

KIC 007458697

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})
007458697-01	OBS	No	1.009113	132.190545	68.9	1.107	12.3	12.0	3.05	8055	2.96	53845.51
007458697-02	OBS	No	0.504546	131.858950	54.0	1.238	11.2	13.2	3.05	8055	2.34	135685.91
007458697-03	OBS	No	1.009107	132.025997	47.6	2.310	9.5	10.2	3.05	8055	2.43	53845.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007458697-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007458697-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
007458697-03	OBS	FP	0.00	1	0	0	0	LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD

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

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

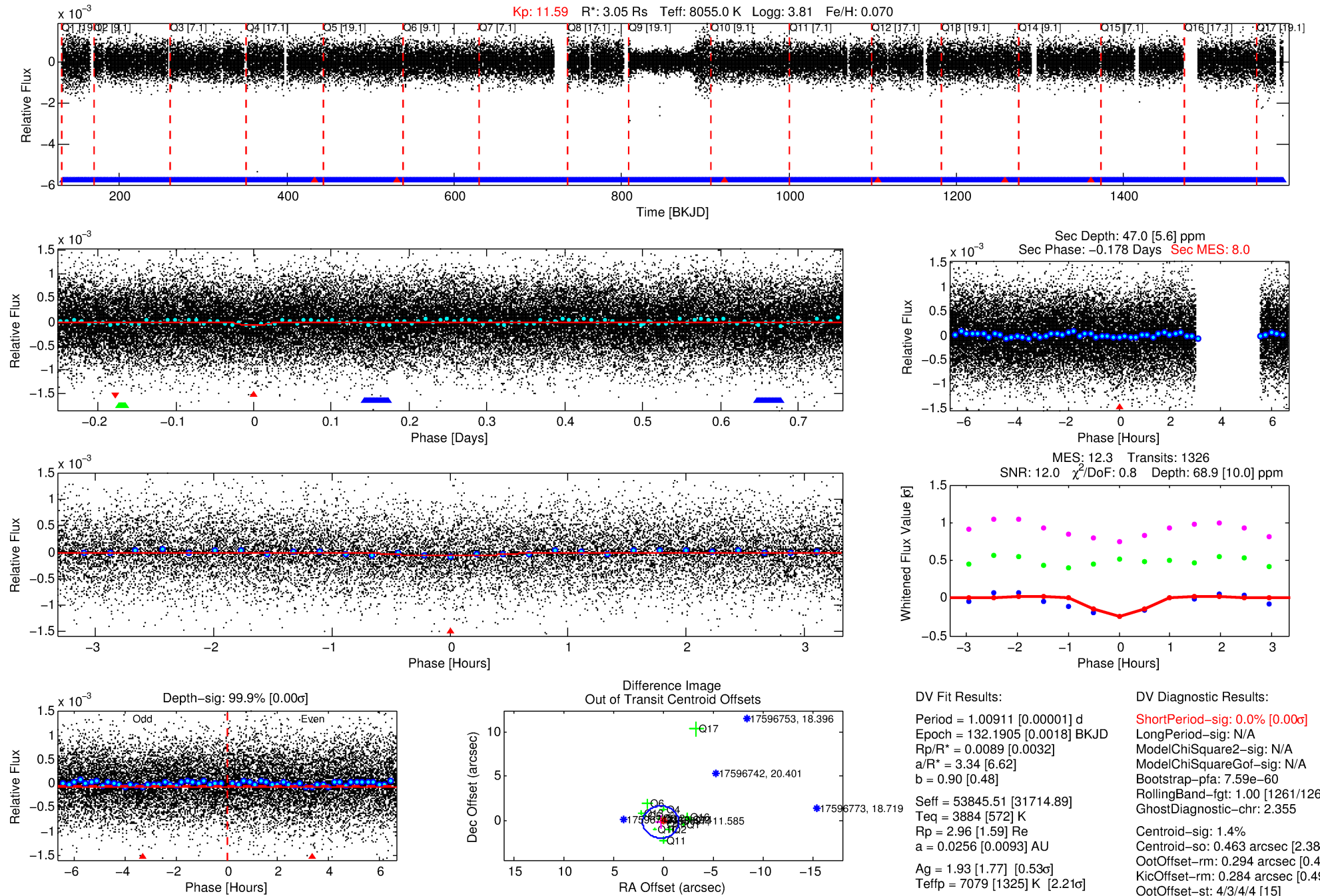
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007458697-01

No Significant Match Found

DV One-Page Summary

KIC: 7458697 Candidate: 1 of 3 Period: 1.009 d



DV Fit Results:

Period = 1.00911 [0.00001] d
Epoch = 132.1905 [0.0018] BKJD
Rp/R* = 0.0089 [0.0032]
a/R* = 3.34 [6.62]
b = 0.90 [0.48]
Seff = 53845.51 [31714.89]
Teff = 3884 [572] K
Rp = 2.96 [1.59] Re
a = 0.0256 [0.0093] AU
Ag = 1.93 [1.77] [0.53 σ]
Teffp = 7079 [1325] K [2.21 σ]

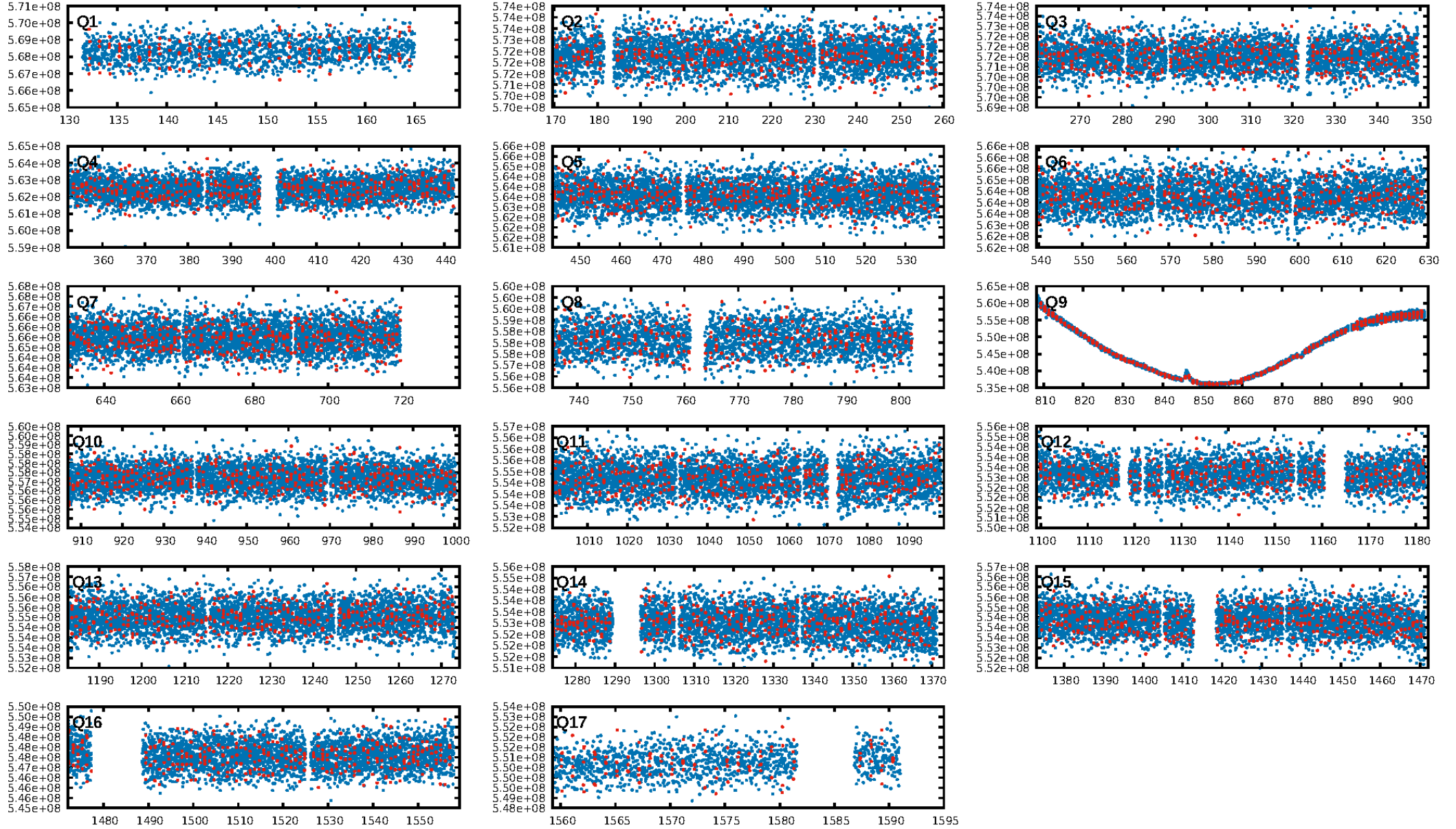
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.59e-60
RollingBand-fgt: 1.00 [1261/1267]
GhostDiagnostic-chr: 2.355
Centroid-sig: 1.4%
Centroid-so: 0.463 arcsec [2.38 σ]
OotOffset-rm: 0.294 arcsec [0.49 σ]
KicOffset-rm: 0.284 arcsec [0.49 σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.73 [11/15]
DiffImageOverlap-fno: 0.00 [0/17]

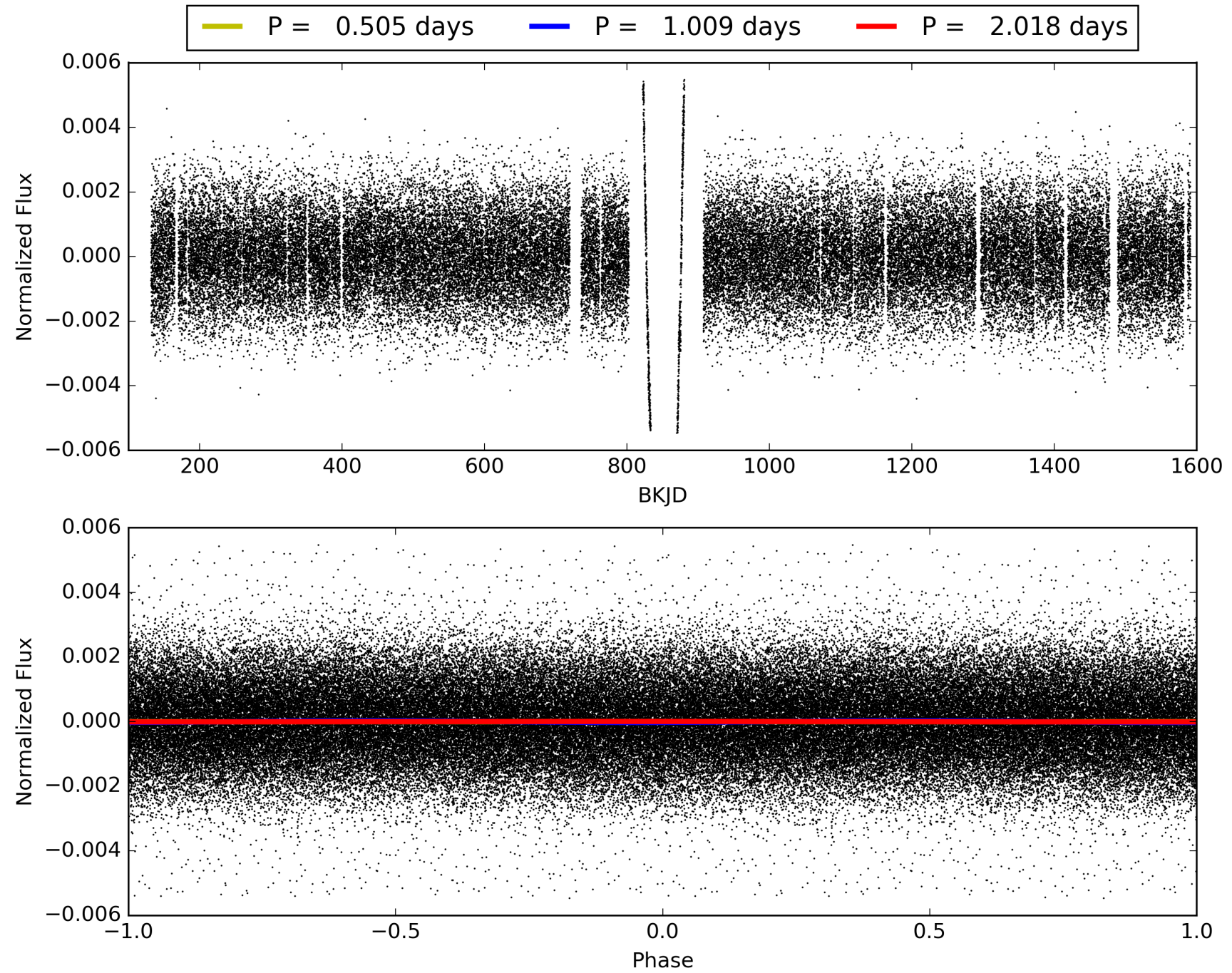
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:23:36 Z

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

TCE 007458697-01, PDC Light Curves

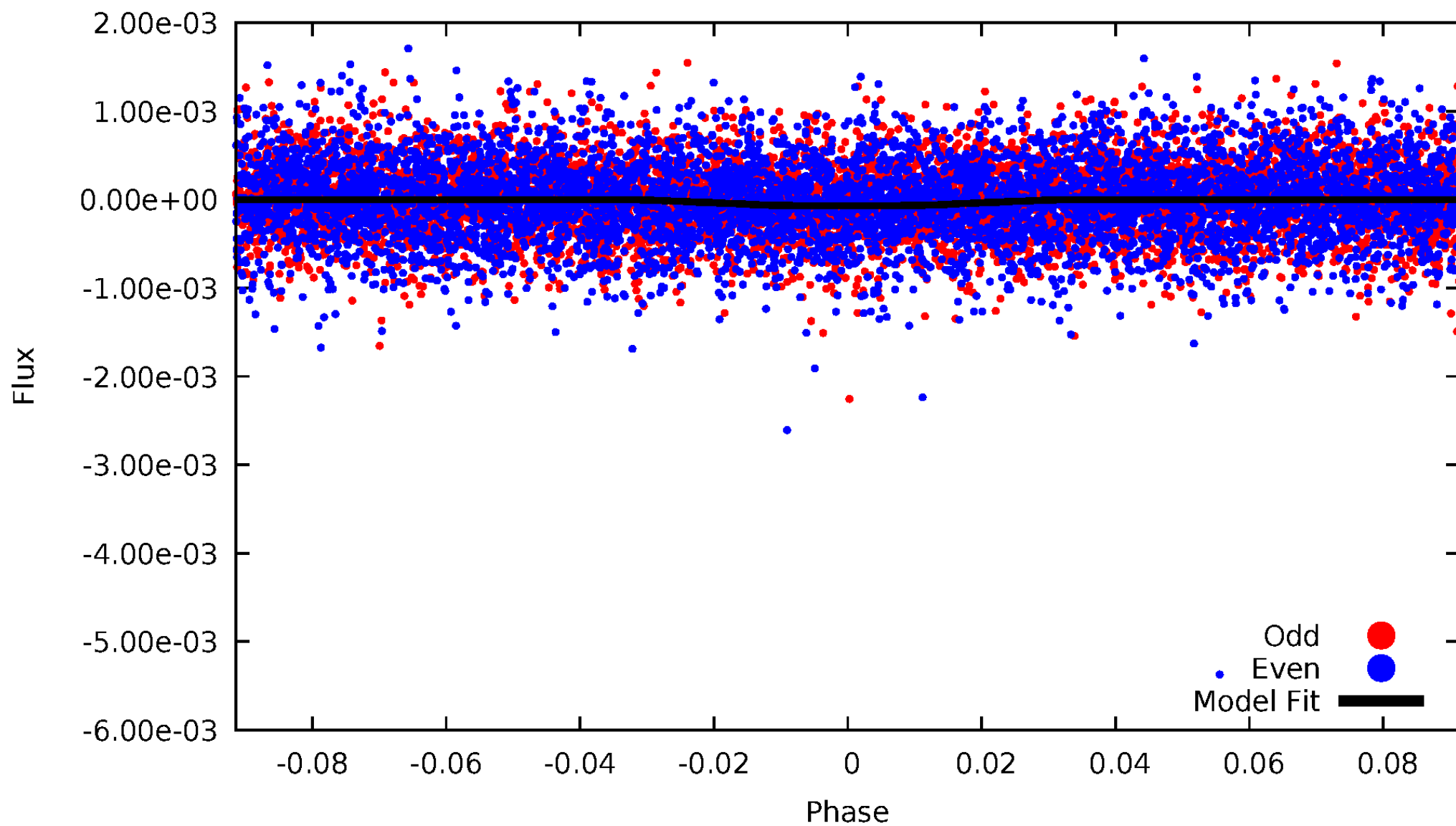


TCE 007458697-01



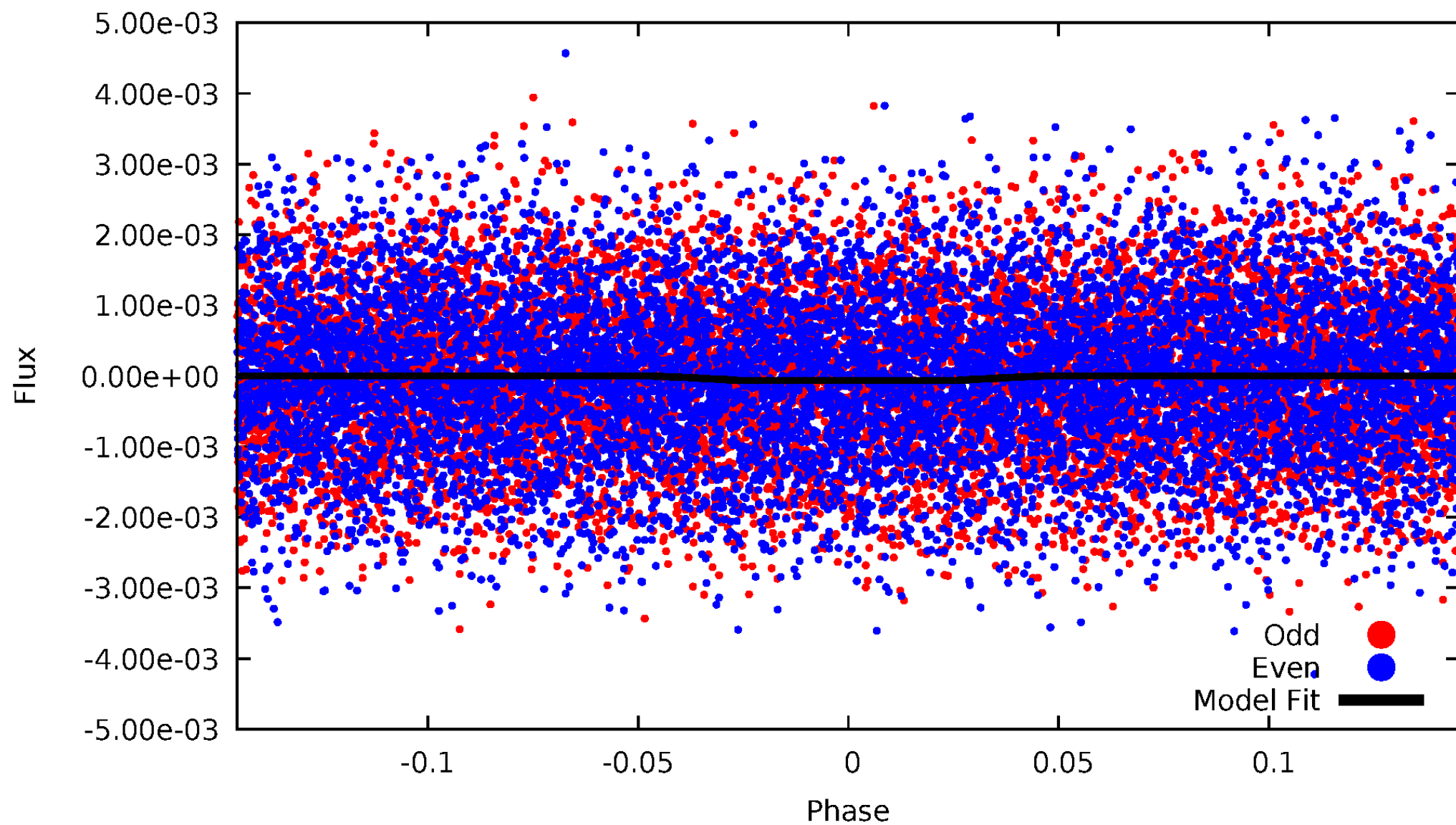
DV Odd/Even

TCE 007458697-01

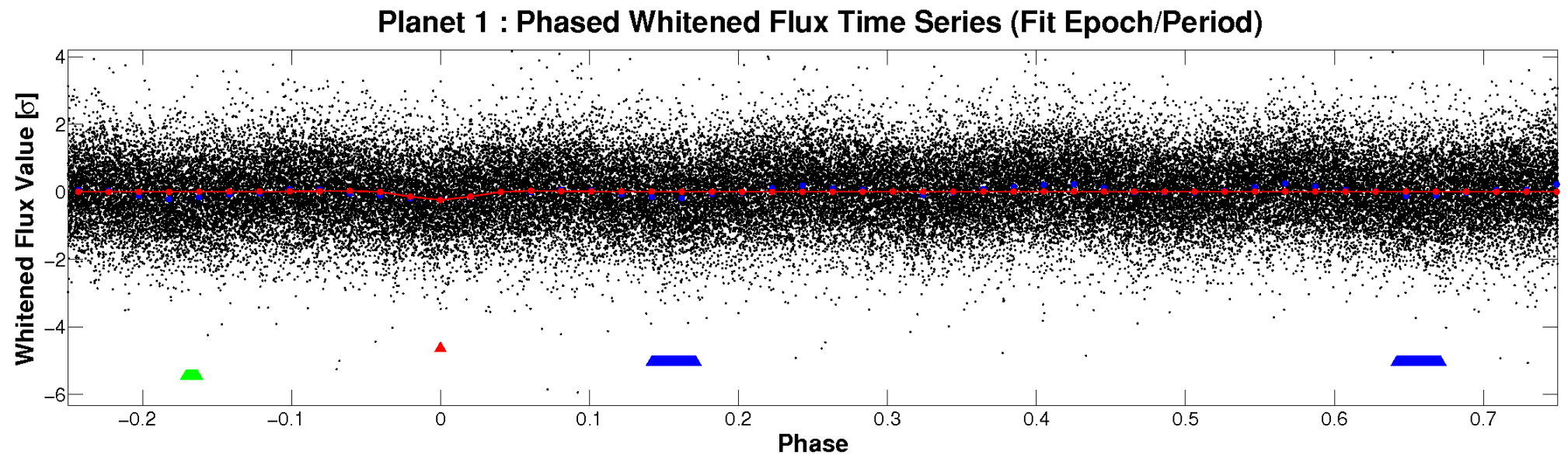
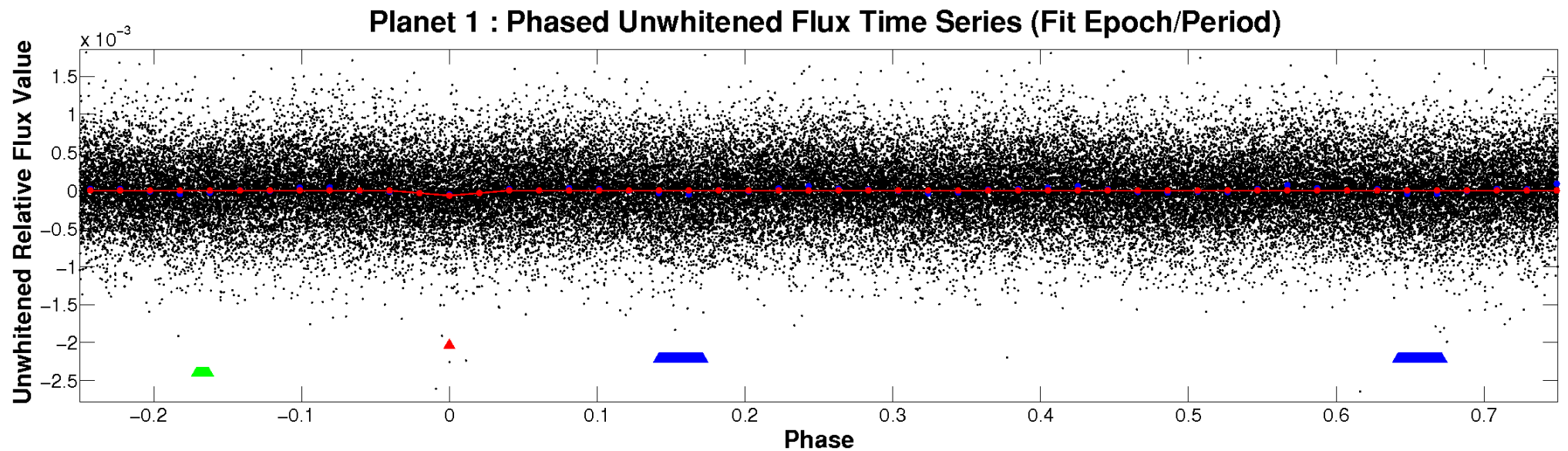


