

KIC 006449552

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})
006449552-01	OBS	6714.01	20.148689	135.808853	526092.6	4.500	22029.4	-1.0	0.92	5547	50.09	37.62
006449552-02	OBS	No	20.148819	144.500293	111315.4	4.701	4255.6	2766.3	0.92	5547	41.72	37.62
006449552-03	OBS	No	20.148743	133.724629	5332.2	15.000	387.2	-1.0	0.92	5547	6.61	37.62

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006449552-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
006449552-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
006449552-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

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

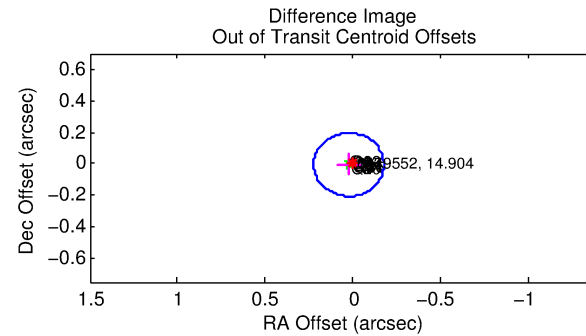
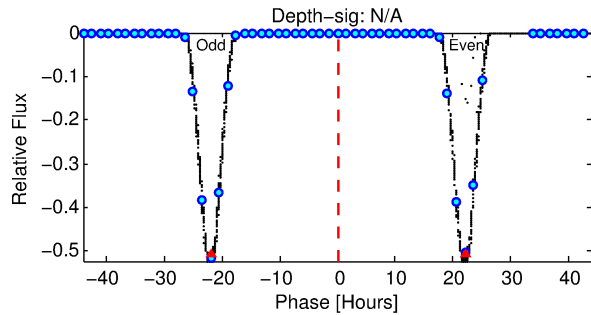
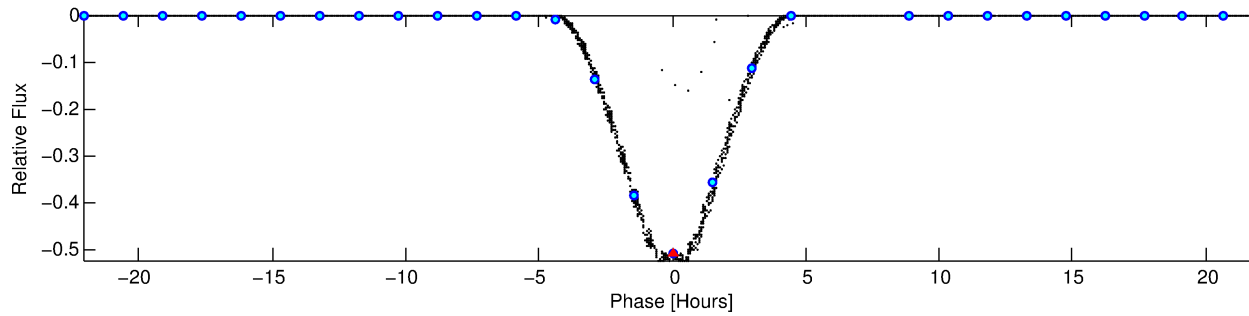
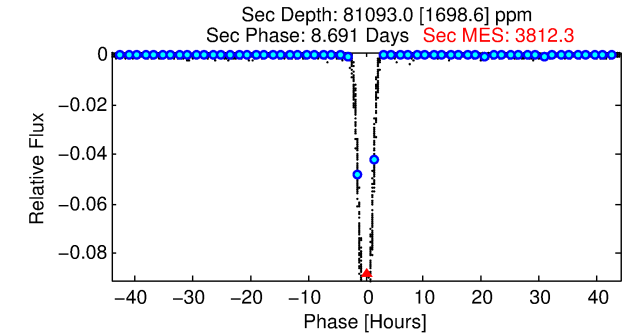
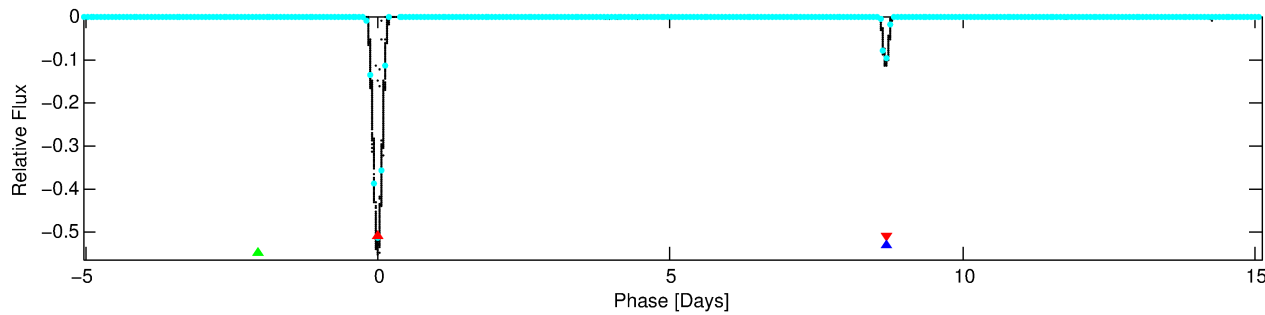
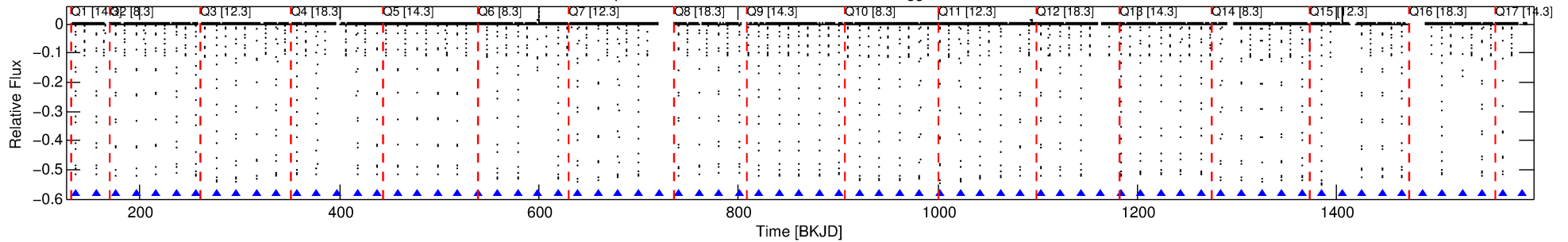
Ephemeris Match Information For 006449552-01

No Significant Match Found

DV One-Page Summary

KIC: 6449552 Candidate: 1 of 3 Period: 20.149 d
KOI: K06714 Corr: No Ephemeris Match

Kp: 14.90 R*: 0.92 Rs Teff: 5547.0 K Logg: 4.45 Fe/H: -0.100



TPS TCE Results:

Period = 20.14869 d
Epoch = 135.8089 BKJD

DV fit results are unavailable

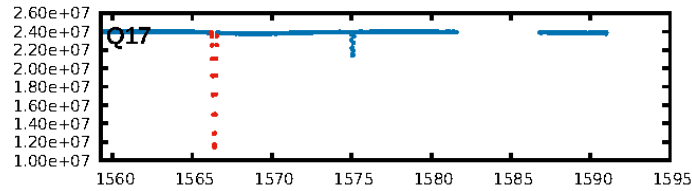
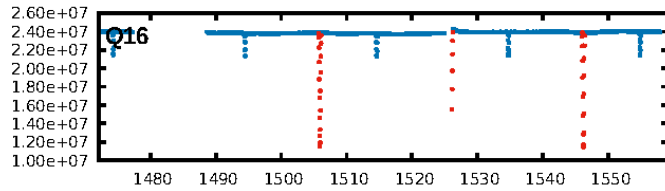
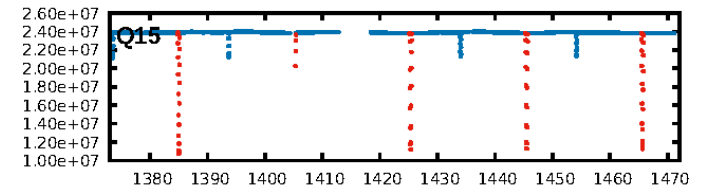
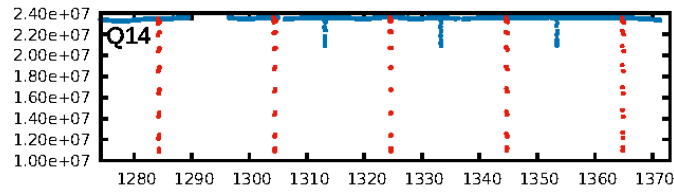
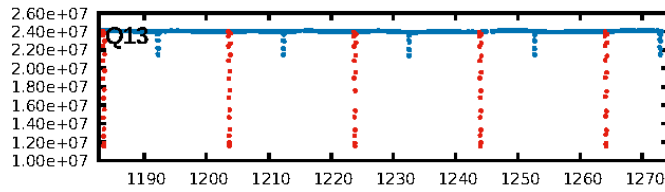
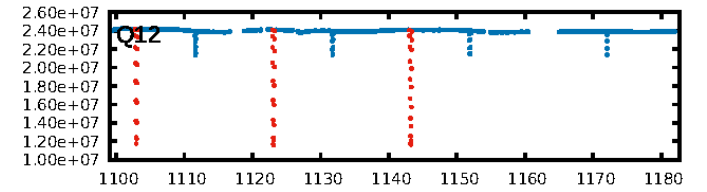
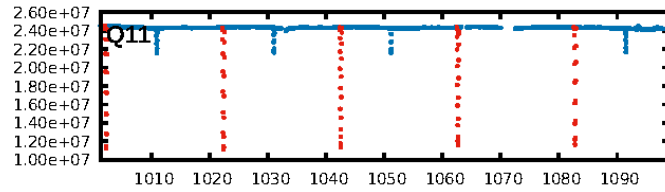
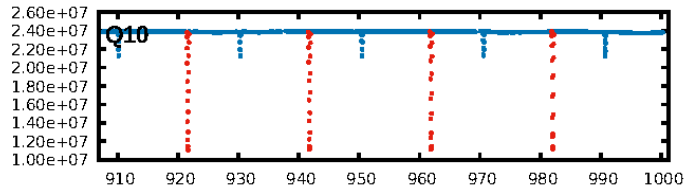
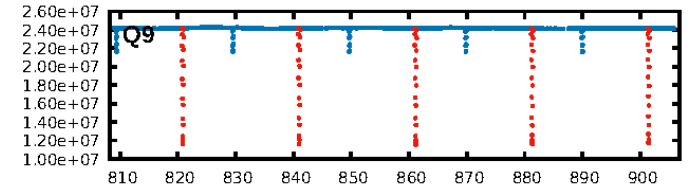
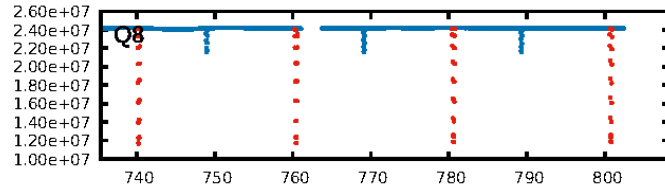
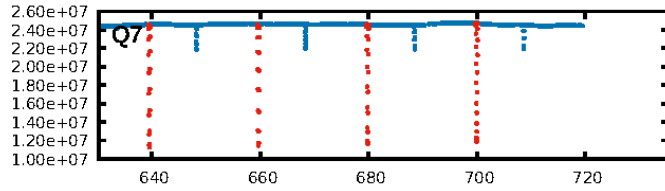
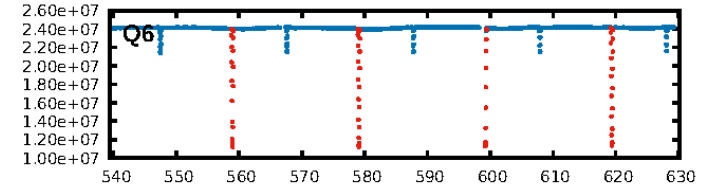
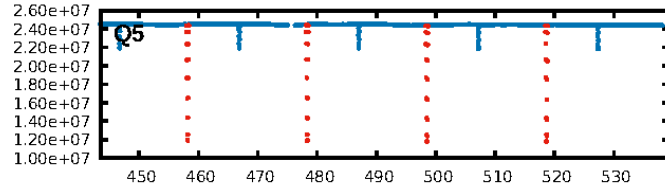
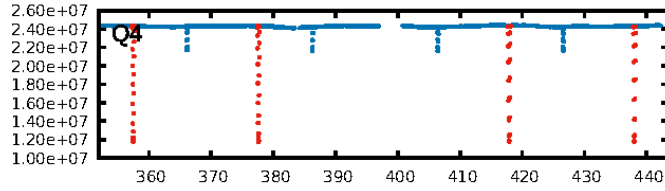
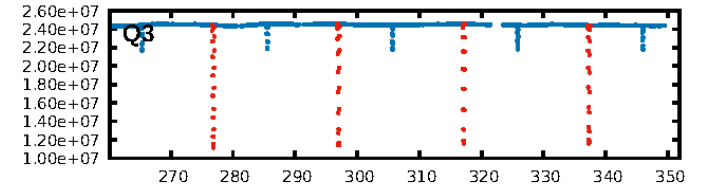
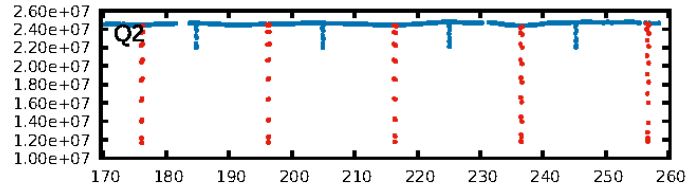
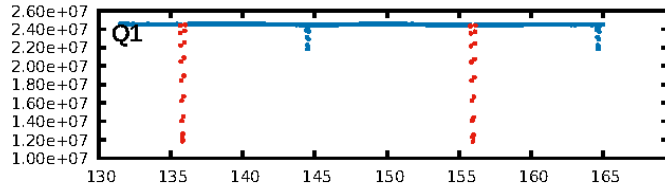
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [64/64]
GhostDiagnostic-chr: 3.278
Centroid-sig: N/A
Centroid-so: 0.096 arcsec [177.54 σ]
OotOffset-rm: 0.025 arcsec [0.37 σ]
KicOffset-rm: 0.100 arcsec [1.48 σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [16/16]

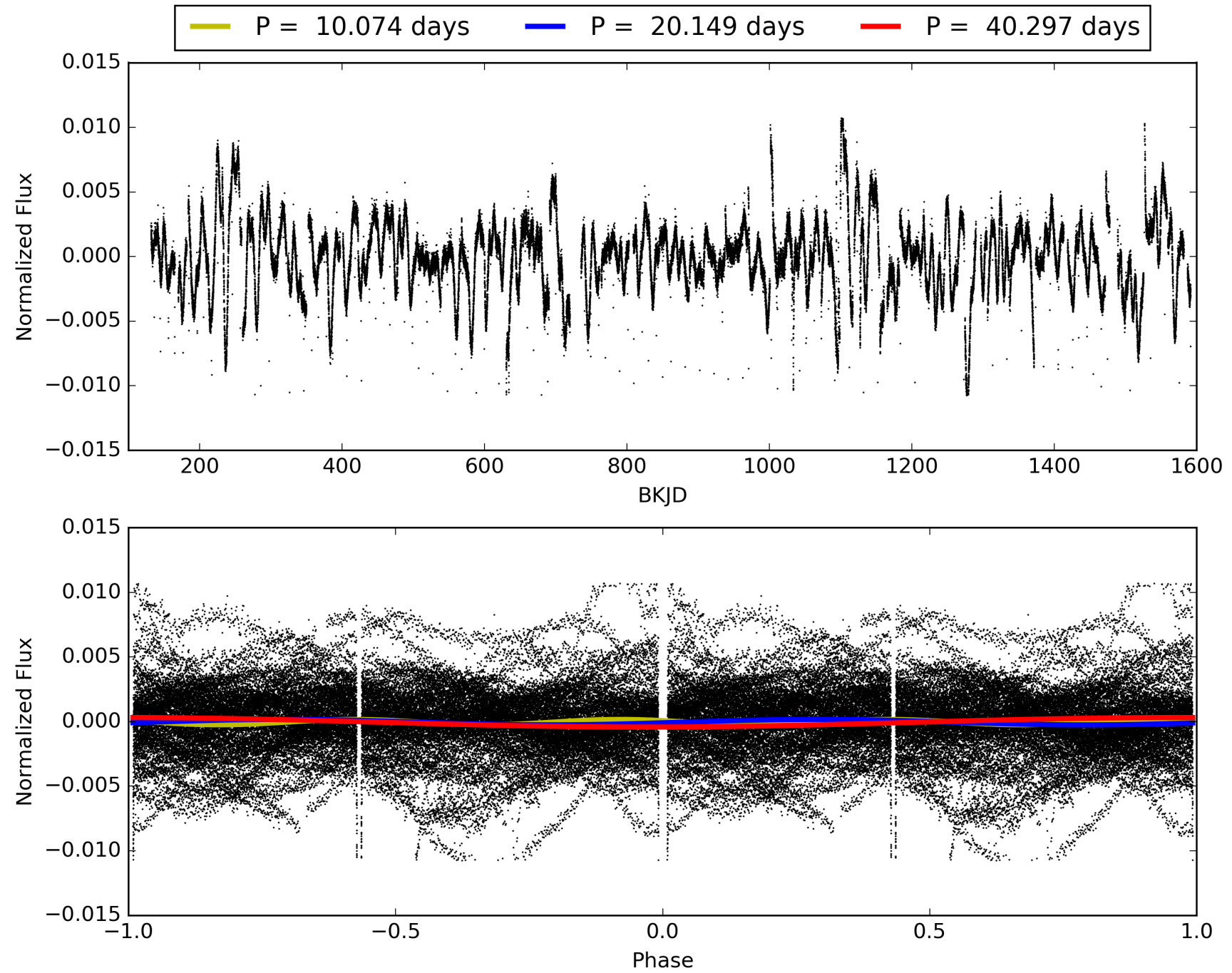
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:32:02 Z

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

TCE 006449552-01, PDC Light Curves

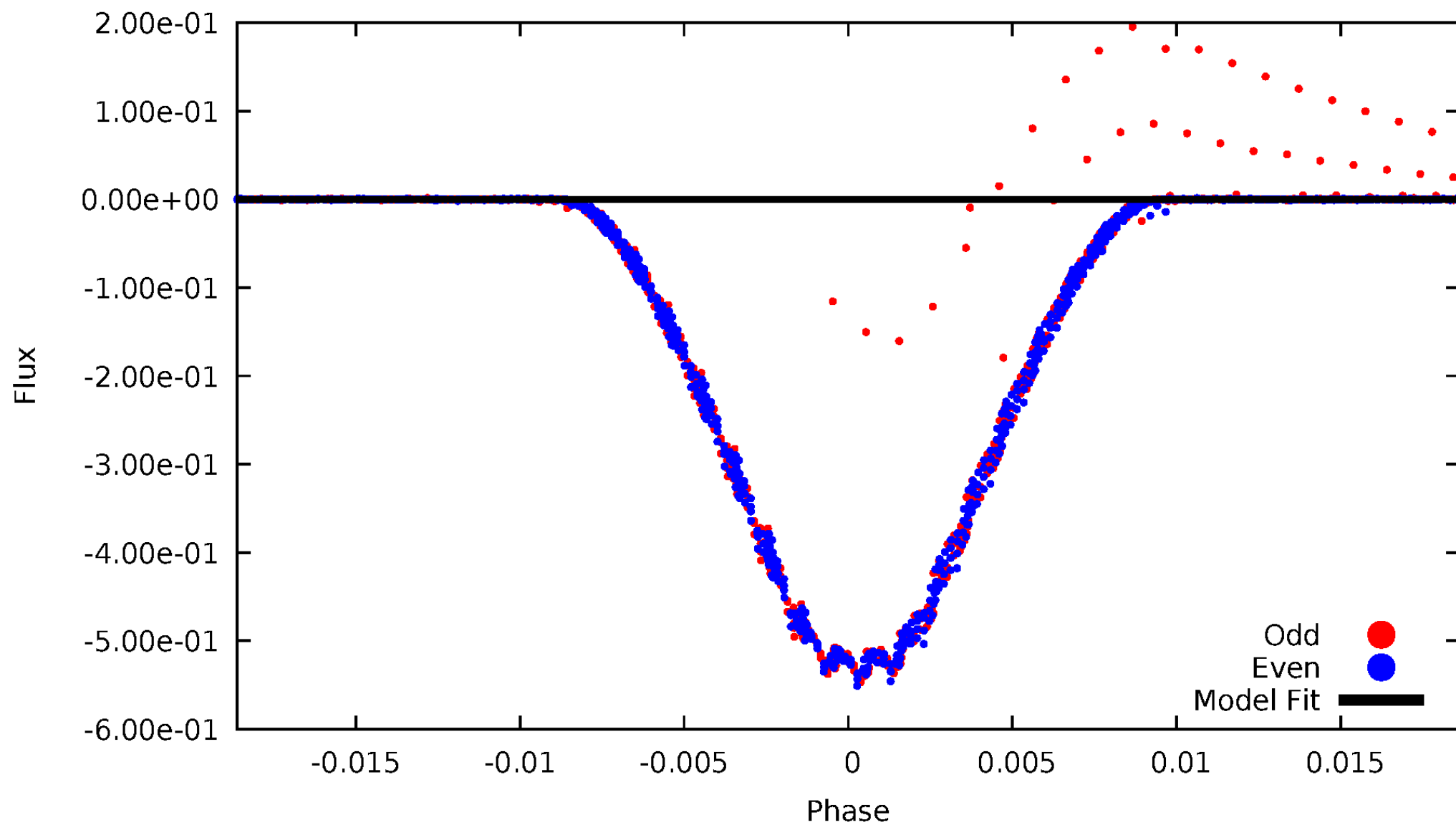


TCE 006449552-01



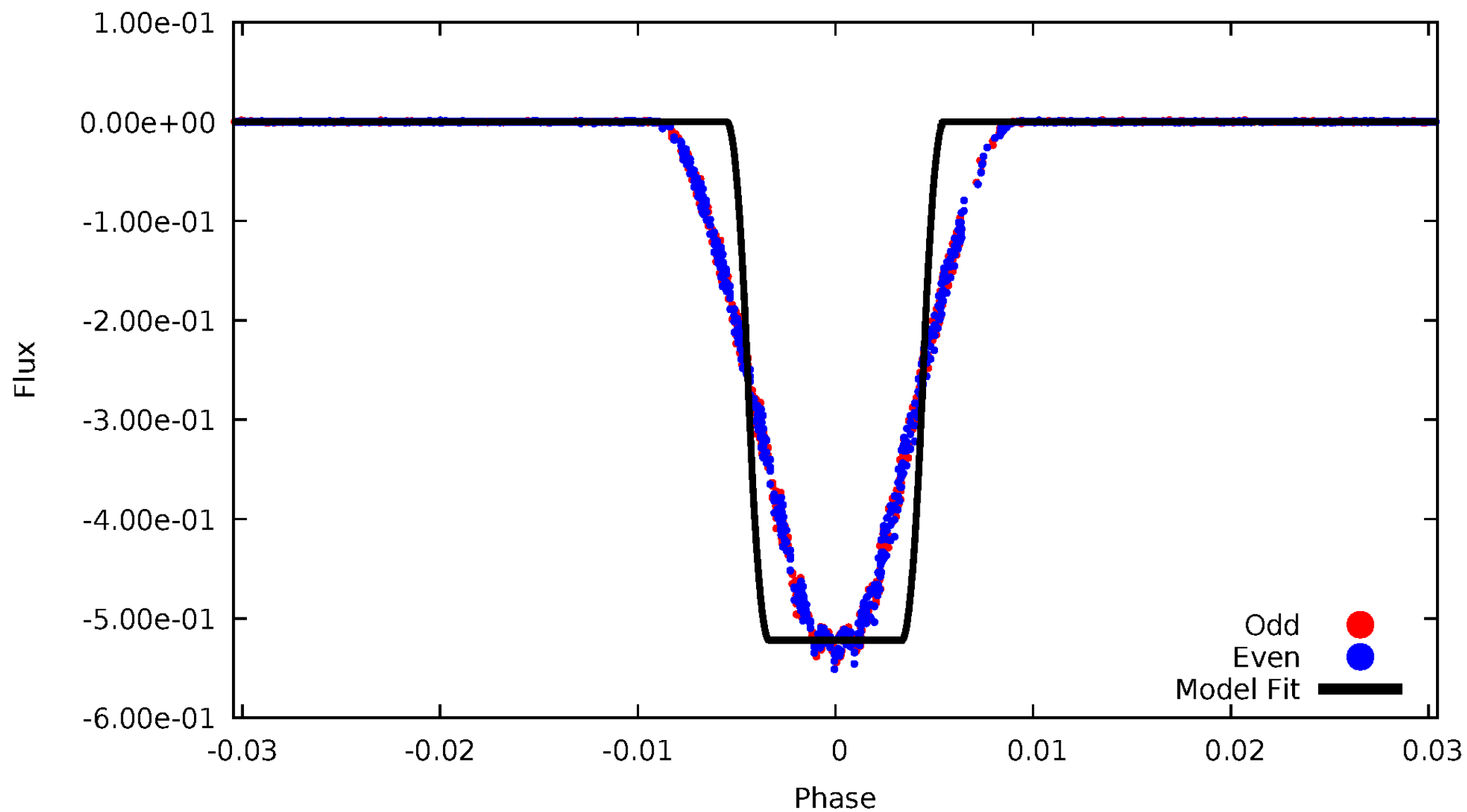
DV Odd/Even

TCE 006449552-01



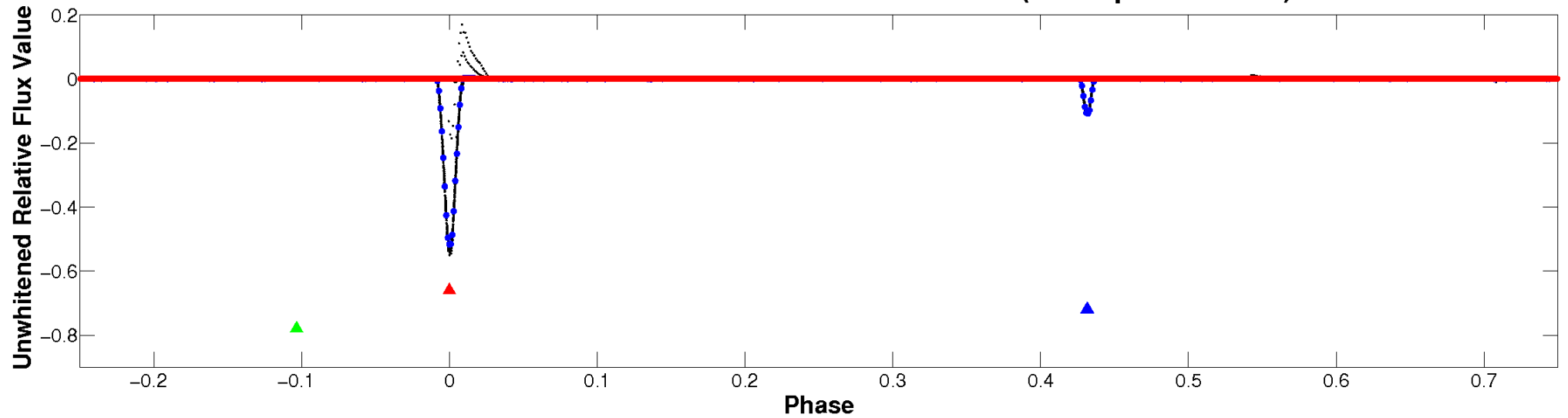
ALT Odd/Even

TCE 006449552-01



Non-Whitened Vs. Whitened Light Curve

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

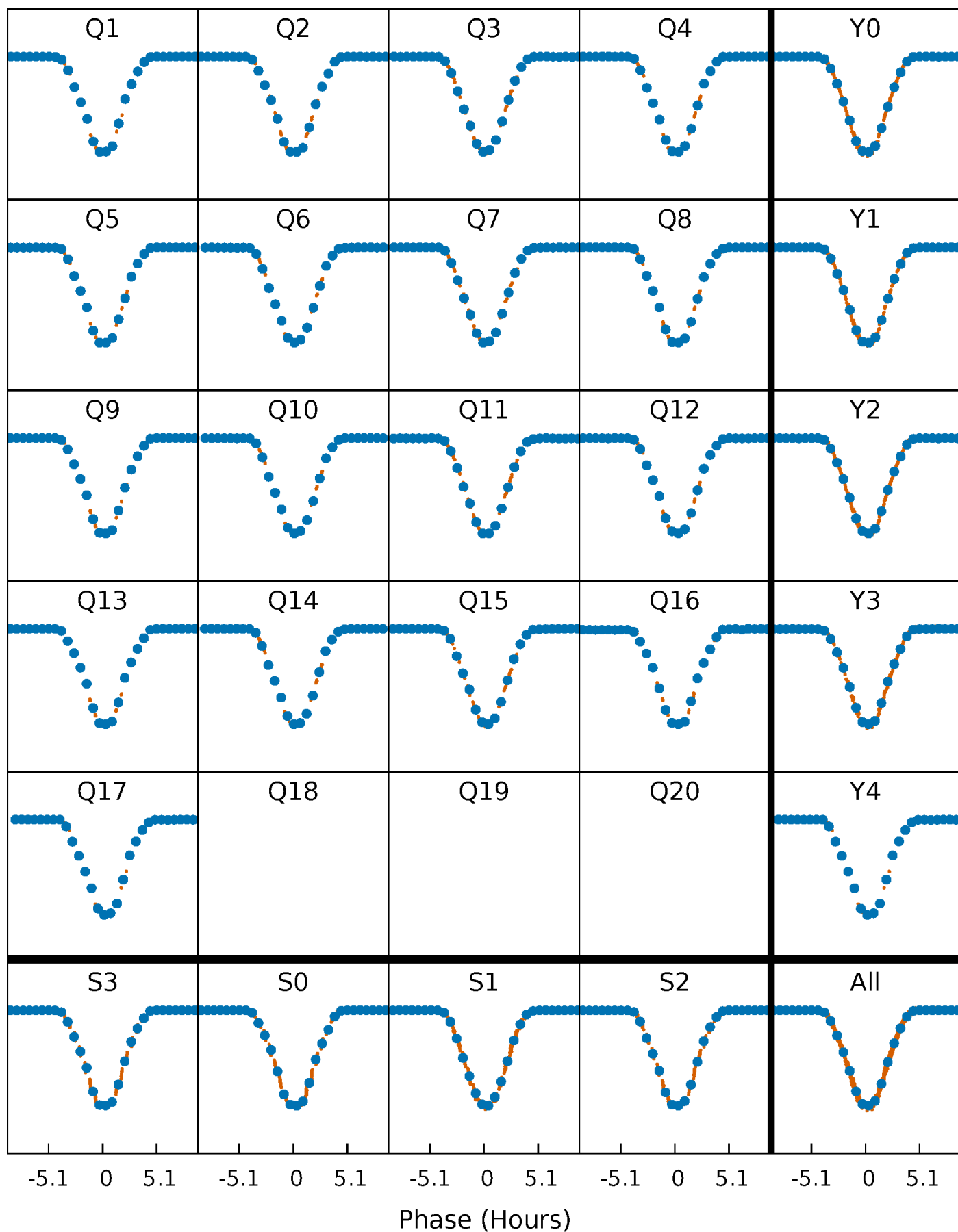


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



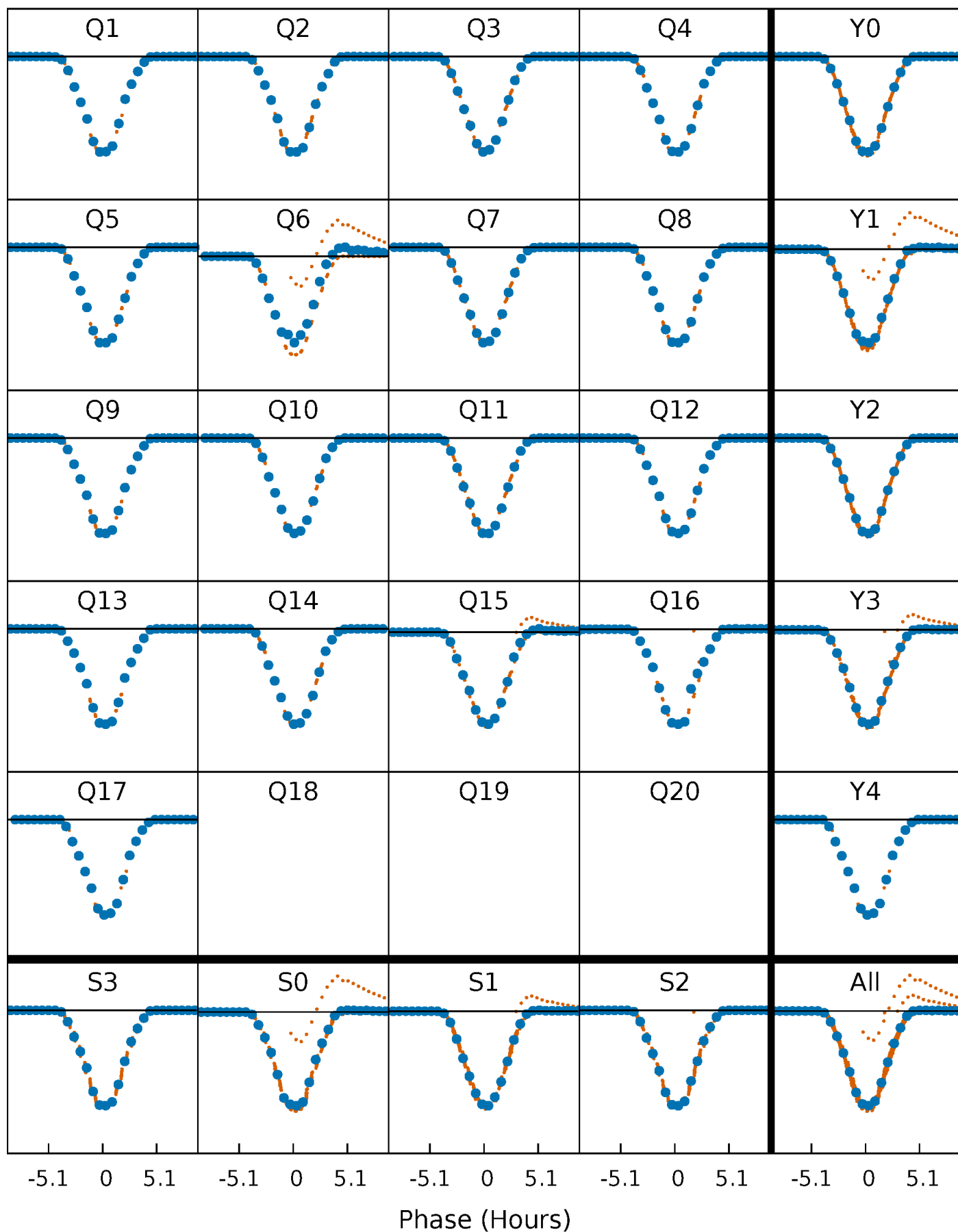
PDC Quarter-Phased Transit Curves

TCE 006449552-01 P= 20.148689 Days $T_0=135.808853$ (BKJD)



