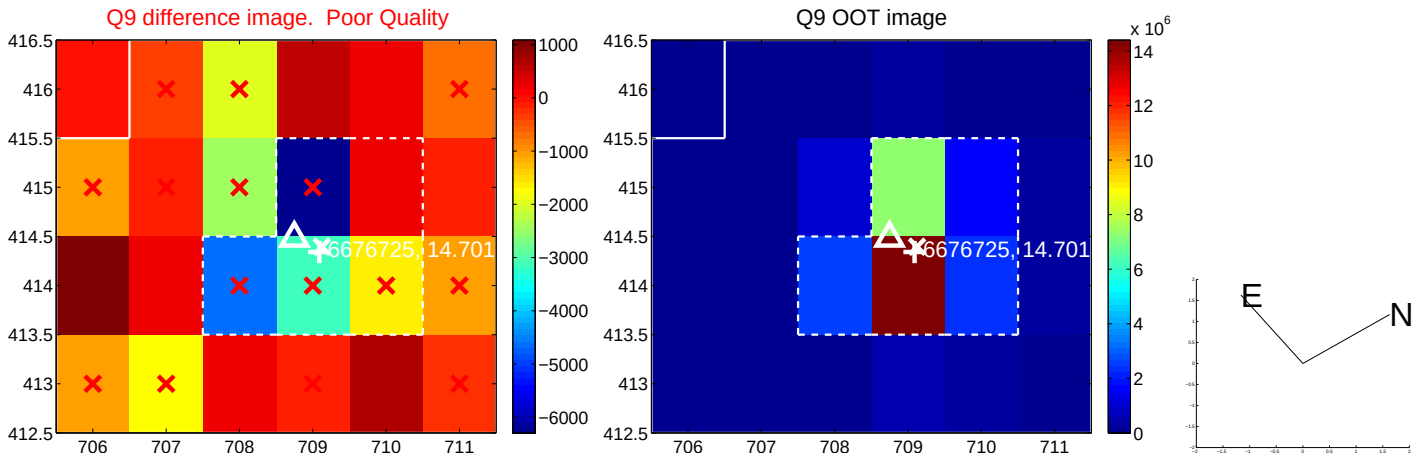


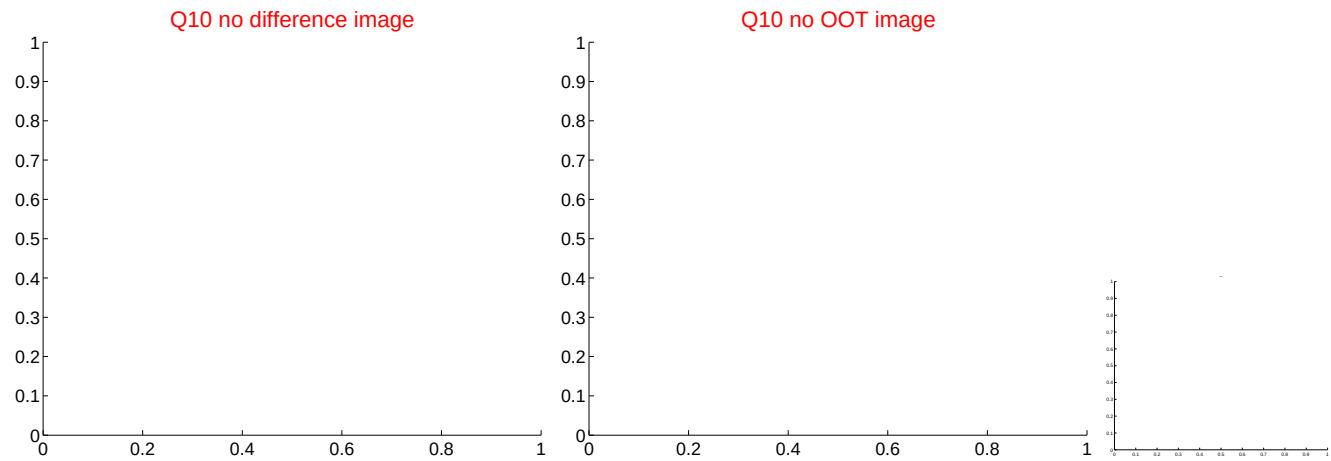


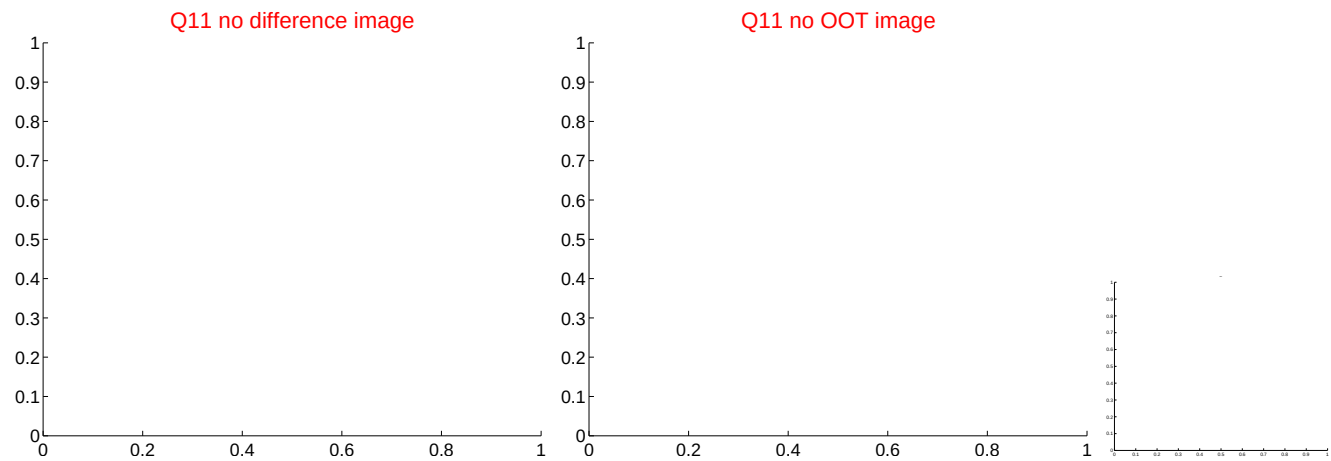


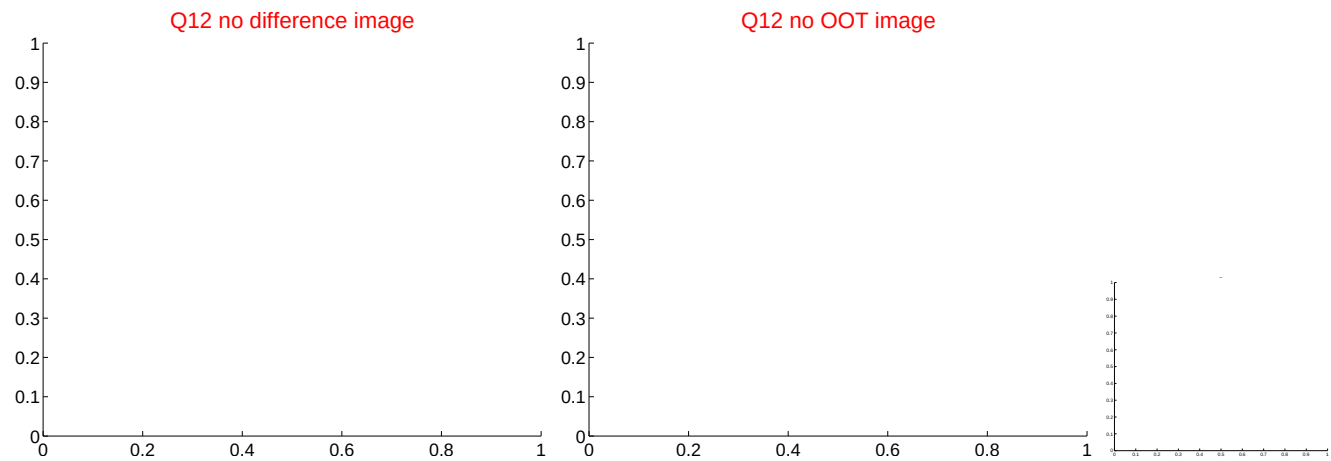


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

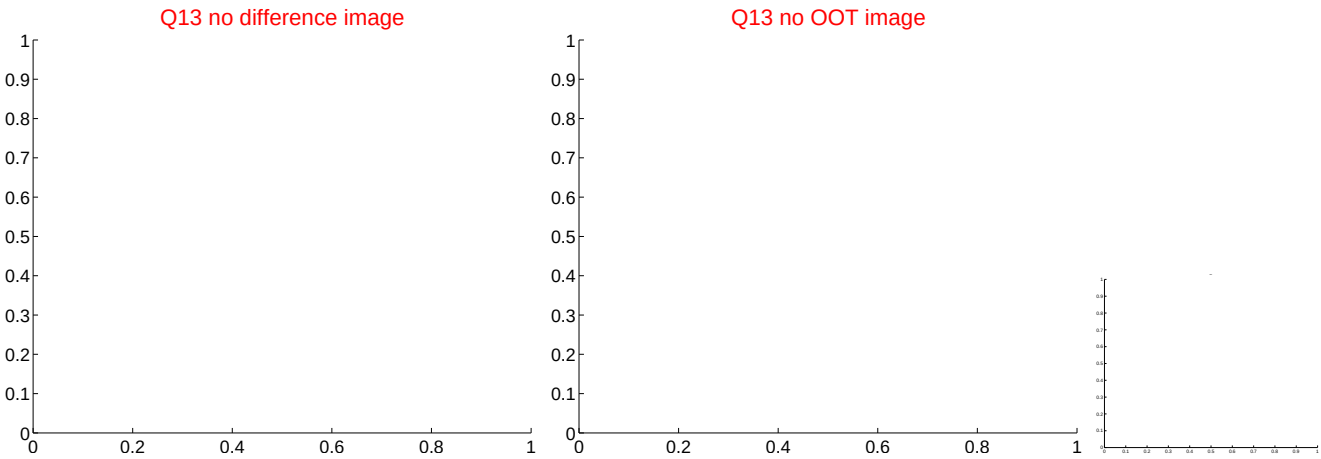


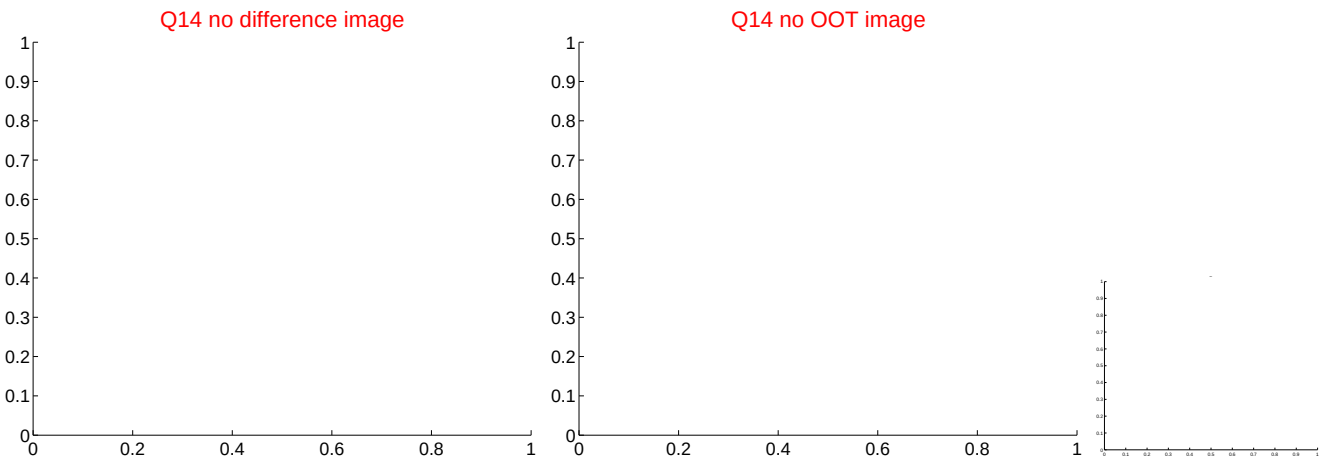


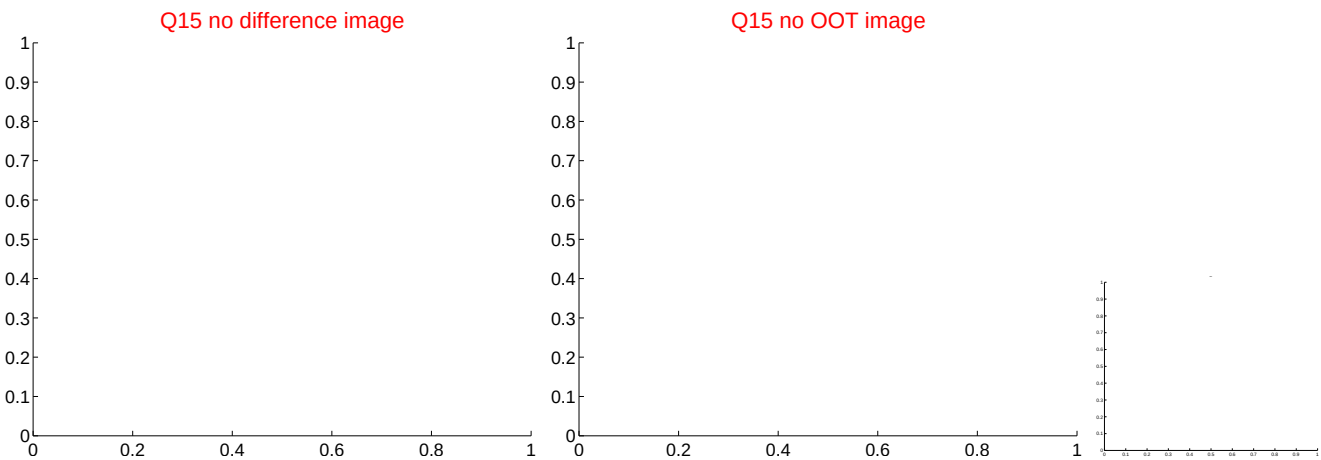


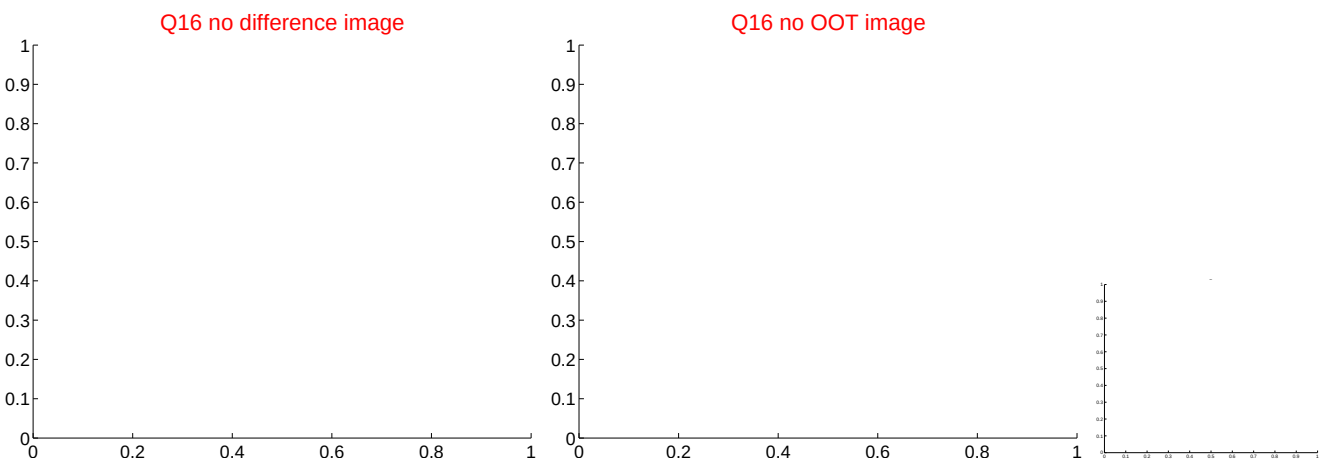


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

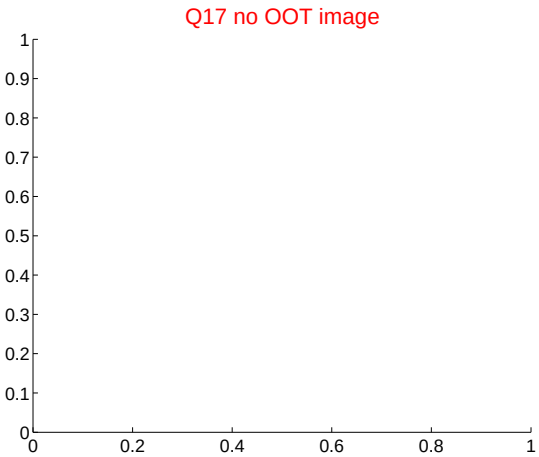


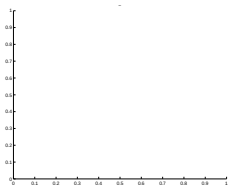


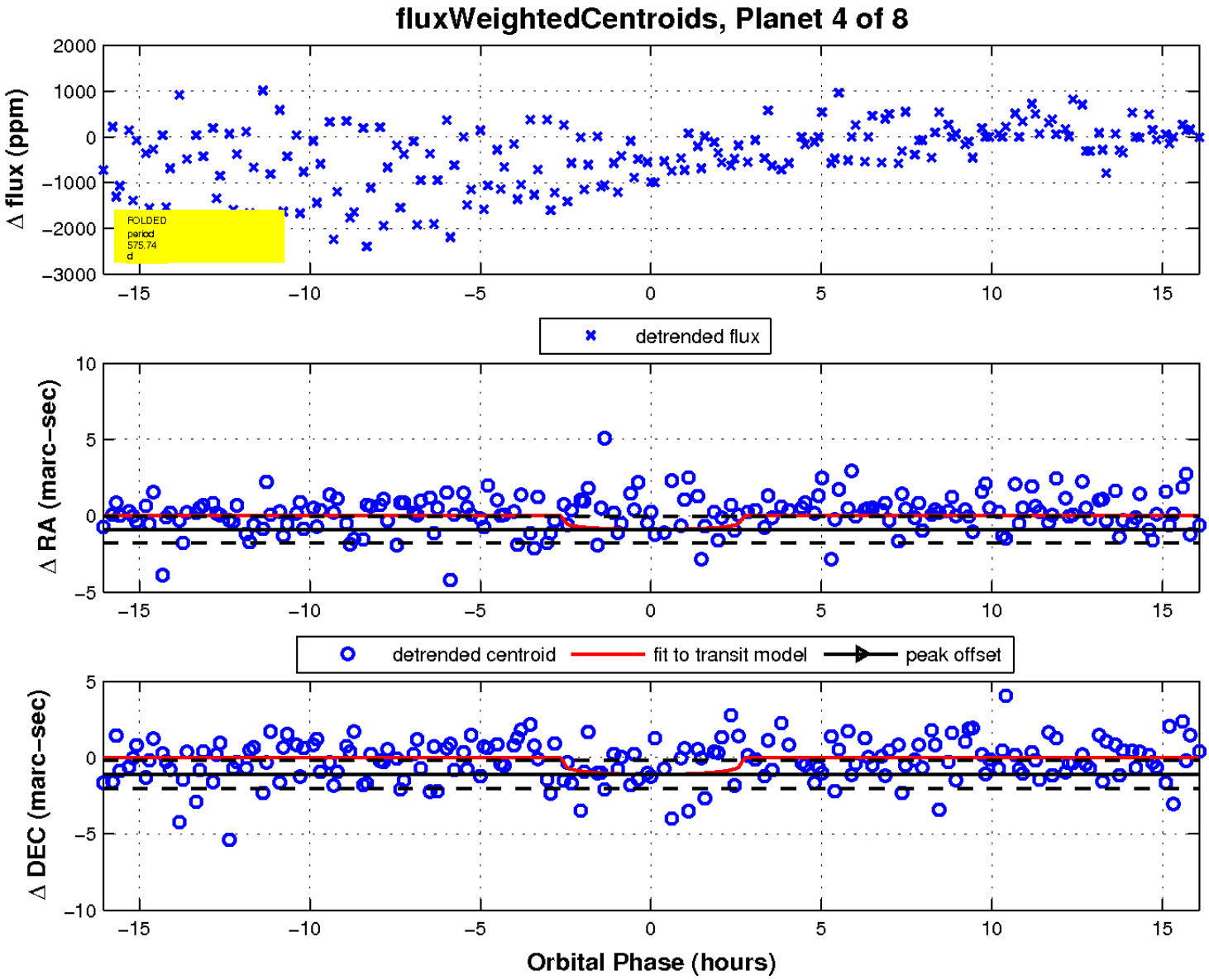




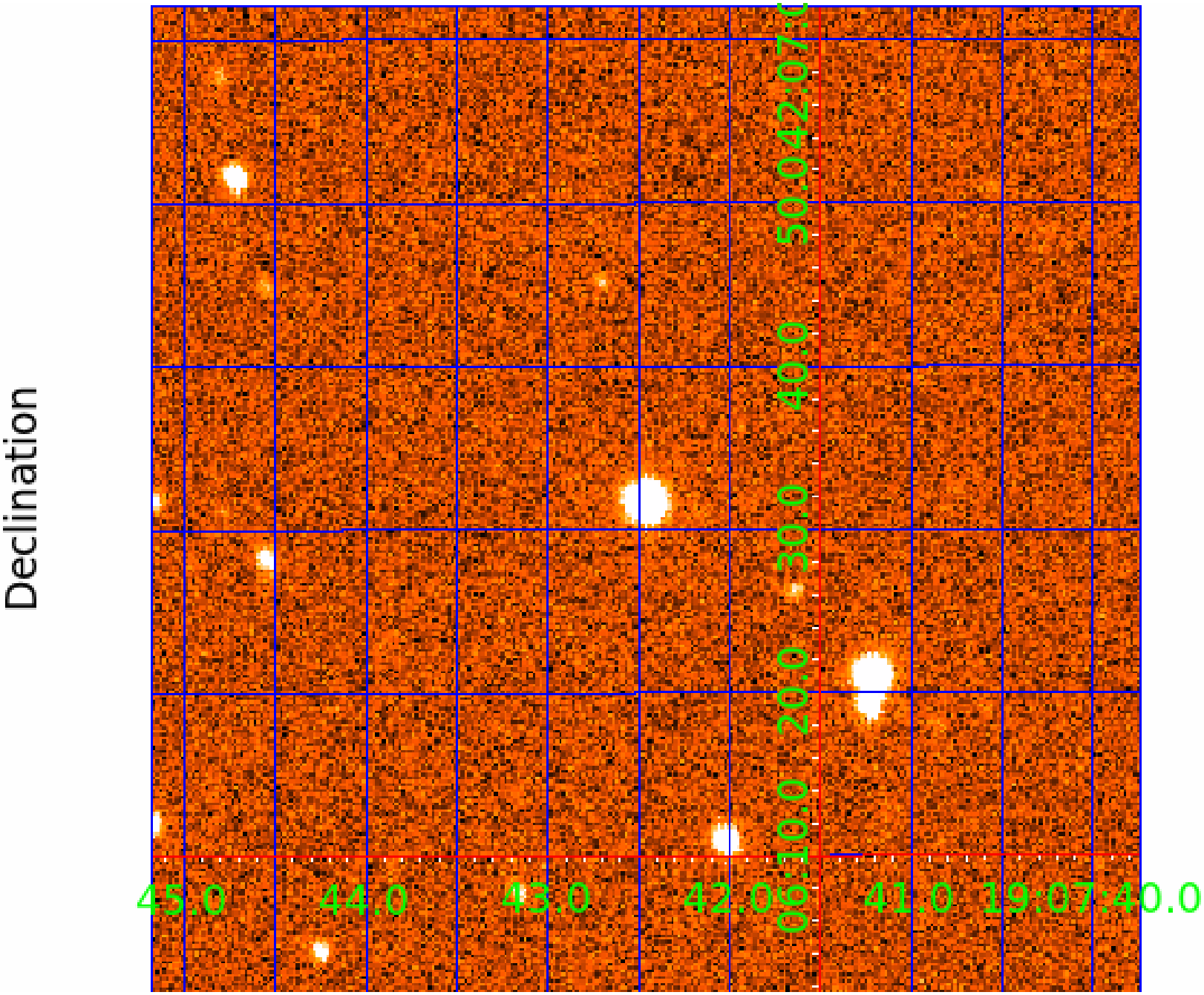
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image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KIC 006676725

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 ($S_\oplus$)
006676725-01	OBS	6755.01	1.428769	132.190421	63.9	5.715	10.8	11.3	1.03	6197	0.98	2155.91
006676725-02	OBS	No	298.264757	158.356835	583.5	5.419	12.3	5.0	1.03	6197	3.16	1.74
006676725-03	OBS	No	280.980528	227.946906	1856.2	6.210	15.5	11.1	1.03	6197	5.20	1.89
006676725-04	OBS	No	575.744539	235.588714	661.9	5.370	10.2	5.3	1.03	6197	2.67	0.72
006676725-05	OBS	No	227.491359	356.677682	602.6	7.145	9.5	4.4	1.03	6197	2.98	2.50
006676725-06	OBS	No	467.613116	485.478418	1964.0	36.211	8.6	4.1	1.03	6197	4.72	0.96
006676725-07	OBS	No	455.843842	405.549962	853.7	11.466	9.0	5.4	1.03	6197	3.21	0.99
006676725-08	OBS	No	419.555476	236.055898	605.4	7.500	9.0	-1.0	1.03	6197	2.55	1.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676725-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—CENT_UNRESOLVED_OFFSET—HALO_GHOST
006676725-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS
006676725-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006676725-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
006676725-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
006676725-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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.

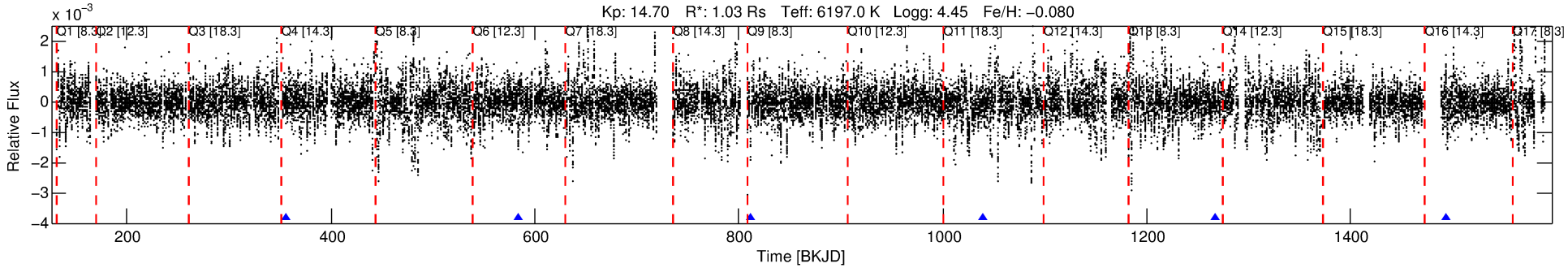
Ephemeris Match Information For 006676725-05

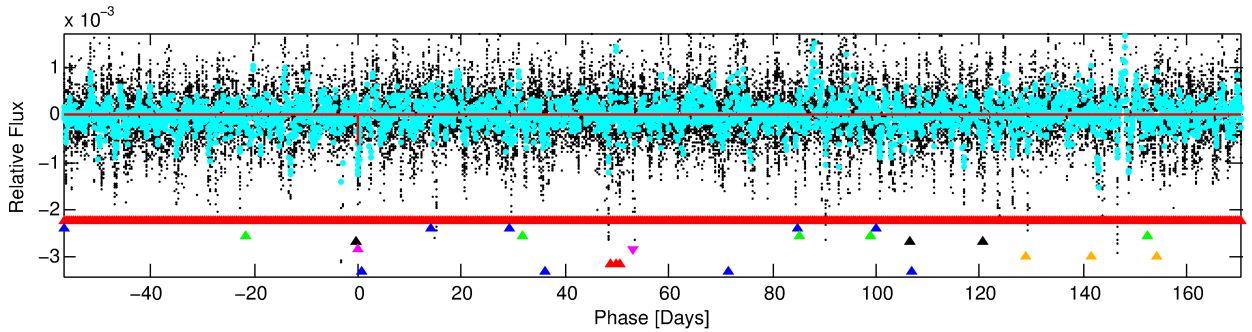
No Significant Match Found

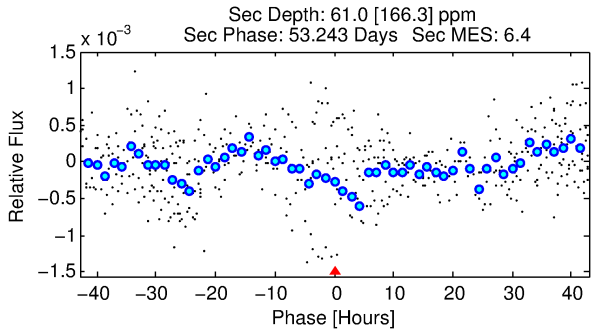
DV One-Page Summary

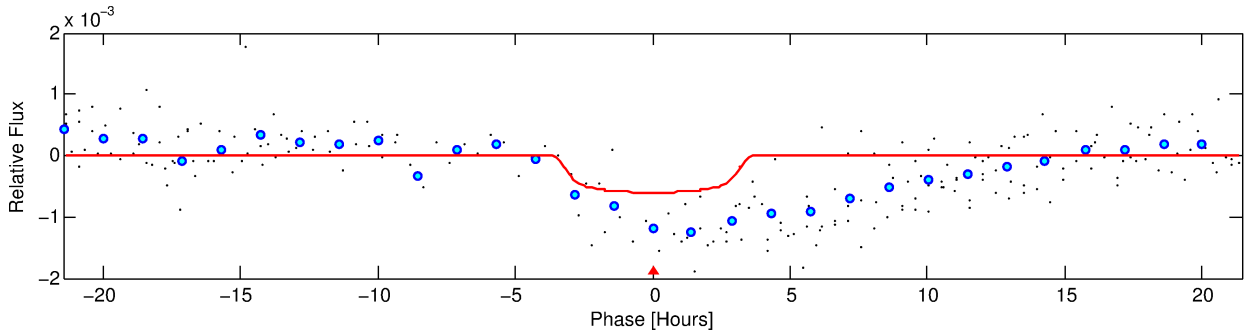
KIC: 6676725 Candidate: 5 of 8 Period: 227.491 d
KOI: K06755 Corr: No Ephemeris Match

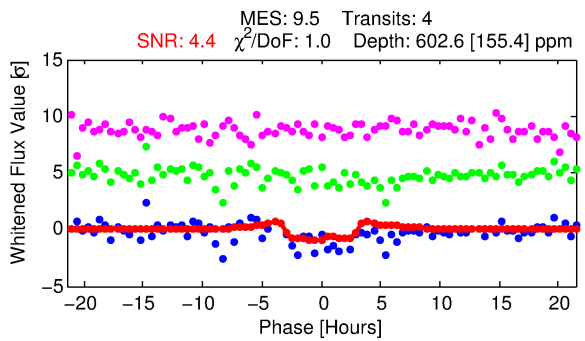
Kp: 14.70 R*: 1.03 Rs Teff: 6197.0 K Logg: 4.45 Fe/H: −0.080

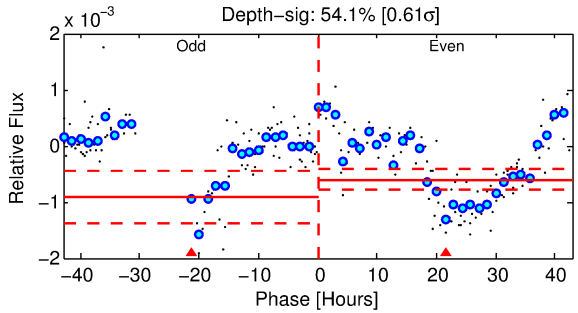


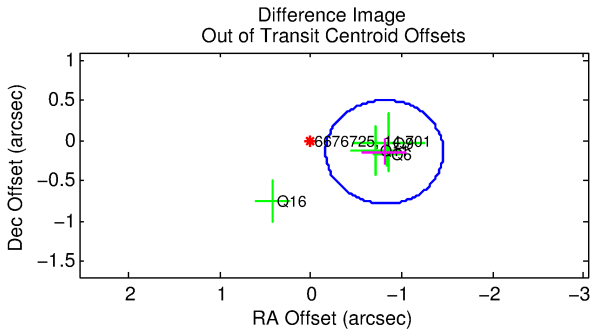












DV Fit Results:

Period = 227.49136 [0.00664] d
Epoch = 356.6777 [0.0205] BKJD
Rp/R* = 0.0264 [0.0057]
a/R* = 120.94 [94.92]
b = 0.90 [0.17]

Seff = 2.50 [0.98]
Teq = 321 [31] K
Rp = 2.98 [1.10] Re
a = 0.7527 [0.1892] AU

Ag = 2138.57 [5955.50] [0.36σ]
Teffp = 3371 [2329] K [1.31σ]

DV Diagnostic Results:

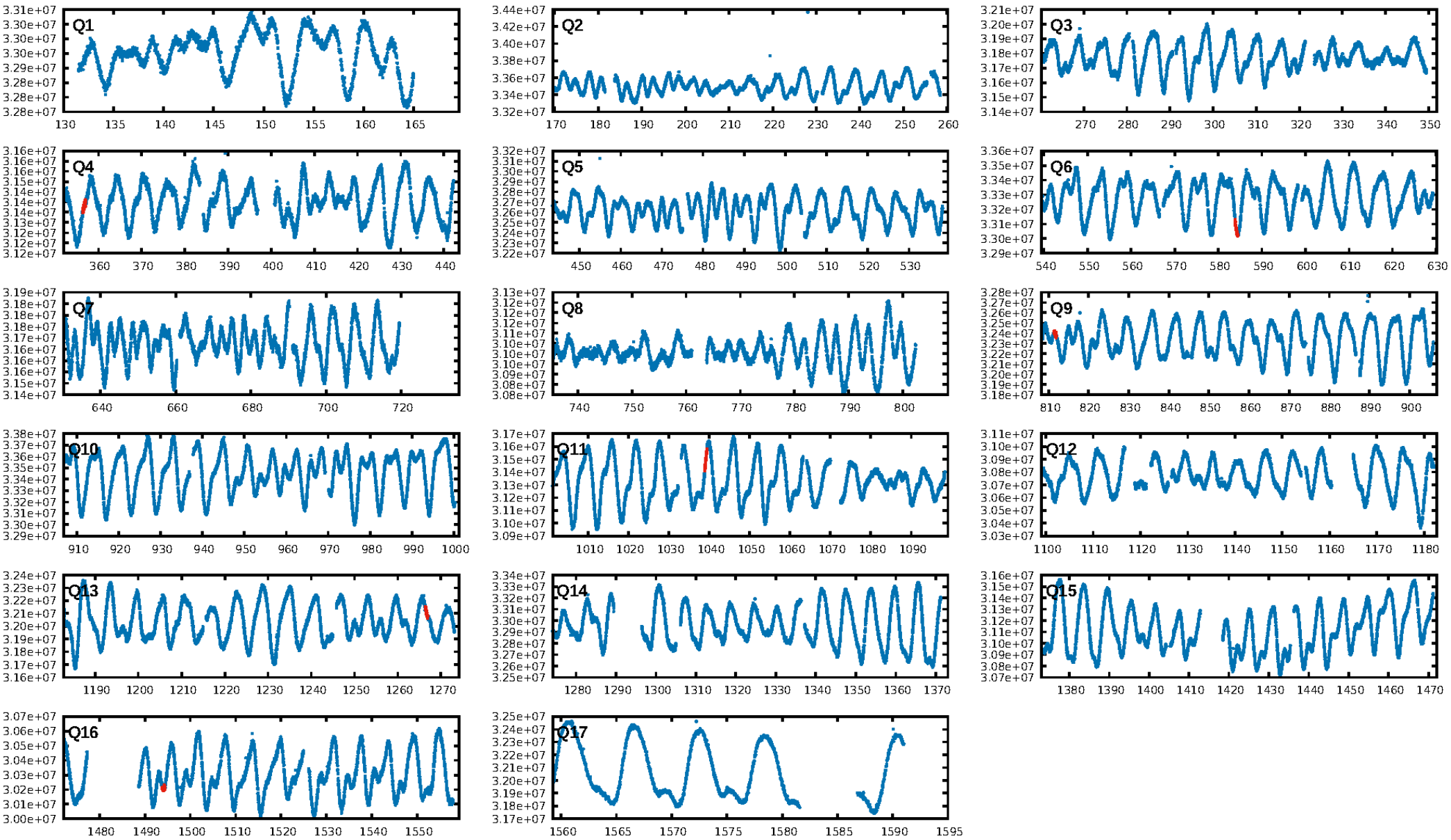
ShortPeriod−sig: 100.0% [592.97σ]
LongPeriod−sig: 100.0% [135.61σ]
ModelChiSquare2−sig: 56.1%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [4/4]
GhostDiagnostic−chr: 0.8131

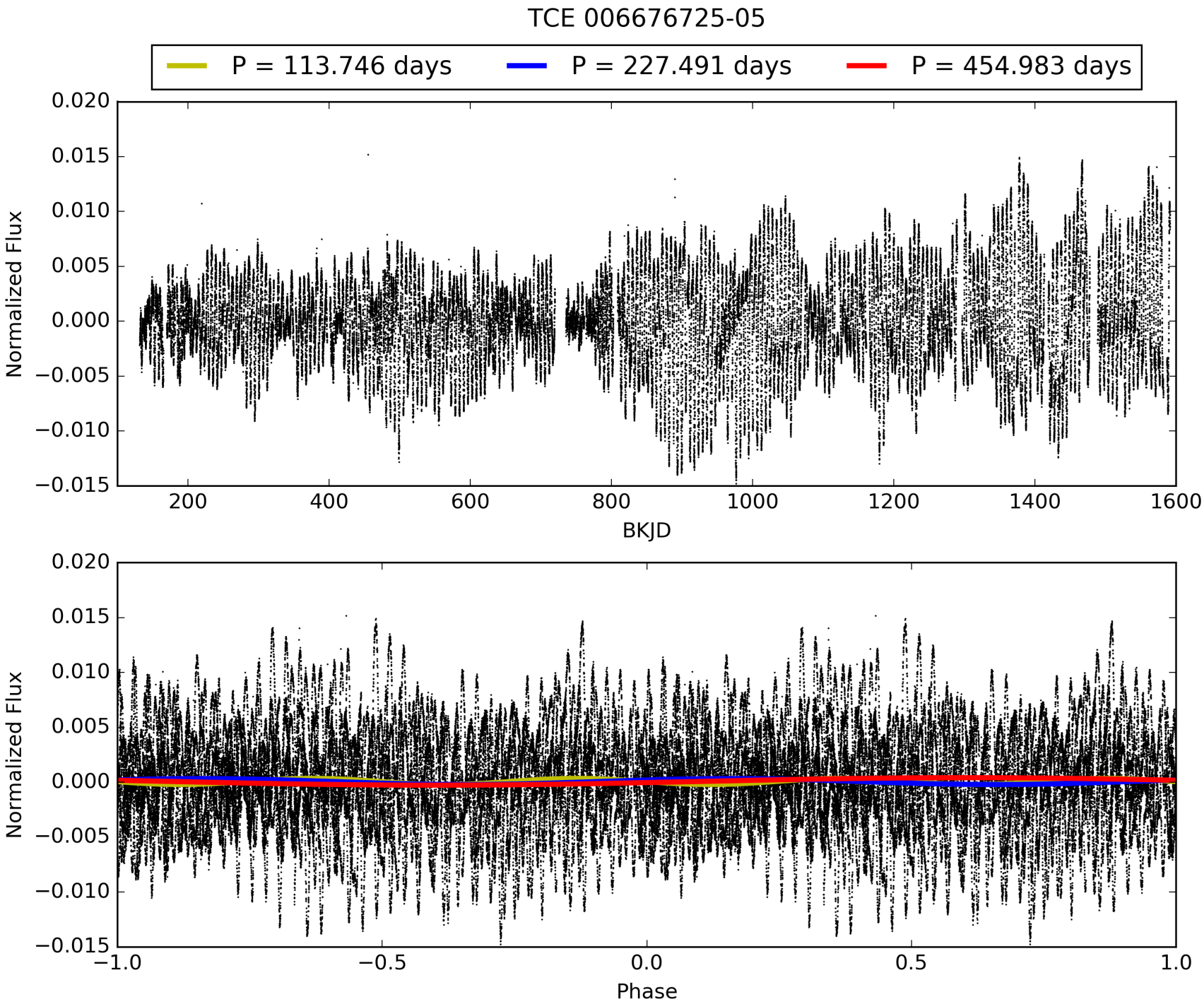
Centroid−sig: 11.6%
Centroid−so: 1.326 arcsec [1.41σ]
OotOffset−rm: 0.823 arcsec [3.82σ]
KicOffset−rm: 0.887 arcsec [4.21σ]
OotOffset−st: 1/1/1/1 [4]
KicOffset−st: 1/1/1/1 [4]
DiffImageQuality−fgm: 0.50 [2/4]
DiffImageOverlap−fno: 0.00 [0/6]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:17:59 Z

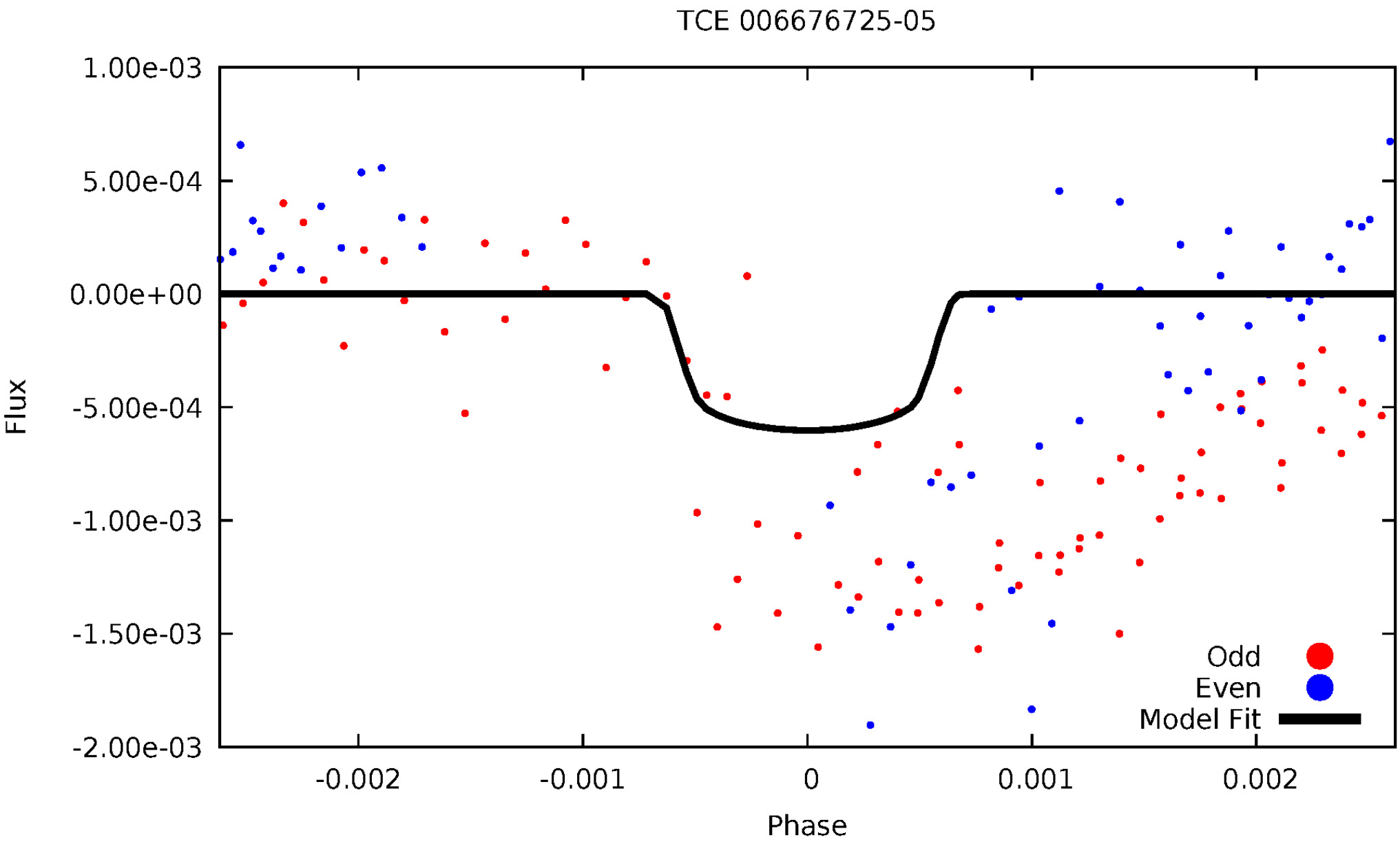
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006676725-05, PDC Light Curves