ALT Odd/Even

TCE 007458697-01

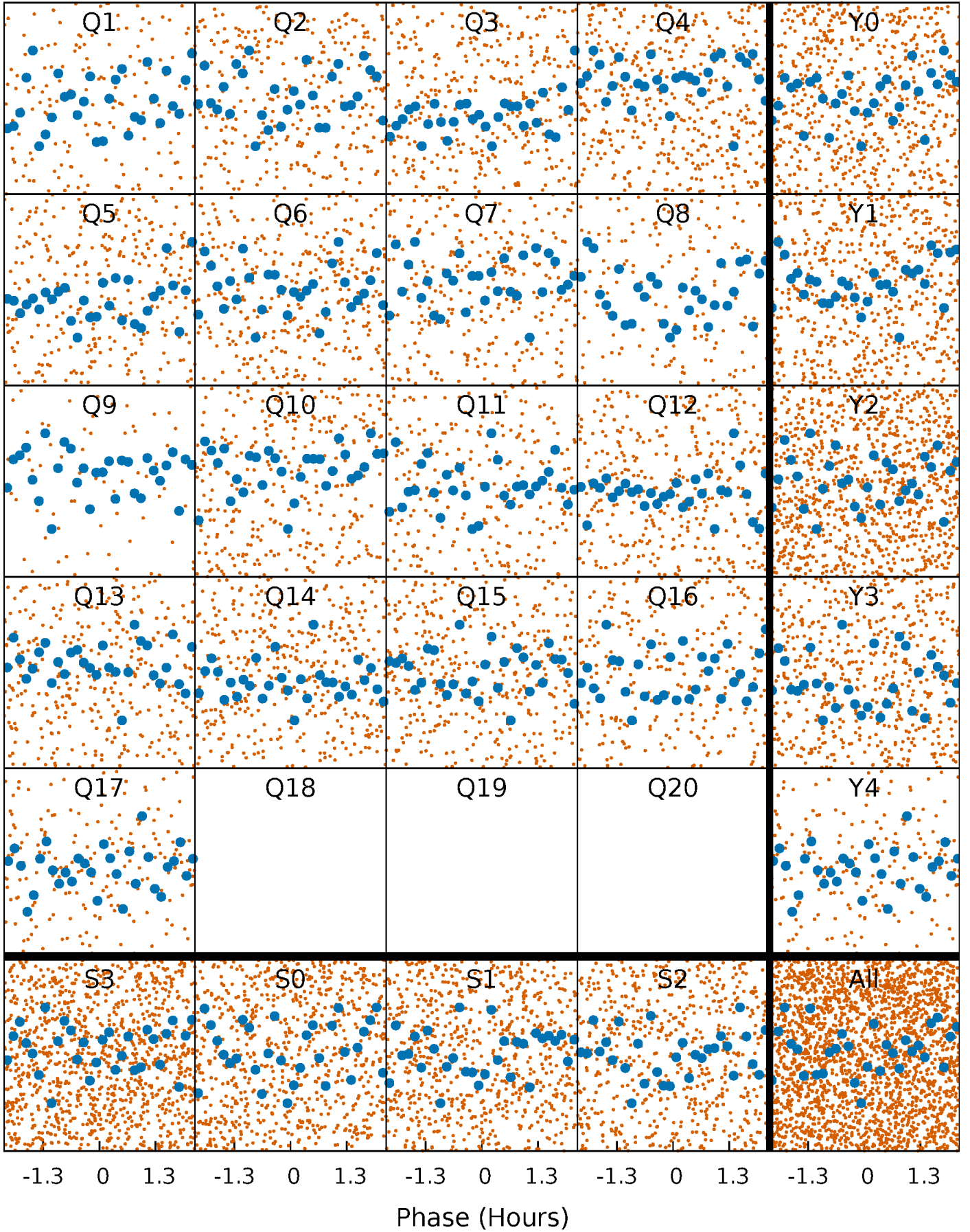


Non-Whitened Vs. Whitened Light Curve



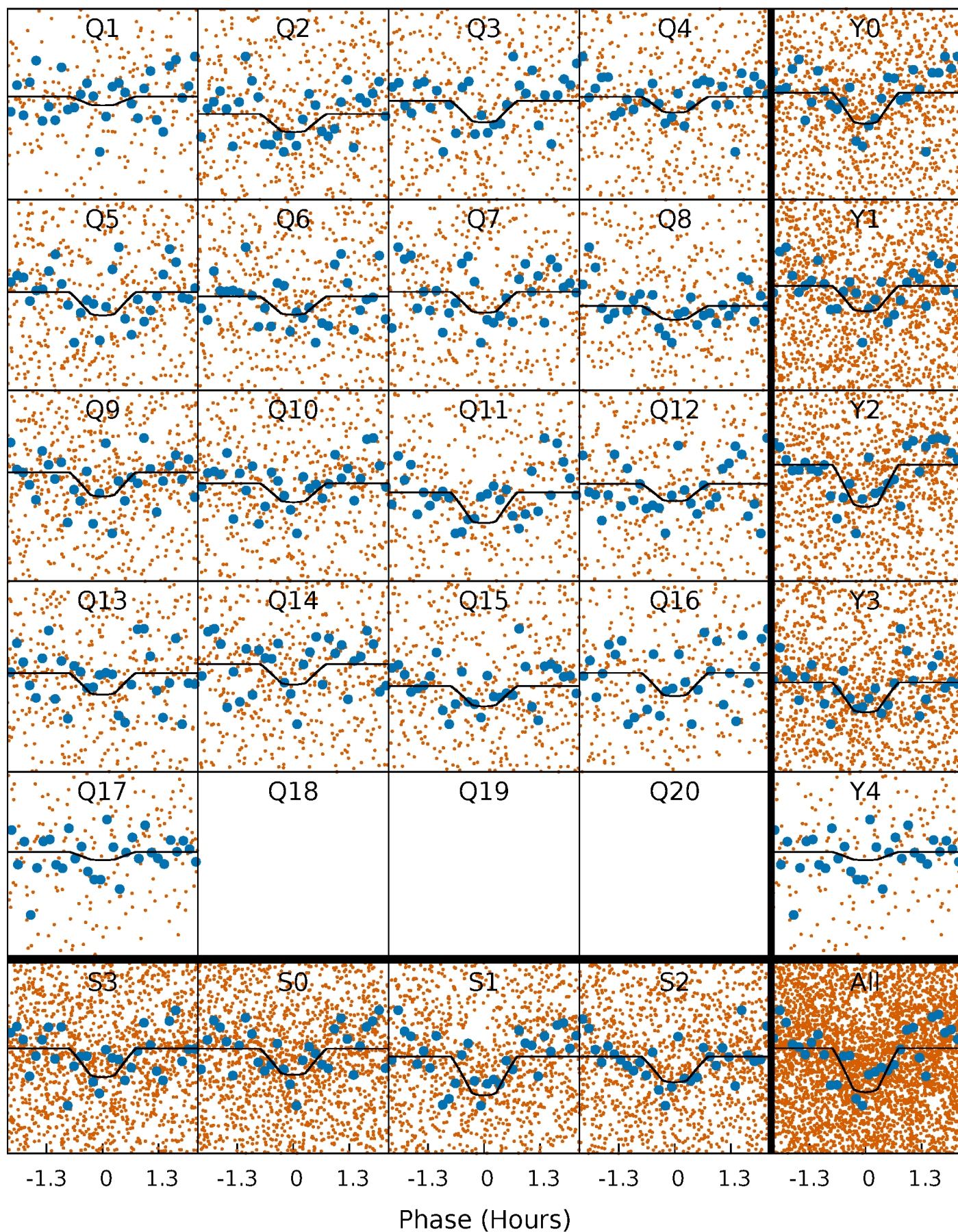
PDC Quarter-Phased Transit Curves

TCE 007458697-01 P= 1.009113 Days $T_0=132.190545$ (BKJD)



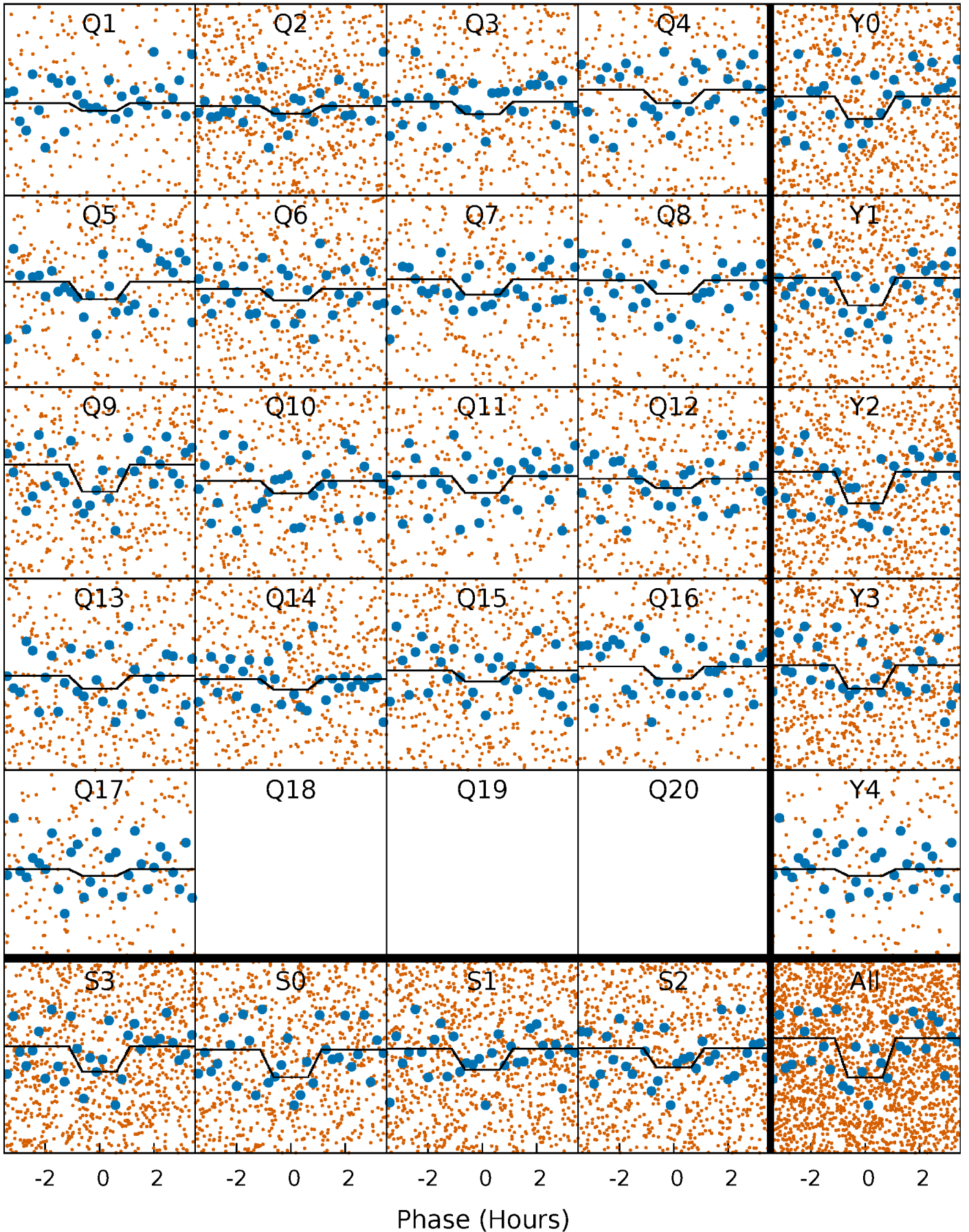
DV Quarter-Phased Transit Curves

TCE 007458697-01 P= 1.009113 Days $T_0=132.190545$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

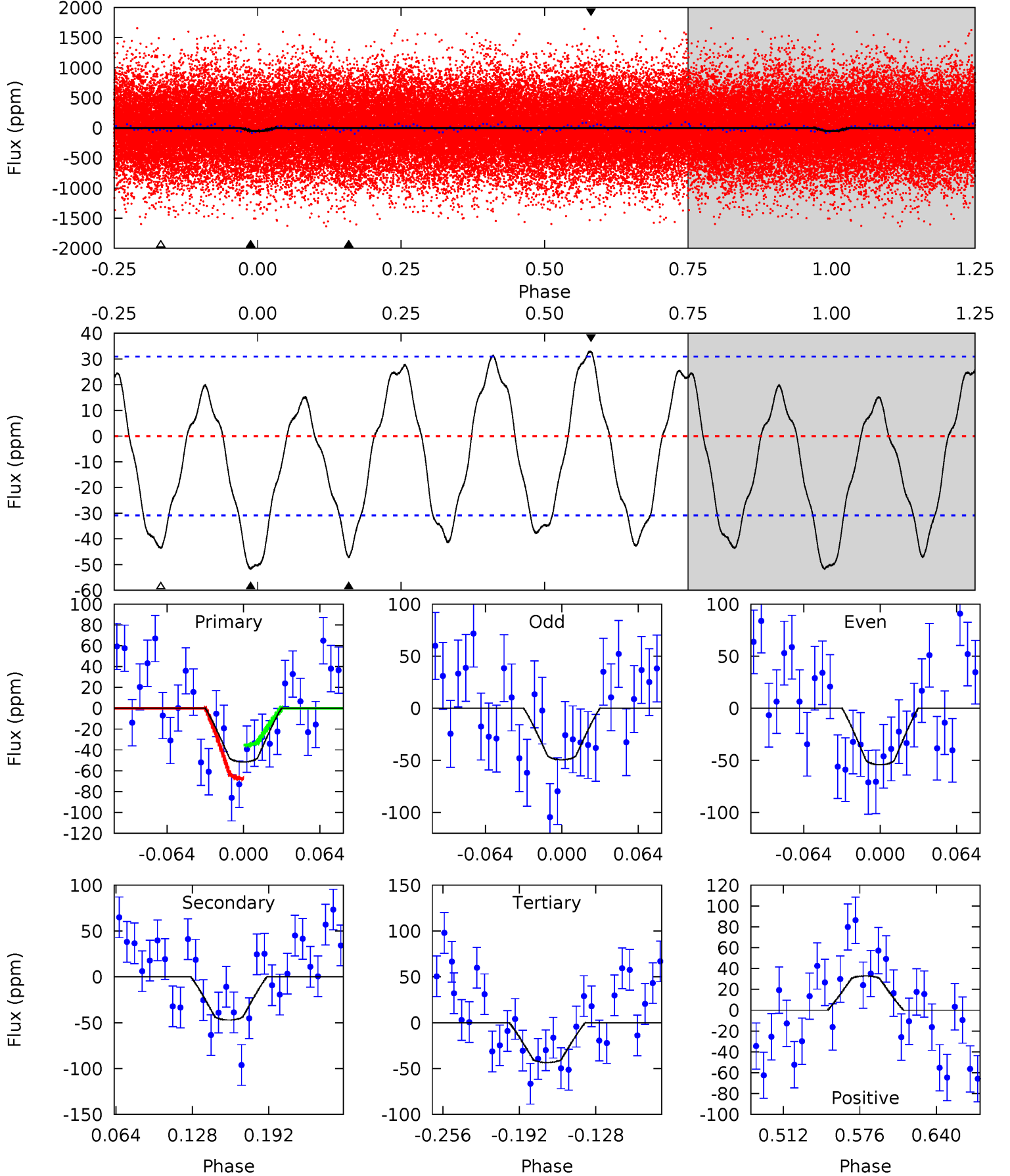
TCE 007458697-01 P= 1.009102 Days $T_0=132.192341$ (BKJD)



DV Model-Shift Uniqueness Test

007458697-01, P = 1.009113 Days, E = 131.181432 Days

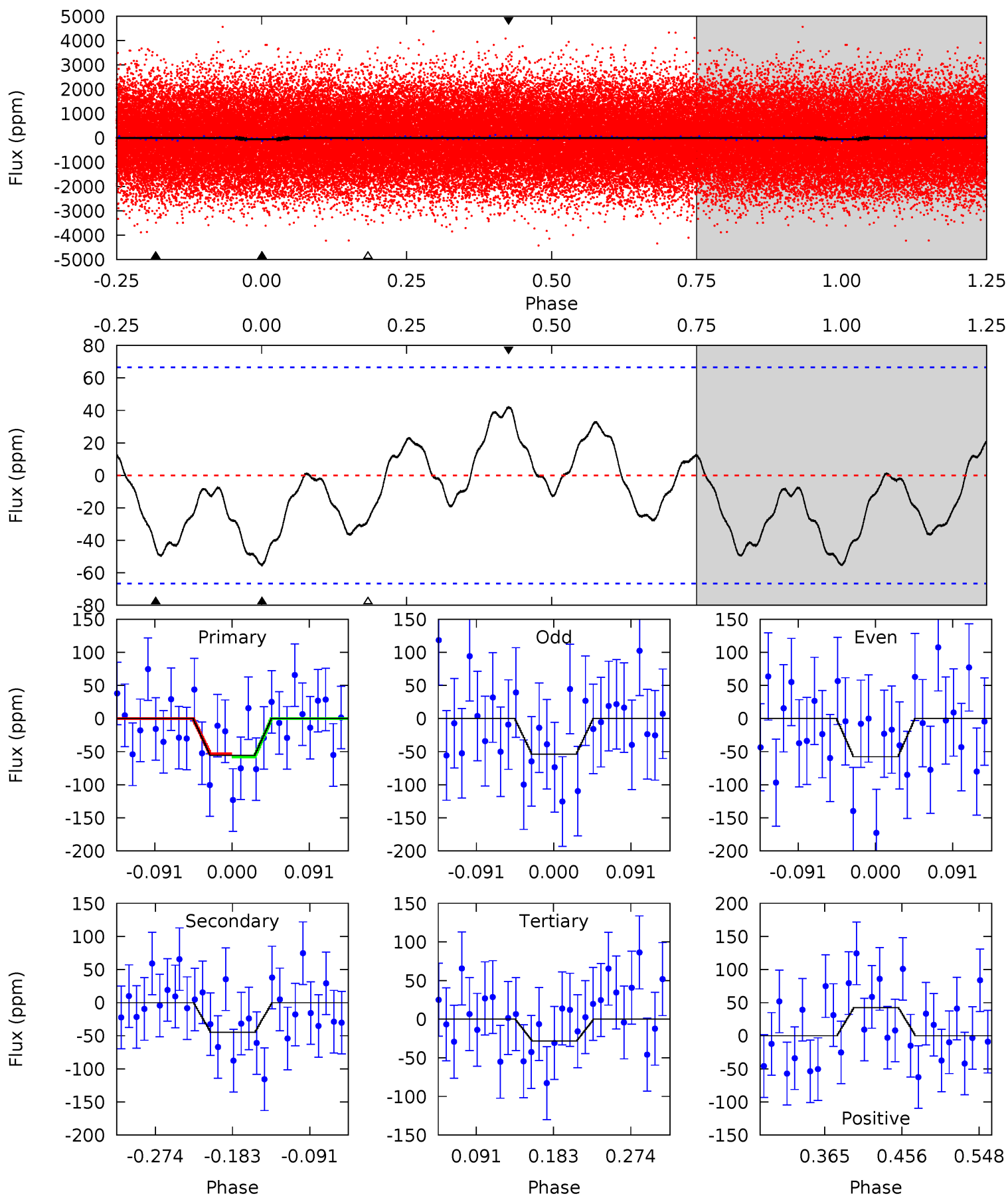
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.79	7.10	6.56	4.96	4.66	1.85	3.55	1.23	2.83	0.55	2.14	0.36	1.12	0.39	2.43



Alt Model-Shift Uniqueness Test

007458697-01, P = 1.009102 Days, E = 131.183239 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.84	3.07	1.94	2.93	4.58	1.69	1.37	1.90	0.91	1.13	0.14	0.13	1.14	0.43	0.16



Stellar Parameters For KIC 007458697

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8055^{+222}_{-361}	$3.808^{+0.322}_{-0.138}$	$0.070^{+0.300}_{-0.400}$	$3.054^{+0.811}_{-1.216}$	$2.184^{+0.306}_{-0.569}$	$0.108^{+0.297}_{-0.043}$
	+3%/-4%	+8%/-4%	+429%/-571%	+27%/-40%	+14%/-26%	+275%/-40%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007458697-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-47 ± 7	$2.79^{+1.19}_{-1.03}$	5288^{+453}_{-495}	6558^{+2095}_{-1173}	$2.112^{+3.133}_{-1.105}$
Alt.	-45 ± 15	$2.41^{+1.14}_{-1.01}$	5301^{+462}_{-526}	6945^{+3089}_{-1510}	$2.558^{+5.721}_{-1.463}$

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 $A_{obs} \gg 1.0$

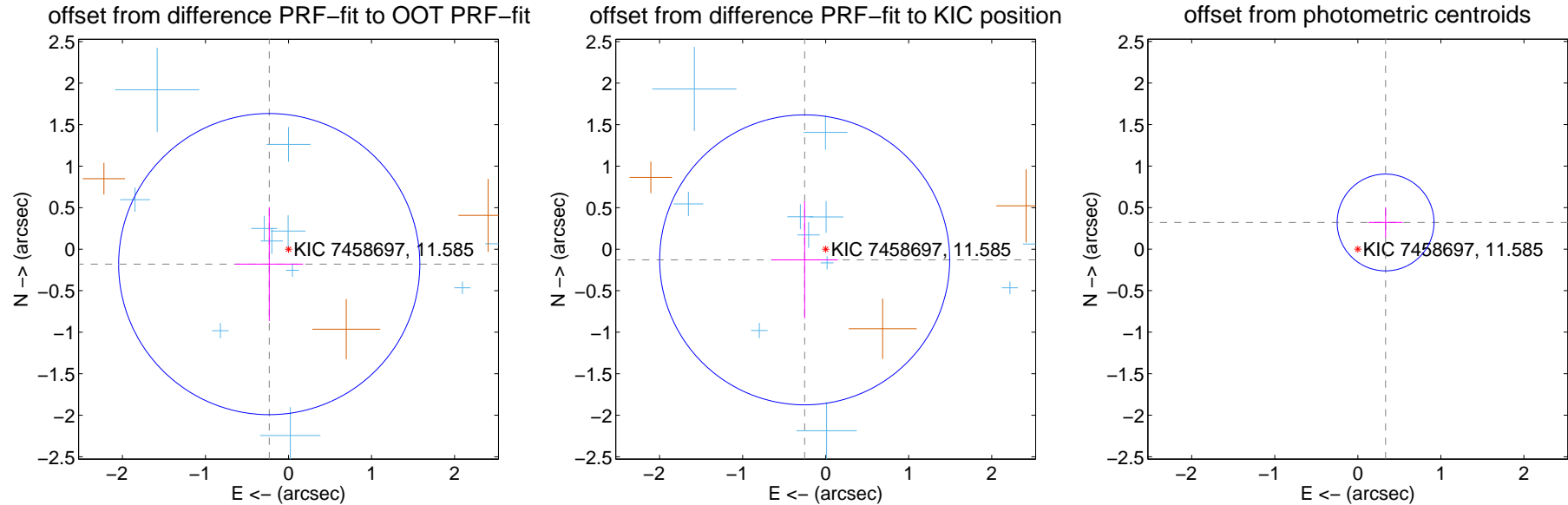
DV Centroid Data

Supplemental centroid analysis for 007458697-01. **Kepler magnitude: 11.59.** Transit SNR 11.96

There are 11 quarters with good PRF difference image offsets

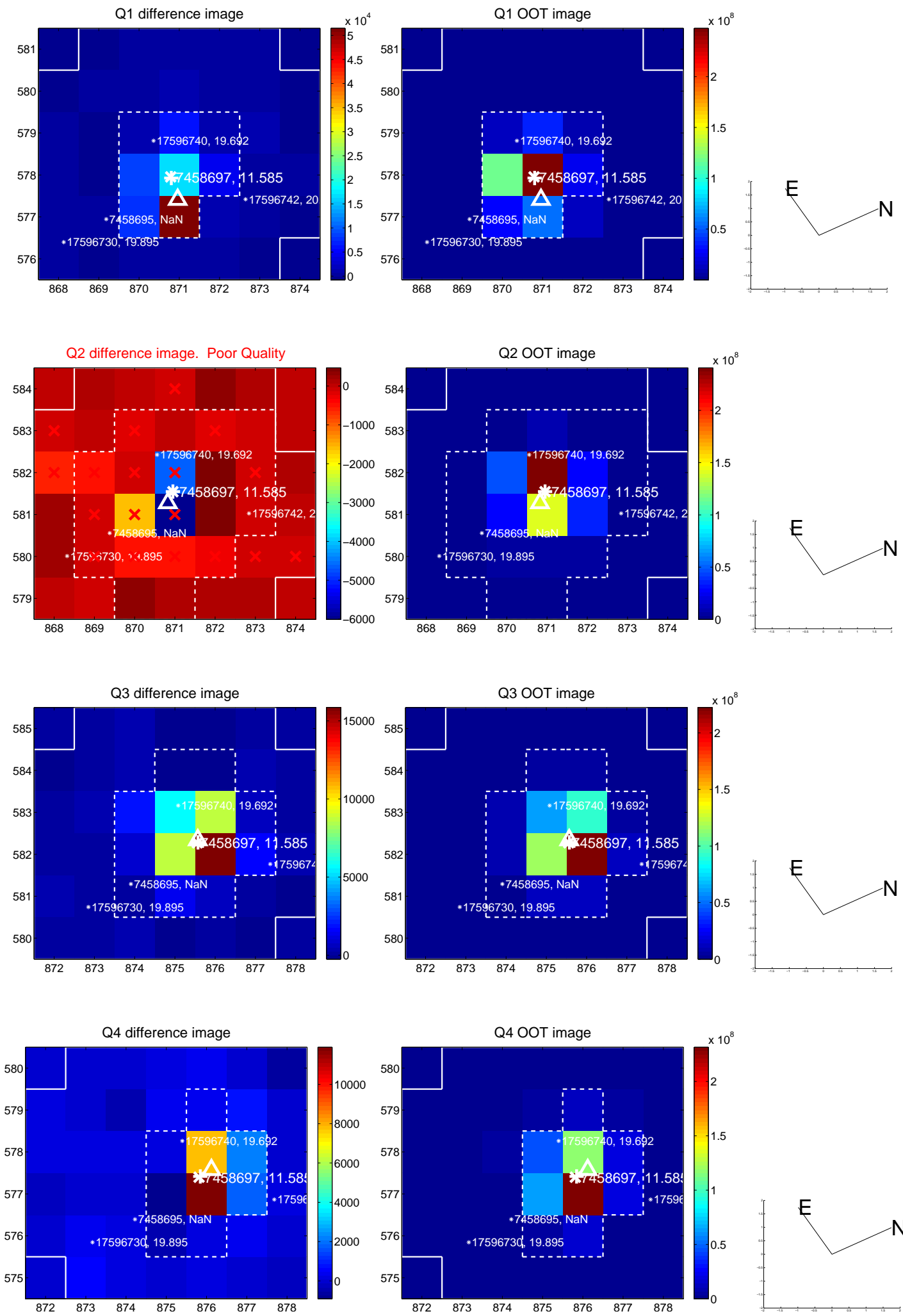
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.294 ± 0.605	0.49	0.232 ± 0.408	-0.180 ± 0.685
PRF-fit source offset from KIC position	0.284 ± 0.582	0.49	0.253 ± 0.400	-0.129 ± 0.705
photometric centroid source offset	0.46 ± 0.19	2.38	-0.33 ± 0.20	0.32 ± 0.18

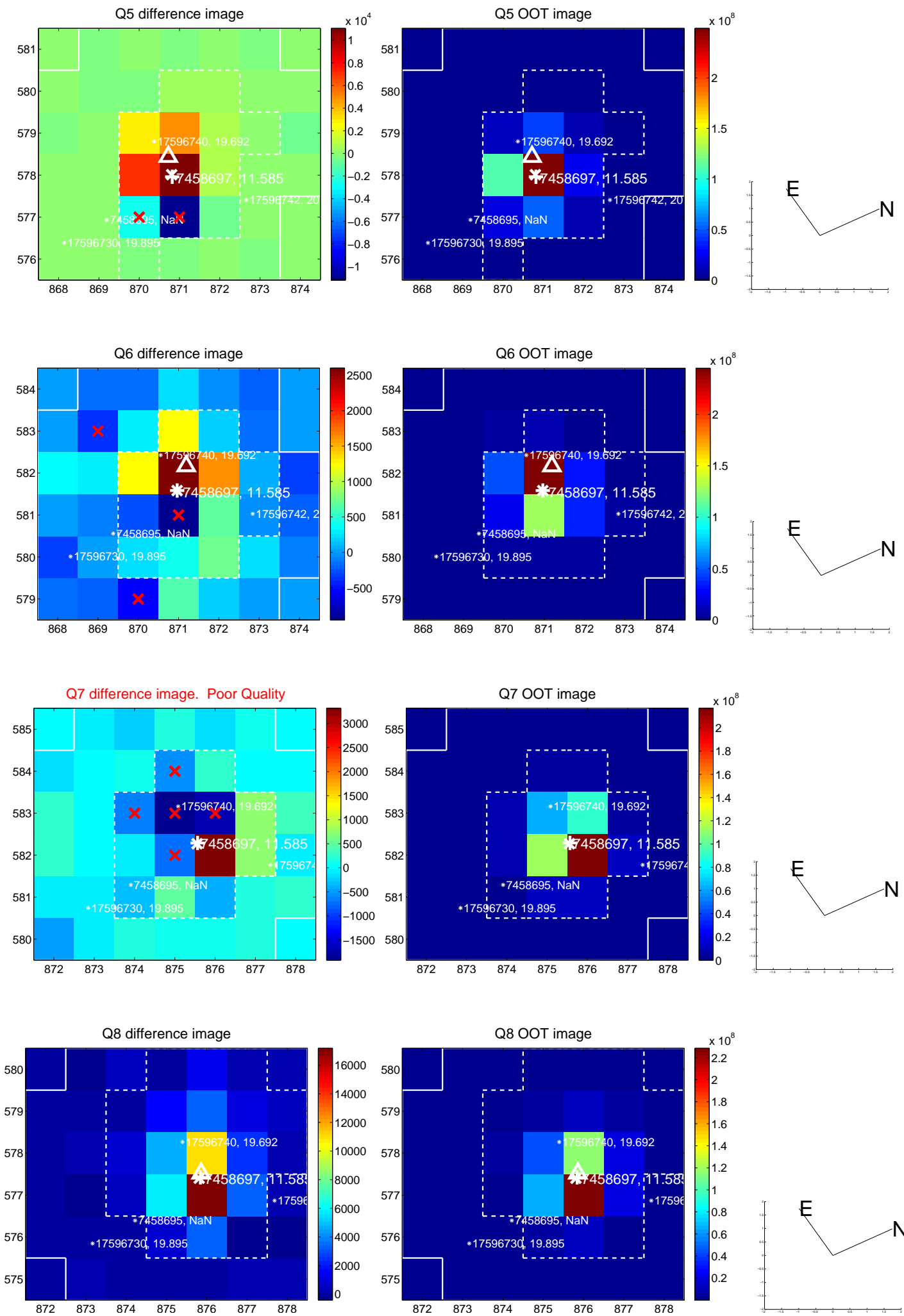


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

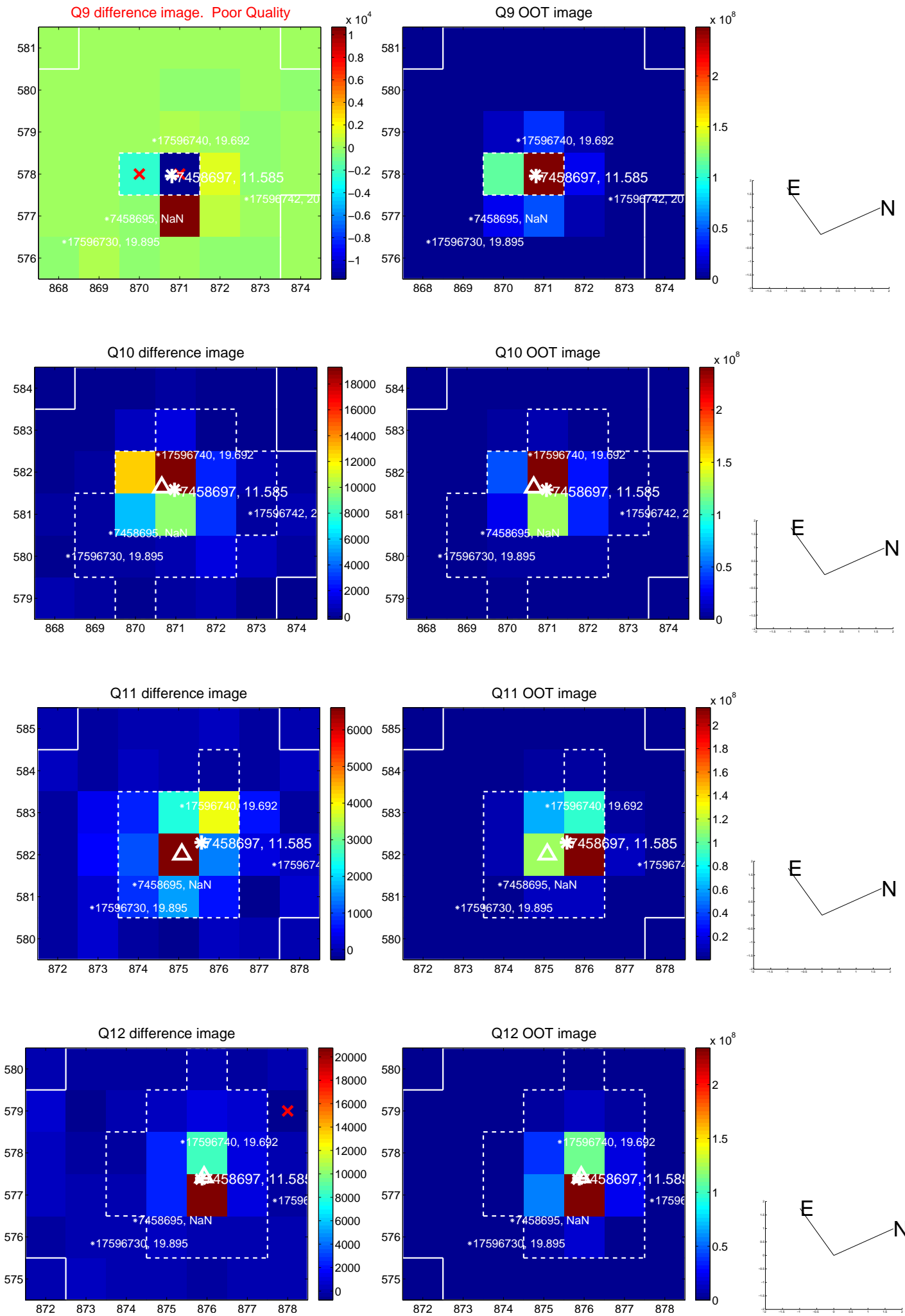
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



