

KIC 011508874

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})
011508874-01	OBS	No	1.585186	131.616567	158.0	6.000	8.4	-1.0	1.42	7079	1.80	5136.45
011508874-02	OBS	No	3.172045	131.821069	39.4	8.468	9.6	9.0	1.42	7079	1.28	2036.97
011508874-03	OBS	No	156.194916	259.441263	280.2	1.679	8.6	3.3	1.42	7079	2.41	11.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011508874-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
011508874-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
011508874-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

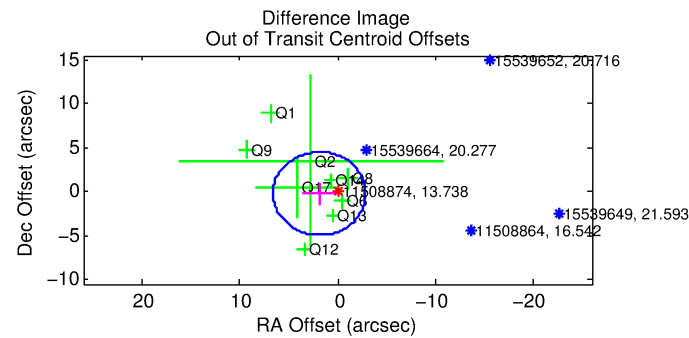
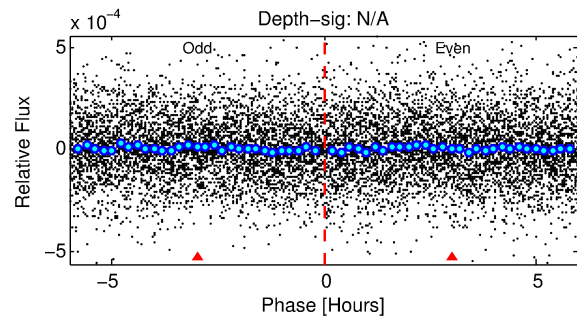
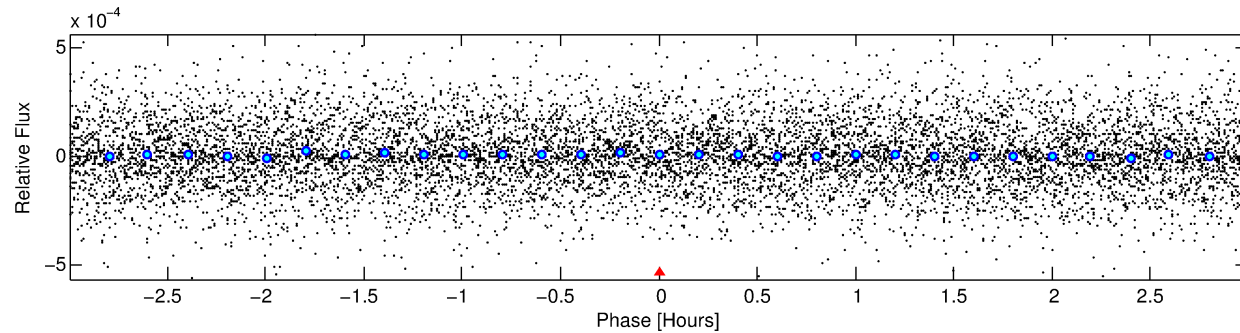
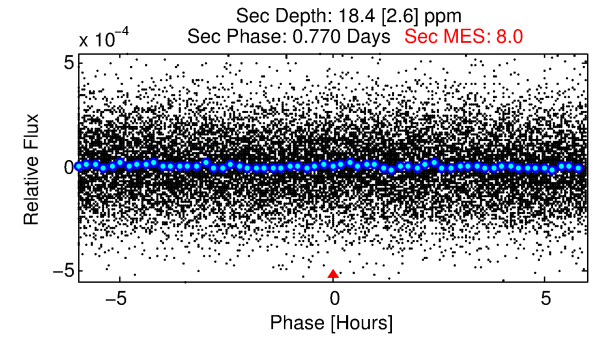
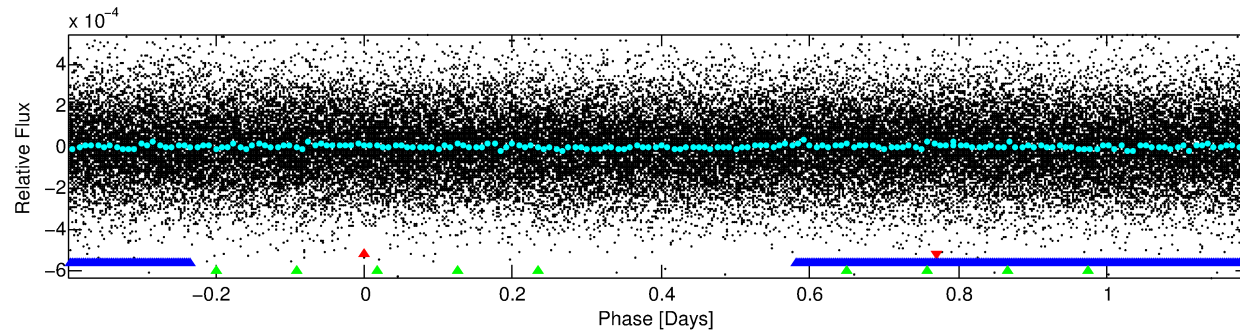
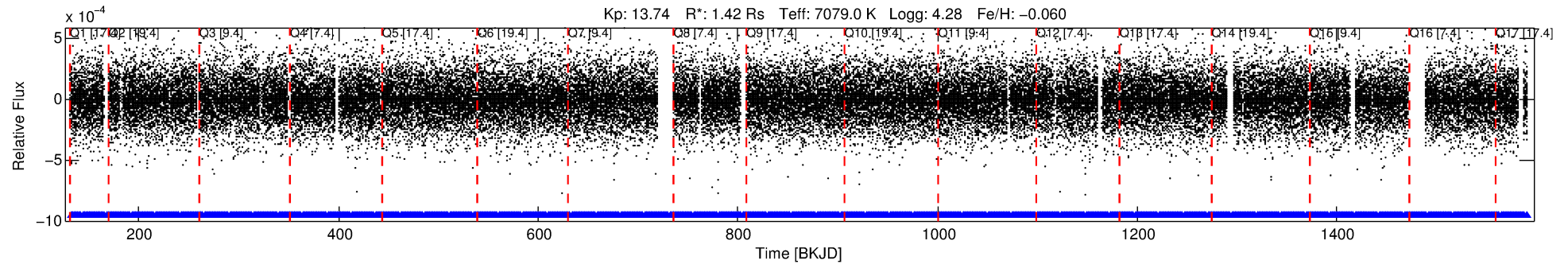
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011508874-01

