

KIC 007548259

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})
007548259-01	OBS	No	0.726815	132.077242	80.4	1.177	11.1	6.3	2.69	7698	2.81	57649.27
007548259-02	OBS	No	0.545112	131.547691	128.4	2.386	10.5	12.7	2.69	7698	3.54	84601.55
007548259-03	OBS	No	2.180451	131.912001	174.3	2.942	9.1	10.5	2.69	7698	4.11	13323.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007548259-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
007548259-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
007548259-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—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.

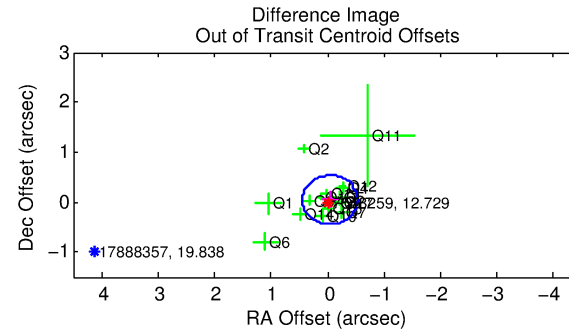
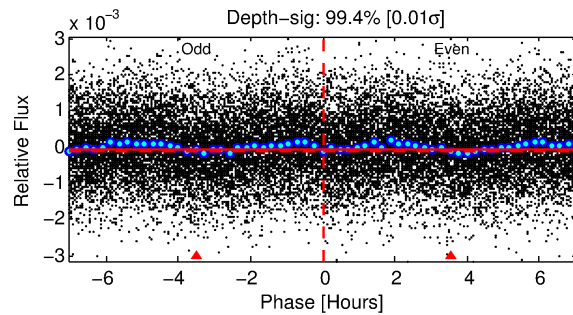
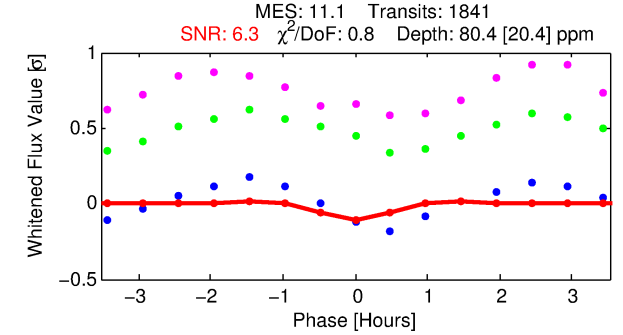
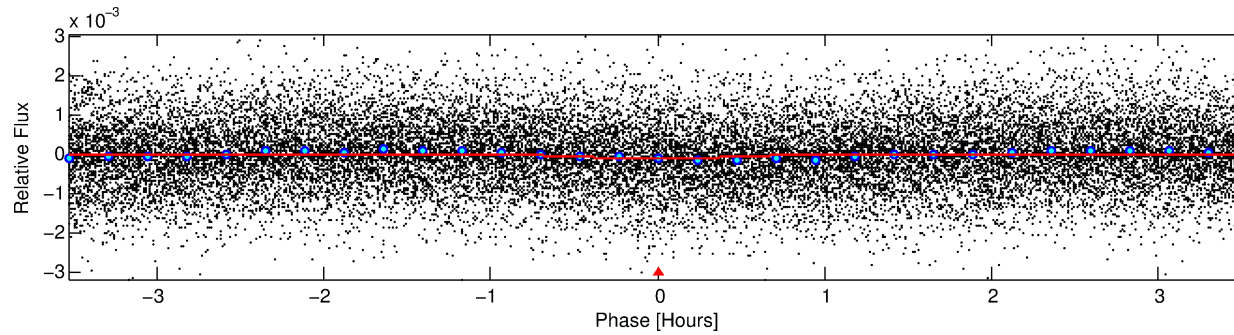
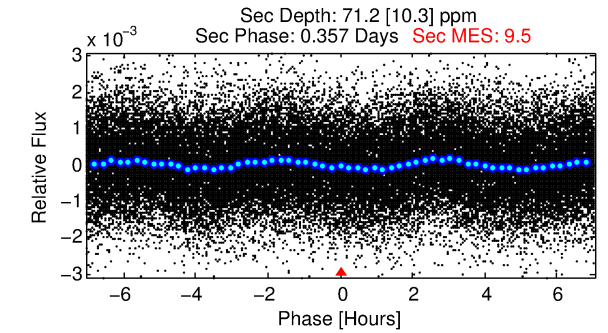
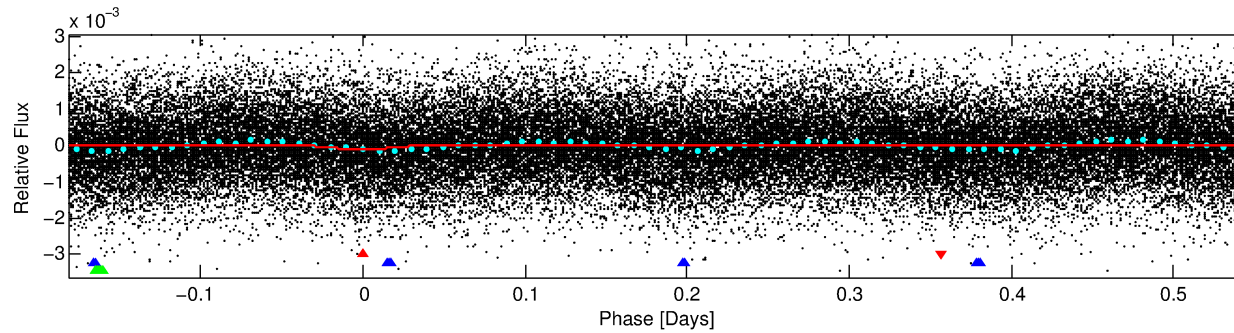
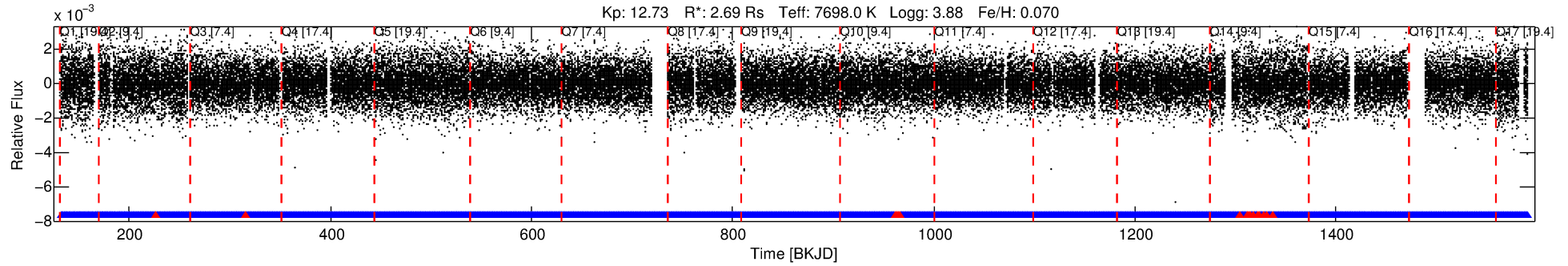
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007548259-01

No Significant Match Found

DV One-Page Summary

KIC: 7548259 Candidate: 1 of 3 Period: 0.727 d



DV Fit Results:

Period = 0.72681 [0.00002] d
Epoch = 132.0772 [0.0032] BKJD
Rp/R* = 0.0096 [0.0082]
a/R* = 2.37 [10.50]
b = 0.90 [1.18]
Seff = 57649.27 [29950.91]
Teq = 3951 [513] K
Rp = 2.81 [2.60] Re
a = 0.0199 [0.0062] AU
Ag = 1.96 [3.52] [0.27σ]
Teffp = 7229 [3138] K [1.03σ]

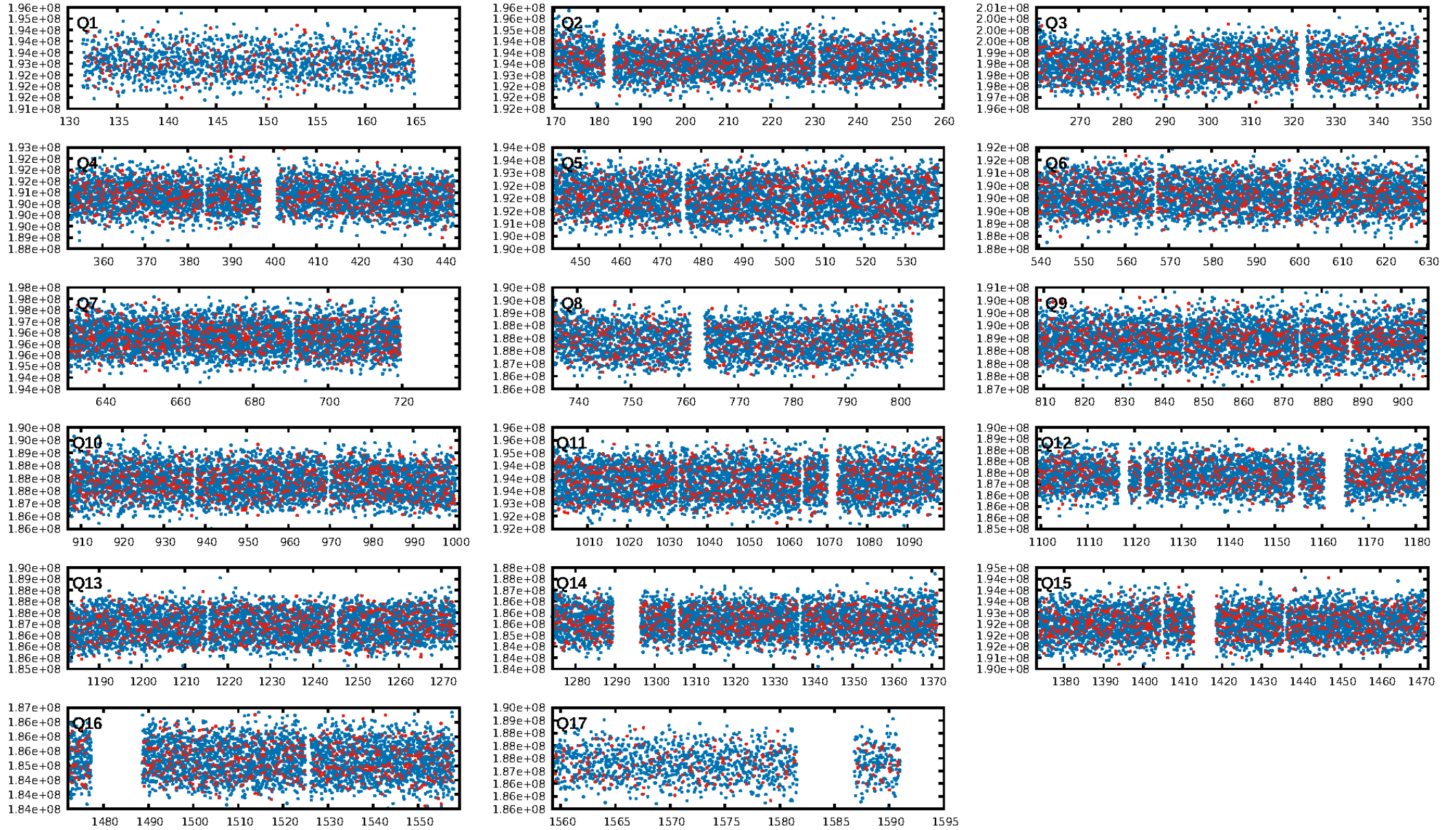
DV Diagnostic Results:

ShortPeriod-sig: 89.9% [1.64σ]
LongPeriod-sig: 100.0% [11.01σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.51e-26
RollingBand-fgt: 0.99 [1740/1758]
GhostDiagnostic-chr: 6.734
Centroid-sig: 9.1%
Centroid-so: 0.467 arcsec [0.91σ]
OotOffset-rm: 0.061 arcsec [0.37σ]
KicOffset-rm: 0.170 arcsec [1.25σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.69 [11/16]
DiffImageOverlap-fno: 0.00 [0/17]

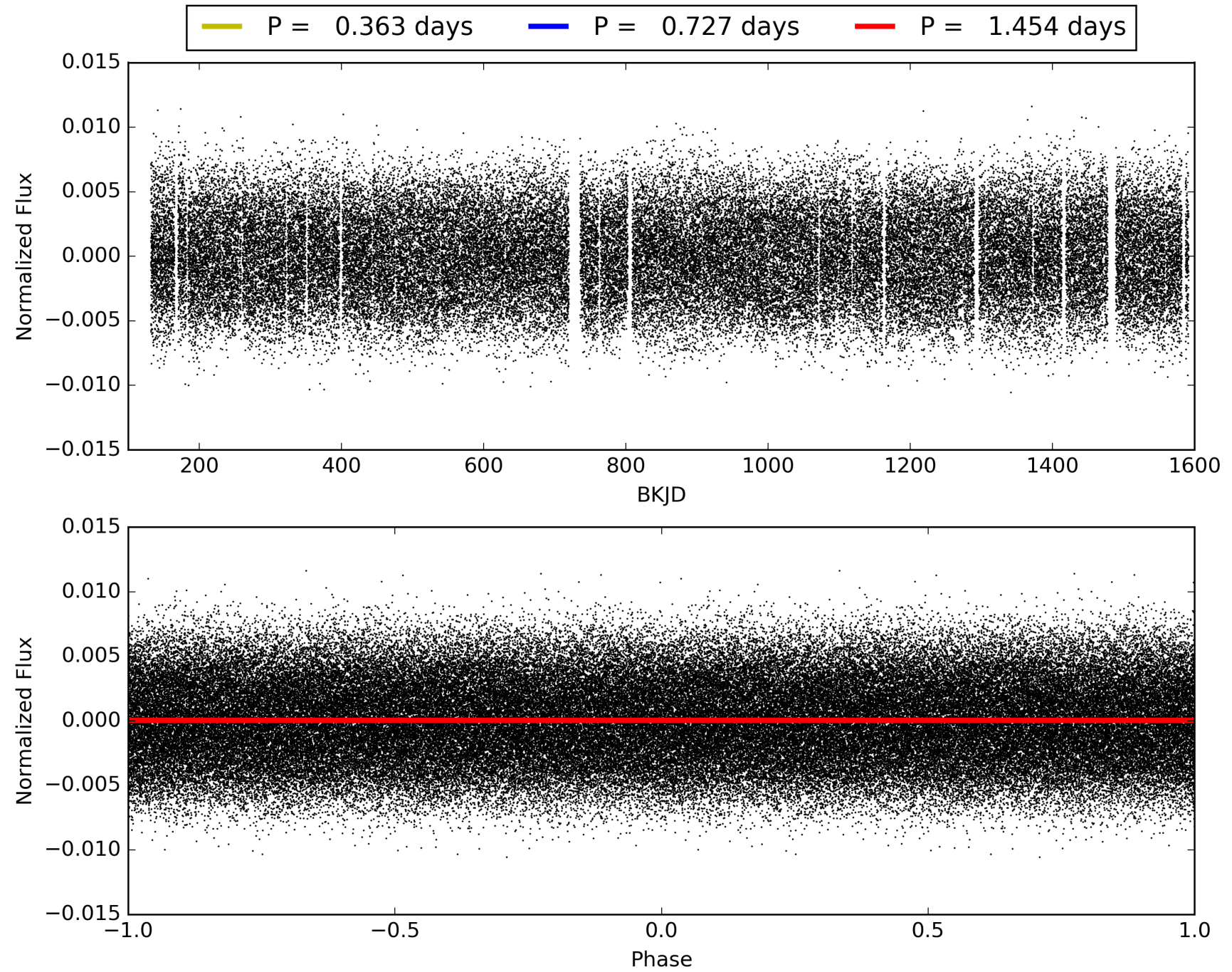
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:20:17 Z

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

TCE 007548259-01, PDC Light Curves

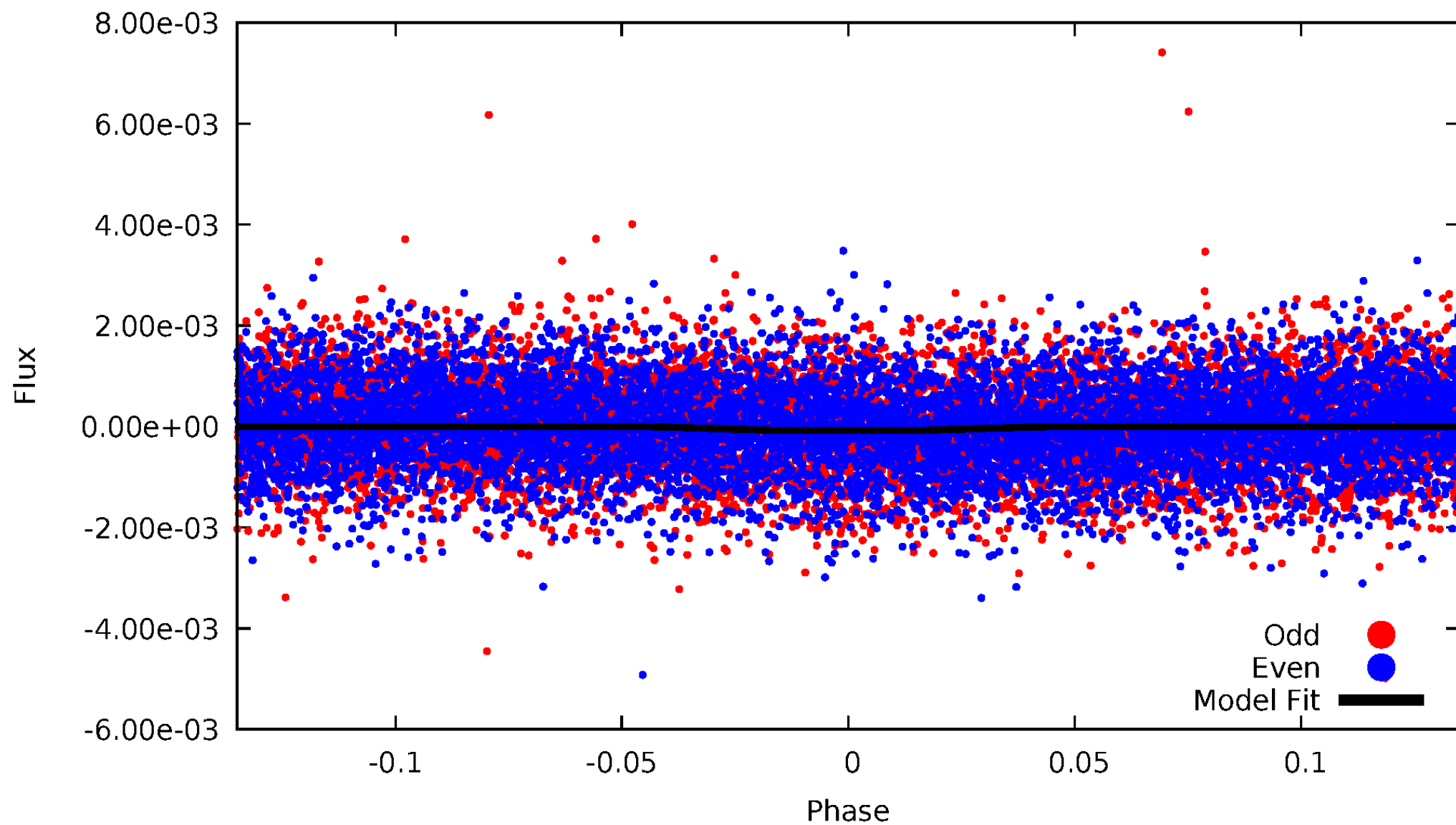


TCE 007548259-01



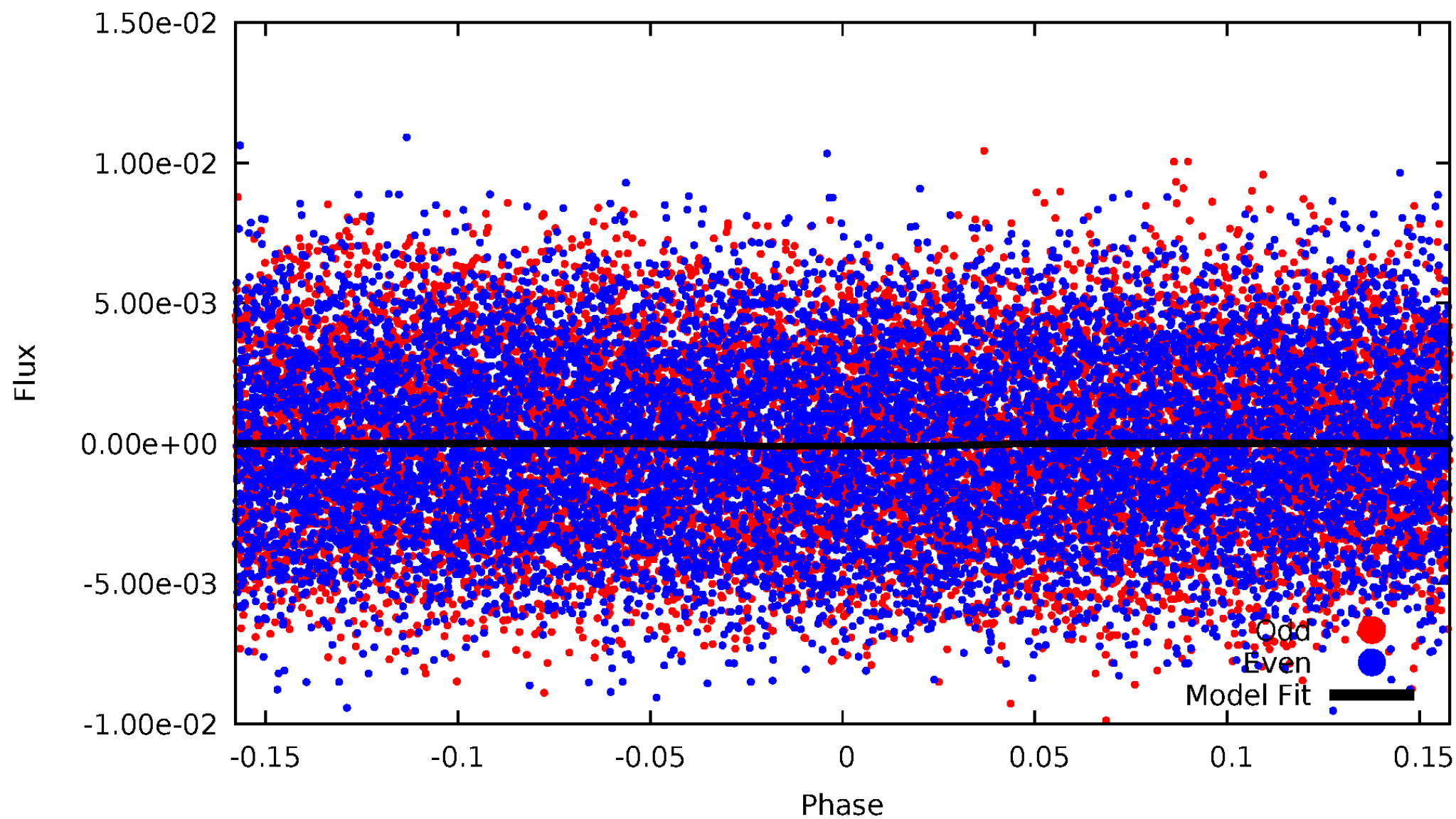
DV Odd/Even

TCE 007548259-01



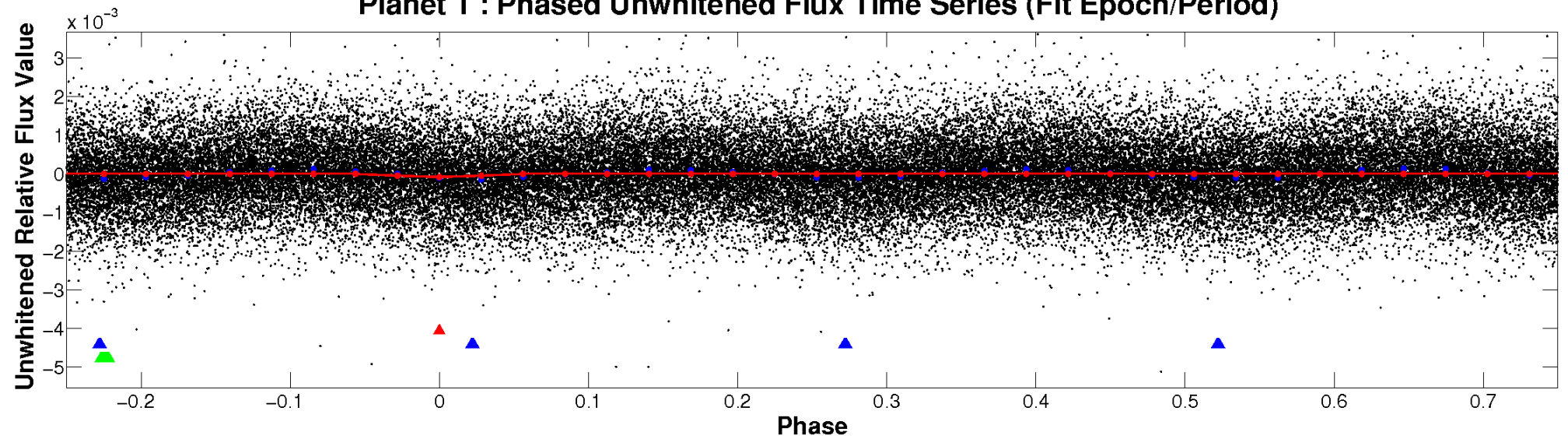
ALT Odd/Even

TCE 007548259-01

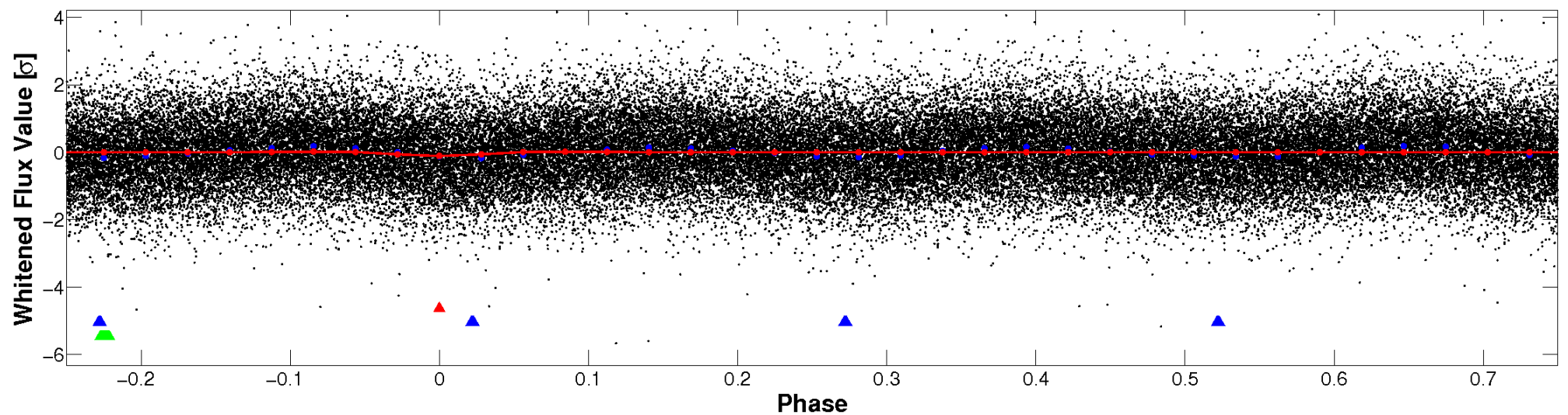


Non-Whitened Vs. Whitened Light Curve

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

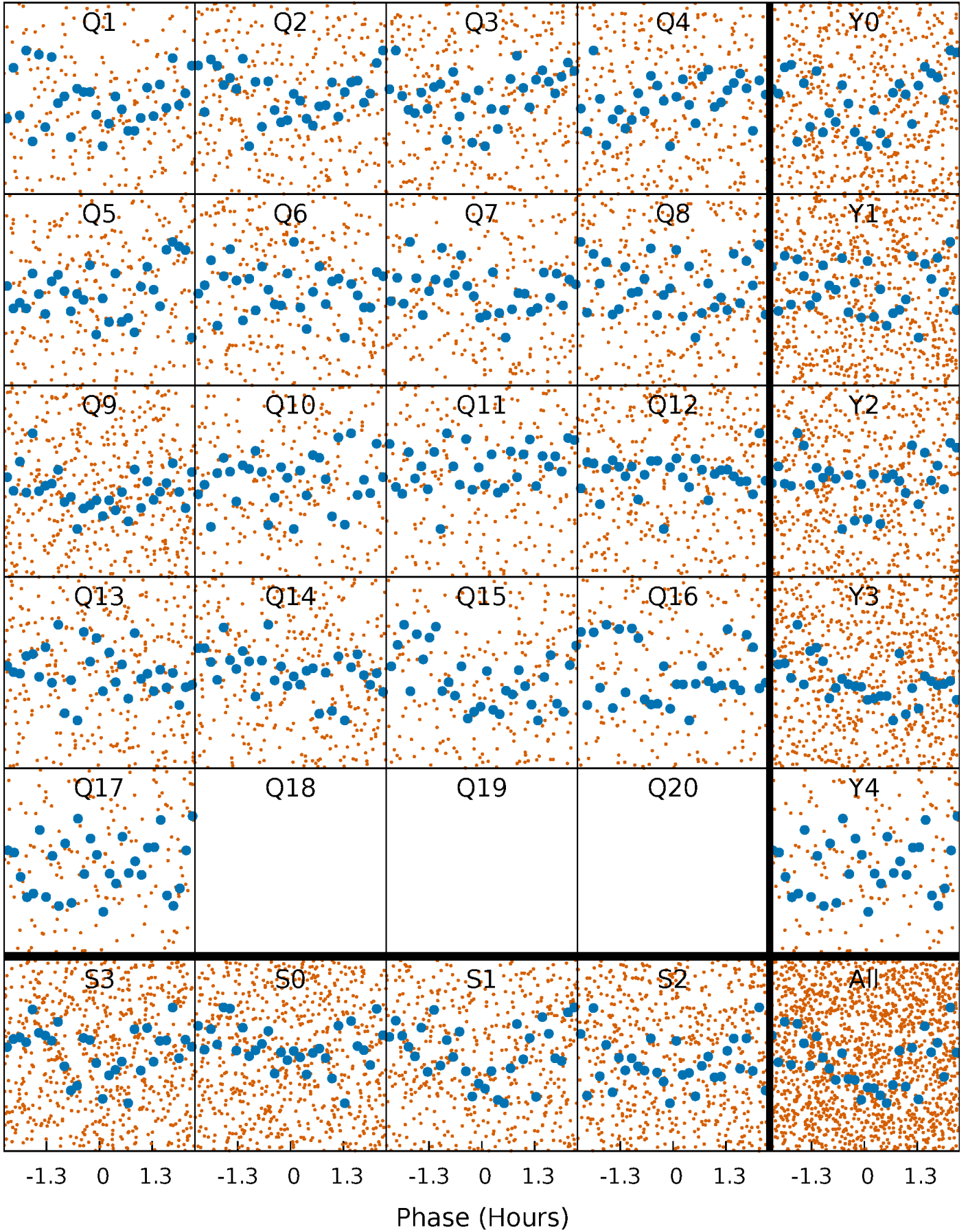


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



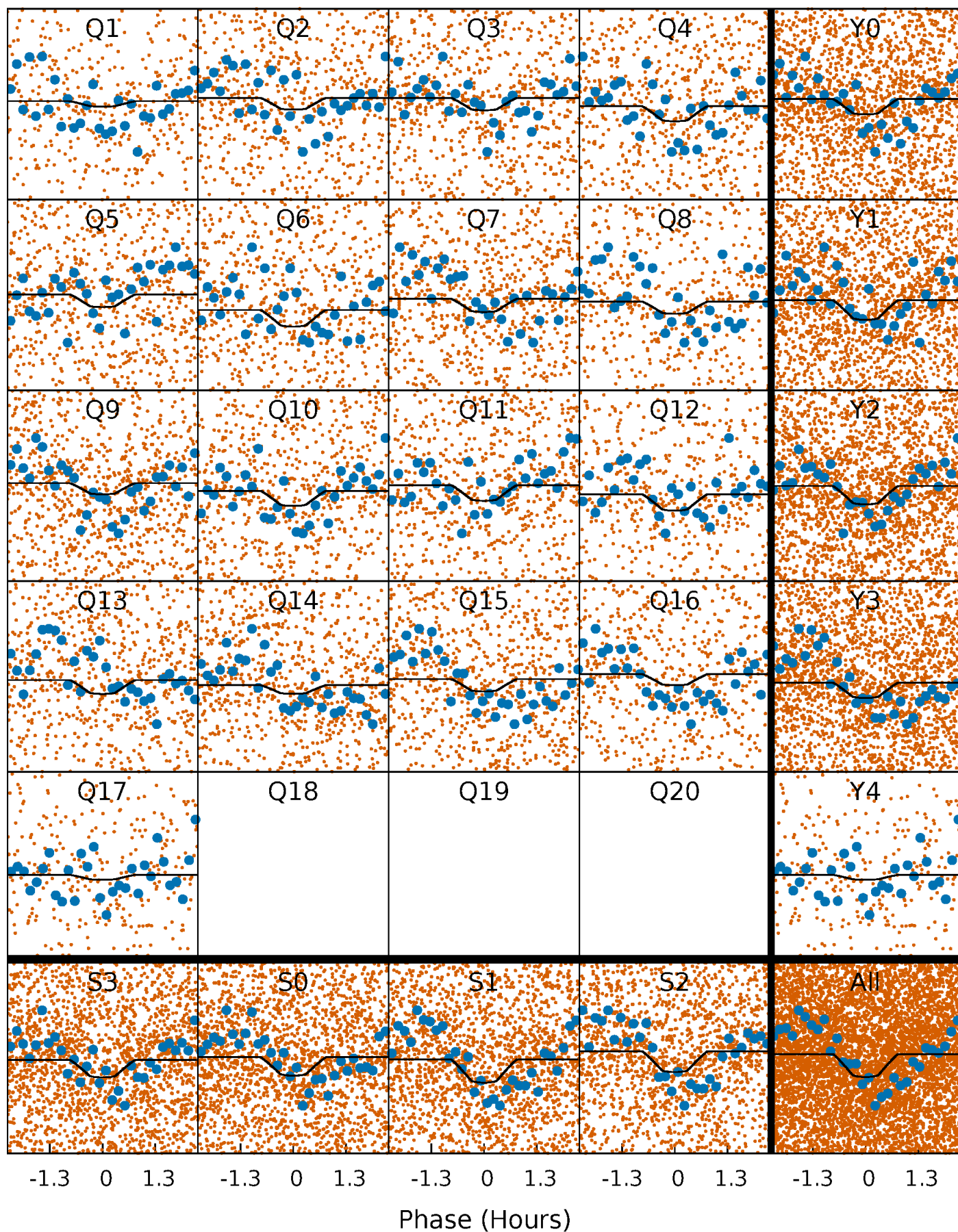
PDC Quarter-Phased Transit Curves

TCE 007548259-01 P= 0.726815 Days $T_0=132.077242$ (BKJD)