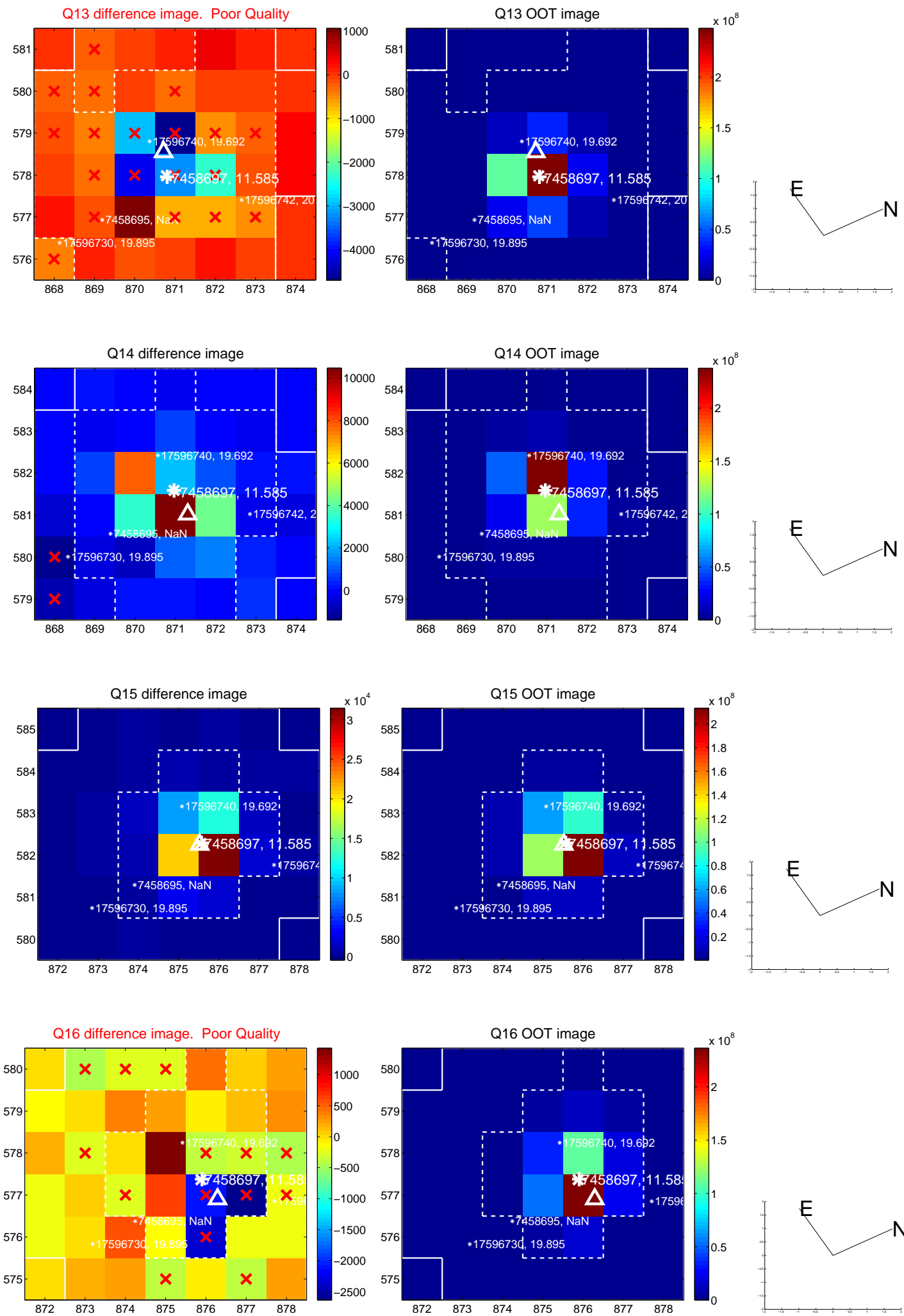
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



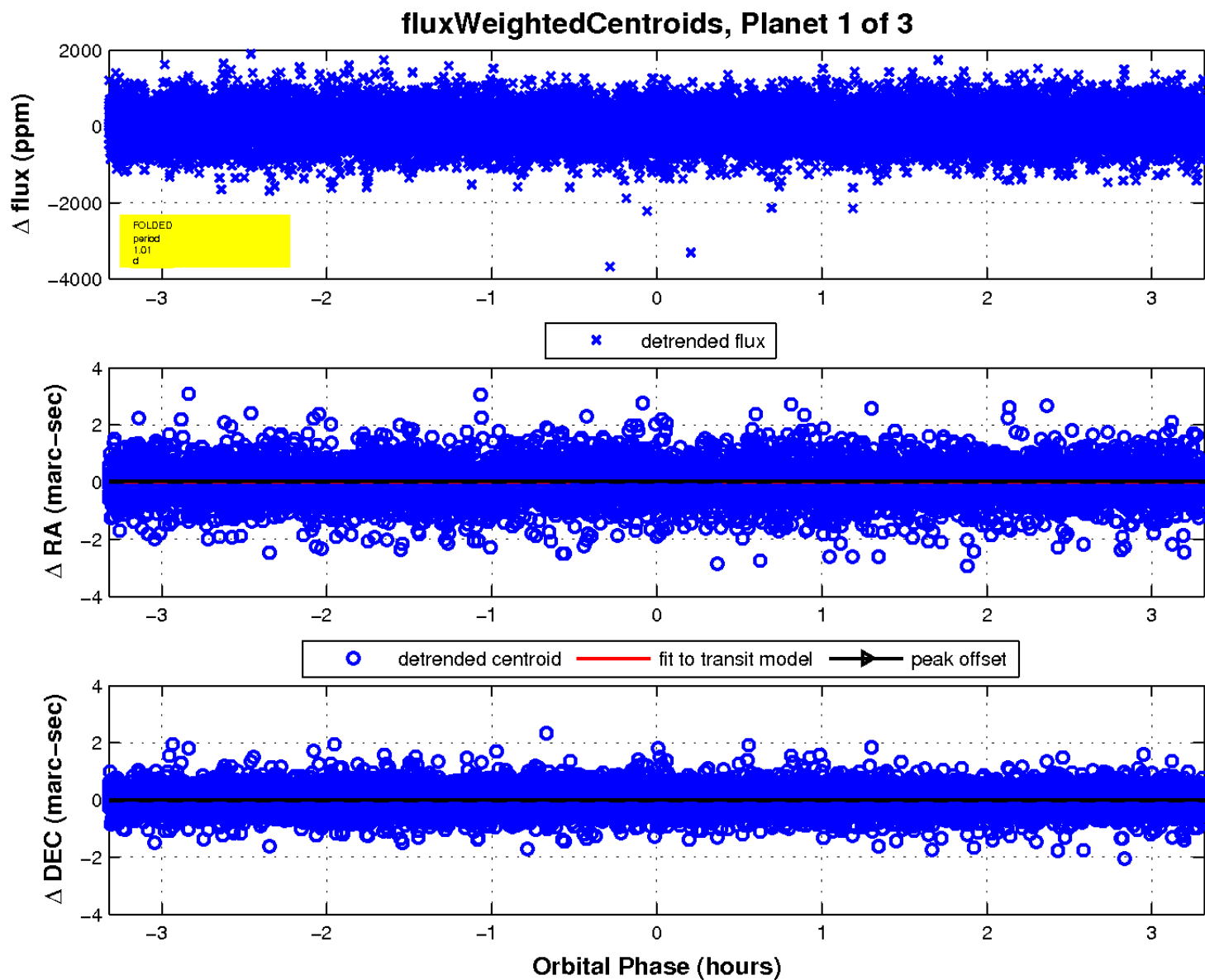
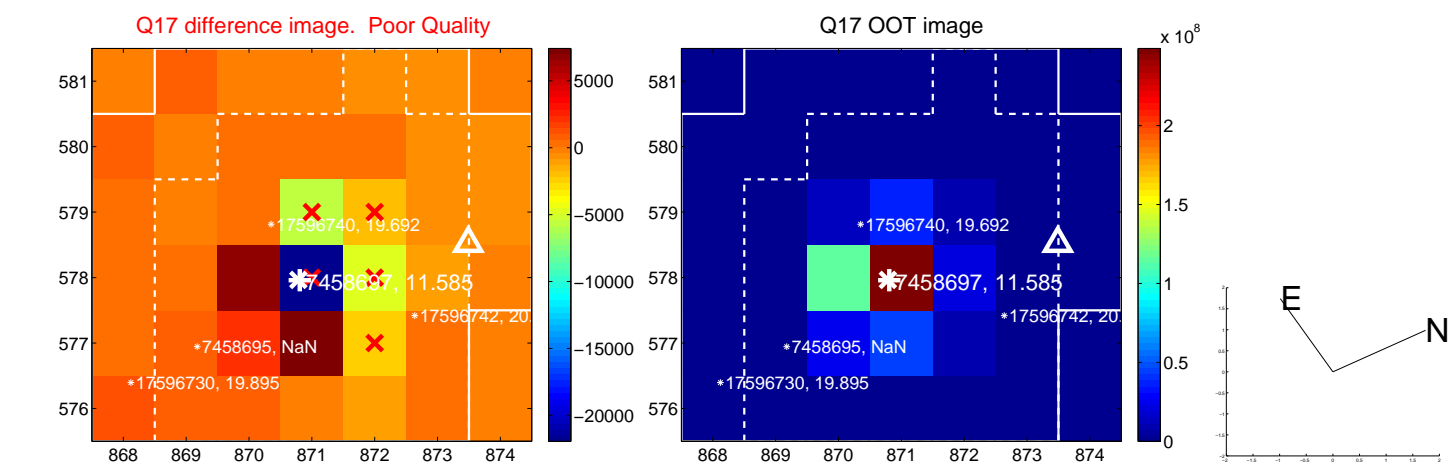
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



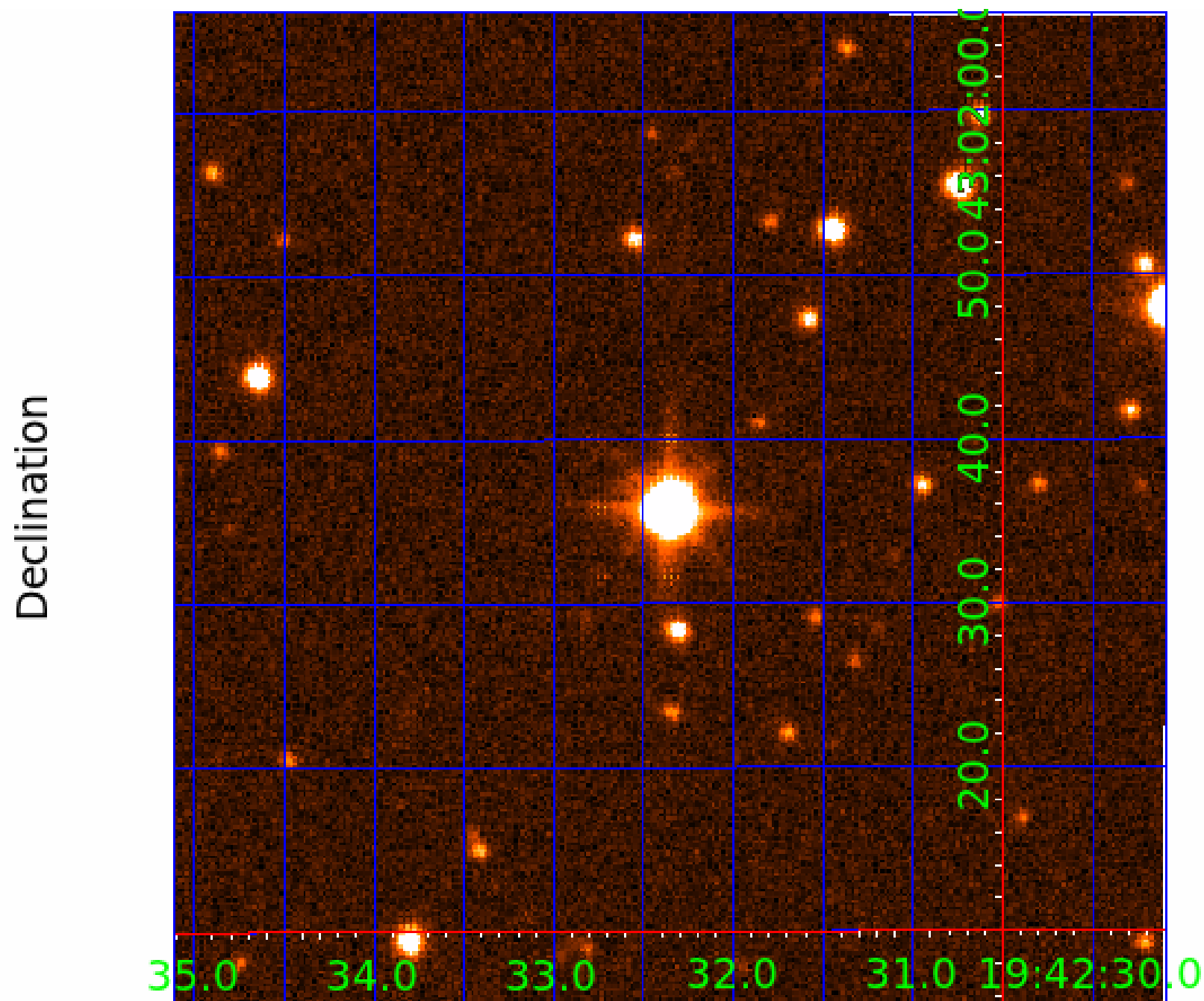
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 007458697

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})
007458697-01	OBS	No	1.009113	132.190545	68.9	1.107	12.3	12.0	3.05	8055	2.96	53845.51
007458697-02	OBS	No	0.504546	131.858950	54.0	1.238	11.2	13.2	3.05	8055	2.34	135685.91
007458697-03	OBS	No	1.009107	132.025997	47.6	2.310	9.5	10.2	3.05	8055	2.43	53845.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007458697-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007458697-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
007458697-03	OBS	FP	0.00	1	0	0	0	LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD

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

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

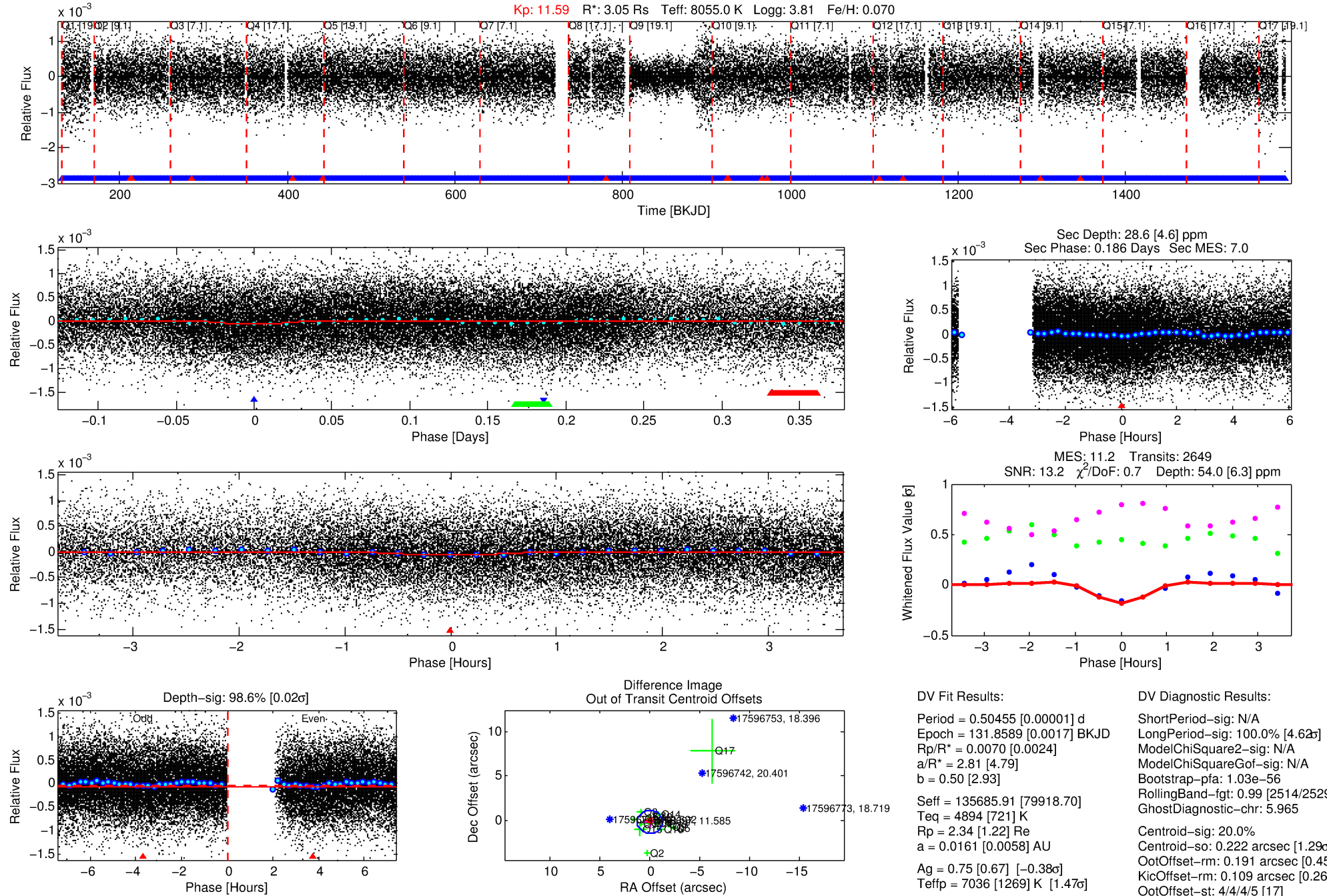
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007458697-02

No Significant Match Found

DV One-Page Summary

KIC: 7458697 Candidate: 2 of 3 Period: 0.505 d



DV Fit Results:

Period = 0.50455 [0.00001] d
Epoch = 131.8589 [0.0017] BKJD
Rp/R* = 0.0070 [0.0024]
a/R* = 2.81 [4.79]
b = 0.50 [2.93]
Seff = 135685.91 [79918.70]
Teff = 4894 [721] K
Rp = 2.34 [1.22] Re
a = 0.0161 [0.0058] AU
Ag = 0.75 [0.67] [-0.38σ]
Teffp = 7036 [1269] K [1.47σ]

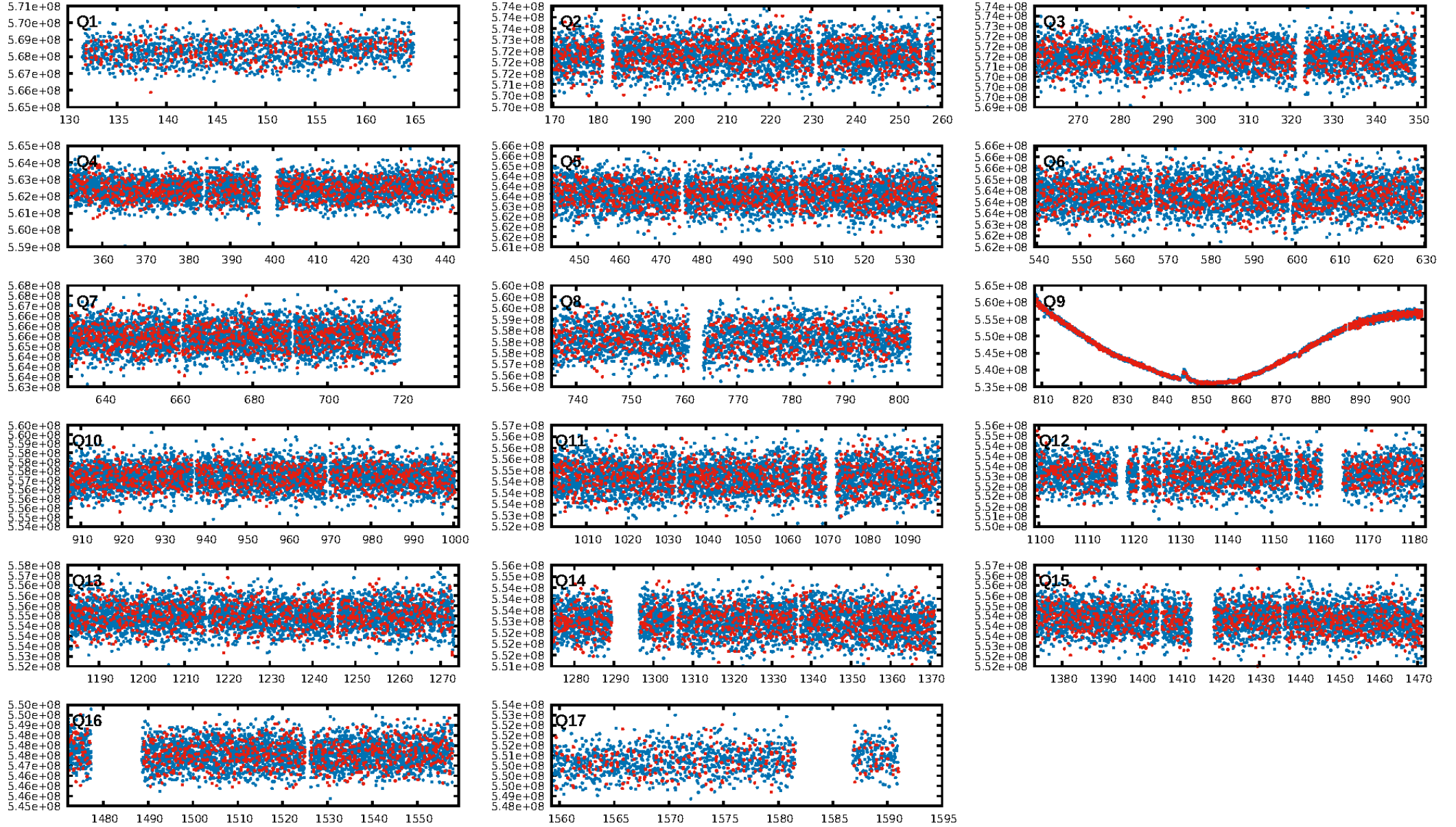
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [4.62σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.03e-56
RollingBand-fgt: 0.99 [2514/2529]
GhostDiagnostic-chr: 5.965
Centroid-sig: 20.0%
Centroid-so: 0.222 arcsec [1.29σ]
OotOffset-rm: 0.191 arcsec [0.45σ]
KicOffset-rm: 0.109 arcsec [0.26σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.71 [12/17]
DiffImageOverlap-fno: 0.00 [0/17]

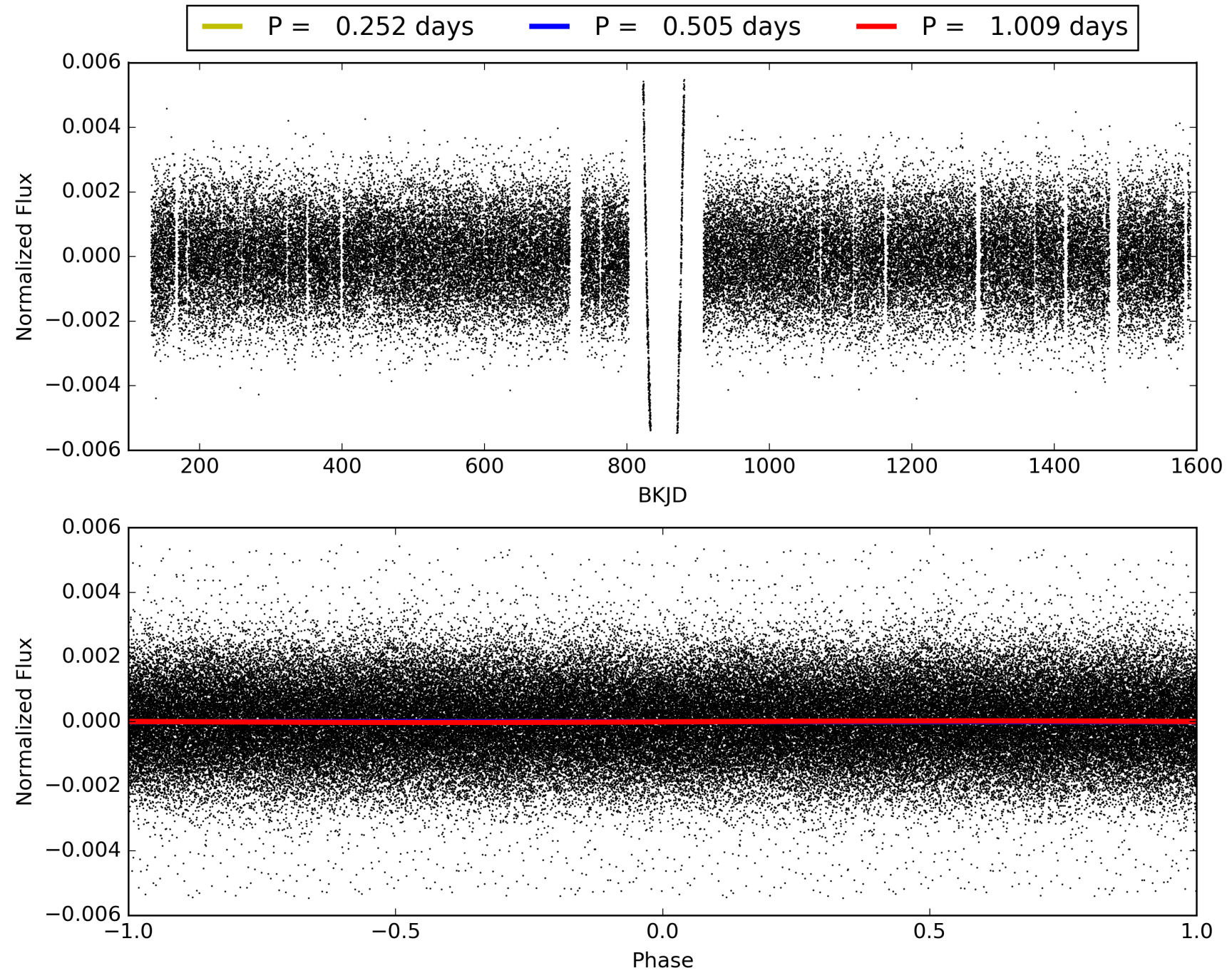
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:23:46 Z