No Significant Match Found

DV One-Page Summary

KIC: 11508874 Candidate: 1 of 3 Period: 1.585 d



TPS TCE Results:

Period = 1.58519 d
Epoch = 131.6166 BKJD

DV fit results are unavailable

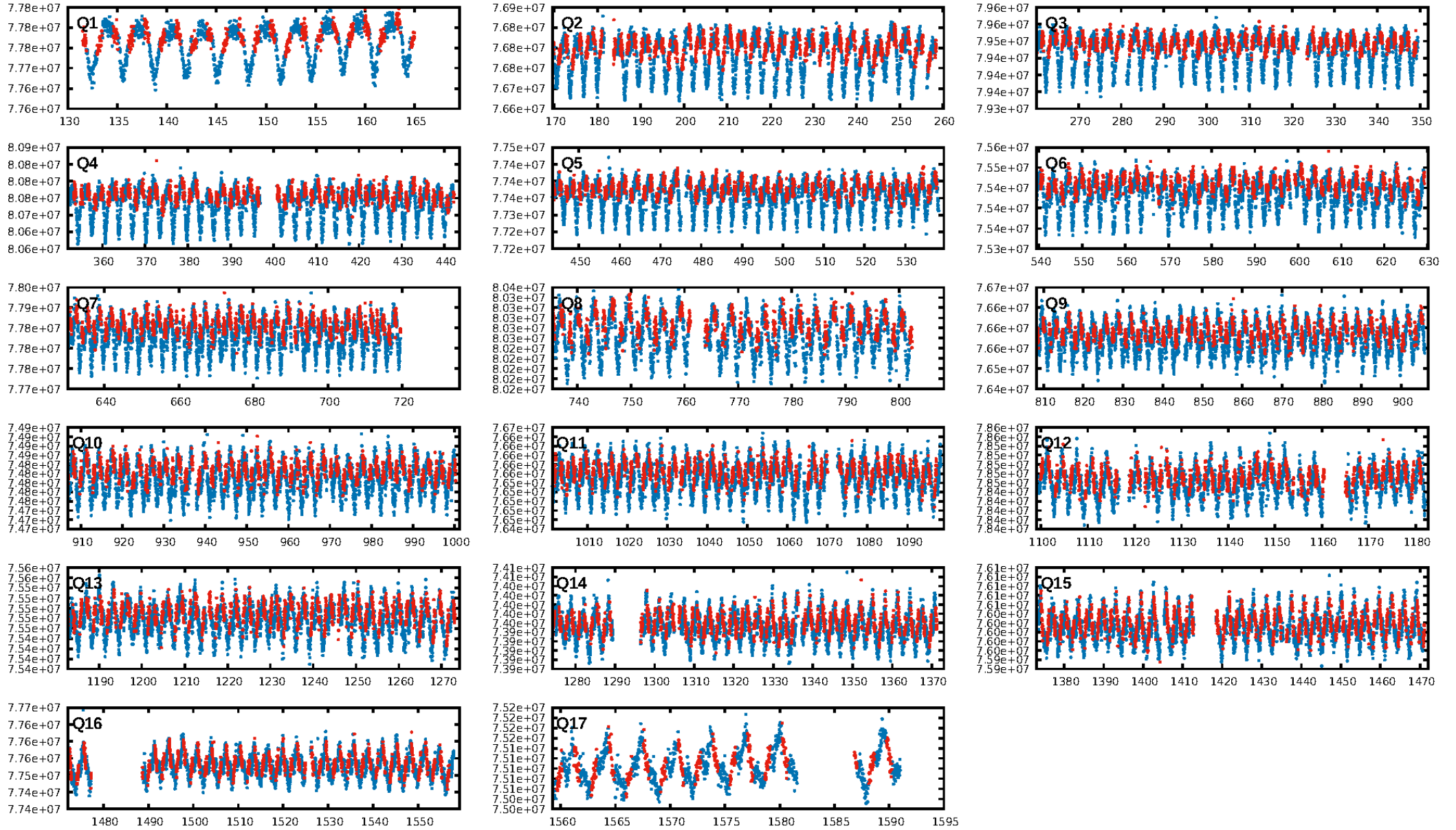
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [3.67σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.70e-10
RollingBand-fgt: 1.00 [805/805]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.898 arcsec [1.20σ]
KicOffset-rm: 1.709 arcsec [1.08σ]
OotOffset-st: 3/0/2/4 [9]
KicOffset-st: 3/0/2/4 [9]
DiffImageQuality-fgm: 0.11 [1/9]
DiffImageOverlap-fno: 1.00 [17/17]