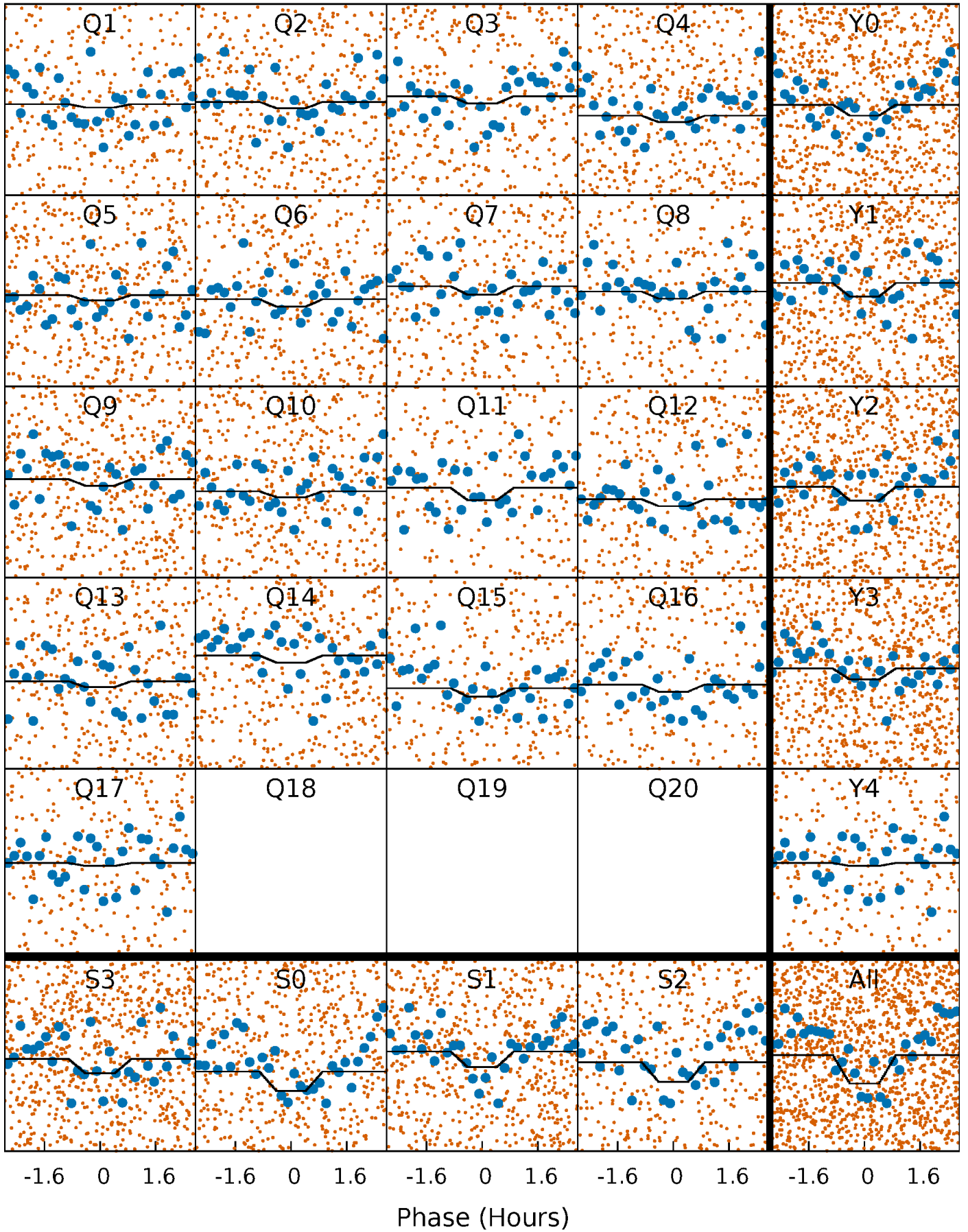
DV Quarter-Phased Transit Curves

TCE 007548259-01 P= 0.726815 Days $T_0=132.077242$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

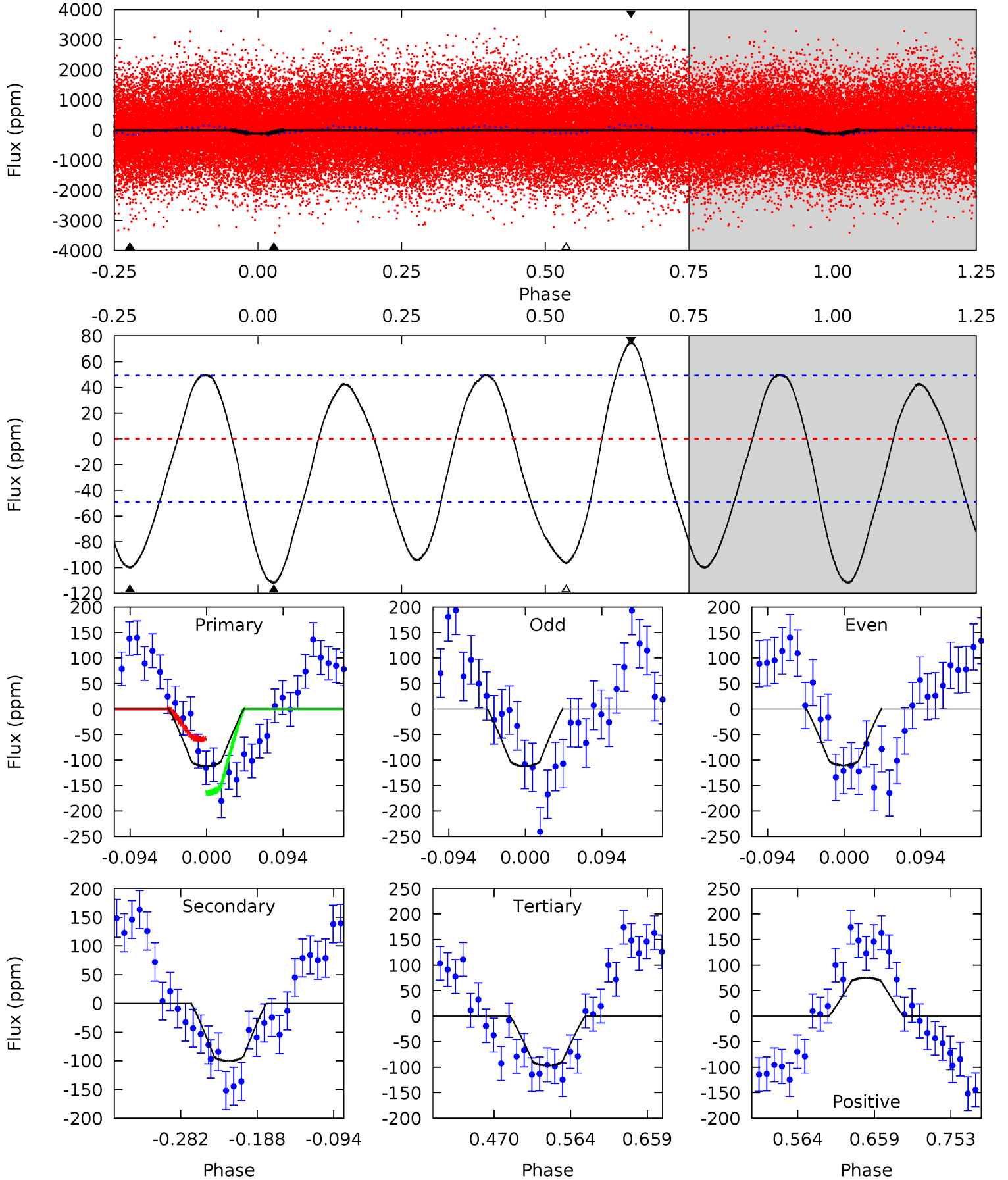
TCE 007548259-01 P= 0.726815 Days $T_0=132.076913$ (BKJD)



DV Model-Shift Uniqueness Test

007548259-01, P = 0.726815 Days, E = 131.350427 Days

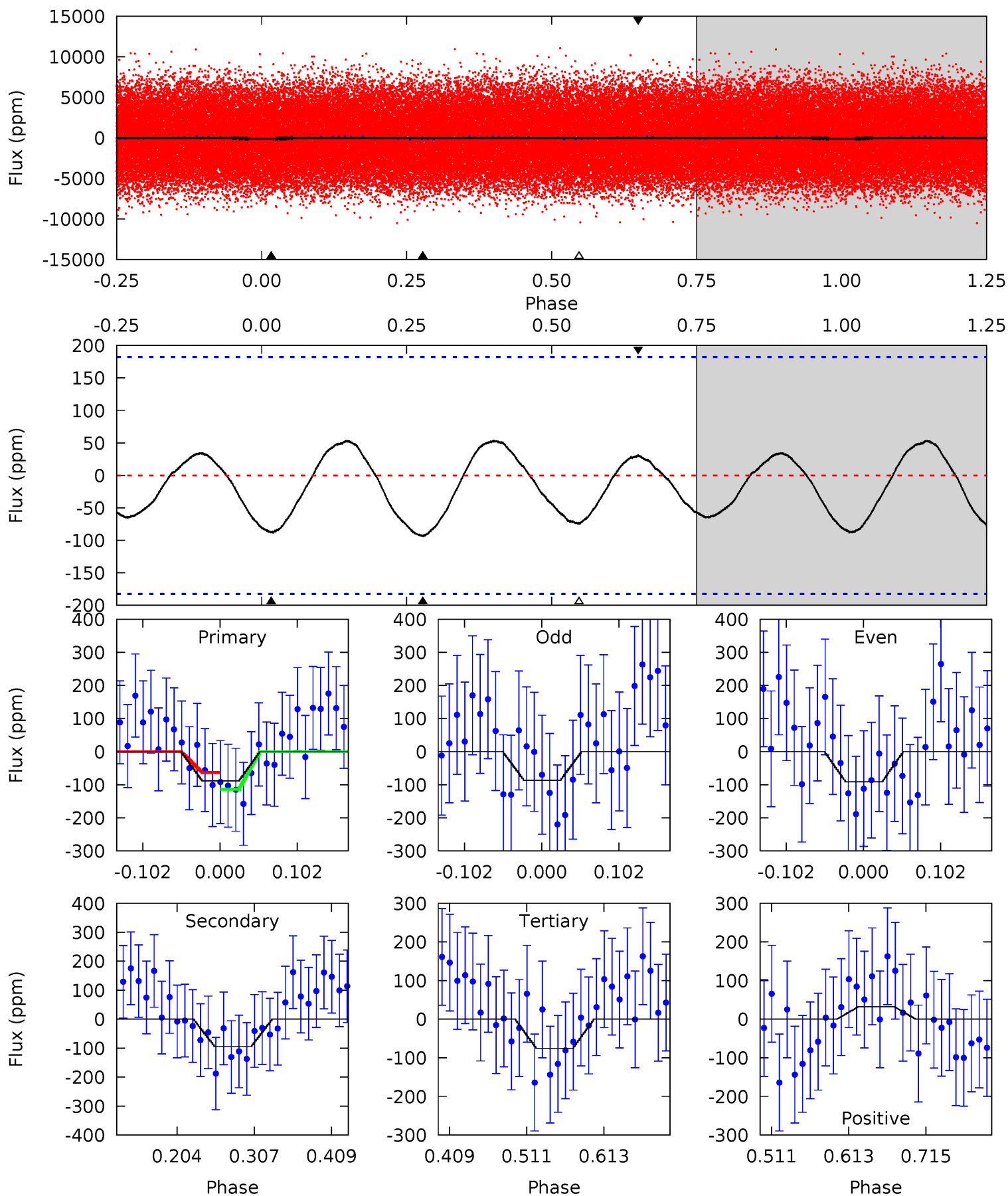
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	9.32	9.00	6.99	4.58	1.67	4.91	1.43	3.43	0.33	2.33	0.07	0.96	0.40	4.89



Alt Model-Shift Uniqueness Test

007548259-01, P = 0.726815 Days, E = 131.350098 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.22	2.36	1.89	0.80	4.56	1.63	1.01	0.33	1.43	0.47	1.56	0.06	0.91	0.37	0.64



Stellar Parameters For KIC 007548259

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7698^{+214}_{-349}	$3.875^{+0.280}_{-0.120}$	$0.070^{+0.200}_{-0.350}$	$2.688^{+0.497}_{-0.922}$	$1.974^{+0.215}_{-0.430}$	$0.143^{+0.275}_{-0.054}$
	+3%/-5%	+7%/-3%	+286%/-500%	+18%/-34%	+11%/-22%	+192%/-37%
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 007548259-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-100 ± 11	$3.02^{+2.45}_{-1.70}$	5429^{+362}_{-449}	6944^{+6072}_{-2117}	$2.247^{+9.997}_{-1.541}$
Alt.	-94 ± 40	$3.01^{+2.12}_{-1.80}$	5412^{+371}_{-482}	6723^{+7117}_{-2082}	$2.140^{+10.865}_{-1.503}$

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

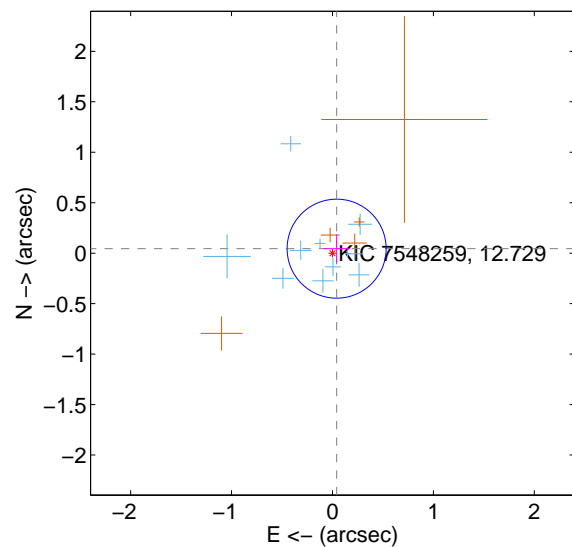
Supplemental centroid analysis for 007548259-01. Kepler magnitude: 12.73. Transit SNR 6.30

There are 11 quarters with good PRF difference image offsets

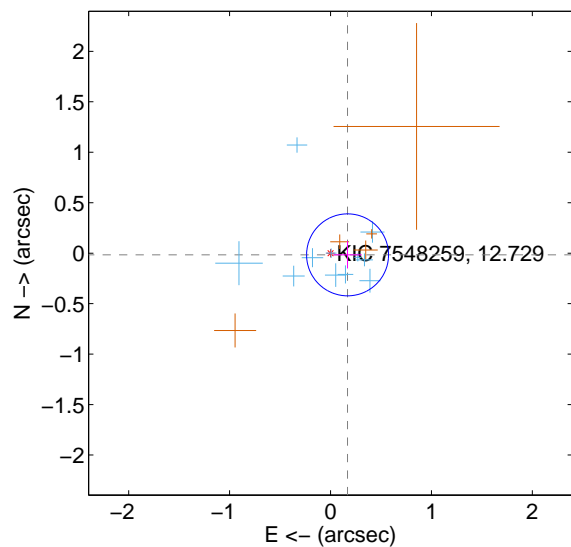
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.061 ± 0.164	0.37	-0.041 ± 0.134	0.045 ± 0.143
PRF-fit source offset from KIC position	0.170 ± 0.135	1.25	-0.169 ± 0.140	-0.017 ± 0.135
photometric centroid source offset	0.47 ± 0.51	0.91	-0.44 ± 0.54	0.16 ± 0.22

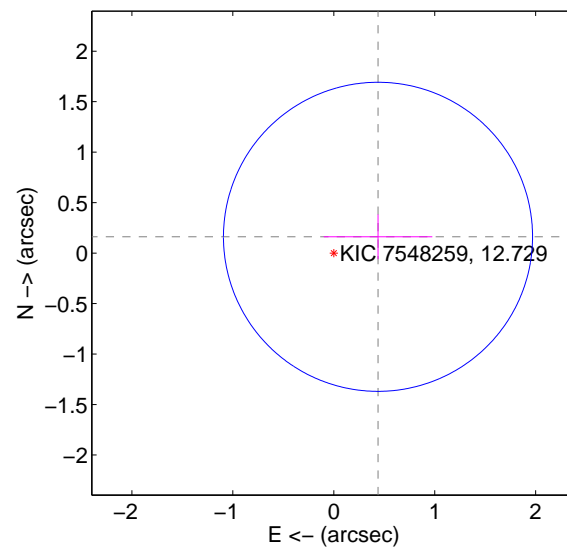
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

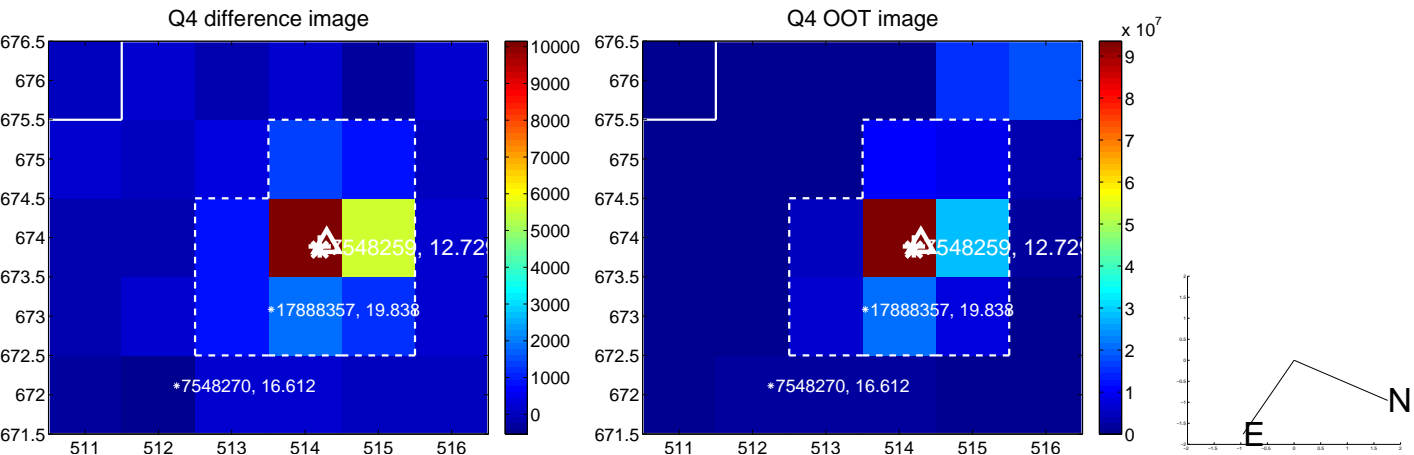
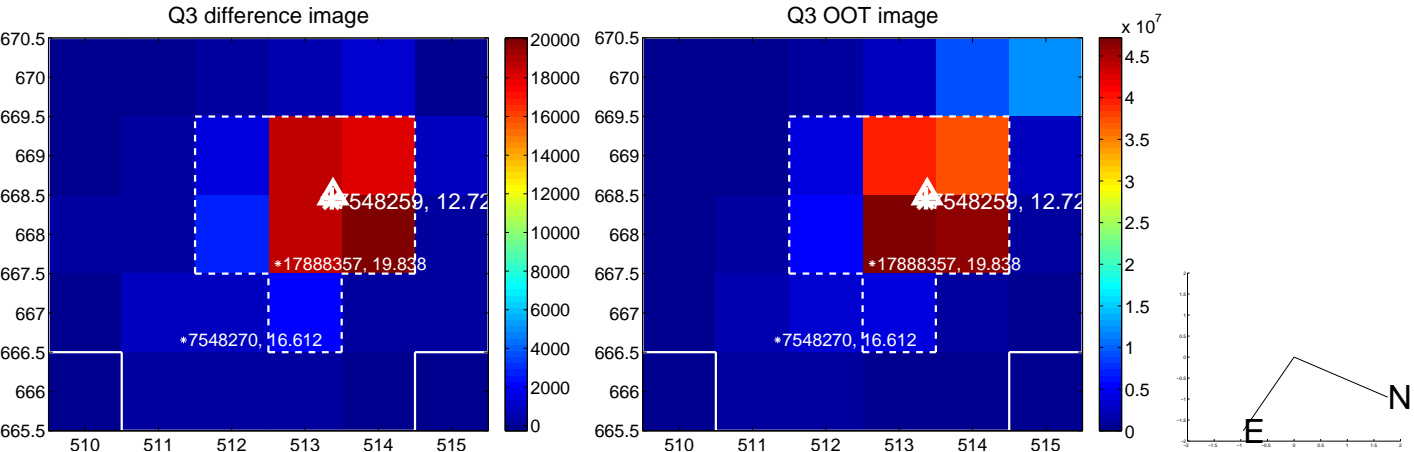
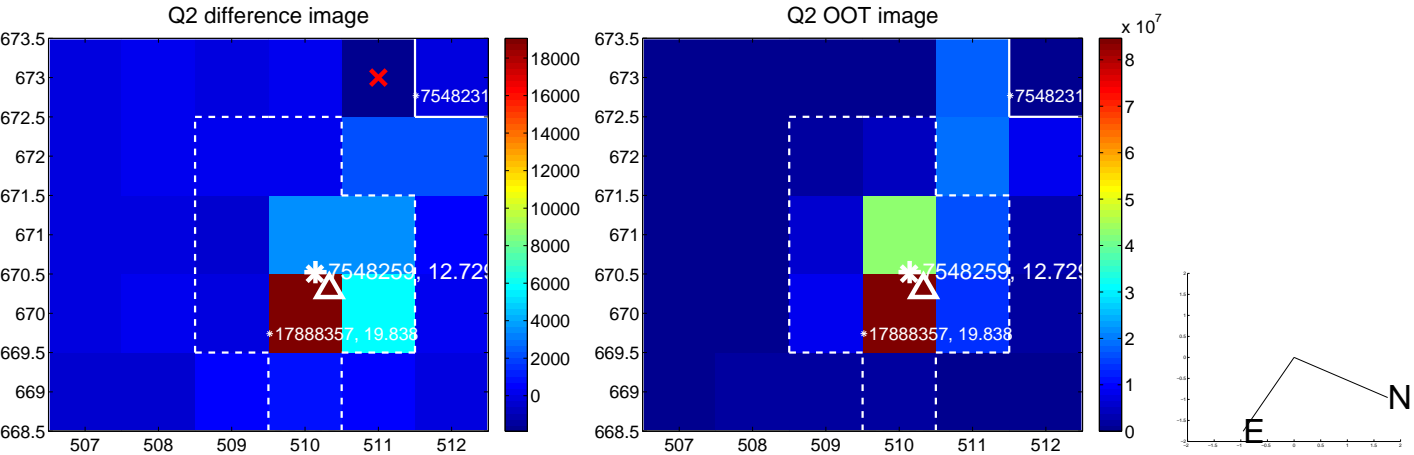
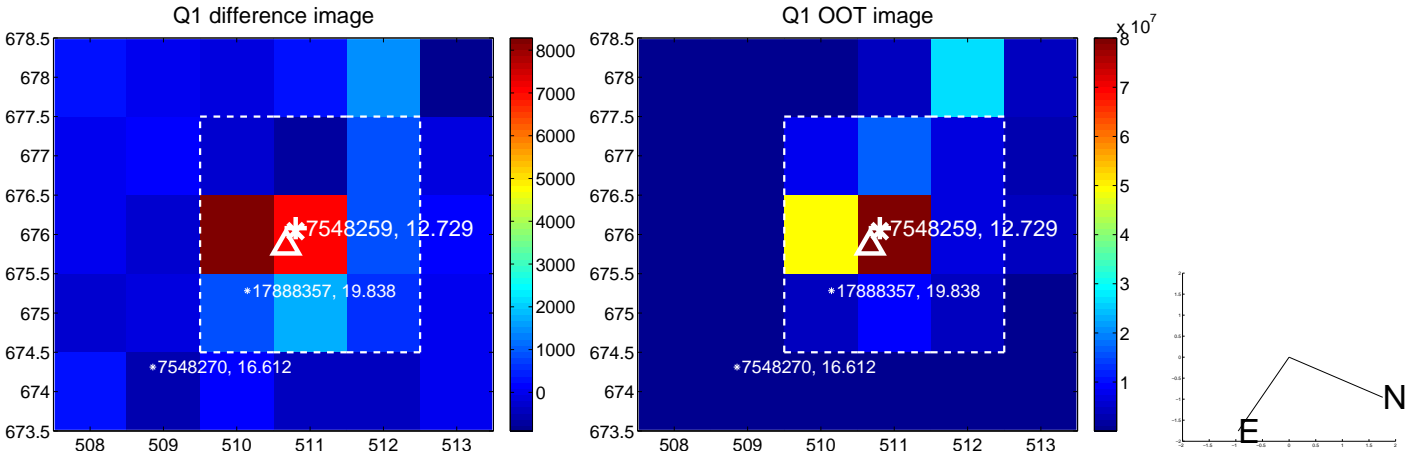


offset from photometric centroids

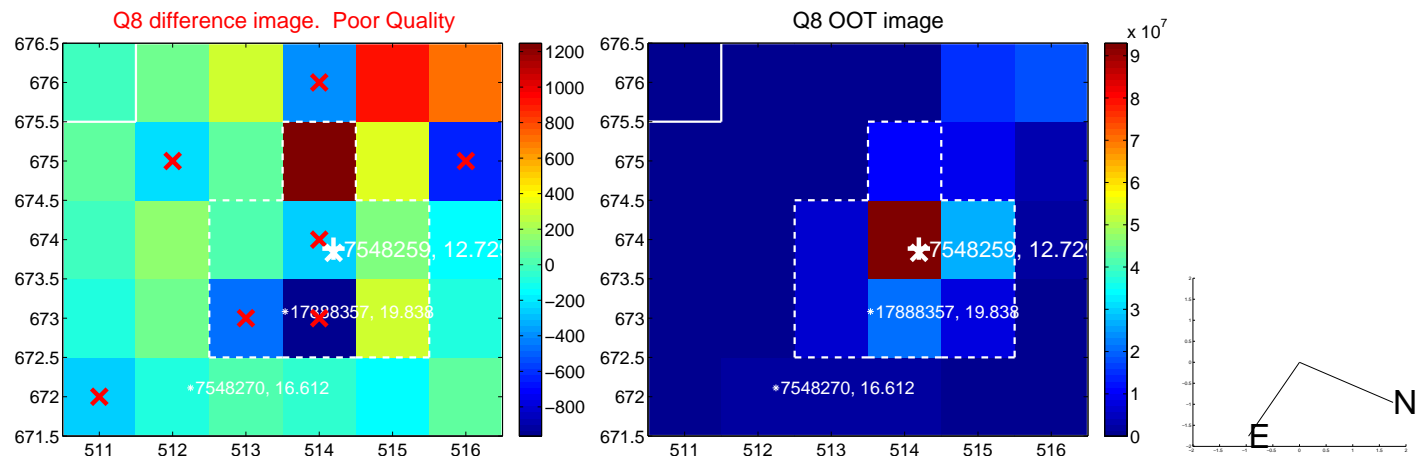
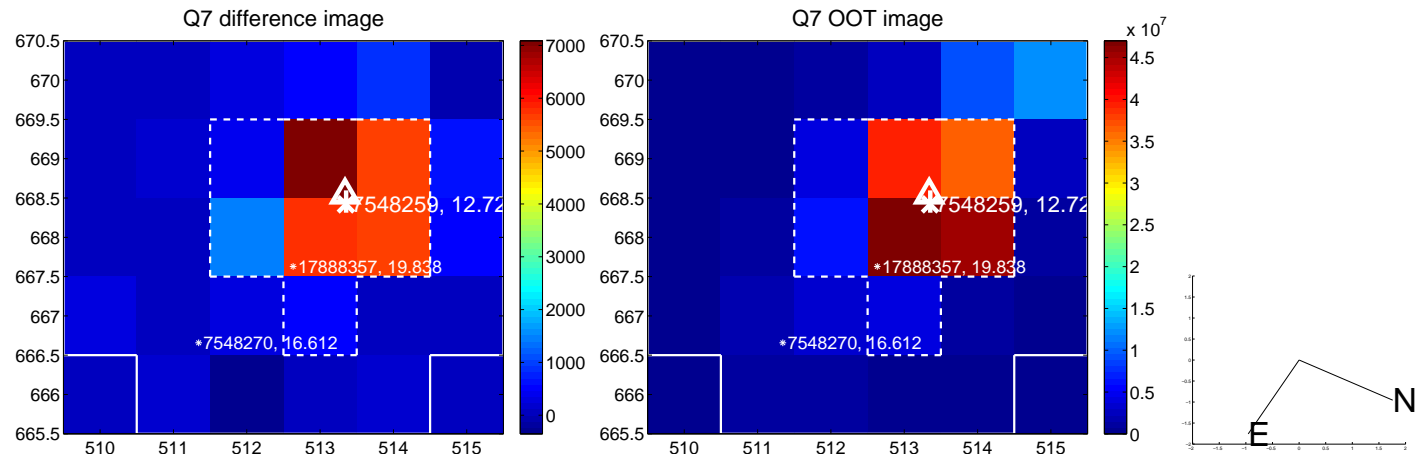
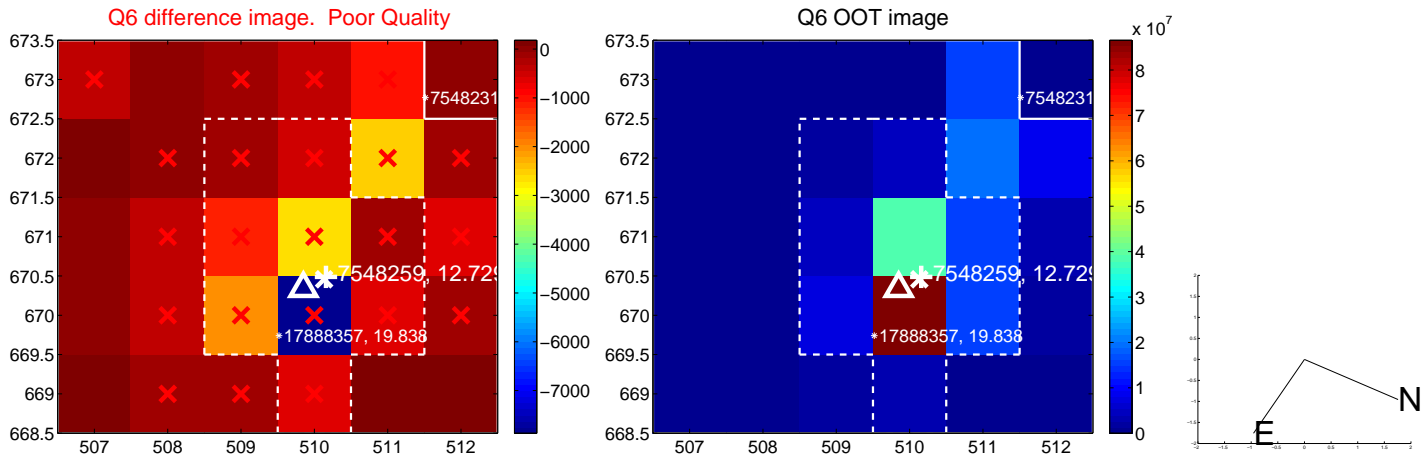
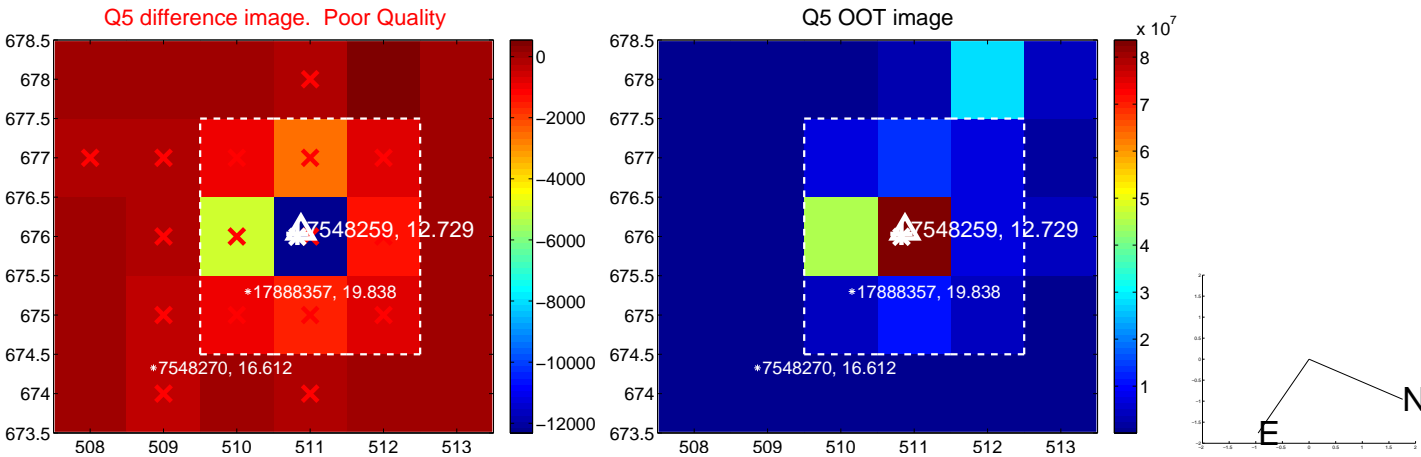