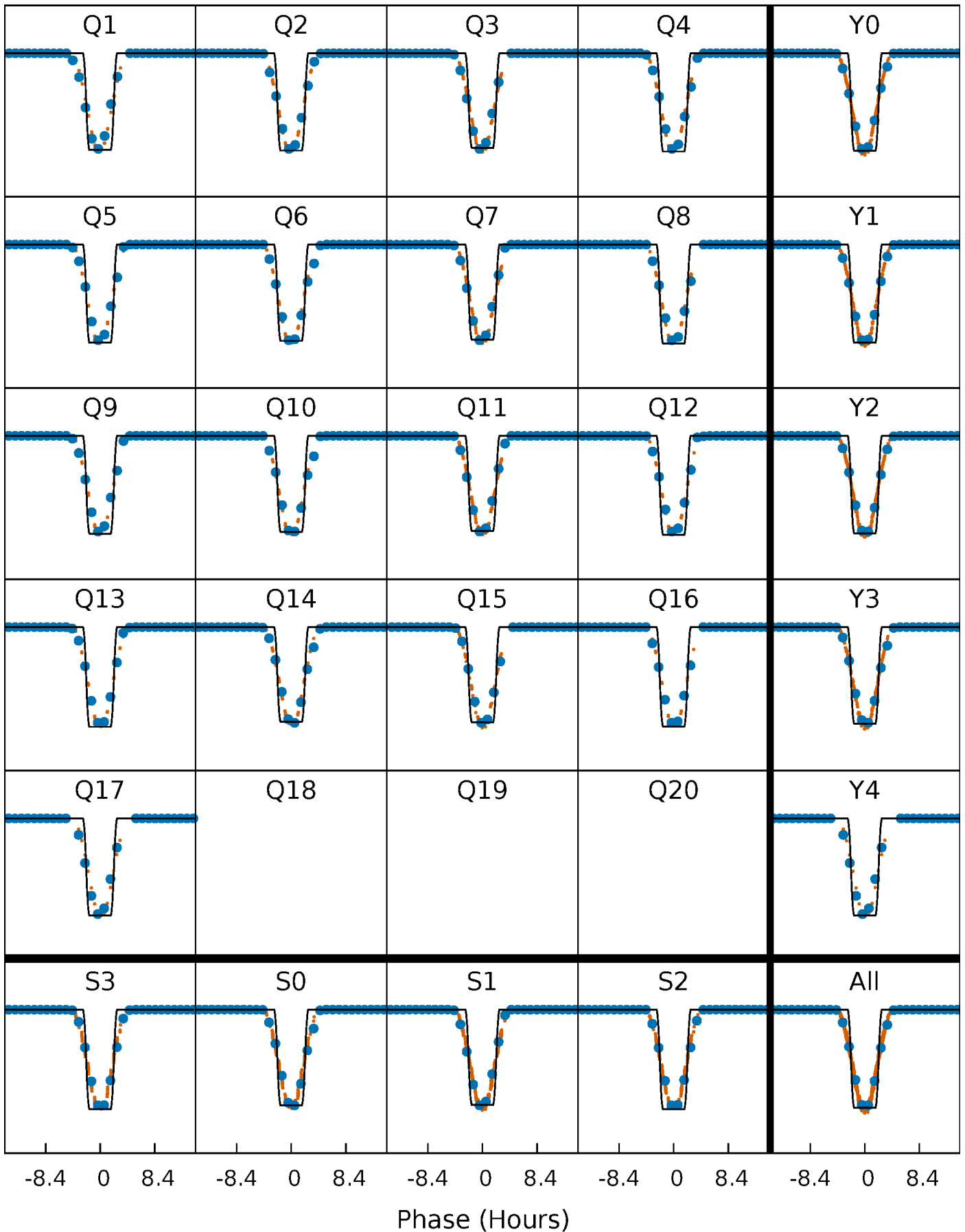
DV Quarter-Phased Transit Curves

TCE 006449552-01 P= 20.148689 Days $T_0=135.808853$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

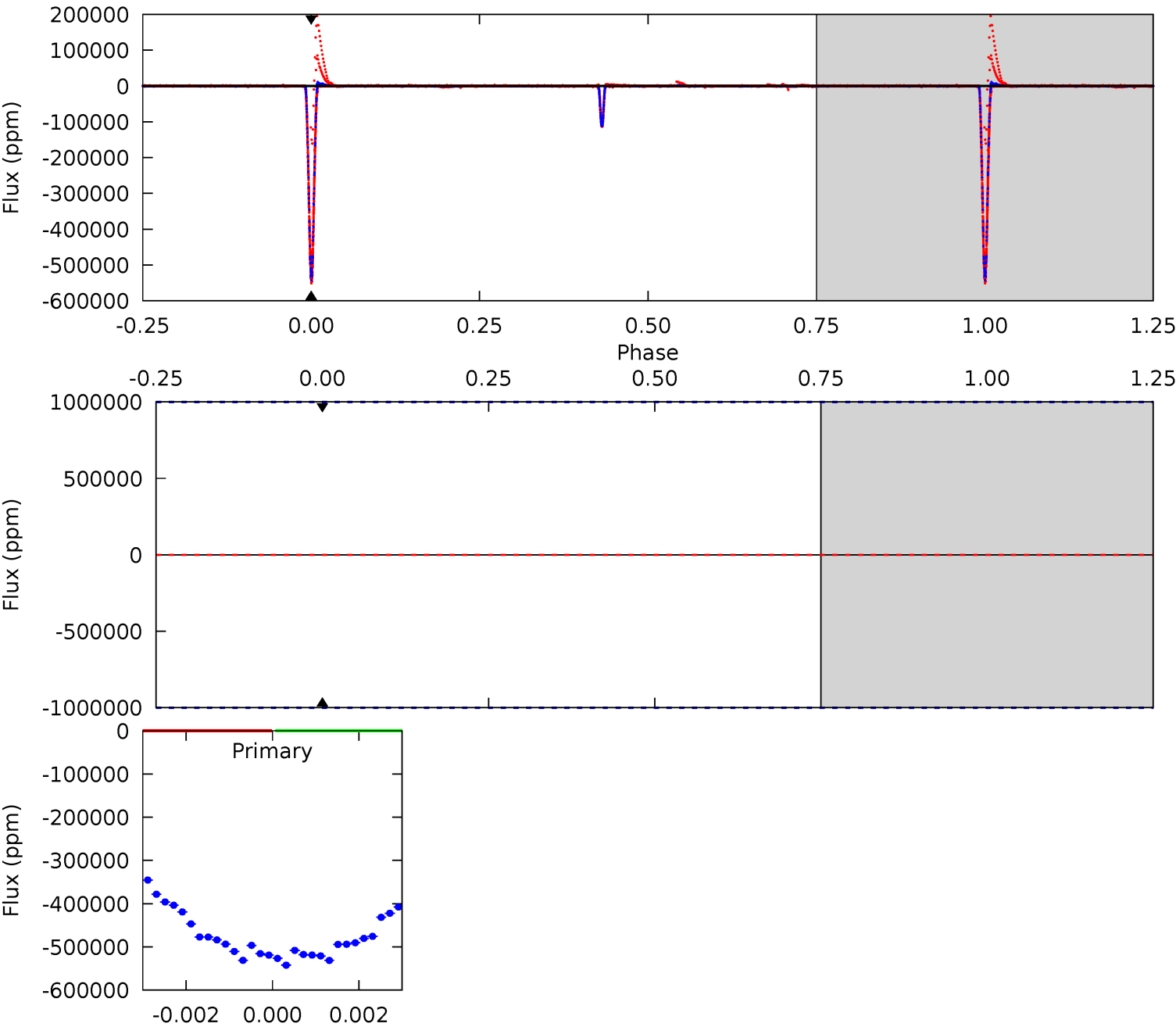
TCE 006449552-01 P= 20.148689 Days $T_0=135.815484$ (BKJD)



DV Model-Shift Uniqueness Test

006449552-01, P = 20.148689 Days, E = 115.660164 Days

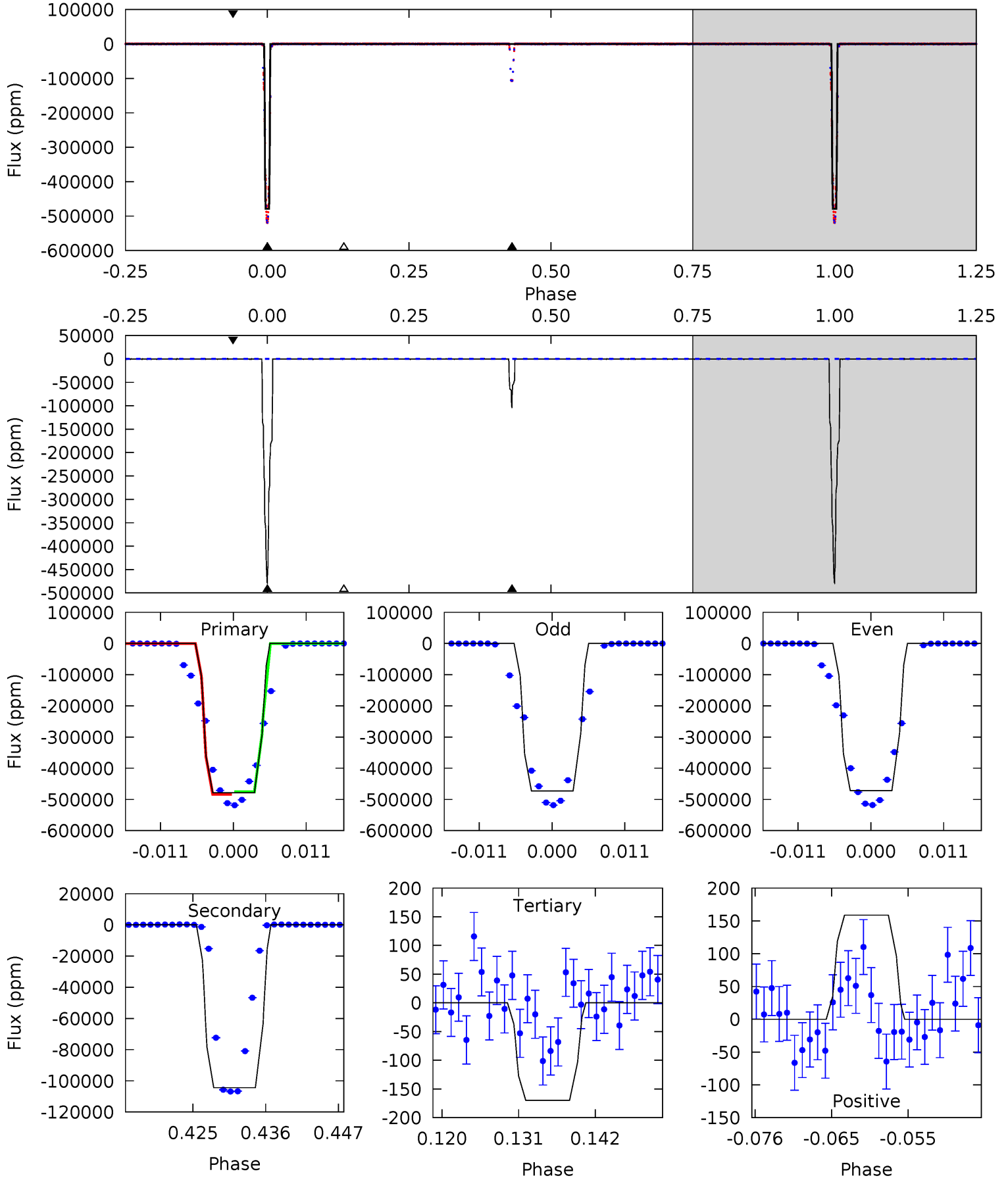
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

006449552-01, P = 20.148689 Days, E = 115.666795 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12312	2684	4.37	4.08	5.01	2.55	1.11	12308	12308	2679	2680	15.0	1.01	0.00	0



Stellar Parameters For KIC 006449552

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5547^{+166}_{-166}	$4.447^{+0.098}_{-0.168}$	$-0.100^{+0.300}_{-0.300}$	$0.918^{+0.228}_{-0.123}$	$0.862^{+0.111}_{-0.074}$	$1.568^{+0.739}_{-0.730}$
	+3%/-3%	+2%/-4%	+300%/-300%	+25%/-13%	+13%/-9%	+47%/-47%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006449552-01 / KOI 6714.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$50.61^{+12.69}_{-10.79}$	888^{+59}_{-44}	2760^{+1995}_{-7274}	17^{+500}_{-392}
Alt.	-104348 ± 39	$73.26^{+13.91}_{-11.25}$	887^{+55}_{-47}	4086^{+250}_{-201}	228^{+86}_{-67}

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 $A_{obs} \gg 1.0$

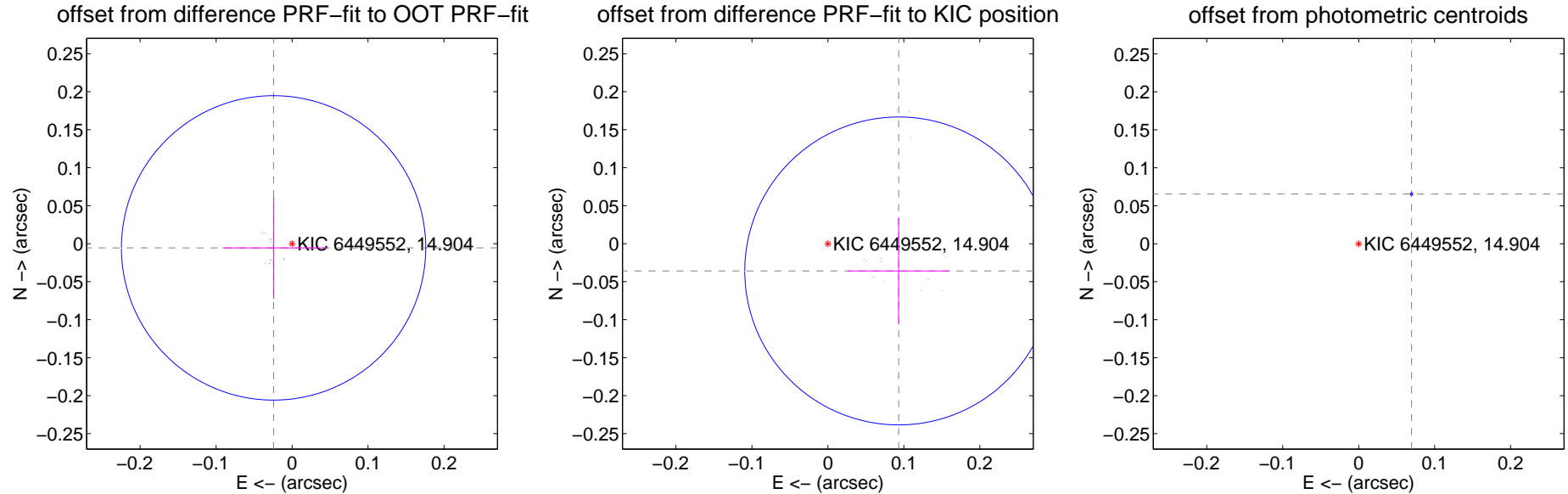
DV Centroid Data

Supplemental centroid analysis for 006449552-01. Kepler magnitude: 14.90. Transit SNR -1.00

There are 16 quarters with good PRF difference image offsets

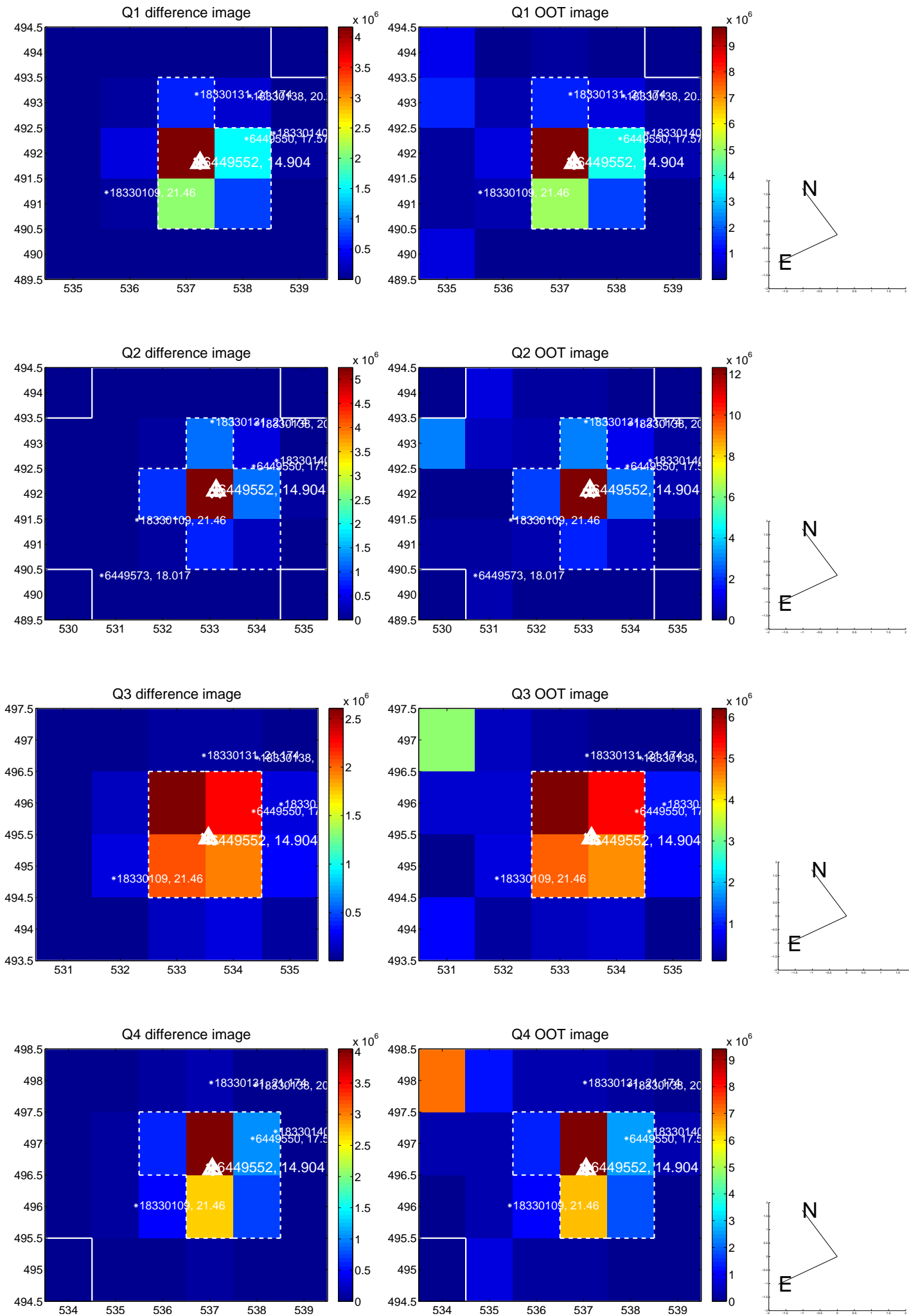
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.025 ± 0.067	0.37	0.024 ± 0.067	-0.006 ± 0.067
PRF-fit source offset from KIC position	0.100 ± 0.068	1.48	-0.093 ± 0.067	-0.036 ± 0.070
photometric centroid source offset	0.10 ± 0.00	177.54	-0.07 ± 0.00	0.07 ± 0.00

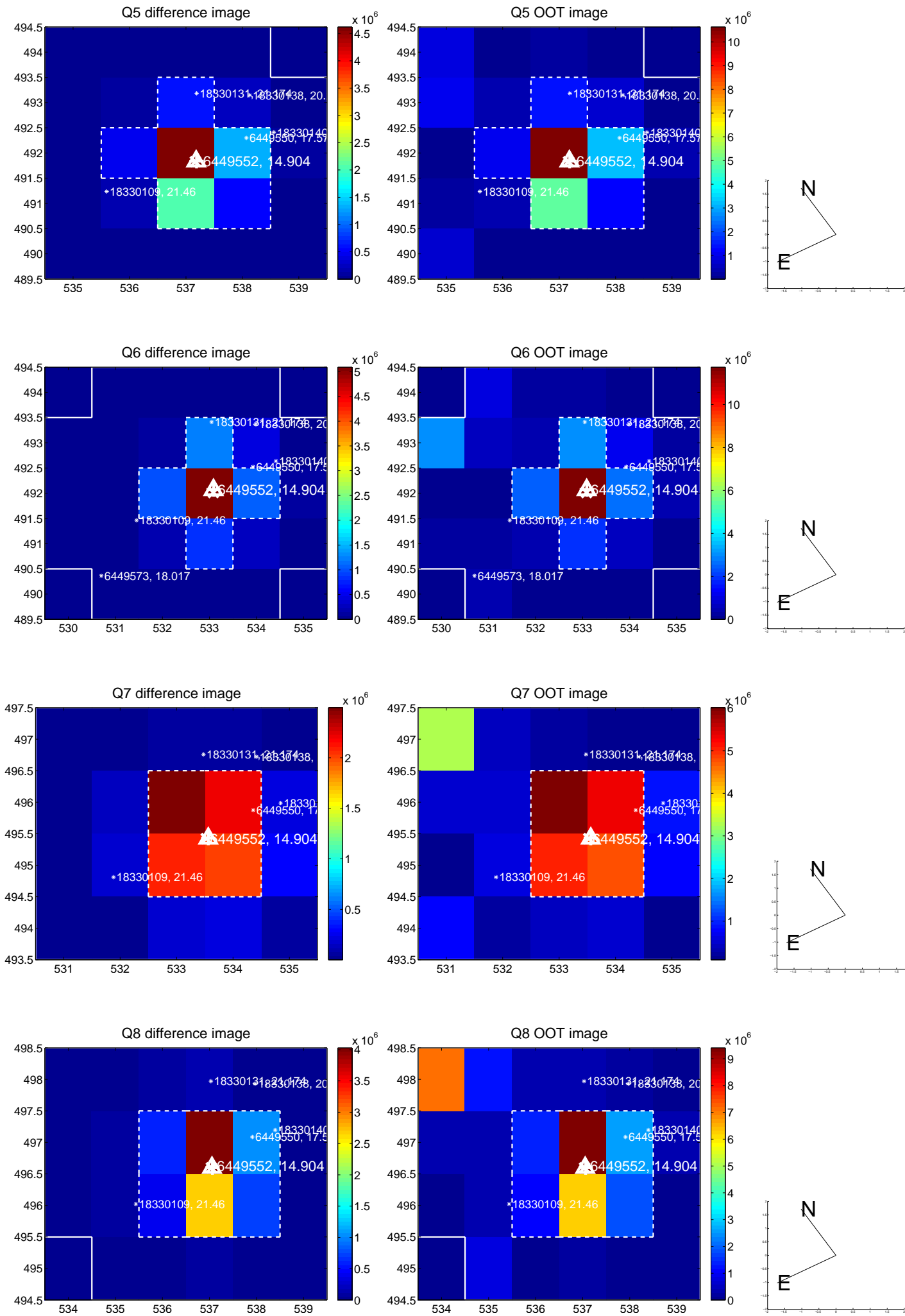


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

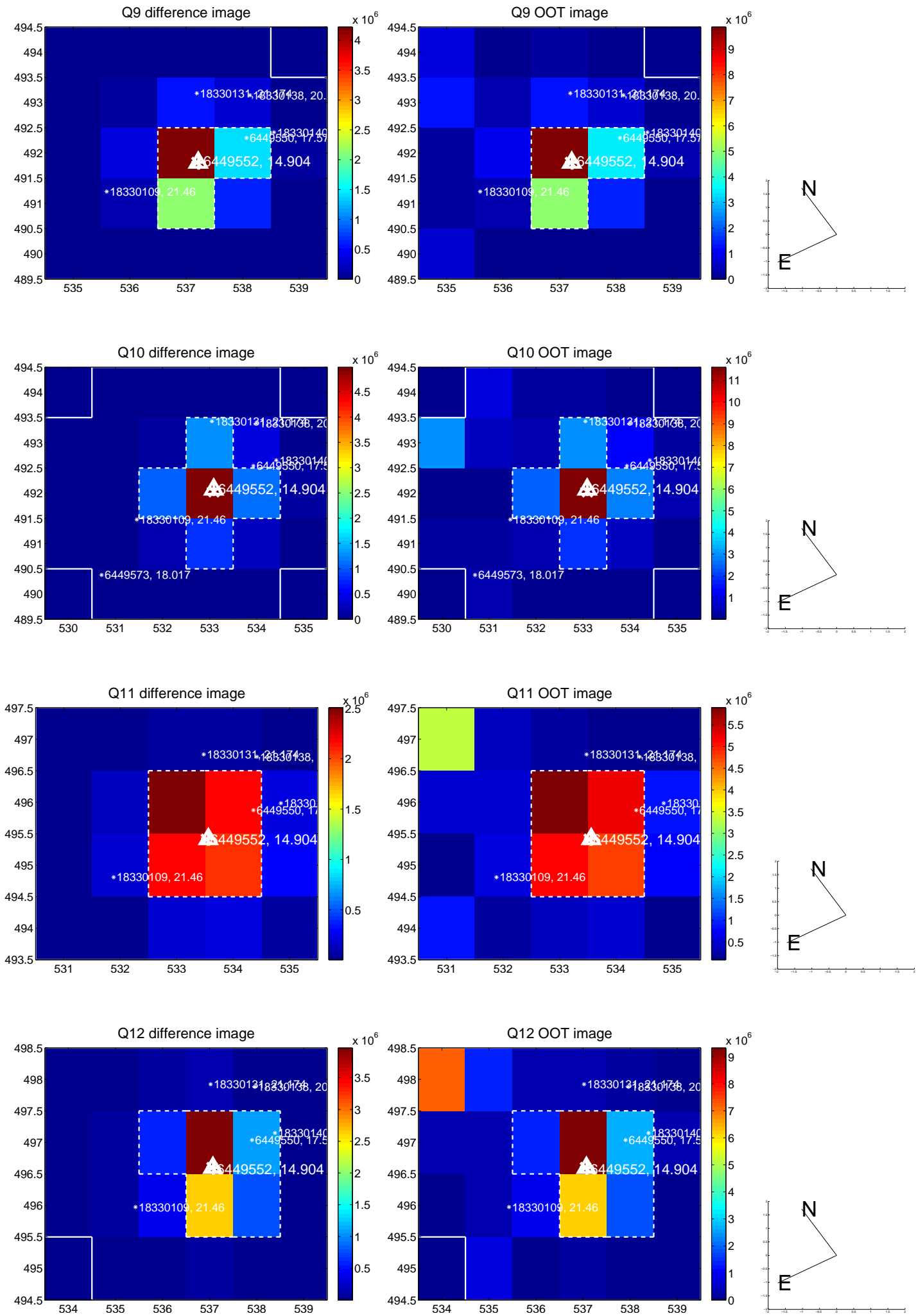
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



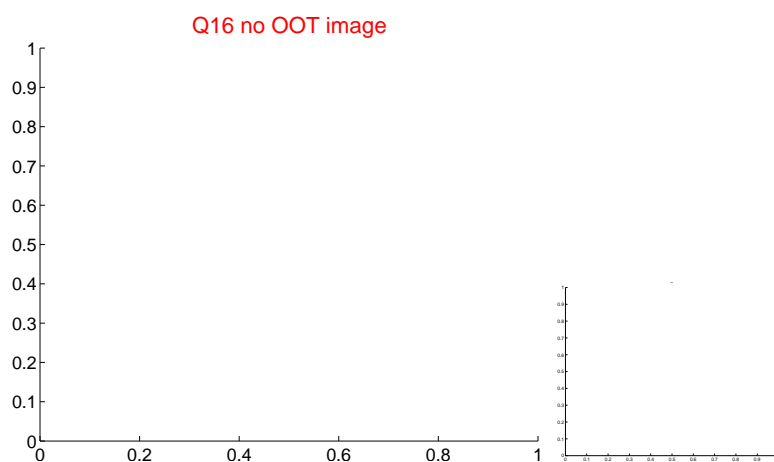
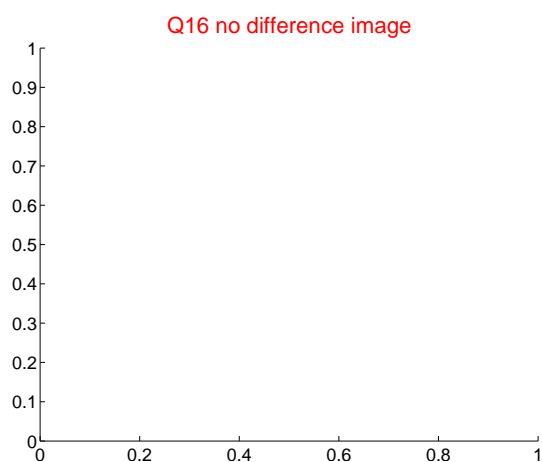
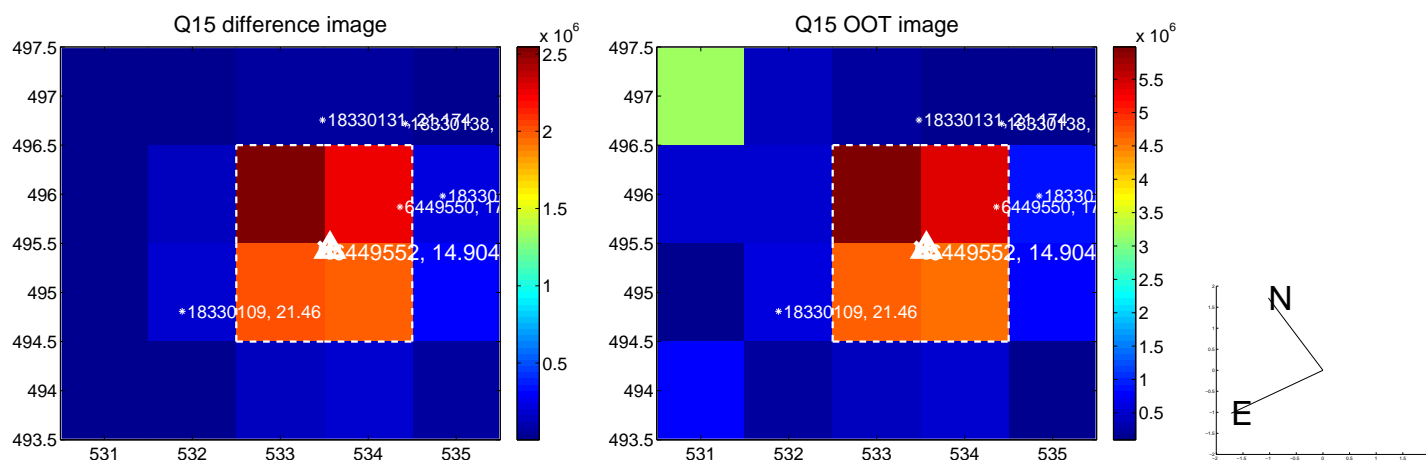
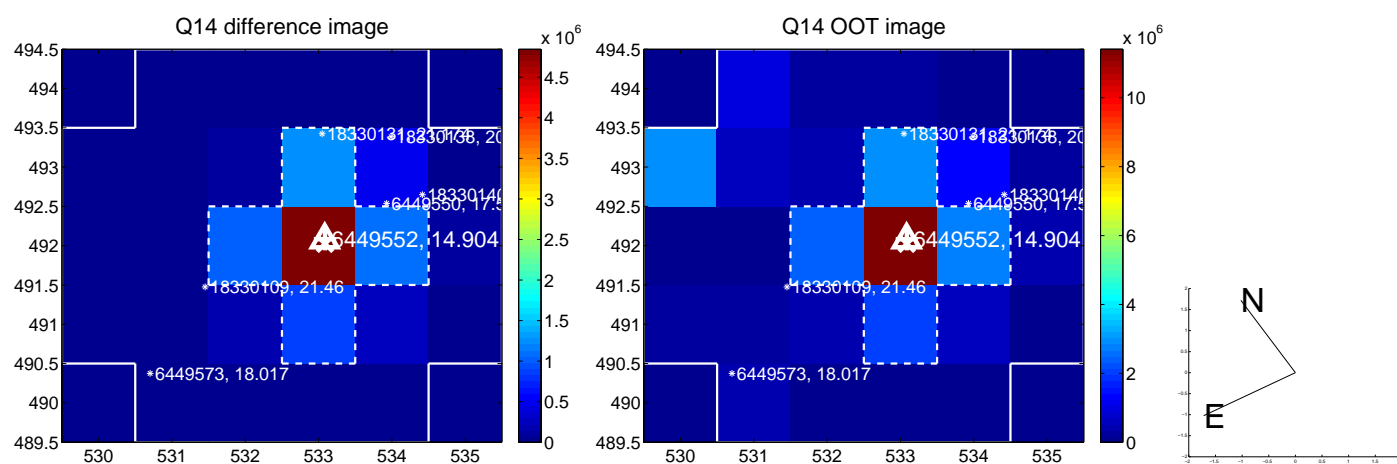
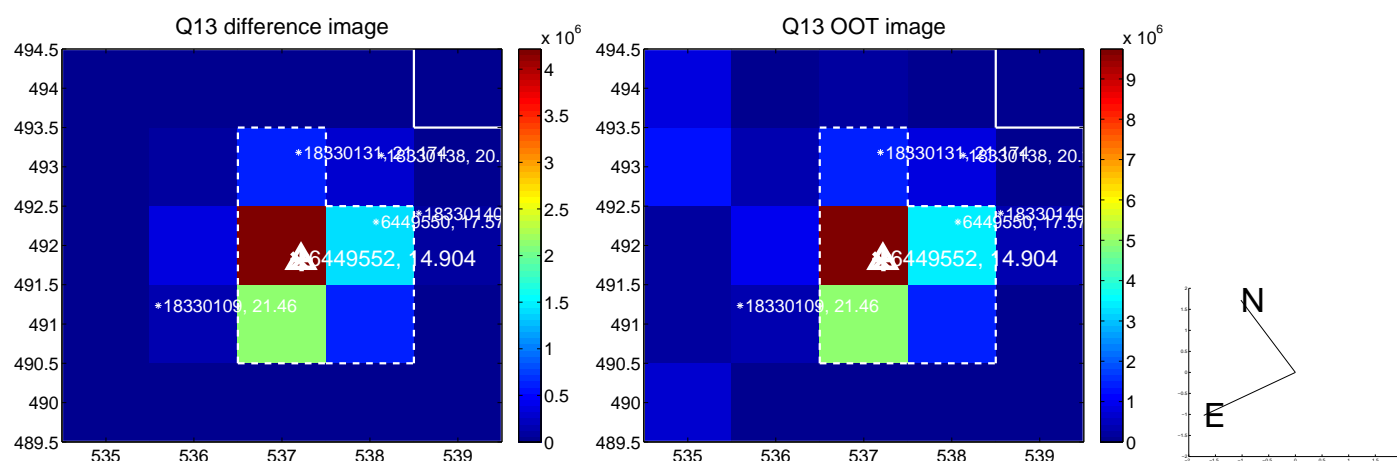
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