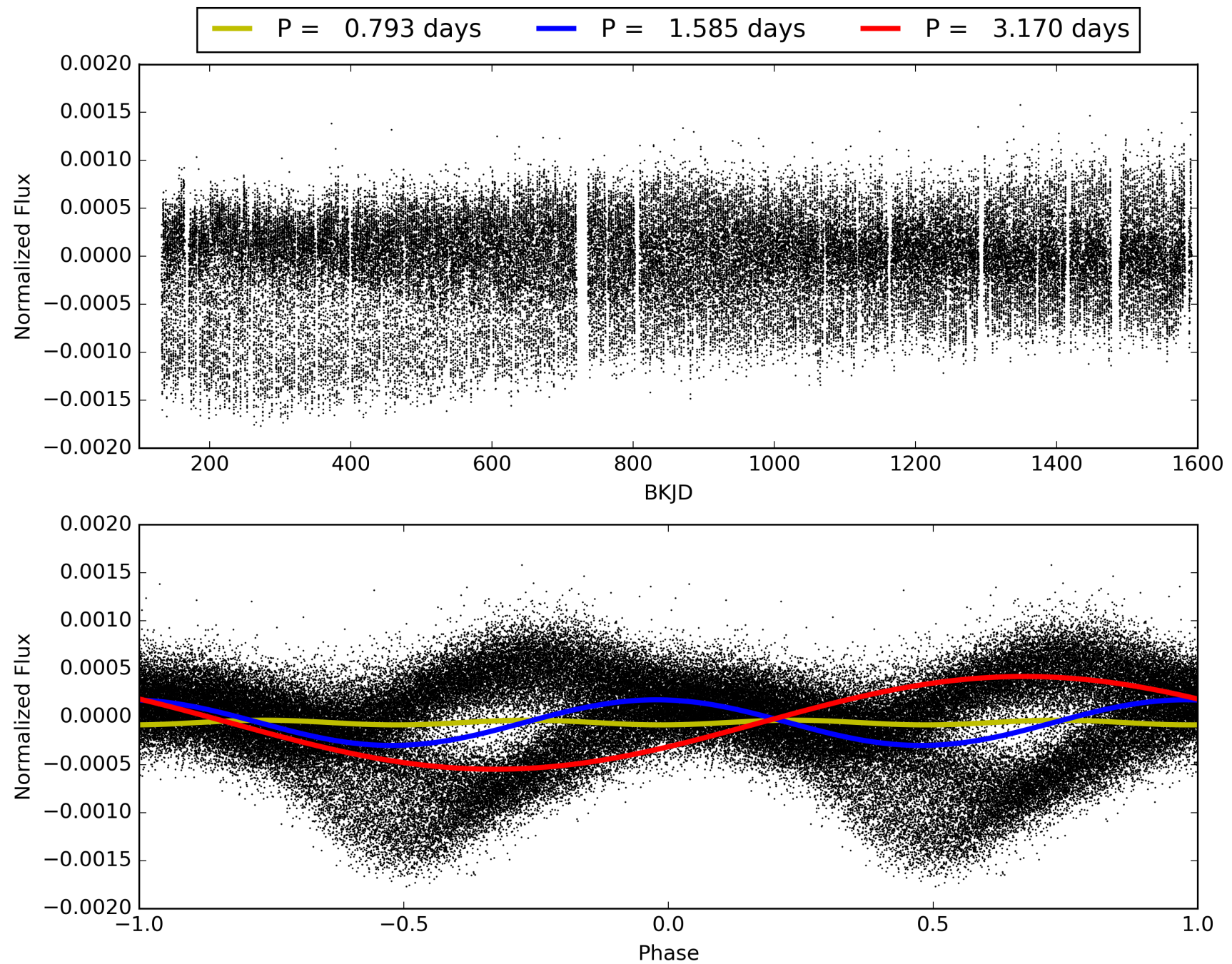
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:20:48 Z

