

KIC 007461375

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})
007461375-01	OBS	No	1.378885	132.370734	0.0	6.853	7.7	0.0	2.17	6867	0.04	11389.33
007461375-02	OBS	No	136.157730	189.929871	113.2	16.110	7.9	6.6	2.17	6867	2.60	24.95
007461375-03	OBS	No	67.864783	172.133279	159.7	2.304	8.1	7.8	2.17	6867	2.88	63.15
007461375-04	OBS	No	103.607738	135.874742	213.4	1.674	7.2	7.5	2.17	6867	3.21	35.92
007461375-05	OBS	No	67.420938	159.915424	122.5	2.908	7.3	6.9	2.17	6867	2.78	63.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007461375-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007461375-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS
007461375-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
007461375-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007461375-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT

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

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

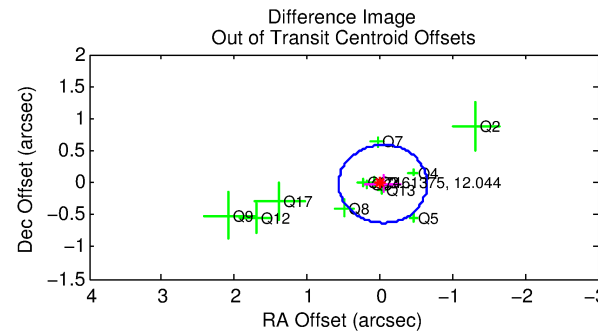
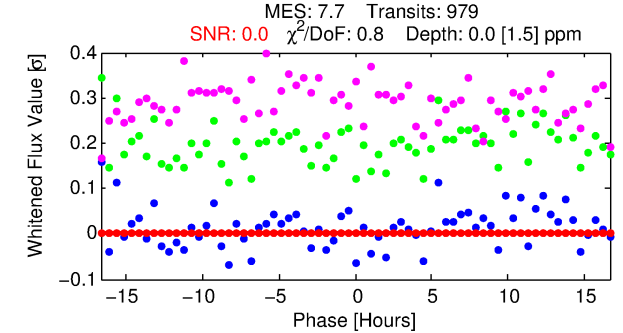
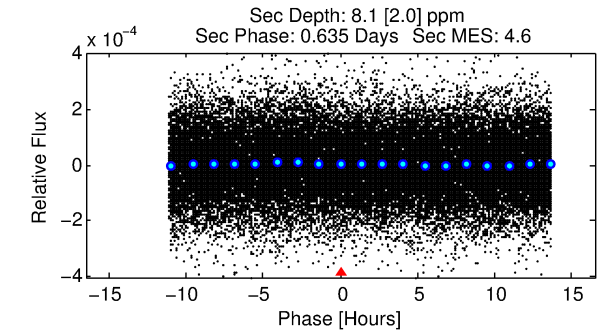
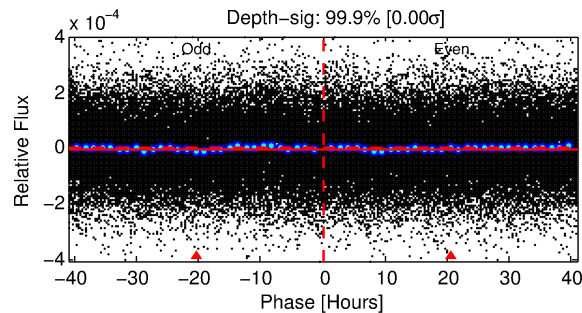
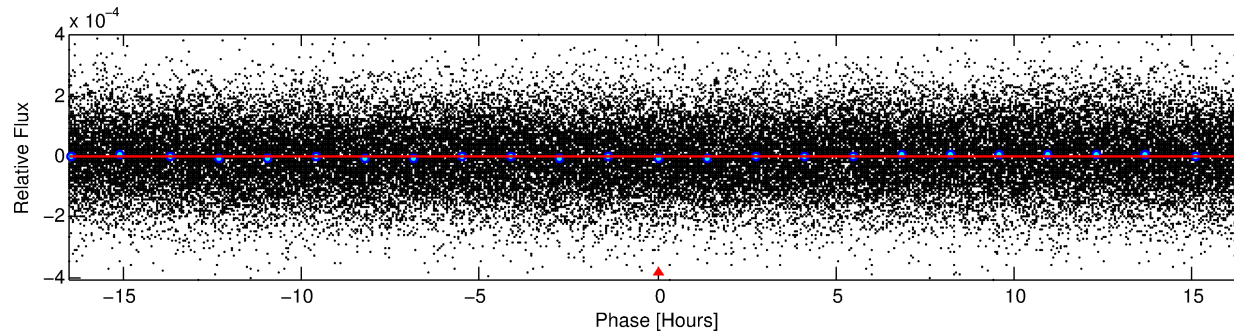
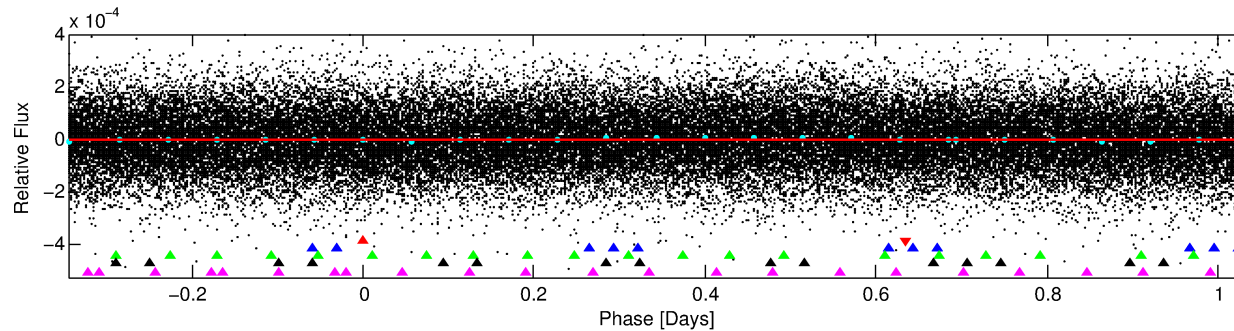
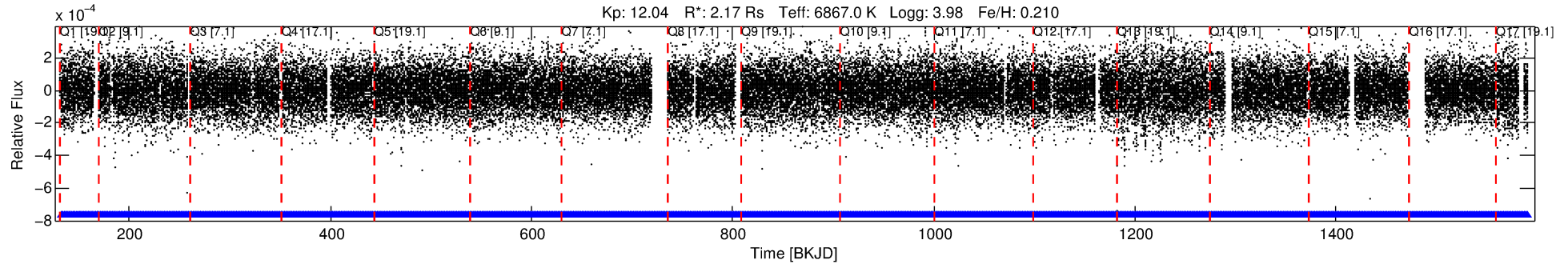
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007461375-01

No Significant Match Found

DV One-Page Summary

KIC: 7461375 Candidate: 1 of 5 Period: 1.379 d



DV Fit Results:

Period = 1.37888 [0.00844] d
Epoch = 132.3707 [2.2710] BKJD
Rp/R* = 0.0002 [0.0050]
a/R* = 1.12 [4.07]
b = 0.93 [3.16]
Seff = 11389.33 [4924.35]
Teq = 2634 [285] K
Rp = 0.04 [1.19] Re
a = 0.0287 [0.0076] AU
Ag = 1927.22 [104801.01] [0.02σ]
Teffp = 26985 [366869] K [0.07σ]

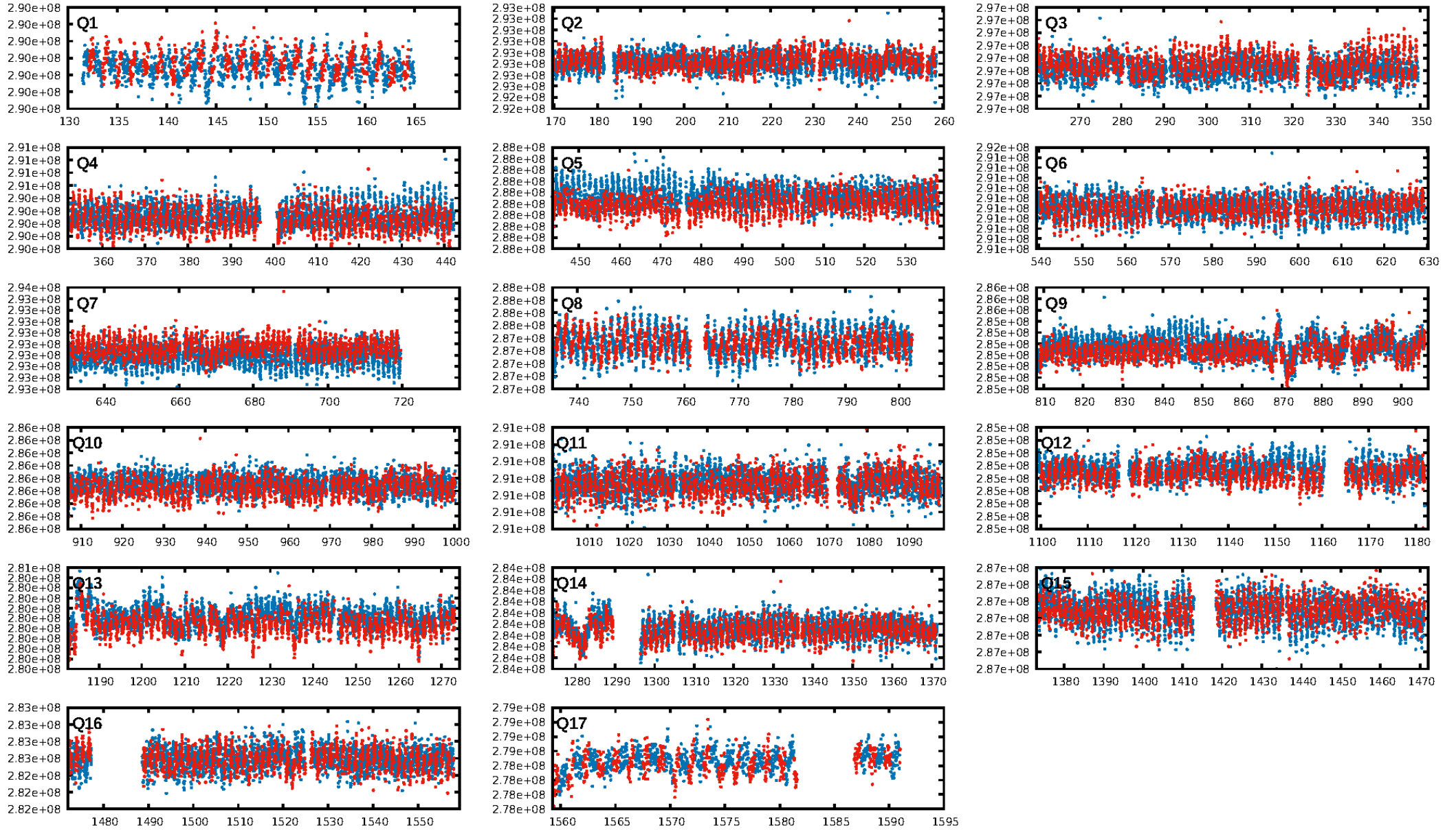
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [212.92σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.05e-10
RollingBand-fgt: 1.00 [935/935]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.045 arcsec [0.22σ]
KicOffset-rm: 0.180 arcsec [1.60σ]
OotOffset-st: 3/2/3/4 [12]
KicOffset-st: 3/2/3/4 [12]
DiffImageQuality-fgm: 0.75 [9/12]
DiffImageOverlap-fno: 1.00 [17/17]

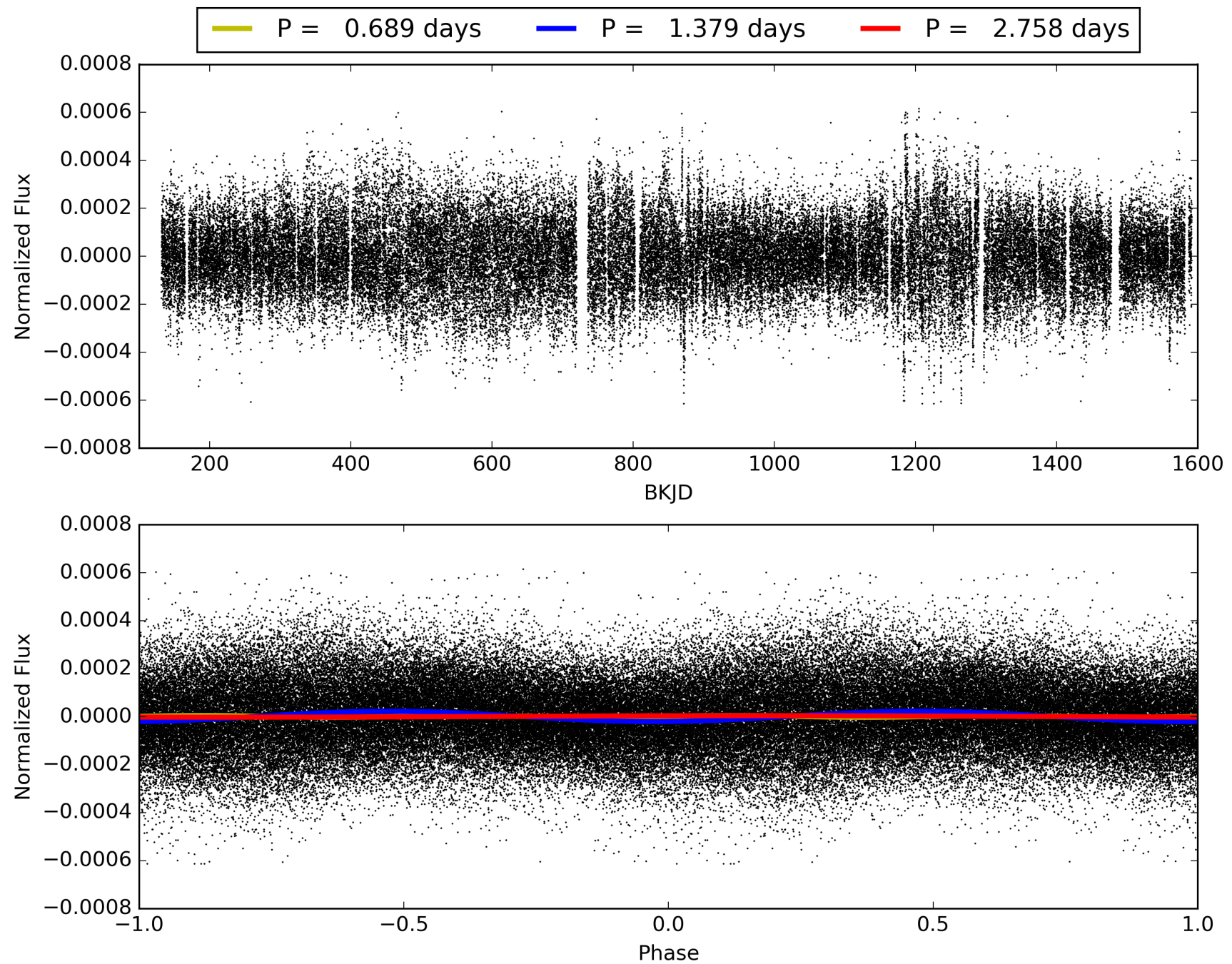
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:49:44 Z

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

TCE 007461375-01, PDC Light Curves

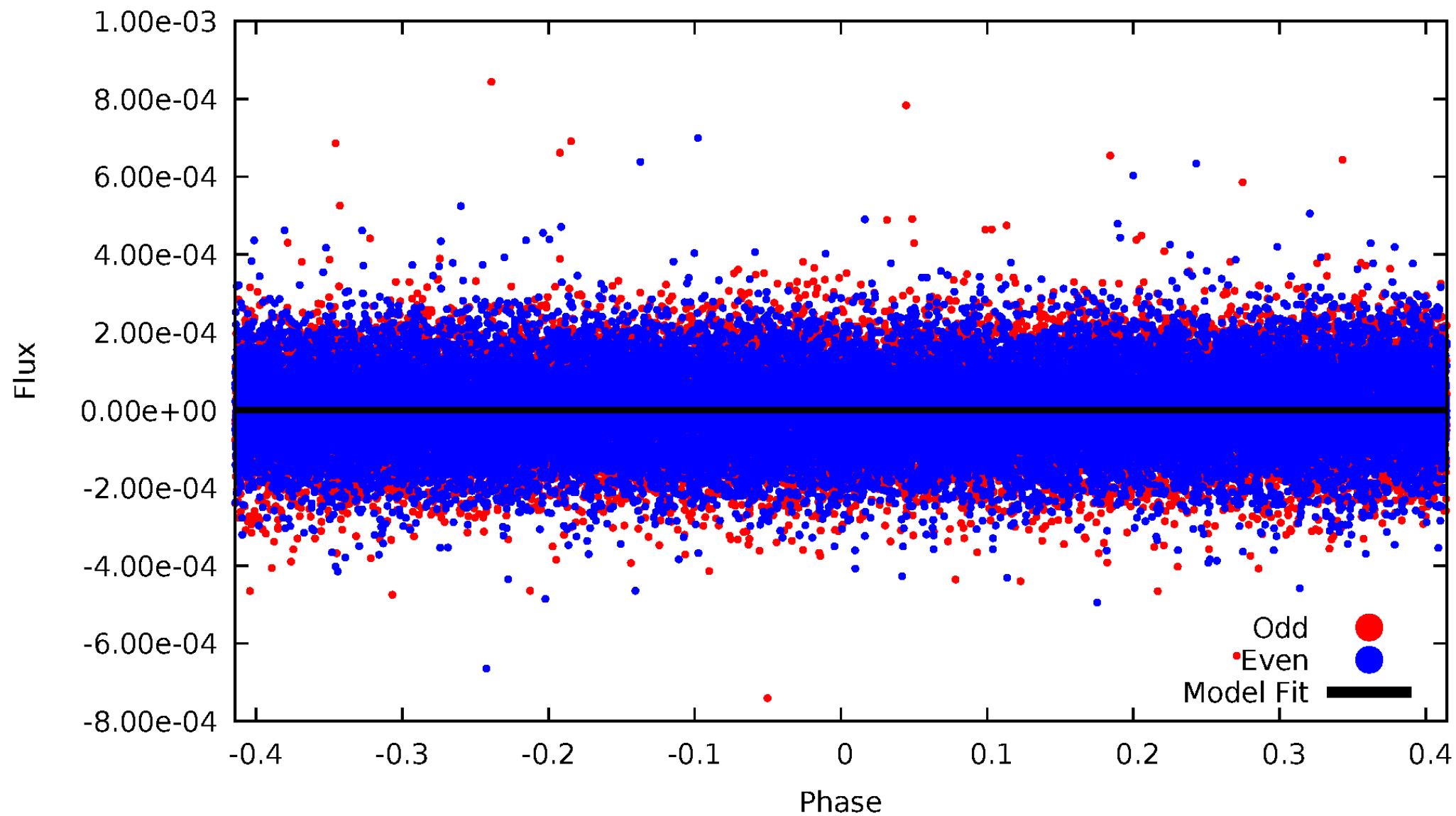


TCE 007461375-01



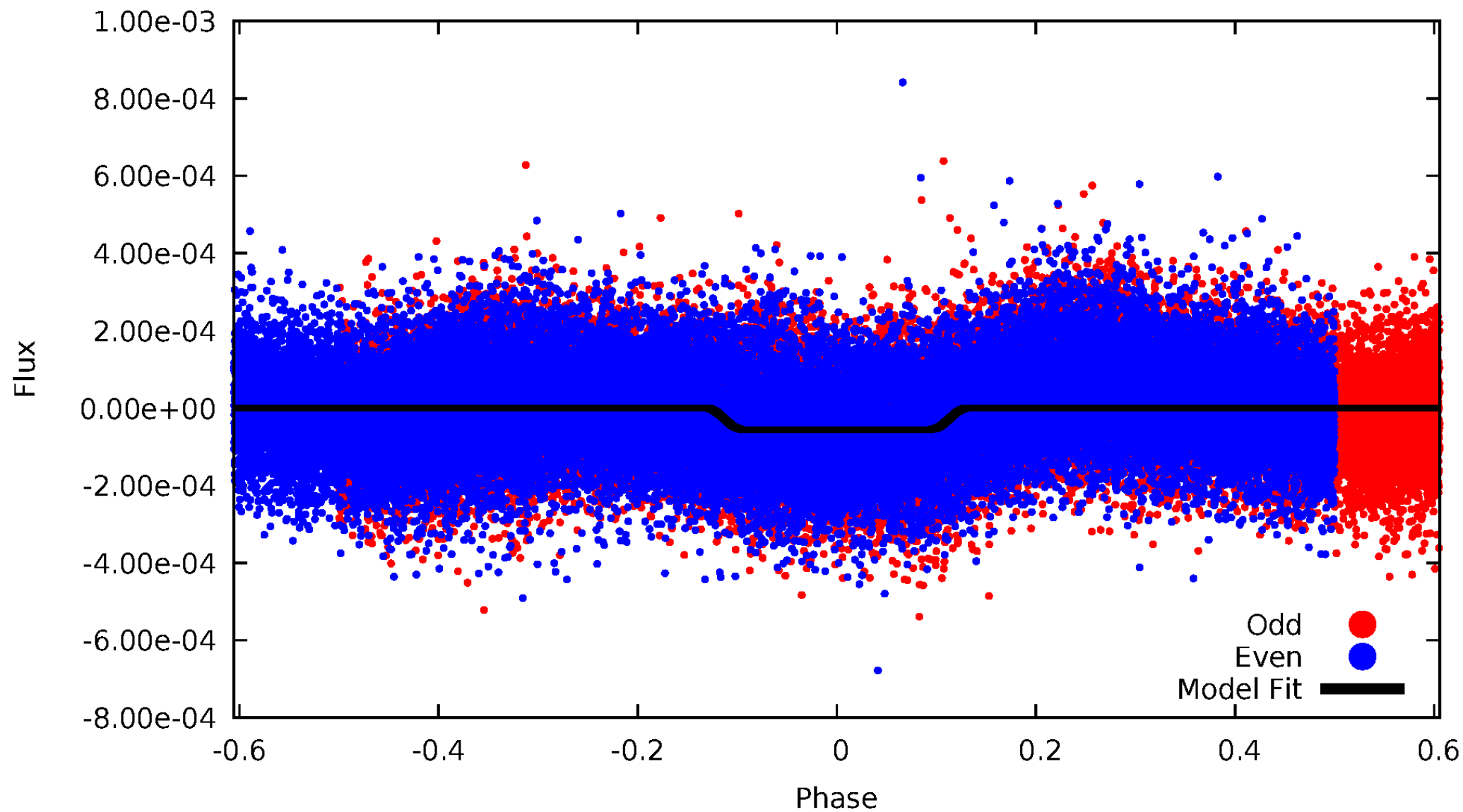
DV Odd/Even

TCE 007461375-01



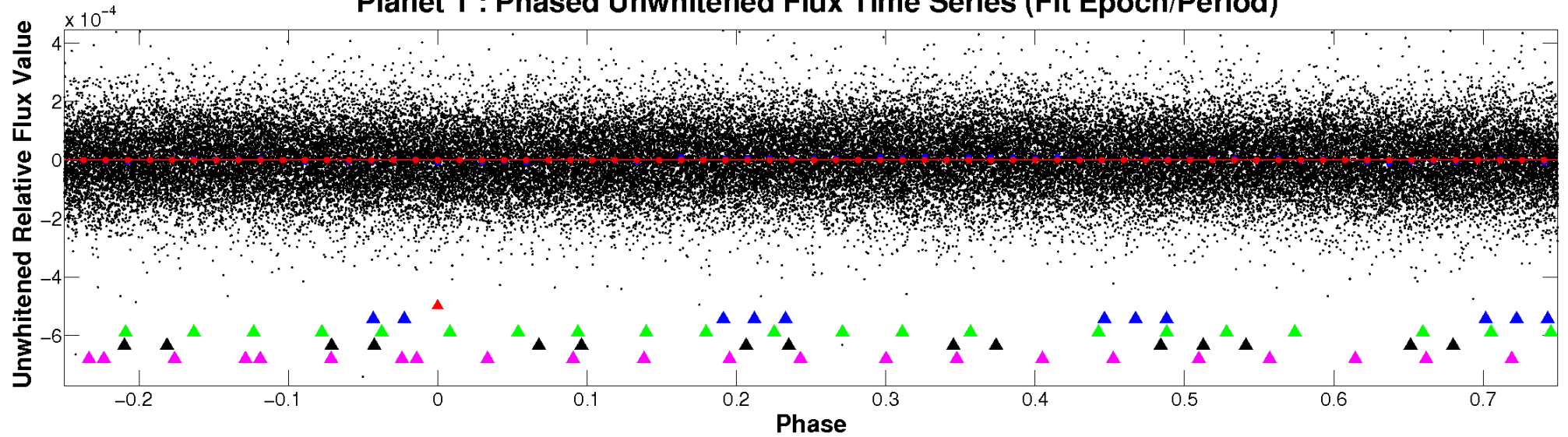
ALT Odd/Even

TCE 007461375-01

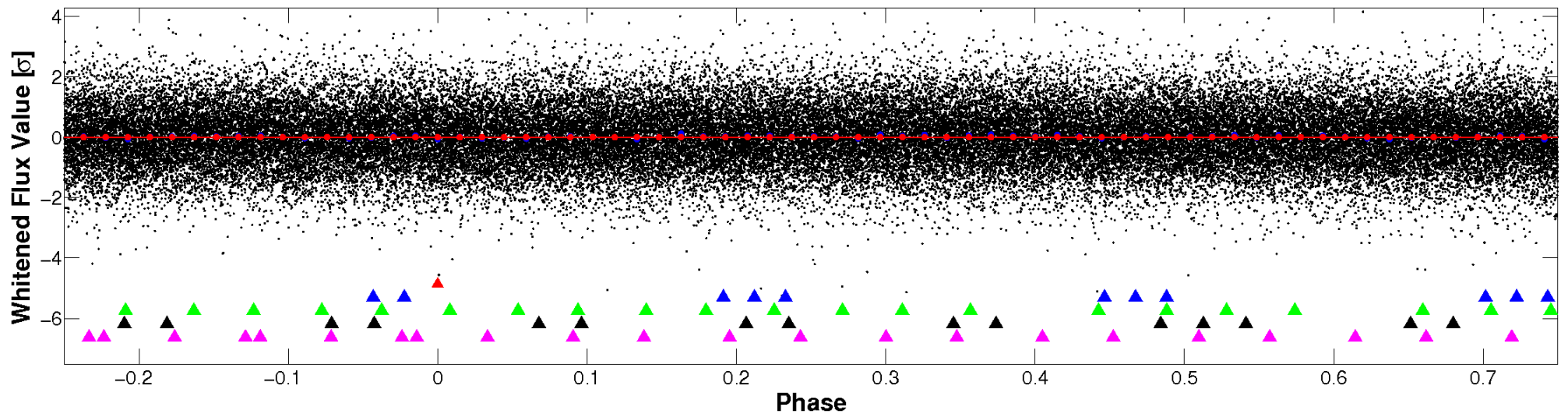


Non-Whitened Vs. Whitened Light Curve

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

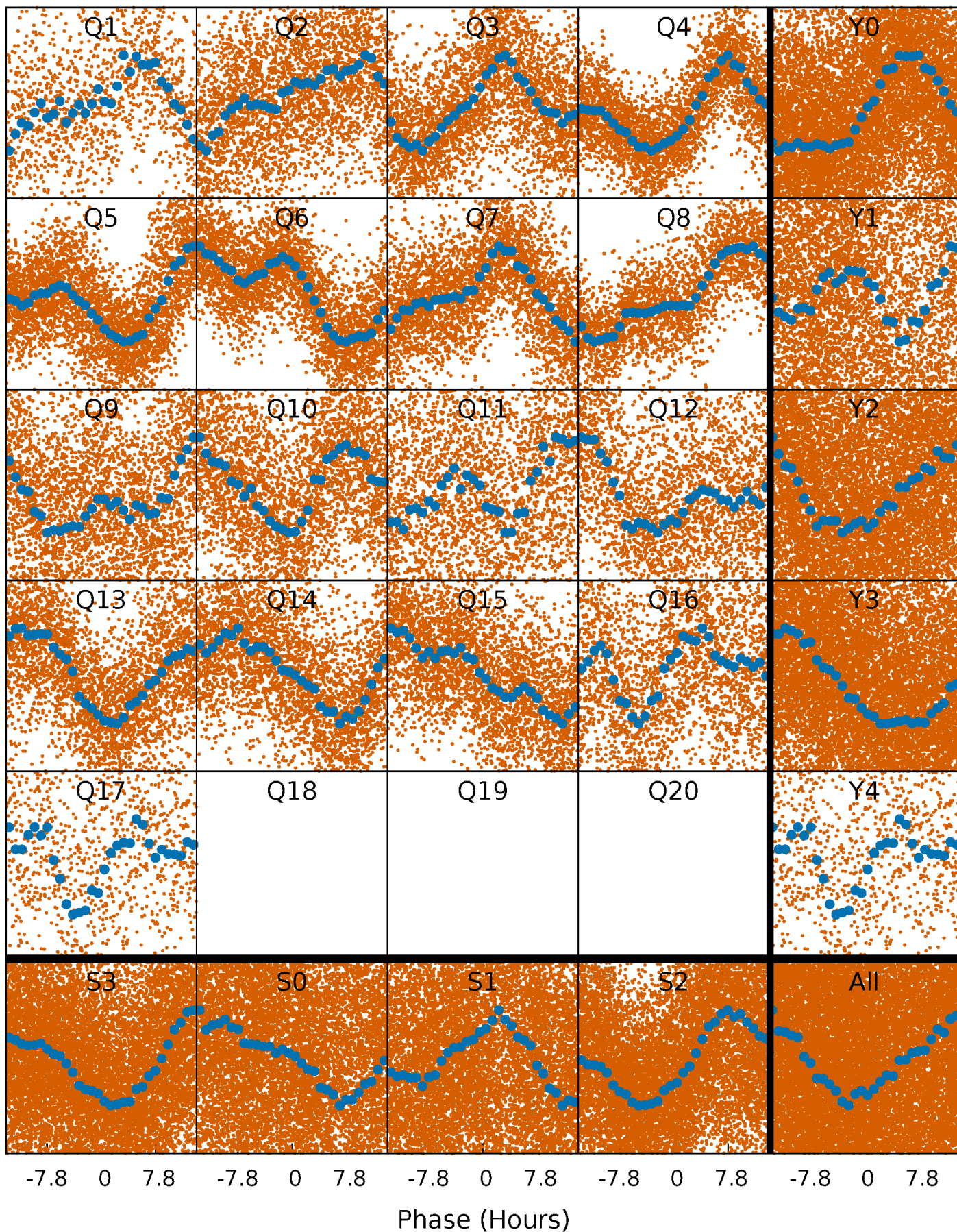


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



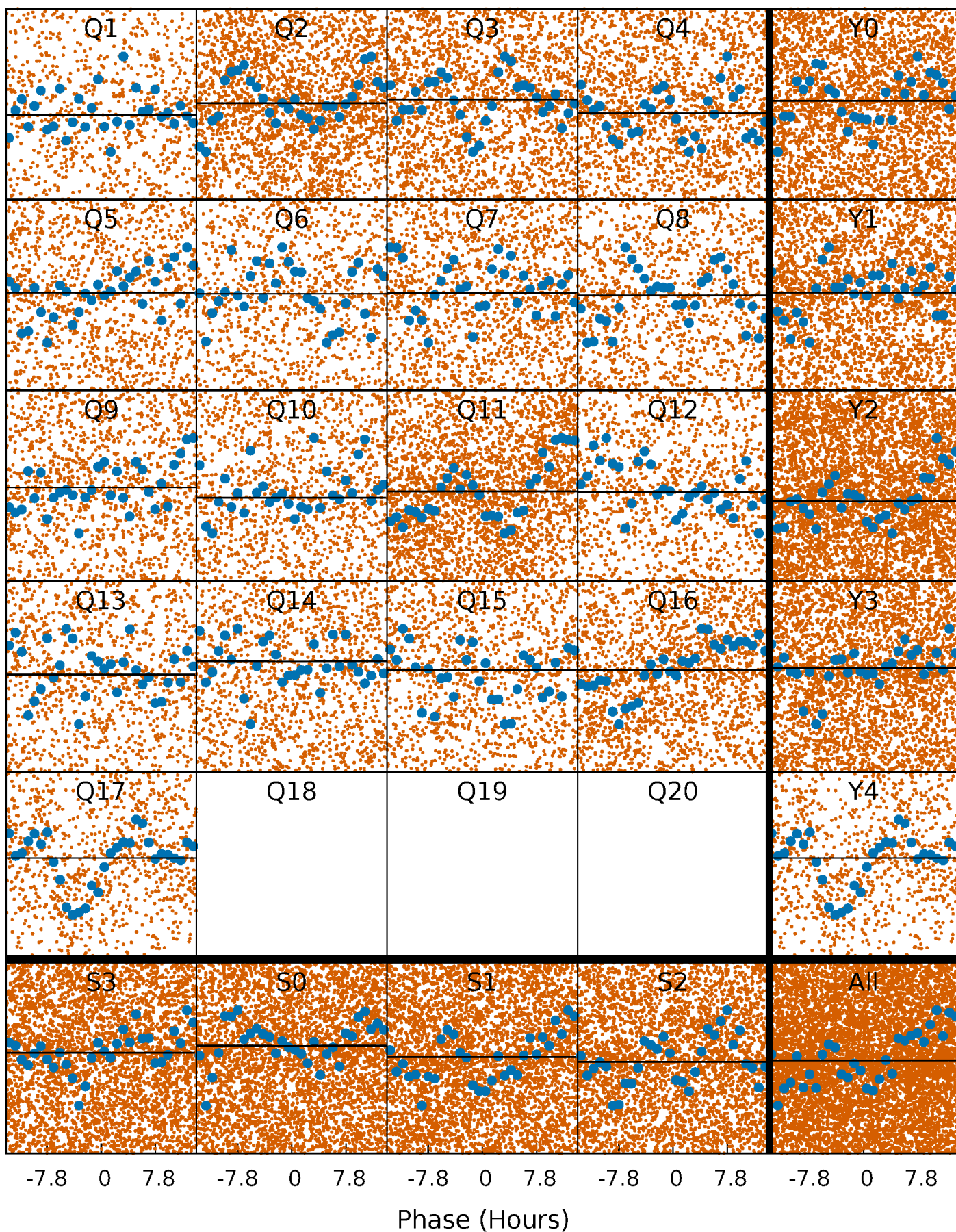
PDC Quarter-Phased Transit Curves

TCE 007461375-01 P= 1.378885 Days $T_0=132.370734$ (BKJD)



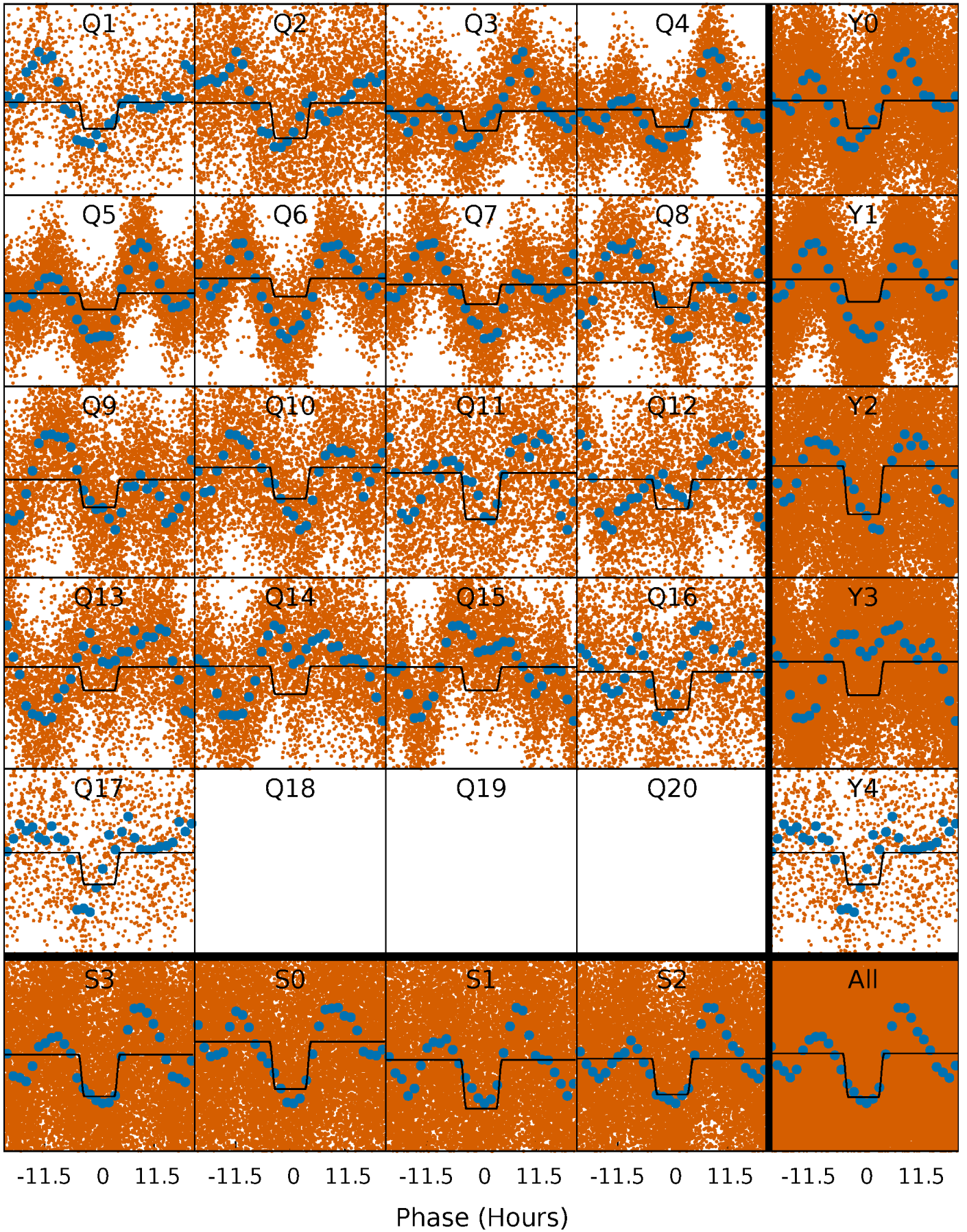
DV Quarter-Phased Transit Curves

TCE 007461375-01 P= 1.378885 Days $T_0=132.370734$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

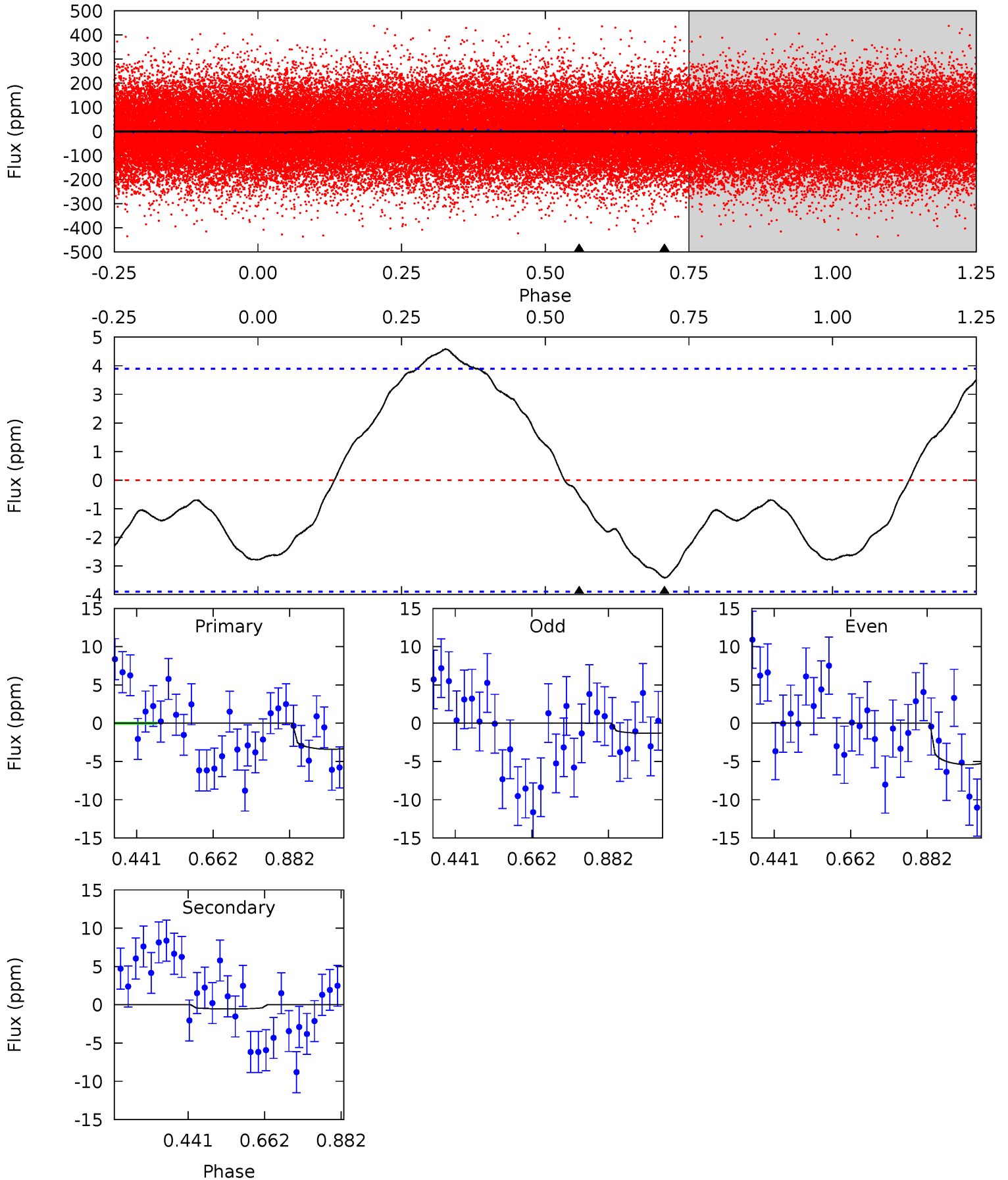
TCE 007461375-01 P= 1.382152 Days $T_0=131.705815$ (BKJD)



DV Model-Shift Uniqueness Test

007461375-01, P = 1.378885 Days, E = 130.991849 Days

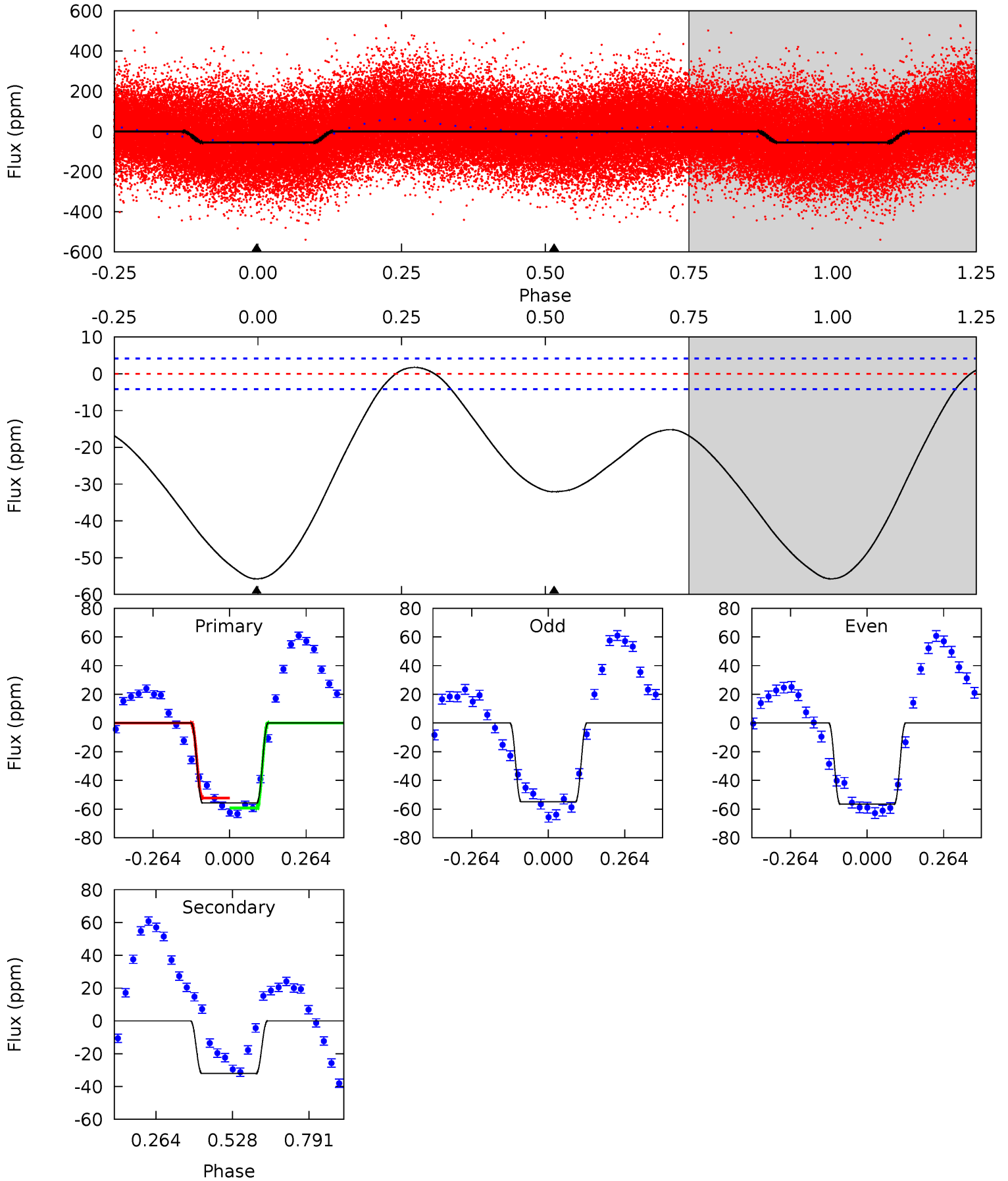
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.85	0.61	0	0	4.40	1.23	3.01	3.85	3.85	0.61	0.61	2.32	0.55	0.57	1.20