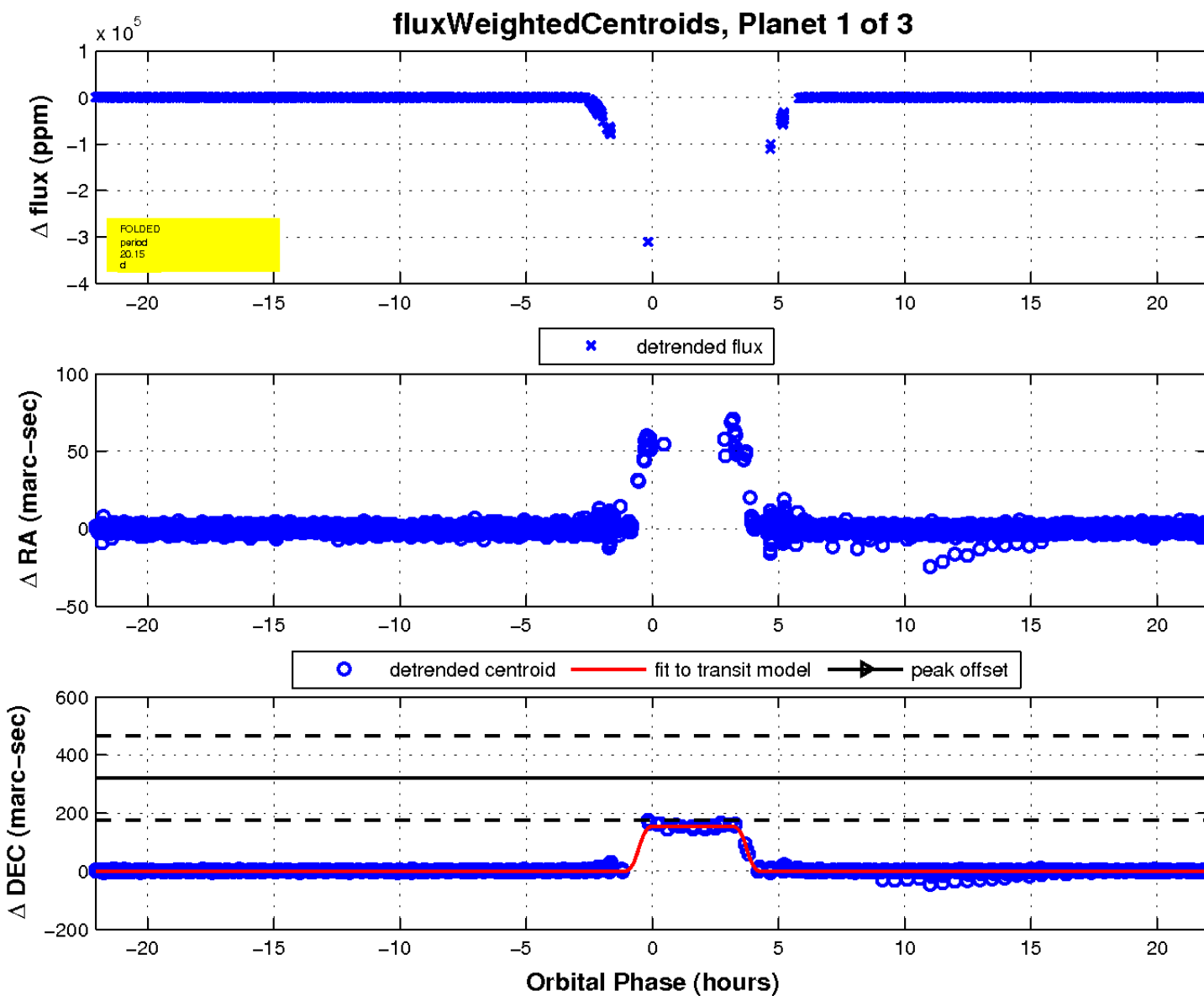
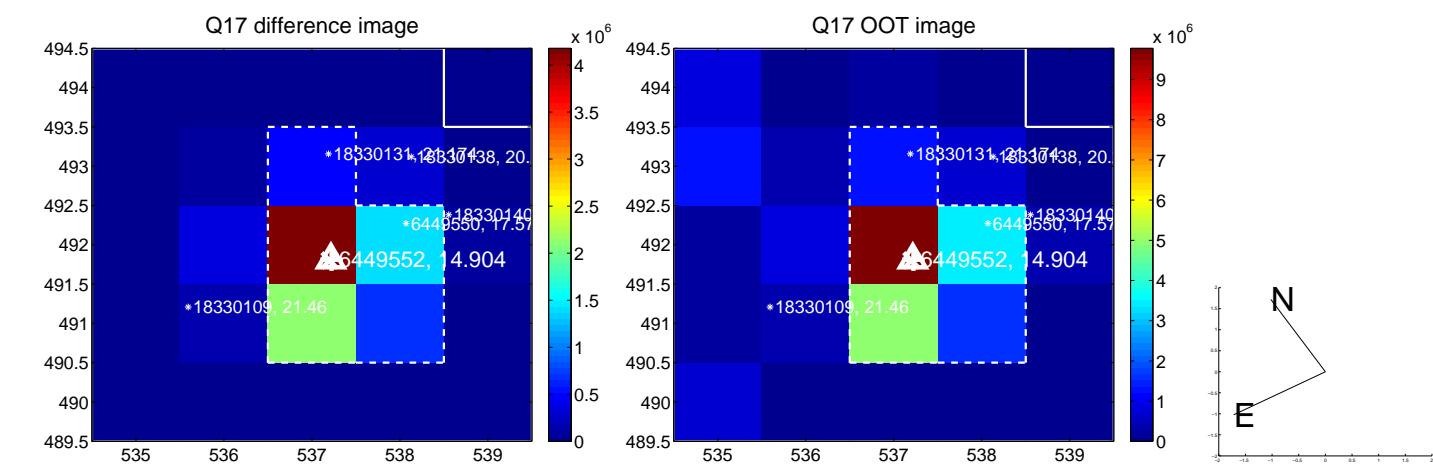
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

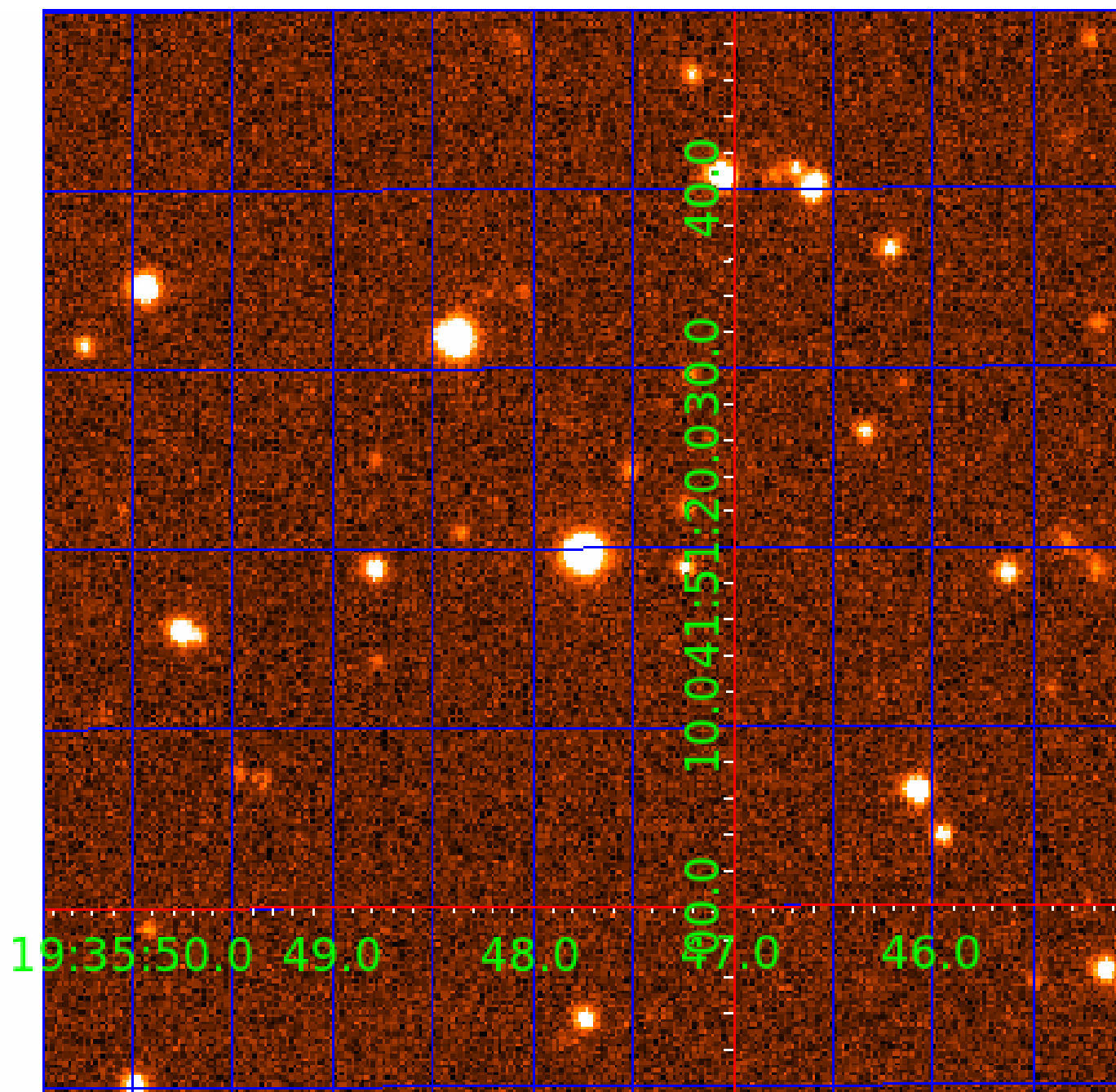


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006449552

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})
006449552-01	OBS	6714.01	20.148689	135.808853	526092.6	4.500	22029.4	-1.0	0.92	5547	50.09	37.62
006449552-02	OBS	No	20.148819	144.500293	111315.4	4.701	4255.6	2766.3	0.92	5547	41.72	37.62
006449552-03	OBS	No	20.148743	133.724629	5332.2	15.000	387.2	-1.0	0.92	5547	6.61	37.62

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006449552-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
006449552-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
006449552-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

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

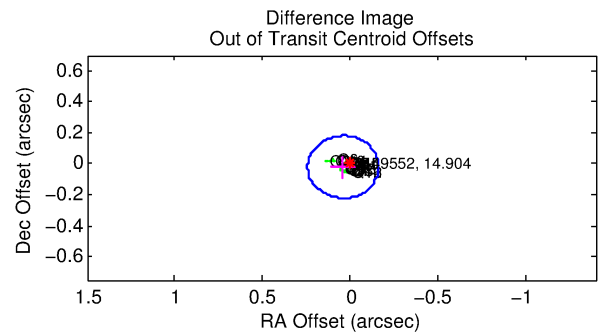
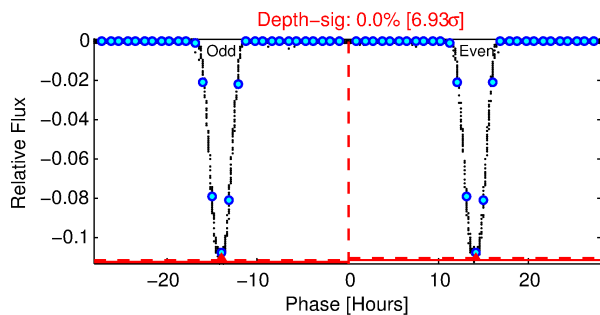
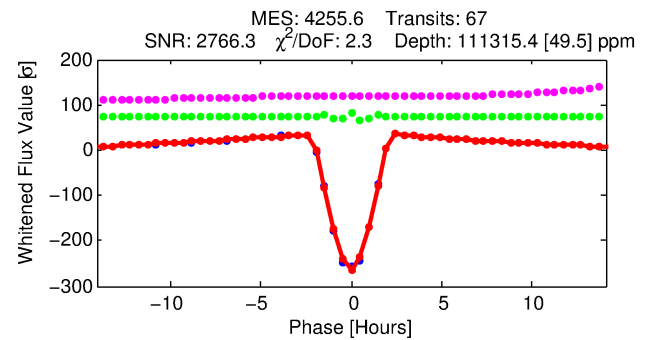
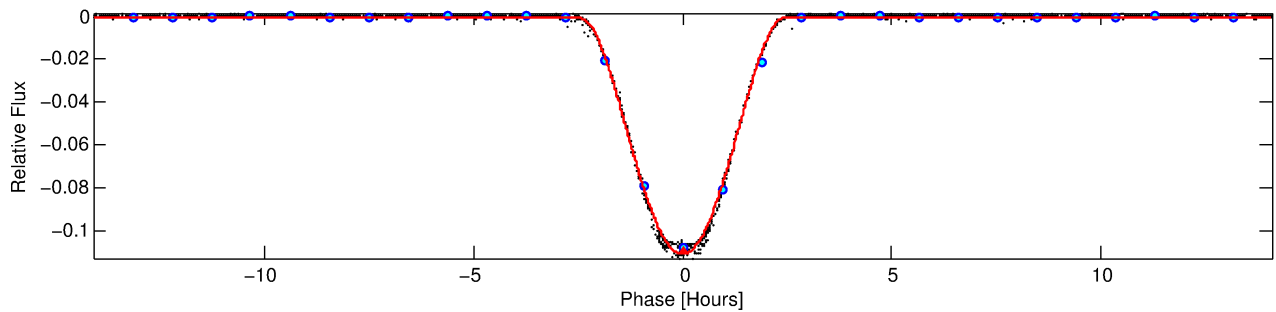
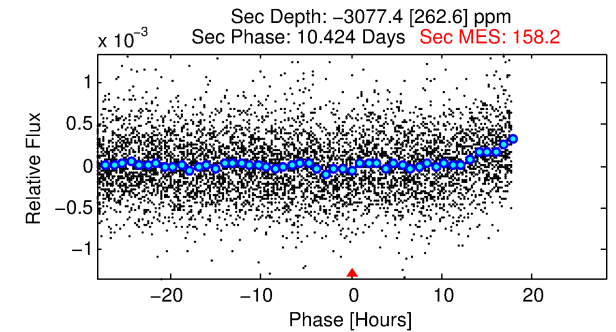
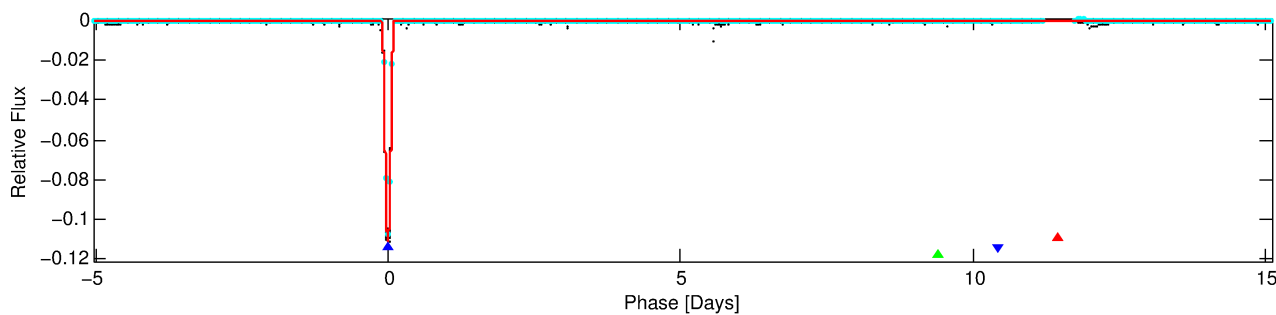
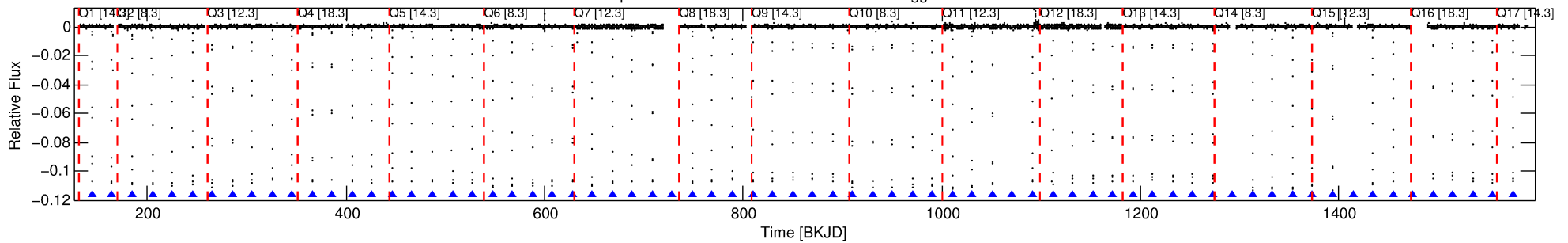
Ephemeris Match Information For 006449552-02

No Significant Match Found

DV One-Page Summary

KIC: 6449552 Candidate: 2 of 3 Period: 20.149 d
KOI: K06714 Corr: No Ephemeris Match

Kp: 14.90 R*: 0.92 Rs Teff: 5547.0 K Logg: 4.45 Fe/H: -0.100



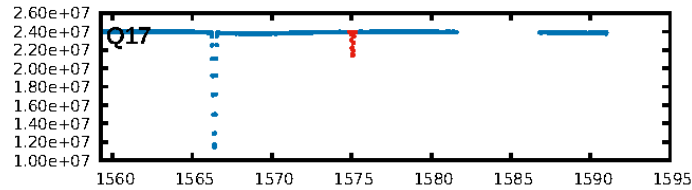
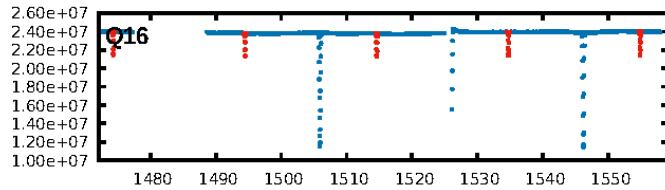
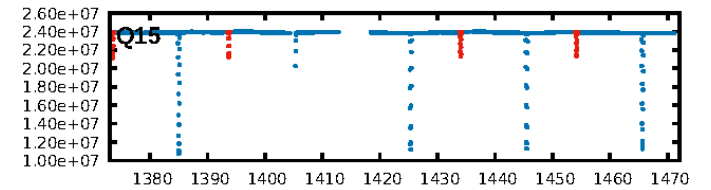
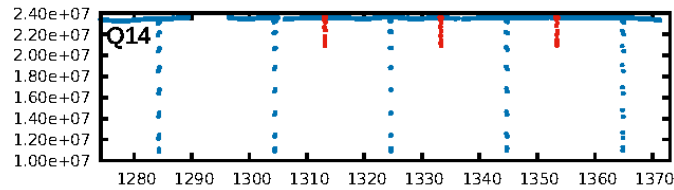
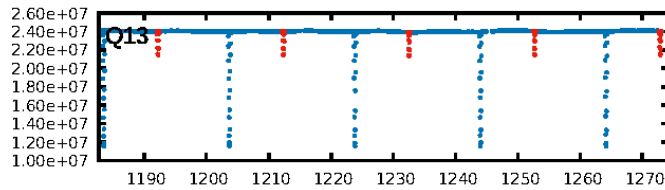
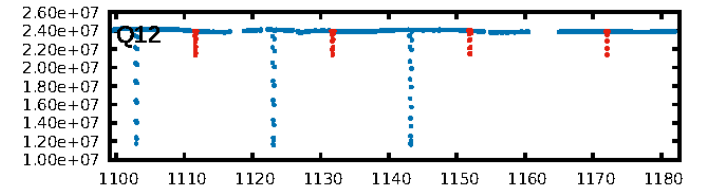
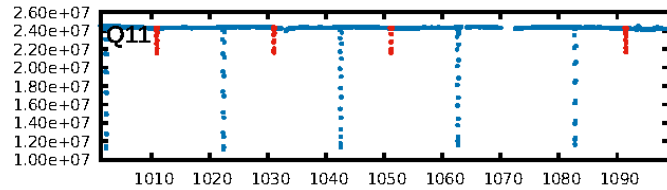
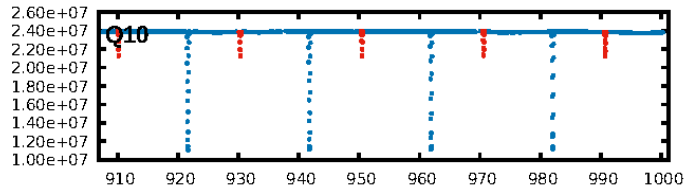
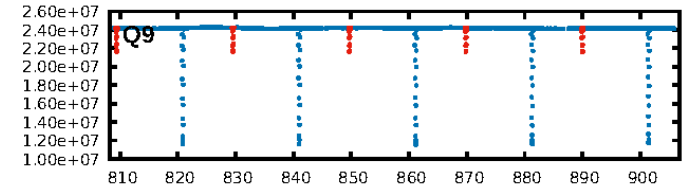
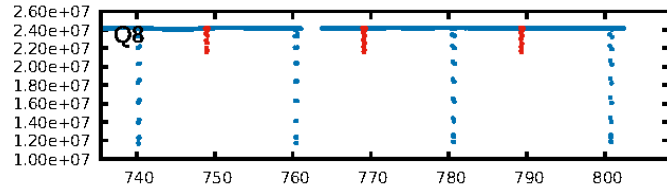
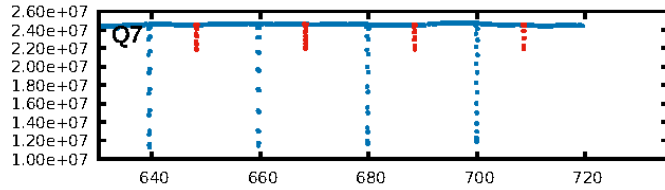
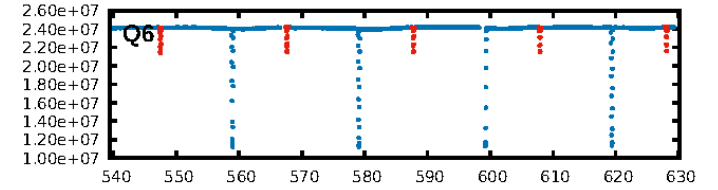
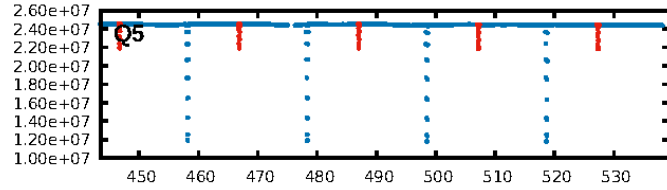
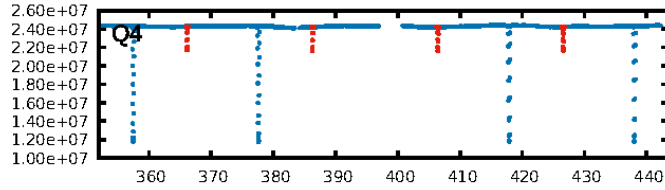
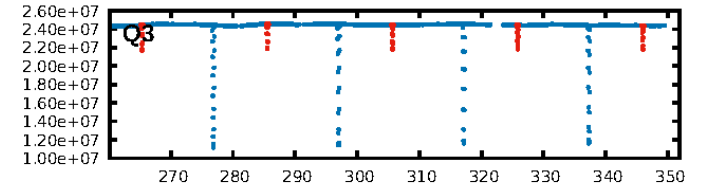
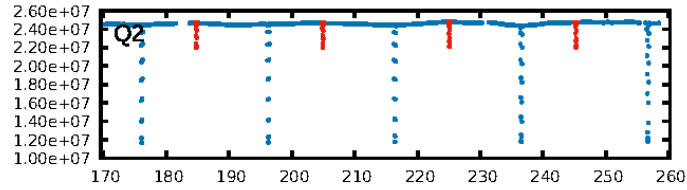
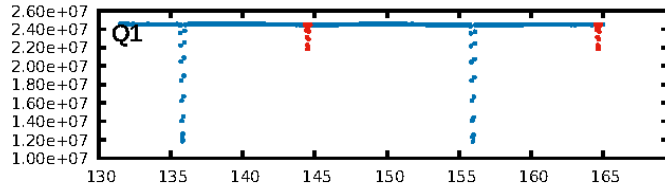
DV Fit Results:

Period = 20.14882 [0.00000] d
Epoch = 144.5003 [0.0000] BKJD
Rp/R* = 0.4165 [0.0103]
a/R* = 37.10 [0.02]
b = 0.85 [0.02]
Seff = 37.61 [12.38]
Teff = 631 [52] K
Rp = 41.72 [10.41] Re
a = 0.1379 [0.0289] AU
Ag = N/A
Teffp = N/A

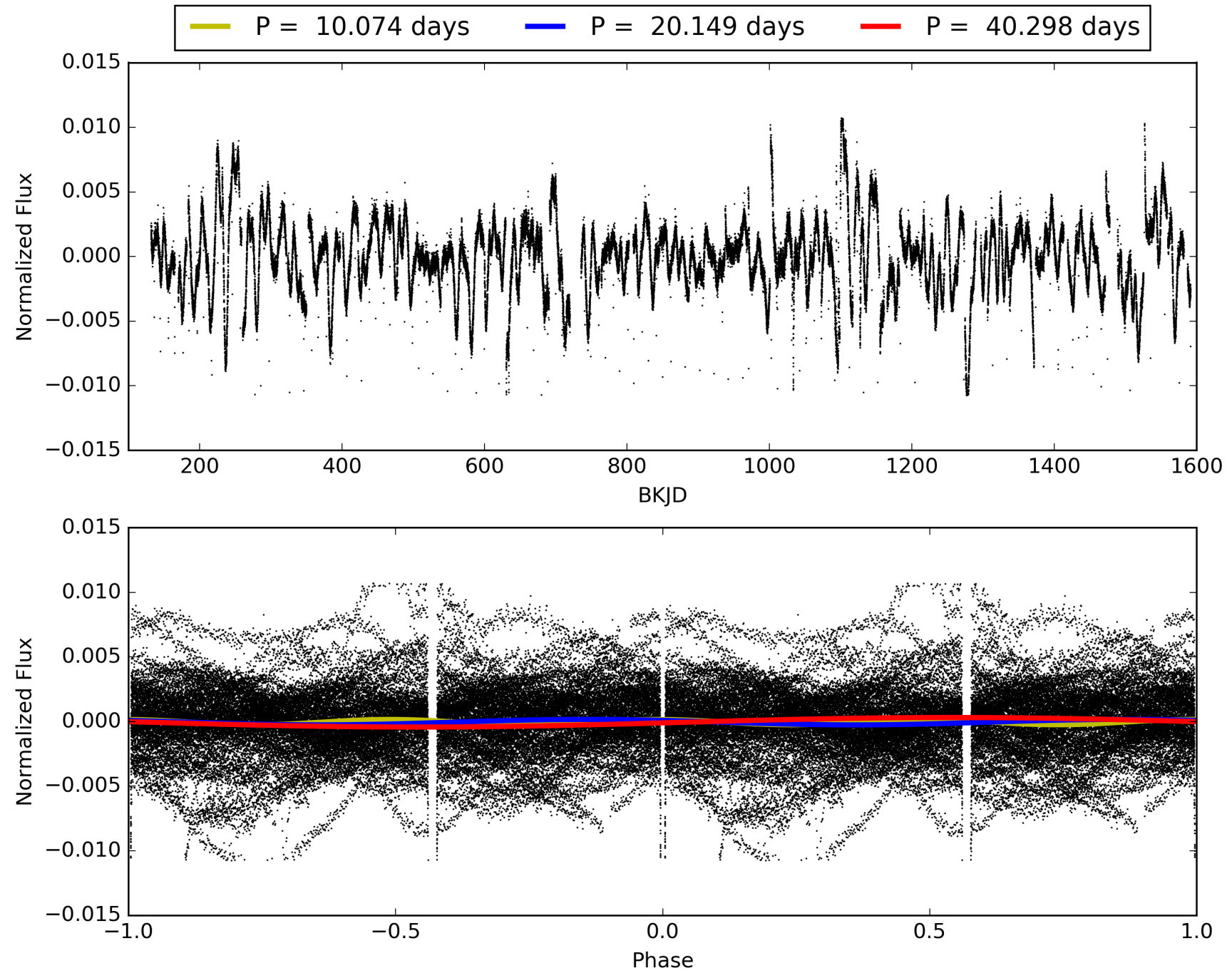
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [64/64]
GhostDiagnostic-chr: 5.421
Centroid-sig: N/A
Centroid-so: 0.112 arcsec [40.51σ]
OotOffset-rm: 0.046 arcsec [0.69σ]
KicOffset-rm: 0.088 arcsec [1.25σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006449552-02, PDC Light Curves