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

TCE 011508874-01, PDC Light Curves

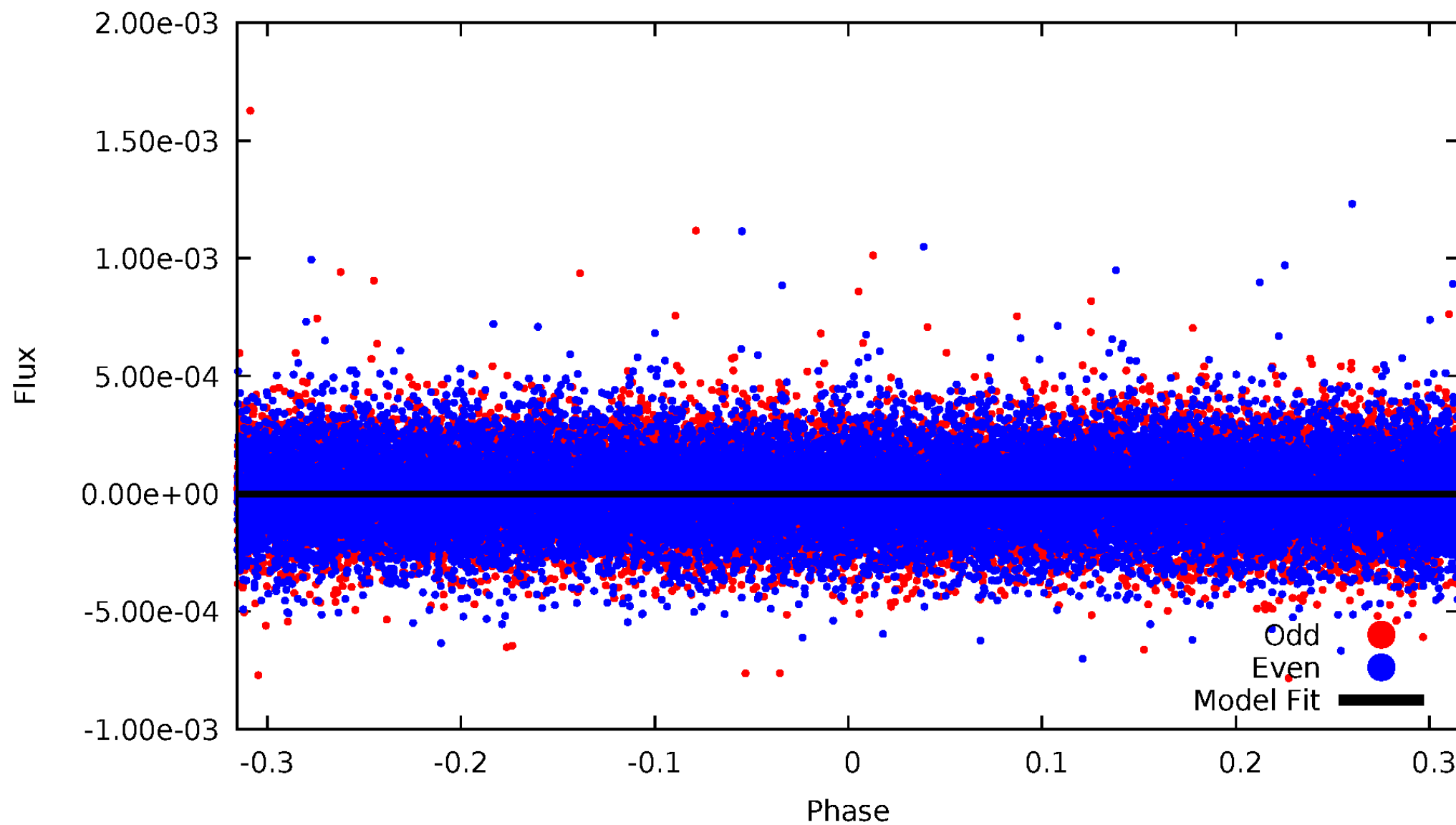


TCE 011508874-01