TCE 006676725-05
P = 113.746 days
P = 227.491 days
P = 454.983 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even


TCE 006676725-05
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-5.00e-04
-1.00e-03
-1.50e-03
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Flux
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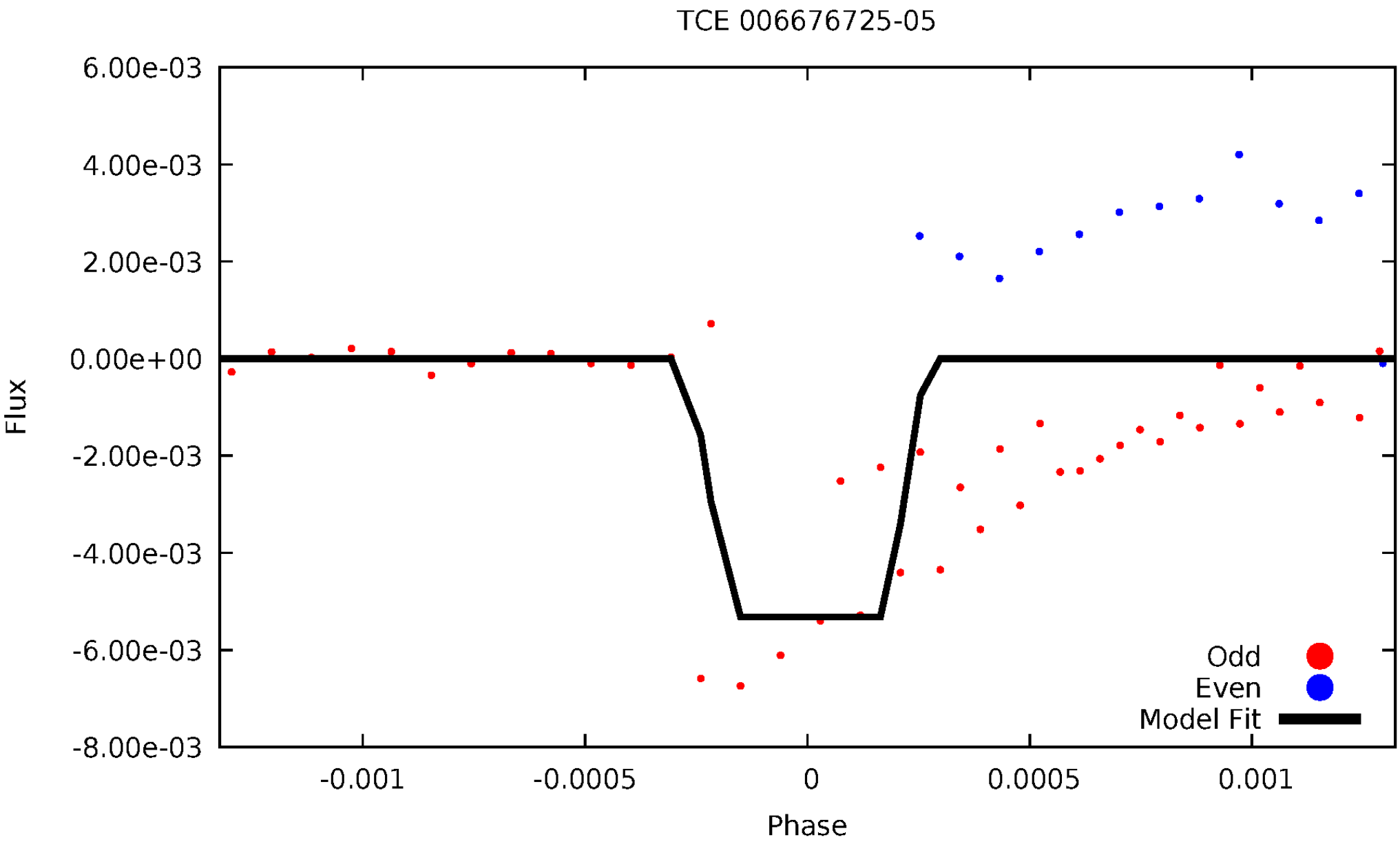
-0.001
0
0.001
0.002
Phase
Odd
Even
Model Fit

ALT Odd/Even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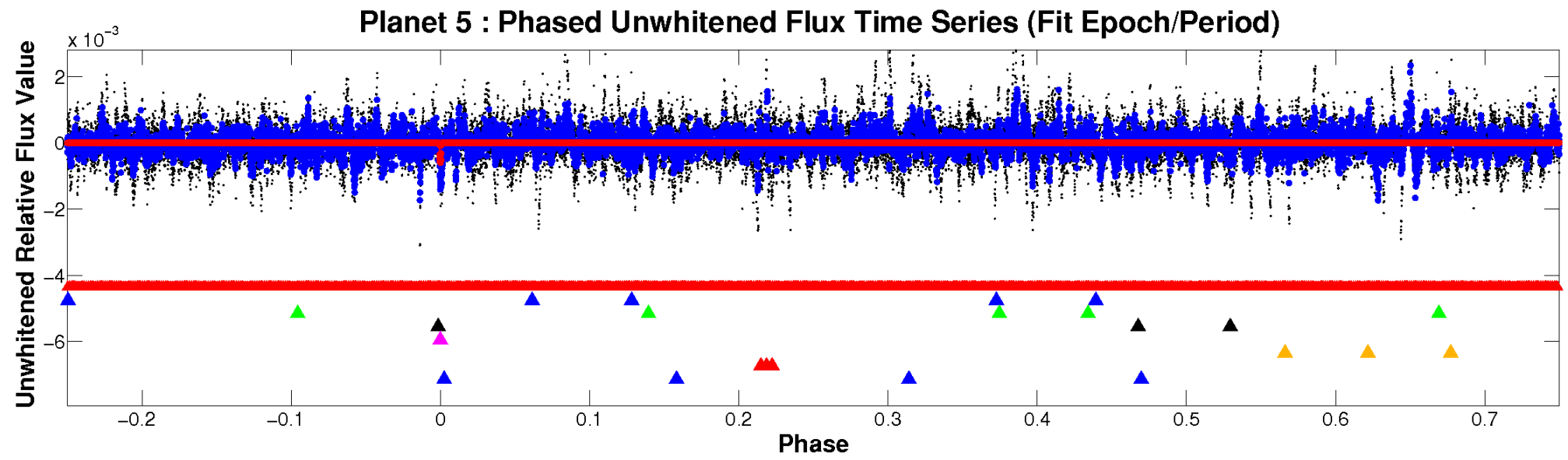
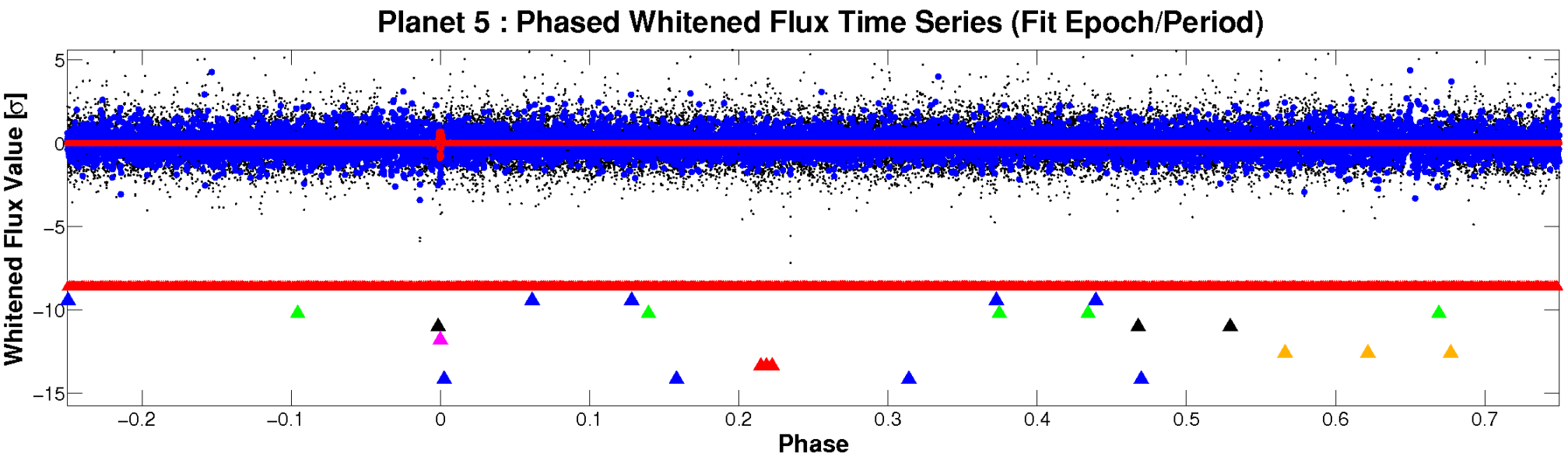
0.00e+00
-2.00e-03
-4.00e-03
-6.00e-03
-8.00e-03
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

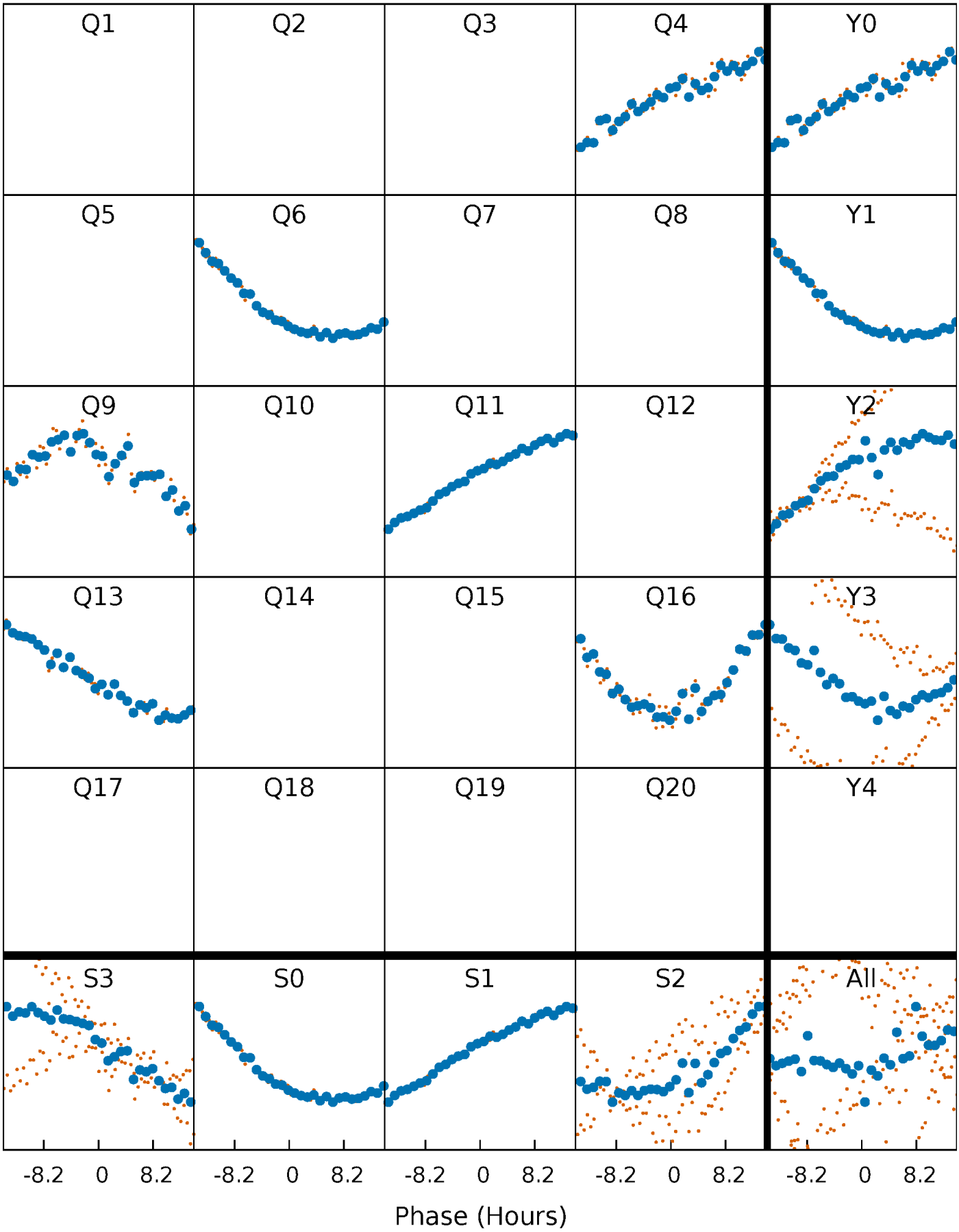
Non-Whitened Vs. Whitened Light Curve





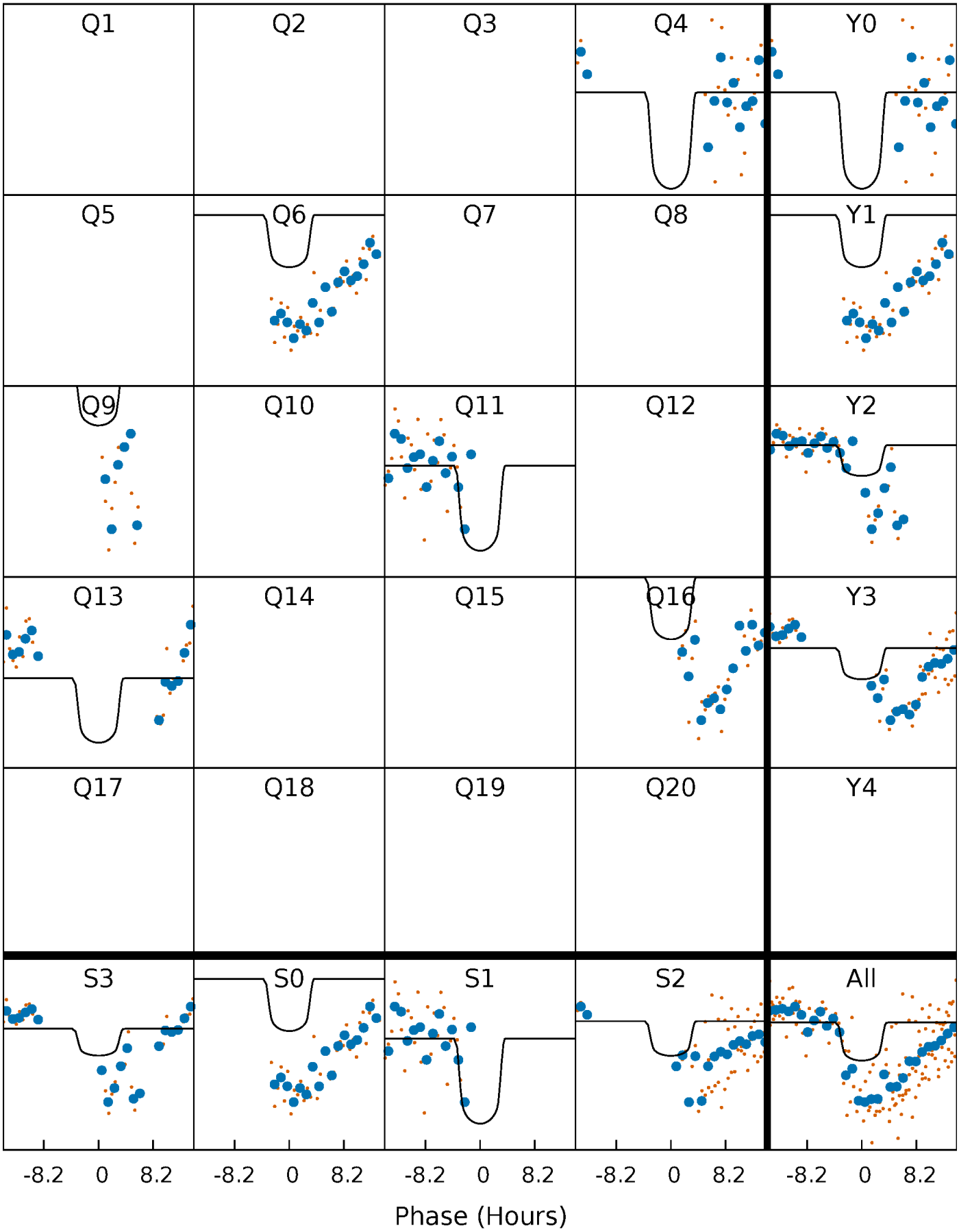
PDC Quarter-Phased Transit Curves

TCE 006676725-05 P=227.491359 Days T_0=356.677682 (BKJD)



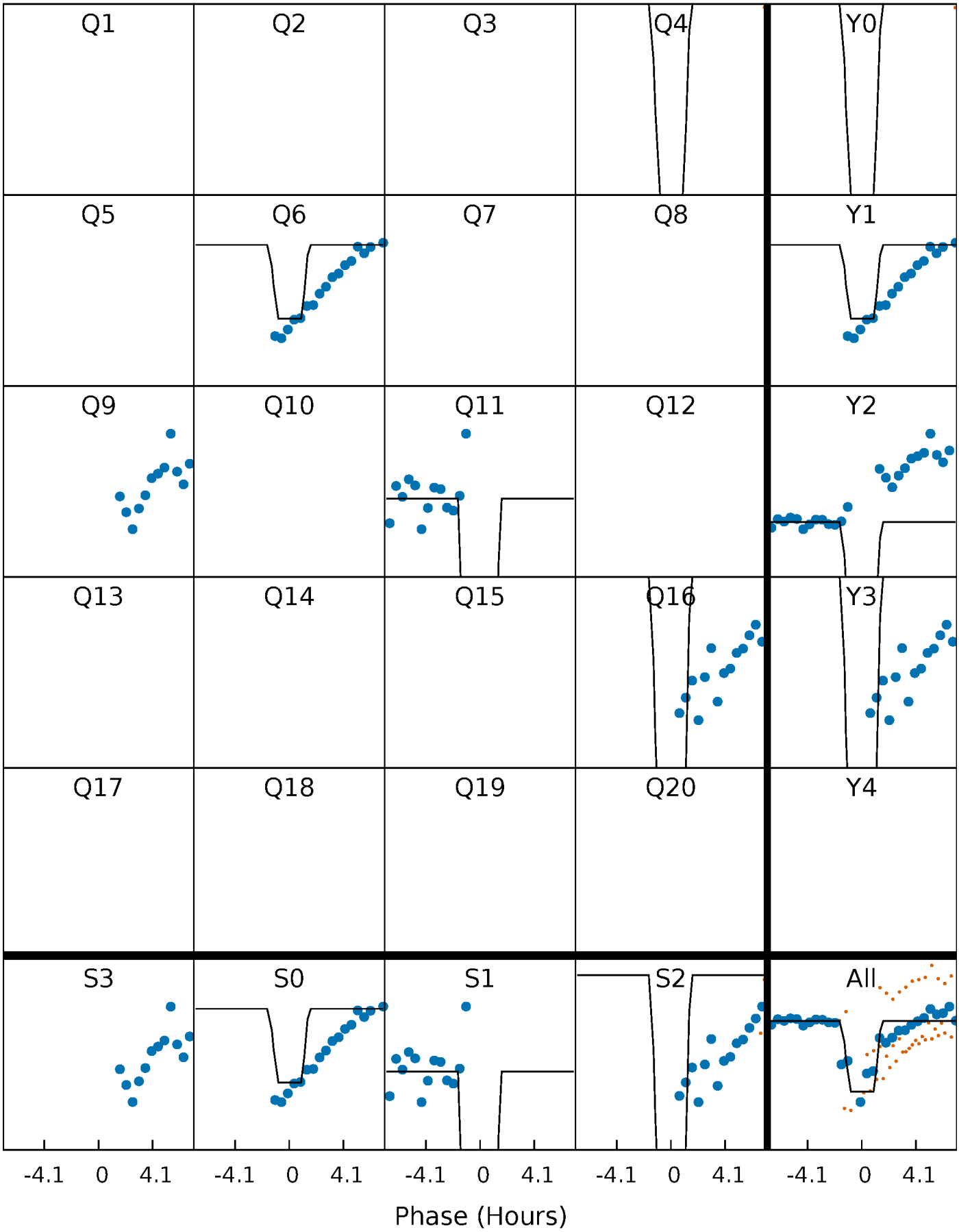
DV Quarter-Phased Transit Curves

TCE 006676725-05 P=227.491359 Days T_0=356.677682 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

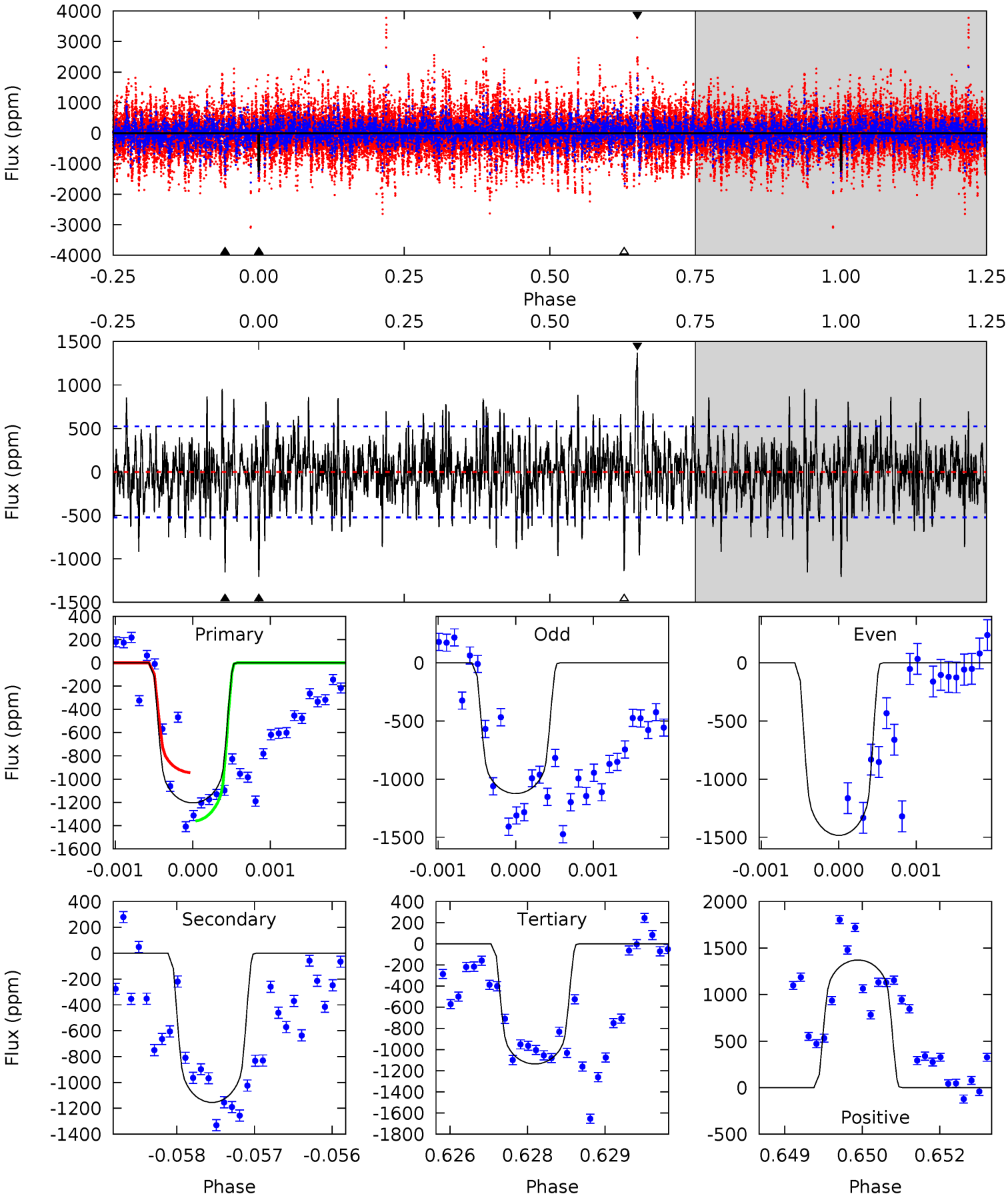
TCE 006676725-05 P=227.514068 Days T_0=356.597830 (BKJD)



DV Model-Shift Uniqueness Test

006676725-05, P = 227.491359 Days, E = 129.186323 Days

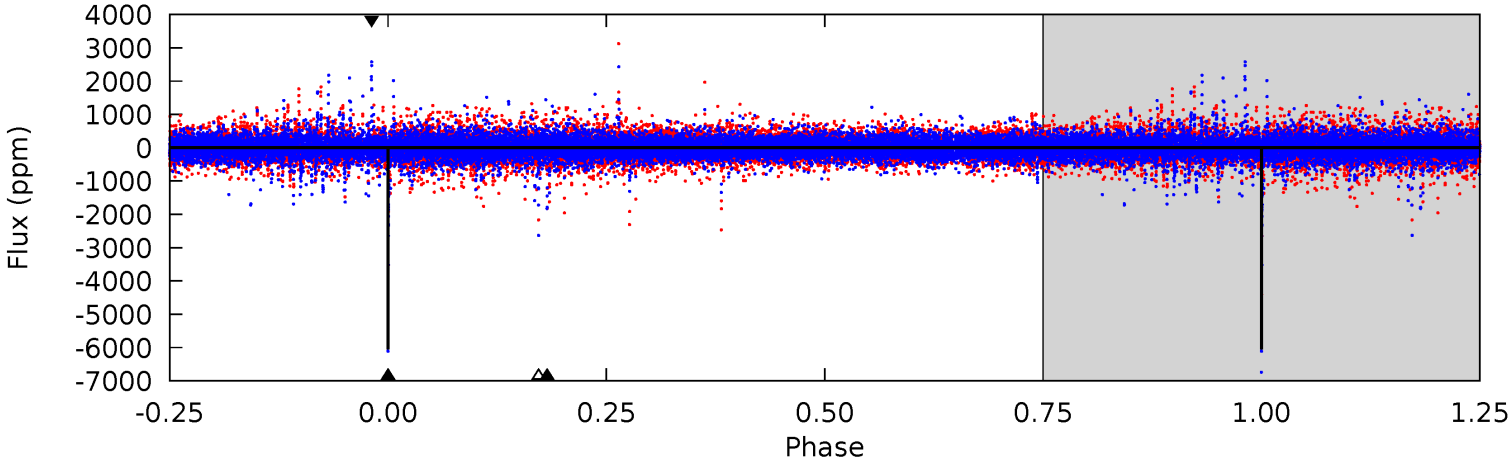
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	11.9	11.7	14.2	5.41	3.22	2.79	0.70	-1.72	0.19	-2.24	1.48	0.88	0.53	1.98

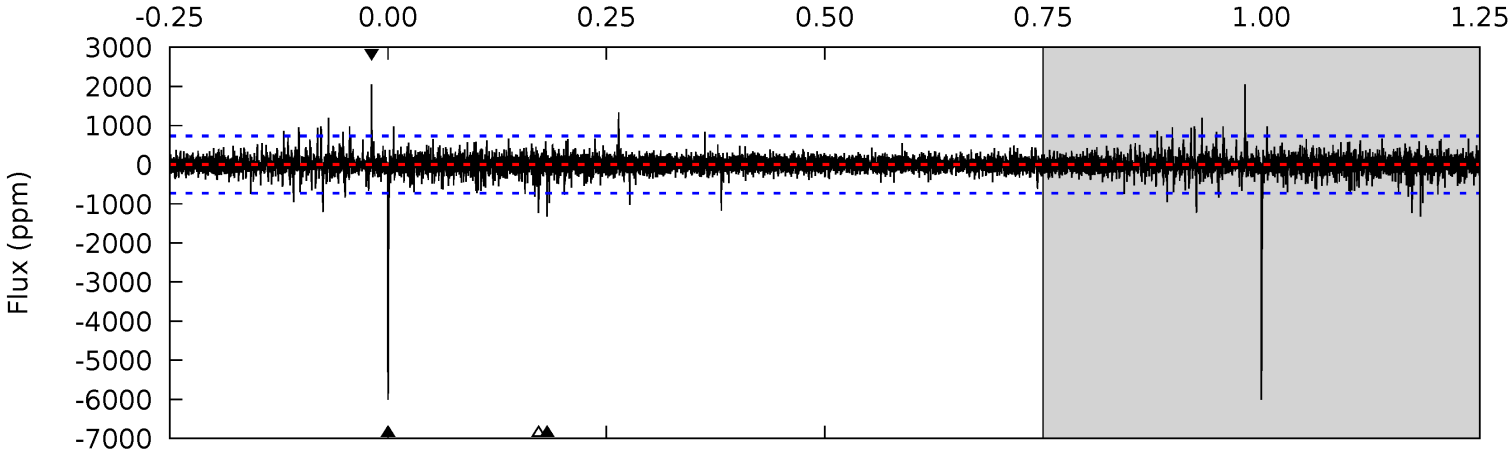


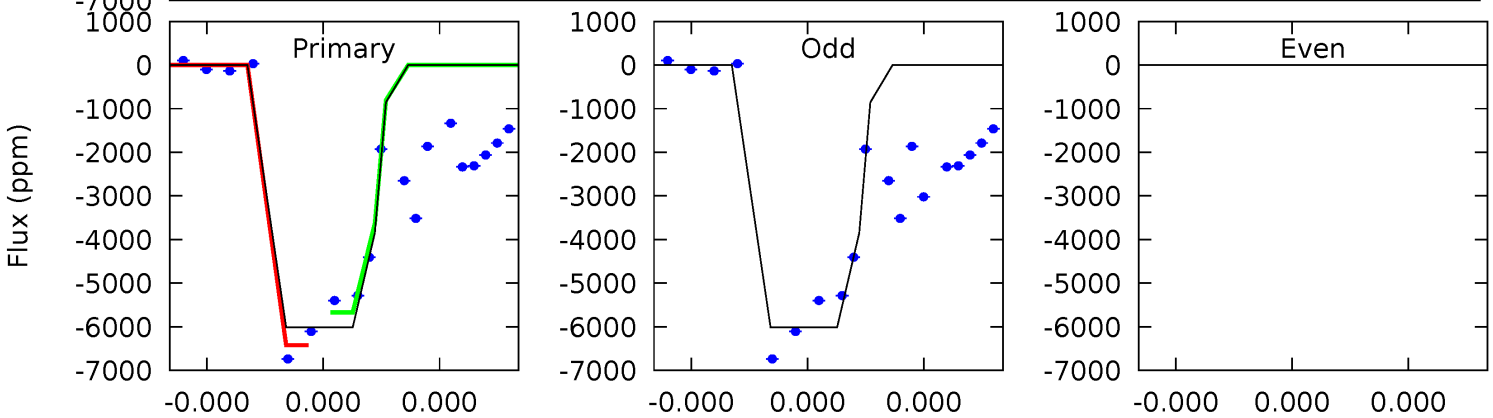
Alt Model-Shift Uniqueness Test

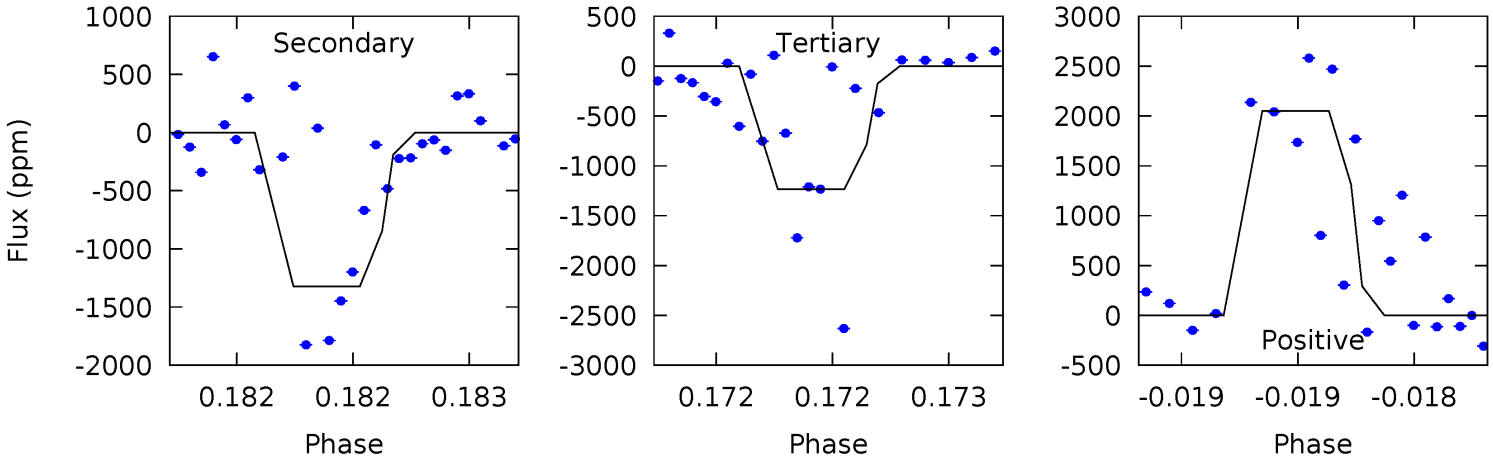
006676725-05, P = 227.514068 Days, E = 129.083762 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.1	10.1	9.47	15.7	5.58	3.50	1.20	36.6	30.4	0.67	-5.59	0	1.00	0.25	2.86









Stellar Parameters For KIC 006676725

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6197^{+172}_{-216}	$4.449^{+0.050}_{-0.200}$	$-0.080^{+0.250}_{-0.300}$	$1.035^{+0.309}_{-0.111}$	$1.096^{+0.141}_{-0.141}$	$1.394^{+0.390}_{-0.735}$
	+3%/-3%	+1%/-4%	+312%/-375%	+30%/-11%	+13%/-13%	+28%/-53%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006676725-05 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1154±97	$3.12^{+0.83}_{-0.69}$	457^{+31}_{-22}	7048^{+1103}_{-736}	35957^{+22576}_{-13739}
Alt.	-1322±130	$8.50^{+1.45}_{-1.01}$	457^{+34}_{-22}	4559^{+211}_{-206}	5570^{+1635}_{-1460}

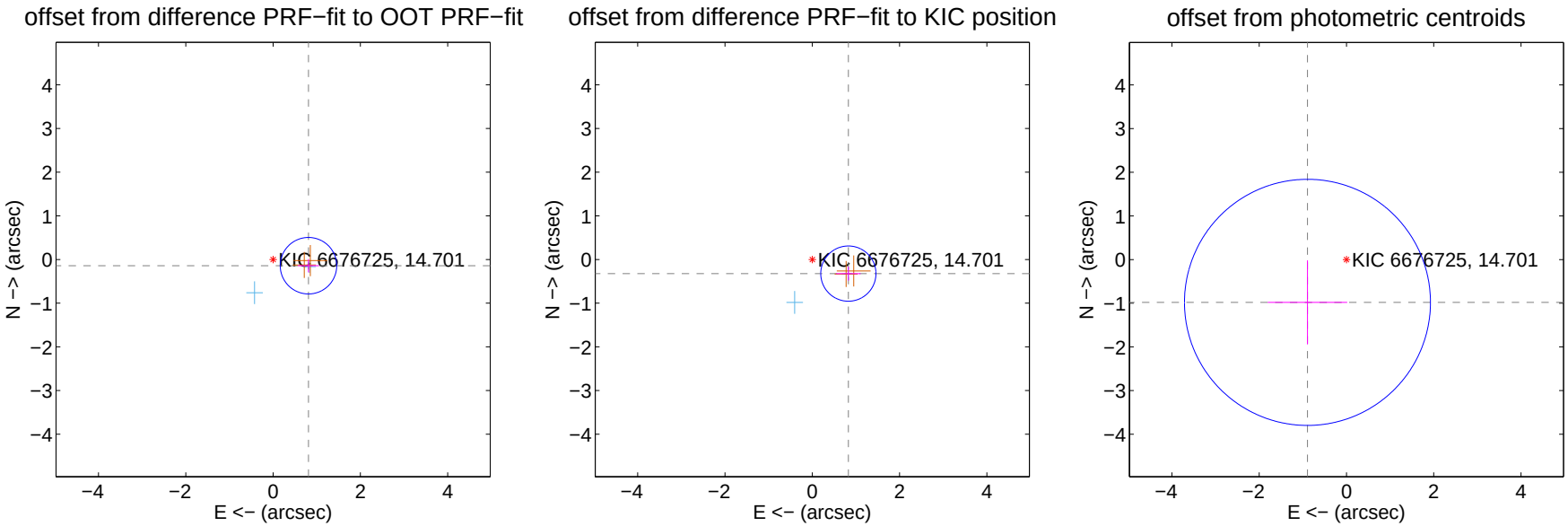
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

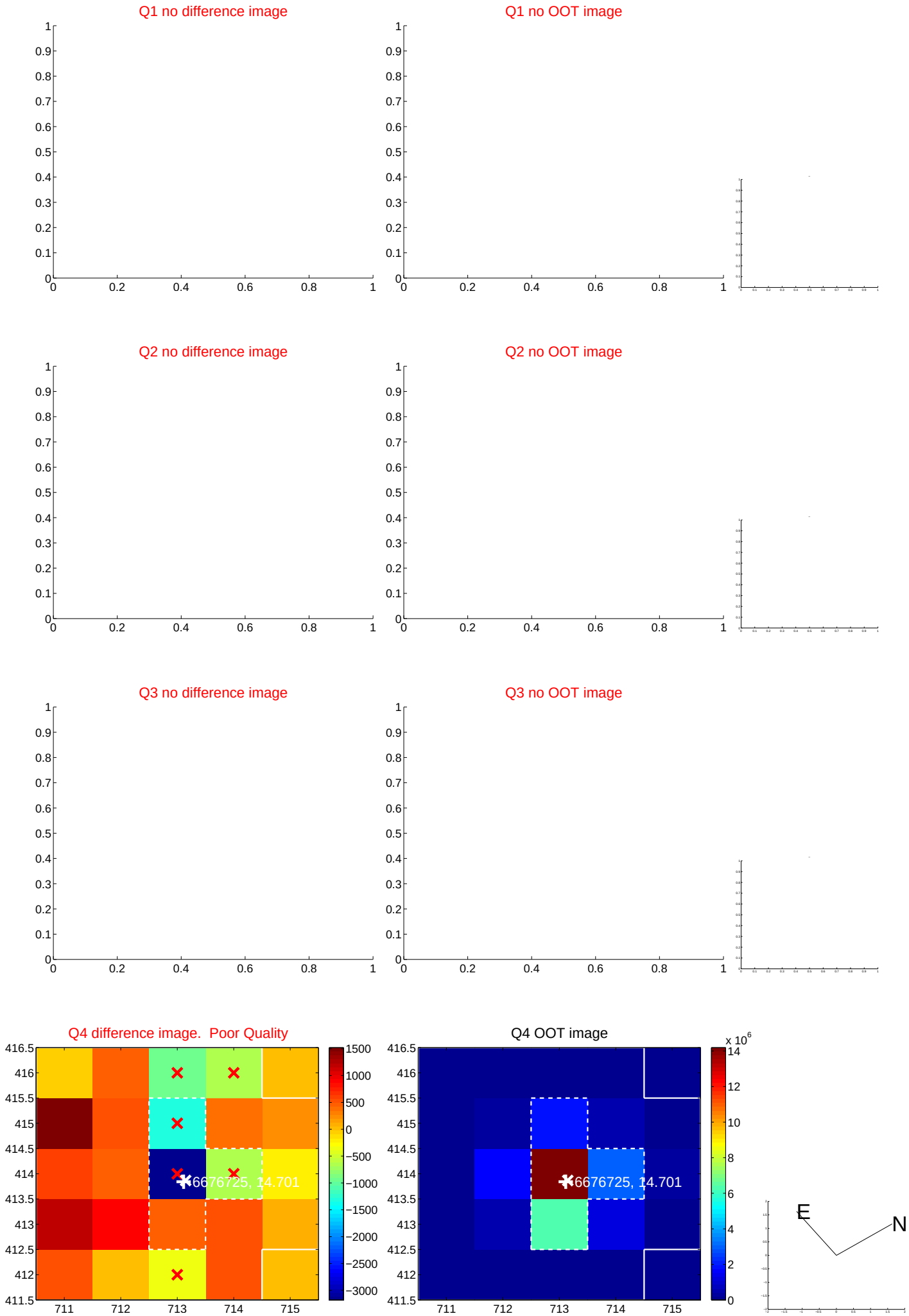
Supplemental centroid analysis for 006676725-05. Kepler magnitude: 14.70. Transit SNR 4.39
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.823 ± 0.215	3.82	-0.810 ± 0.241	-0.142 ± 0.152
PRF-fit source offset from KIC position	0.887 ± 0.211	4.21	-0.826 ± 0.280	-0.323 ± 0.161
photometric centroid source offset	1.33 ± 0.94	1.41	0.89 ± 0.91	-0.98 ± 0.96

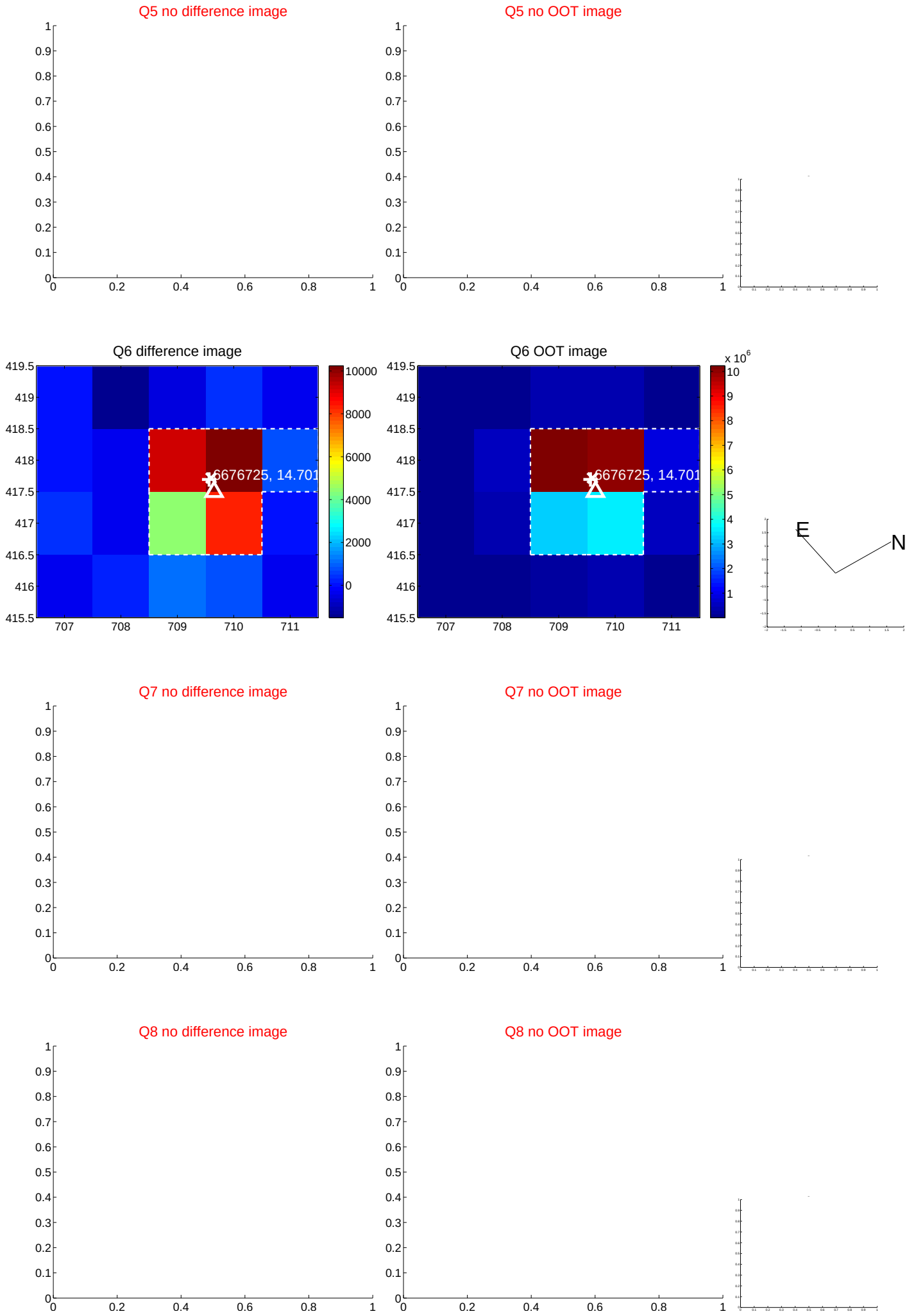


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

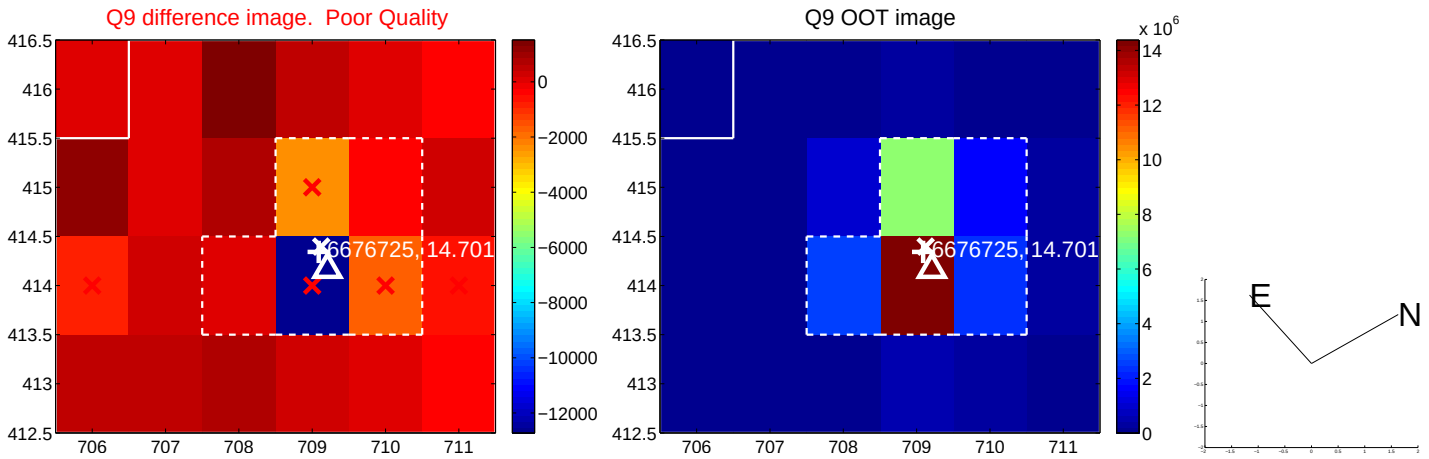
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