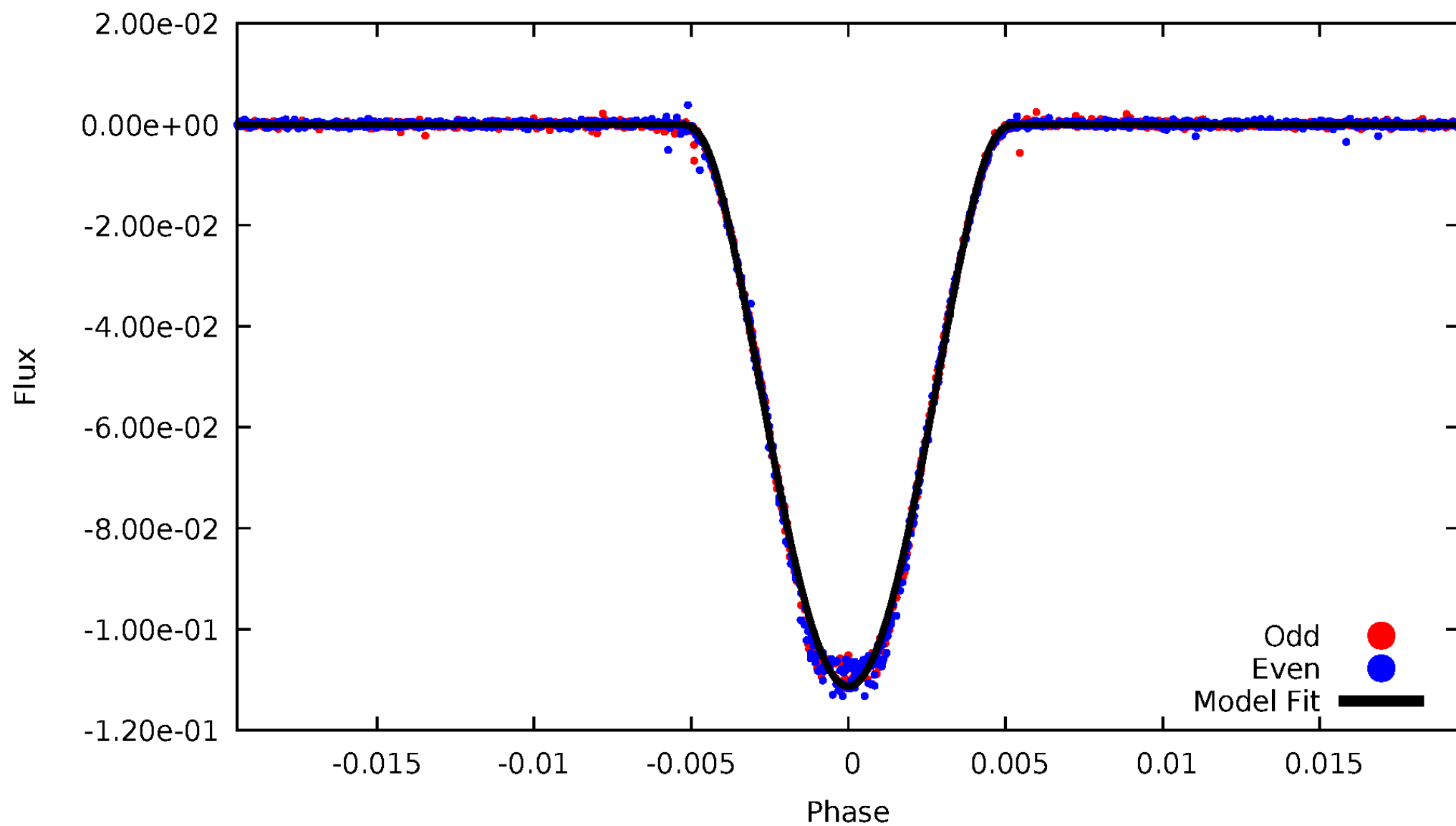


TCE 006449552-02



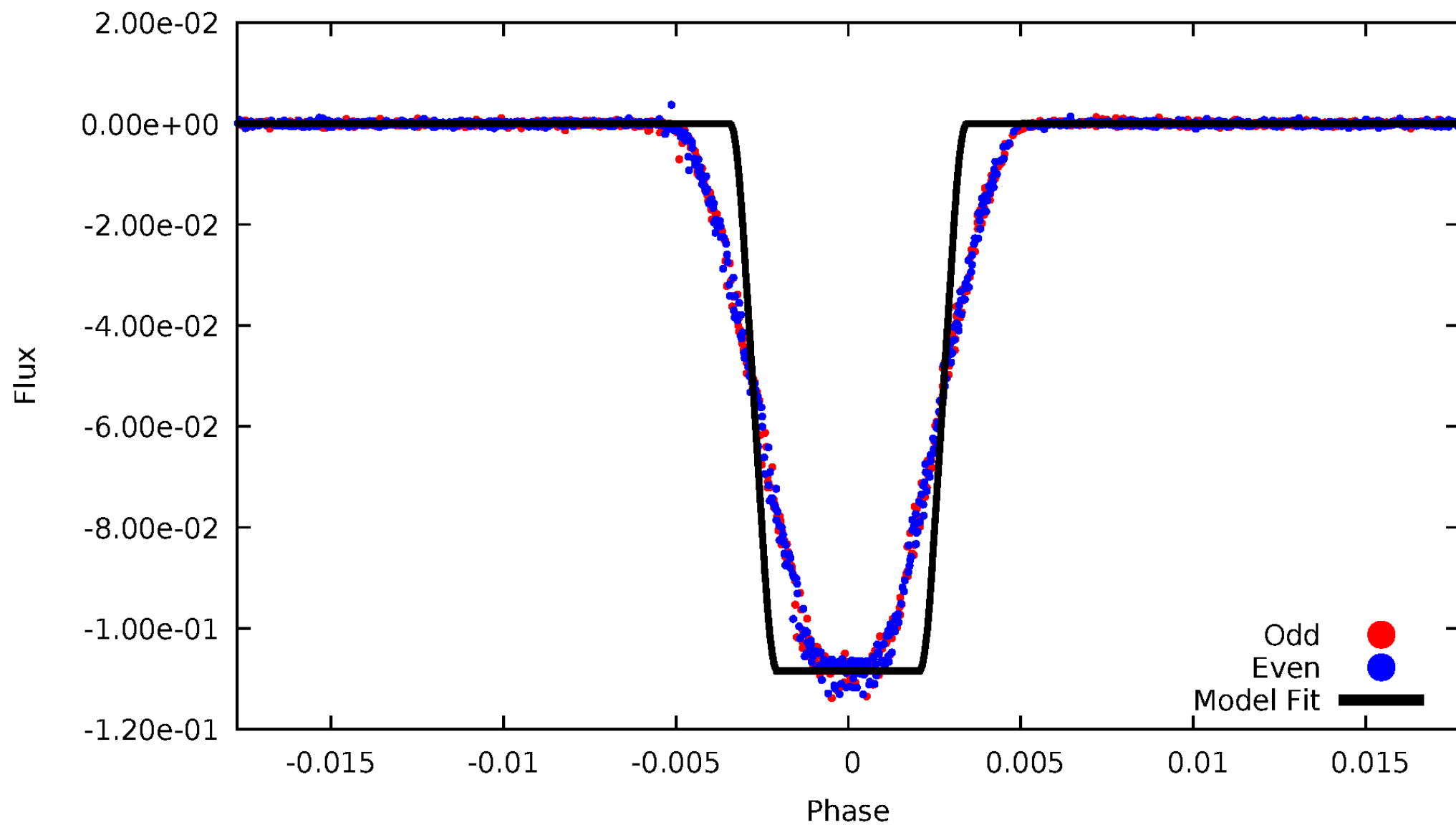
DV Odd/Even

TCE 006449552-02



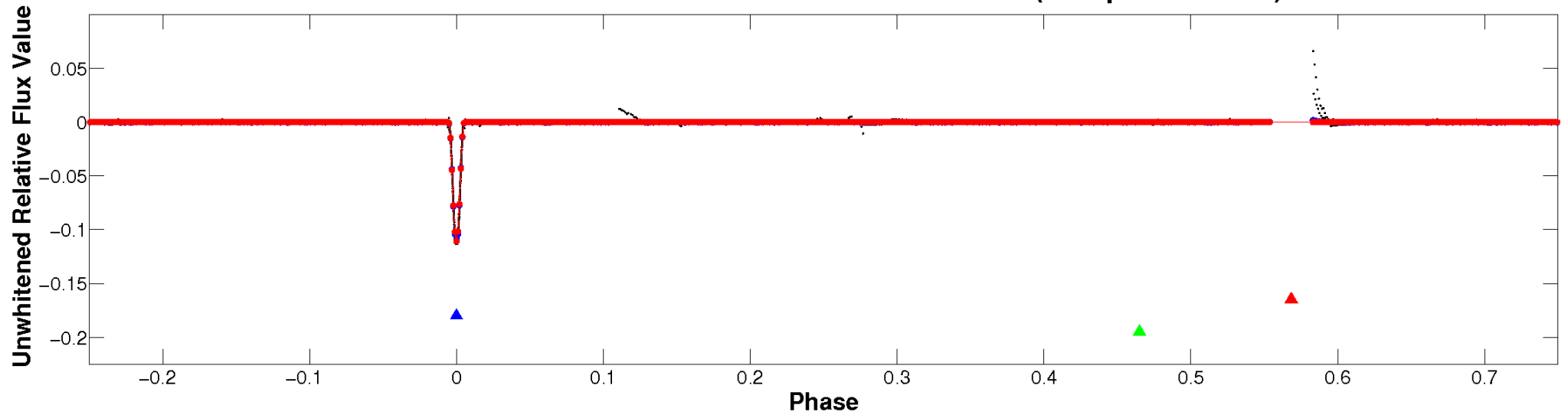
ALT Odd/Even

TCE 006449552-02

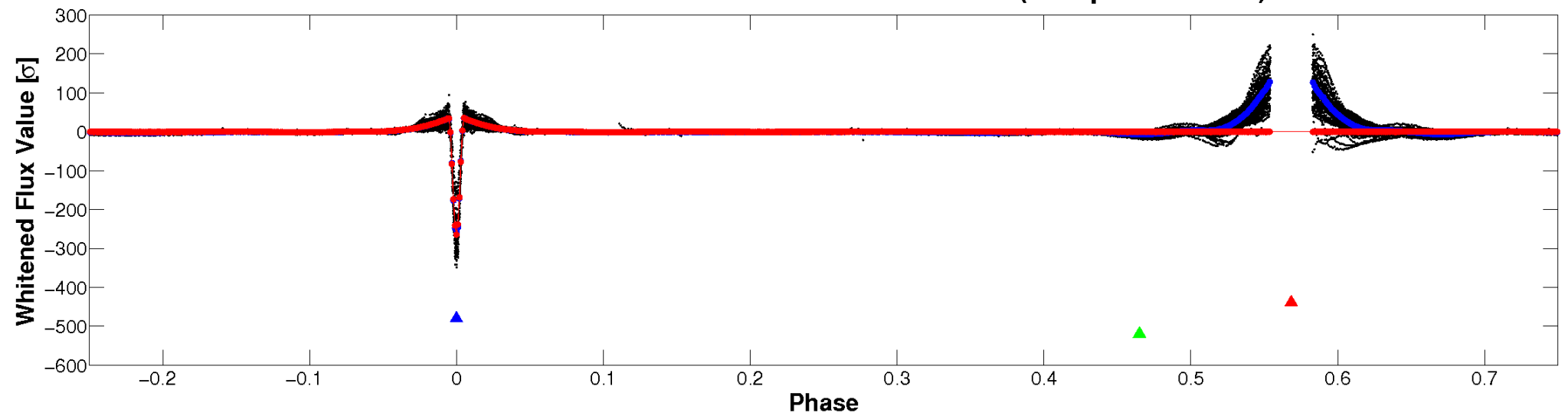


Non-Whitened Vs. Whitened Light Curve

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

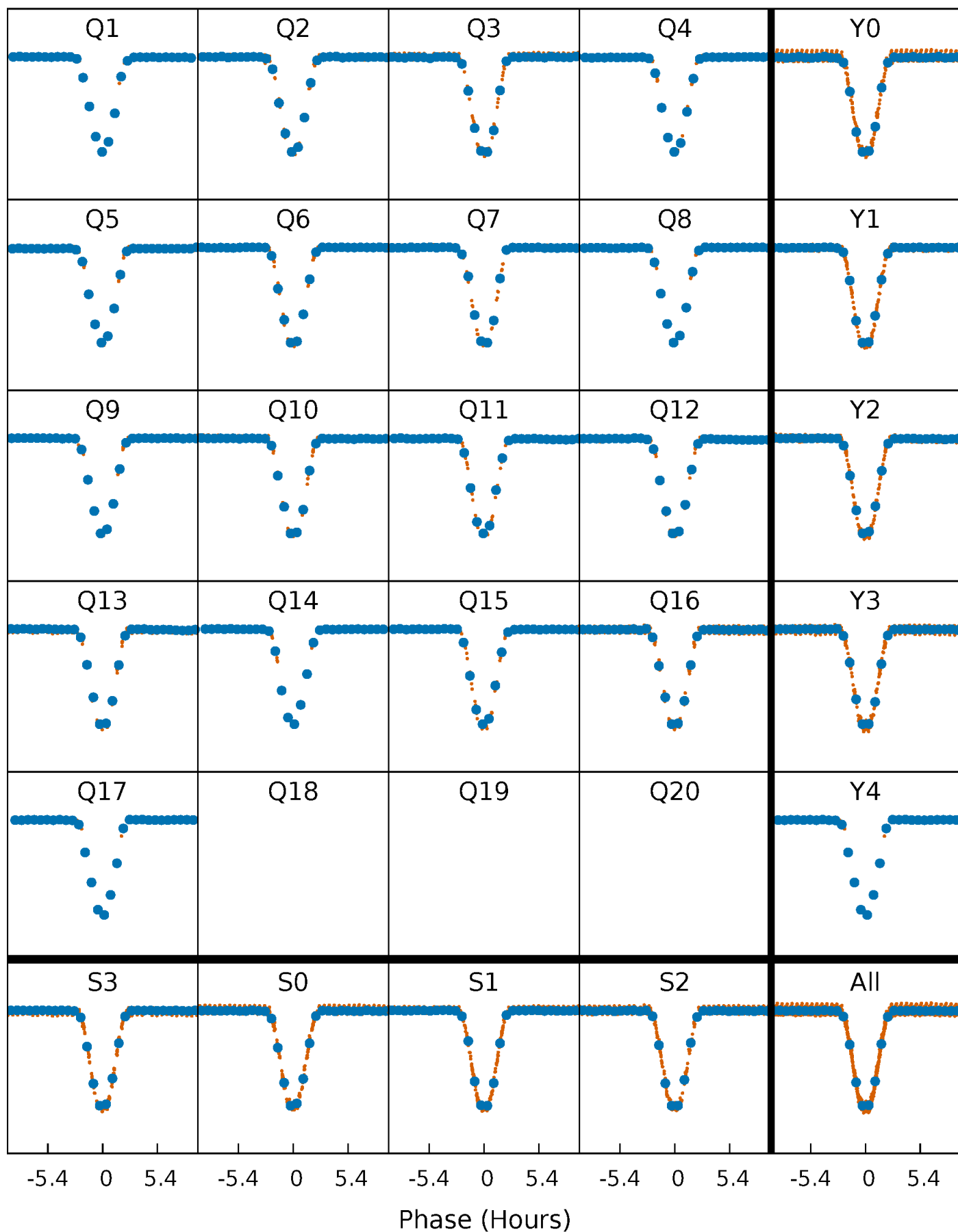


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



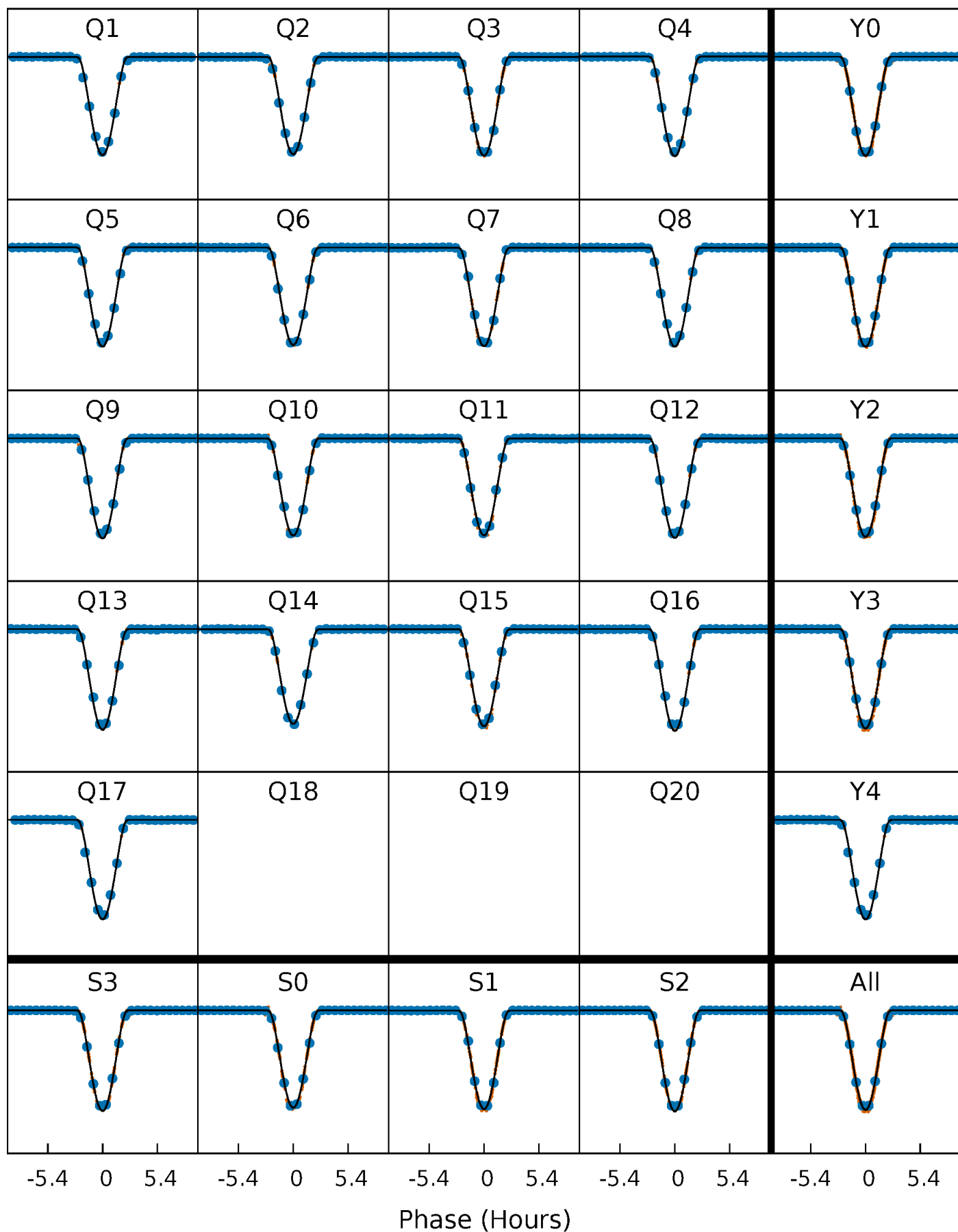
PDC Quarter-Phased Transit Curves

TCE 006449552-02 P= 20.148819 Days $T_0=144.500293$ (BKJD)



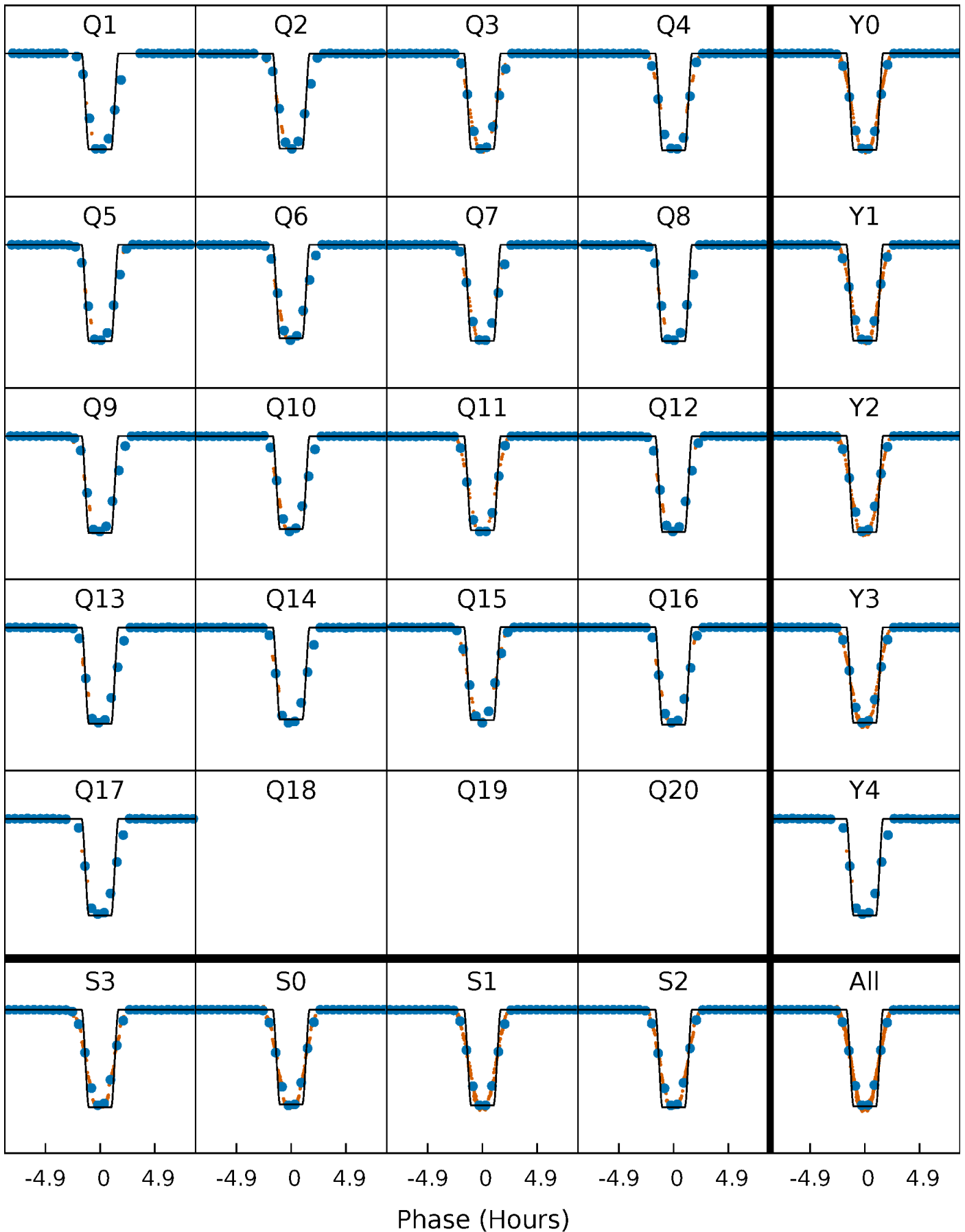
DV Quarter-Phased Transit Curves

TCE 006449552-02 P= 20.148819 Days $T_0=144.500293$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

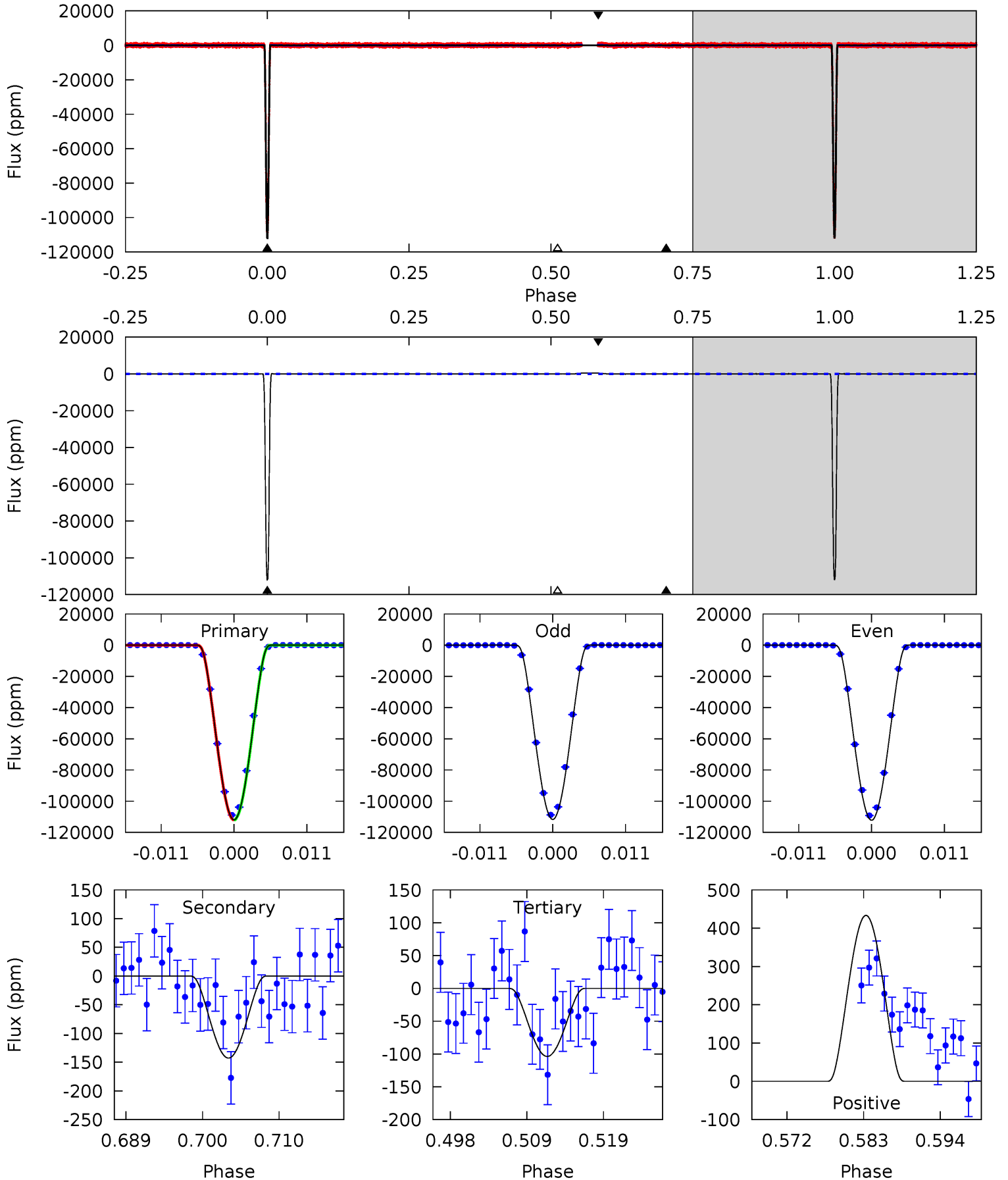
TCE 006449552-02 P= 20.148880 Days $T_0=144.498180$ (BKJD)



DV Model-Shift Uniqueness Test

006449552-02, P = 20.148819 Days, E = 124.351474 Days

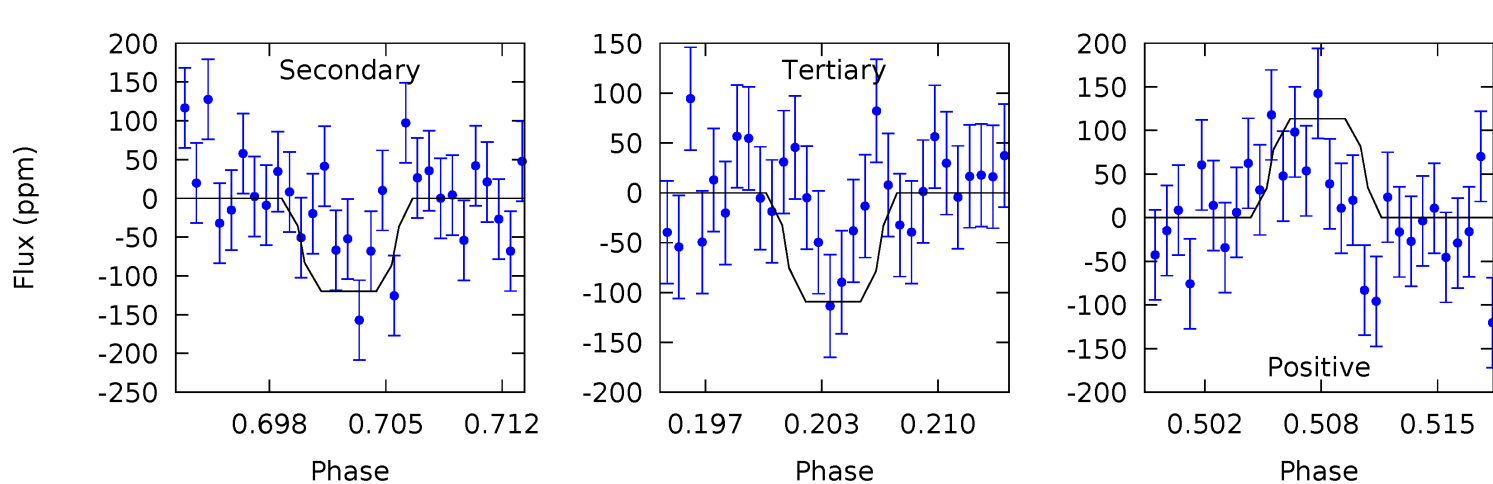
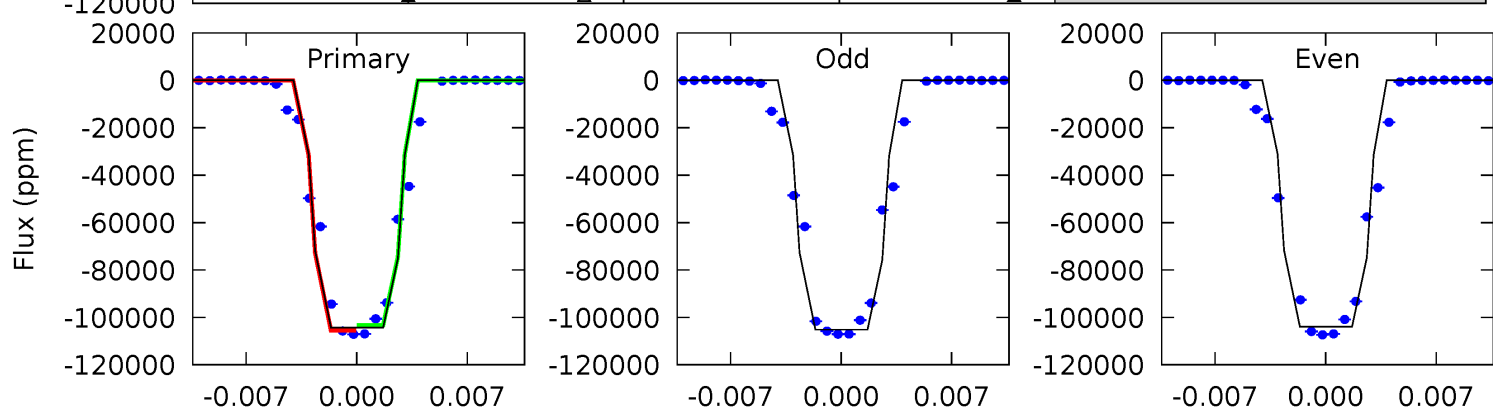
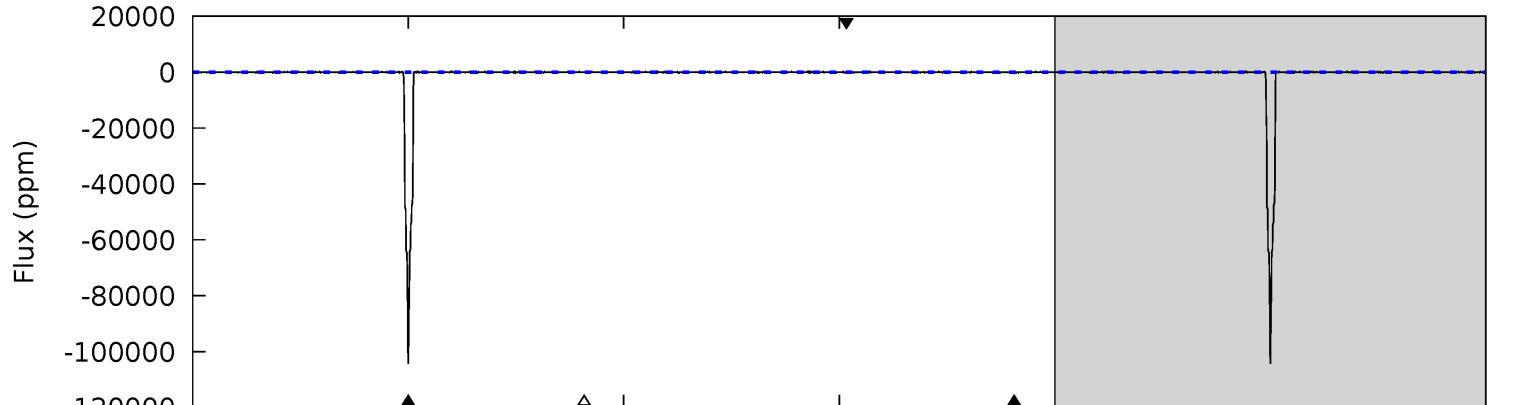
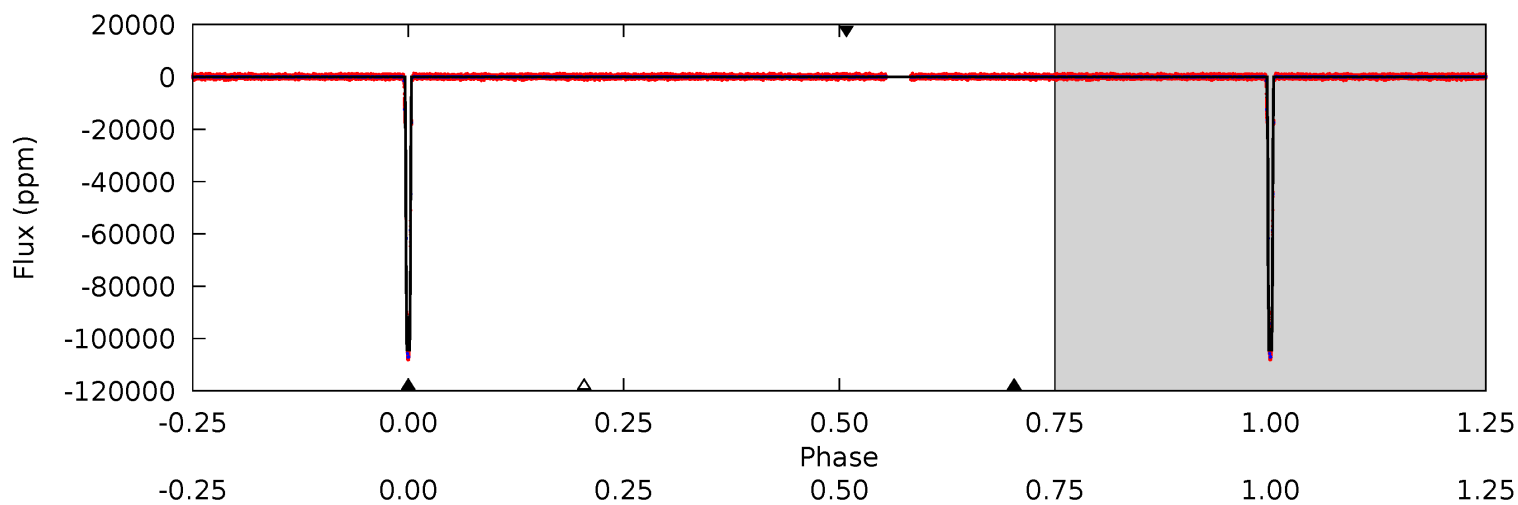
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7182	9.17	6.66	27.8	5.02	2.56	3.56	7175	7154	2.51	-18.6	16.5	1.01	0.00	0



