

KIC 011564882

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})
011564882-01	OBS	No	0.542795	131.615362	96.1	1.243	11.5	4.1	1.50	6950	1.72	21736.37
011564882-02	OBS	No	0.542820	131.968532	572.9	1.382	13.5	21.3	1.50	6950	3.67	21735.02
011564882-03	OBS	No	0.542808	131.795854	403.7	1.548	14.7	16.5	1.50	6950	3.07	21735.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011564882-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011564882-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
011564882-03	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

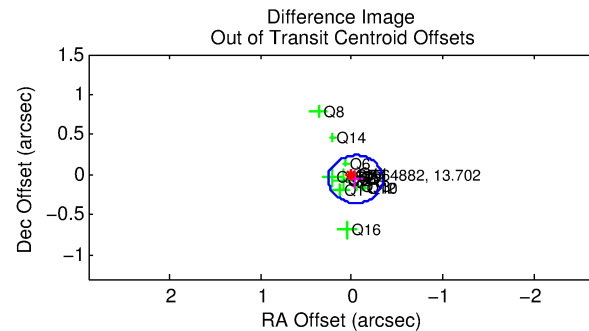
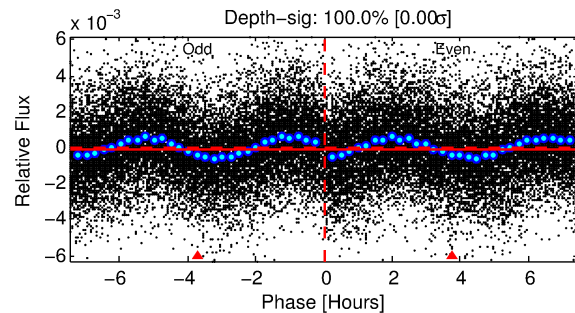
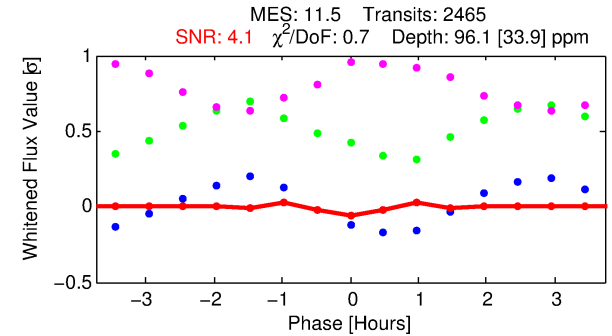
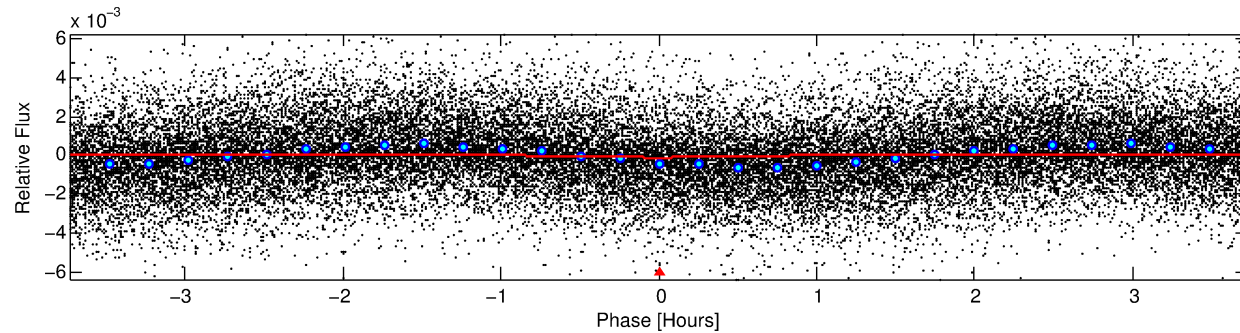
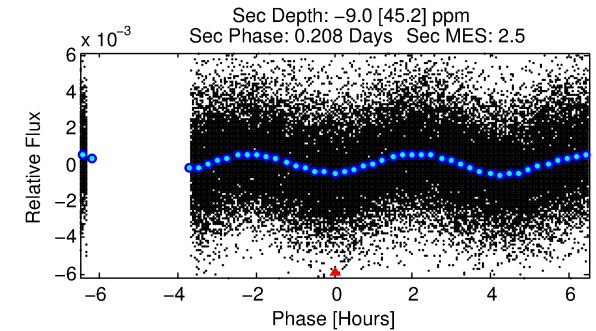
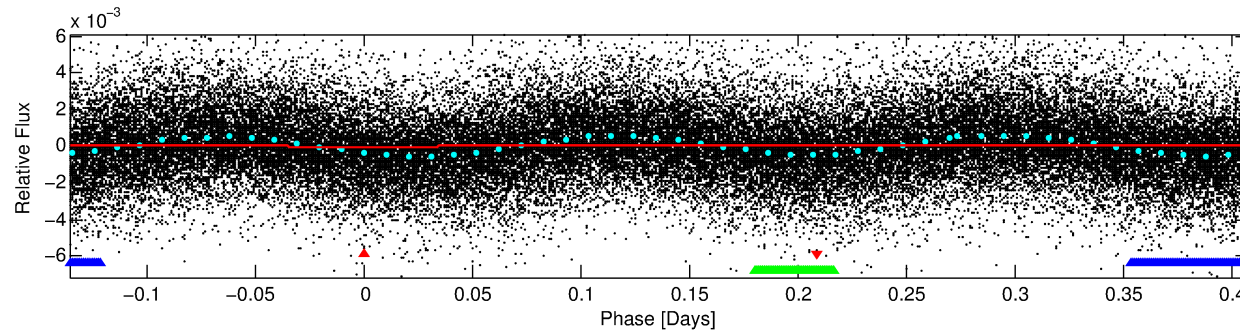
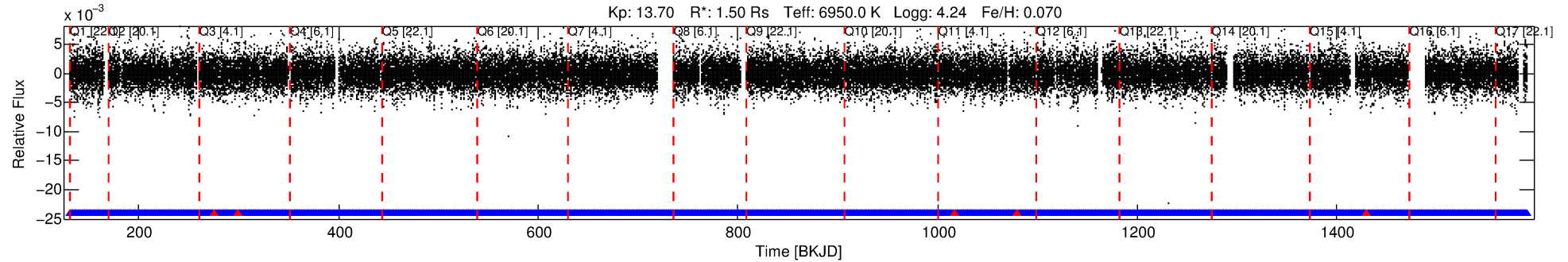
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011564882-01

No Significant Match Found

DV One-Page Summary

KIC: 11564882 Candidate: 1 of 3 Period: 0.543 d



DV Fit Results:

Period = 0.54279 [0.00003] d
Epoch = 131.6154 [0.0026] BKJD
Rp/R* = 0.0105 [0.0077]
a/R* = 1.80 [5.34]
b = 0.90 [0.92]
Seff = 21736.37 [9428.32]
Teff = 3096 [336] K
Rp = 1.72 [1.40] Re
a = 0.0147 [0.0041] AU
Ag = N/A
Teffp = N/A

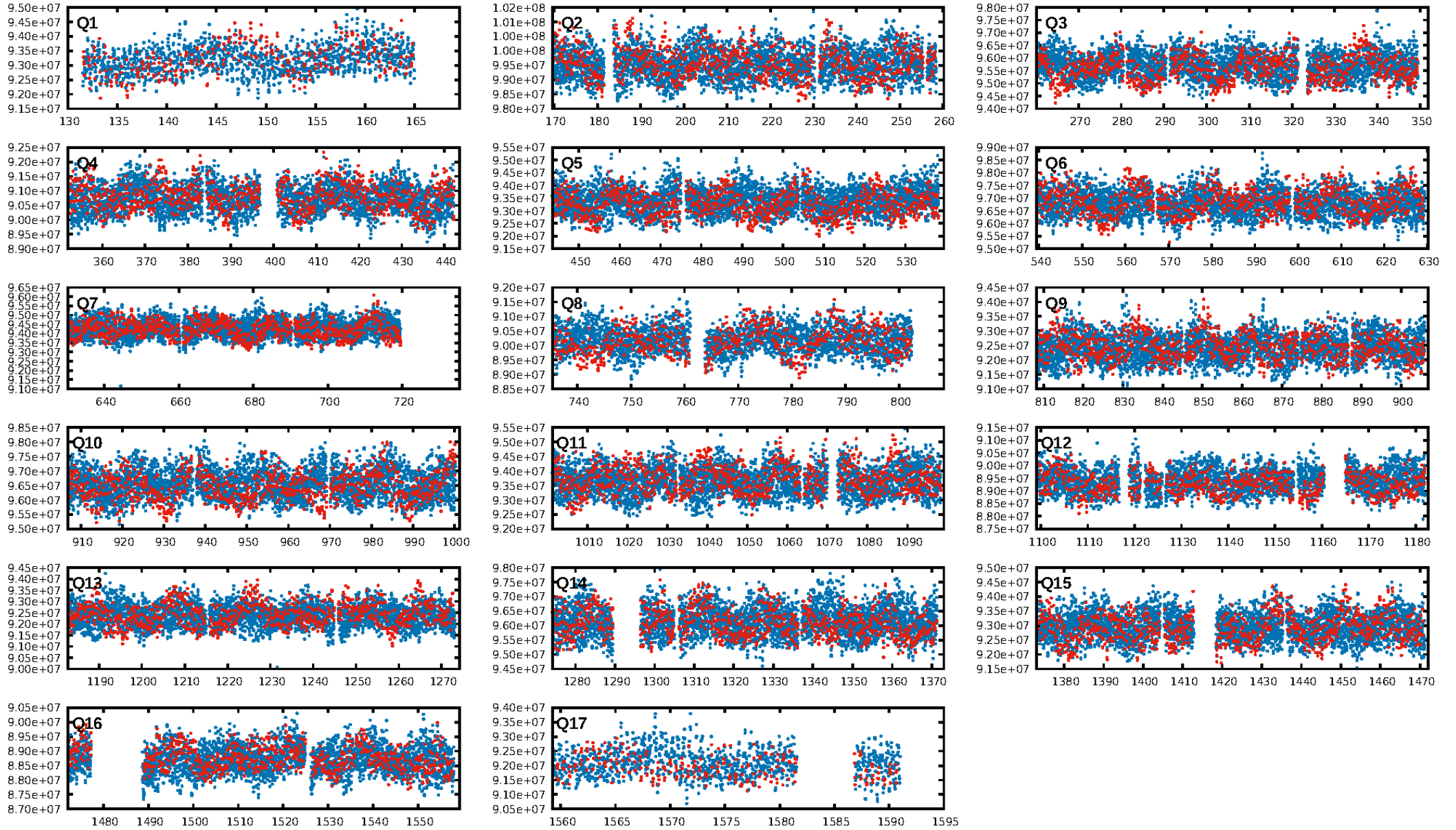
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2349/2354]
GhostDiagnostic-chr: 1.784
Centroid-sig: 0.0%
Centroid-so: 1.008 arcsec [3.38σ]
OotOffset-rm: 0.069 arcsec [0.70σ]
KicOffset-rm: 0.095 arcsec [1.08σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.65 [11/17]
DiffImageOverlap-fno: 0.00 [0/17]

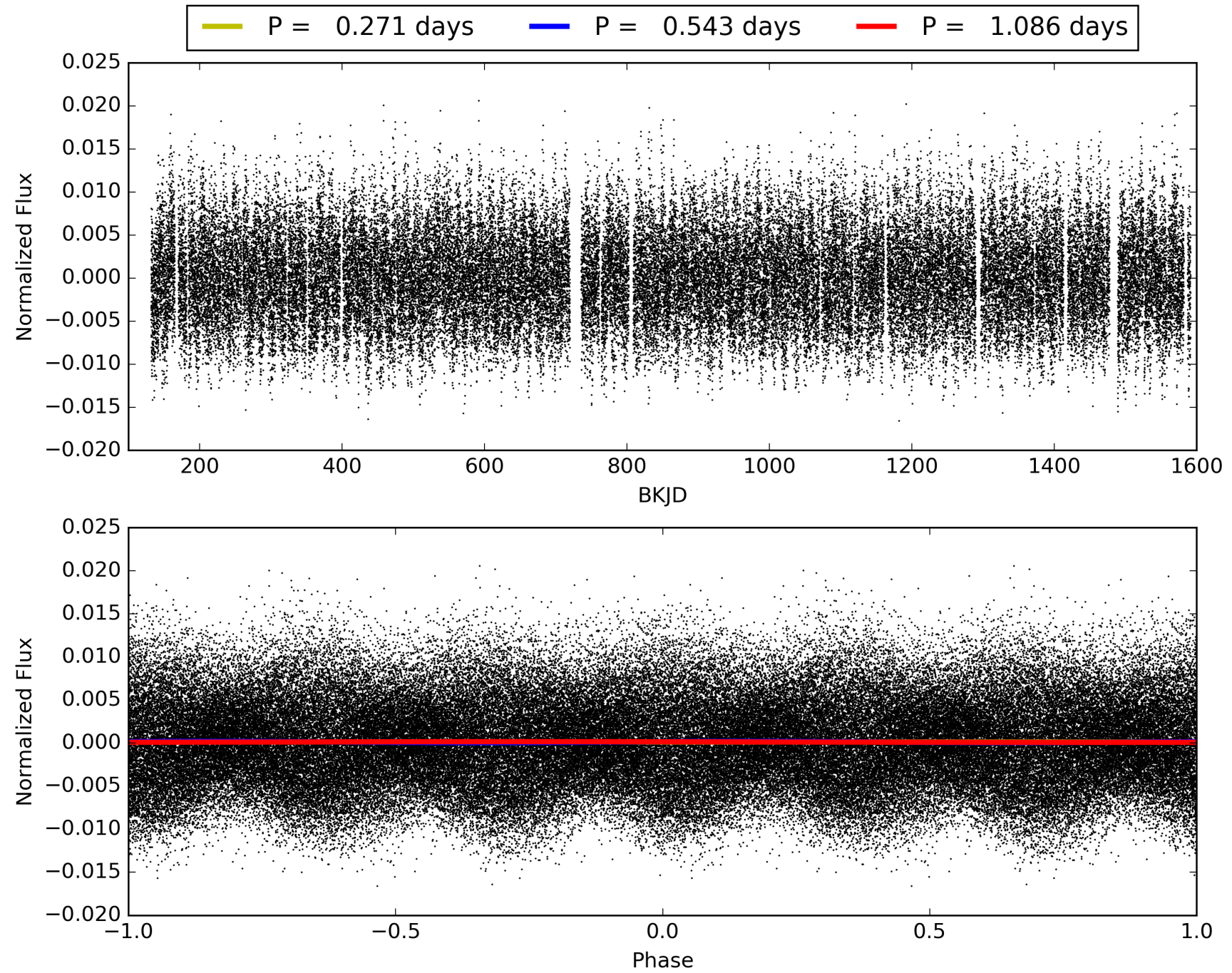
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:41:23 Z

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

TCE 011564882-01, PDC Light Curves

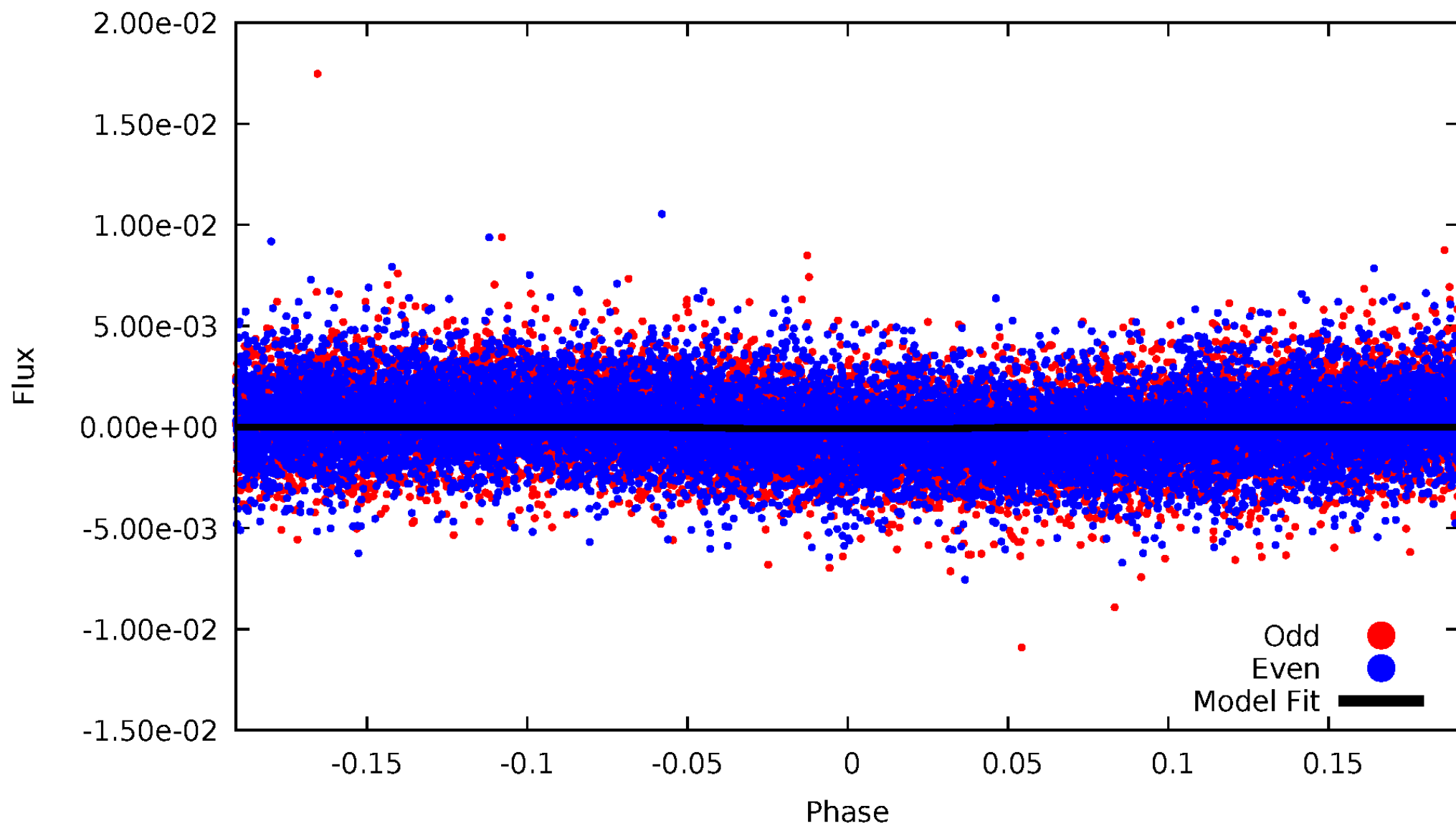


TCE 011564882-01



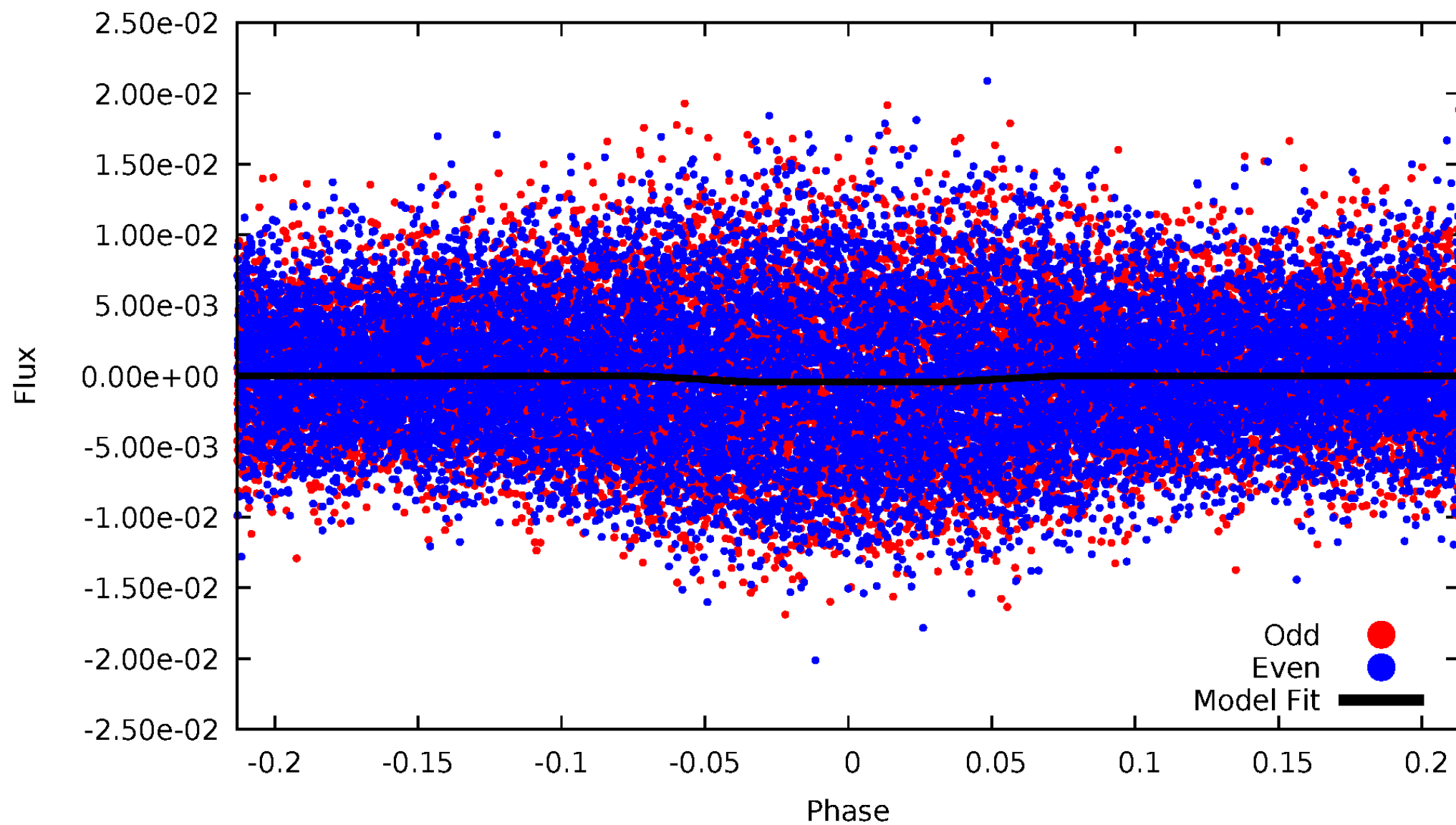
DV Odd/Even

TCE 011564882-01

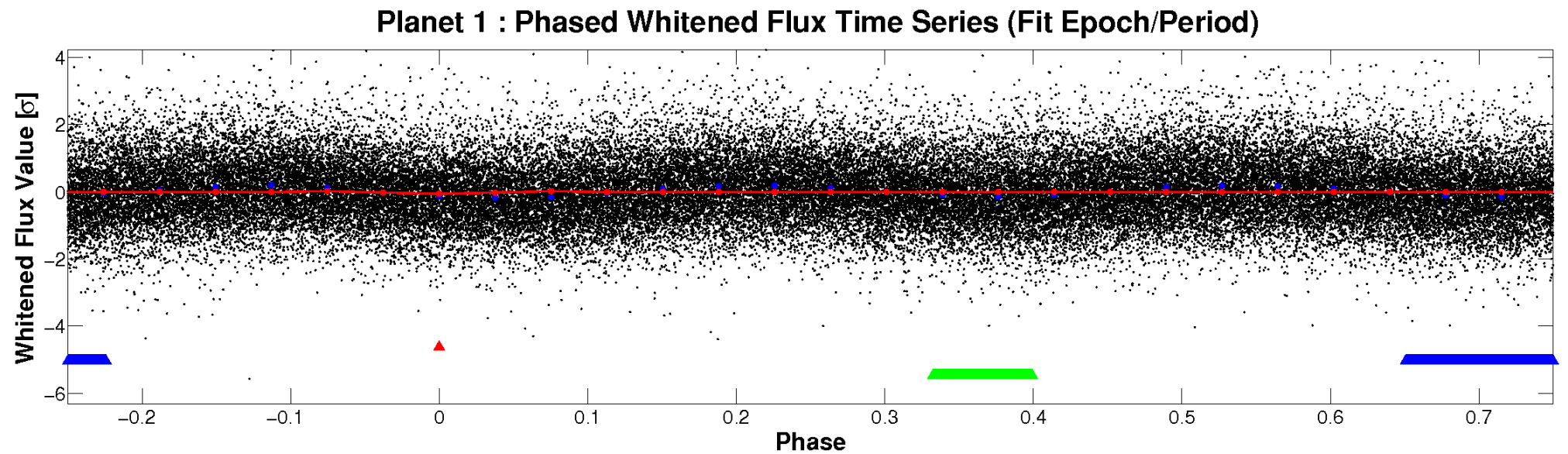
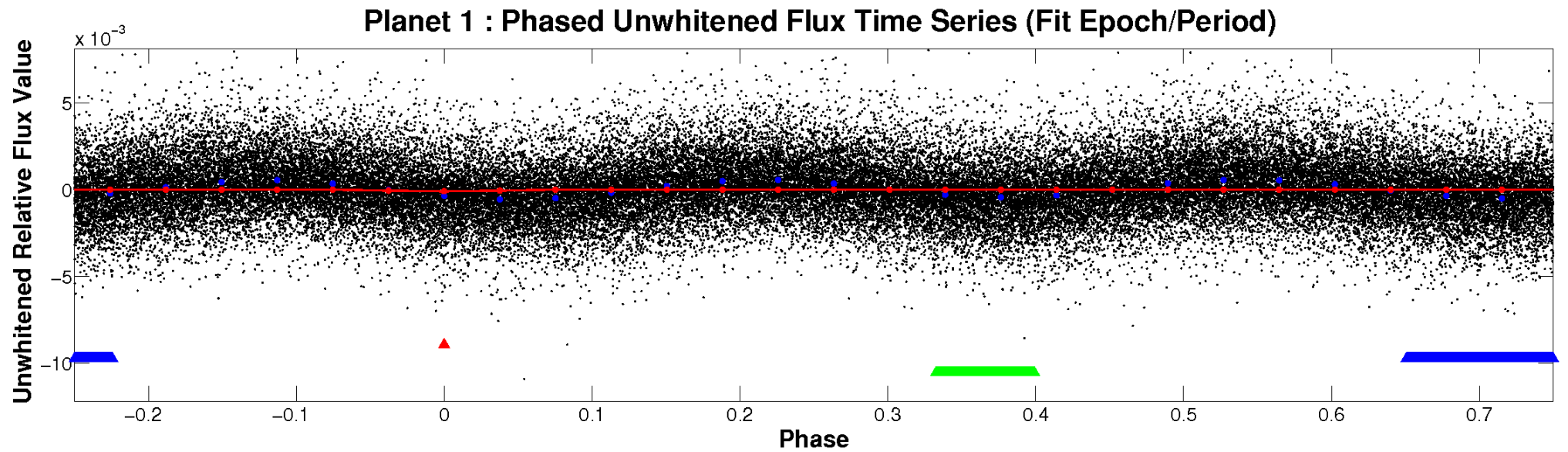