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

TCE 007458697-02, PDC Light Curves

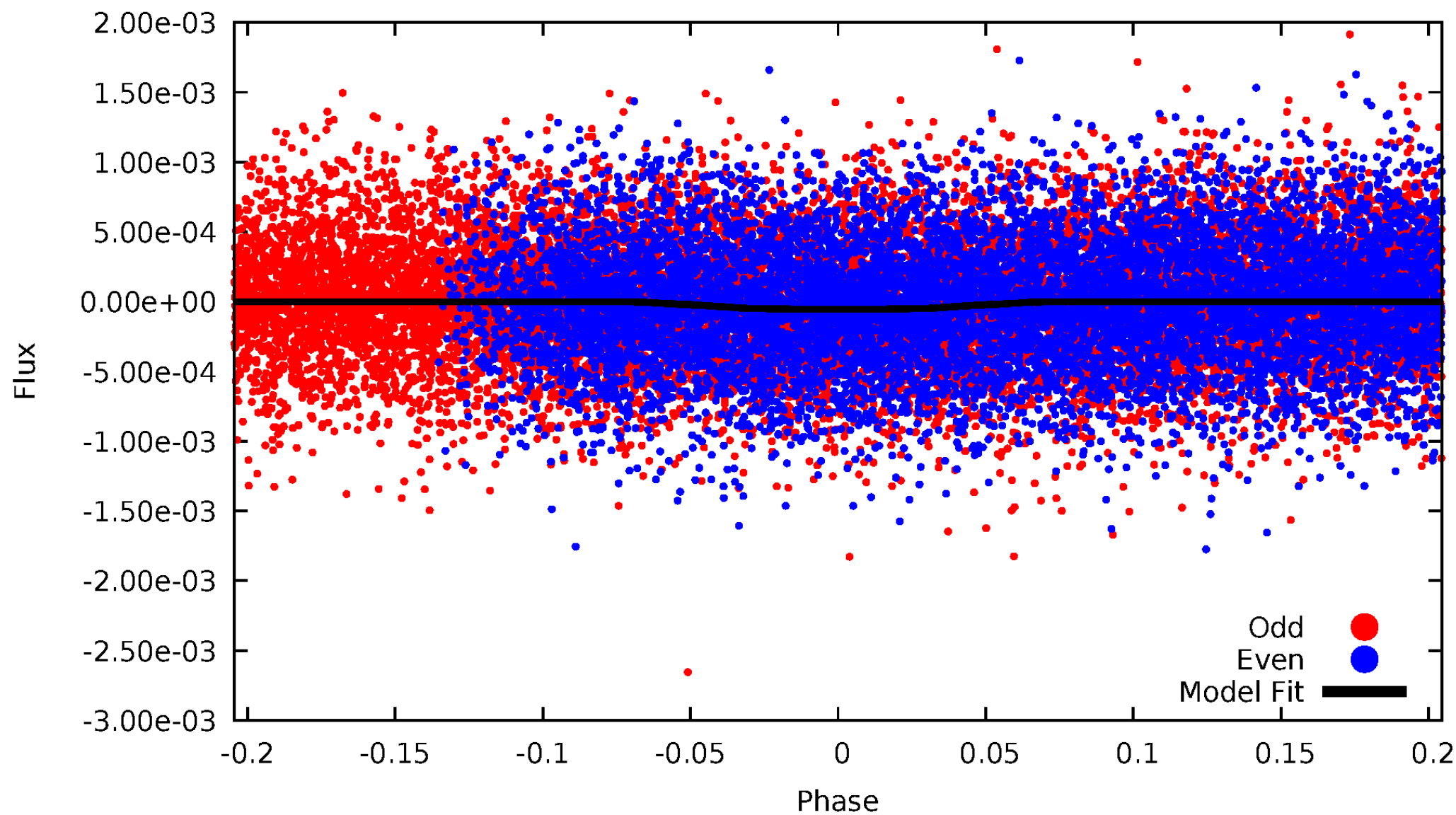


TCE 007458697-02



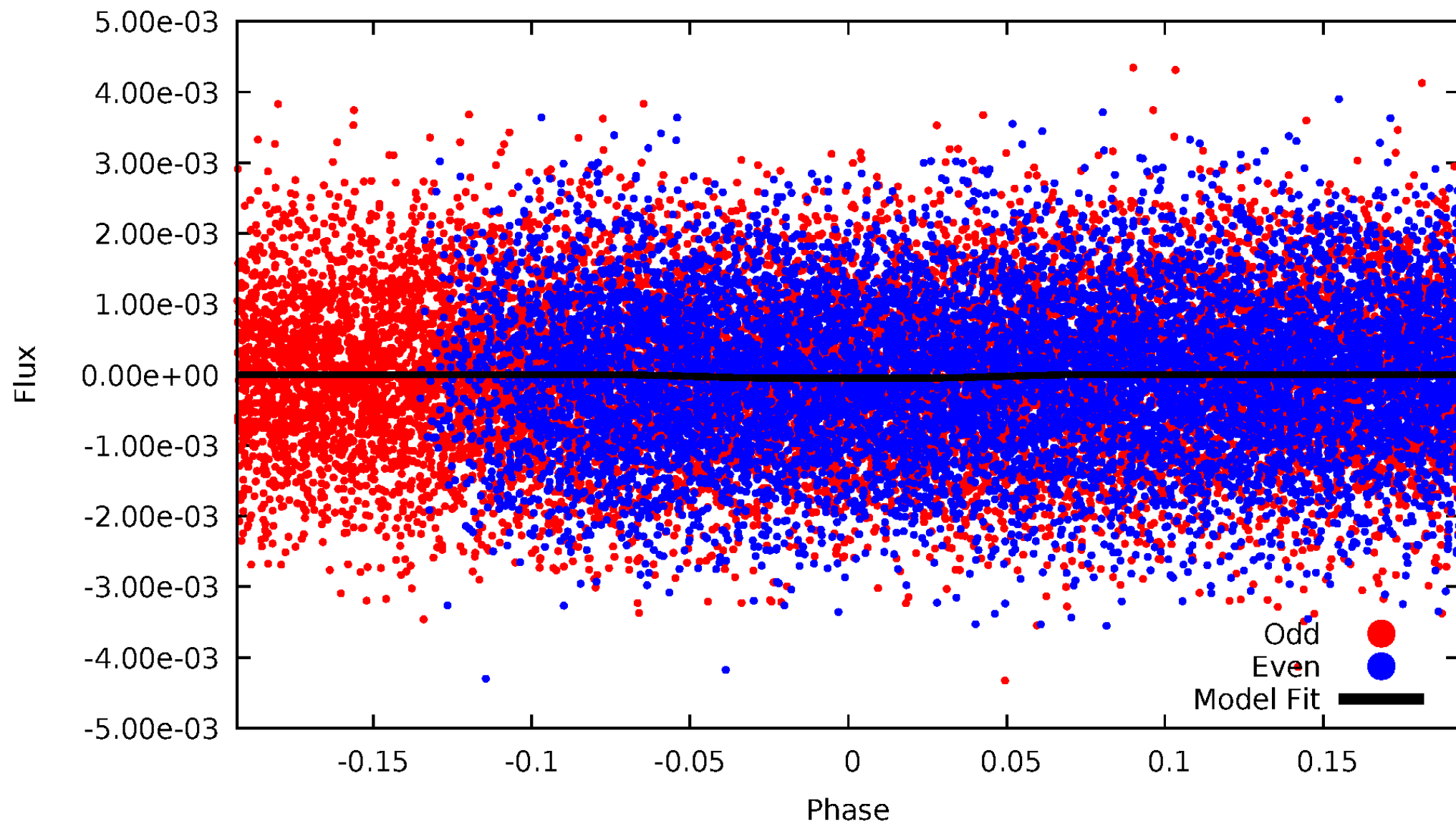
DV Odd/Even

TCE 007458697-02



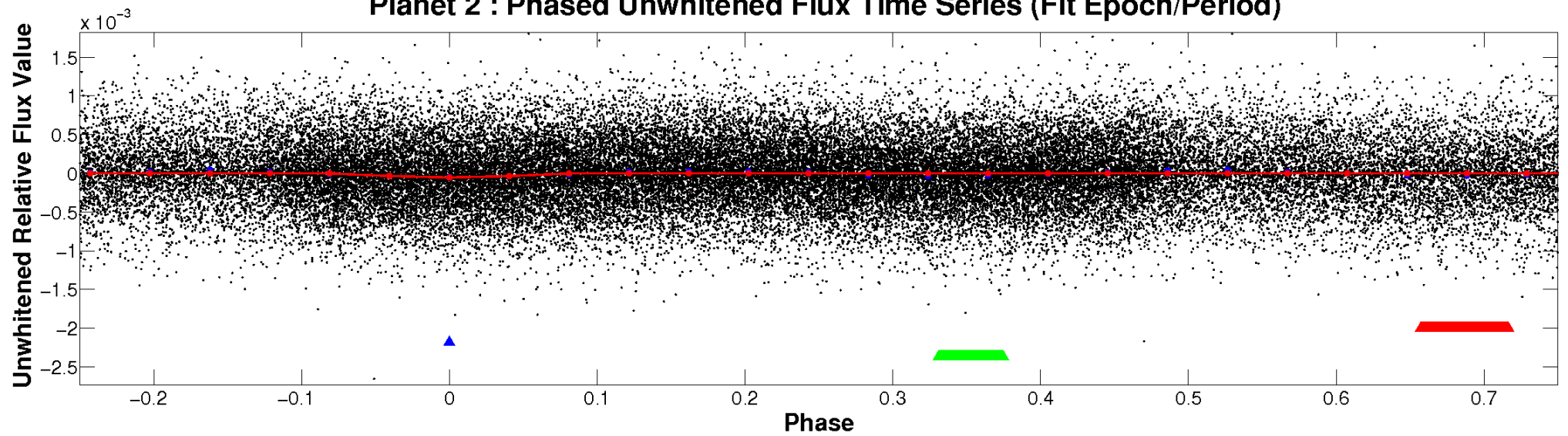
ALT Odd/Even

TCE 007458697-02

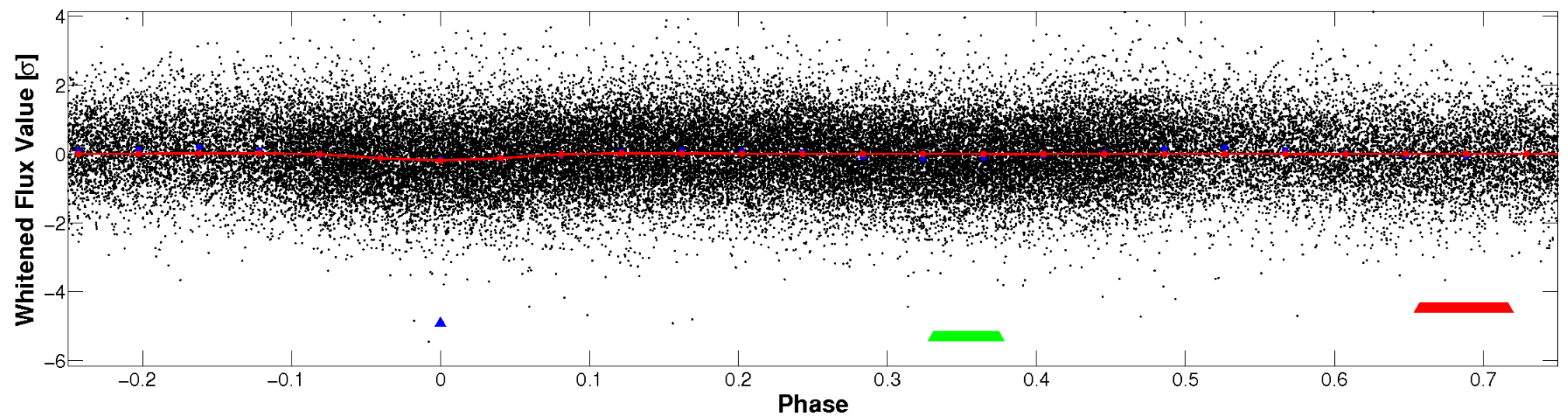


Non-Whitened Vs. Whitened Light Curve

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

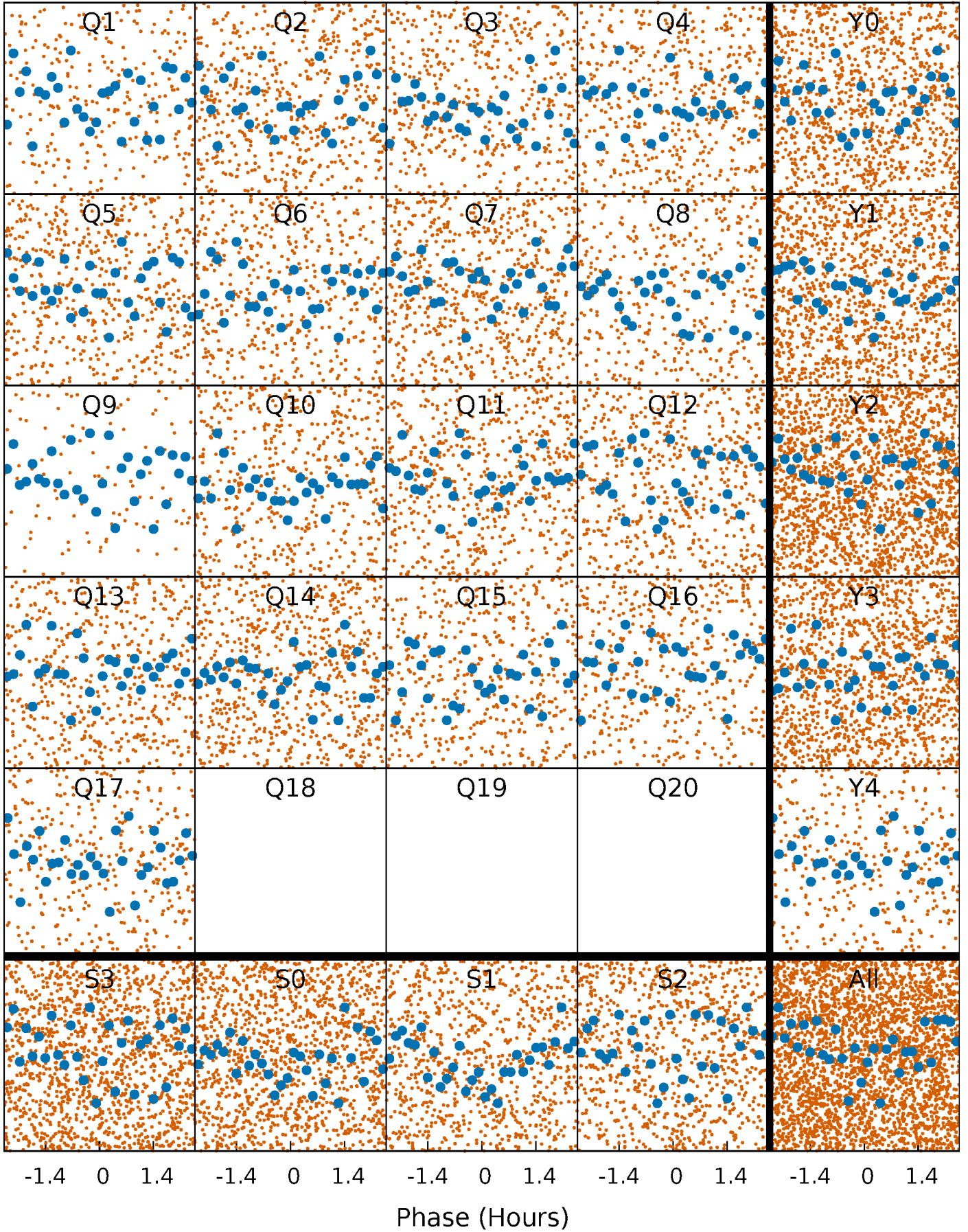


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



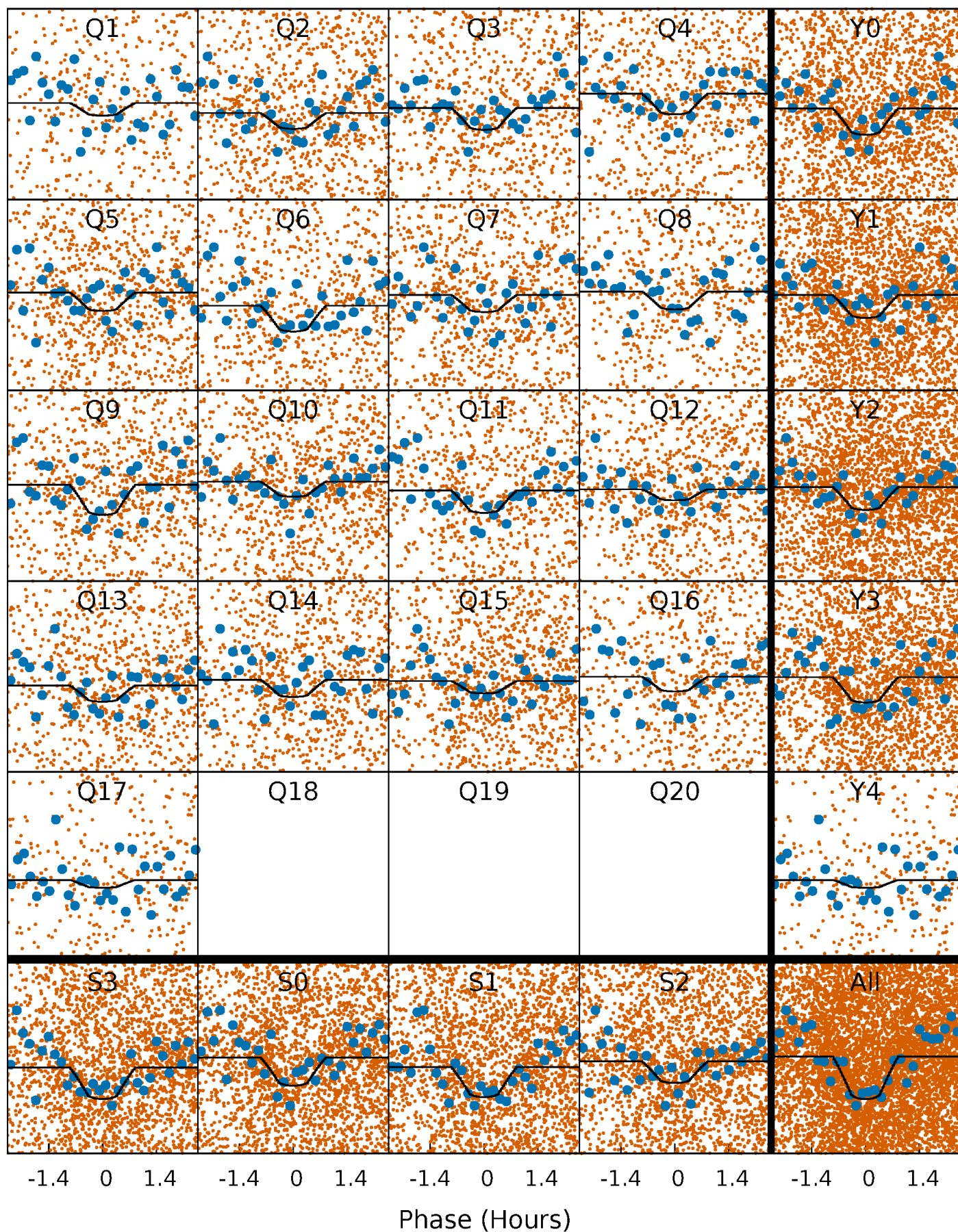
PDC Quarter-Phased Transit Curves

TCE 007458697-02 $P = 0.504546$ Days $T_0 = 131.858950$ (BKJD)



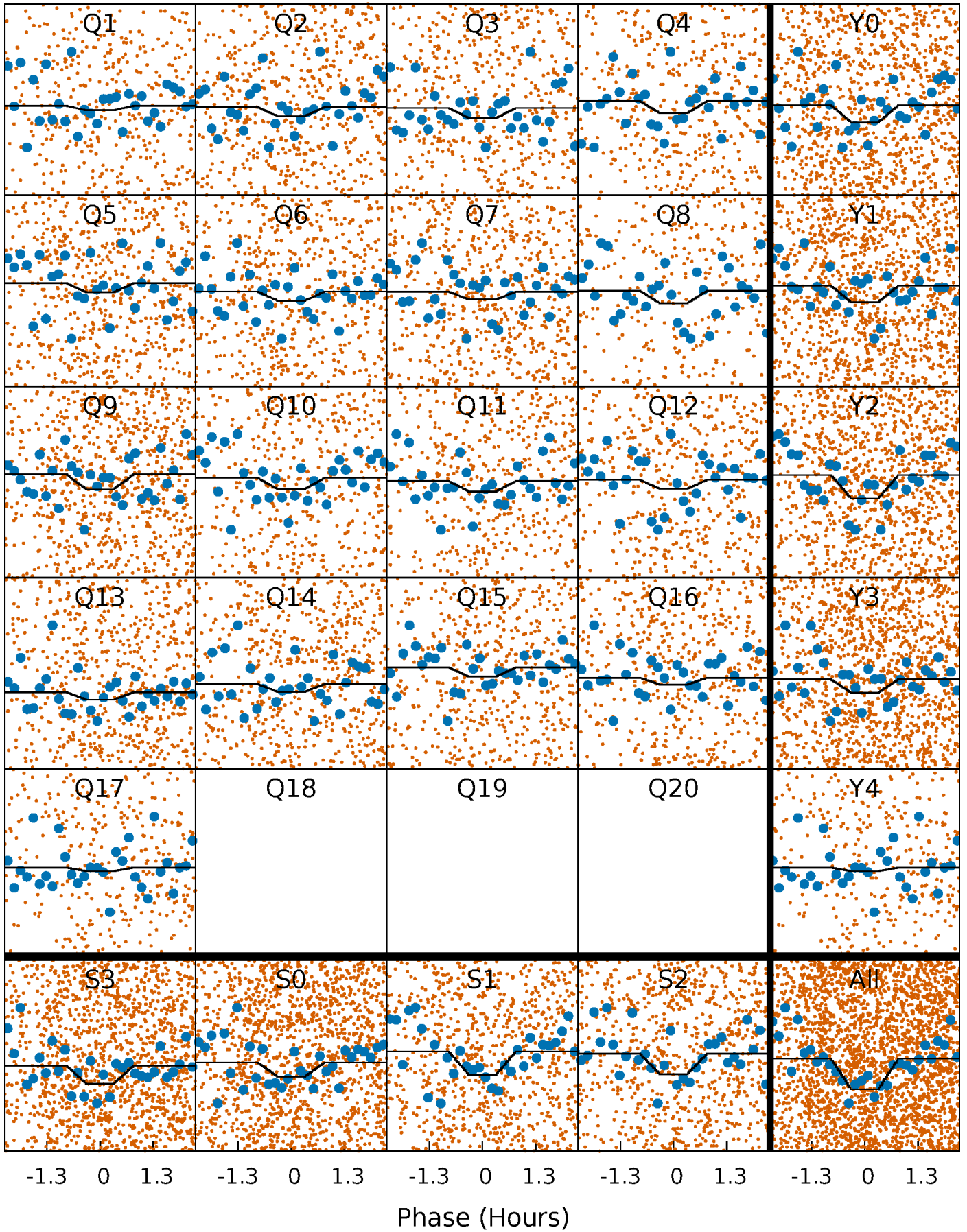
DV Quarter-Phased Transit Curves

TCE 007458697-02 P= 0.504546 Days $T_0=131.858950$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

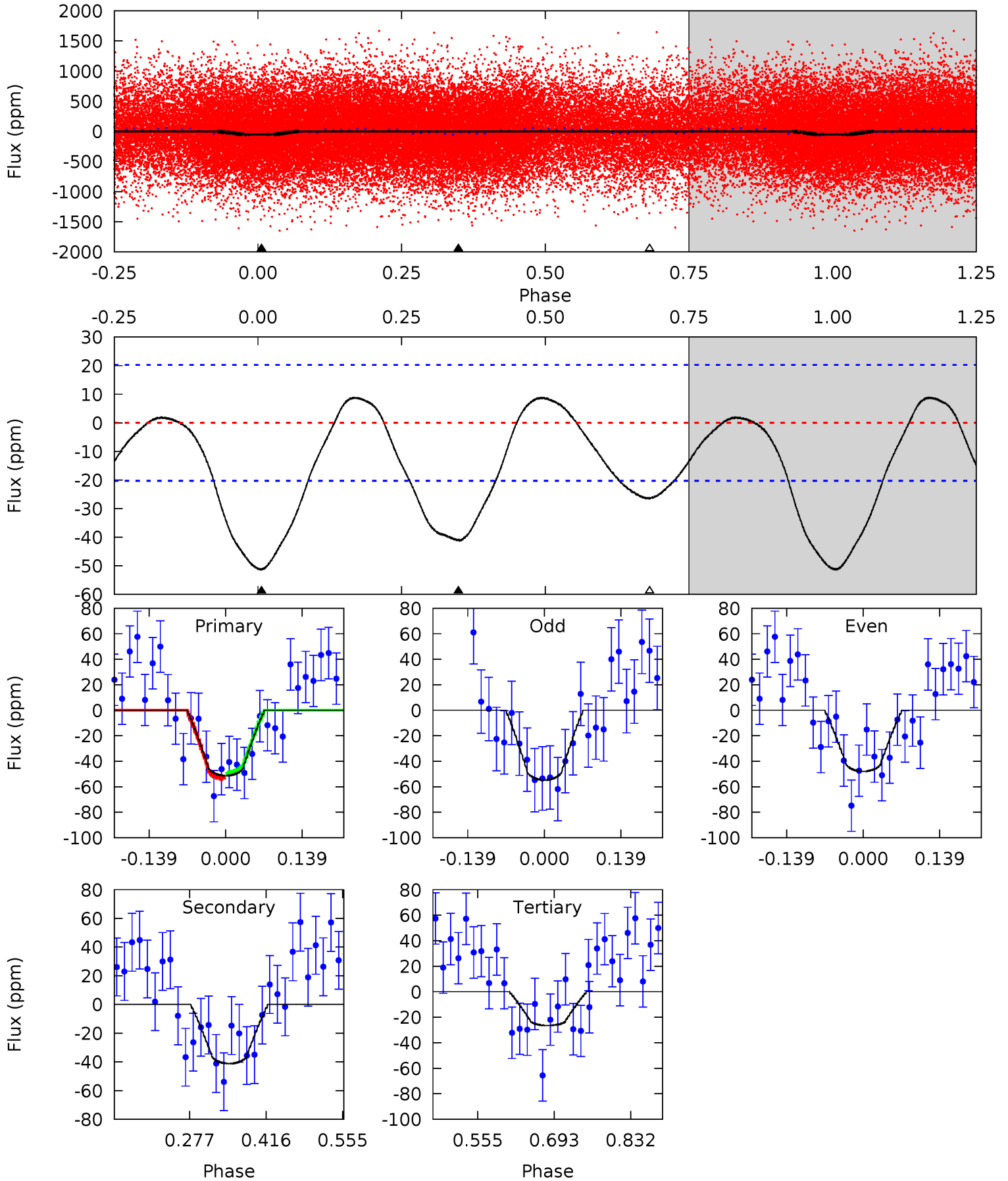
TCE 007458697-02 P= 0.504546 Days $T_0=131.858950$ (BKJD)