Alt Model-Shift Uniqueness Test

006449552-02, P = 20.148880 Days, E = 124.349300 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3562	4.10	3.73	3.88	5.10	2.71	1.07	3559	3558	0.37	0.22	21.4	1.01	0.00	0



Stellar Parameters For KIC 006449552

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5547^{+166}_{-166}	$4.447^{+0.098}_{-0.168}$	$-0.100^{+0.300}_{-0.300}$	$0.918^{+0.228}_{-0.123}$	$0.862^{+0.111}_{-0.074}$	$1.568^{+0.739}_{-0.730}$
	+3%/-3%	+2%/-4%	+300%/-300%	+25%/-13%	+13%/-9%	+47%/-47%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006449552-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-143 ± 16	$42.26^{+6.14}_{-3.73}$	888^{+63}_{-48}	1863^{+42}_{-54}	$0.833^{+0.196}_{-0.190}$
Alt.	-120 ± 29	$33.37^{+5.04}_{-3.06}$	888^{+63}_{-46}	1944^{+68}_{-86}	$1.093^{+0.385}_{-0.337}$

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 $A_{obs} \gg 1.0$

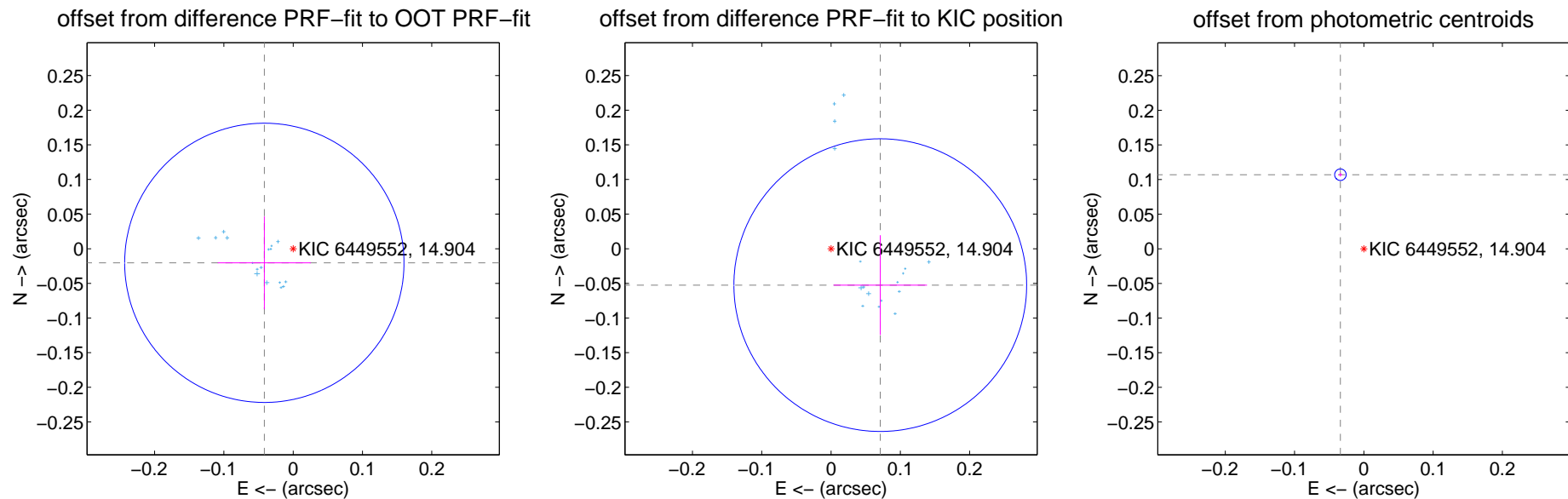
DV Centroid Data

Supplemental centroid analysis for 006449552-02. Kepler magnitude: 14.90. Transit SNR 2766.32

There are 17 quarters with good PRF difference image offsets

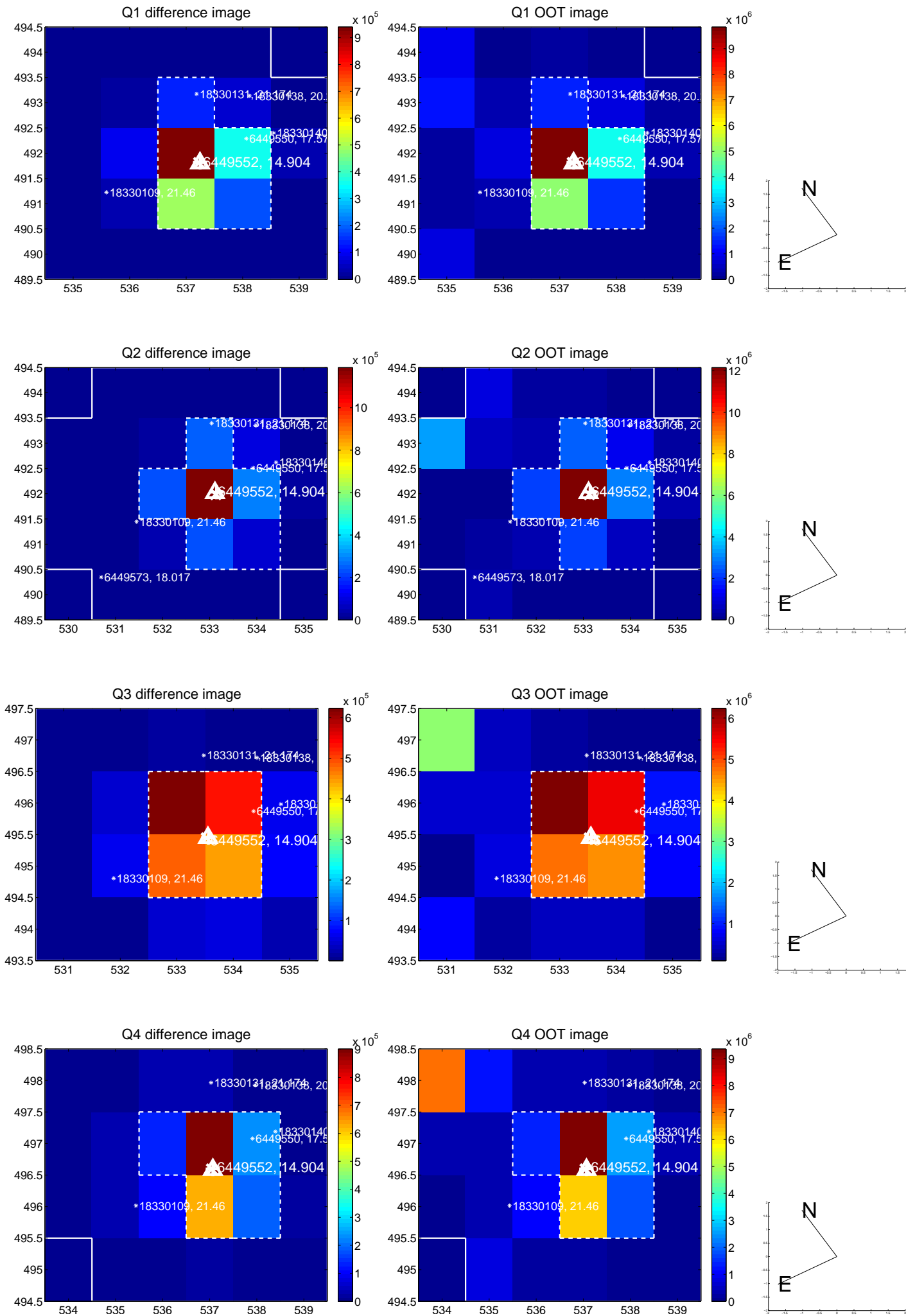
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.046 ± 0.067	0.69	0.042 ± 0.067	-0.020 ± 0.067
PRF-fit source offset from KIC position	0.088 ± 0.070	1.25	-0.071 ± 0.067	-0.053 ± 0.072
photometric centroid source offset	0.11 ± 0.00	40.51	0.03 ± 0.00	0.11 ± 0.00

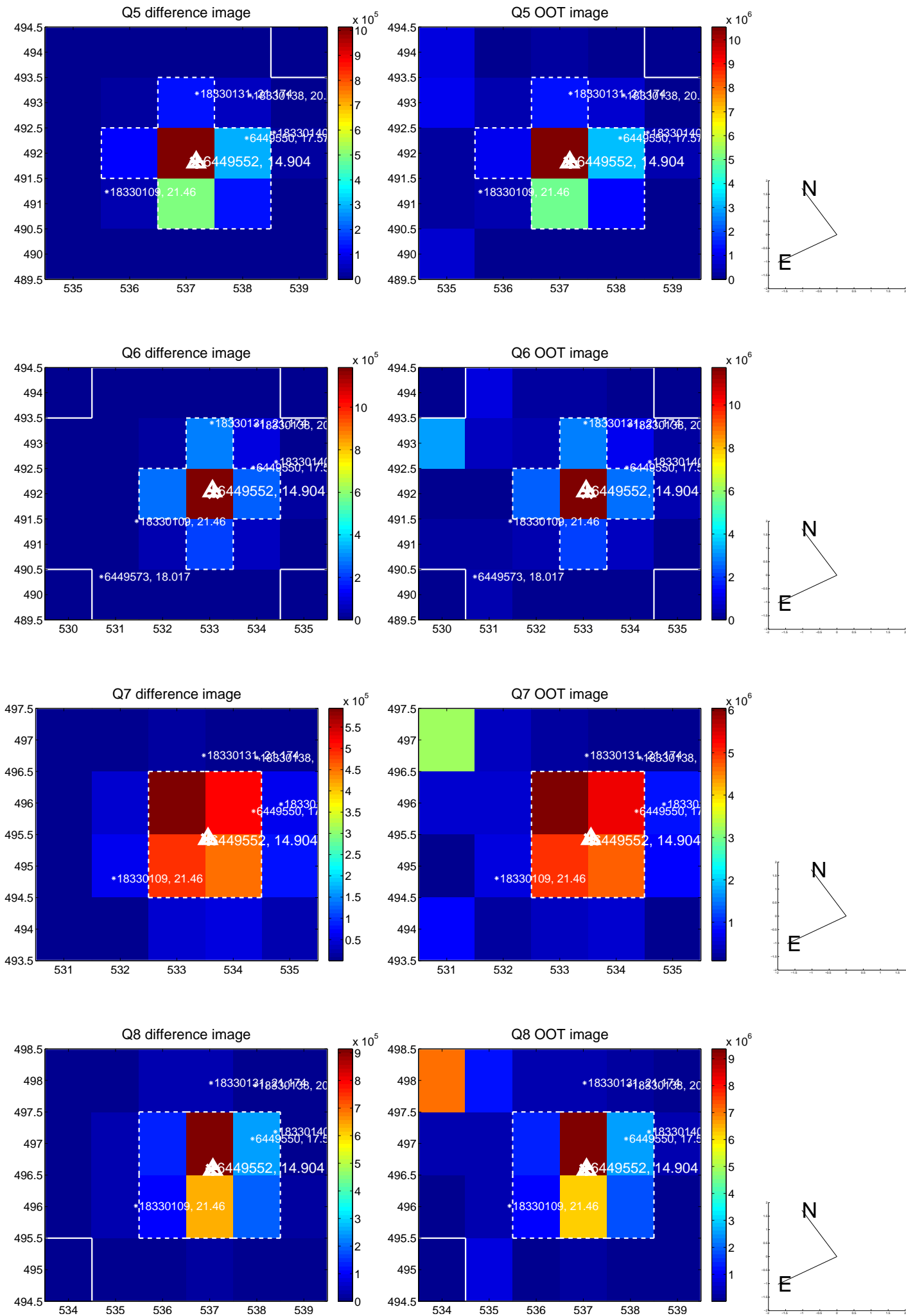


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

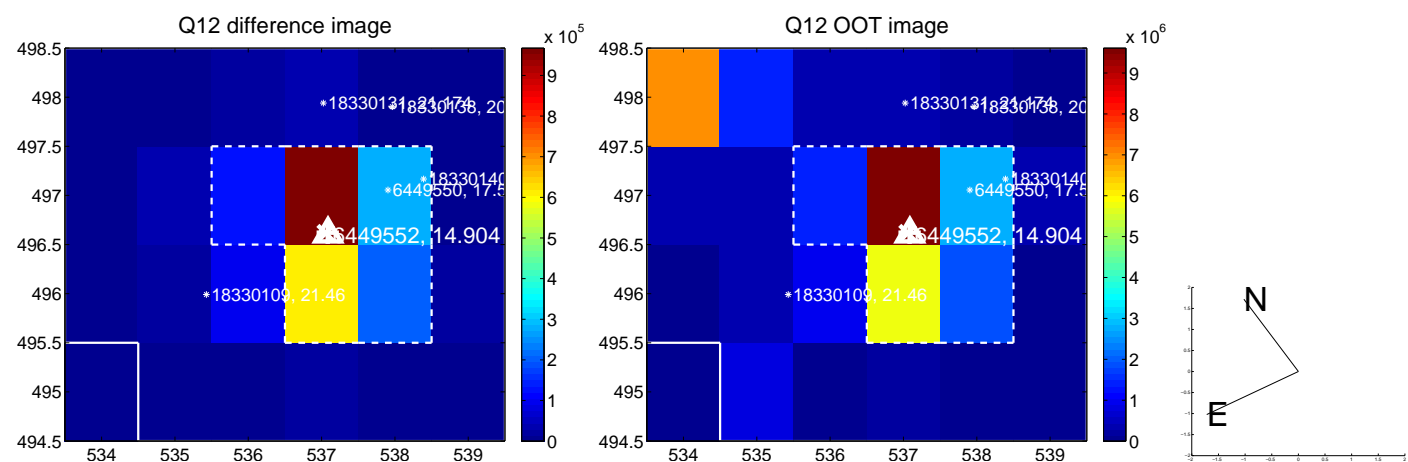
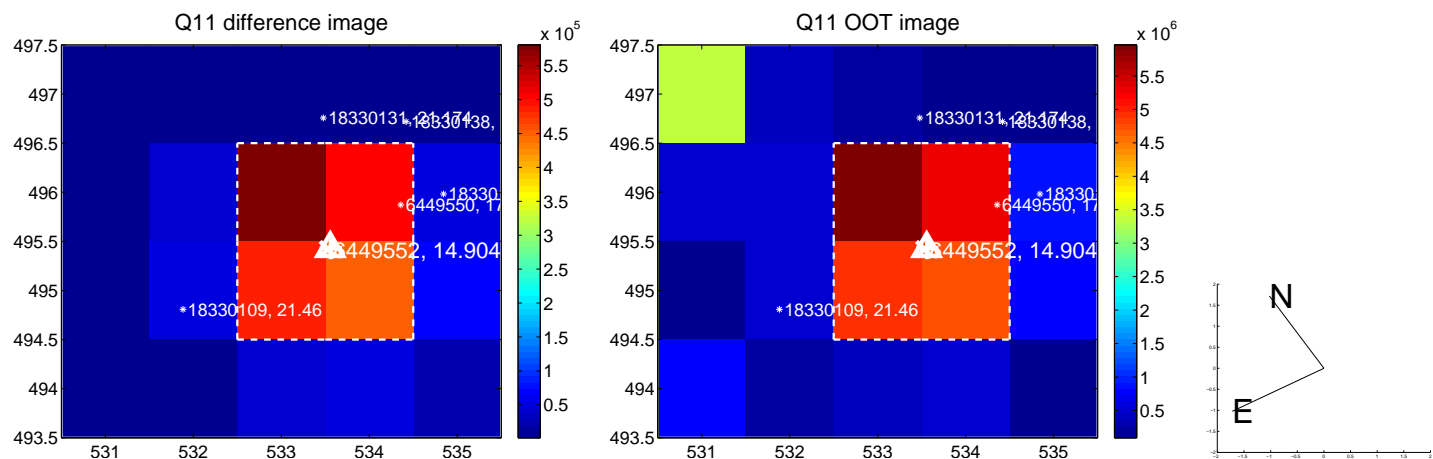
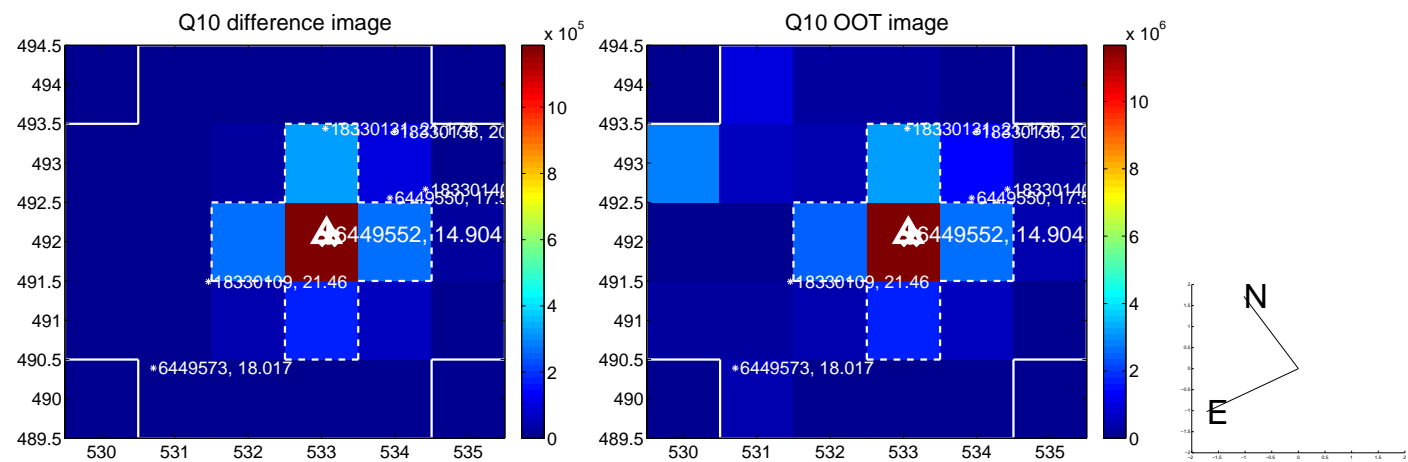
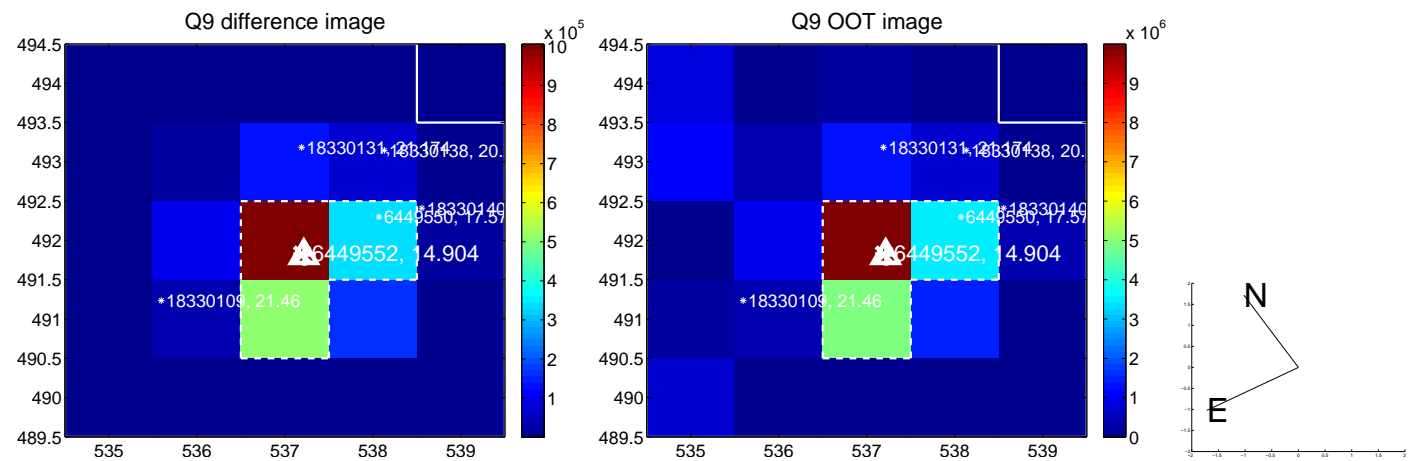
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



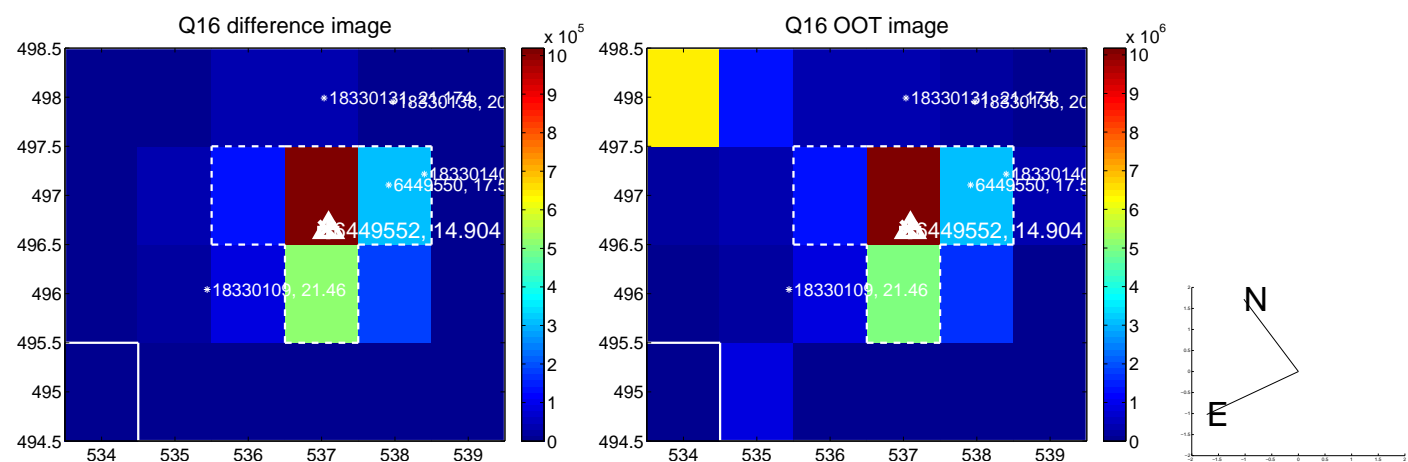
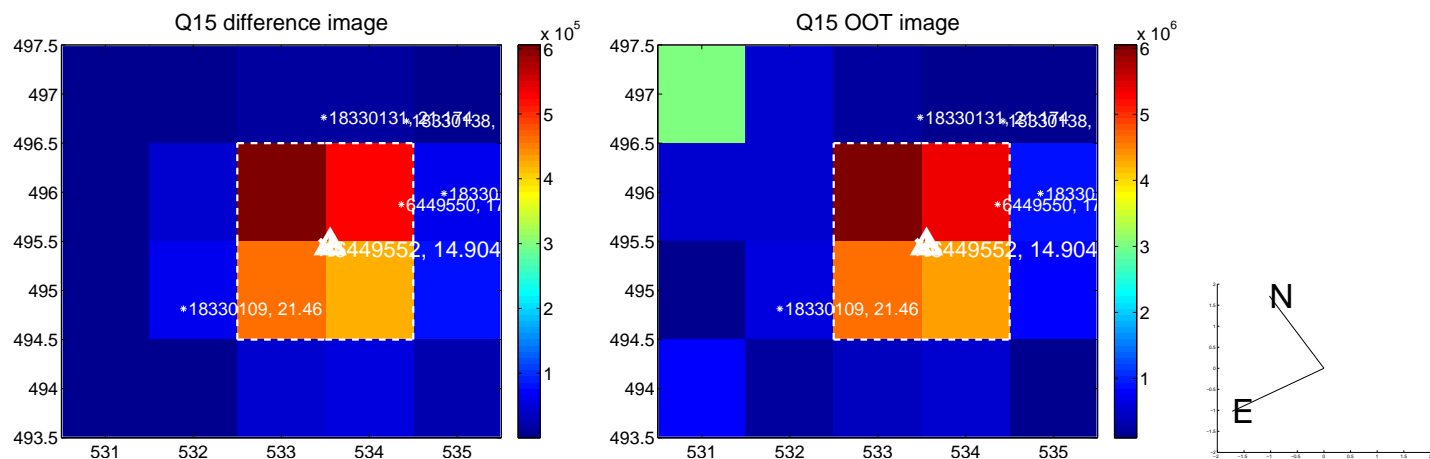
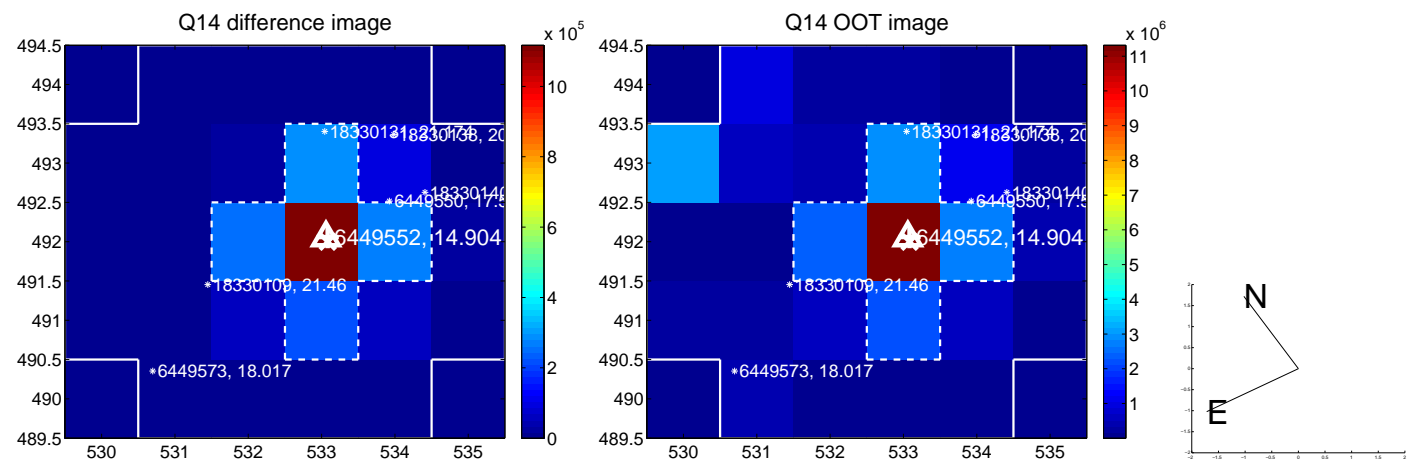
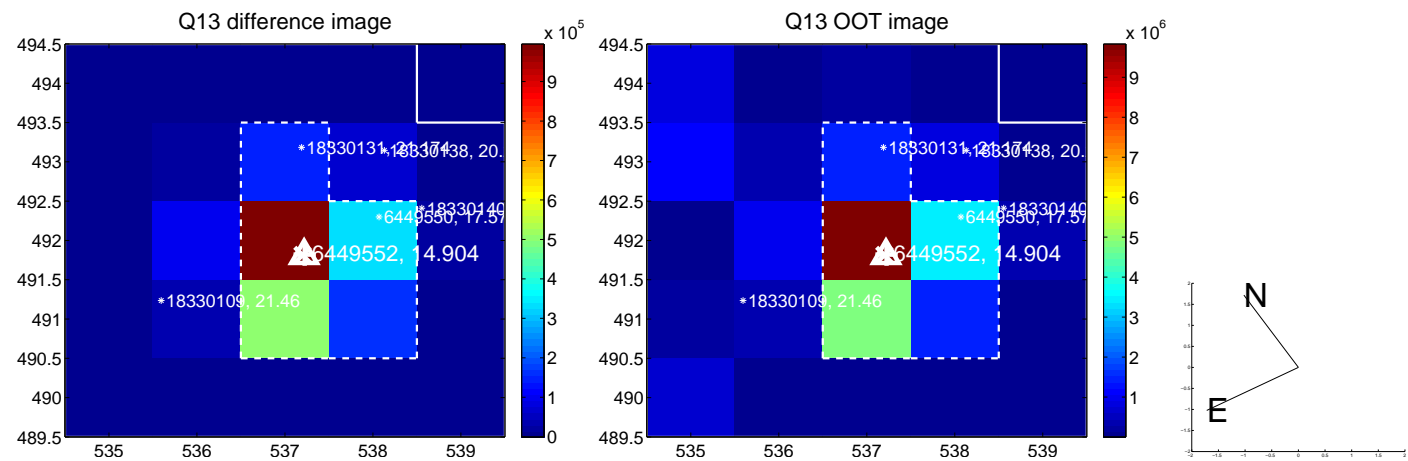
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