ALT Odd/Even

TCE 011564882-01

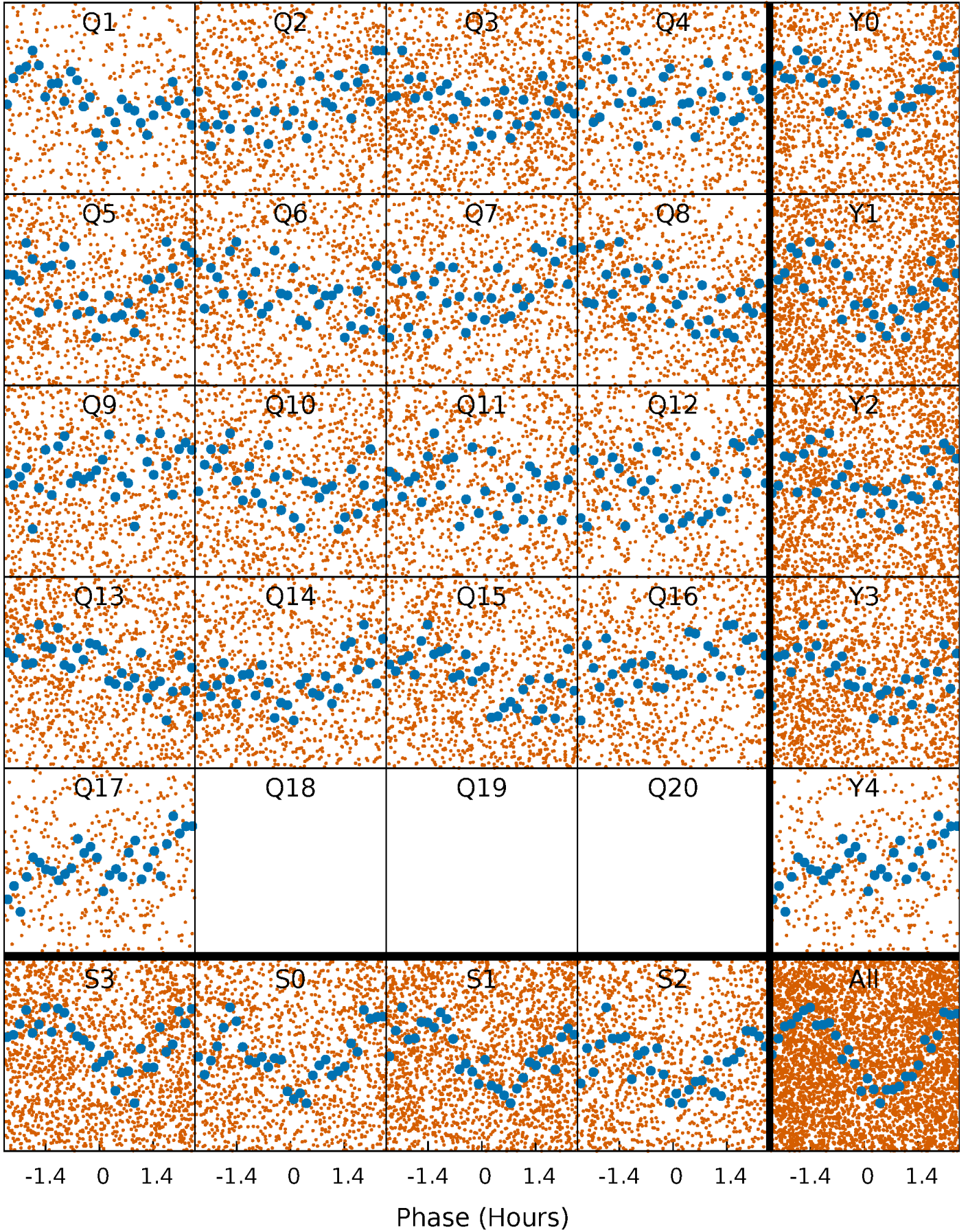


Non-Whitened Vs. Whitened Light Curve



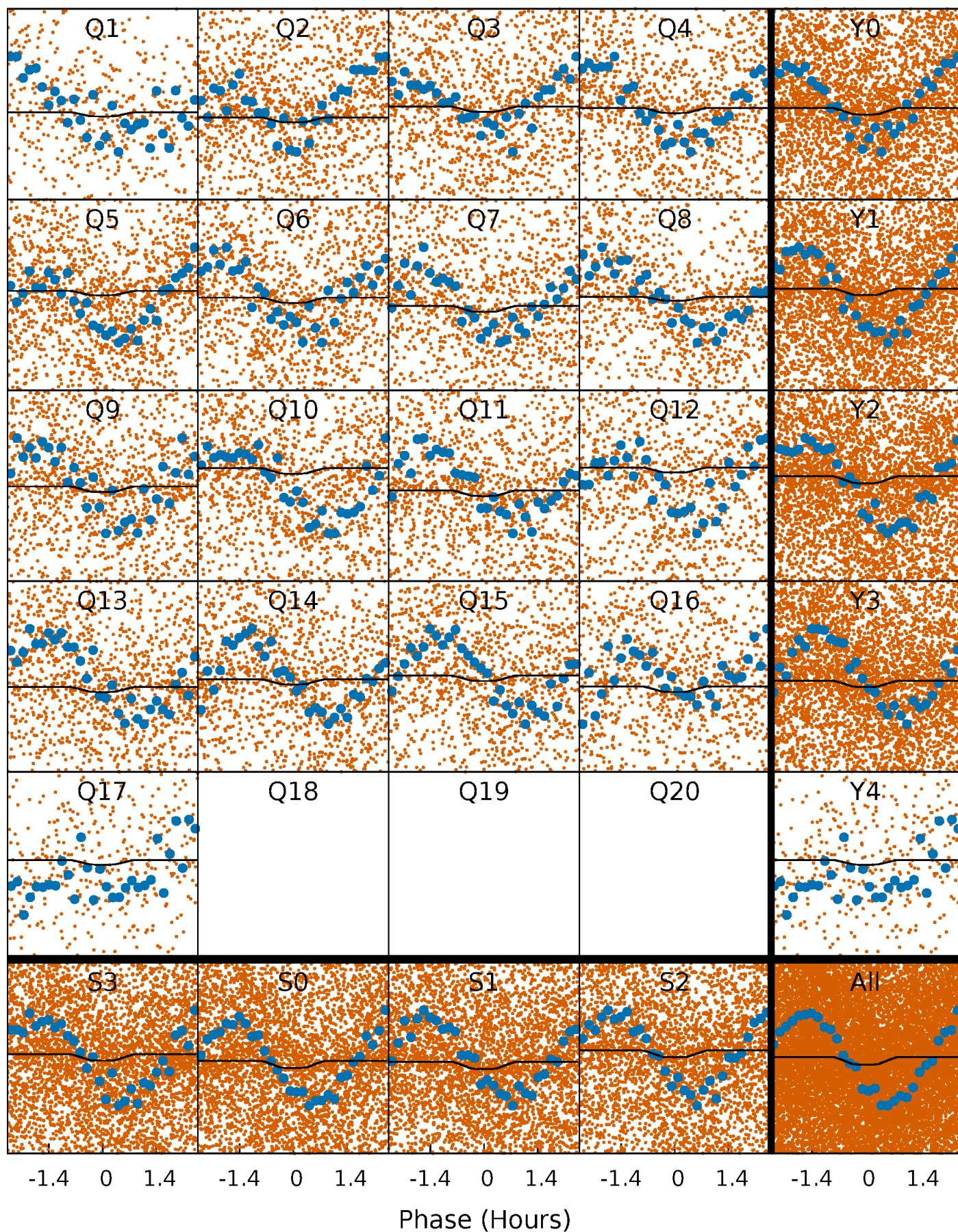
PDC Quarter-Phased Transit Curves

TCE 011564882-01 P= 0.542795 Days $T_0=131.615362$ (BKJD)



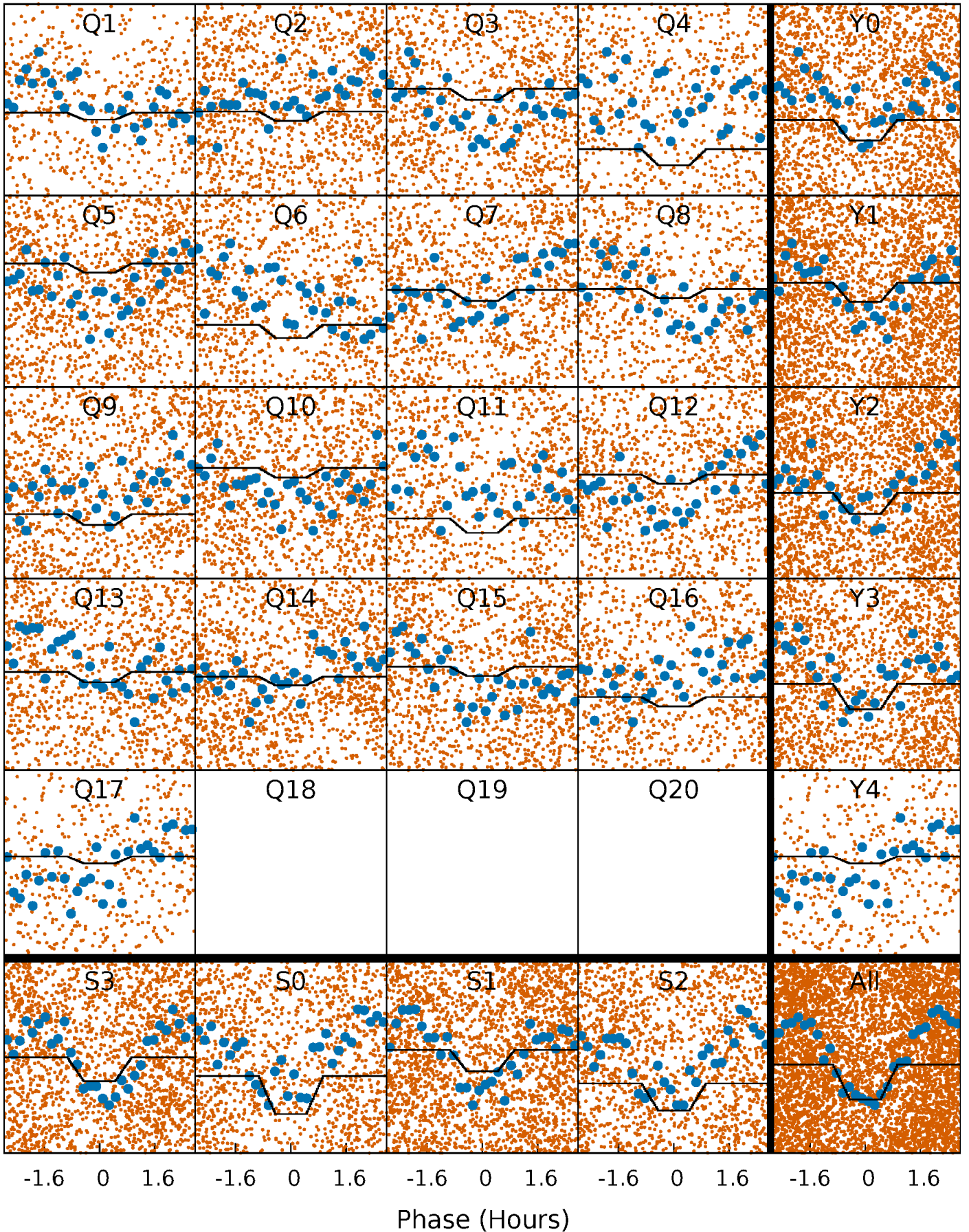
DV Quarter-Phased Transit Curves

TCE 011564882-01 P= 0.542795 Days $T_0=131.615362$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

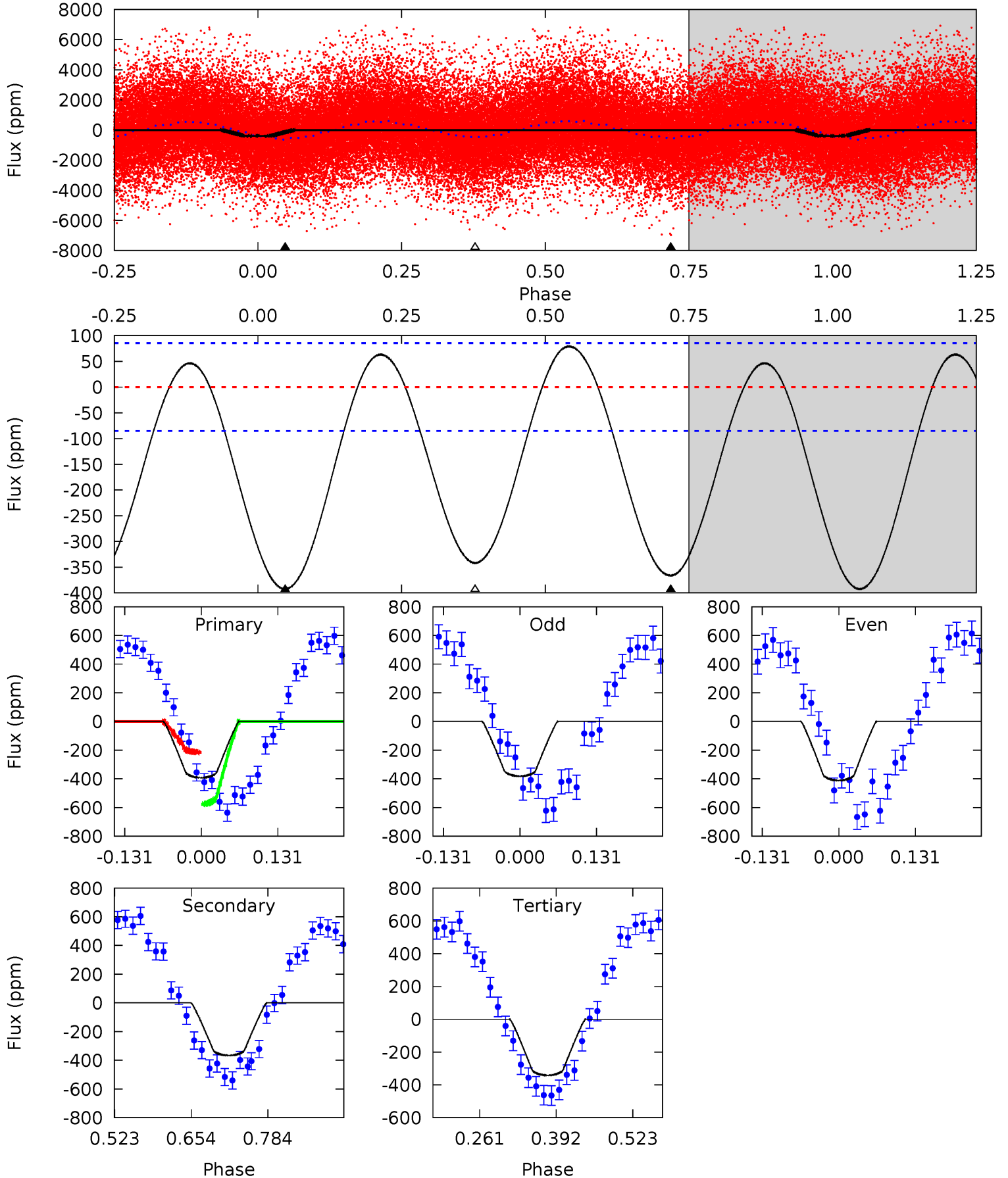
TCE 011564882-01 P= 0.542811 Days $T_0=131.615105$ (BKJD)



DV Model-Shift Uniqueness Test

011564882-01, P = 0.542795 Days, E = 131.072567 Days

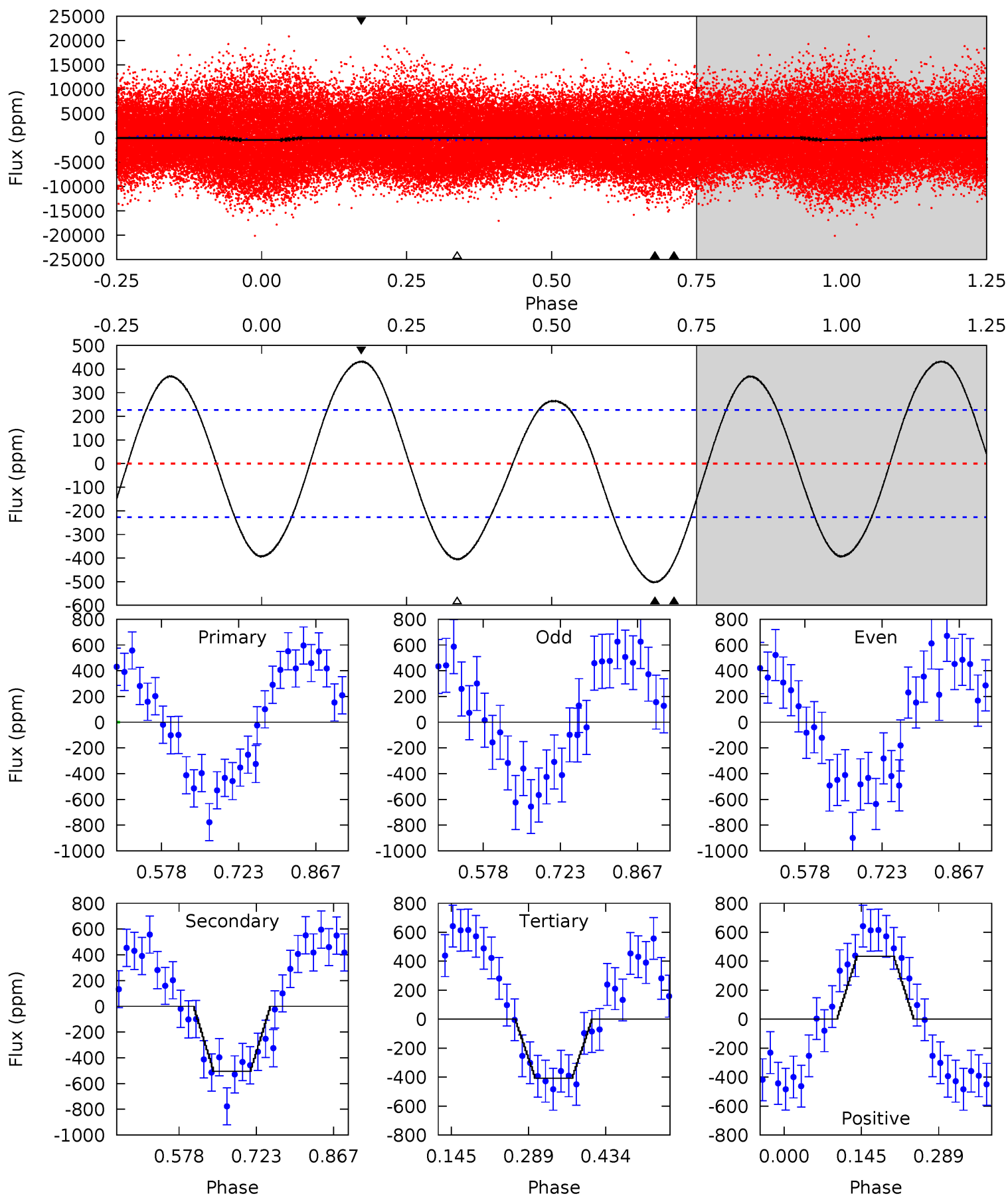
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.7	19.3	18.0	0	4.51	1.51	7.74	2.66	20.7	1.28	19.3	0.79	1.13	0.17	9.63



Alt Model-Shift Uniqueness Test

011564882-01, P = 0.542811 Days, E = 131.072294 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.23	9.99	8.06	8.59	4.49	1.46	5.40	0.17	-0.37	1.93	1.39	0.80	0.64	0.46	0.27



Stellar Parameters For KIC 011564882

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6950^{+194}_{-333}	$4.244^{+0.087}_{-0.203}$	$0.070^{+0.200}_{-0.350}$	$1.499^{+0.524}_{-0.225}$	$1.436^{+0.222}_{-0.222}$	$0.601^{+0.240}_{-0.326}$
	+3%/-5%	+2%/-5%	+286%/-500%	+35%/-15%	+15%/-15%	+40%/-54%
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 011564882-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-366 ± 19	$2.00^{+1.17}_{-1.16}$	4379^{+375}_{-275}	9272^{+10582}_{-2480}	11^{+46}_{-7}
Alt.	-505 ± 51	$3.53^{+1.36}_{-1.49}$	4348^{+341}_{-240}	7031^{+2897}_{-1137}	$4.772^{+8.824}_{-2.269}$

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

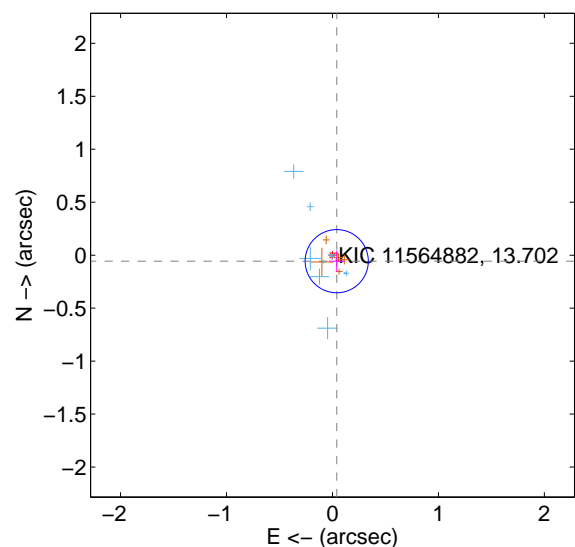
Supplemental centroid analysis for 011564882-01. Kepler magnitude: 13.70. Transit SNR 4.12

There are 11 quarters with good PRF difference image offsets

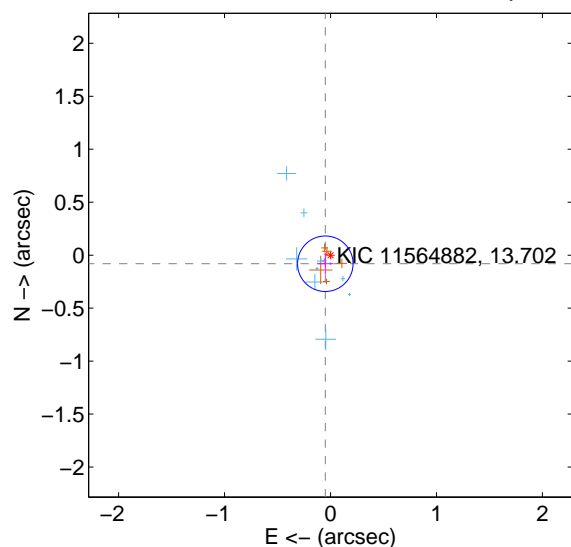
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.069 ± 0.099	0.70	-0.040 ± 0.074	-0.057 ± 0.101
PRF-fit source offset from KIC position	0.095 ± 0.087	1.08	0.049 ± 0.075	-0.081 ± 0.101
photometric centroid source offset	1.01 ± 0.30	3.38	-0.93 ± 0.30	-0.39 ± 0.31

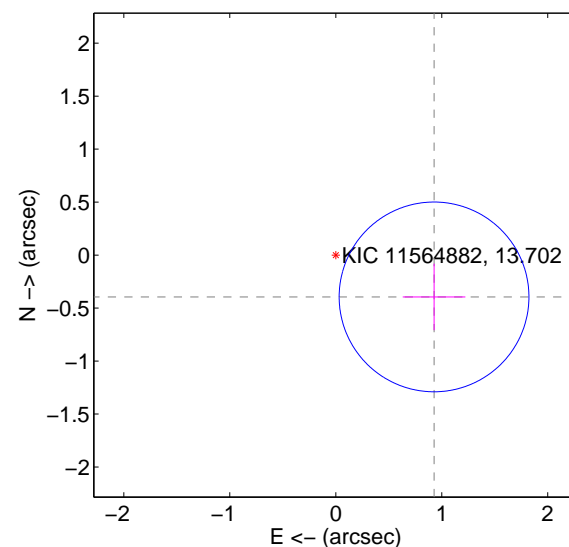
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

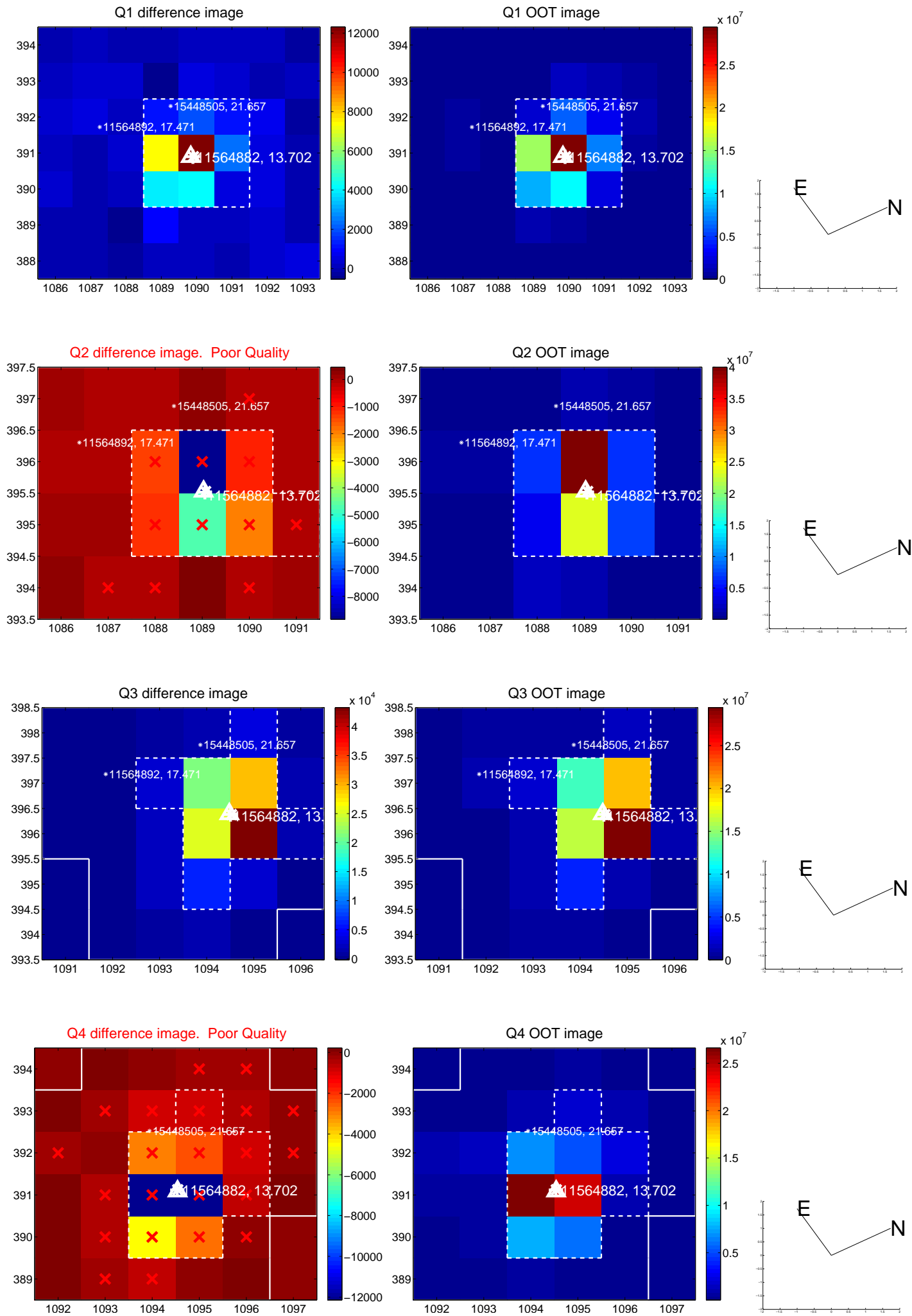


offset from photometric centroids

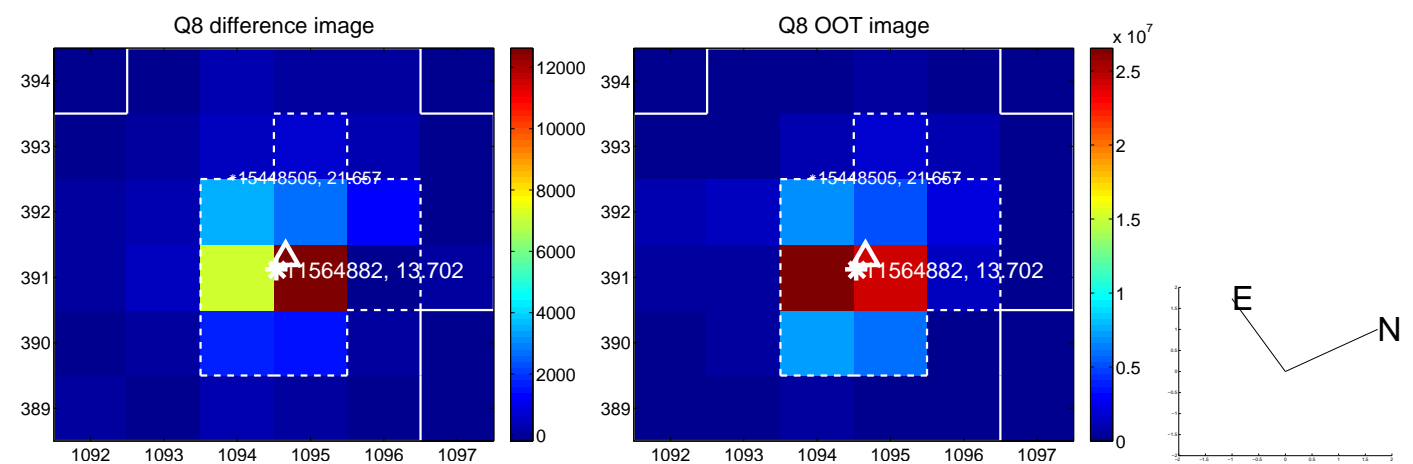
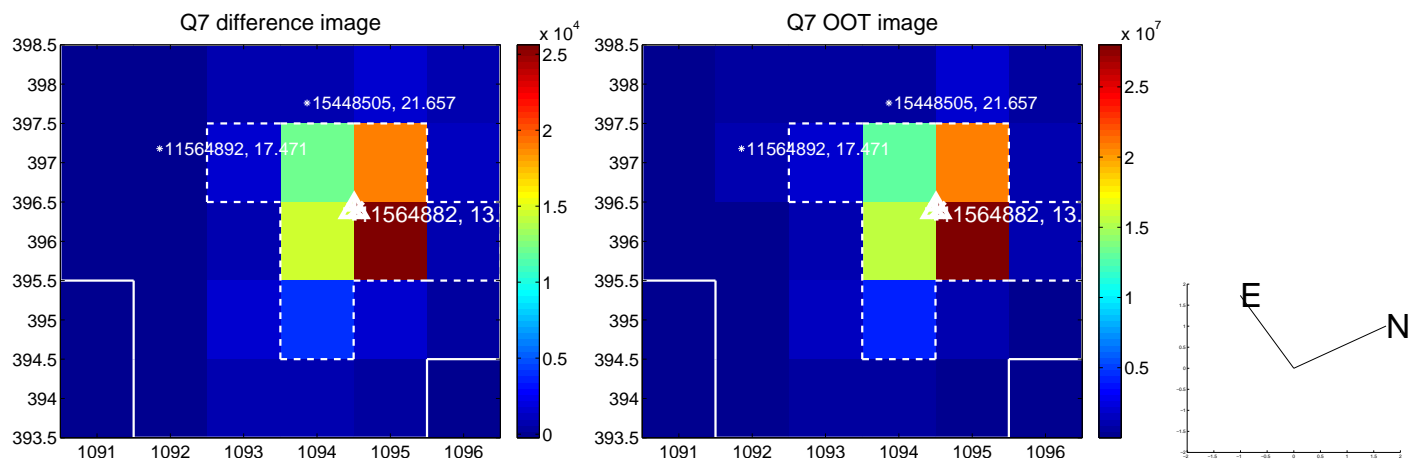
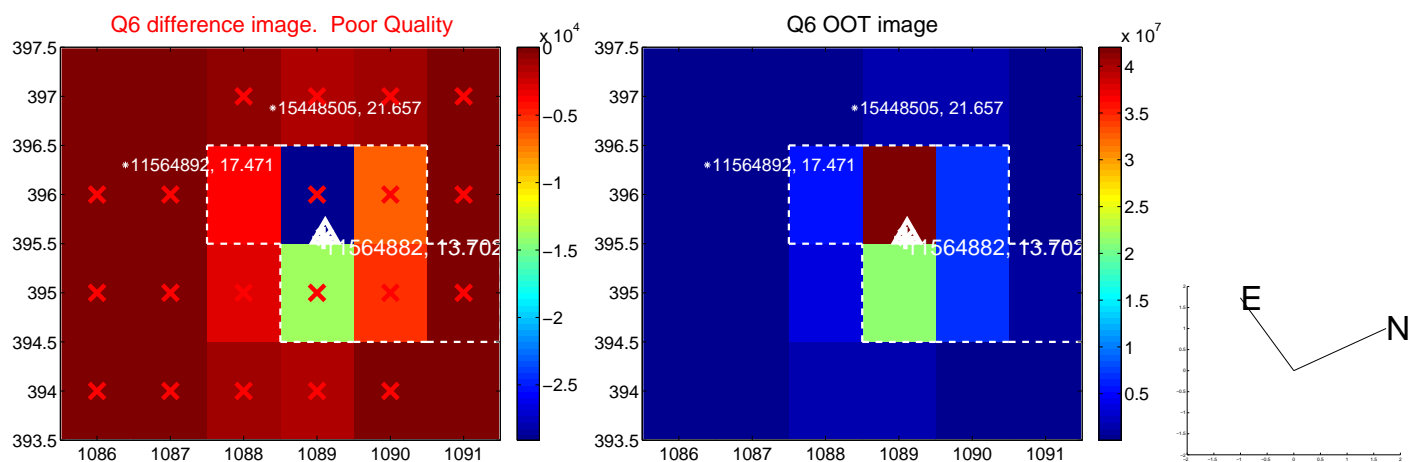
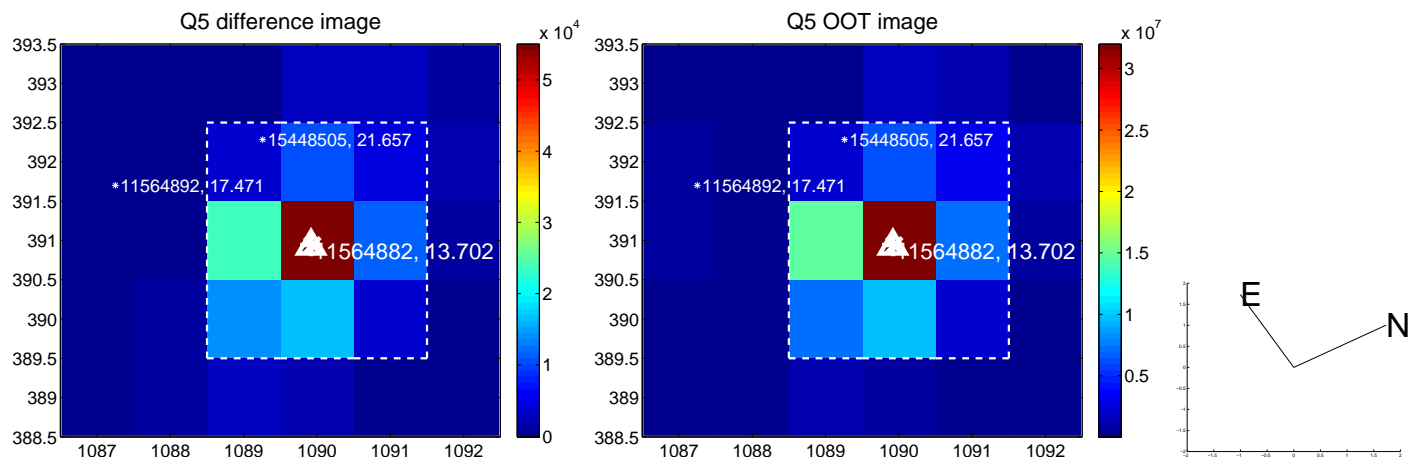