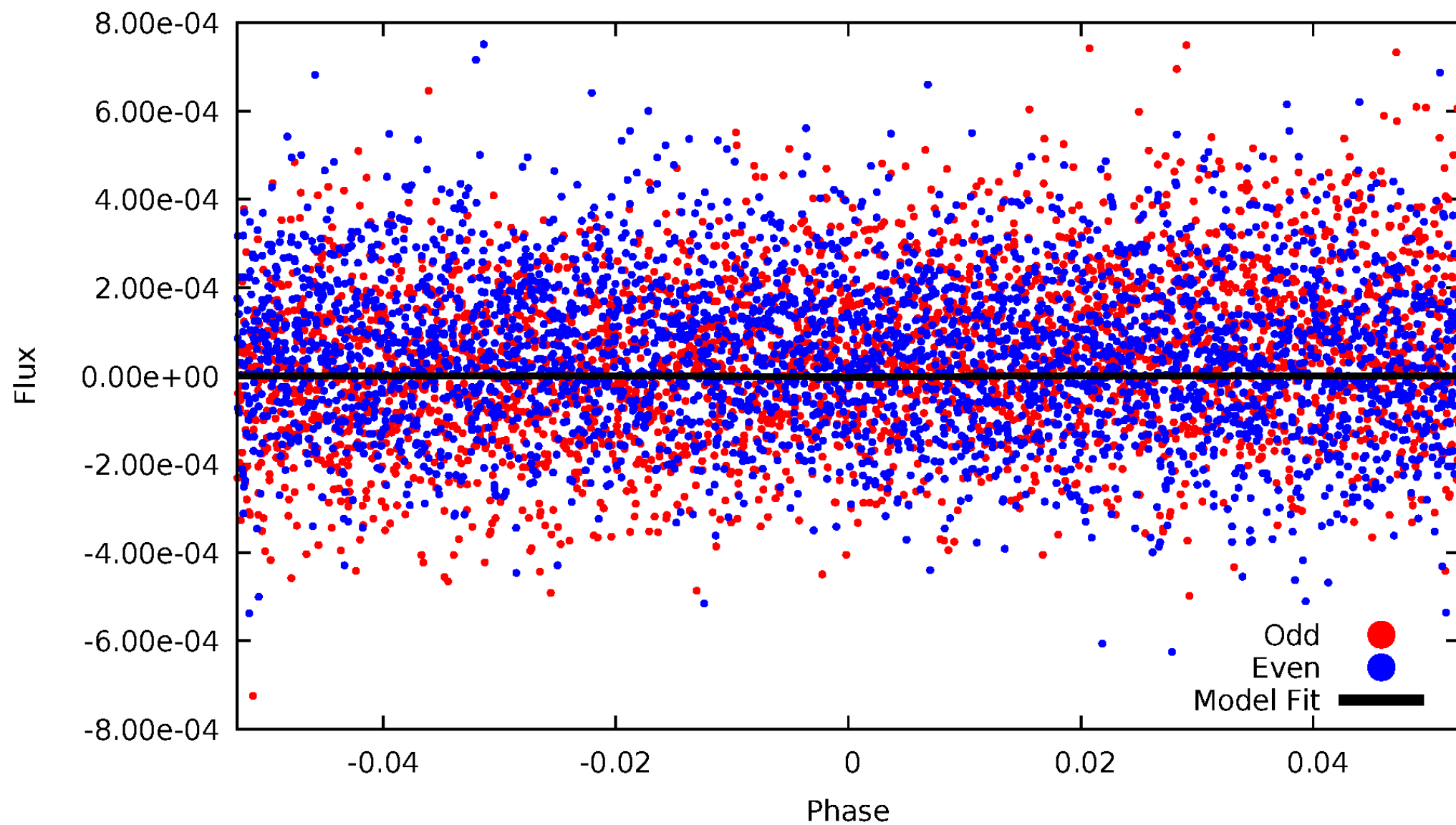
DV Odd/Even

TCE 011508874-01



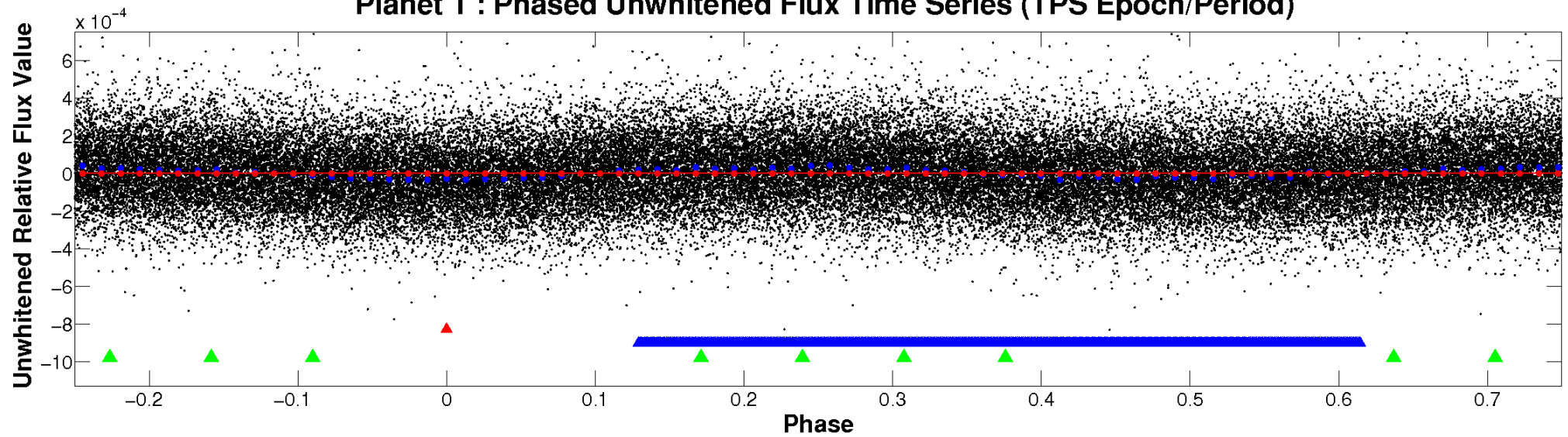
ALT Odd/Even

TCE 011508874-01

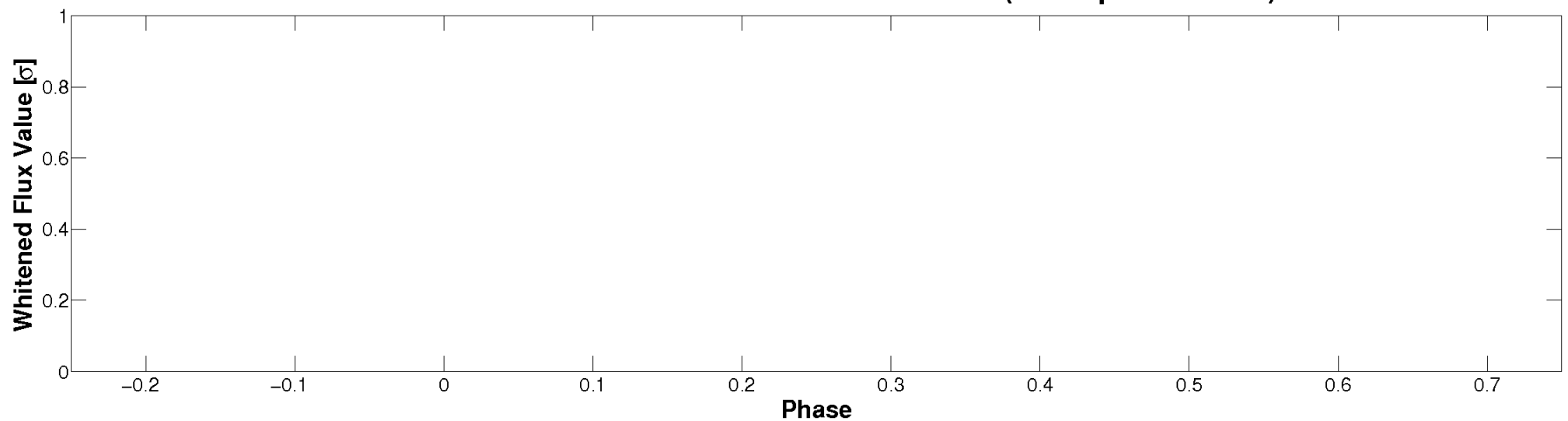