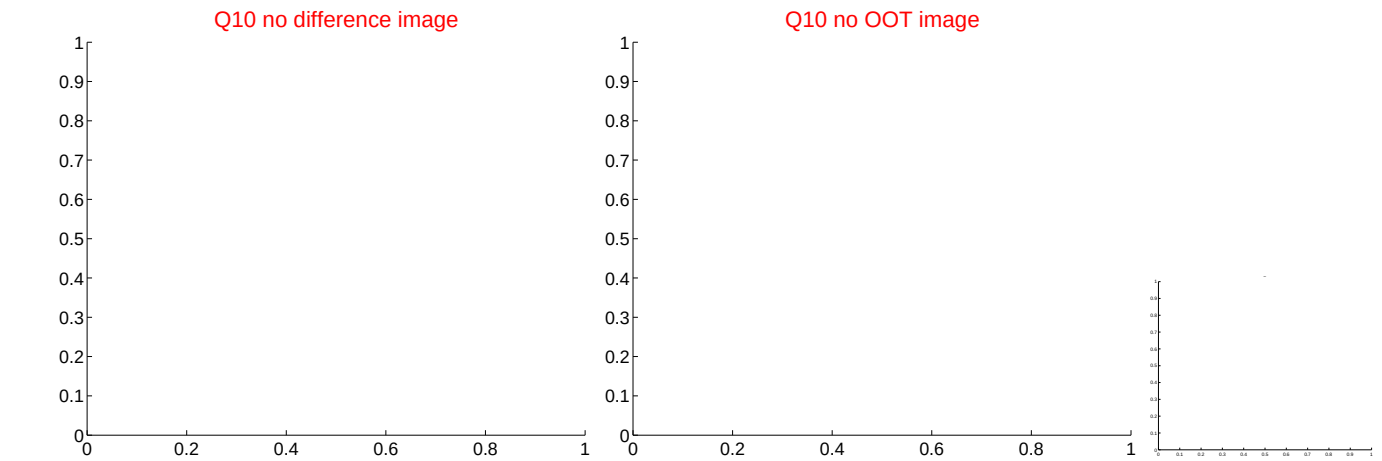


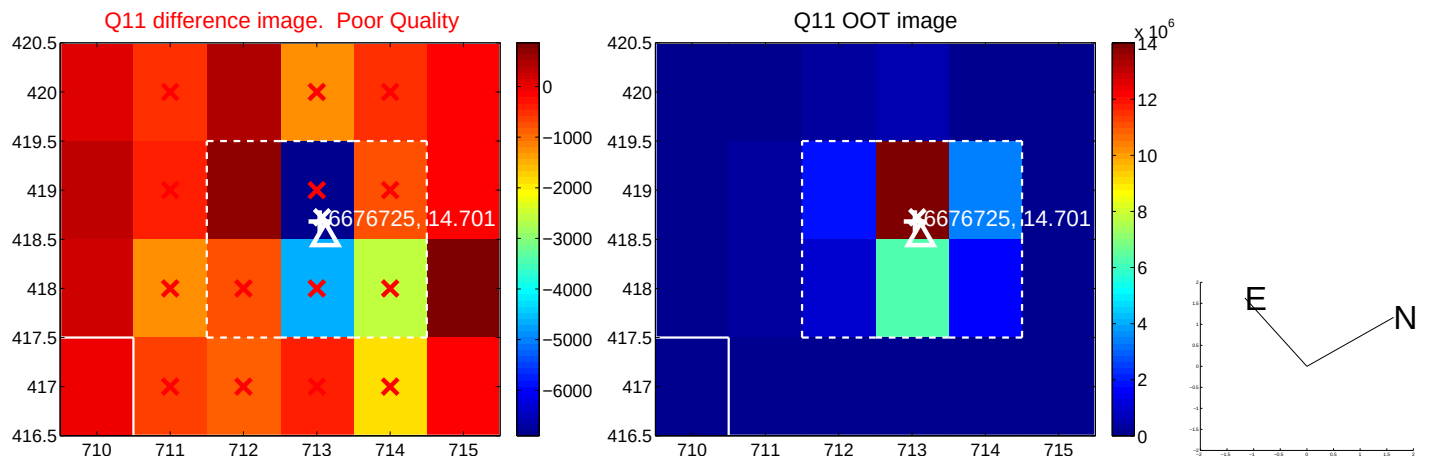
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

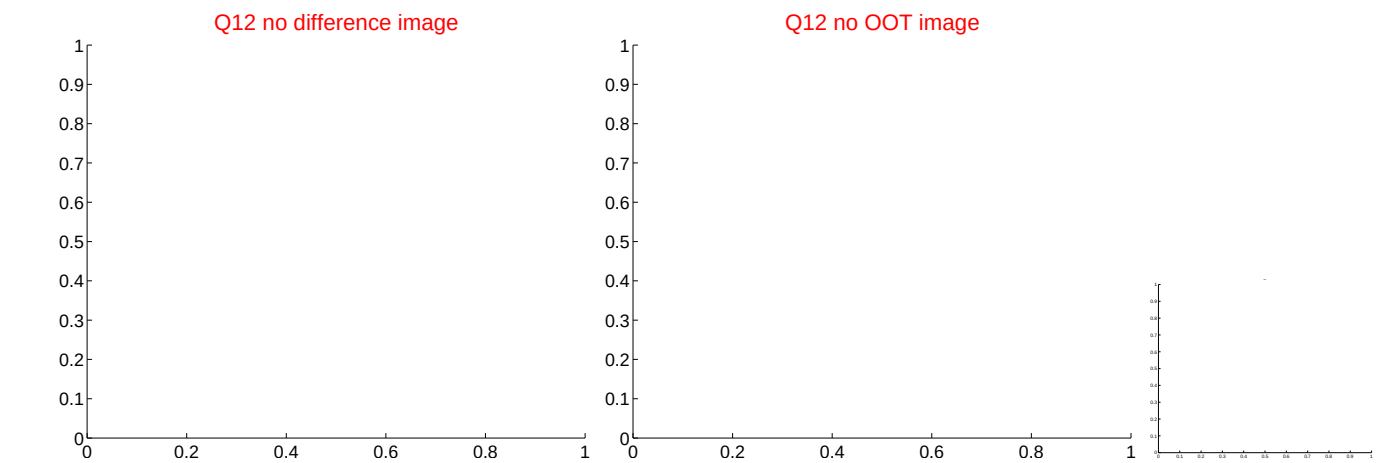


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

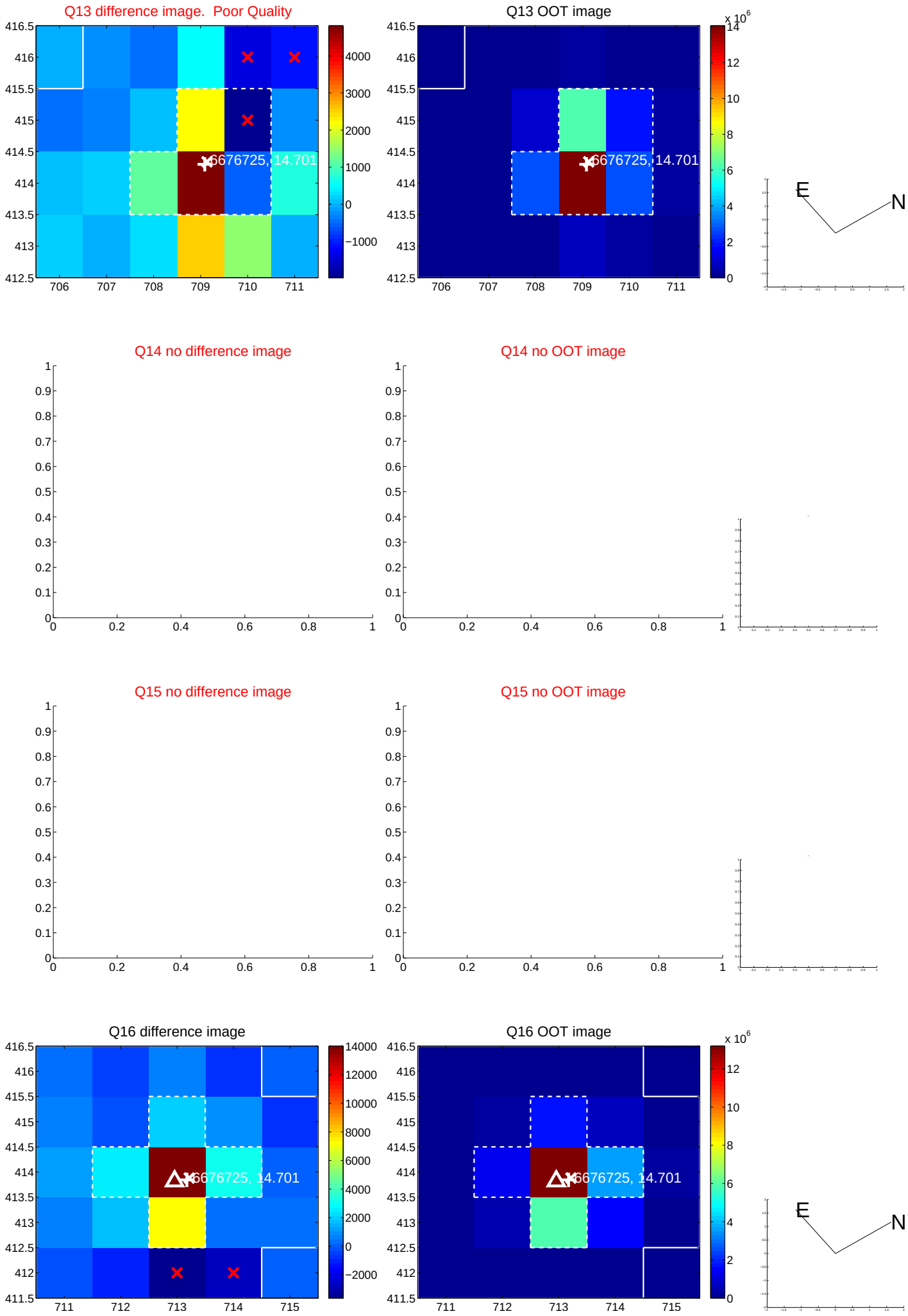




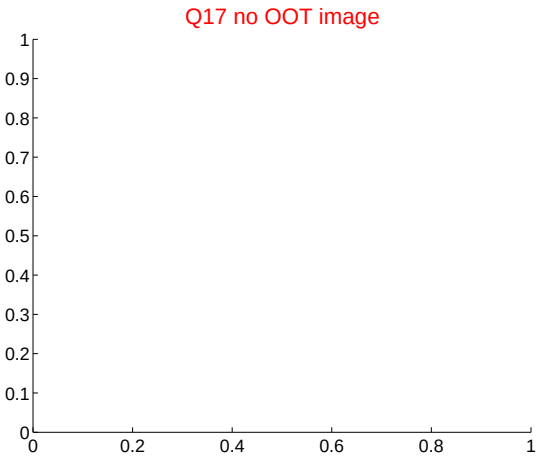


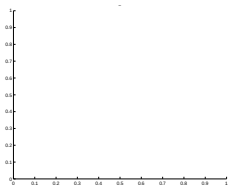


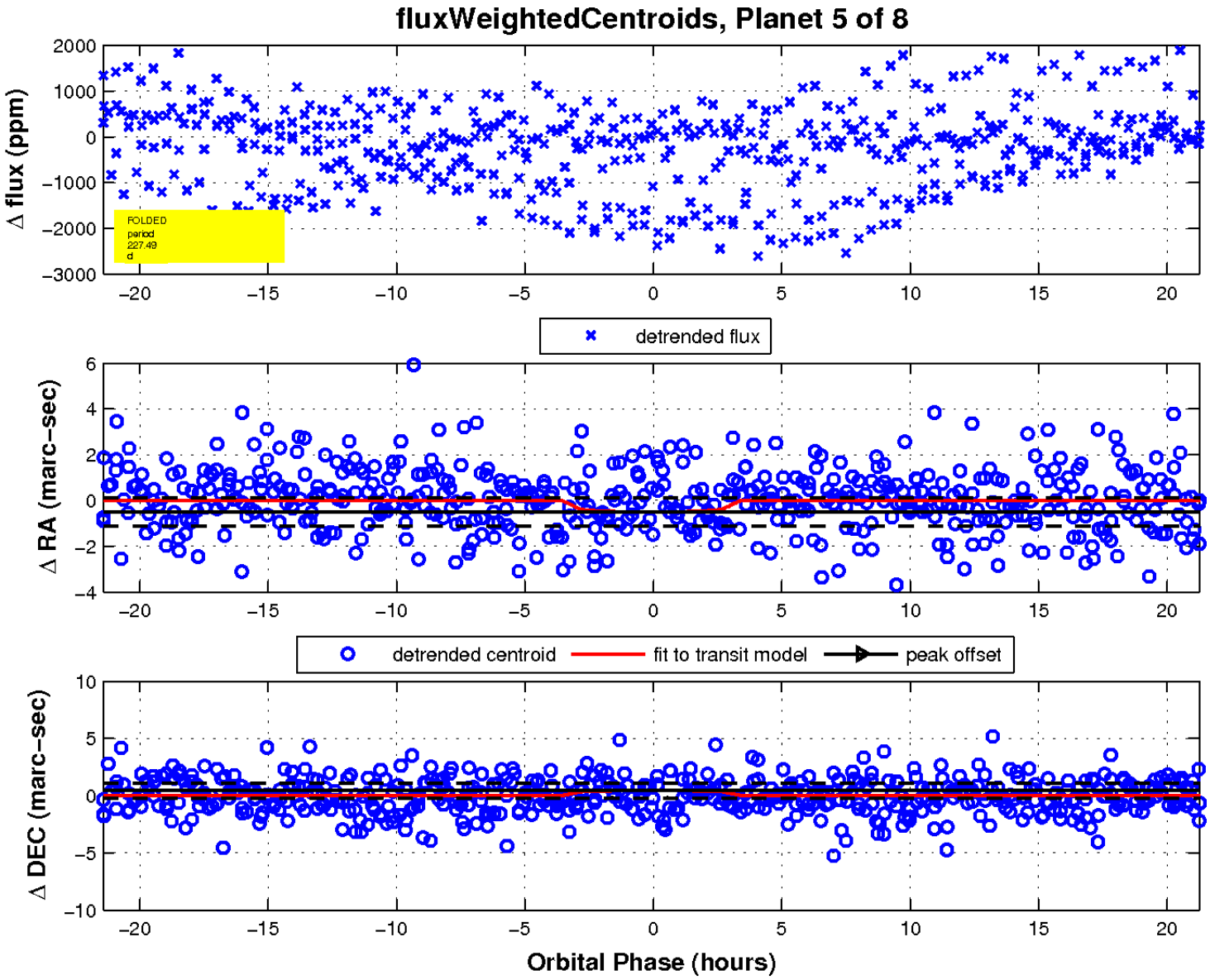
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



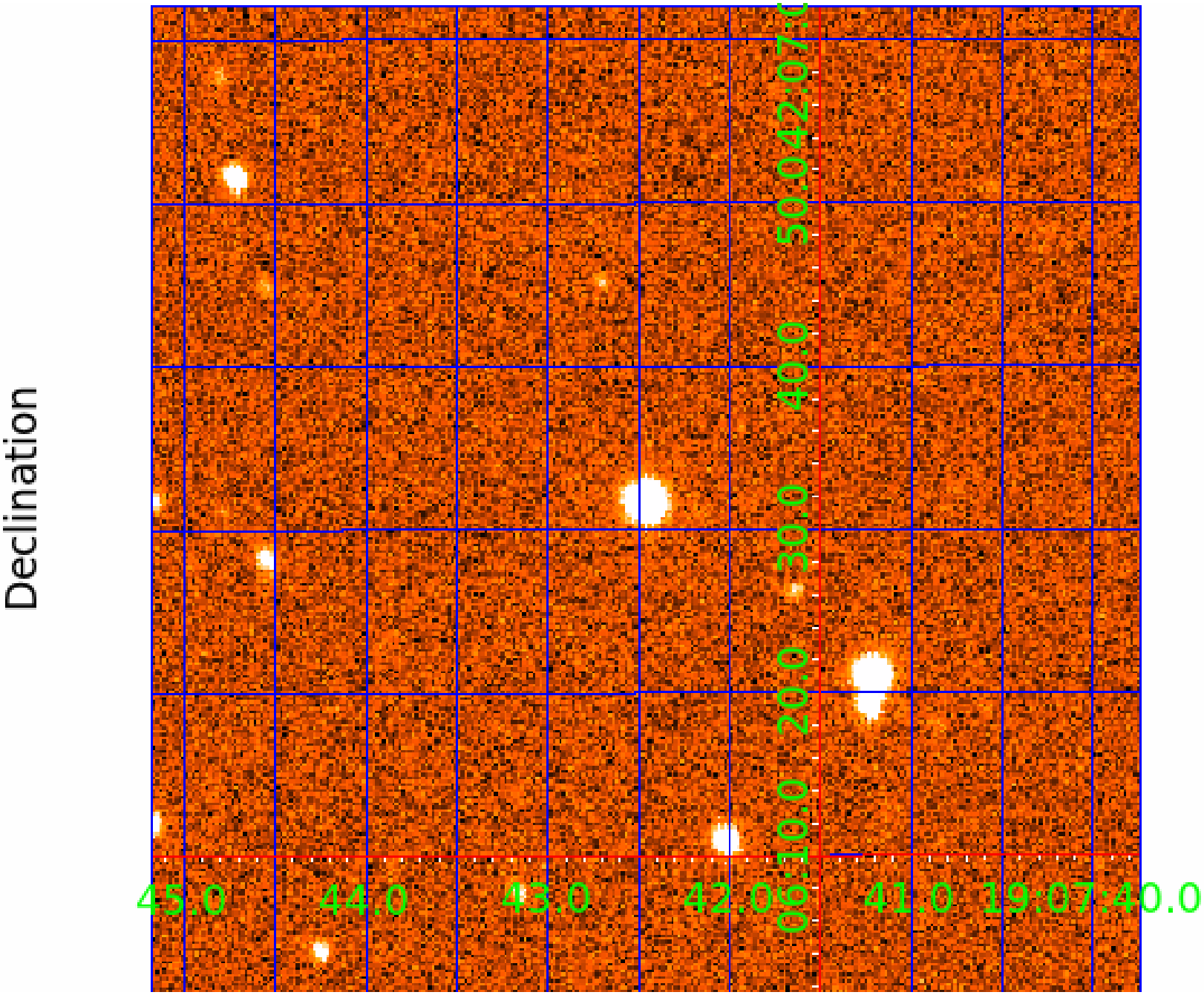
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image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KIC 006676725

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 ($S_\oplus$)
006676725-01	OBS	6755.01	1.428769	132.190421	63.9	5.715	10.8	11.3	1.03	6197	0.98	2155.91
006676725-02	OBS	No	298.264757	158.356835	583.5	5.419	12.3	5.0	1.03	6197	3.16	1.74
006676725-03	OBS	No	280.980528	227.946906	1856.2	6.210	15.5	11.1	1.03	6197	5.20	1.89
006676725-04	OBS	No	575.744539	235.588714	661.9	5.370	10.2	5.3	1.03	6197	2.67	0.72
006676725-05	OBS	No	227.491359	356.677682	602.6	7.145	9.5	4.4	1.03	6197	2.98	2.50
006676725-06	OBS	No	467.613116	485.478418	1964.0	36.211	8.6	4.1	1.03	6197	4.72	0.96
006676725-07	OBS	No	455.843842	405.549962	853.7	11.466	9.0	5.4	1.03	6197	3.21	0.99
006676725-08	OBS	No	419.555476	236.055898	605.4	7.500	9.0	-1.0	1.03	6197	2.55	1.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676725-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—CENT_UNRESOLVED_OFFSET—HALO_GHOST
006676725-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS
006676725-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006676725-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
006676725-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
006676725-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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.

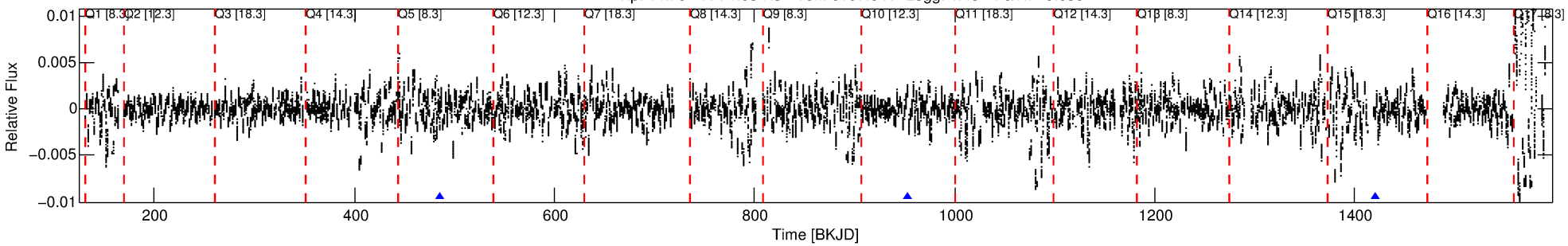
Ephemeris Match Information For 006676725-06

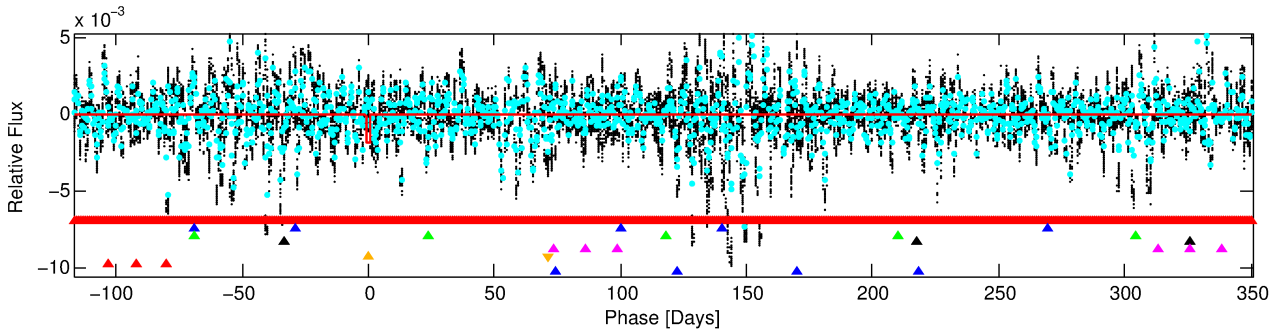
No Significant Match Found

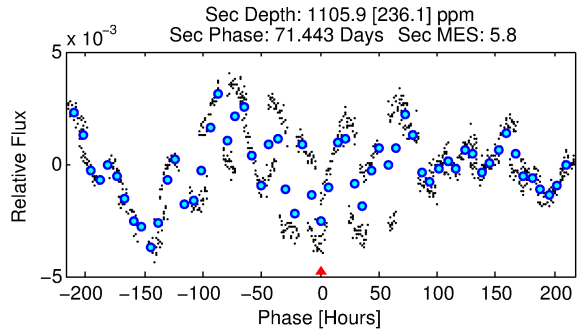
DV One-Page Summary

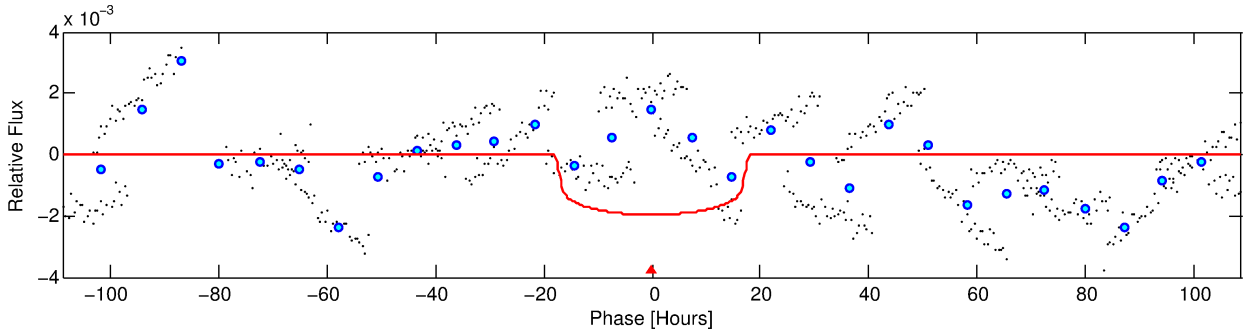
KIC: 6676725 Candidate: 6 of 8 Period: 467.613 d
KOI: K06755 Corr: No Ephemeris Match

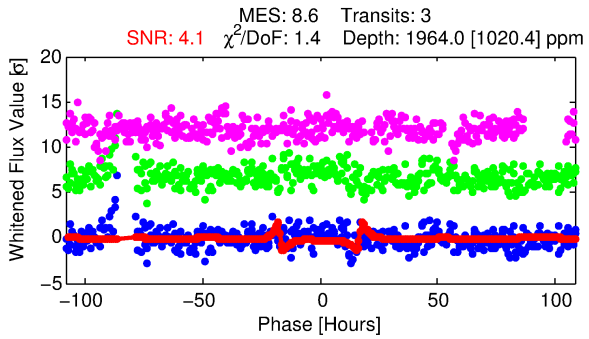
Kp: 14.70 R*: 1.03 Rs Teff: 6197.0 K Logg: 4.45 Fe/H: −0.080

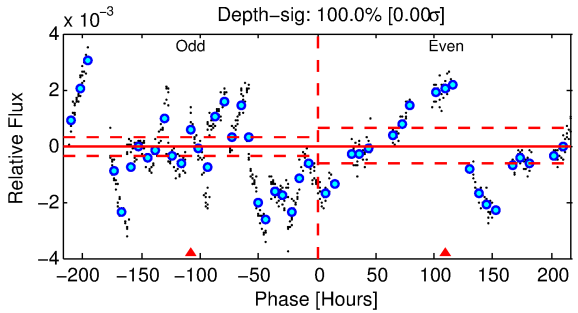


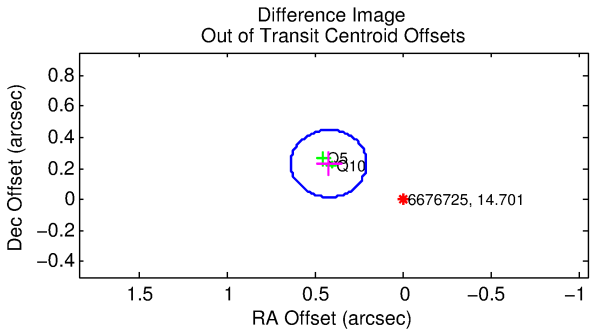












DV Fit Results:

Period = 467.61312 [0.27498] d
Epoch = 485.4784 [0.0851] BKJD
Rp/R* = 0.0418 [0.0187]
a/R* = 89.92 [105.61]
b = 0.50 [1.69]

Seff = 0.96 [0.37]
Teq = 252 [25] K
Rp = 4.72 [2.54] Re
a = 1.2169 [0.3059] AU

Ag = 40421.44 [40083.30] [1.01σ]
Teffp = 5527 [1288] K [4.10σ]

DV Diagnostic Results:

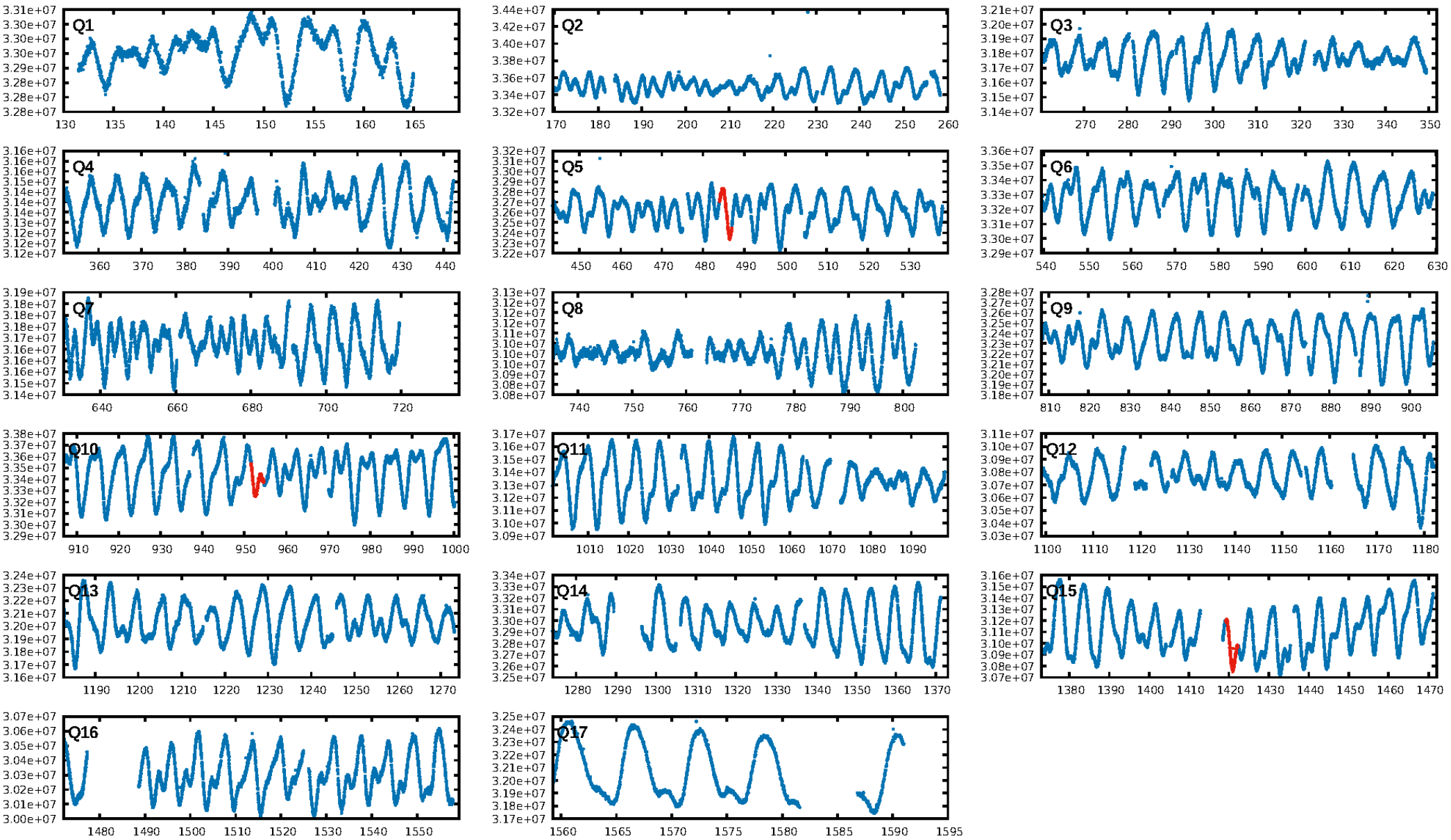
ShortPeriod−sig: 100.0% [7.44σ]
LongPeriod−sig: 100.0% [70.89σ]
ModelChiSquare2−sig: 0.0%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: 3.138

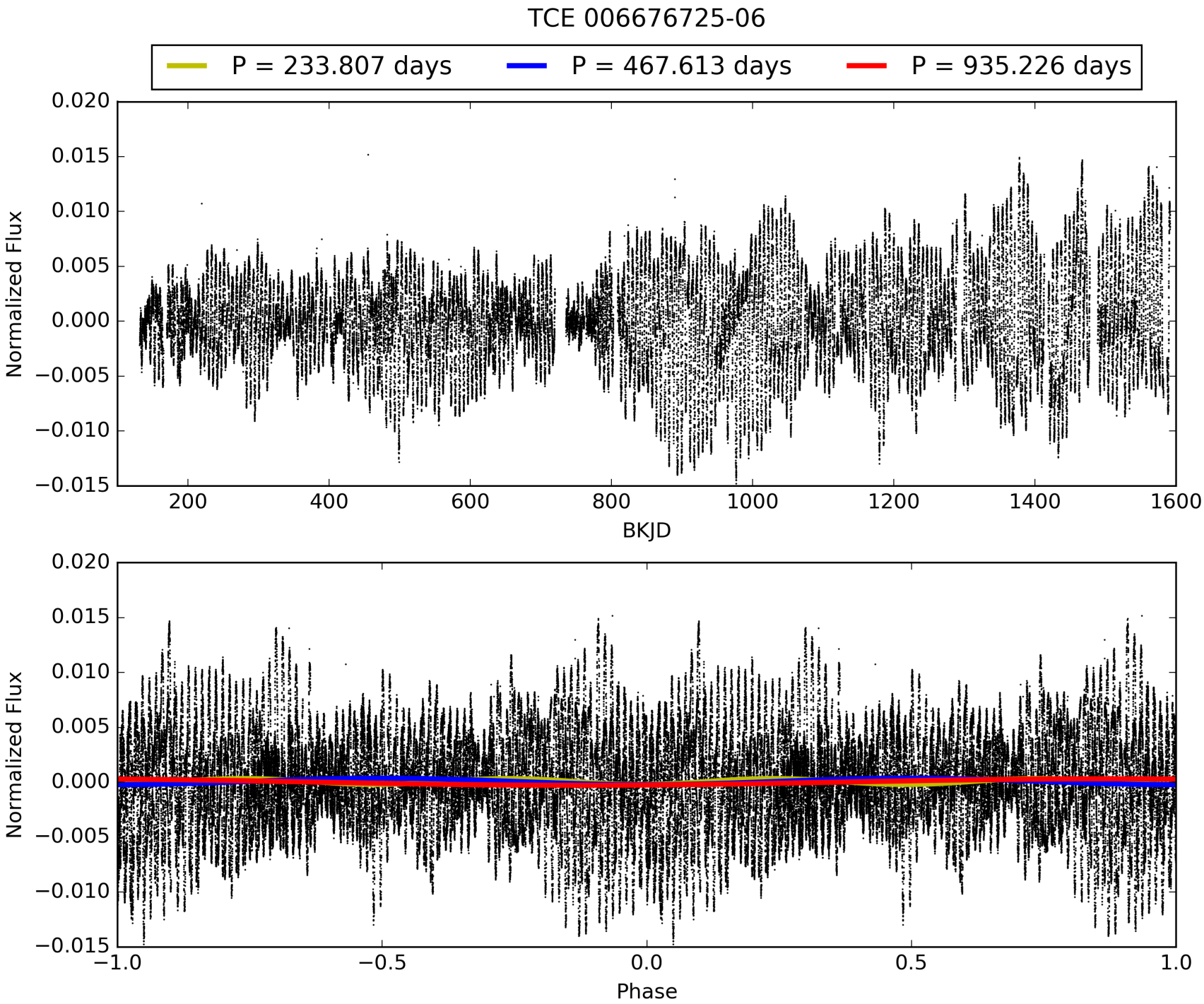
Centroid−sig: 4.3%
Centroid−so: 0.181 arcsec [1.05σ]
OotOffset−rm: 0.485 arcsec [6.73σ]
KicOffset−rm: 0.410 arcsec [5.63σ]
OotOffset−st: 1/0/0/1 [2]
KicOffset−st: 1/0/0/1 [2]
DiffImageQuality−fgm: 0.50 [1/2]
DiffImageOverlap−fno: 0.00 [0/2]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:18:06 Z

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

TCE 006676725-06, PDC Light Curves

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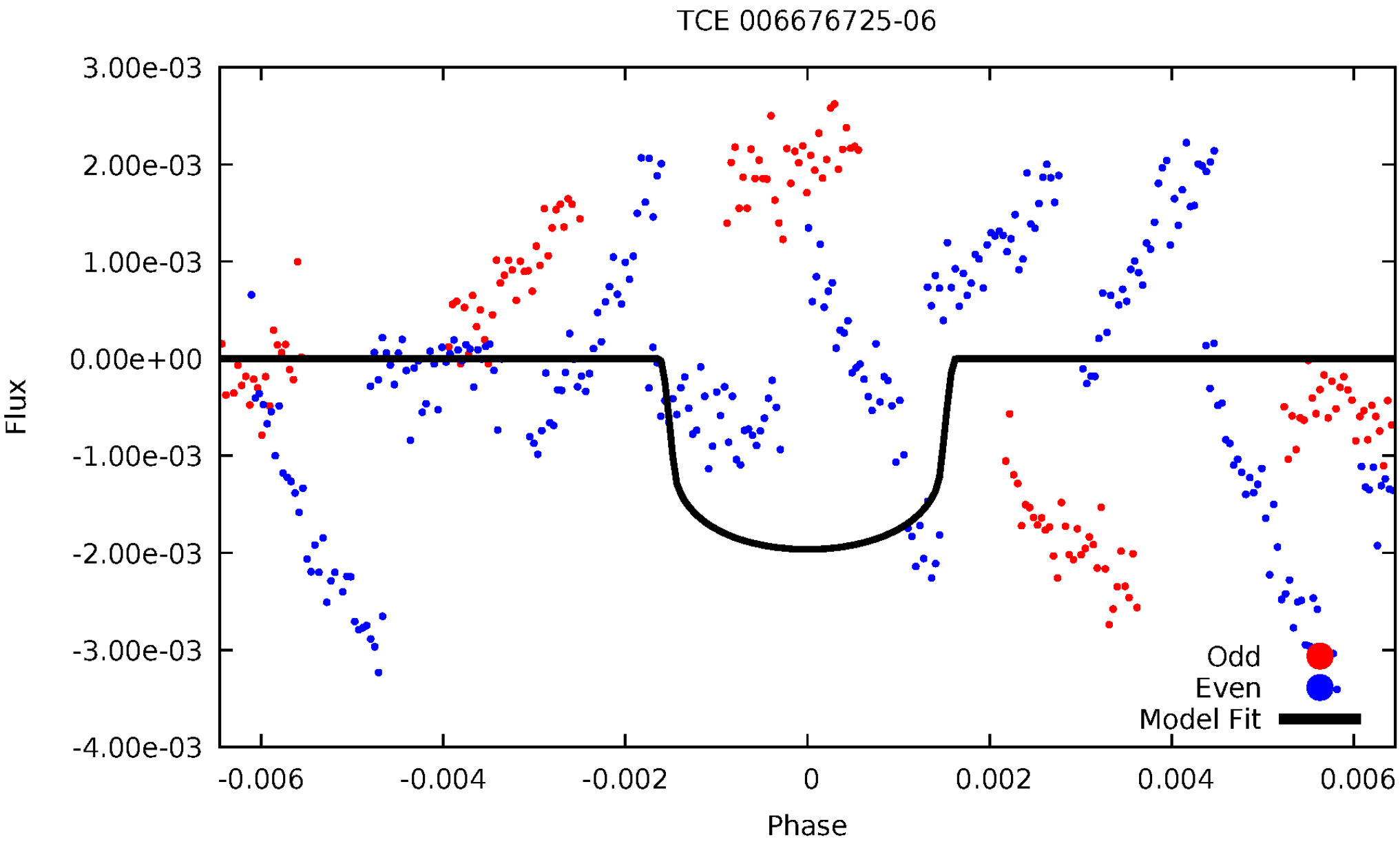
P = 233.807 days
P = 467.613 days
P = 935.226 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even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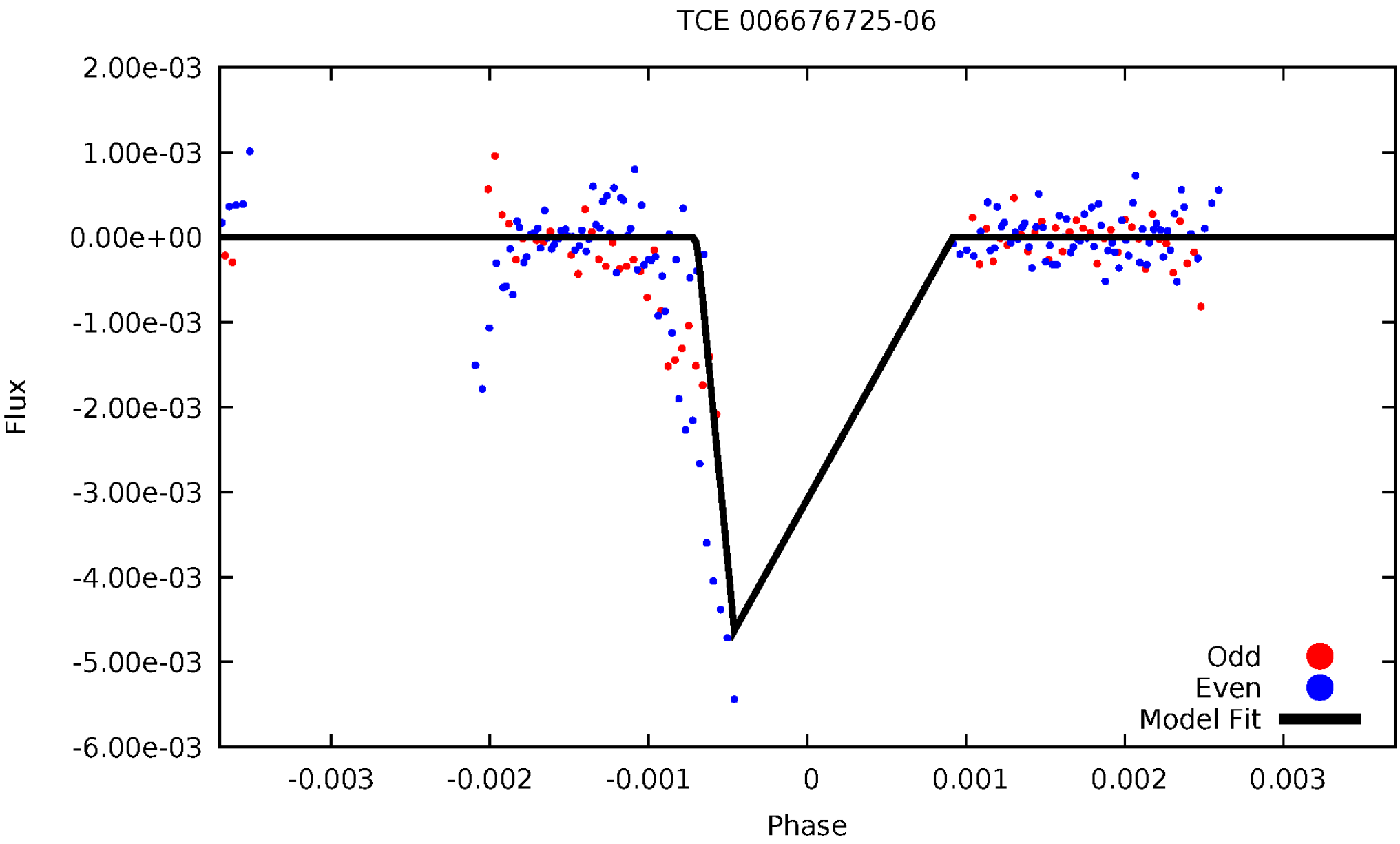
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
Flux
-0.006
-0.004
-0.002
0
0.002
0.004
0.006
Phase
Odd
Even
Model Fit