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

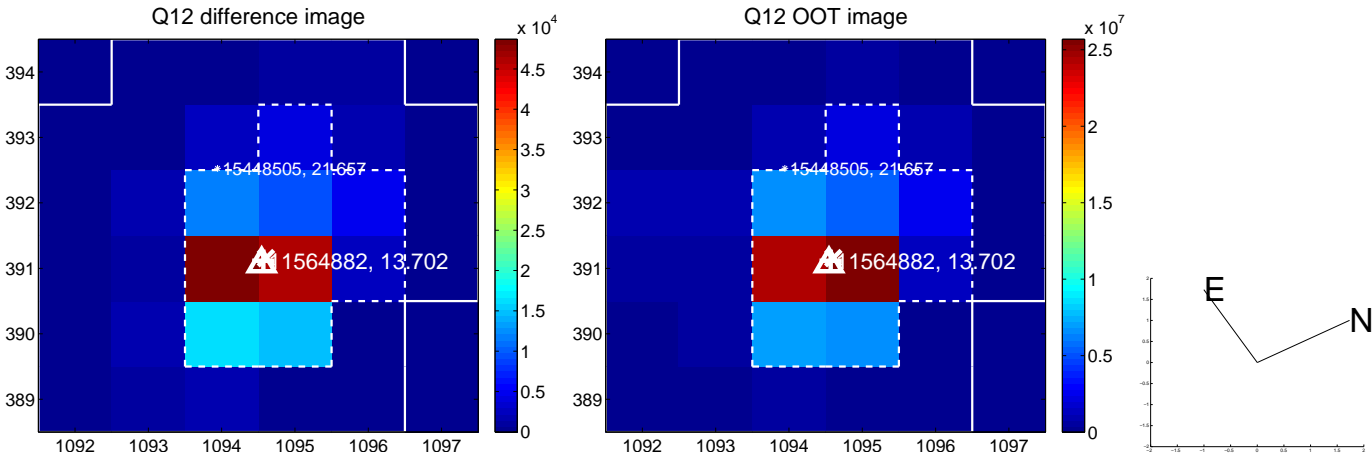
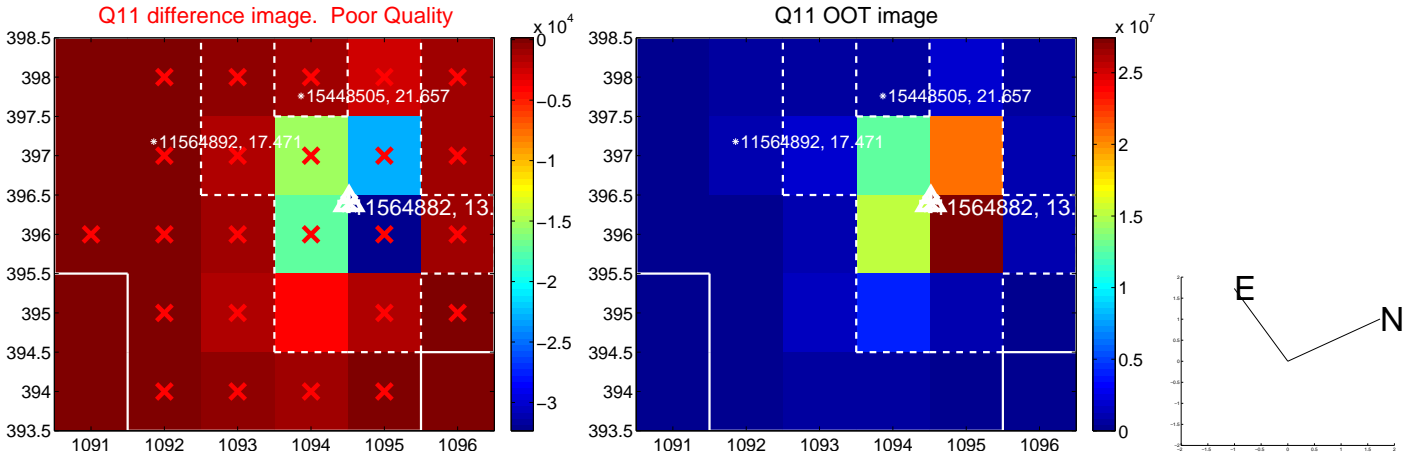
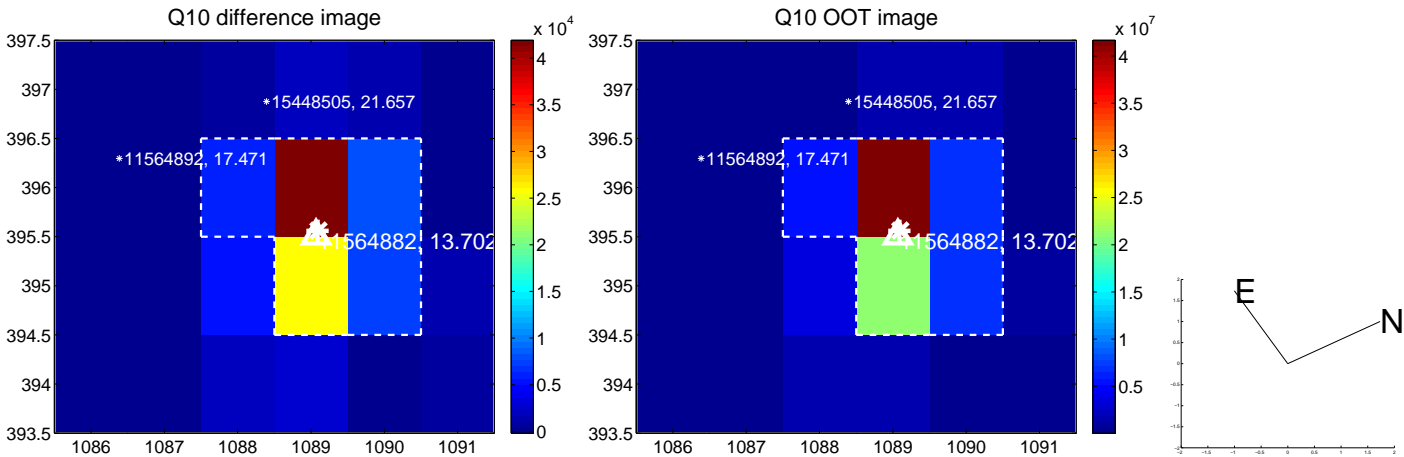
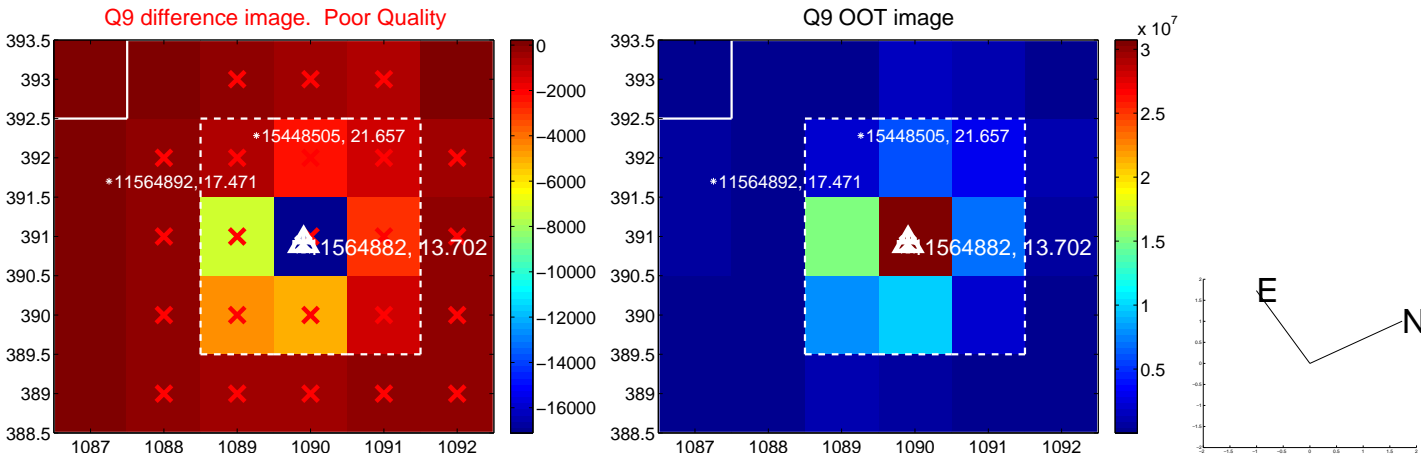
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



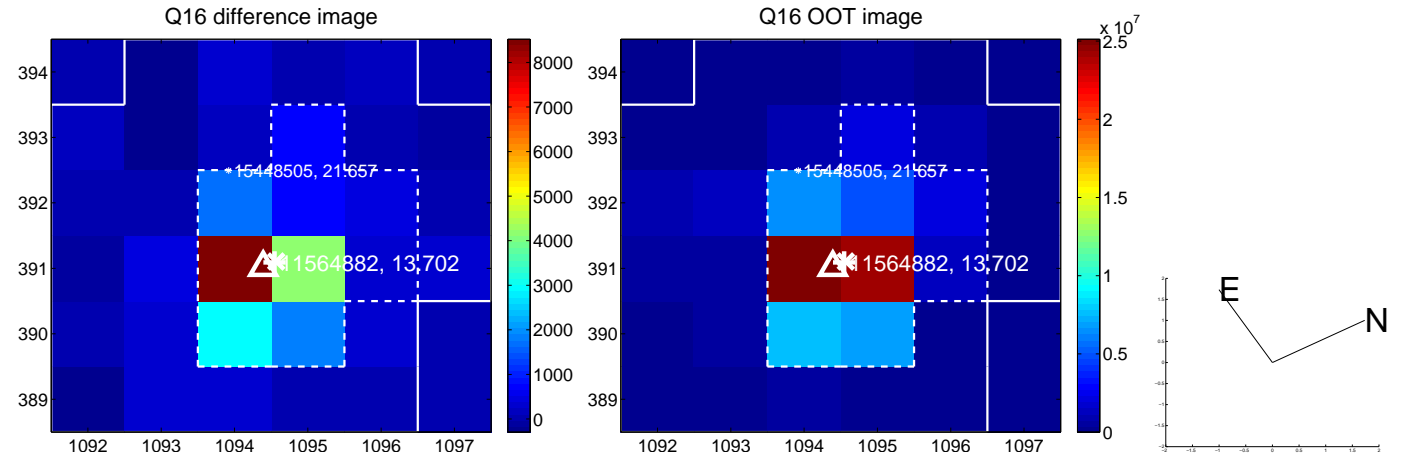
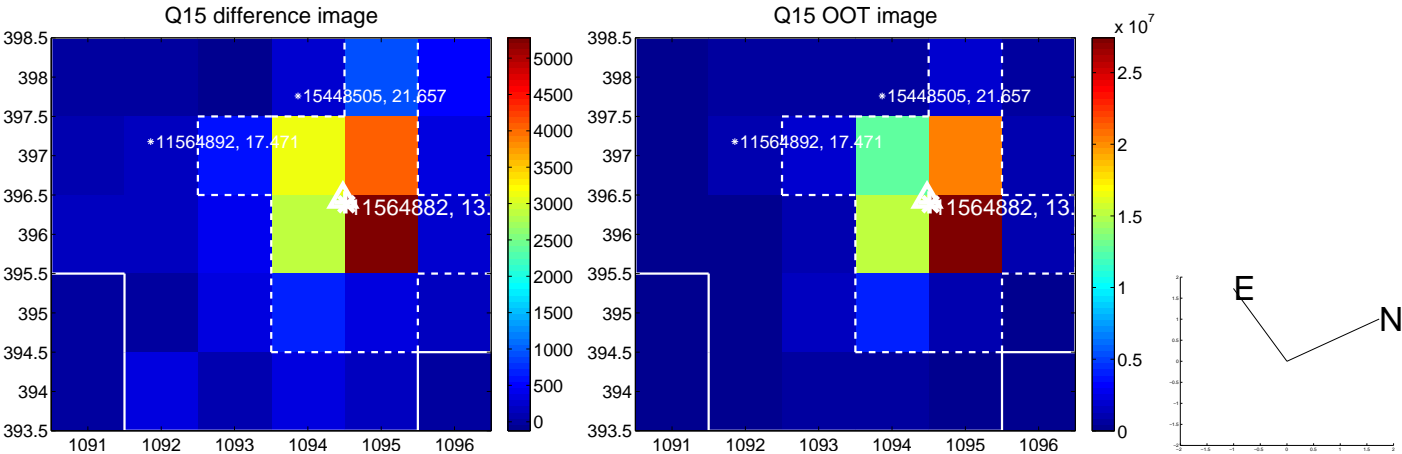
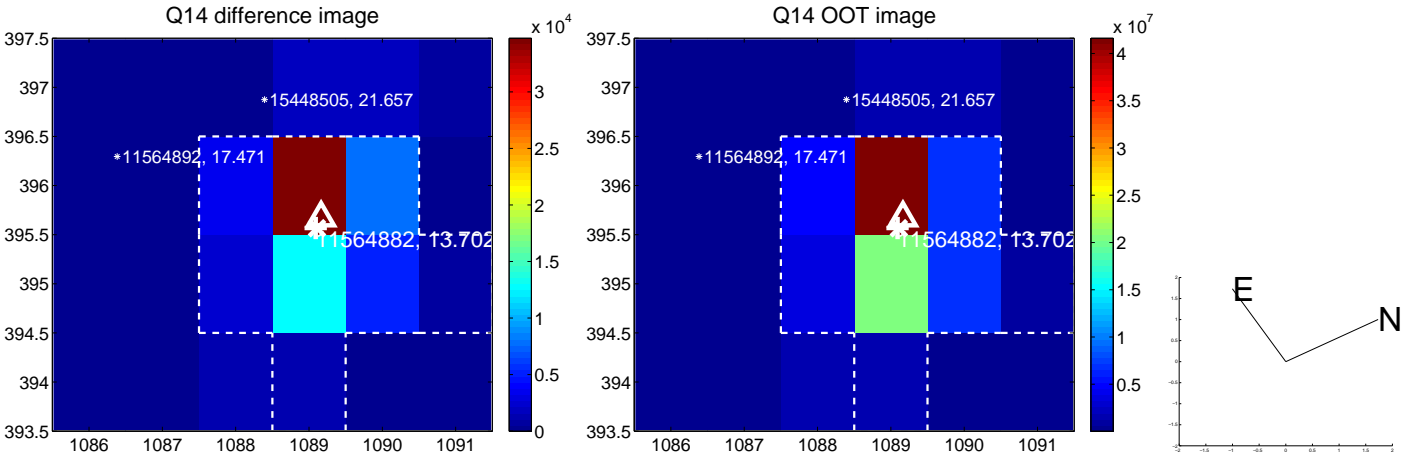
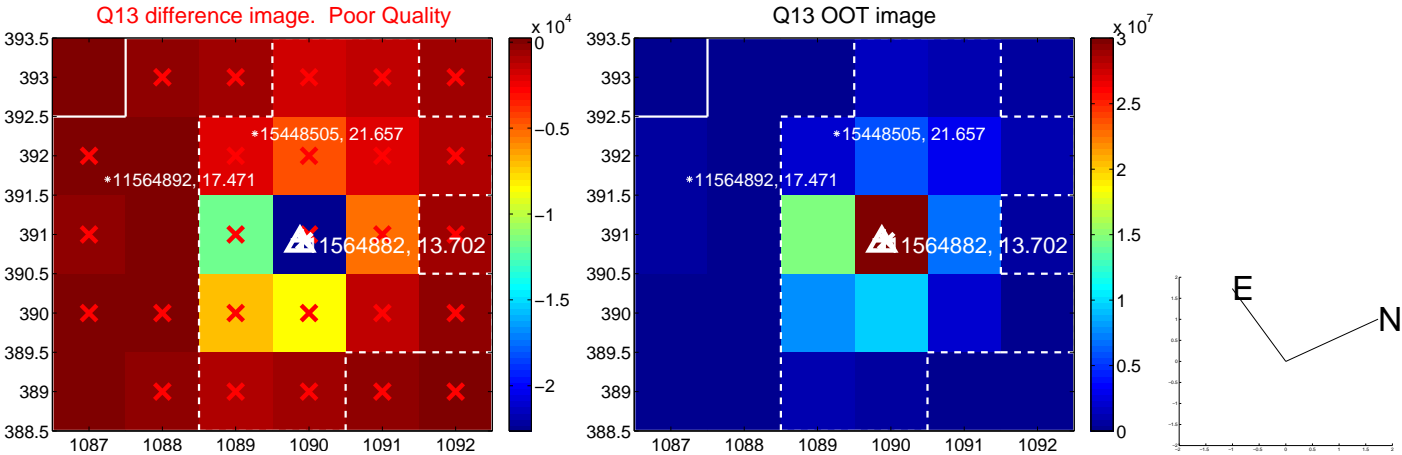
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



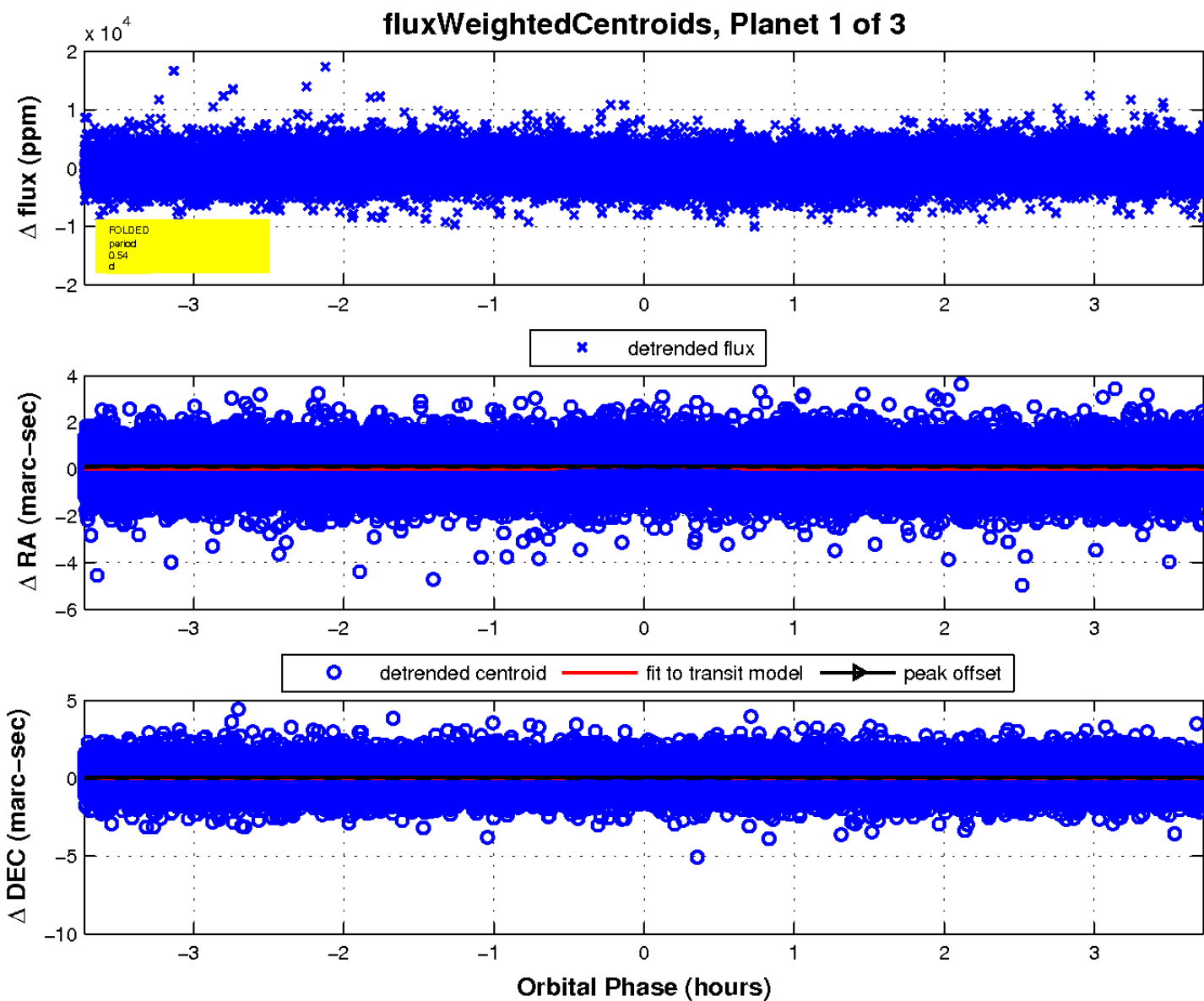
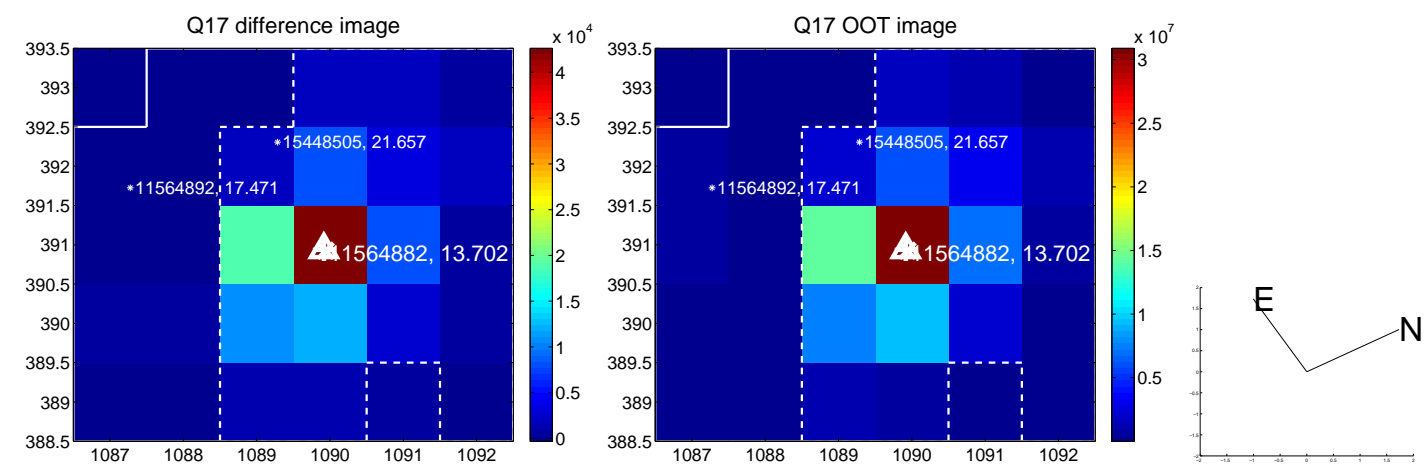
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

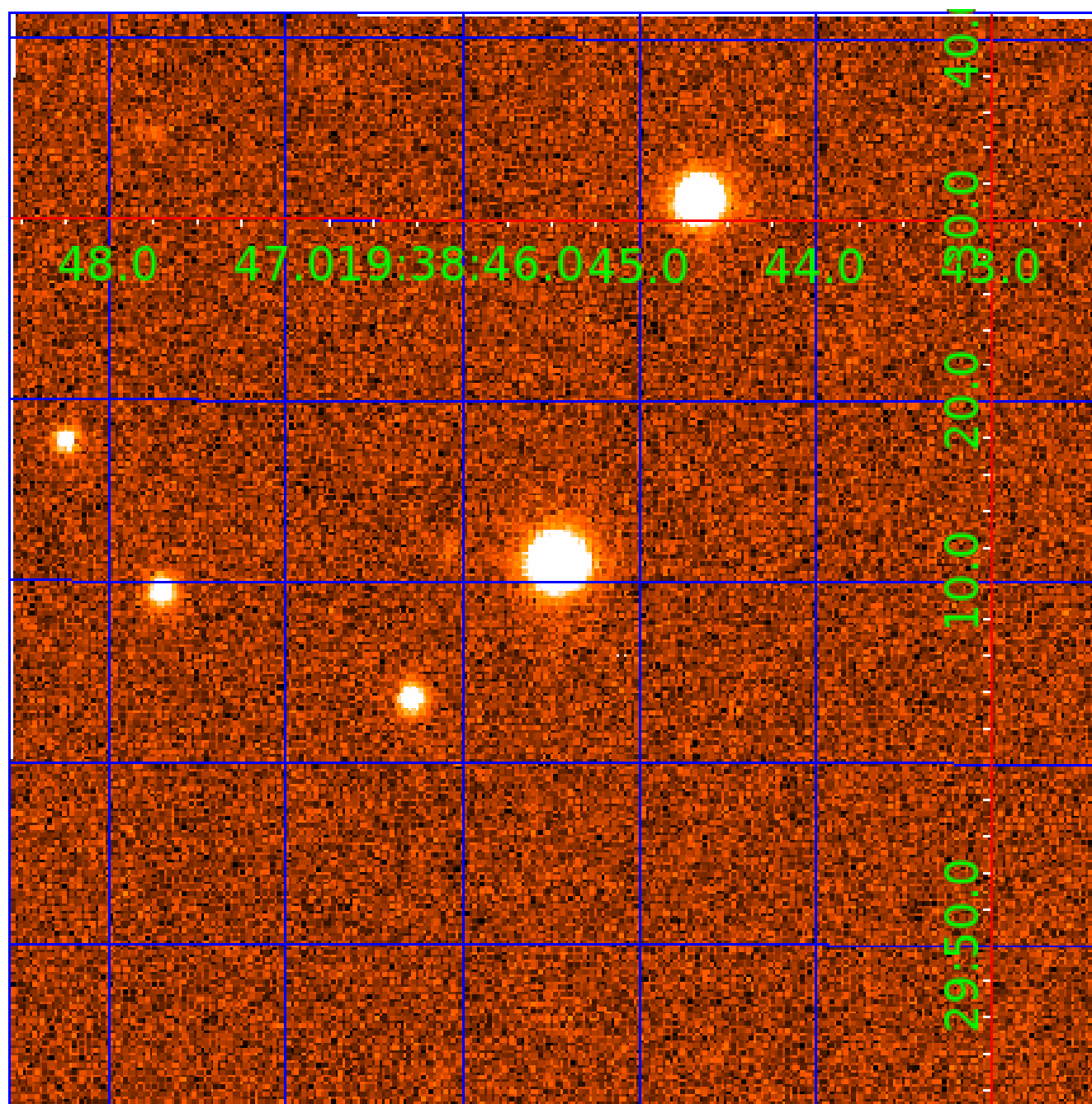


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011564882

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})
011564882-01	OBS	No	0.542795	131.615362	96.1	1.243	11.5	4.1	1.50	6950	1.72	21736.37
011564882-02	OBS	No	0.542820	131.968532	572.9	1.382	13.5	21.3	1.50	6950	3.67	21735.02
011564882-03	OBS	No	0.542808	131.795854	403.7	1.548	14.7	16.5	1.50	6950	3.07	21735.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011564882-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011564882-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
011564882-03	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