DV Model-Shift Uniqueness Test

007458697-02, P = 0.504546 Days, E = 131.354404 Days

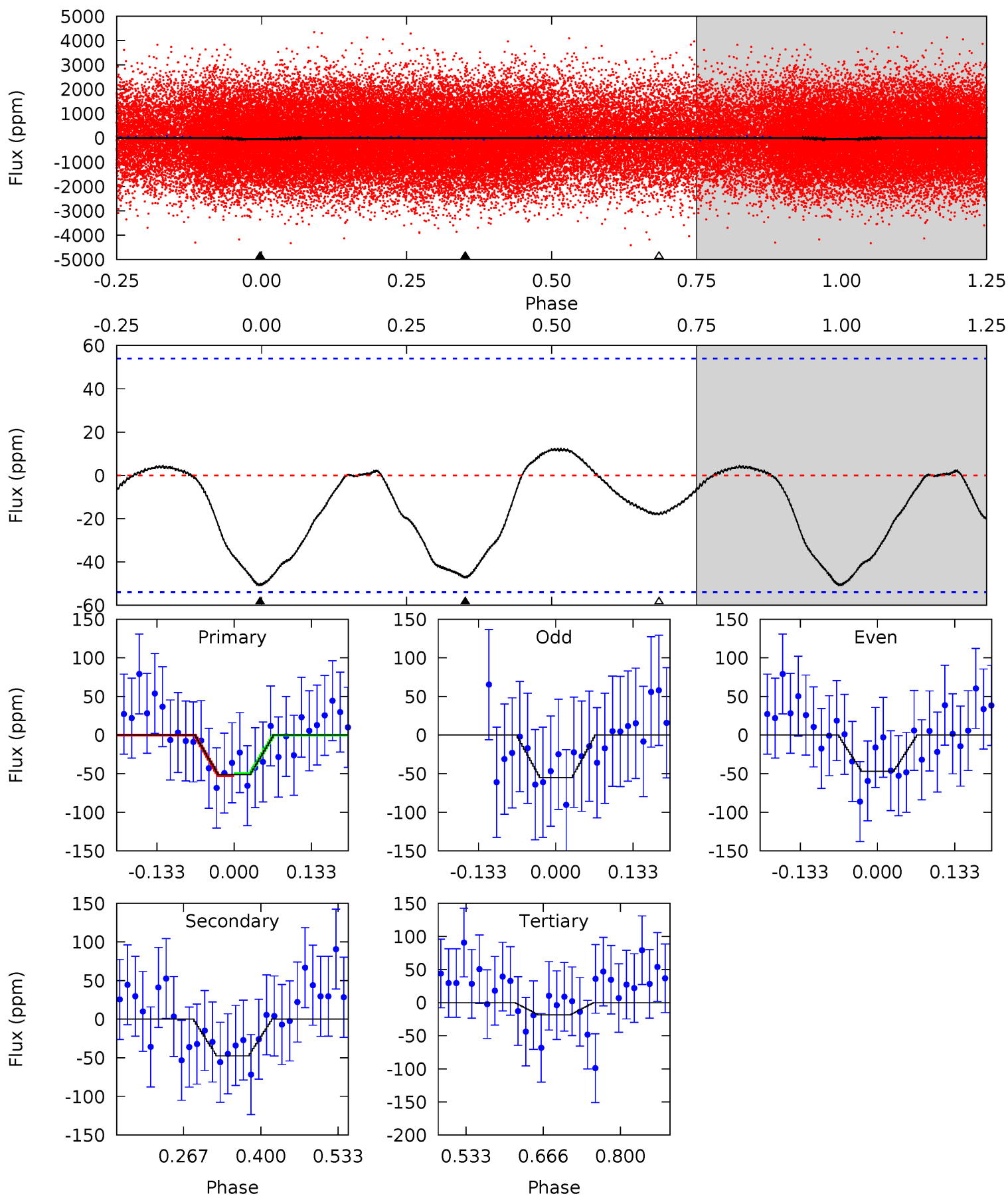
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	9.13	5.87	0	4.50	1.48	2.70	5.51	11.4	3.26	9.13	0.75	1.06	0.15	0.41



Alt Model-Shift Uniqueness Test

007458697-02, P = 0.504546 Days, E = 131.354404 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.26	3.97	1.53	0	4.50	1.50	0.68	2.73	4.26	2.43	3.97	0.34	1.05	0.20	0.10



Stellar Parameters For KIC 007458697

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8055^{+222}_{-361}	$3.808^{+0.322}_{-0.138}$	$0.070^{+0.300}_{-0.400}$	$3.054^{+0.811}_{-1.216}$	$2.184^{+0.306}_{-0.569}$	$0.108^{+0.297}_{-0.043}$
	+3%/-4%	+8%/-4%	+429%/-571%	+27%/-40%	+14%/-26%	+275%/-40%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007458697-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-41 ± 5	$2.15^{+0.89}_{-0.79}$	6632^{+577}_{-651}	7057^{+2598}_{-1501}	$1.245^{+1.812}_{-0.622}$
Alt.	-48 ± 12	$2.15^{+0.94}_{-0.77}$	6660^{+519}_{-664}	7257^{+2830}_{-1616}	$1.368^{+2.071}_{-0.717}$

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 $A_{obs} \gg 1.0$

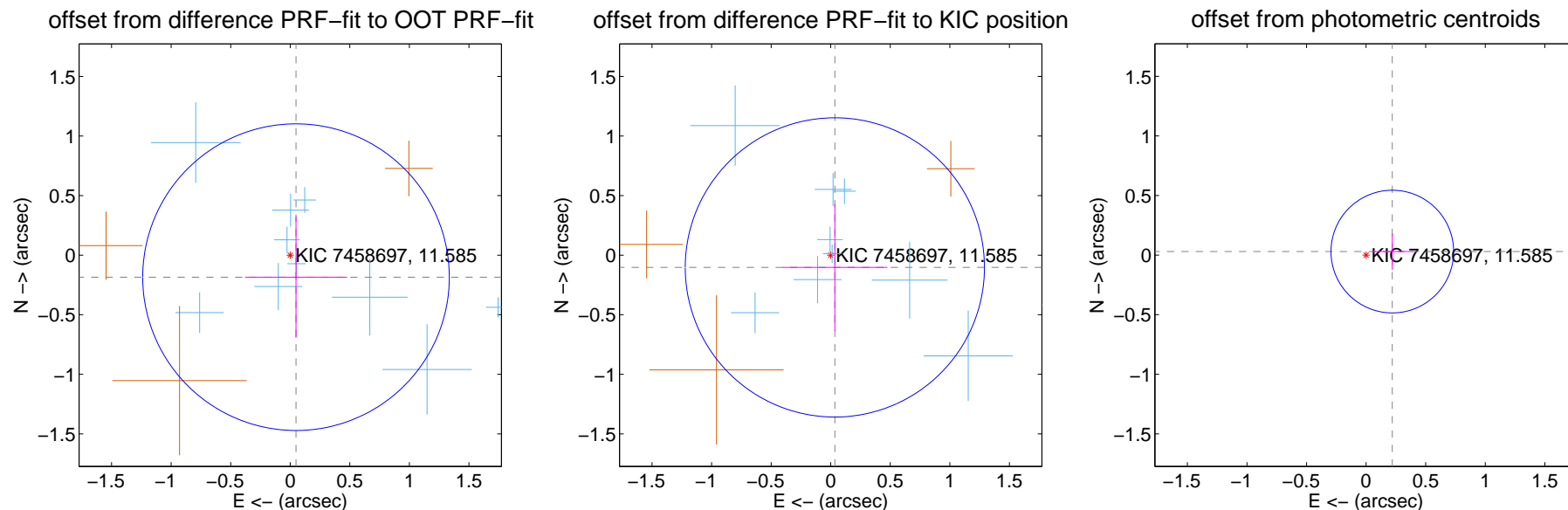
DV Centroid Data

Supplemental centroid analysis for 007458697-02. **Kepler magnitude: 11.59.** Transit SNR 13.24

There are 12 quarters with good PRF difference image offsets

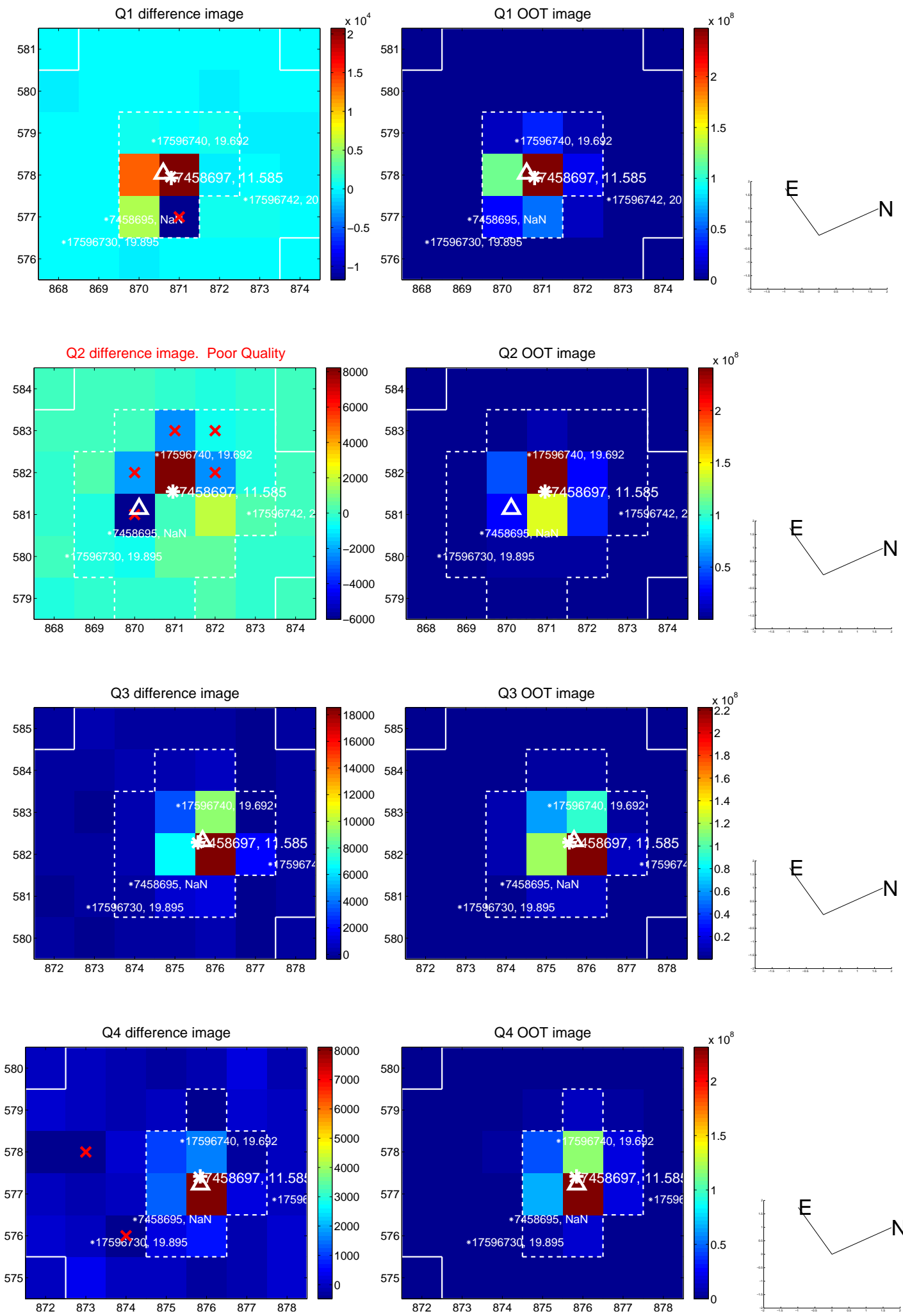
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.191 ± 0.429	0.45	-0.048 ± 0.428	-0.185 ± 0.508
PRF-fit source offset from KIC position	0.109 ± 0.419	0.26	-0.035 ± 0.441	-0.103 ± 0.531
photometric centroid source offset	0.22 ± 0.17	1.29	-0.22 ± 0.17	0.03 ± 0.15

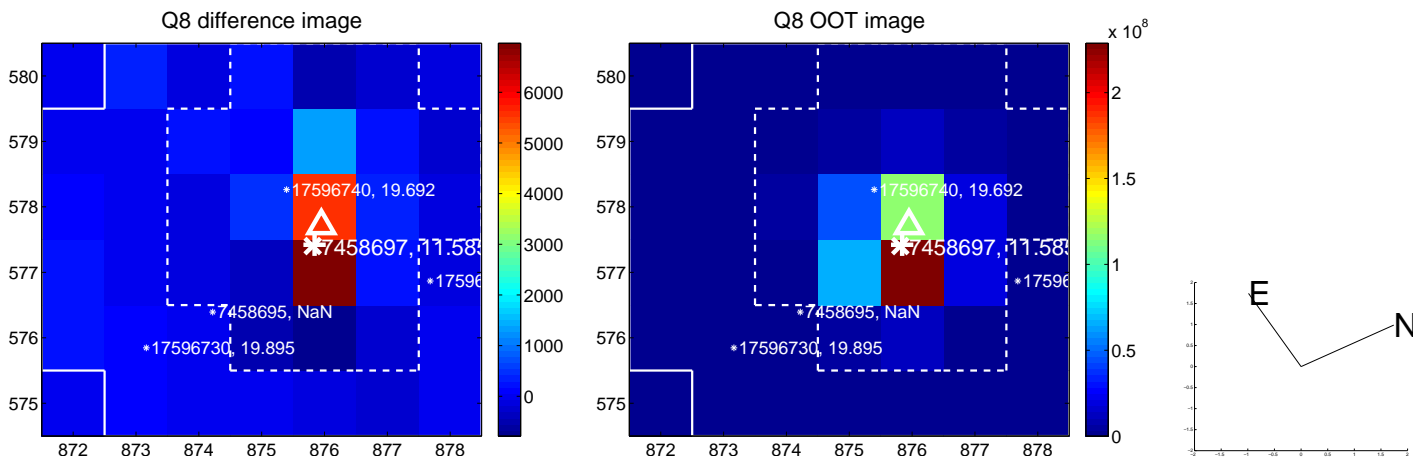
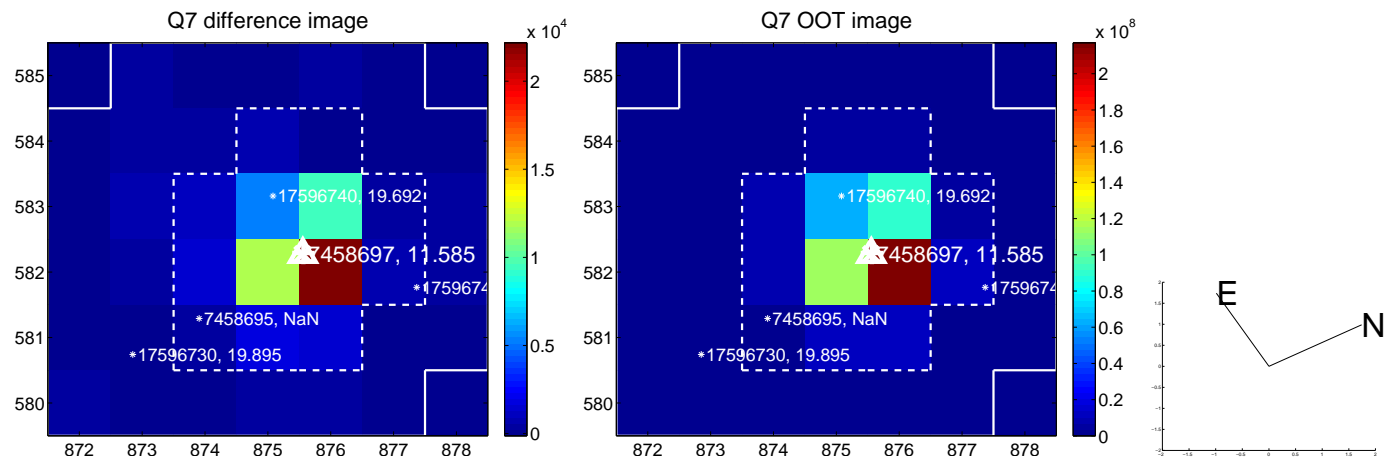
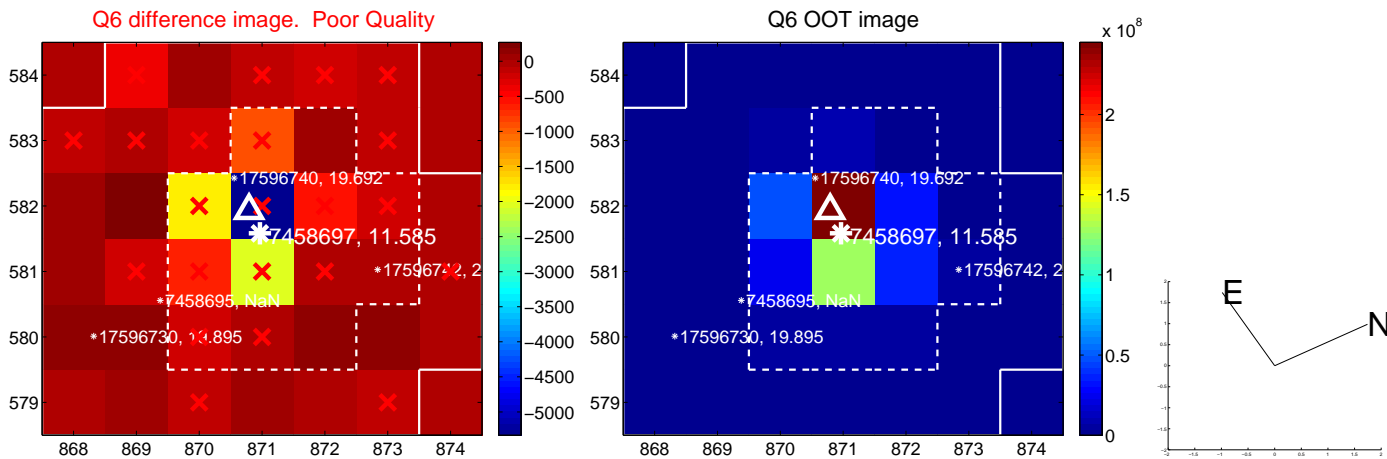
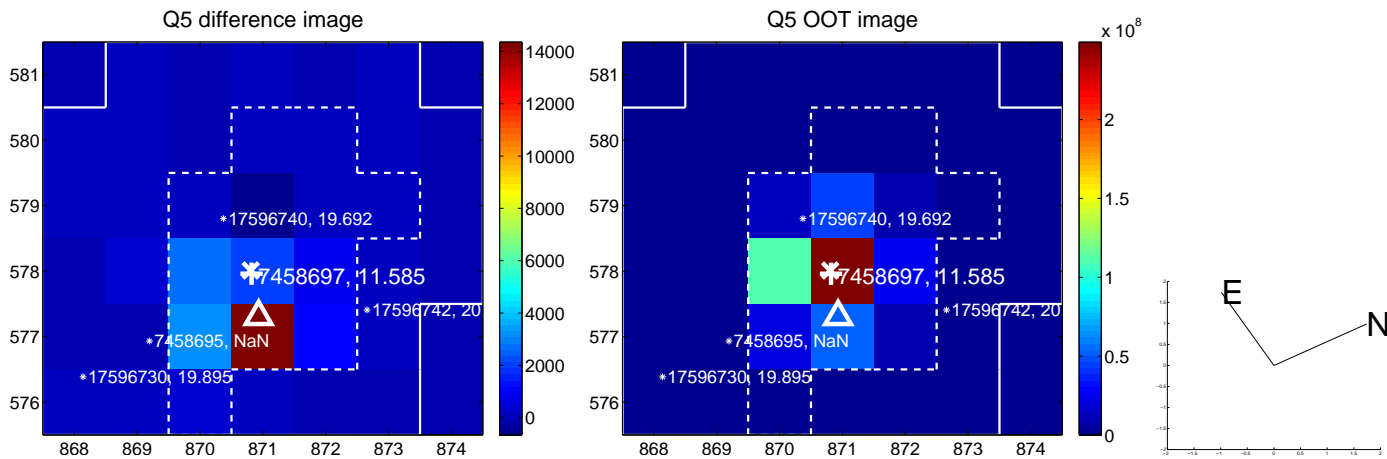


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

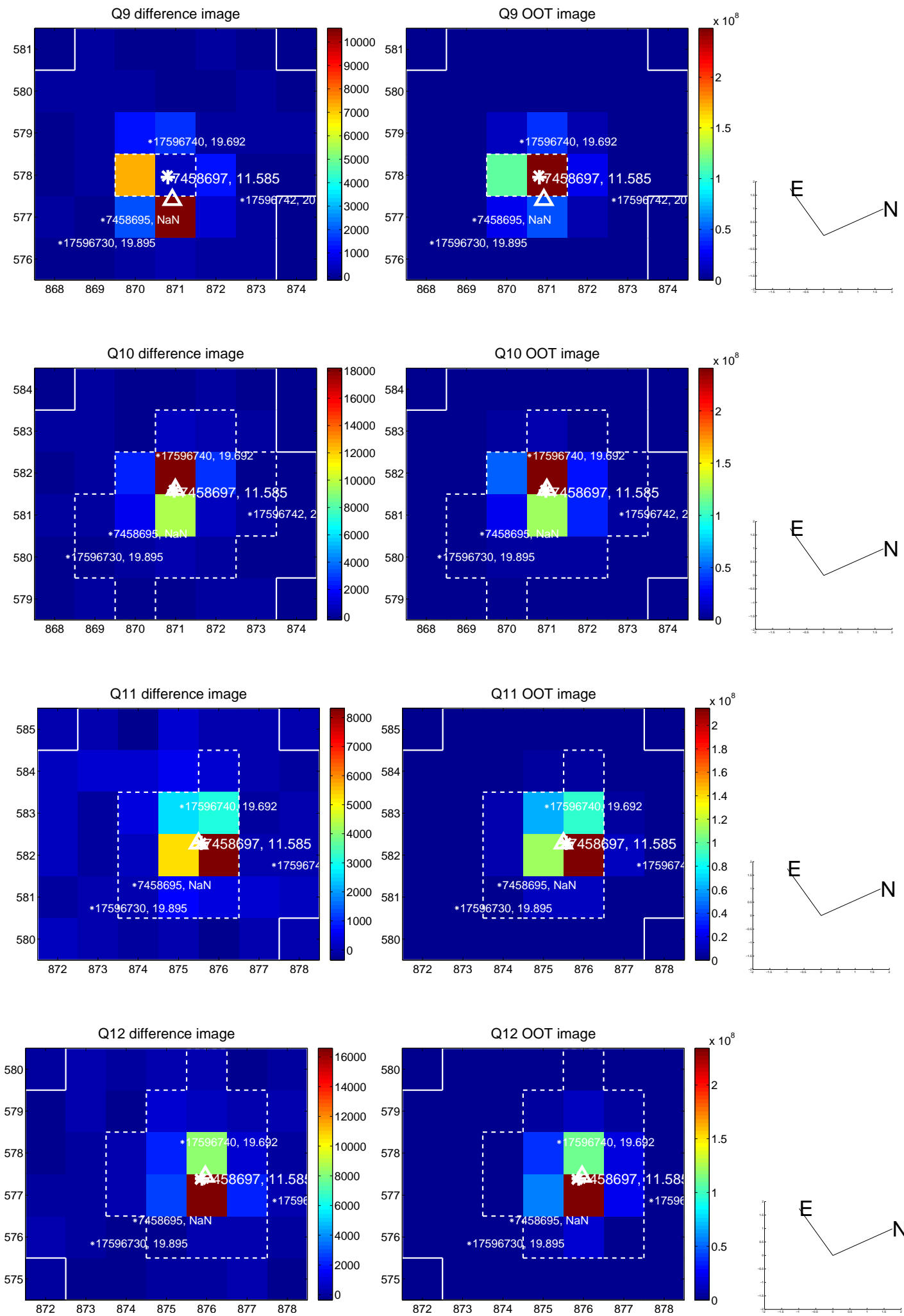
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