ALT Odd/Even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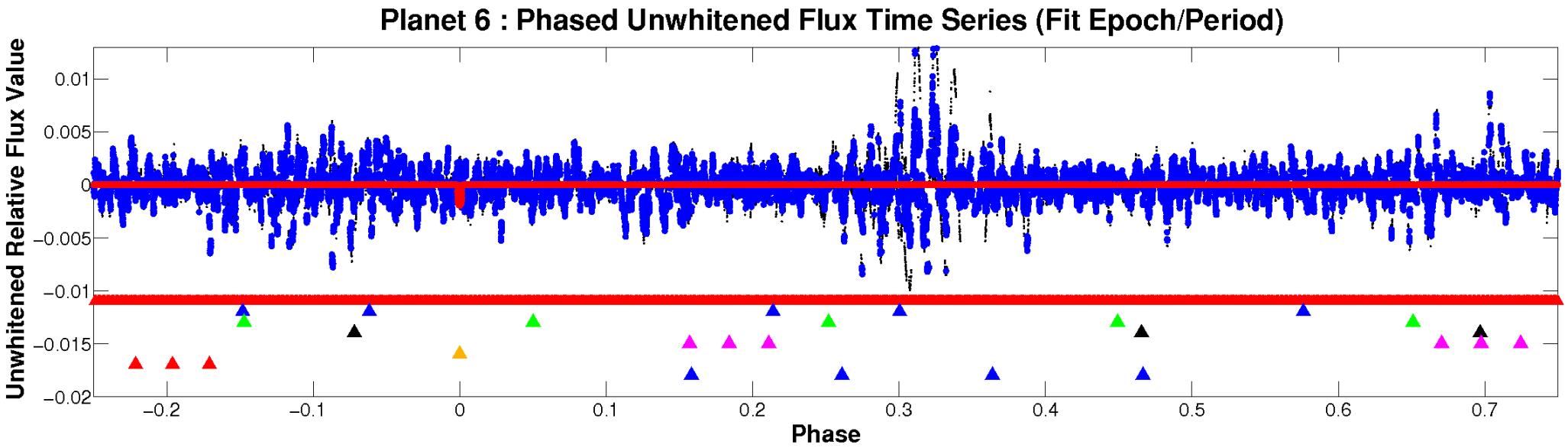
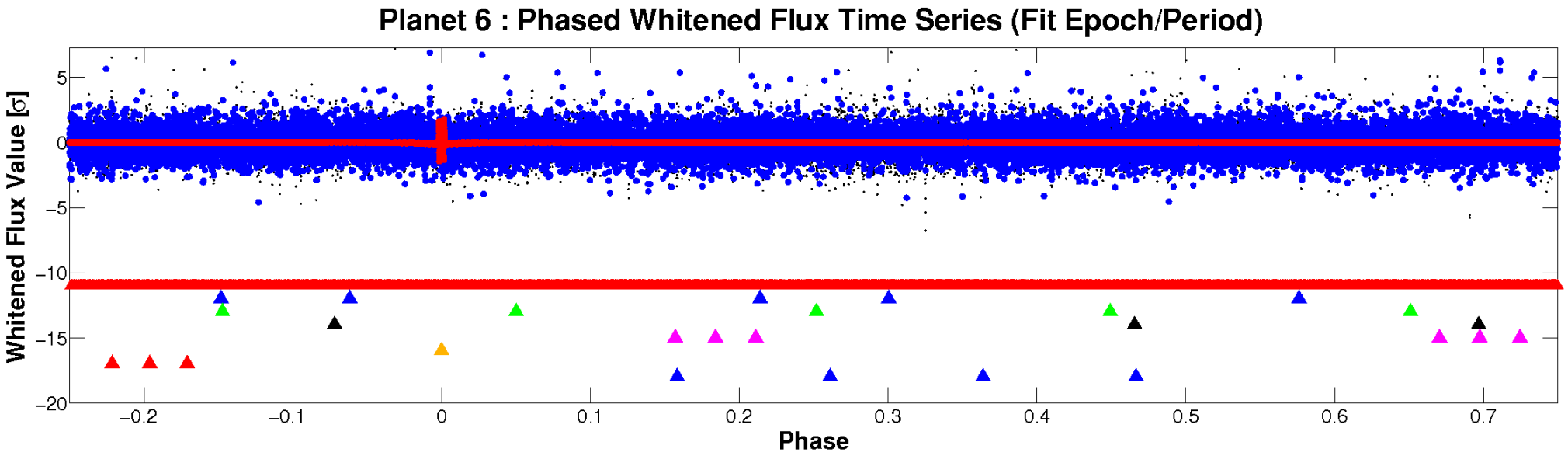
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
-5.00e-03
-6.00e-03
Flux
-0.003
-0.002
-0.001
0
0.001
0.002
0.003
Phase
Odd
Even
Model Fit

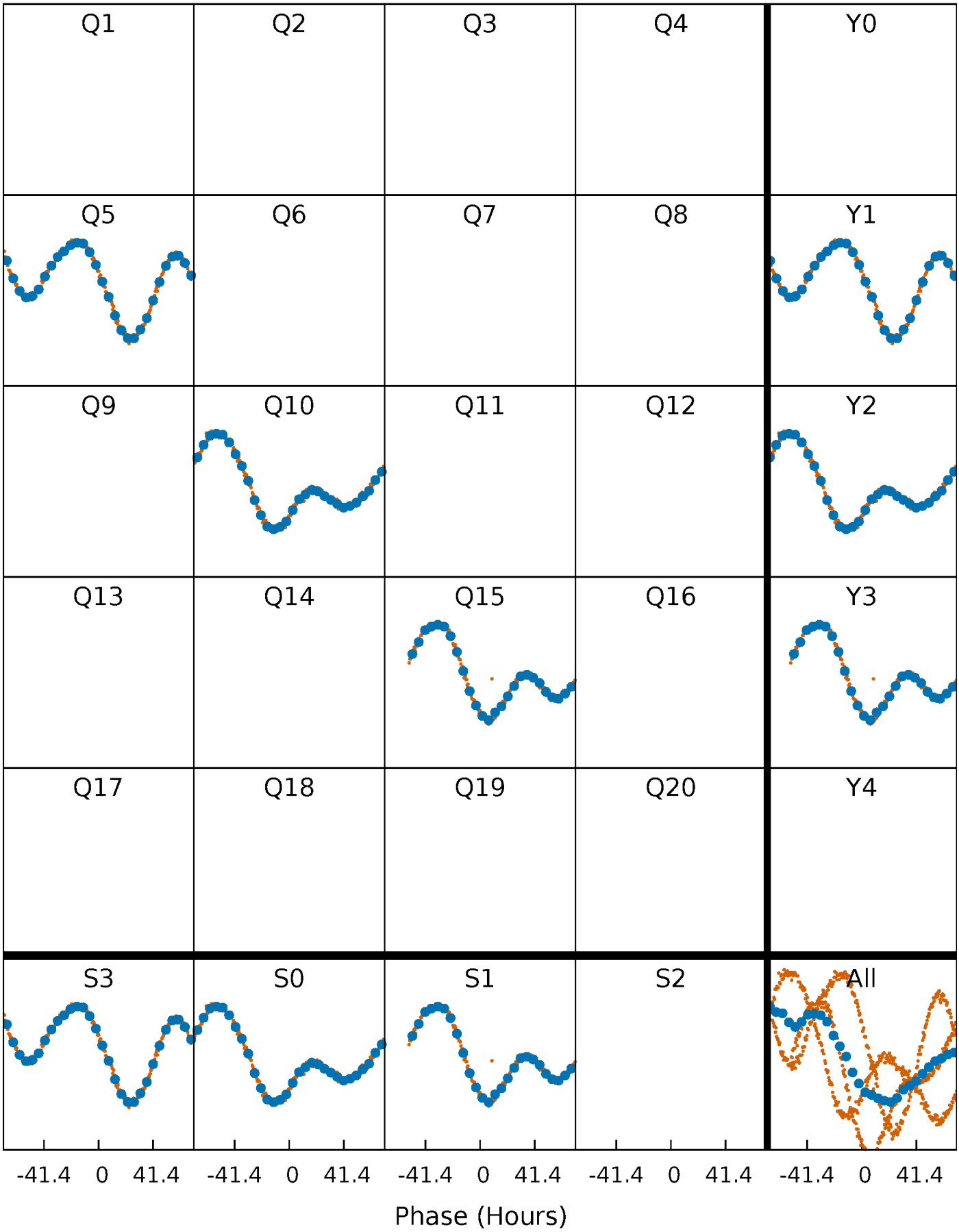
Non-Whitened Vs. Whitened Light Curve





PDC Quarter-Phased Transit Curves

TCE 006676725-06 P=467.613116 Days T_0=485.478418 (BKJD)



DV Quarter-Phased Transit Curves

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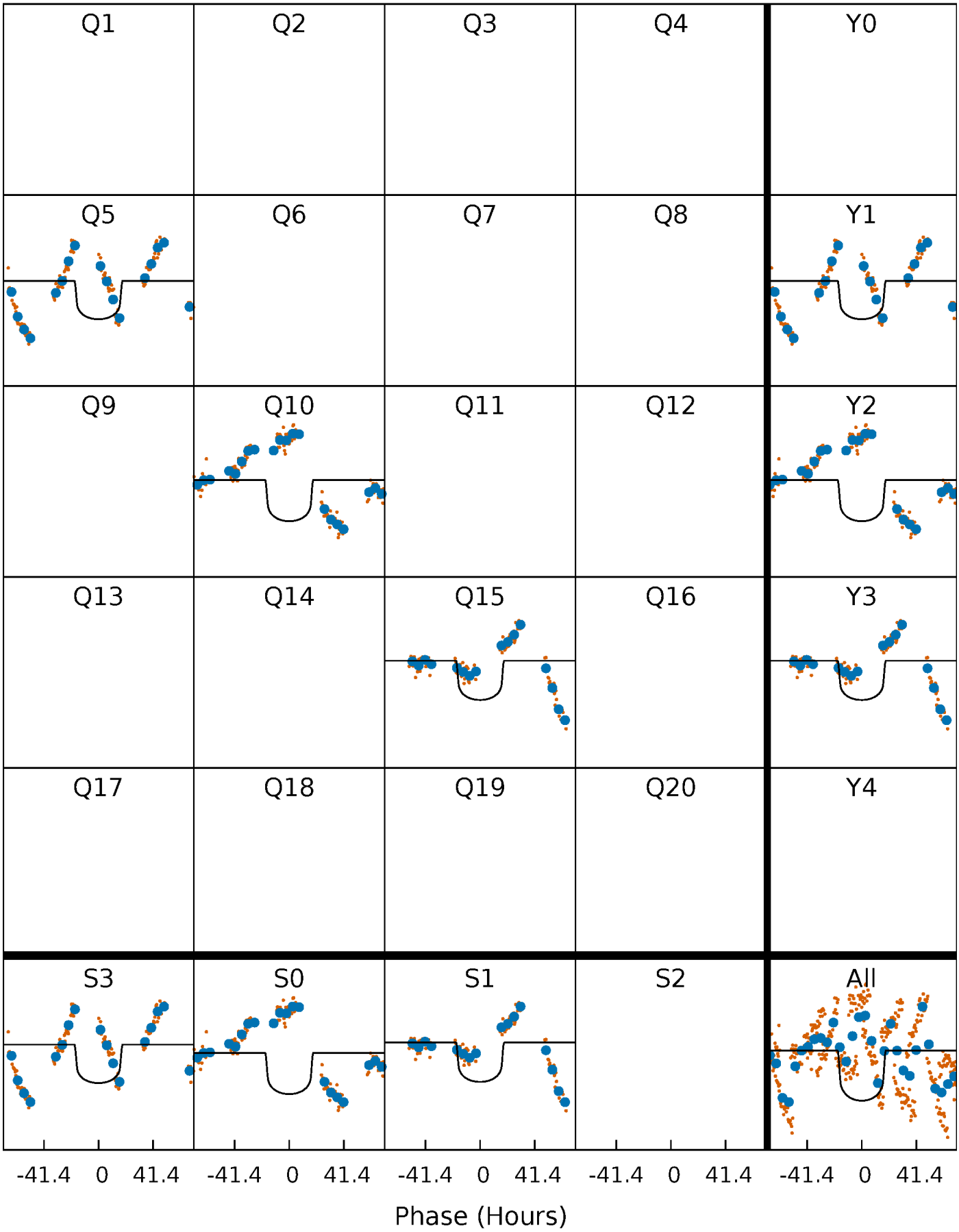
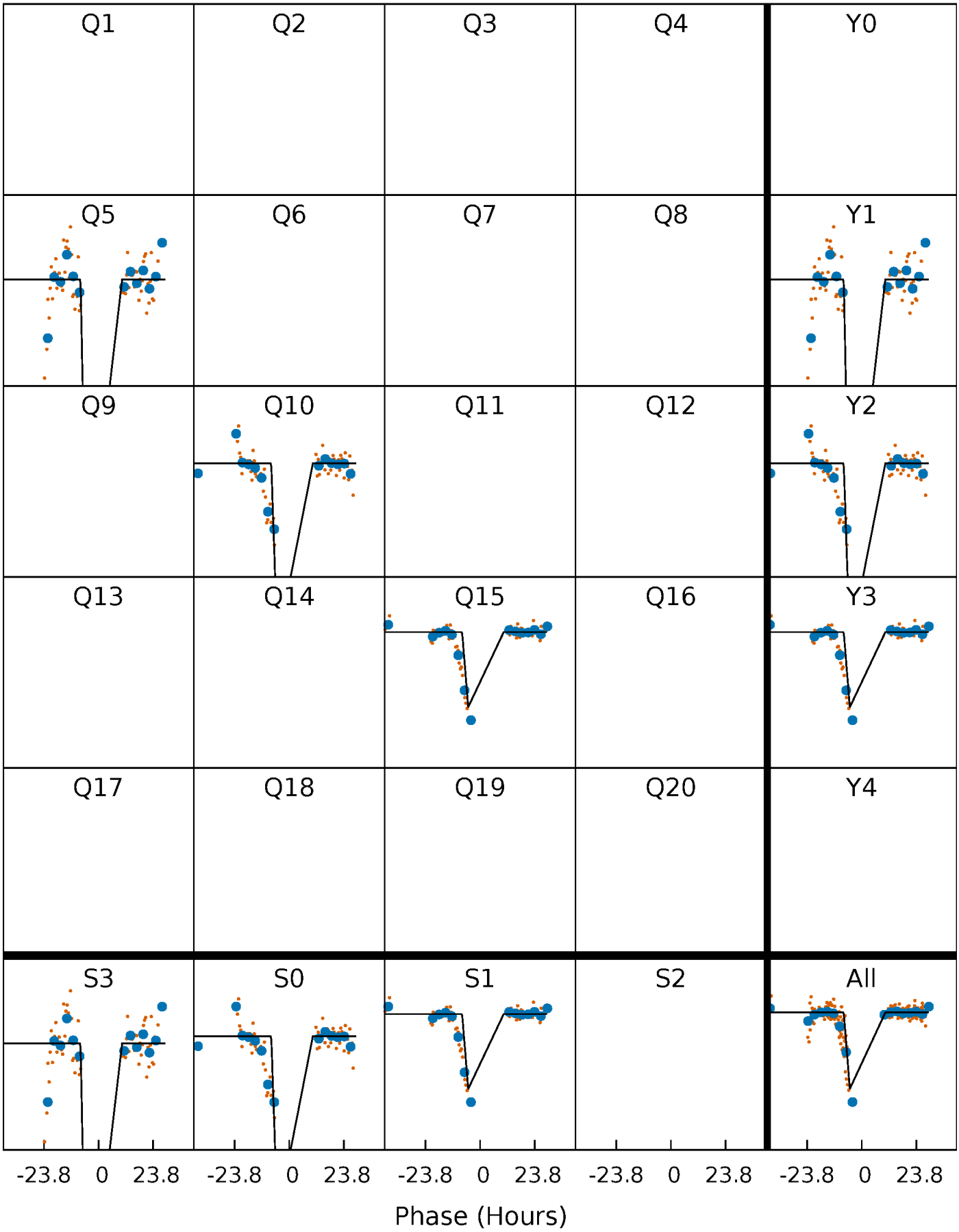


Alt. Detrend Quarter-Phased Transit Curves

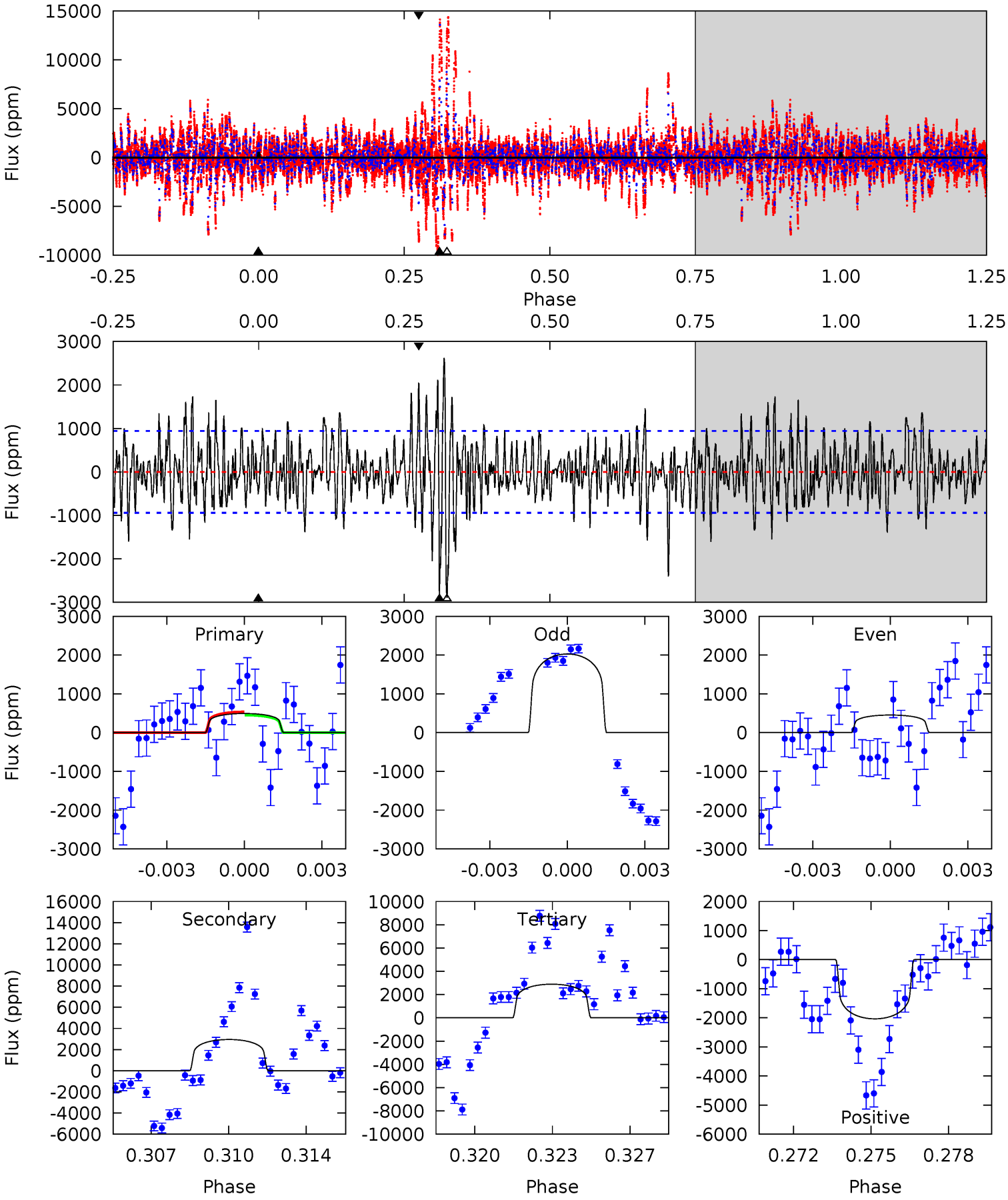
TCE 006676725-06 P=468.589209 Days T_0=486.463363 (BKJD)



DV Model-Shift Uniqueness Test

006676725-06, P = 467.613116 Days, E = 17.865302 Days

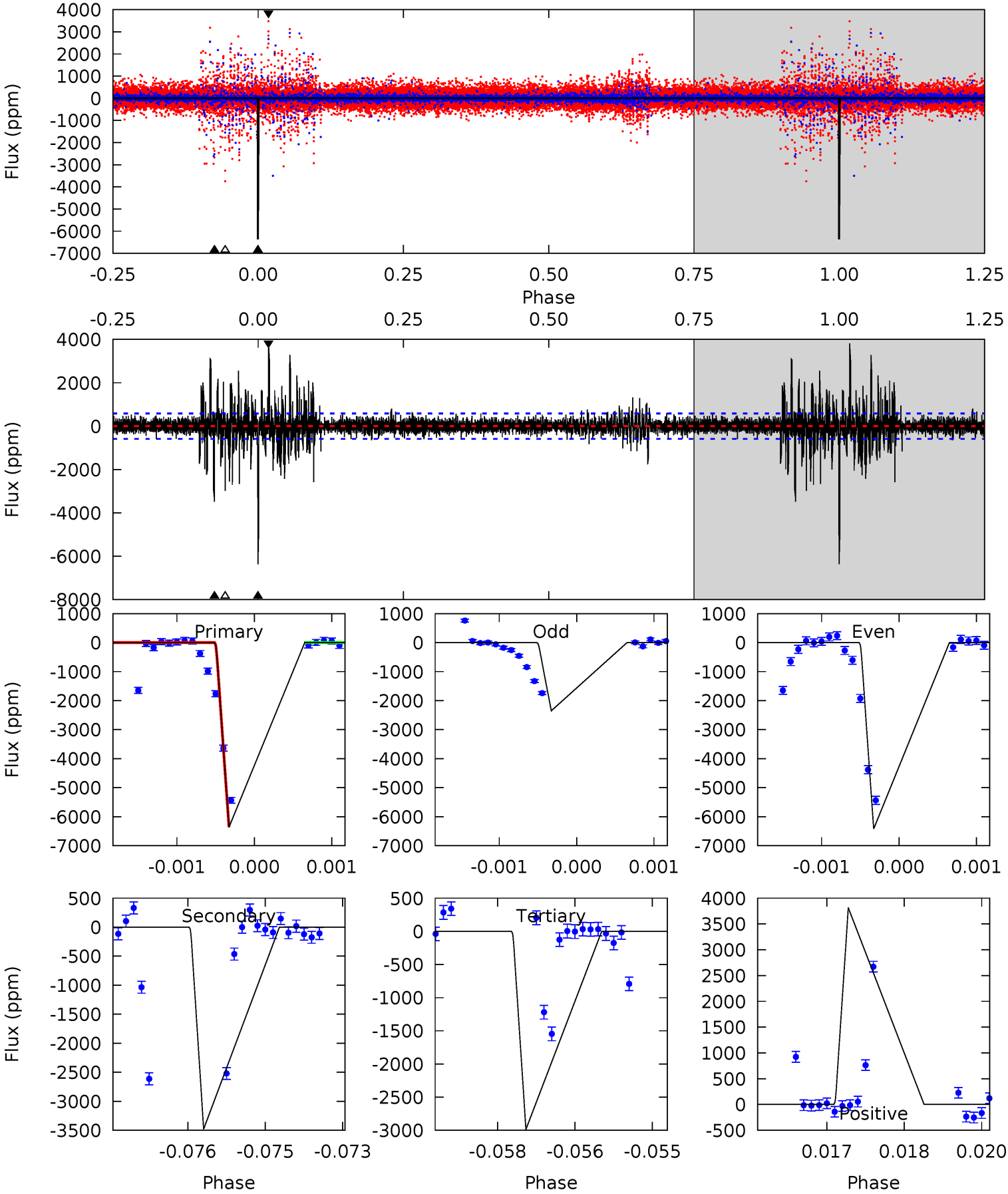
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.74	16.4	16.1	11.3	5.24	2.94	3.47	-13.3	-8.58	0.34	5.09	4.20	-0.97	0.47	0.22



Alt Model-Shift Uniqueness Test

006676725-06, P = 468.589209 Days, E = 17.874154 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.4	31.9	27.4	35.0	5.39	3.19	2.43	31.0	23.4	4.51	-3.09	16.0	0	0.37	0



Stellar Parameters For KIC 006676725

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6197^{+172}_{-216}	$4.449^{+0.050}_{-0.200}$	$-0.080^{+0.250}_{-0.300}$	$1.035^{+0.309}_{-0.111}$	$1.096^{+0.141}_{-0.141}$	$1.394^{+0.390}_{-0.735}$
	+3%/-3%	+1%/-4%	+312%/-375%	+30%/-11%	+13%/-13%	+28%/-53%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006676725-06 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2950±180	$4.89^{+2.31}_{-2.31}$	360^{+23}_{-18}	7195^{+3641}_{-1311}	$101019^{+233860}_{-54936}$
Alt.	-3479±109	$10.52^{+2.46}_{-2.38}$	360^{+25}_{-19}	5126^{+617}_{-420}	25538^{+17514}_{-8981}

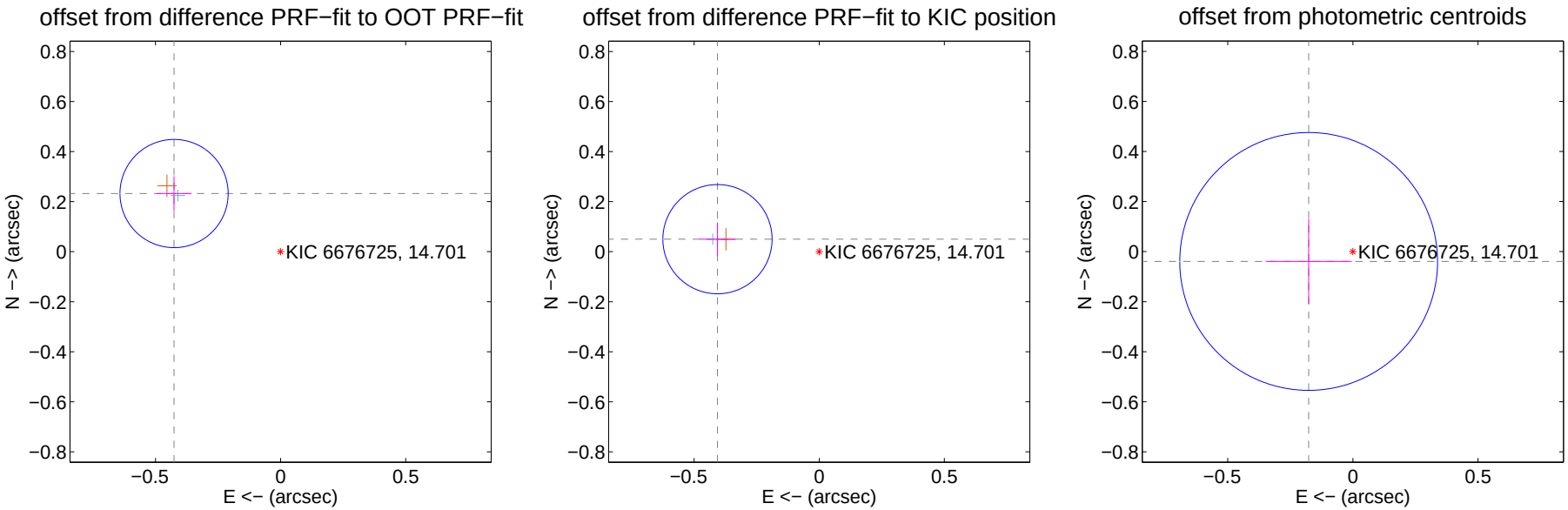
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

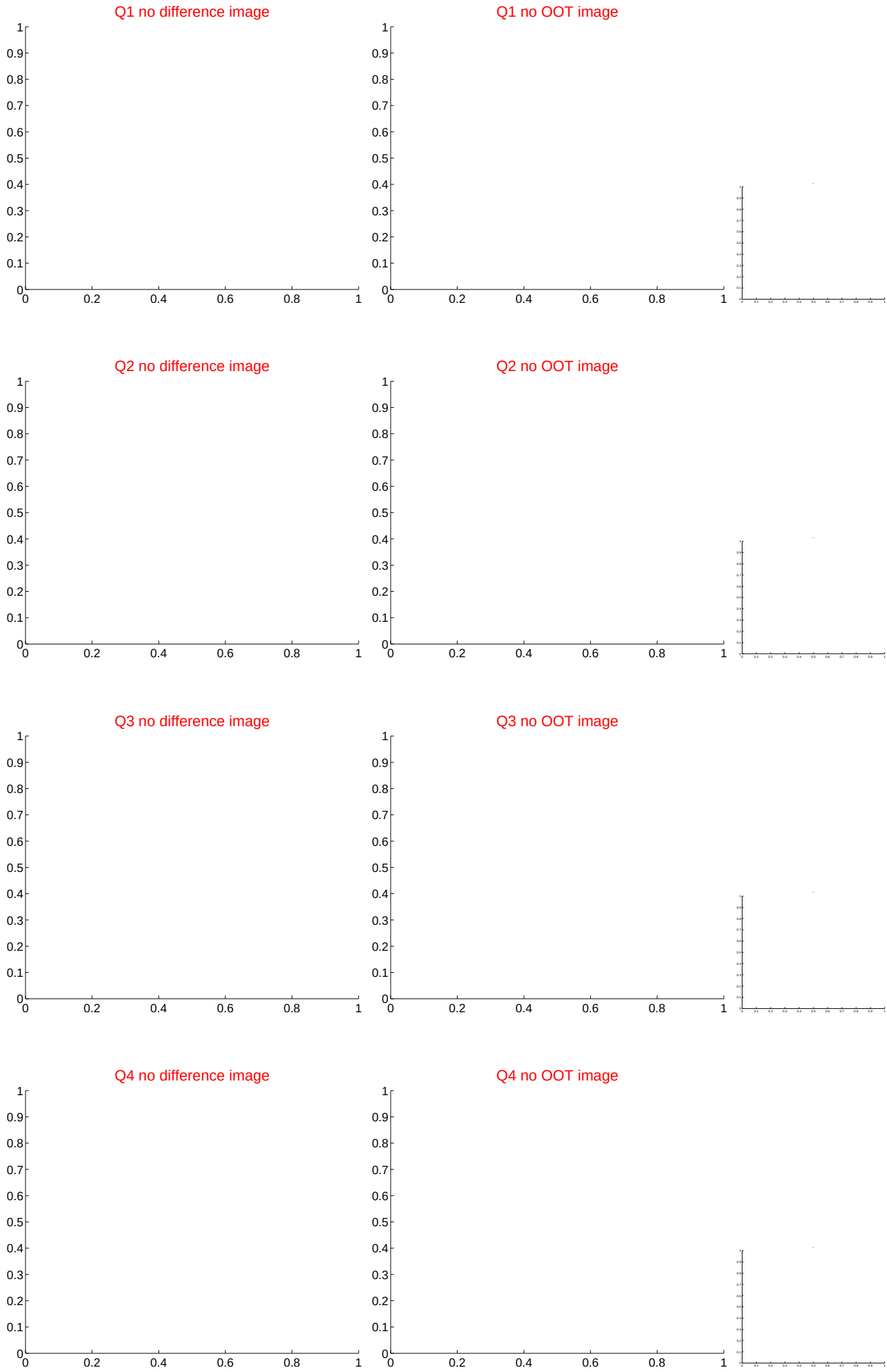
Supplemental centroid analysis for 006676725-06. Kepler magnitude: 14.70. Transit SNR 4.08
There are 1 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.485 ± 0.072	6.73	0.426 ± 0.070	0.232 ± 0.069
PRF-fit source offset from KIC position	0.410 ± 0.073	5.63	0.407 ± 0.073	0.050 ± 0.067
photometric centroid source offset	0.18 ± 0.17	1.05	0.18 ± 0.17	-0.04 ± 0.17

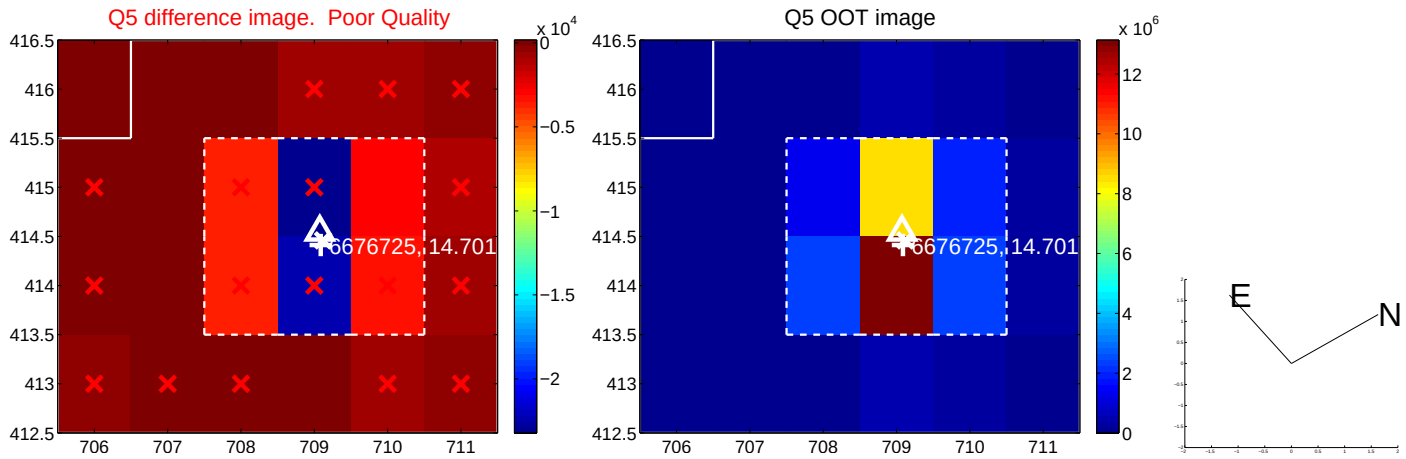


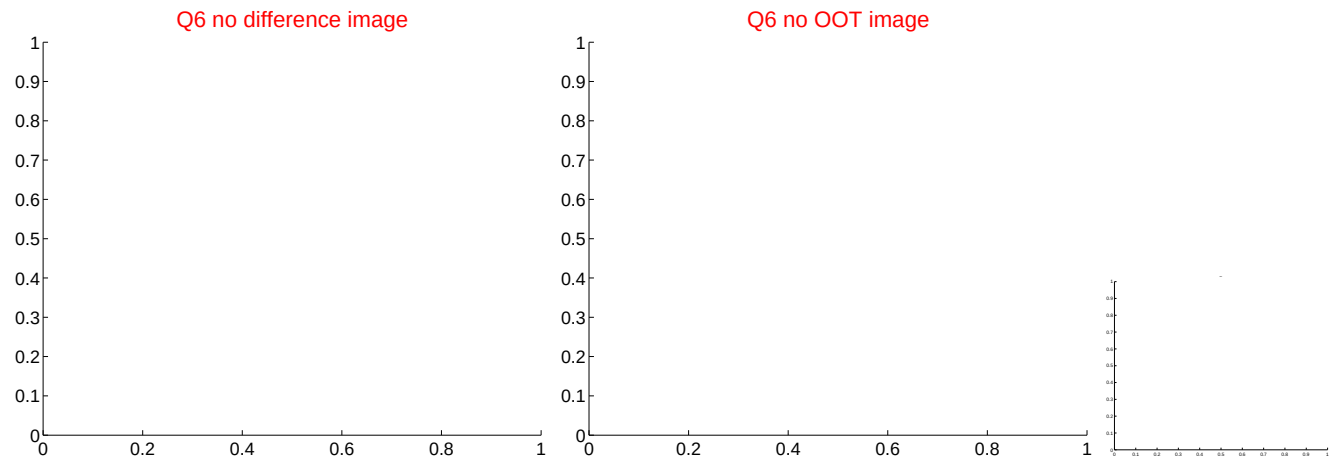
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

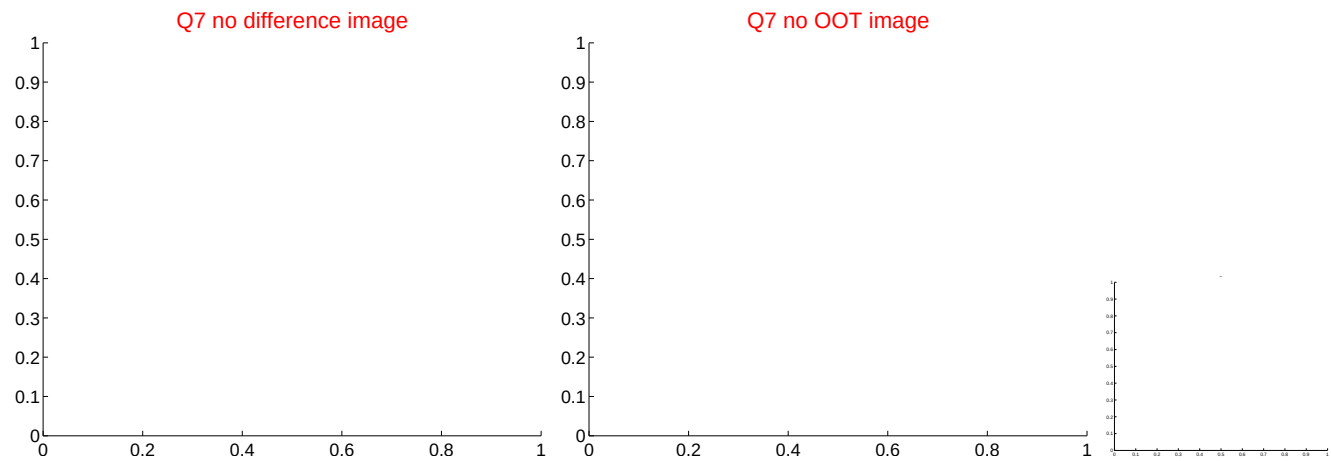
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

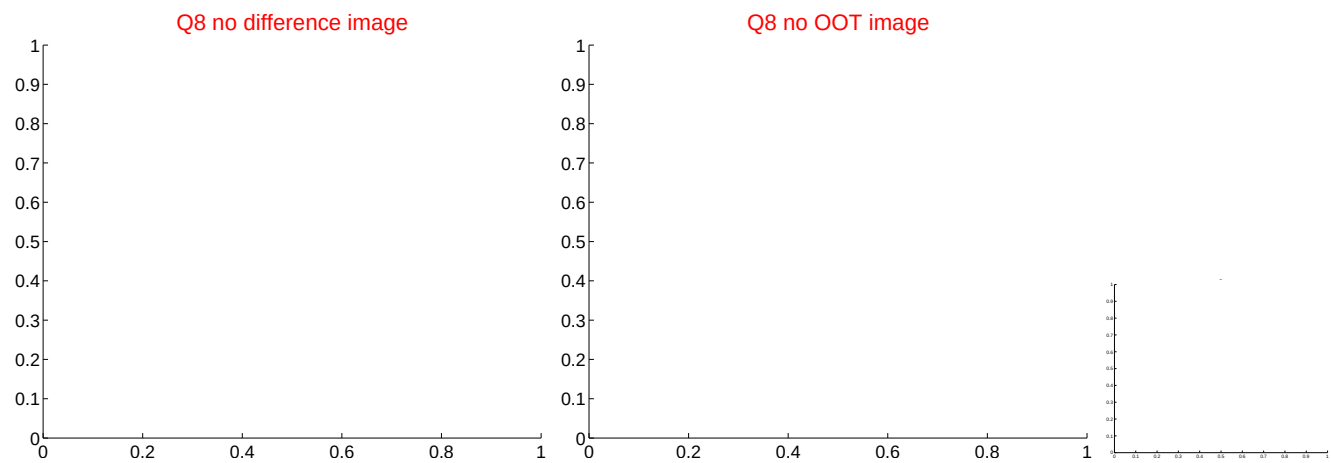


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

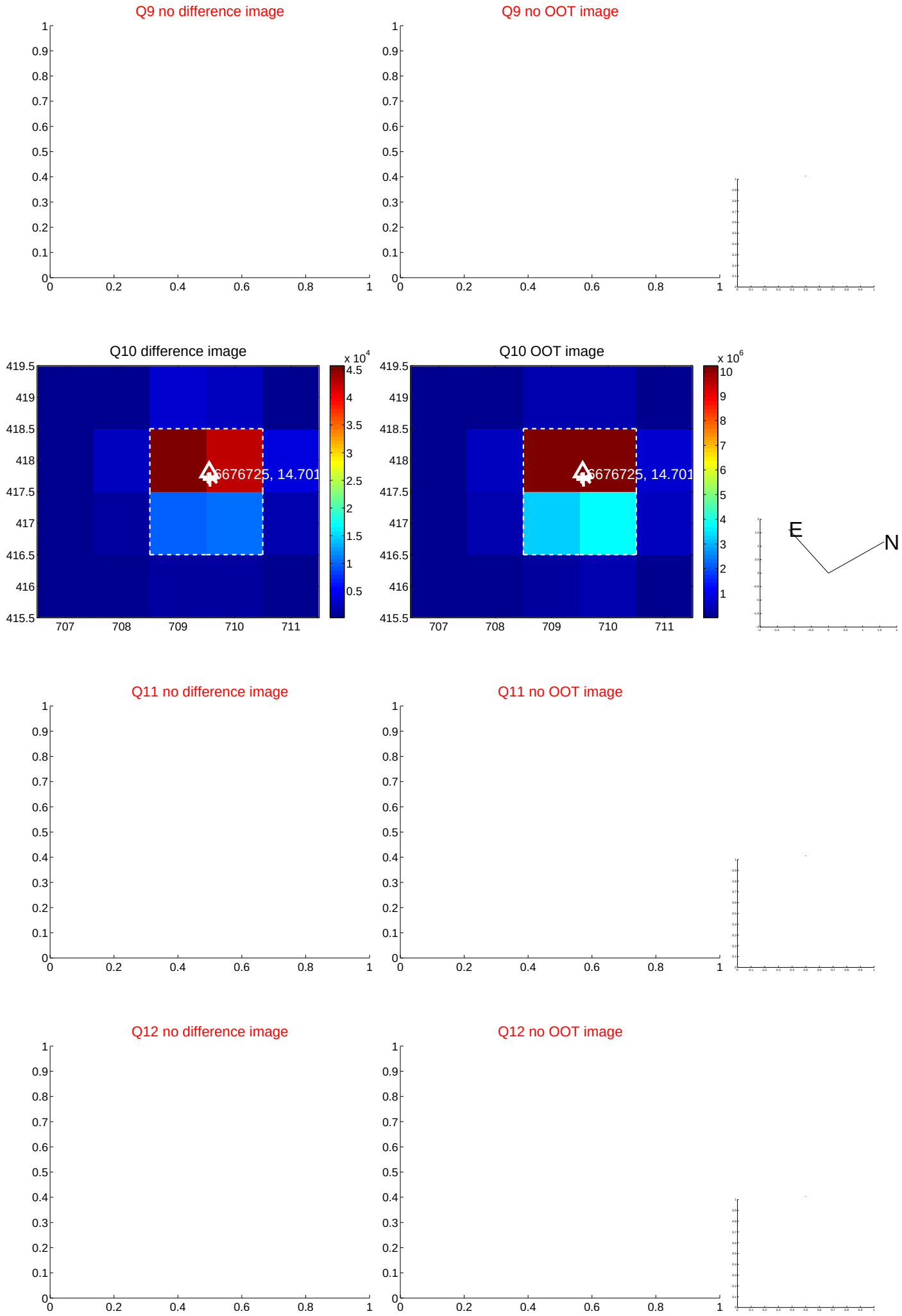




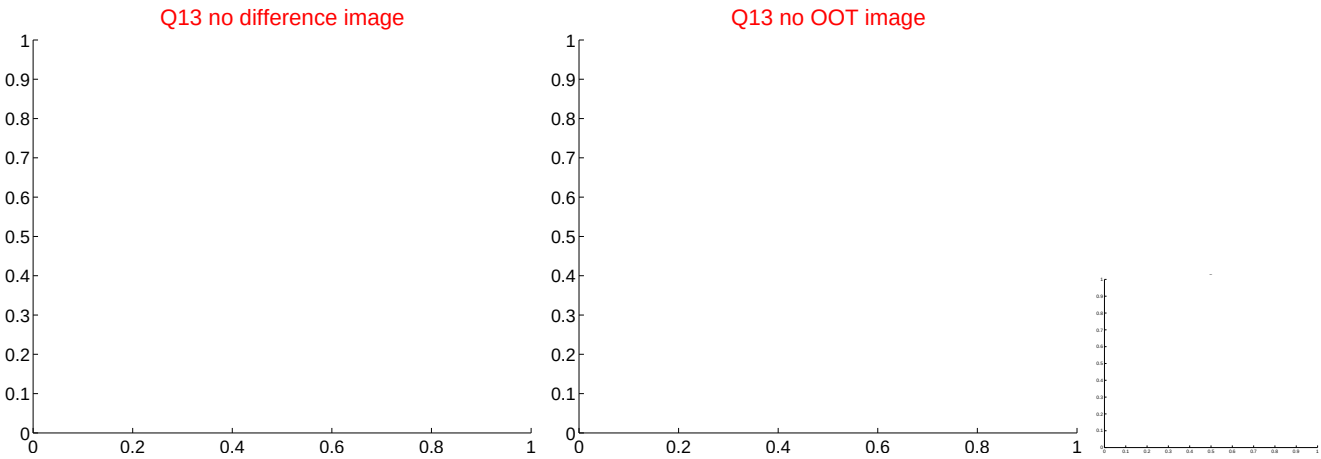


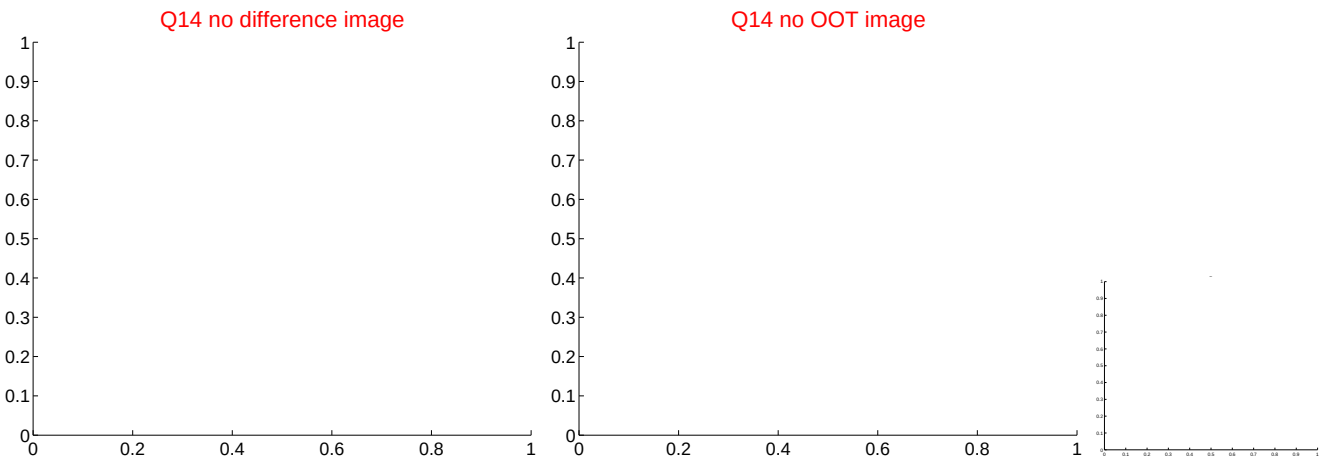


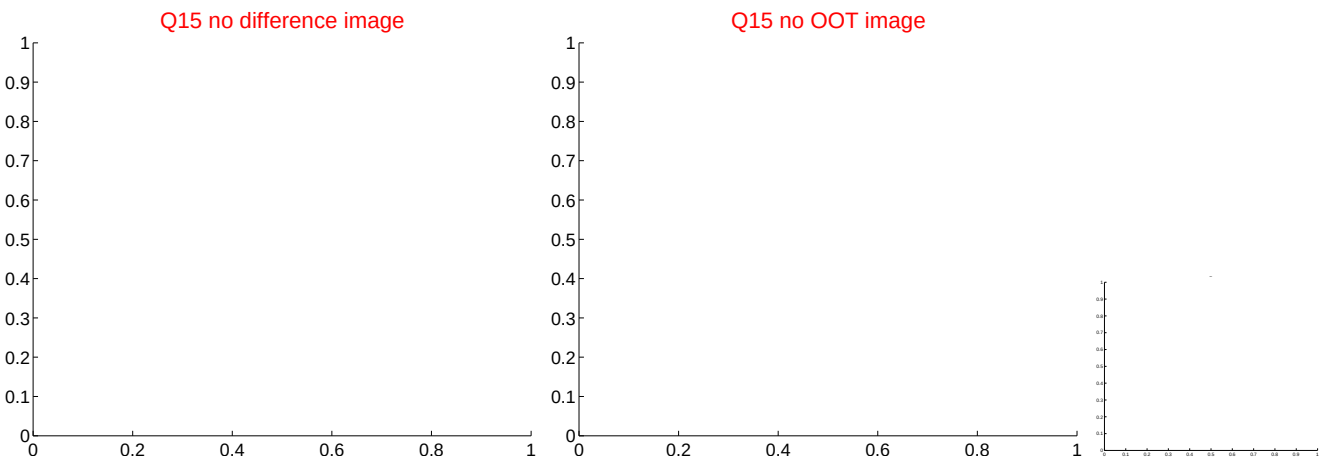
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