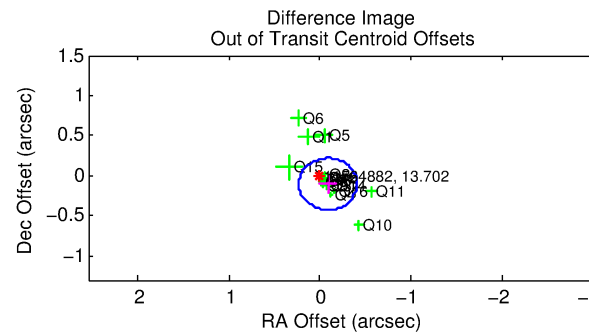
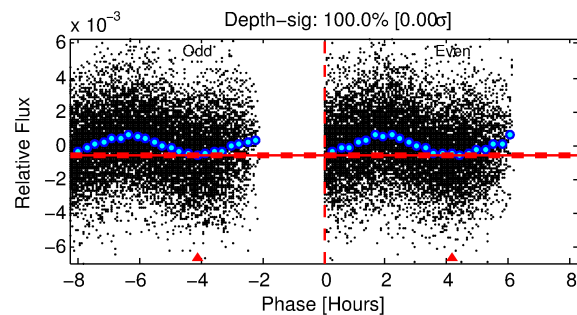
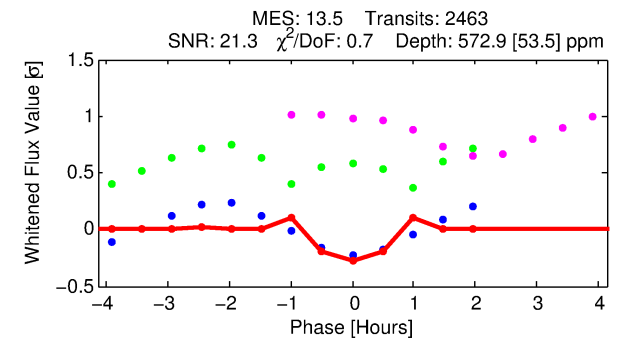
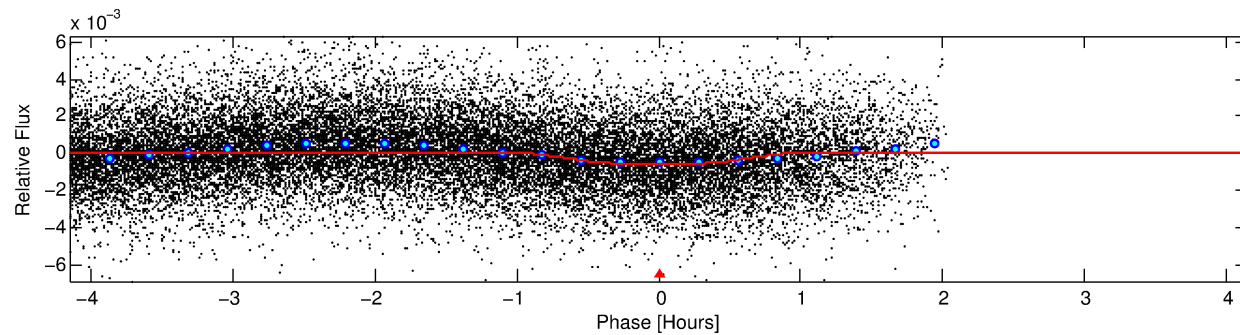
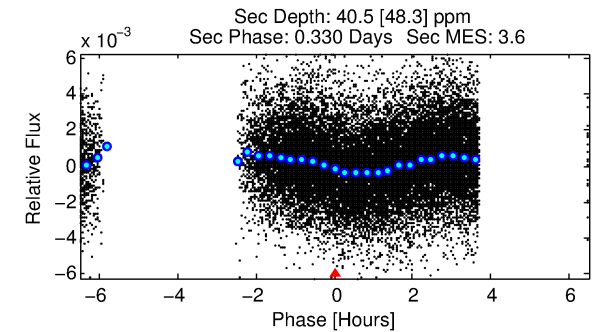
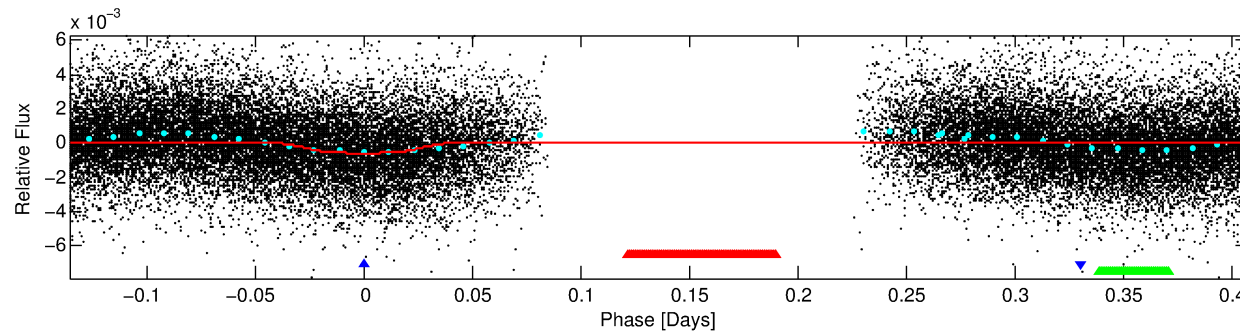
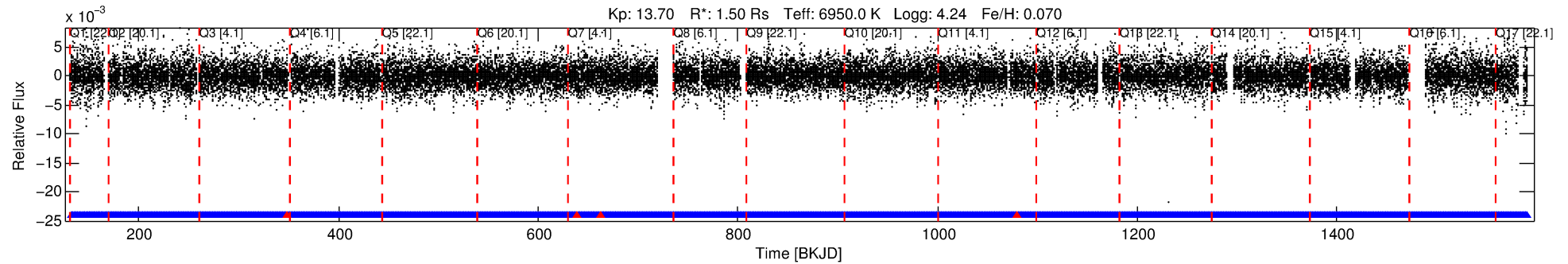
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011564882-02

No Significant Match Found

DV One-Page Summary

KIC: 11564882 Candidate: 2 of 3 Period: 0.543 d



DV Fit Results:

Period = 0.54282 [0.00001] d
Epoch = 131.9685 [0.0006] BKJD
Rp/R* = 0.0224 [0.0043]
a/R* = 3.00 [2.83]
b = 0.30 [3.24]
Seff = 21735.02 [9427.74]
Teq = 3096 [336] K
Rp = 3.67 [1.47] Re
a = 0.0147 [0.0041] AU
Ag = 0.36 [0.47] [-1.36σ]
Teffp = 3704 [1174] K [0.50σ]

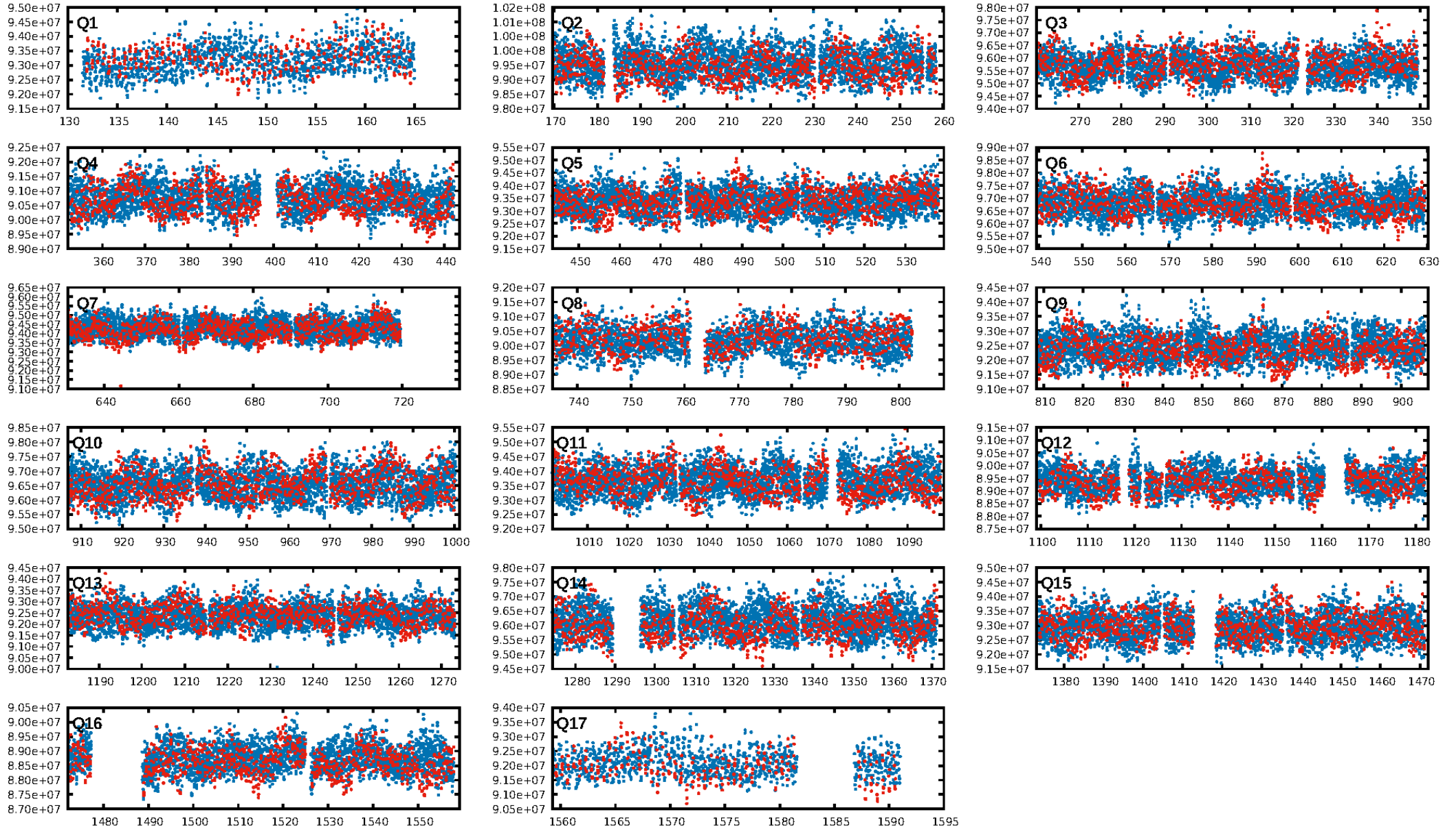
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2350/2354]
GhostDiagnostic-chr: 0.8714
Centroid-sig: 0.0%
Centroid-so: 0.183 arcsec [3.76σ]
OotOffset-rm: 0.135 arcsec [1.26σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.163 arcsec [1.60σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.76 [13/17]
DiffImageOverlap-fno: 0.00 [0/17]

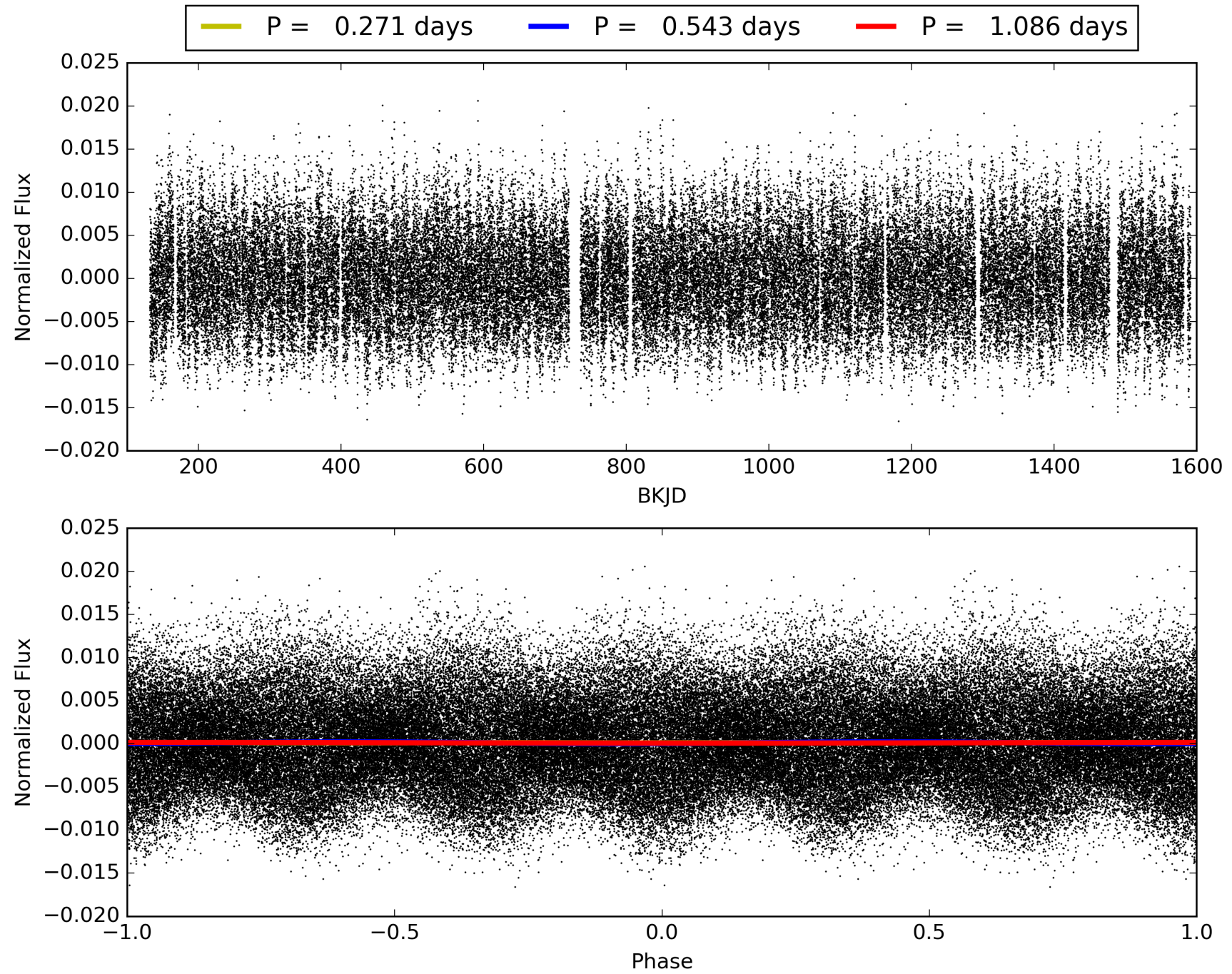
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:41:33 Z

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

TCE 011564882-02, PDC Light Curves

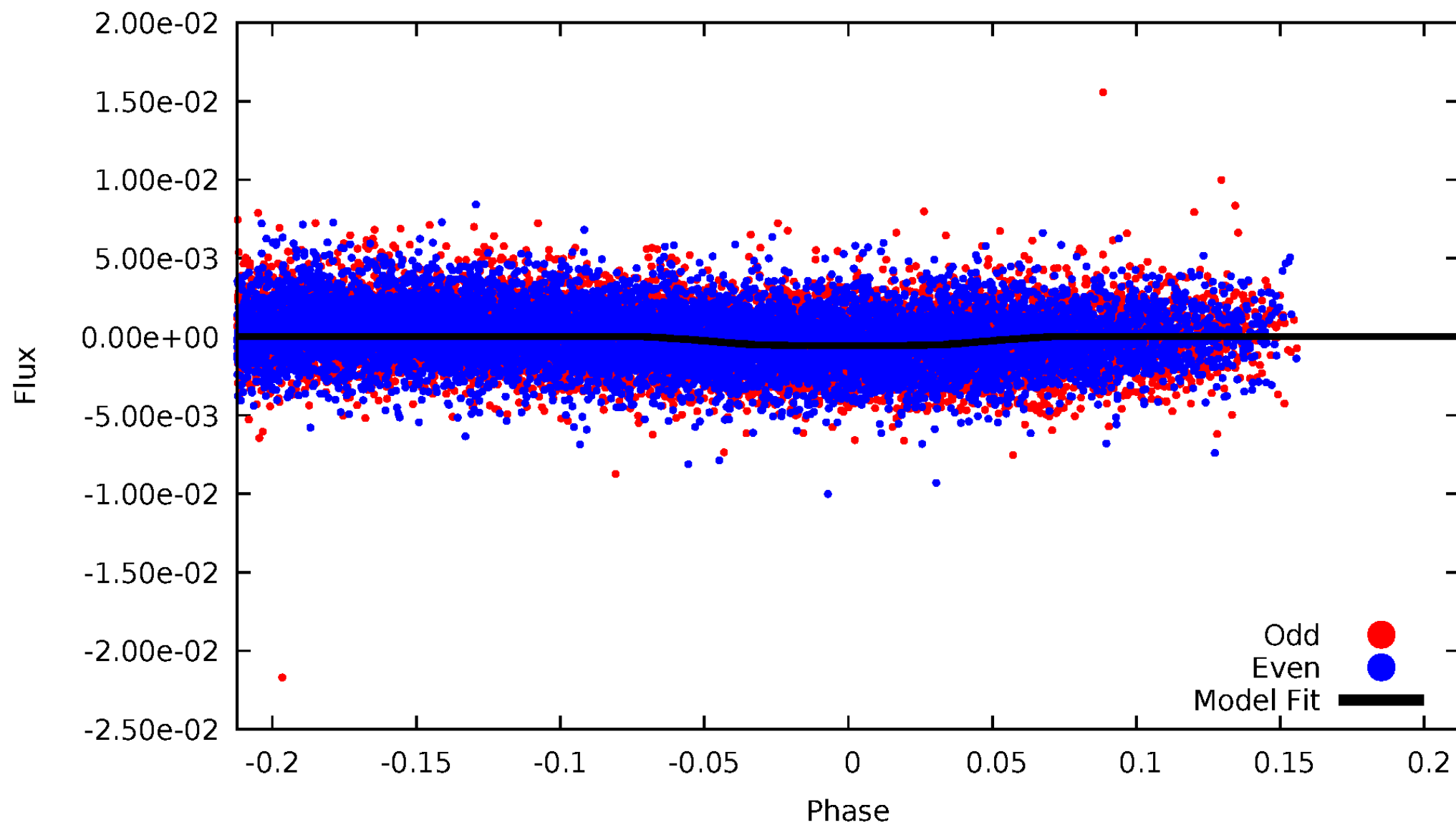


TCE 011564882-02



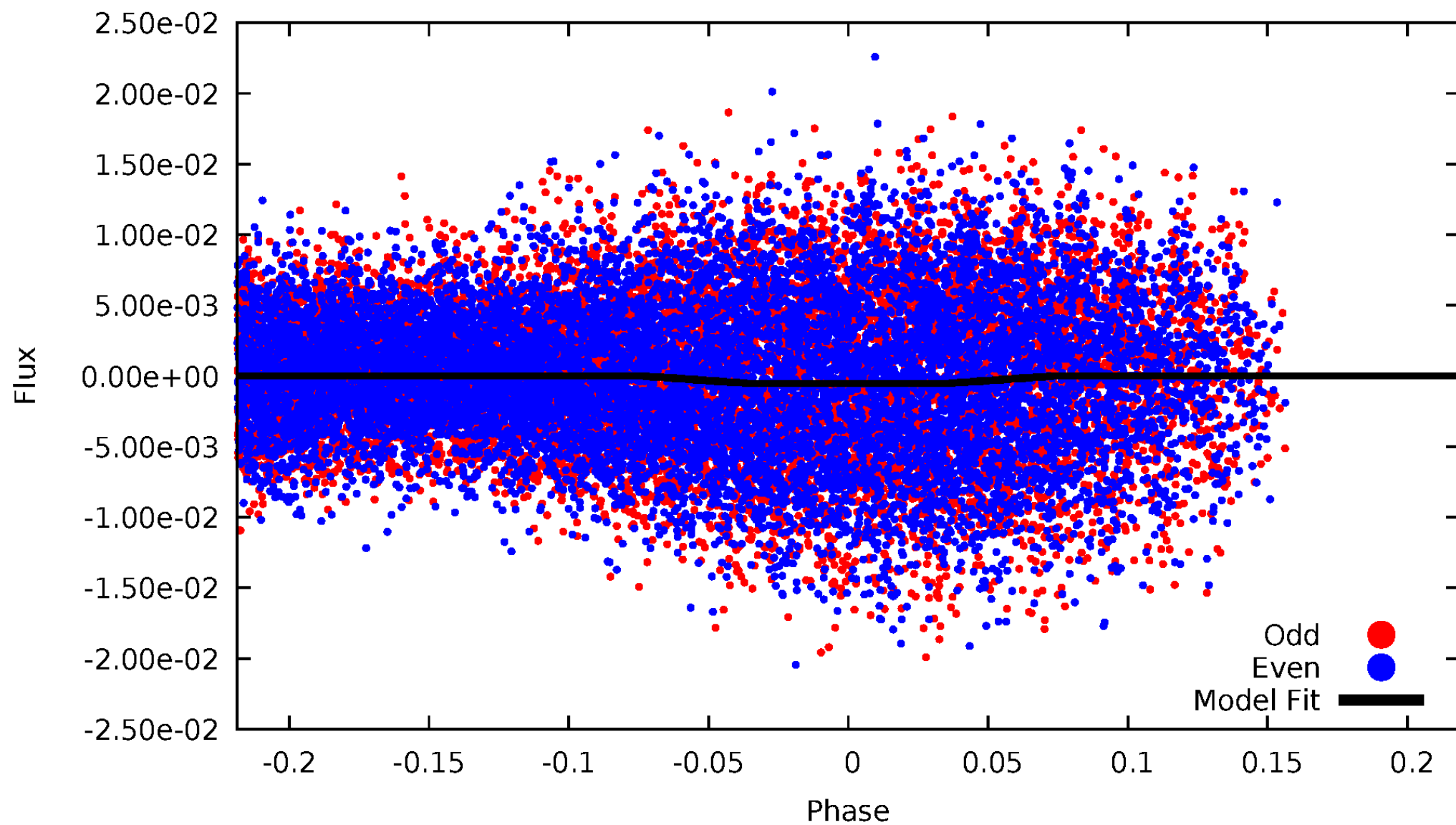
DV Odd/Even

TCE 011564882-02



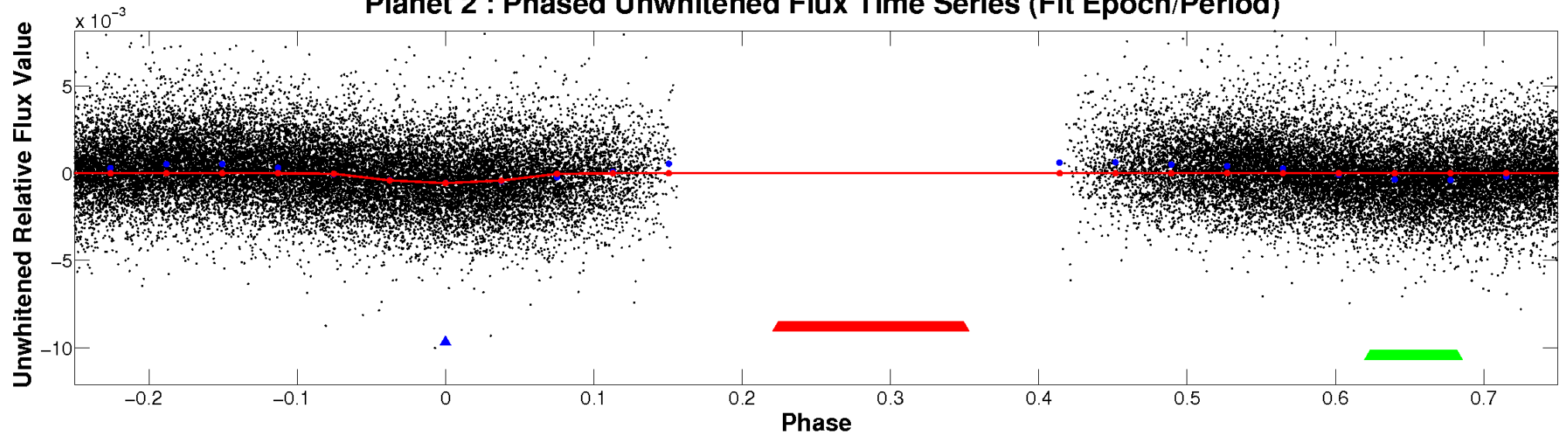
ALT Odd/Even

TCE 011564882-02

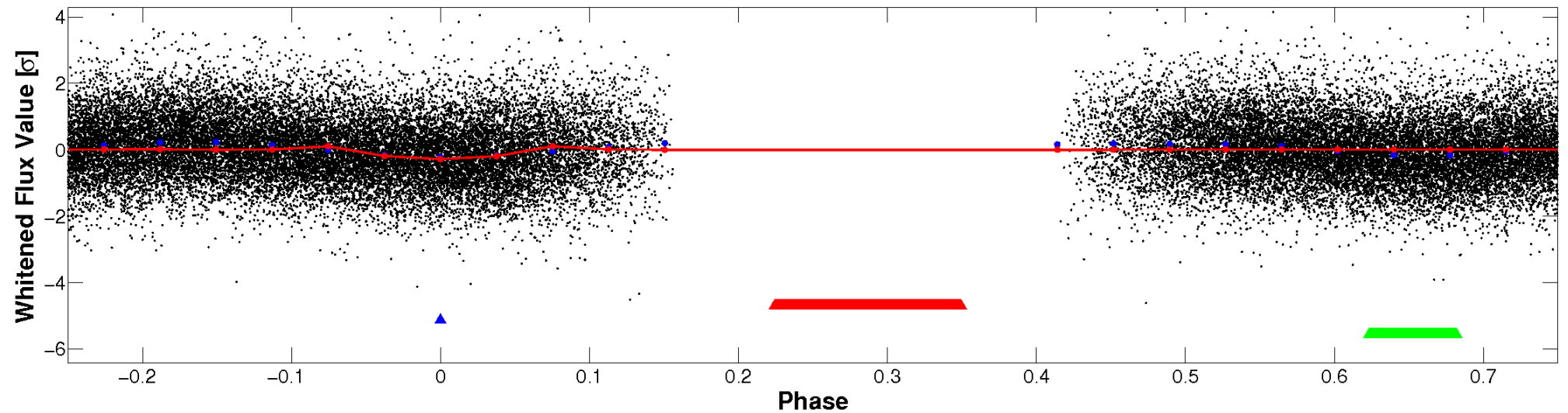


Non-Whitened Vs. Whitened Light Curve

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

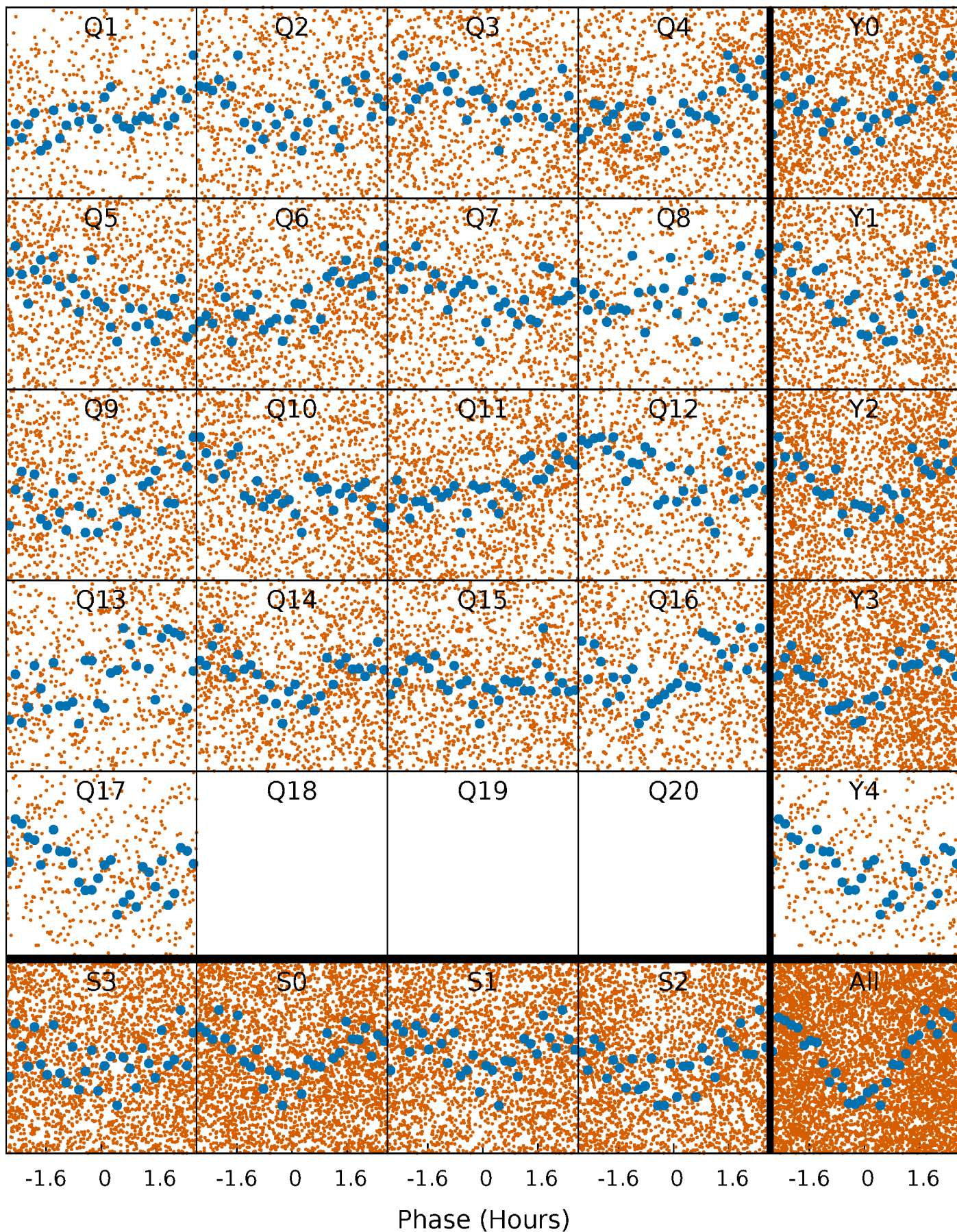


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



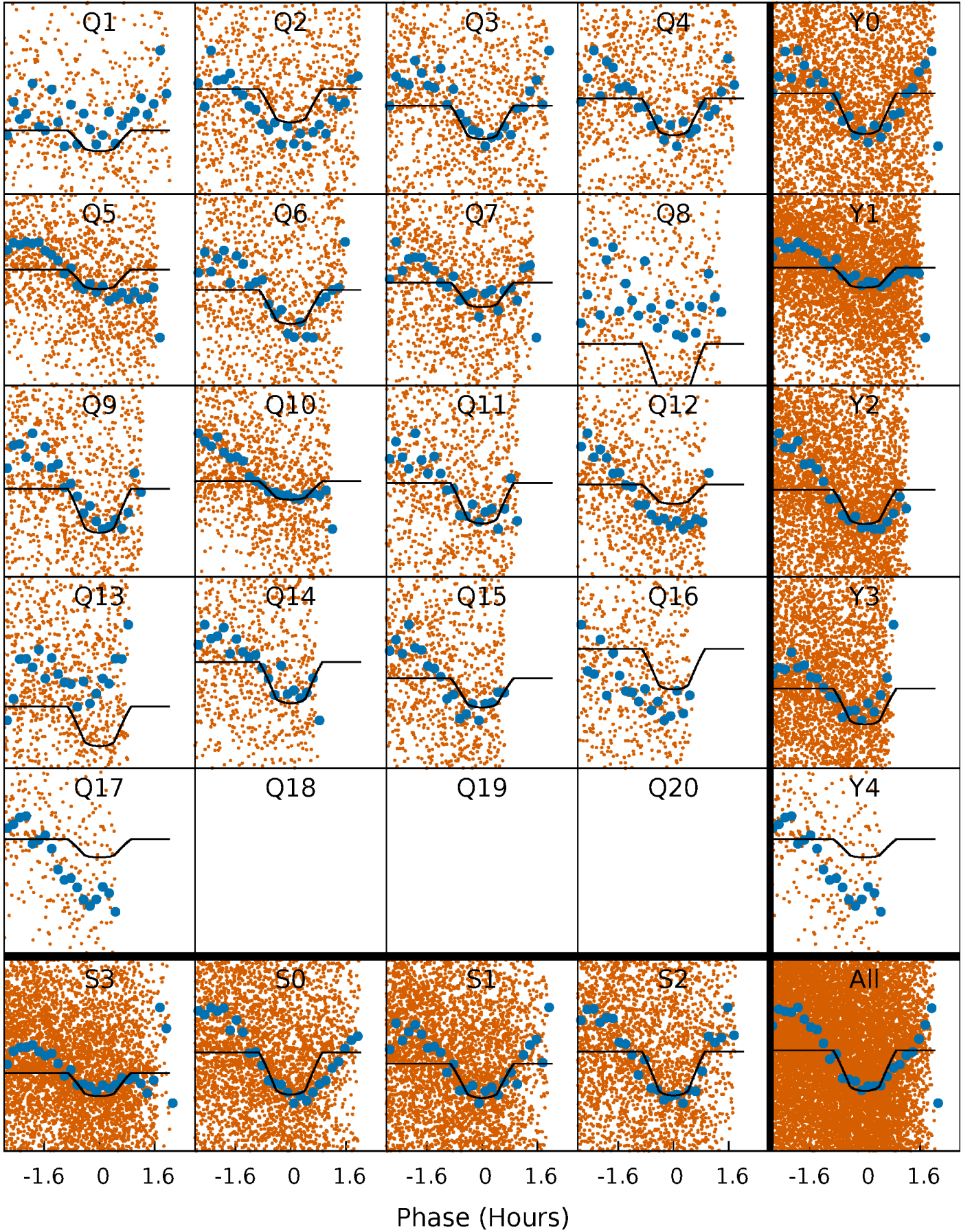
PDC Quarter-Phased Transit Curves

TCE 011564882-02 P= 0.542820 Days $T_0=131.968532$ (BKJD)