Alt Model-Shift Uniqueness Test

007461375-01, P = 1.382152 Days, E = 130.323663 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.1	33.4	0	0	4.36	1.12	9.05	58.1	58.1	33.4	33.4	0.82	0.91	0.03	3.81



Stellar Parameters For KIC 007461375

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6867^{+192}_{-288}	$3.985^{+0.225}_{-0.184}$	$0.210^{+0.150}_{-0.350}$	$2.172^{+0.647}_{-0.647}$	$1.661^{+0.183}_{-0.314}$	$0.228^{+0.299}_{-0.112}$
	+3%/-4%	+6%/-5%	+71%/-167%	+30%/-30%	+11%/-19%	+131%/-49%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007461375-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1 ± 1	$0.83^{+0.93}_{-0.59}$	3669^{+301}_{-321}	-2834^{+8034}_{-929}	$0.221^{+2.813}_{-0.364}$
Alt.	-32 ± 1	$1.77^{+1.27}_{-0.98}$	3657^{+325}_{-296}	5784^{+3638}_{-1239}	$4.673^{+19.076}_{-3.066}$

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 $A_{obs} \gg 1.0$

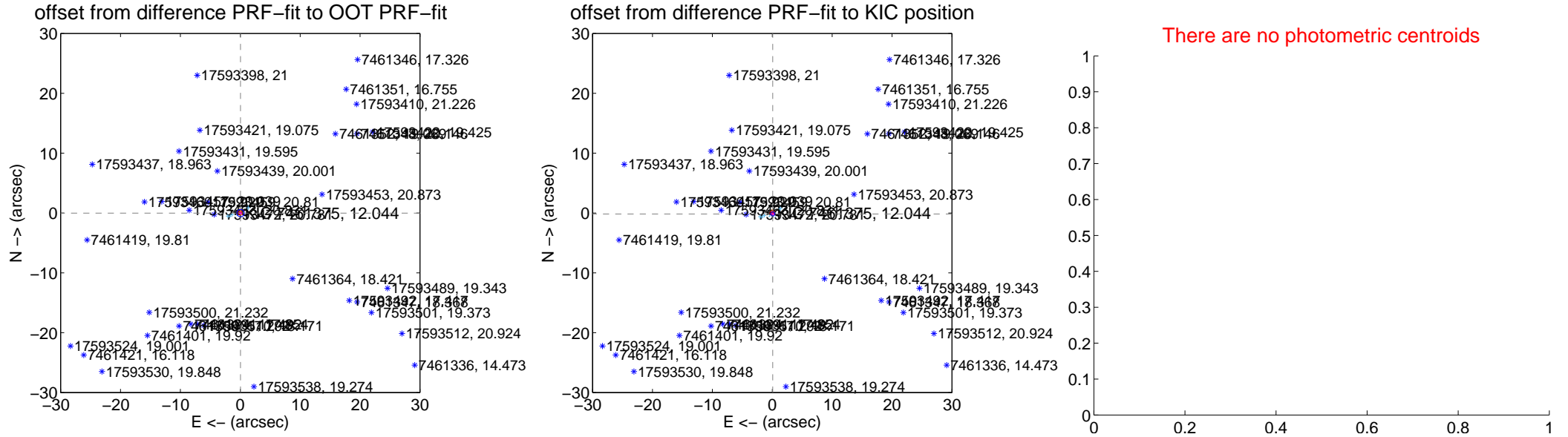
DV Centroid Data

Supplemental centroid analysis for 007461375-01. Kepler magnitude: 12.04. Transit SNR 0.02

There are 9 quarters with good PRF difference image offsets

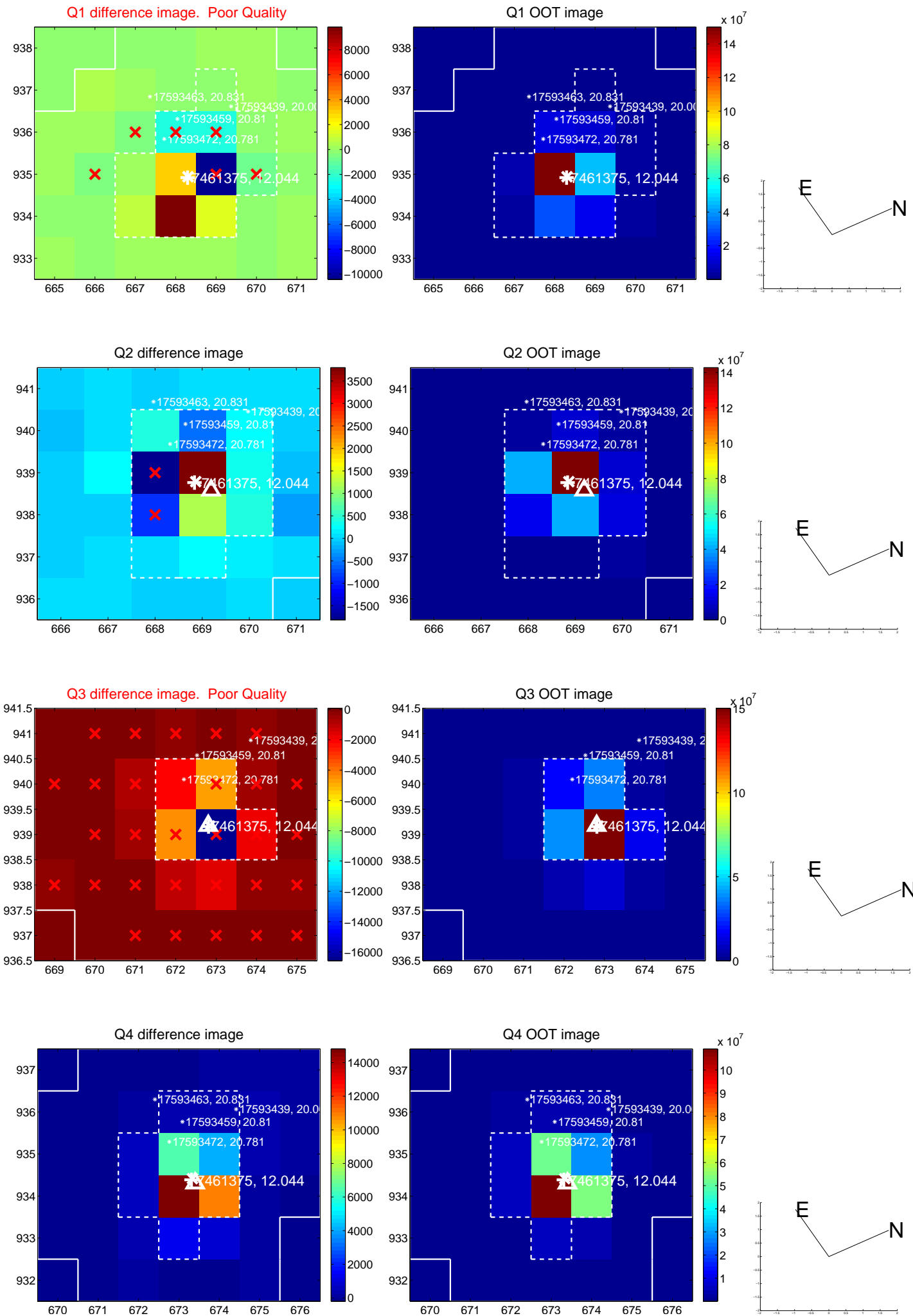
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.045 ± 0.203	0.22	-0.041 ± 0.245	-0.018 ± 0.131
PRF-fit source offset from KIC position	0.180 ± 0.113	1.60	-0.077 ± 0.285	-0.163 ± 0.137
photometric centroid source offset	—	—	—	—

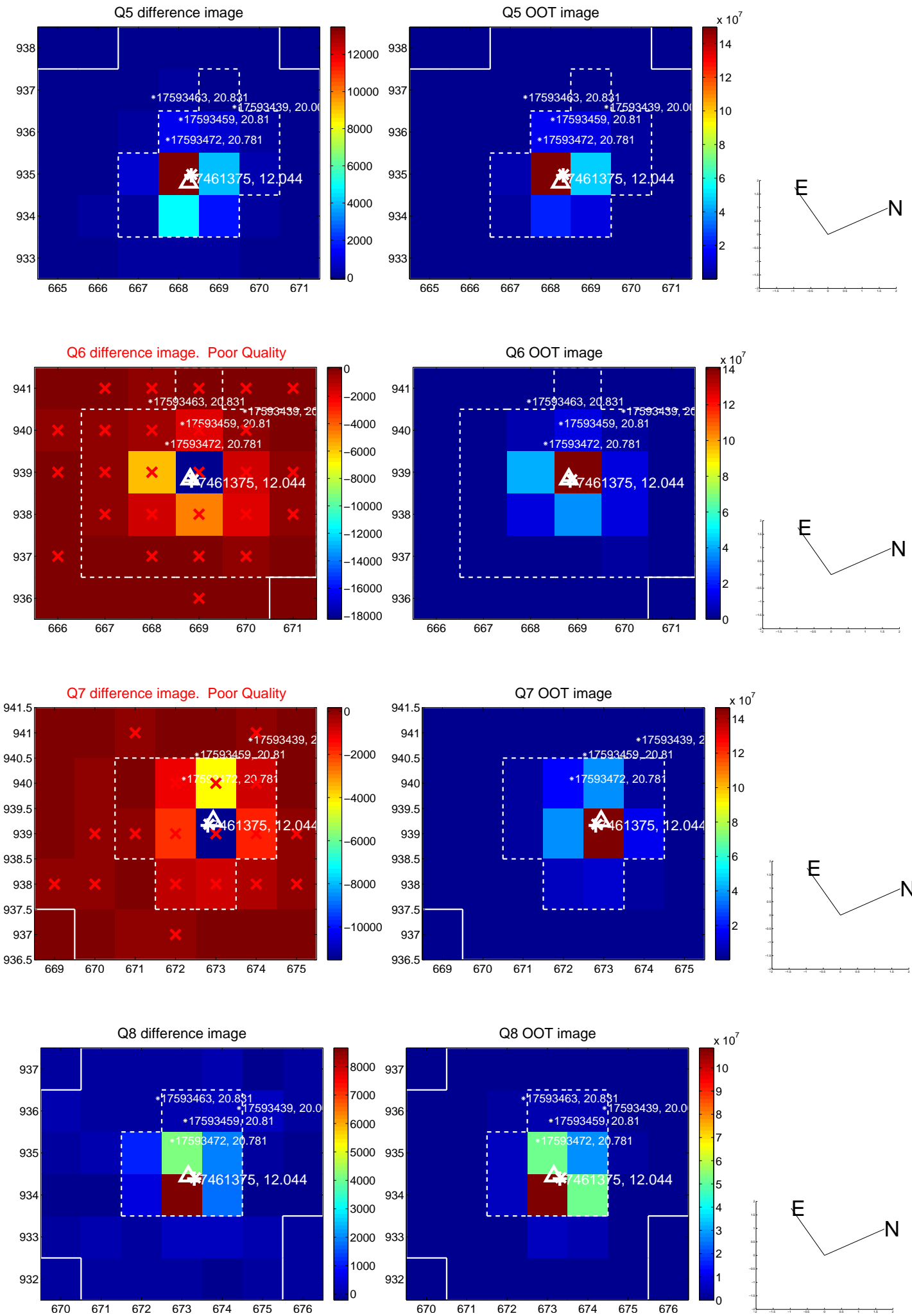


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

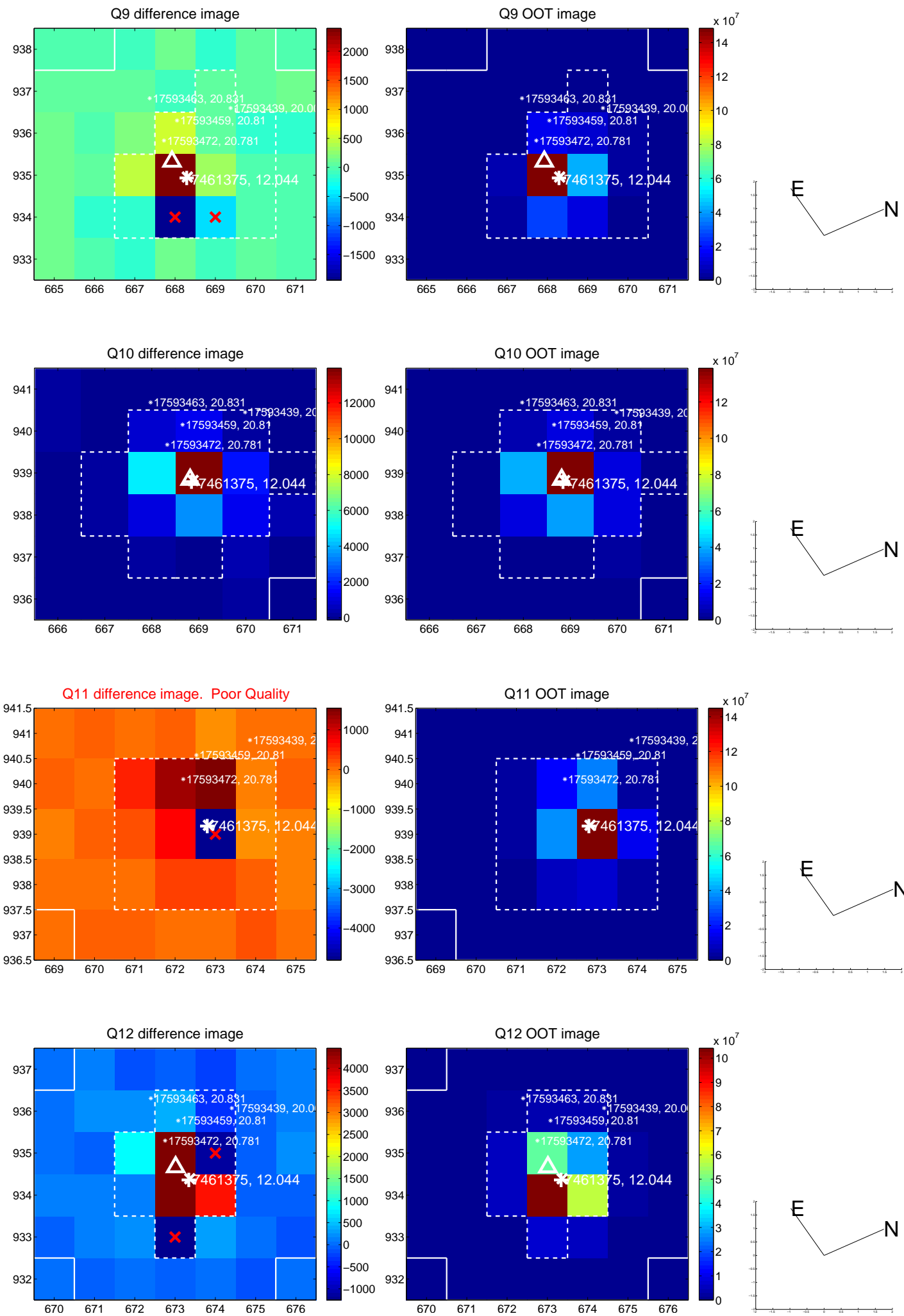
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



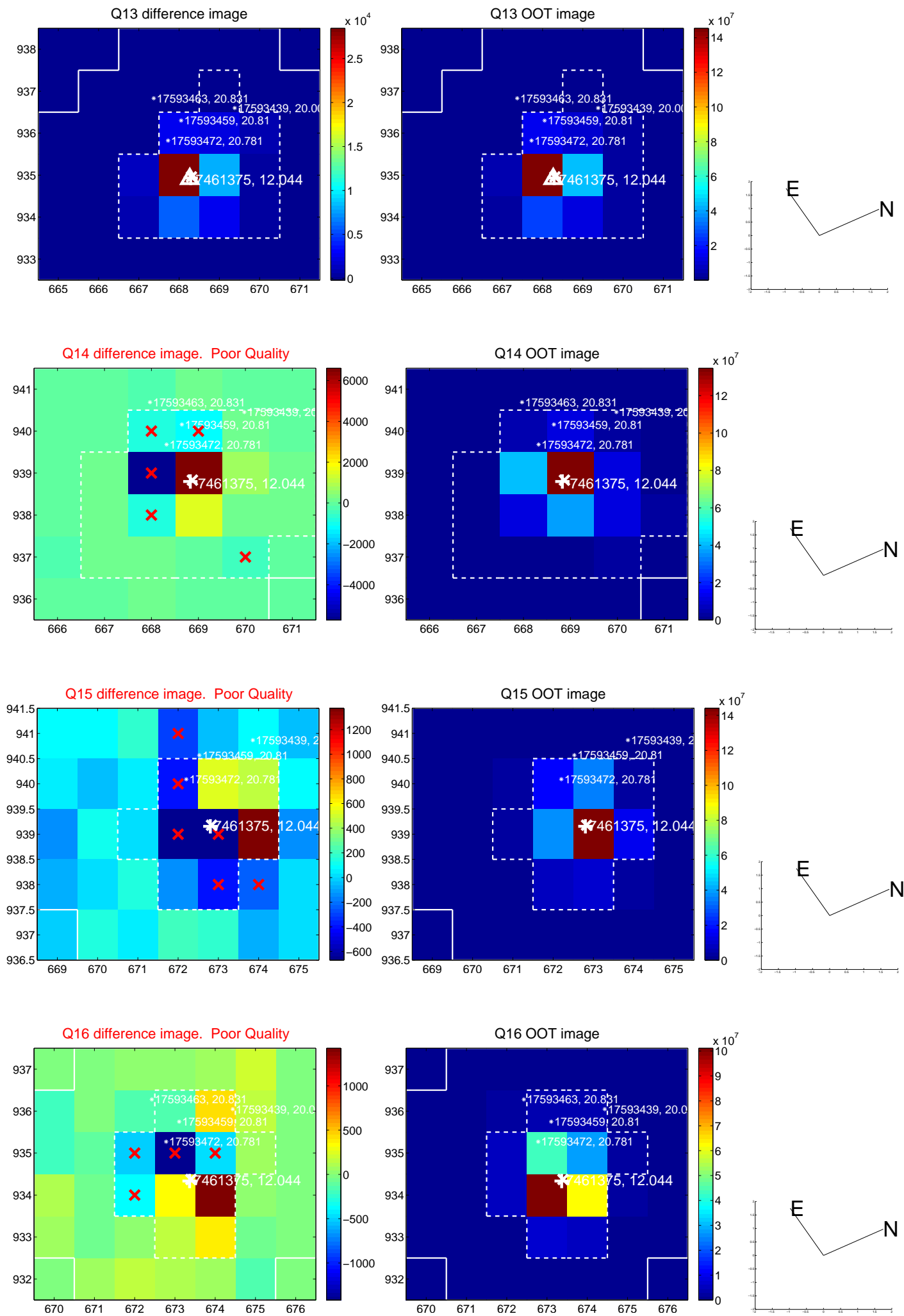
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



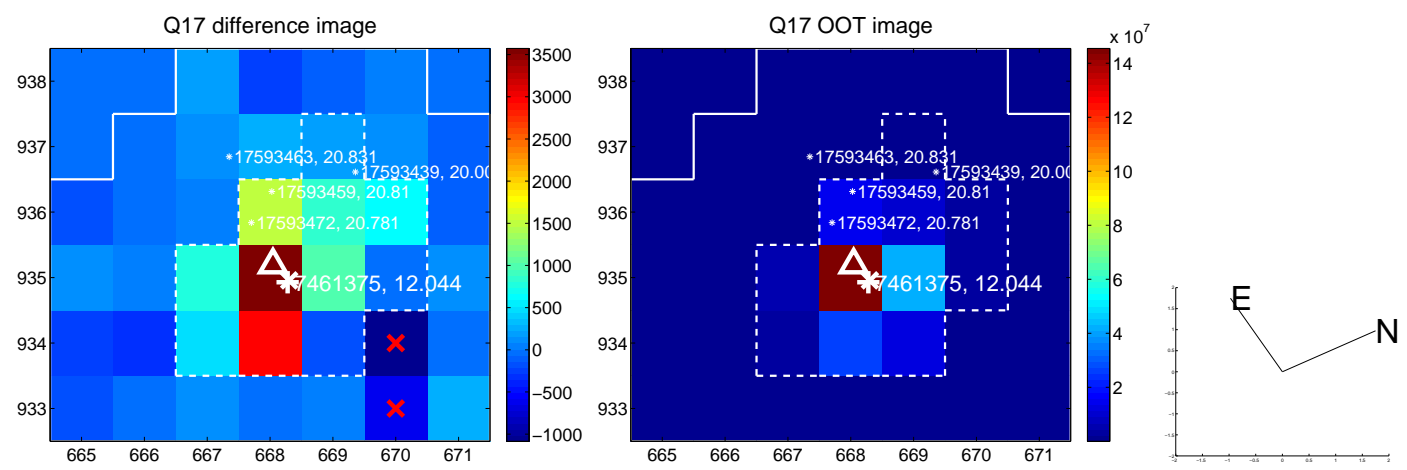
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



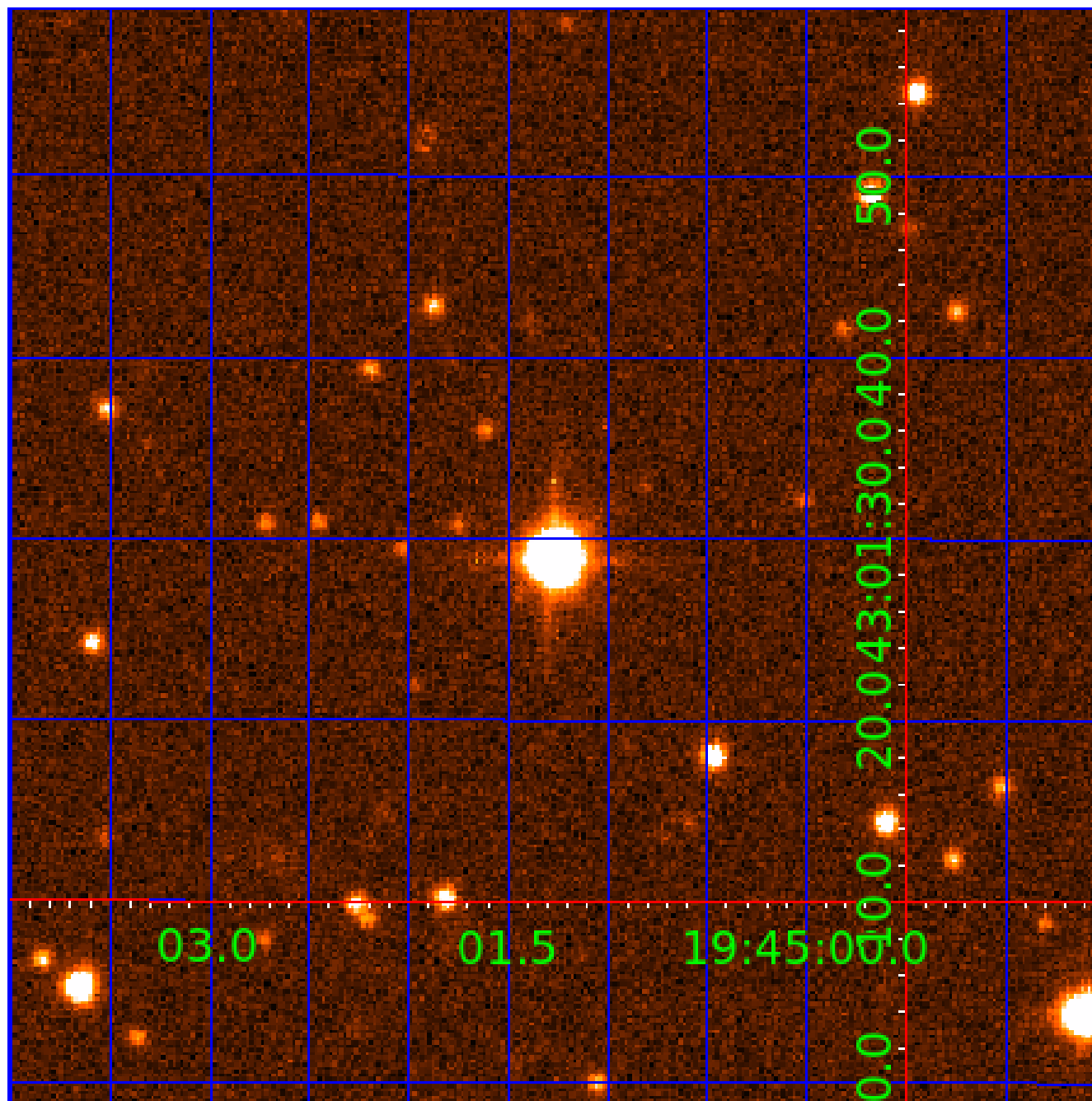
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 007461375

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})
007461375-01	OBS	No	1.378885	132.370734	0.0	6.853	7.7	0.0	2.17	6867	0.04	11389.33
007461375-02	OBS	No	136.157730	189.929871	113.2	16.110	7.9	6.6	2.17	6867	2.60	24.95
007461375-03	OBS	No	67.864783	172.133279	159.7	2.304	8.1	7.8	2.17	6867	2.88	63.15
007461375-04	OBS	No	103.607738	135.874742	213.4	1.674	7.2	7.5	2.17	6867	3.21	35.92
007461375-05	OBS	No	67.420938	159.915424	122.5	2.908	7.3	6.9	2.17	6867	2.78	63.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007461375-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007461375-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS
007461375-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
007461375-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007461375-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT

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

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

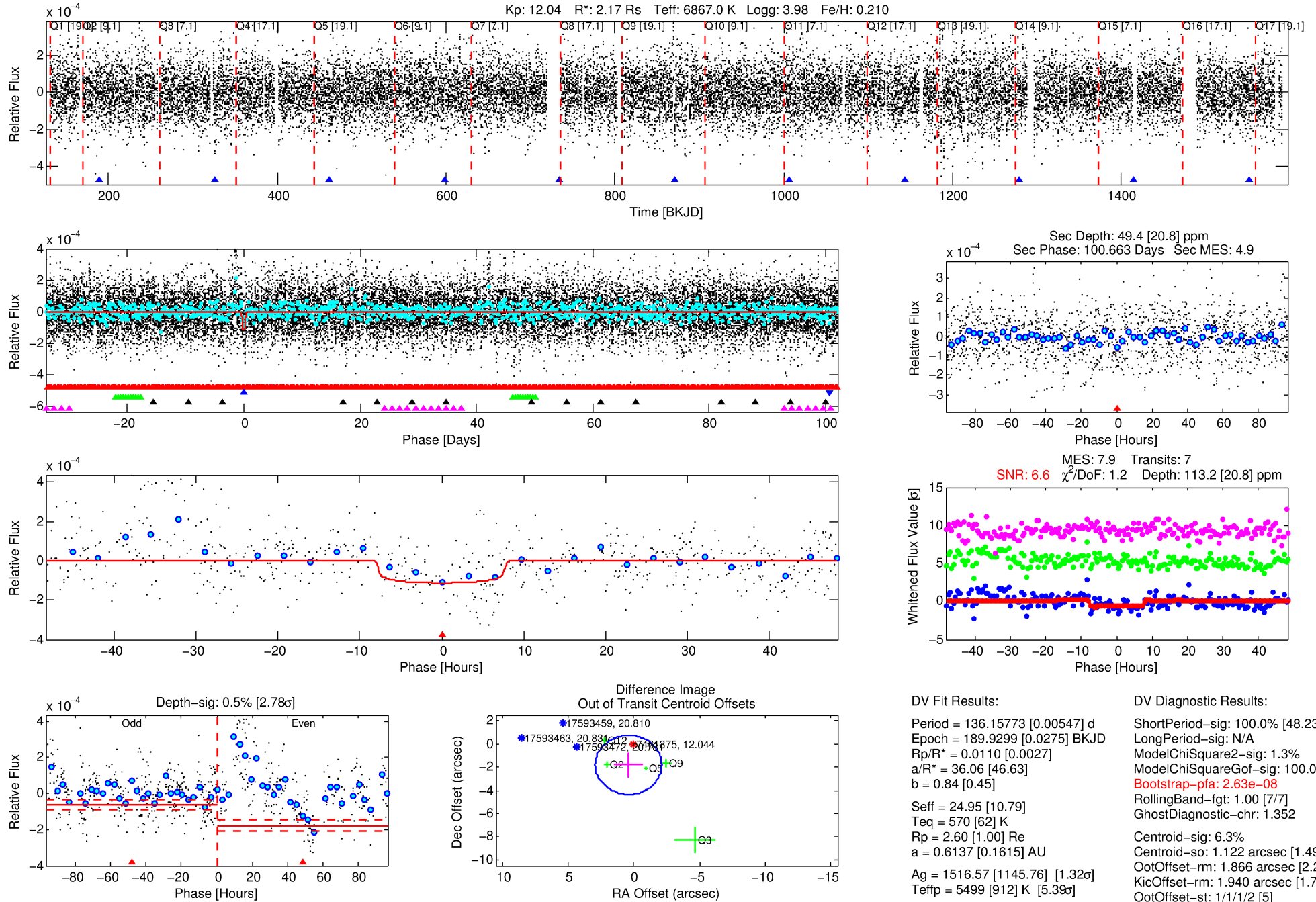
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007461375-02

No Significant Match Found

DV One-Page Summary

KIC: 7461375 Candidate: 2 of 5 Period: 136.158 d



DV Fit Results:

Period = 136.15773 [0.00547] d
Epoch = 189.9299 [0.0275] BKJD
Rp/R* = 0.0110 [0.0027]
a/R* = 36.06 [46.63]
b = 0.84 [0.45]
Seff = 24.95 [10.79]
Teq = 570 [62] K
Rp = 2.60 [1.00] Re
a = 0.6137 [0.1615] AU
Ag = 1516.57 [1145.76] [1.32 σ]
Teffp = 5499 [912] K [5.39 σ]

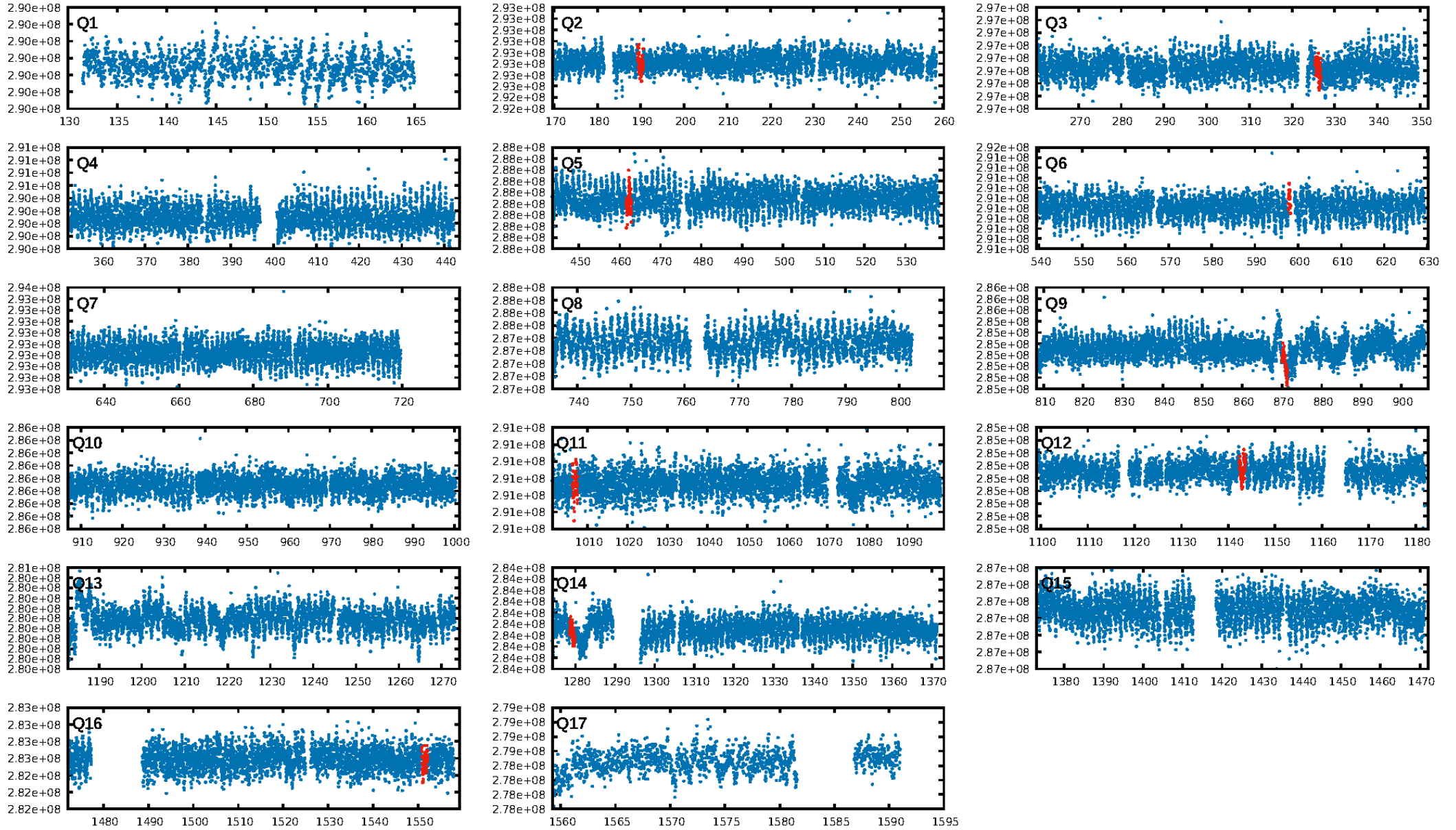
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [48.23 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.63e-08
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 1.352
Centroid-sig: 6.3%
Centroid-so: 1.122 arcsec [1.49 σ]
OotOffset-rm: 1.866 arcsec [2.21 σ]
KicOffset-rm: 1.940 arcsec [1.76 σ]
OotOffset-st: 1/1/1/2 [5]
KicOffset-st: 1/1/1/2 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 0.00 [0/7]

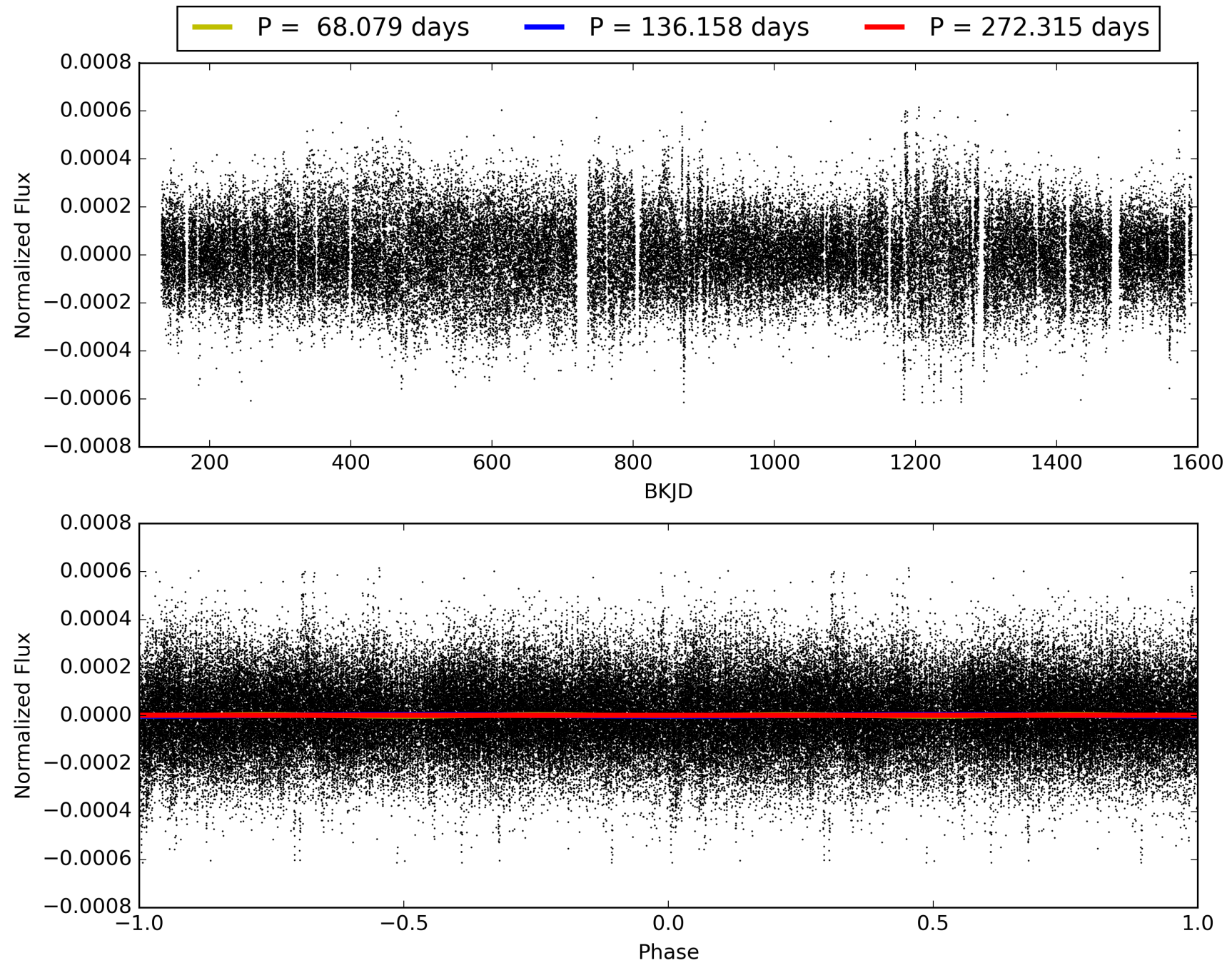
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:49:55 Z