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

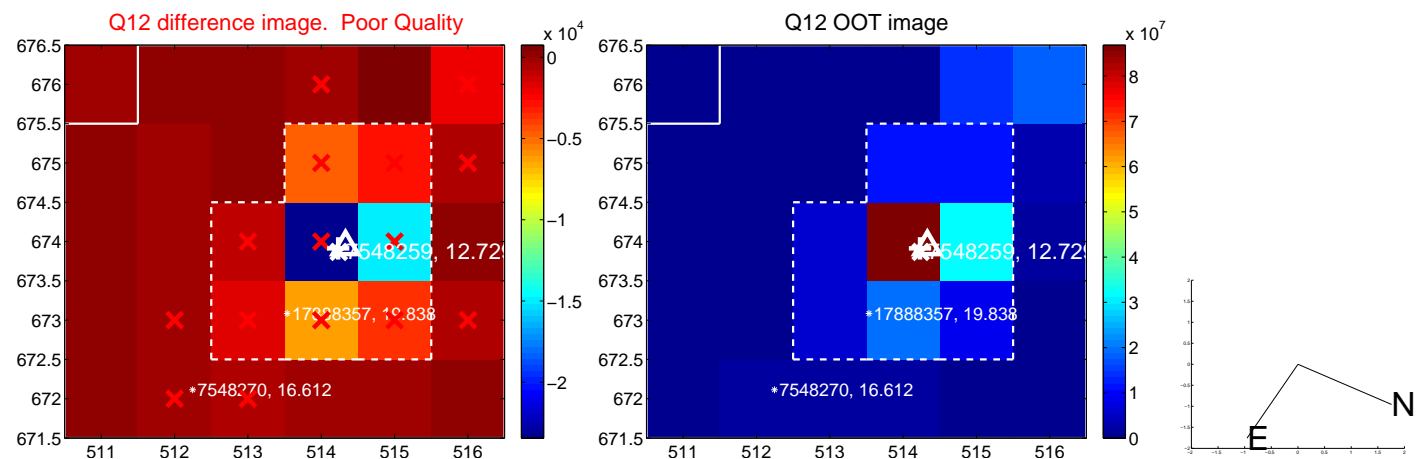
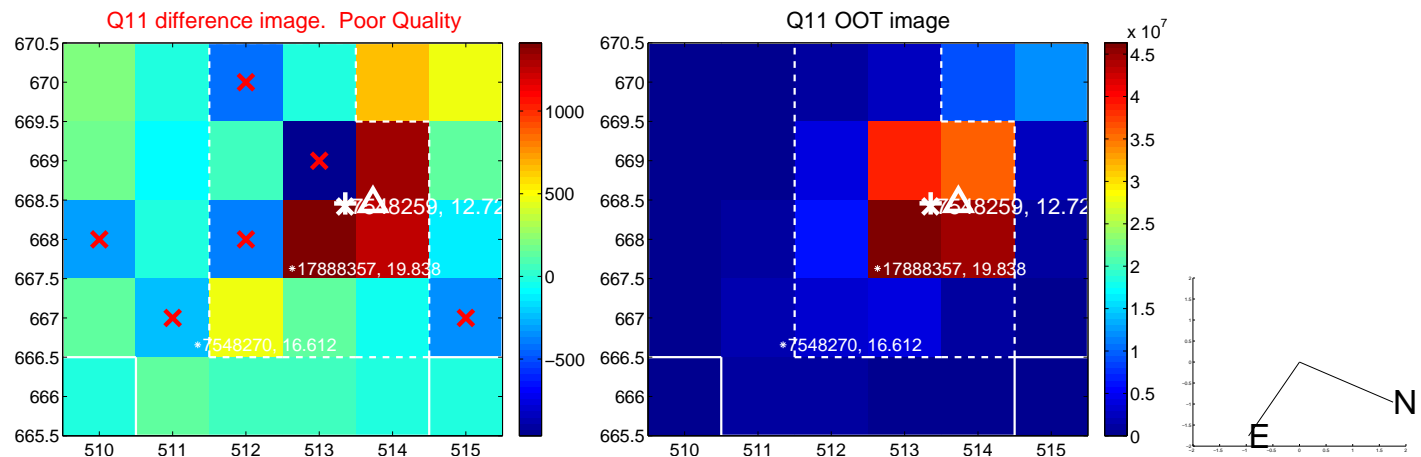
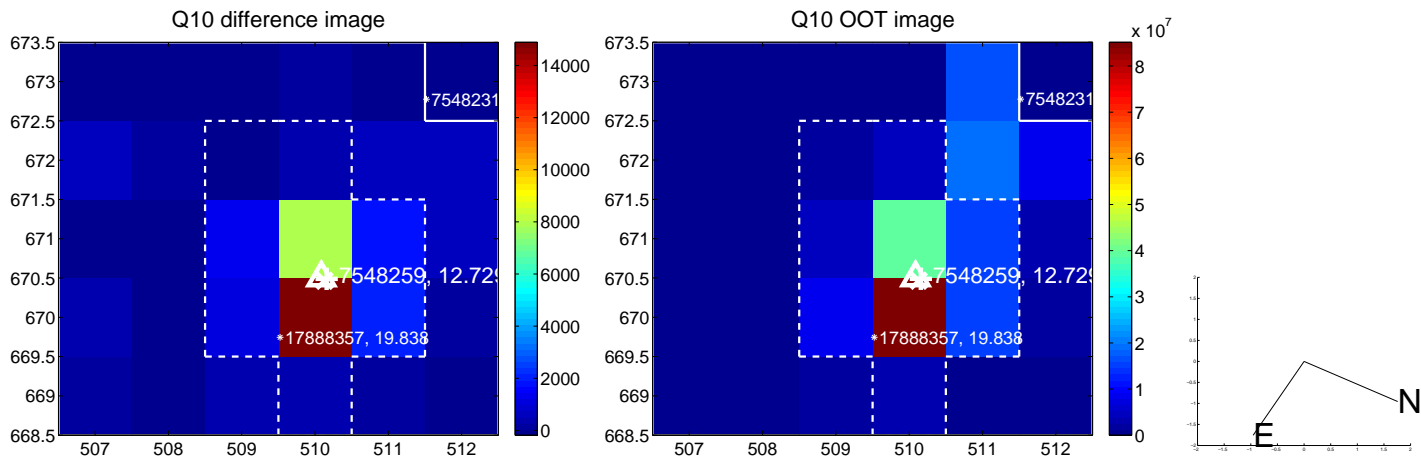
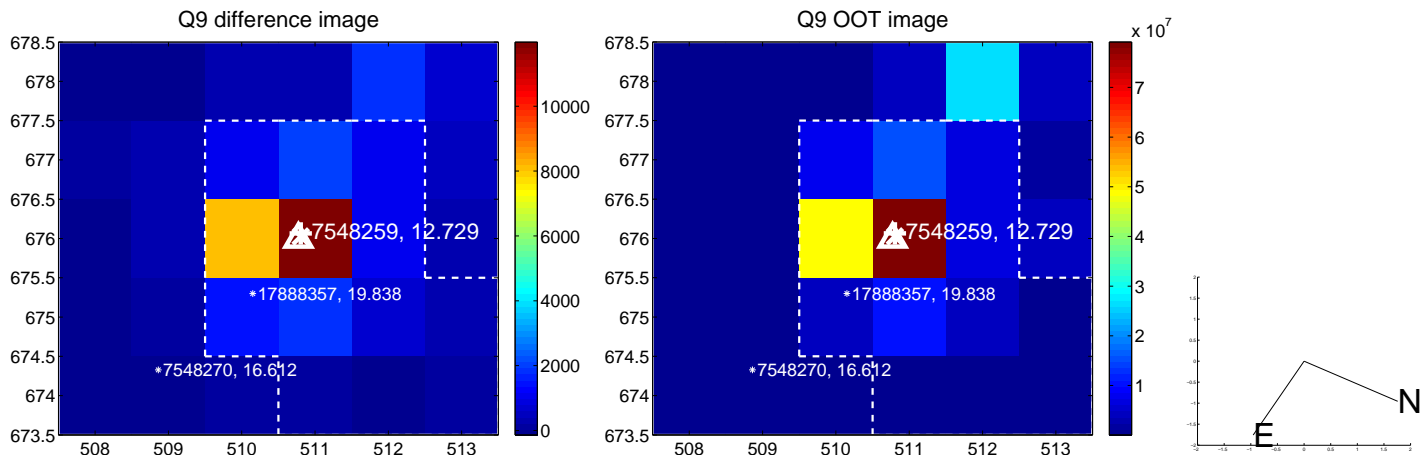
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



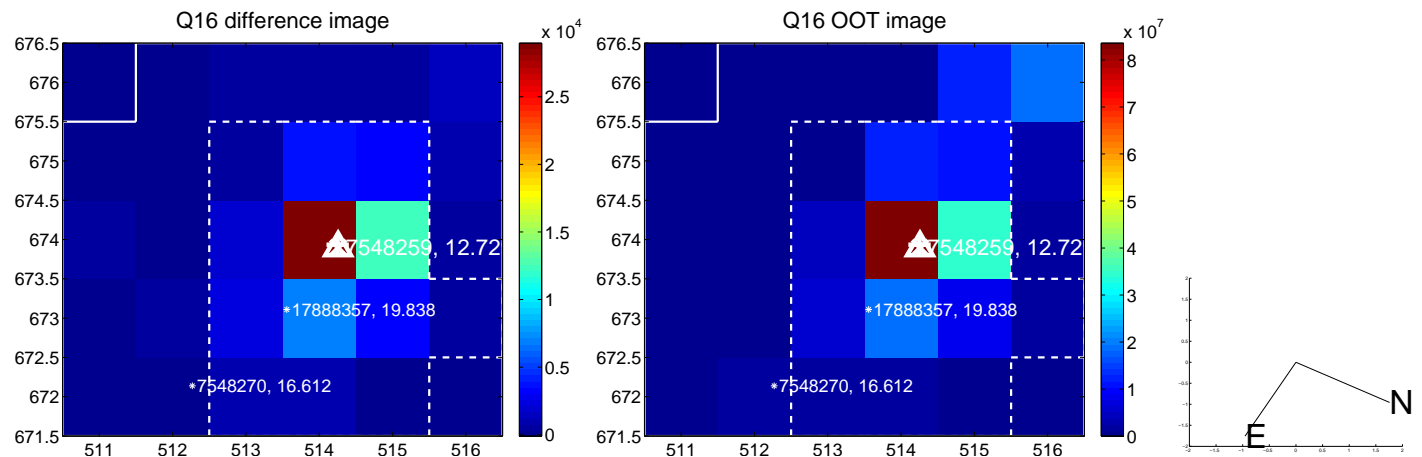
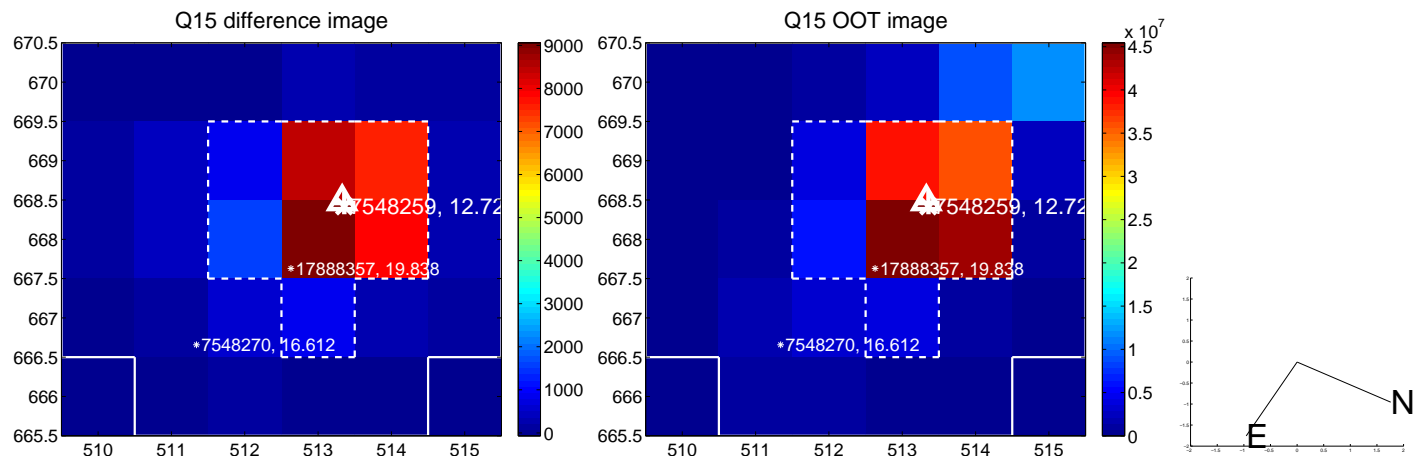
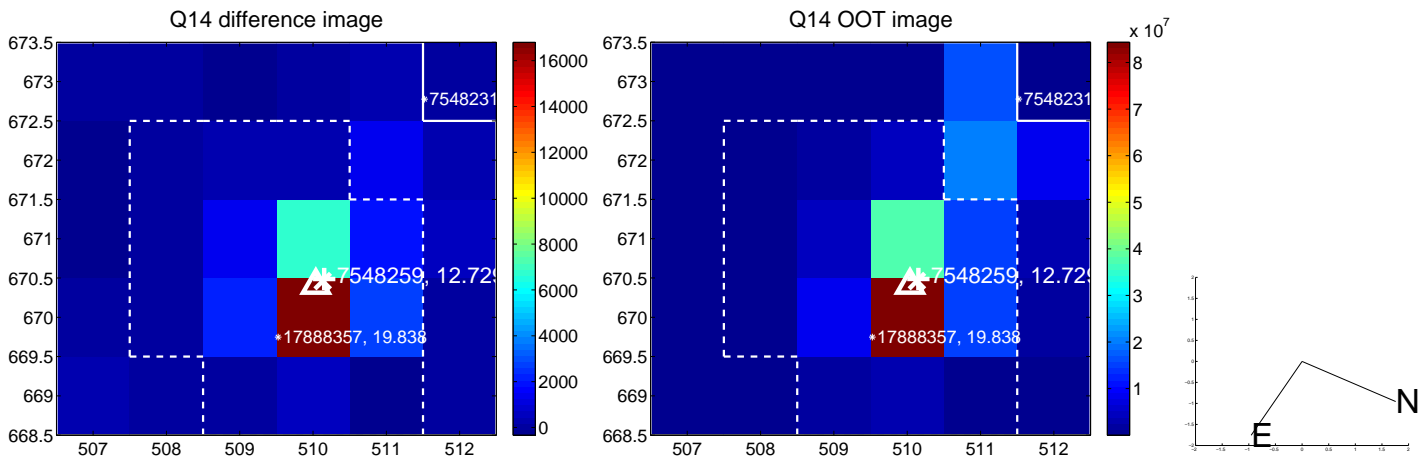
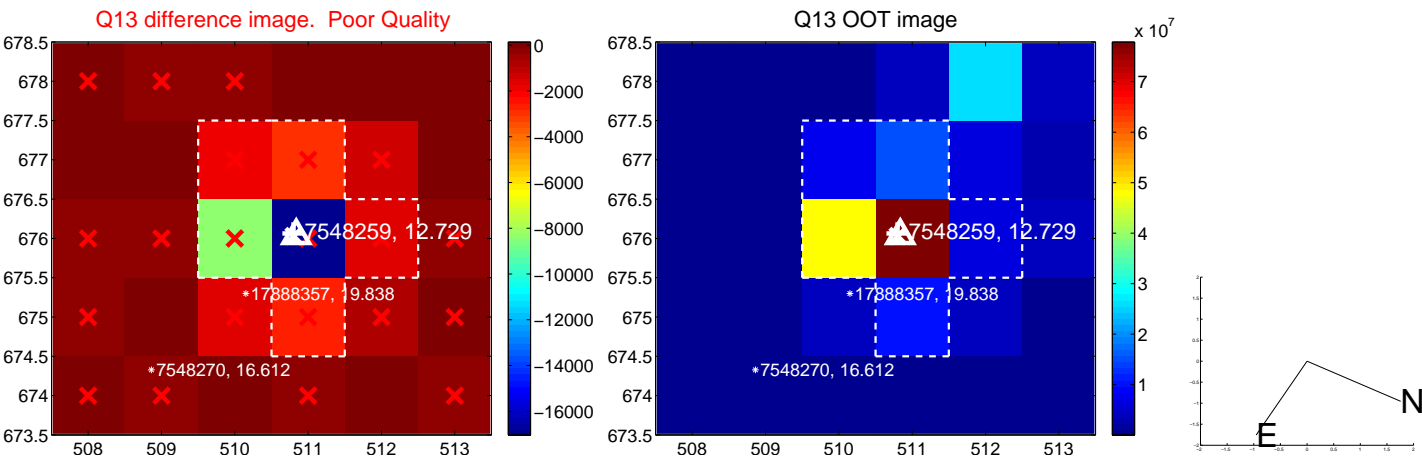
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



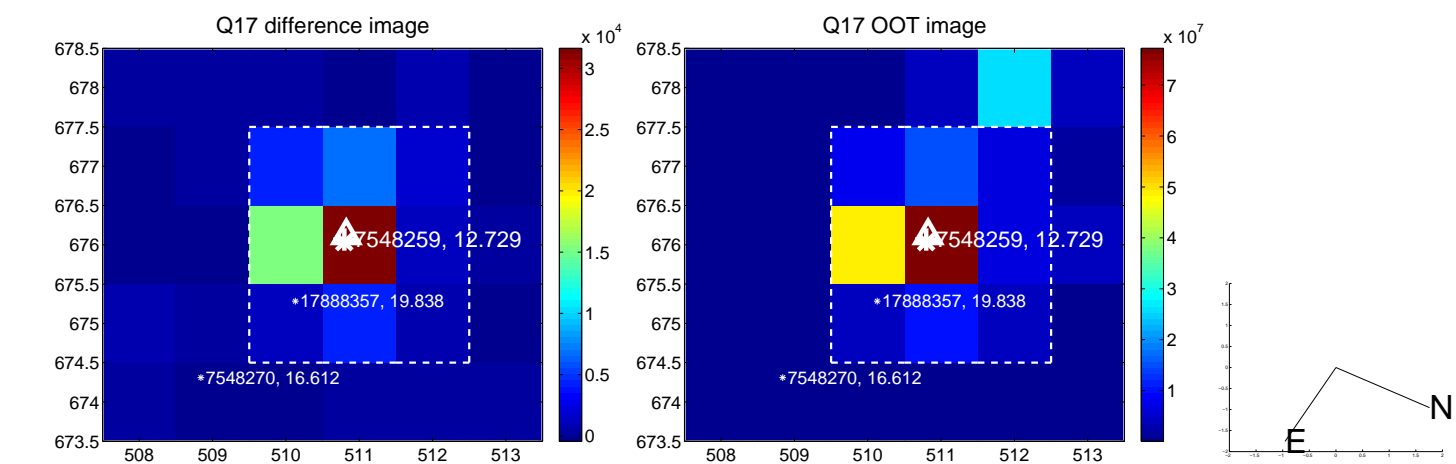
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



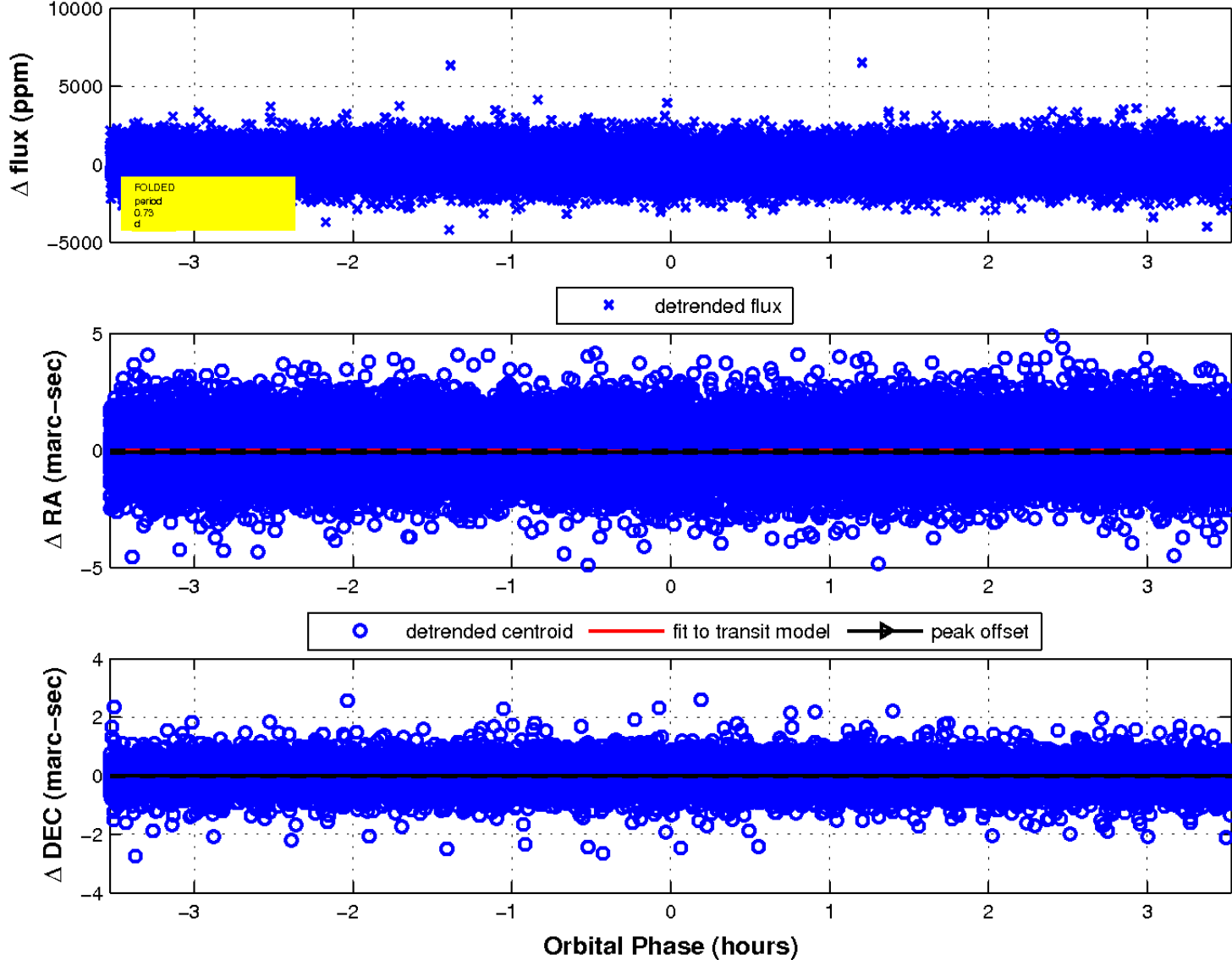
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



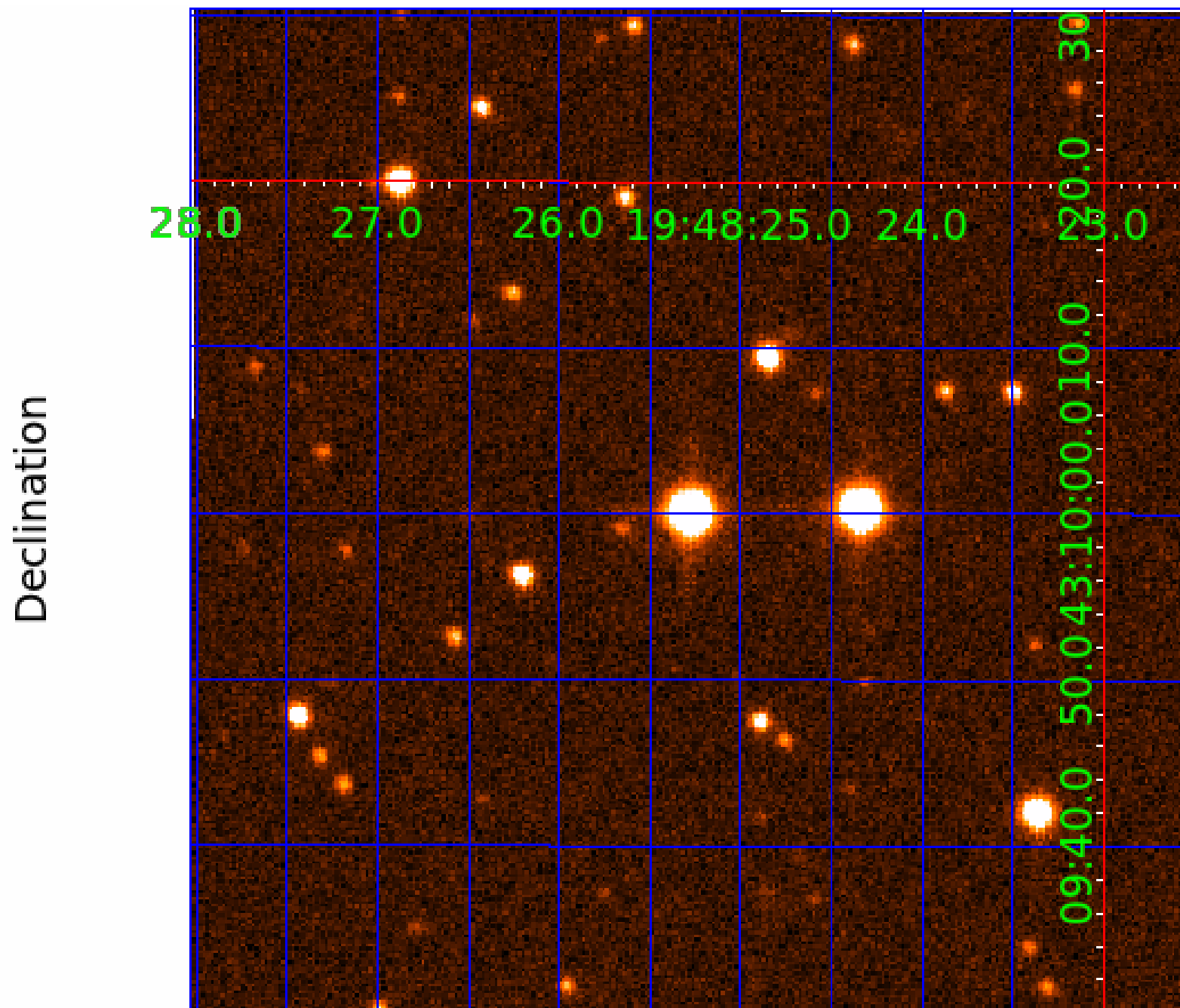
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 3



UKIRT Image



KIC 007548259

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})
007548259-01	OBS	No	0.726815	132.077242	80.4	1.177	11.1	6.3	2.69	7698	2.81	57649.27
007548259-02	OBS	No	0.545112	131.547691	128.4	2.386	10.5	12.7	2.69	7698	3.54	84601.55
007548259-03	OBS	No	2.180451	131.912001	174.3	2.942	9.1	10.5	2.69	7698	4.11	13323.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007548259-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
007548259-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
007548259-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—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.