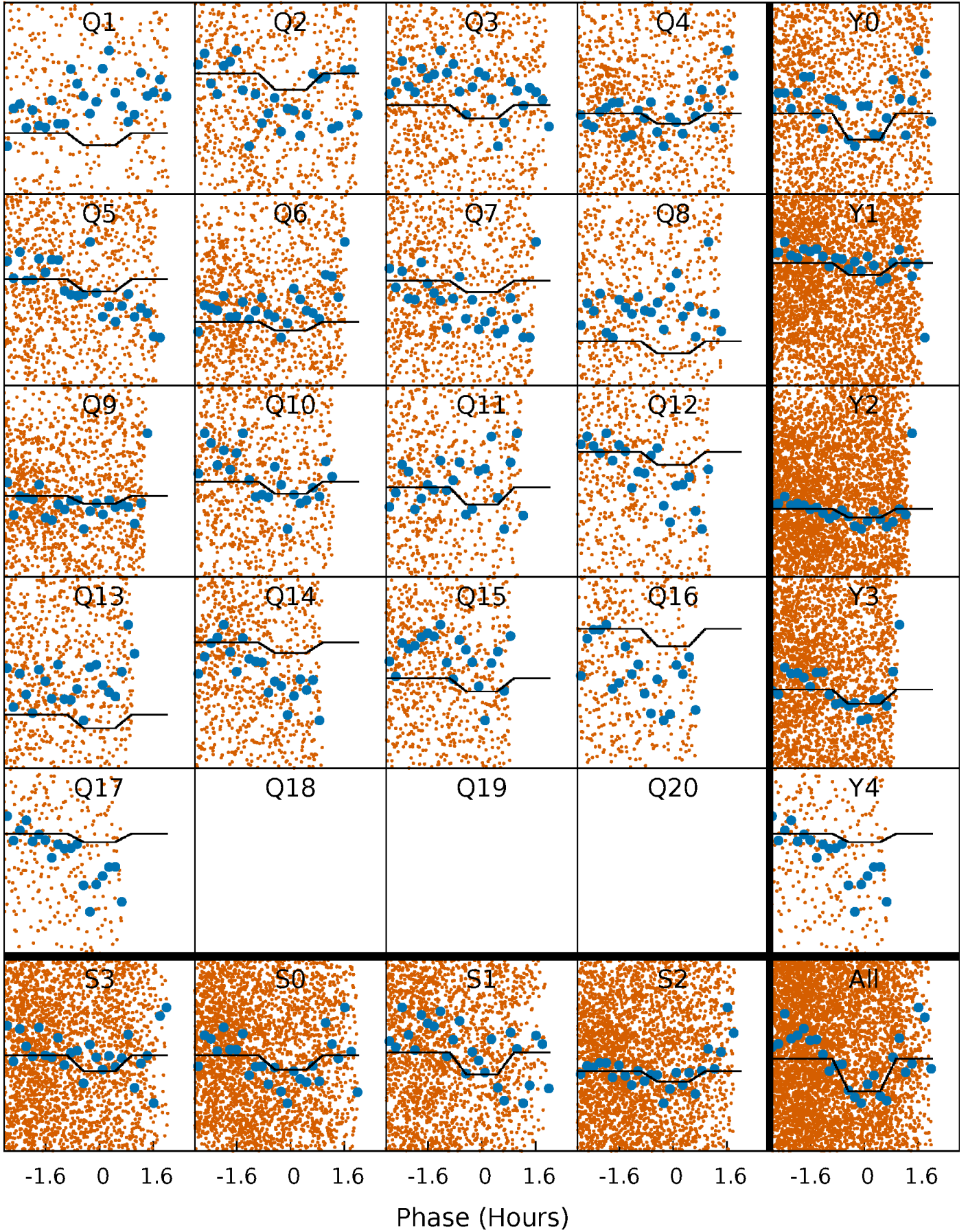
DV Quarter-Phased Transit Curves

TCE 011564882-02 P= 0.542820 Days $T_0=131.968532$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

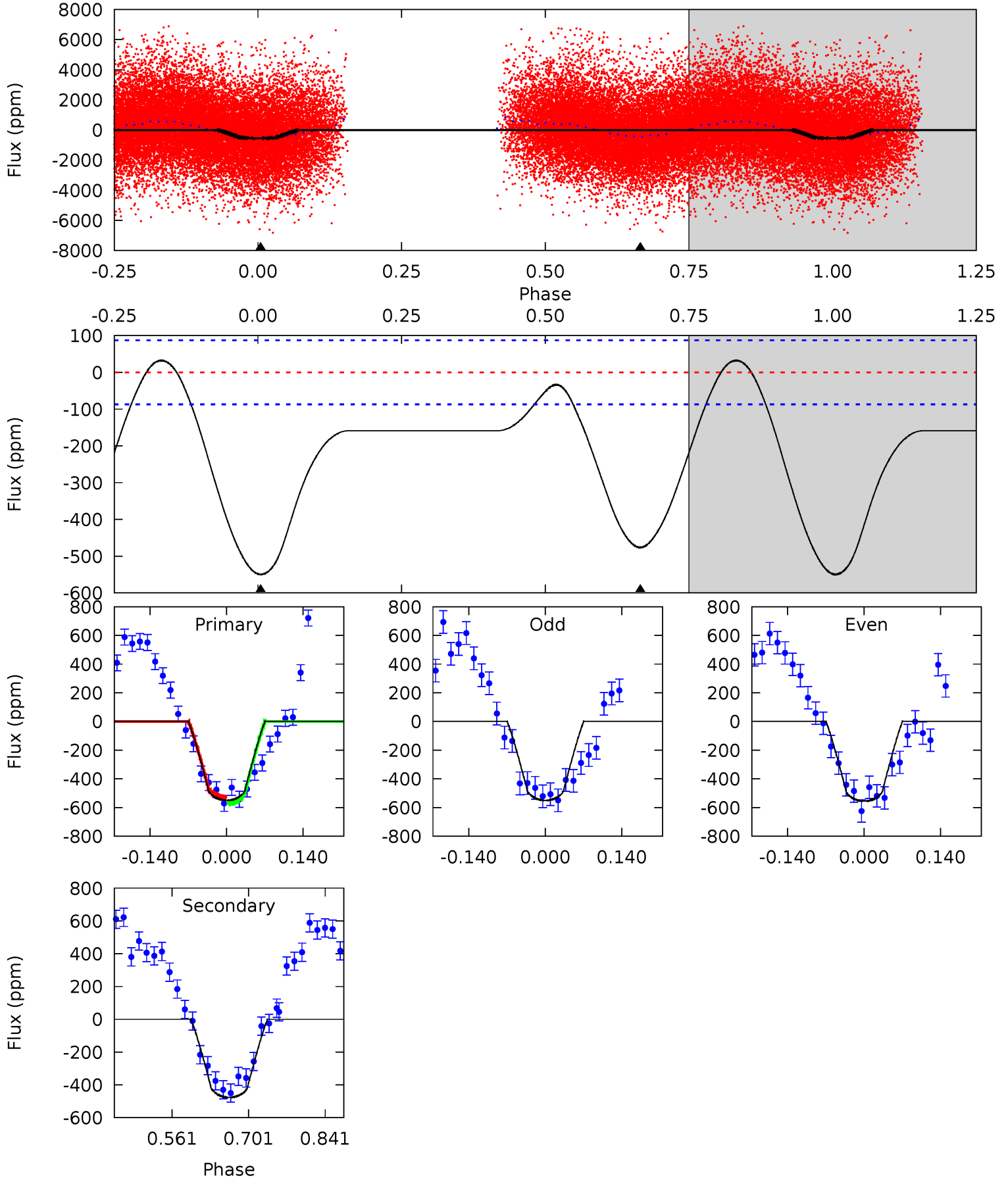
TCE 011564882-02 P= 0.542817 Days $T_0=131.968321$ (BKJD)



DV Model-Shift Uniqueness Test

011564882-02, P = 0.542820 Days, E = 131.425712 Days

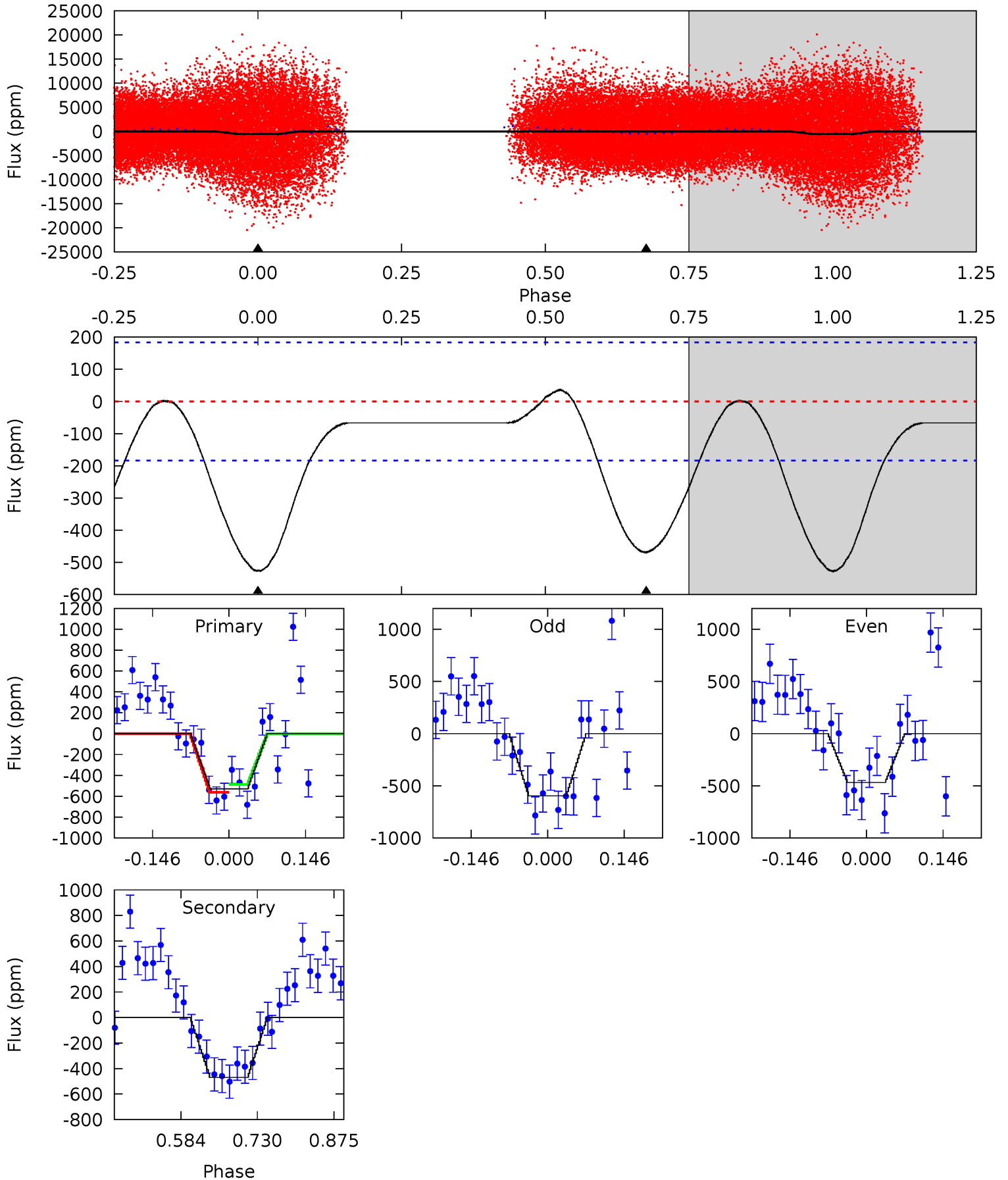
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.3	24.6	0	0	4.49	1.47	2.82	28.3	28.3	24.6	24.6	0.14	1.02	0.06	1.02



Alt Model-Shift Uniqueness Test

011564882-02, P = 0.542817 Days, E = 131.425504 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	11.5	0	0	4.48	1.45	0.59	12.9	12.9	11.5	11.5	1.57	1.48	0.07	0.75



Stellar Parameters For KIC 011564882

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6950^{+194}_{-333}	$4.244^{+0.087}_{-0.203}$	$0.070^{+0.200}_{-0.350}$	$1.499^{+0.524}_{-0.225}$	$1.436^{+0.222}_{-0.222}$	$0.601^{+0.240}_{-0.326}$
	+3%/-5%	+2%/-5%	+286%/-500%	+35%/-15%	+15%/-15%	+40%/-54%
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 011564882-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-477 ± 19	$3.78^{+0.99}_{-0.84}$	4366^{+360}_{-265}	6619^{+1052}_{-650}	$3.925^{+2.430}_{-1.426}$
Alt.	-470 ± 41	$3.85^{+1.07}_{-0.87}$	4374^{+361}_{-291}	6535^{+1046}_{-640}	$3.666^{+2.506}_{-1.327}$

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 $A_{obs} \gg 1.0$

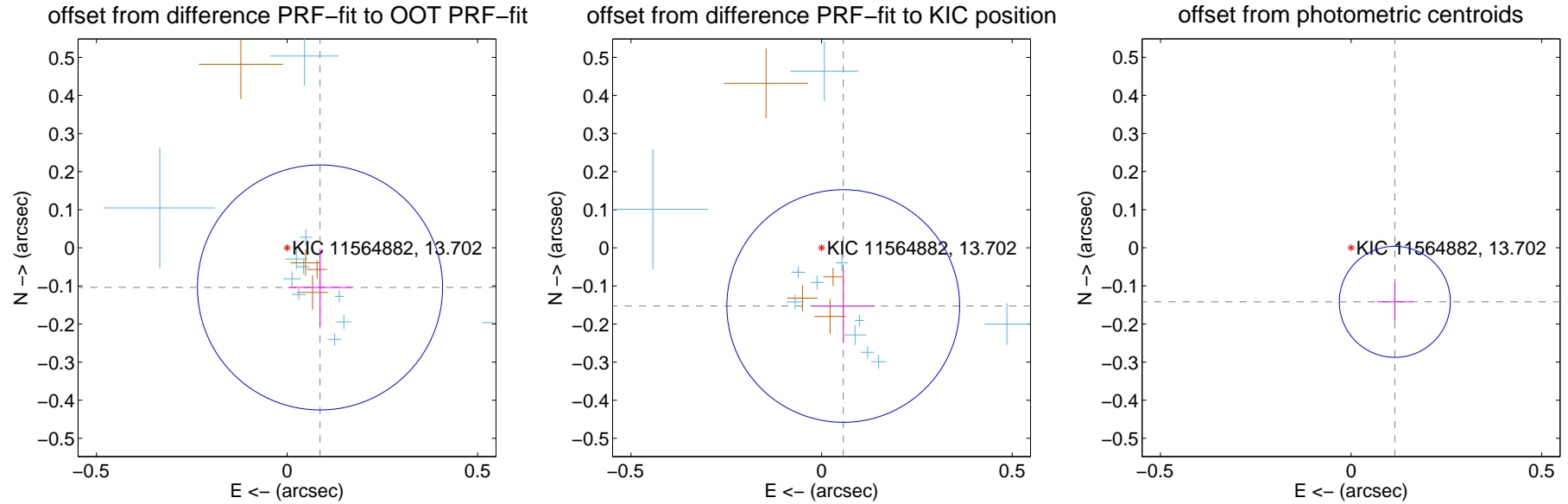
DV Centroid Data

Supplemental centroid analysis for 011564882-02. Kepler magnitude: 13.70. Transit SNR 21.29

There are 13 quarters with good PRF difference image offsets

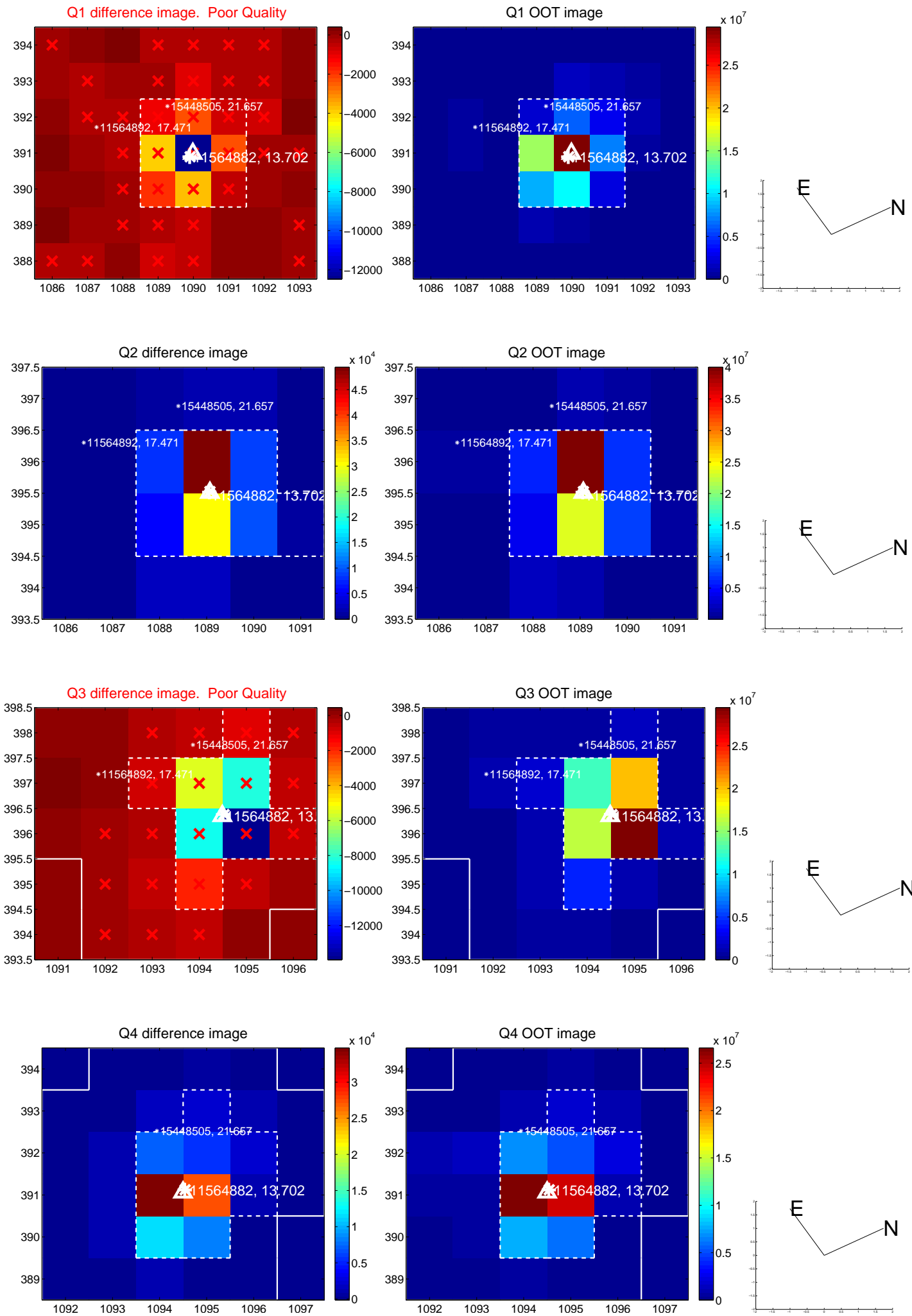
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.135 ± 0.107	1.26	-0.086 ± 0.084	-0.104 ± 0.101
PRF-fit source offset from KIC position	0.163 ± 0.102	1.60	-0.057 ± 0.083	-0.153 ± 0.096
photometric centroid source offset	0.18 ± 0.05	3.76	-0.11 ± 0.05	-0.14 ± 0.05

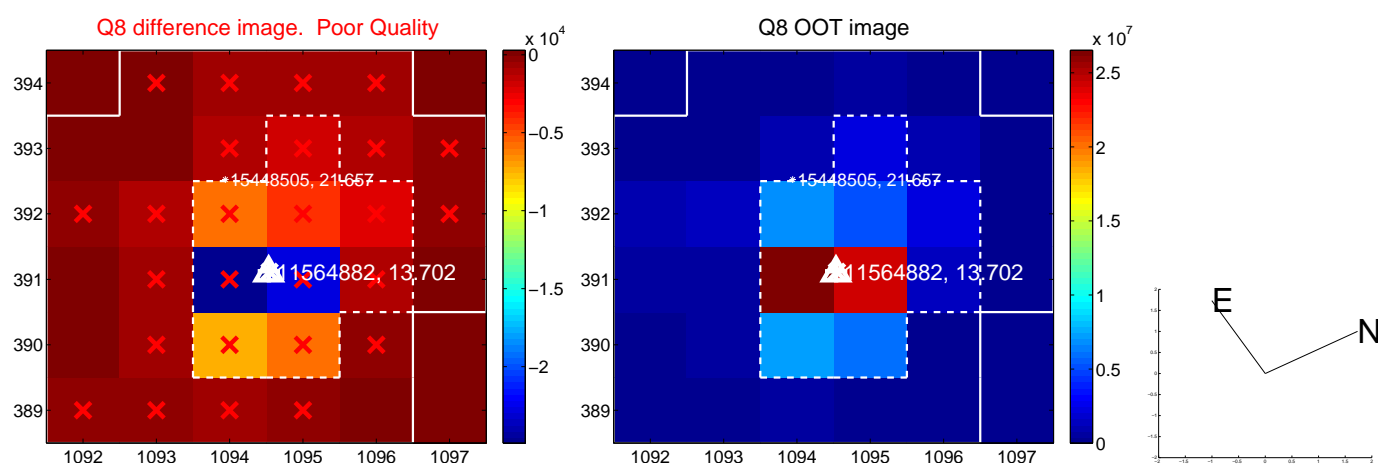
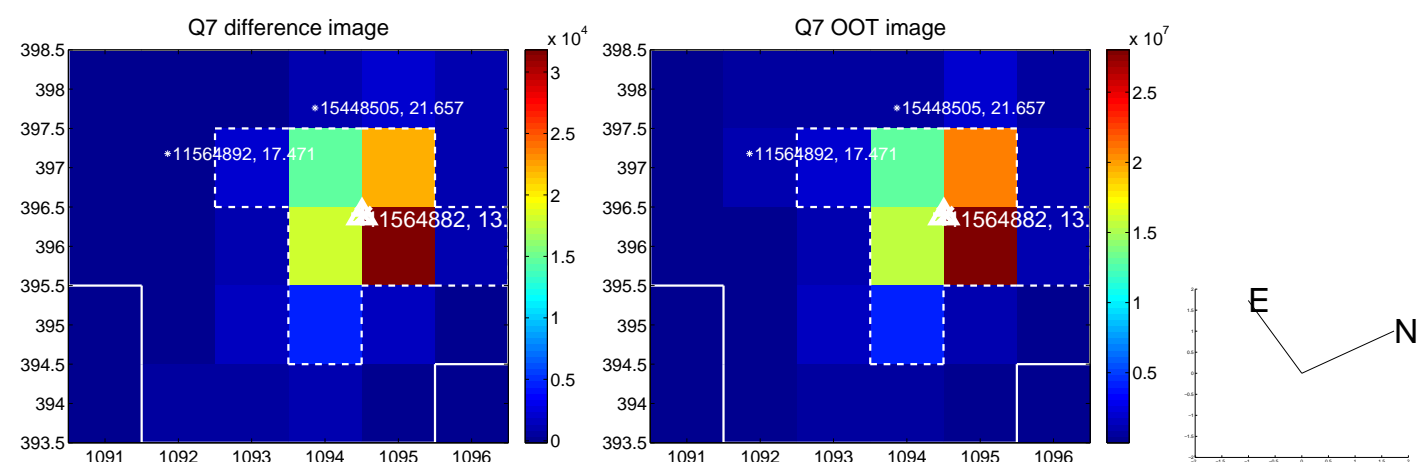
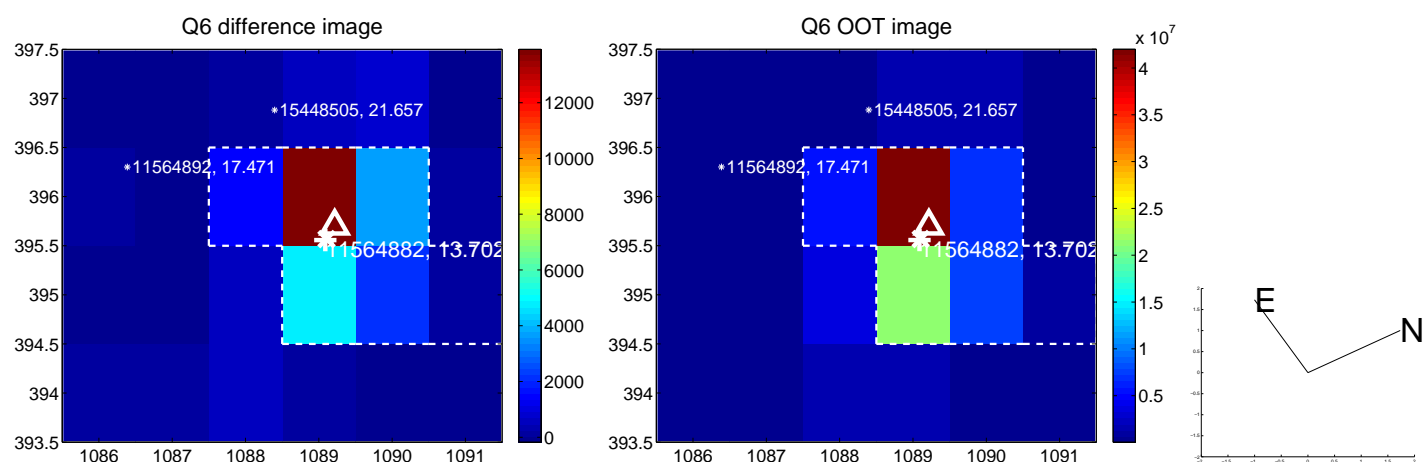
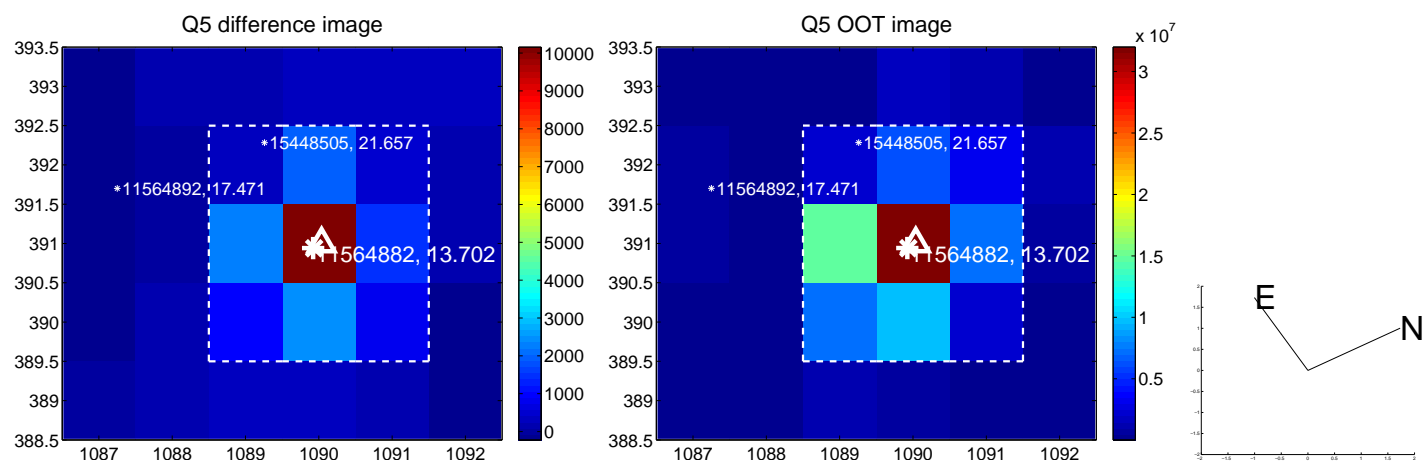