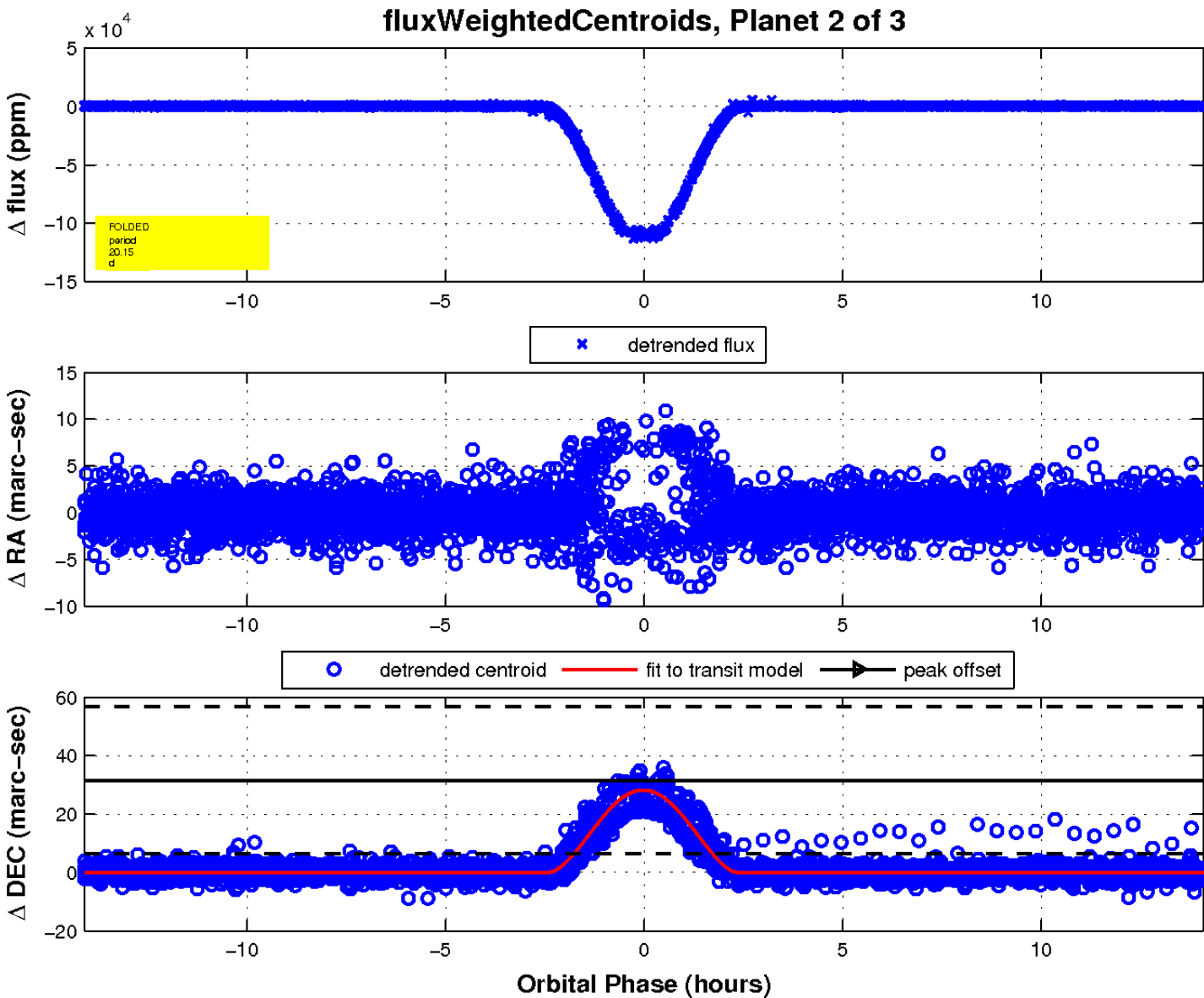
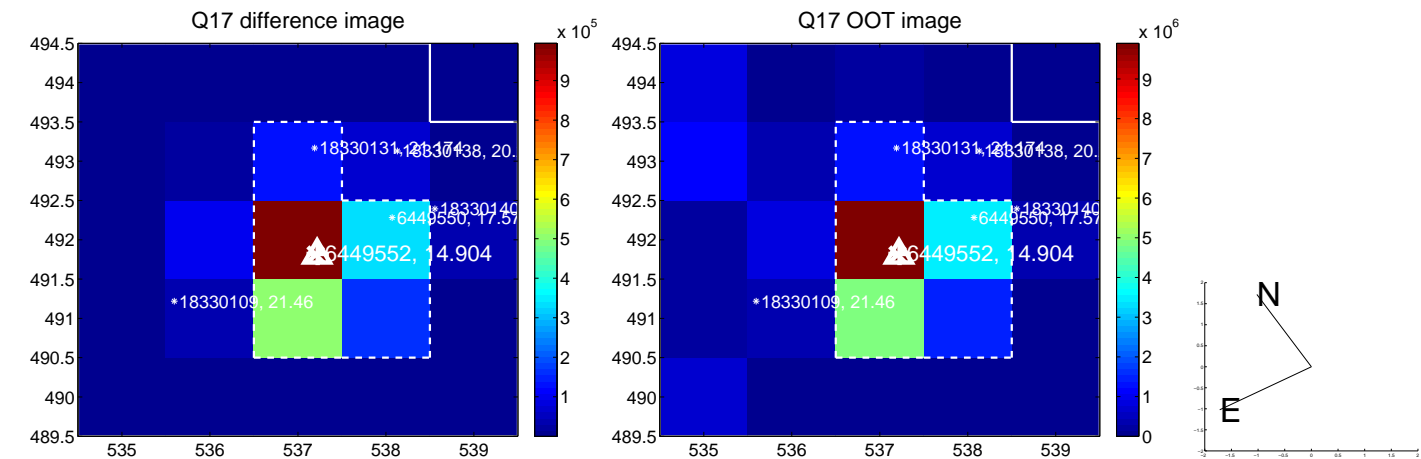
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

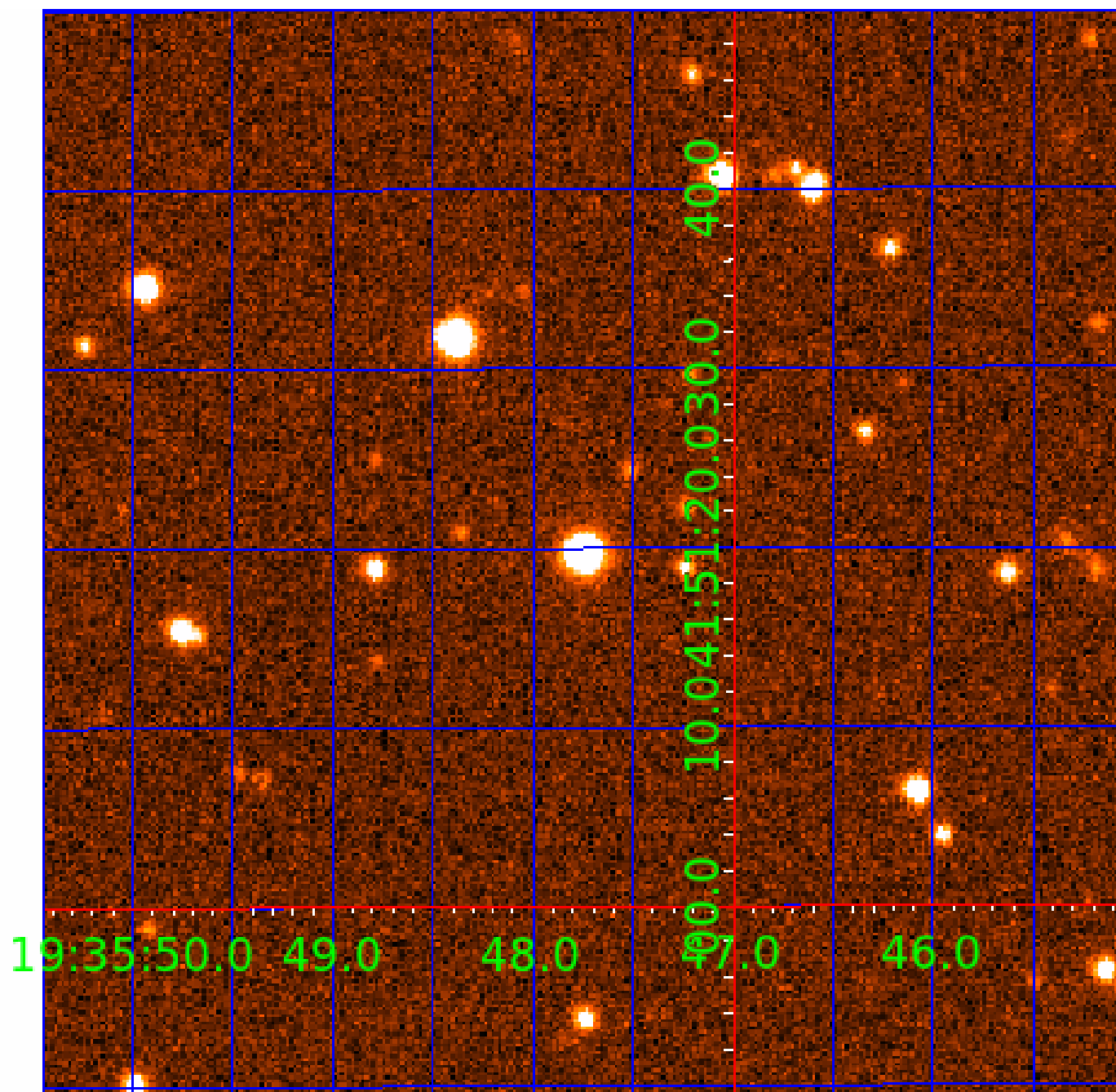


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006449552

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})
006449552-01	OBS	6714.01	20.148689	135.808853	526092.6	4.500	22029.4	-1.0	0.92	5547	50.09	37.62
006449552-02	OBS	No	20.148819	144.500293	111315.4	4.701	4255.6	2766.3	0.92	5547	41.72	37.62
006449552-03	OBS	No	20.148743	133.724629	5332.2	15.000	387.2	-1.0	0.92	5547	6.61	37.62

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006449552-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
006449552-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
006449552-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

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

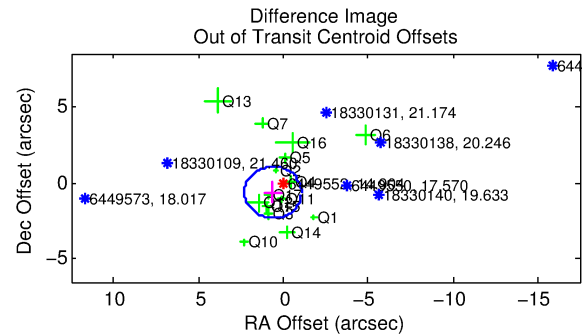
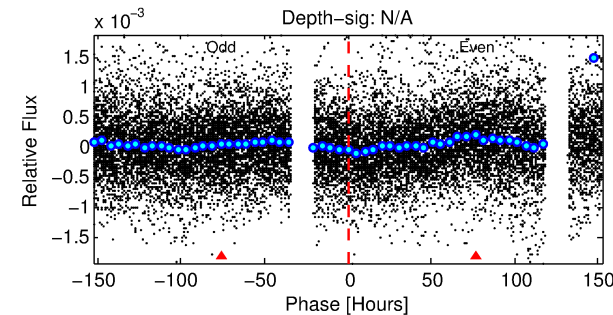
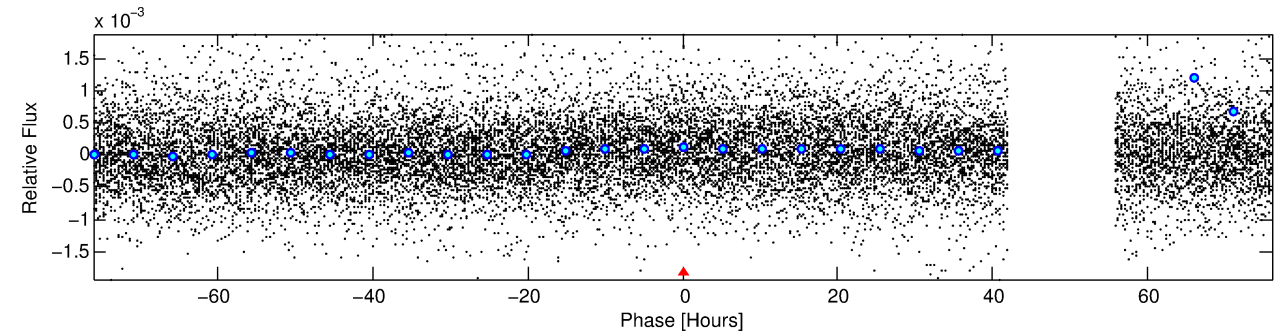
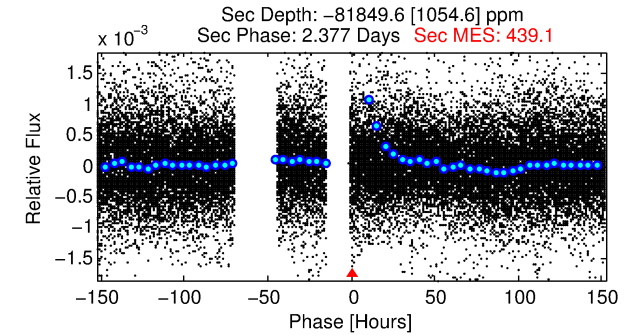
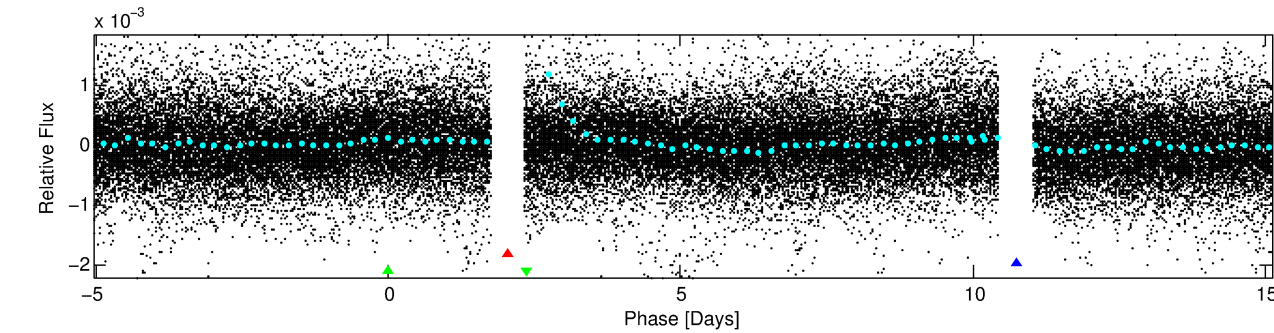
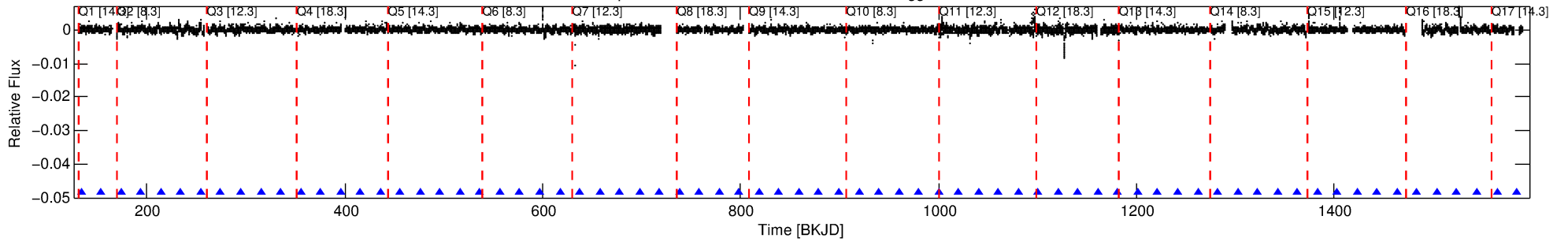
Ephemeris Match Information For 006449552-03

No Significant Match Found

DV One-Page Summary

KIC: 6449552 Candidate: 3 of 3 Period: 20.149 d
KOI: K06714 Corr: No Ephemeris Match

Kp: 14.90 R*: 0.92 Rs Teff: 5547.0 K Logg: 4.45 Fe/H: -0.100



TPS TCE Results:

Period = 20.14874 d
Epoch = 133.7246 BKJD

DV fit results are unavailable

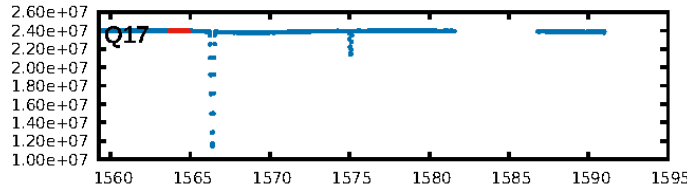
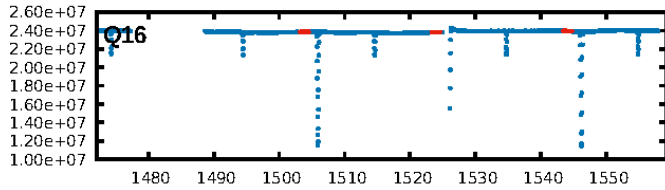
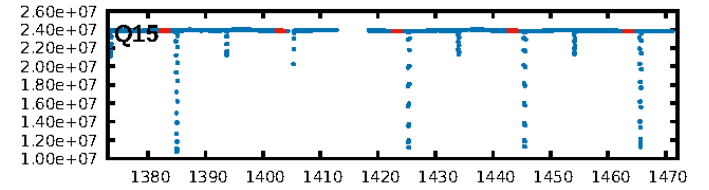
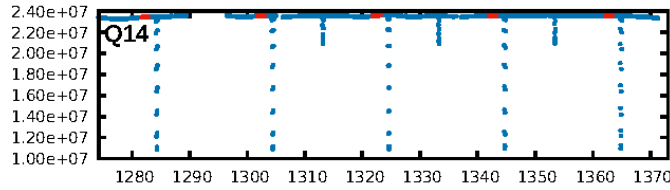
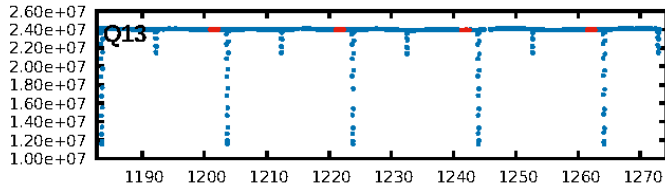
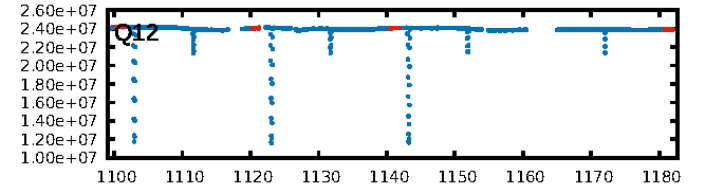
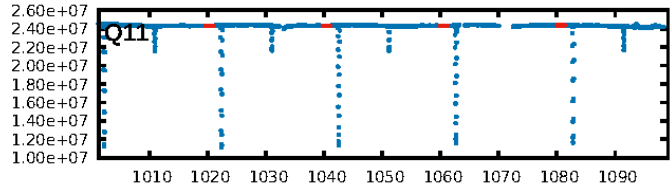
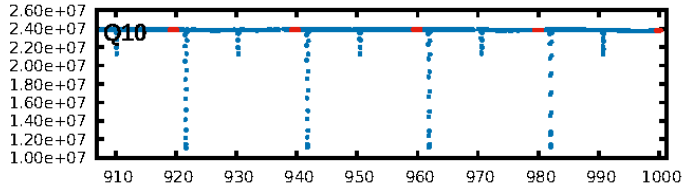
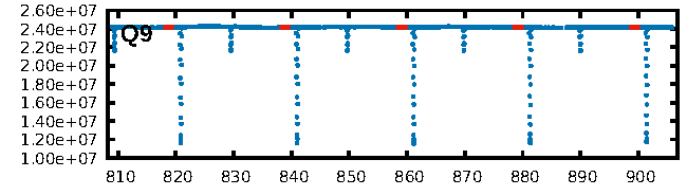
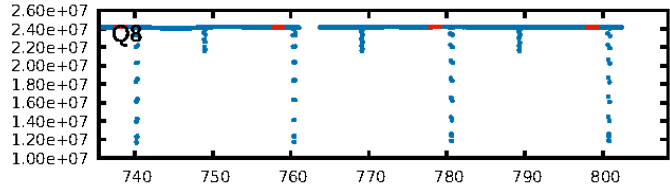
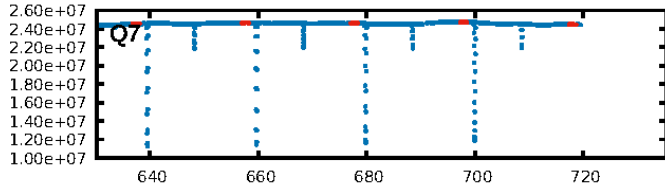
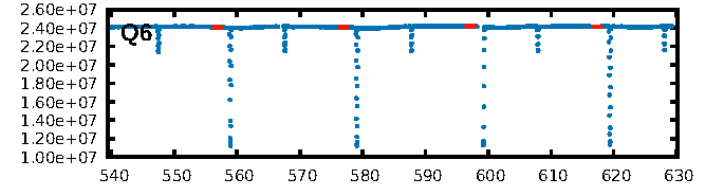
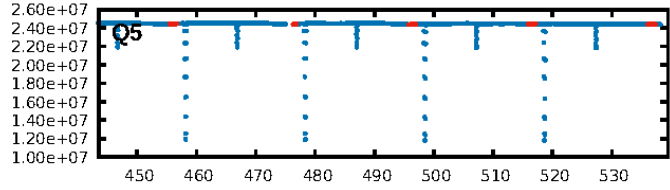
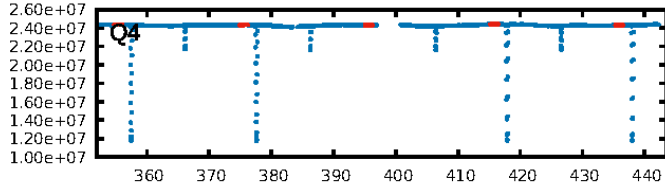
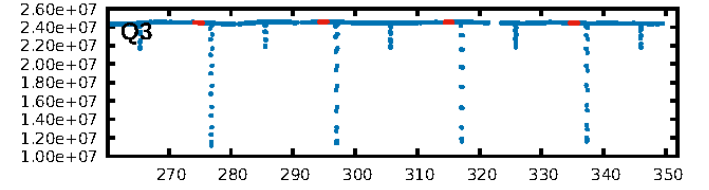
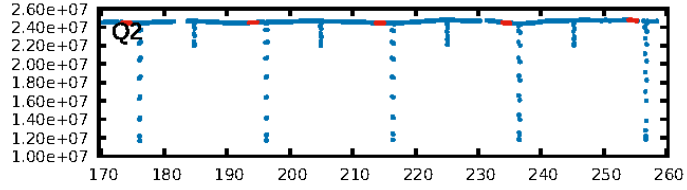
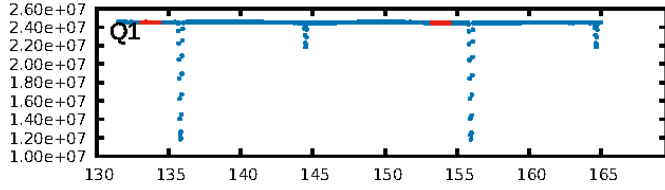
DV Diagnostic Results:

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 [67/67]
GhostDiagnostic-chr: 8.689
Centroid-sig: N/A
Centroid-so: 10.696 arcsec [3.97σ]
OotOffset-rm: 0.870 arcsec [1.55σ]
KicOffset-rm: 0.784 arcsec [1.29σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.20 [3/15]
DiffImageOverlap-fno: 1.00 [17/17]

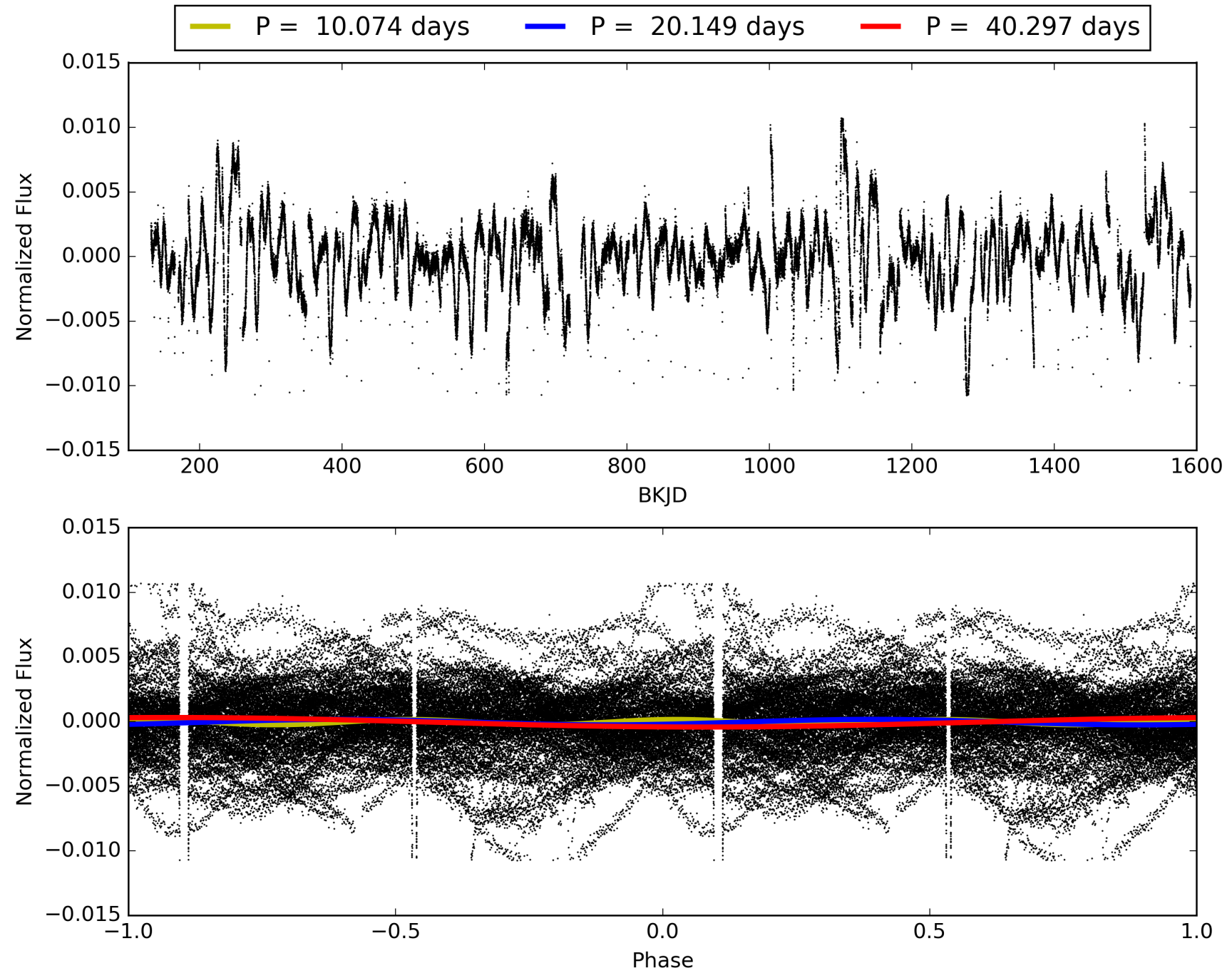
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:32:12 Z

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

TCE 006449552-03, PDC Light Curves

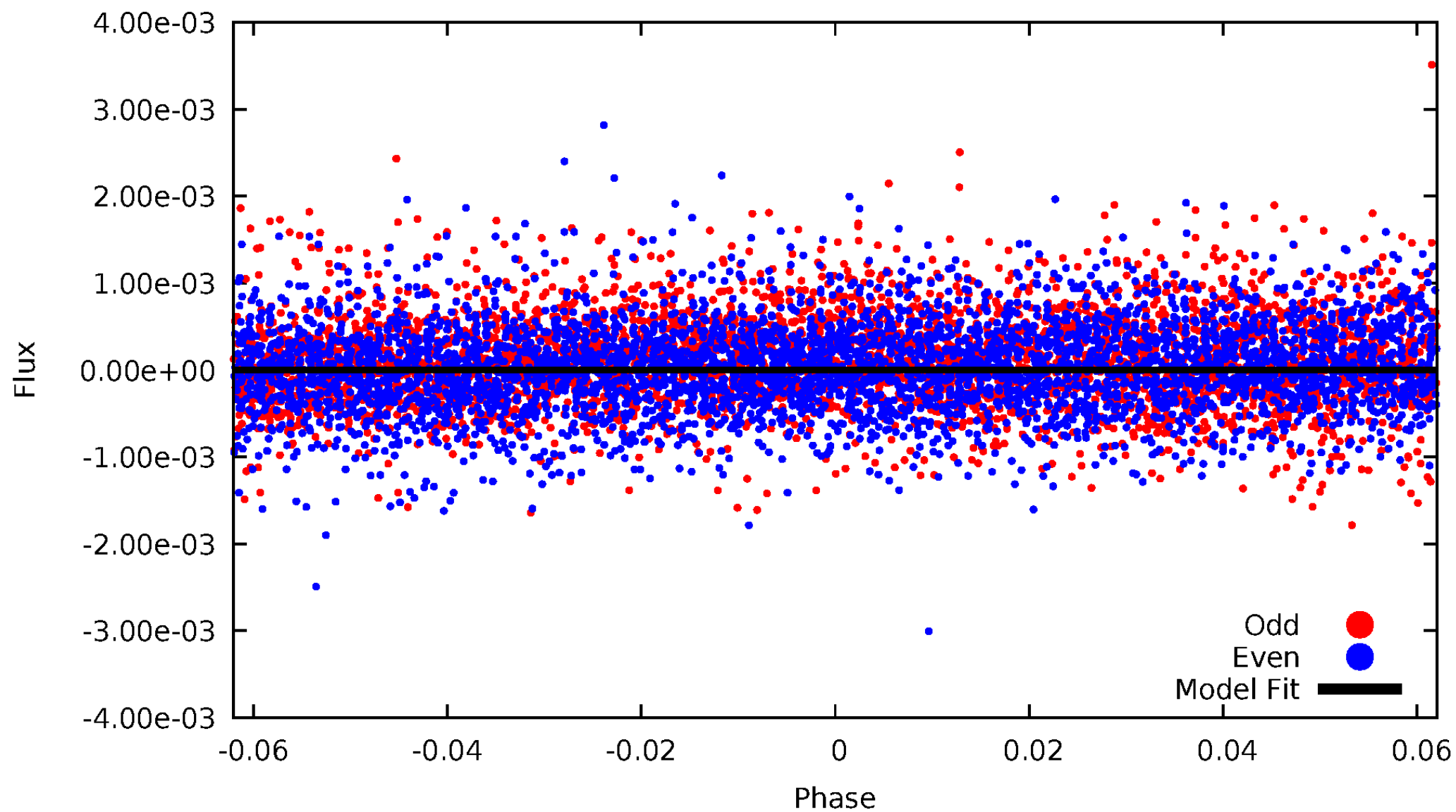


TCE 006449552-03



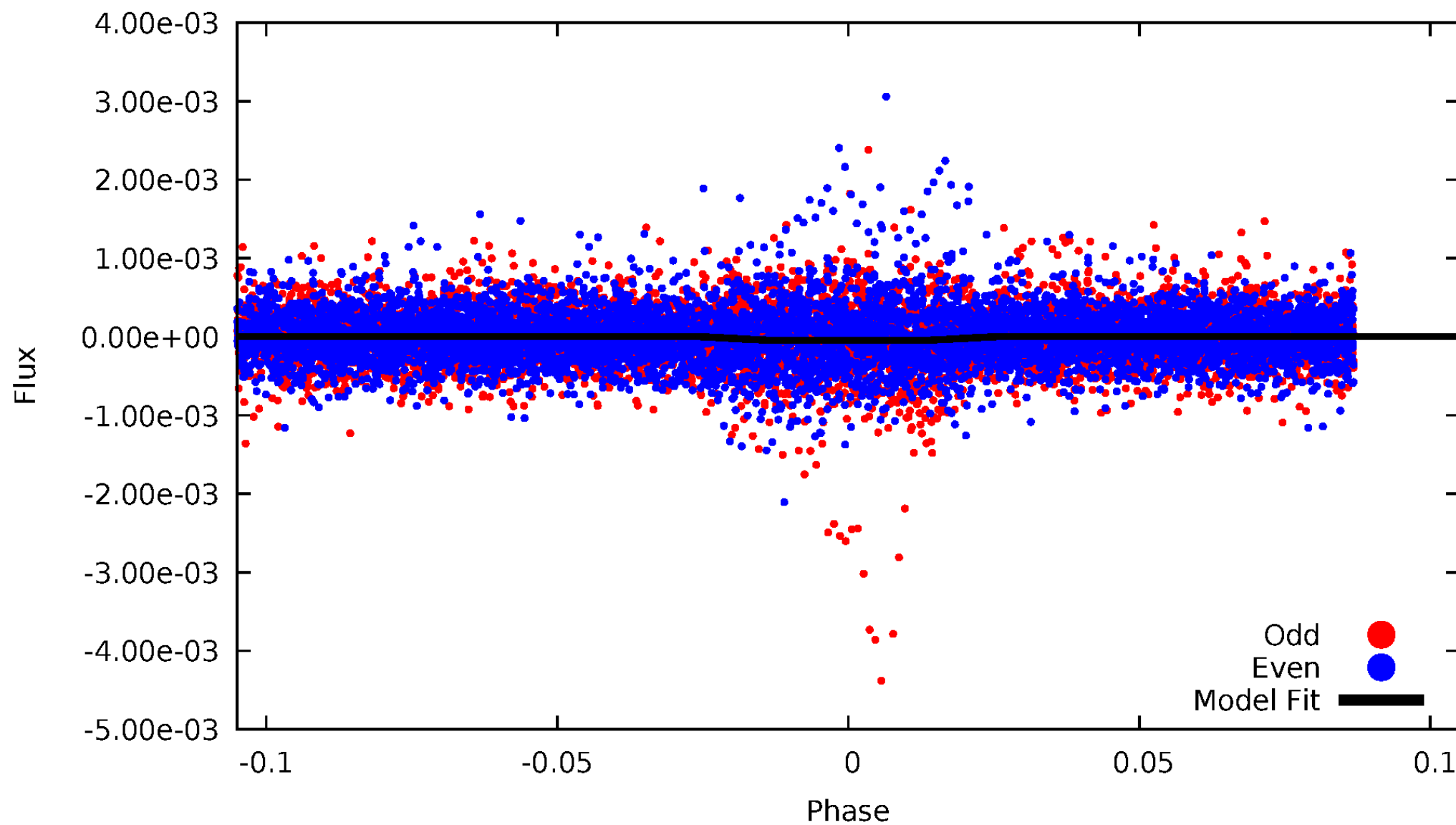
DV Odd/Even

TCE 006449552-03

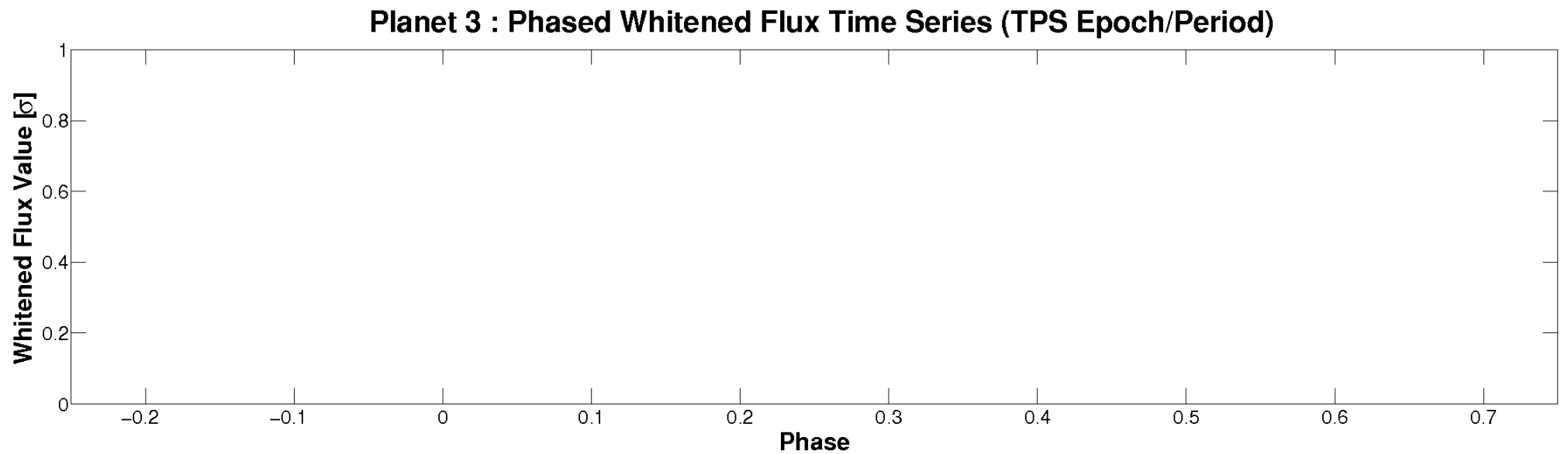
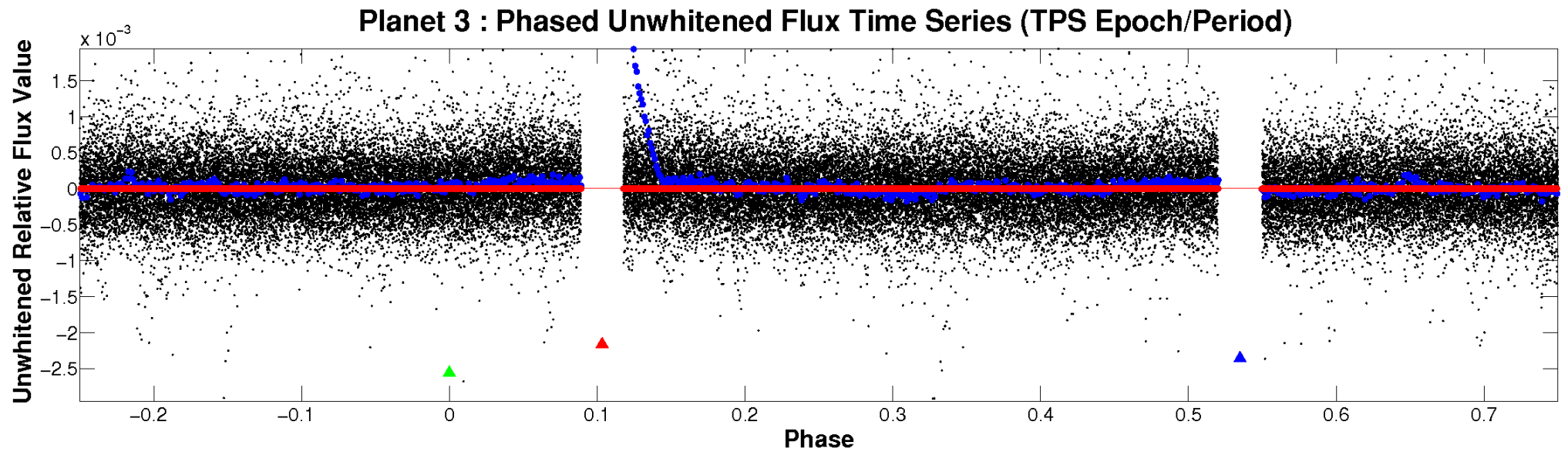