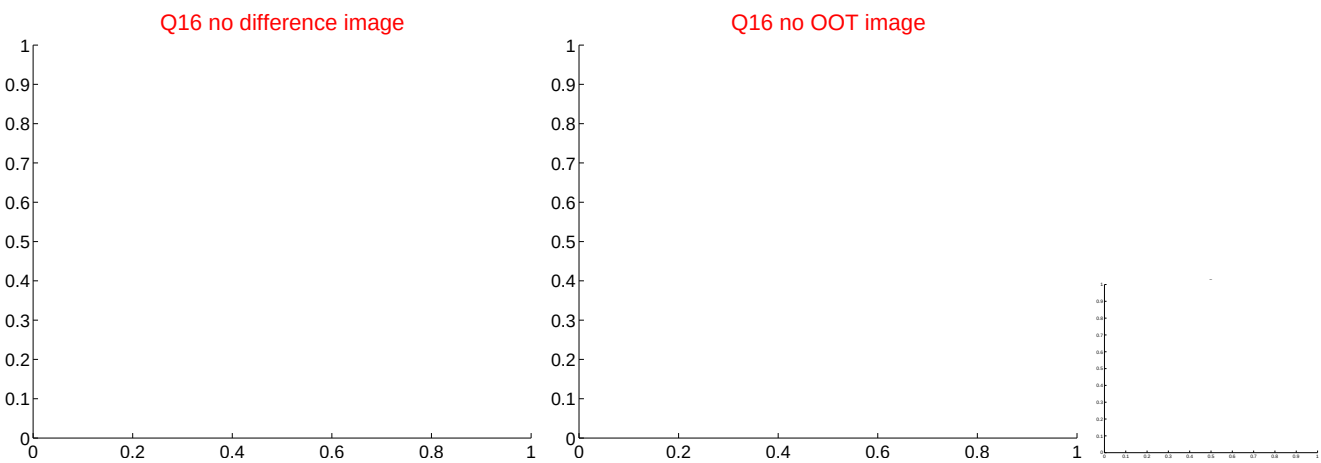


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

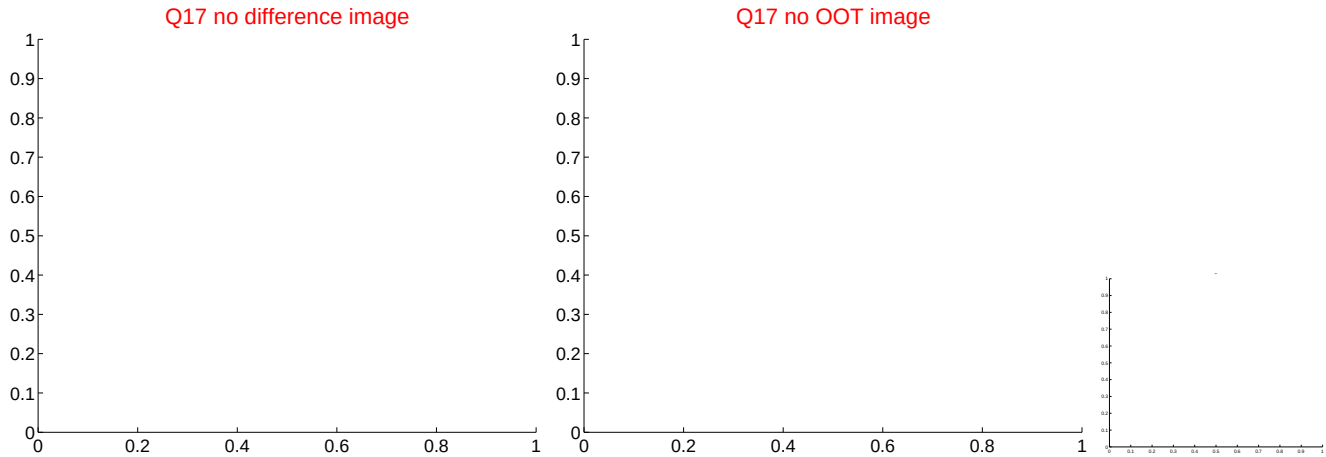


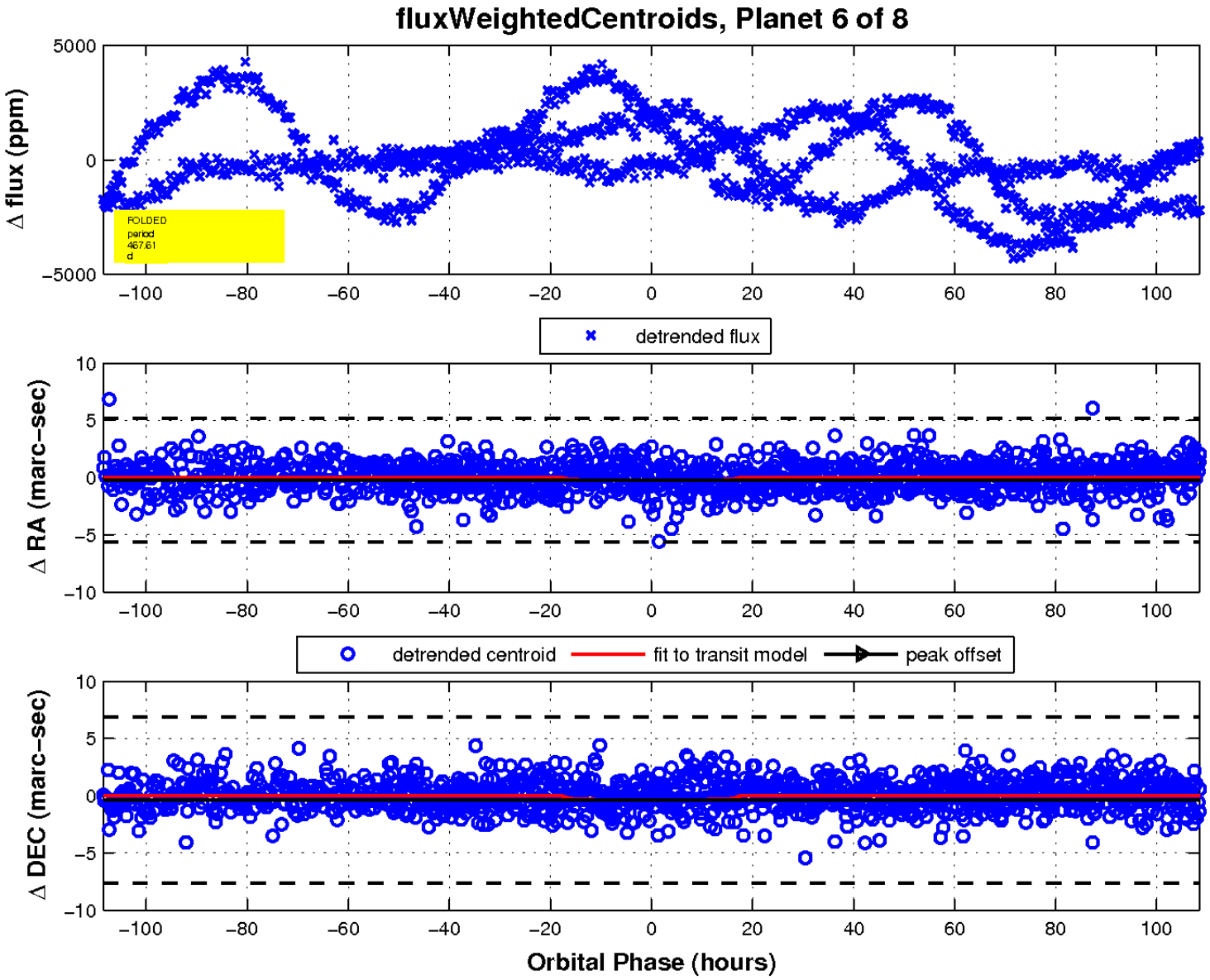




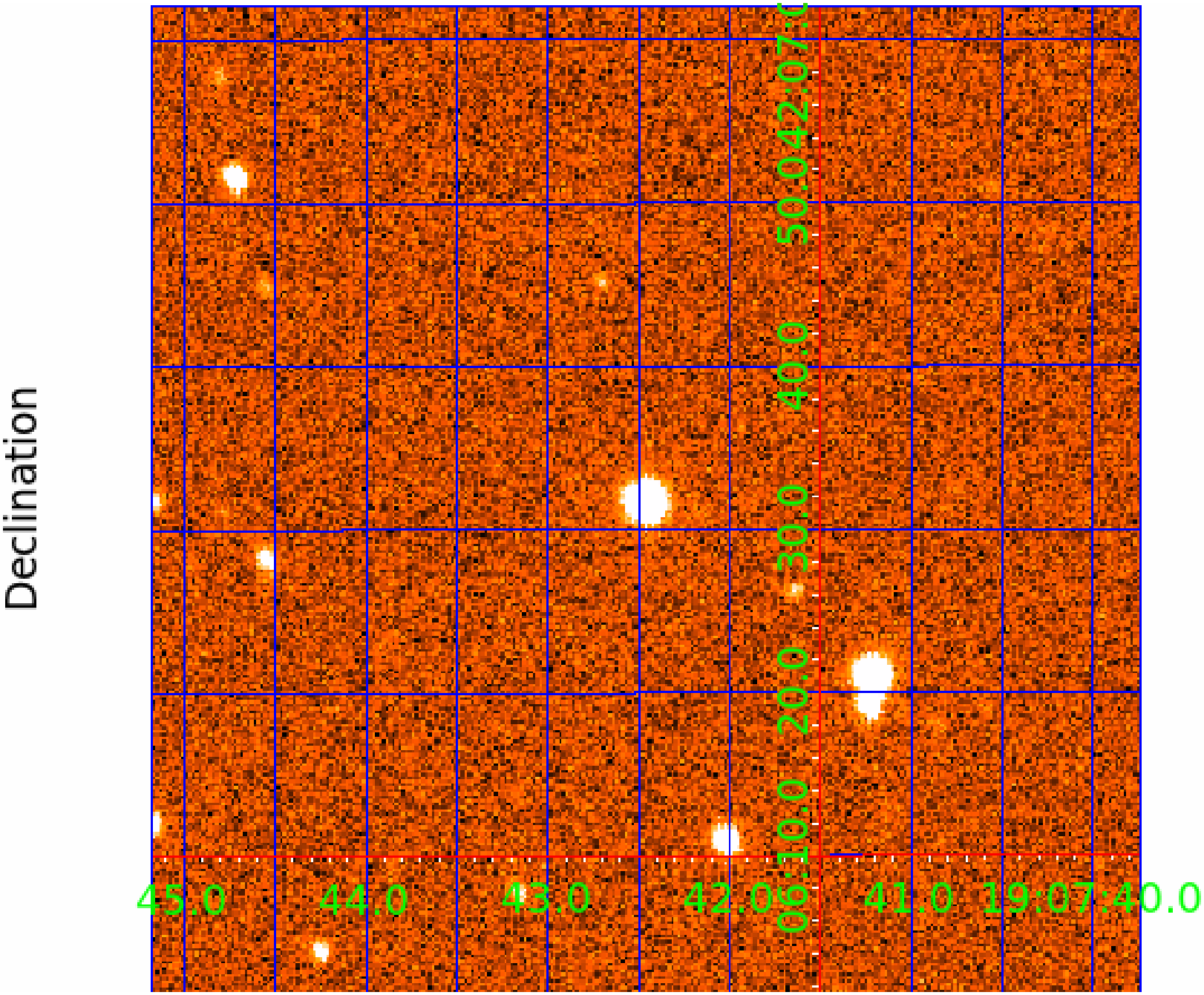


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image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KIC 006676725

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 ($S_\oplus$)
006676725-01	OBS	6755.01	1.428769	132.190421	63.9	5.715	10.8	11.3	1.03	6197	0.98	2155.91
006676725-02	OBS	No	298.264757	158.356835	583.5	5.419	12.3	5.0	1.03	6197	3.16	1.74
006676725-03	OBS	No	280.980528	227.946906	1856.2	6.210	15.5	11.1	1.03	6197	5.20	1.89
006676725-04	OBS	No	575.744539	235.588714	661.9	5.370	10.2	5.3	1.03	6197	2.67	0.72
006676725-05	OBS	No	227.491359	356.677682	602.6	7.145	9.5	4.4	1.03	6197	2.98	2.50
006676725-06	OBS	No	467.613116	485.478418	1964.0	36.211	8.6	4.1	1.03	6197	4.72	0.96
006676725-07	OBS	No	455.843842	405.549962	853.7	11.466	9.0	5.4	1.03	6197	3.21	0.99
006676725-08	OBS	No	419.555476	236.055898	605.4	7.500	9.0	-1.0	1.03	6197	2.55	1.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676725-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—CENT_UNRESOLVED_OFFSET—HALO_GHOST
006676725-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS
006676725-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006676725-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
006676725-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
006676725-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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.

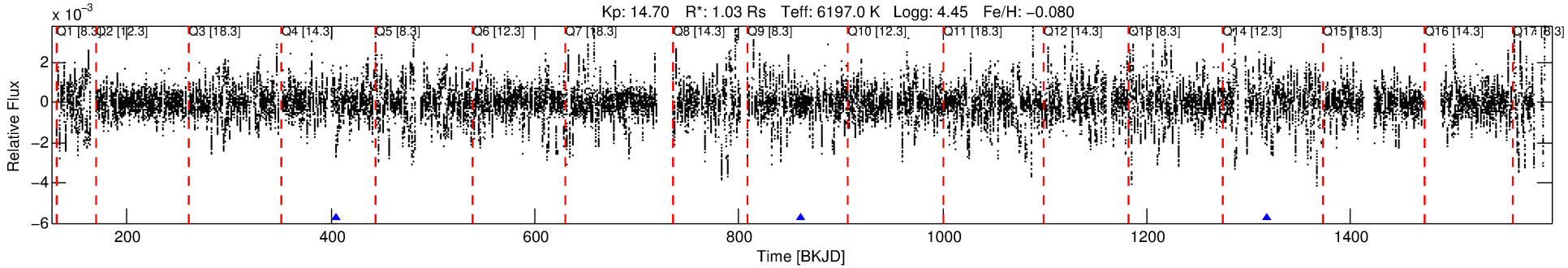
Ephemeris Match Information For 006676725-07

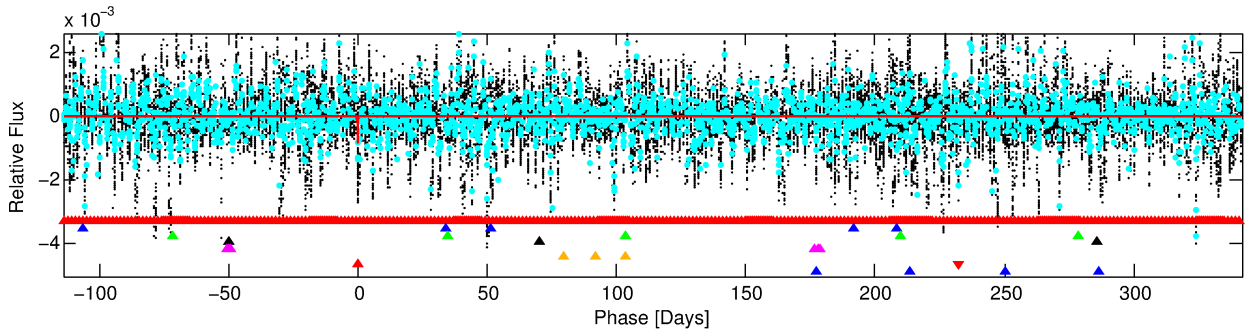
No Significant Match Found

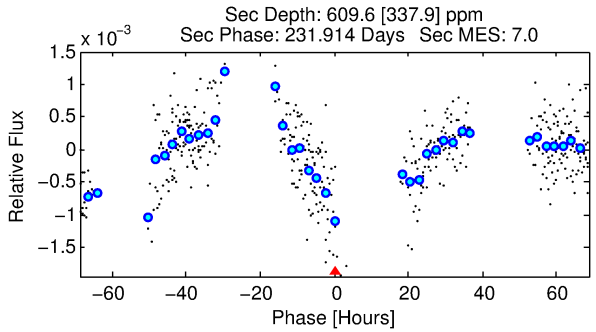
DV One-Page Summary

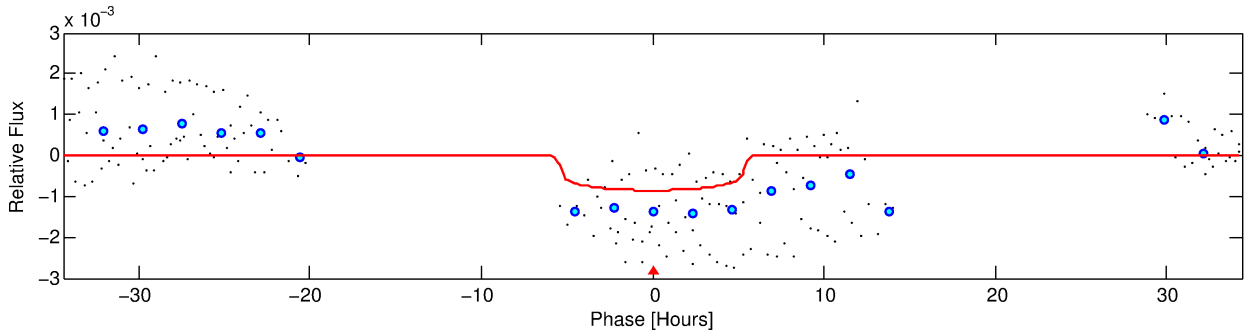
KIC: 6676725 Candidate: 7 of 8 Period: 455.844 d
KOI: K06755 Corr: No Ephemeris Match

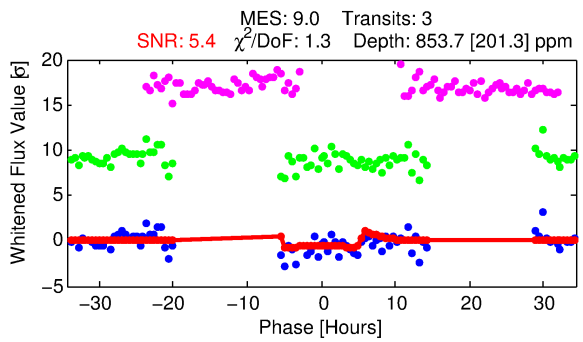
Kp: 14.70 R*: 1.03 Rs Teff: 6197.0 K Logg: 4.45 Fe/H: −0.080

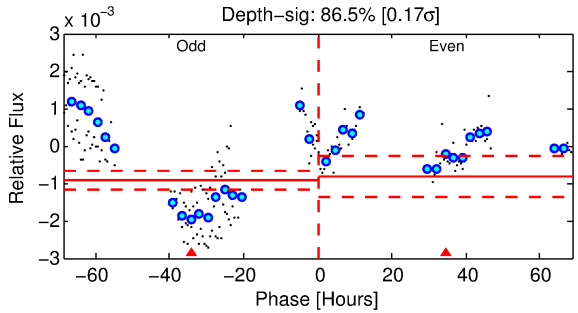


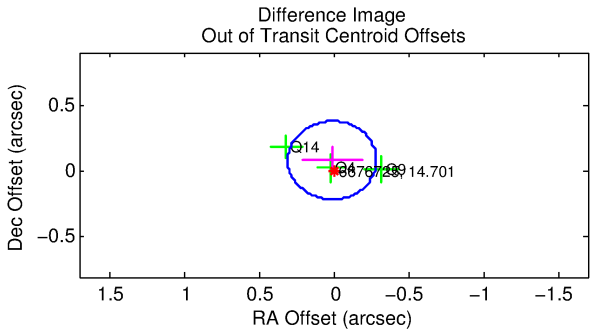












DV Fit Results:

Period = 455.84384 [0.01242] d
Epoch = 405.5500 [0.0222] BKJD
Rp/R* = 0.0285 [0.0093]
a/R* = 235.13 [335.03]
b = 0.68 [1.14]

Seff = 0.99 [0.39]
Teq = 254 [25] K
Rp = 3.21 [1.43] Re
a = 1.1964 [0.3007] AU

Ag = 46477.72 [43405.68] [1.07σ]
Teffp = 5773 [1256] K [4.39σ]

DV Diagnostic Results:

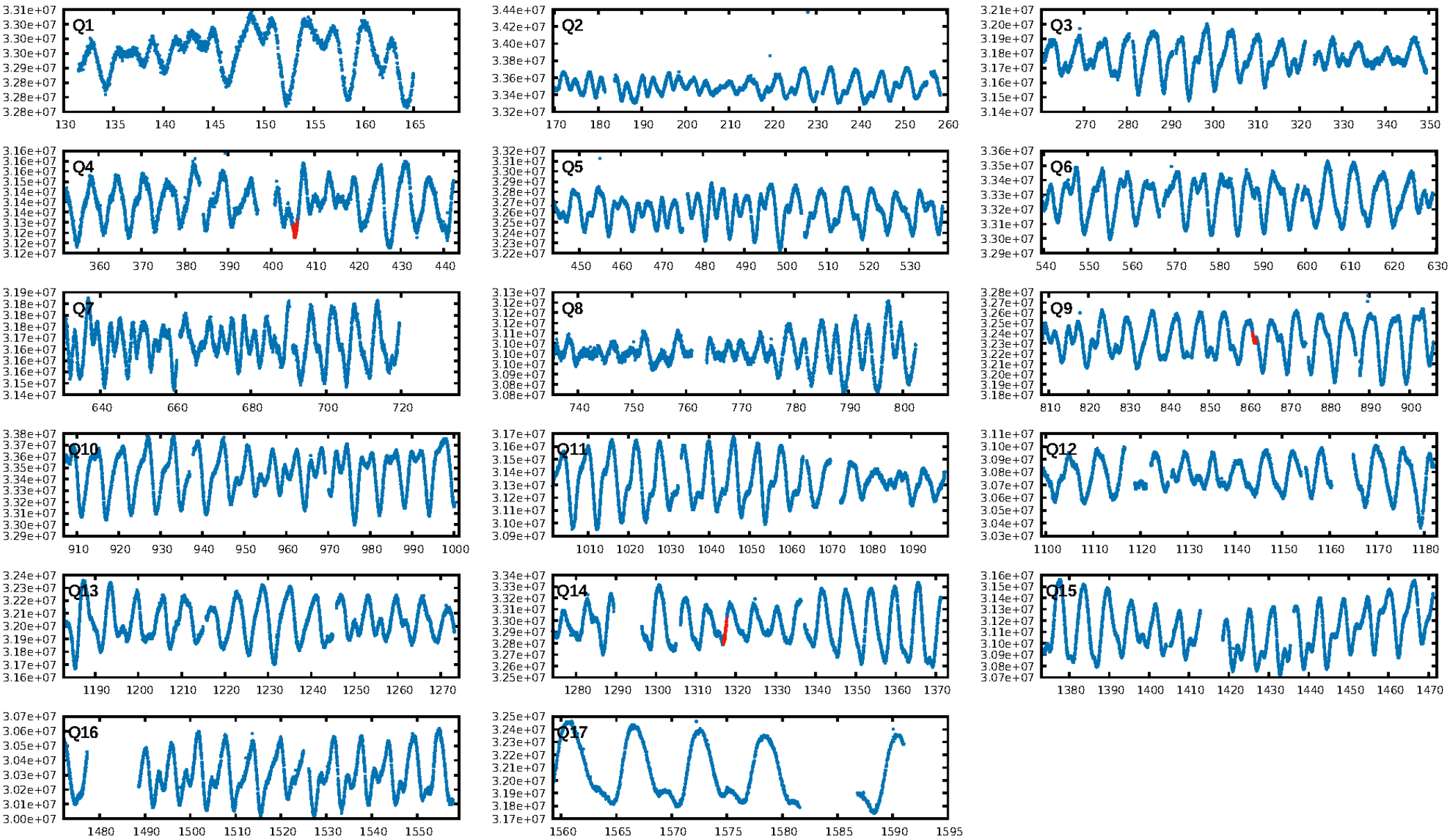
ShortPeriod−sig: 100.0% [63.56σ]
LongPeriod−sig: 100.0% [7.44σ]
ModelChiSquare2−sig: 33.5%
ModelChiSquareGof−sig: 99.2%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: 0.8046

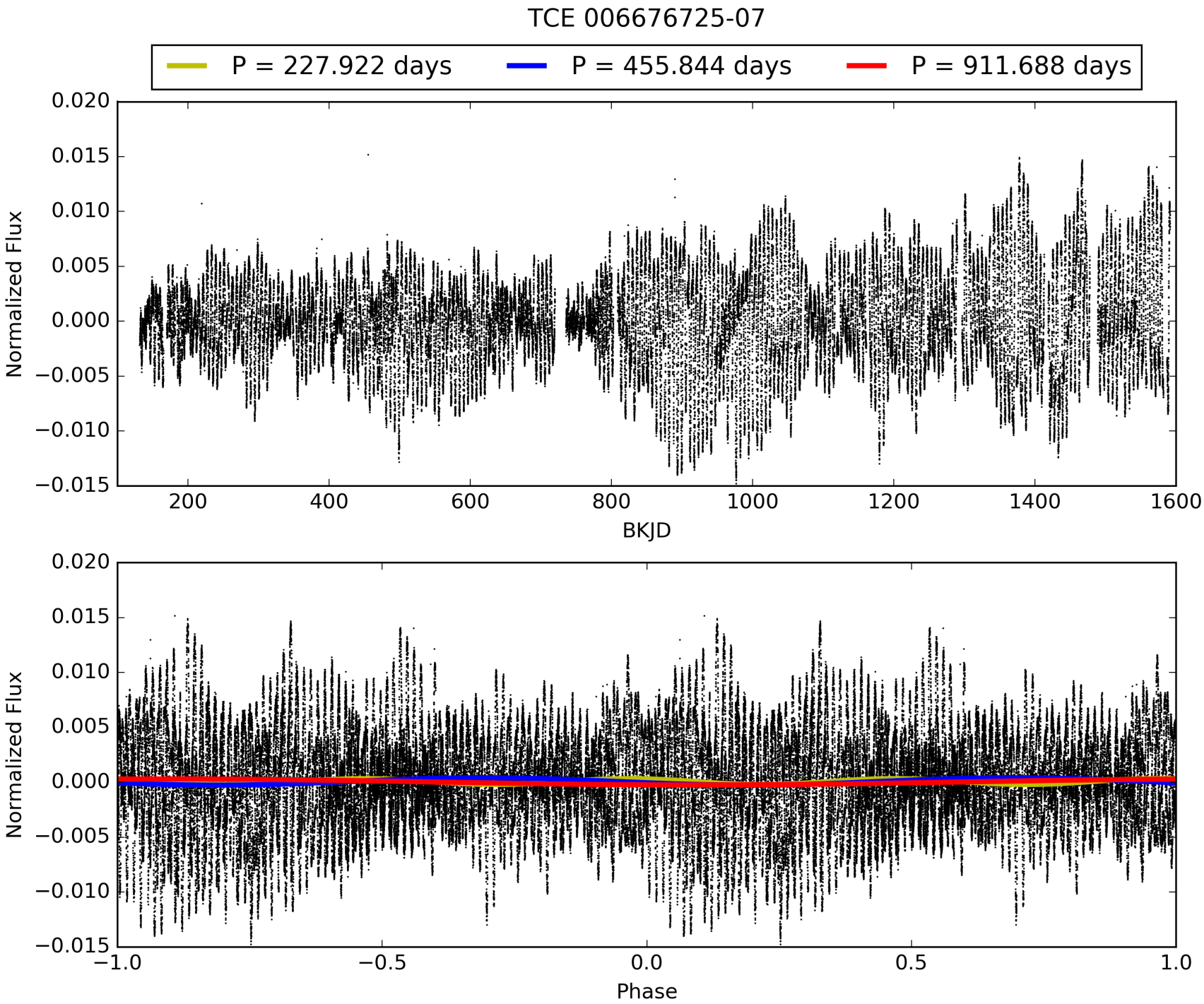
Centroid−sig: 38.3%
Centroid−so: 0.826 arcsec [1.17σ]
OotOffset−rm: 0.084 arcsec [0.85σ]
KicOffset−rm: 0.118 arcsec [1.11σ]
OotOffset−st: 1/0/1/1 [3]
KicOffset−st: 1/0/1/1 [3]
DiffImageQuality−fgm: 1.00 [3/3]
DiffImageOverlap−fno: 0.00 [0/3]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:18:12 Z

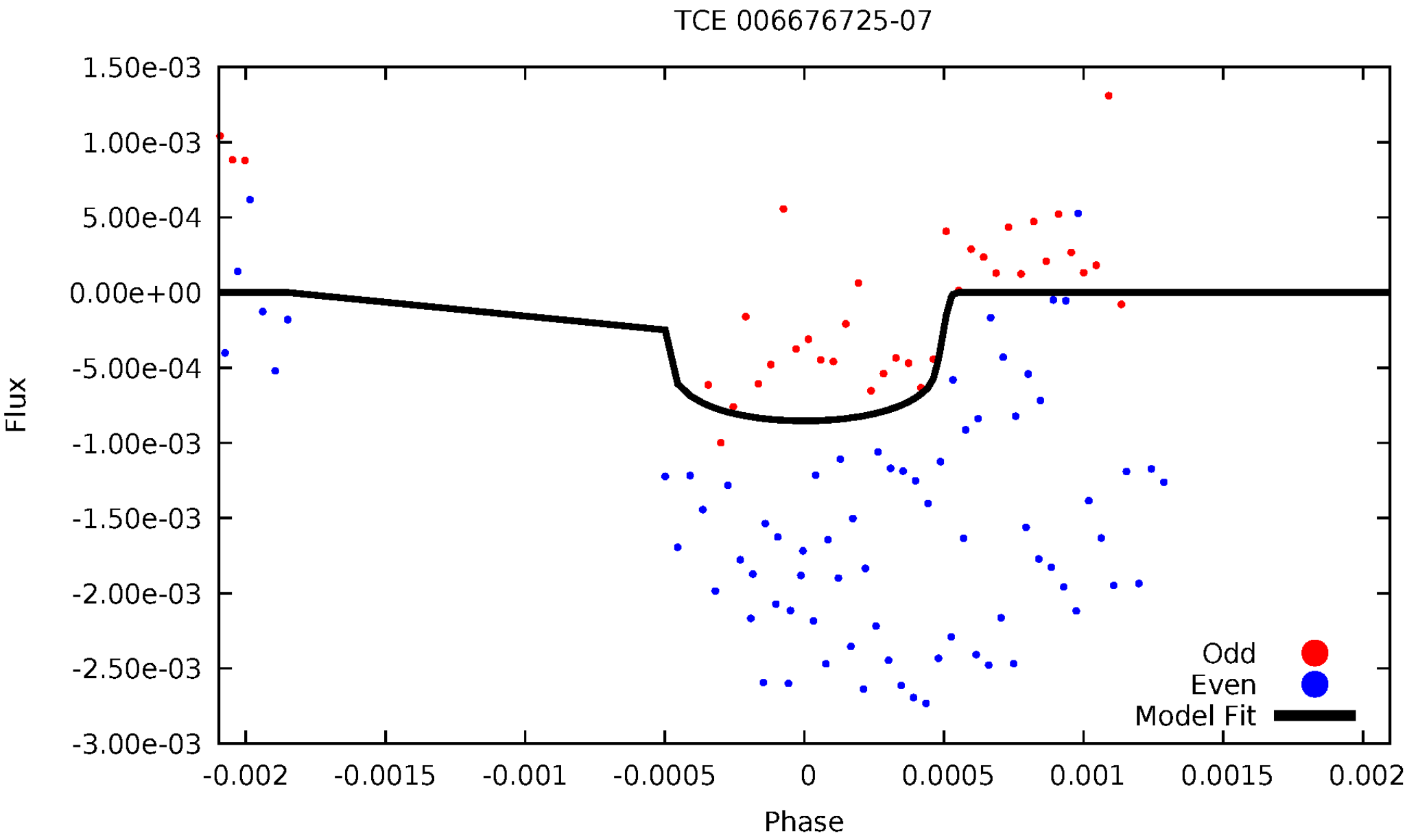
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006676725-07, PDC Light Curves




TCE 006676725-07
P = 227.922 days
P = 455.844 days
P = 911.688 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even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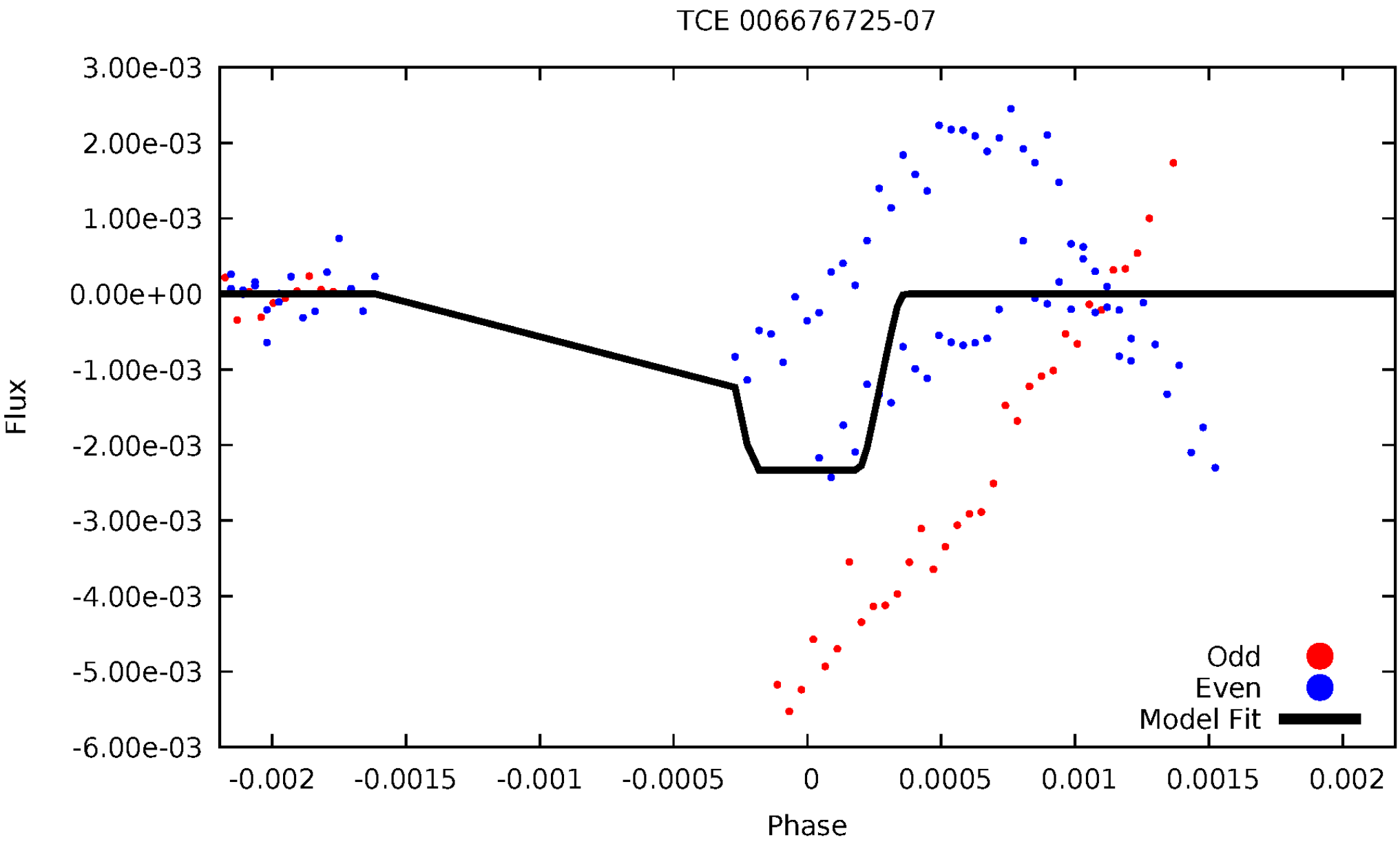
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
-2.50e-03
-3.00e-03
Flux
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit

ALT Odd/Even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-1.00e-03
-2.00e-03
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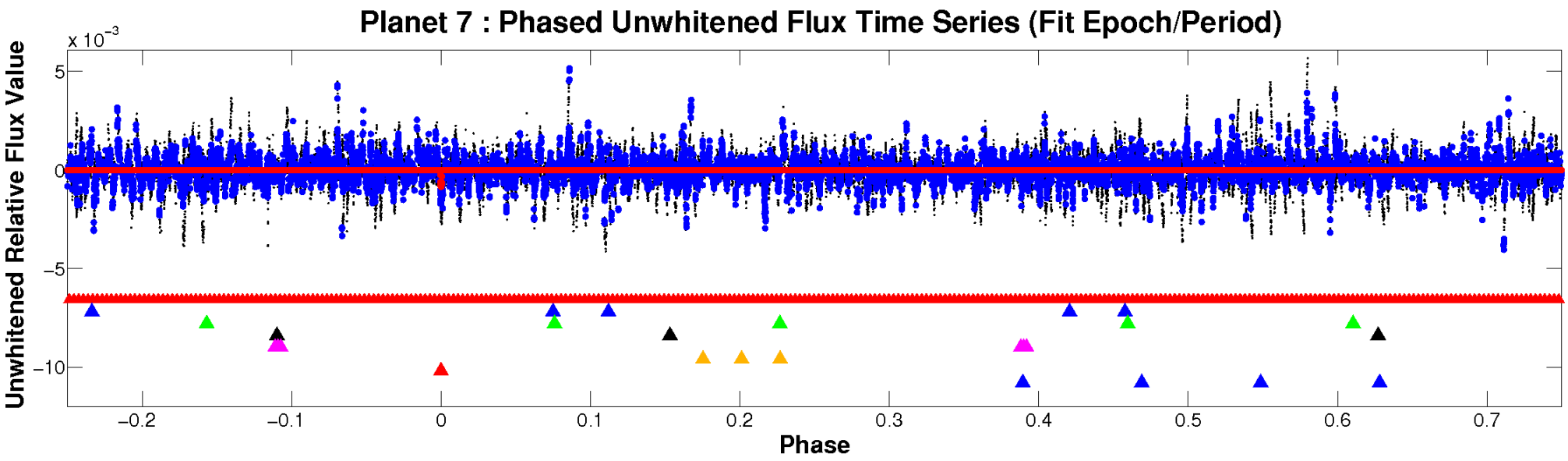
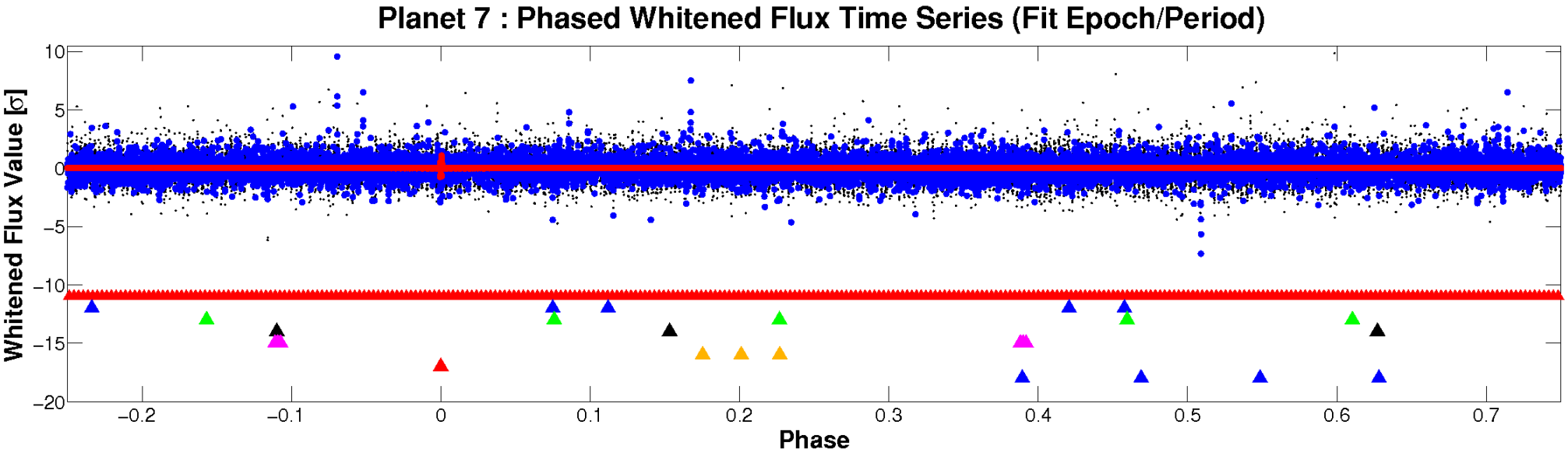
-4.00e-03
-5.00e-03
-6.00e-03
Flux
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit