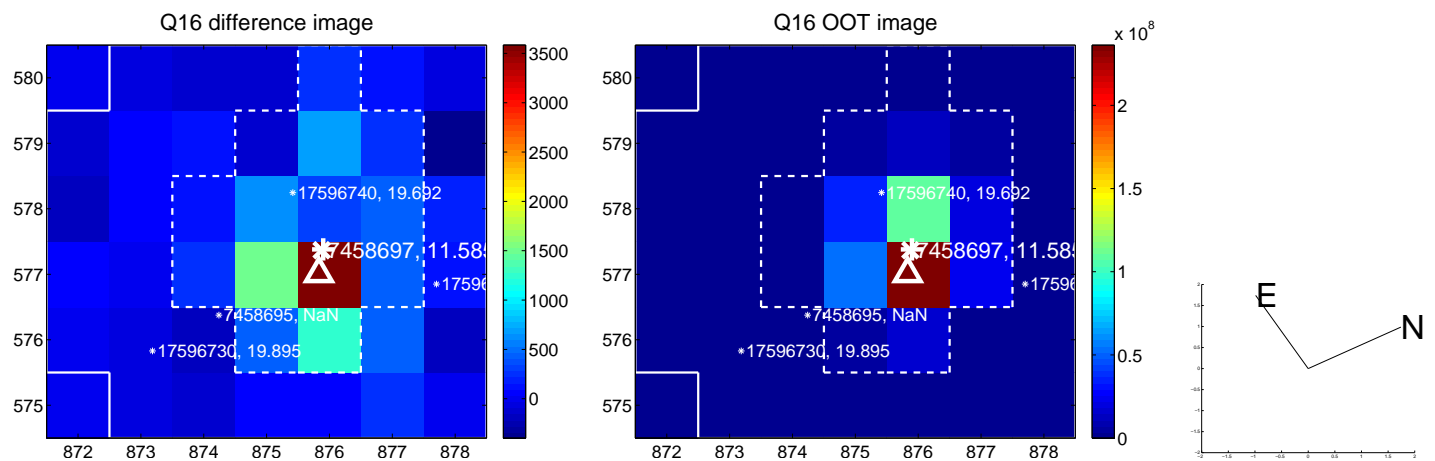
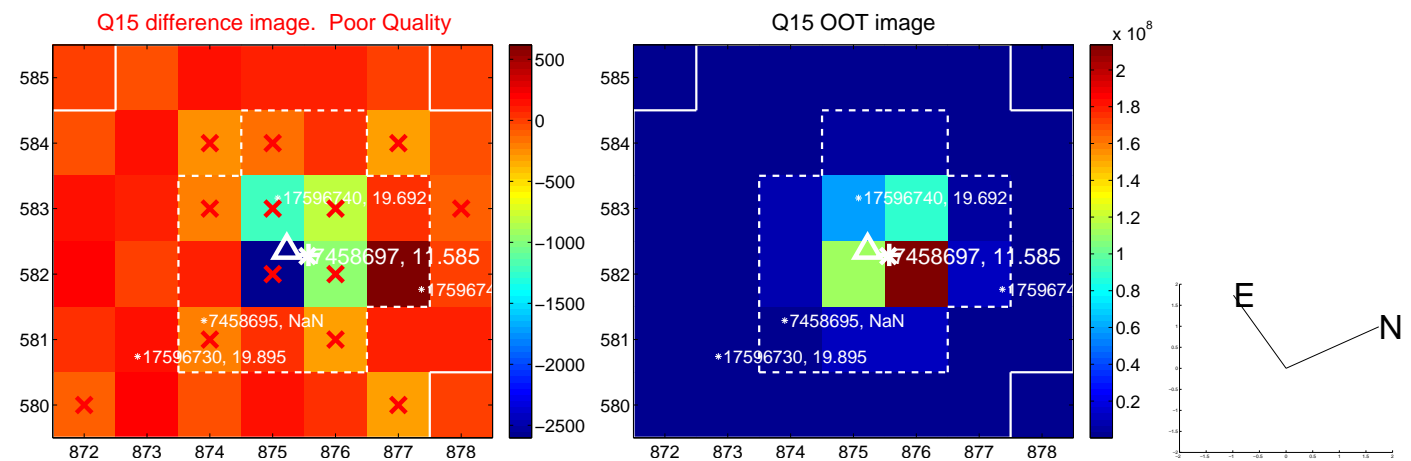
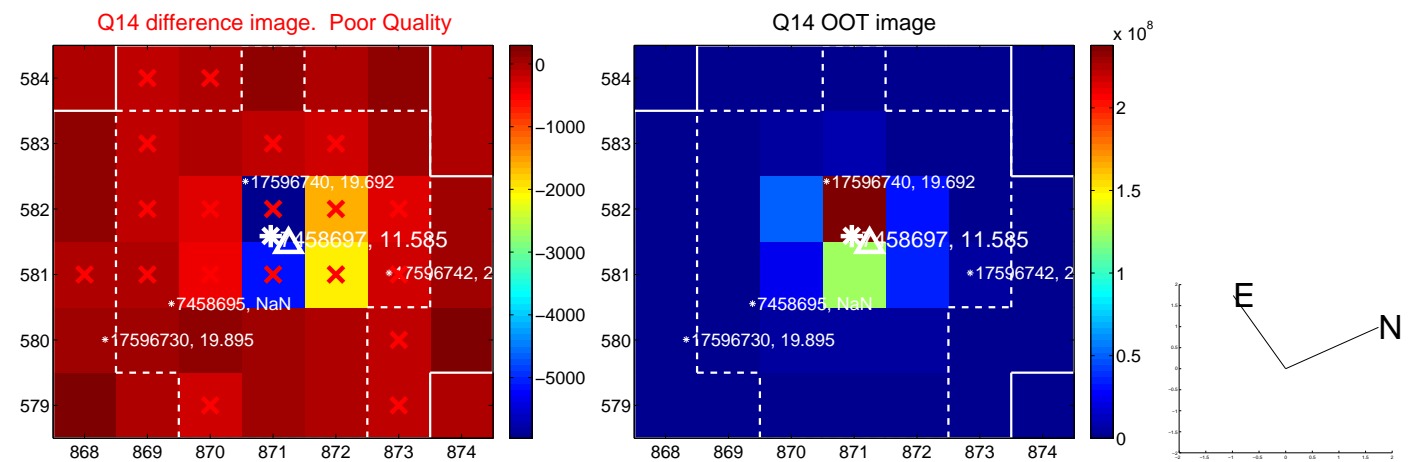
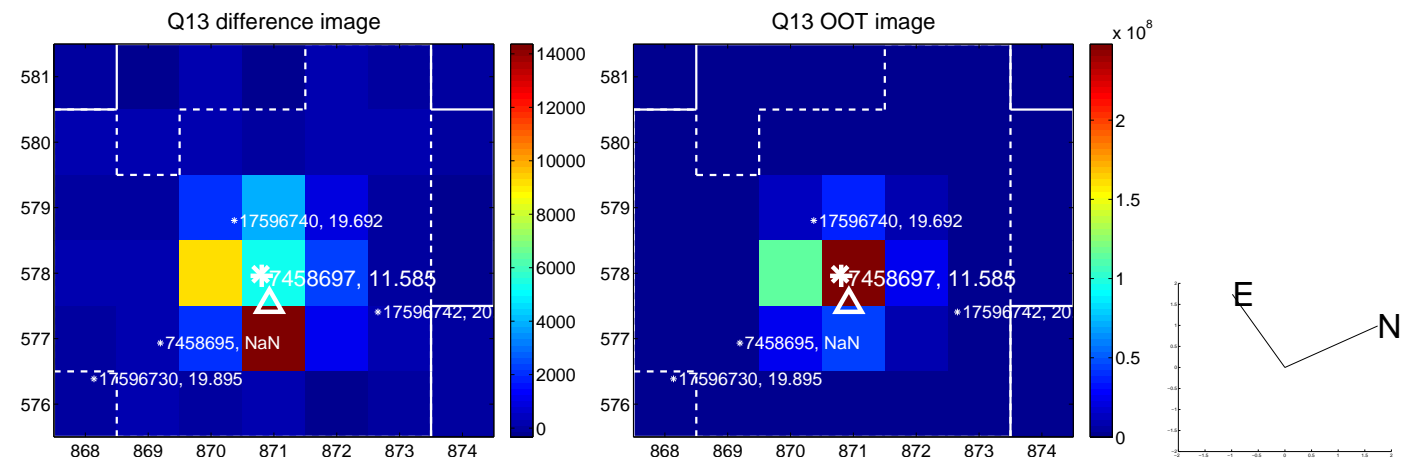
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



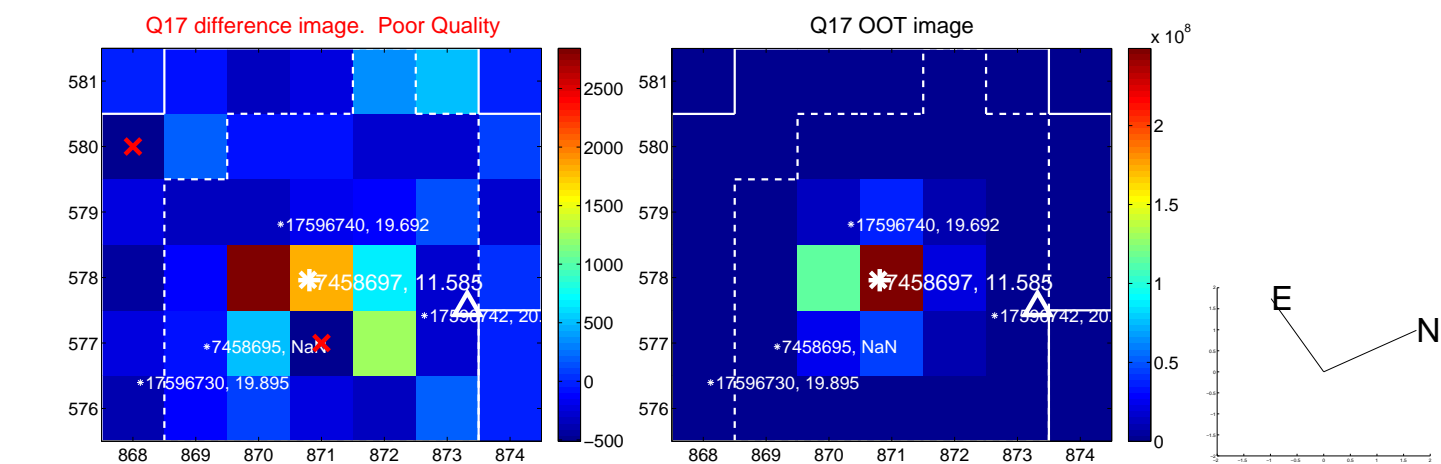
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



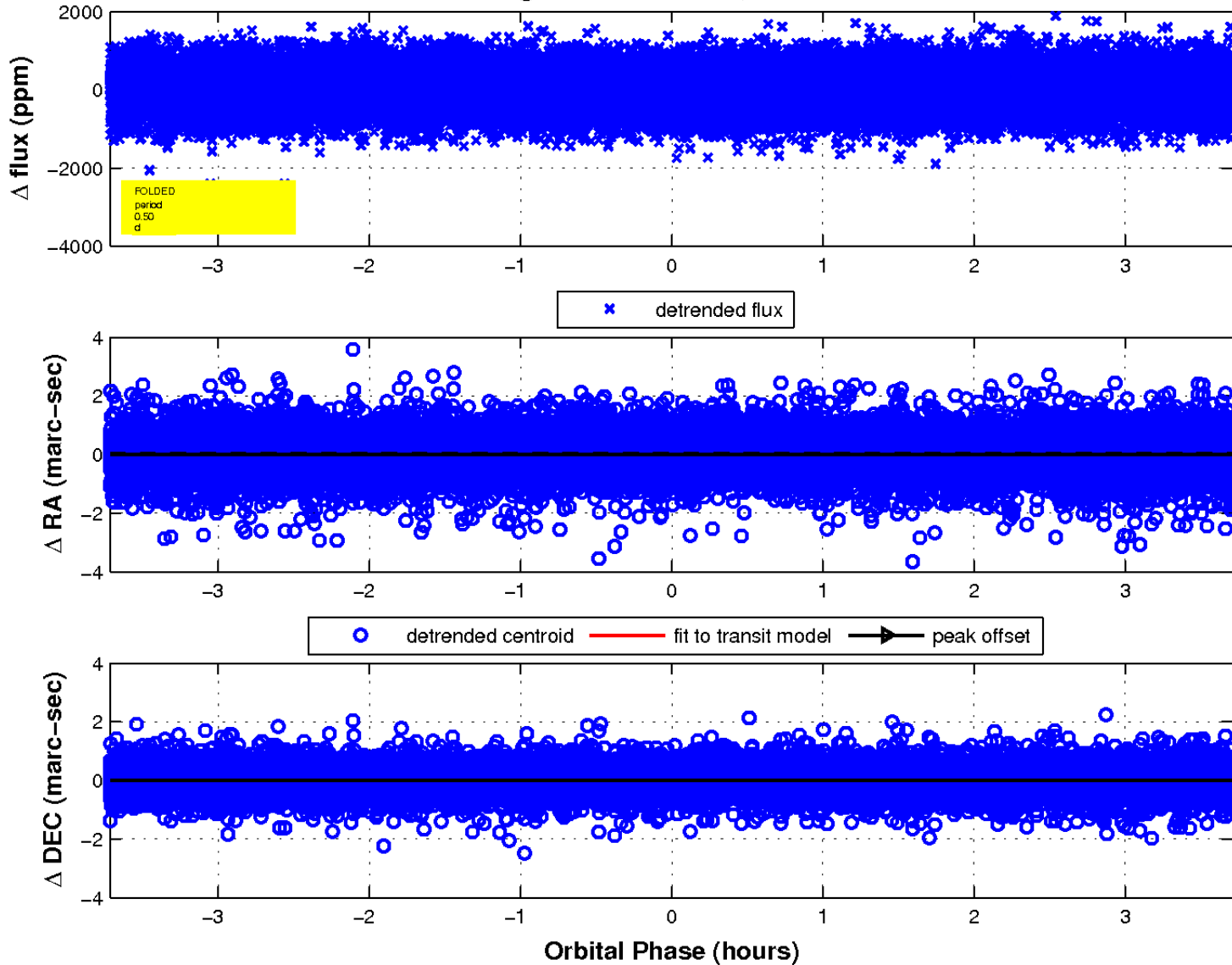
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



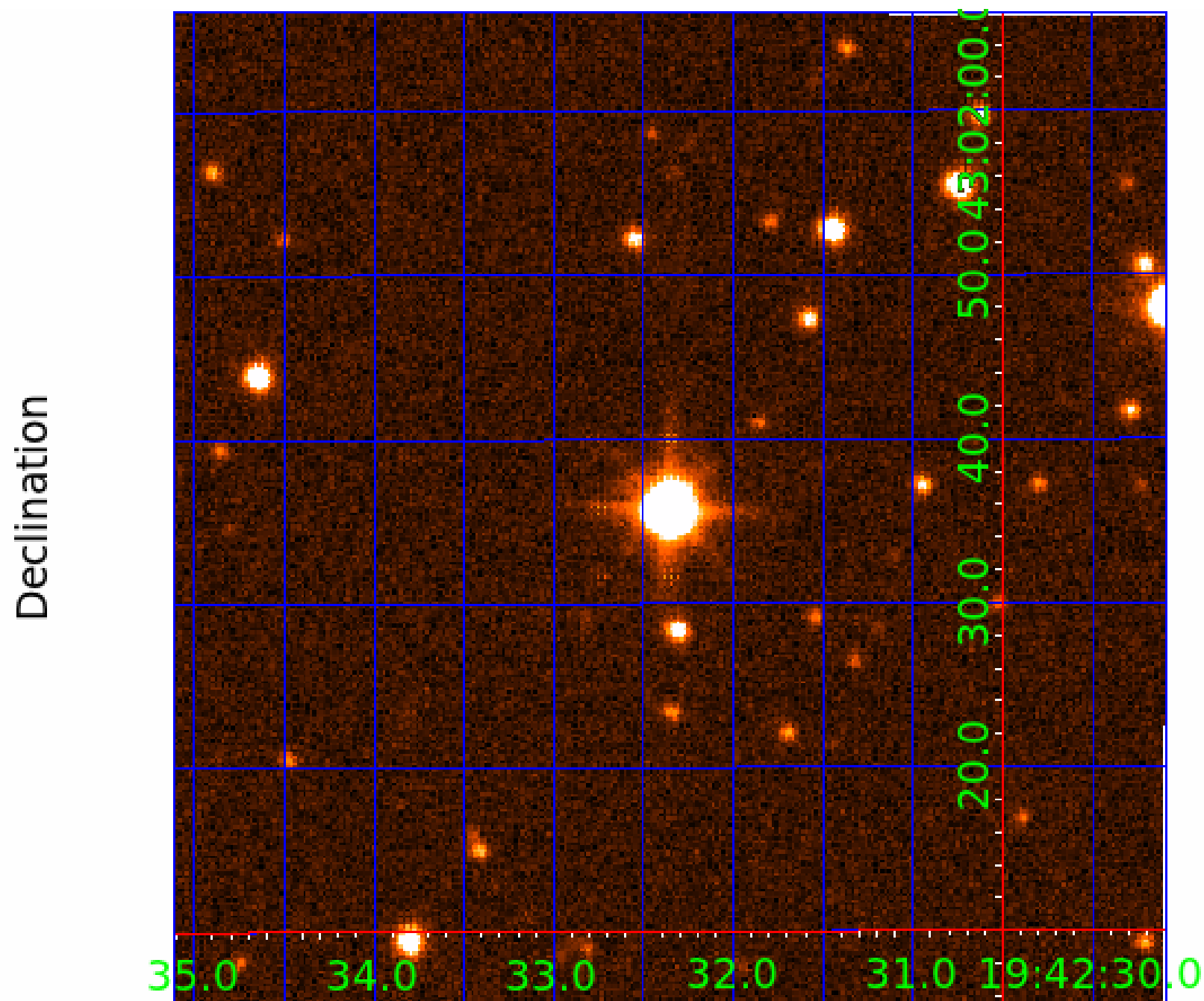
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 2 of 3



UKIRT Image



KIC 007458697

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})
007458697-01	OBS	No	1.009113	132.190545	68.9	1.107	12.3	12.0	3.05	8055	2.96	53845.51
007458697-02	OBS	No	0.504546	131.858950	54.0	1.238	11.2	13.2	3.05	8055	2.34	135685.91
007458697-03	OBS	No	1.009107	132.025997	47.6	2.310	9.5	10.2	3.05	8055	2.43	53845.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007458697-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007458697-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
007458697-03	OBS	FP	0.00	1	0	0	0	LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD

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

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

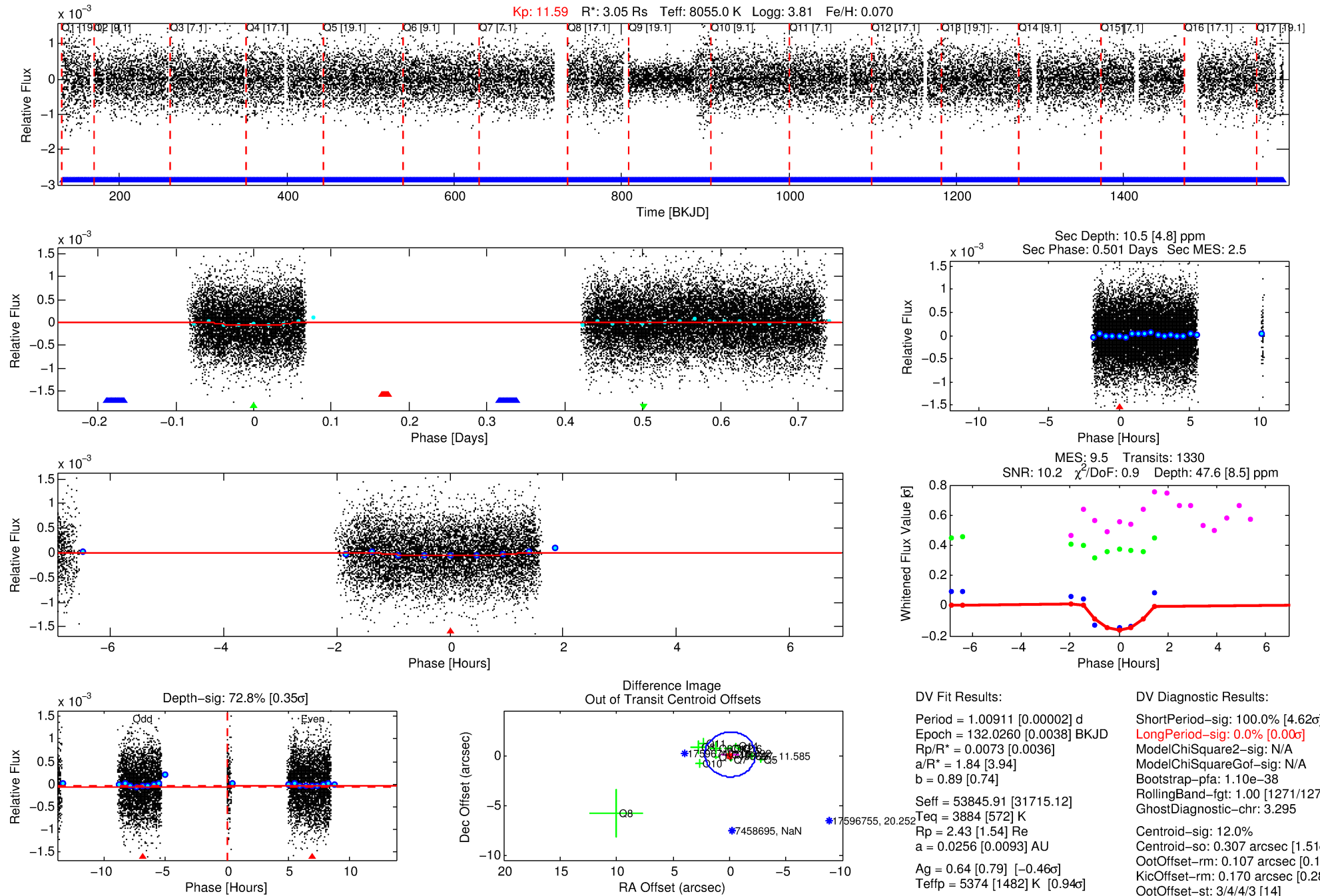
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007458697-03

No Significant Match Found

DV One-Page Summary

KIC: 7458697 Candidate: 3 of 3 Period: 1.009 d



DV Fit Results:

Period = 1.00911 [0.00002] d
Epoch = 132.0260 [0.0038] BKJD
 $R_p/R^* = 0.0073 [0.0036]$
 $a/R^* = 1.84 [3.94]$
 $b = 0.89 [0.74]$
 $\text{Seff} = 53845.91 [31715.12]$
 $\text{Teq} = 3884 [572] \text{ K}$
 $R_p = 2.43 [1.54] R_e$
 $a = 0.0256 [0.0093] \text{ AU}$
 $\text{Ag} = 0.64 [0.79] [-0.46\sigma]$
 $\text{Teffp} = 5374 [1482] \text{ K} [0.94\sigma]$

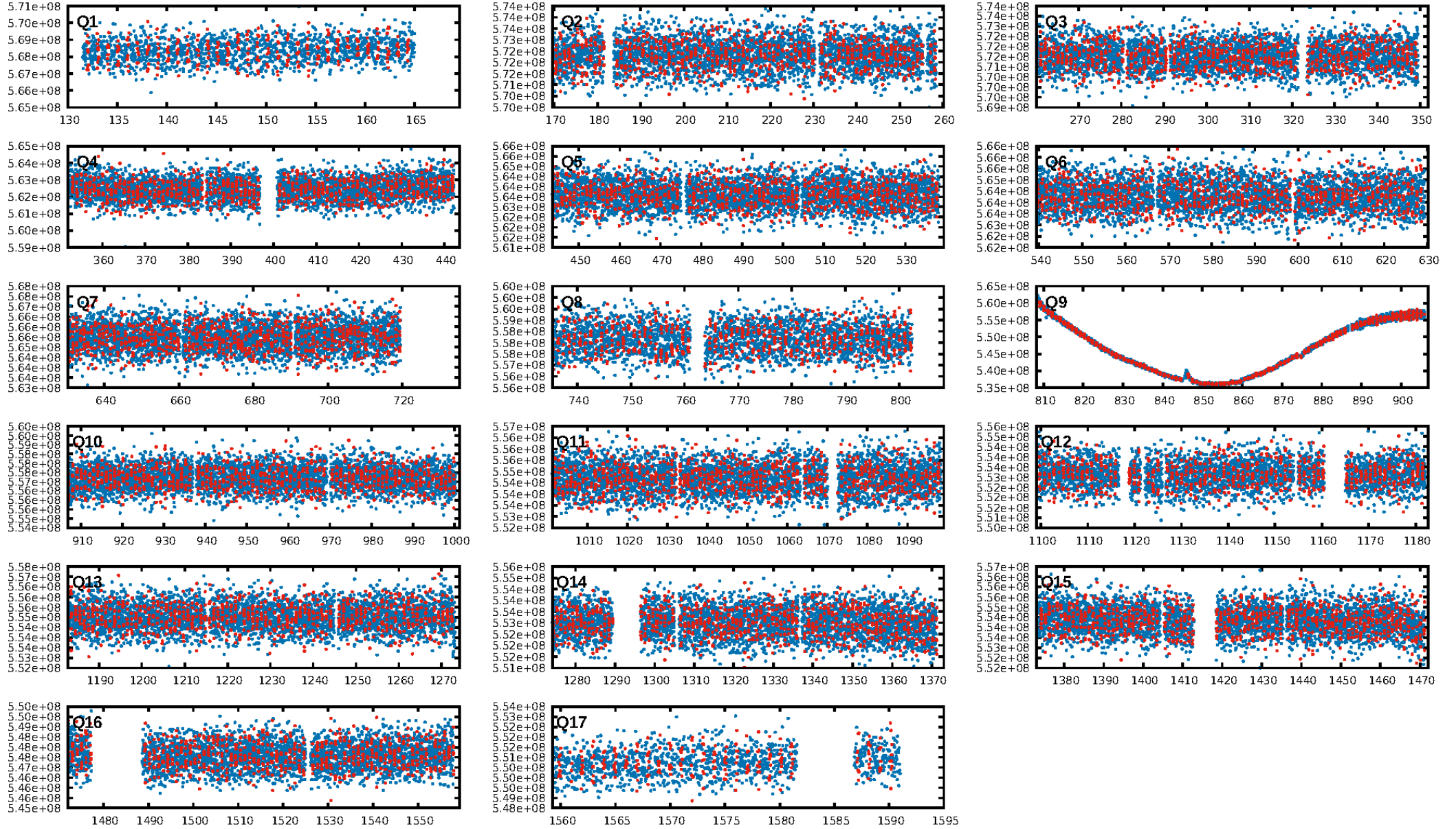
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [4.62σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.10e-38
RollingBand-fgt: 1.00 [1271/1271]
GhostDiagnostic-chr: 3.295
Centroid-sig: 12.0%
Centroid-so: 0.307 arcsec [1.51σ]
OotOffset-rm: 0.107 arcsec [0.14σ]
KicOffset-rm: 0.170 arcsec [0.28σ]
OotOffset-st: 3/4/4/3 [14]
KicOffset-st: 3/4/4/3 [14]
DiffImageQuality-fgm: 0.57 [8/14]
DiffImageOverlap-fno: 0.00 [0/17]

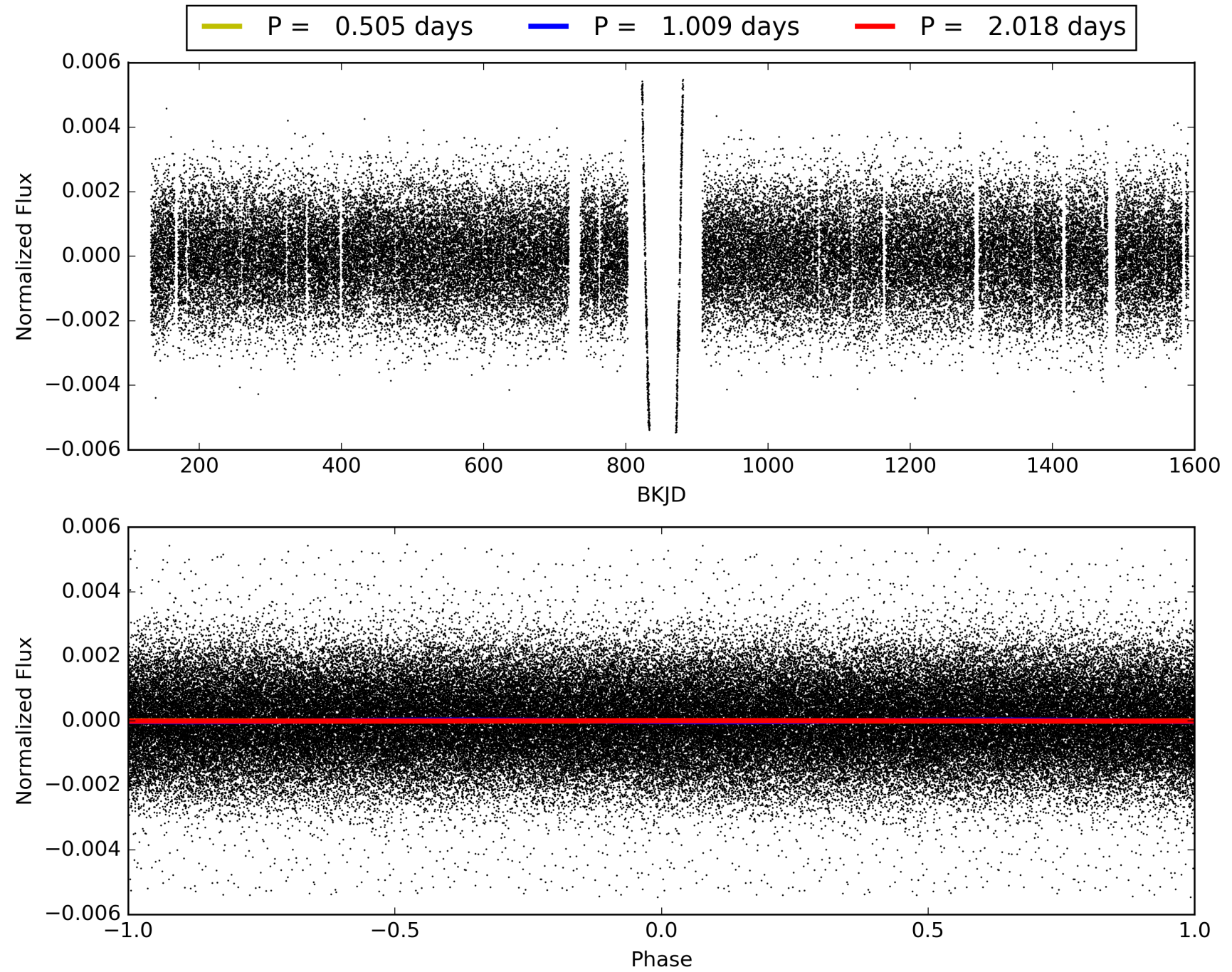
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:23:55 Z