Non-Whitened Vs. Whitened Light Curve

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

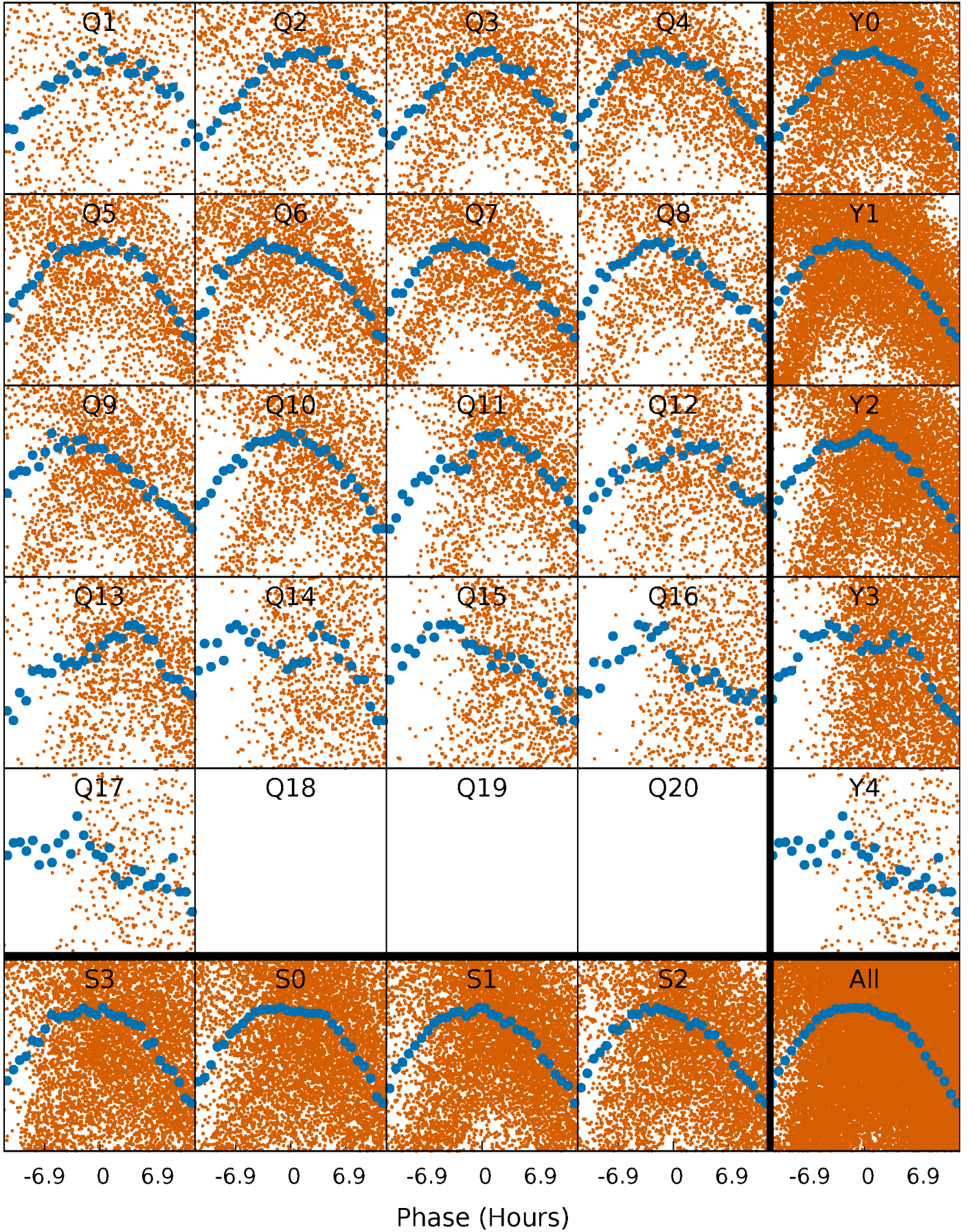