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

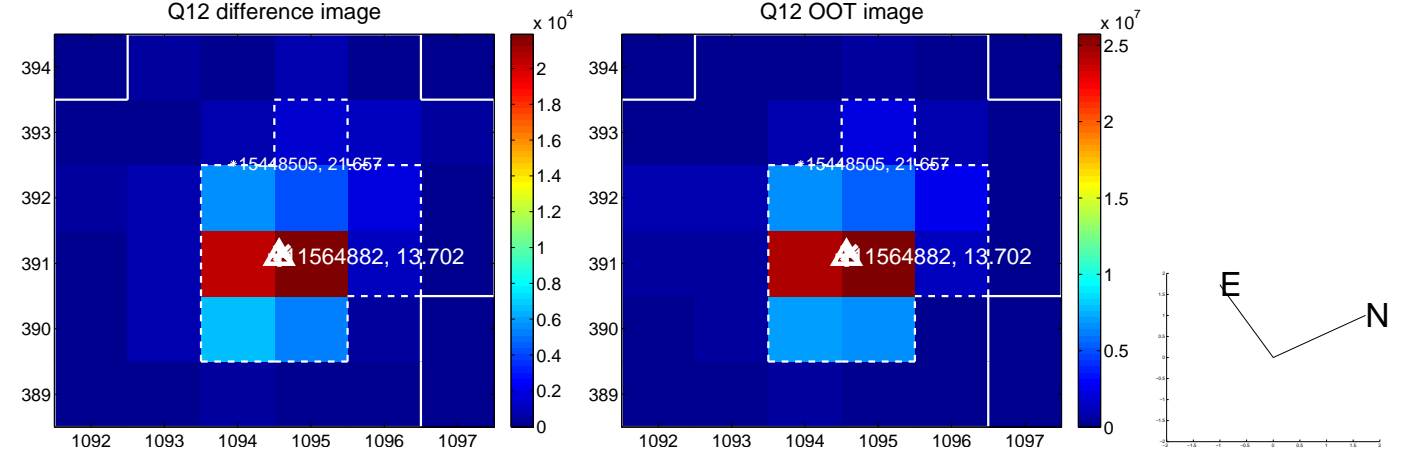
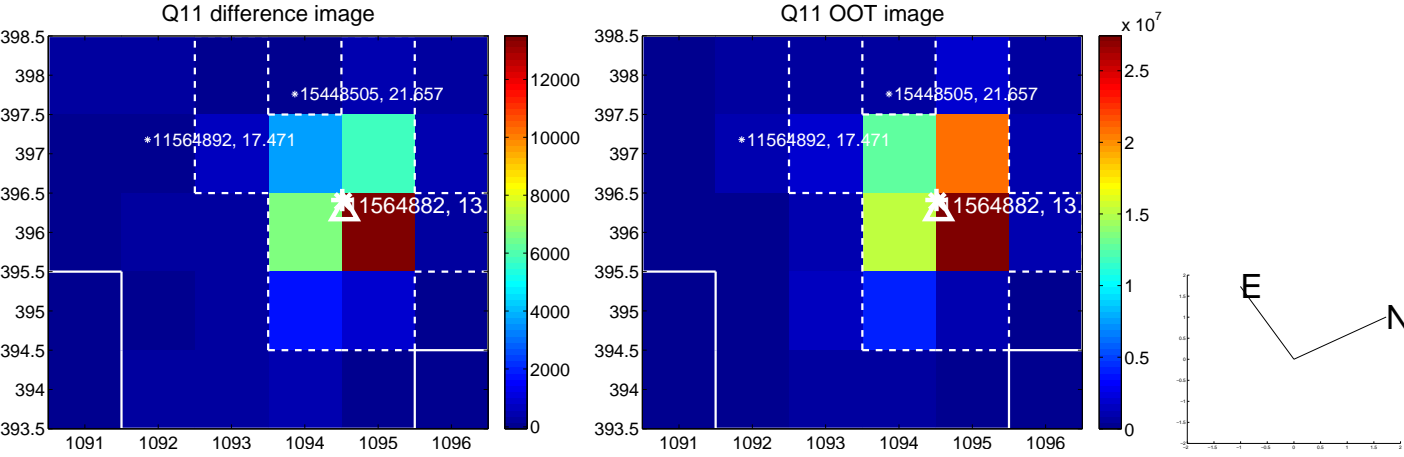
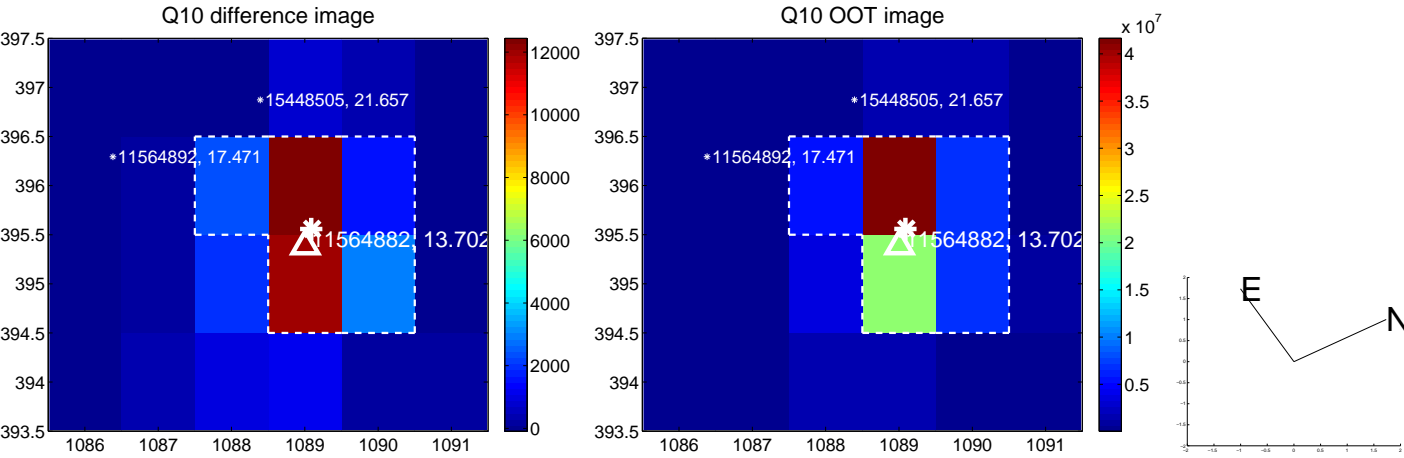
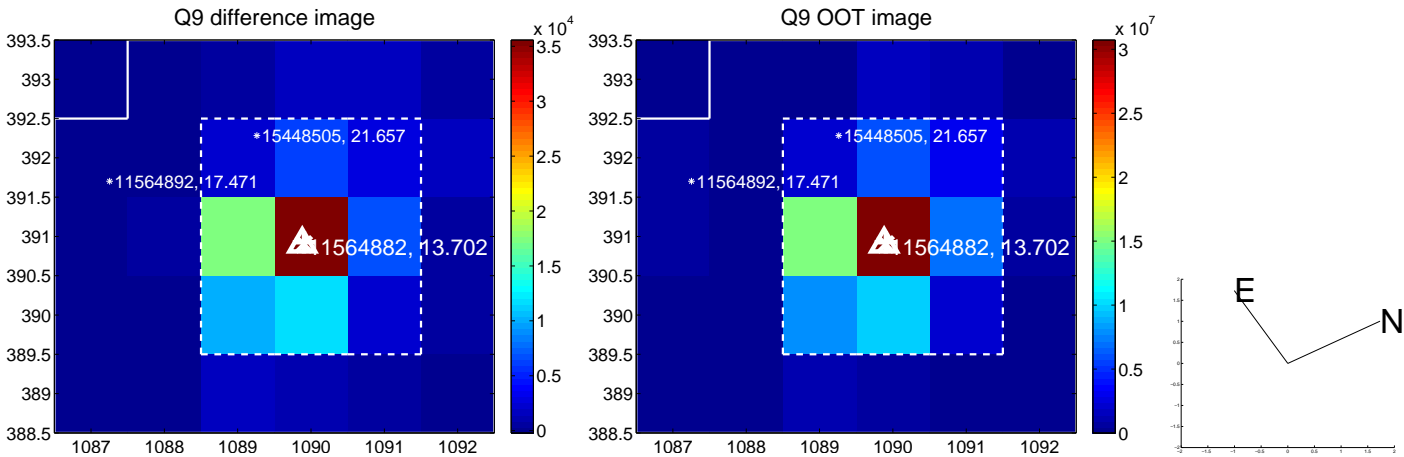
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



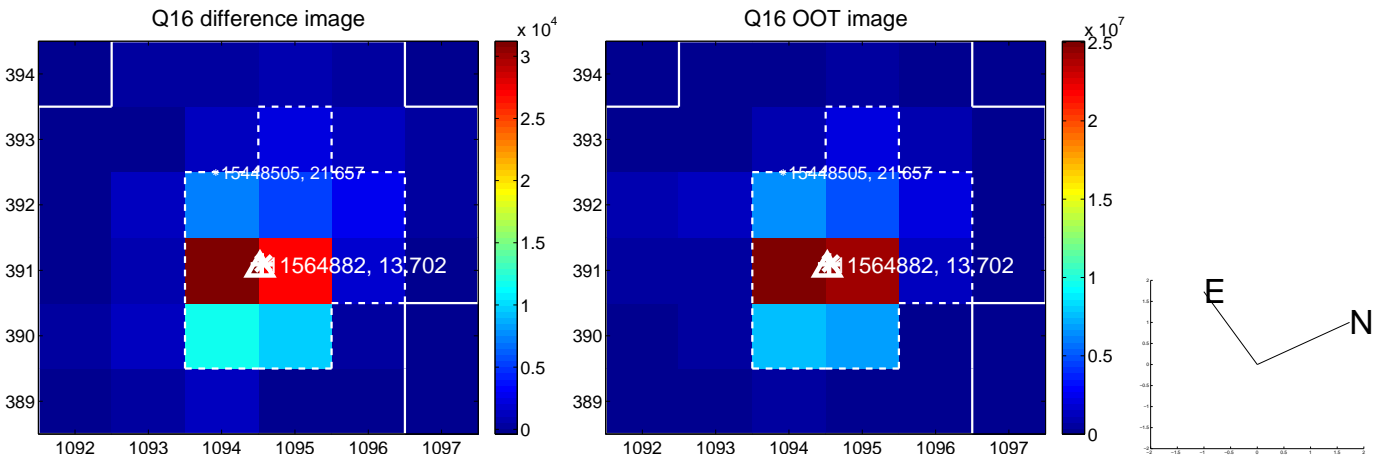
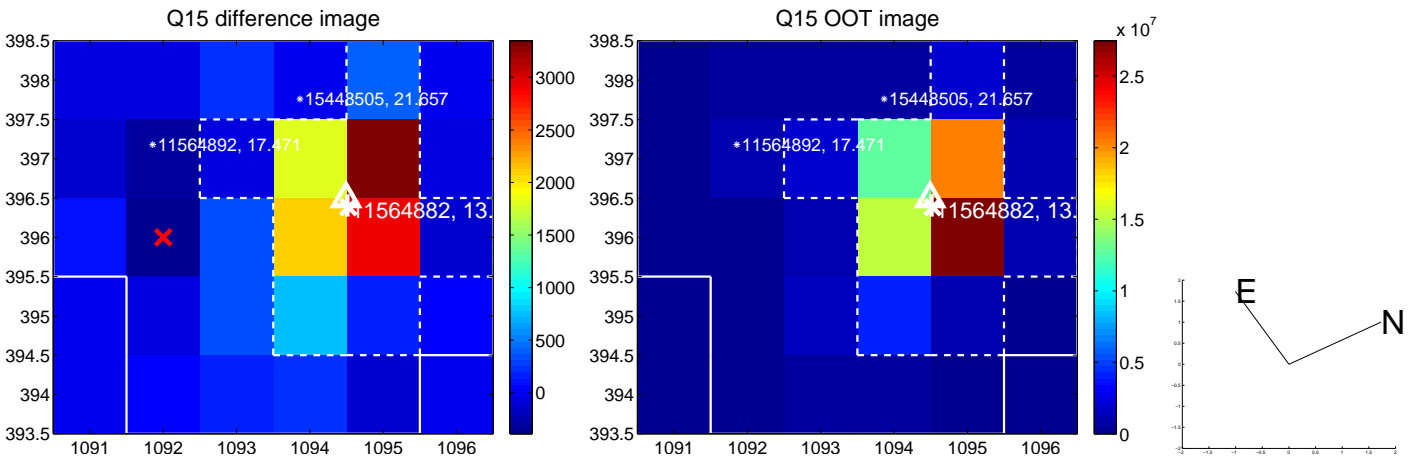
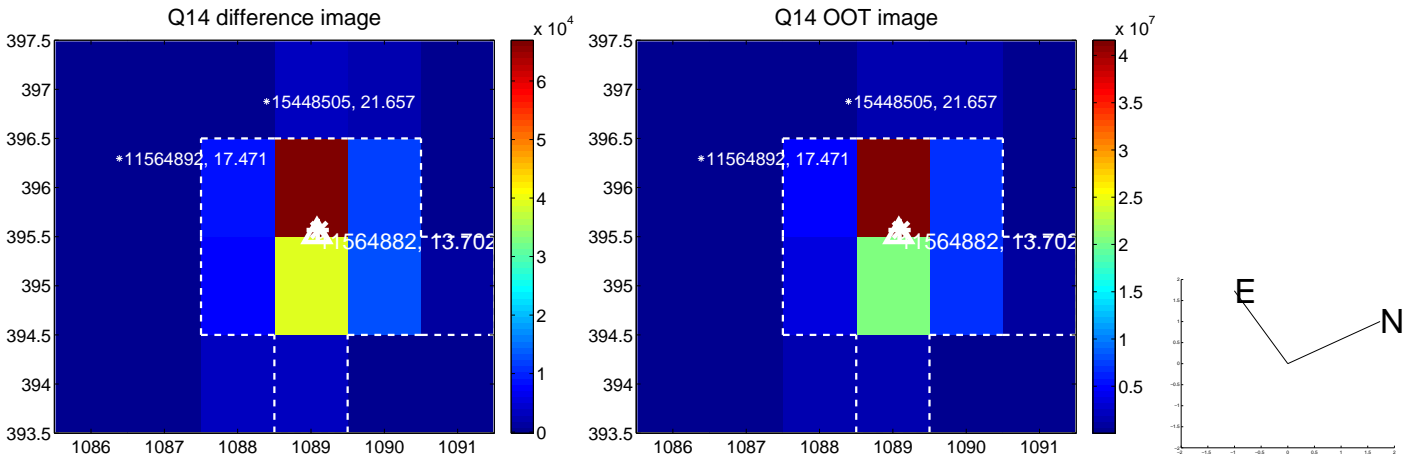
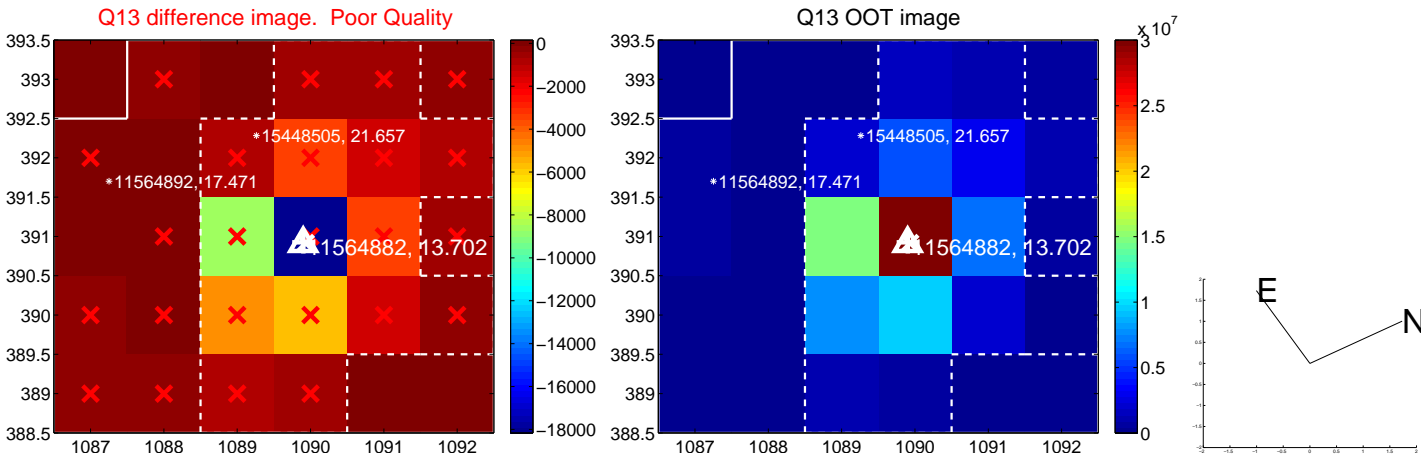
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



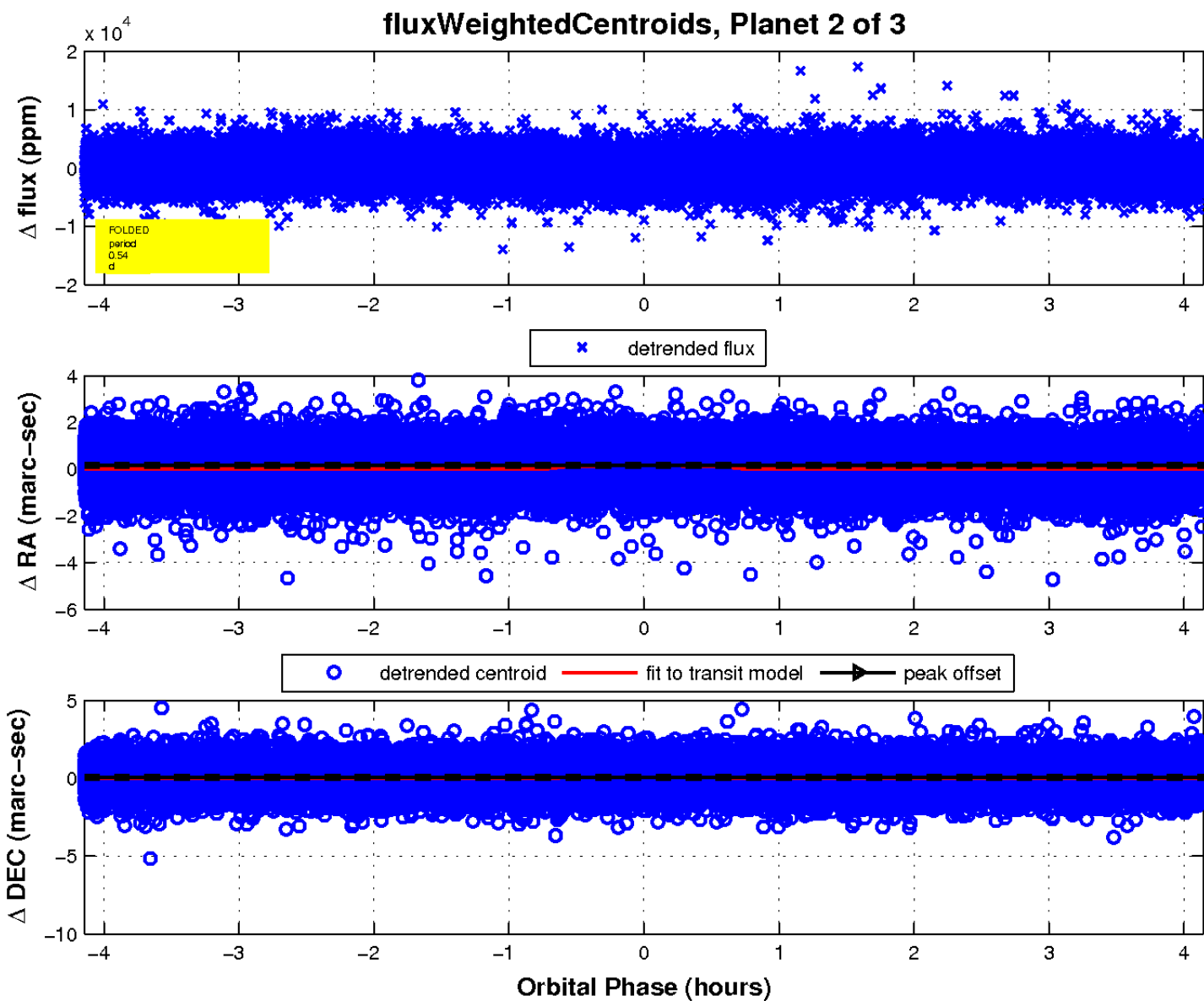
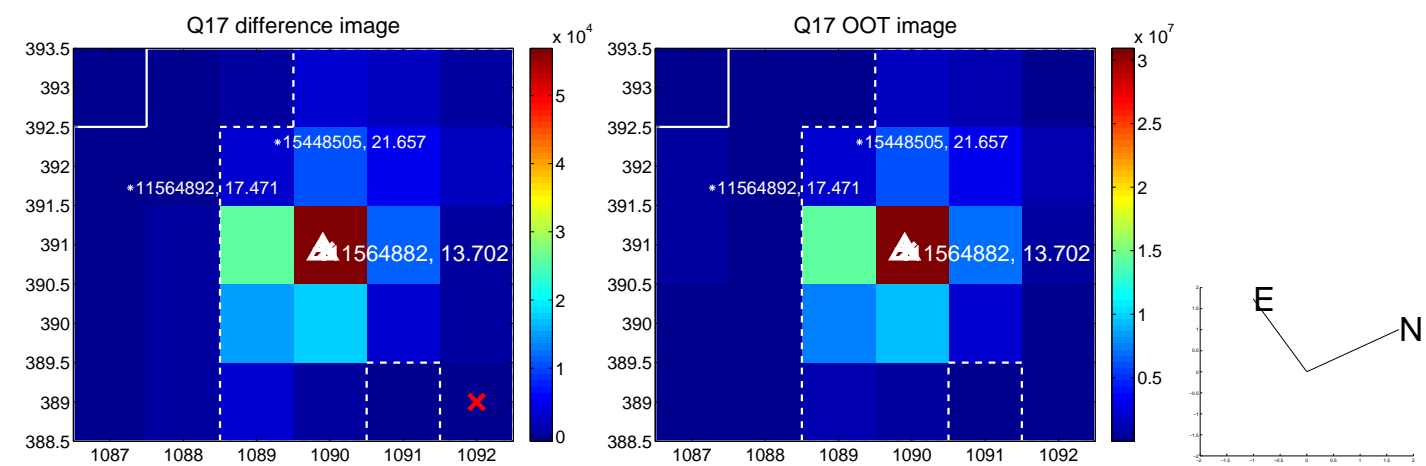
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

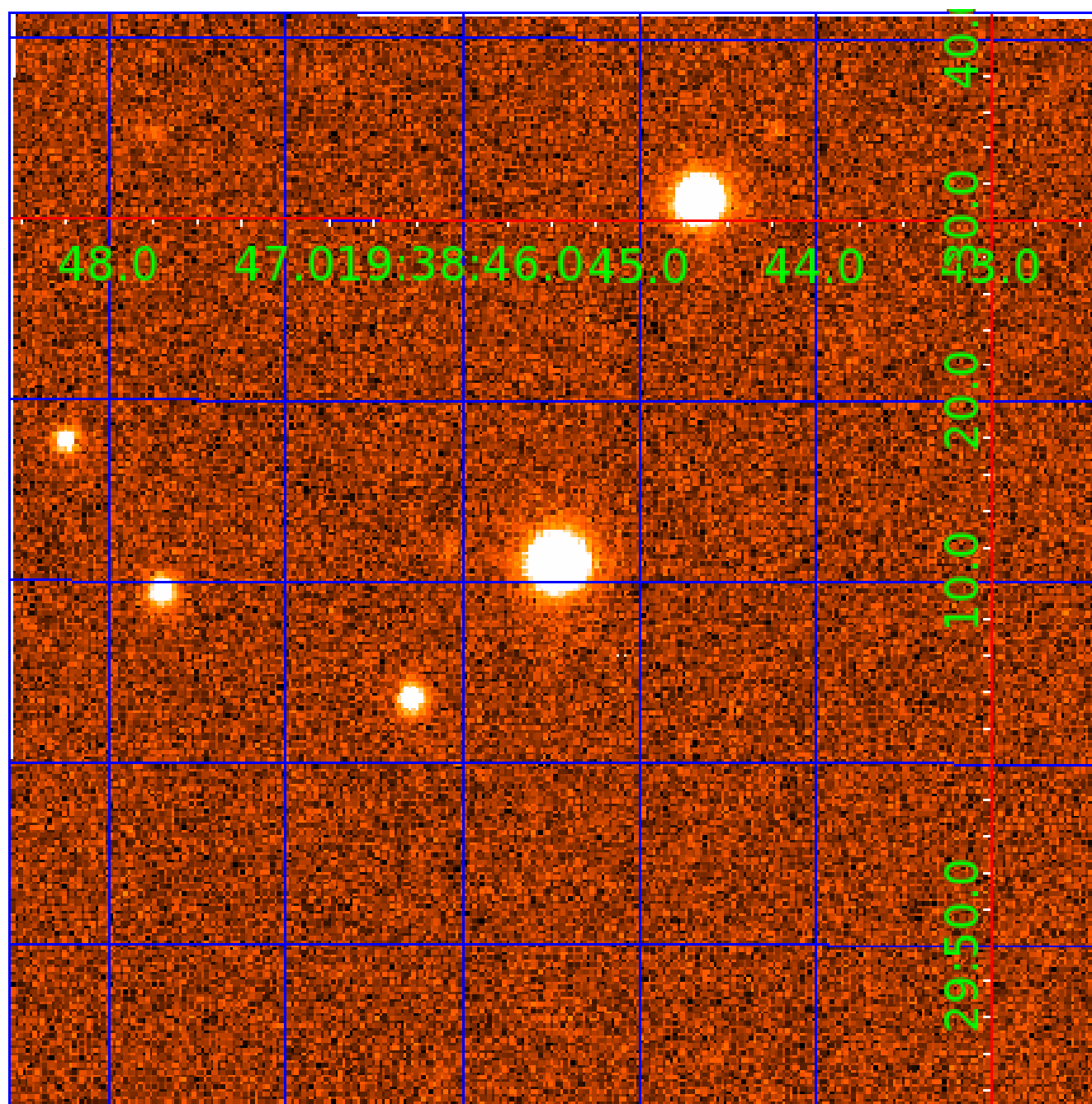


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011564882

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})
011564882-01	OBS	No	0.542795	131.615362	96.1	1.243	11.5	4.1	1.50	6950	1.72	21736.37
011564882-02	OBS	No	0.542820	131.968532	572.9	1.382	13.5	21.3	1.50	6950	3.67	21735.02
011564882-03	OBS	No	0.542808	131.795854	403.7	1.548	14.7	16.5	1.50	6950	3.07	21735.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011564882-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011564882-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
011564882-03	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

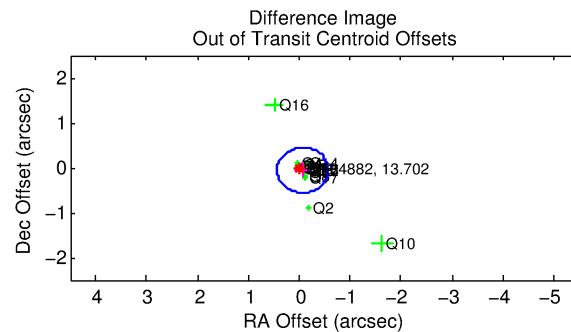
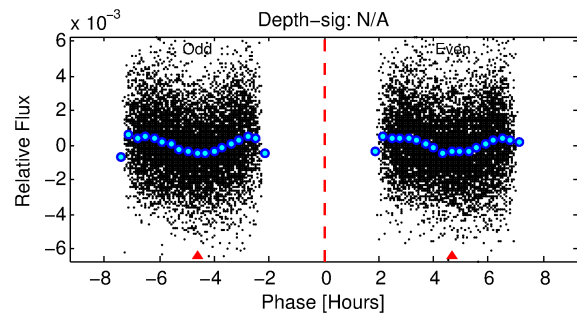
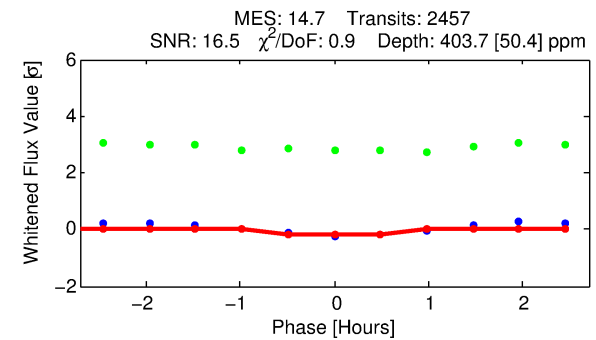
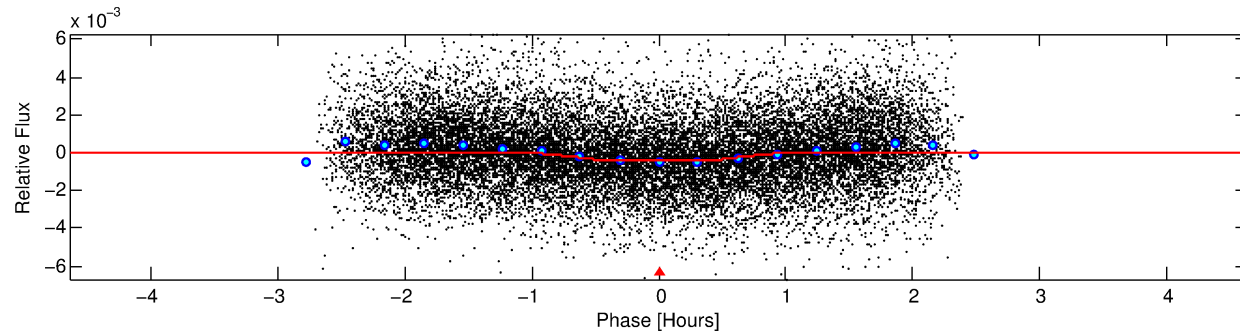
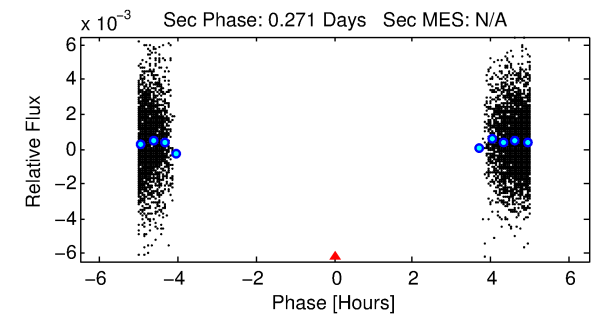
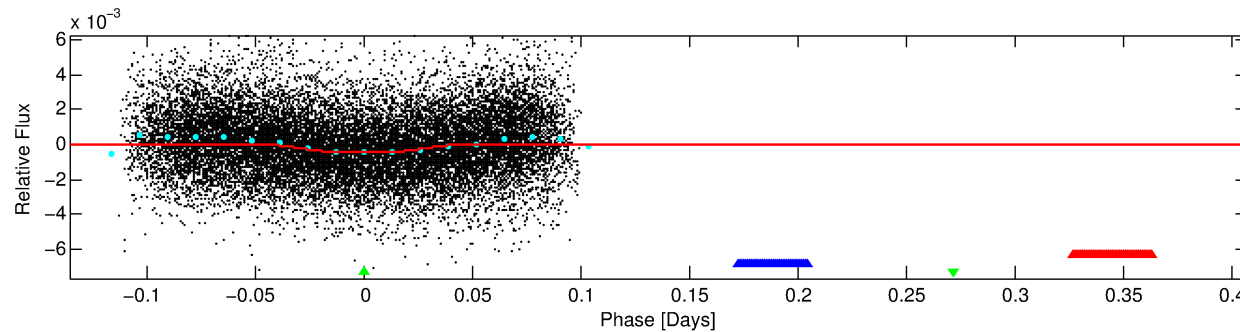
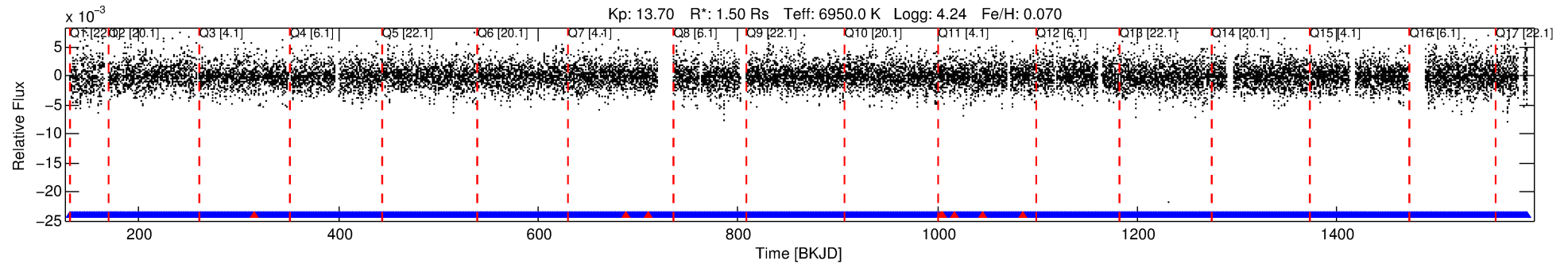
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011564882-03