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

TCE 007461375-02, PDC Light Curves

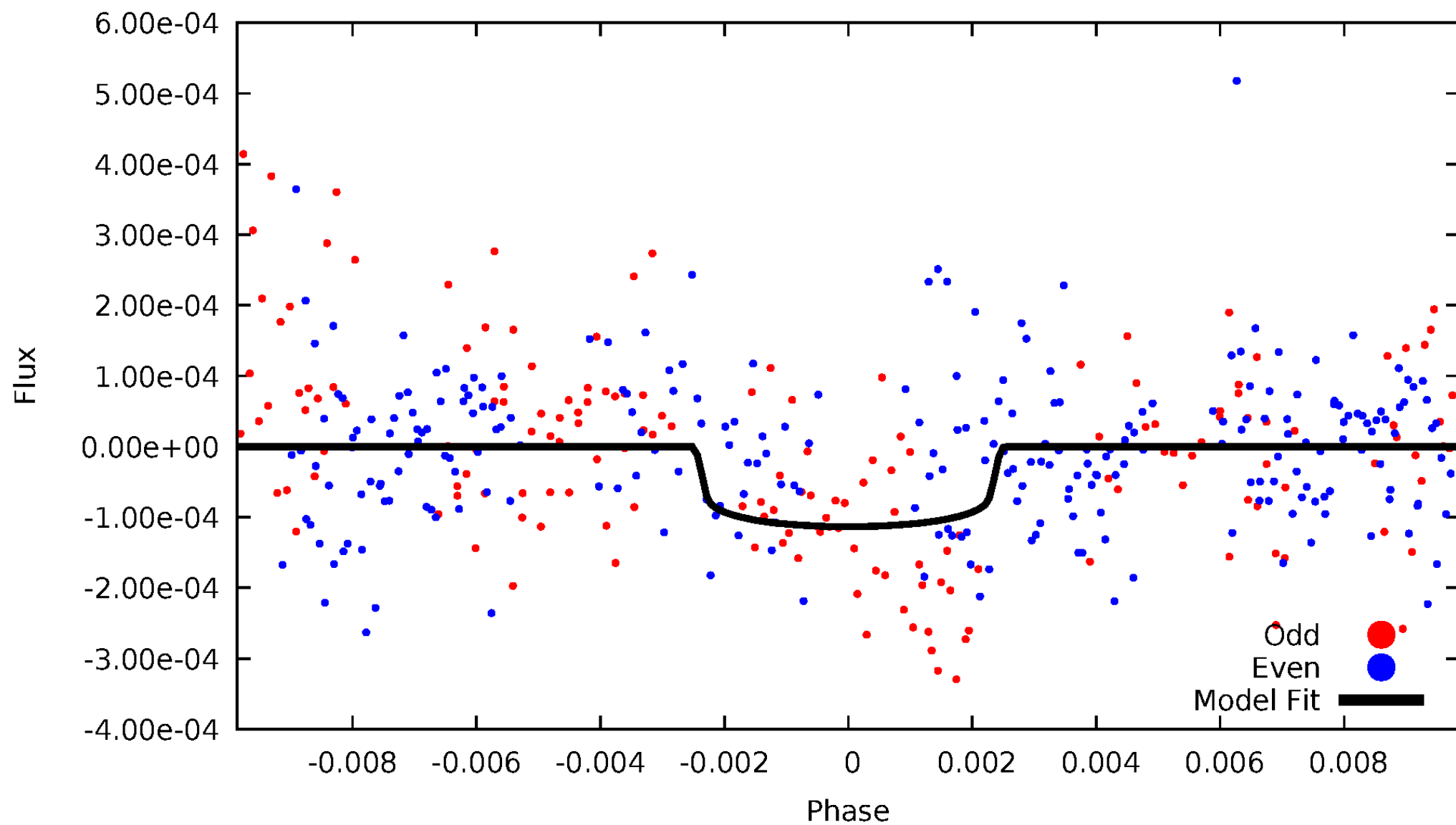


TCE 007461375-02



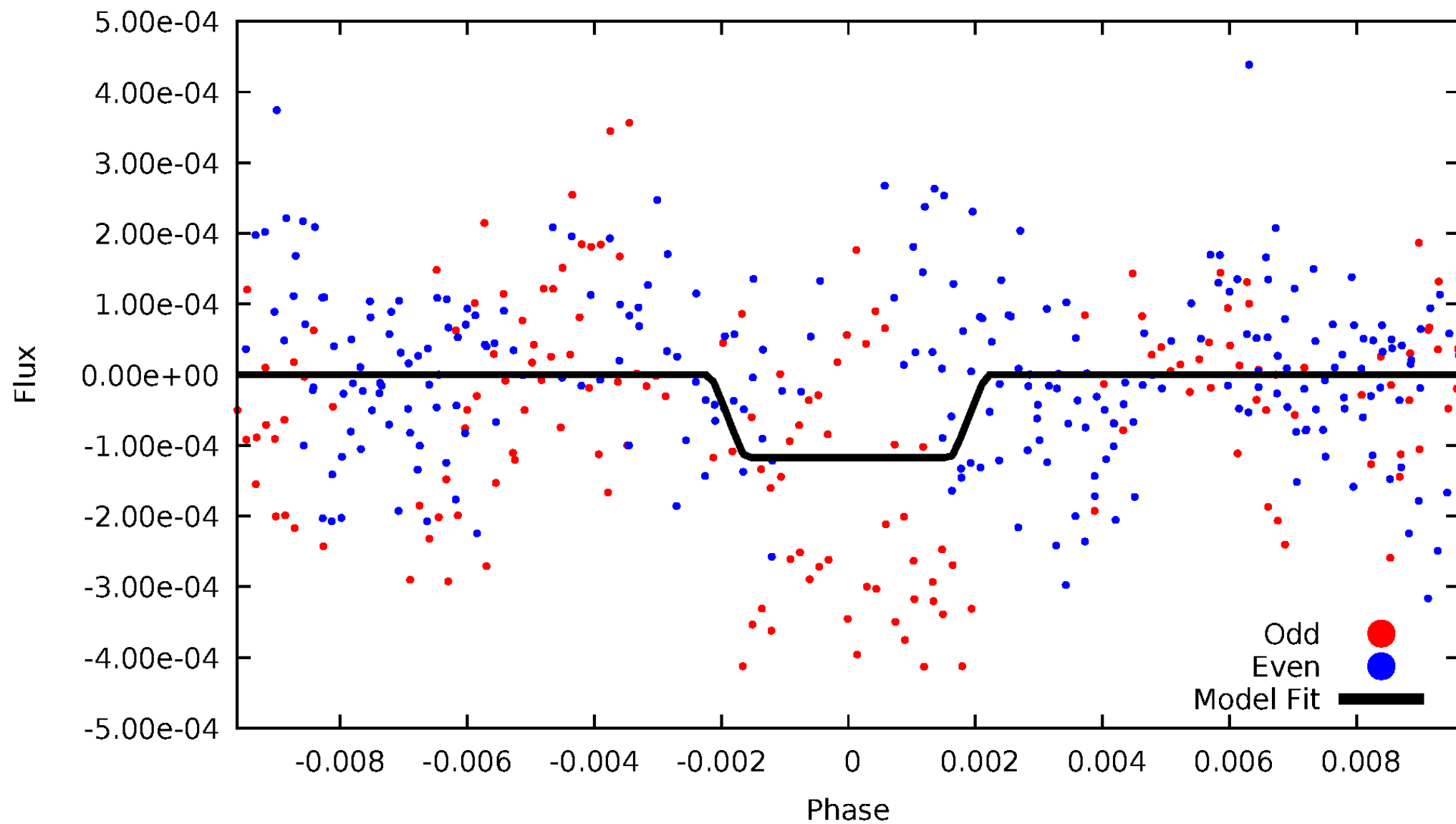
DV Odd/Even

TCE 007461375-02



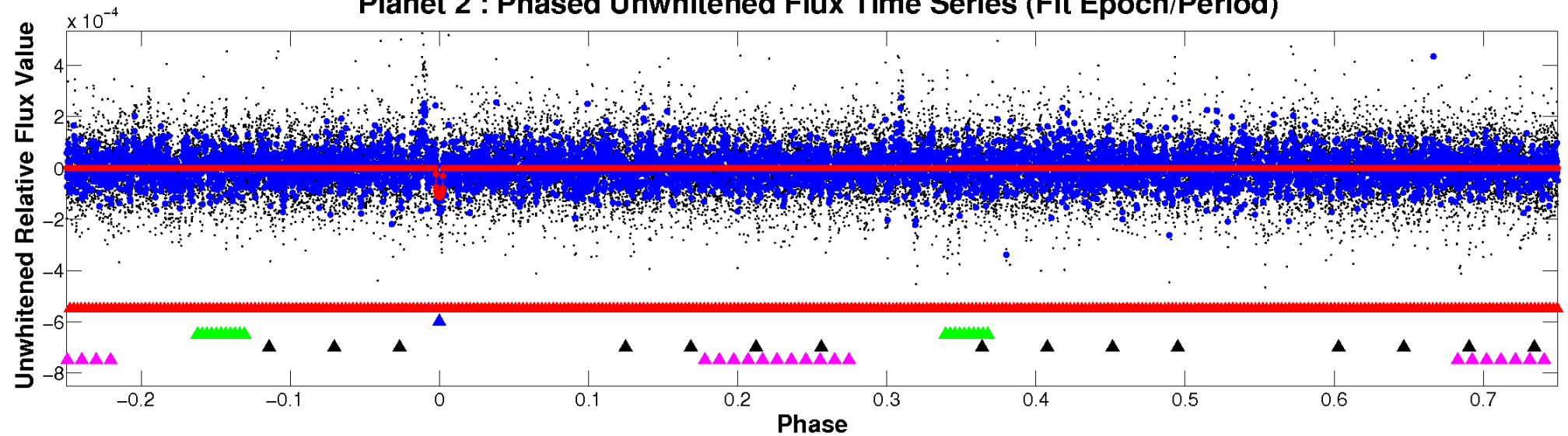
ALT Odd/Even

TCE 007461375-02

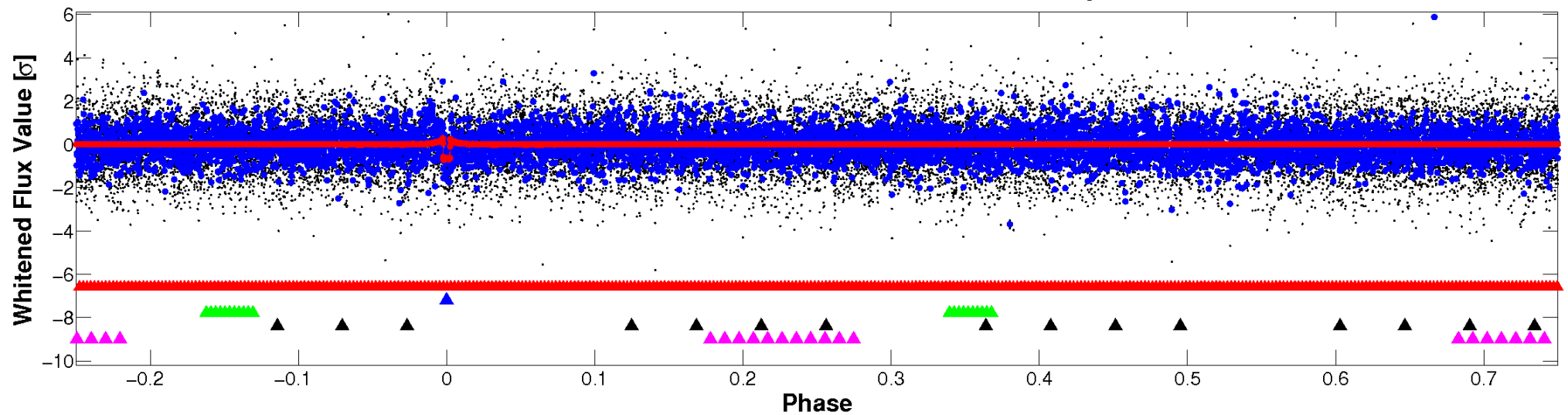


Non-Whitened Vs. Whitened Light Curve

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

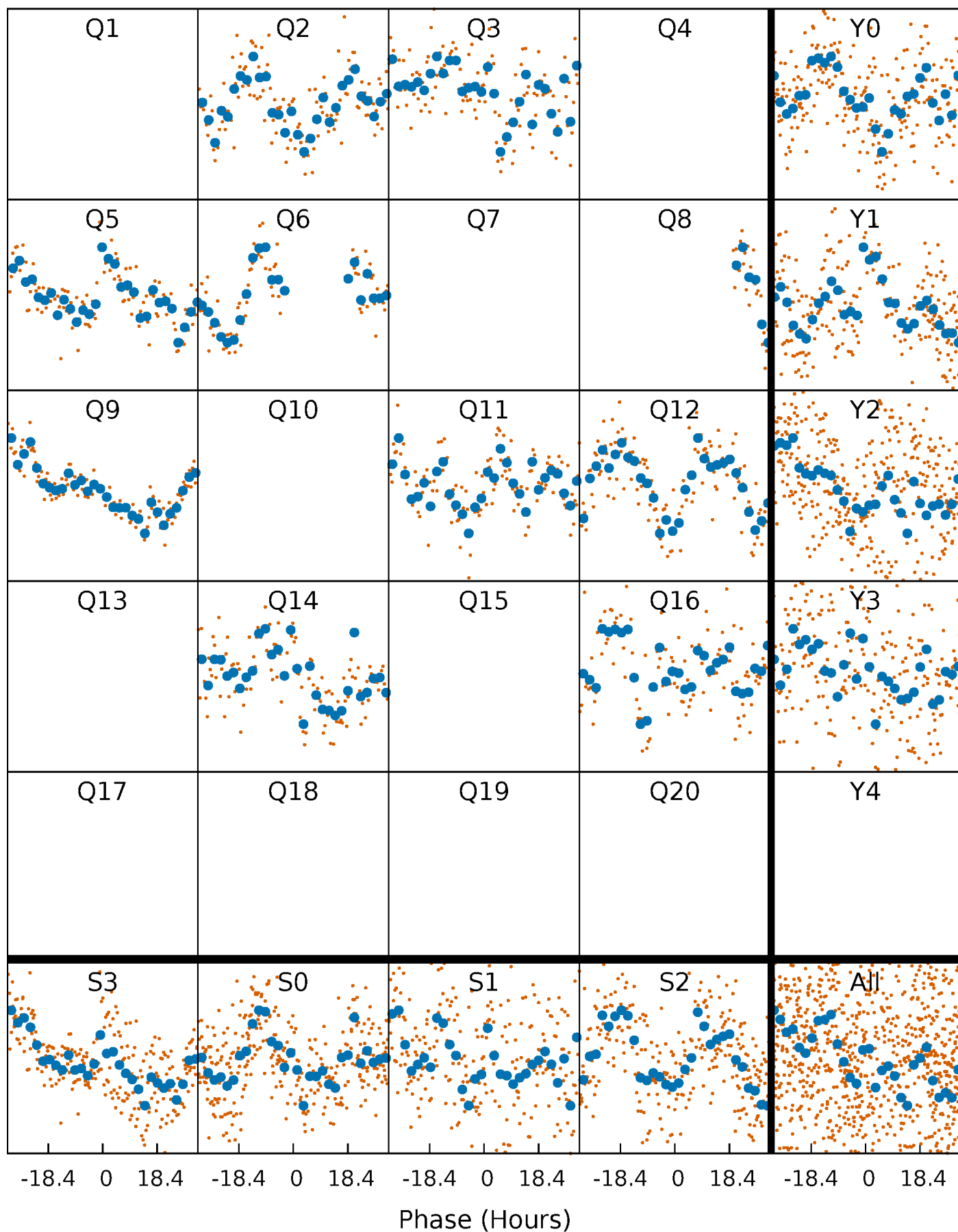


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



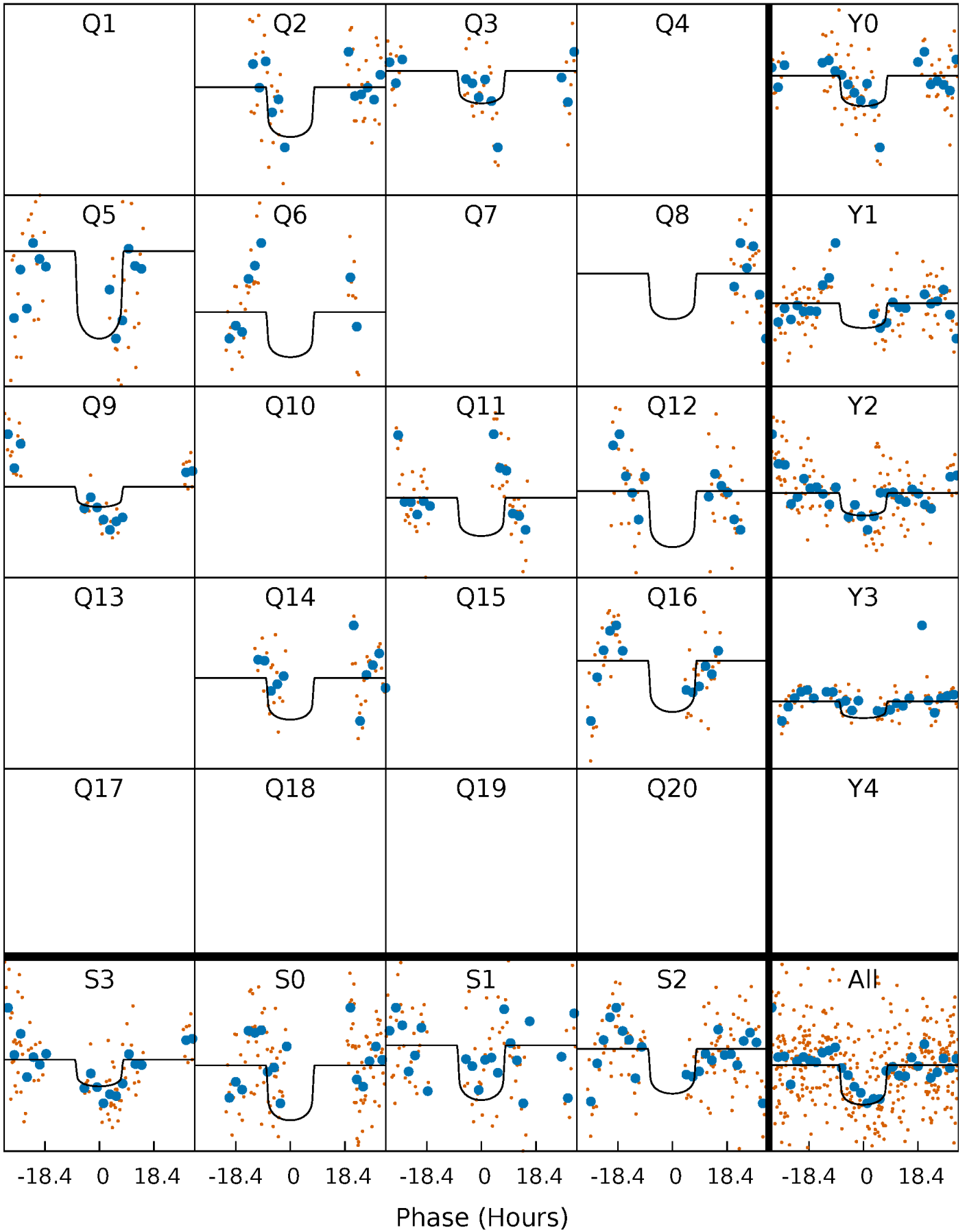
PDC Quarter-Phased Transit Curves

TCE 007461375-02 P=136.157730 Days $T_0=189.929871$ (BKJD)



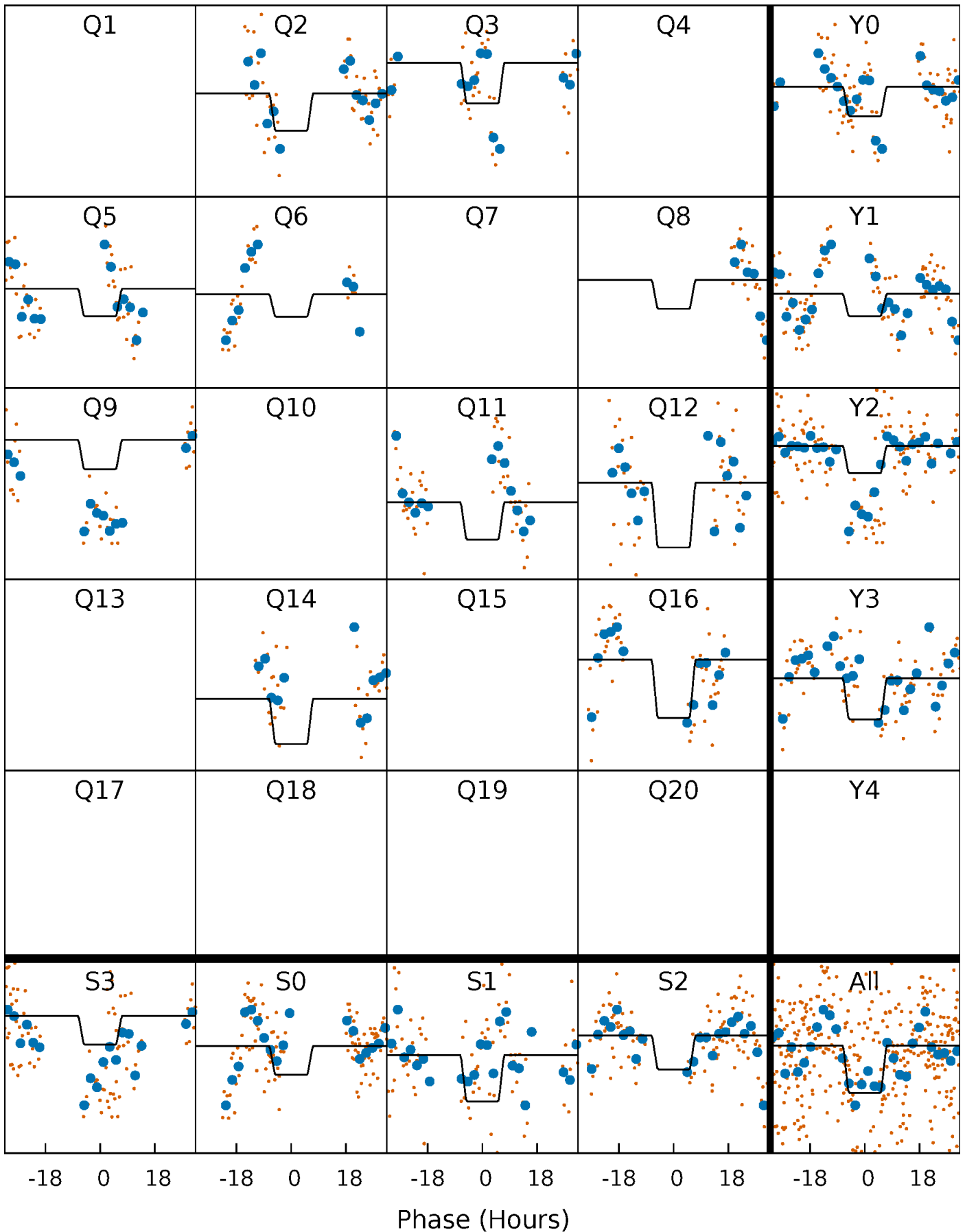
DV Quarter-Phased Transit Curves

TCE 007461375-02 $P=136.157730$ Days $T_0=189.929871$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

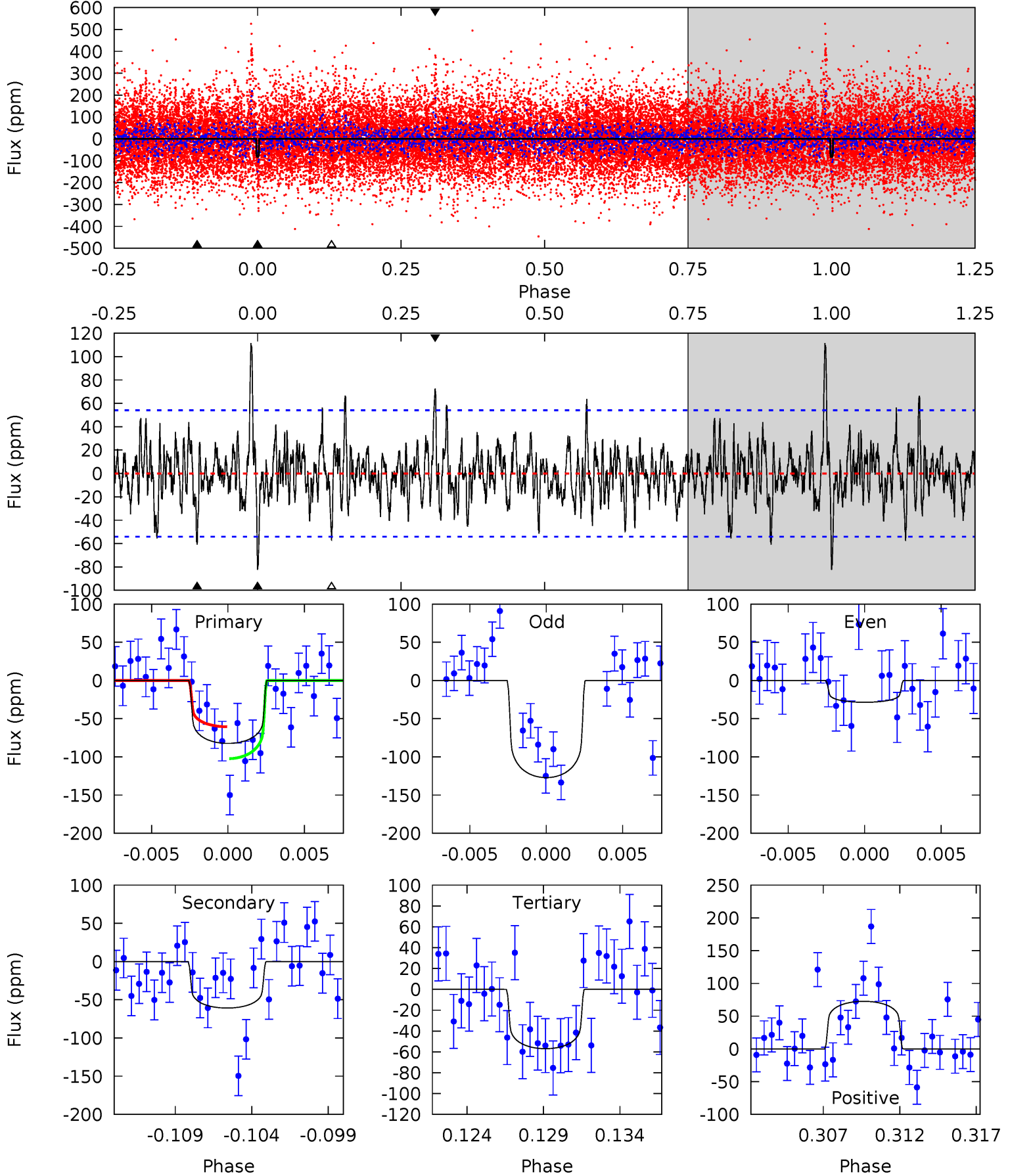
TCE 007461375-02 P=136.148810 Days $T_0=189.995526$ (BKJD)



DV Model-Shift Uniqueness Test

007461375-02, P = 136.157730 Days, E = 53.772141 Days

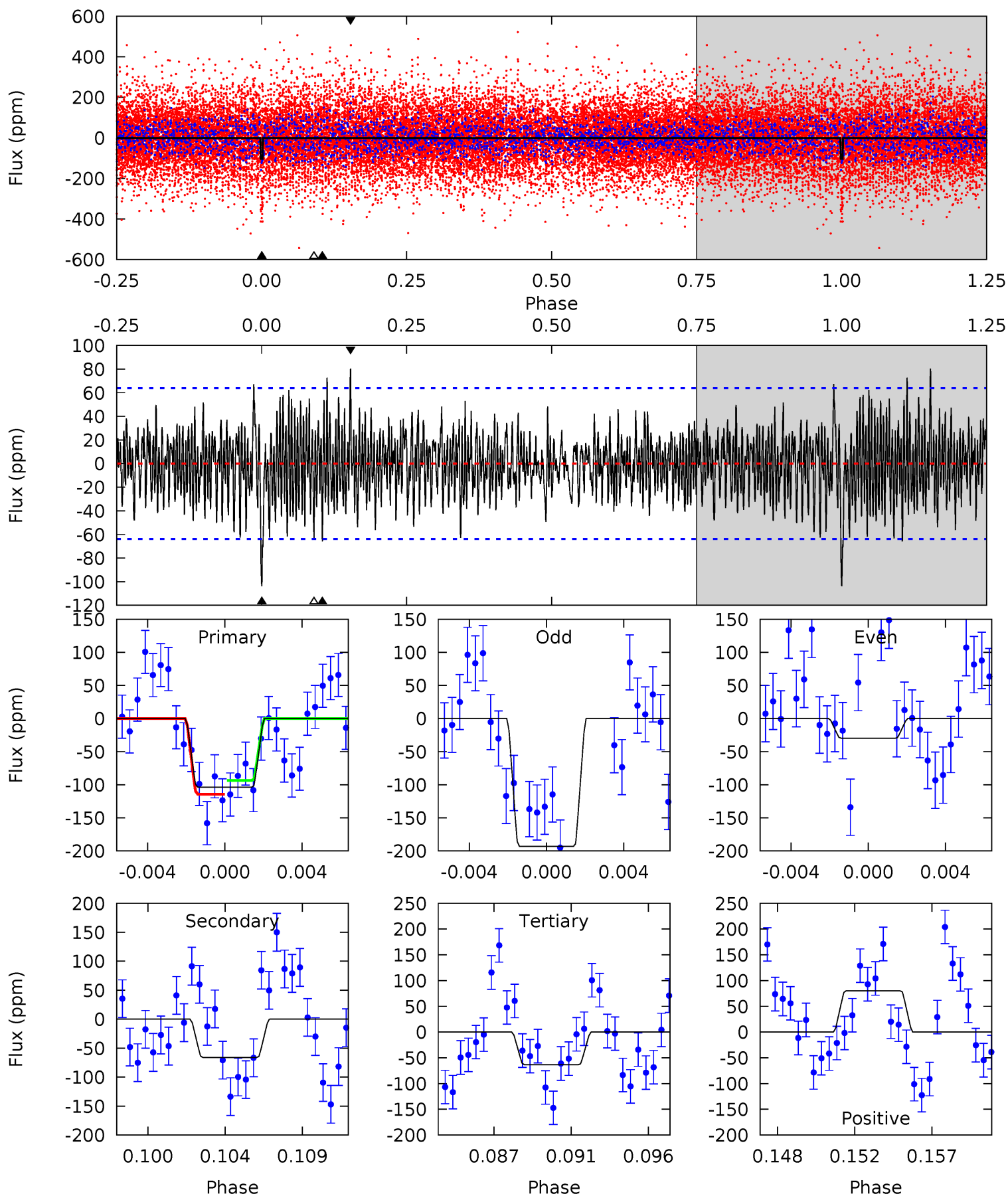
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.85	5.80	5.43	6.92	5.16	2.81	1.83	2.42	0.93	0.37	-1.12	4.71	0.70	0.58	1.98



Alt Model-Shift Uniqueness Test

007461375-02, P = 136.148810 Days, E = 53.846716 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.41	5.35	5.13	6.50	5.18	2.85	1.86	3.28	1.91	0.22	-1.15	6.63	0.83	0.44	0.84



Stellar Parameters For KIC 007461375

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6867^{+192}_{-288}	$3.985^{+0.225}_{-0.184}$	$0.210^{+0.150}_{-0.350}$	$2.172^{+0.647}_{-0.647}$	$1.661^{+0.183}_{-0.314}$	$0.228^{+0.299}_{-0.112}$
	+3%/-4%	+6%/-5%	+71%/-167%	+30%/-30%	+11%/-19%	+131%/-49%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007461375-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-61 ± 10	$2.50^{+0.82}_{-0.65}$	790^{+68}_{-63}	5739^{+848}_{-599}	1960^{+1537}_{-838}
Alt.	-66 ± 12	$2.46^{+0.87}_{-0.66}$	791^{+64}_{-68}	5900^{+924}_{-658}	2170^{+1982}_{-989}

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 $A_{obs} \gg 1.0$

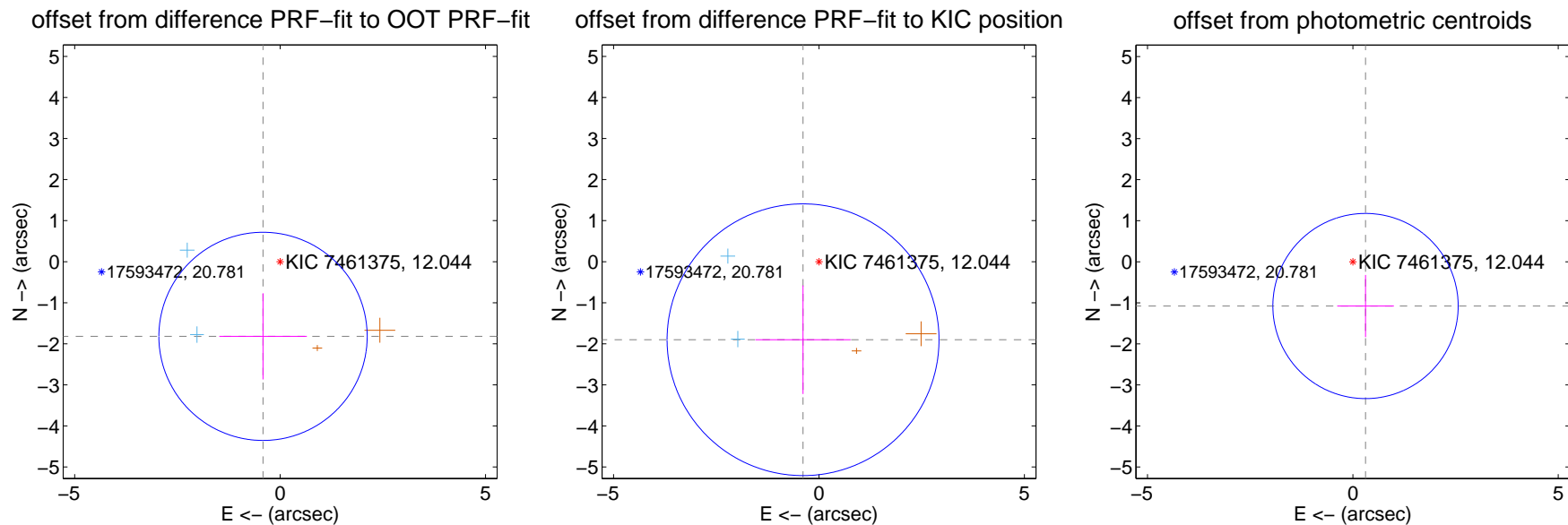
DV Centroid Data

Supplemental centroid analysis for 007461375-02. Kepler magnitude: 12.04. Transit SNR 6.56

There are 2 quarters with good PRF difference image offsets

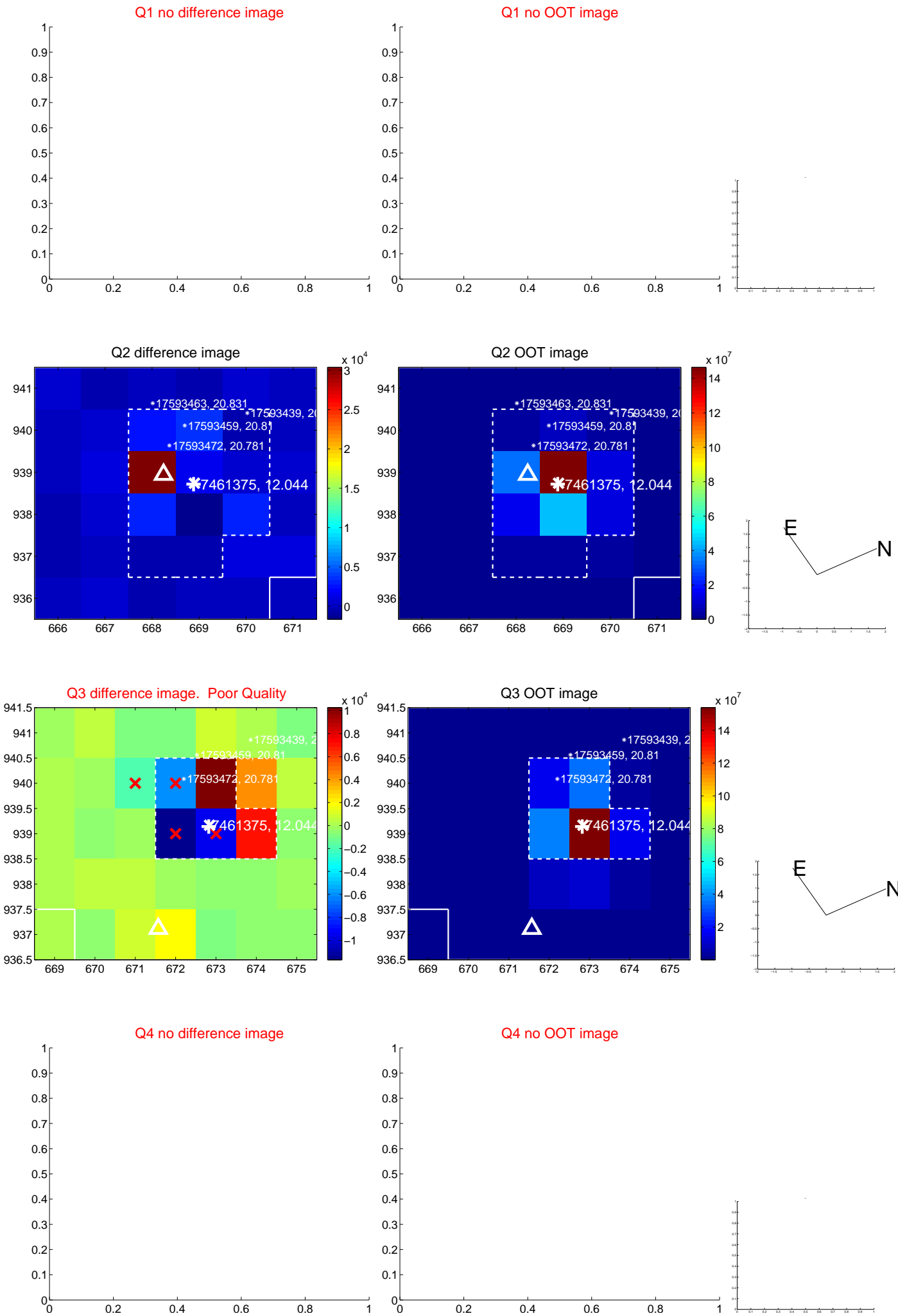
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.866 ± 0.845	2.21	0.416 ± 1.066	-1.819 ± 1.050
PRF-fit source offset from KIC position	1.940 ± 1.103	1.76	0.388 ± 1.159	-1.901 ± 1.322
photometric centroid source offset	1.12 ± 0.75	1.49	-0.31 ± 0.69	-1.08 ± 0.76

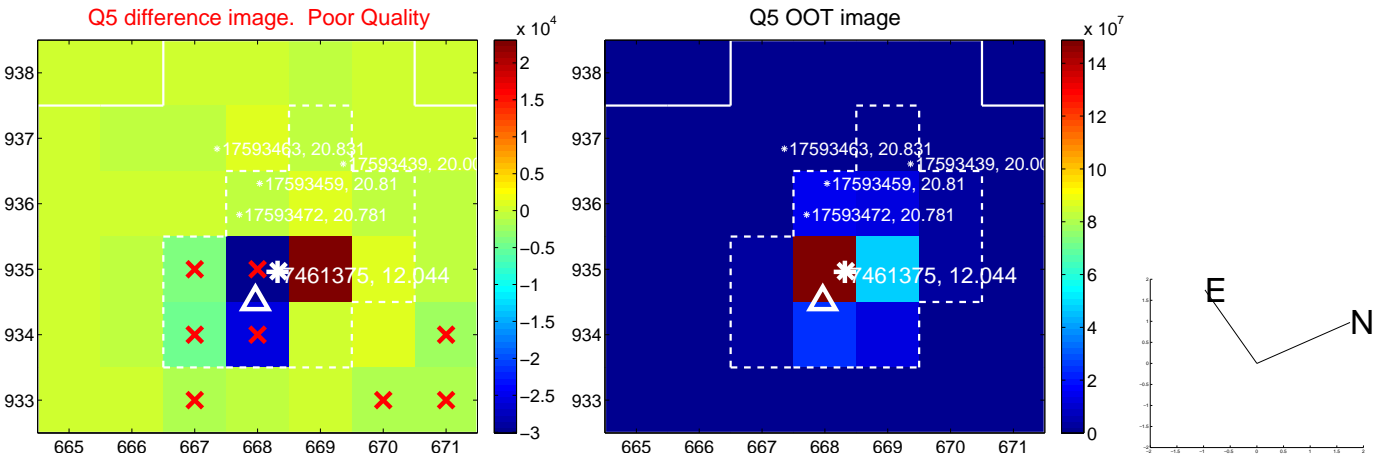


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

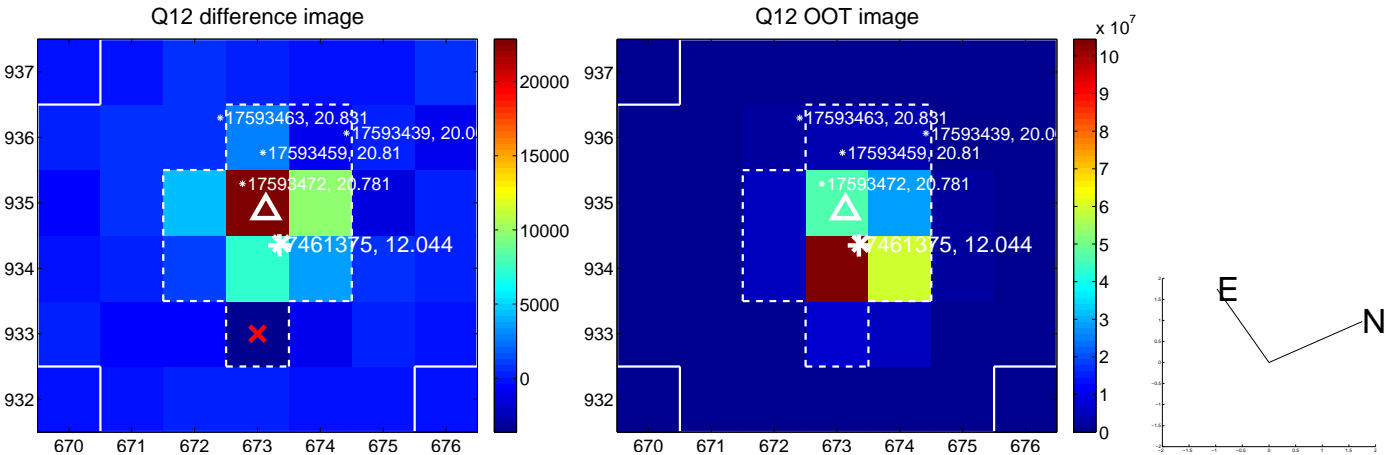
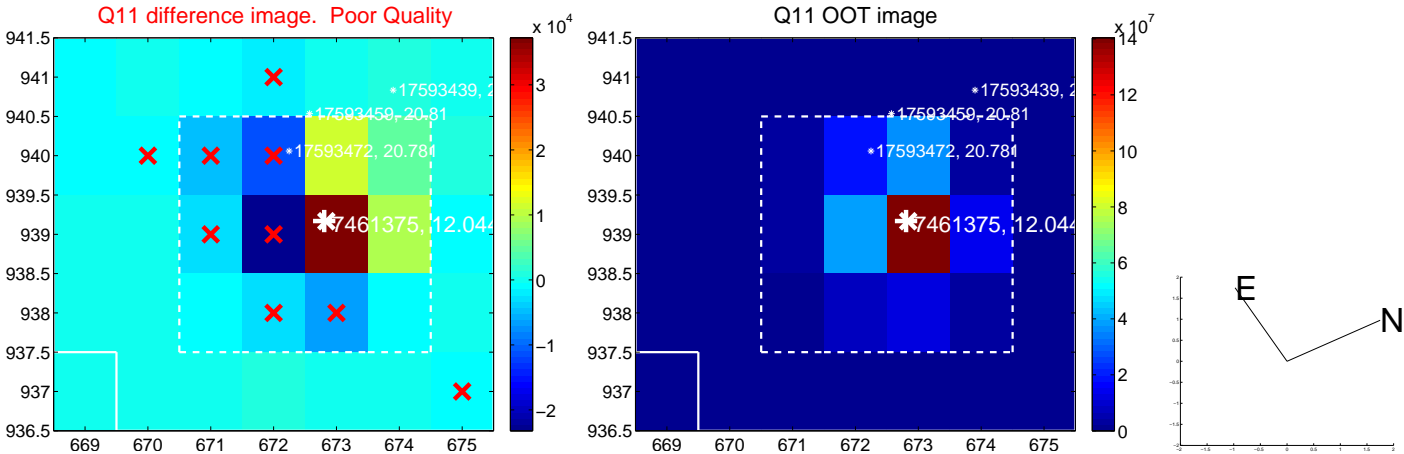
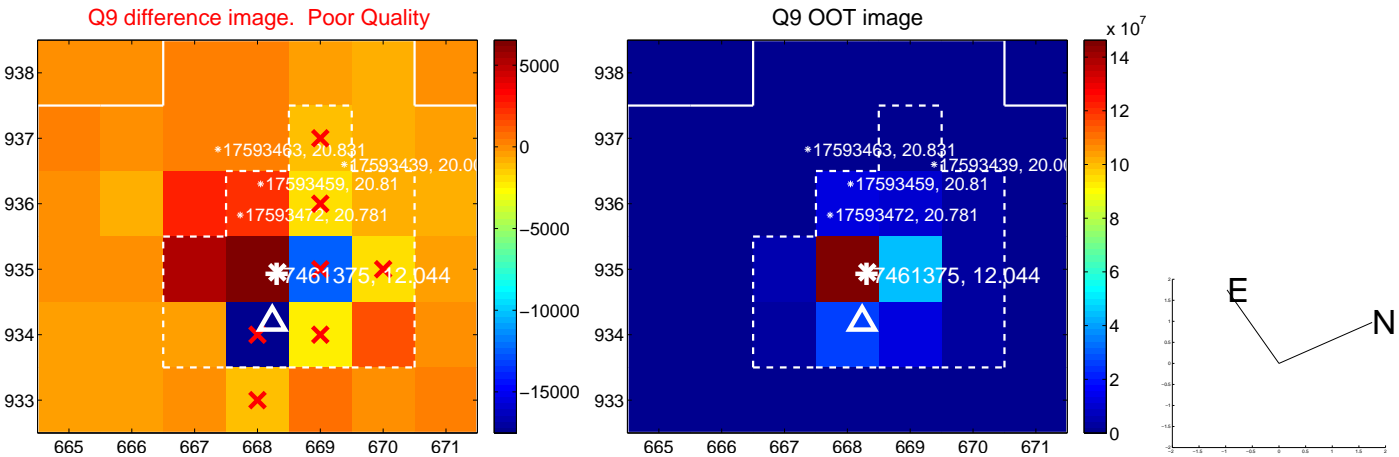
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



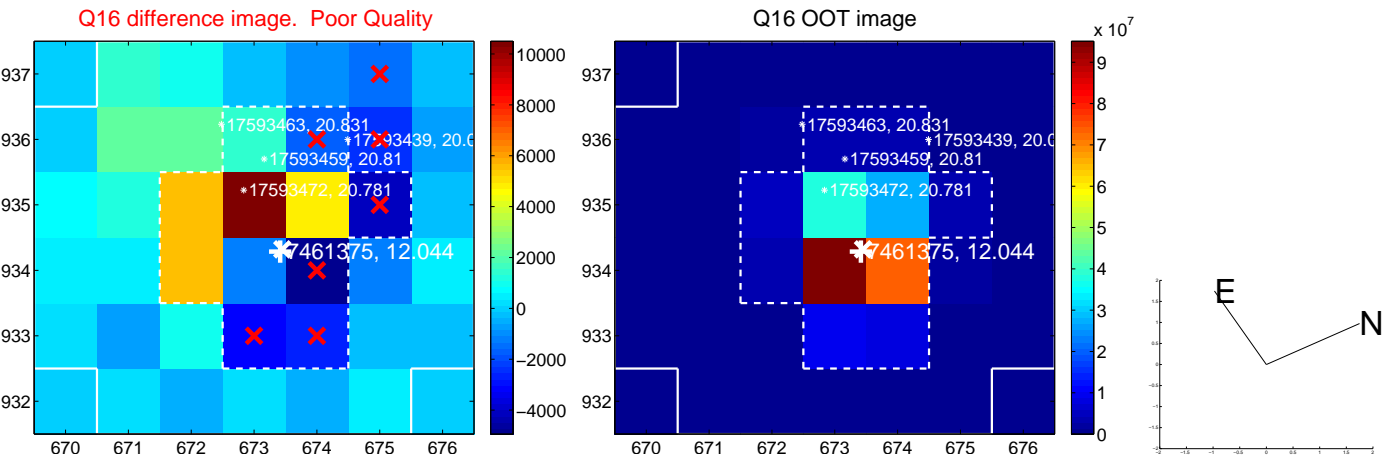
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



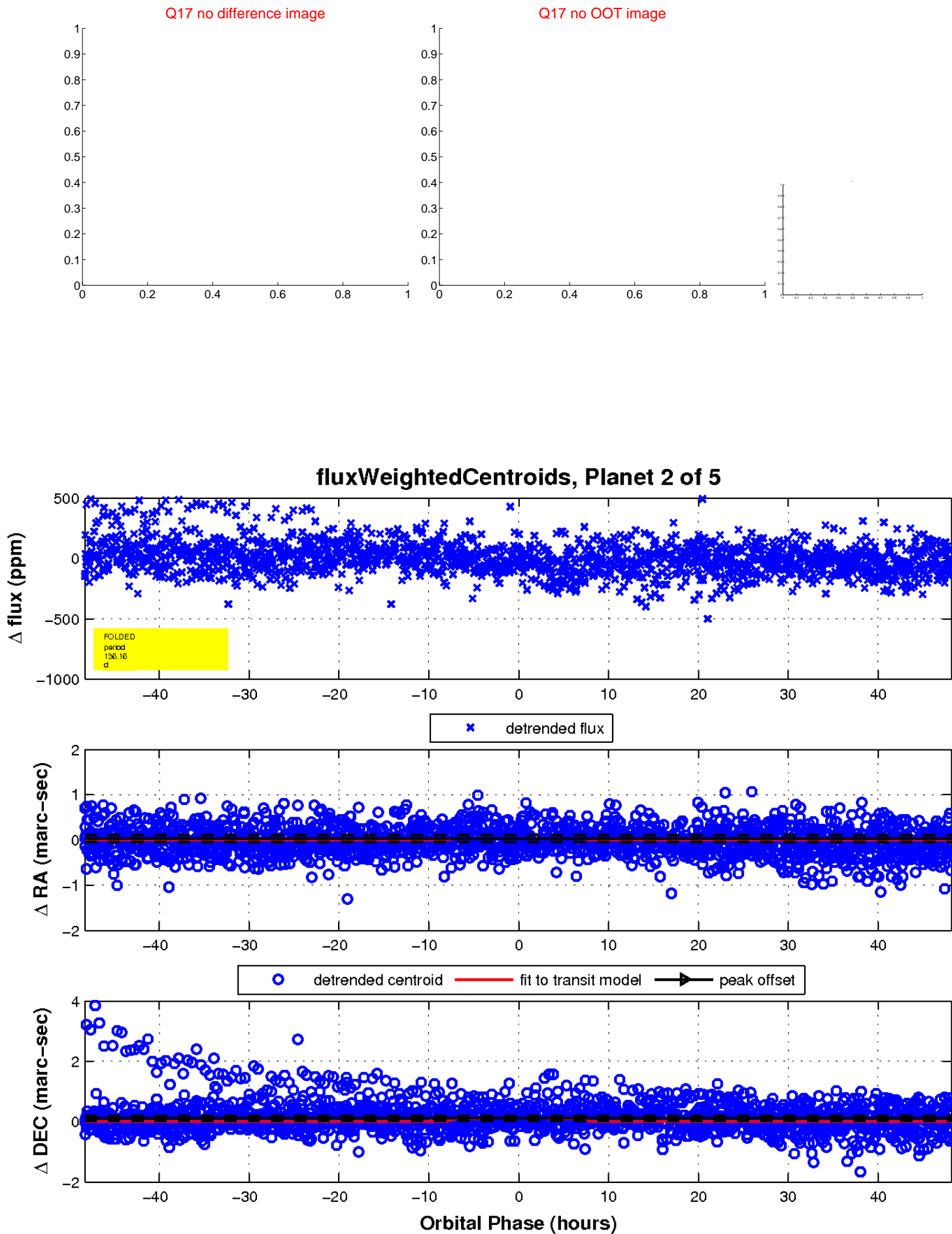
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