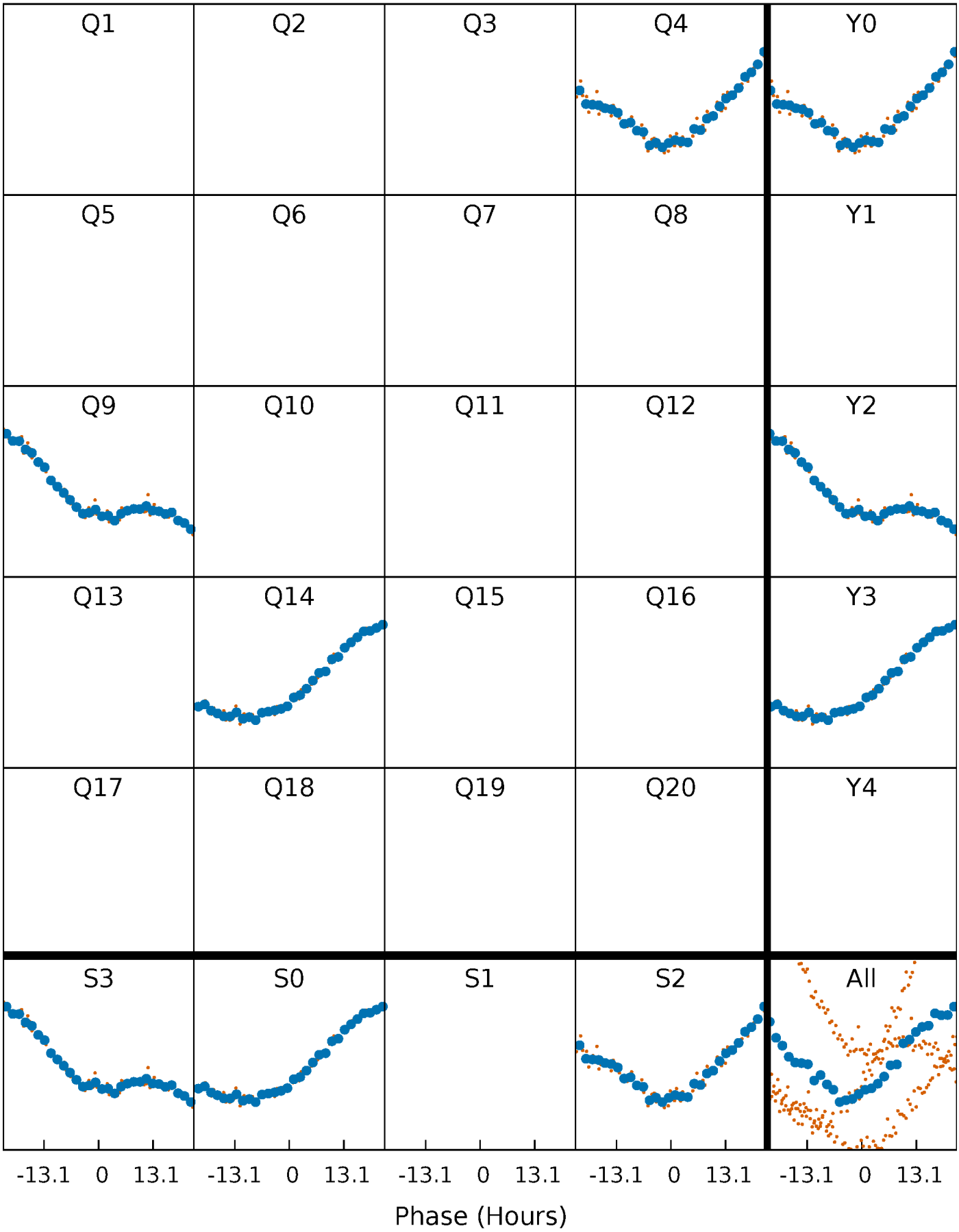
Non-Whitened Vs. Whitened Light Curve





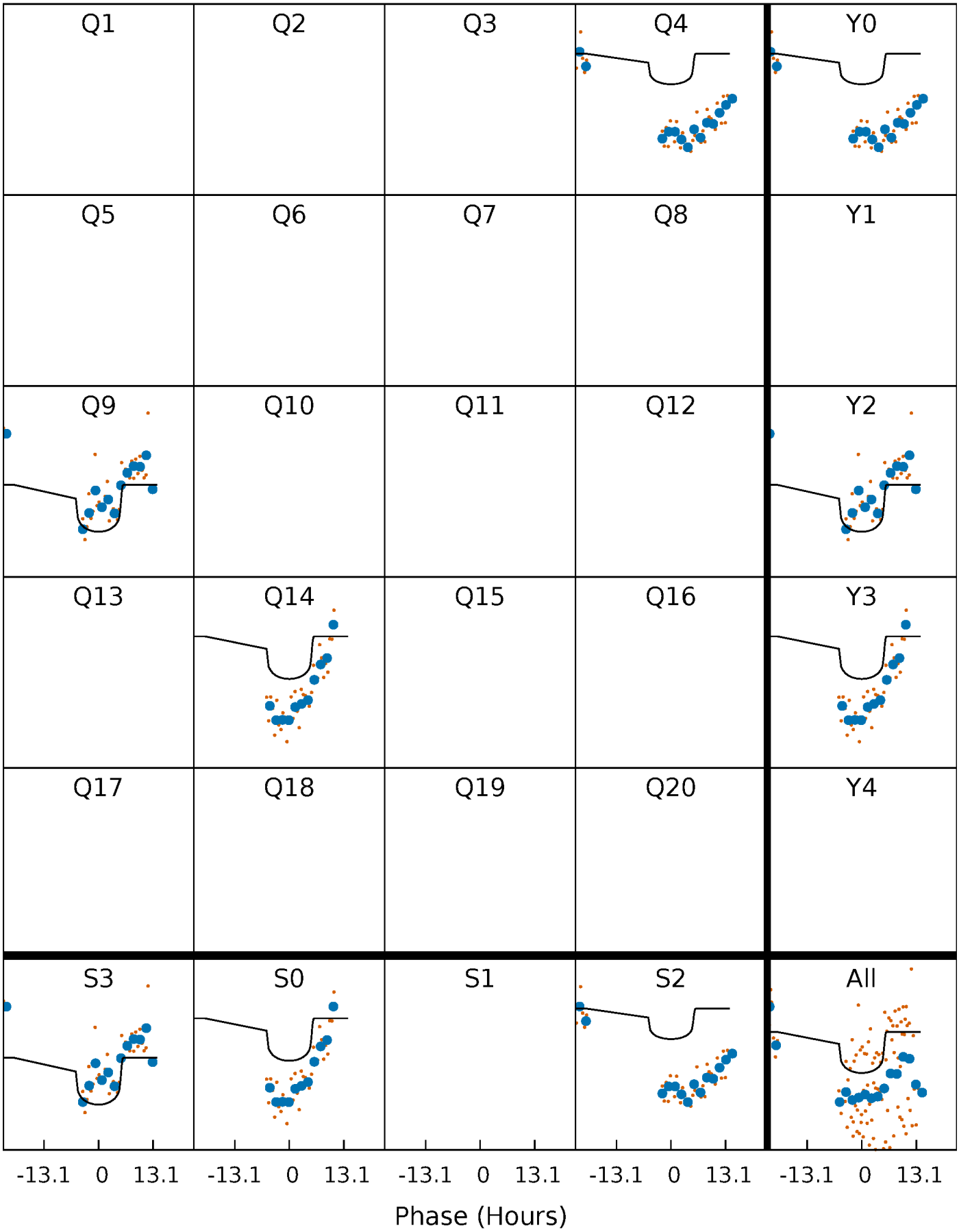
PDC Quarter-Phased Transit Curves

TCE 006676725-07 P=455.843842 Days T_0=405.549962 (BKJD)



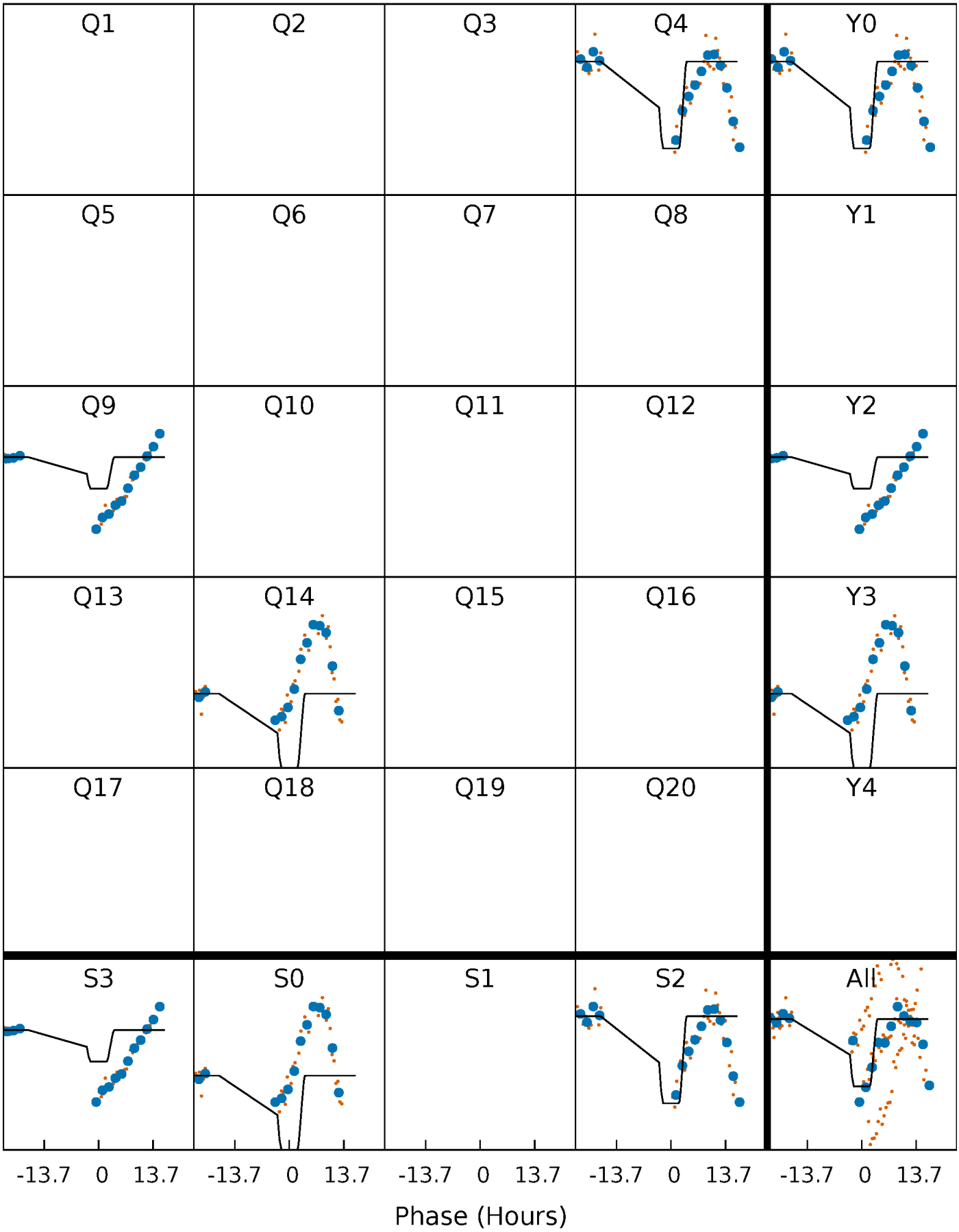
DV Quarter-Phased Transit Curves

TCE 006676725-07 P=455.843842 Days T_0=405.549962 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

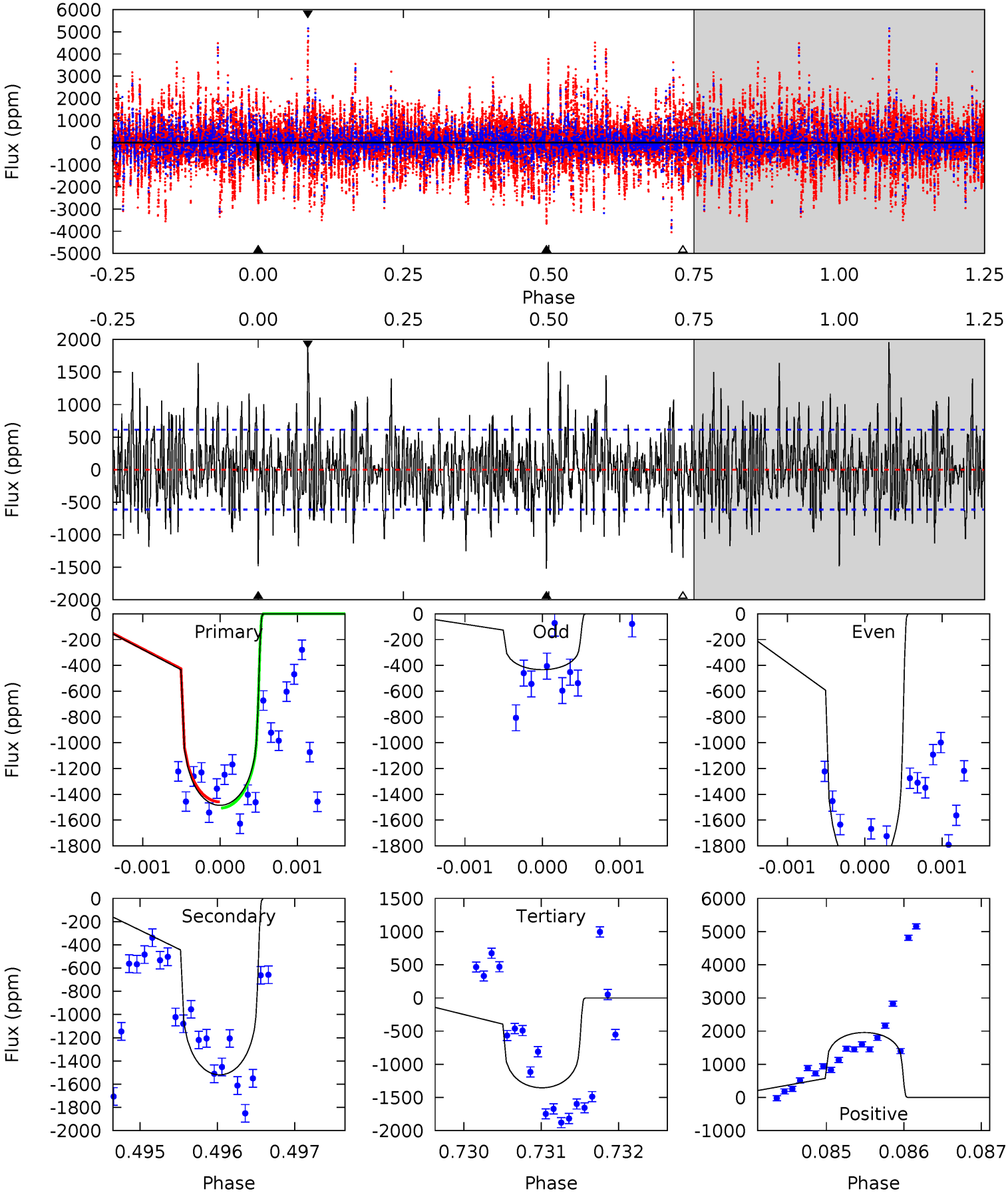
TCE 006676725-07 P=455.845479 Days T_0=405.442688 (BKJD)



DV Model-Shift Uniqueness Test

006676725-07, P = 455.843842 Days, E = 405.549962 Days

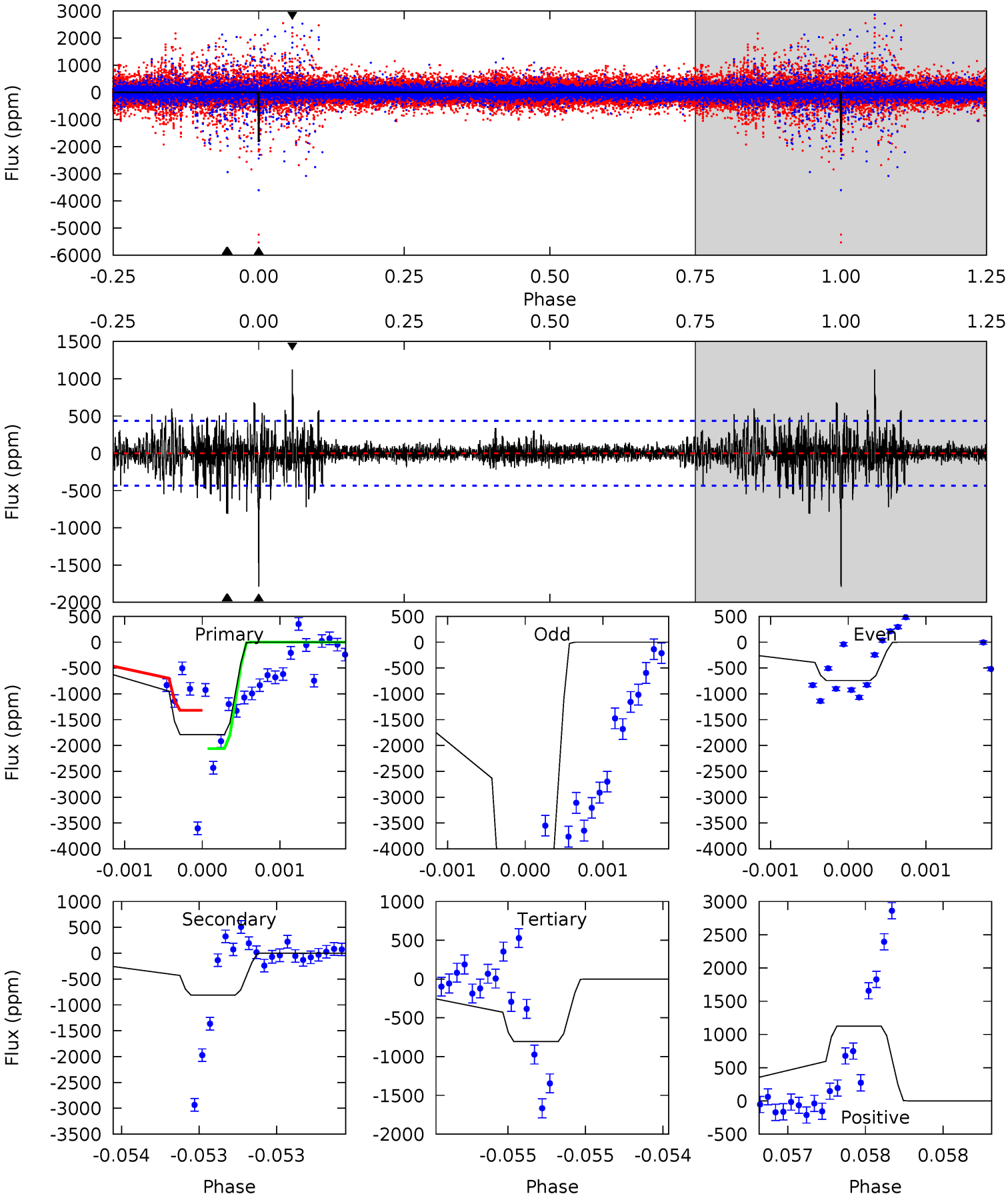
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	13.5	12.0	17.4	5.45	3.29	3.98	1.16	-4.19	1.47	-3.88	6.32	0.93	0.56	0.21



Alt Model-Shift Uniqueness Test

006676725-07, P = 455.845479 Days, E = 405.442688 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.8	10.3	10.3	14.3	5.53	3.42	1.30	12.5	8.48	0.06	-3.97	31.0	1.16	0.39	4.43



Stellar Parameters For KIC 006676725

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6197^{+172}_{-216}	$4.449^{+0.050}_{-0.200}$	$-0.080^{+0.250}_{-0.300}$	$1.035^{+0.309}_{-0.111}$	$1.096^{+0.141}_{-0.141}$	$1.394^{+0.390}_{-0.735}$
	+3%/-3%	+1%/-4%	+312%/-375%	+30%/-11%	+13%/-13%	+28%/-53%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006676725-07 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1519±113	$3.40^{+1.21}_{-1.13}$	363^{+25}_{-18}	7297^{+2000}_{-1028}	$100688^{+125746}_{-44831}$
Alt.	-811±79	$5.61^{+1.55}_{-1.05}$	363^{+26}_{-17}	4874^{+496}_{-392}	19597^{+11229}_{-7286}

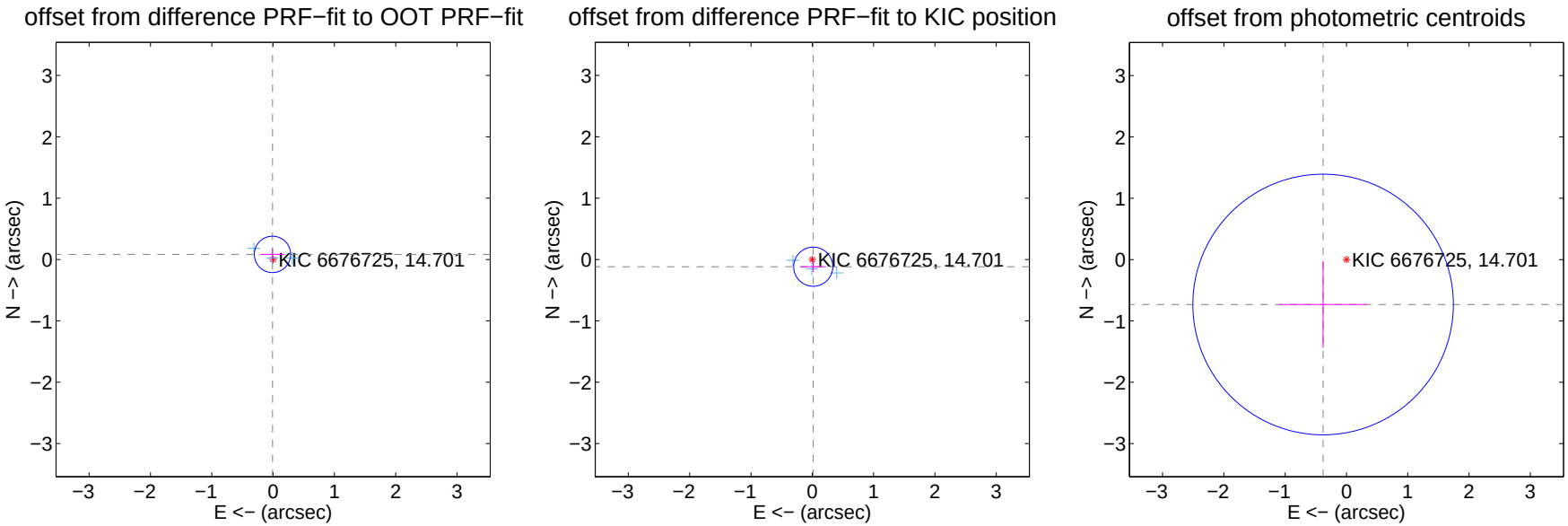
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

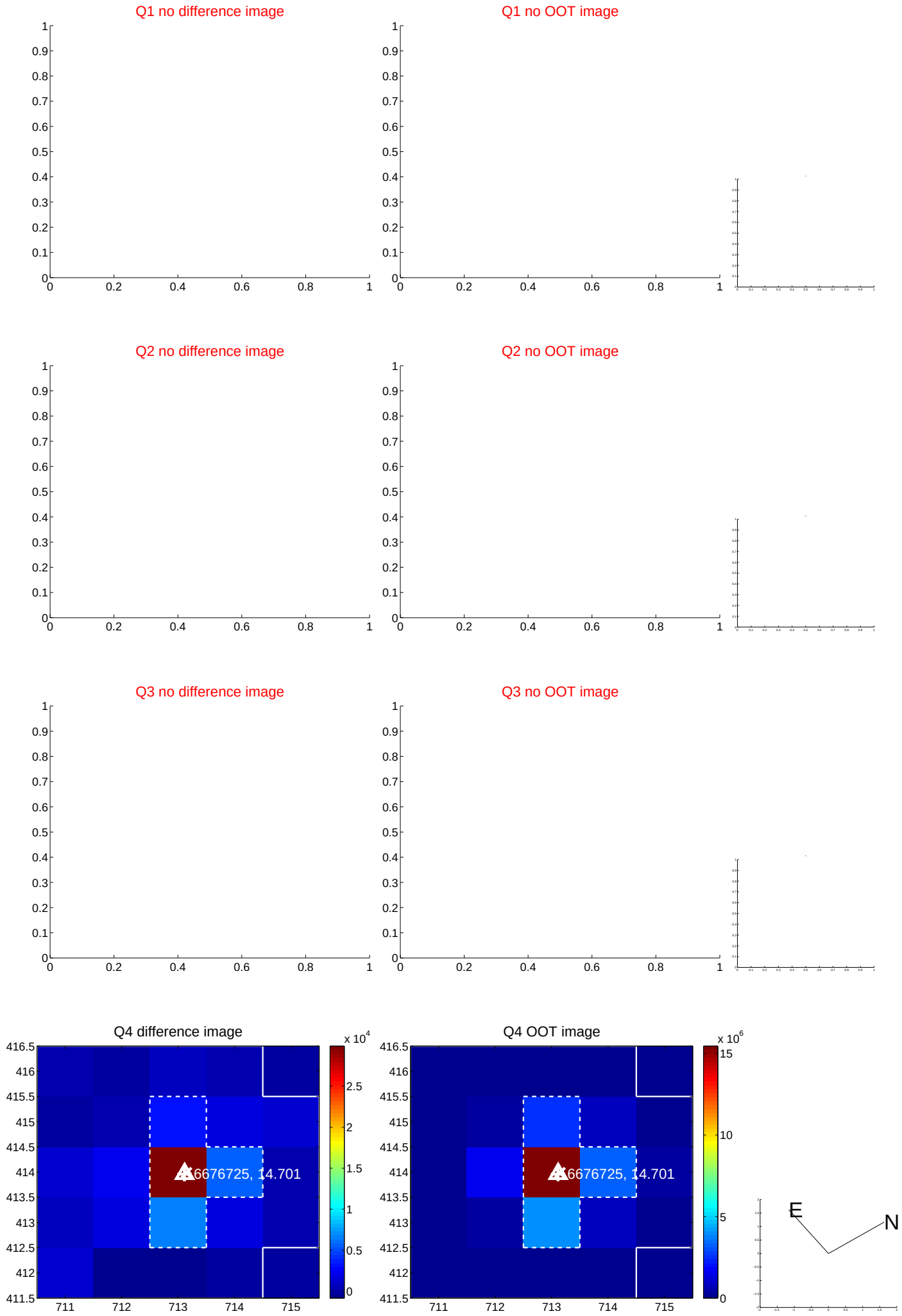
Supplemental centroid analysis for 006676725-07. Kepler magnitude: 14.70. Transit SNR 5.38
There are 3 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.084 ± 0.099	0.85	0.010 ± 0.197	0.083 ± 0.097
PRF-fit source offset from KIC position	0.118 ± 0.106	1.11	-0.016 ± 0.205	-0.117 ± 0.088
photometric centroid source offset	0.83 ± 0.71	1.17	0.38 ± 0.71	-0.73 ± 0.71

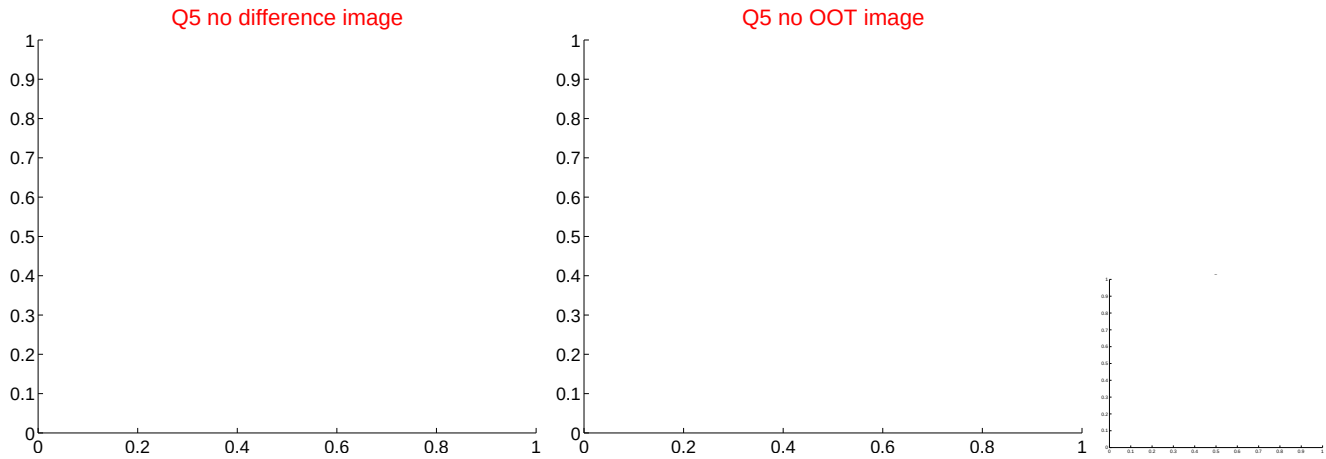


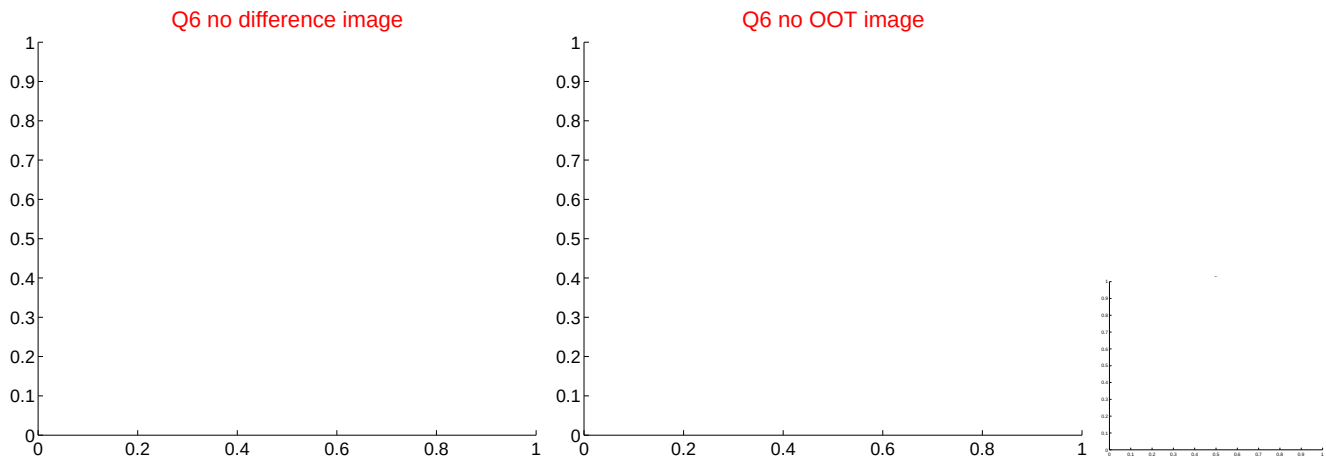
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

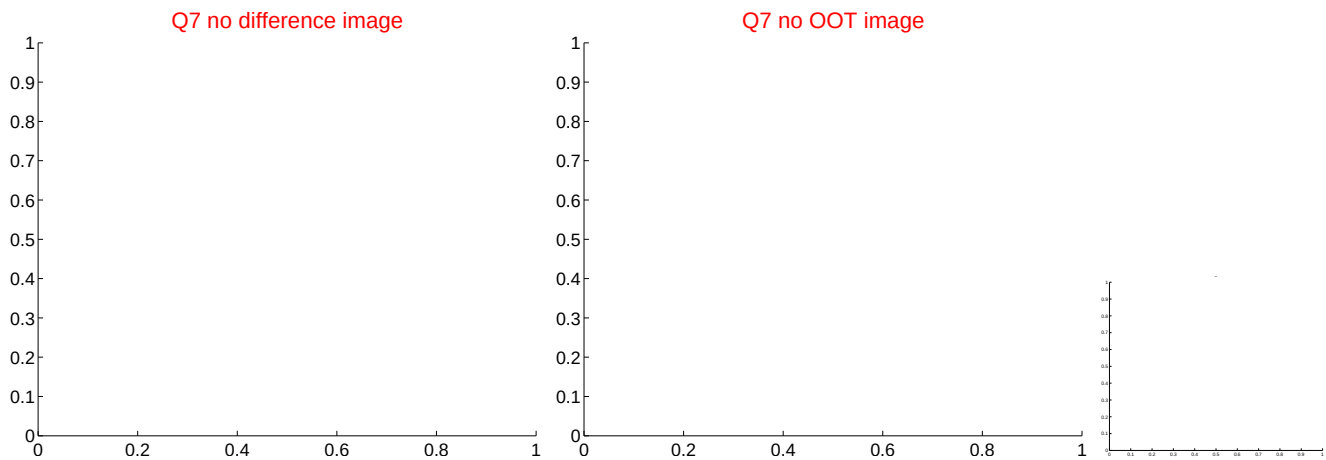
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

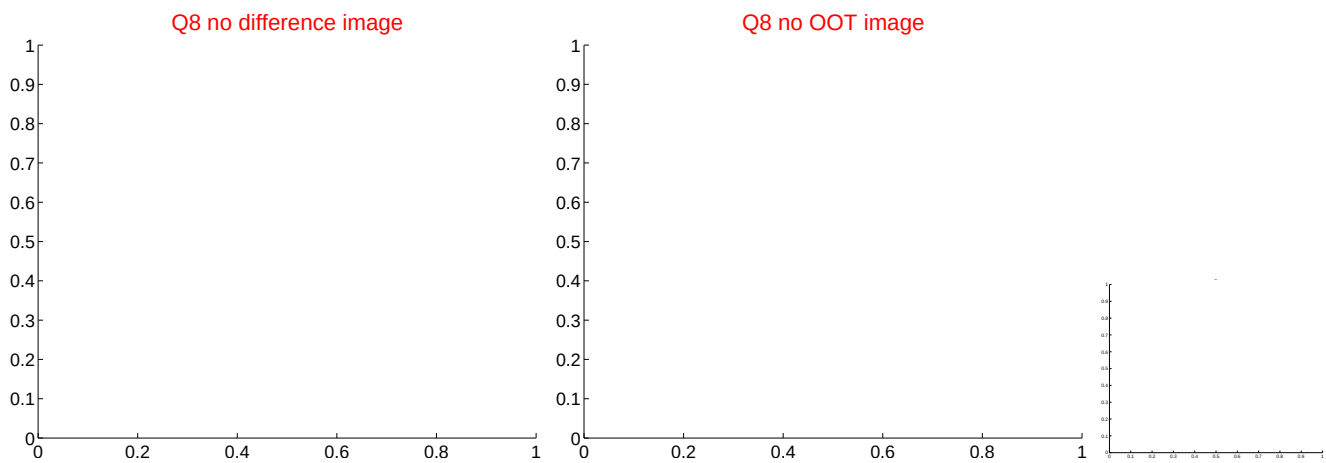


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

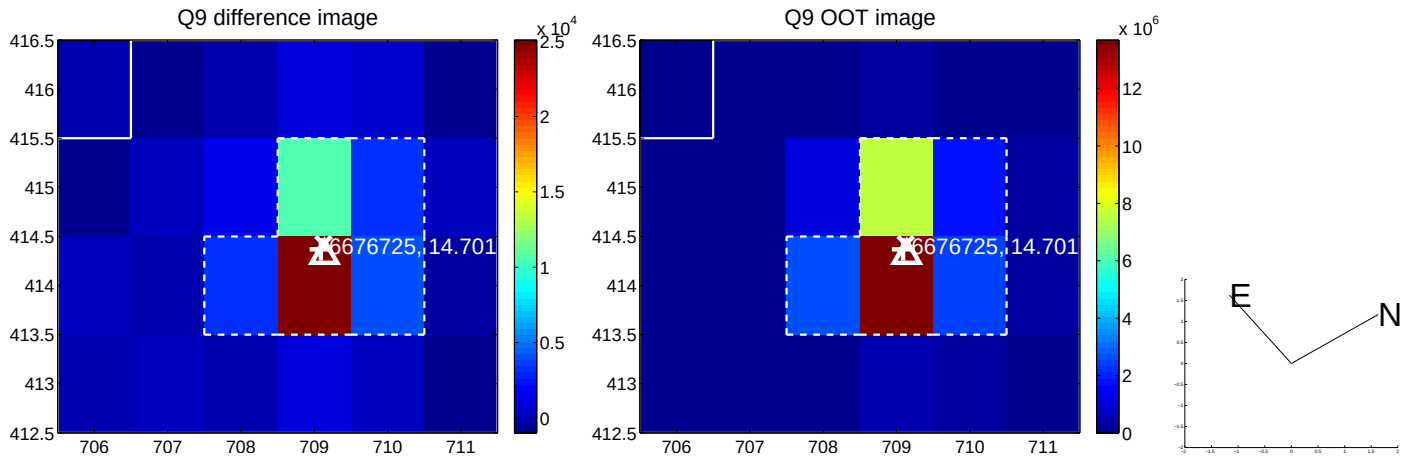


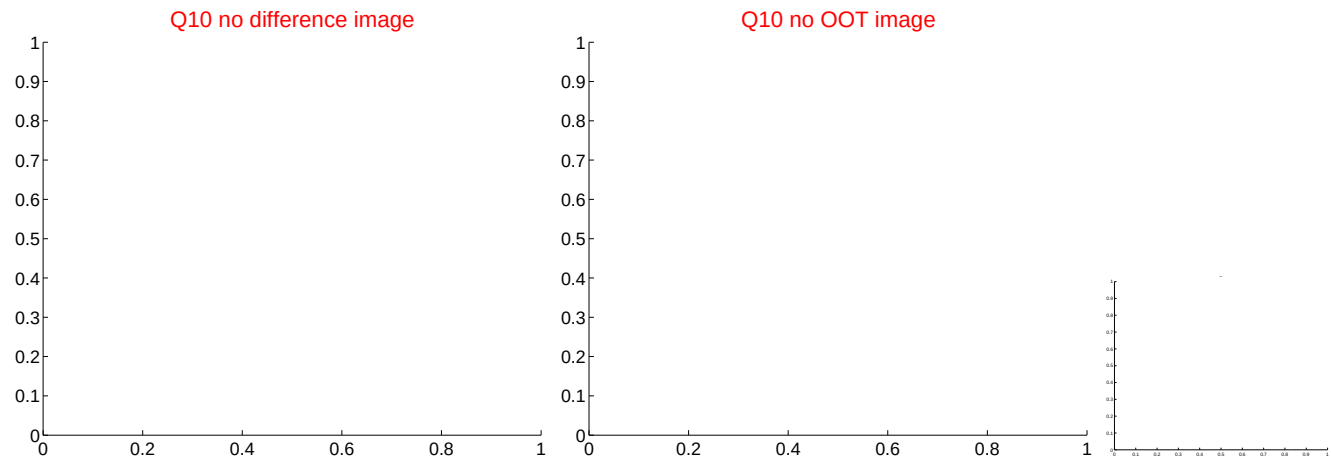


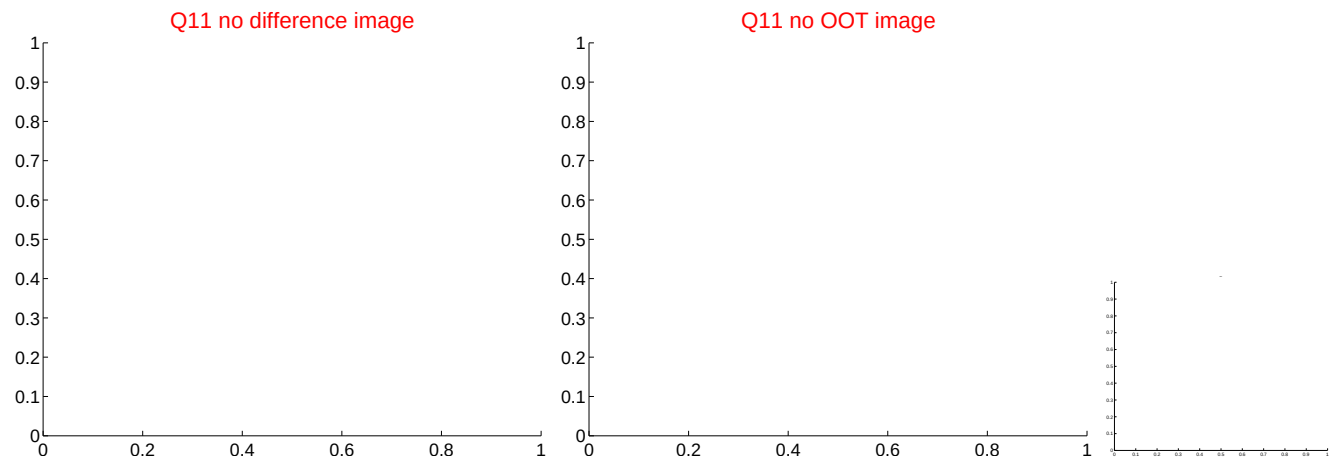


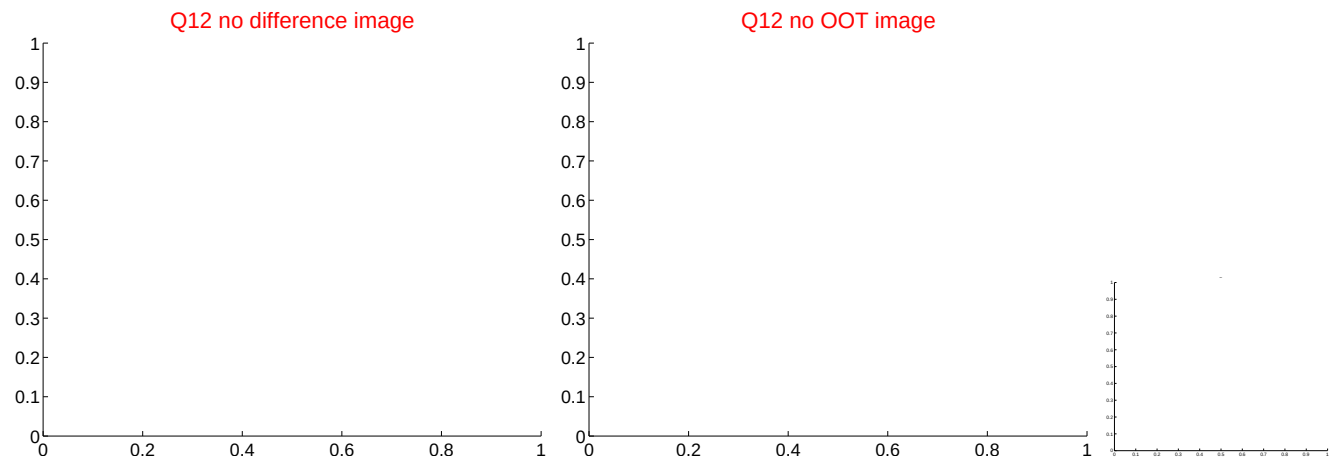


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

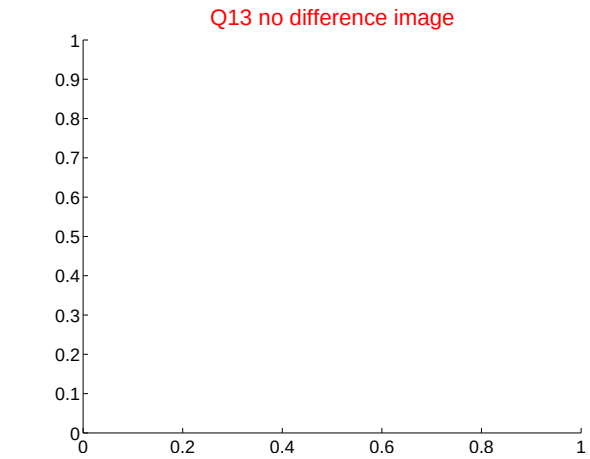


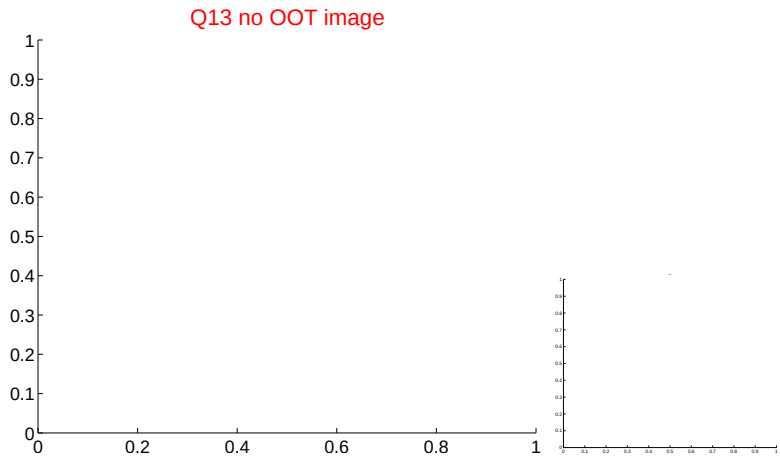


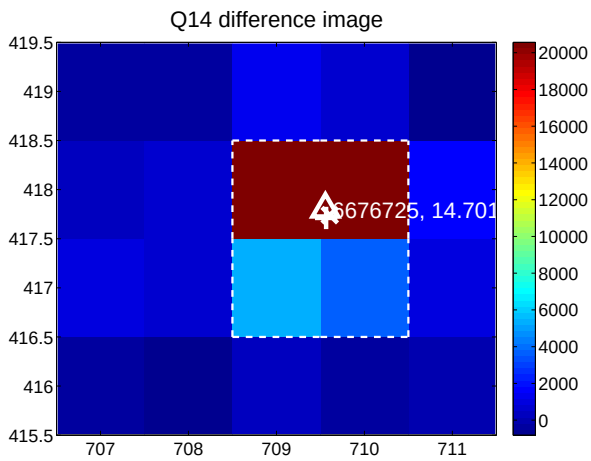


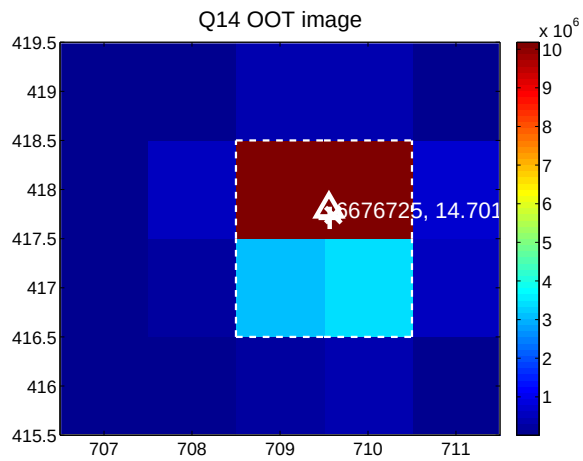


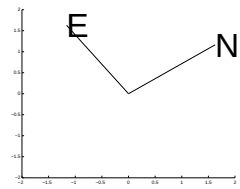
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