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



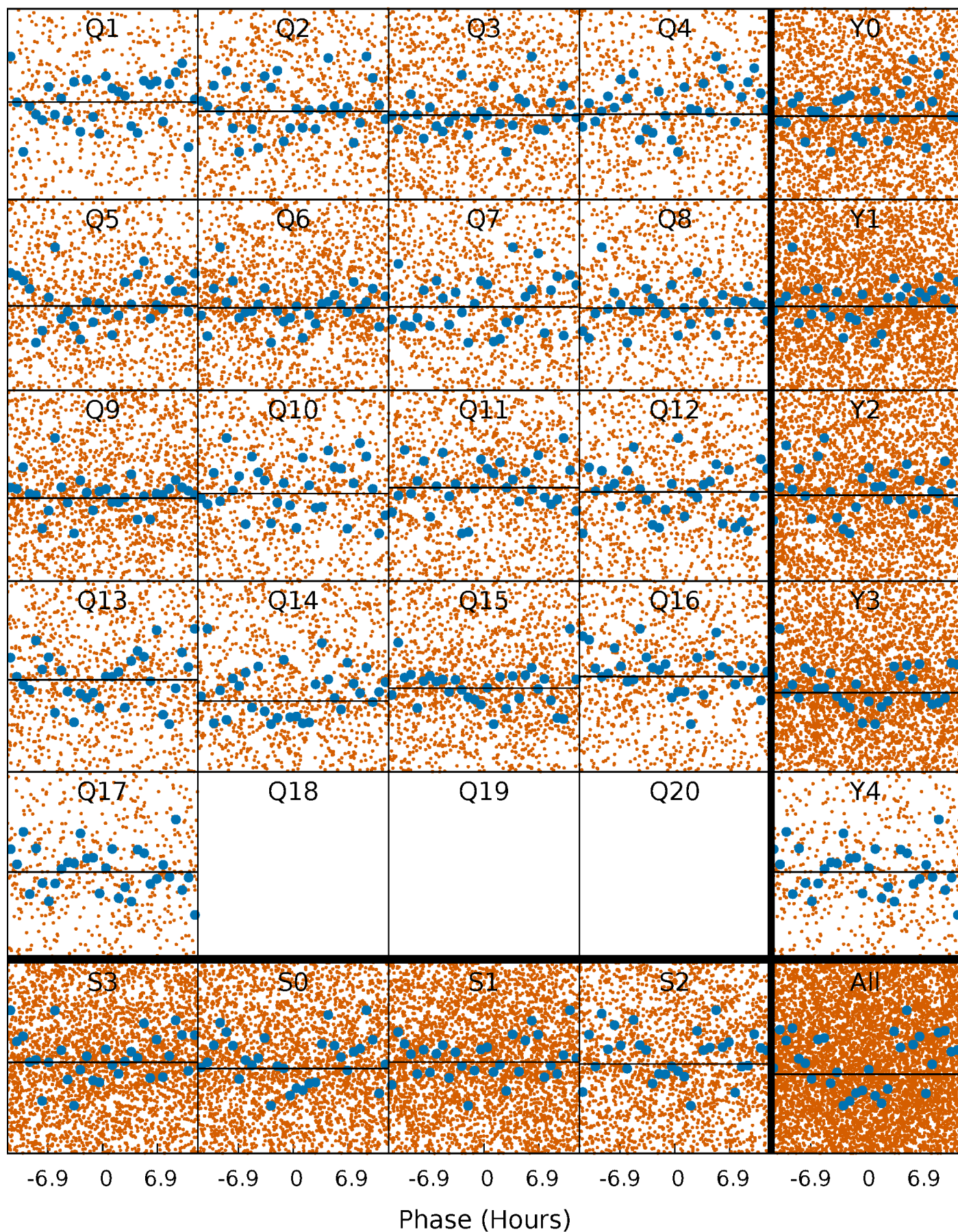
PDC Quarter-Phased Transit Curves

TCE 011508874-01 P= 1.585186 Days $T_0=131.616567$ (BKJD)