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

TCE 007458697-03, PDC Light Curves

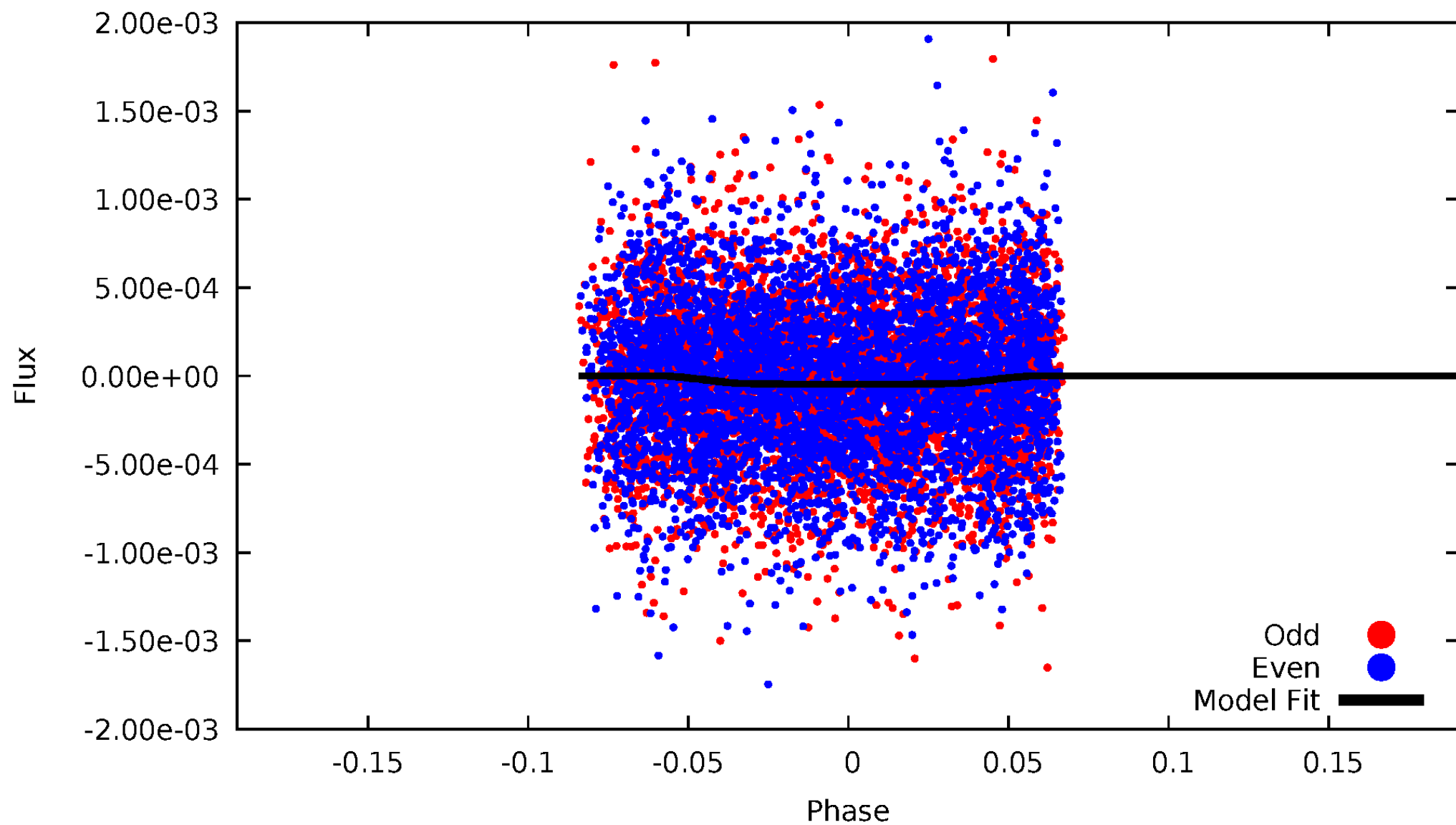


TCE 007458697-03



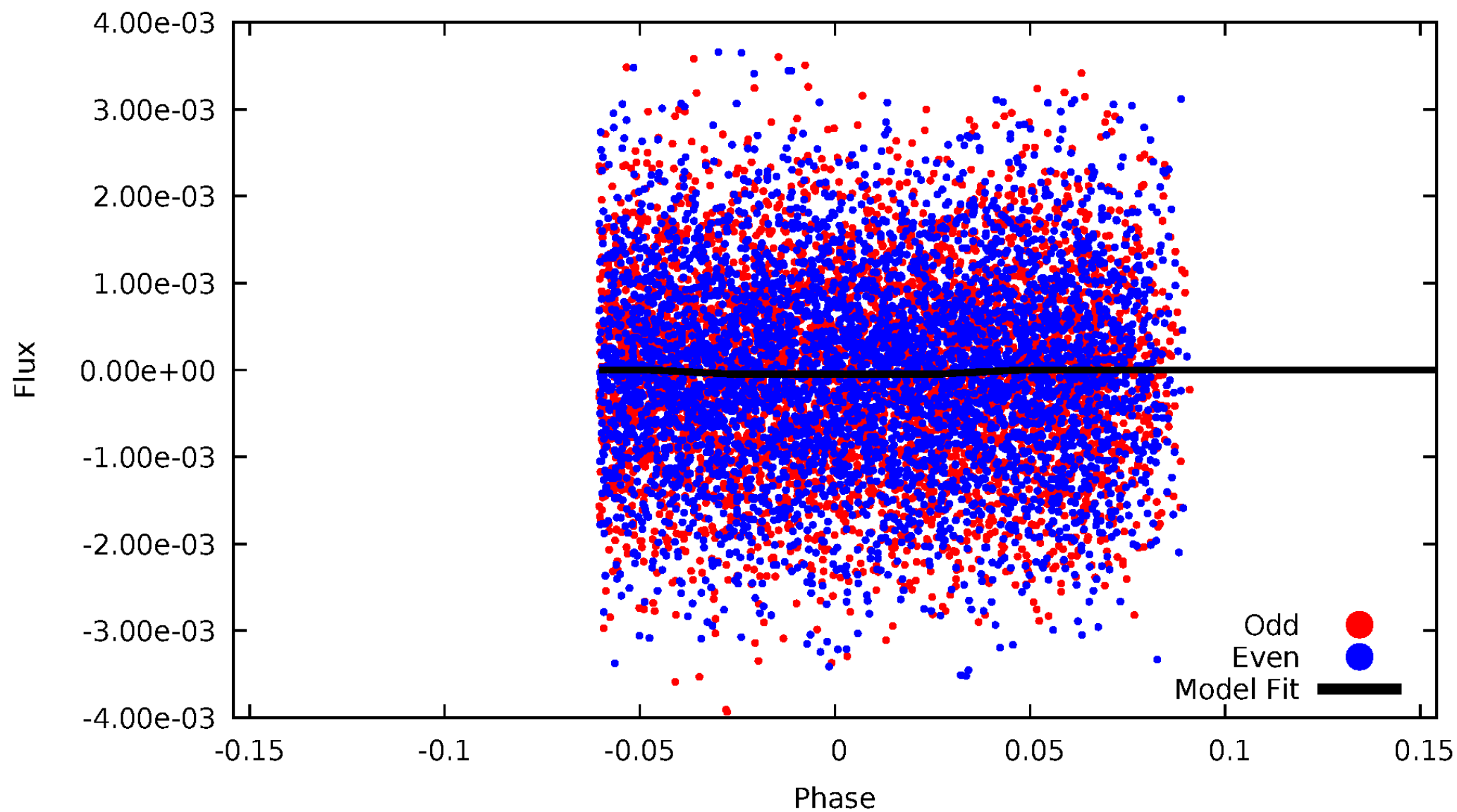
DV Odd/Even

TCE 007458697-03

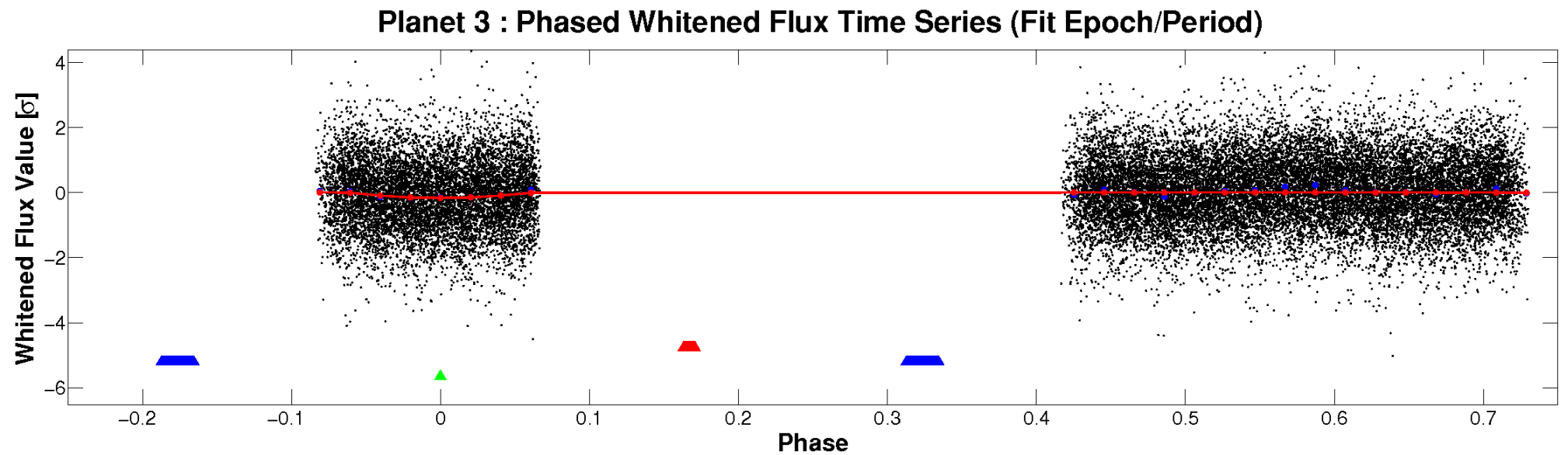
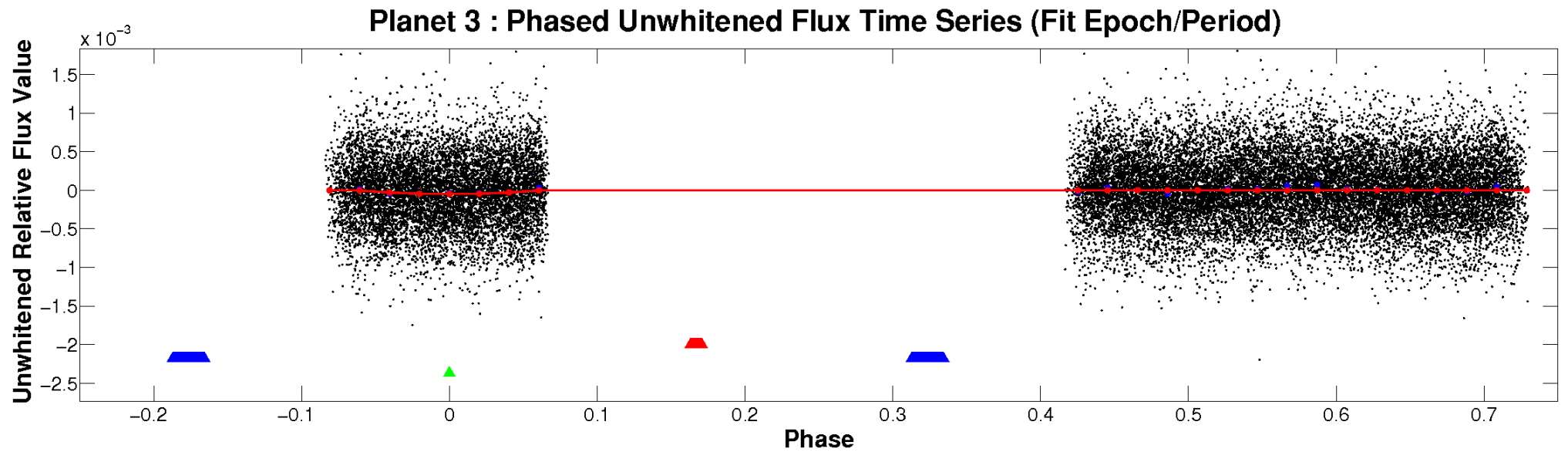


ALT Odd/Even

TCE 007458697-03

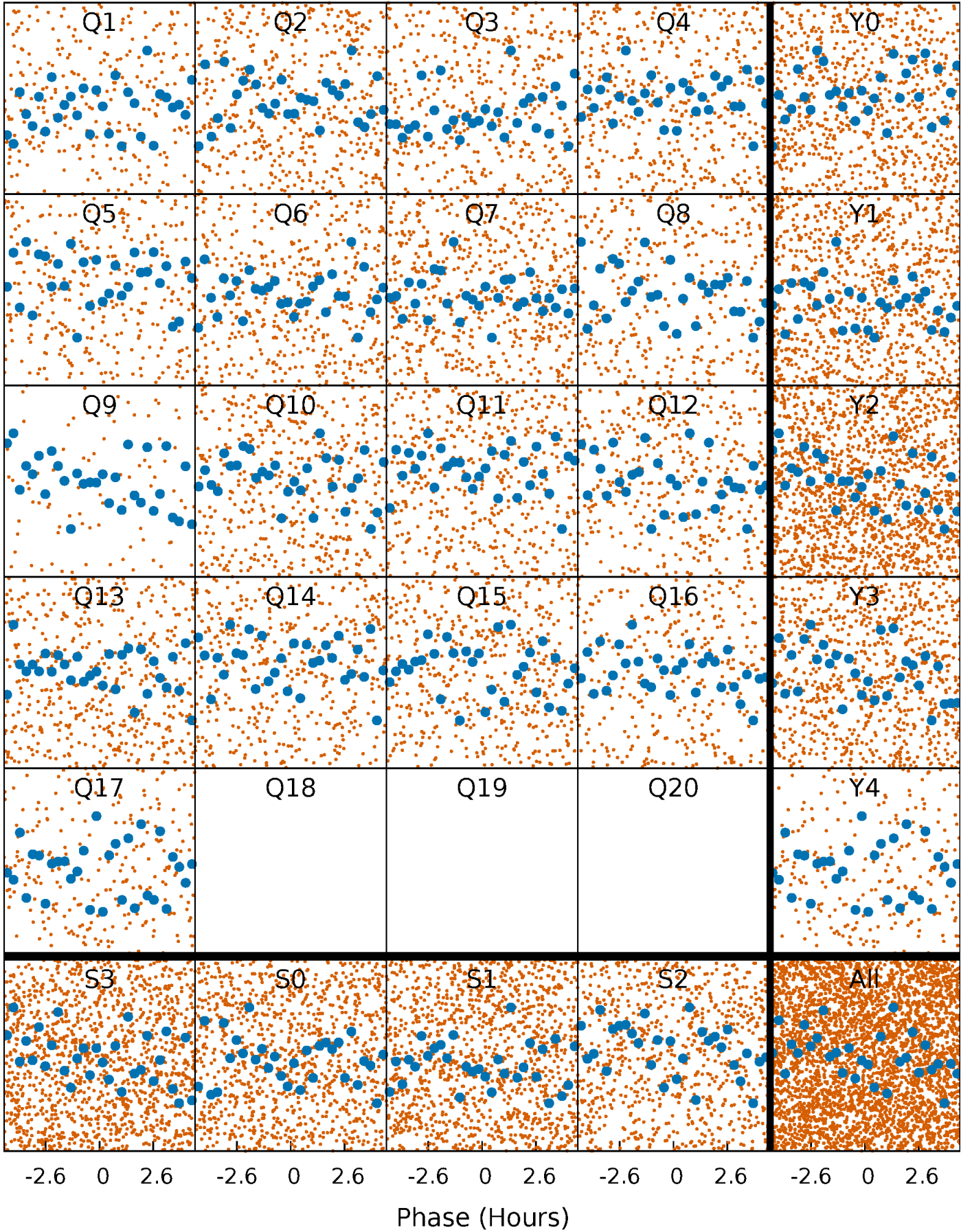


Non-Whitened Vs. Whitened Light Curve



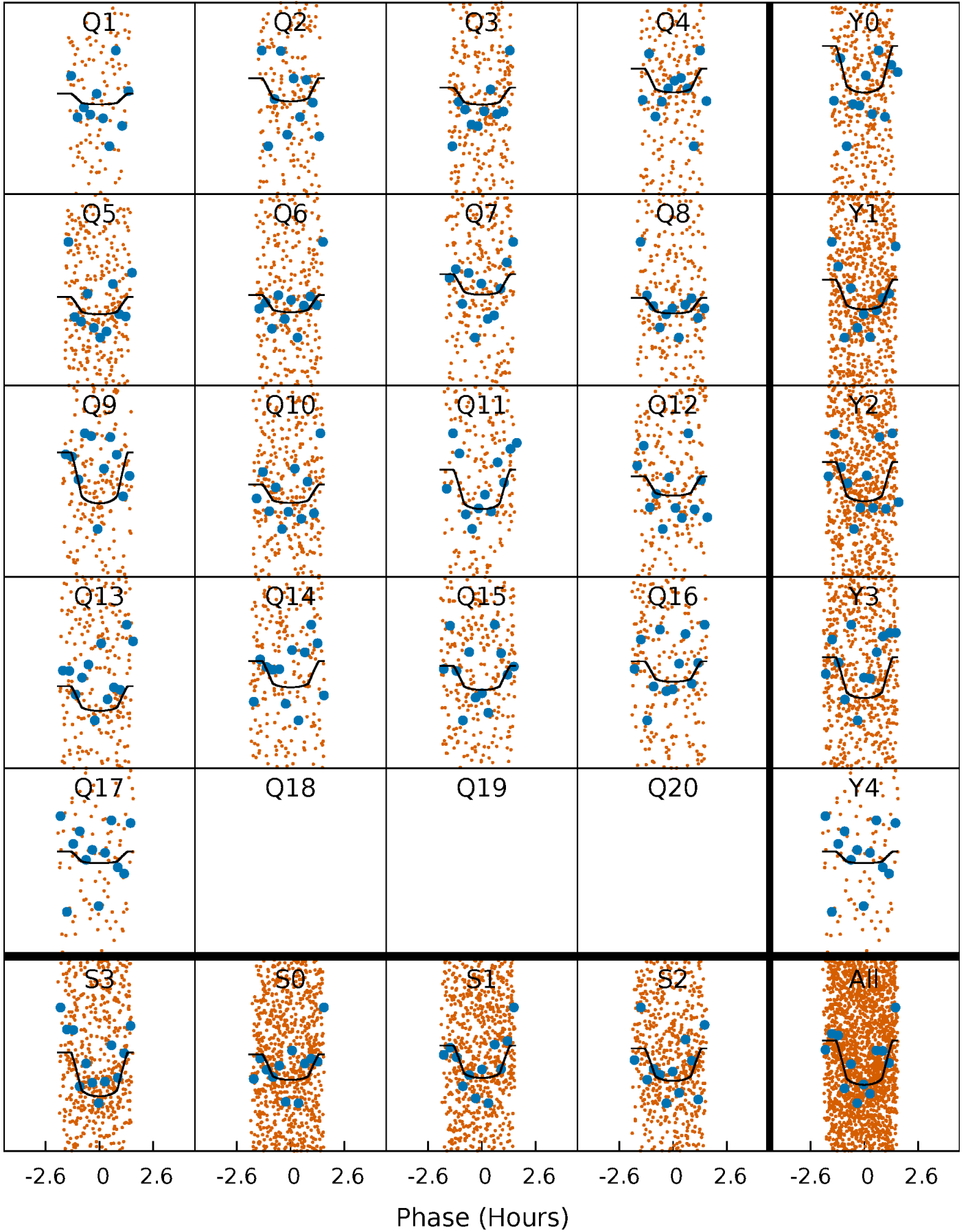
PDC Quarter-Phased Transit Curves

TCE 007458697-03 P= 1.009107 Days $T_0=132.025997$ (BKJD)



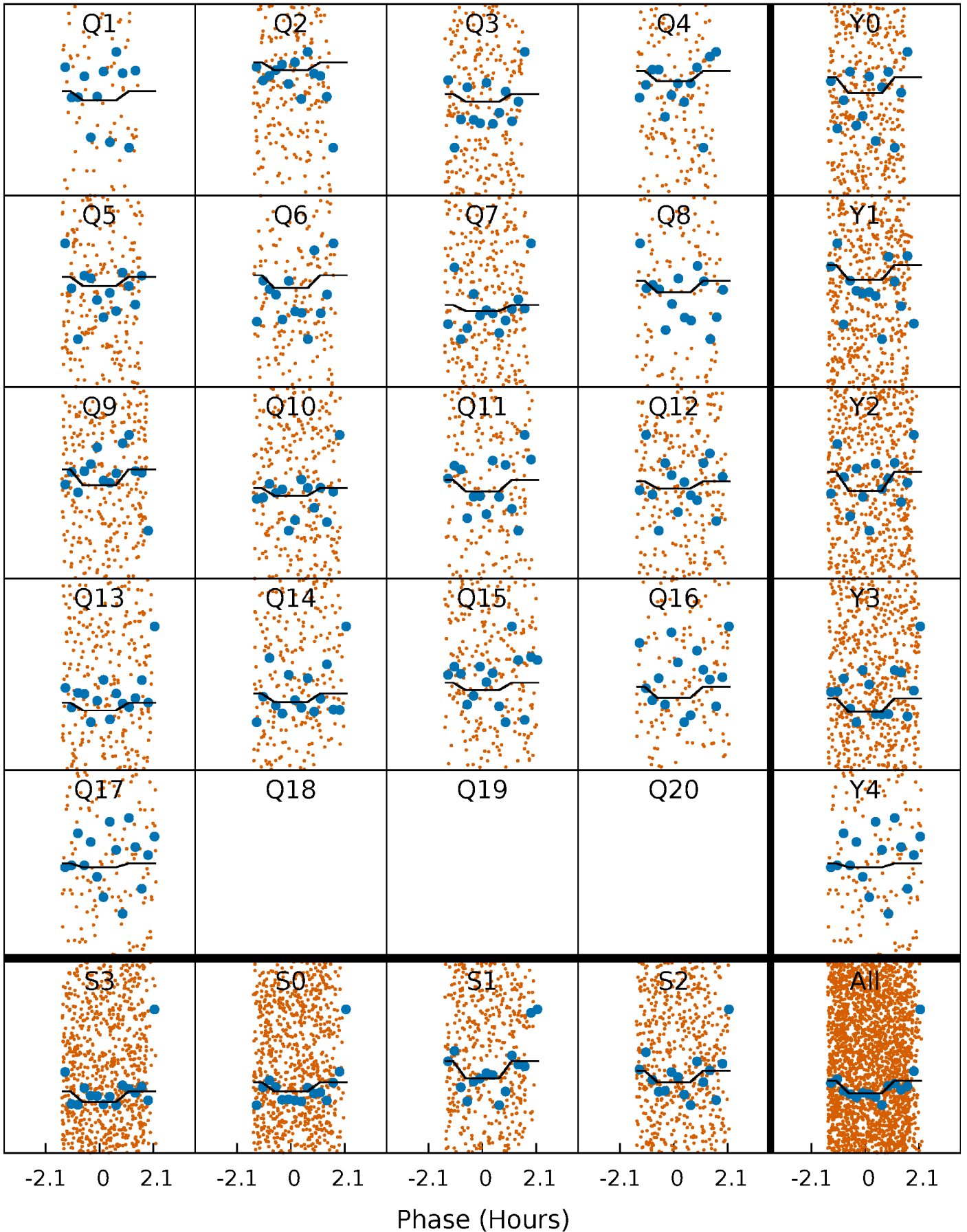
DV Quarter-Phased Transit Curves

TCE 007458697-03 P= 1.009107 Days $T_0=132.025997$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

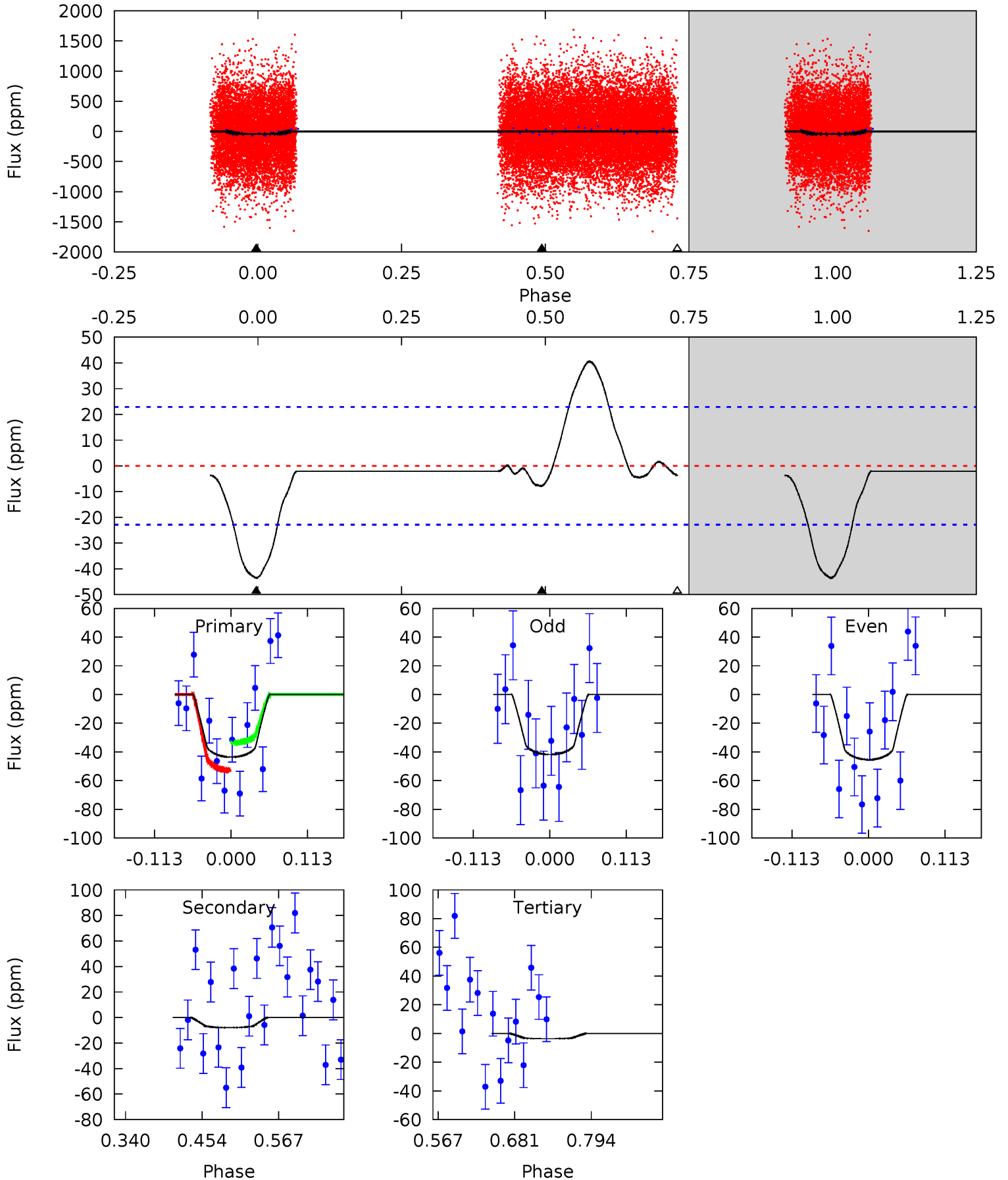
TCE 007458697-03 $P = 1.009092$ Days $T_0 = 132.023875$ (BKJD)