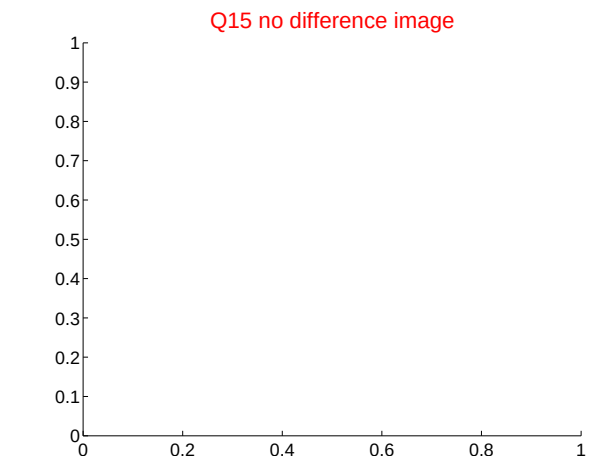


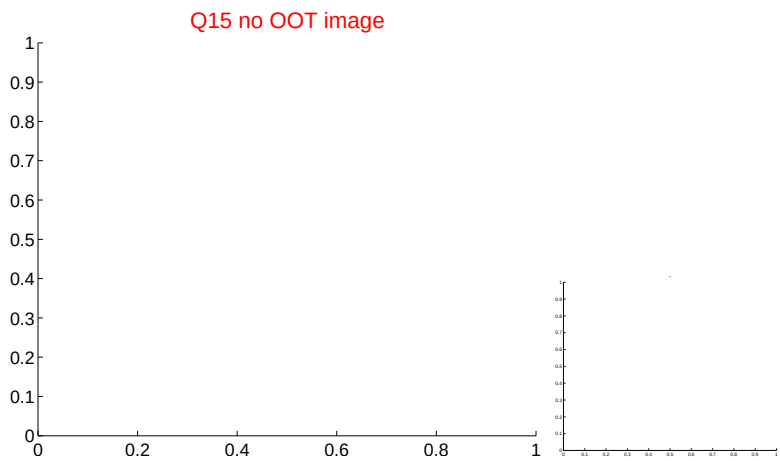


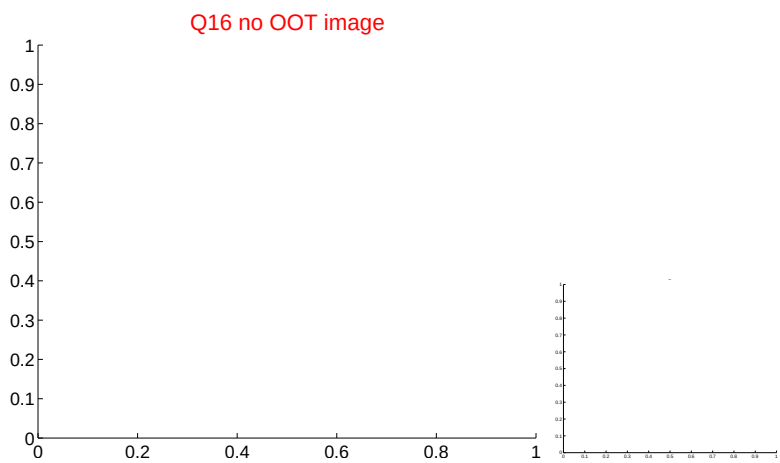




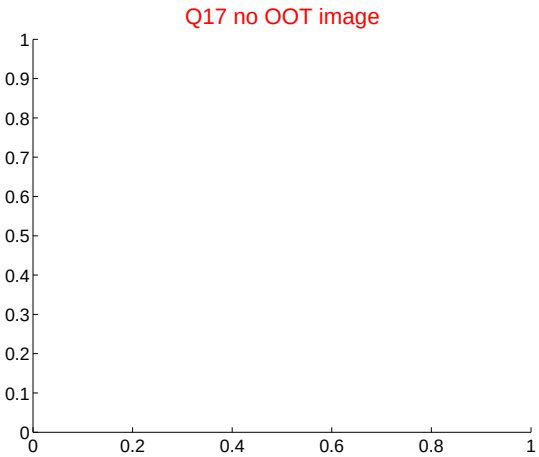


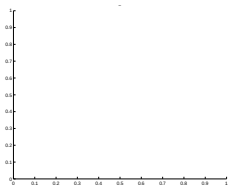


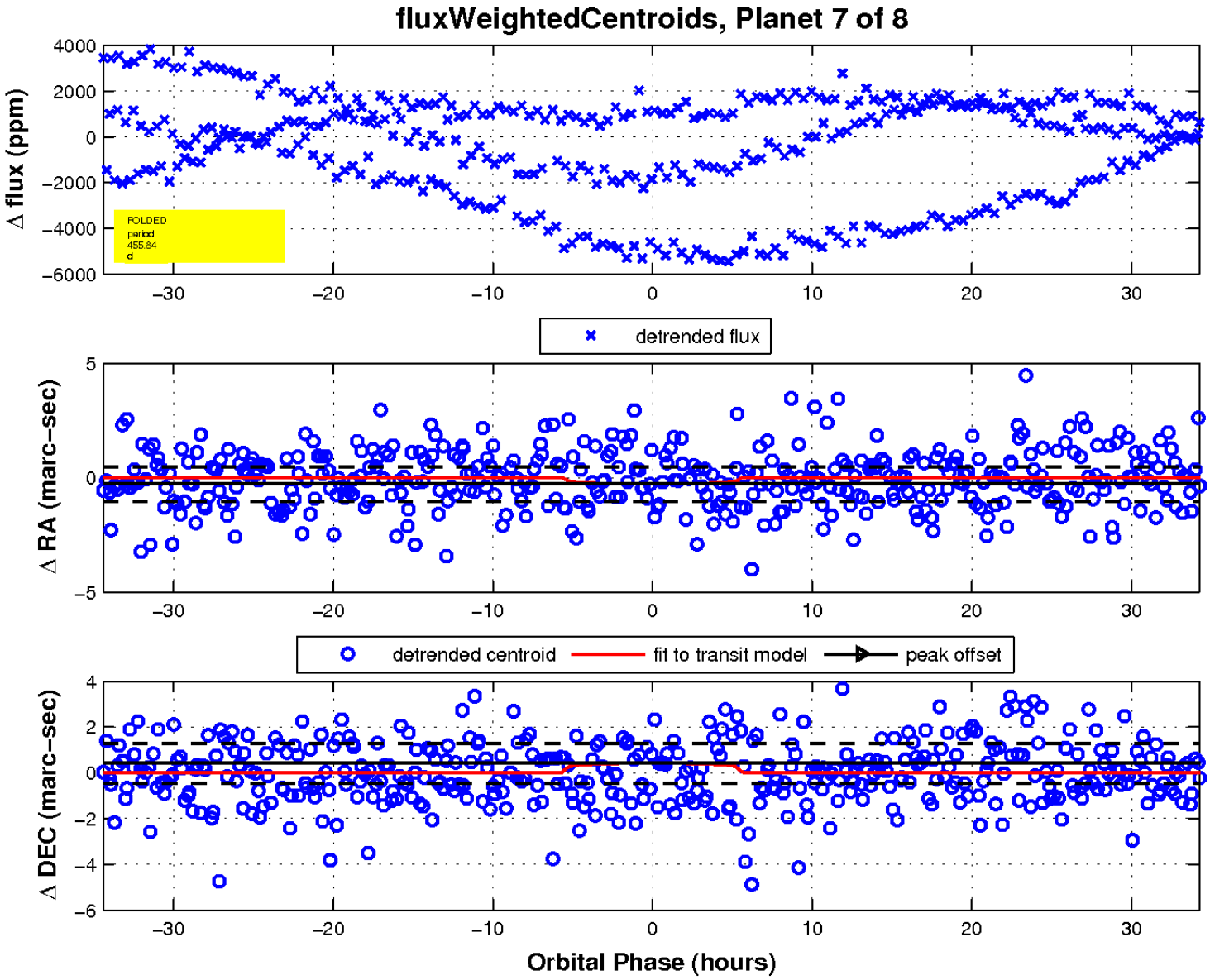




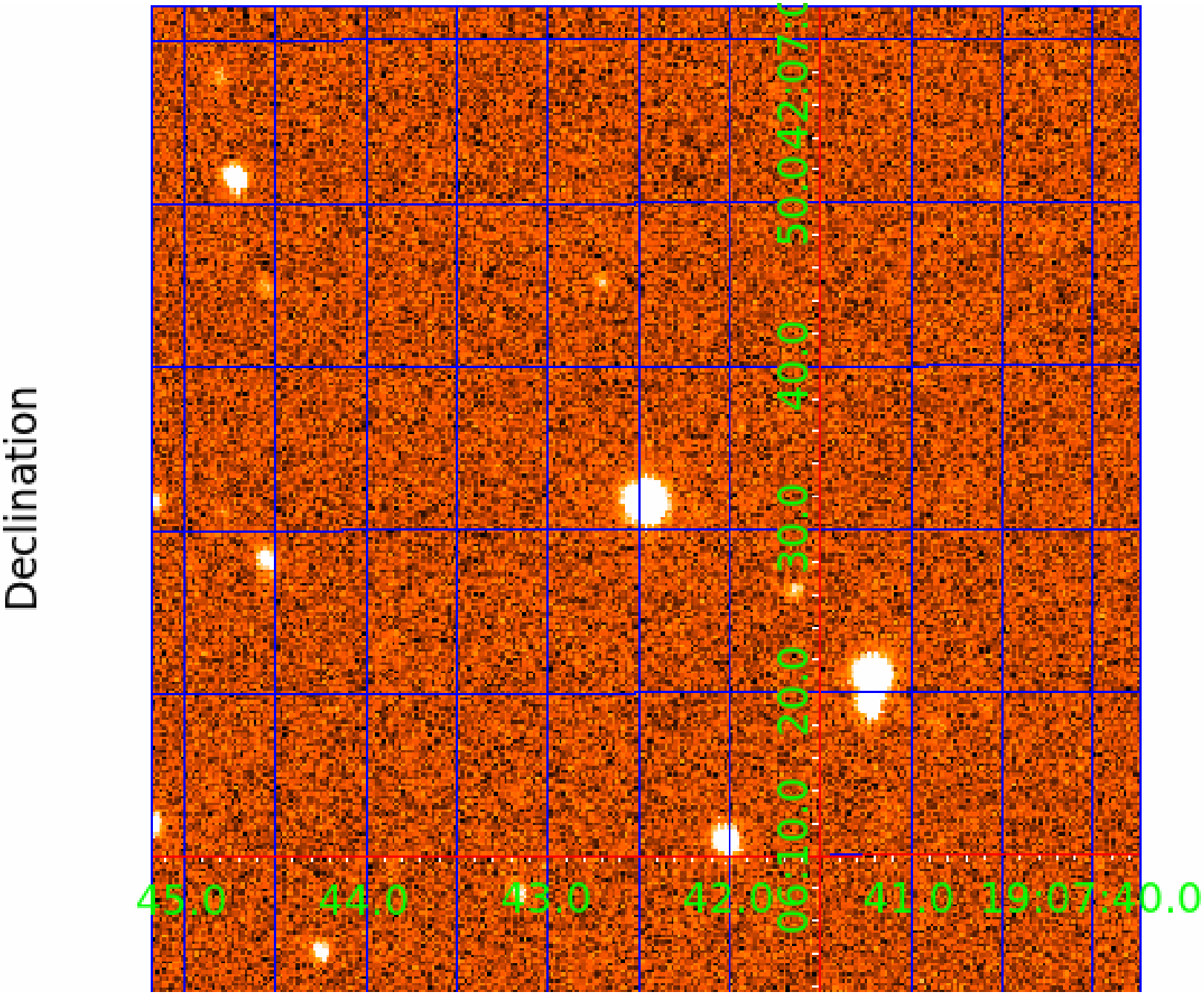
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image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10.0
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43.0
42.0
41.0
19:07:40.0

KIC 006676725

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 ($S_\oplus$)
006676725-01	OBS	6755.01	1.428769	132.190421	63.9	5.715	10.8	11.3	1.03	6197	0.98	2155.91
006676725-02	OBS	No	298.264757	158.356835	583.5	5.419	12.3	5.0	1.03	6197	3.16	1.74
006676725-03	OBS	No	280.980528	227.946906	1856.2	6.210	15.5	11.1	1.03	6197	5.20	1.89
006676725-04	OBS	No	575.744539	235.588714	661.9	5.370	10.2	5.3	1.03	6197	2.67	0.72
006676725-05	OBS	No	227.491359	356.677682	602.6	7.145	9.5	4.4	1.03	6197	2.98	2.50
006676725-06	OBS	No	467.613116	485.478418	1964.0	36.211	8.6	4.1	1.03	6197	4.72	0.96
006676725-07	OBS	No	455.843842	405.549962	853.7	11.466	9.0	5.4	1.03	6197	3.21	0.99
006676725-08	OBS	No	419.555476	236.055898	605.4	7.500	9.0	-1.0	1.03	6197	2.55	1.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676725-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—CENT_UNRESOLVED_OFFSET—HALO_GHOST
006676725-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS
006676725-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006676725-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
006676725-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006676725-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
006676725-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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.

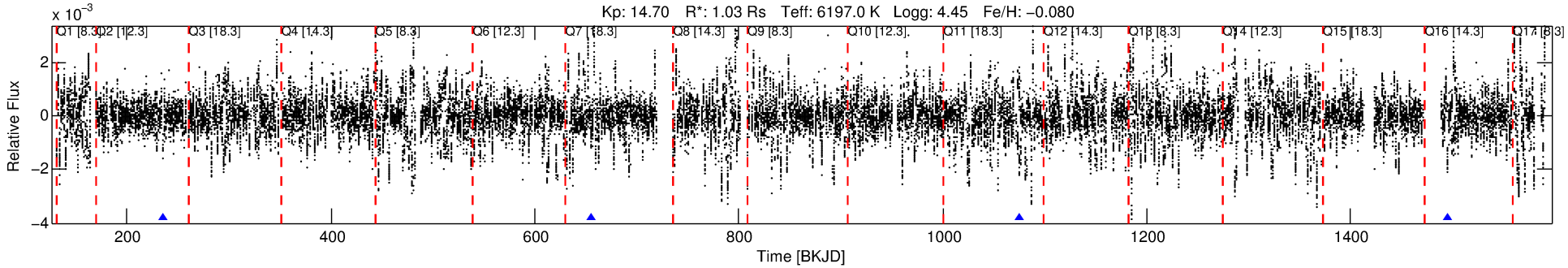
Ephemeris Match Information For 006676725-08

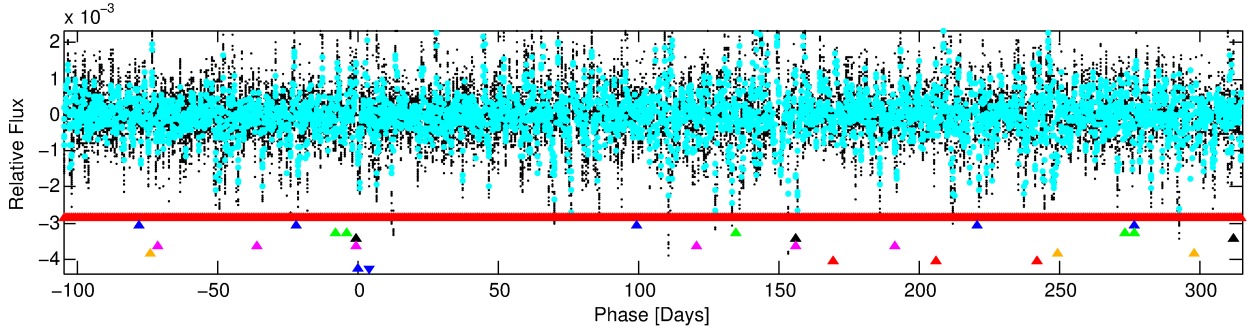
No Significant Match Found

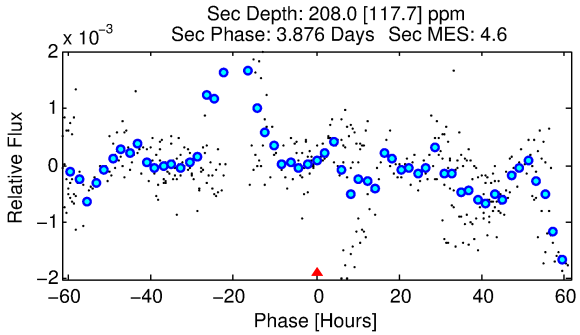
DV One-Page Summary

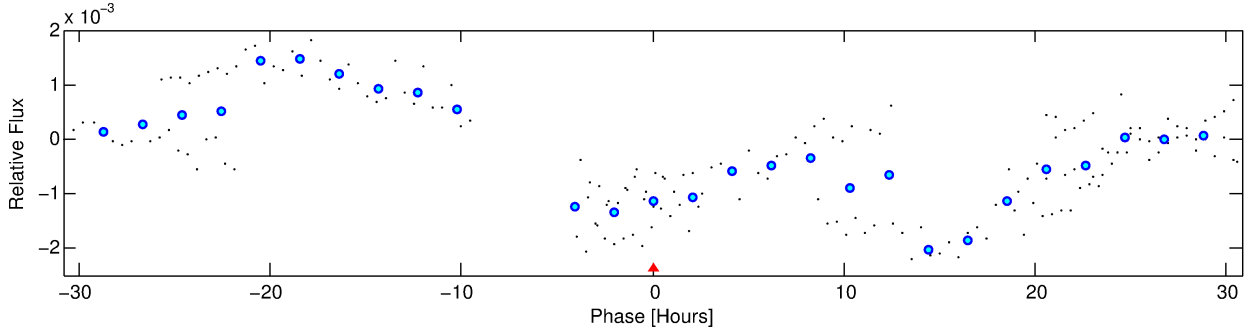
KIC: 6676725 Candidate: 8 of 8 Period: 419.555 d
KOI: K06755 Corr: No Ephemeris Match

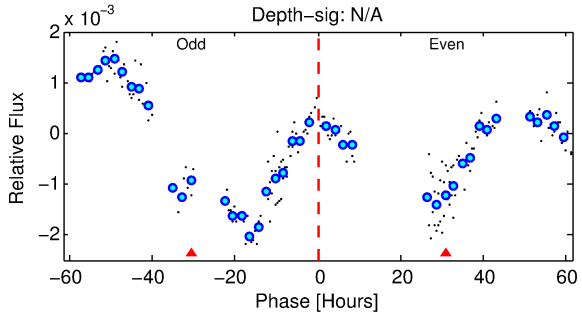
Kp: 14.70 R*: 1.03 Rs Teff: 6197.0 K Logg: 4.45 Fe/H: −0.080

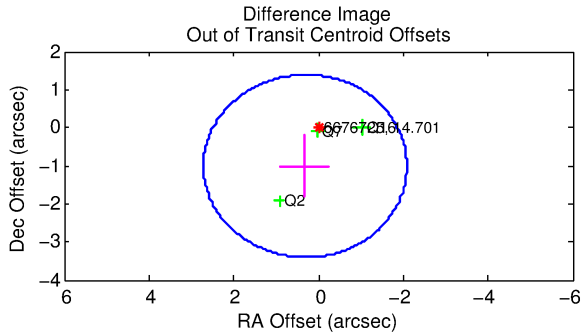












TPS TCE Results:

Period = 419.55548 d
Epoch = 236.0559 BKJD

DV fit results are unavailable

DV Diagnostic Results:

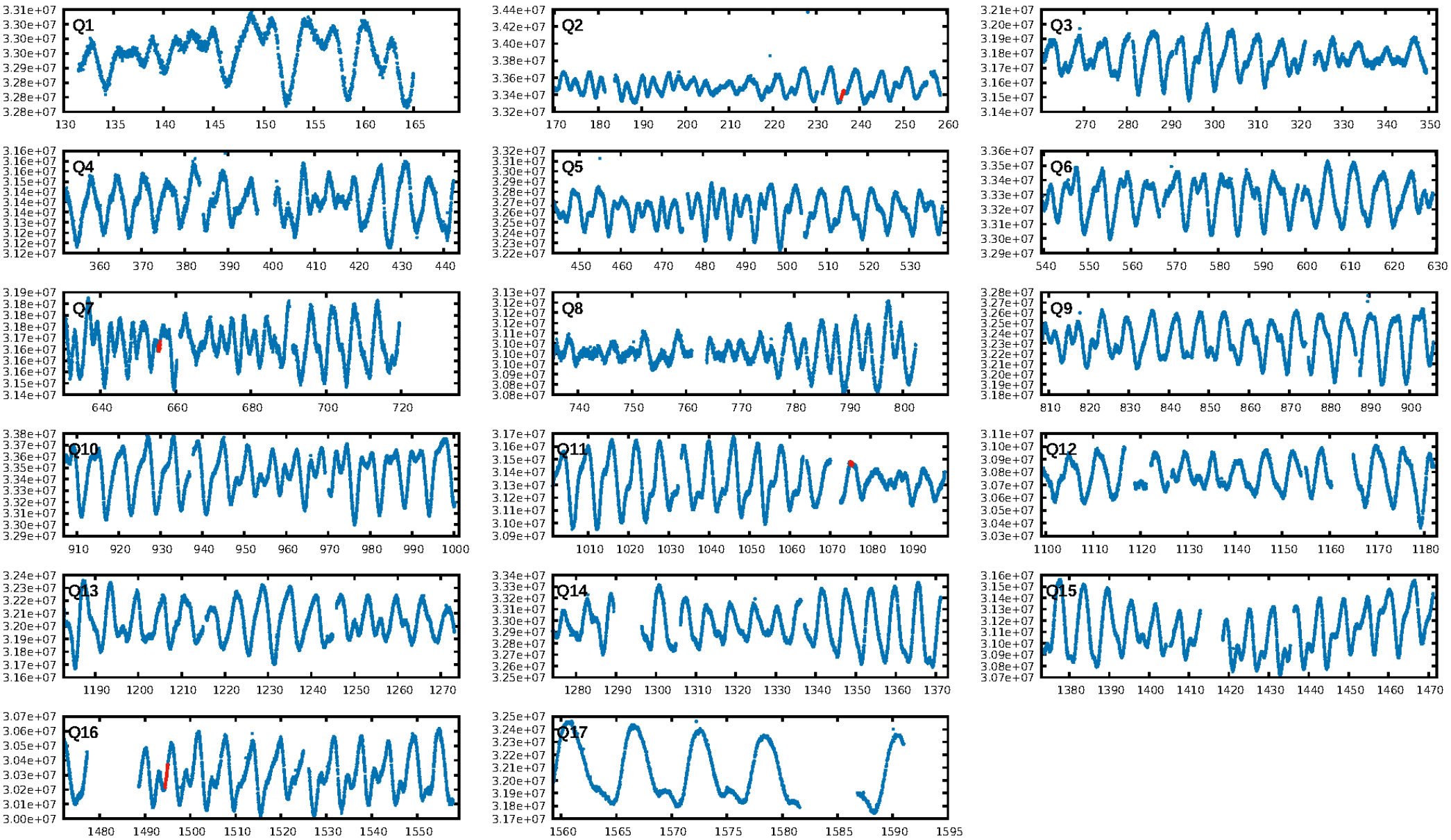
ShortPeriod−sig: 100.0% [314.59σ]
LongPeriod−sig: 100.0% [63.56σ]
ModelChiSquare2−sig: N/A
ModelChiSquareGof−sig: N/A
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: −2.425

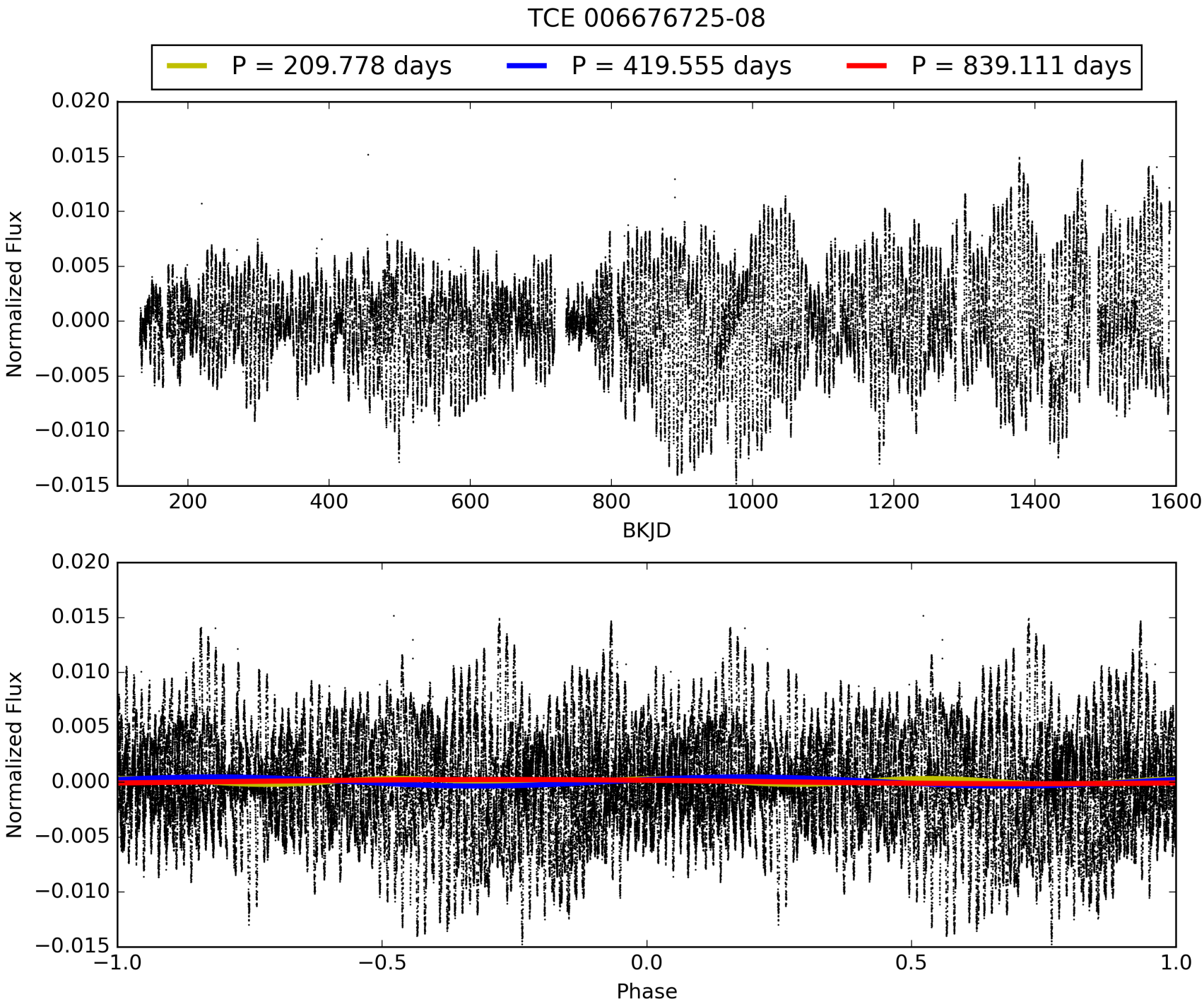
Centroid−sig: 30.8%
Centroid−so: 0.924 arcsec [0.96σ]
OotOffset−rm: 1.055 arcsec [1.32σ]
KicOffset−rm: 1.220 arcsec [1.55σ]
OotOffset−st: 1/1/1/0 [3]
KicOffset−st: 1/1/1/0 [3]
DiffImageQuality−fgm: 0.67 [2/3]
DiffImageOverlap−fno: 0.00 [0/4]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02−Feb−2016 01:18:18 Z

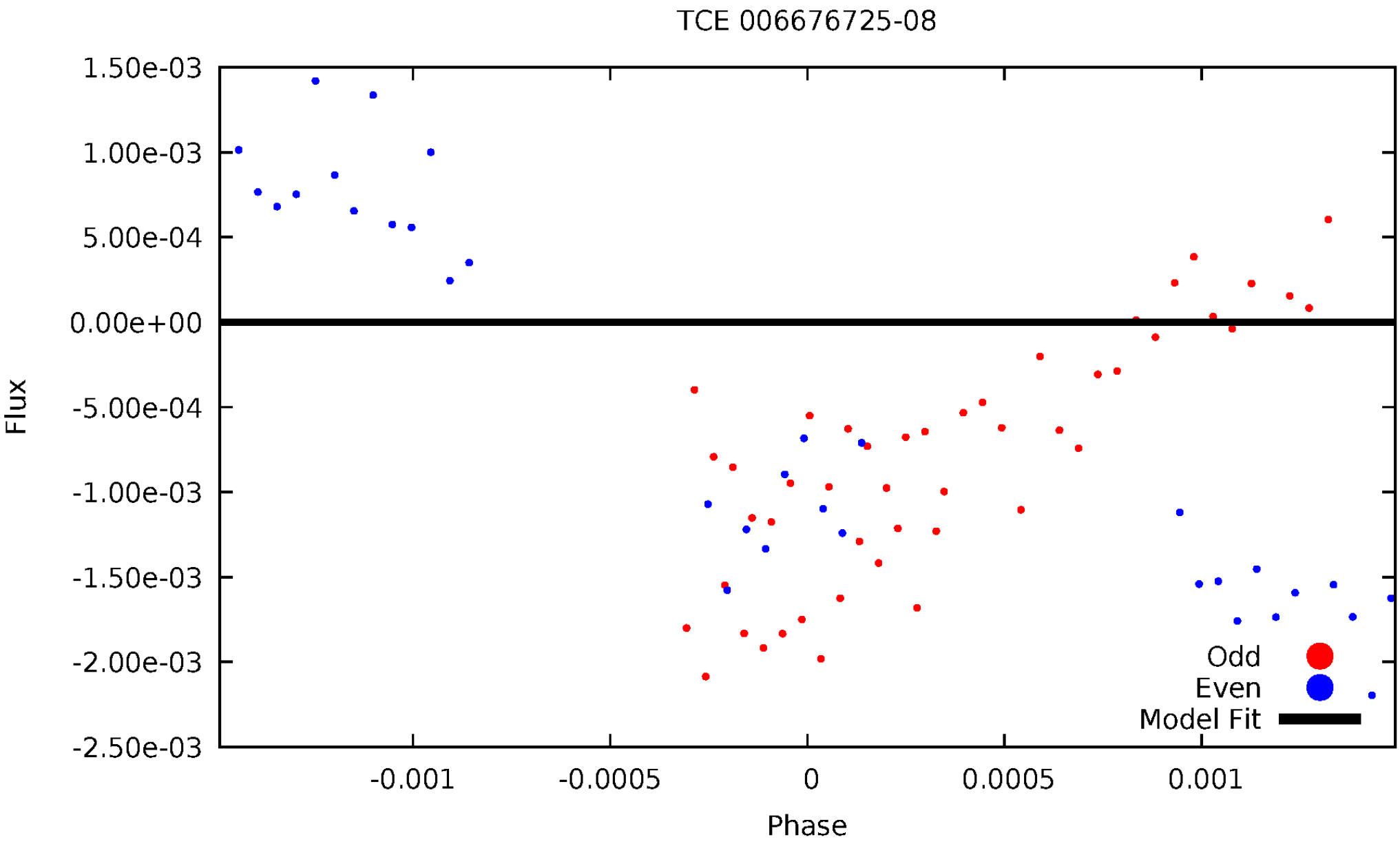
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006676725-08, PDC Light Curves

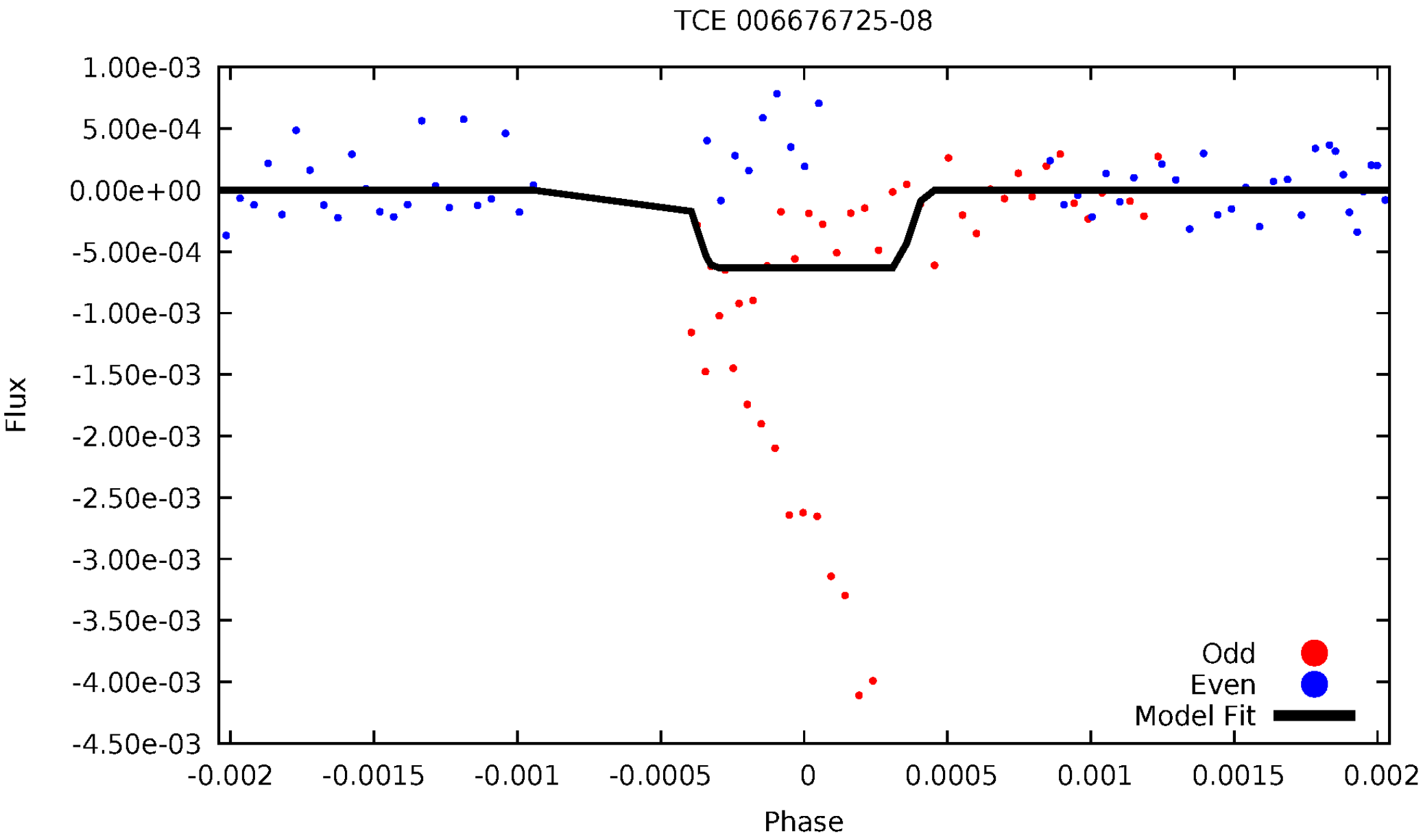



TCE 006676725-08
P = 209.778 days
P = 419.555 days
P = 839.111 days
Normalized Flux
BKJD
Normalized Flux
Phase

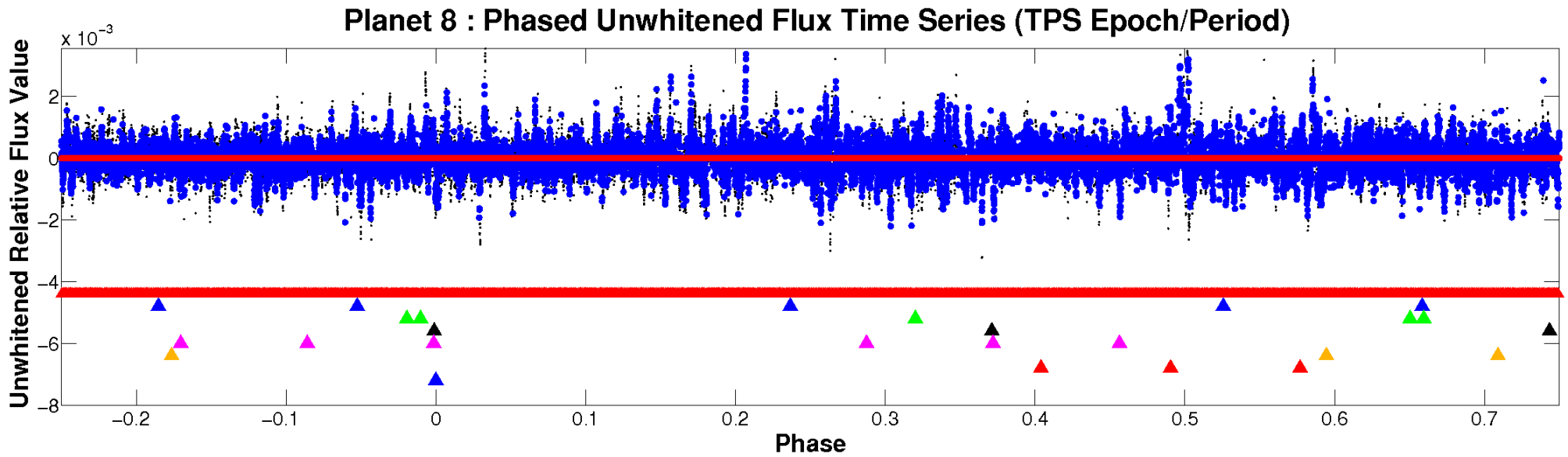
DV Odd/Even

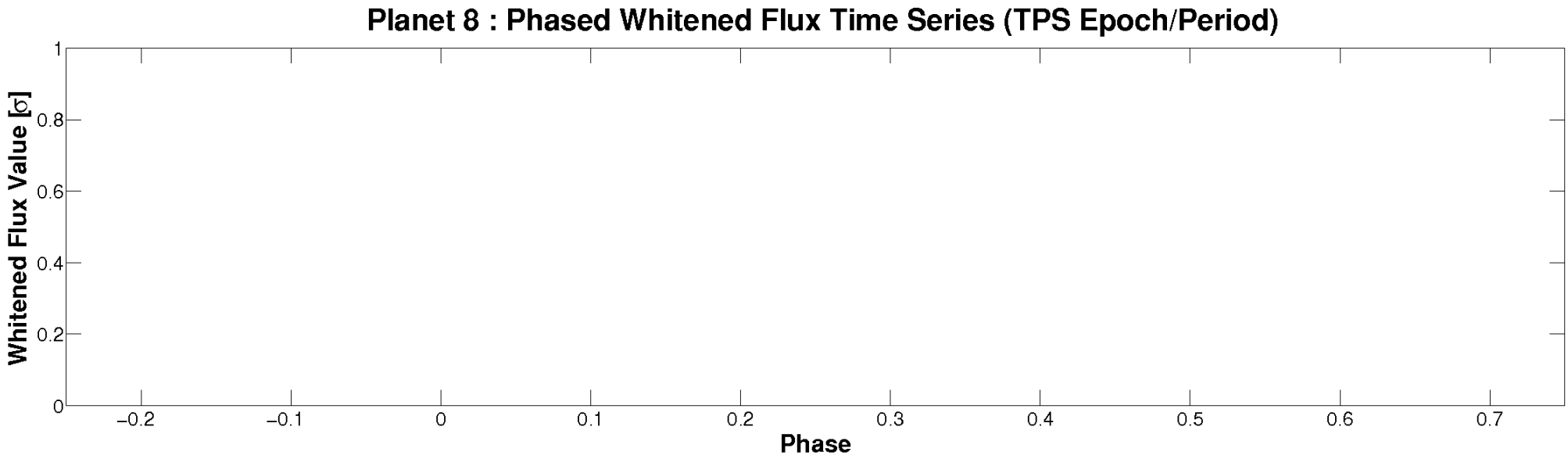

TCE 006676725-08
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
-2.50e-03
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006676725-08
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
-2.50e-03
-3.00e-03
-3.50e-03
-4.00e-03
-4.50e-03
Flux
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit