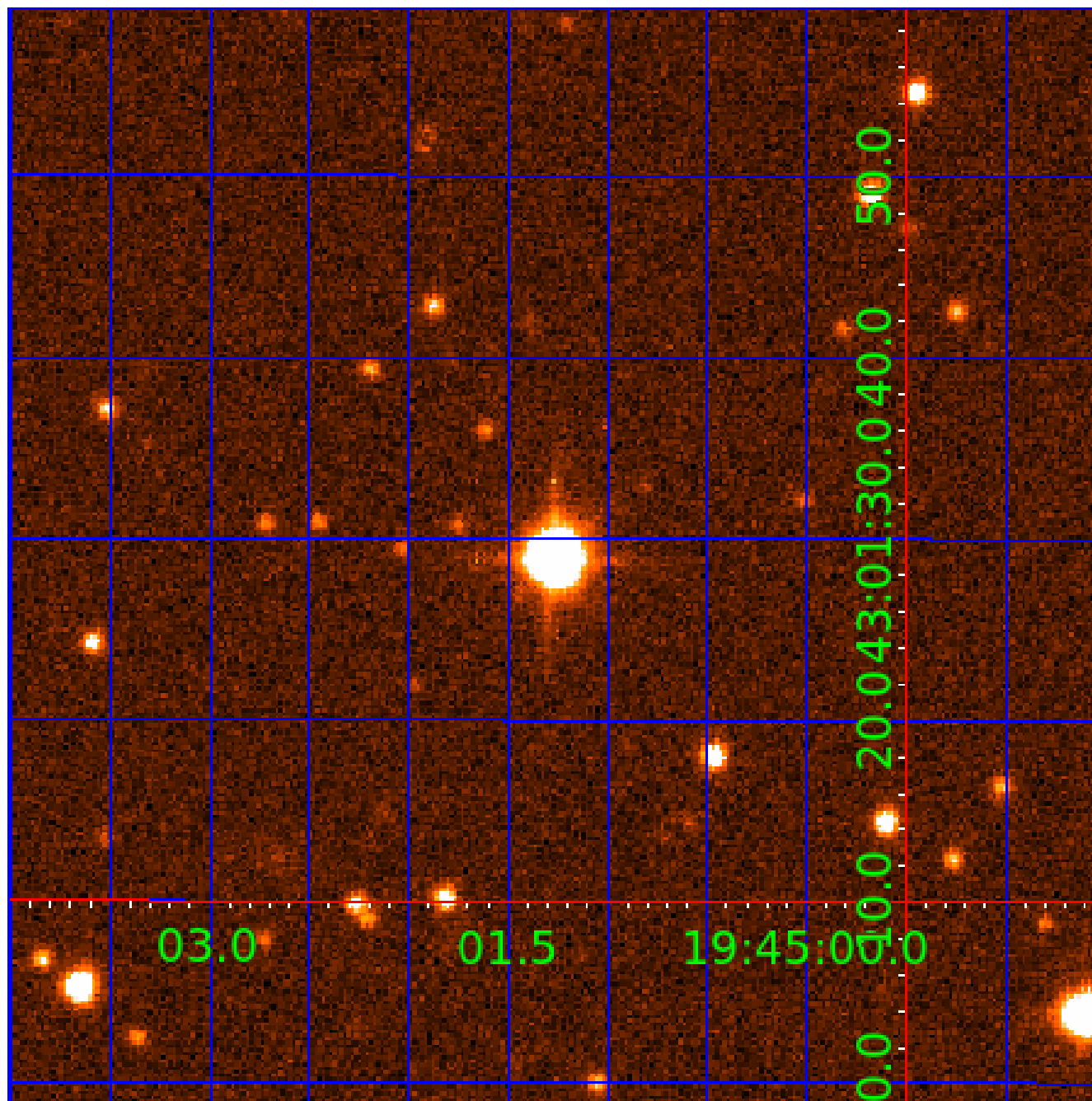


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007461375

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})
007461375-01	OBS	No	1.378885	132.370734	0.0	6.853	7.7	0.0	2.17	6867	0.04	11389.33
007461375-02	OBS	No	136.157730	189.929871	113.2	16.110	7.9	6.6	2.17	6867	2.60	24.95
007461375-03	OBS	No	67.864783	172.133279	159.7	2.304	8.1	7.8	2.17	6867	2.88	63.15
007461375-04	OBS	No	103.607738	135.874742	213.4	1.674	7.2	7.5	2.17	6867	3.21	35.92
007461375-05	OBS	No	67.420938	159.915424	122.5	2.908	7.3	6.9	2.17	6867	2.78	63.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007461375-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007461375-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS
007461375-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
007461375-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007461375-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT

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

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

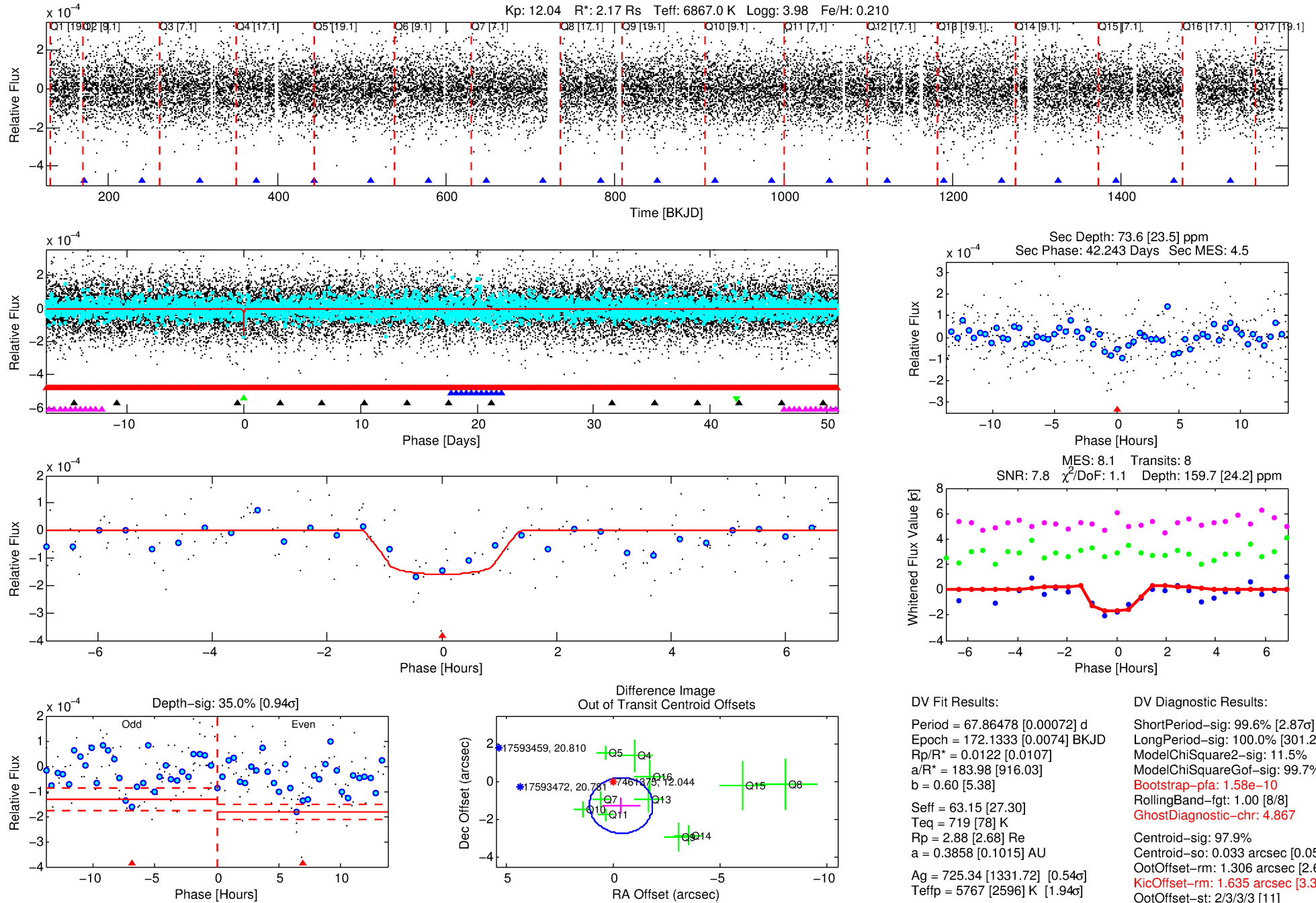
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007461375-03

No Significant Match Found

DV One-Page Summary

KIC: 7461375 Candidate: 3 of 5 Period: 67.865 d



DV Fit Results:

Period = 67.86478 [0.00072] d
Epoch = 172.1333 [0.0074] BKJD
Rp/R* = 0.0122 [0.0107]
a/R* = 183.98 [916.03]
b = 0.60 [5.38]
Seff = 63.15 [27.30]
Teq = 719 [78] K
Rp = 2.88 [2.68] Re
a = 0.3858 [0.1015] AU
Ag = 725.34 [1331.72] [0.54 σ]
Teffp = 5767 [2596] K [1.94 σ]

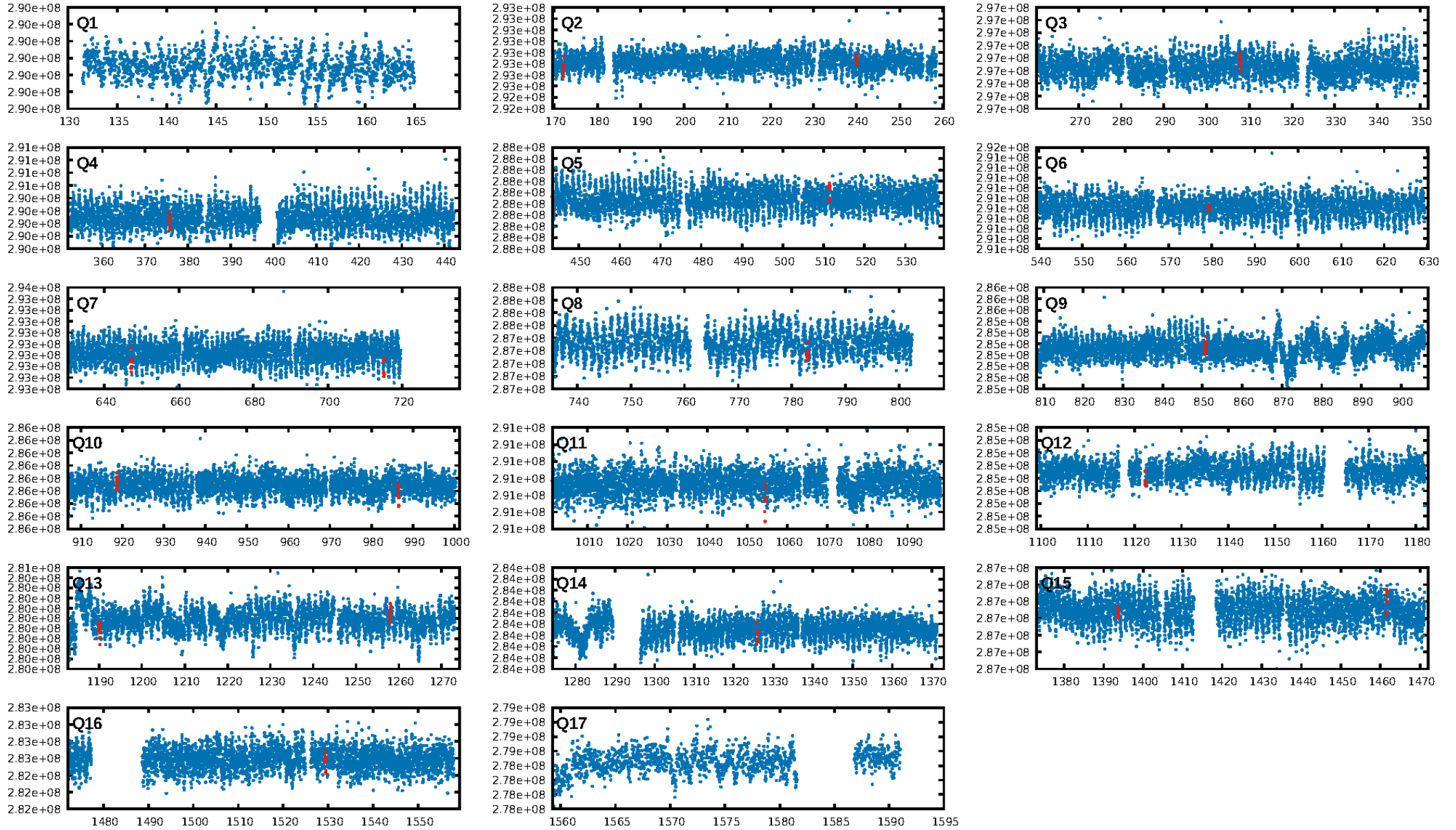
DV Diagnostic Results:

ShortPeriod-sig: 99.6% [2.87 σ]
LongPeriod-sig: 100.0% [301.25 σ]
ModelChiSquare2-sig: 11.5%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 1.58e-10
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: 4.867
Centroid-sig: 97.9%
Centroid-so: 0.033 arcsec [0.05 σ]
OotOffset-rm: 1.306 arcsec [2.64 σ]
OotOffset-st: 2/3/3/3 [11]
KicOffset-rm: 1.635 arcsec [3.37 σ]
KicOffset-st: 2/3/3/3 [11]
DiffImageQuality-fgm: 0.45 [5/11]
DiffImageOverlap-fno: 0.43 [6/14]

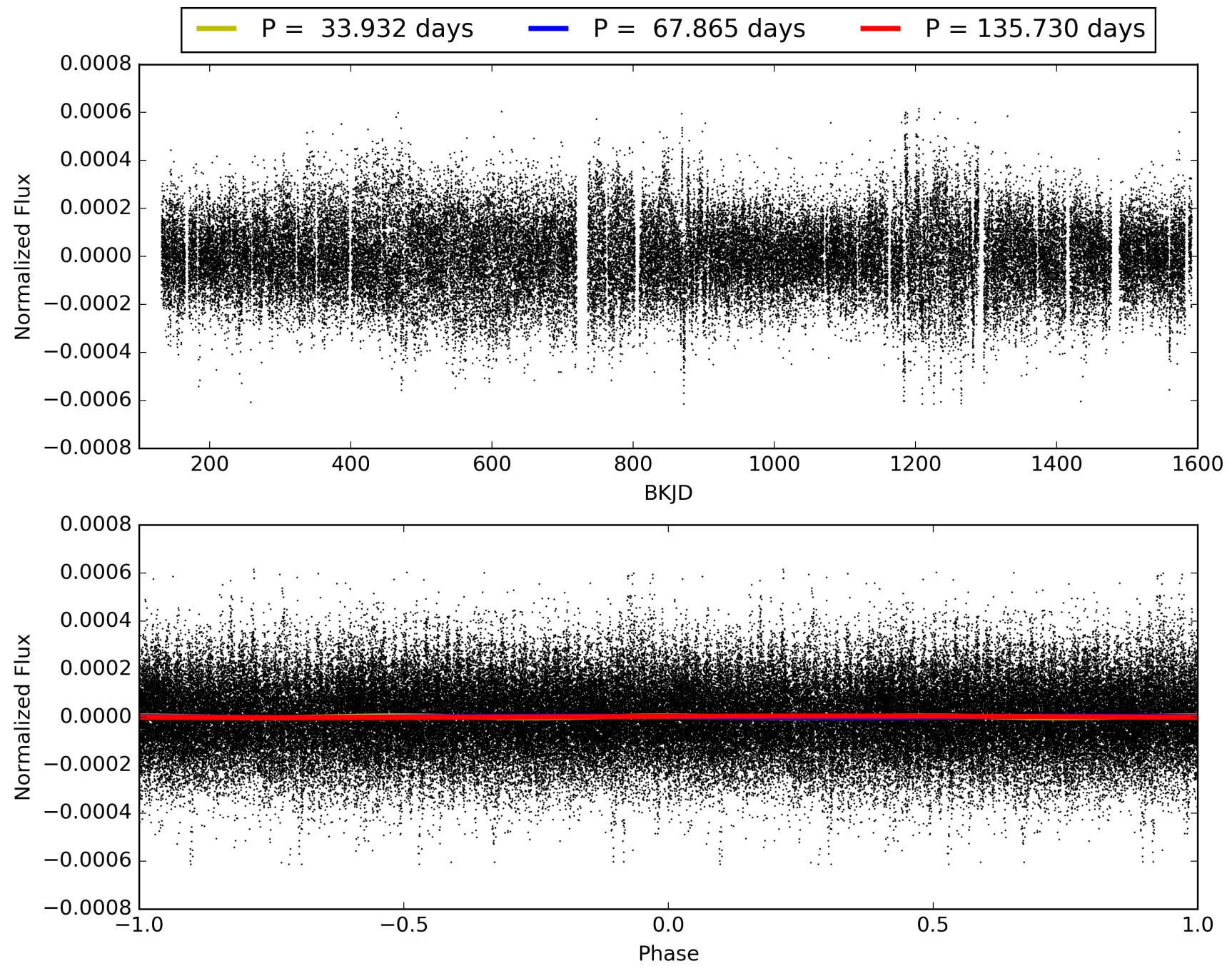
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:50:00 Z

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

TCE 007461375-03, PDC Light Curves

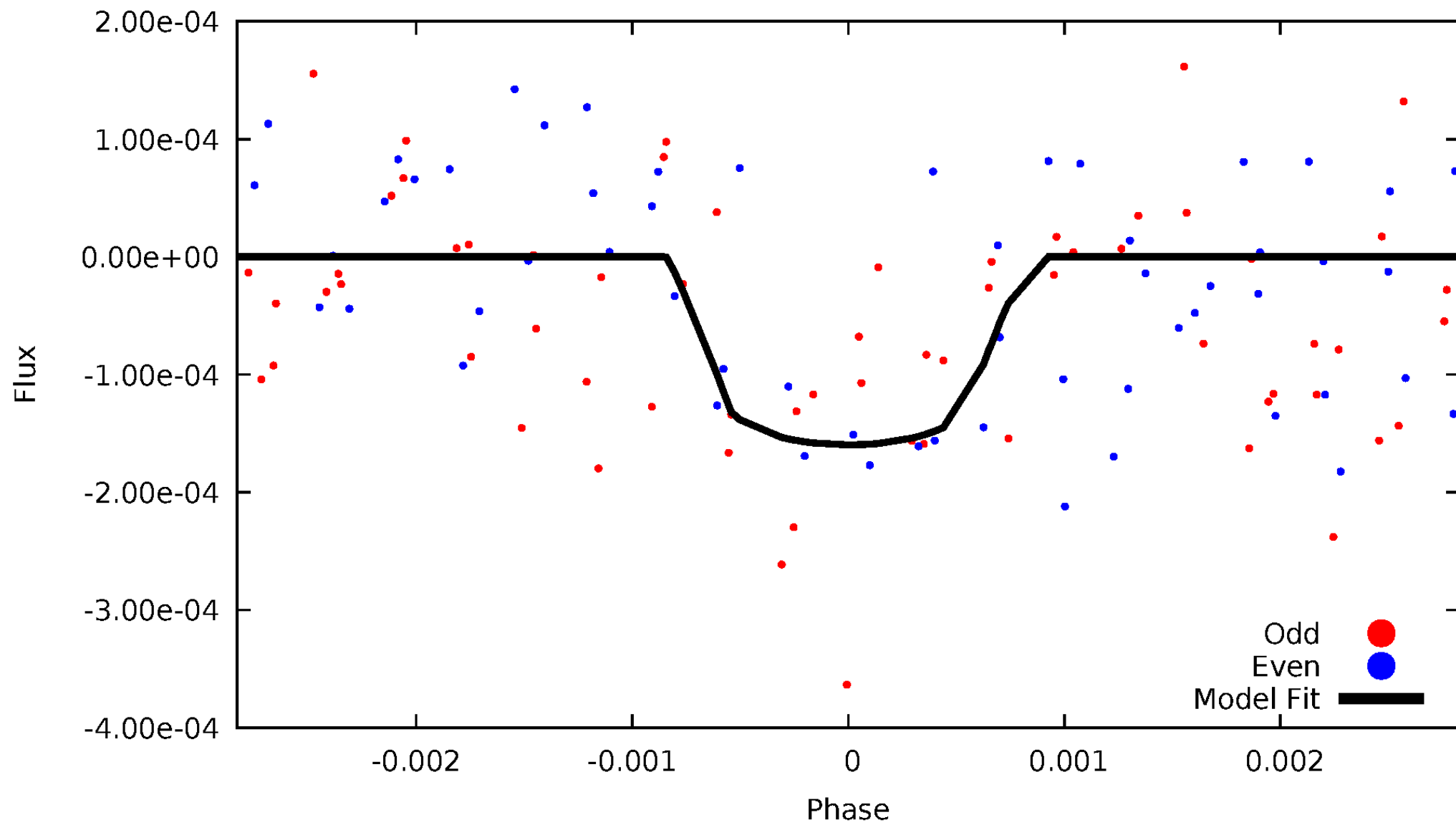


TCE 007461375-03



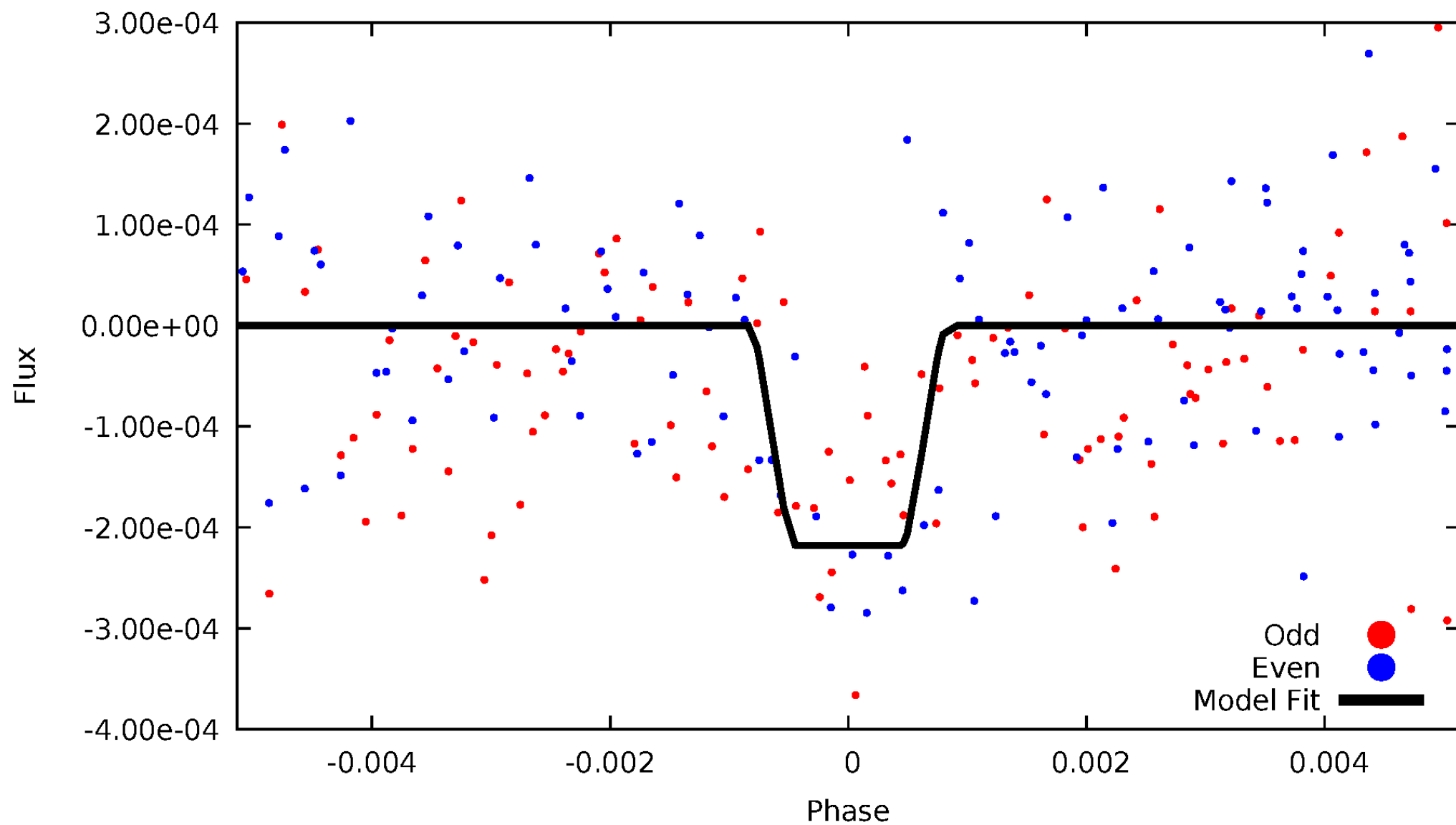
DV Odd/Even

TCE 007461375-03



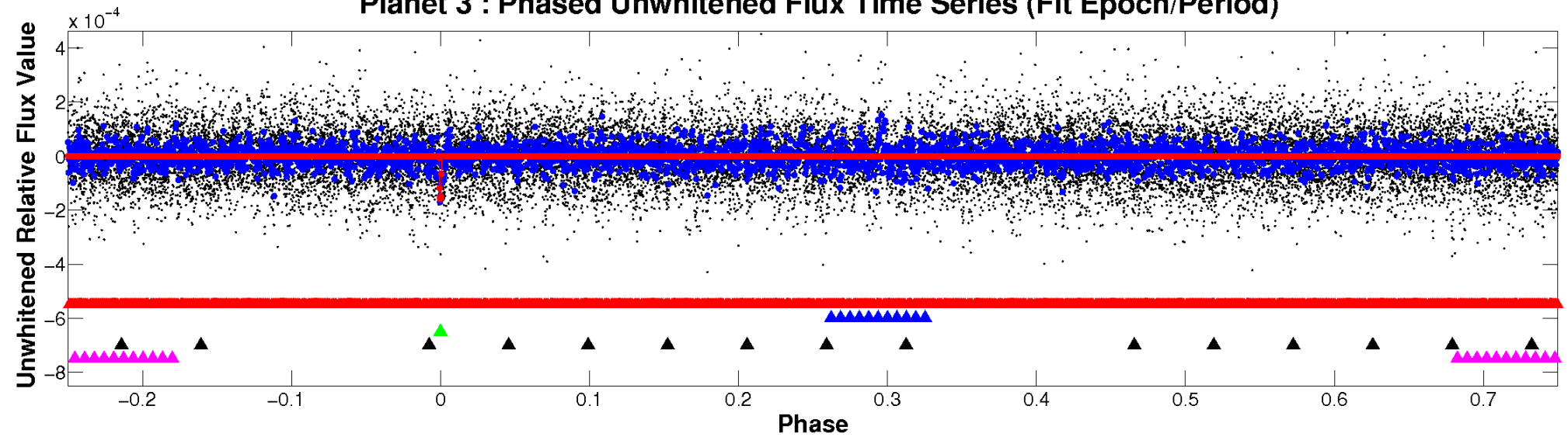
ALT Odd/Even

TCE 007461375-03

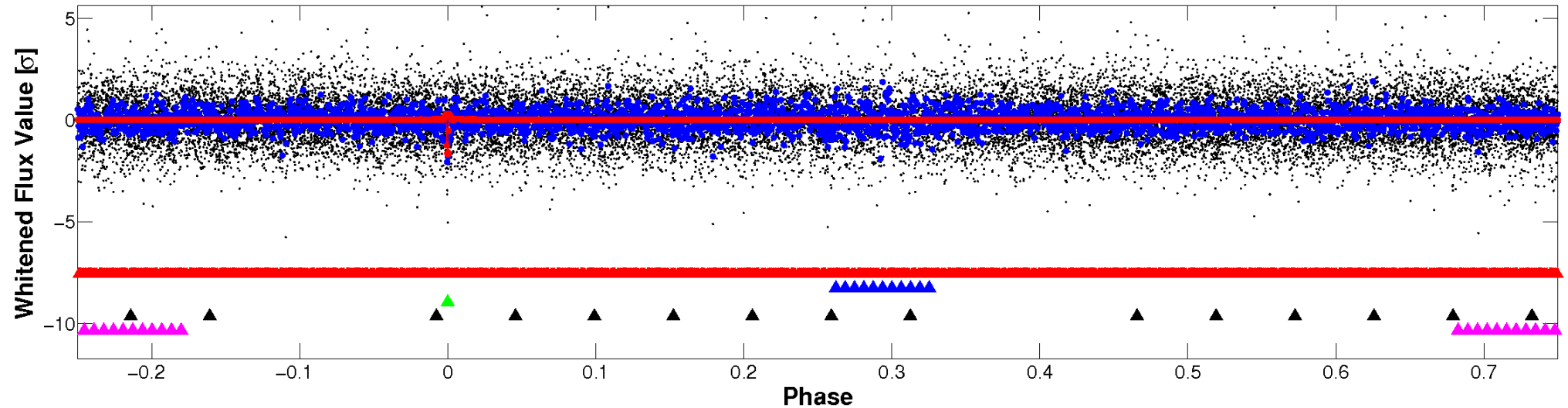


Non-Whitened Vs. Whitened Light Curve

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

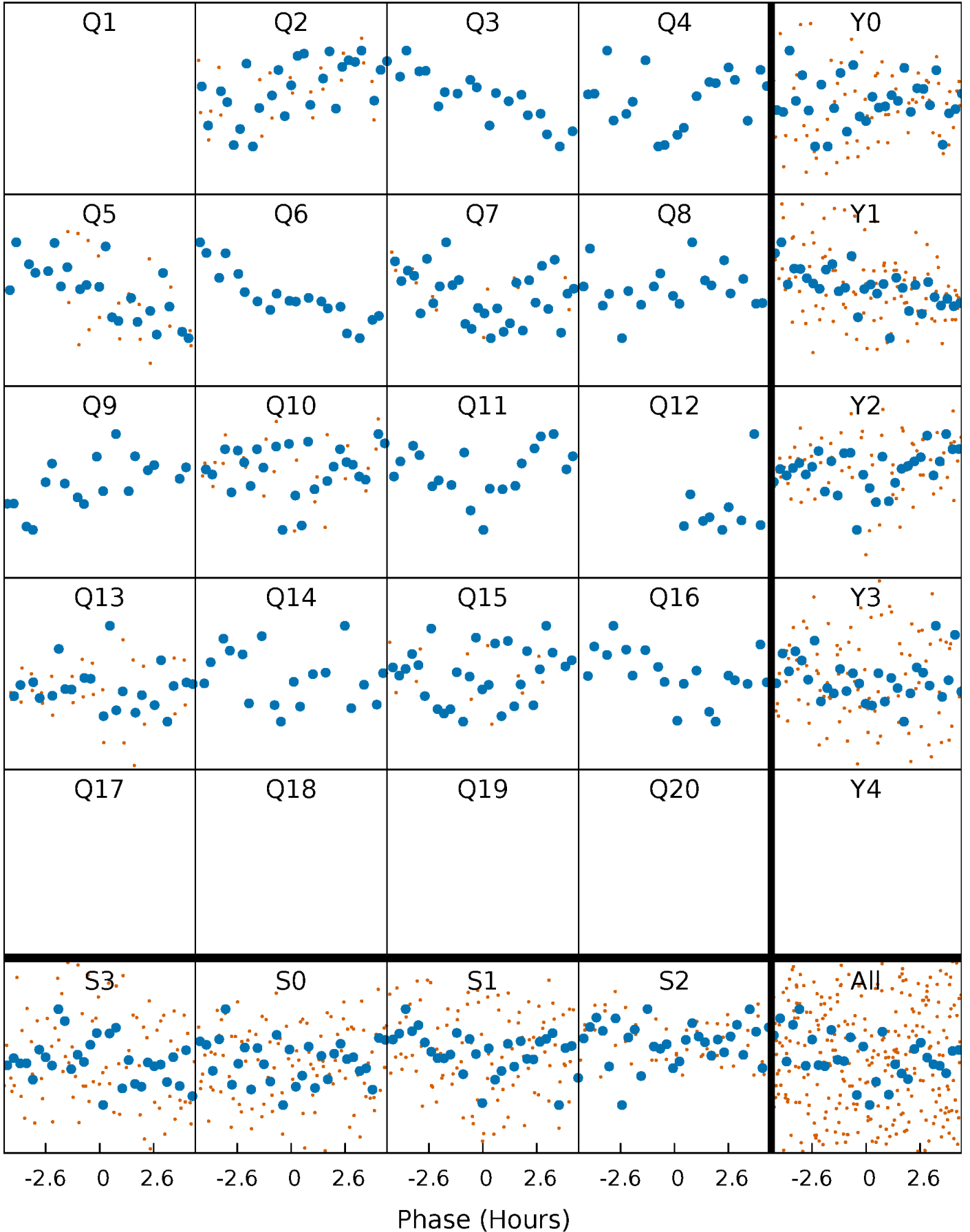


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



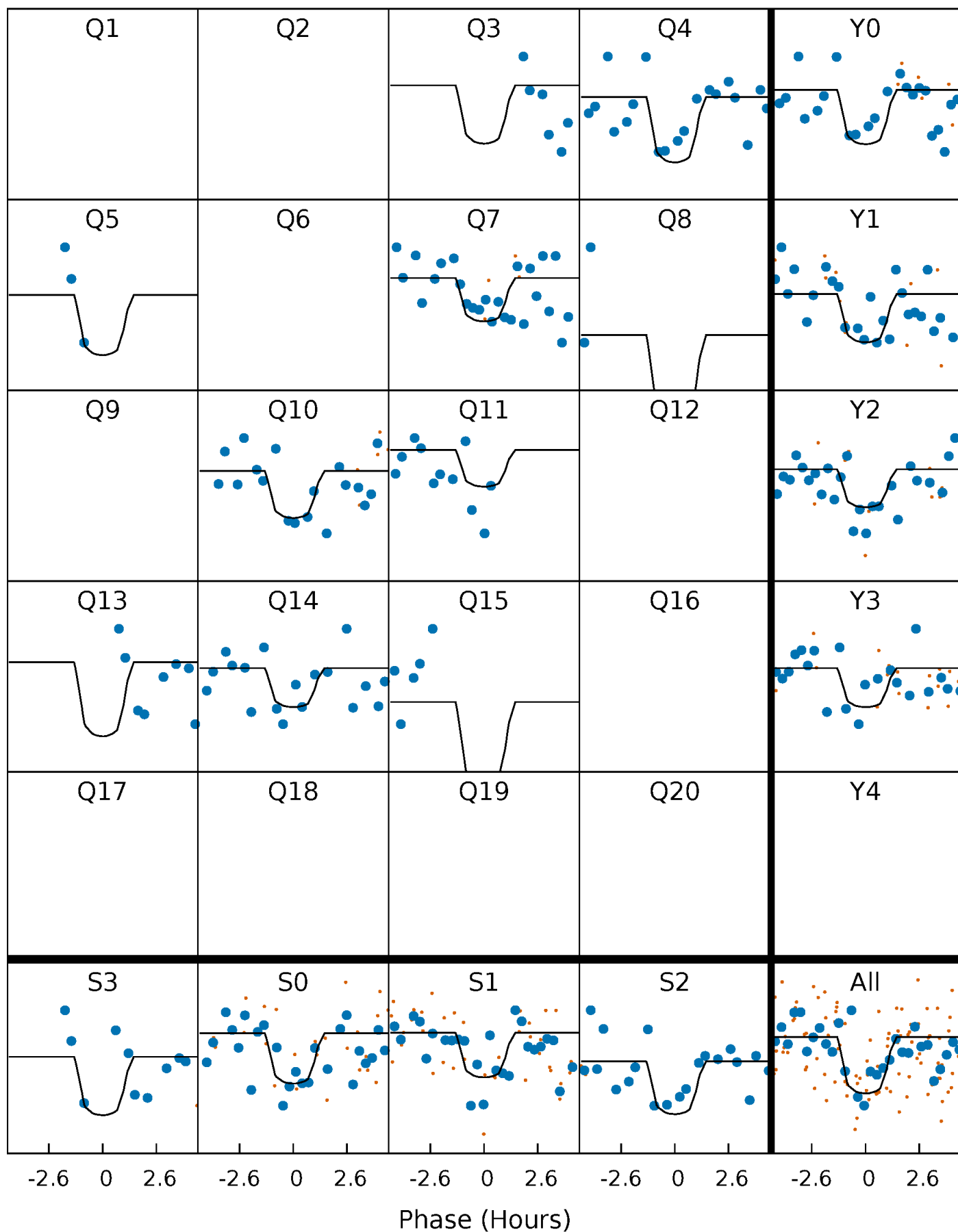
PDC Quarter-Phased Transit Curves

TCE 007461375-03 P= 67.864783 Days $T_0=172.133279$ (BKJD)



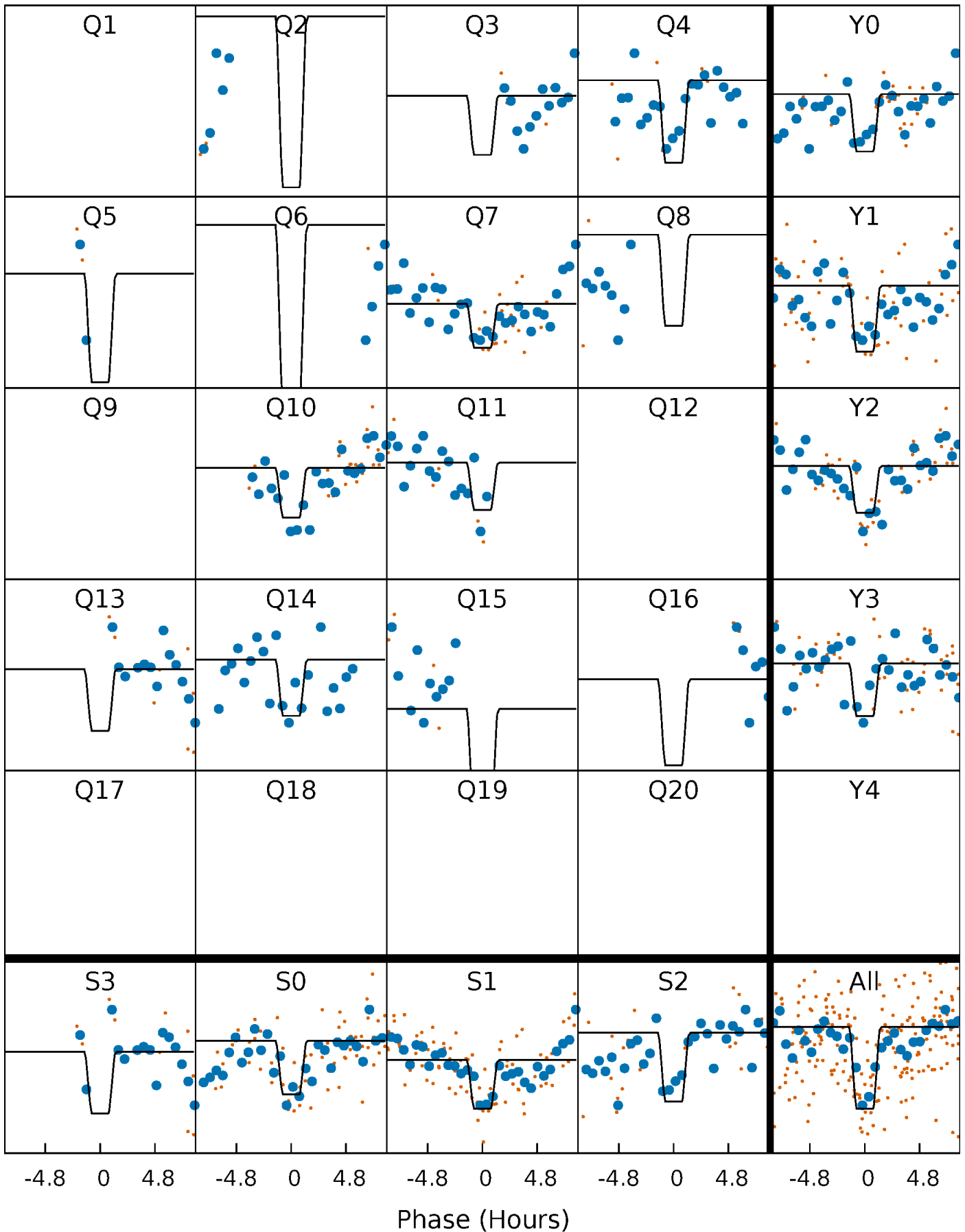
DV Quarter-Phased Transit Curves

TCE 007461375-03 P= 67.864783 Days $T_0=172.133279$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

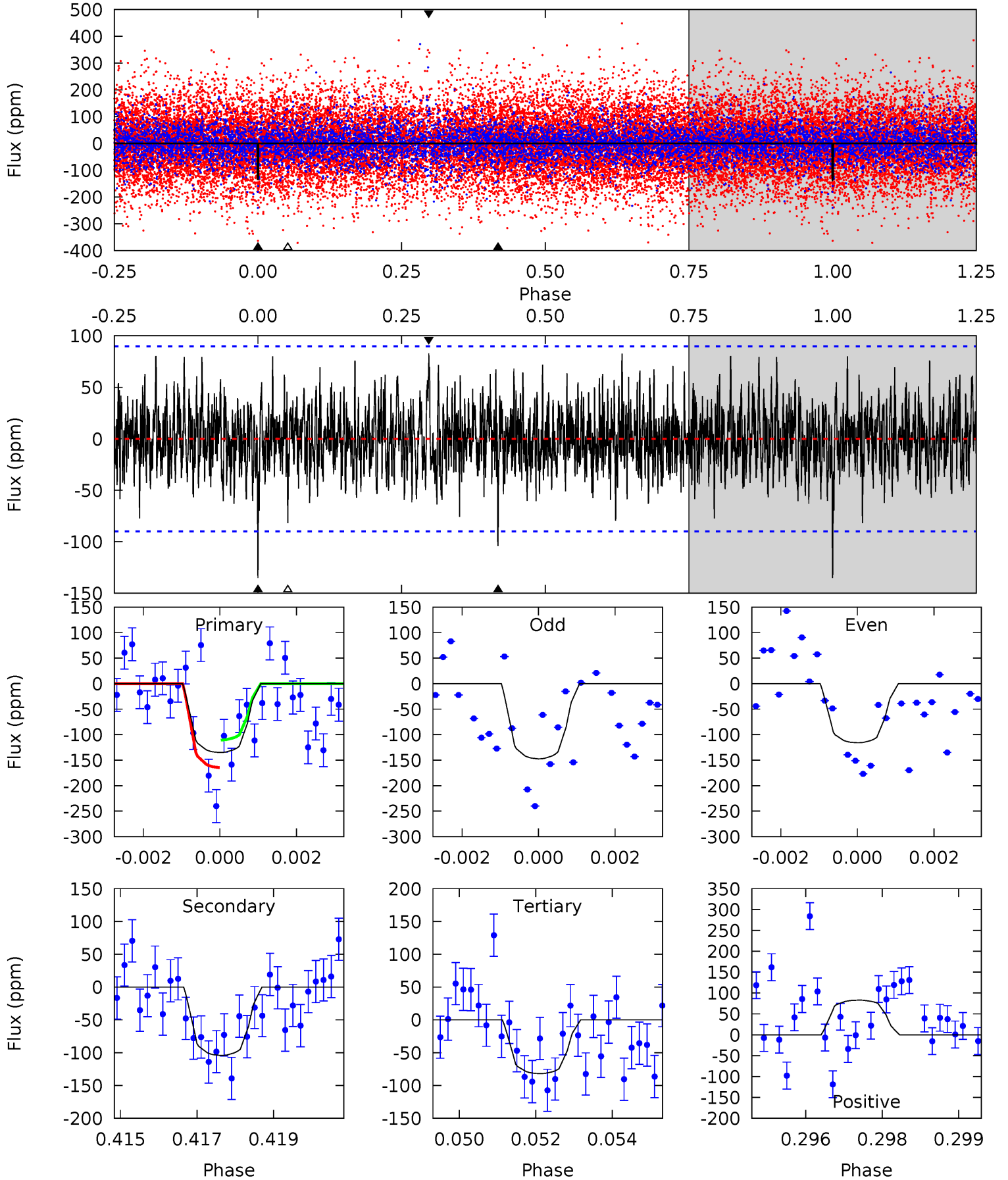
TCE 007461375-03 P= 67.864000 Days $T_0=172.138886$ (BKJD)