No Significant Match Found

DV One-Page Summary

KIC: 11564882 Candidate: 3 of 3 Period: 0.543 d



DV Fit Results:

Period = 0.54281 [0.00001] d
Epoch = 131.7959 [0.0010] BKJD
Rp/R* = 0.0188 [0.0063]
a/R* = 2.71 [4.31]
b = 0.27 [6.35]
Seff = 21735.65 [9428.01]
Teq = 3096 [336] K
Rp = 3.07 [1.49] Re
a = 0.0147 [0.0041] AU

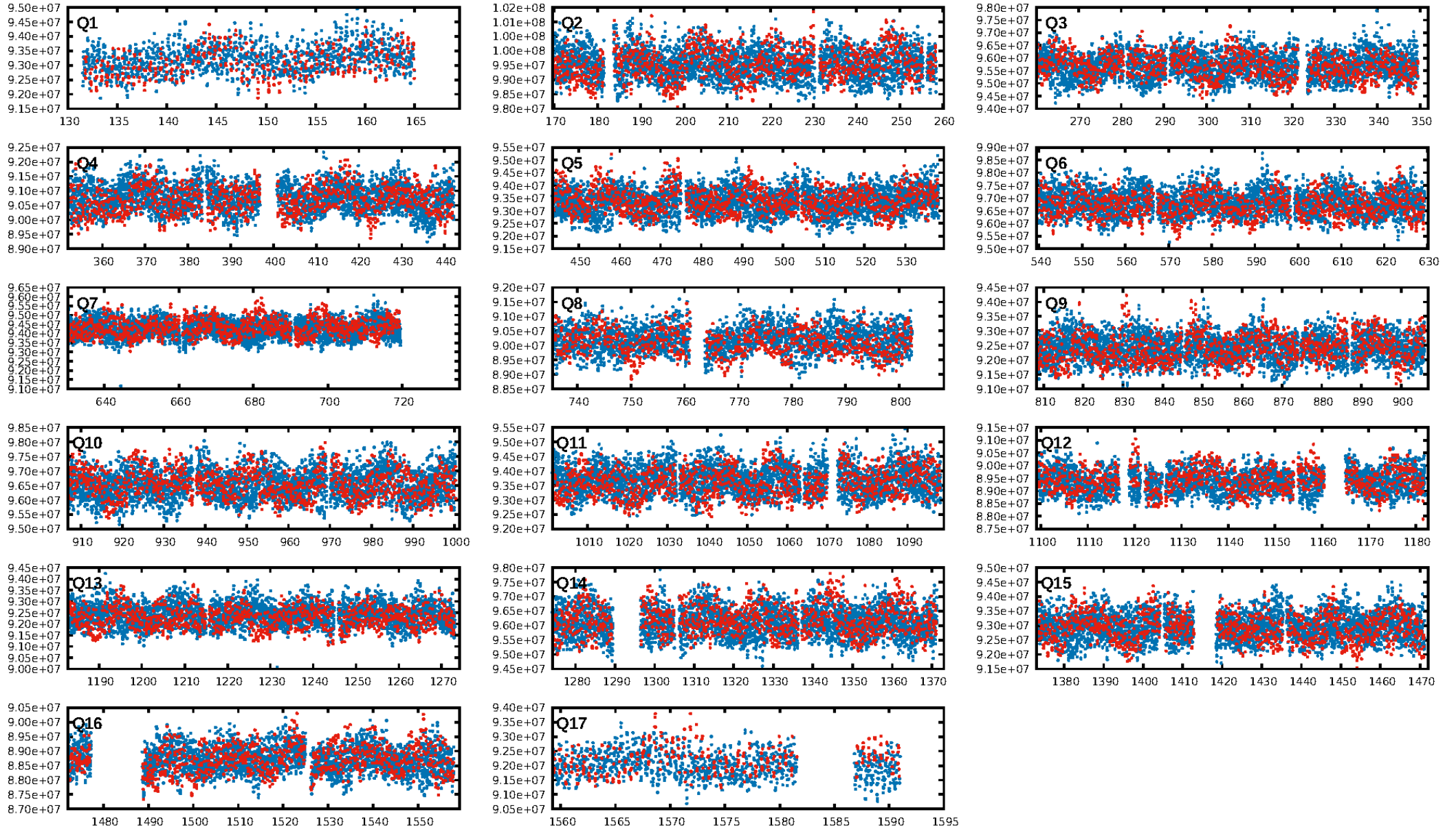
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2337/2346]
GhostDiagnostic-chr: 0.9929
Centroid-sig: 0.0%
Centroid-so: 0.225 arcsec [3.42σ]
OotOffset-rm: 0.086 arcsec [0.51σ]
KicOffset-rm: 0.118 arcsec [0.70σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.65 [11/17]
DiffImageOverlap-fno: 0.00 [0/17]

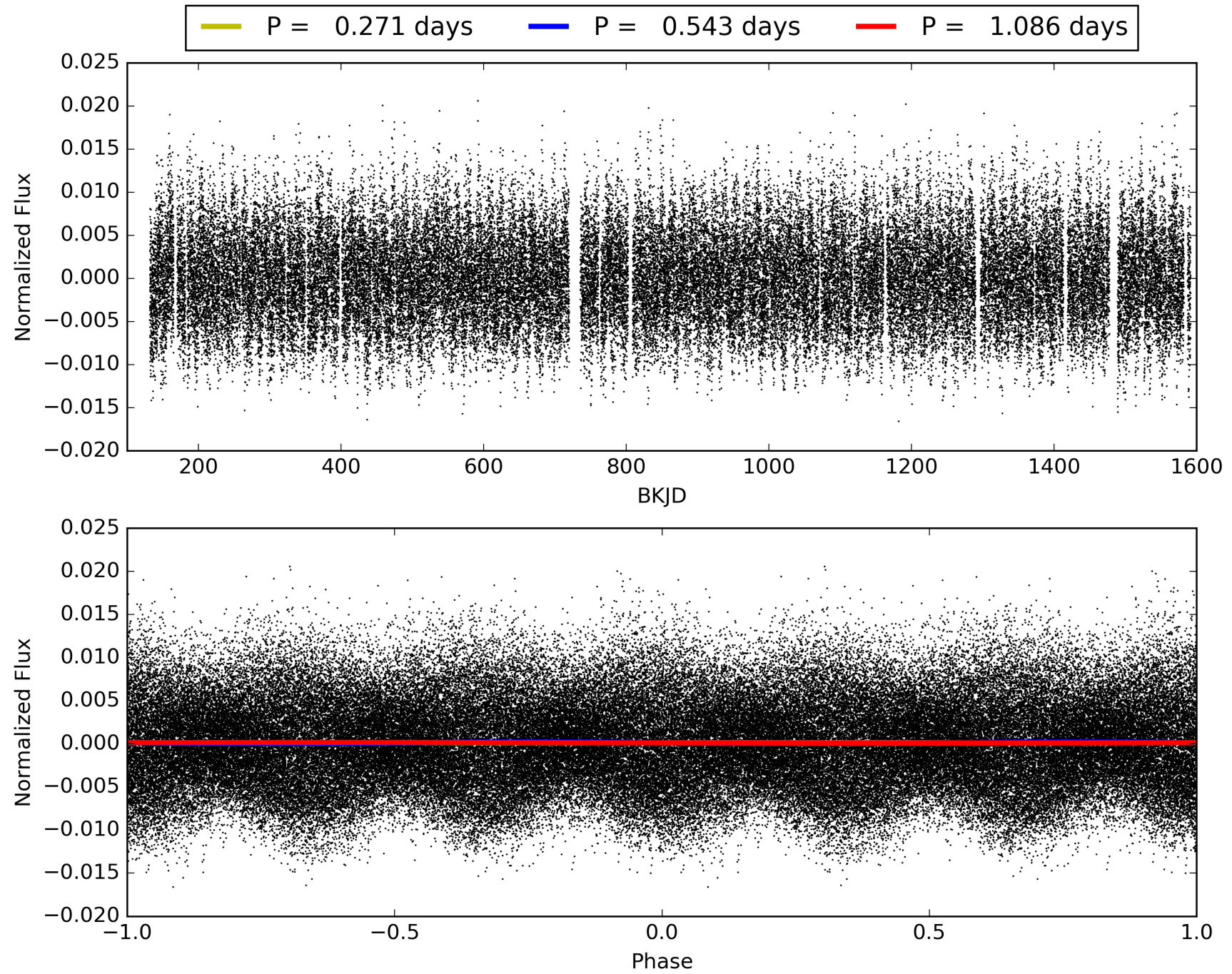
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:41:42 Z

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

TCE 011564882-03, PDC Light Curves

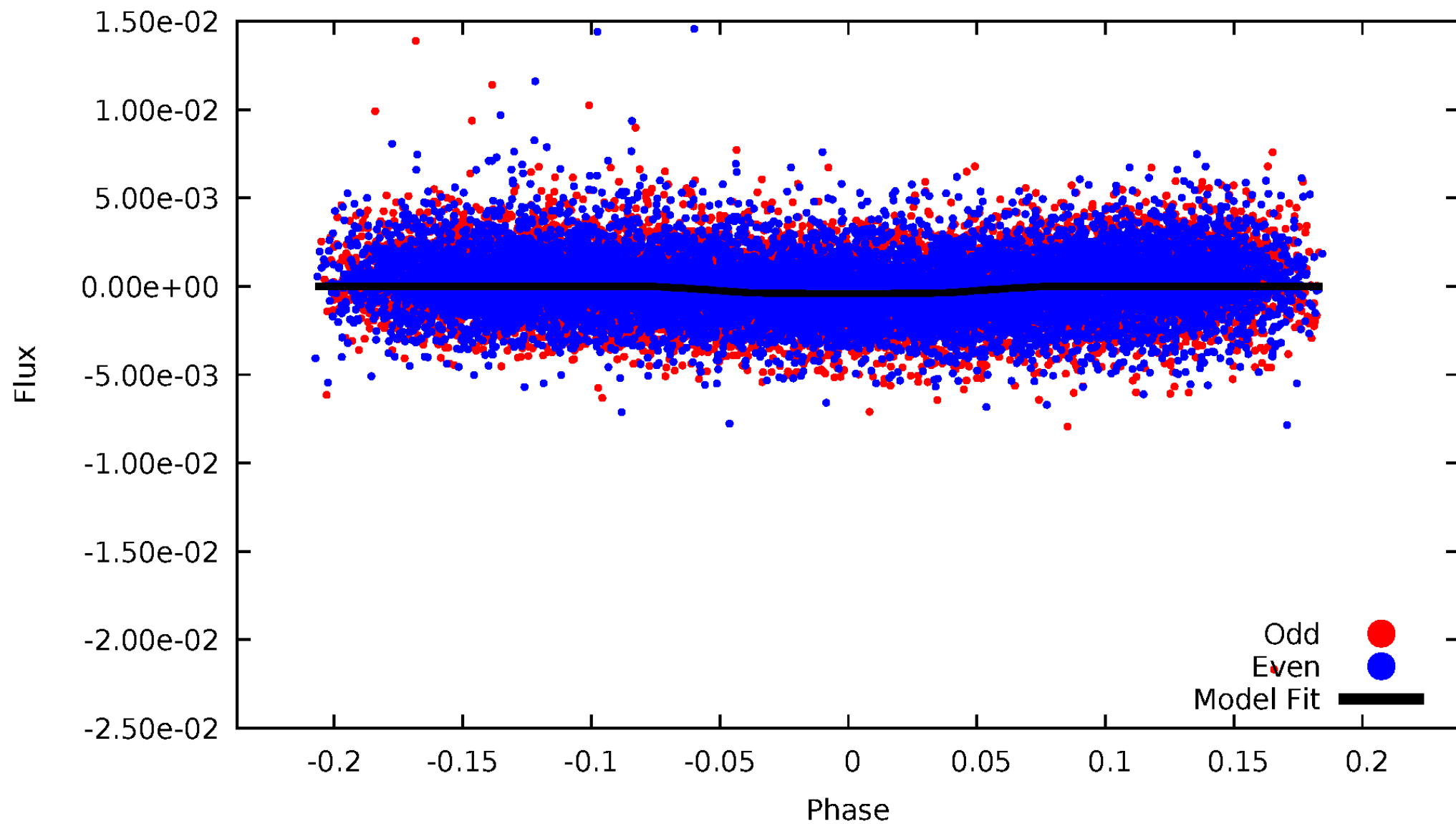


TCE 011564882-03



DV Odd/Even

TCE 011564882-03

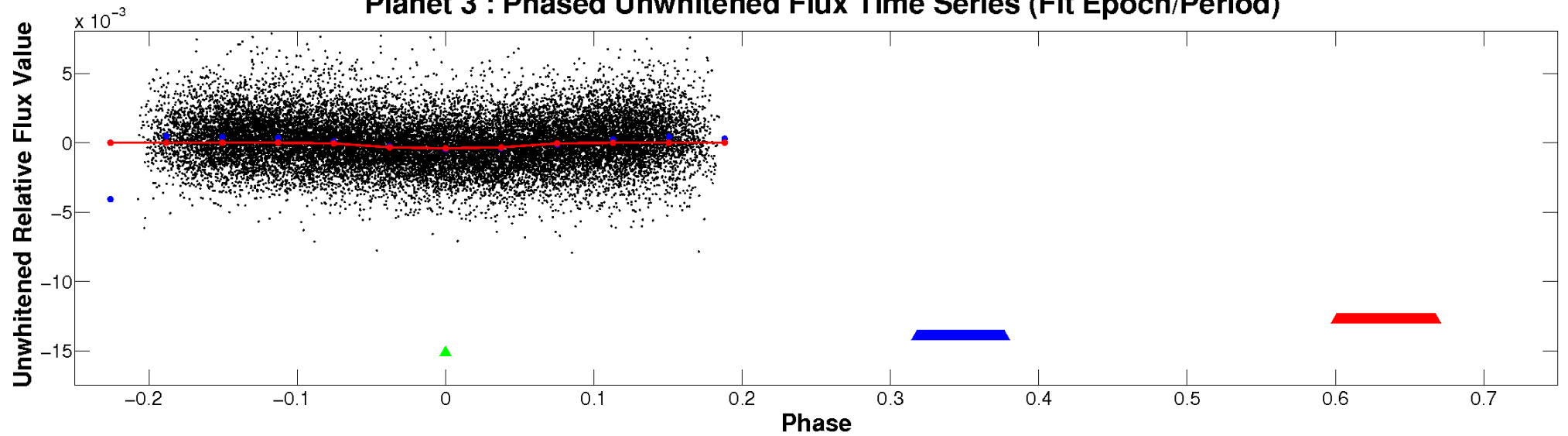


ALT Odd/Even

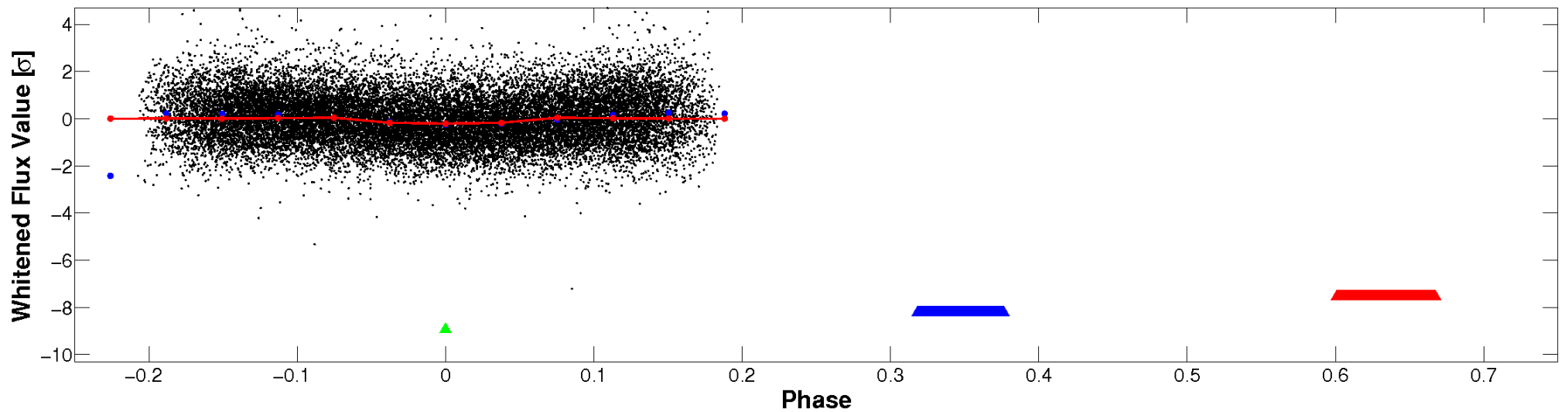
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

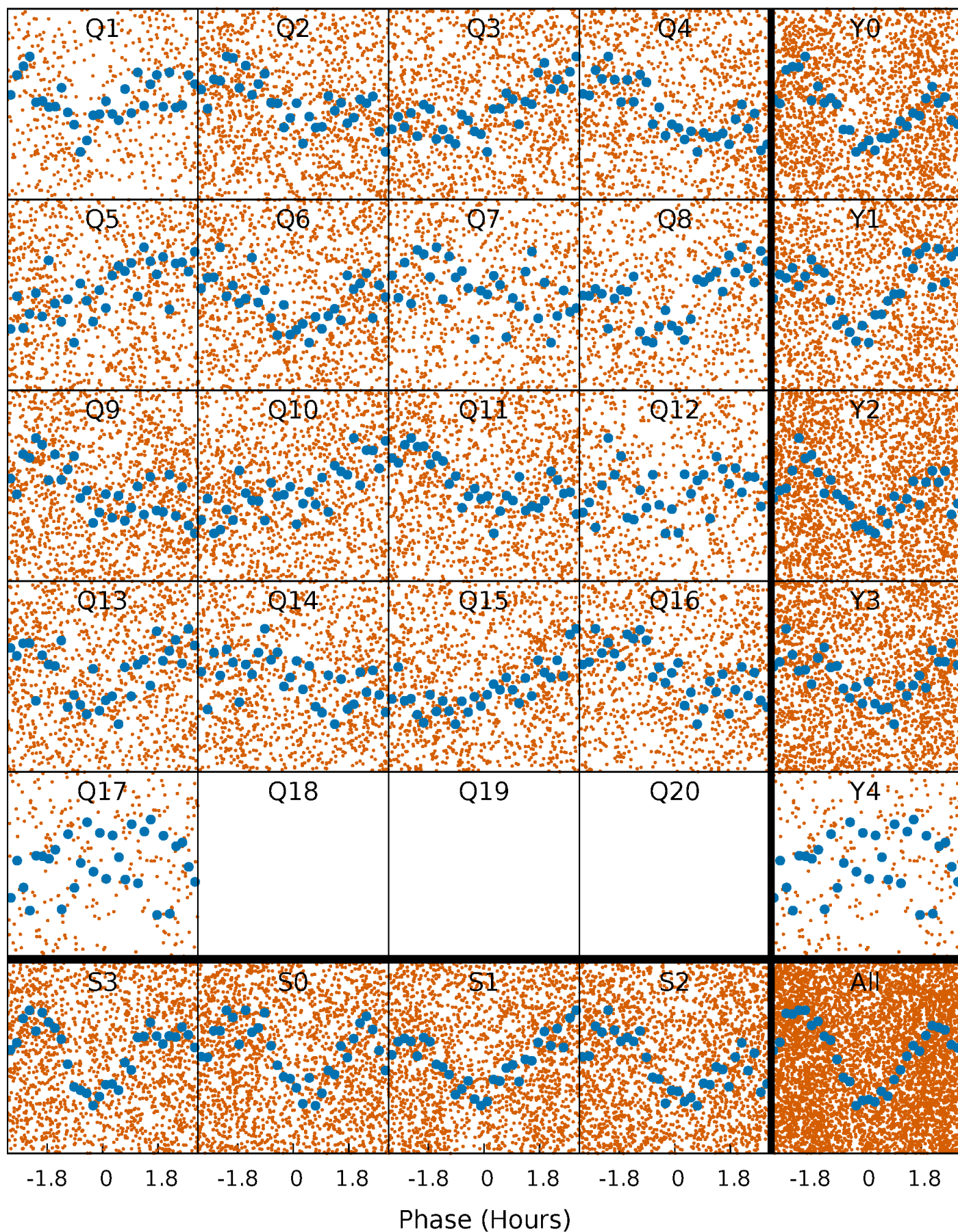


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



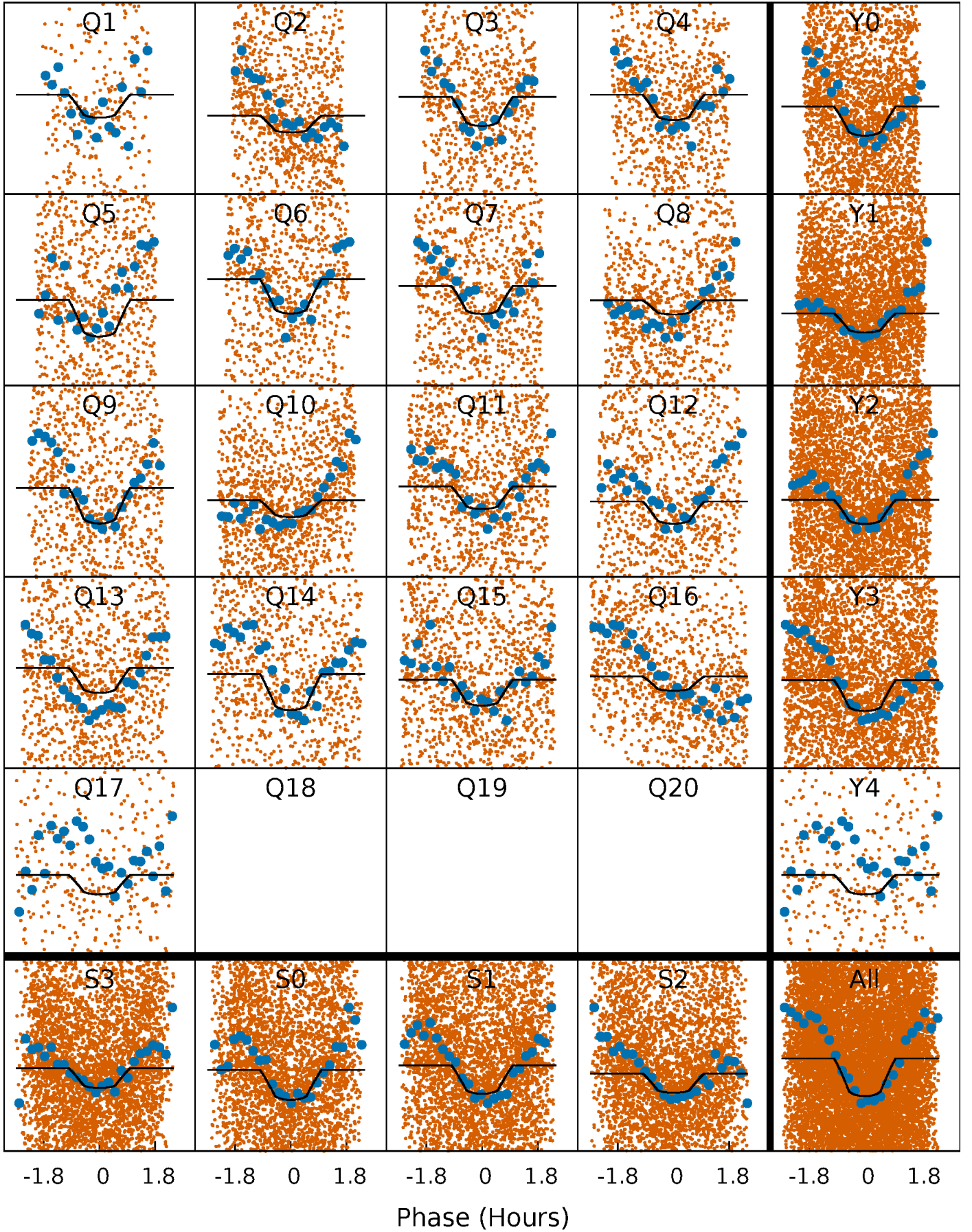
PDC Quarter-Phased Transit Curves

TCE 011564882-03 $P = 0.542808$ Days $T_0 = 131.795854$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011564882-03 P= 0.542808 Days $T_0=131.795854$ (BKJD)

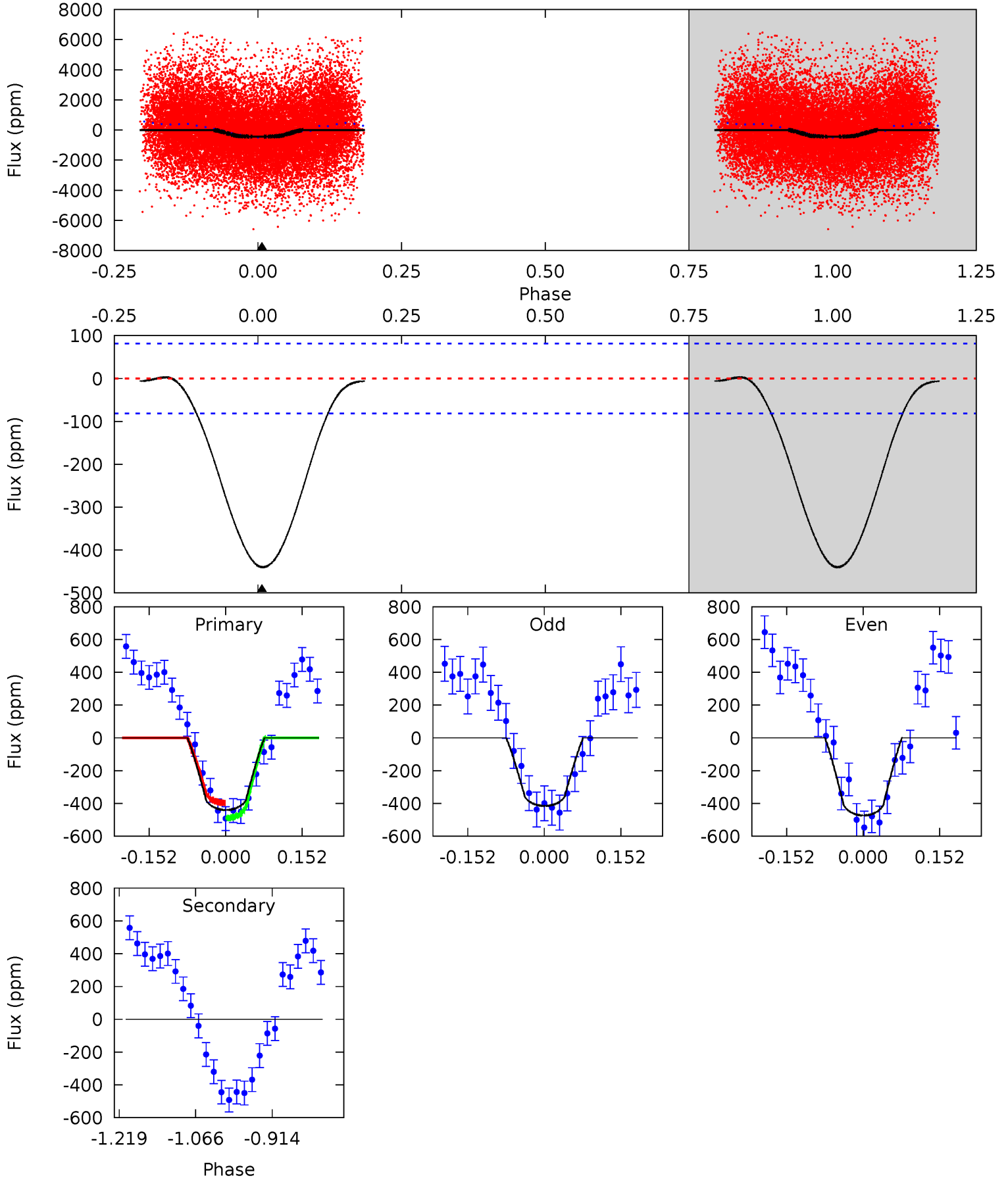


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

011564882-03, P = 0.542808 Days, E = 131.253046 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.2	0	0	0	4.48	1.43	0.25	24.2	24.2	0	0	1.60	0.98	0.01	2.77



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 011564882

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6950^{+194}_{-333}	$4.244^{+0.087}_{-0.203}$	$0.070^{+0.200}_{-0.350}$	$1.499^{+0.524}_{-0.225}$	$1.436^{+0.222}_{-0.222}$	$0.601^{+0.240}_{-0.326}$
	+3%/-5%	+2%/-5%	+286%/-500%	+35%/-15%	+15%/-15%	+40%/-54%
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 011564882-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 18	$3.13^{+1.33}_{-1.03}$	4386^{+338}_{-279}	-3901^{+1019}_{-533}	$0.008^{+0.248}_{-0.255}$
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

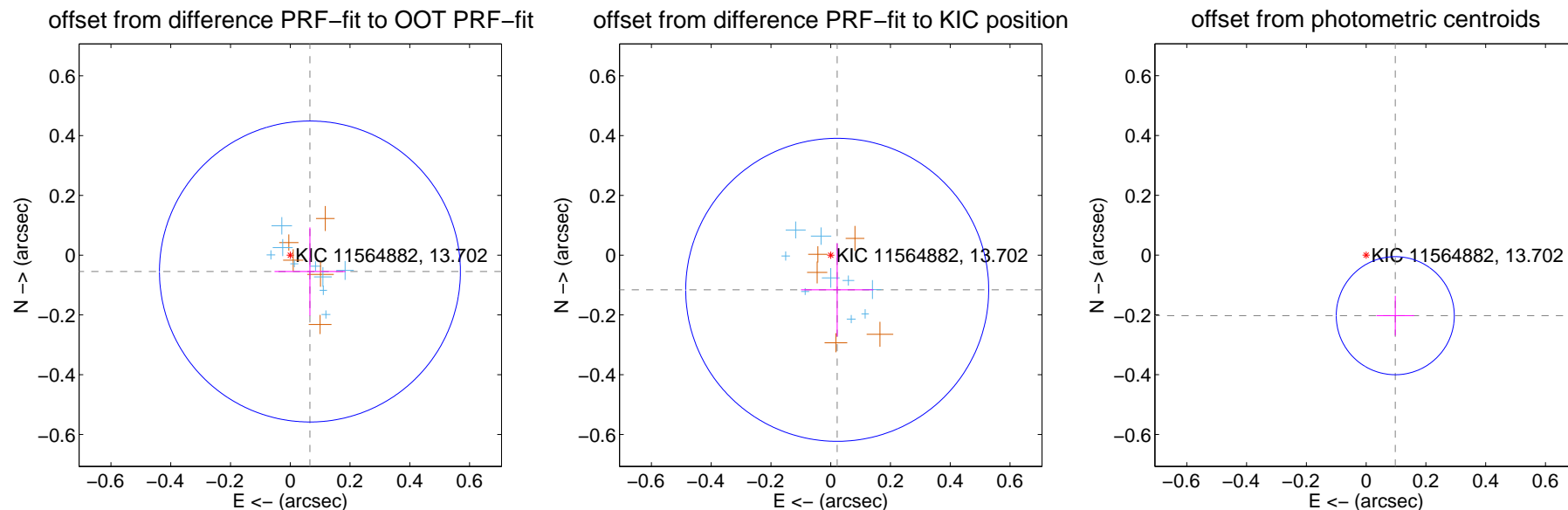
DV Centroid Data

Supplemental centroid analysis for 011564882-03. Kepler magnitude: 13.70. Transit SNR 16.45