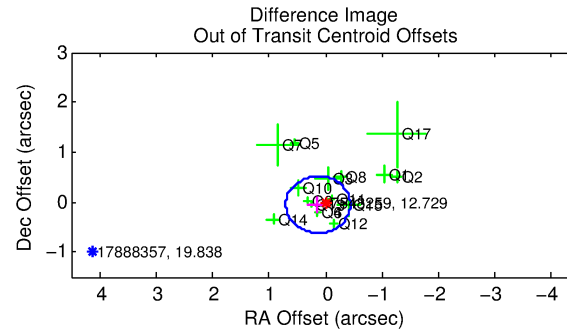
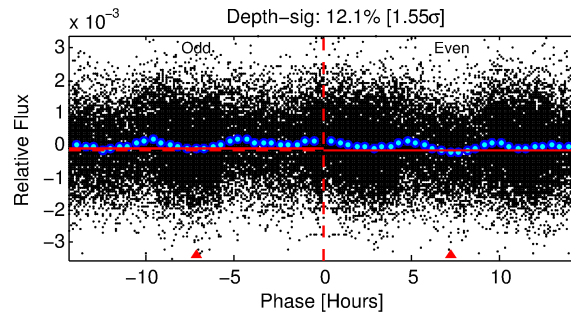
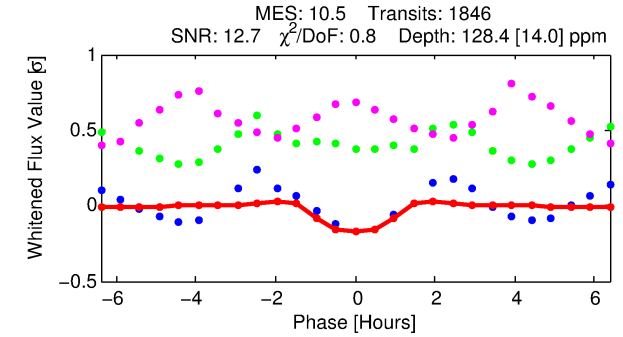
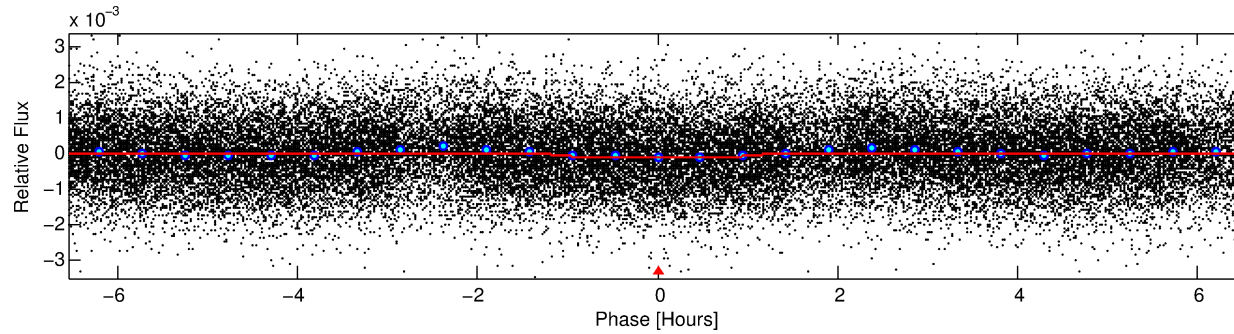
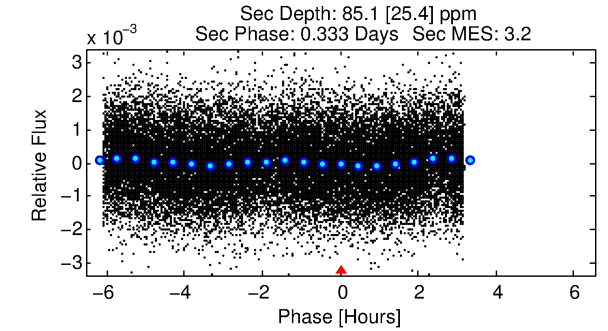
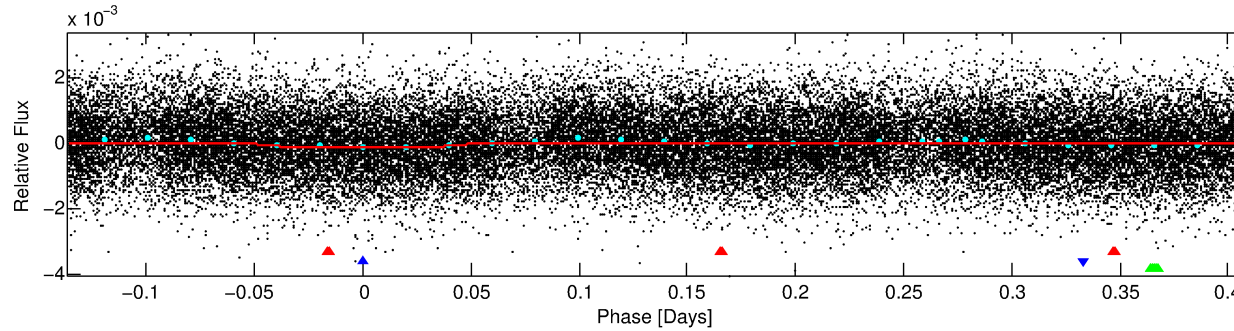
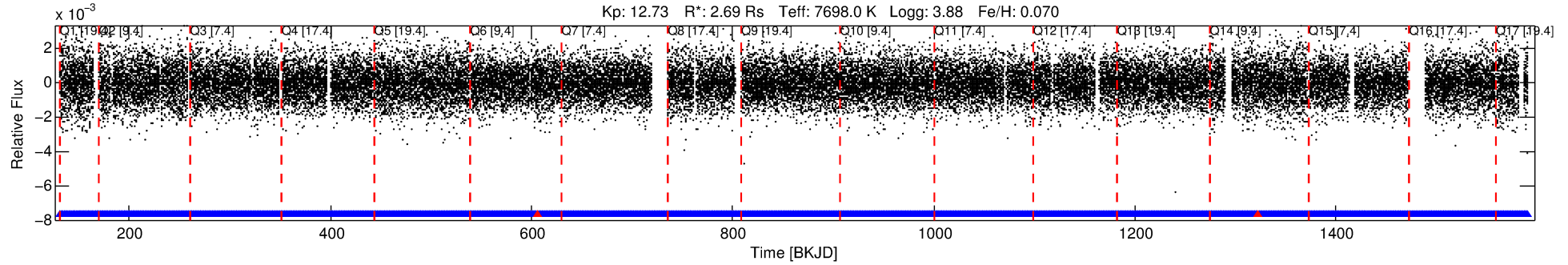
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007548259-02

No Significant Match Found

DV One-Page Summary

KIC: 7548259 Candidate: 2 of 3 Period: 0.545 d



DV Fit Results:

Period = 0.54511 [0.00001] d
Epoch = 131.5477 [0.0023] BKJD
Rp/R* = 0.0121 [0.0061]
a/R* = 1.24 [1.38]
b = 0.90 [0.68]
Seff = 84601.55 [43953.60]
Teq = 4349 [565] K
Rp = 3.54 [2.15] Re
a = 0.0164 [0.0051] AU
Ag = 1.00 [1.16] [0.00σ]
Teffp = 6732 [1794] K [1.27σ]

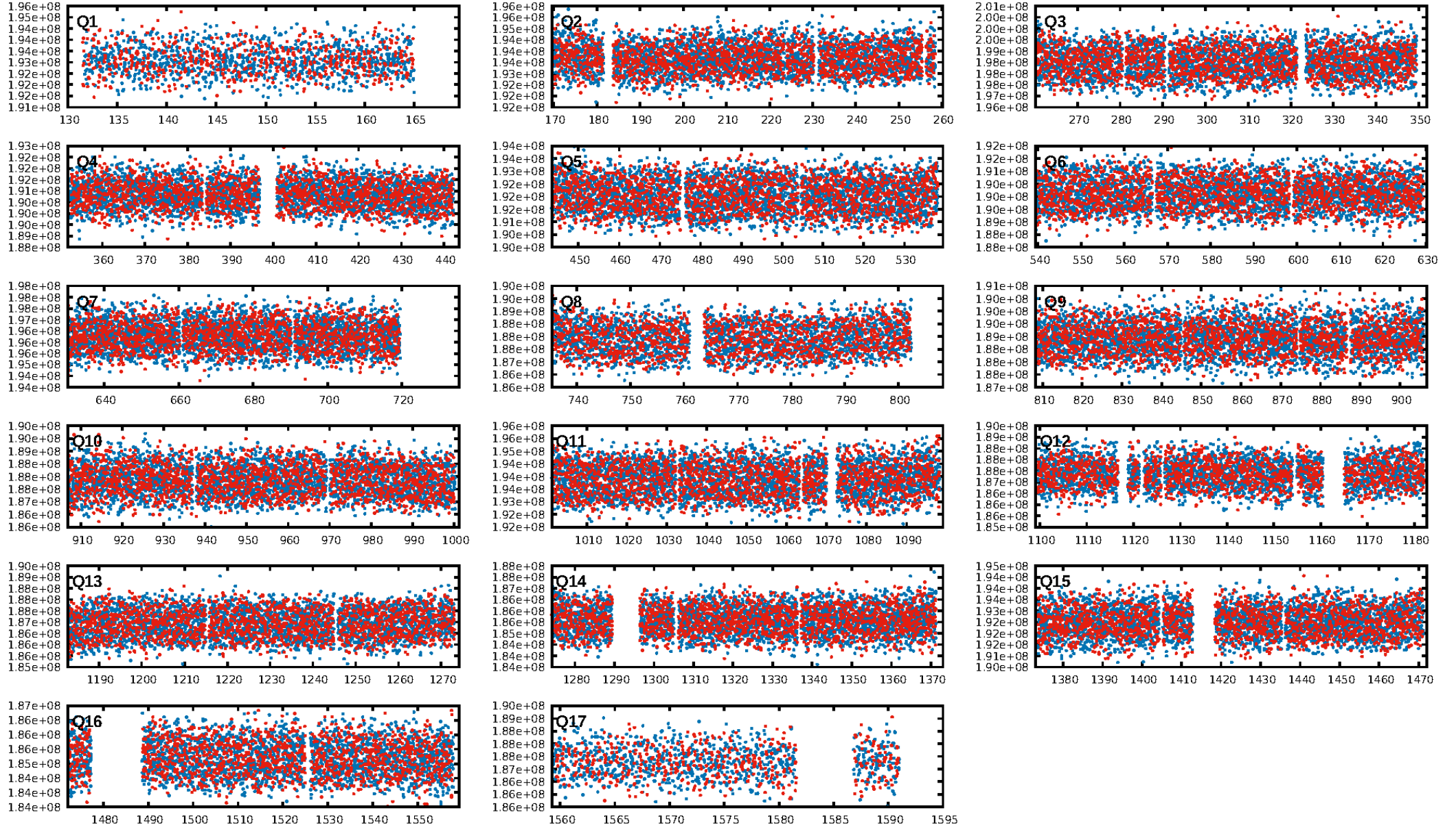
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 89.9% [1.64σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.01e-21
RollingBand-fgt: 1.00 [1760/1762]
GhostDiagnostic-chr: 0.7154
Centroid-sig: 0.0%
Centroid-so: 0.875 arcsec [4.20σ]
OotOffset-rm: 0.144 arcsec [0.76σ]
KicOffset-rm: 0.102 arcsec [0.67σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.88 [14/16]
DiffImageOverlap-fno: 1.00 [17/17]

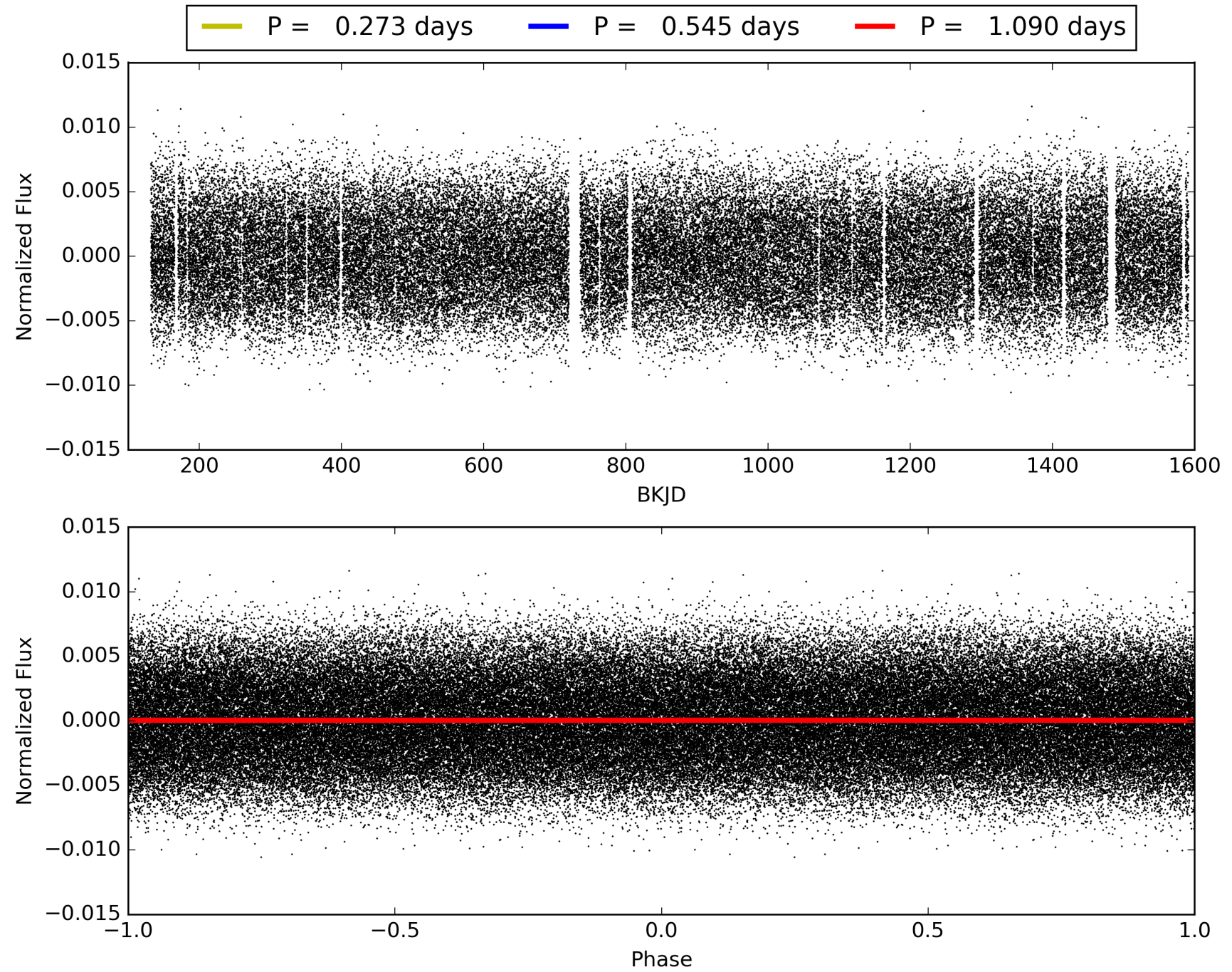
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:20:28 Z

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

TCE 007548259-02, PDC Light Curves

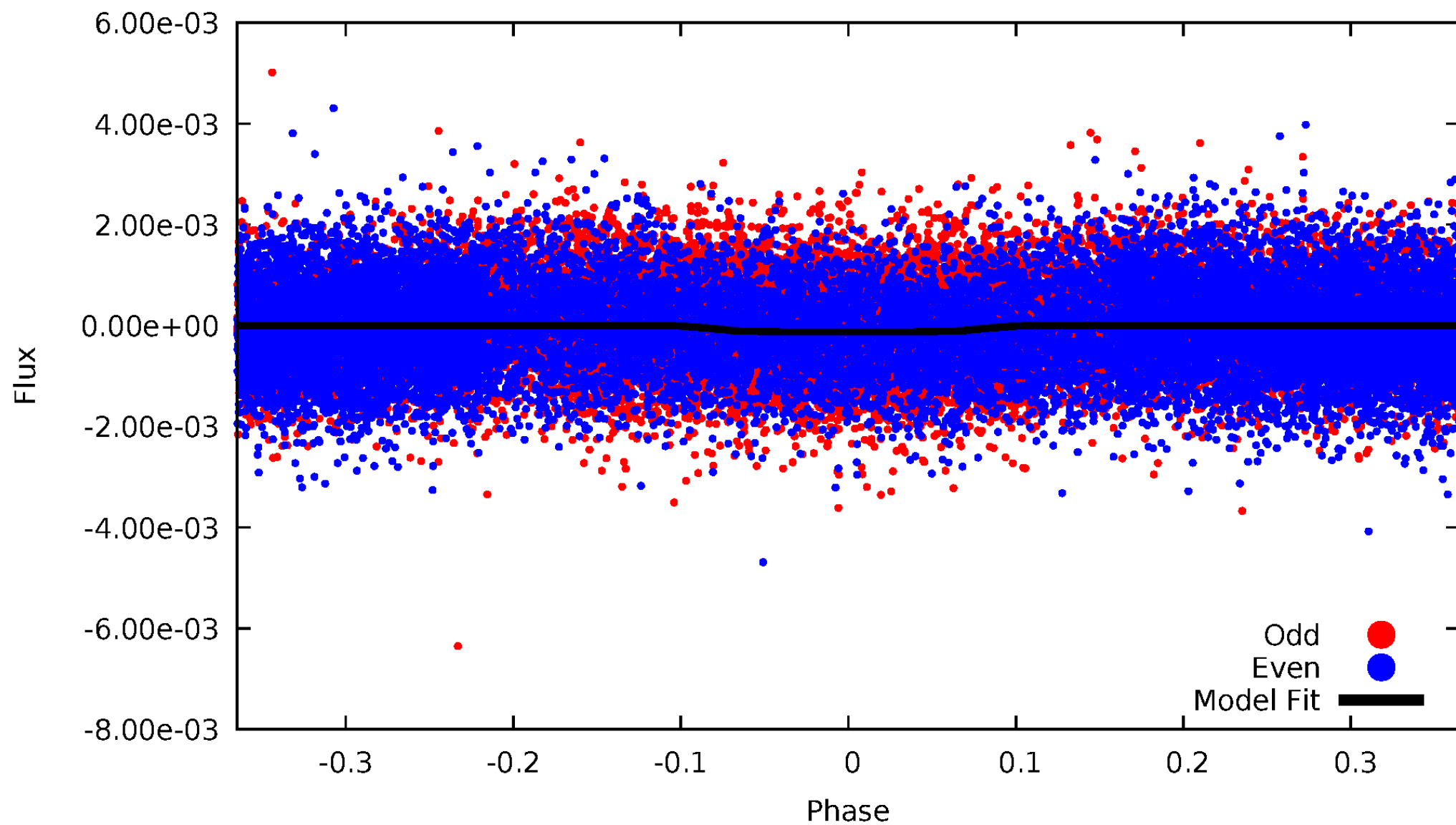


TCE 007548259-02



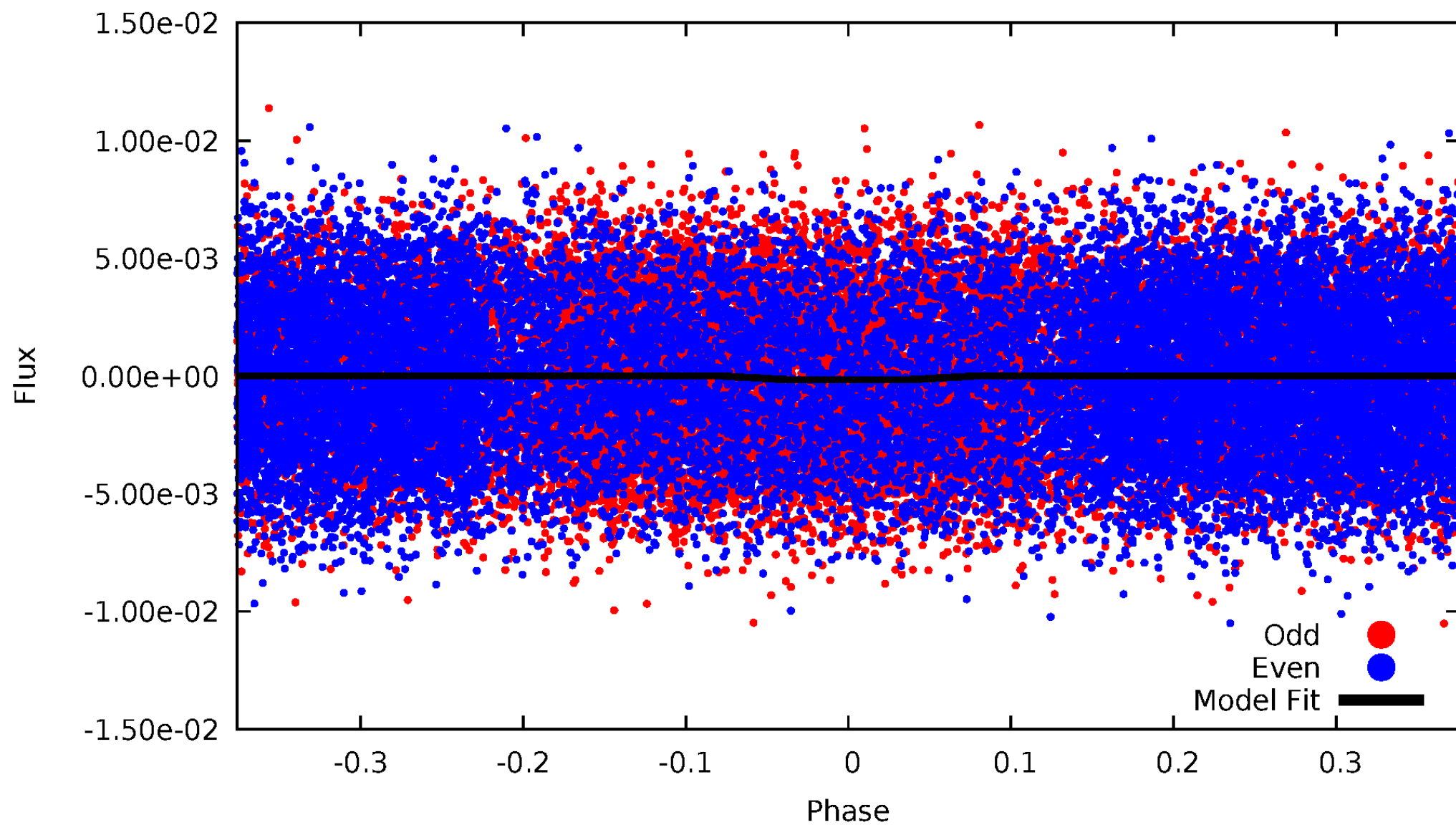
DV Odd/Even

TCE 007548259-02



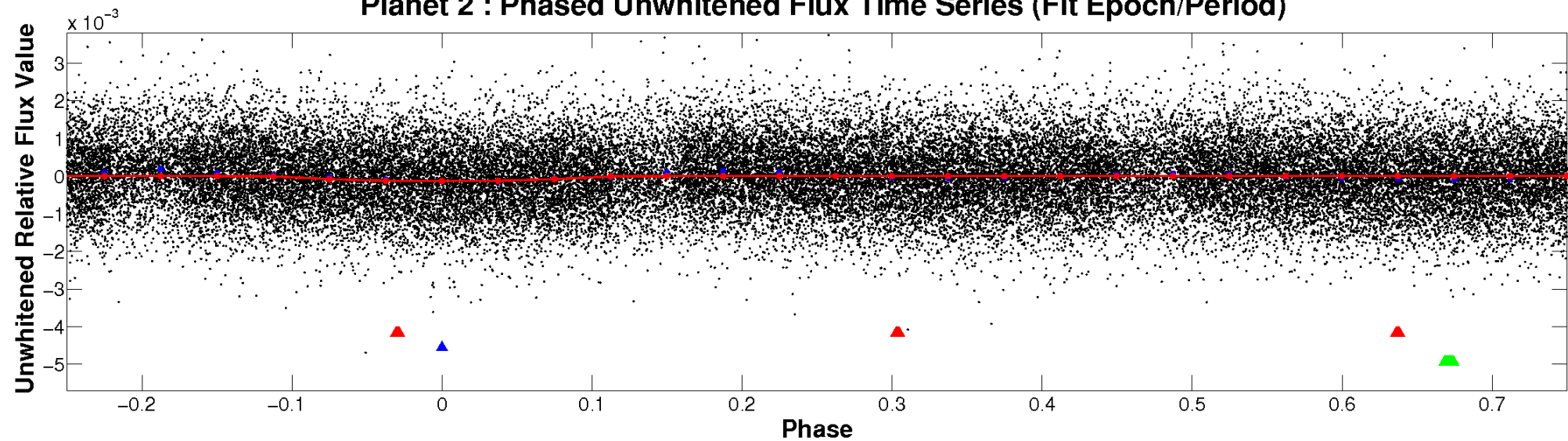
ALT Odd/Even

TCE 007548259-02

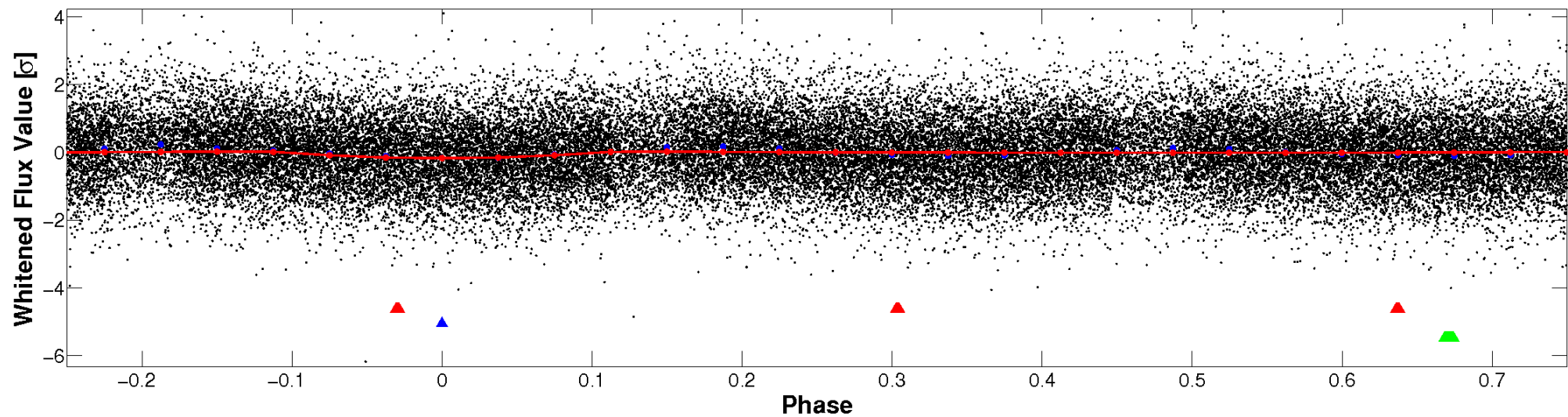


Non-Whitened Vs. Whitened Light Curve

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

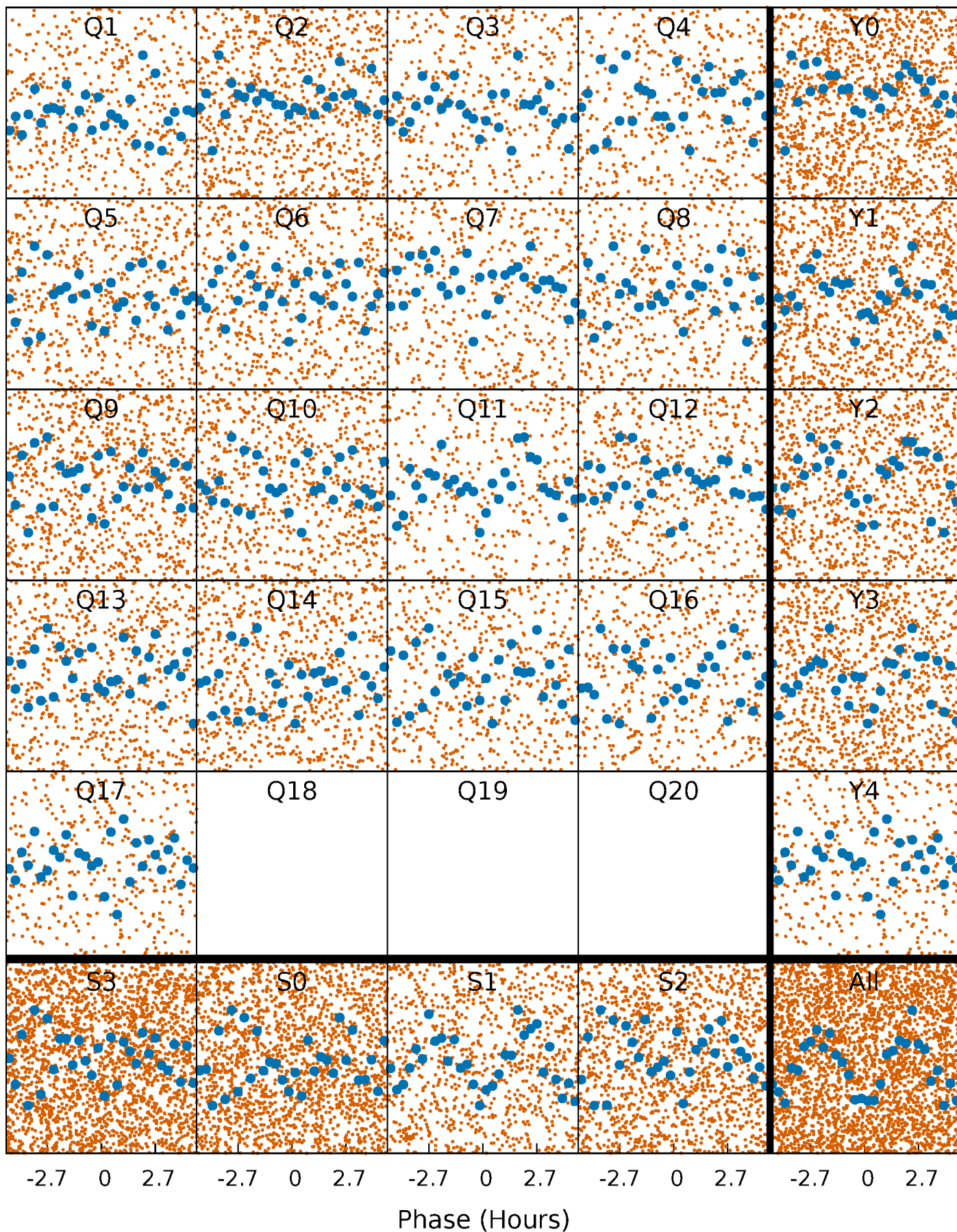


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



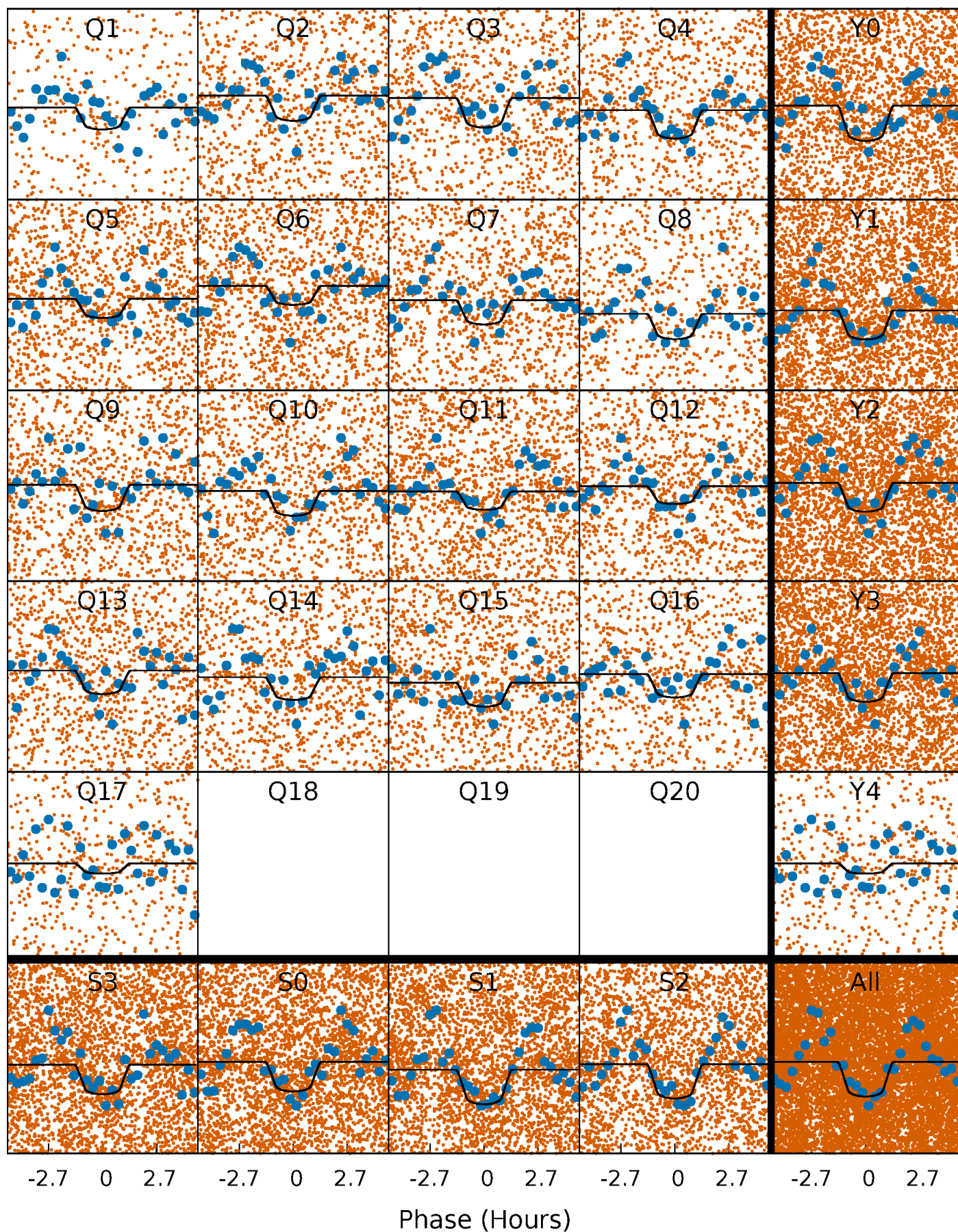
PDC Quarter-Phased Transit Curves

TCE 007548259-02 P= 0.545112 Days $T_0=131.547691$ (BKJD)