DV Model-Shift Uniqueness Test

007461375-03, P = 67.864783 Days, E = 104.268496 Days

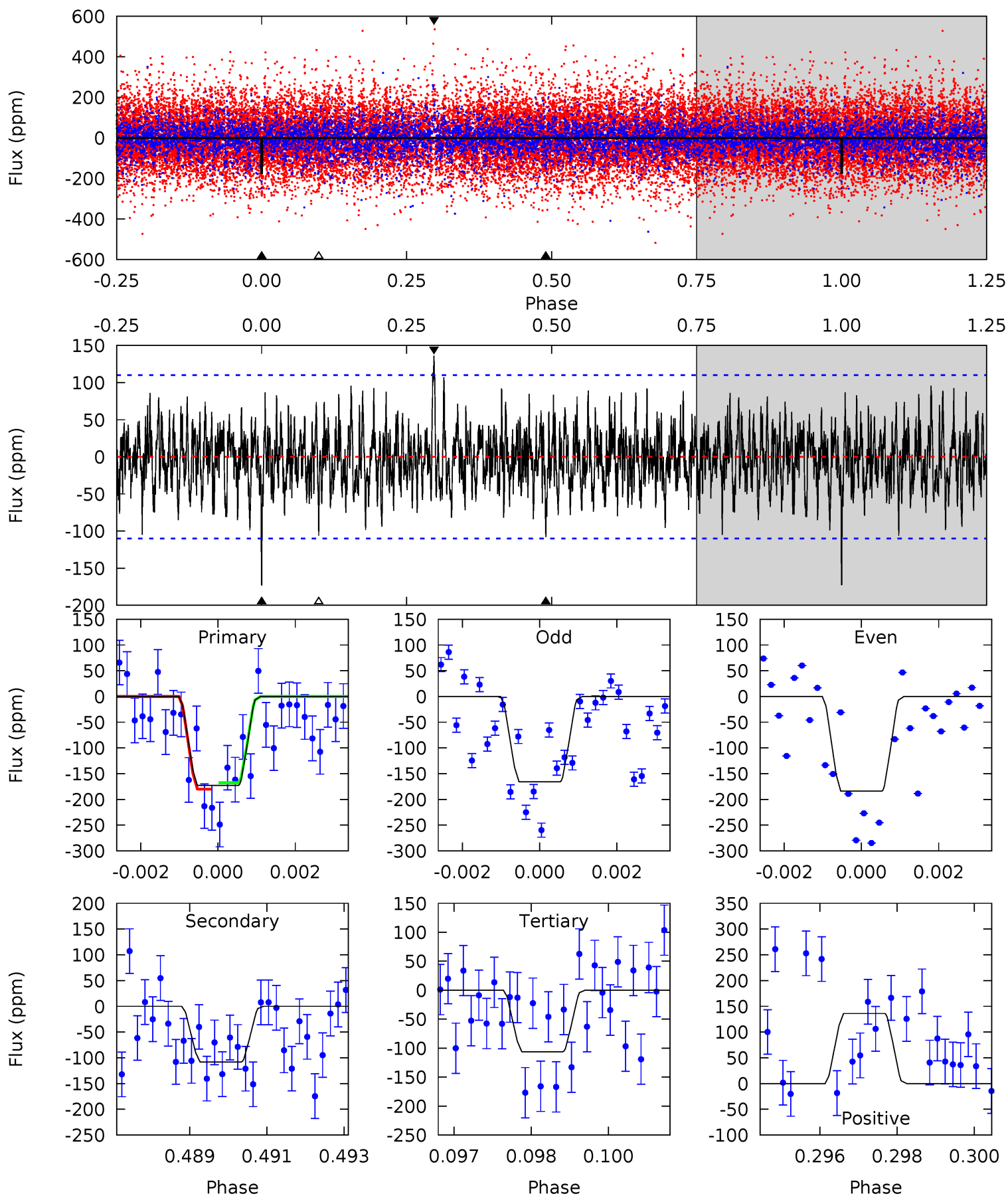
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.05	6.21	4.88	4.94	5.35	3.13	1.50	3.17	3.11	1.33	1.27	0.94	0.93	0.38	1.60



Alt Model-Shift Uniqueness Test

007461375-03, P = 67.864000 Days, E = 104.274886 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.41	5.27	5.17	6.62	5.36	3.14	1.61	3.24	1.79	0.10	-1.36	0.44	0.75	0.44	0.30



Stellar Parameters For KIC 007461375

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6867^{+192}_{-288}	$3.985^{+0.225}_{-0.184}$	$0.210^{+0.150}_{-0.350}$	$2.172^{+0.647}_{-0.647}$	$1.661^{+0.183}_{-0.314}$	$0.228^{+0.299}_{-0.112}$
	+3%/-4%	+6%/-5%	+71%/-167%	+30%/-30%	+11%/-19%	+131%/-49%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007461375-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-104±17	$3.07^{+2.37}_{-1.94}$	995^{+82}_{-78}	5932^{+4925}_{-1308}	876^{+5552}_{-613}
Alt.	-108±21	$3.76^{+2.42}_{-2.21}$	1000^{+88}_{-79}	5428^{+3241}_{-961}	586^{+2882}_{-371}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

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

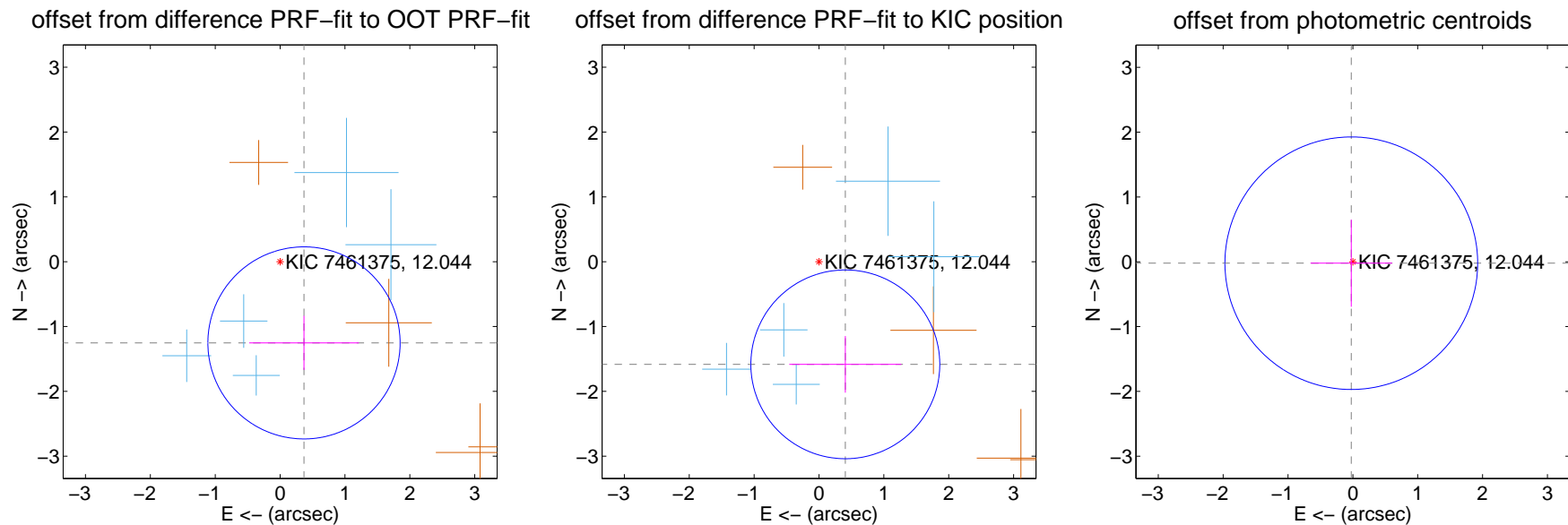
DV Centroid Data

Supplemental centroid analysis for 007461375-03. Kepler magnitude: 12.04. Transit SNR 7.77

There are 5 quarters with good PRF difference image offsets

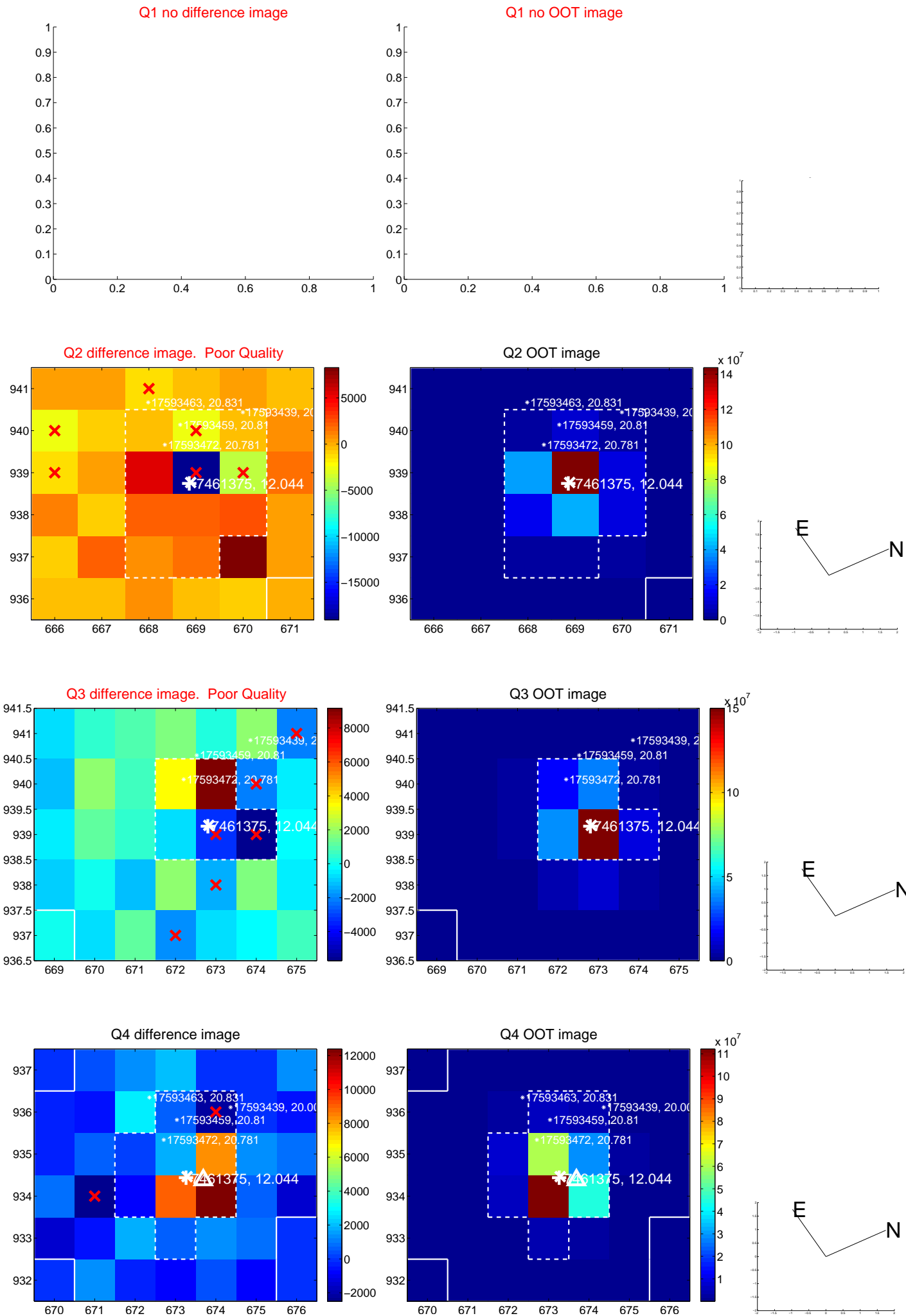
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.306 ± 0.494	2.64	-0.368 ± 0.846	-1.253 ± 0.417
PRF-fit source offset from KIC position	1.635 ± 0.485	3.37	-0.406 ± 0.863	-1.584 ± 0.437
photometric centroid source offset	0.03 ± 0.65	0.05	0.02 ± 0.63	-0.02 ± 0.67

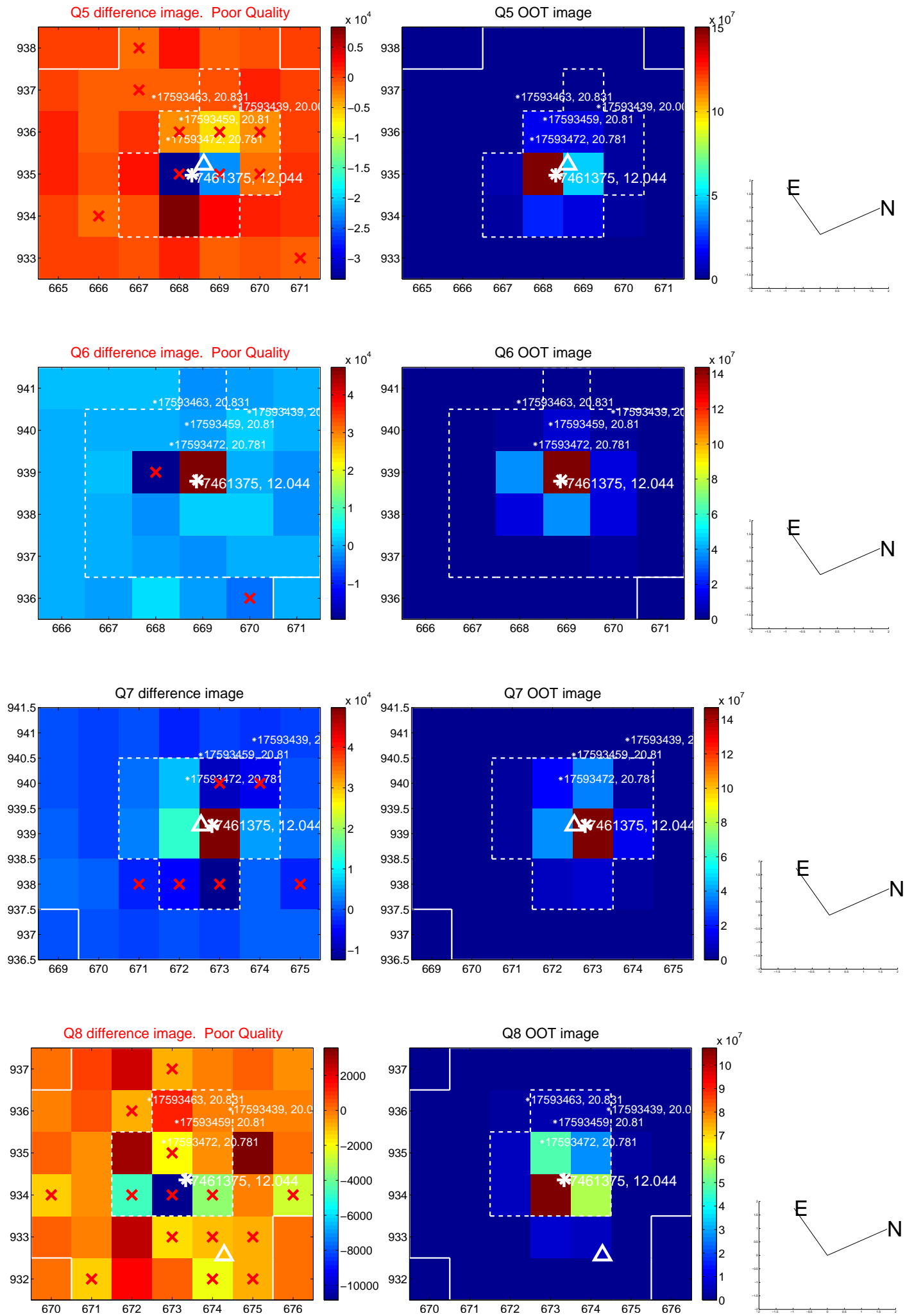


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

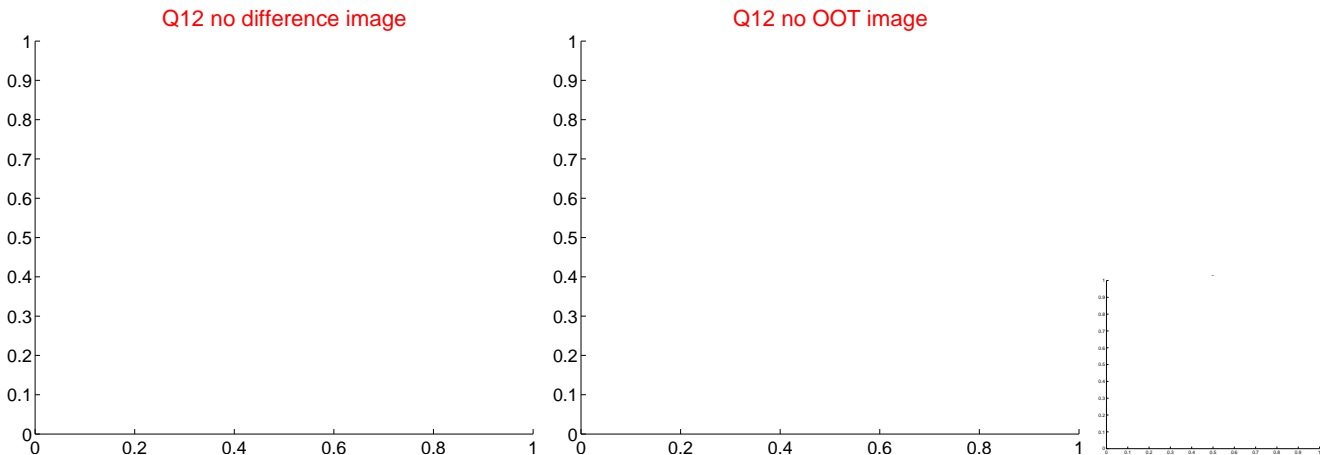
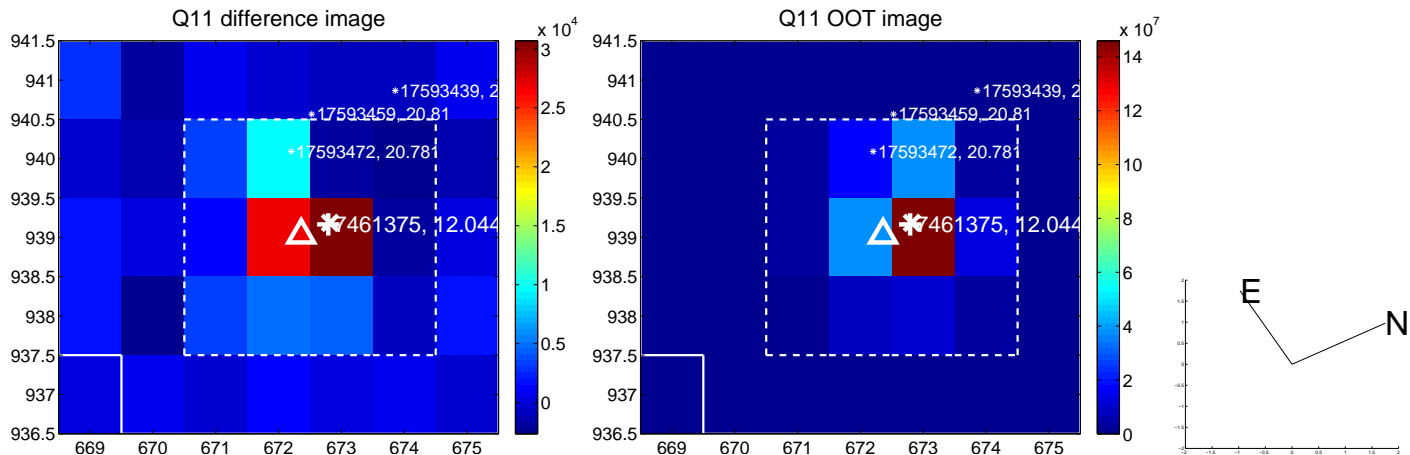
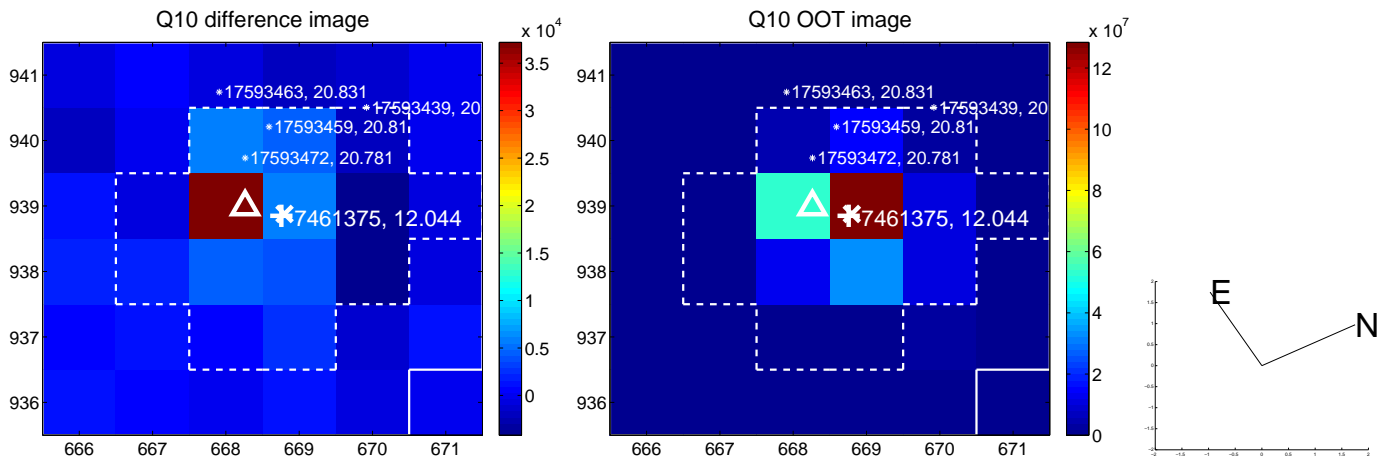
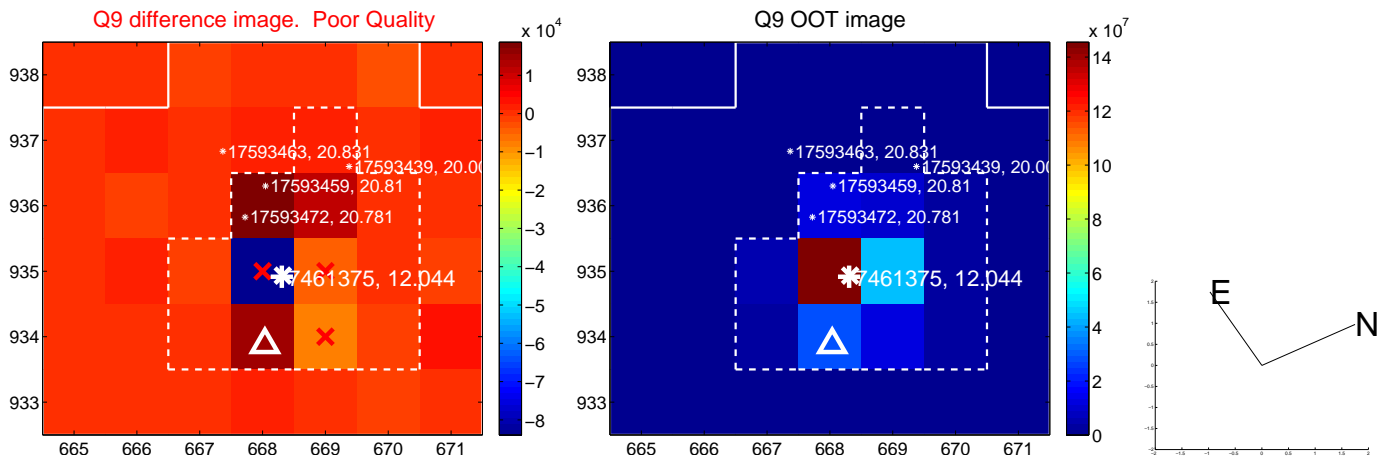
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



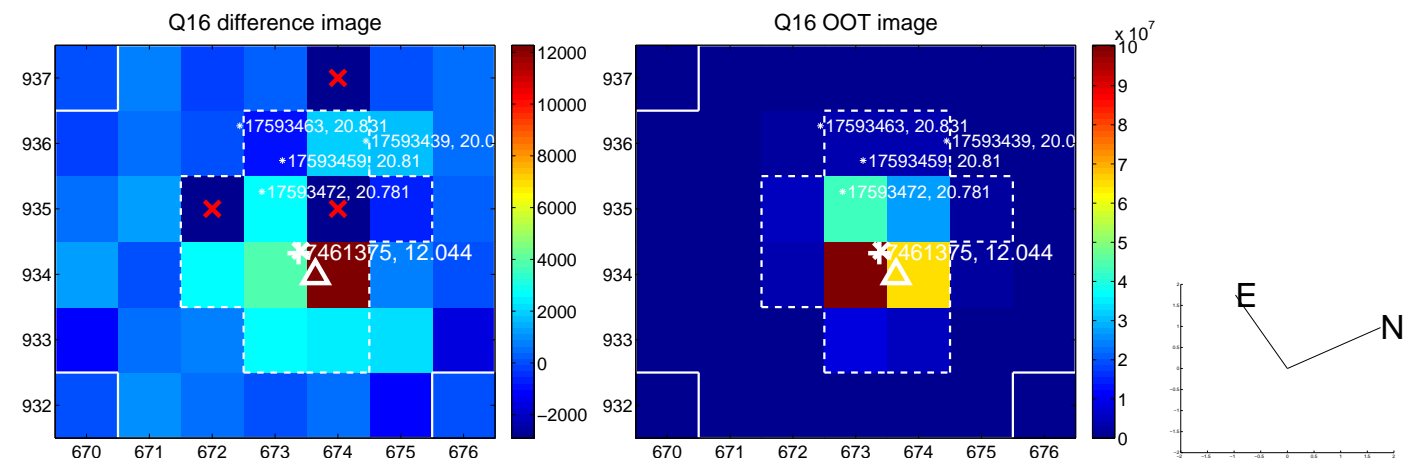
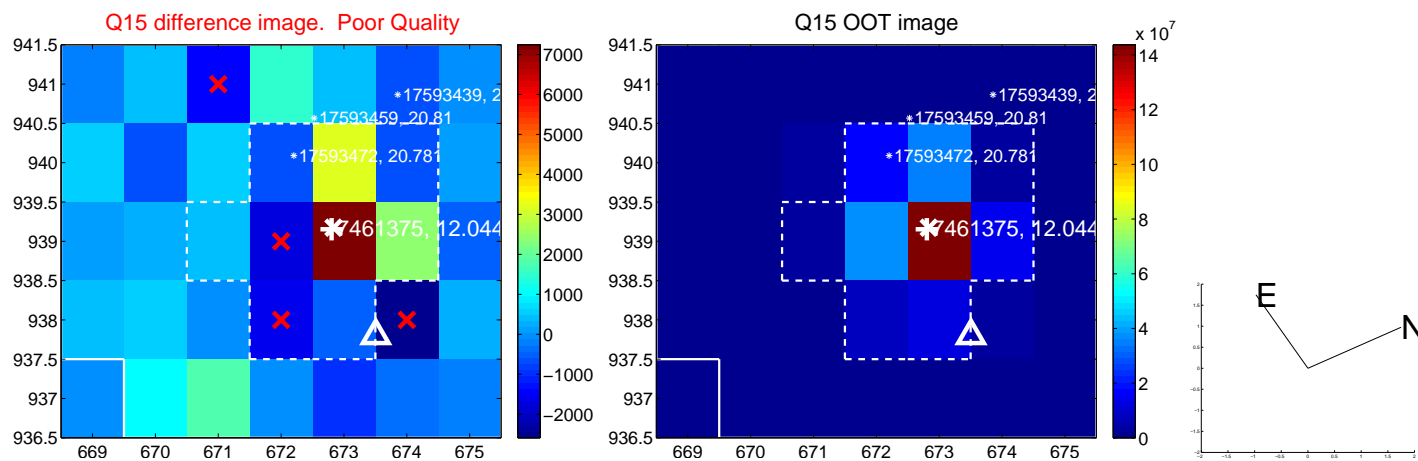
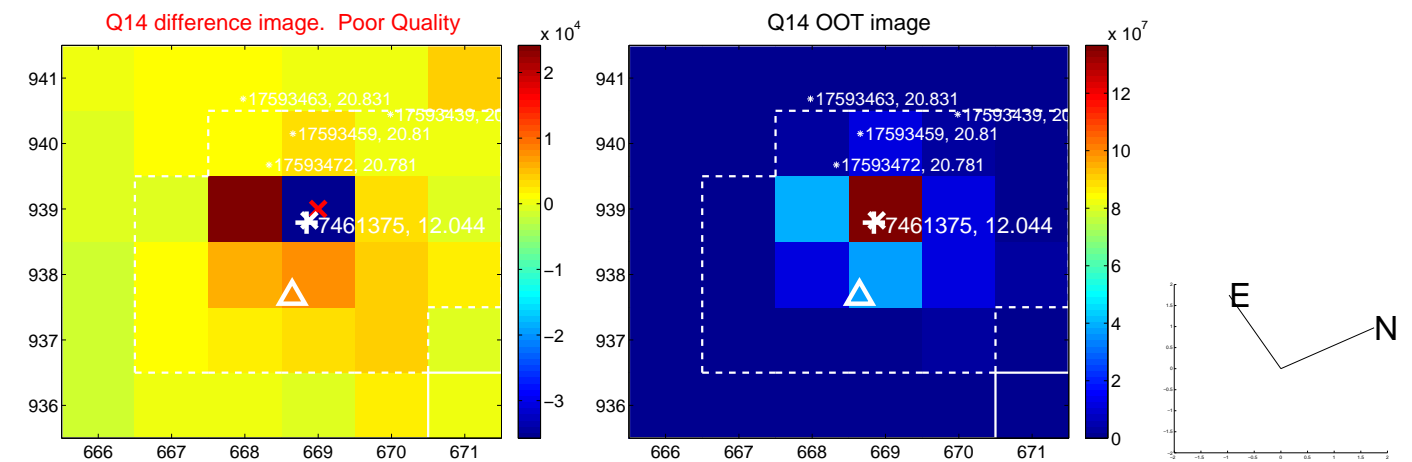
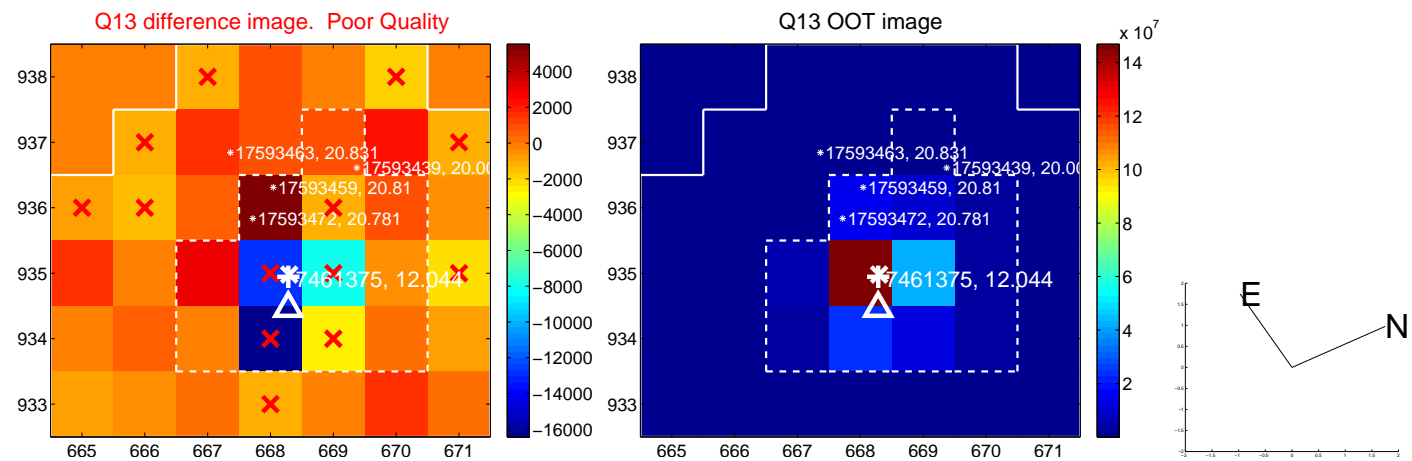
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



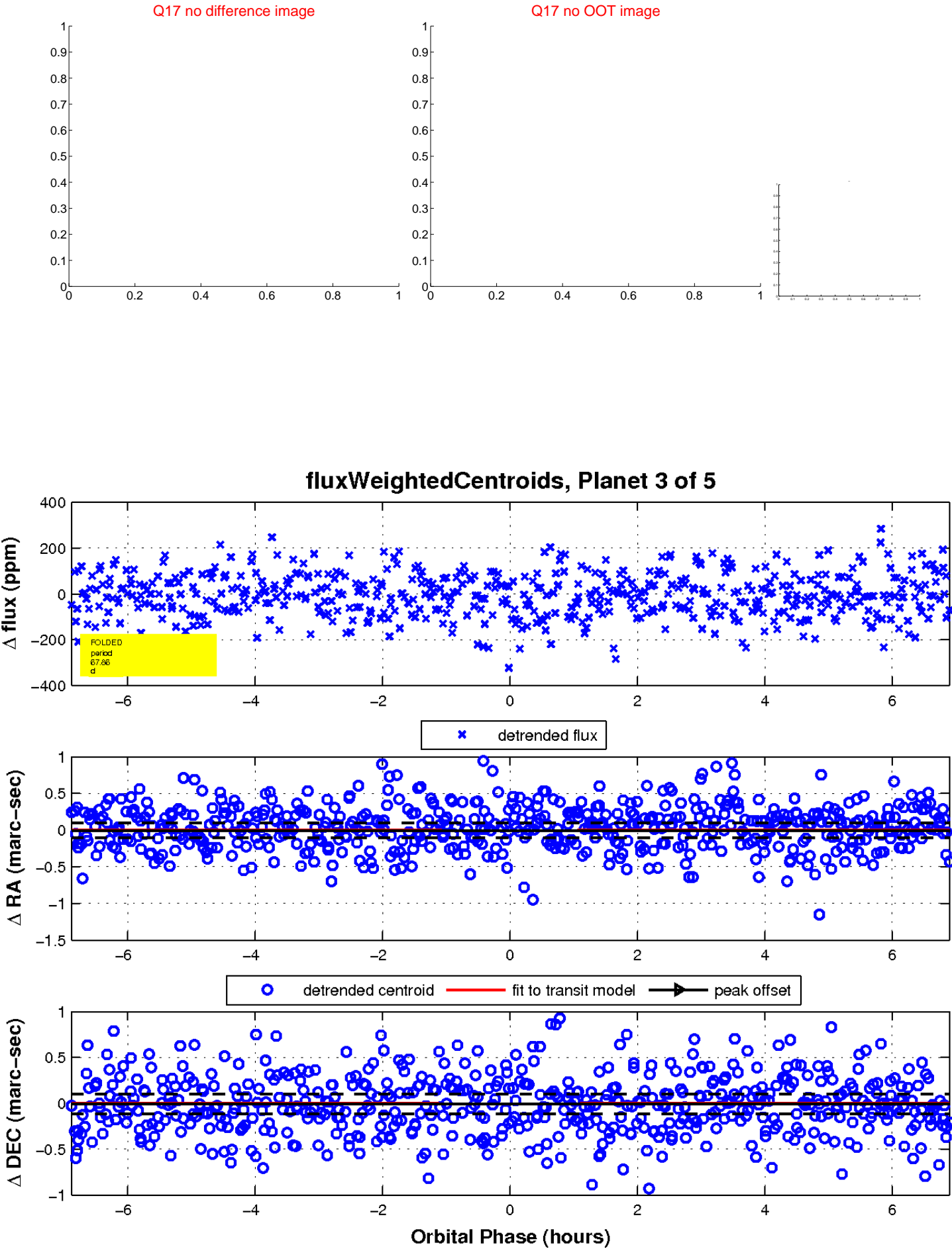
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

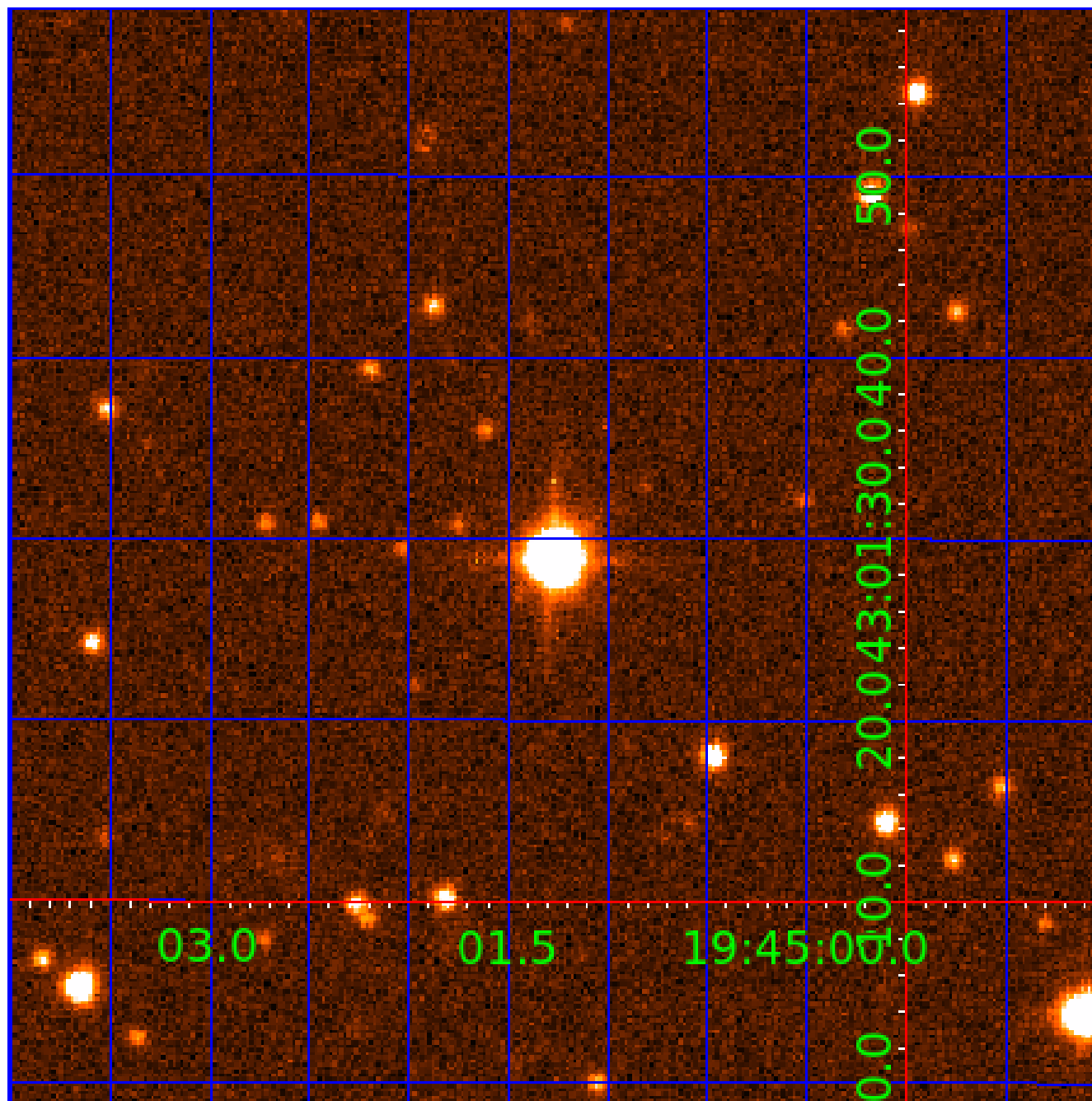


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007461375

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})
007461375-01	OBS	No	1.378885	132.370734	0.0	6.853	7.7	0.0	2.17	6867	0.04	11389.33
007461375-02	OBS	No	136.157730	189.929871	113.2	16.110	7.9	6.6	2.17	6867	2.60	24.95
007461375-03	OBS	No	67.864783	172.133279	159.7	2.304	8.1	7.8	2.17	6867	2.88	63.15
007461375-04	OBS	No	103.607738	135.874742	213.4	1.674	7.2	7.5	2.17	6867	3.21	35.92
007461375-05	OBS	No	67.420938	159.915424	122.5	2.908	7.3	6.9	2.17	6867	2.78	63.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007461375-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007461375-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS
007461375-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
007461375-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007461375-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT

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

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

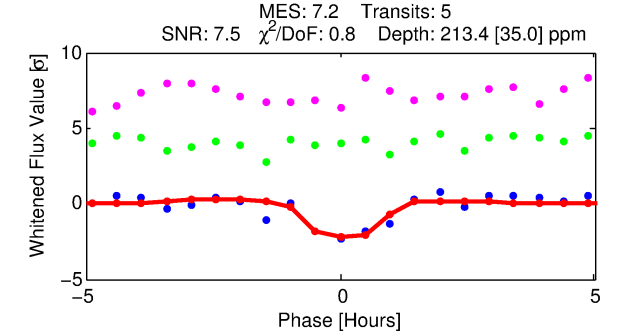
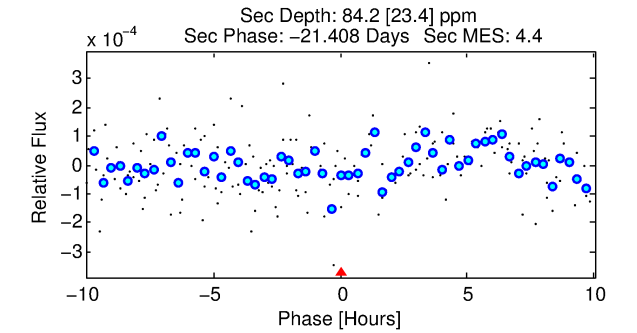
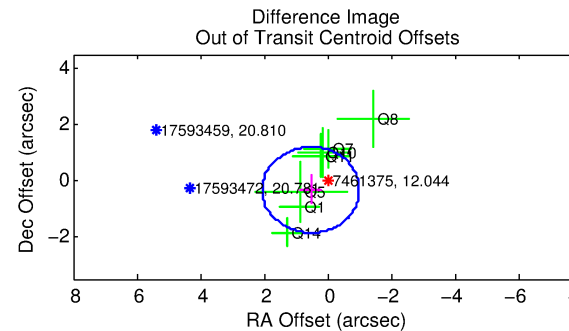
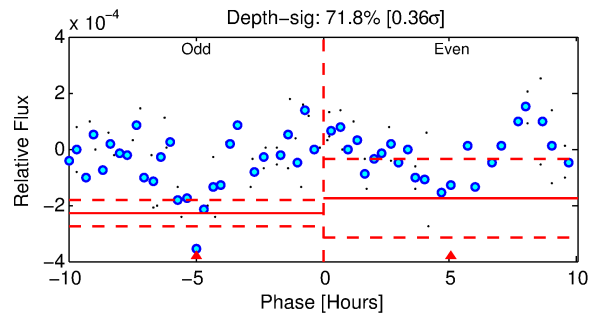
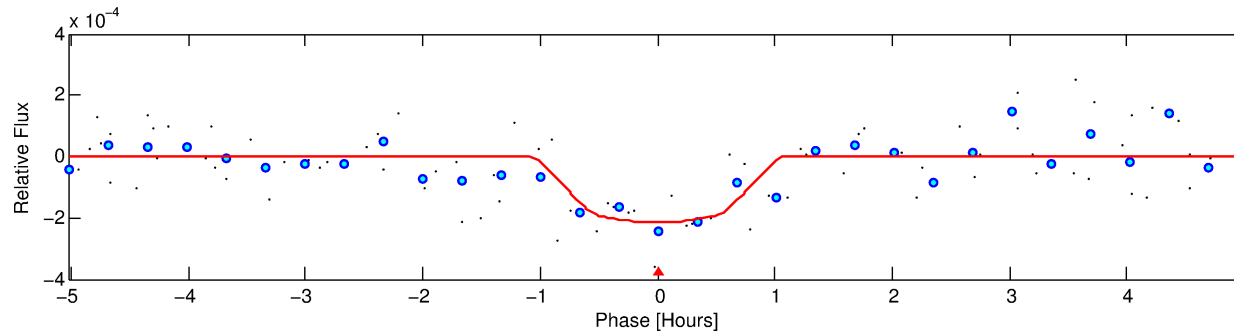
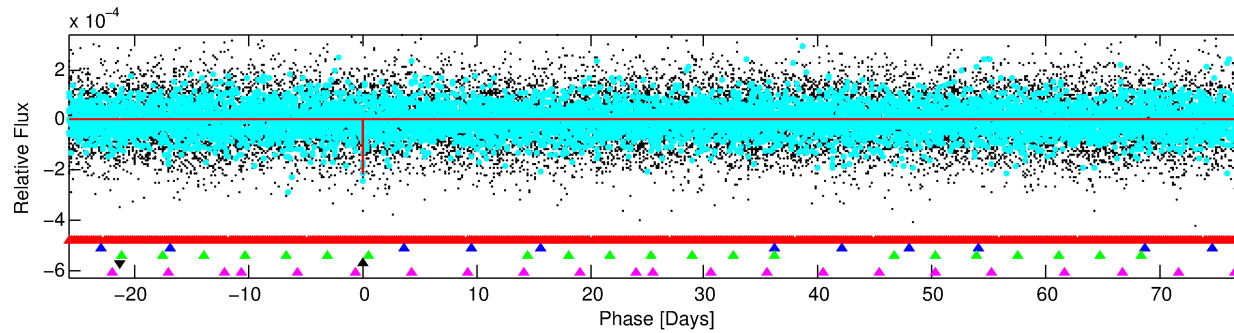
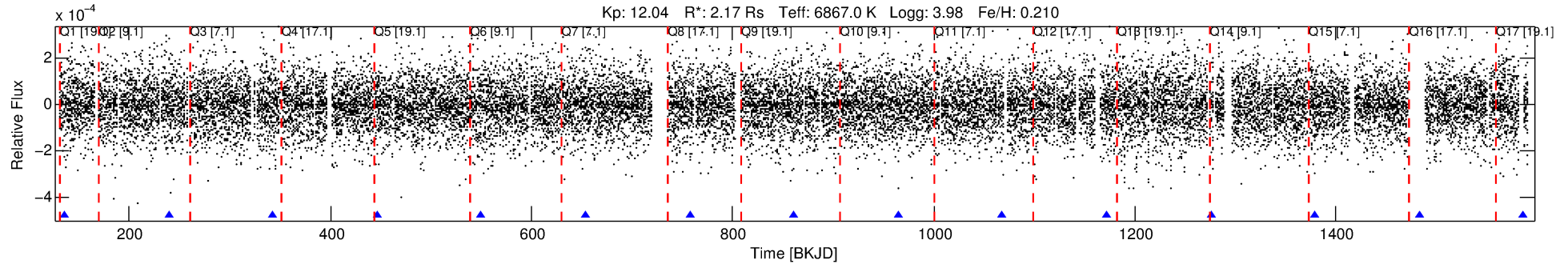
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007461375-04