There are 11 quarters with good PRF difference image offsets

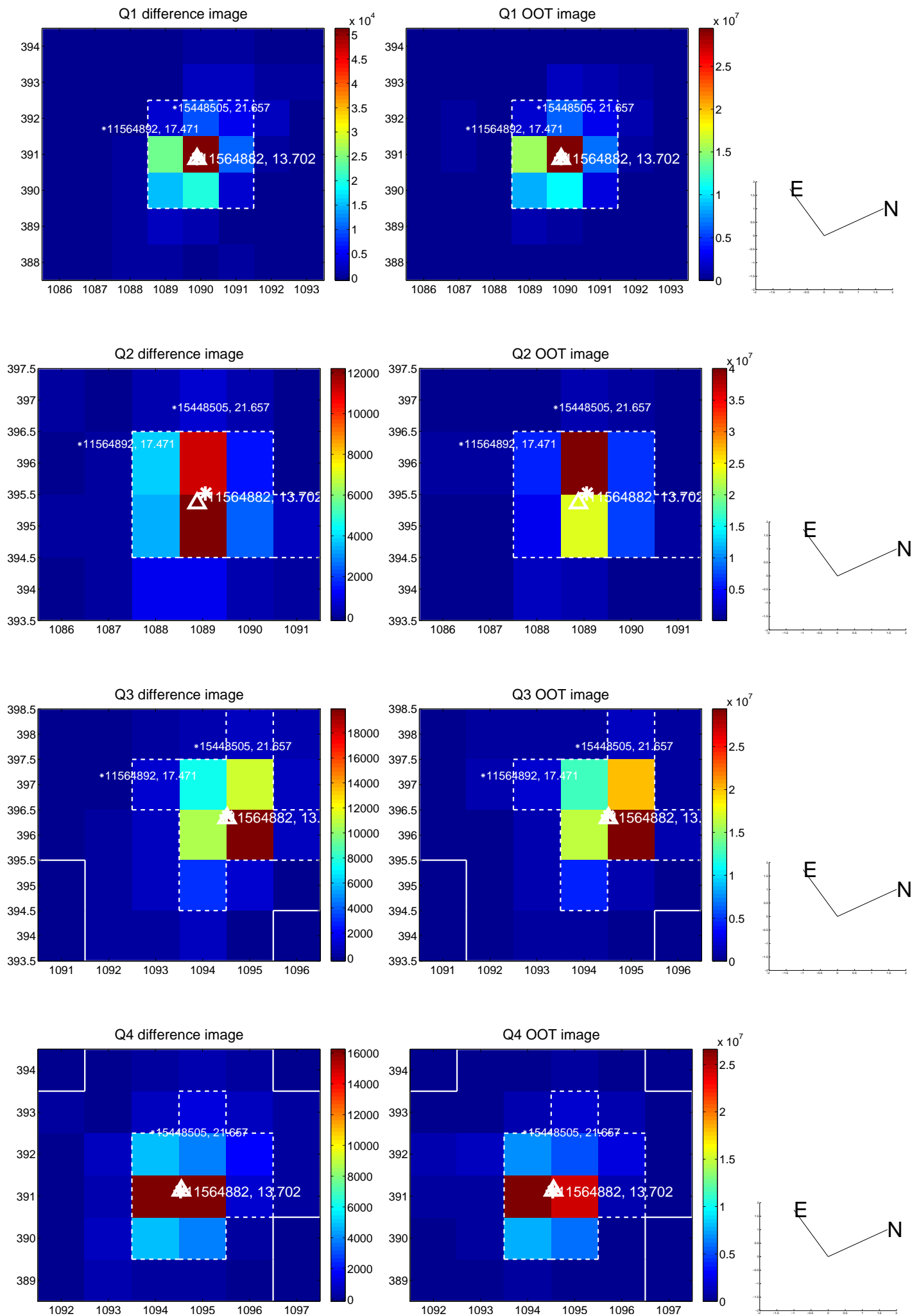
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.086 ± 0.168	0.51	-0.066 ± 0.119	-0.055 ± 0.148
PRF-fit source offset from KIC position	0.118 ± 0.169	0.70	-0.022 ± 0.121	-0.116 ± 0.156
photometric centroid source offset	0.22 ± 0.07	3.42	-0.10 ± 0.06	-0.20 ± 0.07

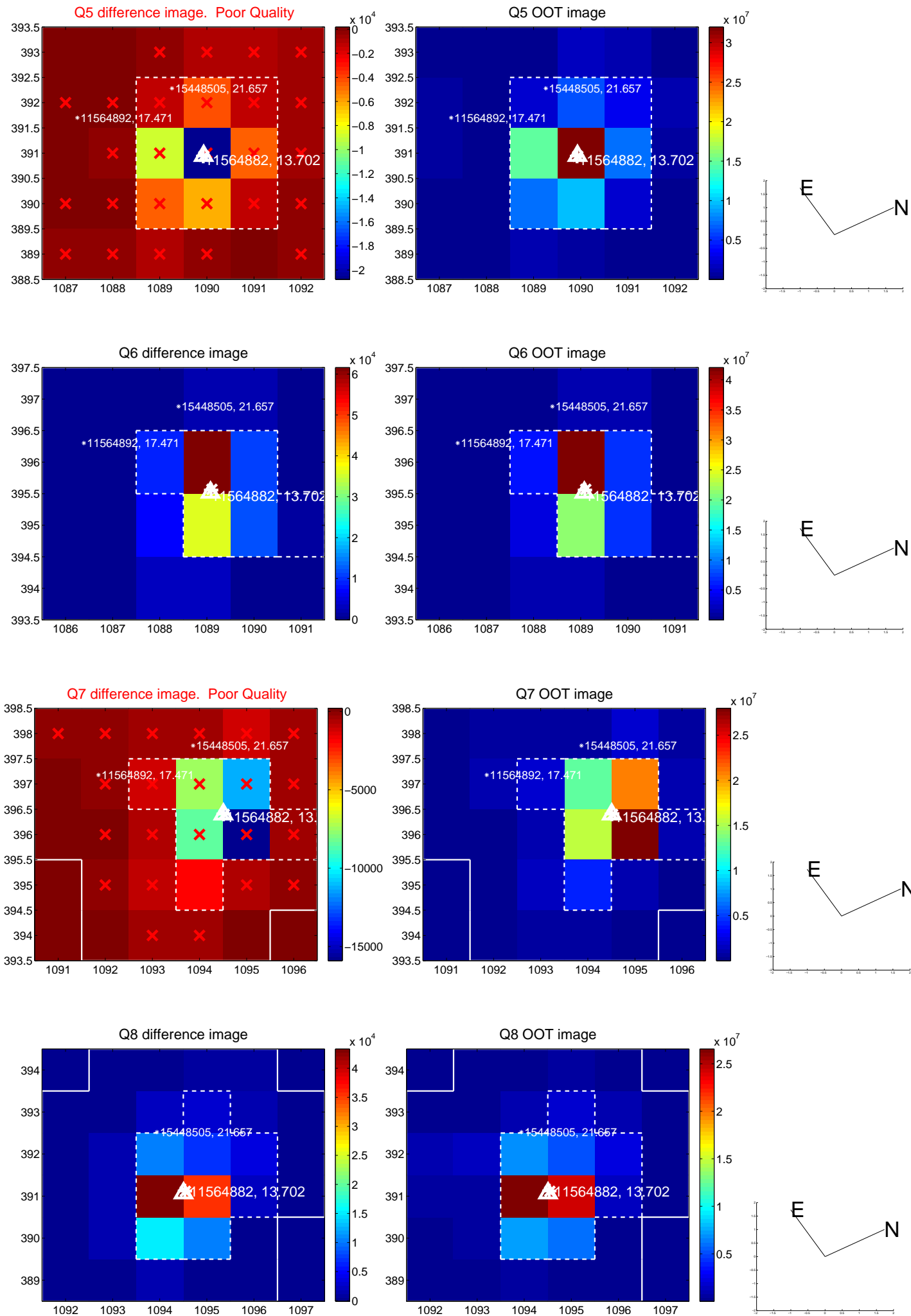


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

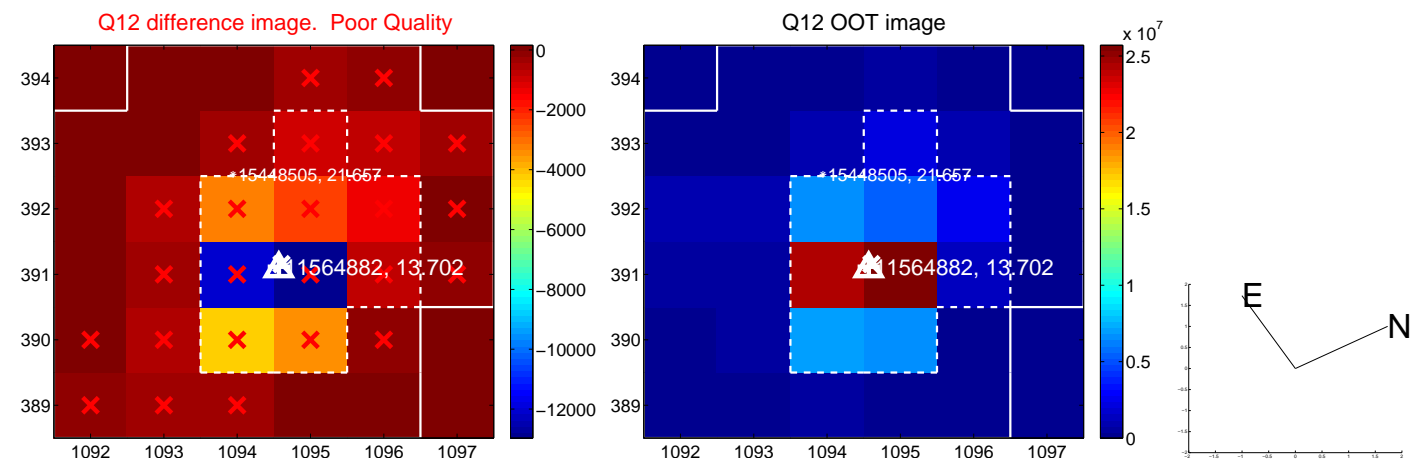
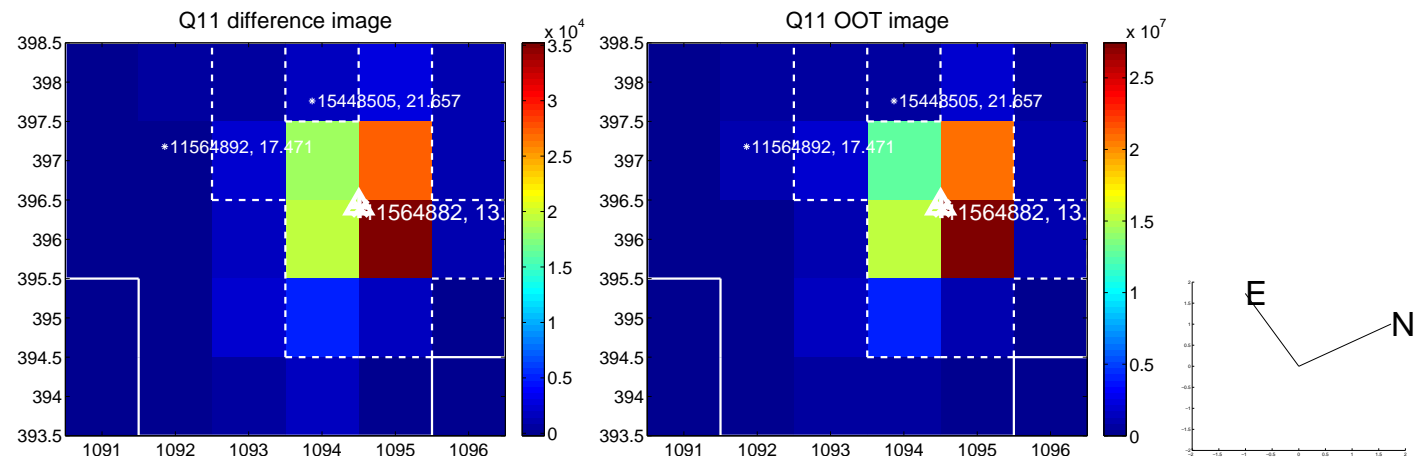
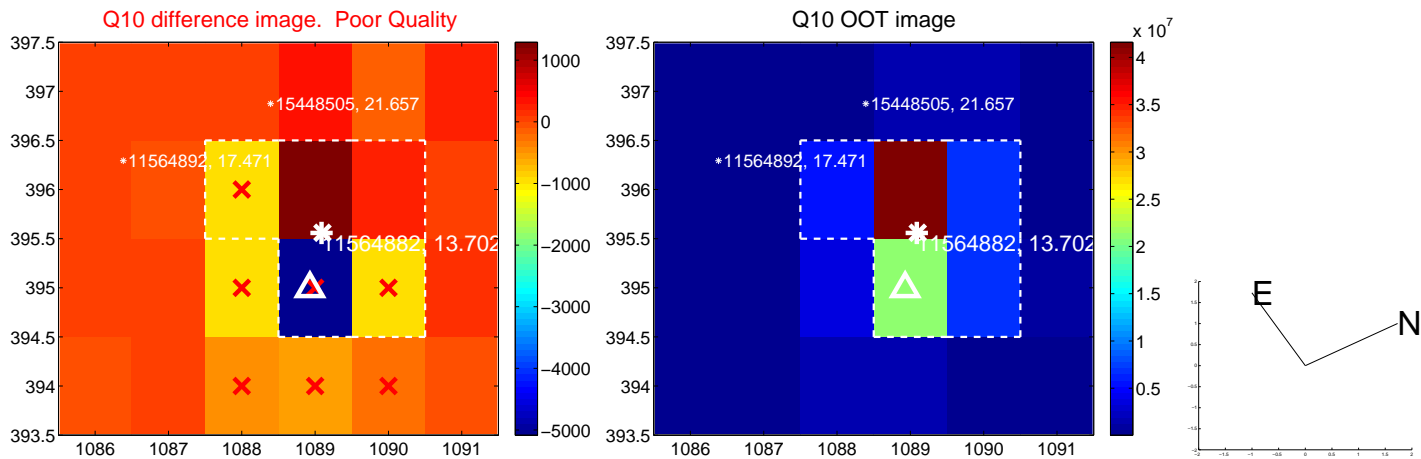
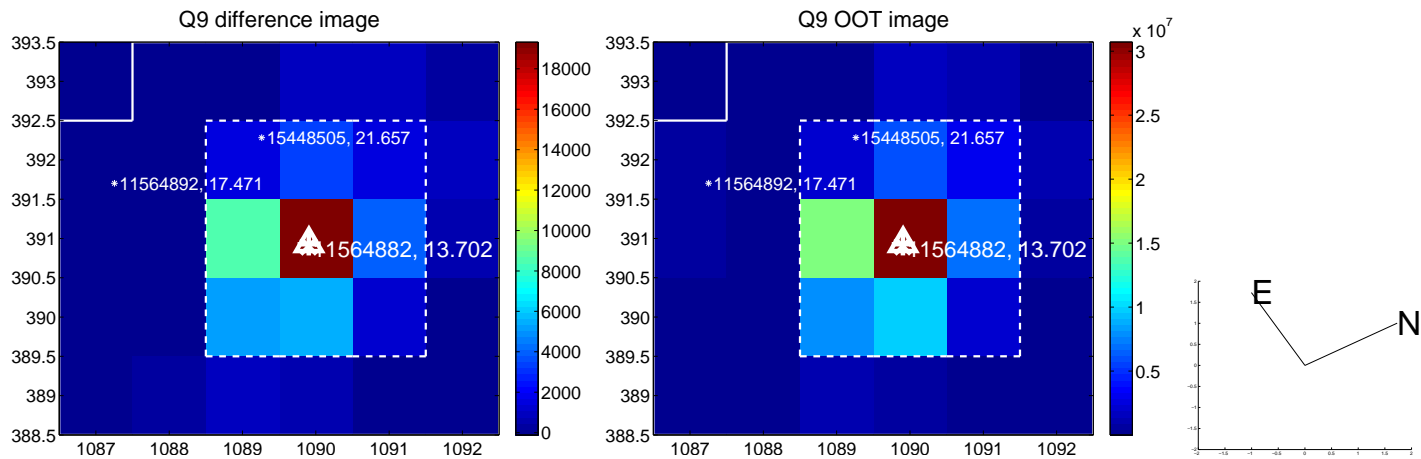
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



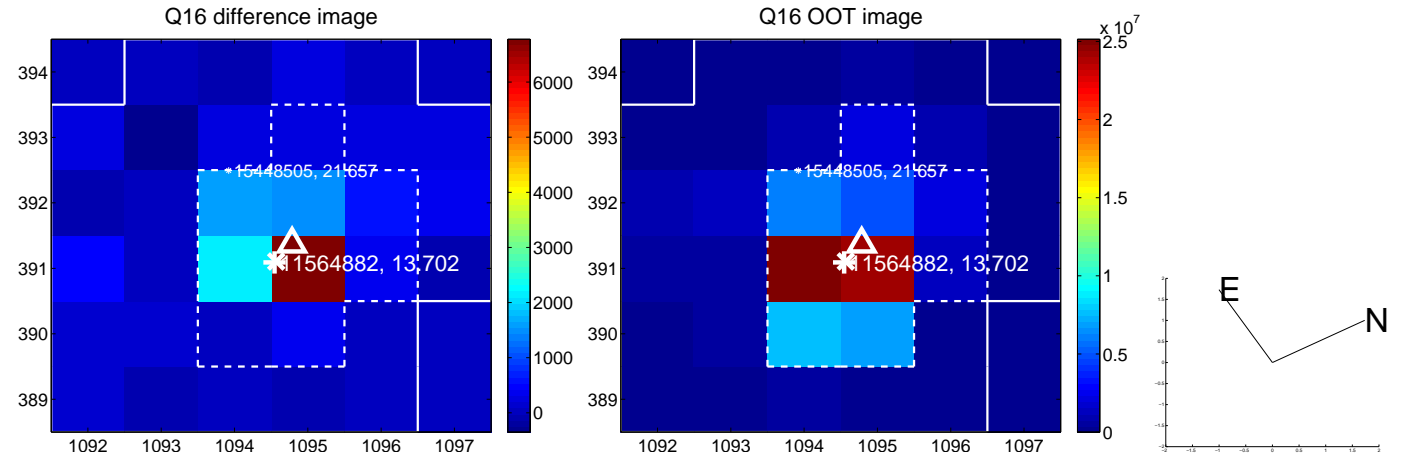
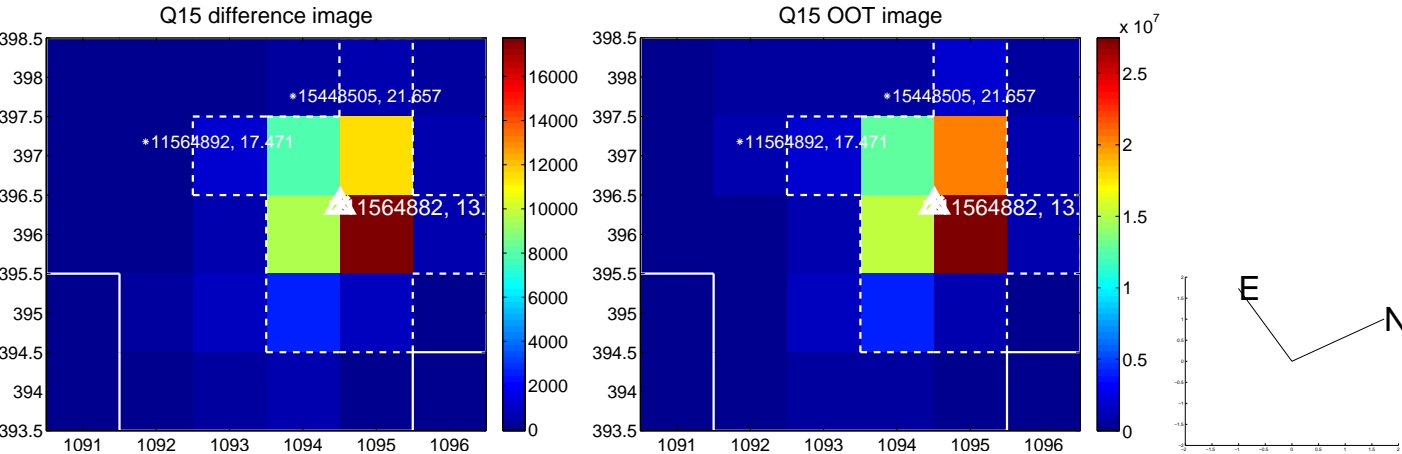
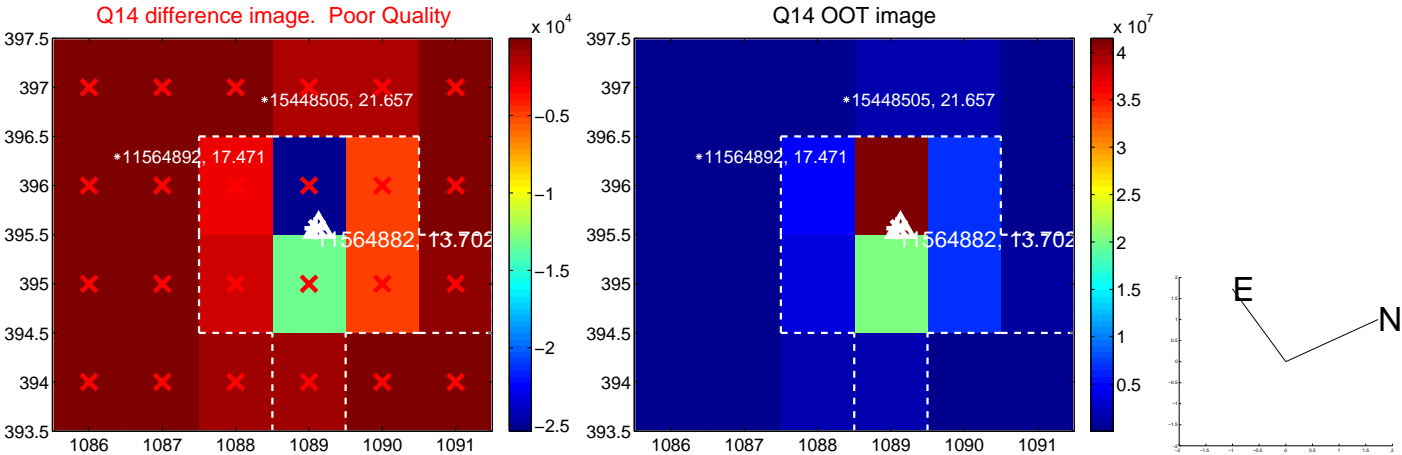
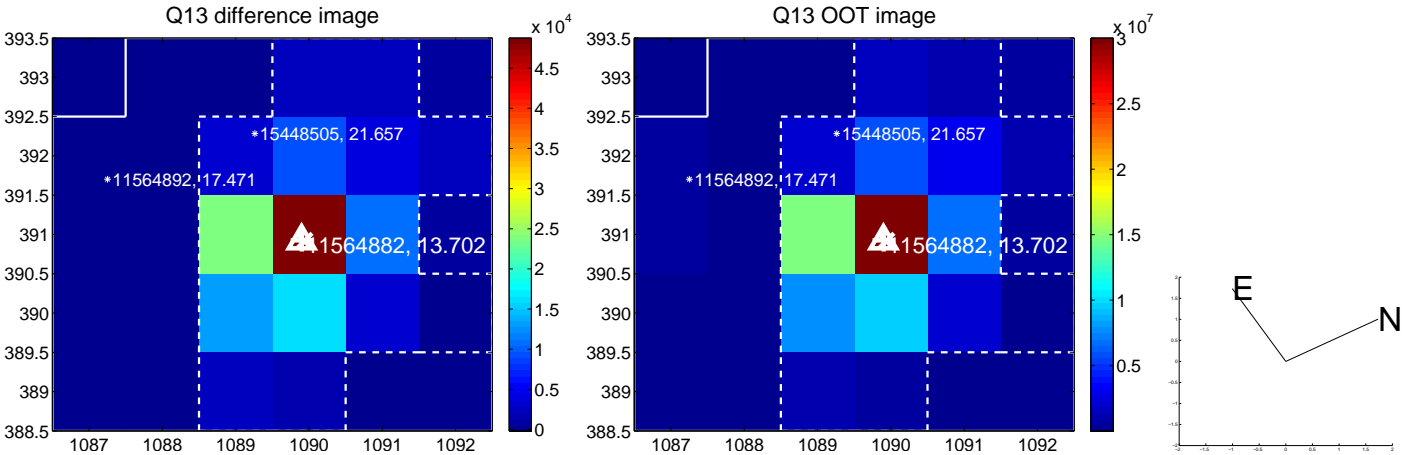
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



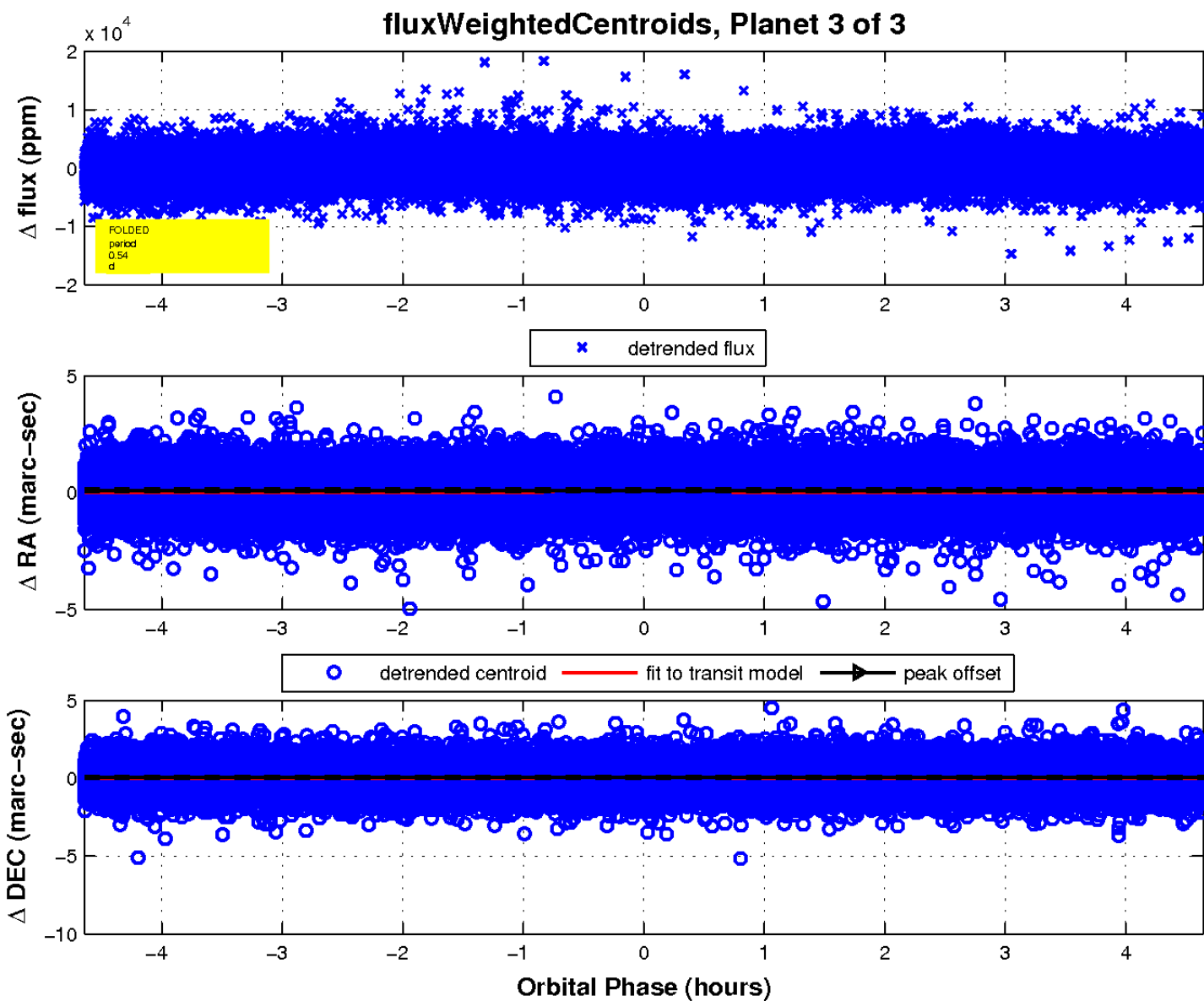
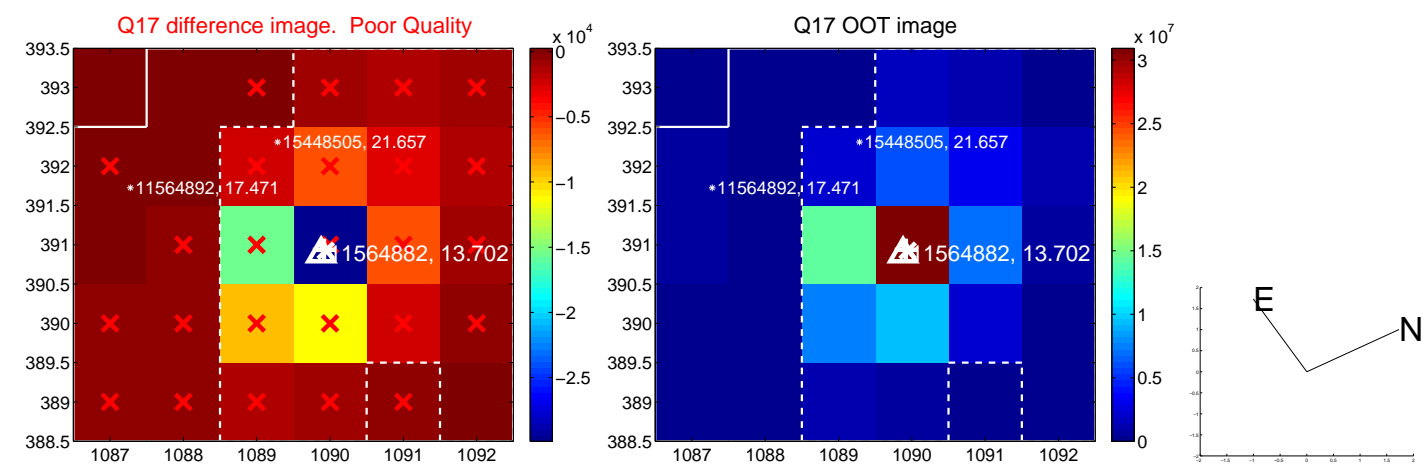
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