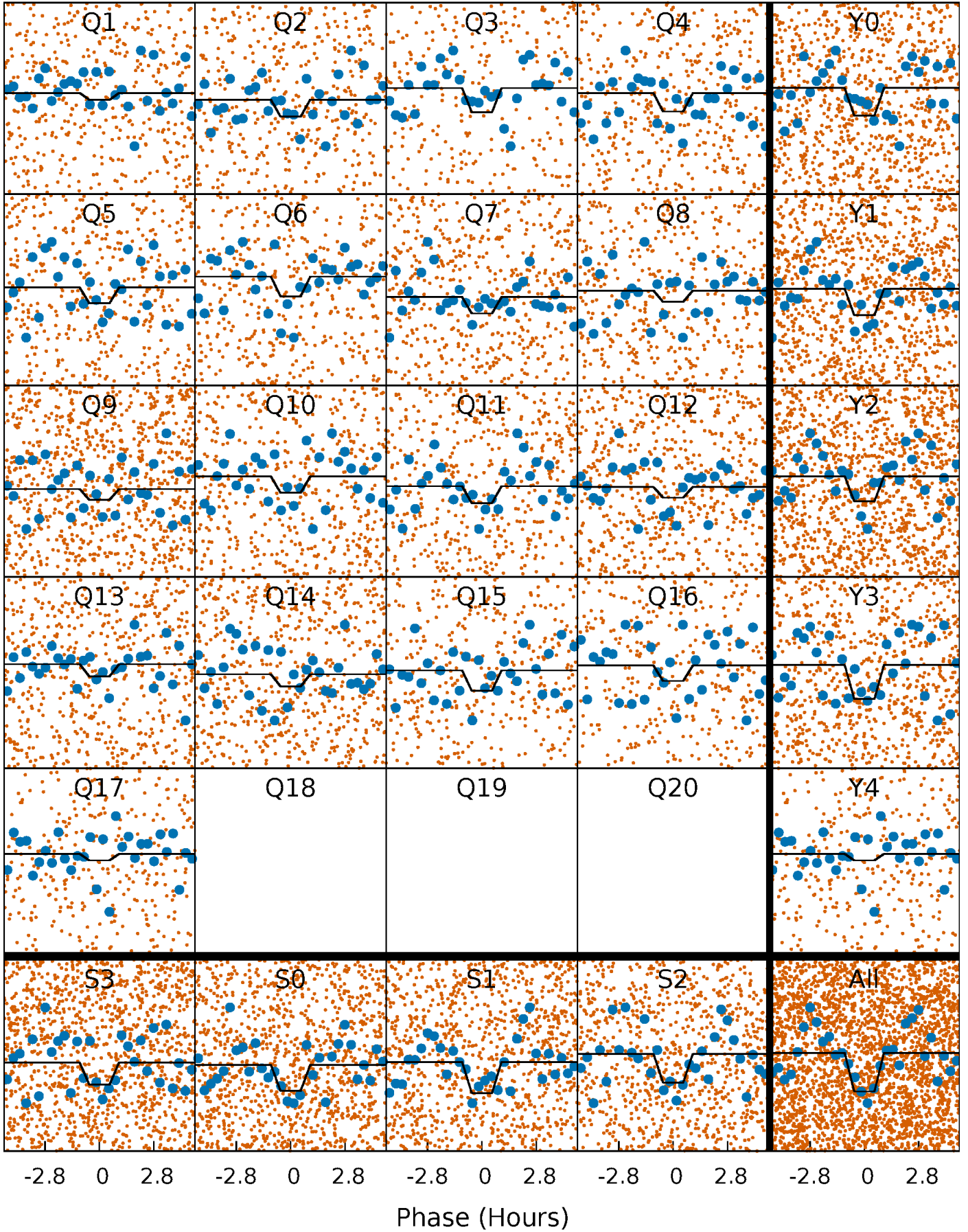
DV Quarter-Phased Transit Curves

TCE 007548259-02 P= 0.545112 Days $T_0=131.547691$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

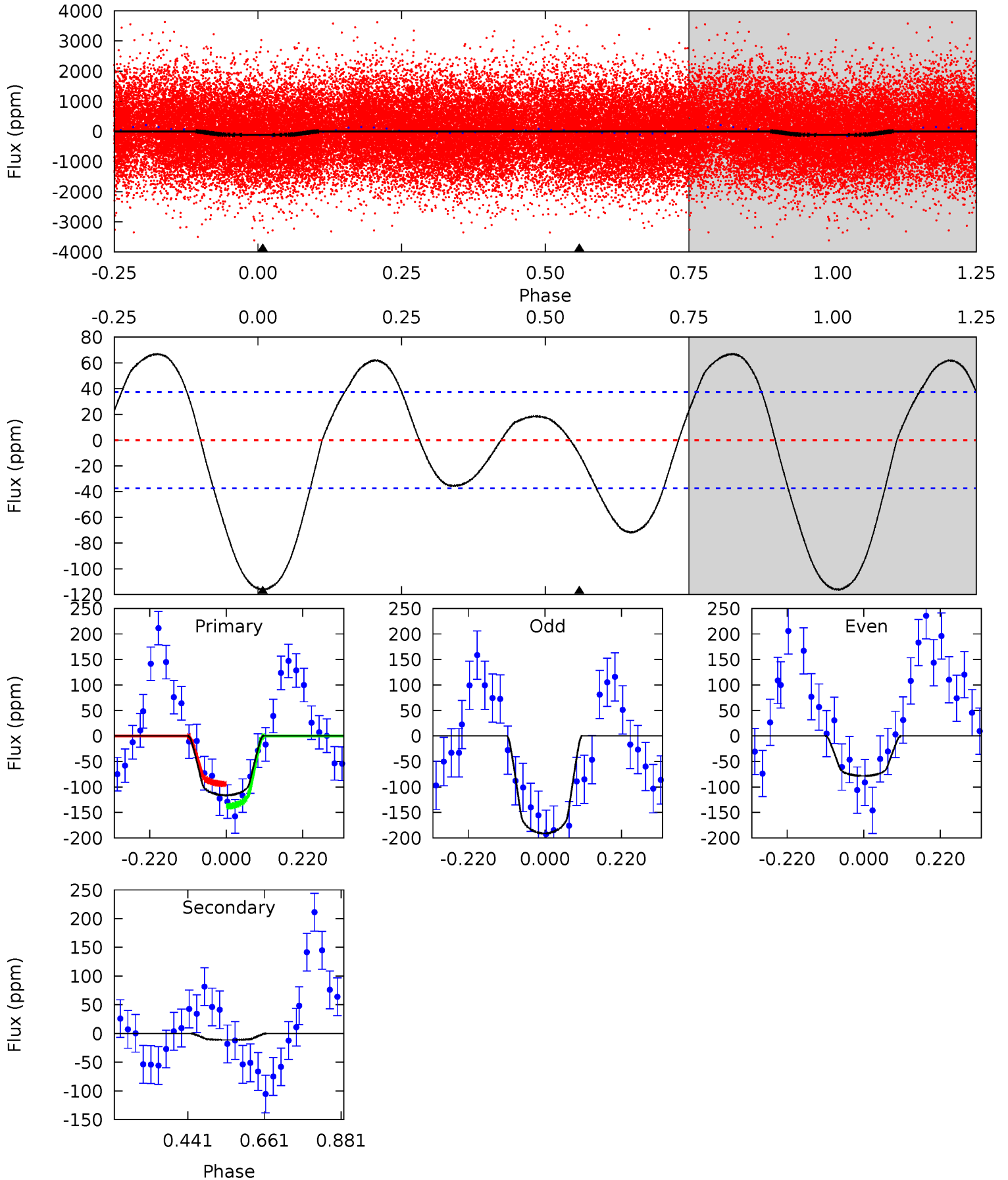
TCE 007548259-02 P= 0.545115 Days $T_0=131.548100$ (BKJD)



DV Model-Shift Uniqueness Test

007548259-02, P = 0.545112 Days, E = 131.002579 Days

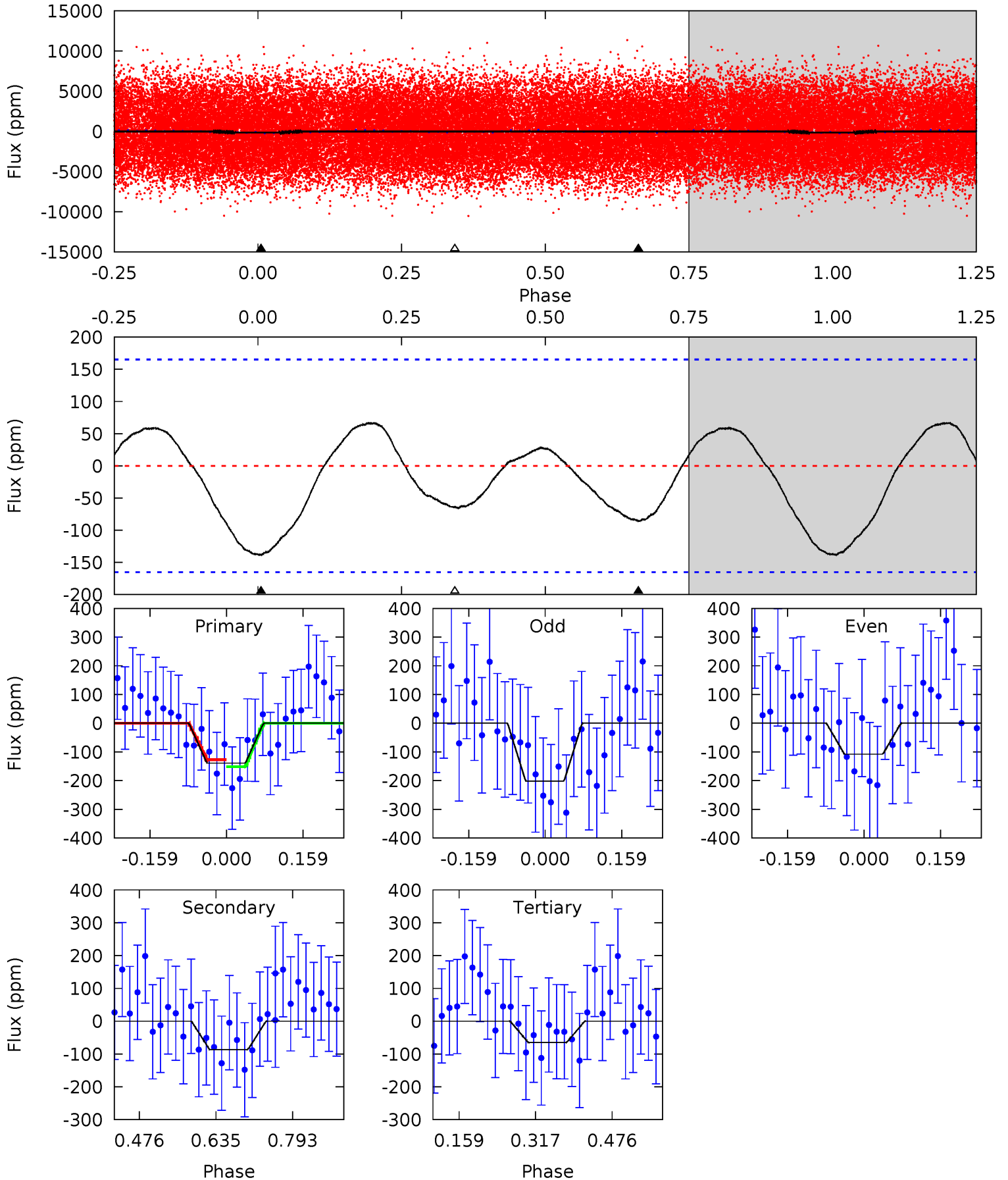
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	1.33	0	0	4.40	1.23	3.75	13.7	13.7	1.33	1.33	6.14	1.06	0.37	2.60



Alt Model-Shift Uniqueness Test

007548259-02, P = 0.545115 Days, E = 131.002985 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.76	2.34	1.76	0	4.47	1.41	1.24	2.00	3.76	0.58	2.34	1.20	0.99	0.33	0.33



Stellar Parameters For KIC 007548259

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7698^{+214}_{-349}	$3.875^{+0.280}_{-0.120}$	$0.070^{+0.200}_{-0.350}$	$2.688^{+0.497}_{-0.922}$	$1.974^{+0.215}_{-0.430}$	$0.143^{+0.275}_{-0.054}$
	+3%/-5%	+7%/-3%	+286%/-500%	+18%/-34%	+11%/-22%	+192%/-37%
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 007548259-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-11 ± 8	$3.35^{+1.88}_{-1.54}$	5952^{+419}_{-531}	-4347^{+8745}_{-613}	$0.115^{+0.373}_{-0.092}$
Alt.	-87 ± 37	$3.36^{+1.94}_{-1.57}$	5988^{+374}_{-507}	5870^{+3270}_{-2251}	$1.023^{+2.794}_{-0.667}$

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

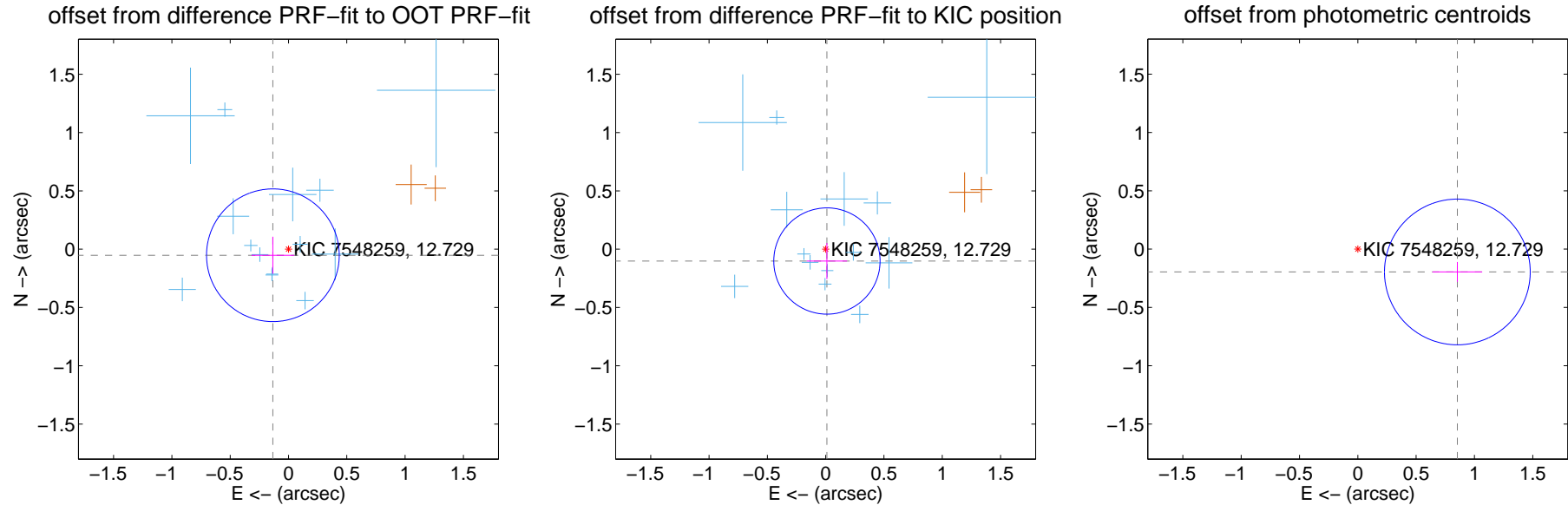
DV Centroid Data

Supplemental centroid analysis for 007548259-02. Kepler magnitude: 12.73. Transit SNR 12.74

There are 14 quarters with good PRF difference image offsets

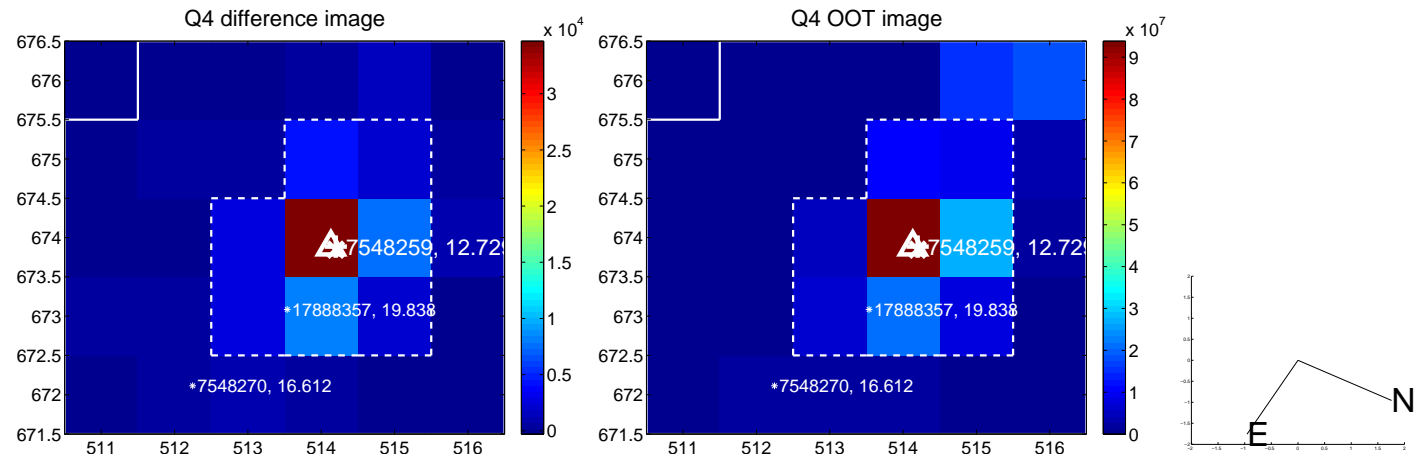
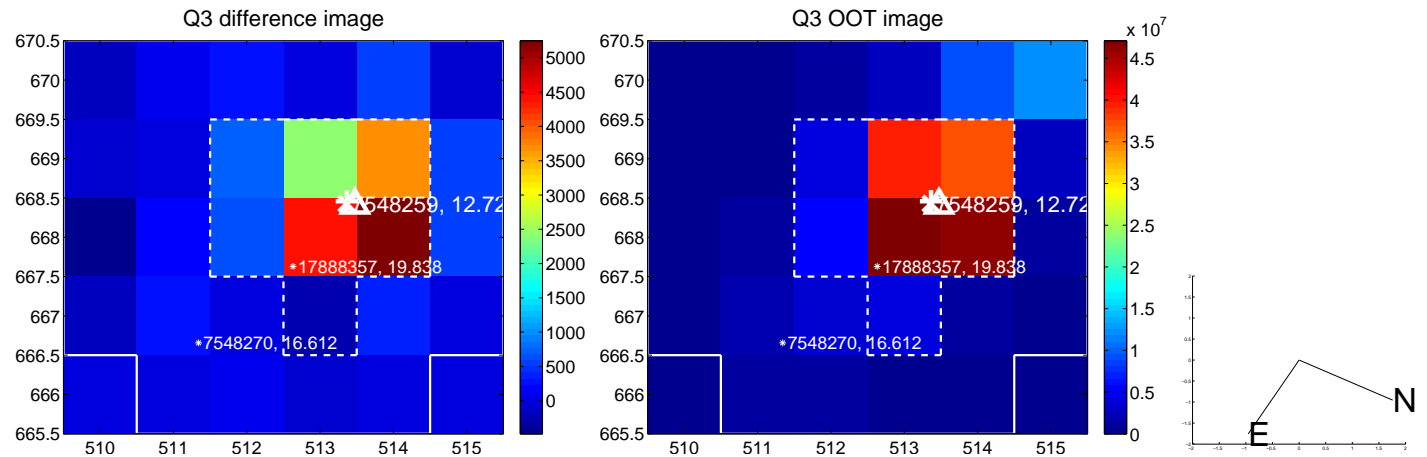
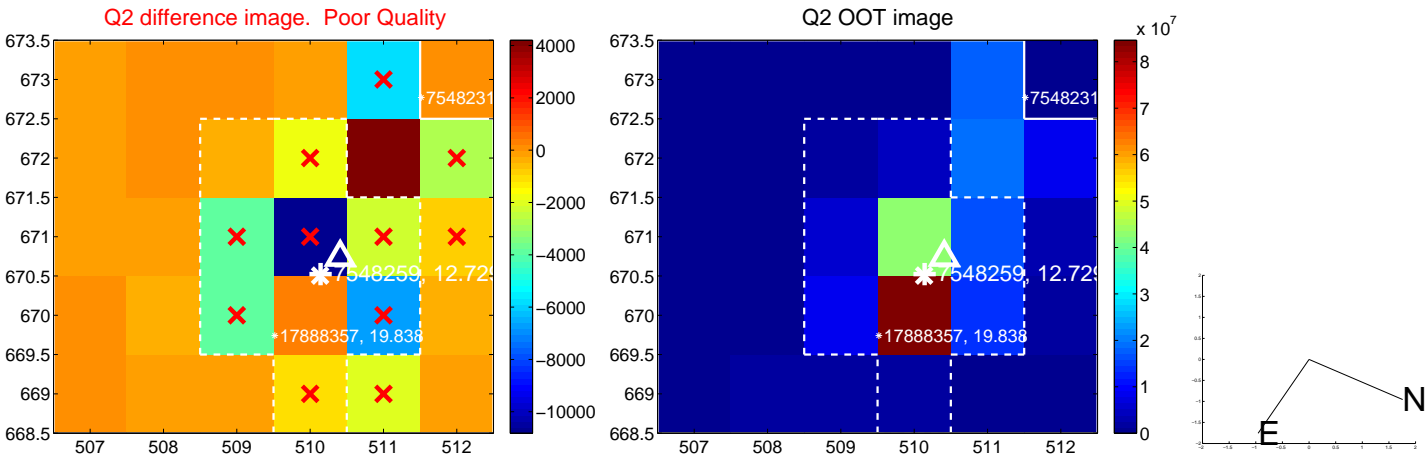
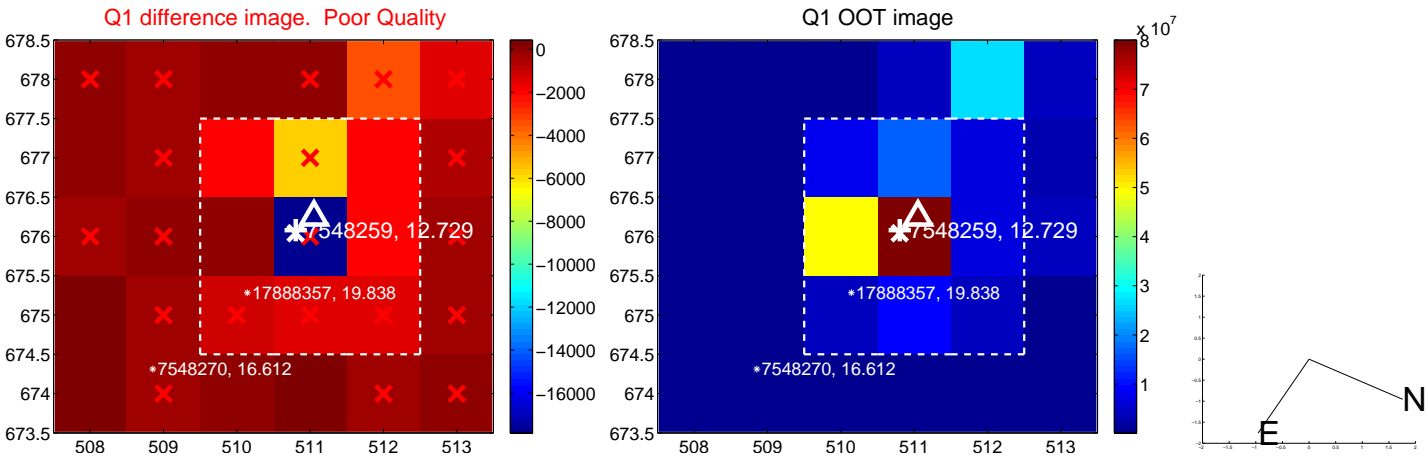
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.144 ± 0.190	0.76	0.134 ± 0.183	-0.052 ± 0.159
PRF-fit source offset from KIC position	0.102 ± 0.152	0.67	-0.011 ± 0.173	-0.102 ± 0.155
photometric centroid source offset	0.88 ± 0.21	4.20	-0.85 ± 0.21	-0.20 ± 0.09

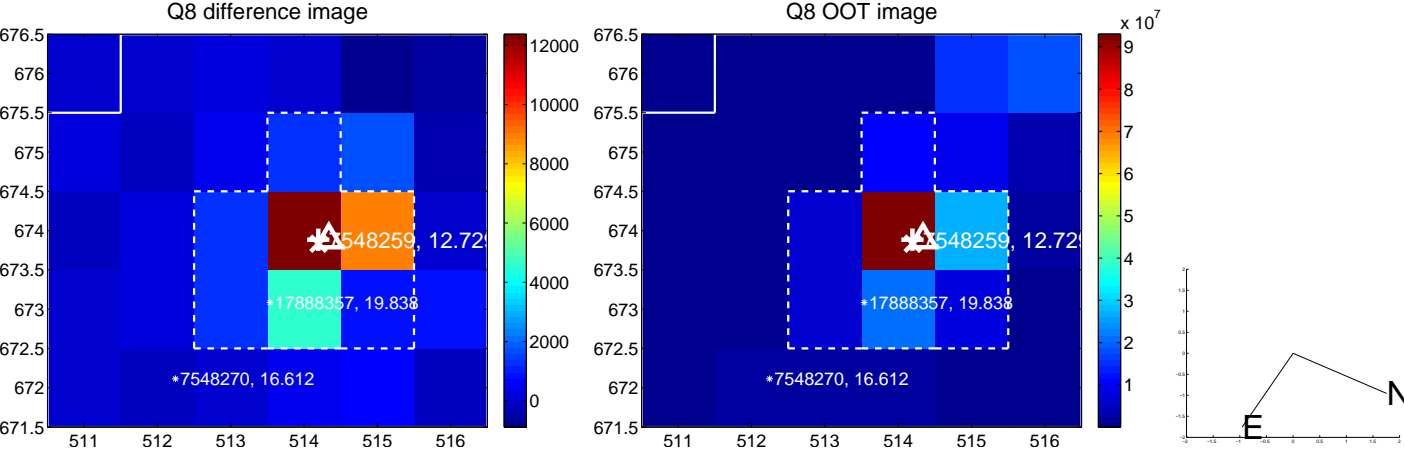
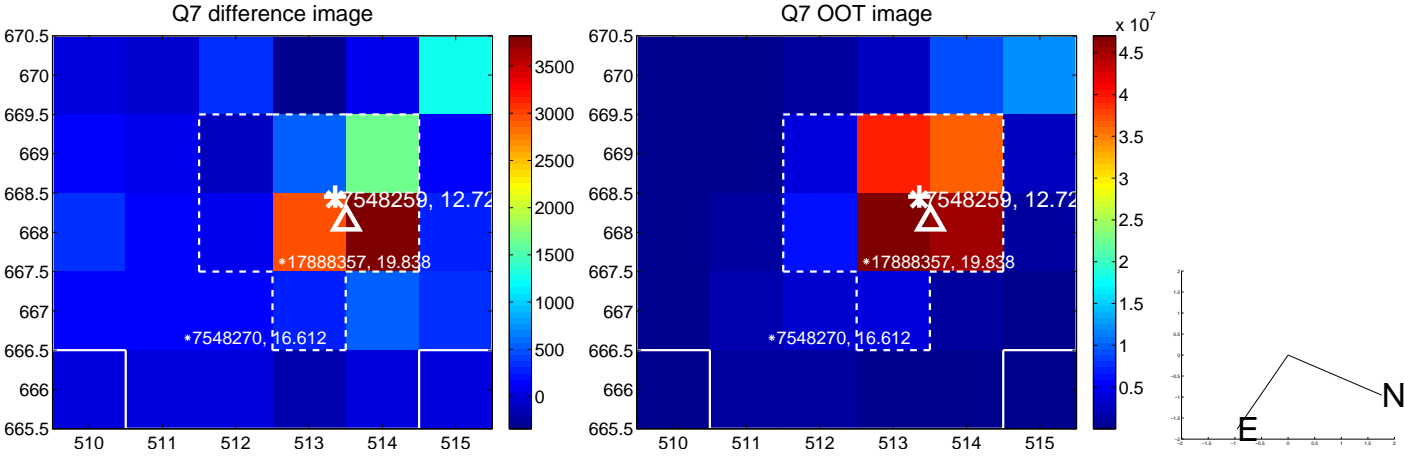
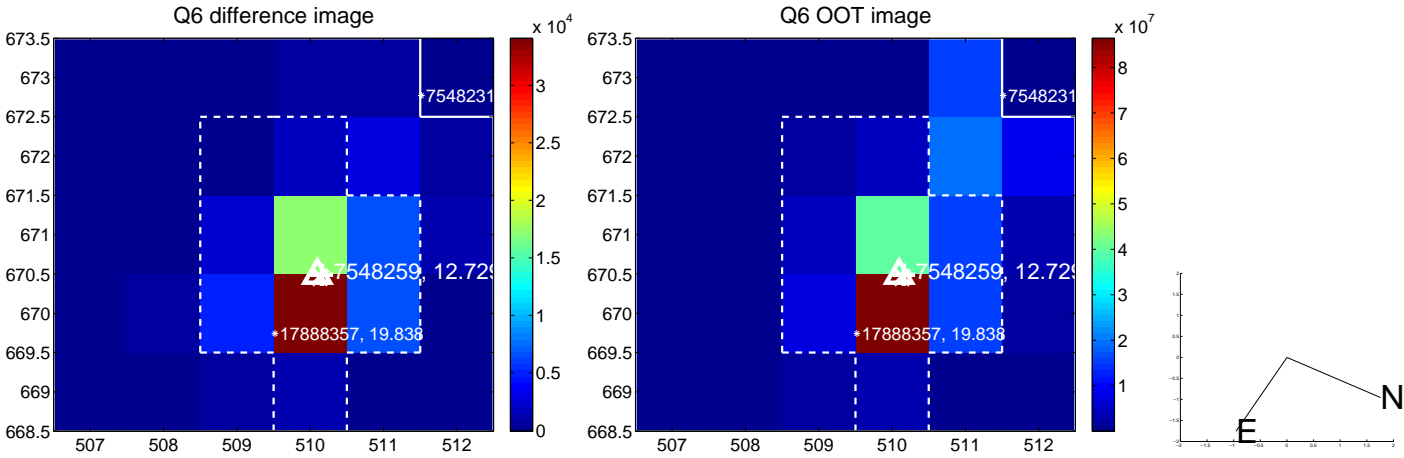
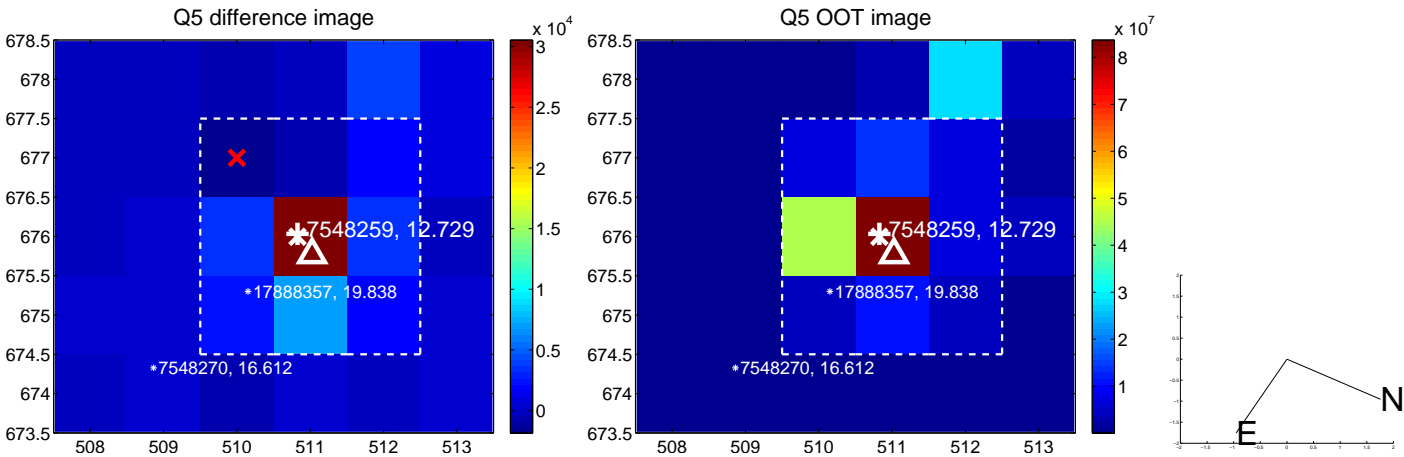