No Significant Match Found

DV One-Page Summary

KIC: 7461375 Candidate: 4 of 5 Period: 103.608 d

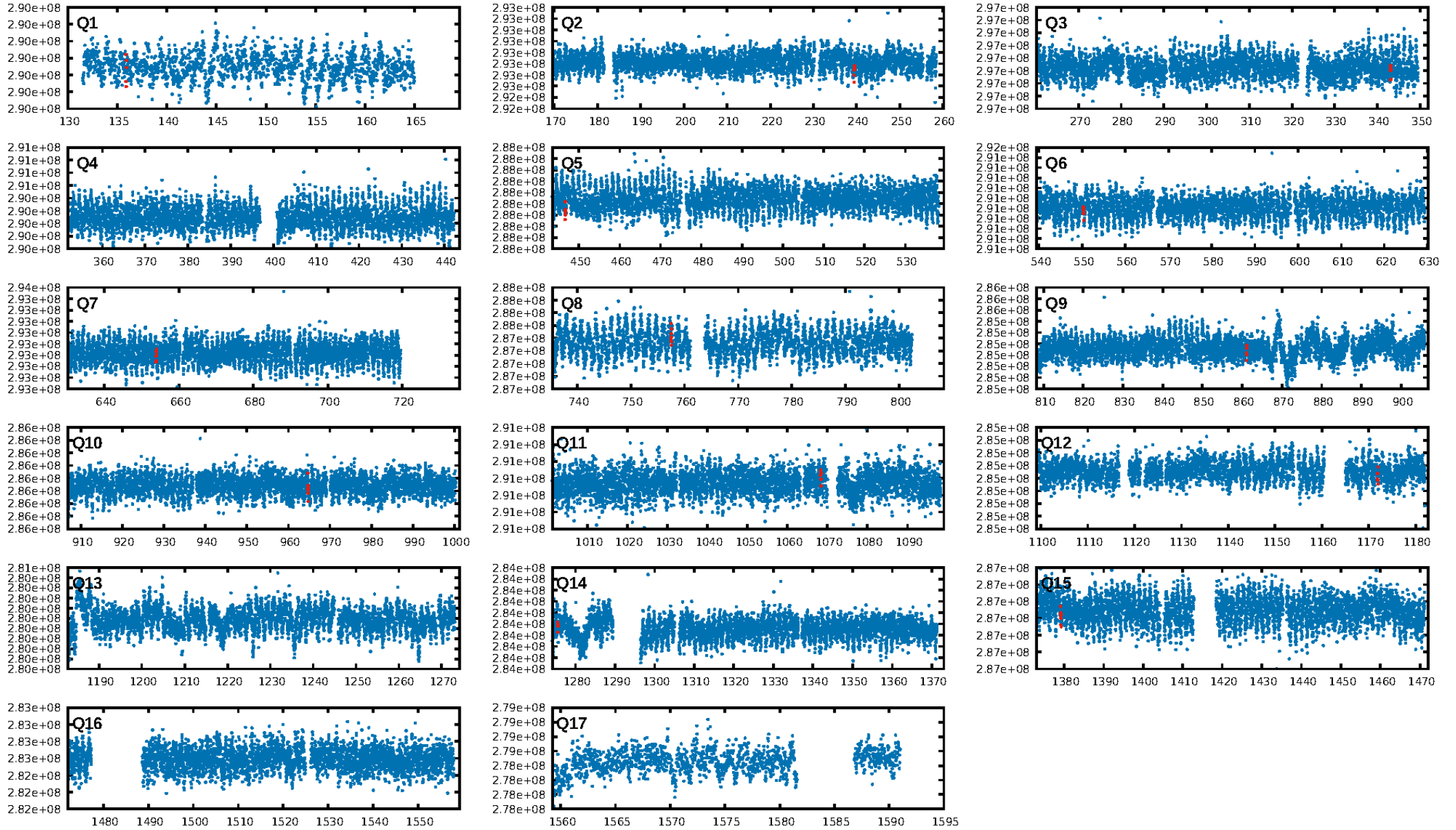


DV Fit Results:	DV Diagnostic Results:
Period = 103.60774 [0.00075] d	ShortPeriod-sig: 100.0% [301.25 σ]
Epoch = 135.8747 [0.0049] BKJD	LongPeriod-sig: 100.0% [48.23 σ]
Rp/R* = 0.0135 [0.0201]	ModelChiSquare2-sig: 66.5%
a/R* = 477.64 [3922.50]	ModelChiSquareGof-sig: 99.8%
b = 0.08 [99.30]	Bootstrap-pfa: 1.18e-08
Seff = 35.92 [15.53]	RollingBand-fgt: 1.00 [4/4]
Teq = 624 [67] K	GhostDiagnostic-chr: 2.224
Rp = 3.21 [4.86] Re	Centroid-sig: 2.5%
a = 0.5115 [0.1346] AU	Centroid-so: 1.273 arcsec [1.73 σ]
Ag = 1177.38 [3546.85] [0.33 σ]	OotOffset-rm: 0.622 arcsec [1.22 σ]
Teffp = 5654 [4227] K [1.19 σ]	KicOffset-rm: 0.667 arcsec [1.24 σ]
	OotOffset-st: 2/2/1/2 [7]
	KicOffset-st: 2/2/1/2 [7]
	DiffImageQuality-fgm: 0.86 [6/7]
	DiffImageOverlap-fno: 0.42 [5/12]

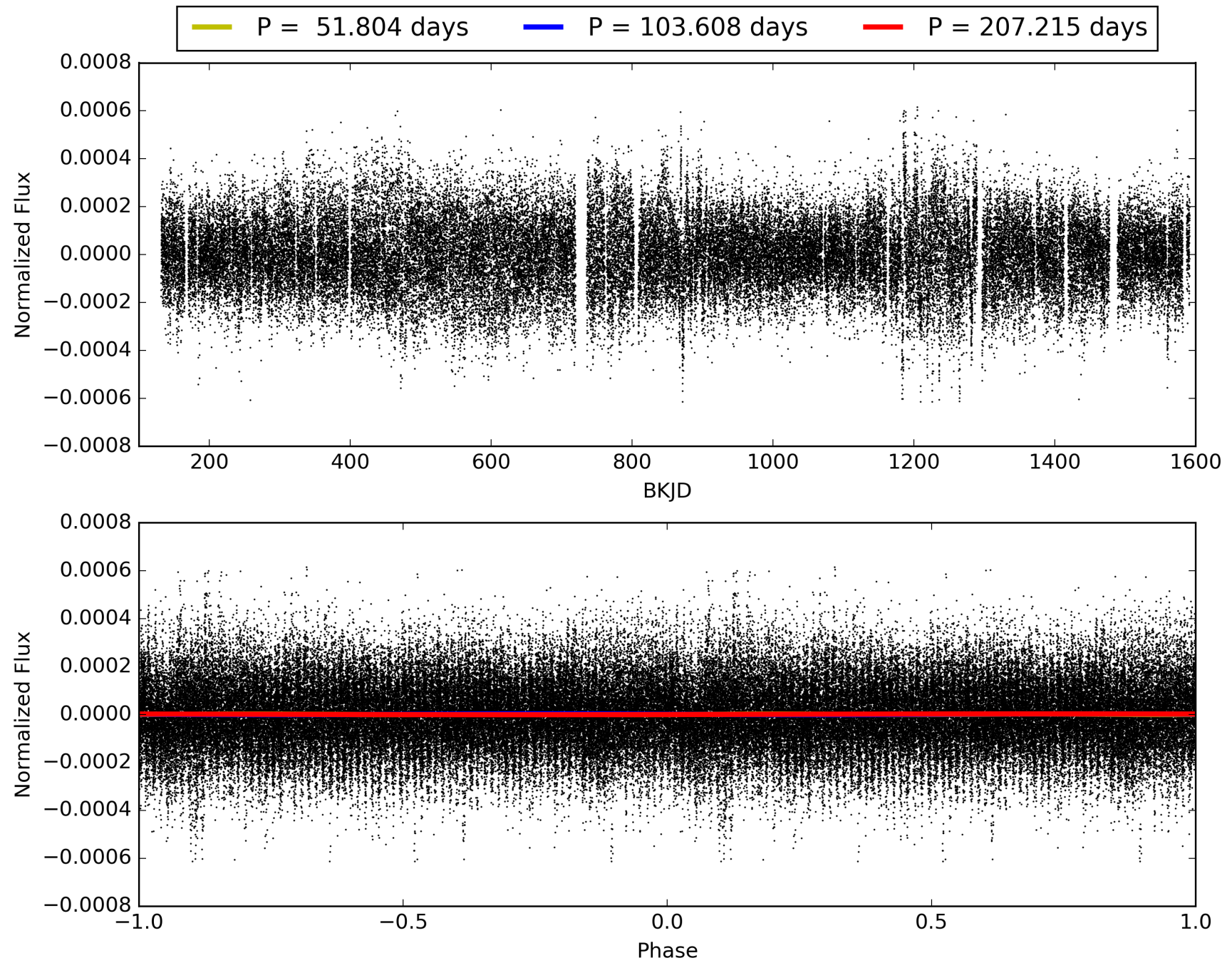
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:50:07 Z

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

TCE 007461375-04, PDC Light Curves

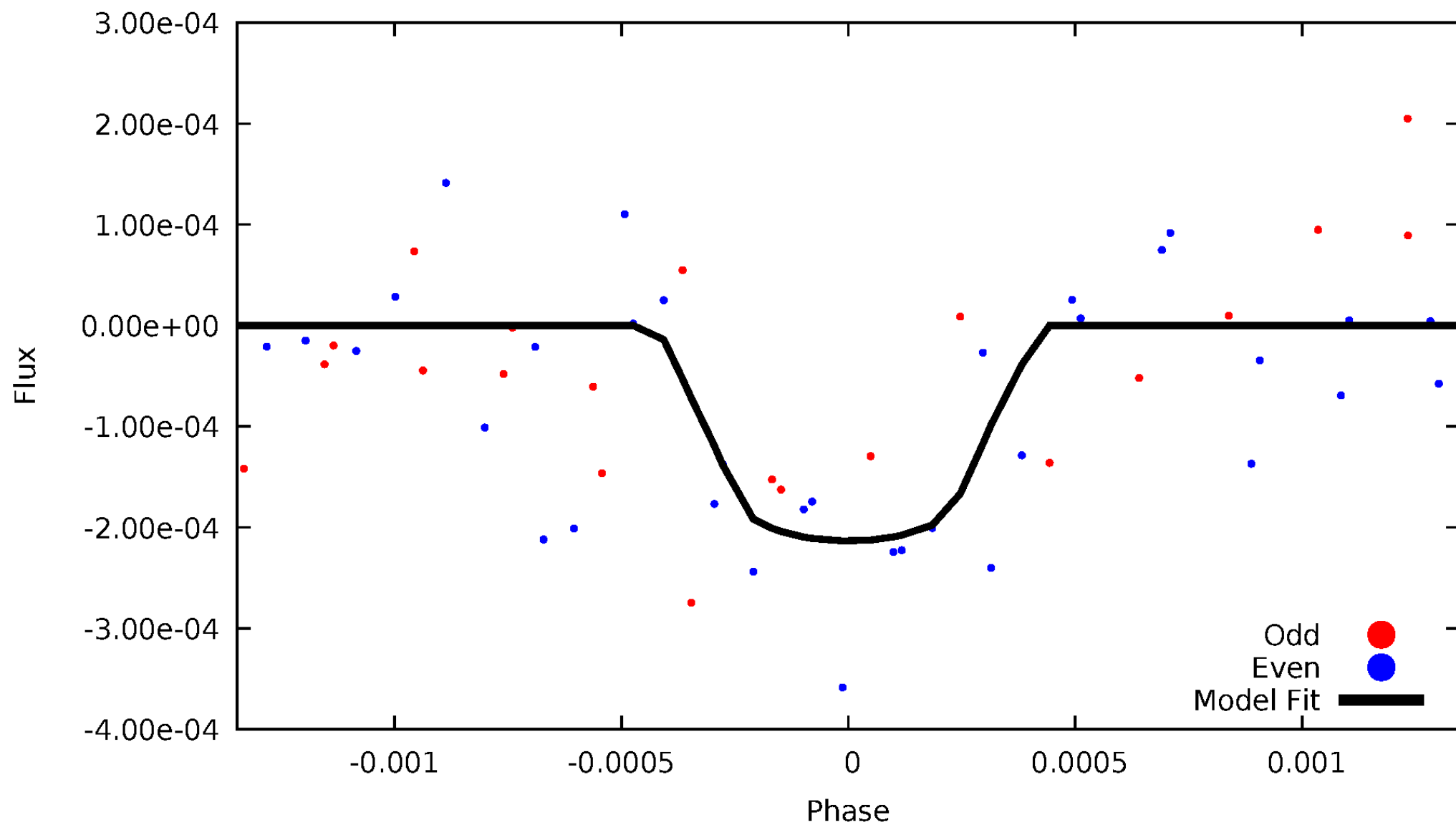


TCE 007461375-04



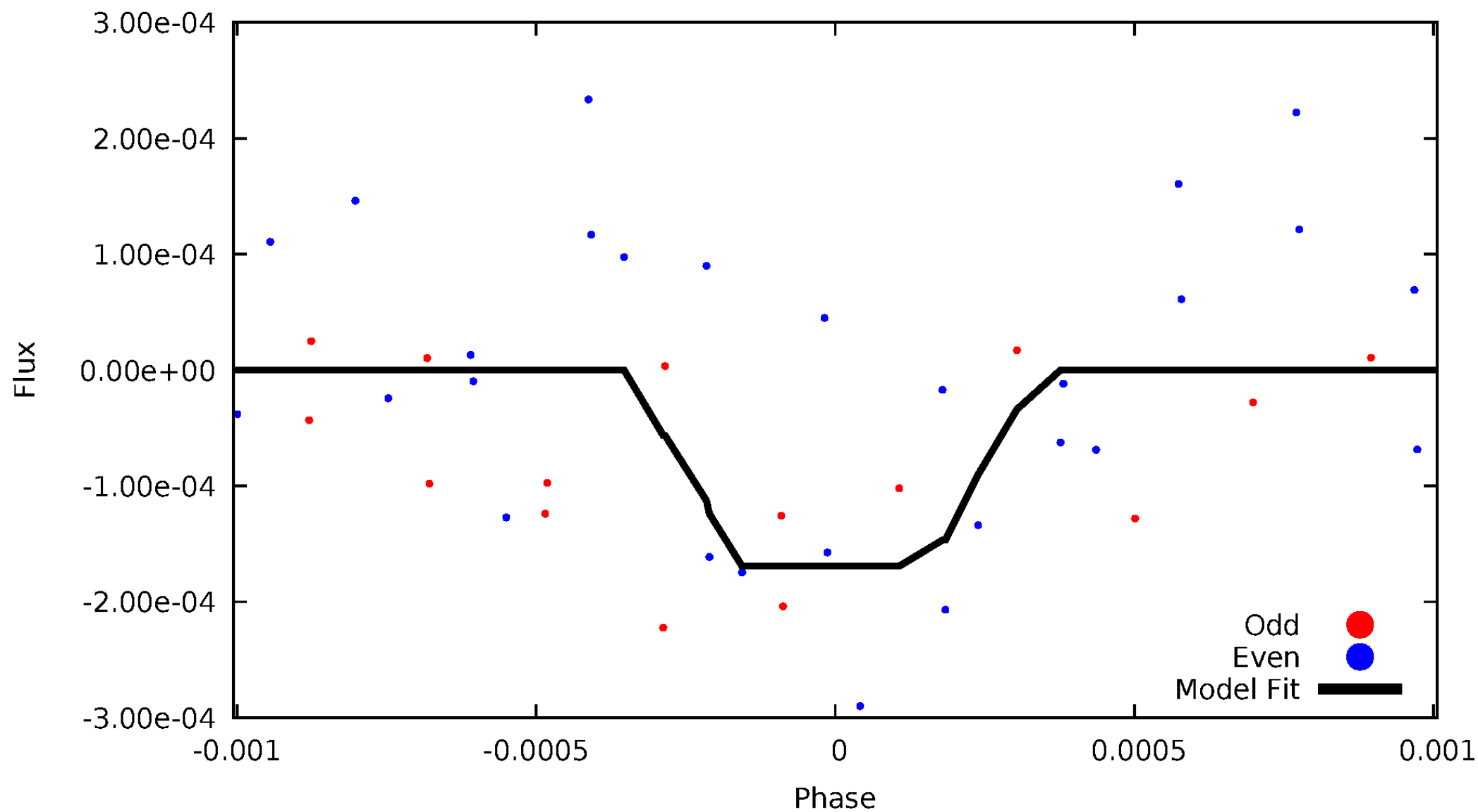
DV Odd/Even

TCE 007461375-04



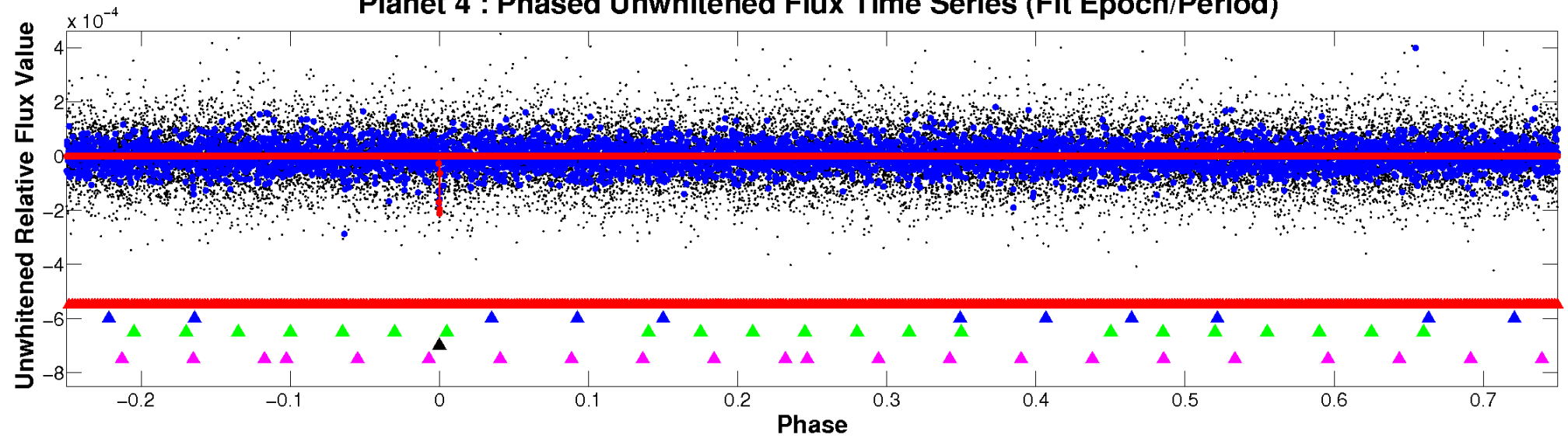
ALT Odd/Even

TCE 007461375-04

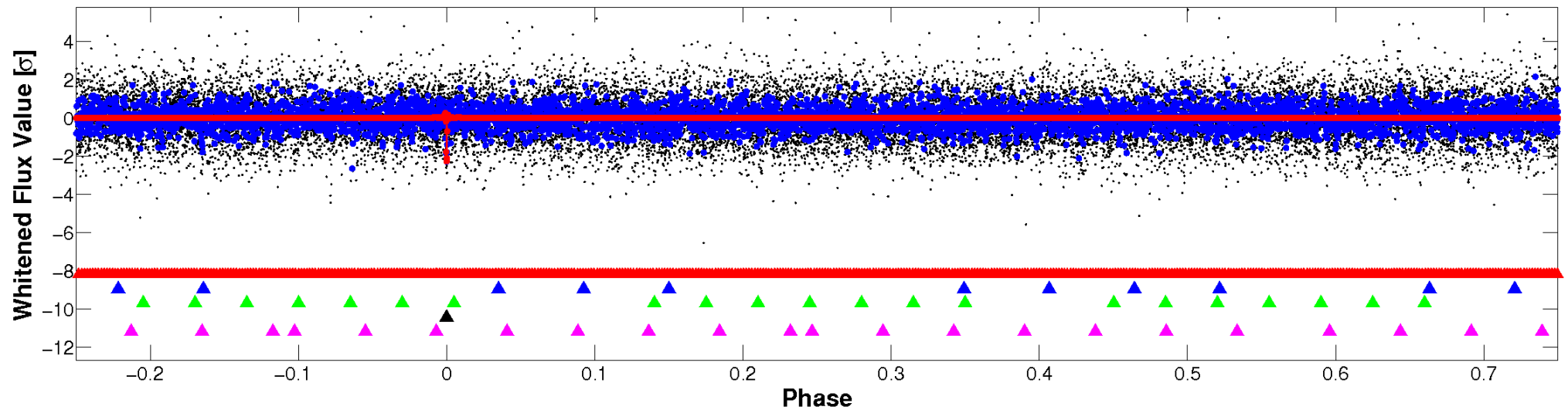


Non-Whitened Vs. Whitened Light Curve

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

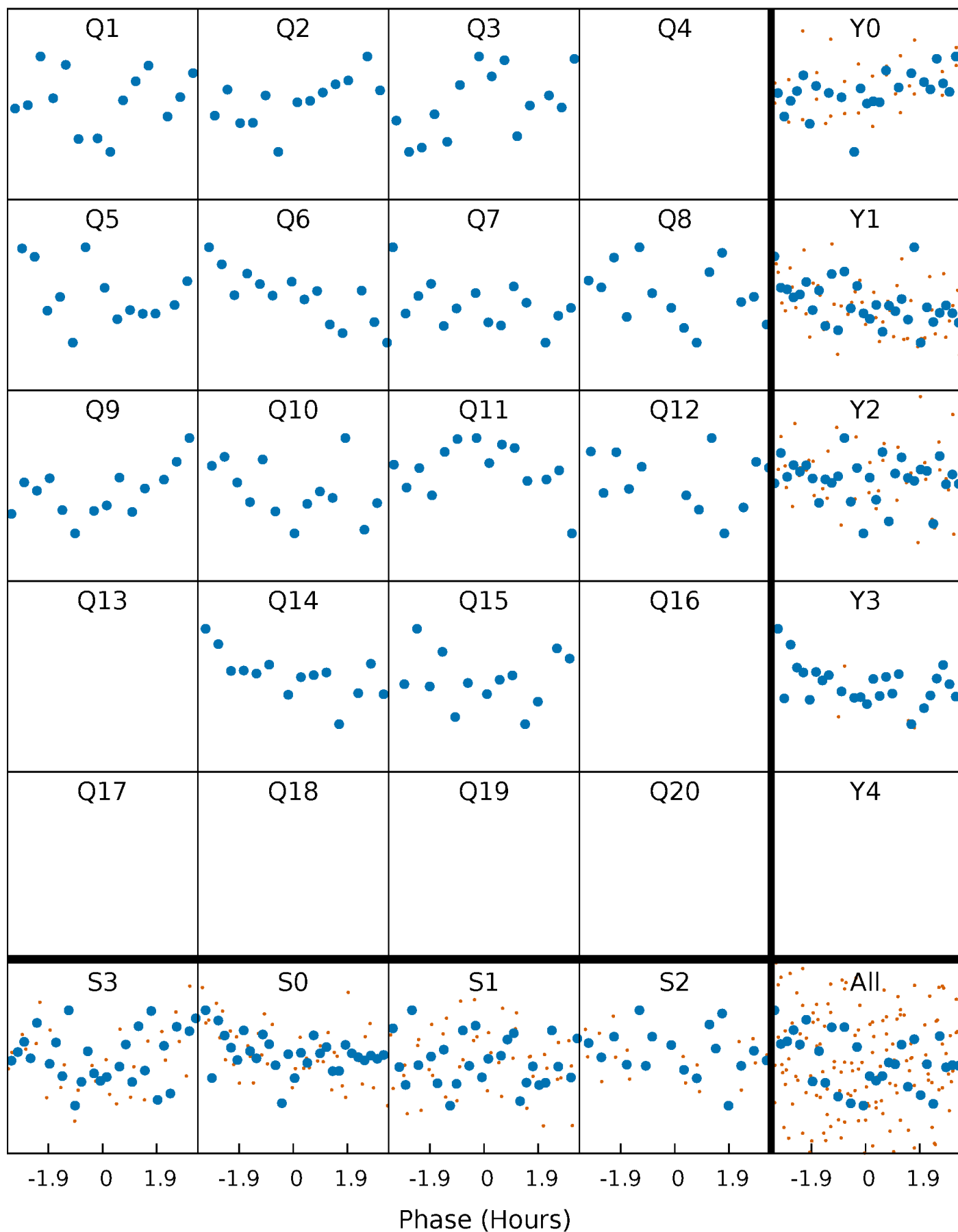


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



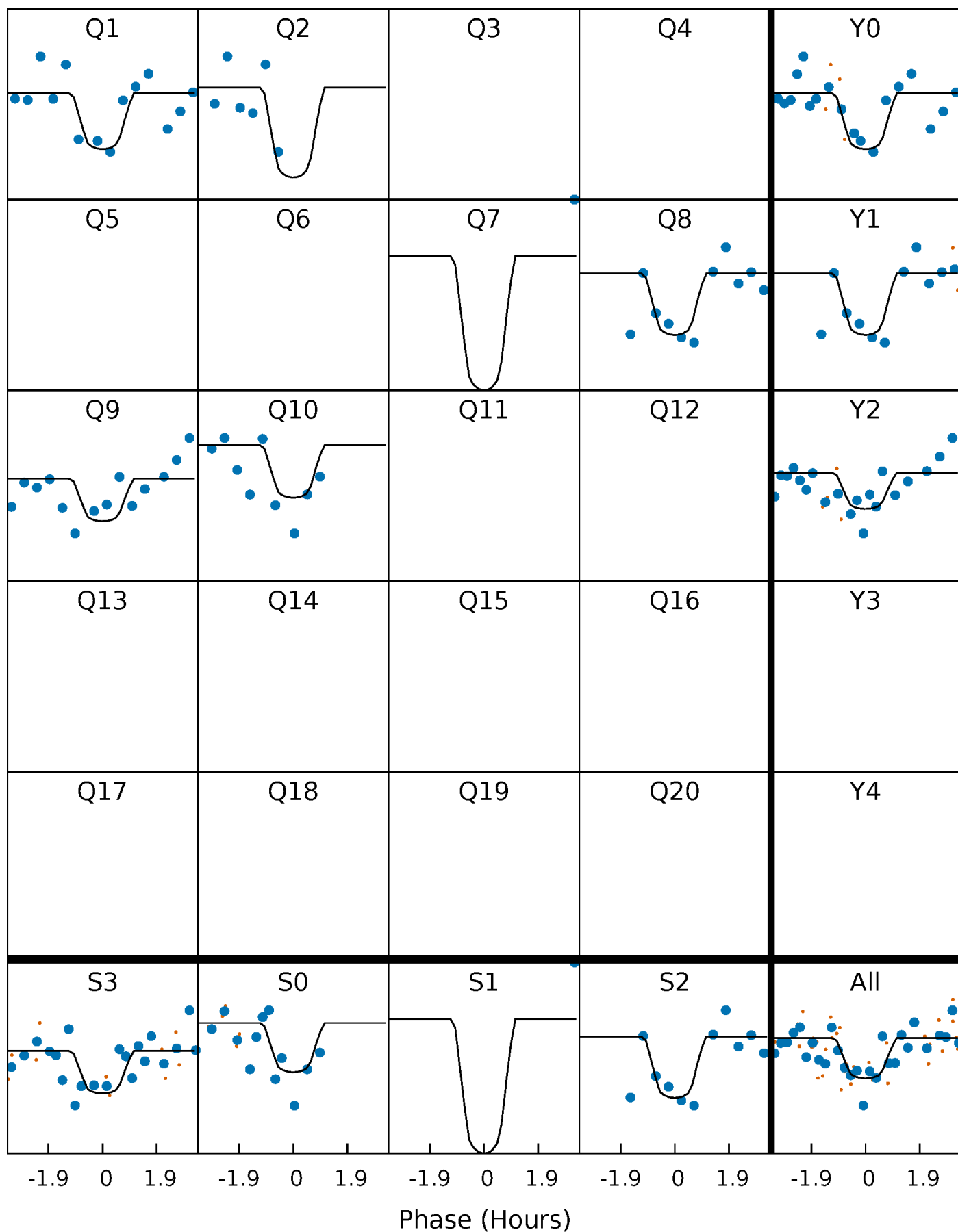
PDC Quarter-Phased Transit Curves

TCE 007461375-04 P=103.607737 Days $T_0=135.874742$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007461375-04 P=103.607737 Days $T_0=135.874742$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

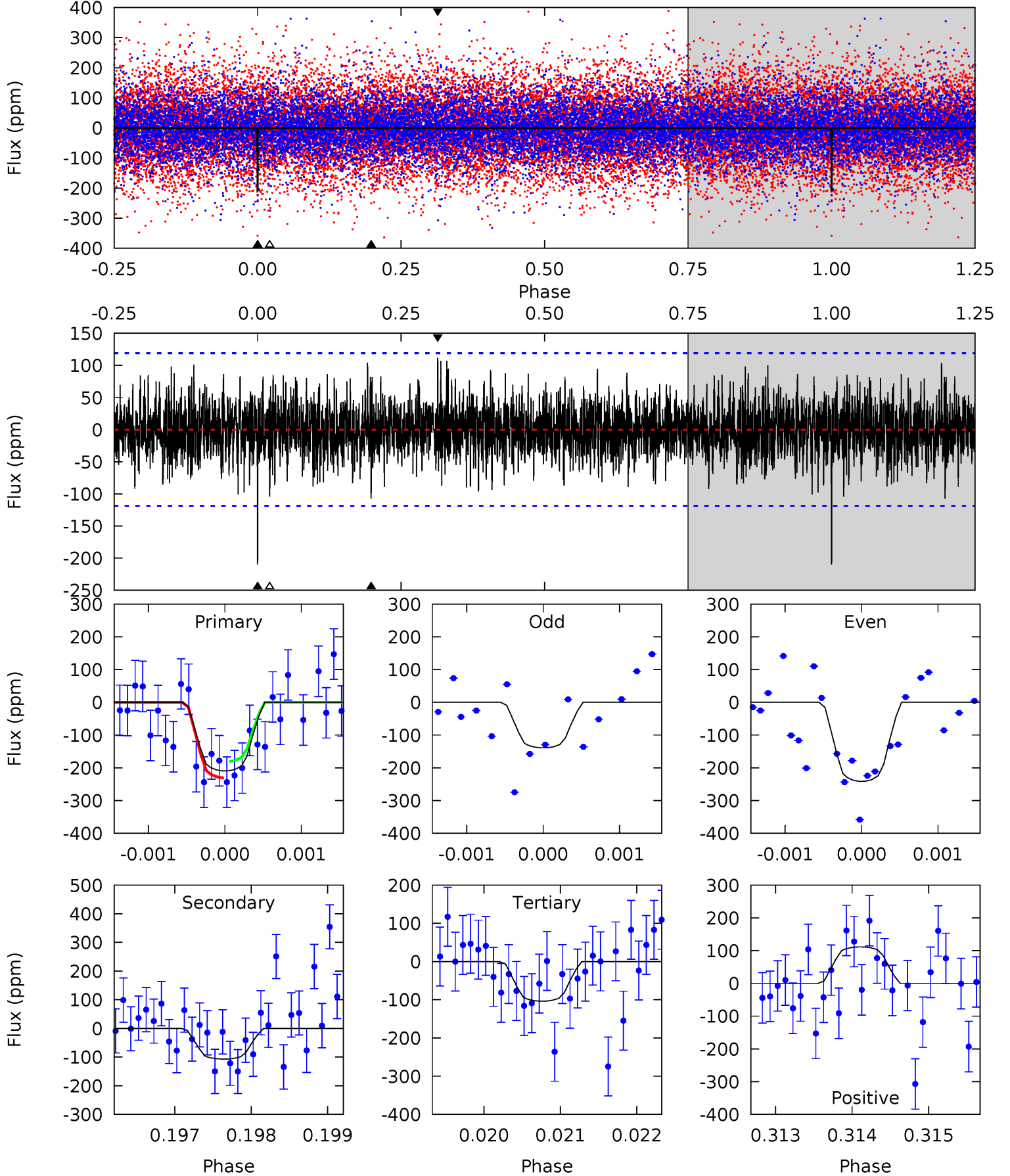
TCE 007461375-04 P=103.608138 Days $T_0=135.865953$ (BKJD)



DV Model-Shift Uniqueness Test

007461375-04, $P = 103.607737$ Days, $E = 32.267005$ Days

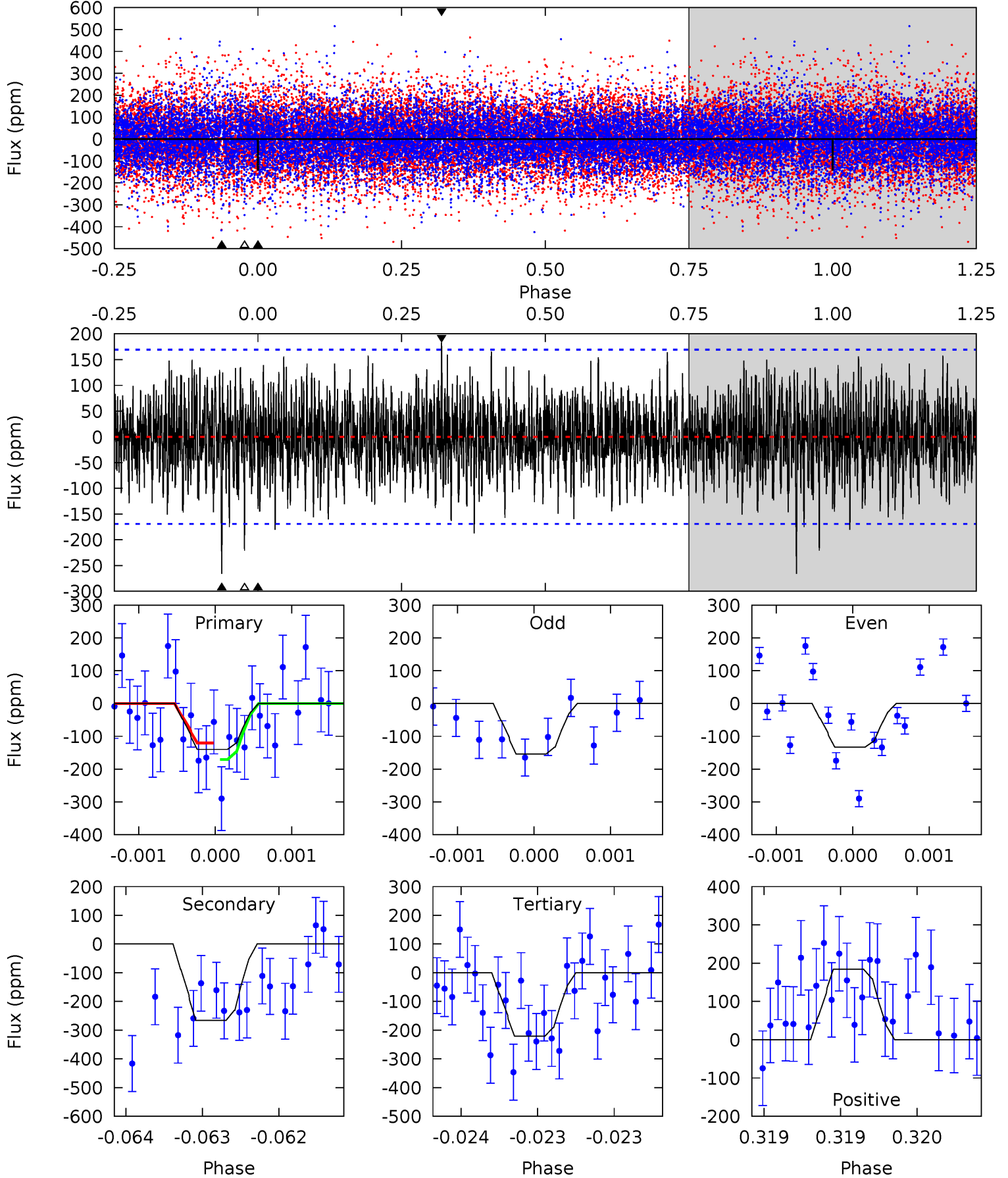
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.65	4.93	4.78	5.13	5.48	3.34	1.42	4.87	4.52	0.15	-0.20	2.23	0.99	0.35	1.15



Alt Model-Shift Uniqueness Test

007461375-04, P = 103.608138 Days, E = 32.257815 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.57	8.69	7.21	6.02	5.52	3.40	1.76	-2.65	-1.45	1.48	2.68	0.32	0.78	0.41	0.82



Stellar Parameters For KIC 007461375

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6867^{+192}_{-288}	$3.985^{+0.225}_{-0.184}$	$0.210^{+0.150}_{-0.350}$	$2.172^{+0.647}_{-0.647}$	$1.661^{+0.183}_{-0.314}$	$0.228^{+0.299}_{-0.112}$
	+3%/-4%	+6%/-5%	+71%/-167%	+30%/-30%	+11%/-19%	+131%/-49%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007461375-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-107 ± 22	$4.82^{+4.18}_{-3.18}$	869^{+65}_{-70}	4841^{+4093}_{-1005}	639^{+5285}_{-469}
Alt.	-266 ± 31	$4.58^{+4.29}_{-3.11}$	872^{+70}_{-75}	6169^{+6977}_{-1545}	1810^{+15598}_{-1328}

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

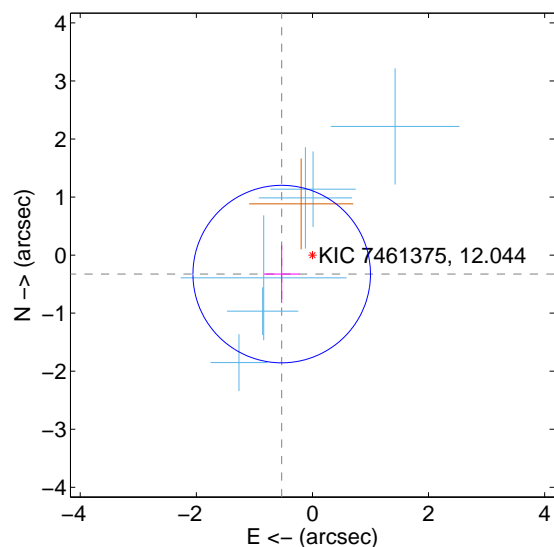
Supplemental centroid analysis for 007461375-04. Kepler magnitude: 12.04. Transit SNR 7.50

There are 6 quarters with good PRF difference image offsets

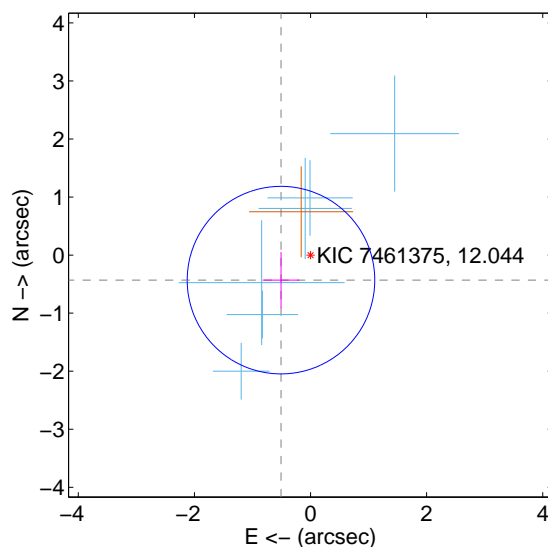
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.622 ± 0.510	1.22	0.529 ± 0.307	-0.327 ± 0.496
PRF-fit source offset from KIC position	0.667 ± 0.538	1.24	0.509 ± 0.315	-0.431 ± 0.483
photometric centroid source offset	1.27 ± 0.73	1.73	0.78 ± 0.69	-1.00 ± 0.76

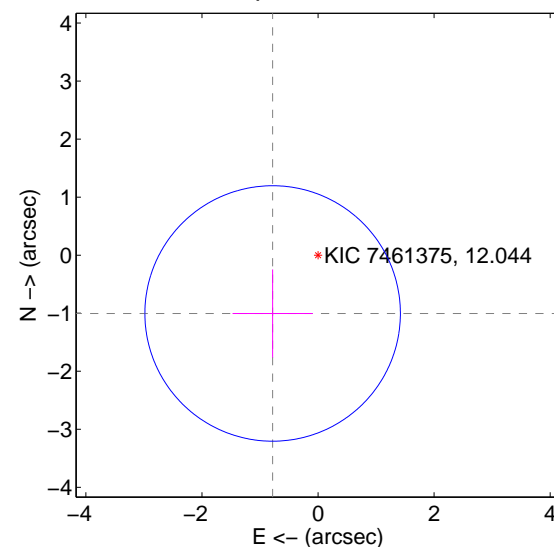
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