ALT Odd/Even

TCE 006449552-03

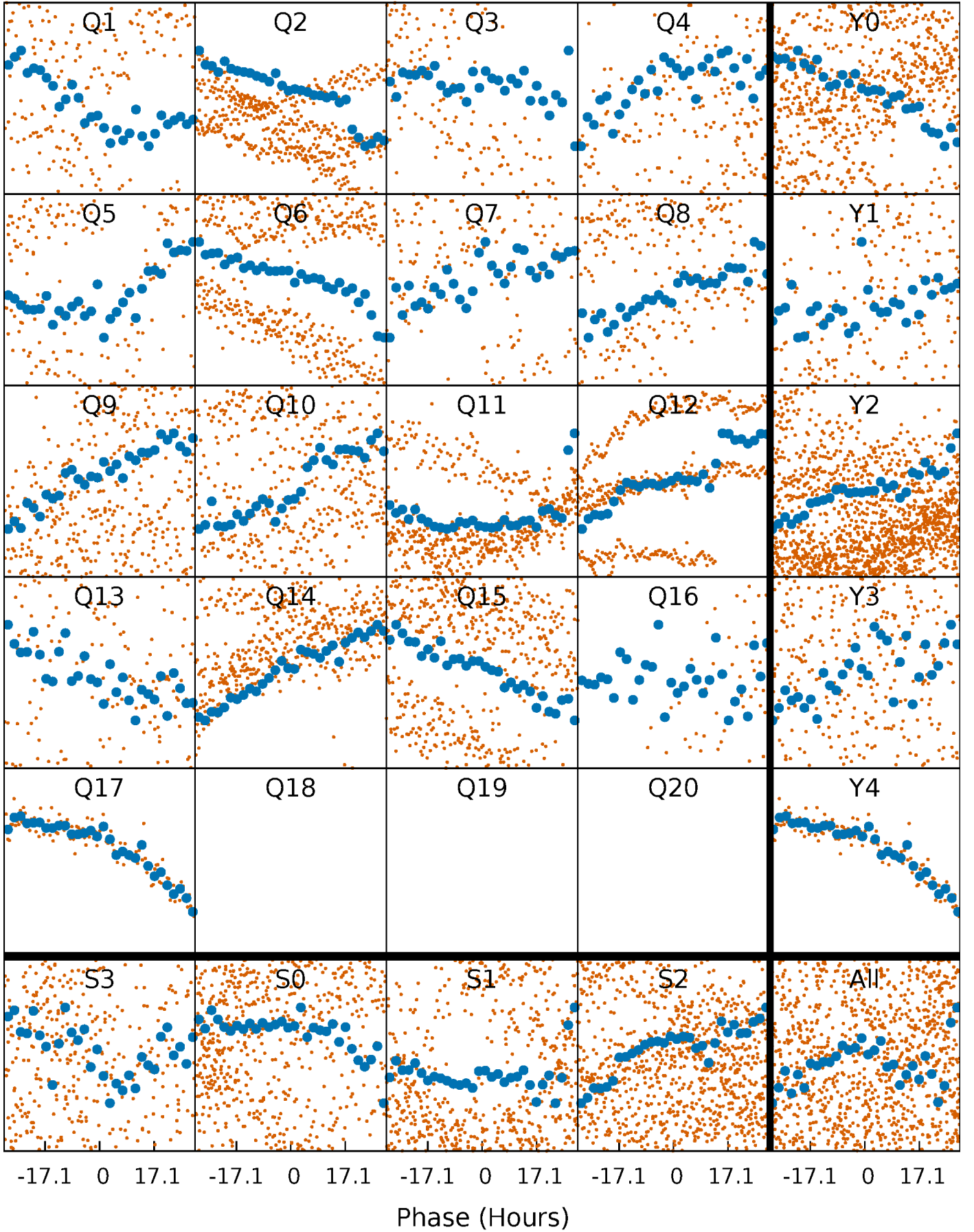


Non-Whitened Vs. Whitened Light Curve



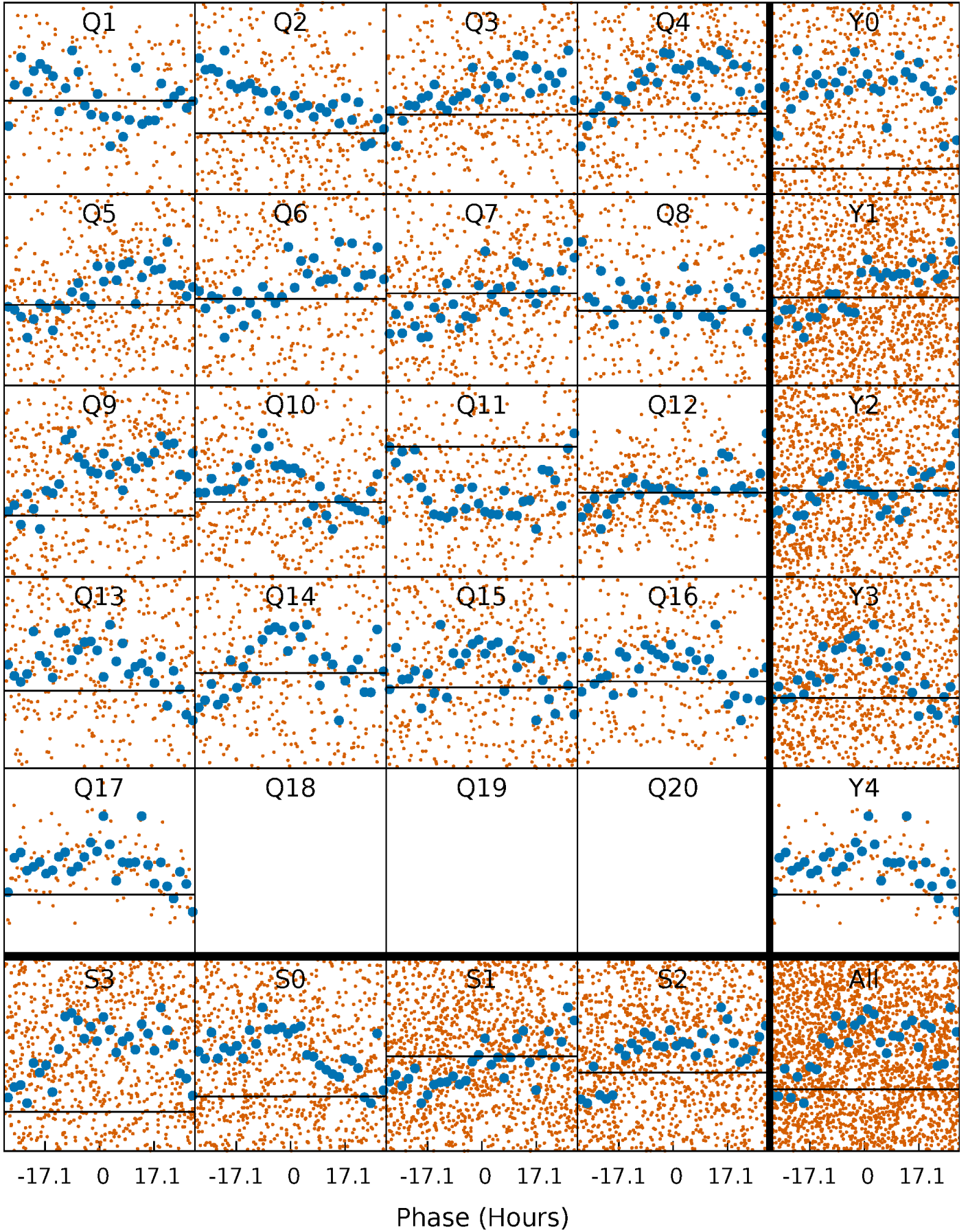
PDC Quarter-Phased Transit Curves

TCE 006449552-03 P= 20.148743 Days $T_0=133.724629$ (BKJD)



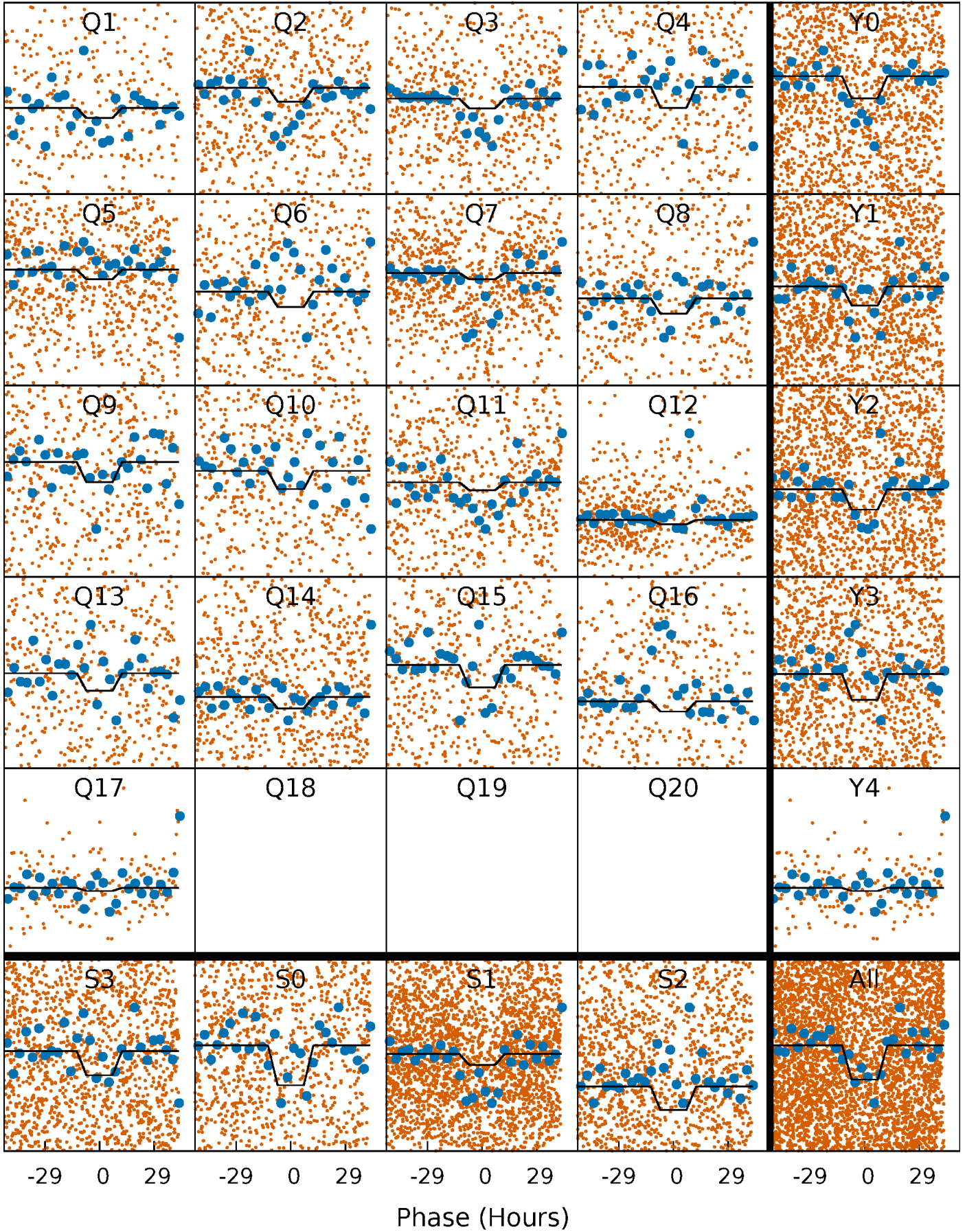
DV Quarter-Phased Transit Curves

TCE 006449552-03 P= 20.148743 Days $T_0=133.724629$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

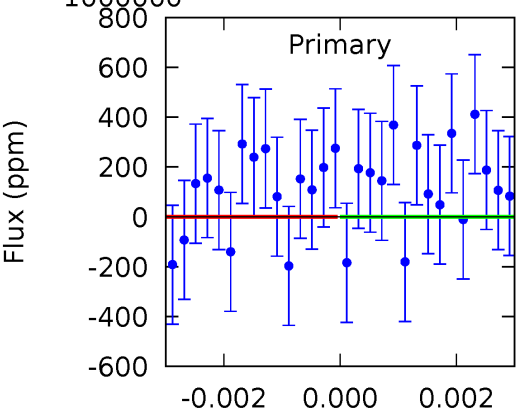
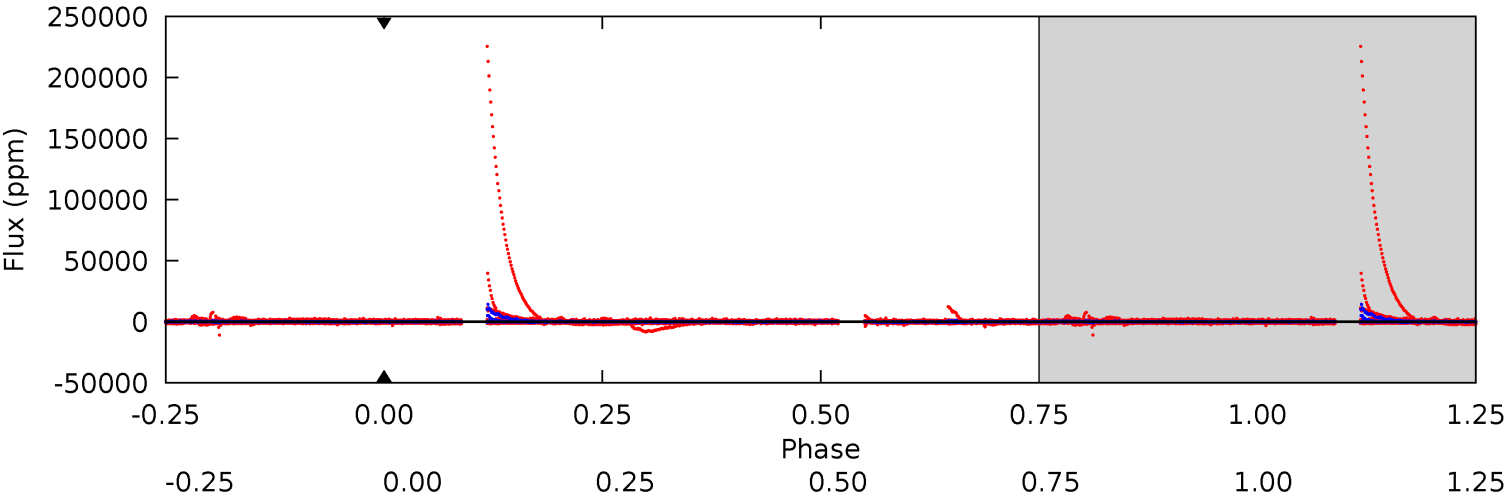
TCE 006449552-03 P= 20.148743 Days $T_0=133.767173$ (BKJD)



DV Model-Shift Uniqueness Test

006449552-03, P = 20.148743 Days, E = 113.575886 Days

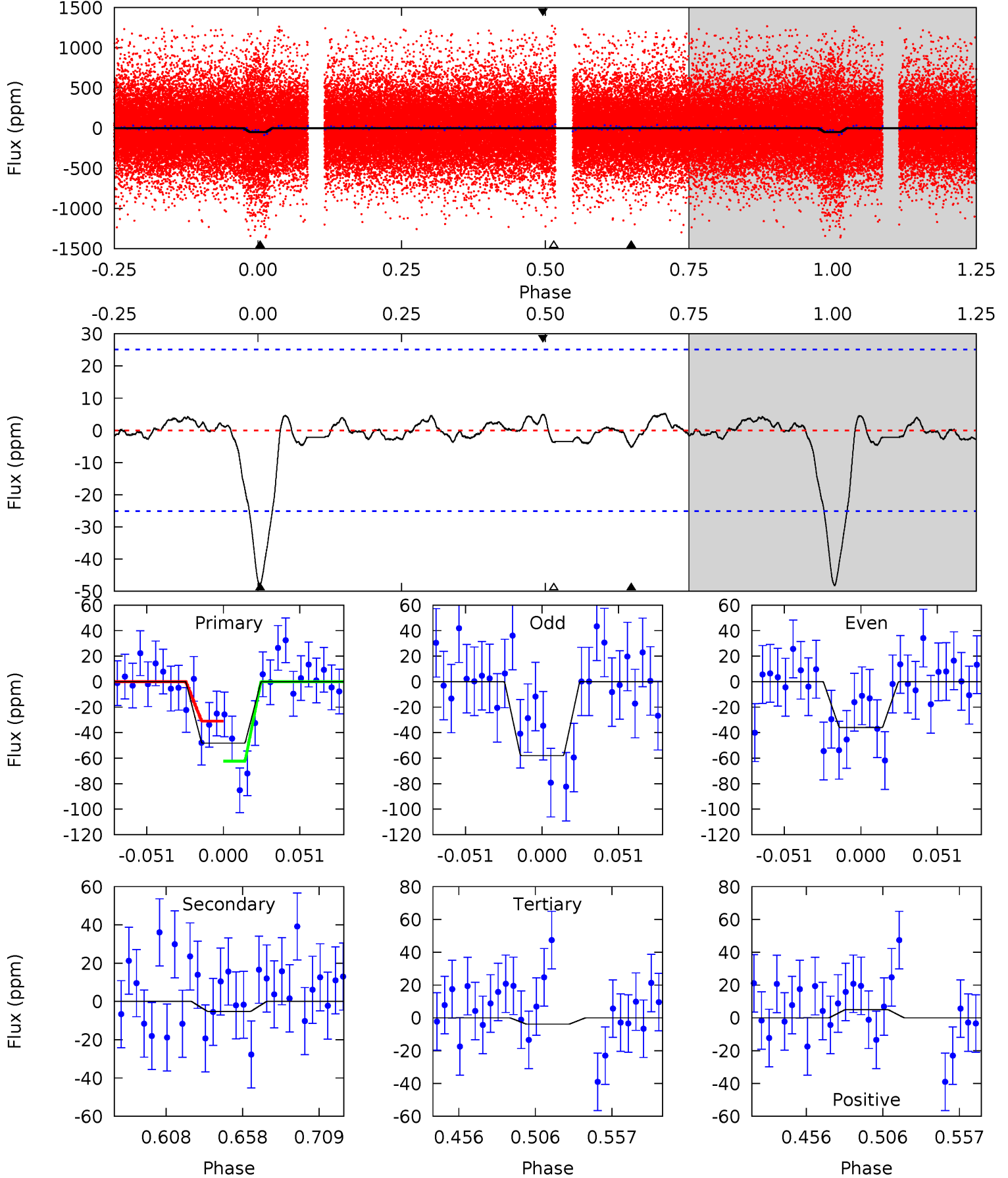
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

006449552-03, P = 20.148743 Days, E = 113.618430 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.05	0.97	0.71	0.93	4.71	1.95	0.42	8.34	8.11	0.26	0.04	2.06	2.95	0.10	2.96



Stellar Parameters For KIC 006449552

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5547^{+166}_{-166}	$4.447^{+0.098}_{-0.168}$	$-0.100^{+0.300}_{-0.300}$	$0.918^{+0.228}_{-0.123}$	$0.862^{+0.111}_{-0.074}$	$1.568^{+0.739}_{-0.730}$
	+3%/-3%	+2%/-4%	+300%/-300%	+25%/-13%	+13%/-9%	+47%/-47%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006449552-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$10.21^{+9.62}_{-6.31}$	893^{+58}_{-45}	3638^{+10378}_{-16151}	107^{+17472}_{-14055}
Alt.	-5 ± 5	$7.10^{+8.40}_{-4.84}$	888^{+58}_{-47}	1832^{+688}_{-3614}	$0.749^{+8.123}_{-0.751}$

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 $A_{obs} \gg 1.0$

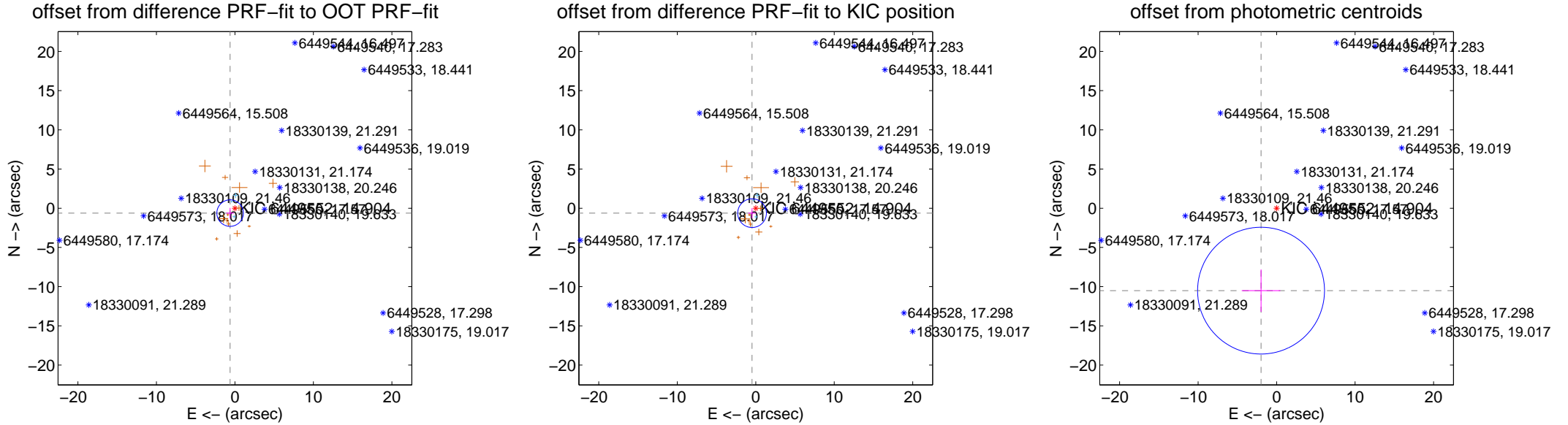
DV Centroid Data

Supplemental centroid analysis for 006449552-03. Kepler magnitude: 14.90. Transit SNR -1.00

There are 3 quarters with good PRF difference image offsets

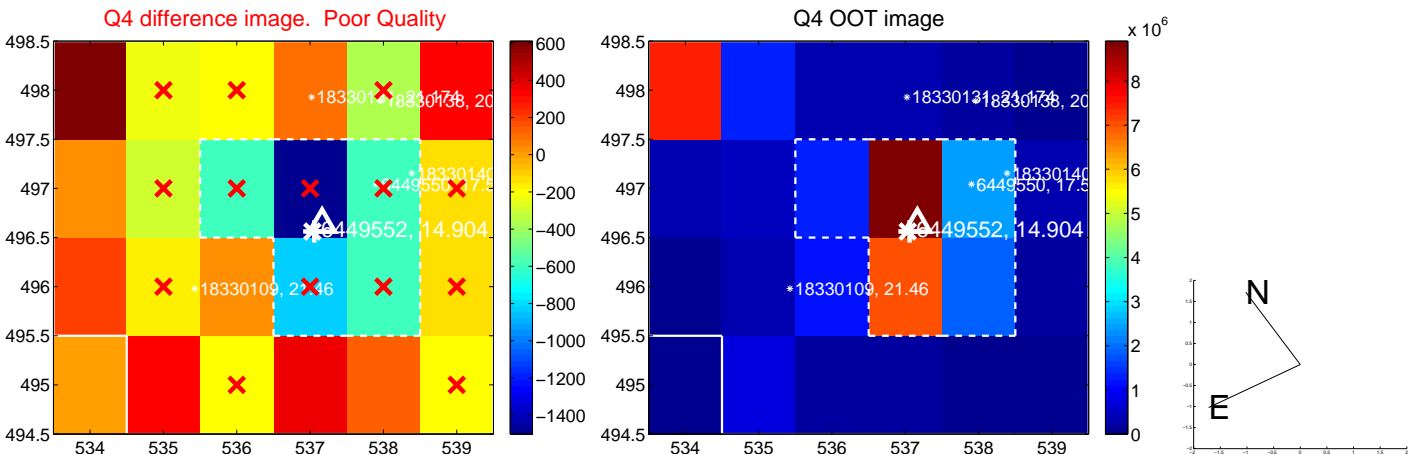
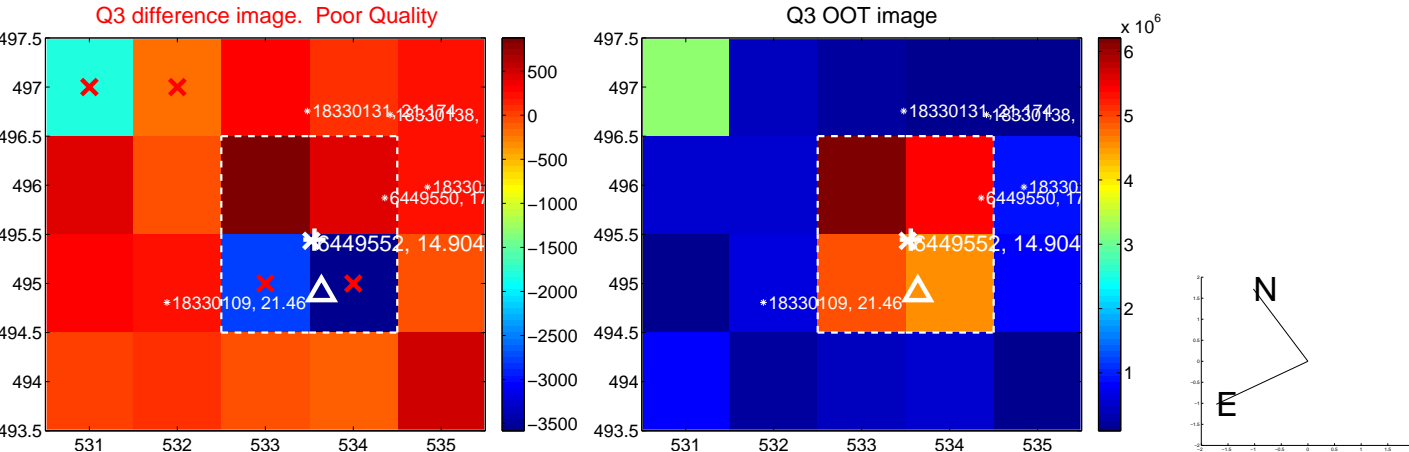
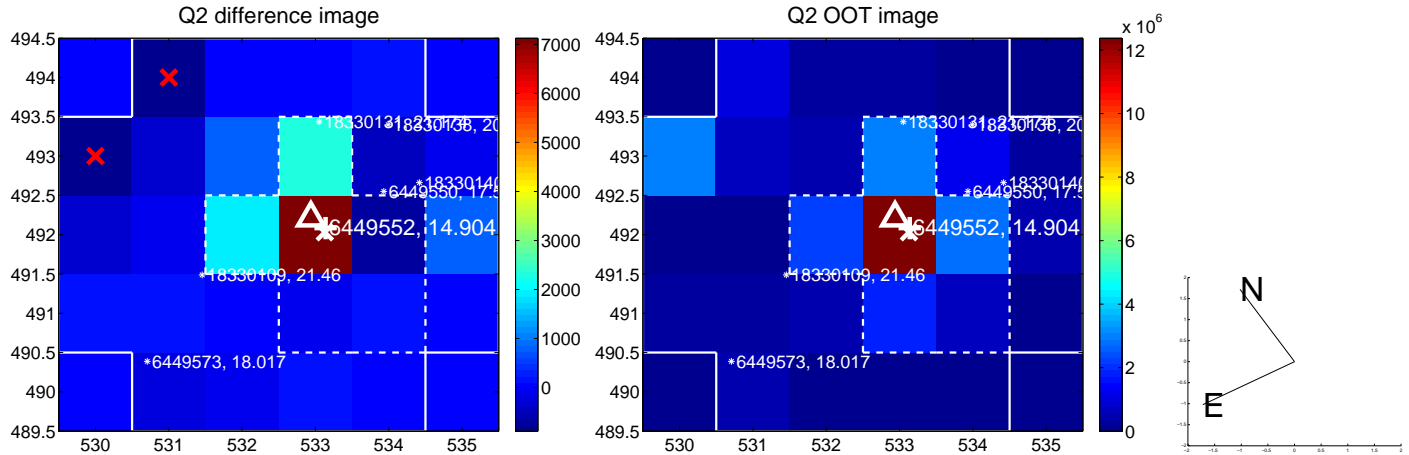
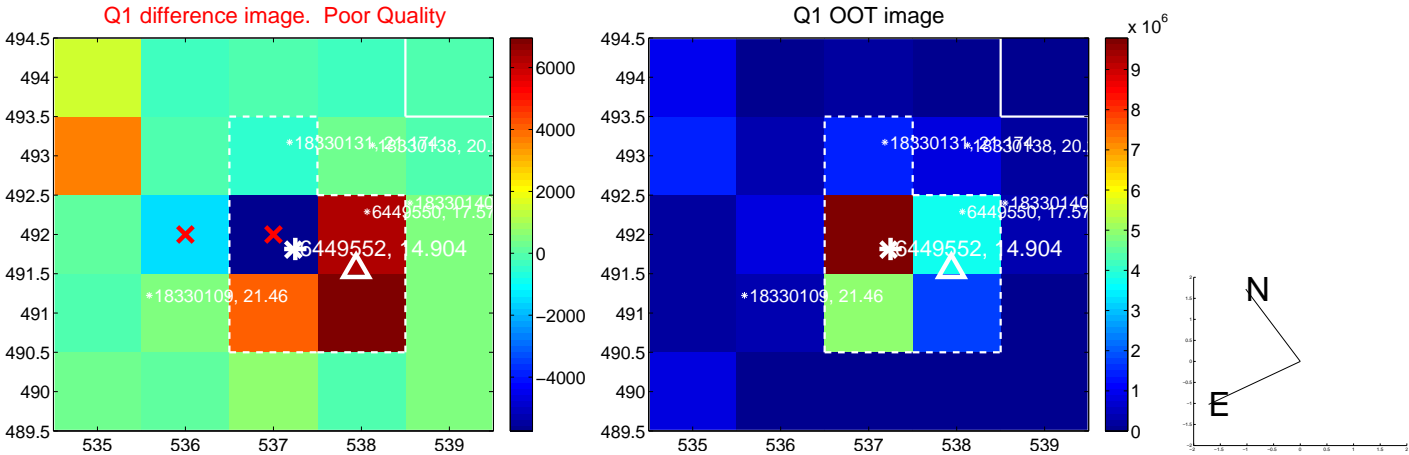
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.870 ± 0.563	1.55	0.611 ± 0.496	-0.620 ± 0.668
PRF-fit source offset from KIC position	0.784 ± 0.610	1.29	0.471 ± 0.496	-0.627 ± 0.635
photometric centroid source offset	10.70 ± 2.69	3.97	1.98 ± 2.46	-10.51 ± 2.70