DV Model-Shift Uniqueness Test

007458697-03, P = 1.009107 Days, E = 131.016890 Days

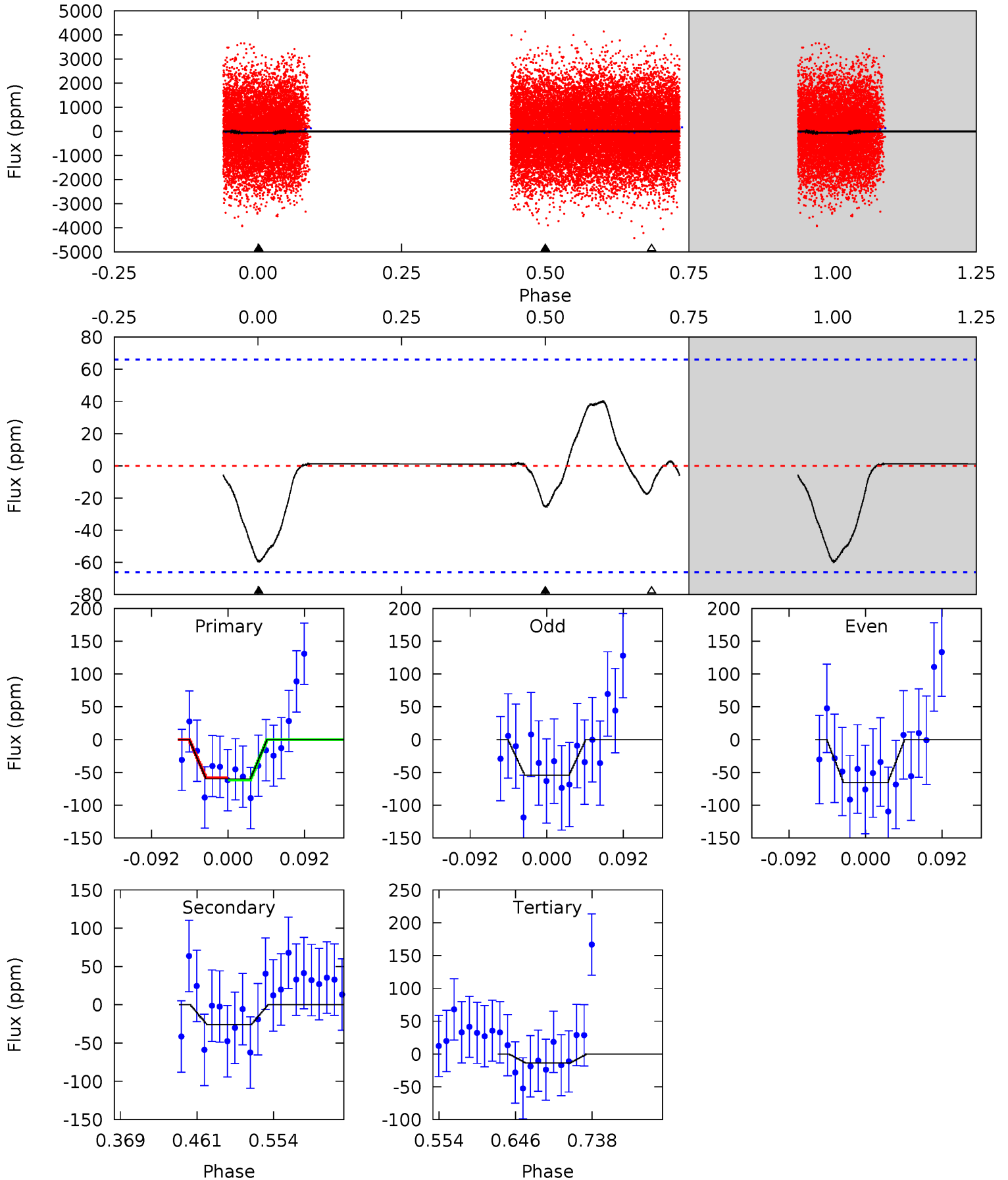
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.65	1.56	0.73	0	4.54	1.58	1.56	7.92	8.65	0.83	1.56	0.35	1.10	0.48	1.91



Alt Model-Shift Uniqueness Test

007458697-03, P = 1.009092 Days, E = 131.014783 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.15	1.80	0.96	0	4.58	1.68	1.17	3.19	4.15	0.83	1.80	0.39	1.10	0.40	0.12



Stellar Parameters For KIC 007458697

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8055^{+222}_{-361}	$3.808^{+0.322}_{-0.138}$	$0.070^{+0.300}_{-0.400}$	$3.054^{+0.811}_{-1.216}$	$2.184^{+0.306}_{-0.569}$	$0.108^{+0.297}_{-0.043}$
	+3%/-4%	+8%/-4%	+429%/-571%	+27%/-40%	+14%/-26%	+275%/-40%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007458697-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-8 ± 5	$2.27^{+1.35}_{-1.17}$	5326^{+393}_{-566}	3991^{+2421}_{-8129}	$0.474^{+1.655}_{-0.362}$
Alt.	-26 ± 14	$2.11^{+1.32}_{-1.15}$	5326^{+408}_{-512}	6362^{+4225}_{-1936}	$1.912^{+7.769}_{-1.325}$

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 $A_{\text{obs}} \gg 1.0$

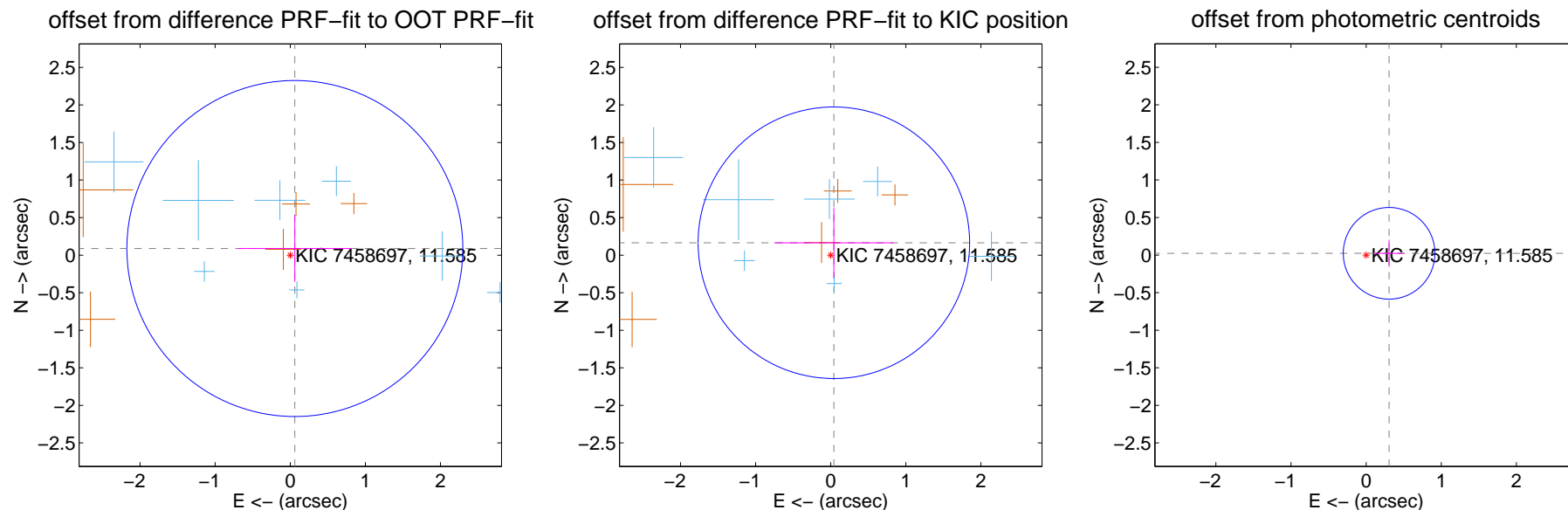
DV Centroid Data

Supplemental centroid analysis for 007458697-03. **Kepler magnitude: 11.59.** Transit SNR 10.22

There are 8 quarters with good PRF difference image offsets

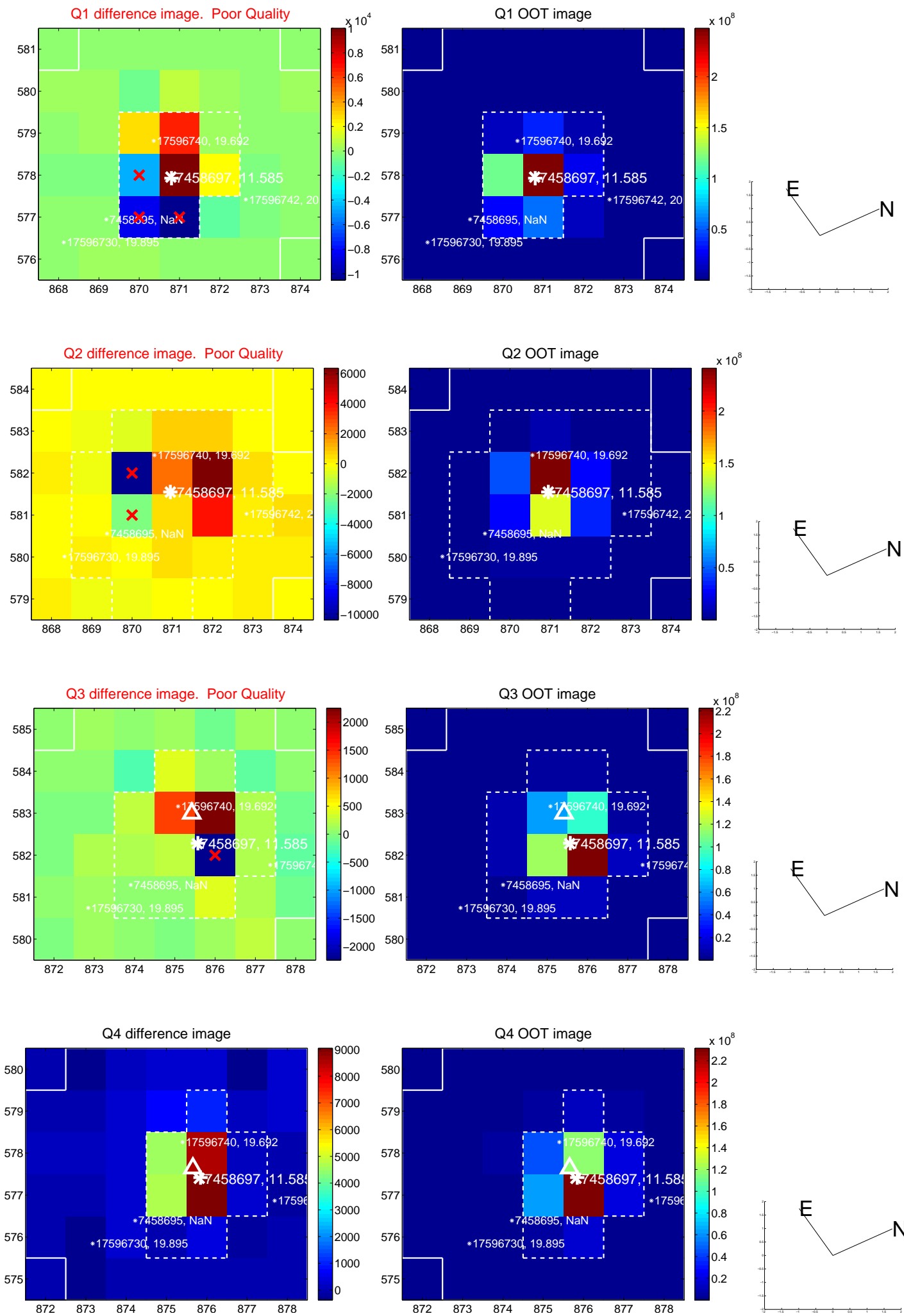
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.107 ± 0.746	0.14	-0.061 ± 0.755	0.088 ± 0.446
PRF-fit source offset from KIC position	0.170 ± 0.603	0.28	-0.042 ± 0.794	0.165 ± 0.464
photometric centroid source offset	0.31 ± 0.20	1.51	-0.31 ± 0.20	0.02 ± 0.18

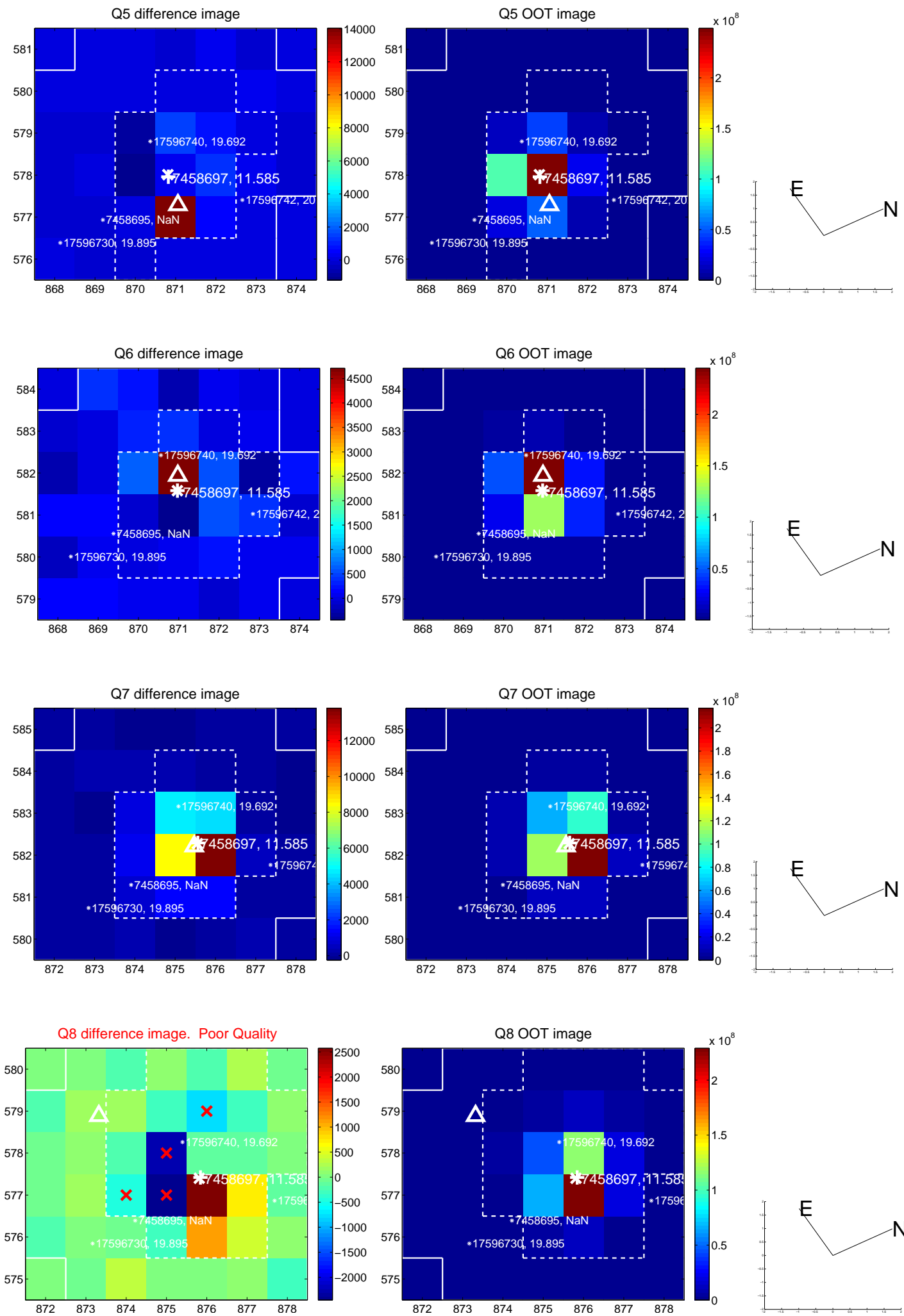


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

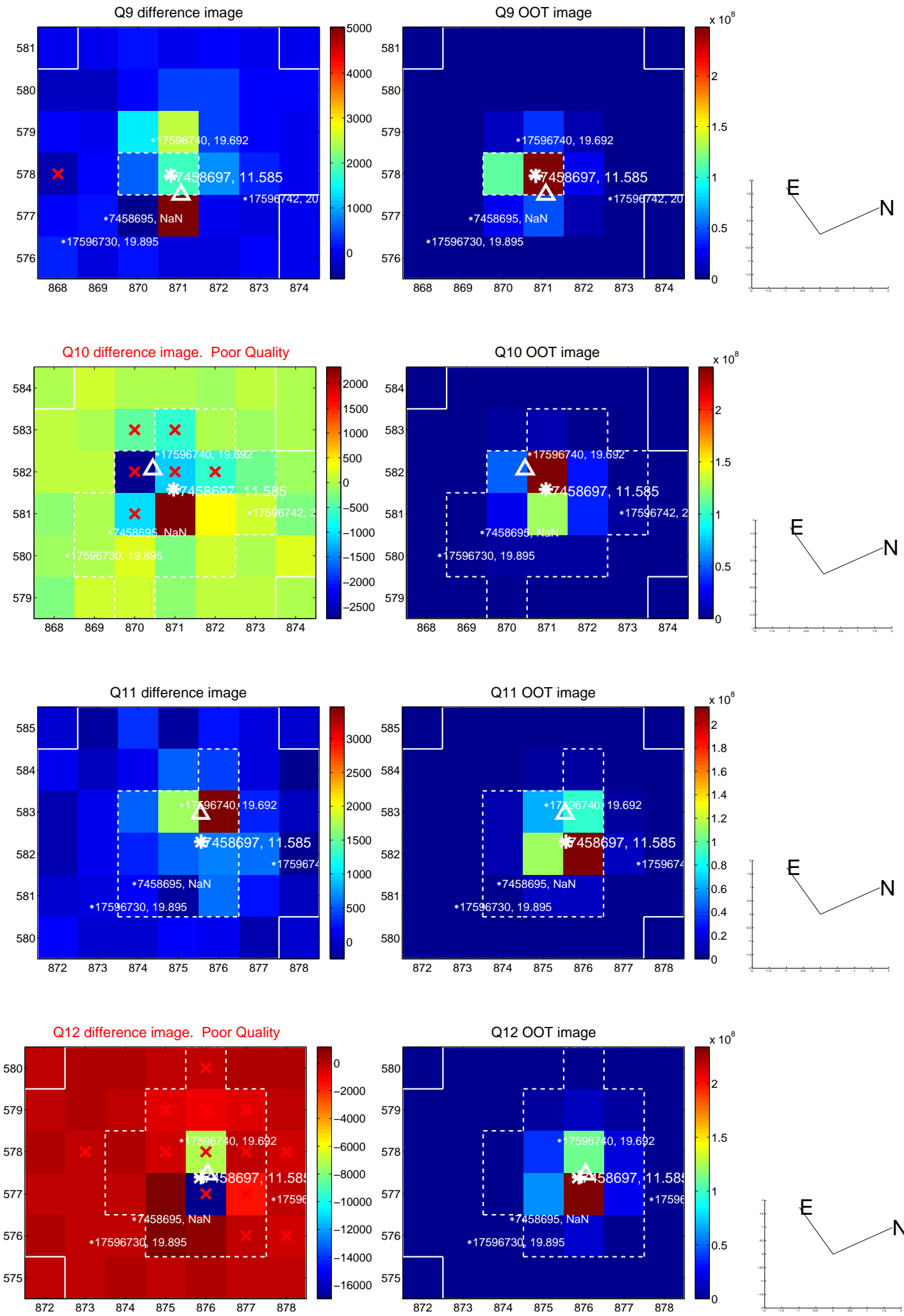
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



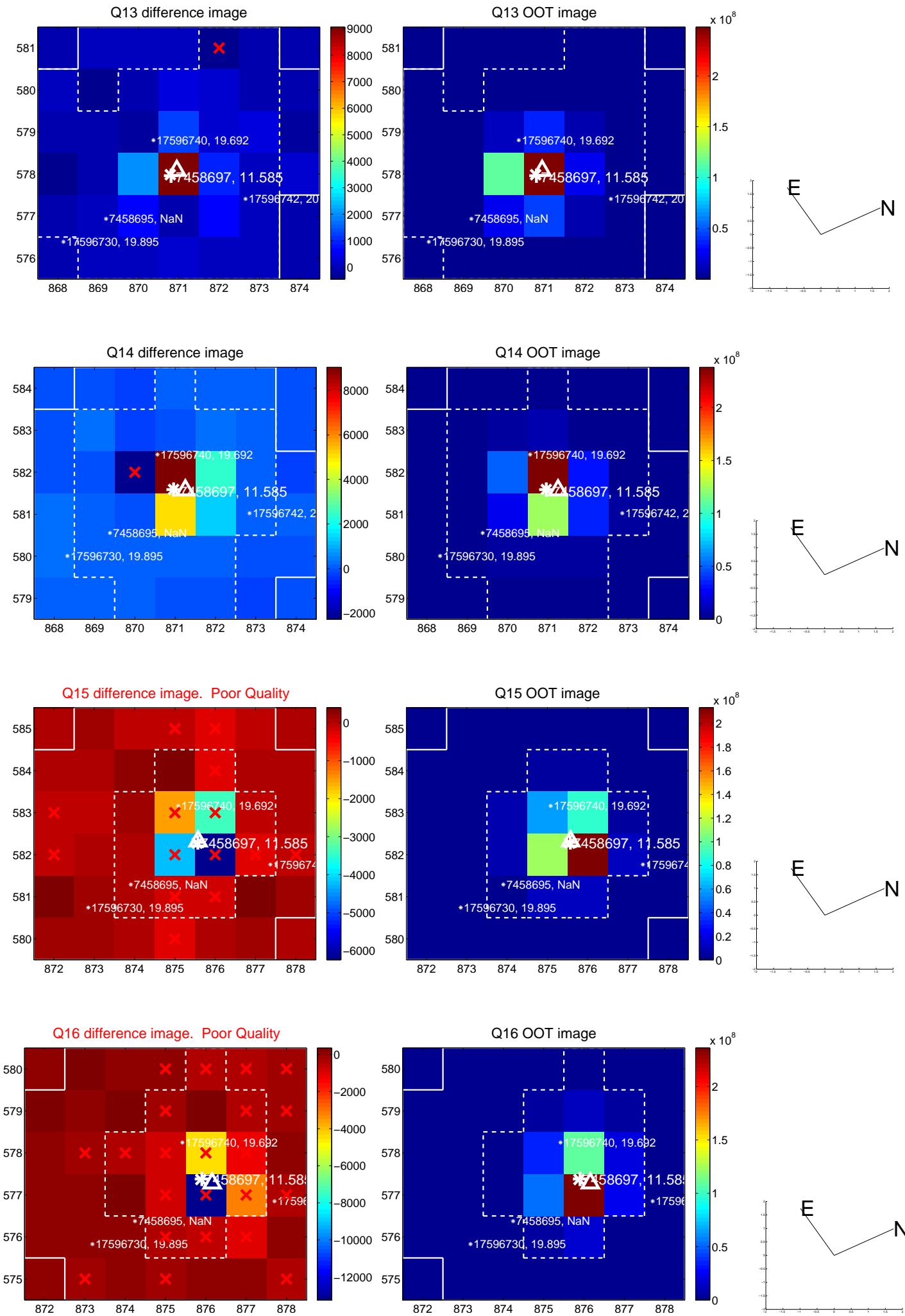
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



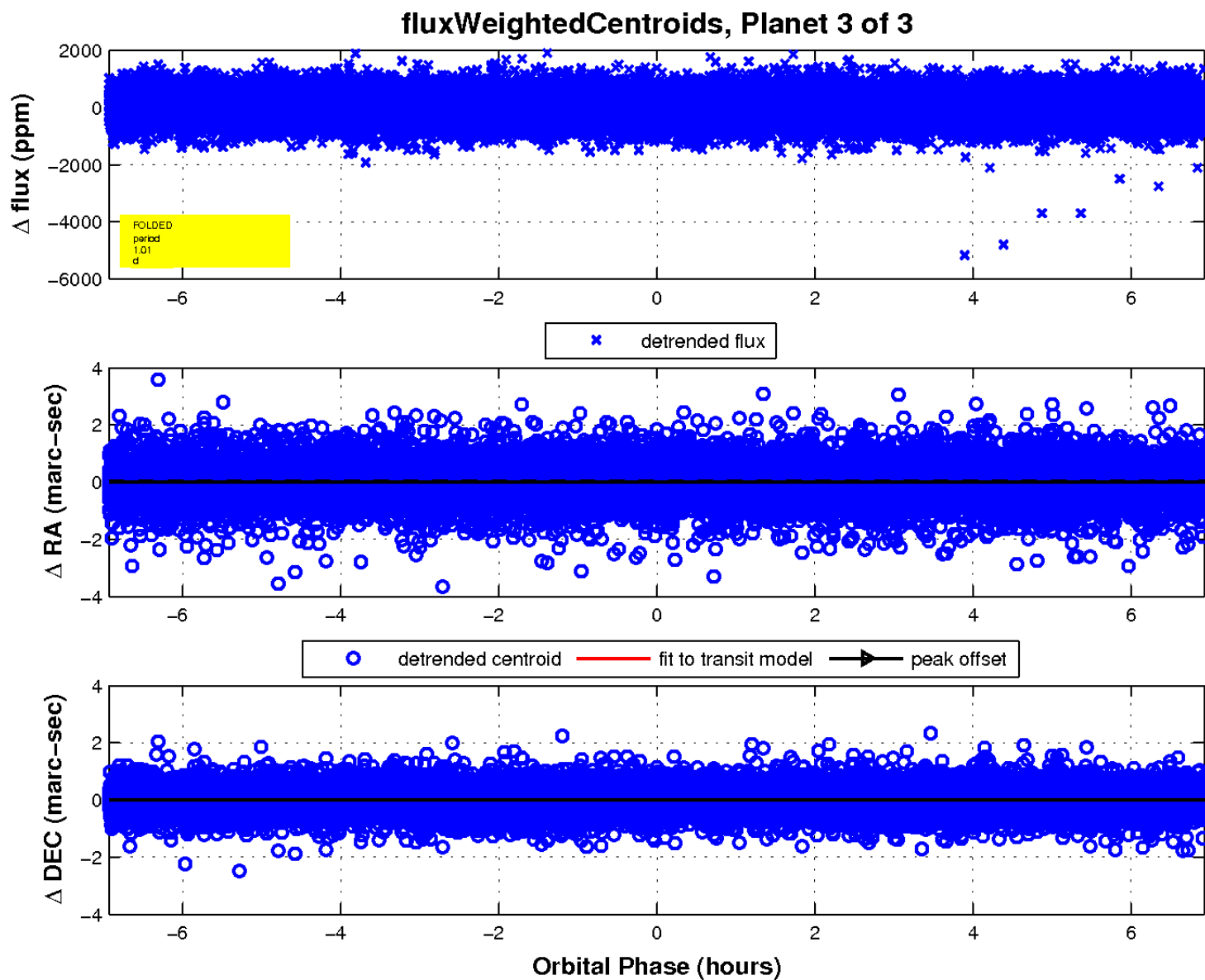
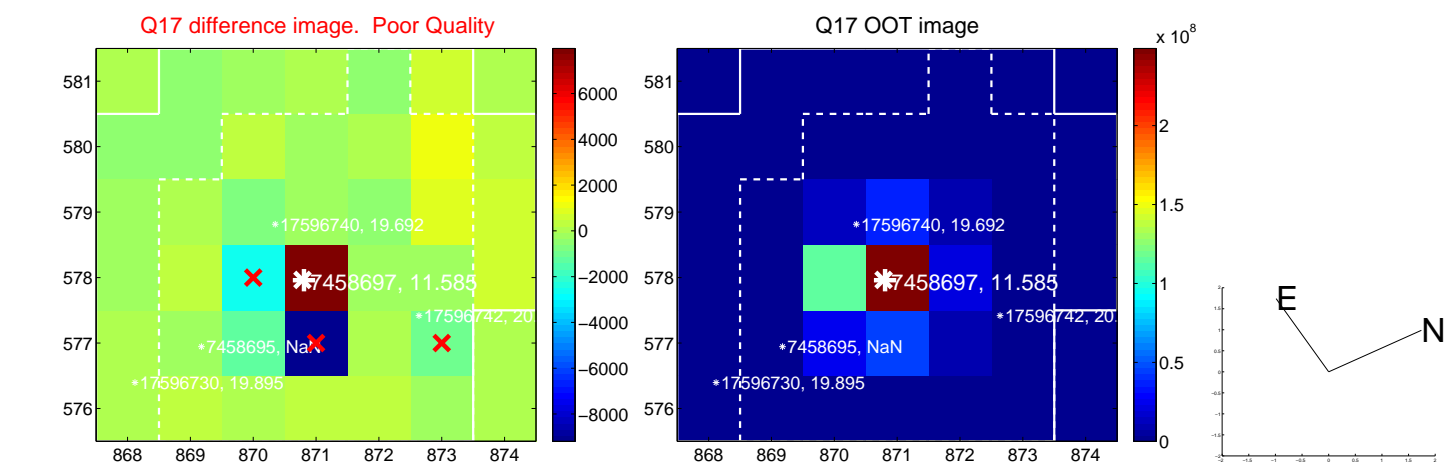
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