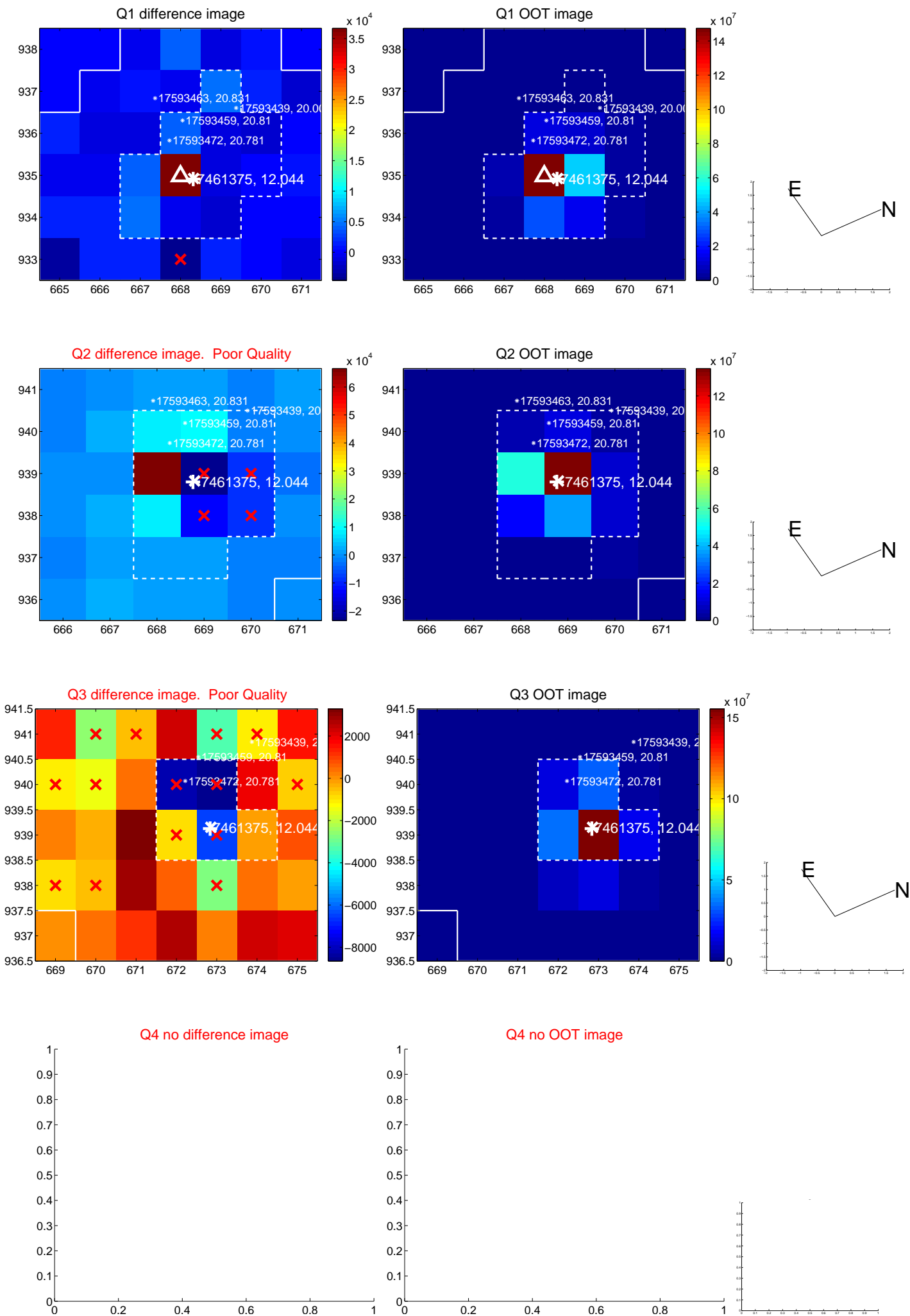


offset from photometric centroids

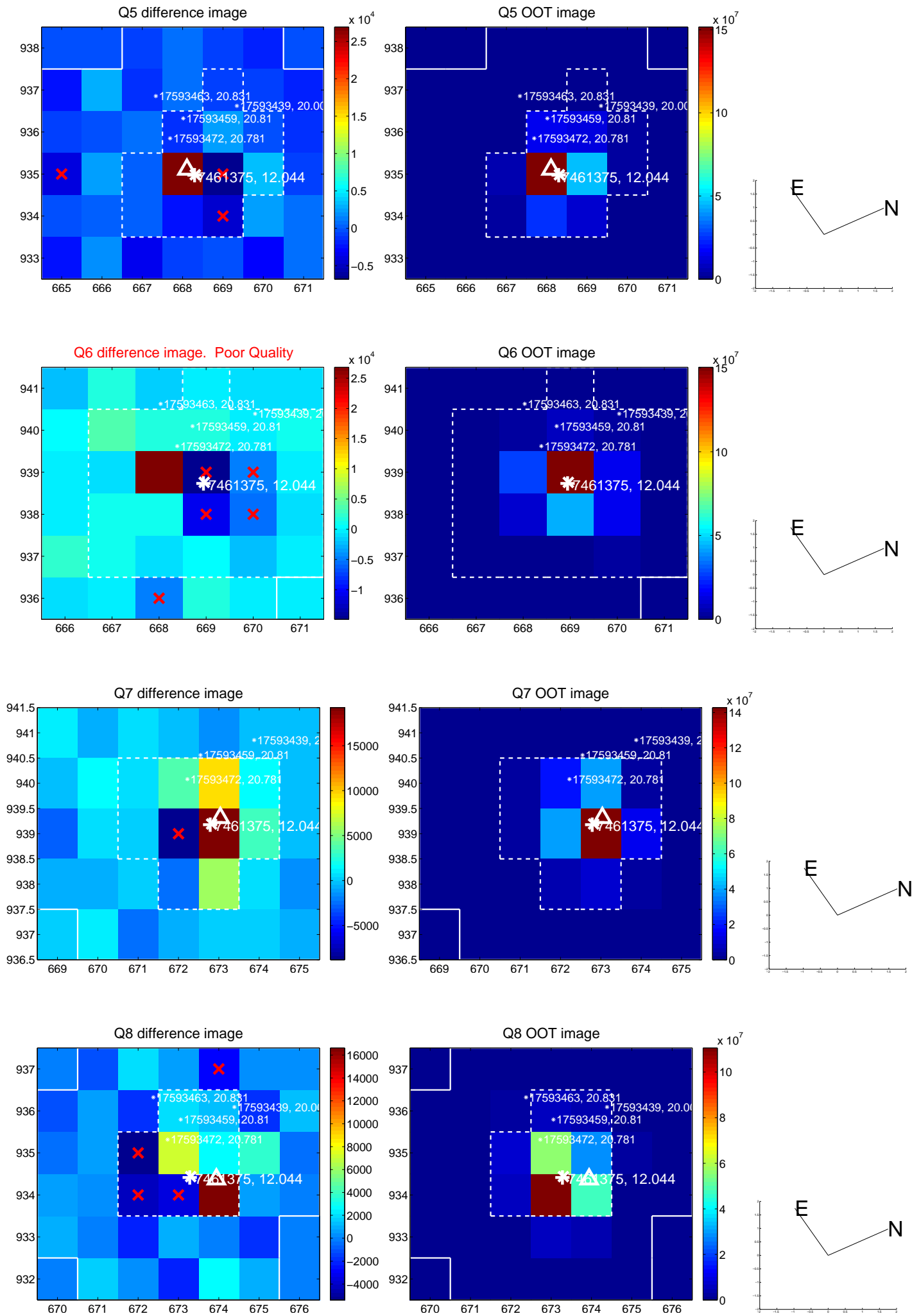


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

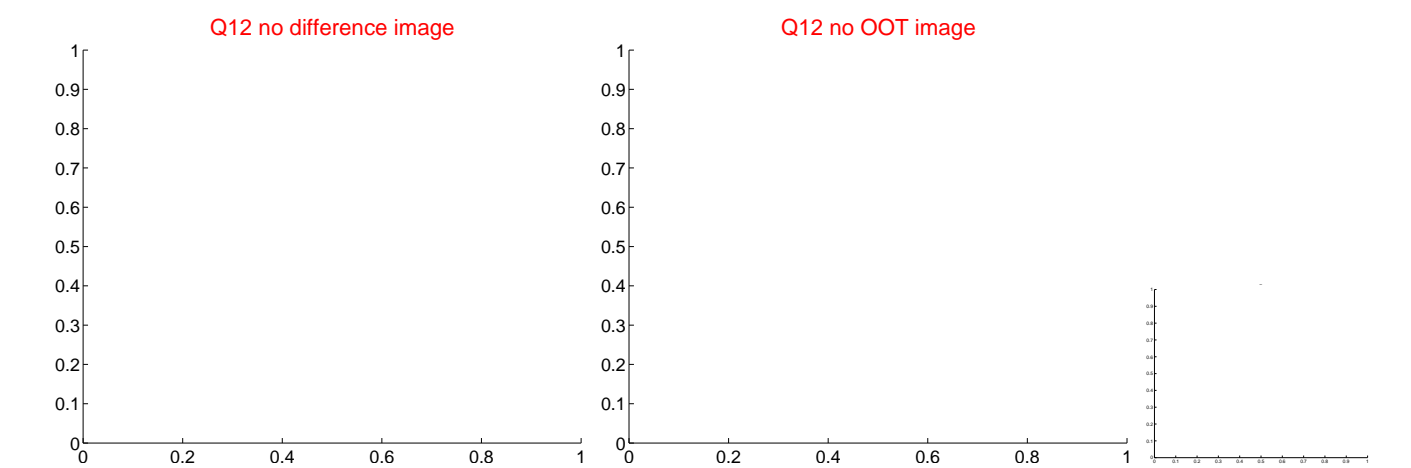
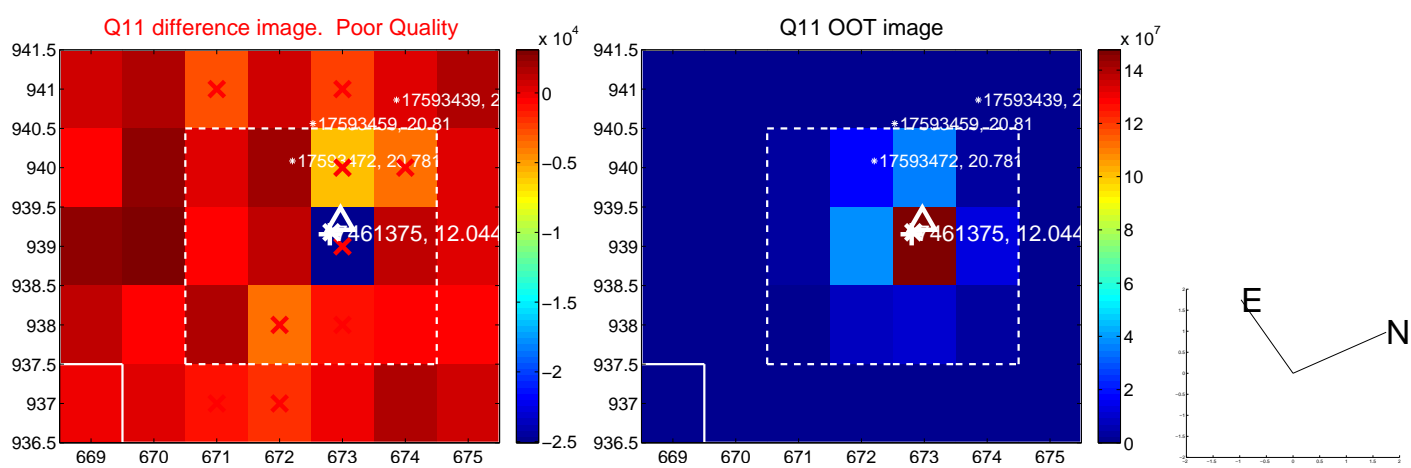
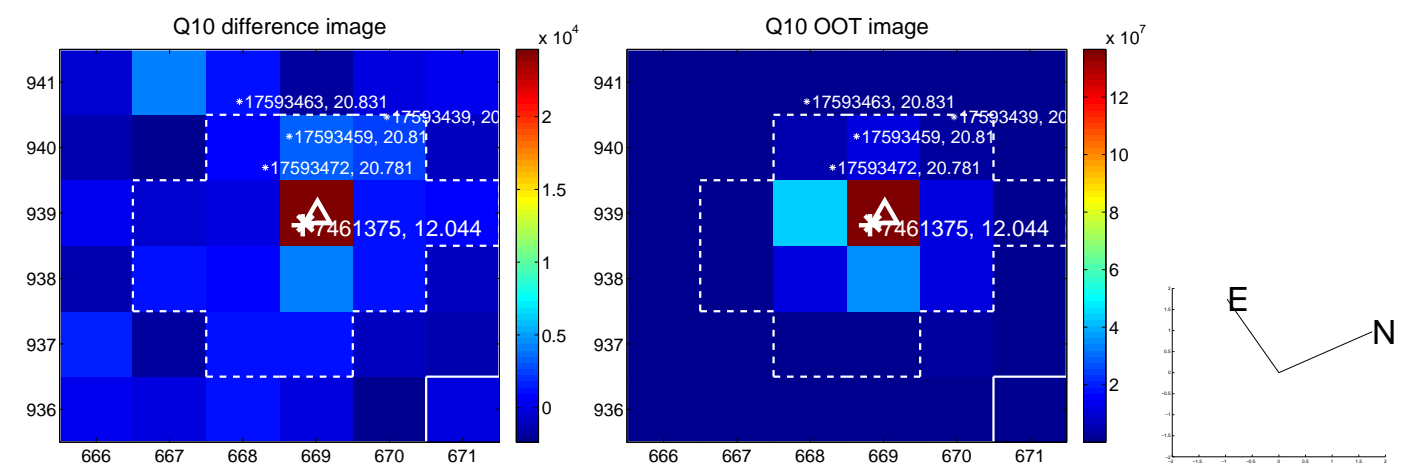
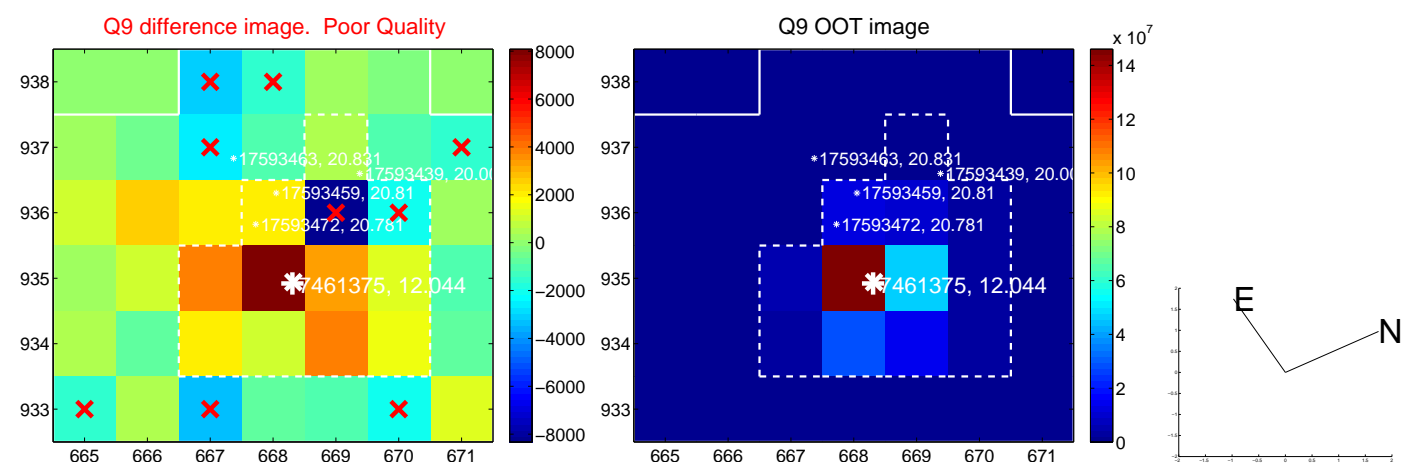
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



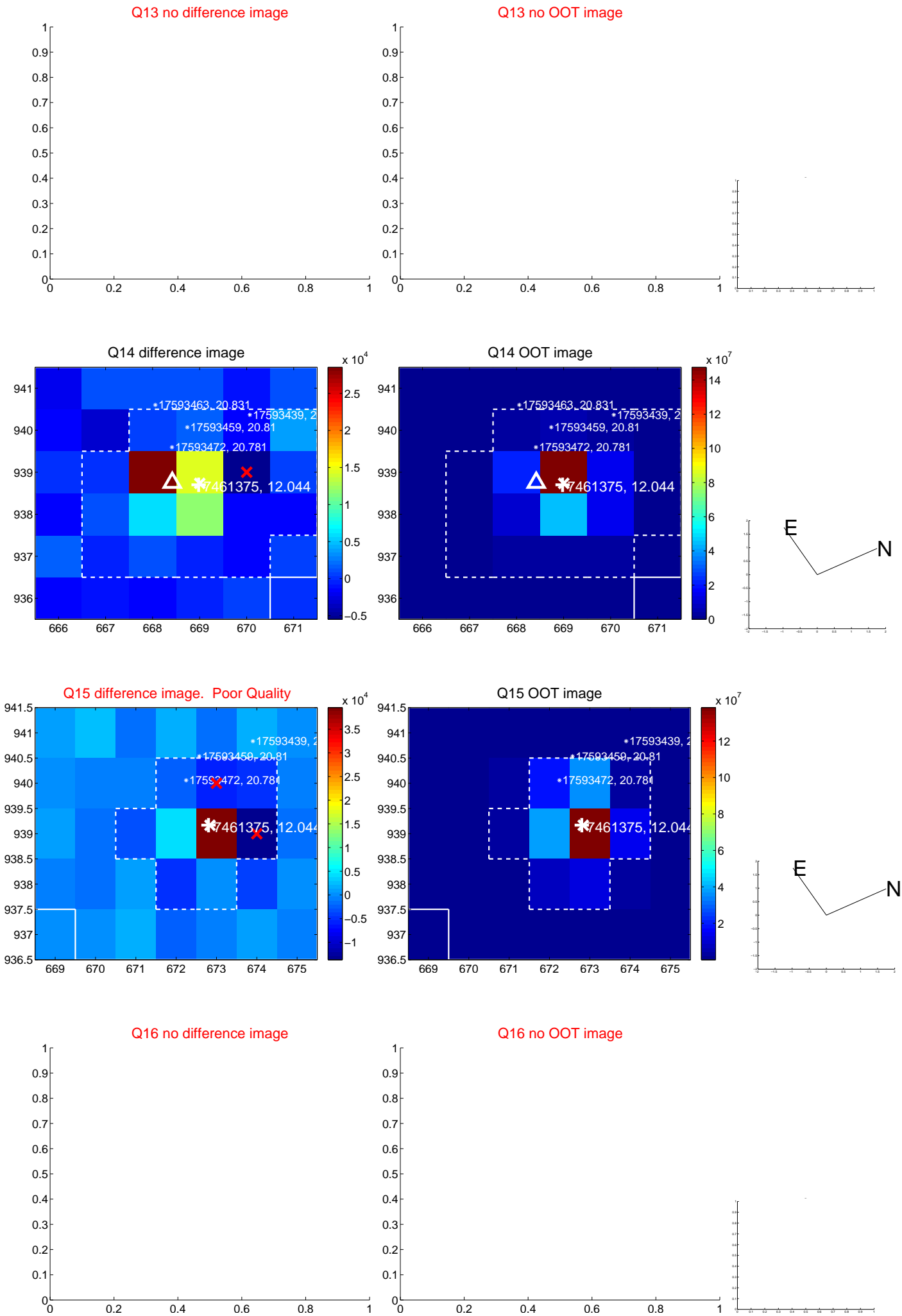
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



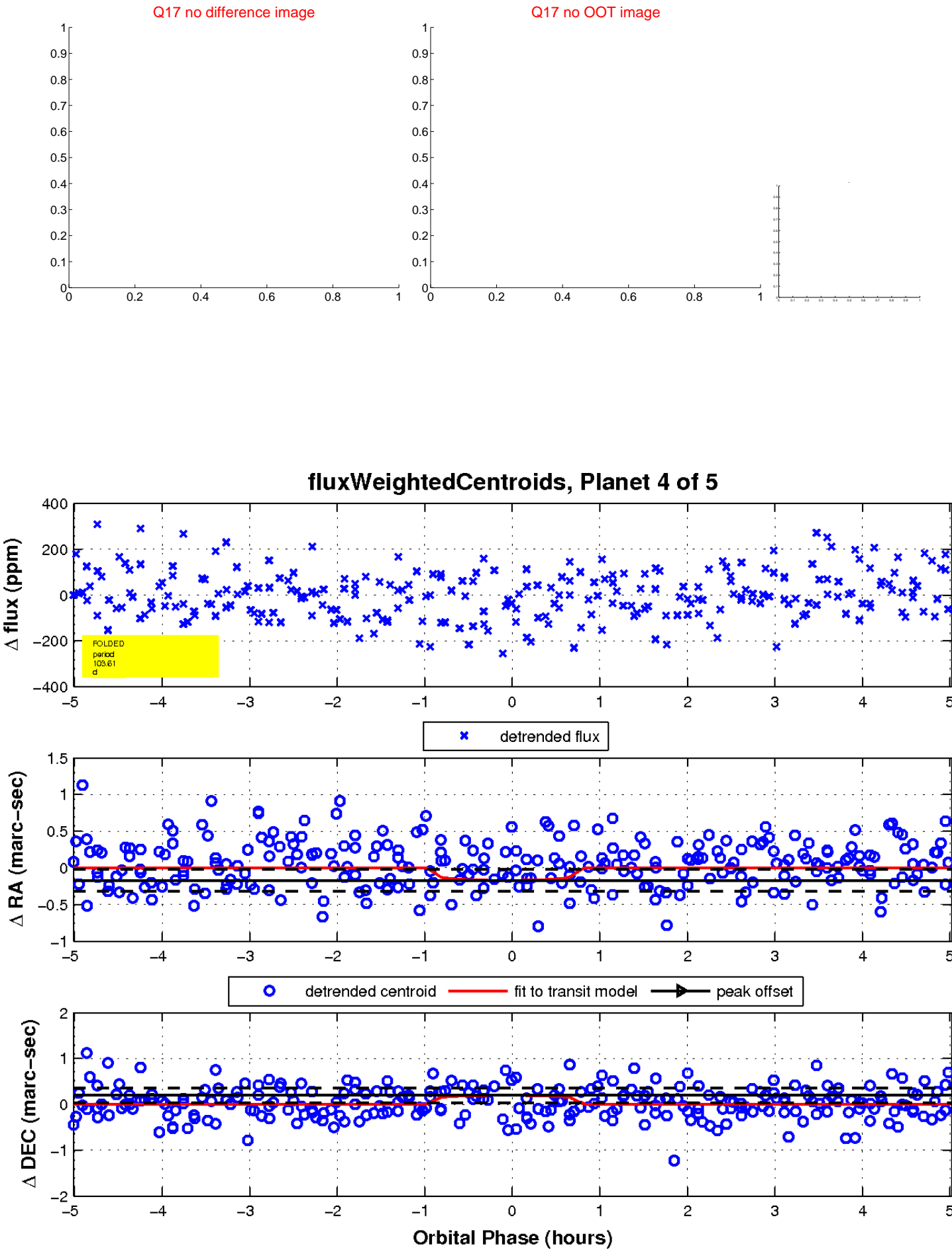
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

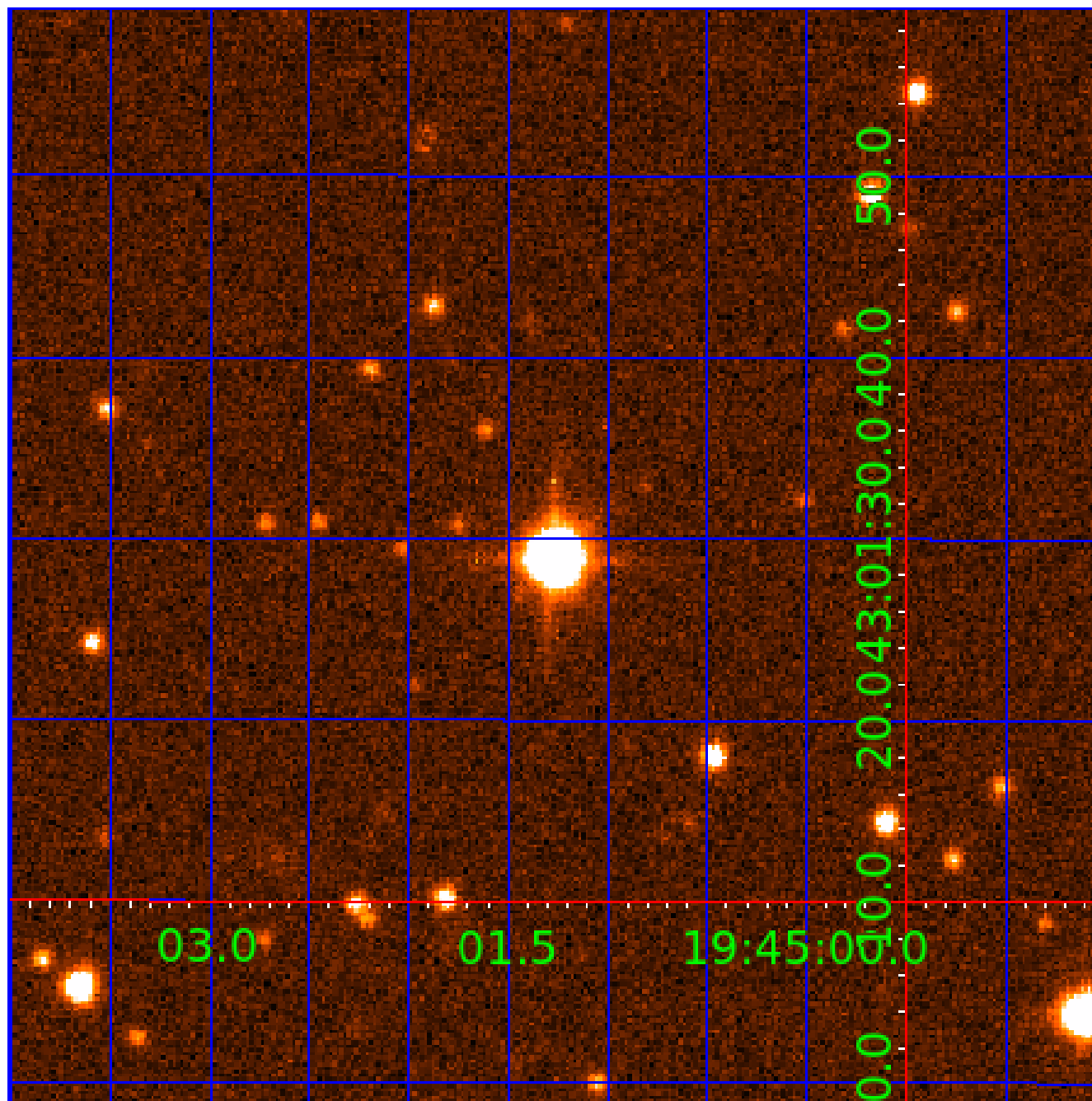


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007461375

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})
007461375-01	OBS	No	1.378885	132.370734	0.0	6.853	7.7	0.0	2.17	6867	0.04	11389.33
007461375-02	OBS	No	136.157730	189.929871	113.2	16.110	7.9	6.6	2.17	6867	2.60	24.95
007461375-03	OBS	No	67.864783	172.133279	159.7	2.304	8.1	7.8	2.17	6867	2.88	63.15
007461375-04	OBS	No	103.607738	135.874742	213.4	1.674	7.2	7.5	2.17	6867	3.21	35.92
007461375-05	OBS	No	67.420938	159.915424	122.5	2.908	7.3	6.9	2.17	6867	2.78	63.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007461375-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007461375-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS
007461375-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
007461375-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007461375-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT

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

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

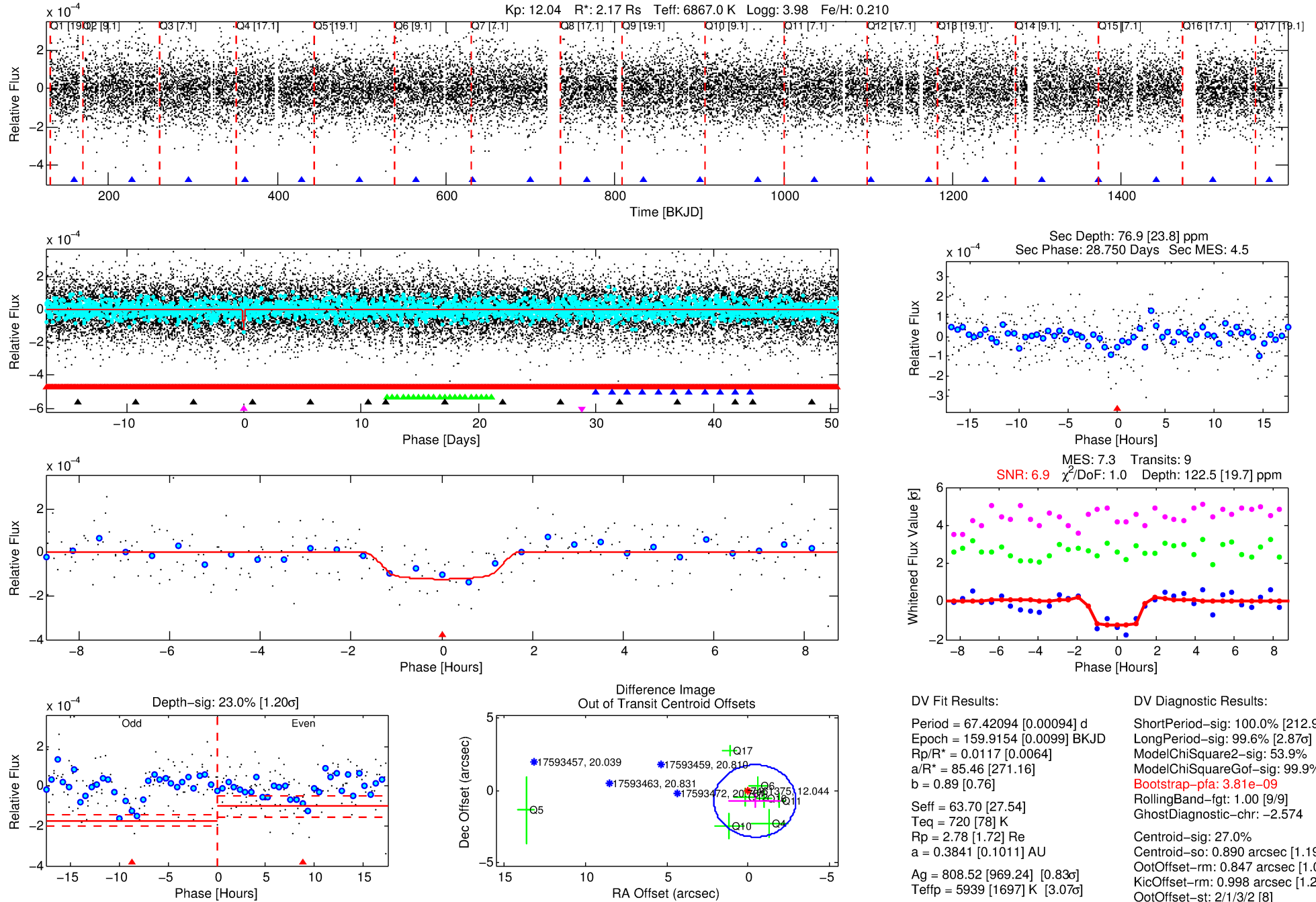
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007461375-05

No Significant Match Found

DV One-Page Summary

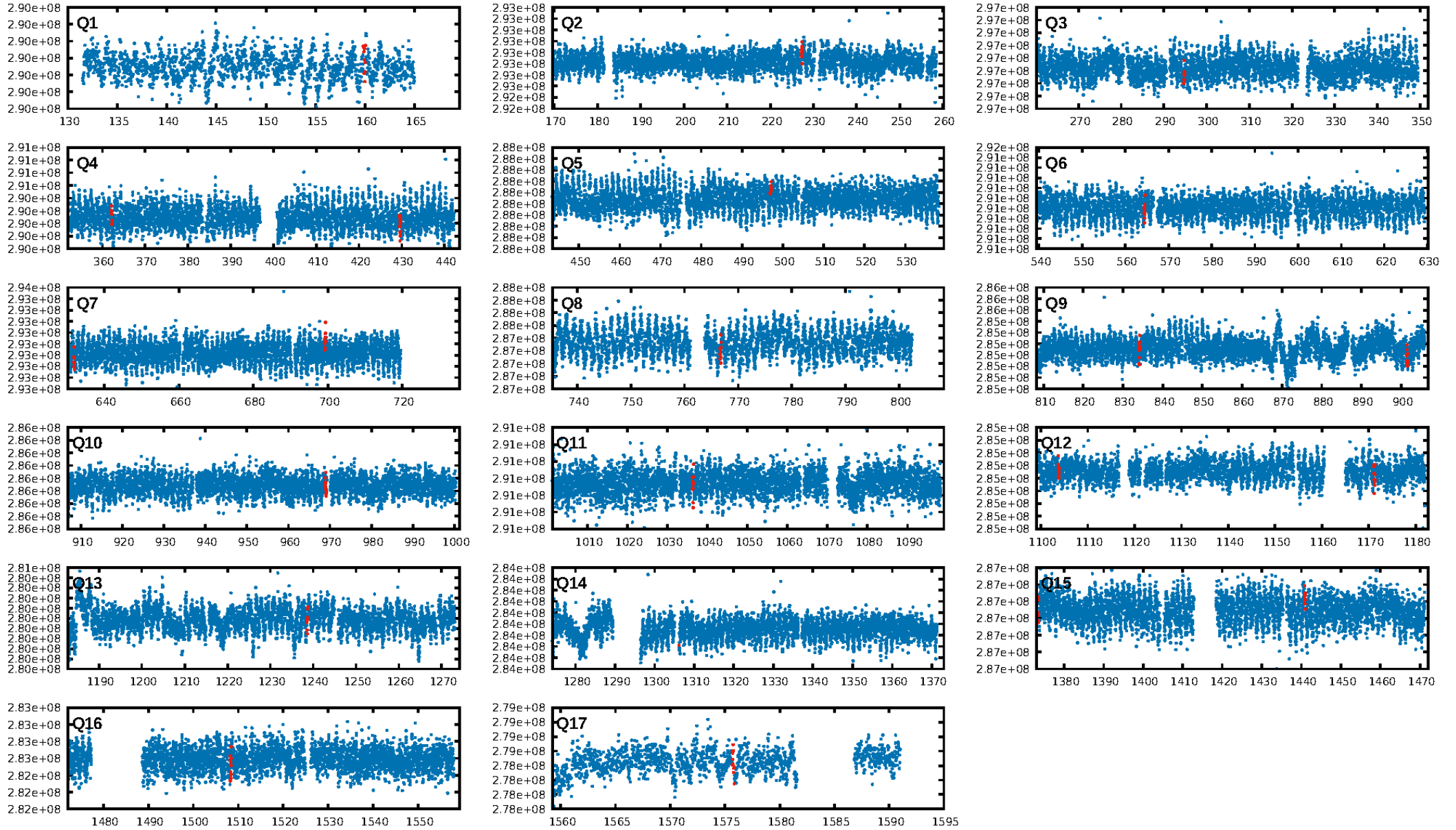
KIC: 7461375 Candidate: 5 of 5 Period: 67.421 d



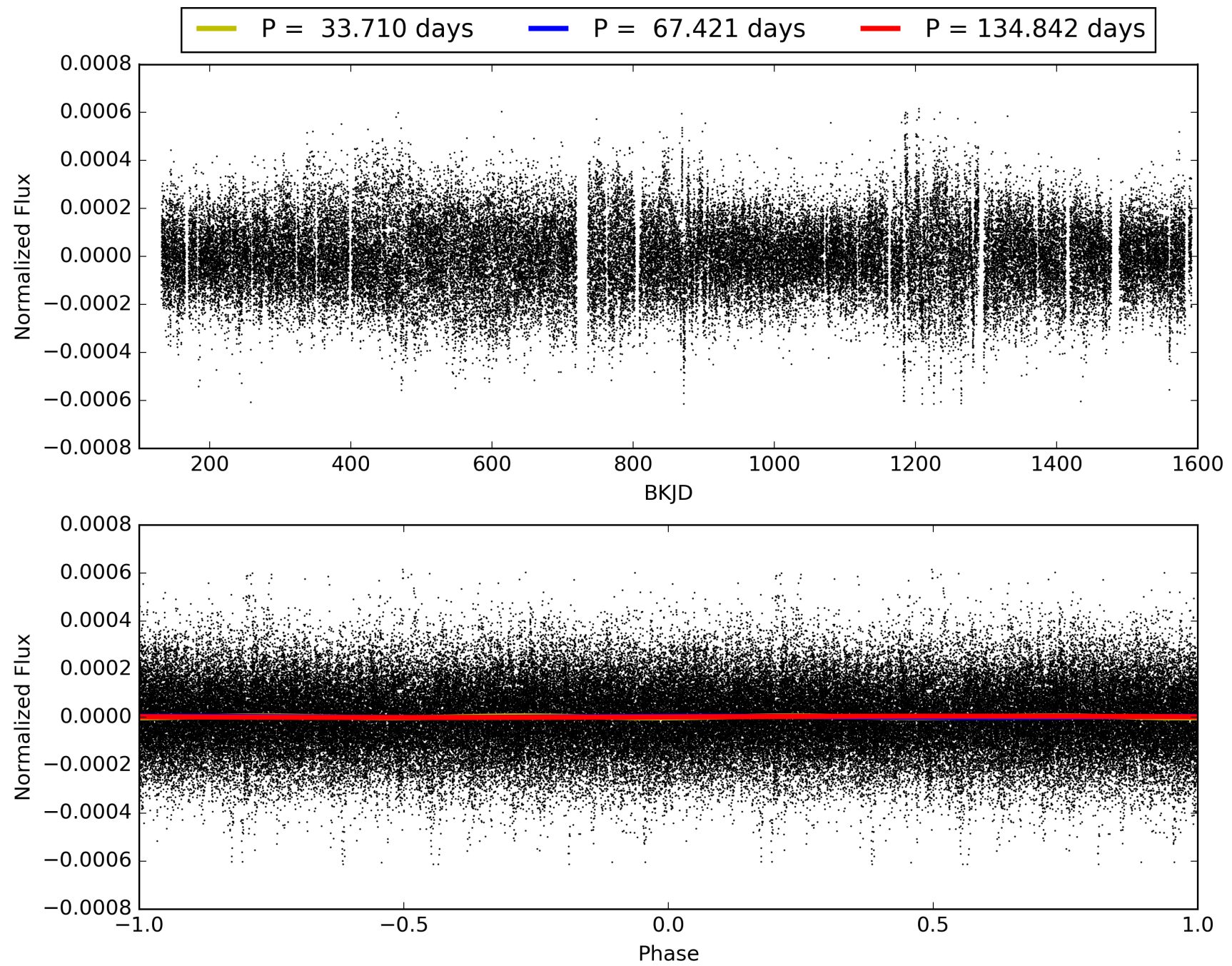
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:50:12 Z