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

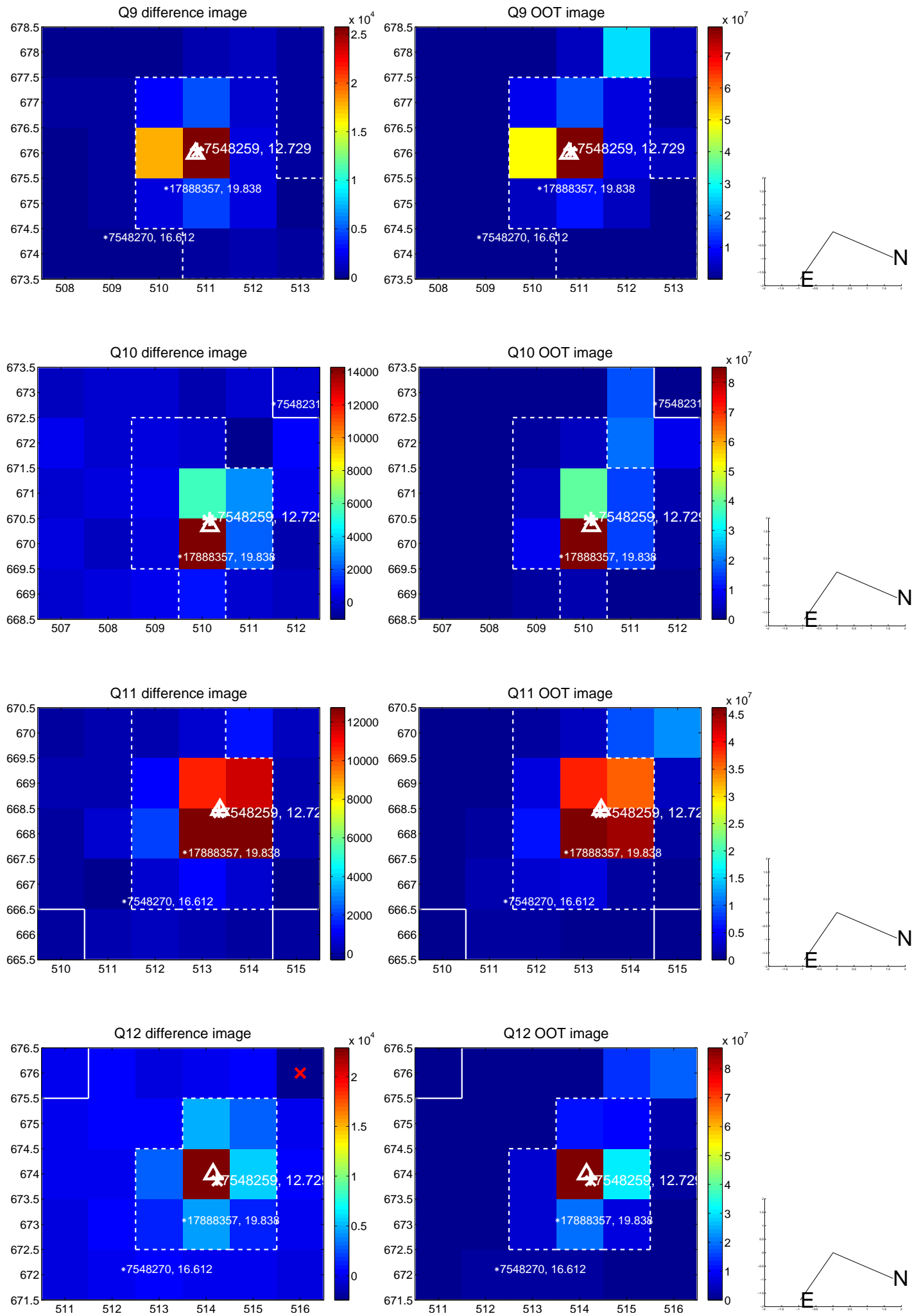
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



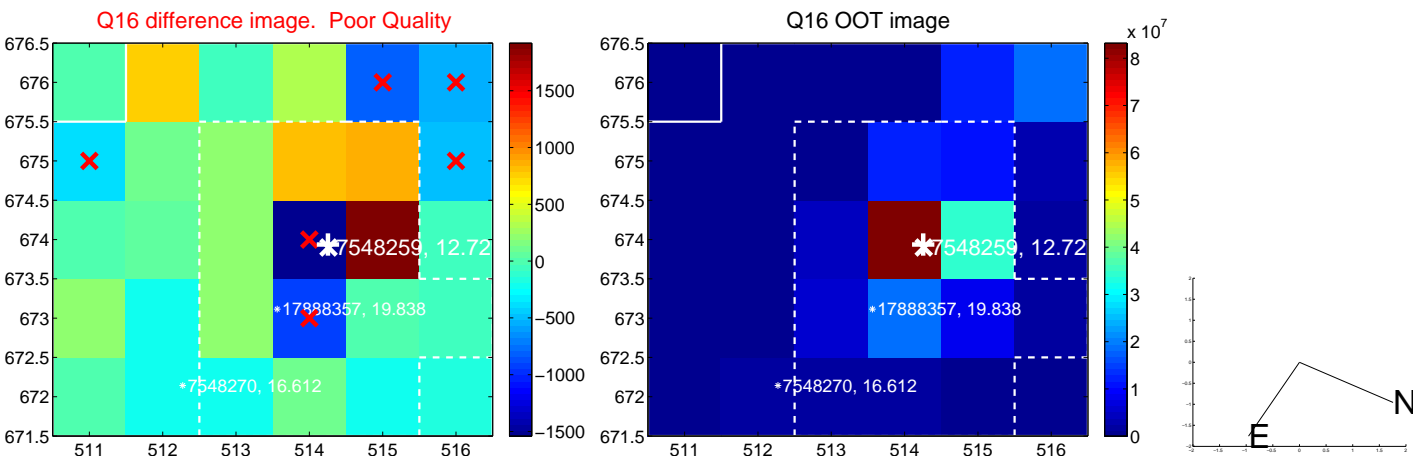
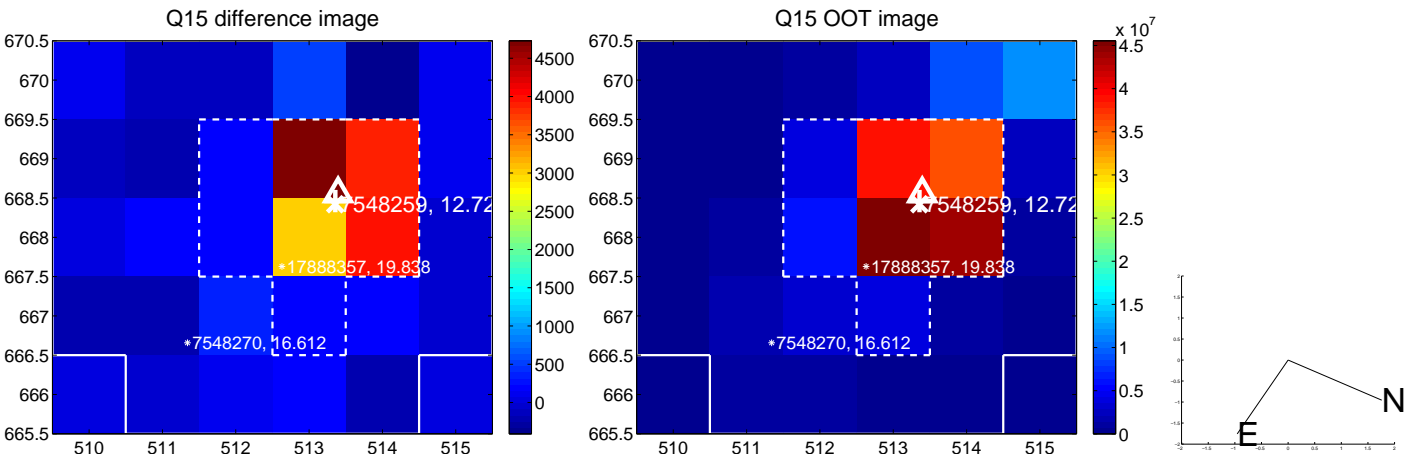
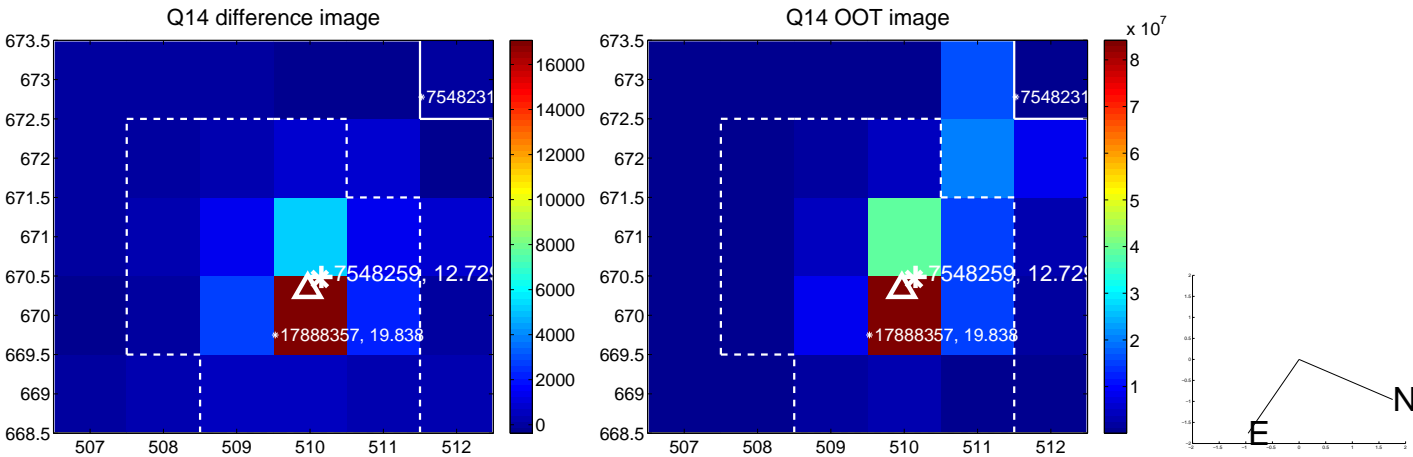
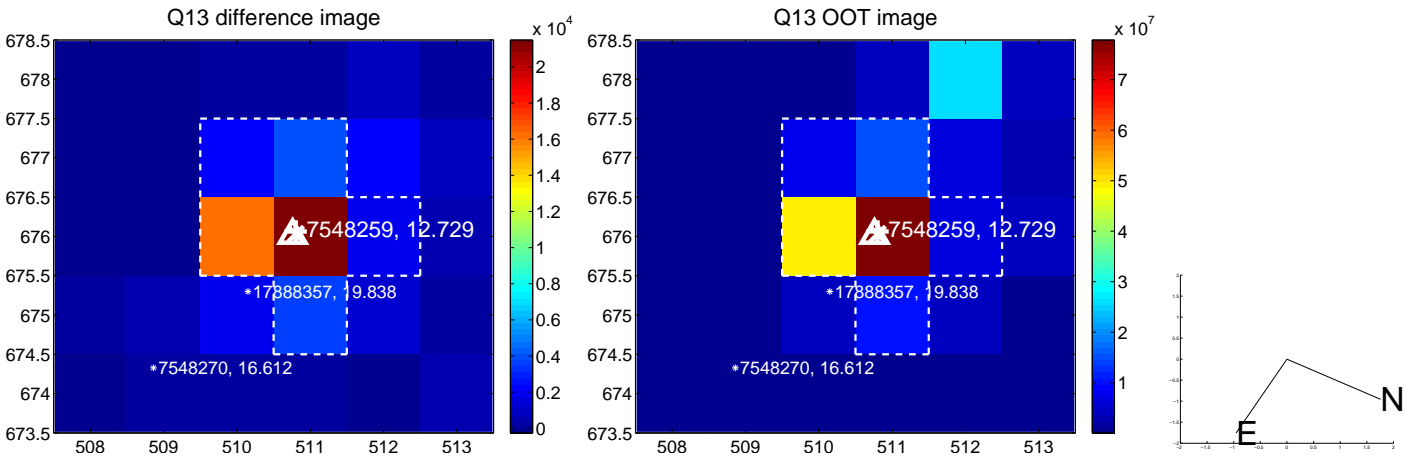
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



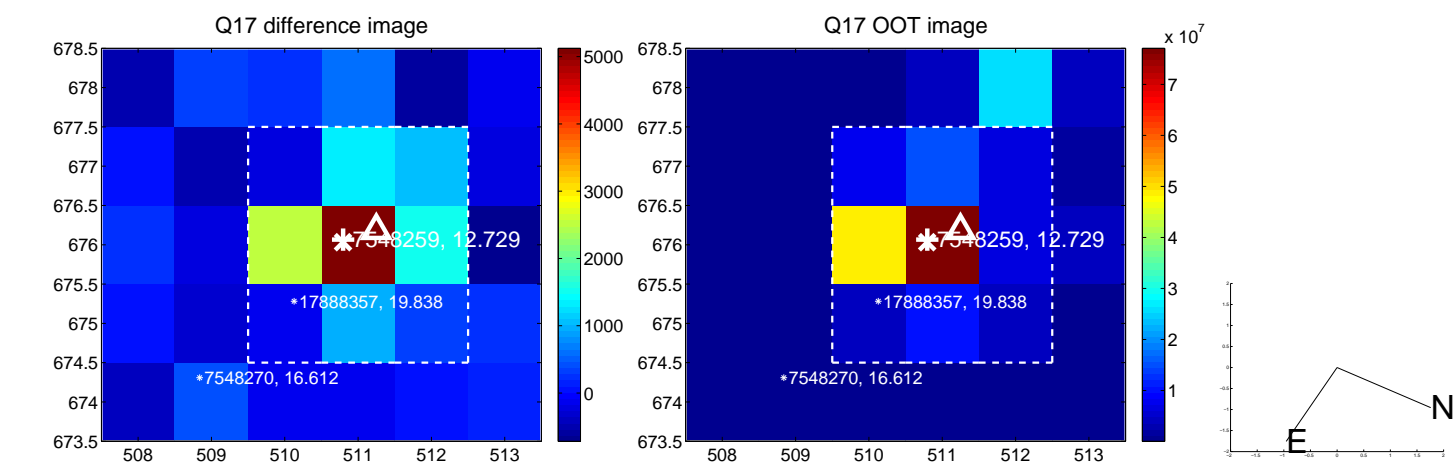
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



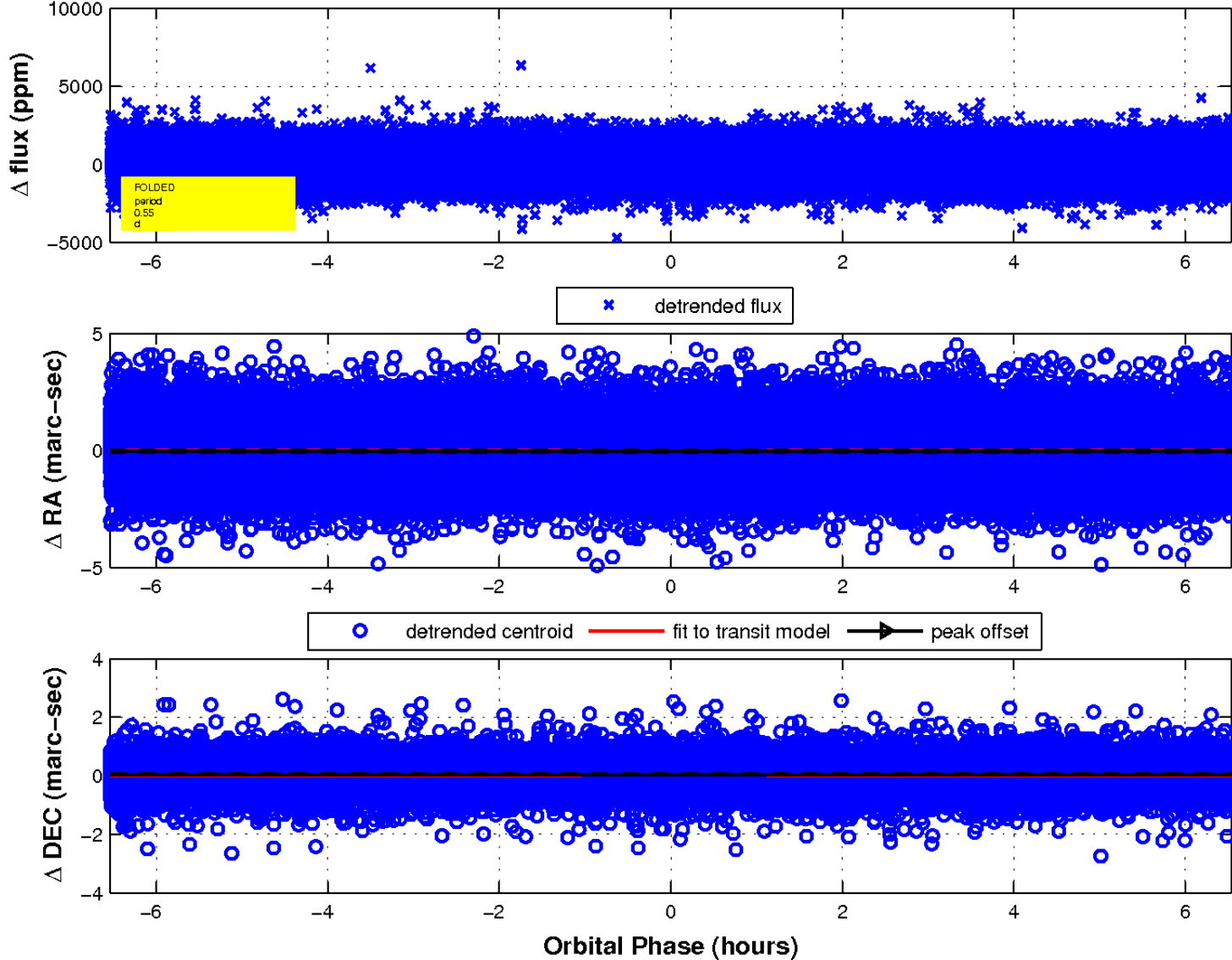
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



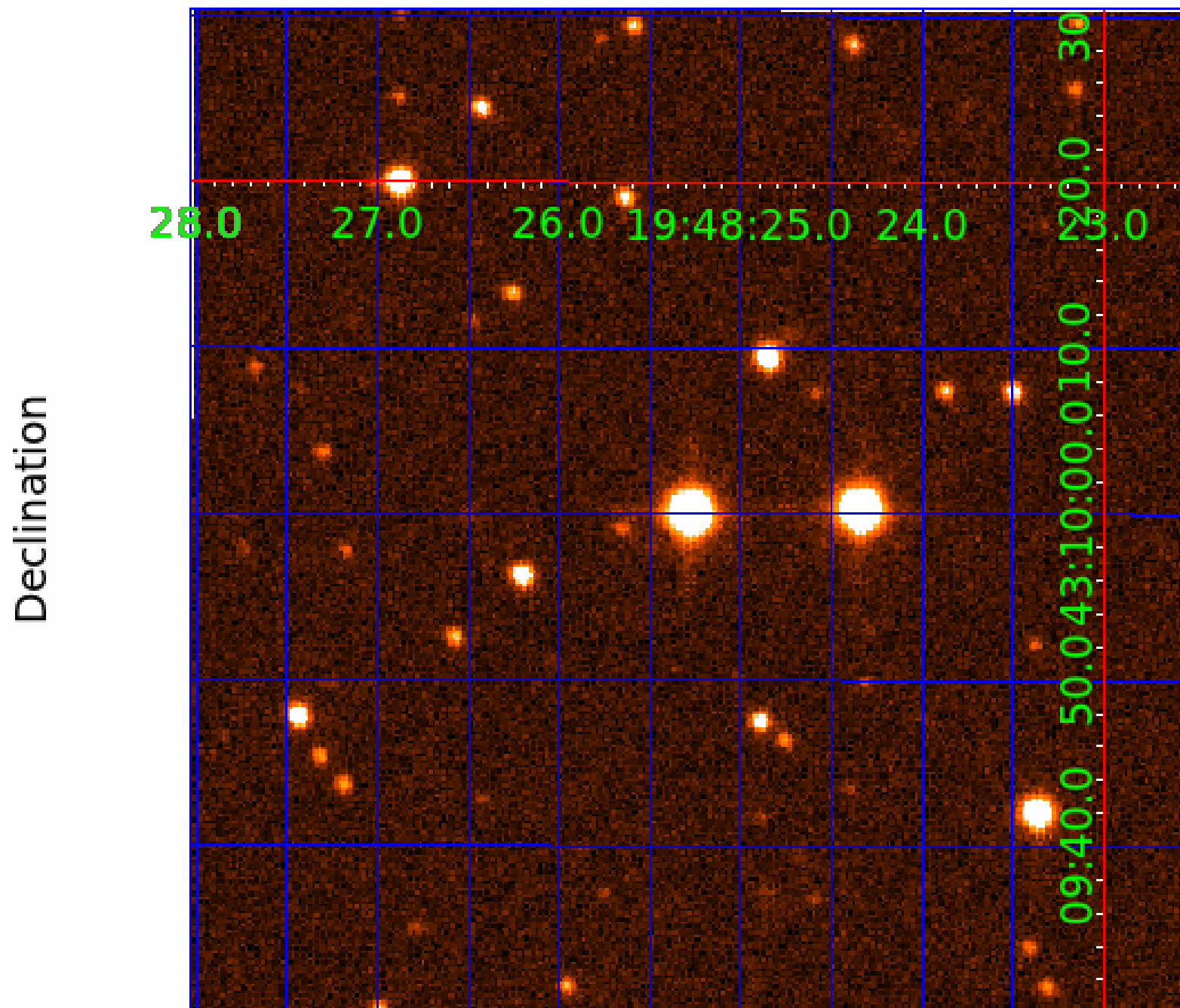
white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 2 of 3



UKIRT Image



KIC 007548259

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})
007548259-01	OBS	No	0.726815	132.077242	80.4	1.177	11.1	6.3	2.69	7698	2.81	57649.27
007548259-02	OBS	No	0.545112	131.547691	128.4	2.386	10.5	12.7	2.69	7698	3.54	84601.55
007548259-03	OBS	No	2.180451	131.912001	174.3	2.942	9.1	10.5	2.69	7698	4.11	13323.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007548259-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
007548259-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
007548259-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—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.

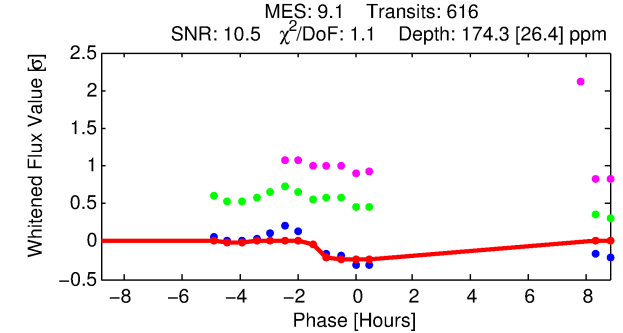
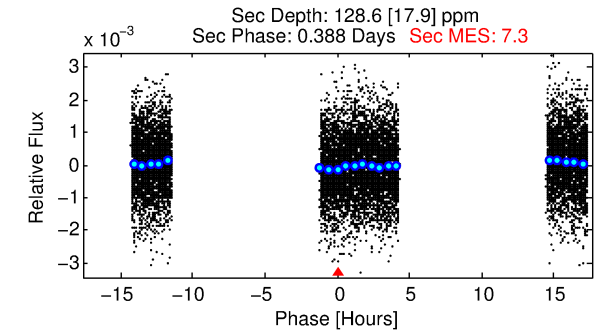
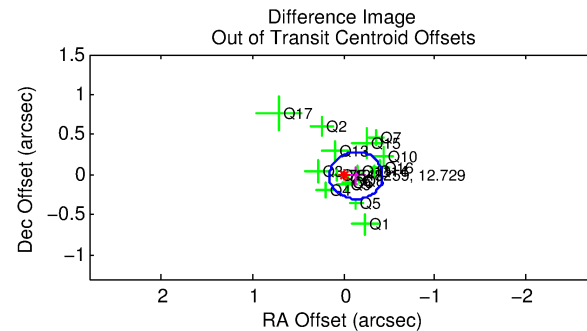
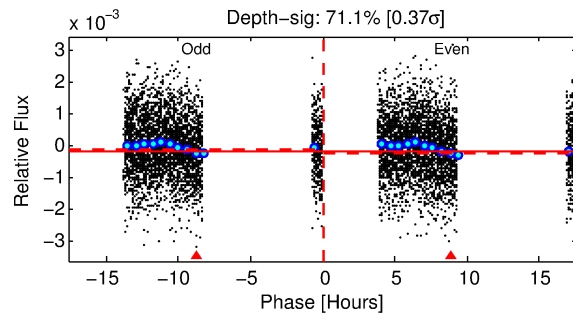
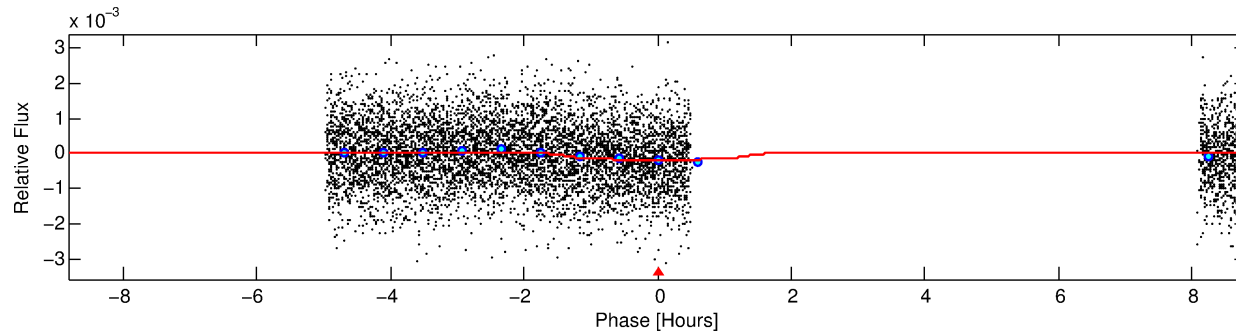
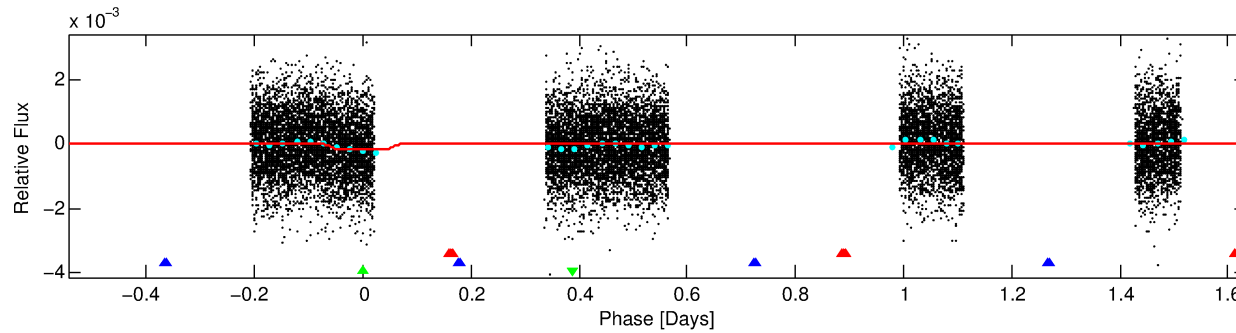
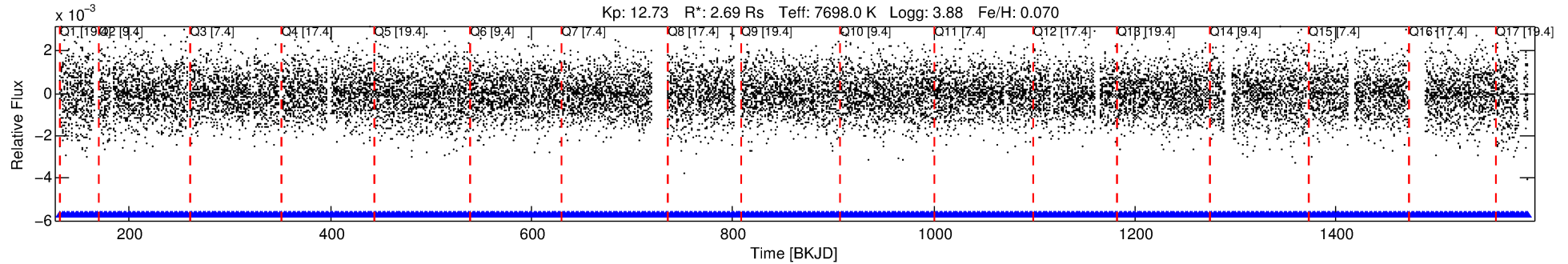
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007548259-03

No Significant Match Found

DV One-Page Summary

KIC: 7548259 Candidate: 3 of 3 Period: 2.180 d



DV Fit Results:

Period = 2.18045 [0.00003] d
Epoch = 131.9120 [0.0267] BKJD
Rp/R* = 0.0140 [0.0108]
a/R* = 2.83 [11.72]
b = 0.90 [1.10]
Seff = 13323.87 [6922.24]
Teq = 2740 [356] K
Rp = 4.11 [3.47] Re
a = 0.0413 [0.0130] AU
Ag = 7.14 [11.61] [0.53 σ]
Teffp = 6925 [2701] K [1.54 σ]

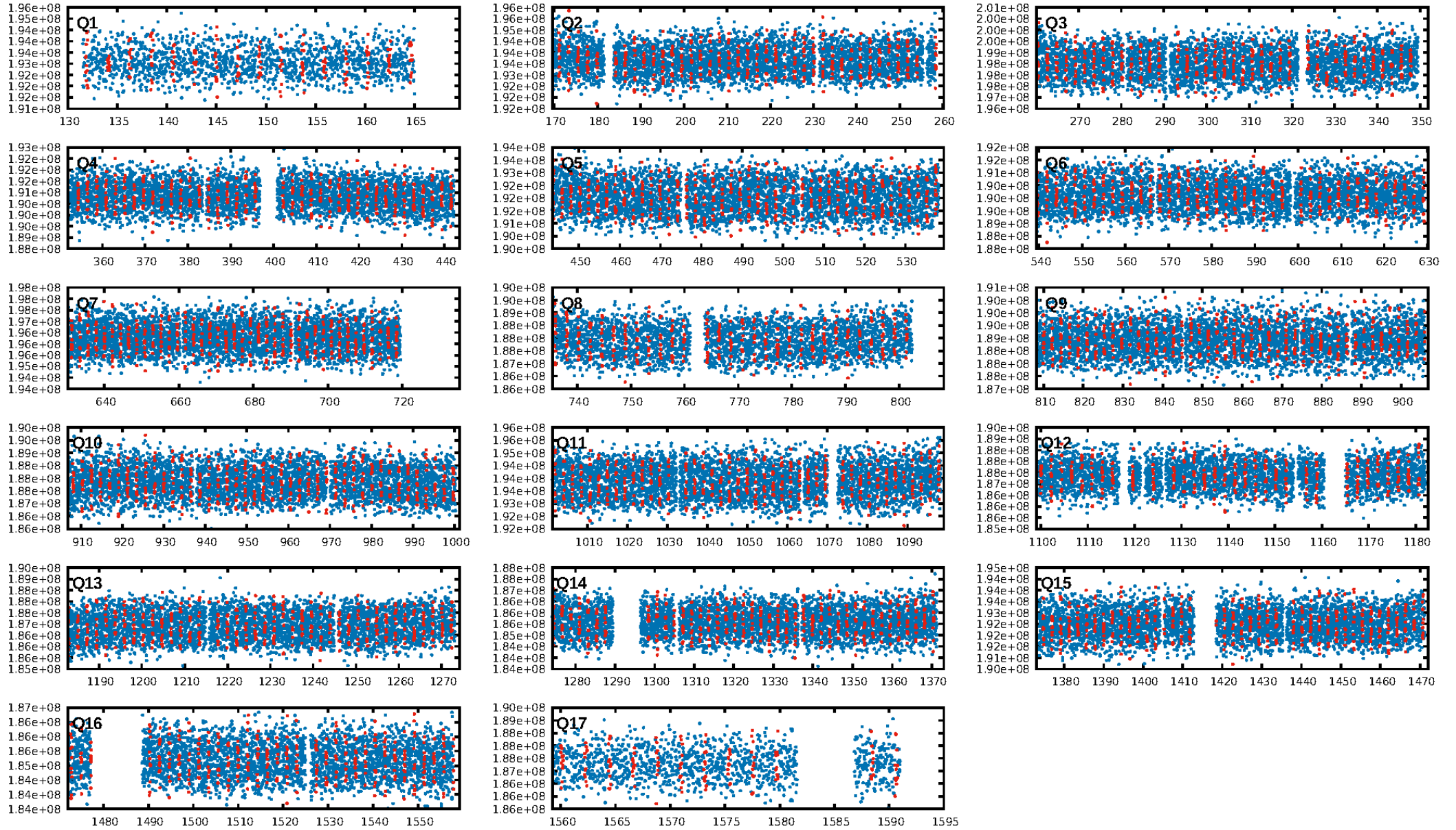
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [11.01 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.50e-18
RollingBand-fgt: 1.00 [588/588]
GhostDiagnostic-chr: 1.645
Centroid-sig: 12.8%
Centroid-so: 0.796 arcsec [2.77 σ]
OotOffset-rm: 0.138 arcsec [1.41 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.287 arcsec [2.77 σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