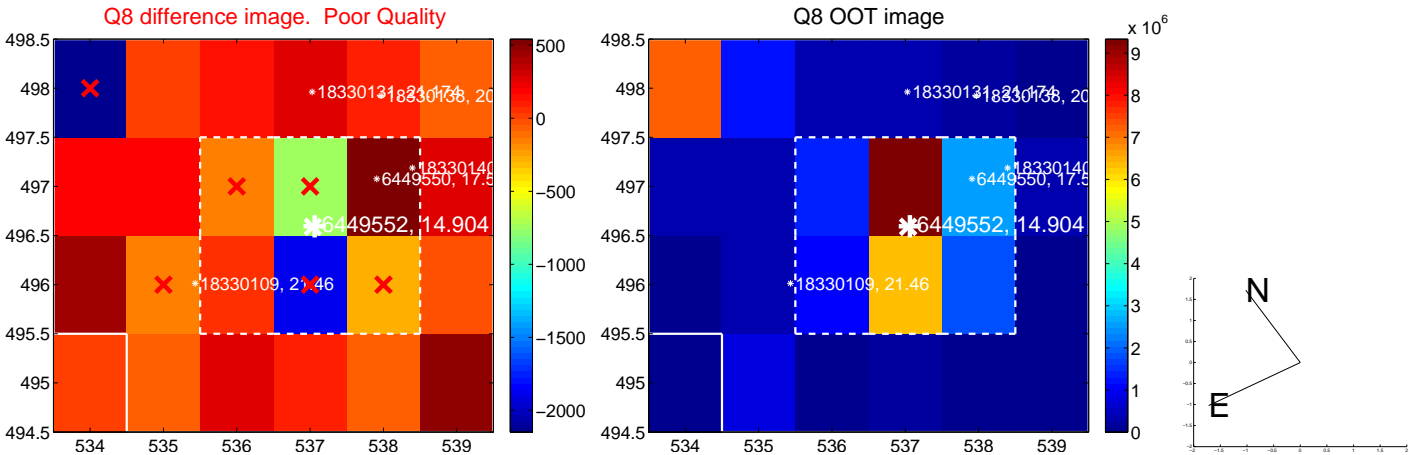
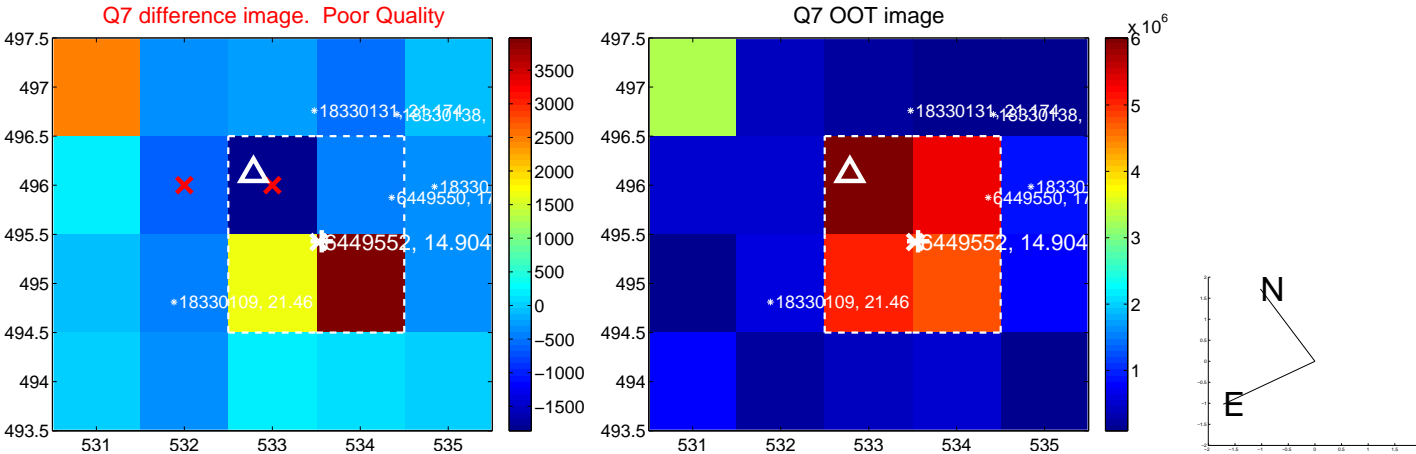
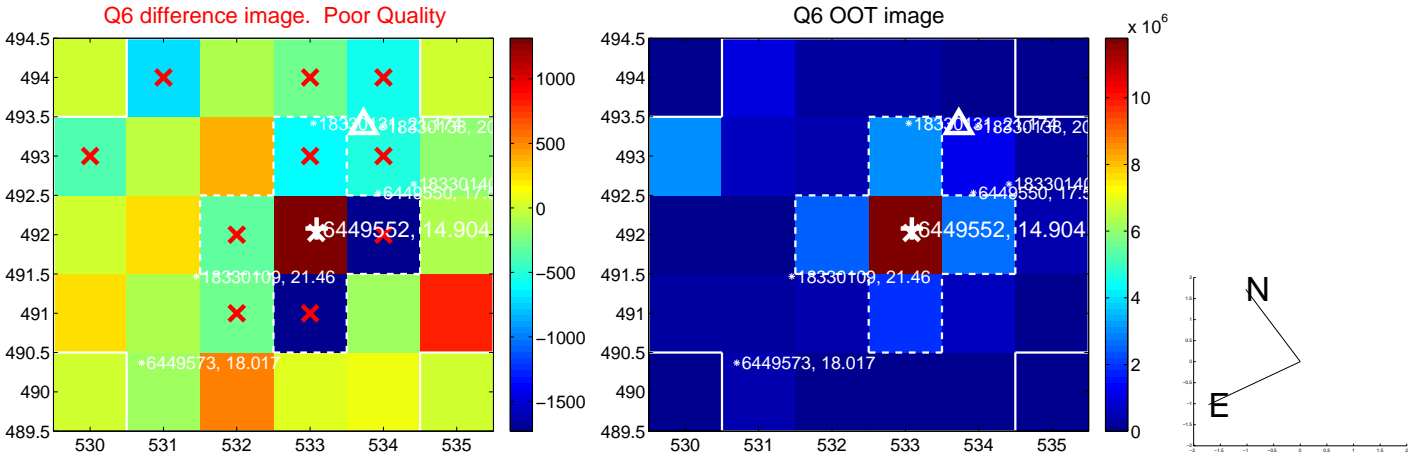
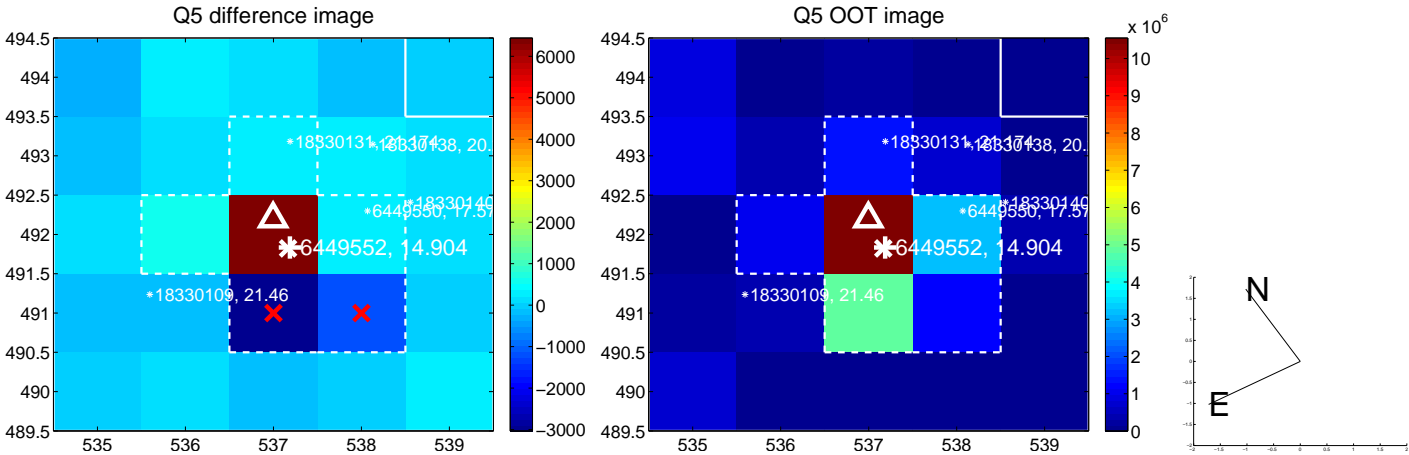


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

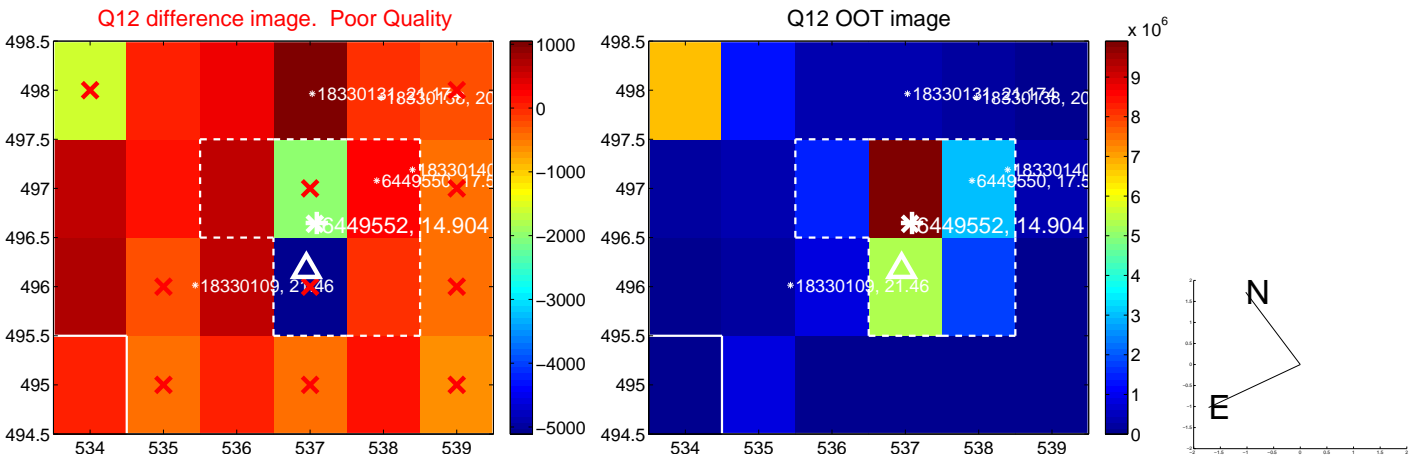
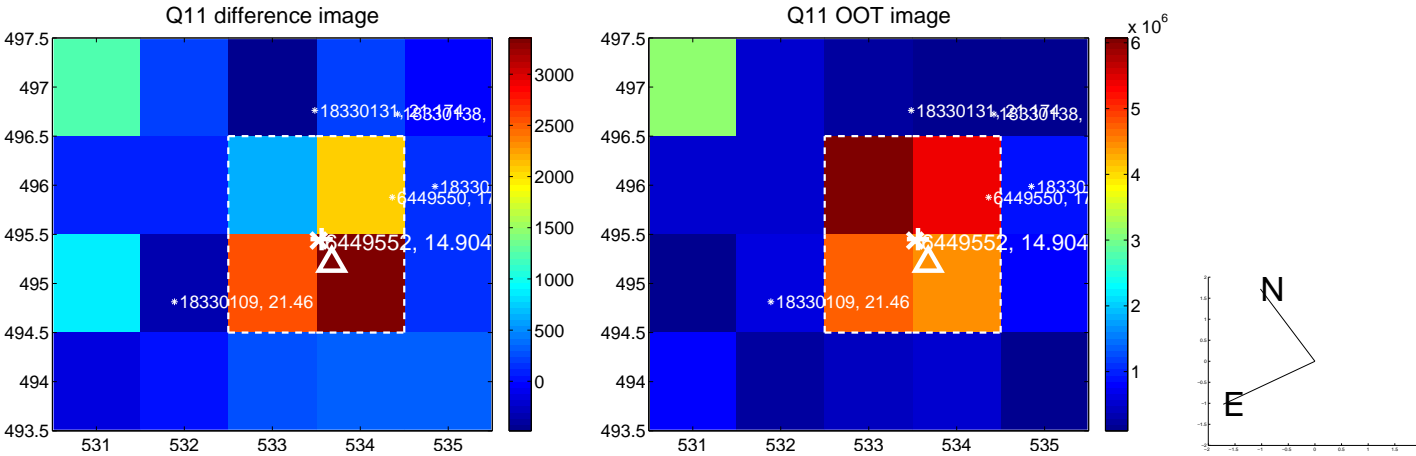
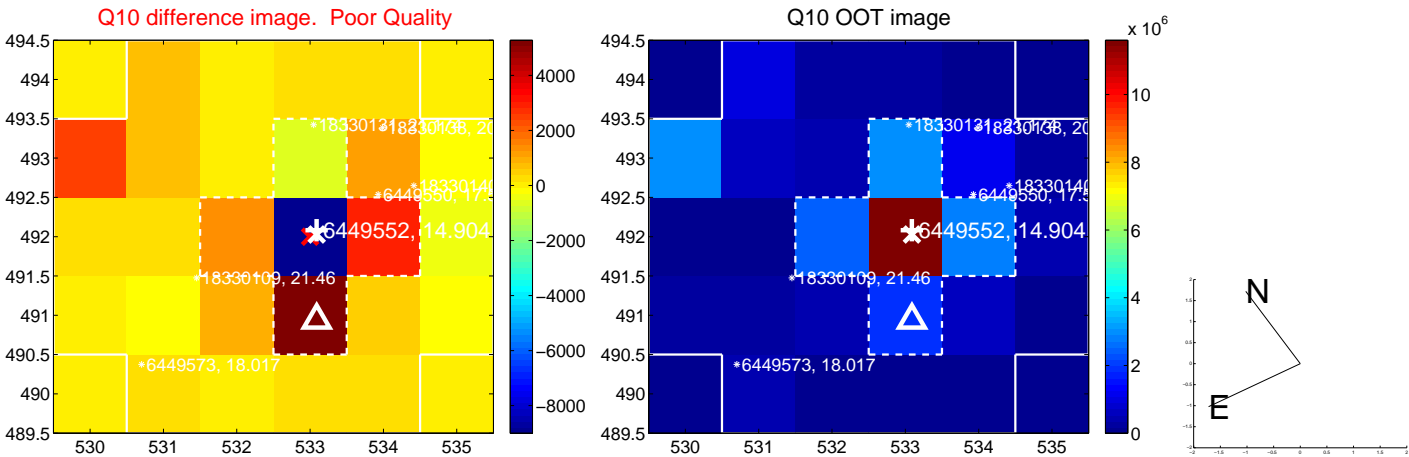
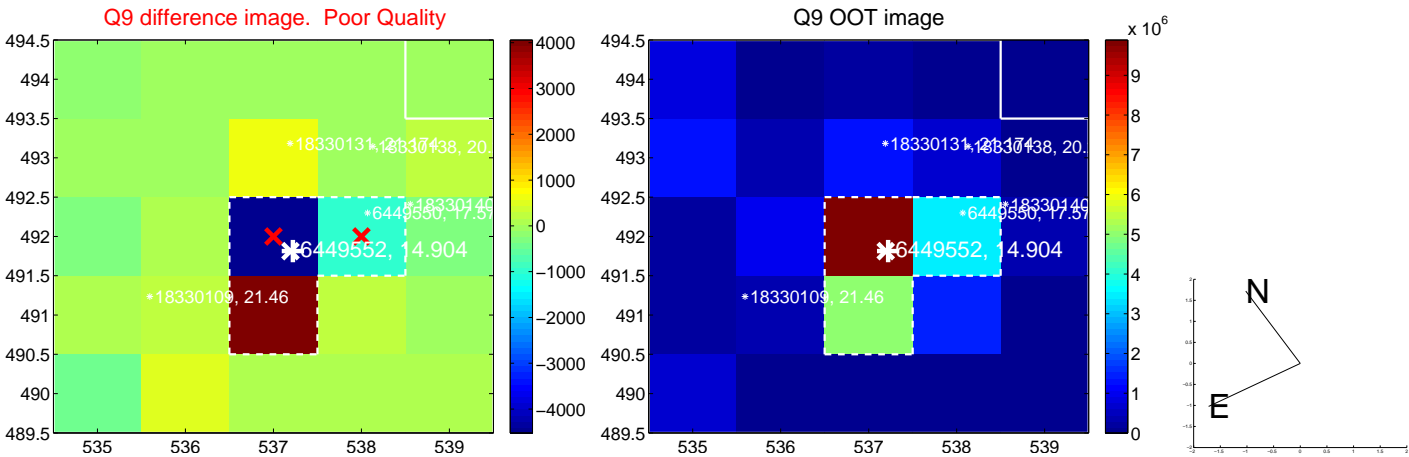
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



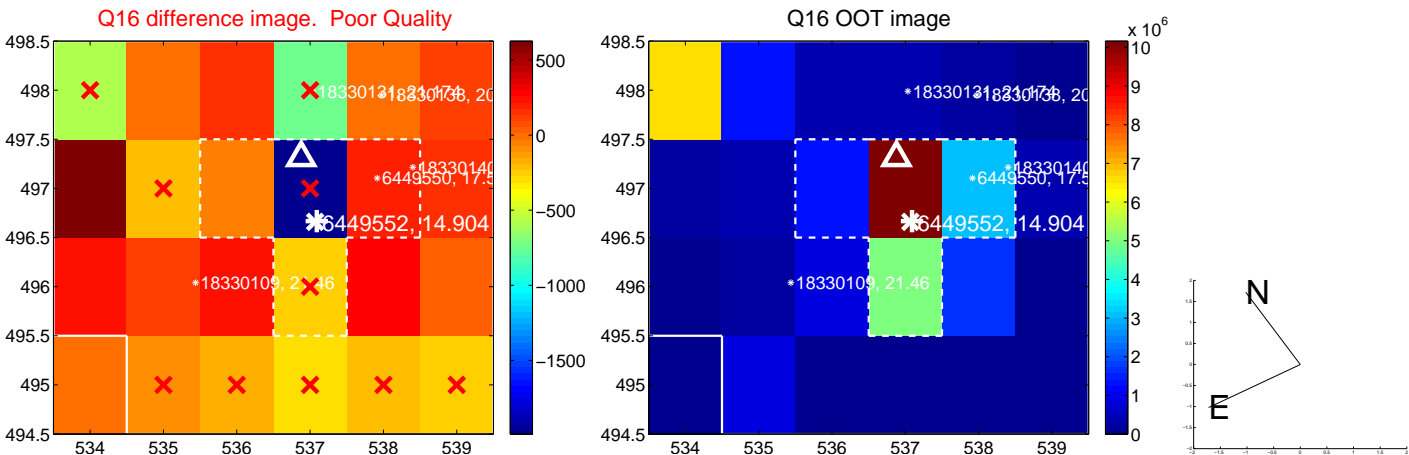
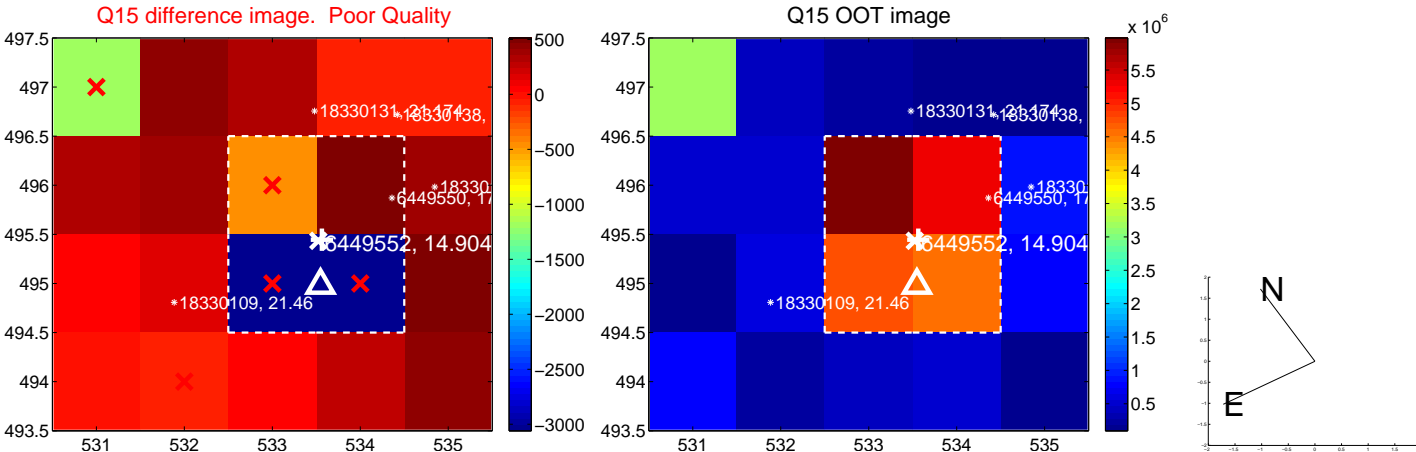
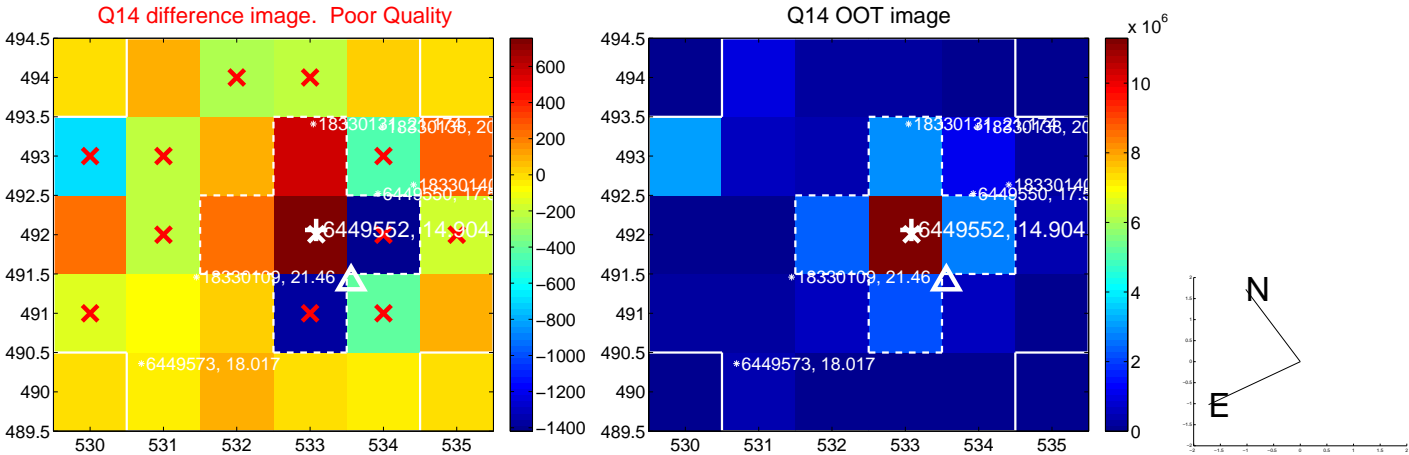
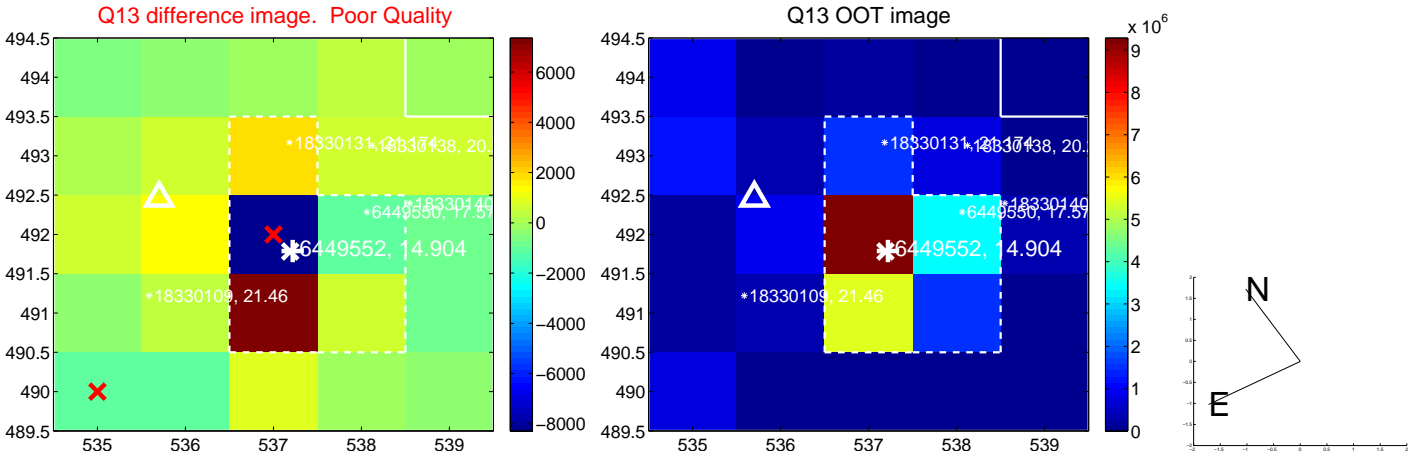
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



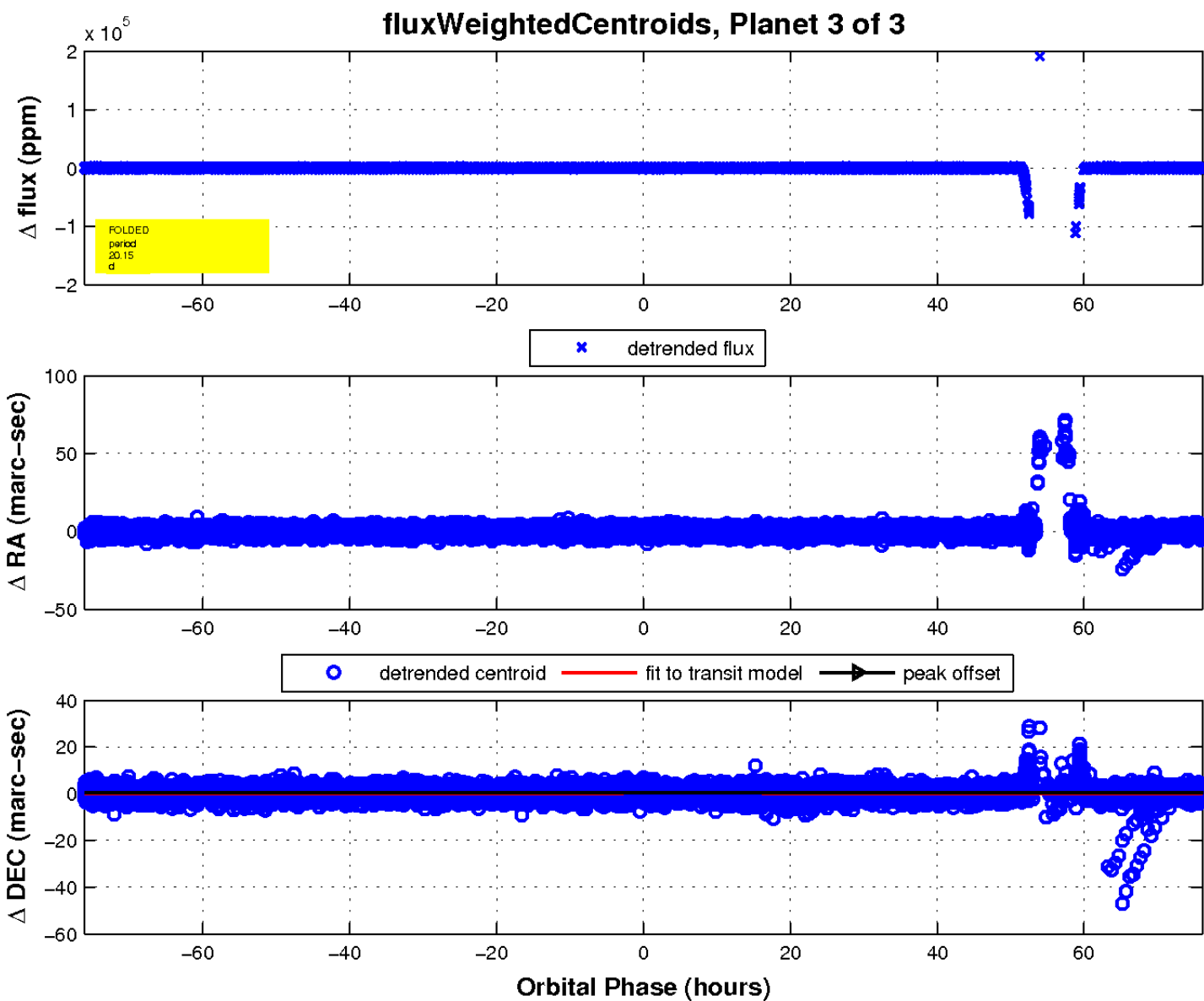
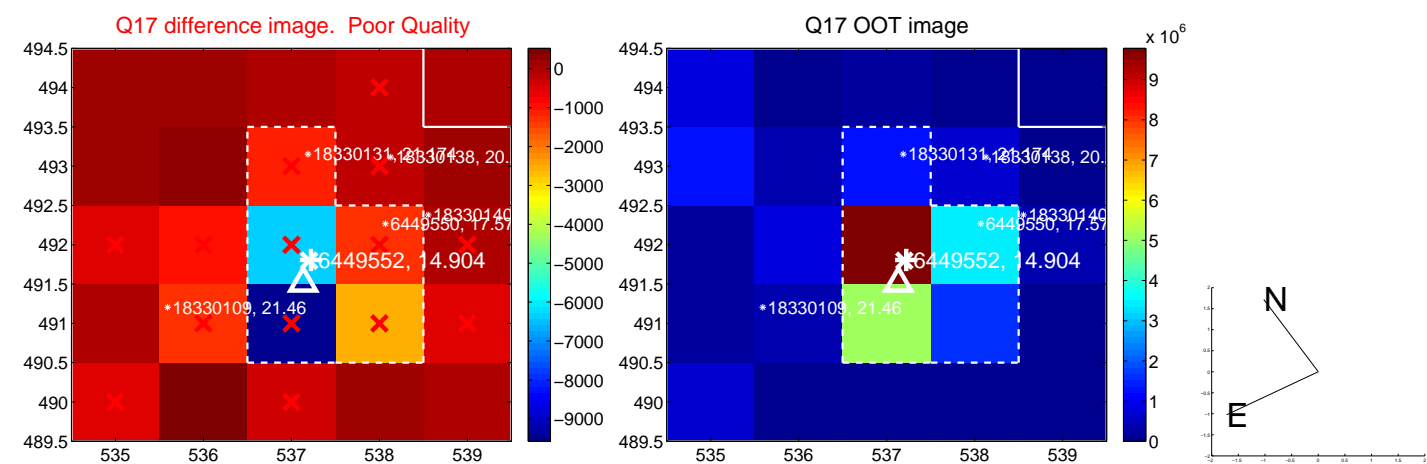
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