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

TCE 007461375-05, PDC Light Curves

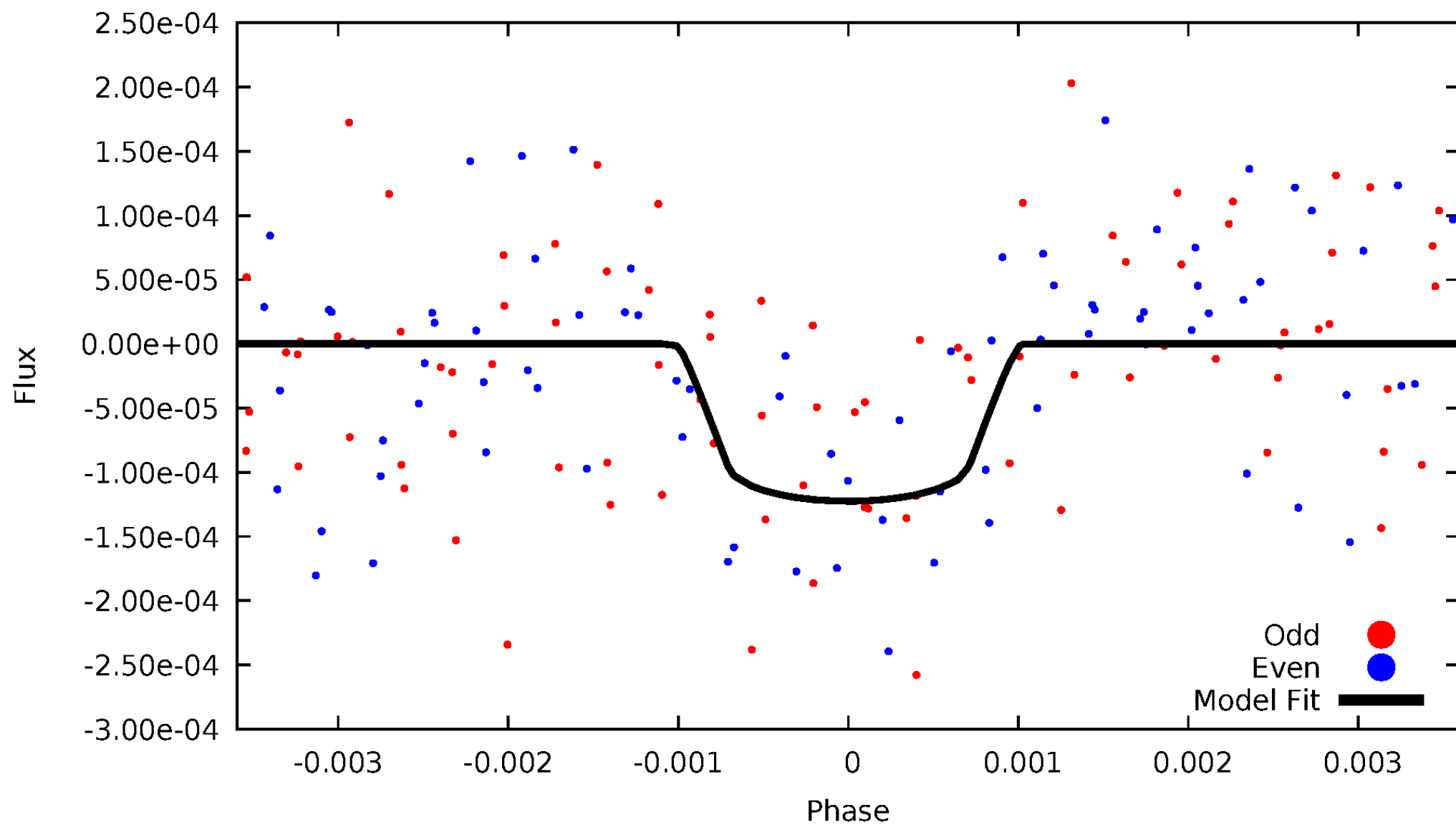


TCE 007461375-05



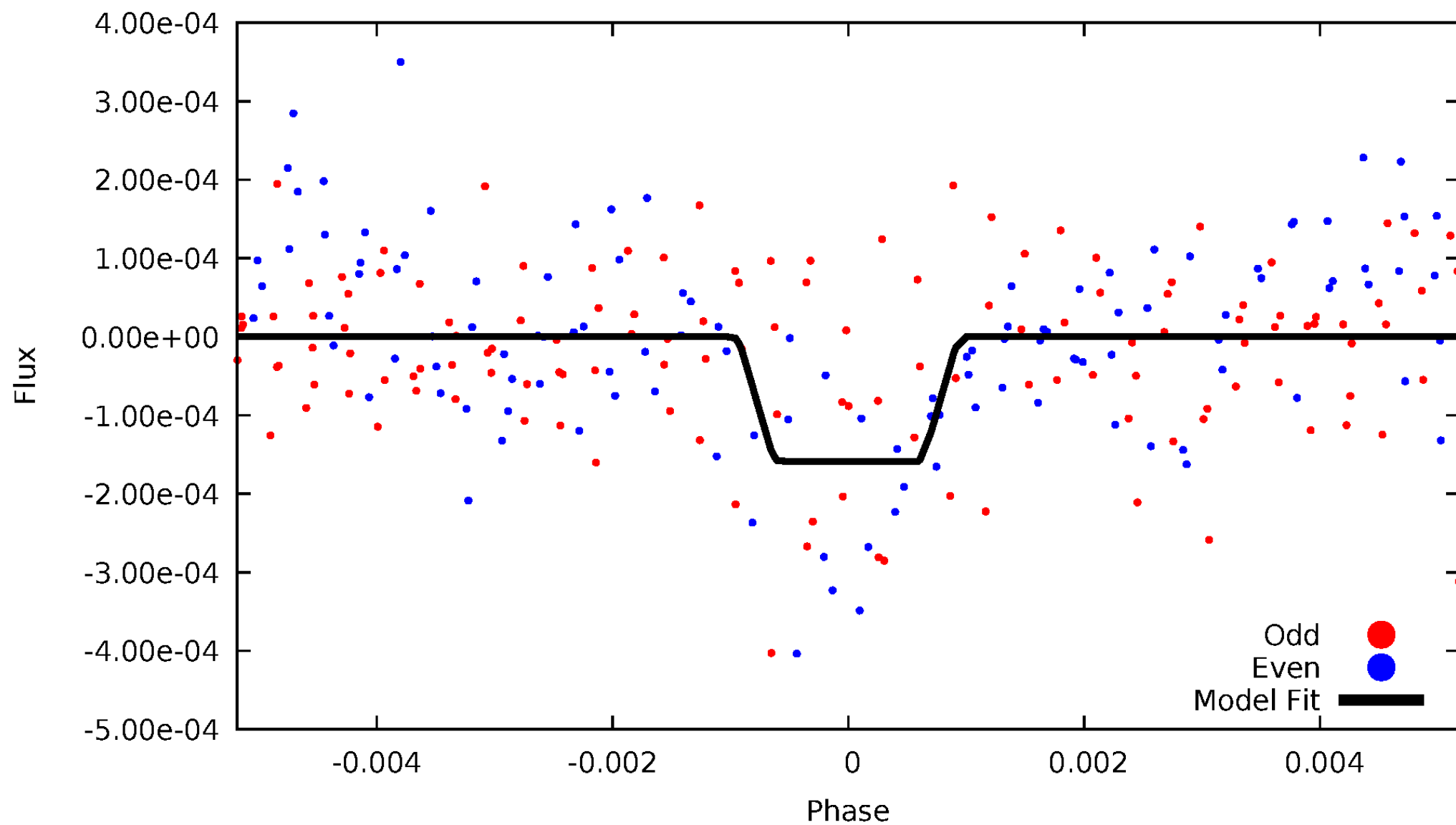
DV Odd/Even

TCE 007461375-05



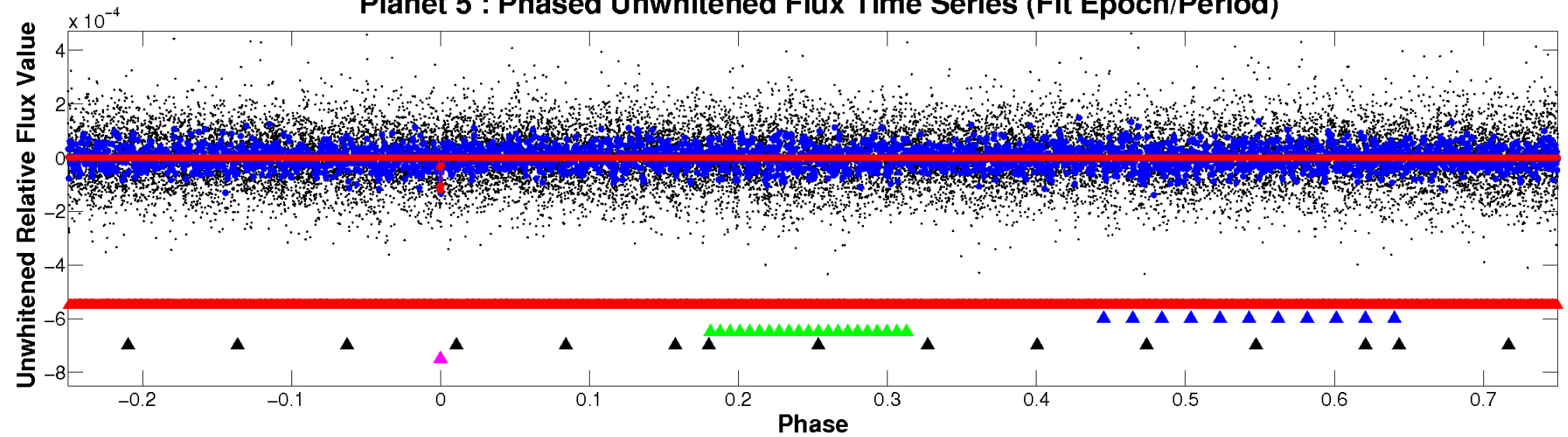
ALT Odd/Even

TCE 007461375-05

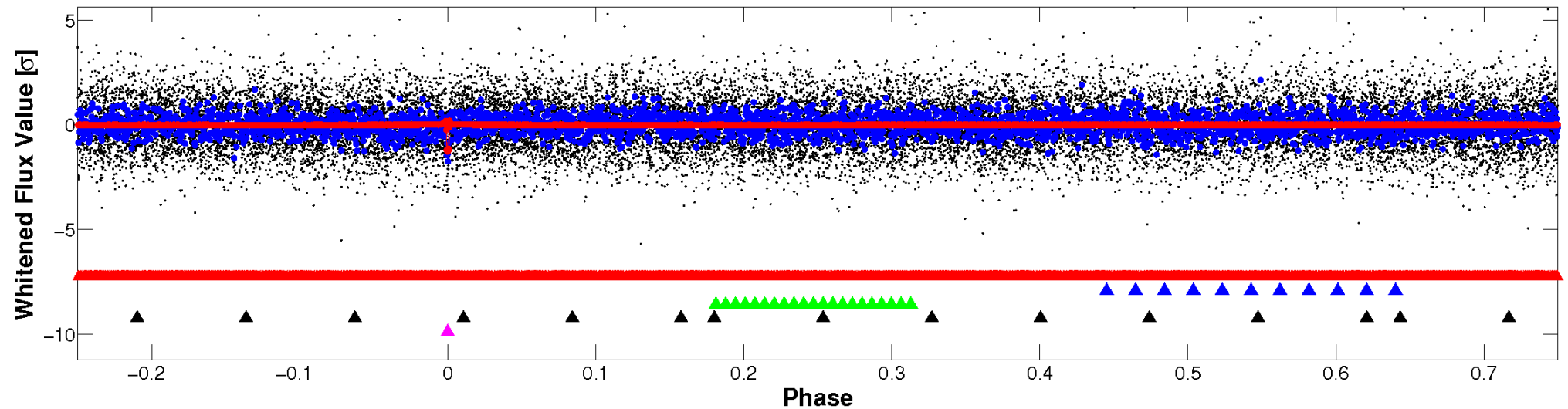


Non-Whitened Vs. Whitened Light Curve

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

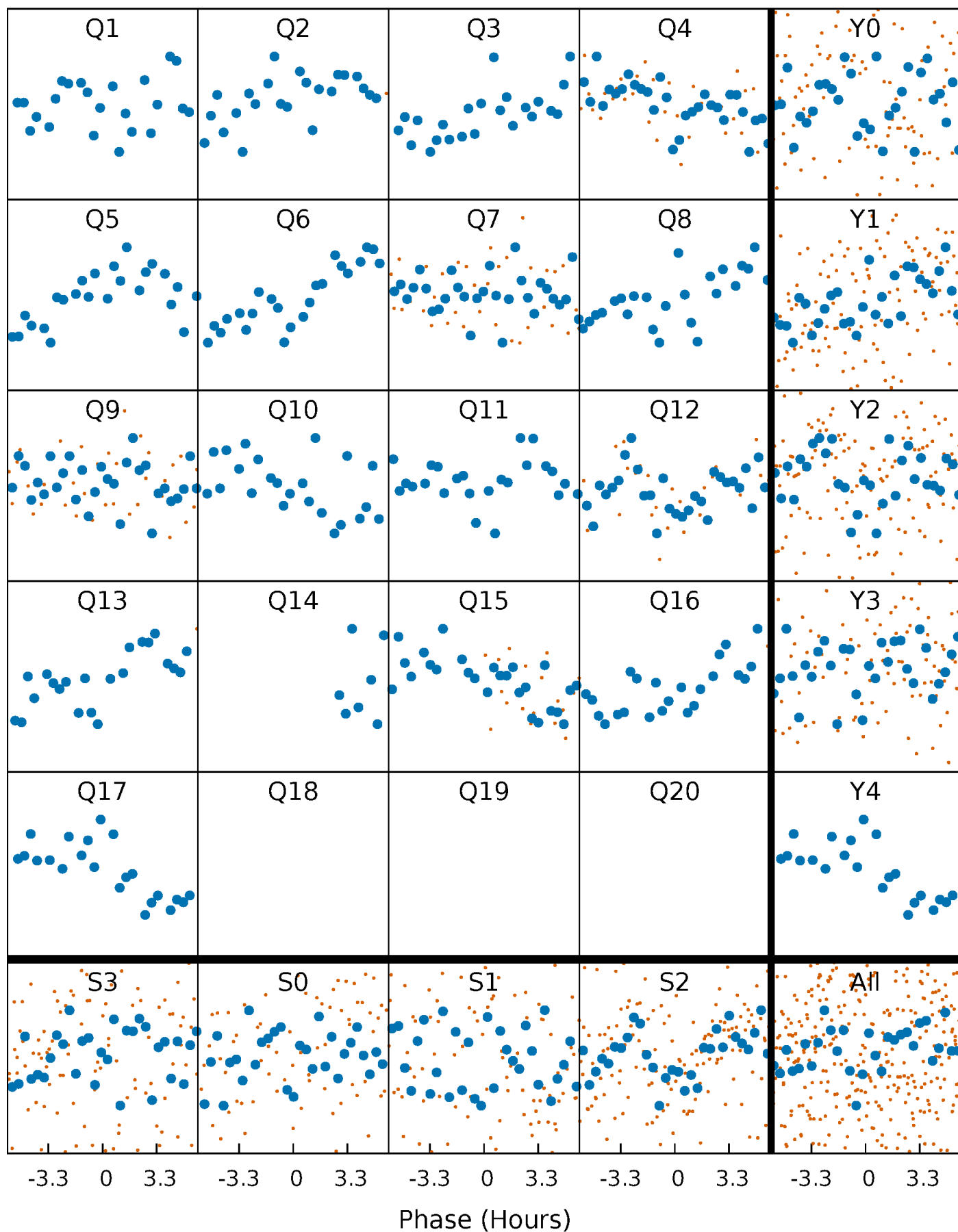


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



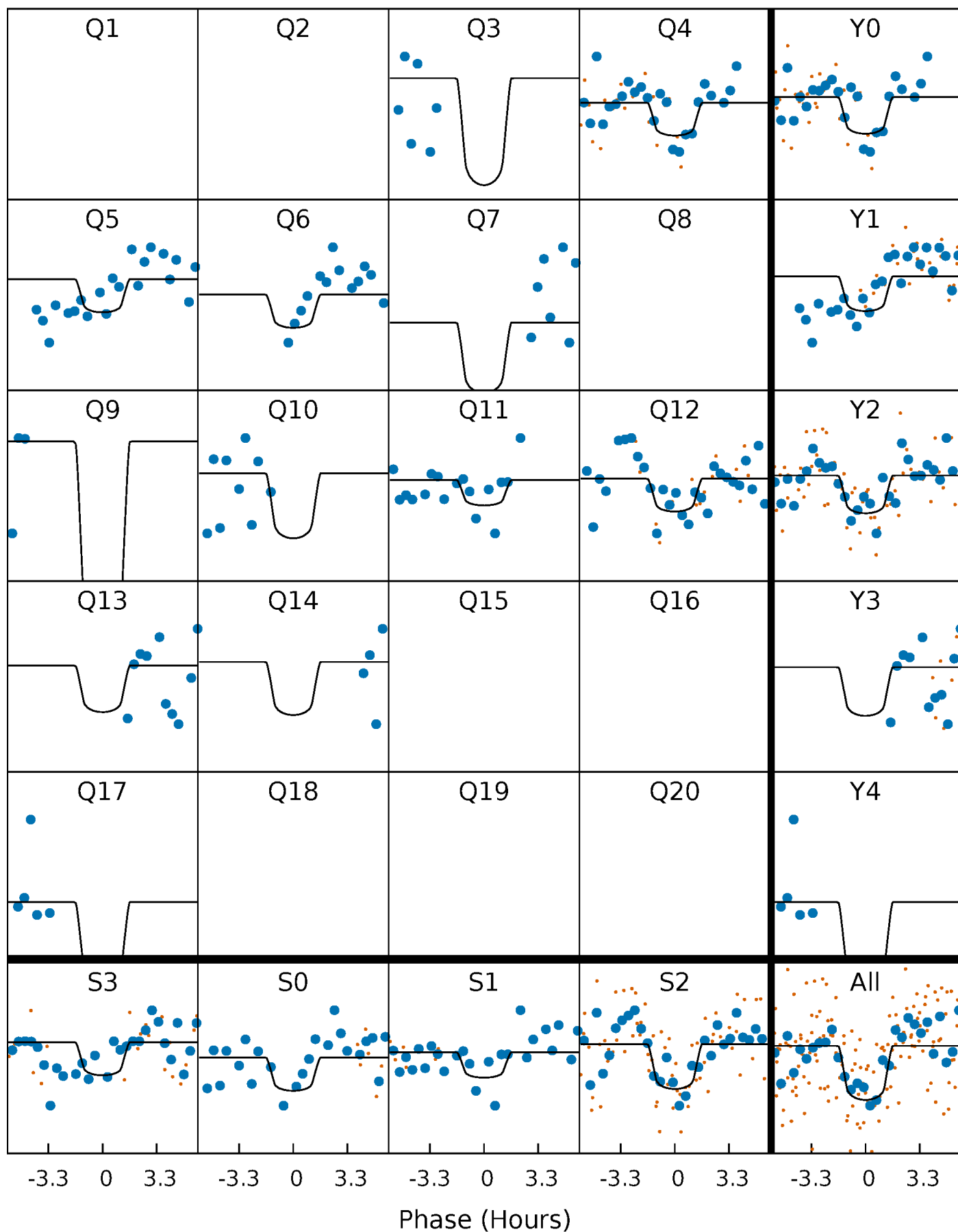
PDC Quarter-Phased Transit Curves

TCE 007461375-05 $P = 67.420938$ Days $T_0 = 159.915424$ (BKJD)



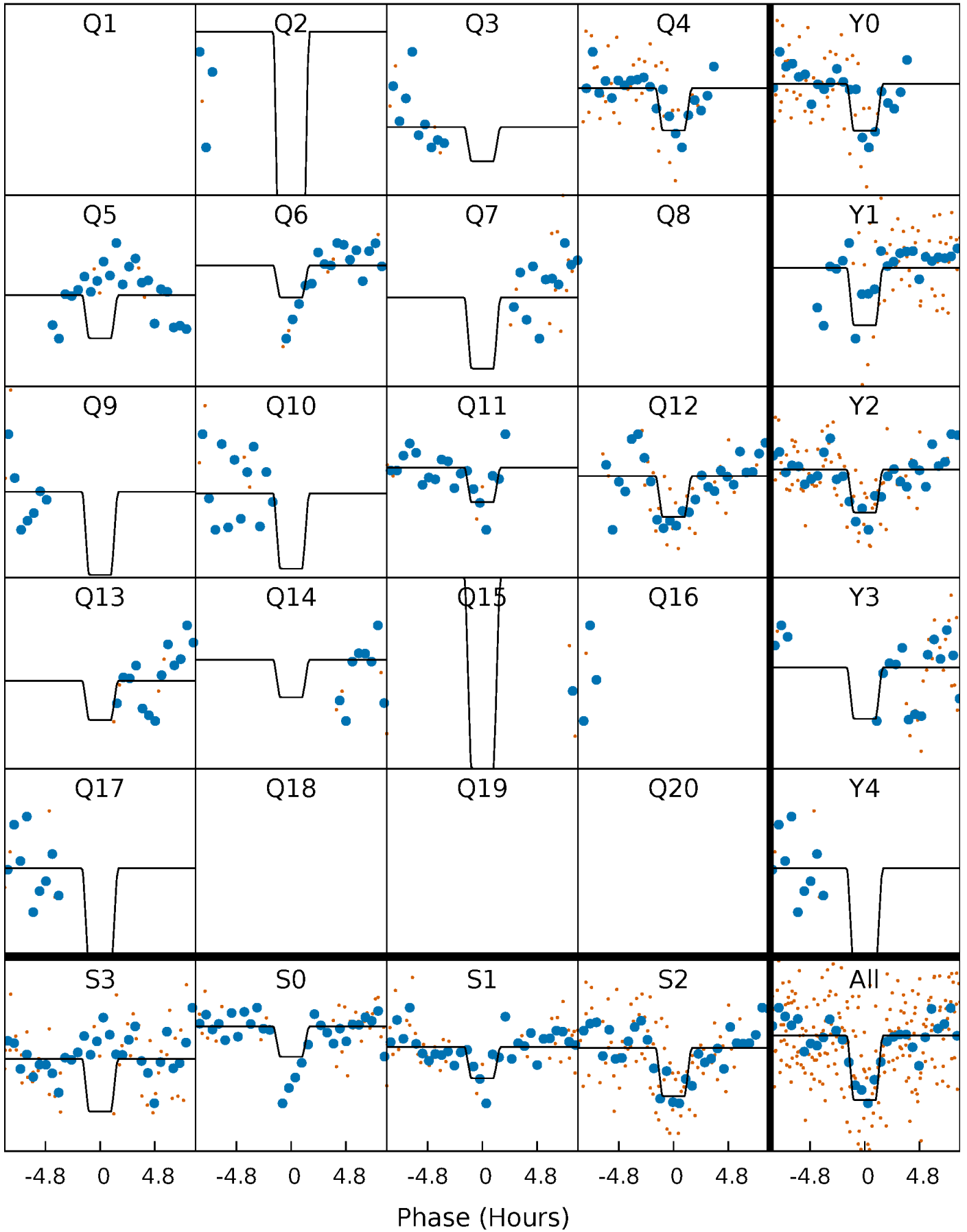
DV Quarter-Phased Transit Curves

TCE 007461375-05 P= 67.420938 Days $T_0=159.915424$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

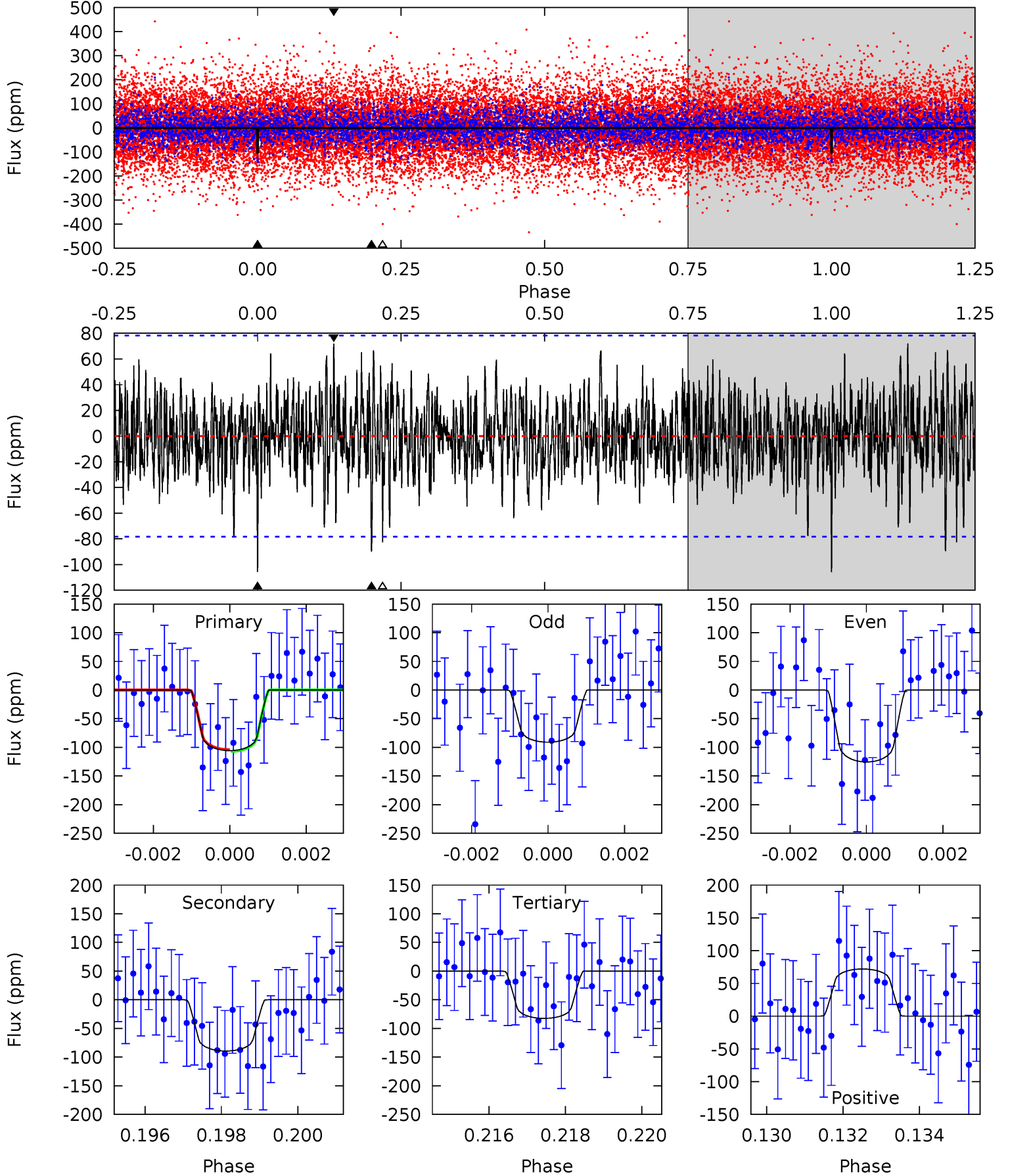
TCE 007461375-05 $P = 67.420600$ Days $T_0 = 159.926272$ (BKJD)



DV Model-Shift Uniqueness Test

007461375-05, P = 67.420938 Days, E = 92.494486 Days

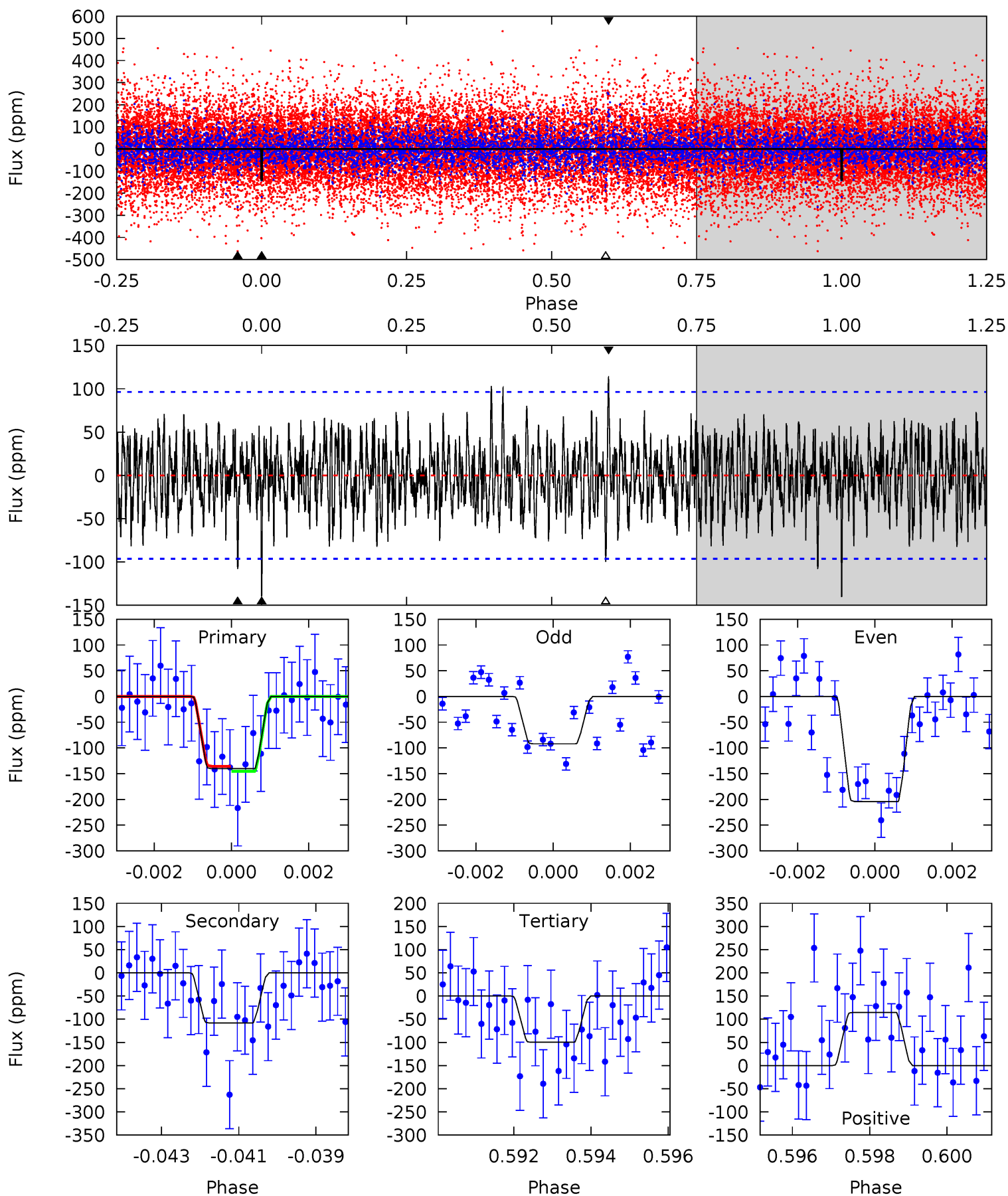
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.20	6.09	5.61	4.90	5.33	3.09	1.53	1.58	2.30	0.48	1.19	1.17	0.89	0.41	0.10



Alt Model-Shift Uniqueness Test

007461375-05, P = 67.420600 Days, E = 92.505672 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.76	5.99	5.52	6.34	5.33	3.10	1.70	2.24	1.42	0.47	-0.35	3.09	0.91	0.45	0.27



Stellar Parameters For KIC 007461375

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6867^{+192}_{-288}	$3.985^{+0.225}_{-0.184}$	$0.210^{+0.150}_{-0.350}$	$2.172^{+0.647}_{-0.647}$	$1.661^{+0.183}_{-0.314}$	$0.228^{+0.299}_{-0.112}$
	+3%/-4%	+6%/-5%	+71%/-167%	+30%/-30%	+11%/-19%	+131%/-49%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007461375-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-89 ± 15	$2.79^{+1.63}_{-1.39}$	995^{+83}_{-72}	5960^{+2734}_{-1019}	876^{+2775}_{-512}
Alt.	-108 ± 18	$2.95^{+1.56}_{-1.45}$	1002^{+86}_{-77}	6198^{+2699}_{-1132}	976^{+2775}_{-561}

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 $A_{obs} \gg 1.0$

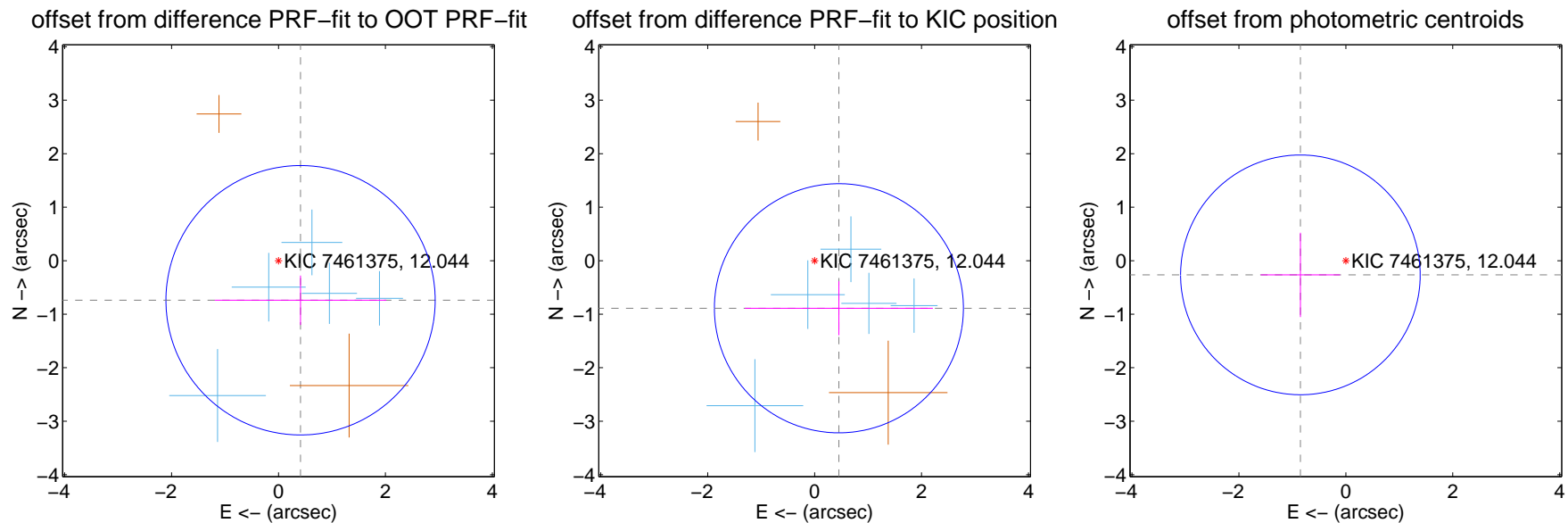
DV Centroid Data

Supplemental centroid analysis for 007461375-05. Kepler magnitude: 12.04. Transit SNR 6.95

There are 5 quarters with good PRF difference image offsets

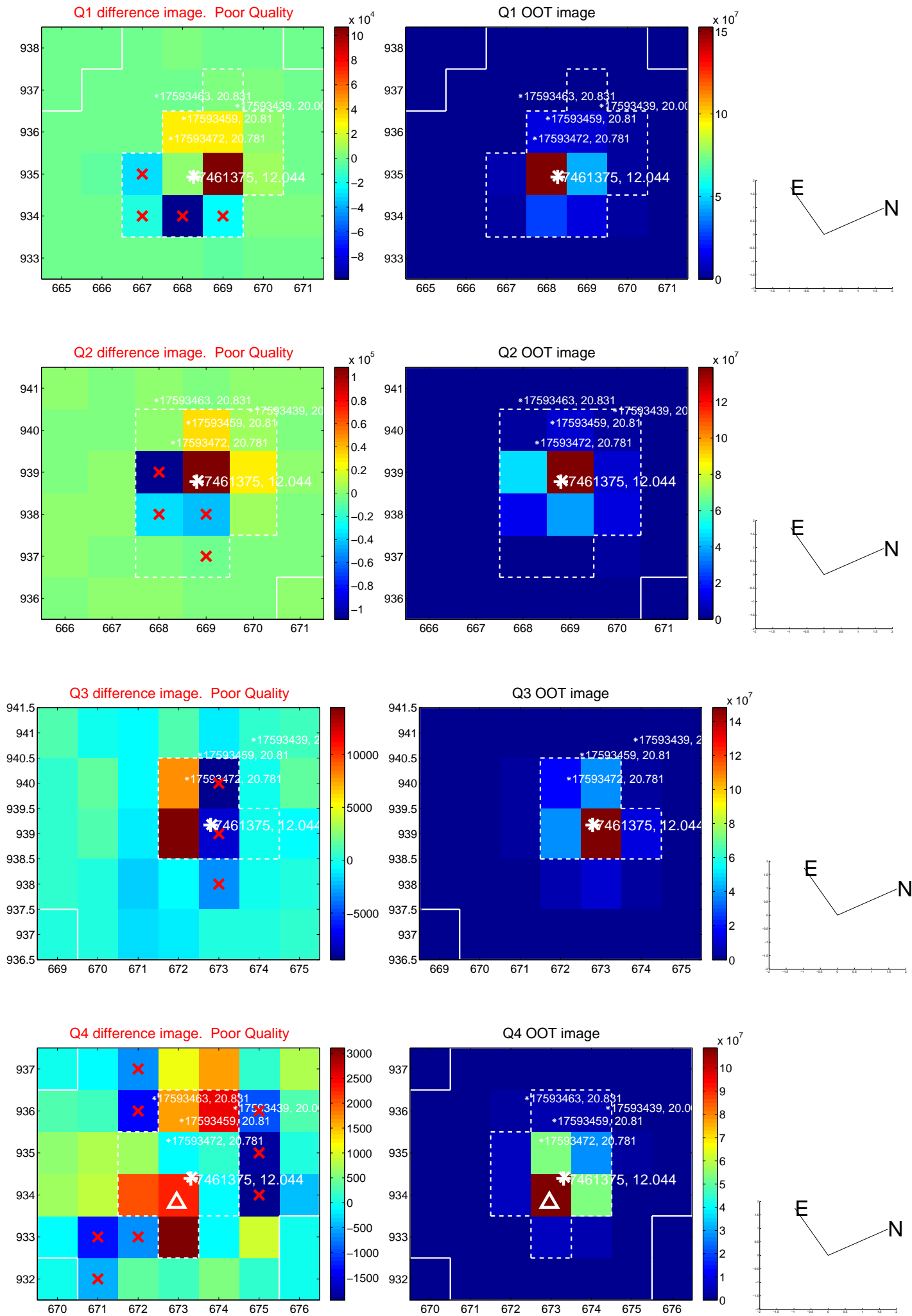
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.847 ± 0.839	1.01	-0.413 ± 1.604	-0.739 ± 0.462
PRF-fit source offset from KIC position	0.998 ± 0.776	1.29	-0.454 ± 1.759	-0.889 ± 0.505
photometric centroid source offset	0.89 ± 0.75	1.19	0.85 ± 0.74	-0.27 ± 0.79

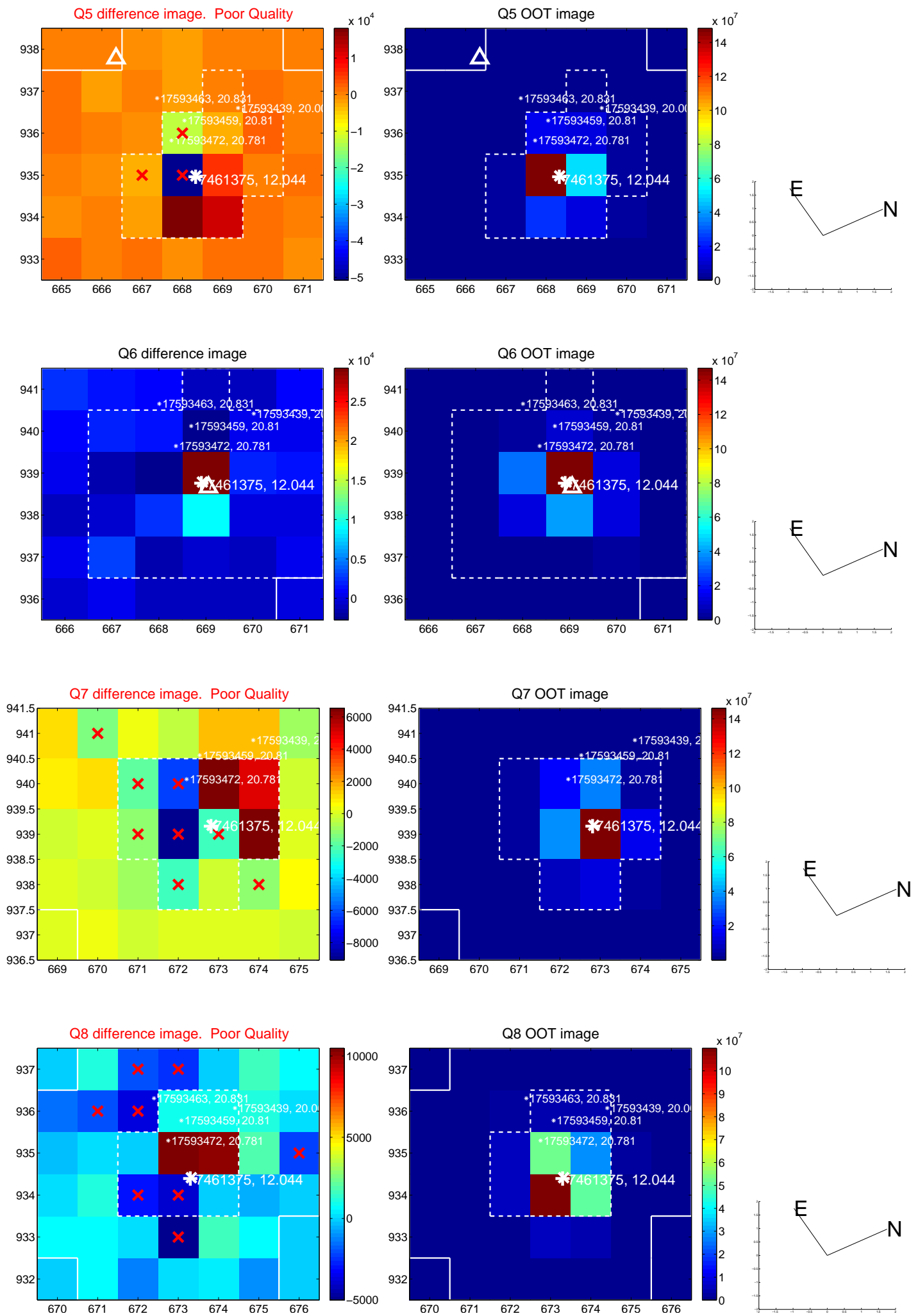


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

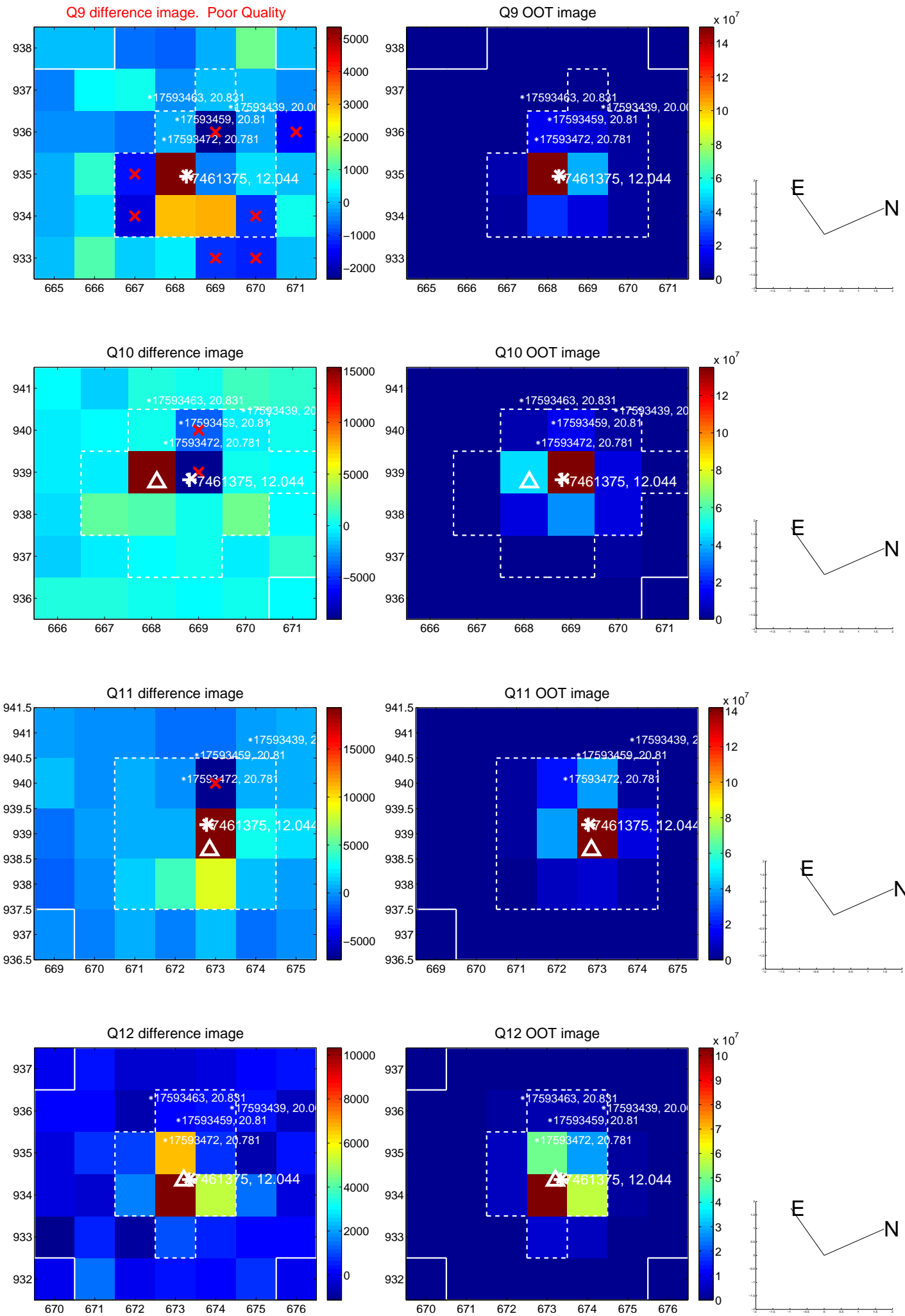
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



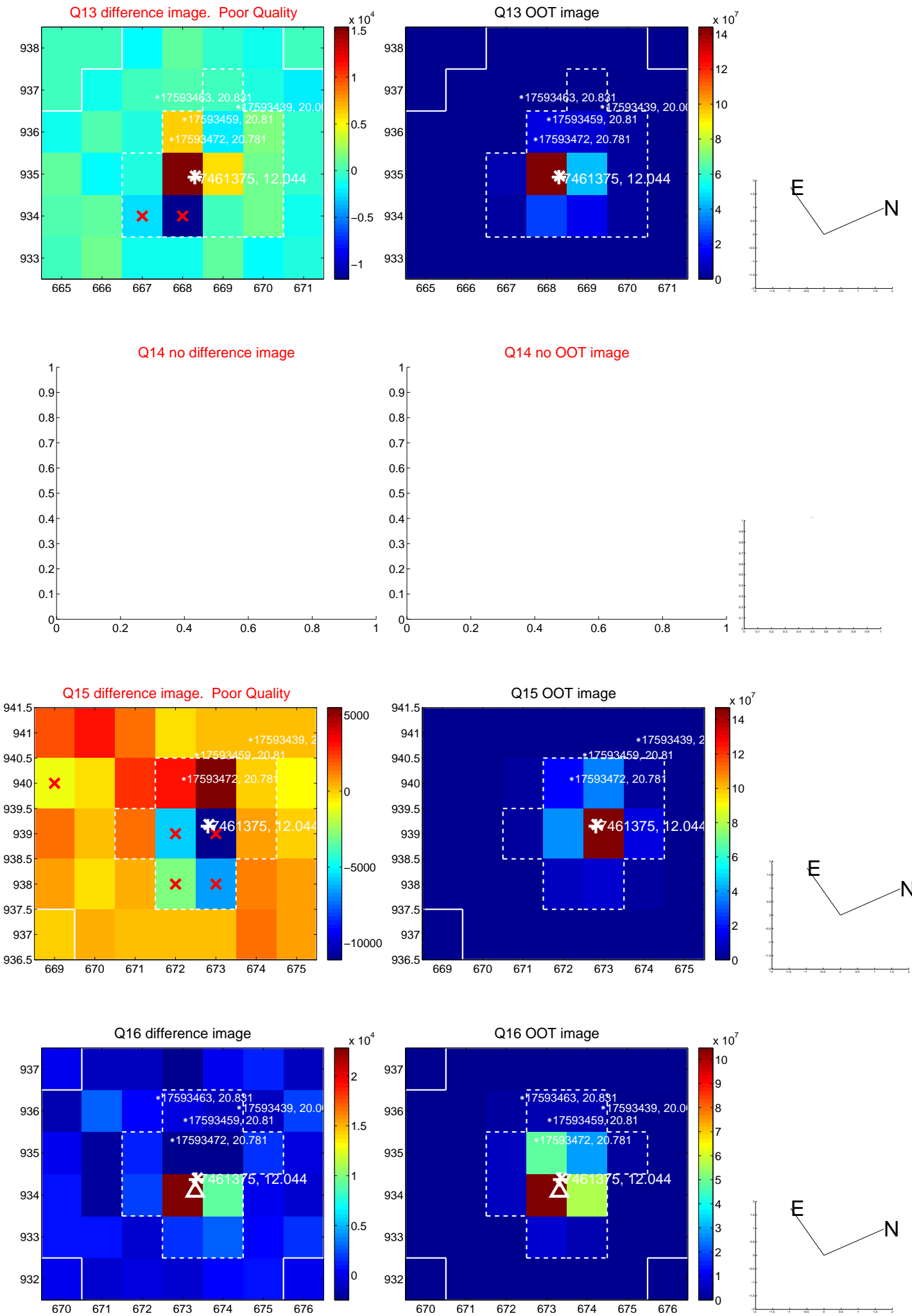
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



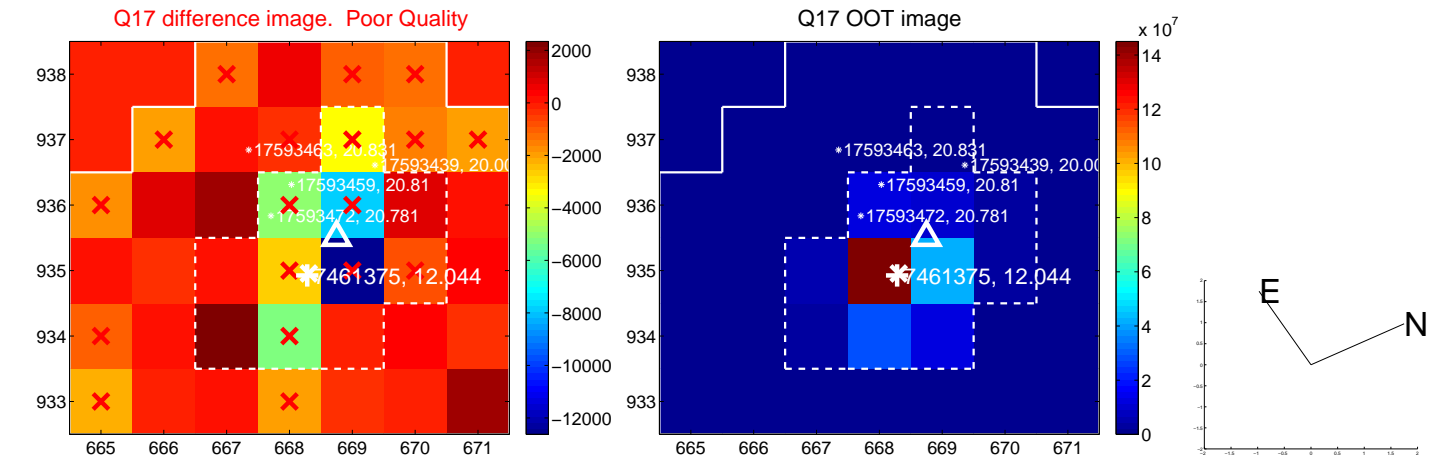
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



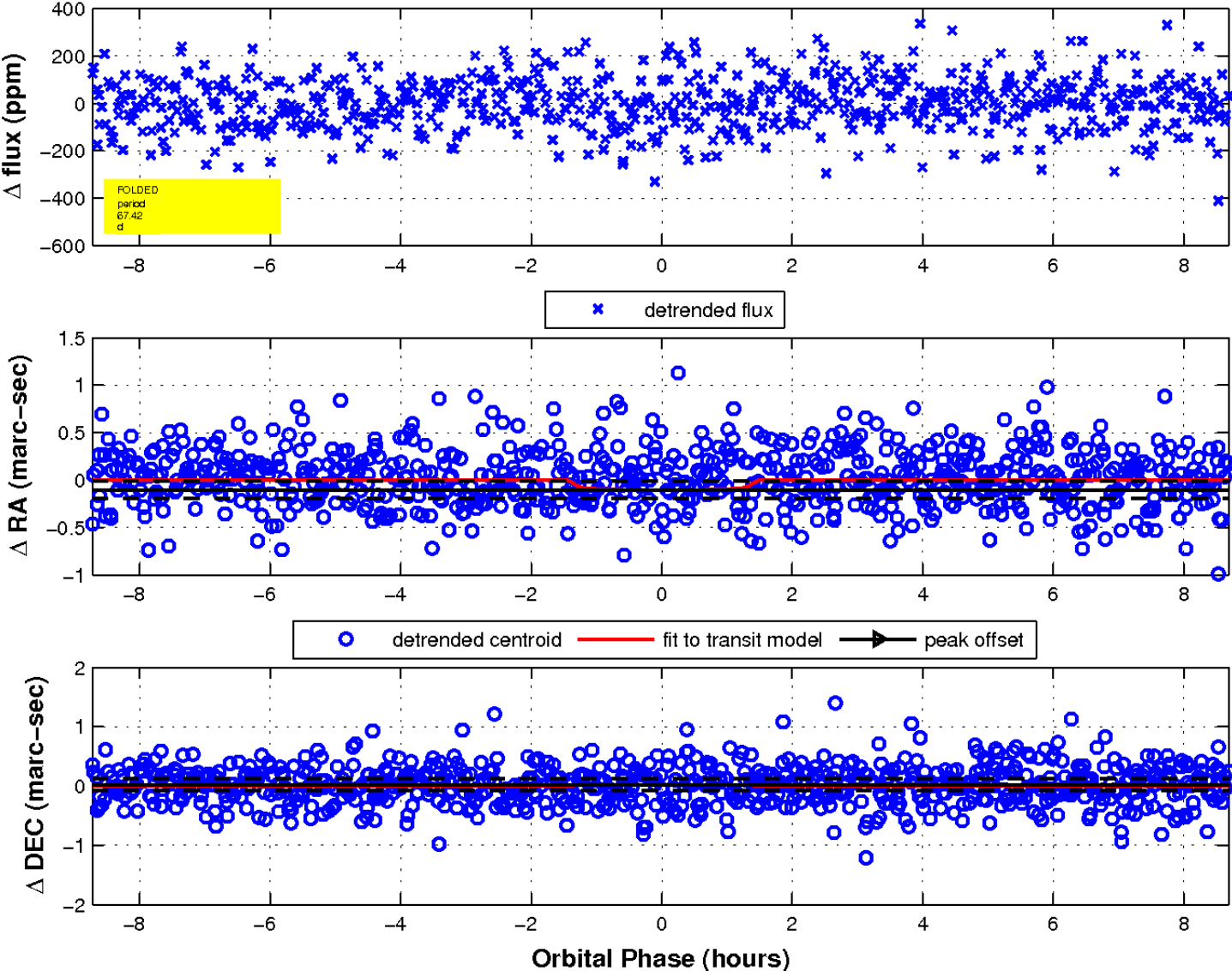
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 5 of 5



UKIRT Image

Declination