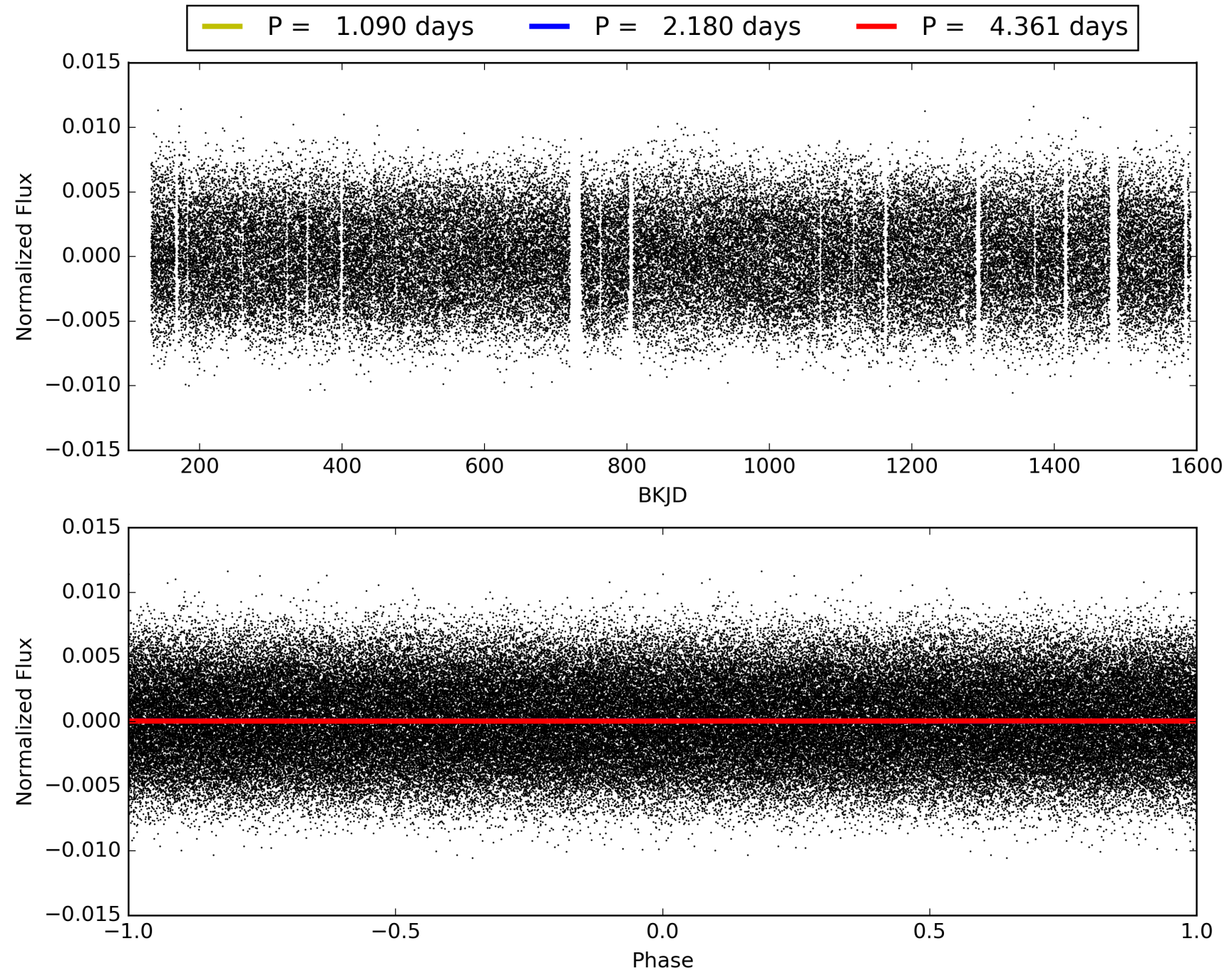
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:20:38 Z

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

TCE 007548259-03, PDC Light Curves

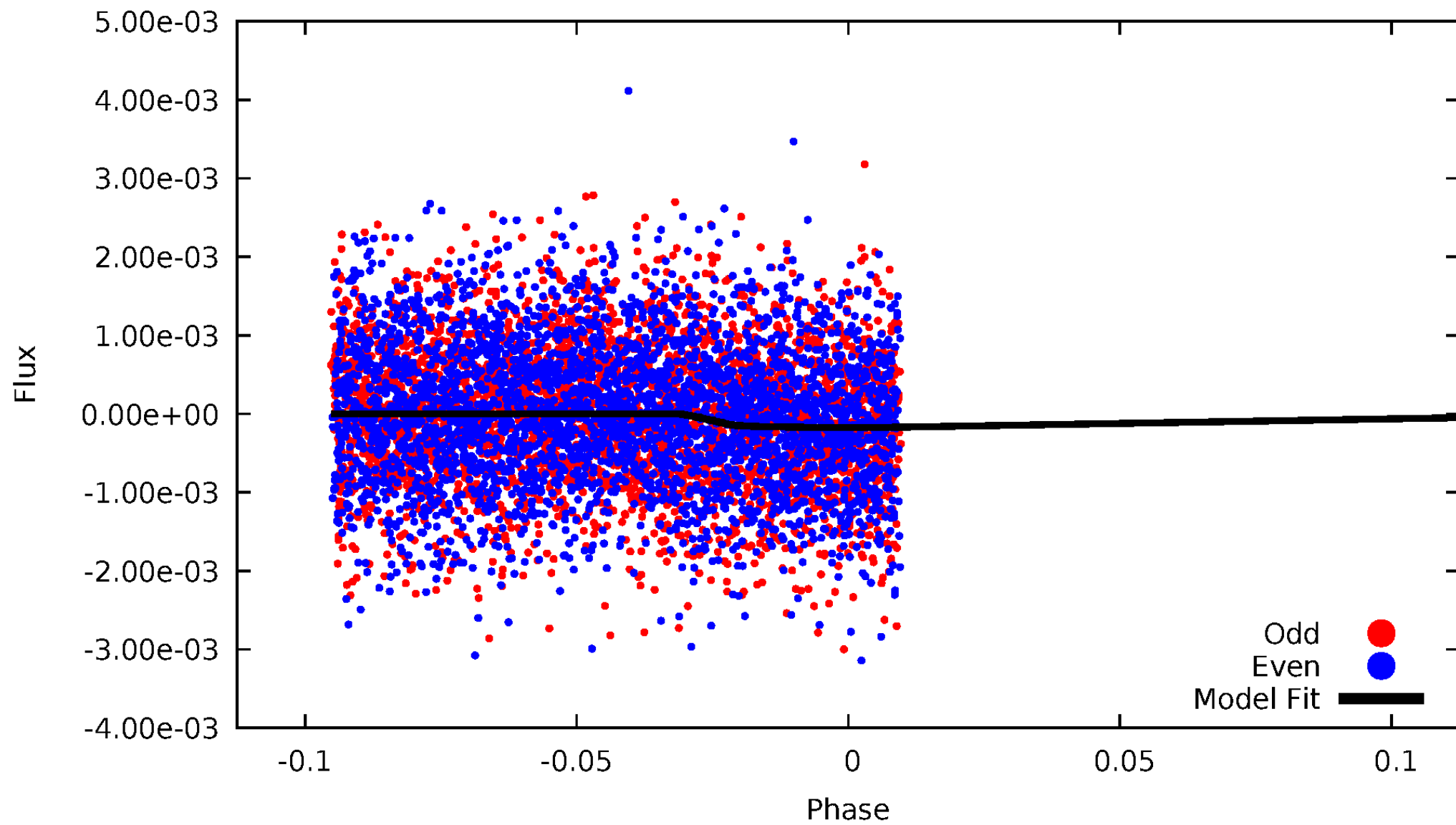


TCE 007548259-03



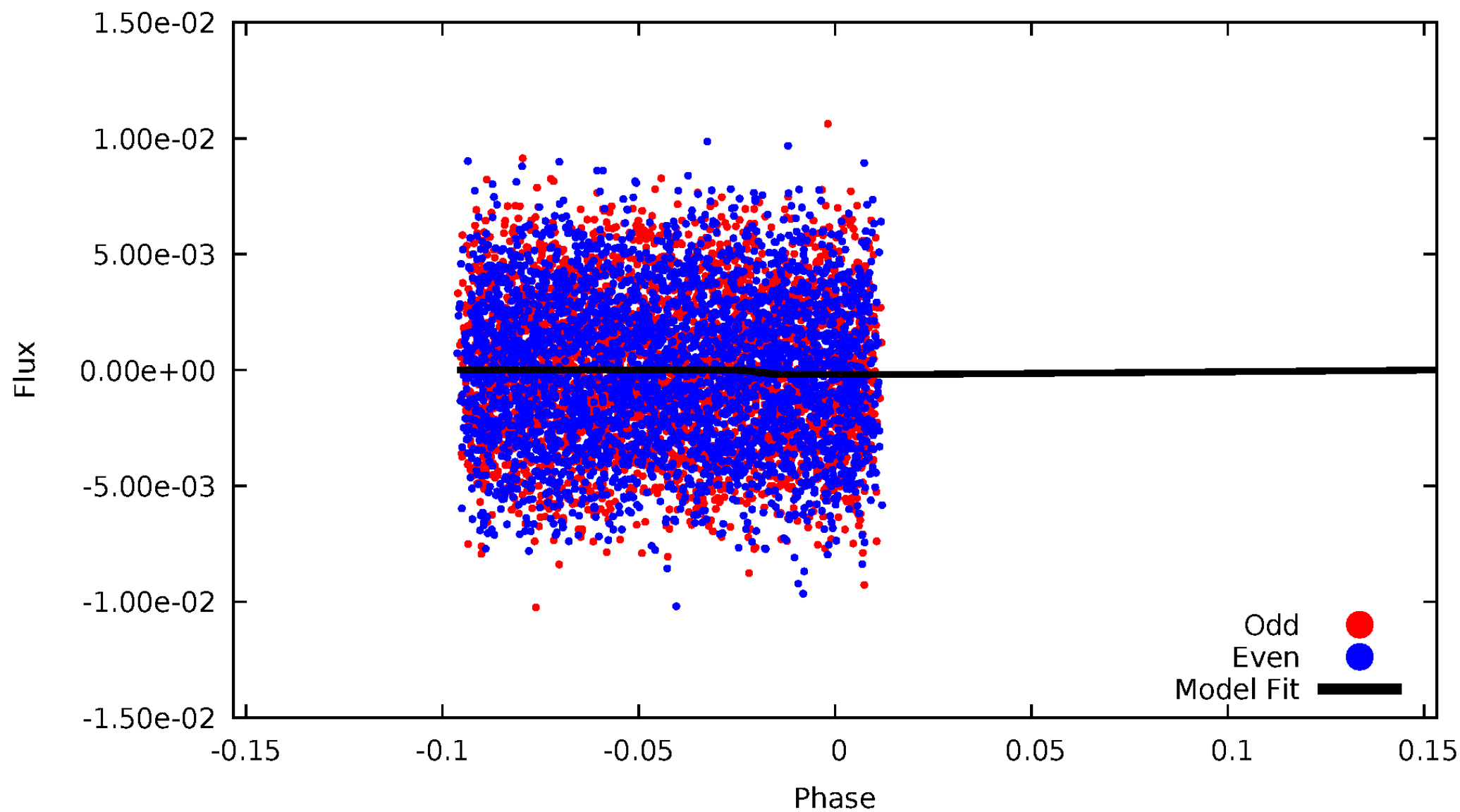
DV Odd/Even

TCE 007548259-03

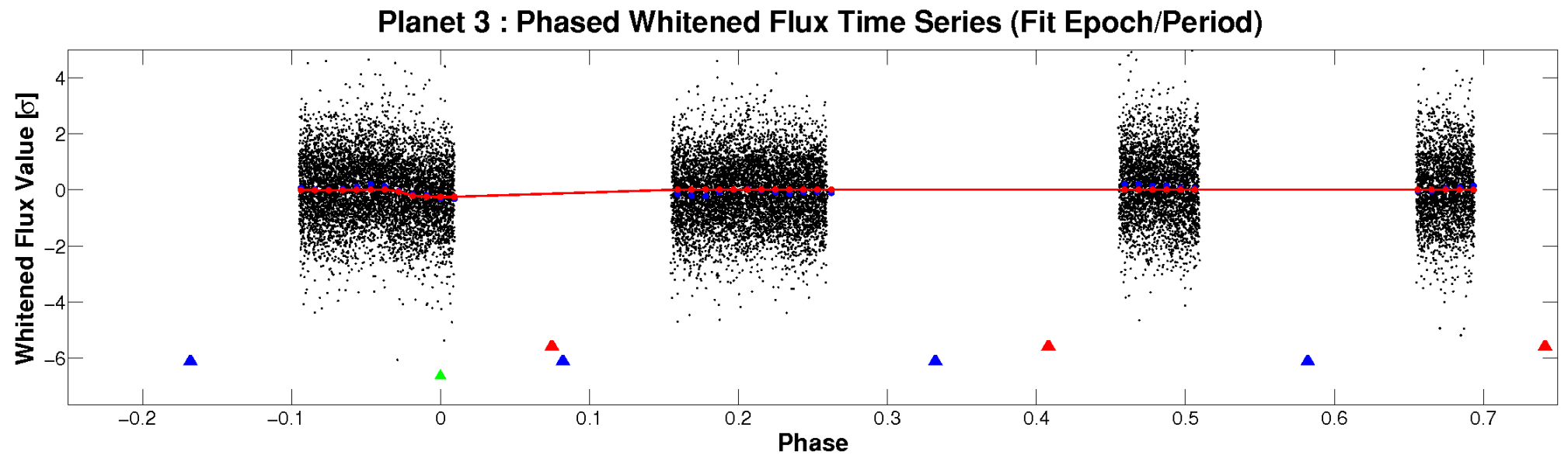
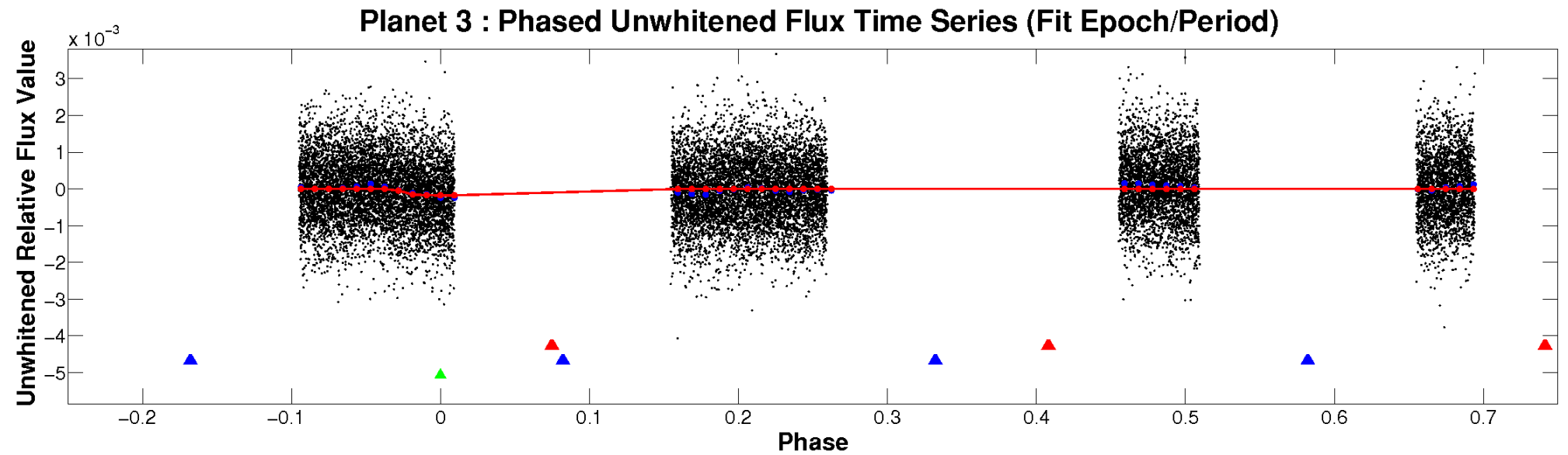


ALT Odd/Even

TCE 007548259-03

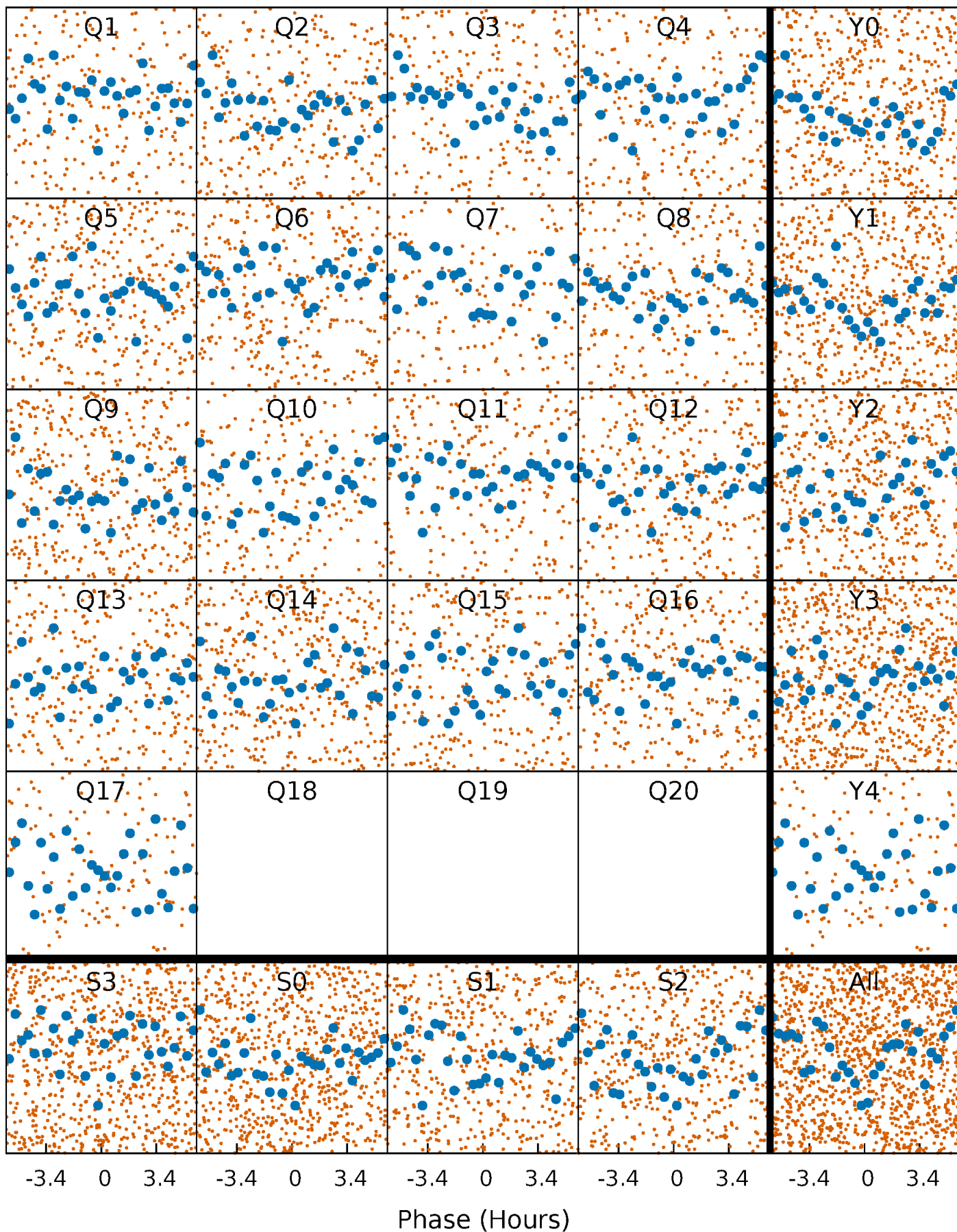


Non-Whitened Vs. Whitened Light Curve



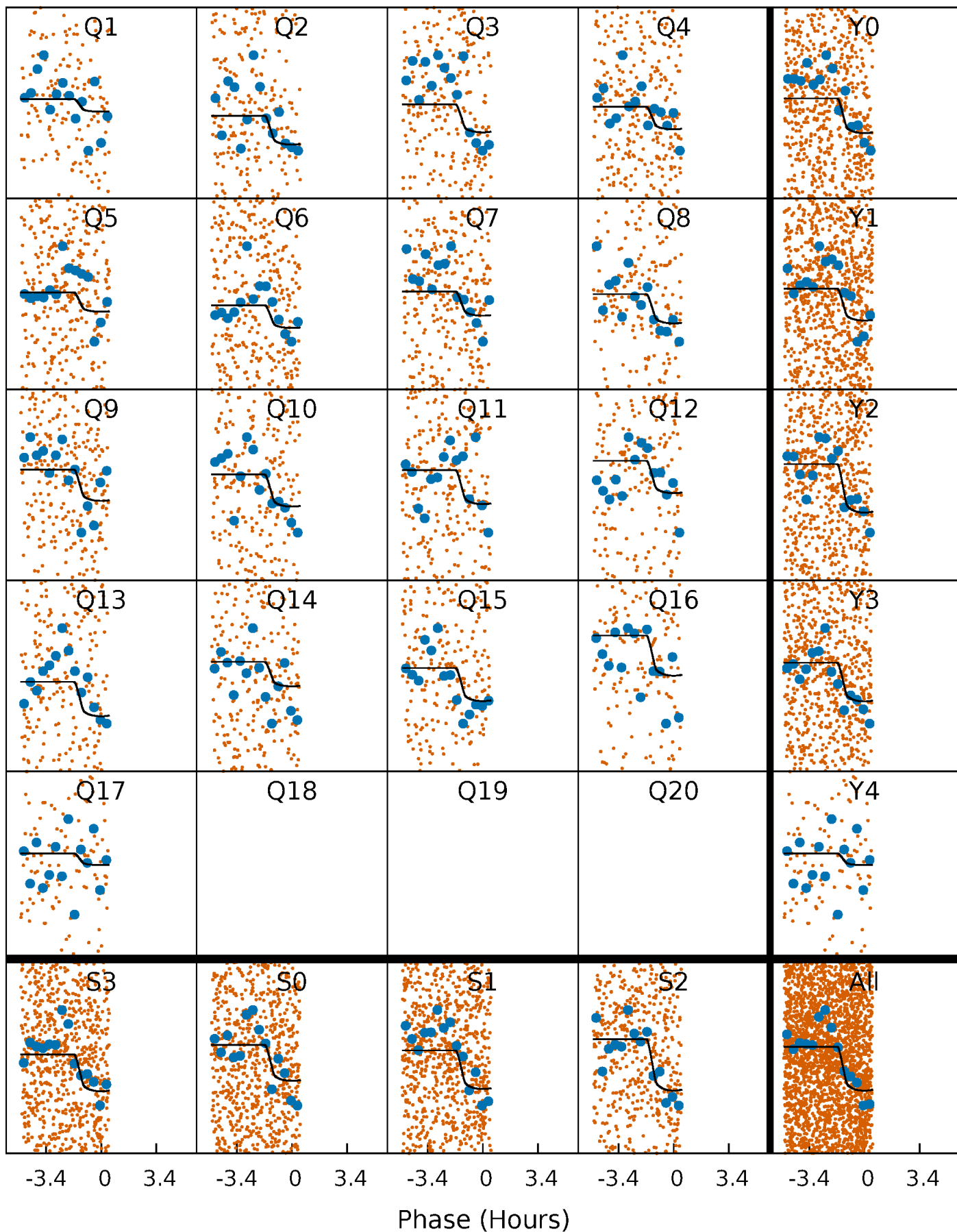
PDC Quarter-Phased Transit Curves

TCE 007548259-03 P= 2.180451 Days $T_0=131.912001$ (BKJD)



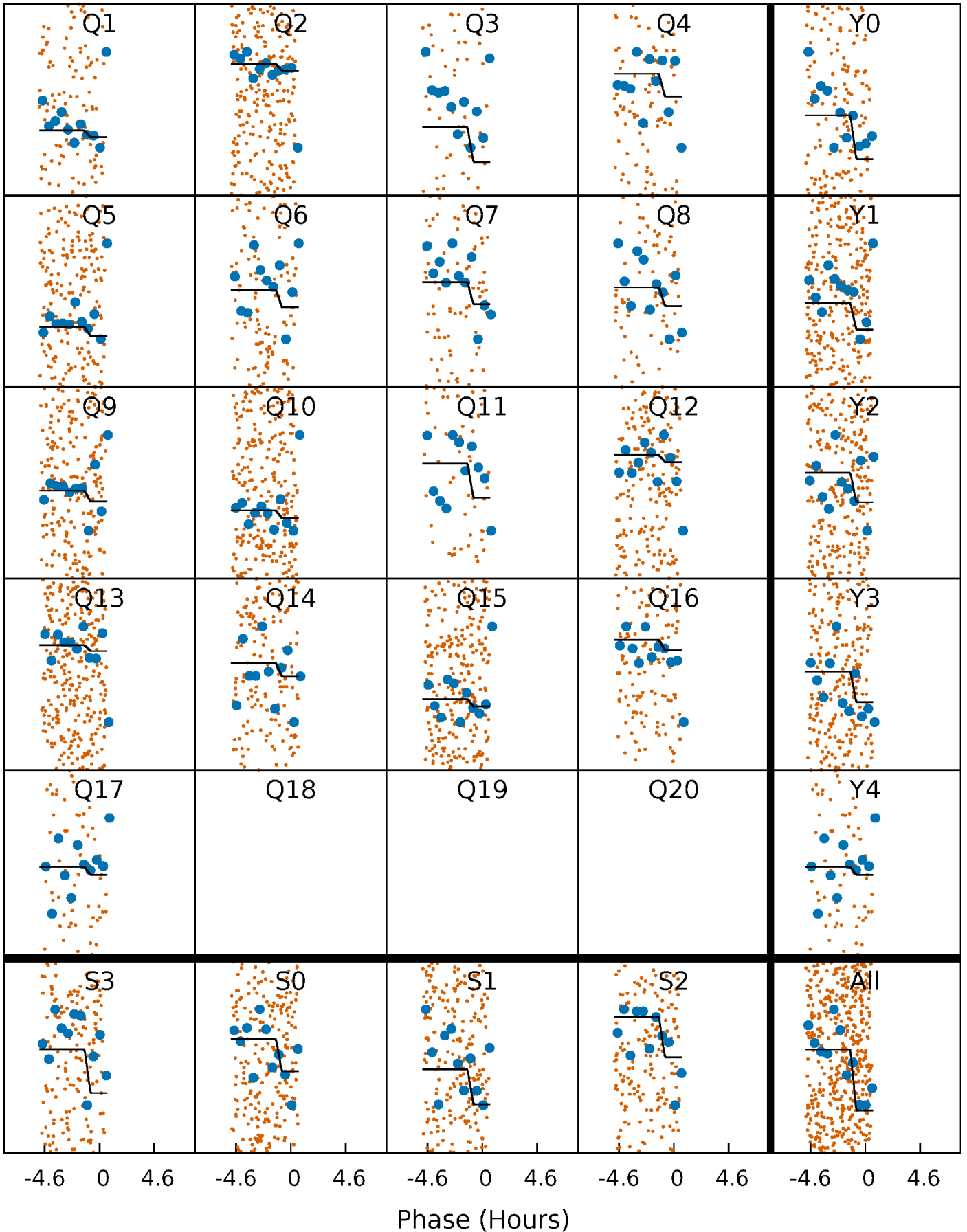
DV Quarter-Phased Transit Curves

TCE 007548259-03 P= 2.180451 Days $T_0=131.912001$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

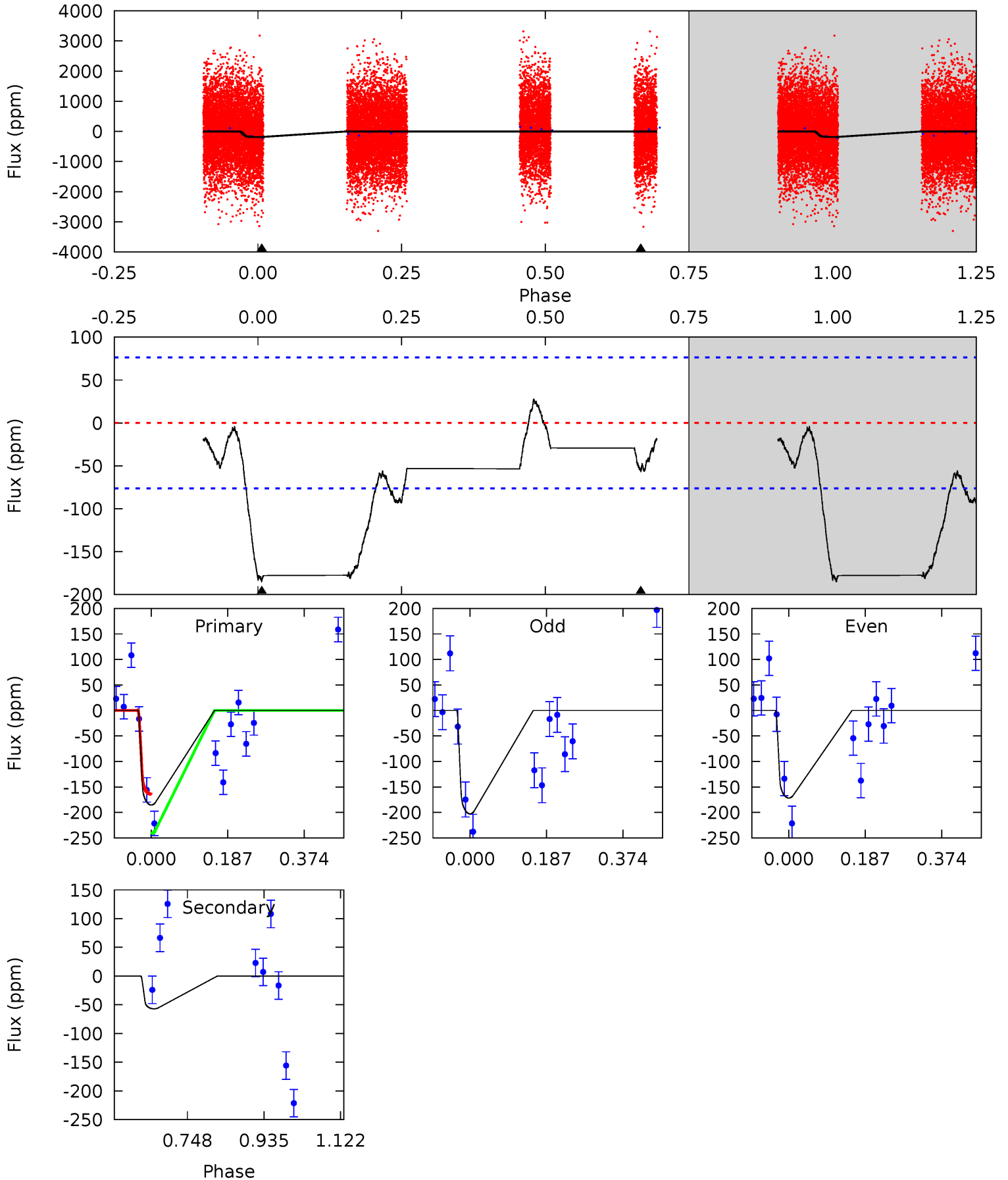
TCE 007548259-03 P= 2.180430 Days $T_0=131.917113$ (BKJD)



DV Model-Shift Uniqueness Test

007548259-03, P = 2.180451 Days, E = 129.731550 Days

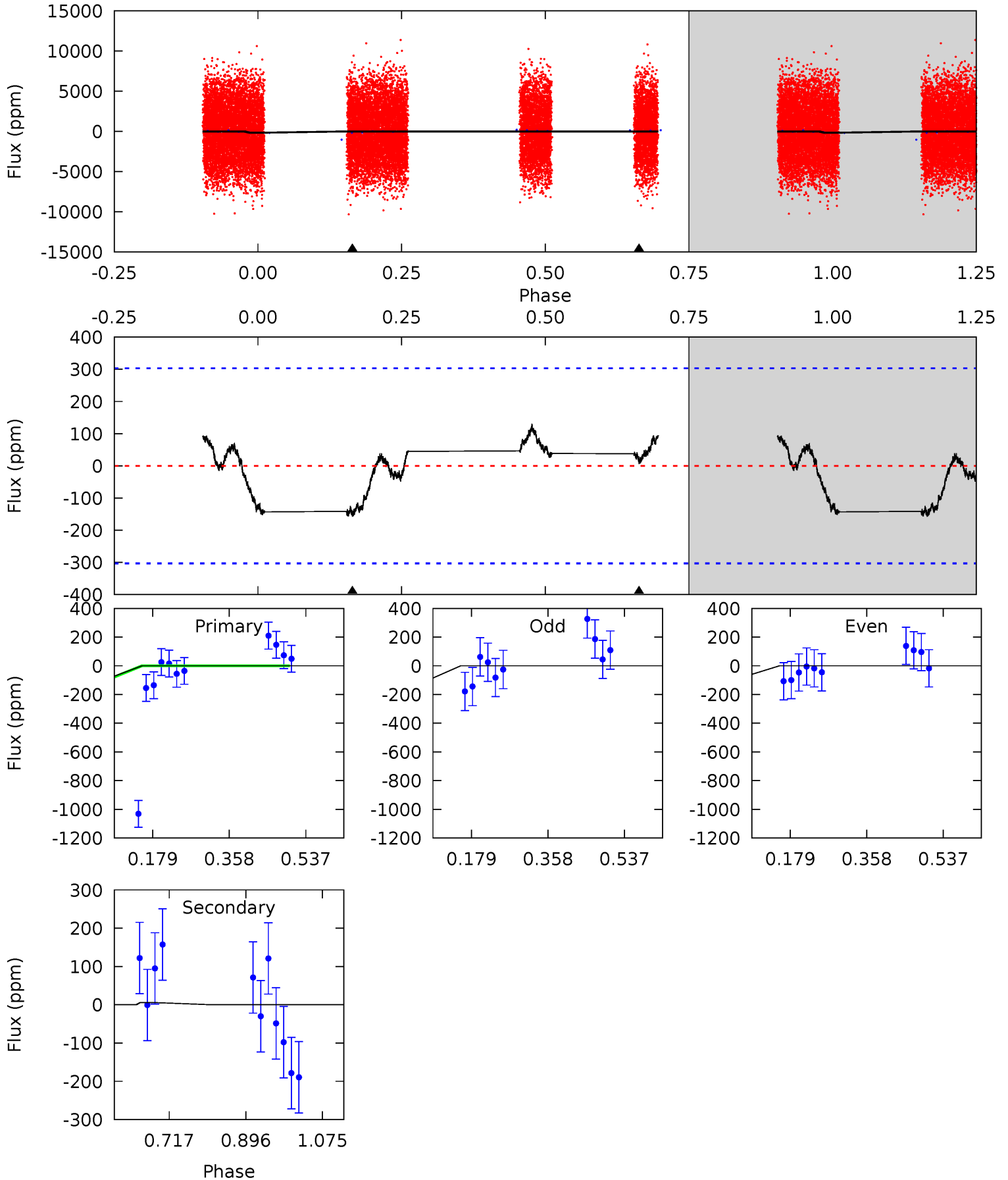
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	3.31	0	0	4.43	1.32	1.18	10.8	10.8	3.31	3.31	0.90	1.05	0.13	1.93