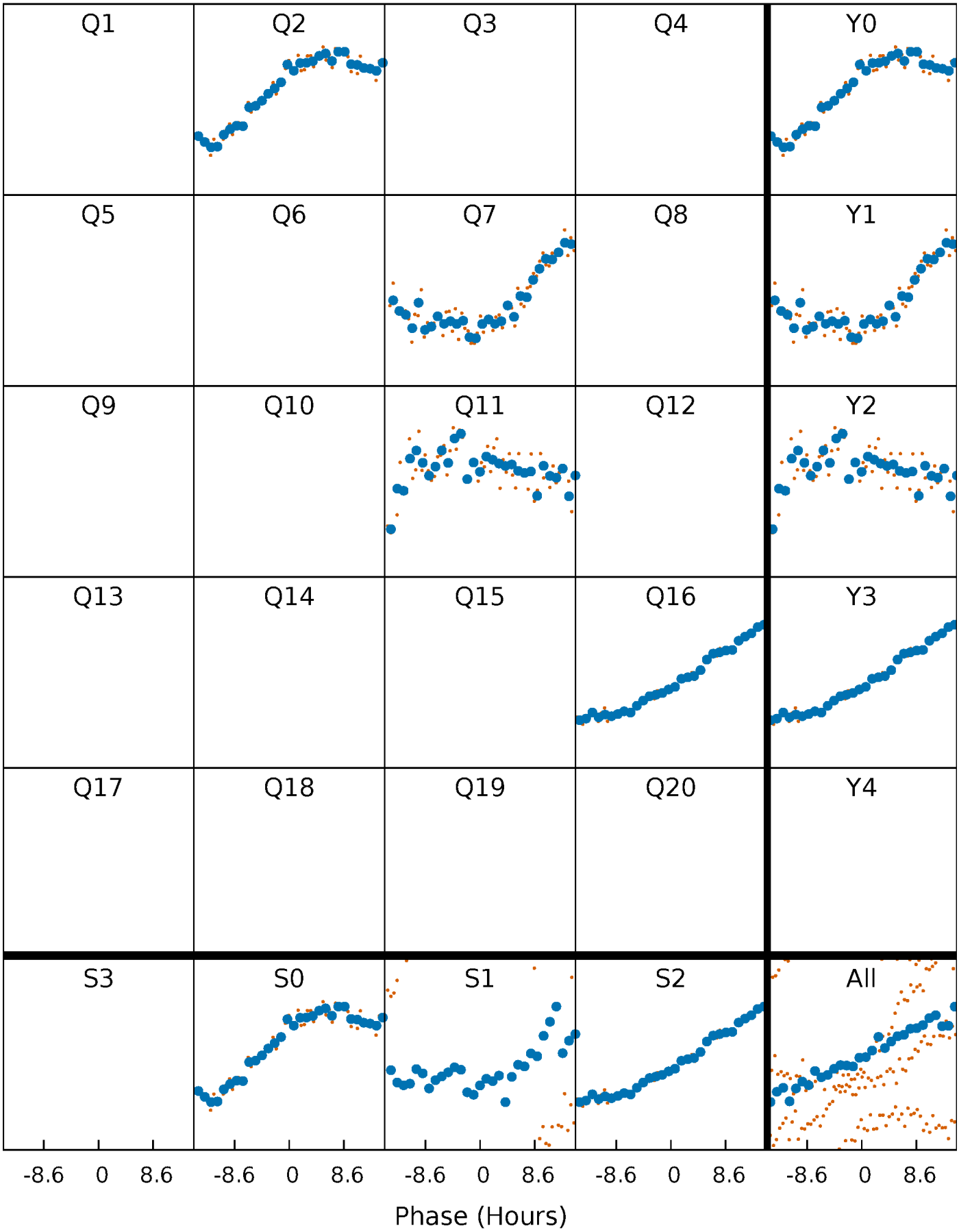
Non-Whitened Vs. Whitened Light Curve





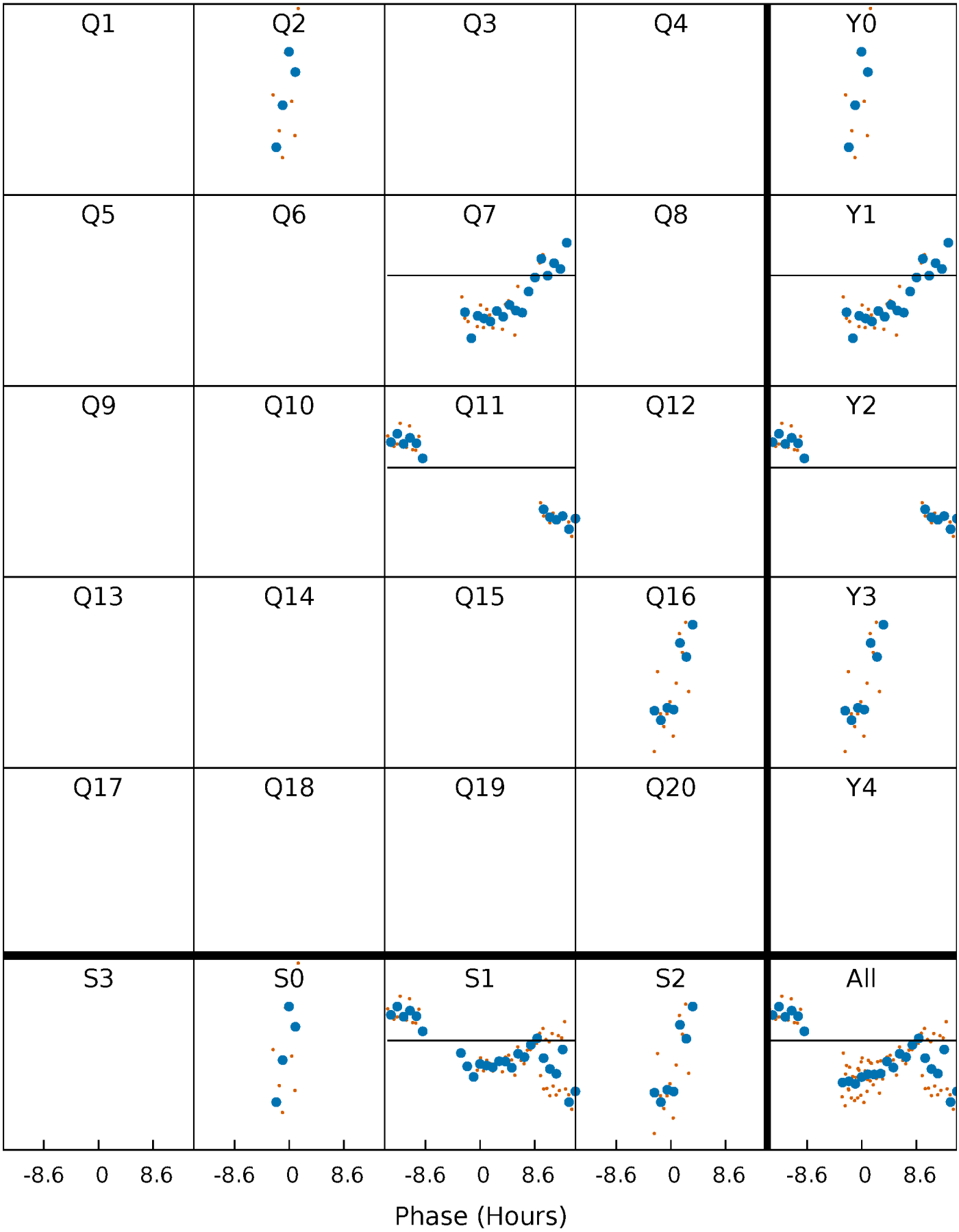
PDC Quarter-Phased Transit Curves

TCE 006676725-08 P=419.555476 Days T_0=236.055898 (BKJD)



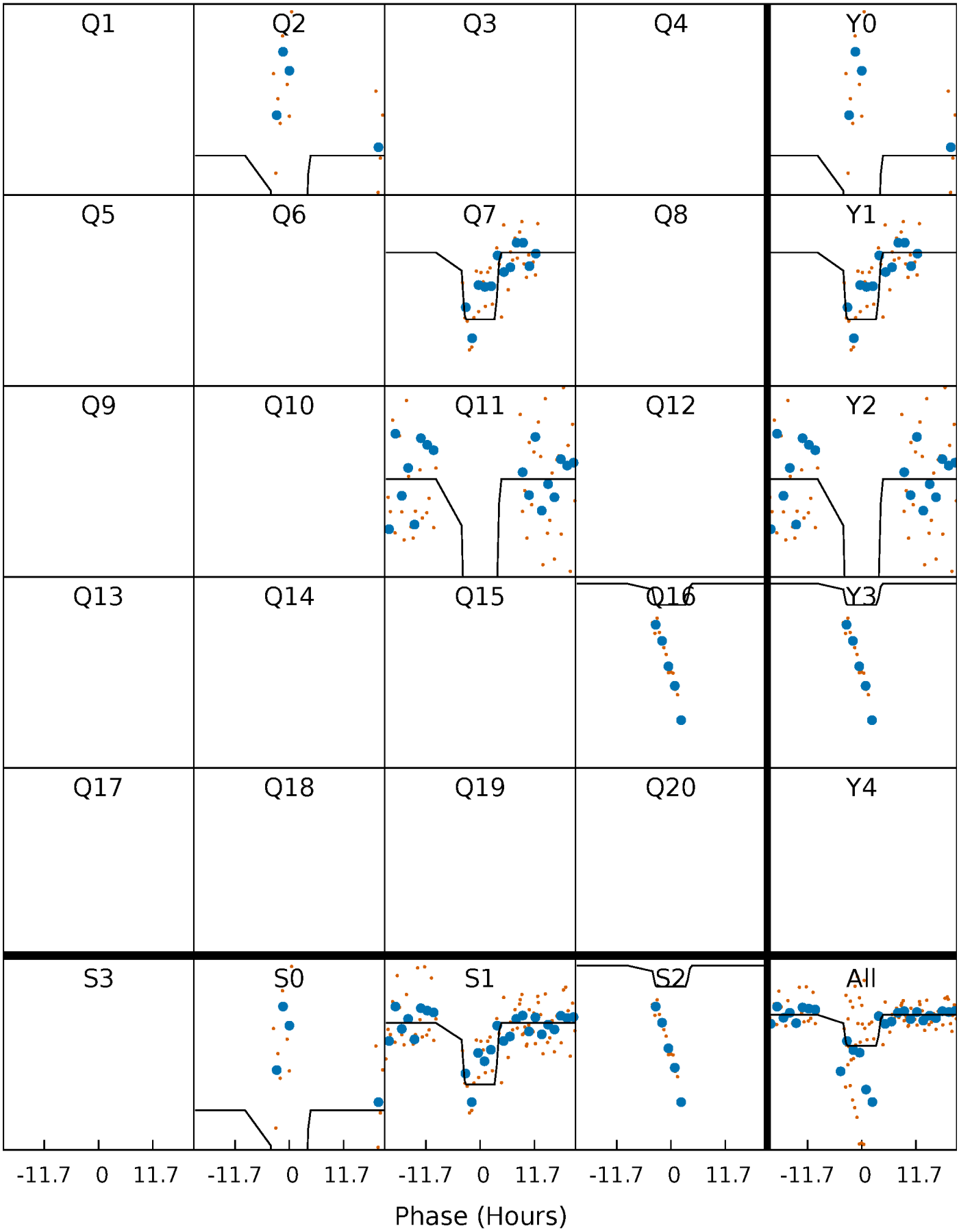
DV Quarter-Phased Transit Curves

TCE 006676725-08 P=419.555476 Days T_0=236.055898 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

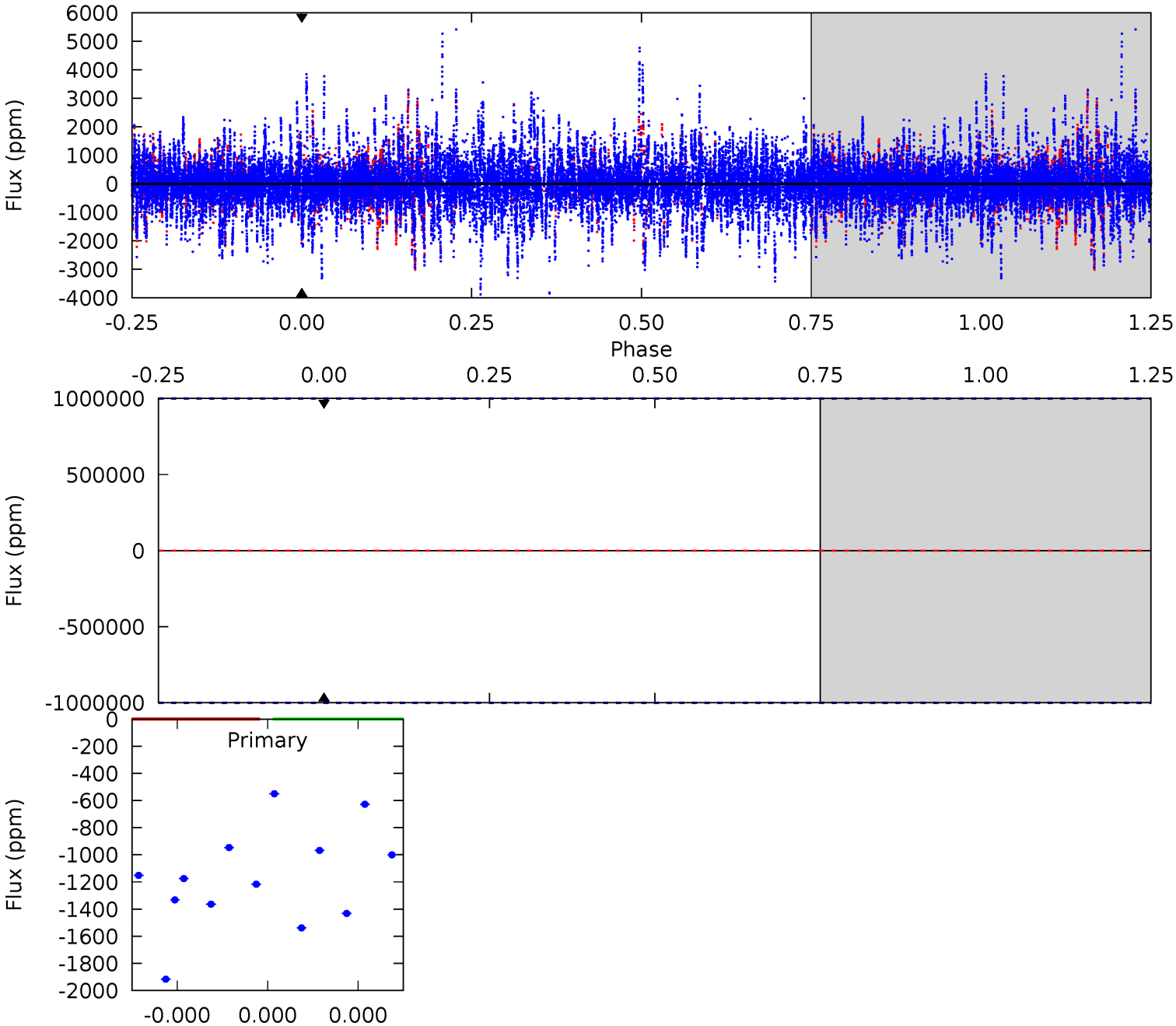
TCE 006676725-08 P=419.555476 Days T_0=236.092193 (BKJD)



DV Model-Shift Uniqueness Test

006676725-08, P = 419.555476 Days, E = 236.055898 Days

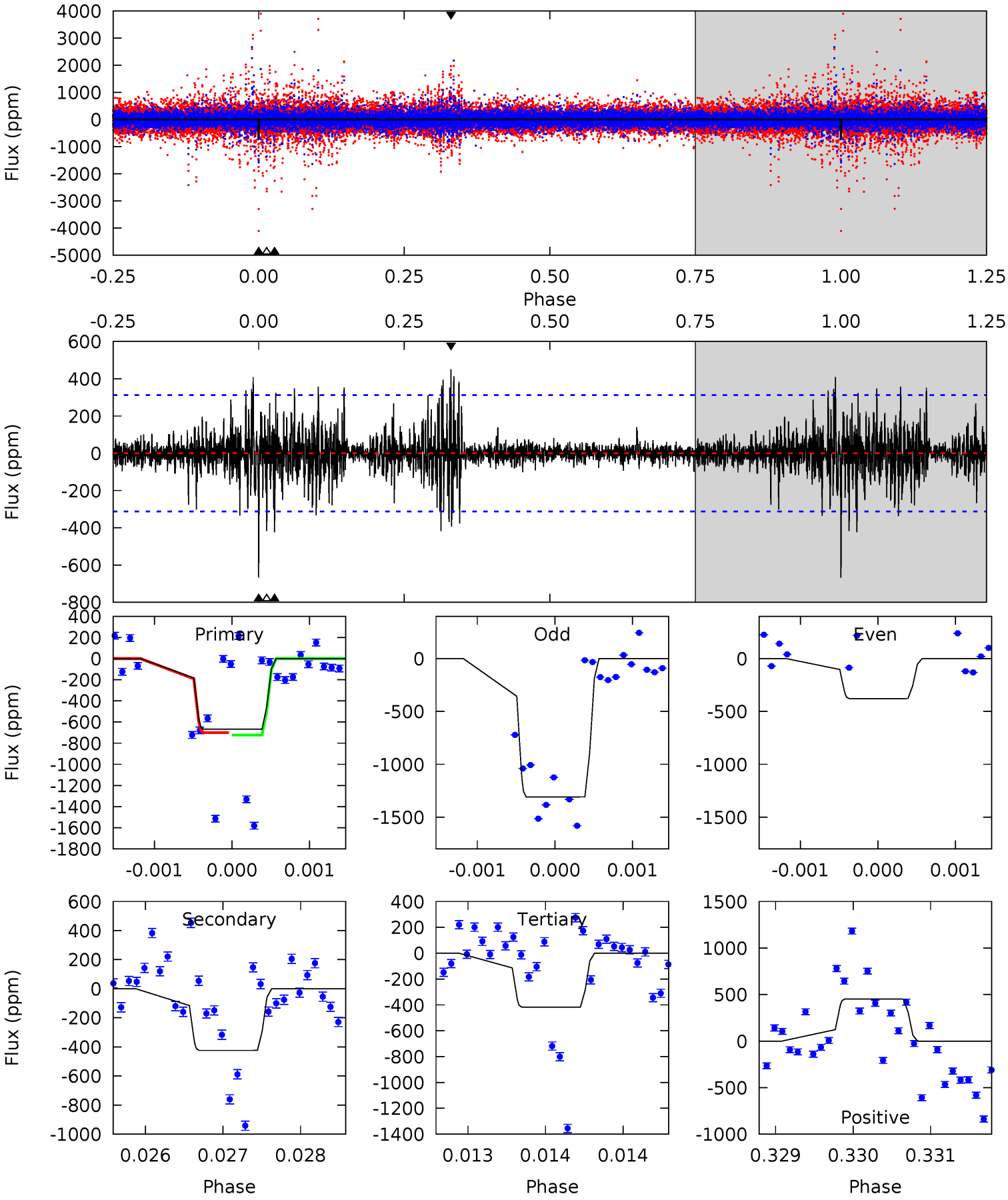
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

006676725-08, P = 419.555476 Days, E = 236.092193 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	7.46	7.34	7.94	5.49	3.35	1.35	4.42	3.82	0.12	-0.49	7.49	1.98	0.40	0



Stellar Parameters For KIC 006676725

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6197^{+172}_{-216}	$4.449^{+0.050}_{-0.200}$	$-0.080^{+0.250}_{-0.300}$	$1.035^{+0.309}_{-0.111}$	$1.096^{+0.141}_{-0.141}$	$1.394^{+0.390}_{-0.735}$
	+3%/-3%	+1%/-4%	+312%/-375%	+30%/-11%	+13%/-13%	+28%/-53%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006676725-08 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0±1000000	$8.62^{+9.99}_{-5.71}$	373^{+26}_{-18}	-3139^{+28660}_{-19104}	$-1679.100^{+1811826.639}_{-1478594.583}$
Alt.	-424±57	$9.55^{+9.63}_{-6.74}$	372^{+26}_{-18}	3586^{+2112}_{-670}	3388^{+33643}_{-2588}

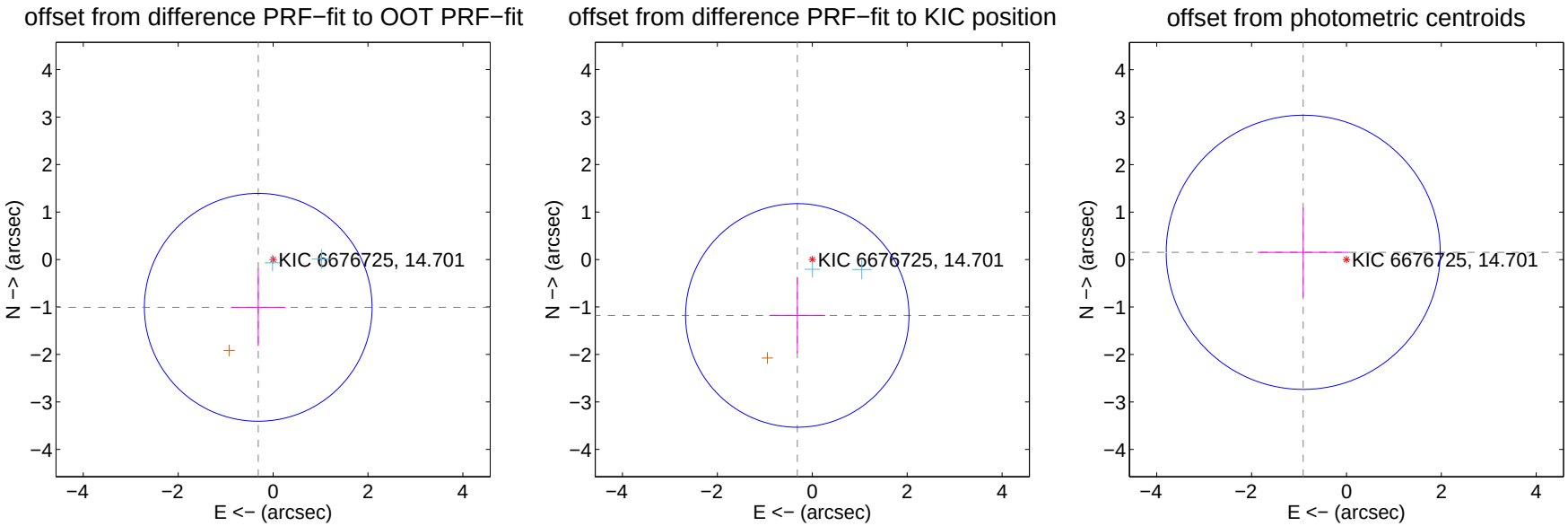
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

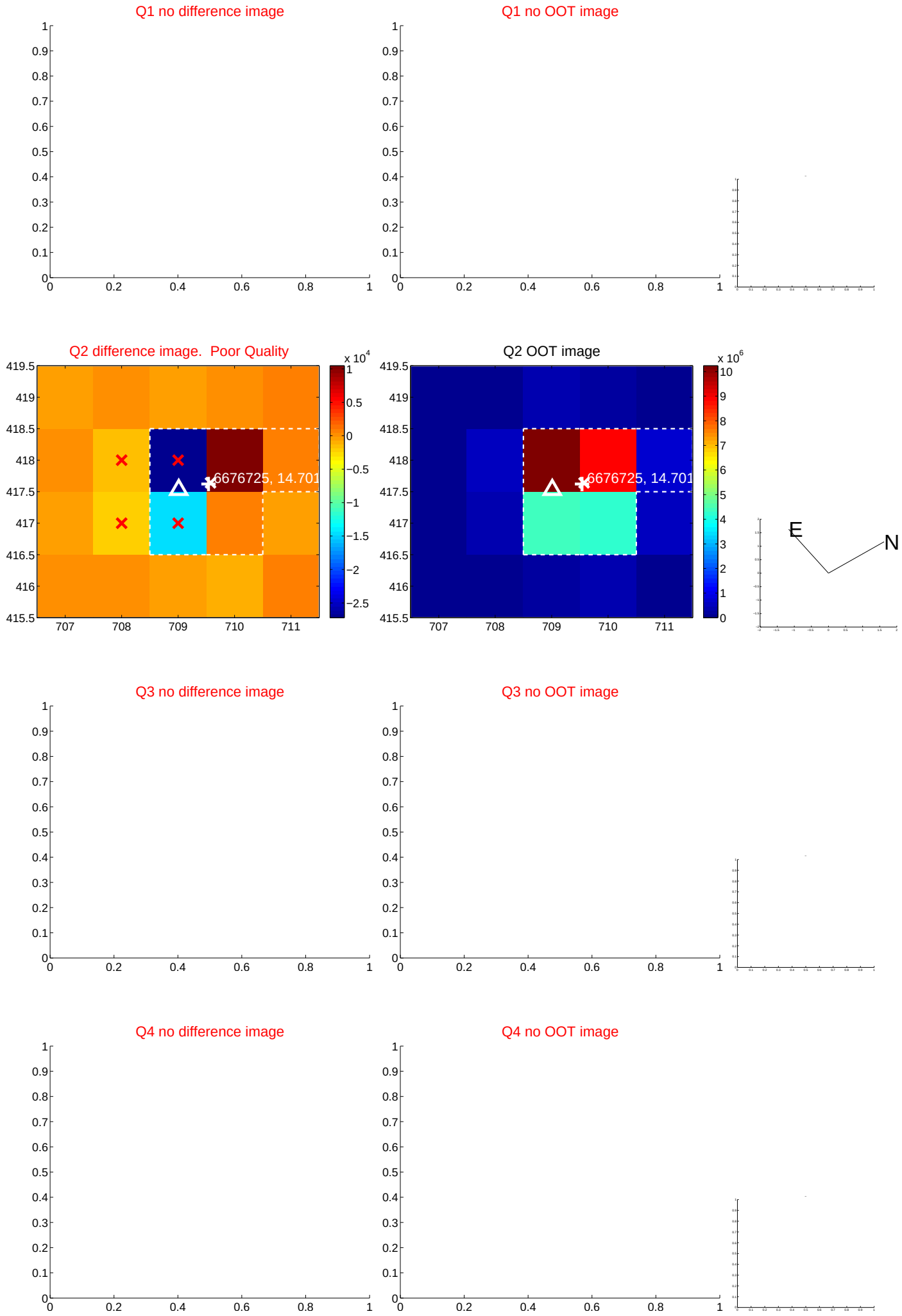
Supplemental centroid analysis for 006676725-08. Kepler magnitude: 14.70. Transit SNR -1.00
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.055 ± 0.800	1.32	0.313 ± 0.573	-1.008 ± 0.818
PRF-fit source offset from KIC position	1.220 ± 0.785	1.55	0.316 ± 0.588	-1.178 ± 0.797
photometric centroid source offset	0.92 ± 0.96	0.96	0.91 ± 0.96	0.15 ± 0.94

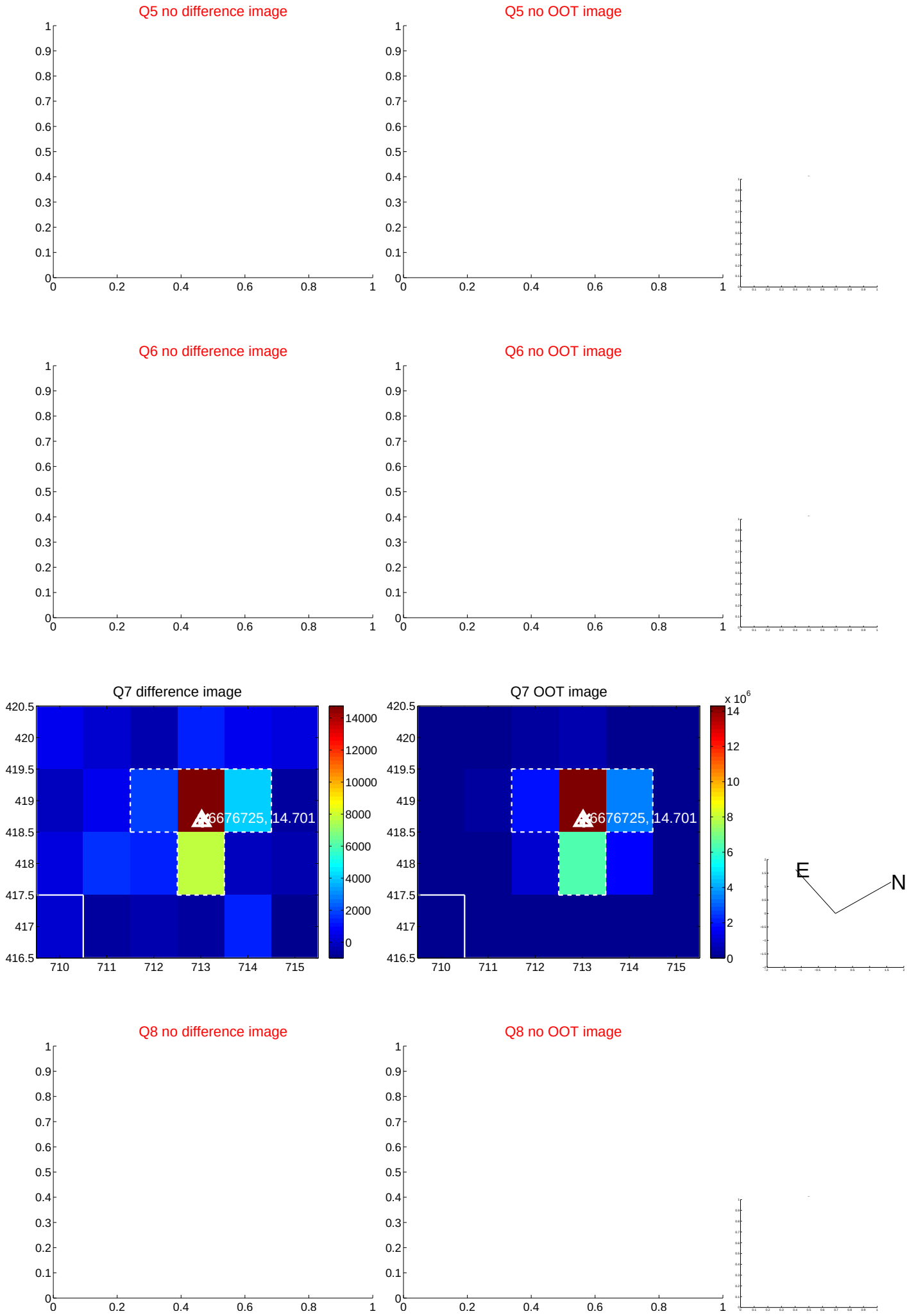


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

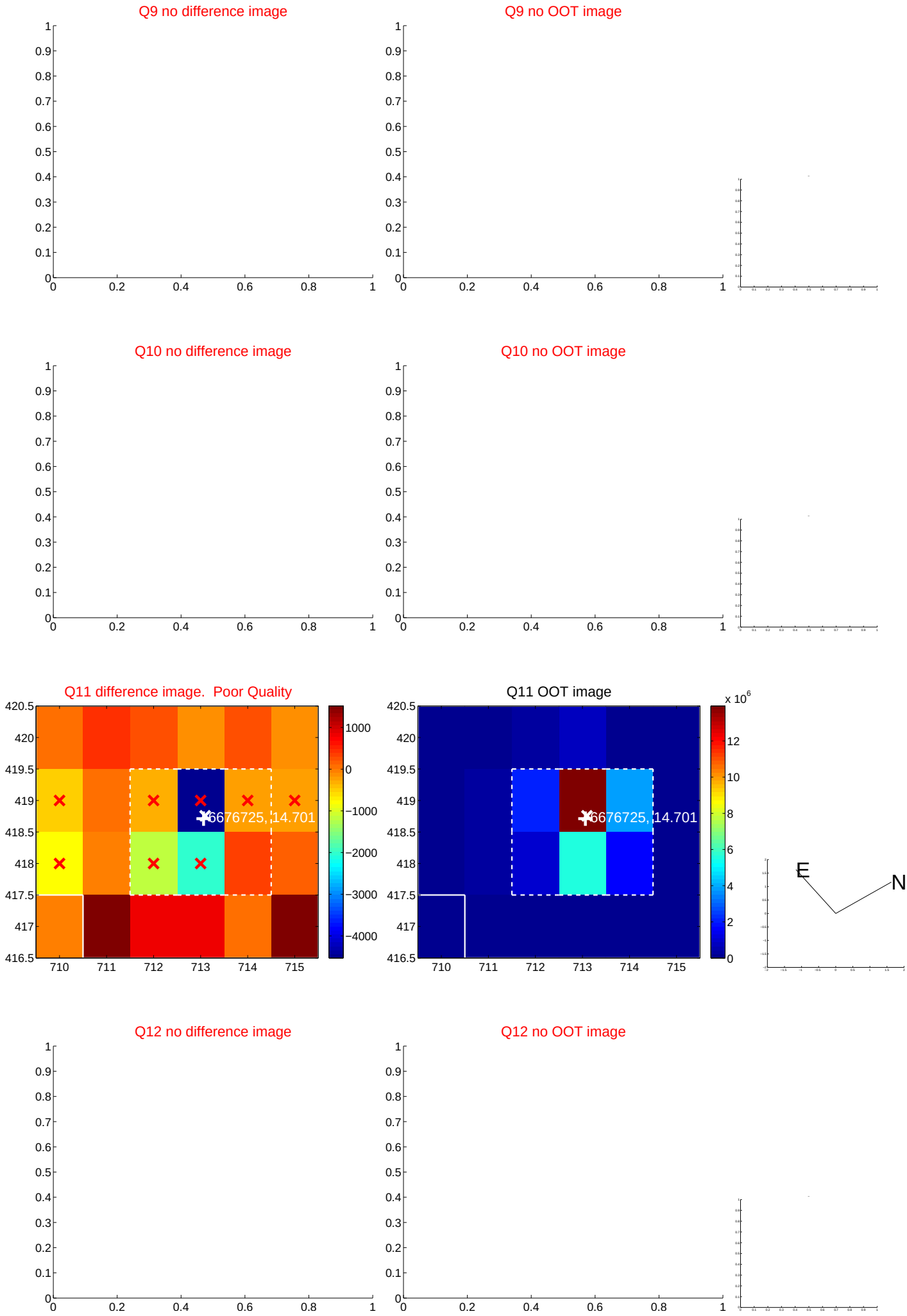
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



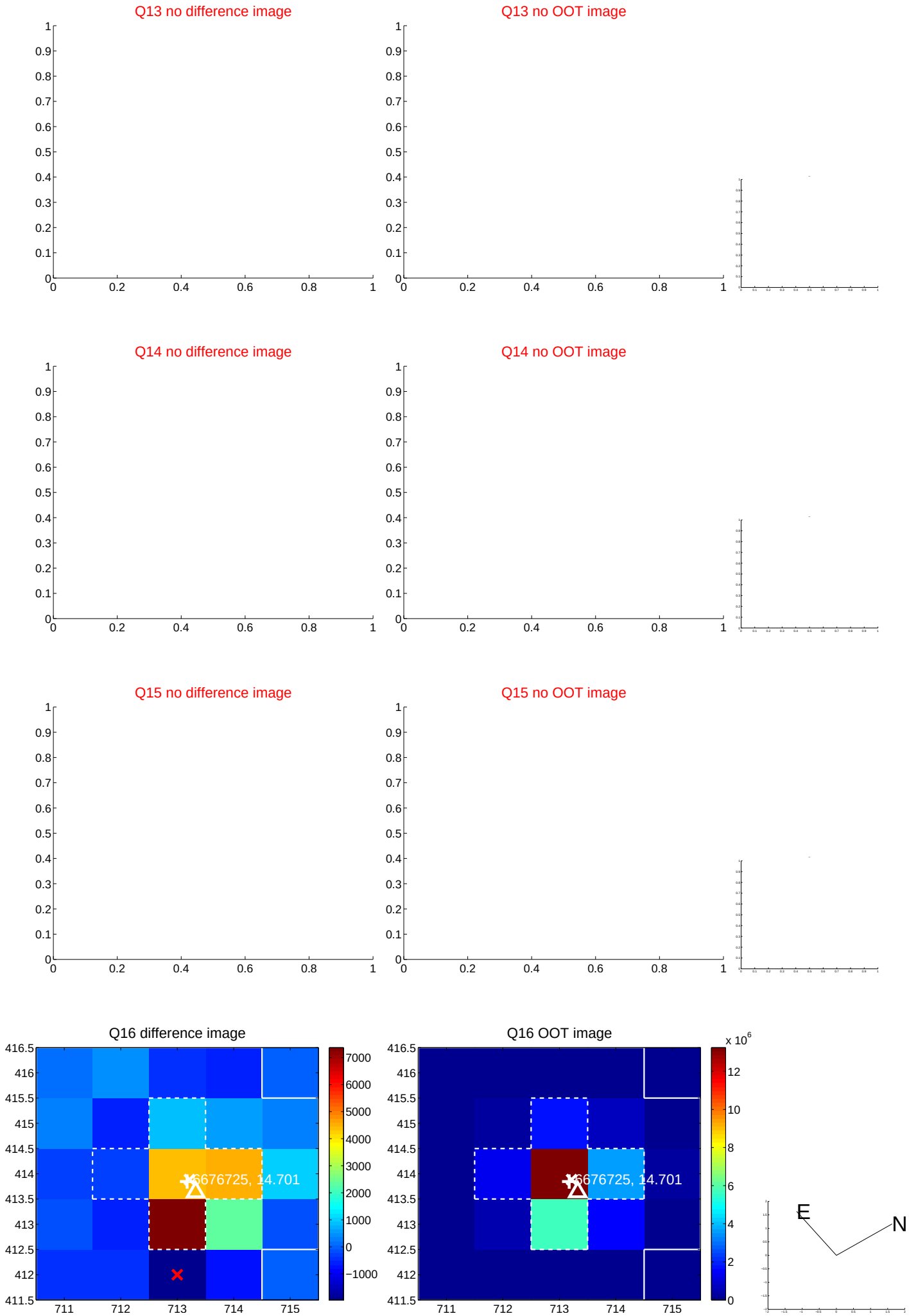
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



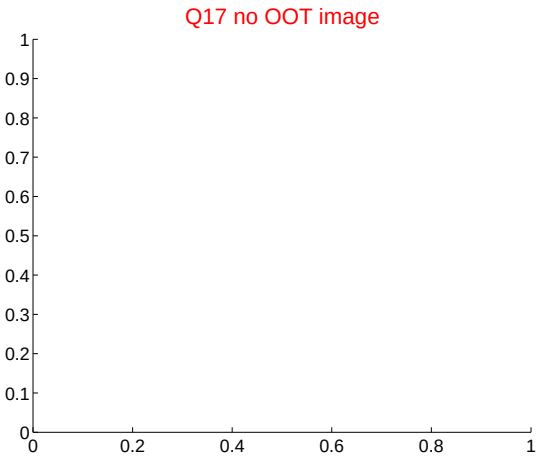
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

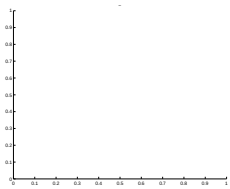


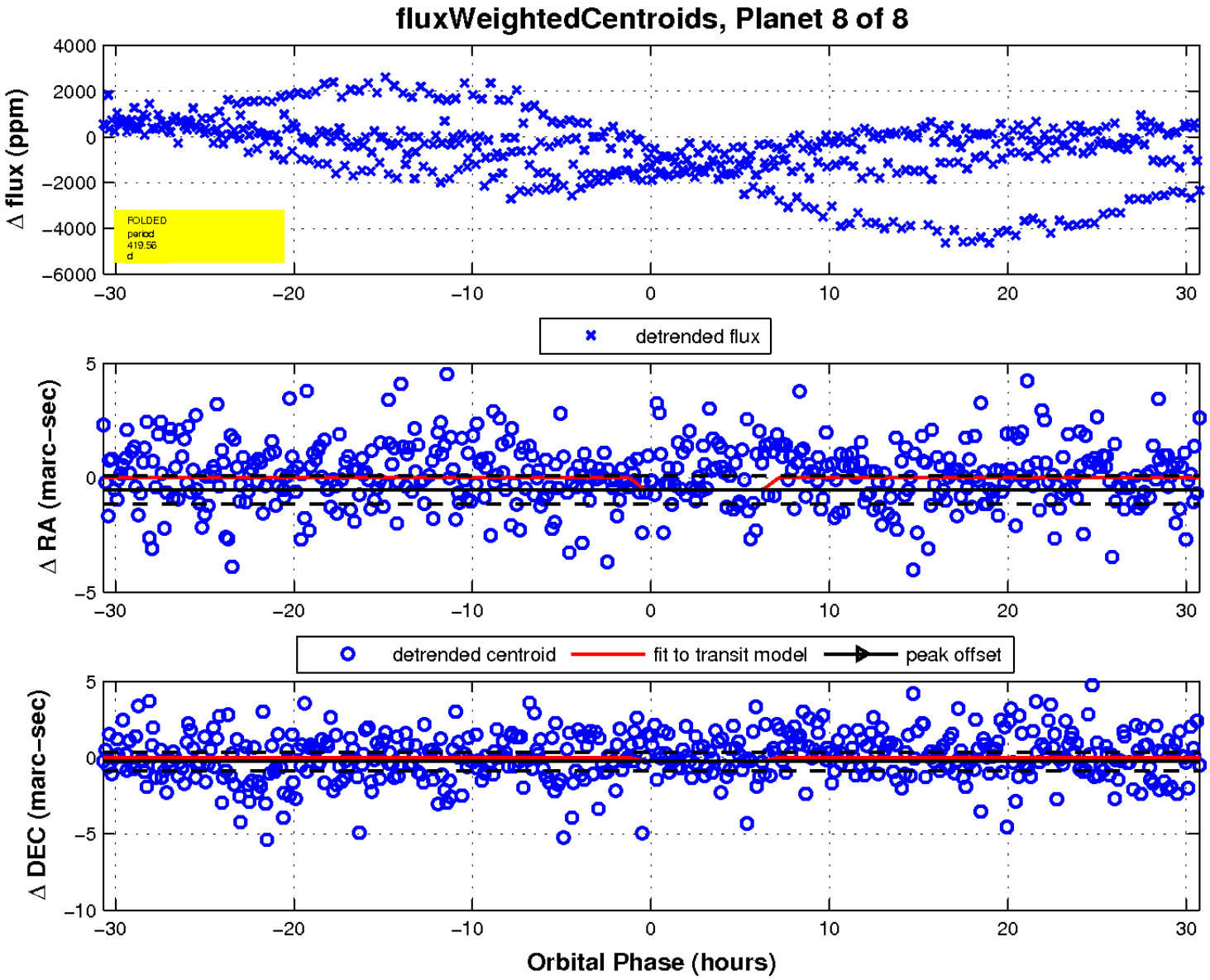
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



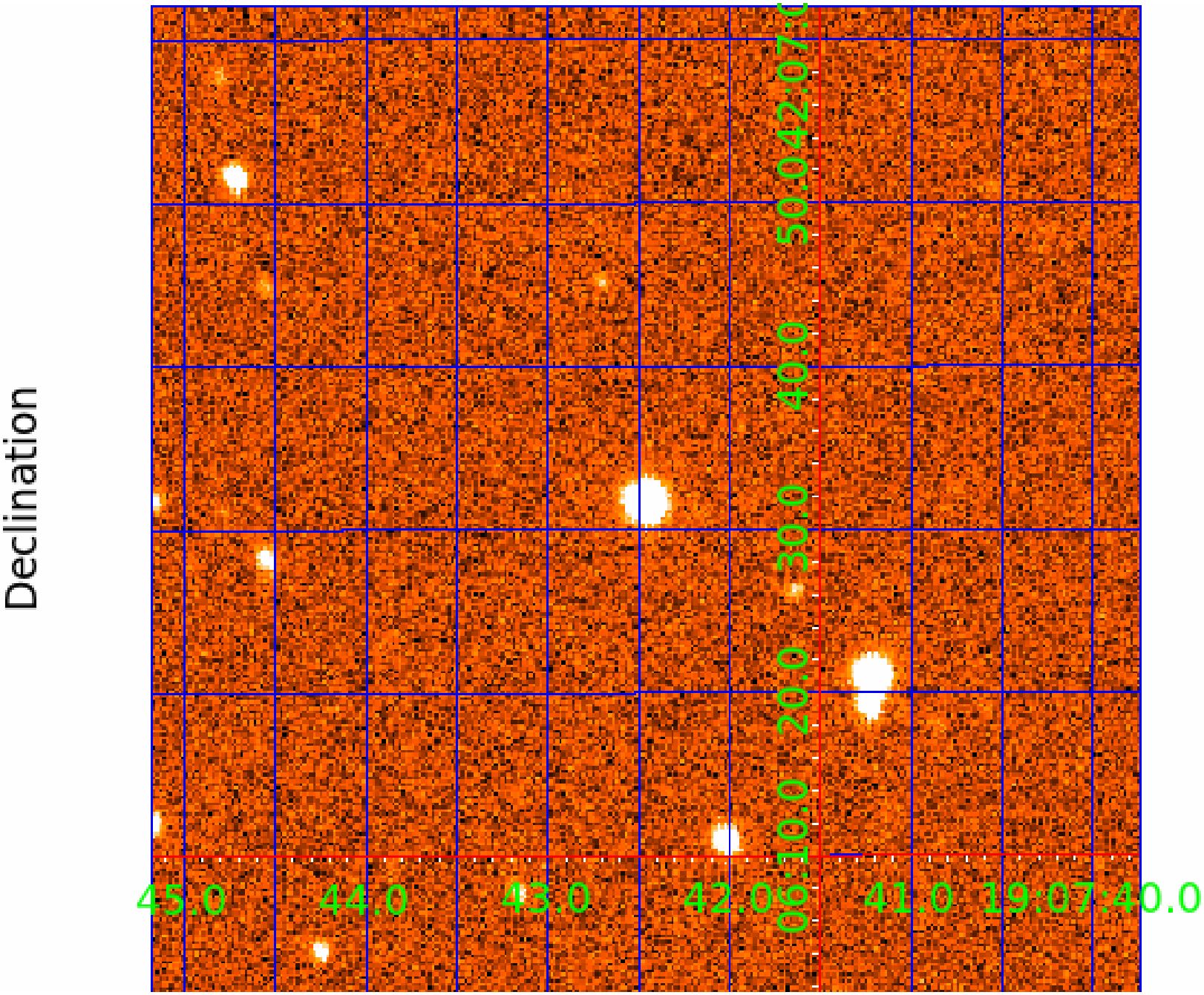
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image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