Alt Model-Shift Uniqueness Test

007548259-03, P = 2.180430 Days, E = 129.736683 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.31	-0.09	0	0	4.44	1.34	1.31	2.31	2.31	-0.09	-0.09	0.40	0.89	0.45	0.13



Stellar Parameters For KIC 007548259

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7698^{+214}_{-349}	$3.875^{+0.280}_{-0.120}$	$0.070^{+0.200}_{-0.350}$	$2.688^{+0.497}_{-0.922}$	$1.974^{+0.215}_{-0.430}$	$0.143^{+0.275}_{-0.054}$
	+3%/-5%	+7%/-3%	+286%/-500%	+18%/-34%	+11%/-22%	+192%/-37%
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 007548259-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-57 ± 17	$4.29^{+3.04}_{-2.55}$	3756^{+233}_{-319}	5145^{+3243}_{-1185}	$2.894^{+14.355}_{-1.965}$
Alt.	6 ± 68	$4.40^{+3.05}_{-2.62}$	3761^{+261}_{-321}	-4029^{+9501}_{-2476}	$-0.411^{+3.825}_{-6.078}$

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

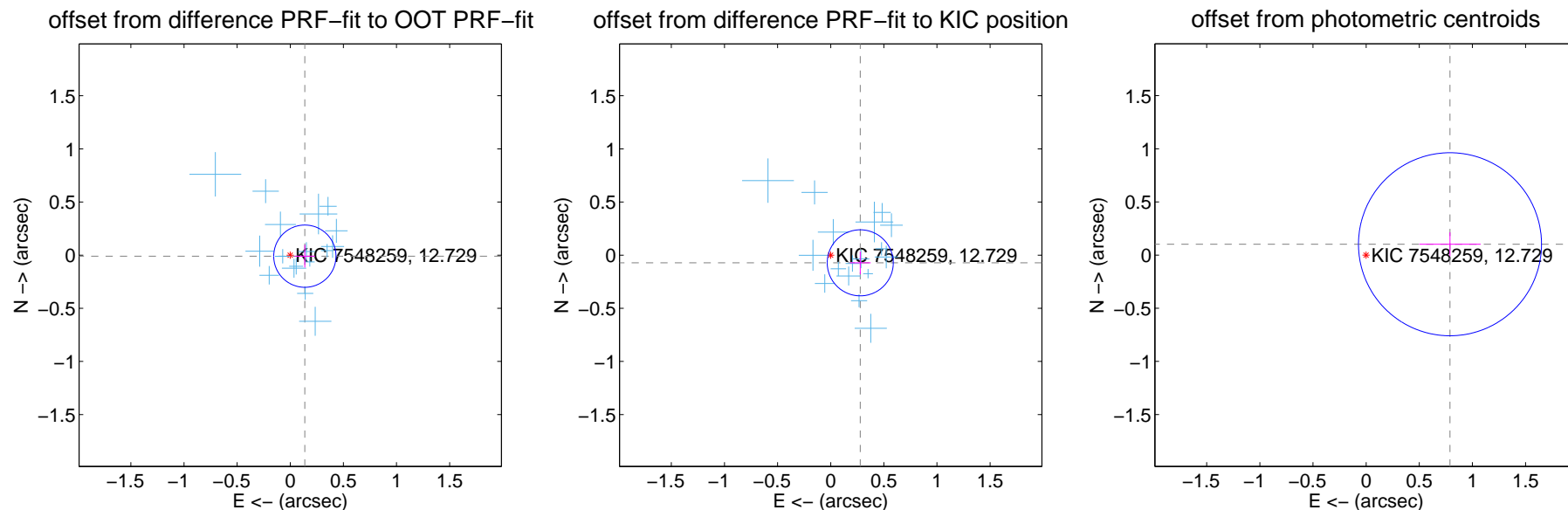
DV Centroid Data

Supplemental centroid analysis for 007548259-03. Kepler magnitude: 12.73. Transit SNR 10.54

There are 17 quarters with good PRF difference image offsets

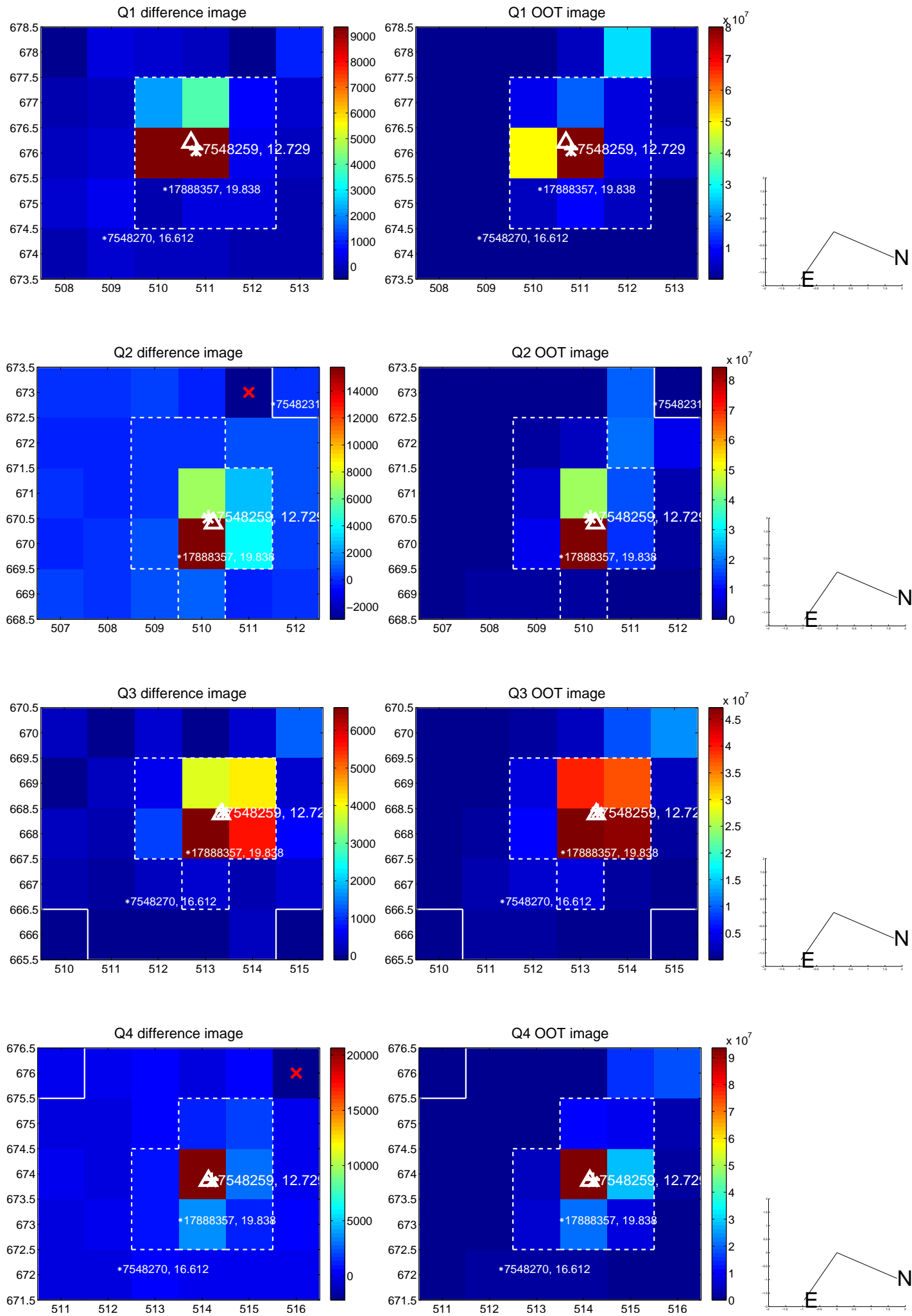
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.138 ± 0.098	1.41	-0.137 ± 0.096	-0.010 ± 0.107
PRF-fit source offset from KIC position	0.287 ± 0.104	2.77	-0.278 ± 0.098	-0.072 ± 0.107
photometric centroid source offset	0.80 ± 0.29	2.77	-0.79 ± 0.29	0.10 ± 0.11

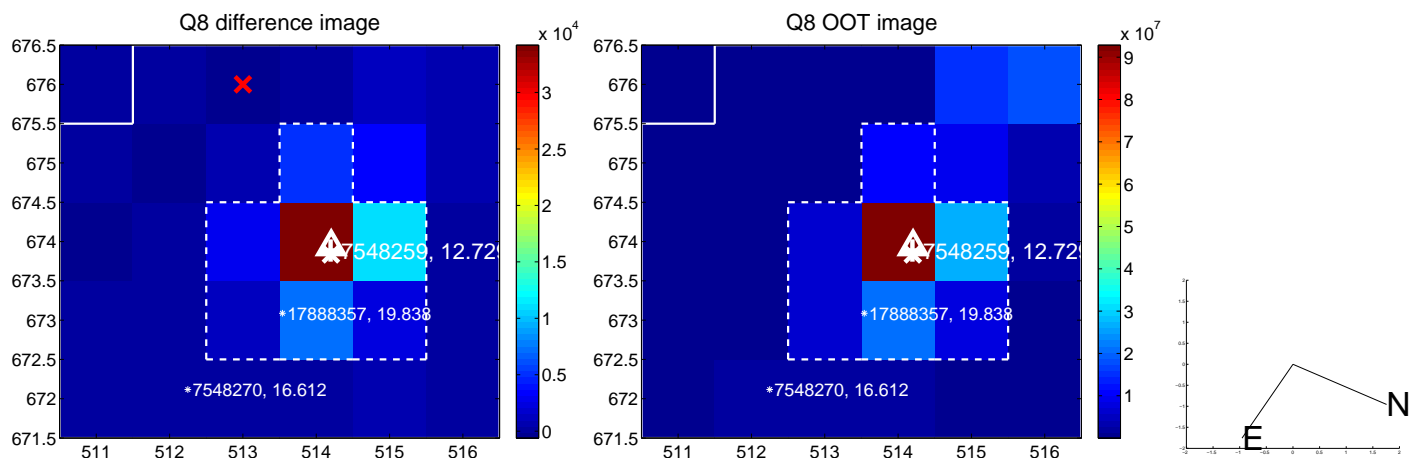
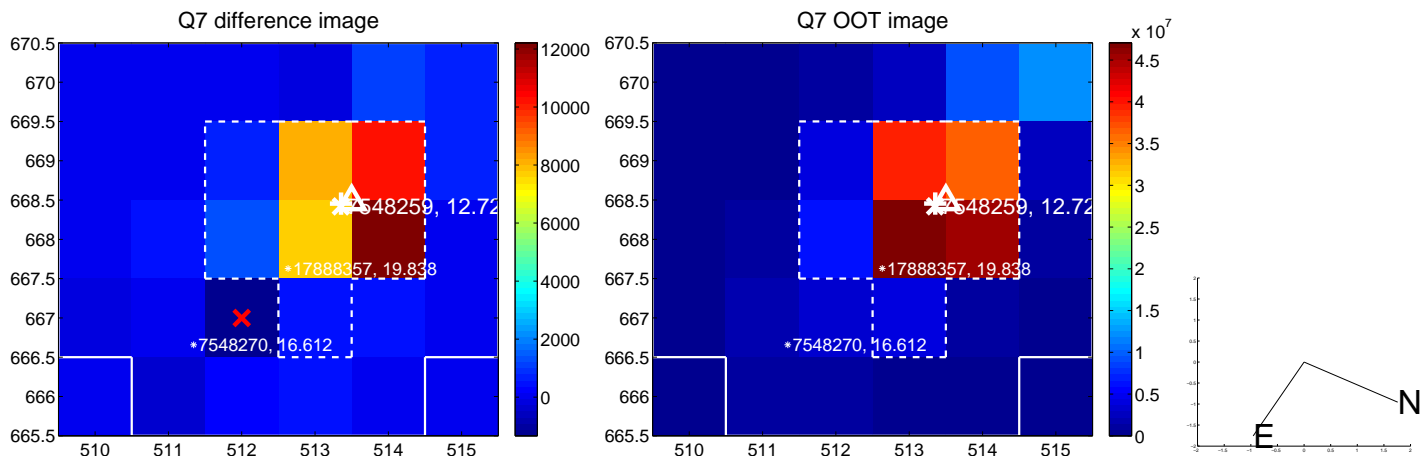
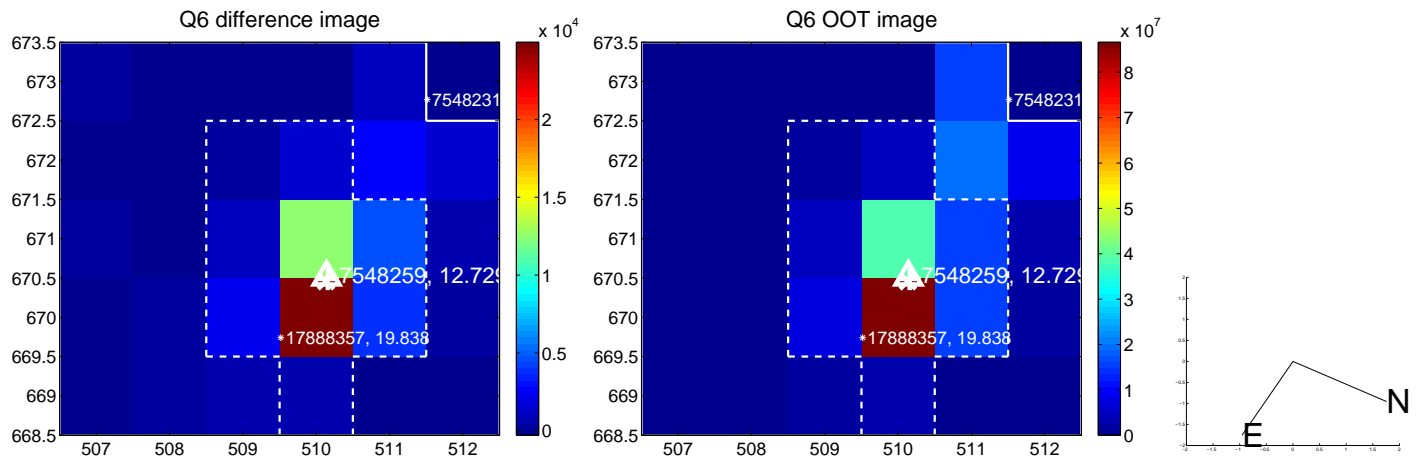
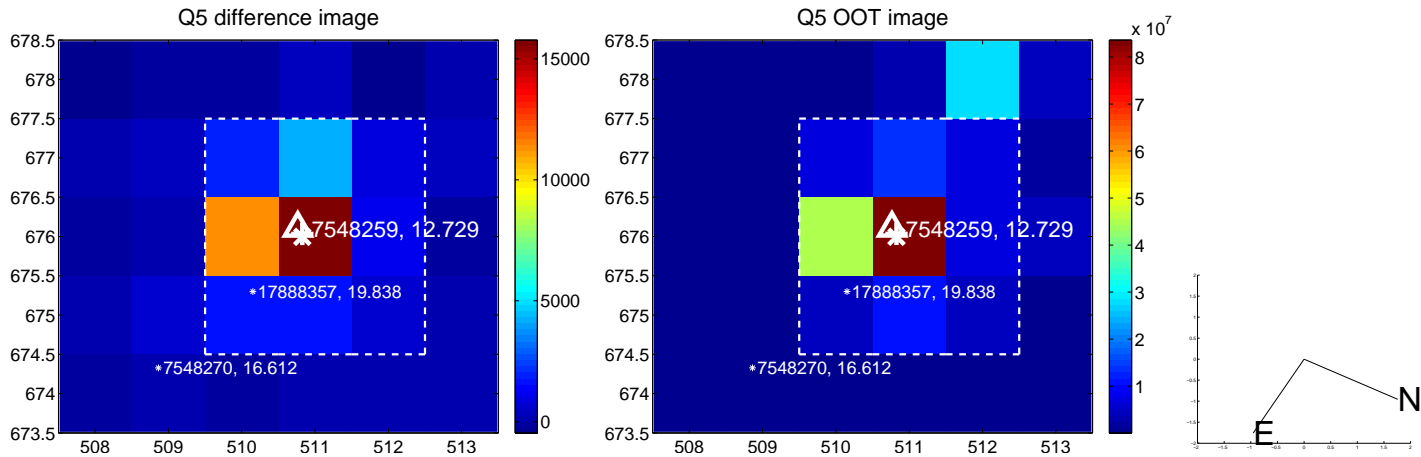


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

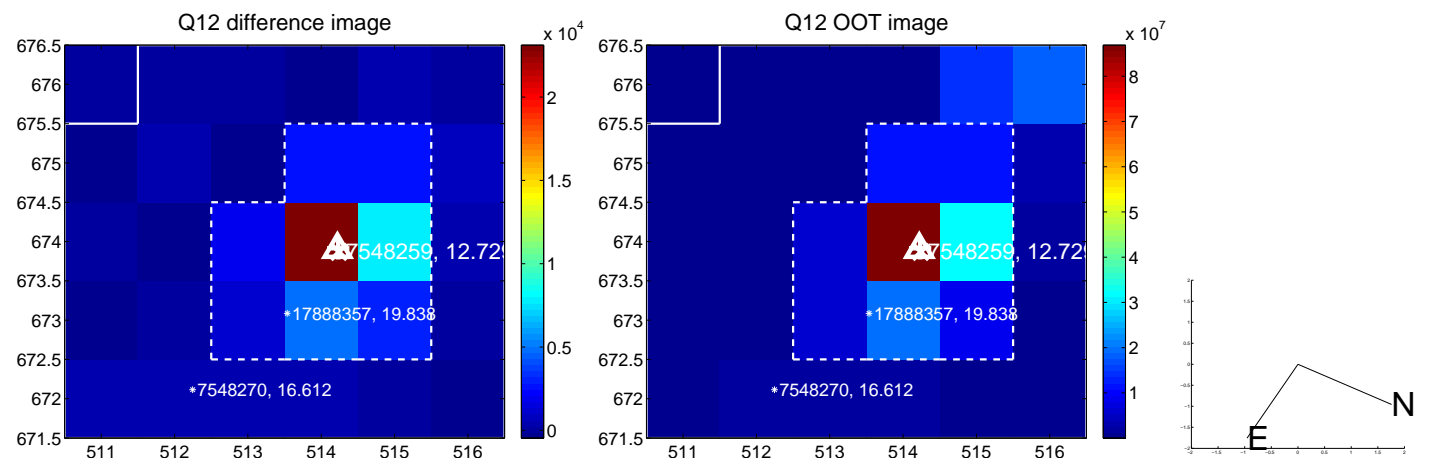
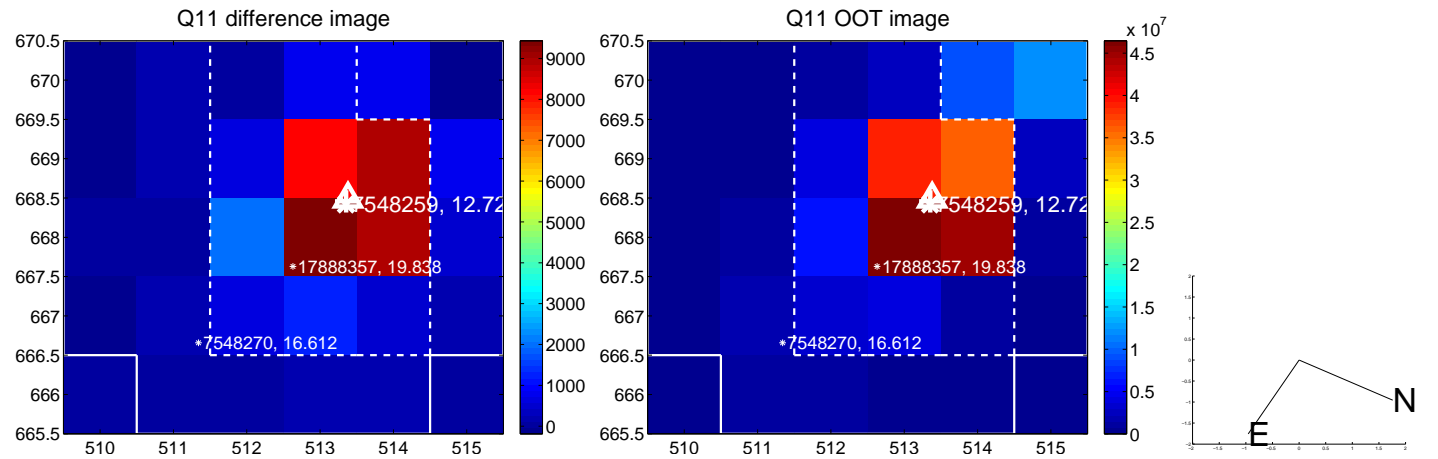
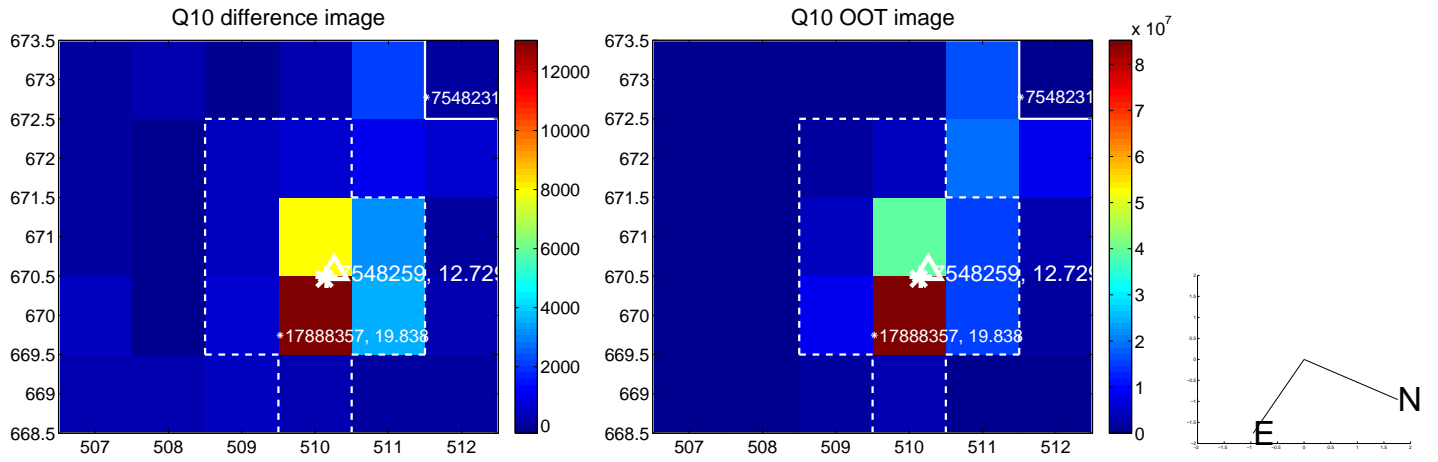
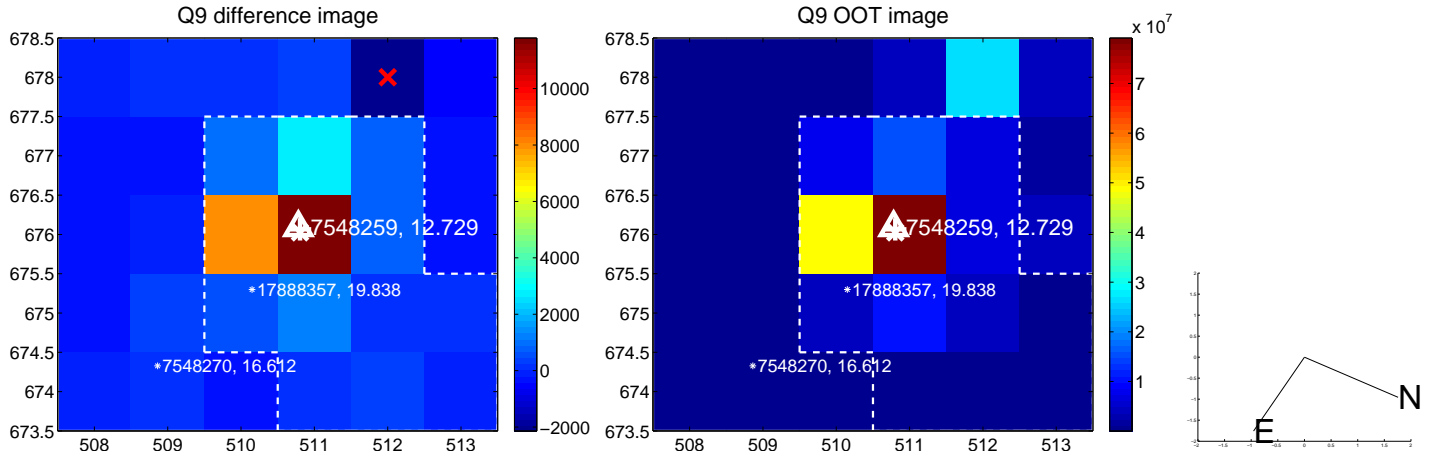
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



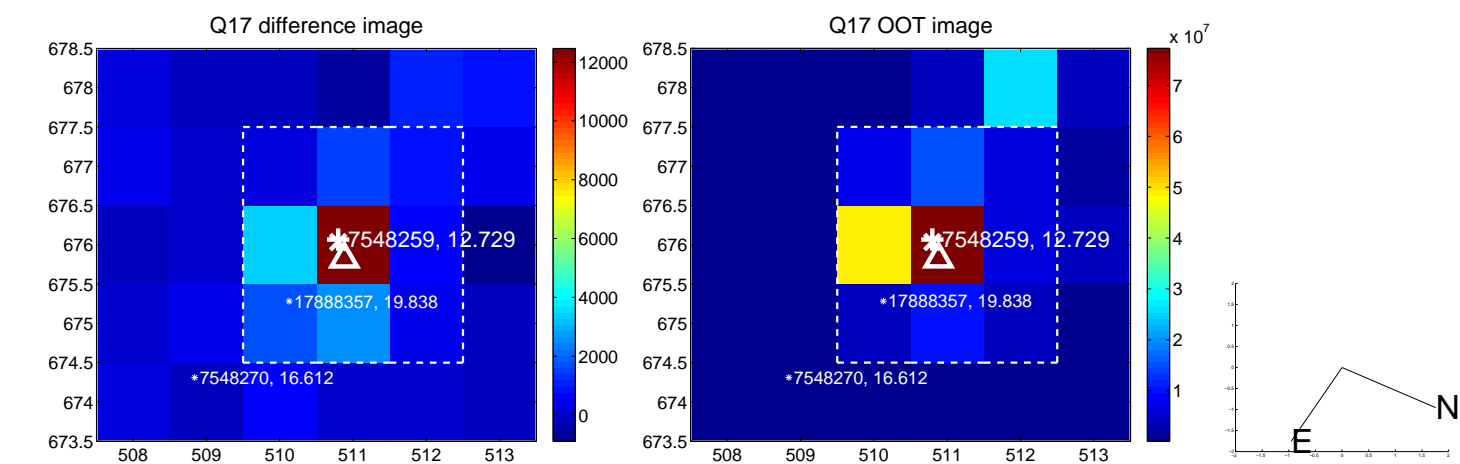
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



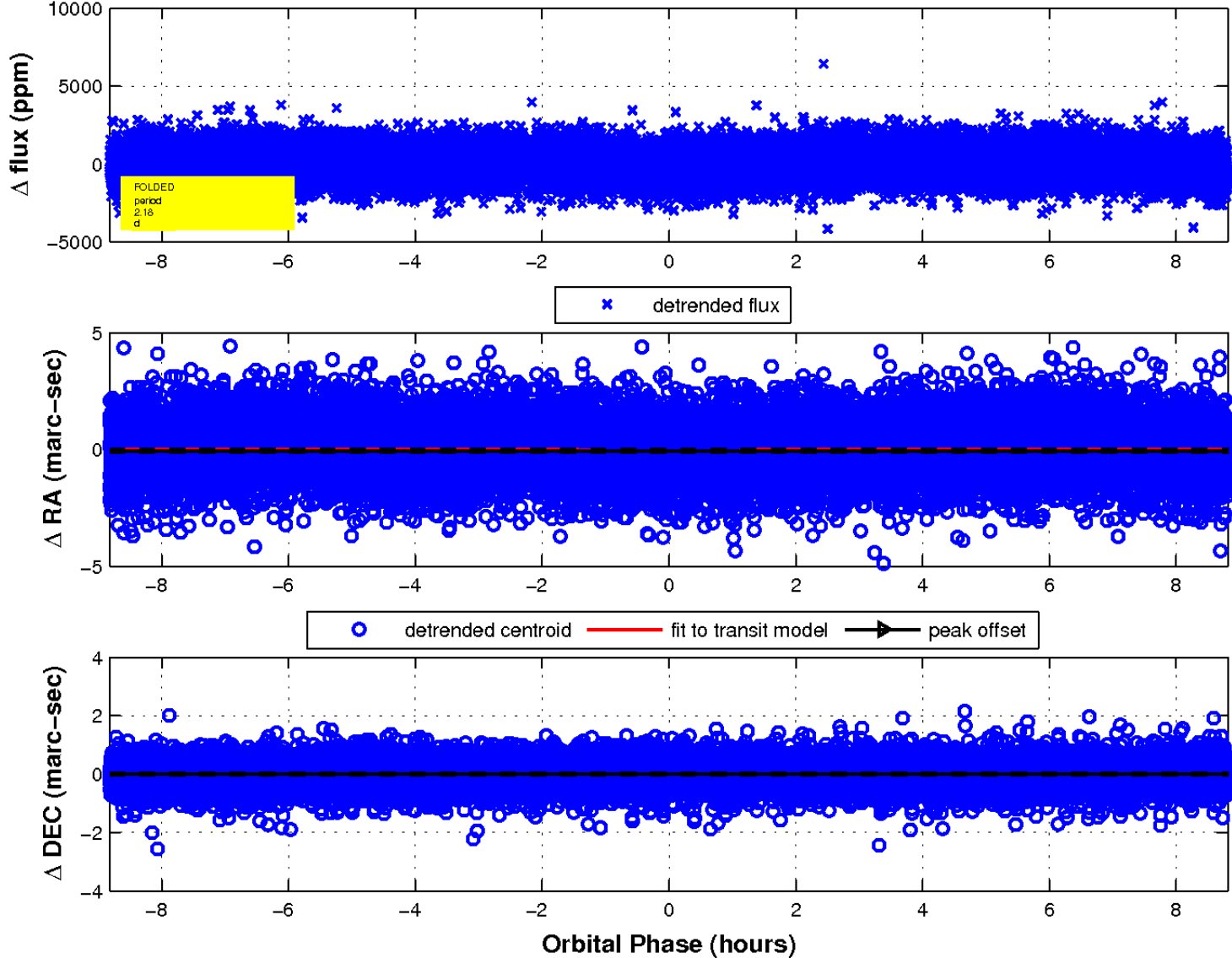
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