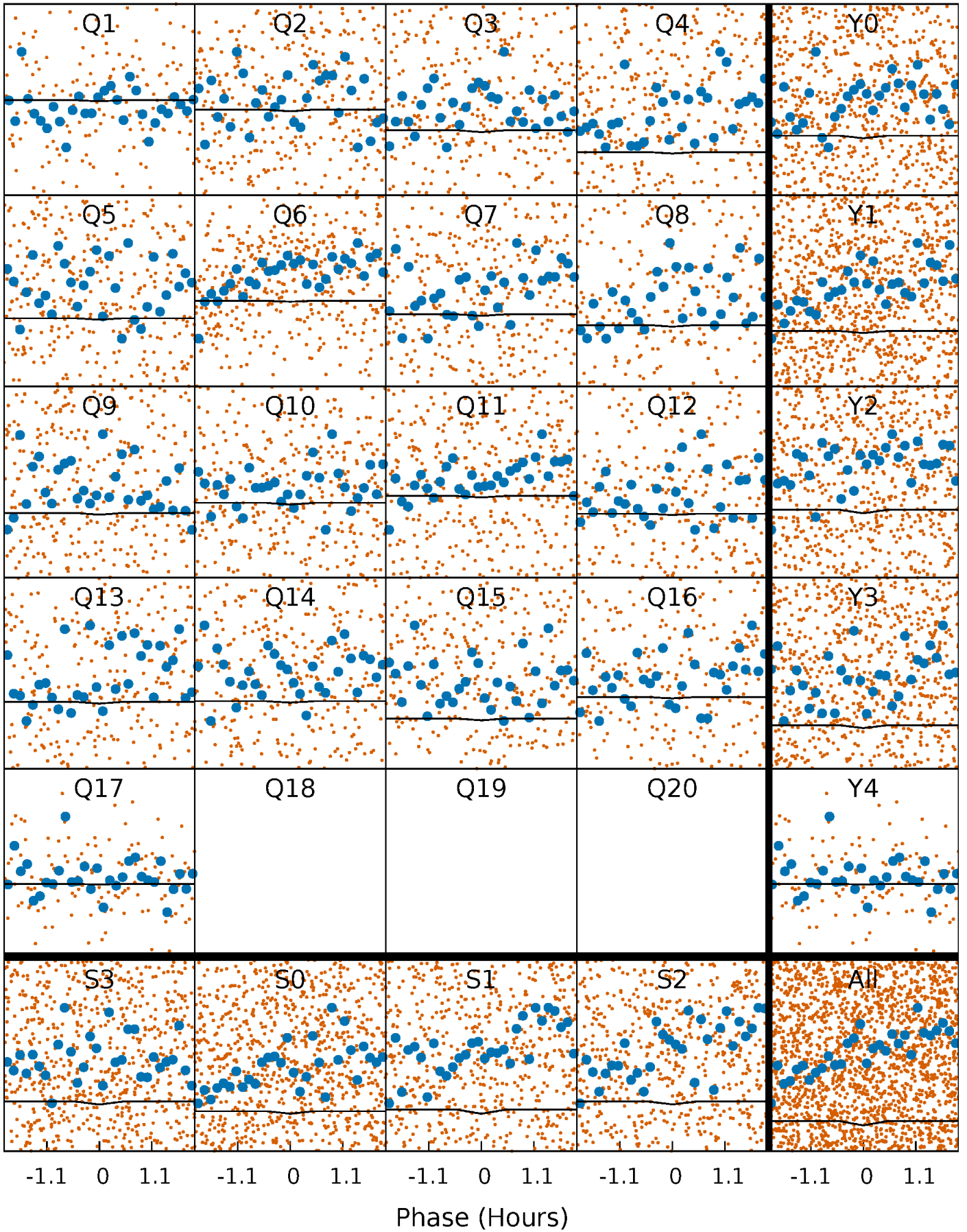
DV Quarter-Phased Transit Curves

TCE 011508874-01 P= 1.585186 Days $T_0=131.616567$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

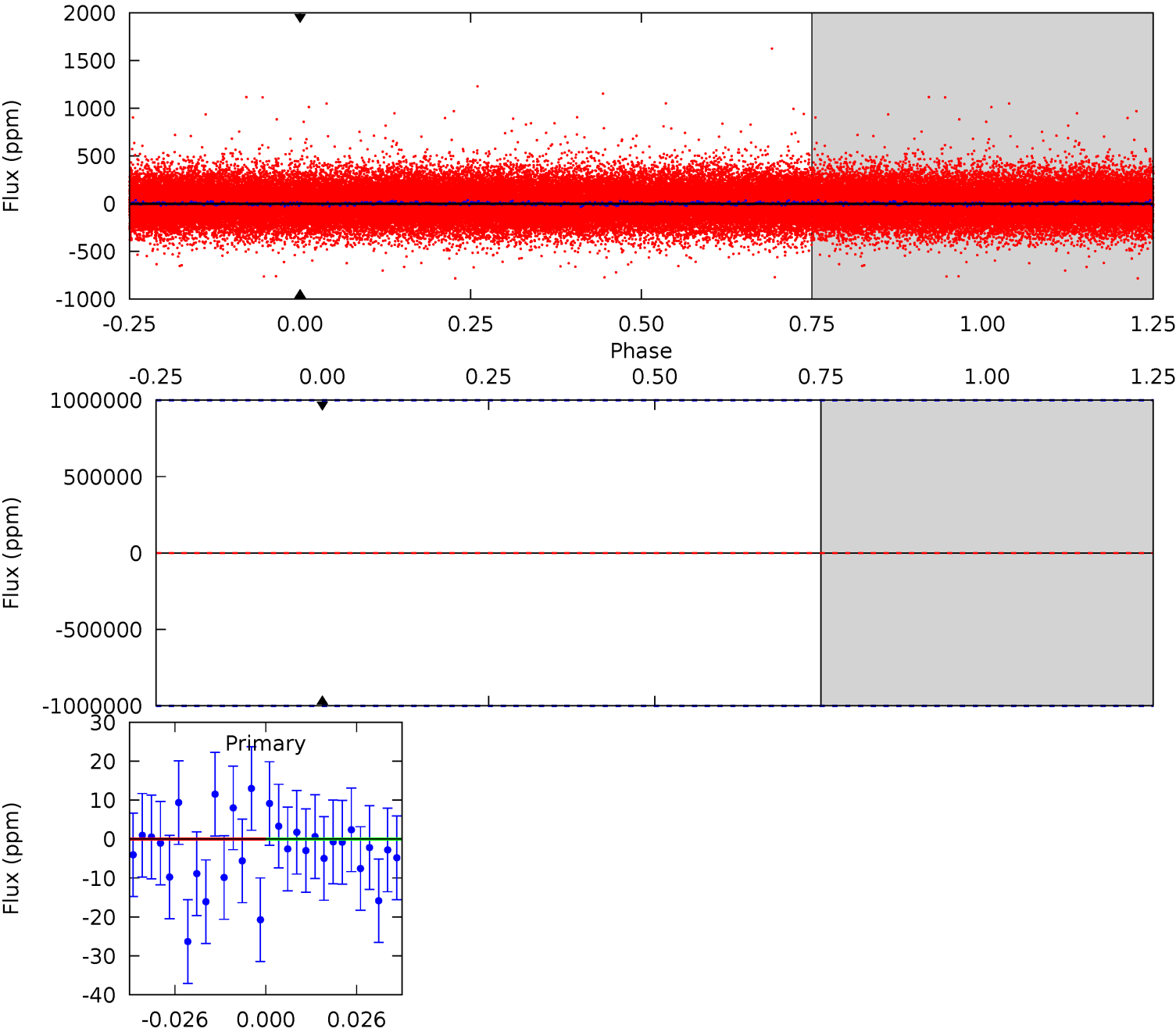
TCE 011508874-01 P= 1.585186 Days $T_0=132.824309$ (BKJD)



DV Model-Shift Uniqueness Test

011508874-01, P = 1.585186 Days, E = 130.031381 Days

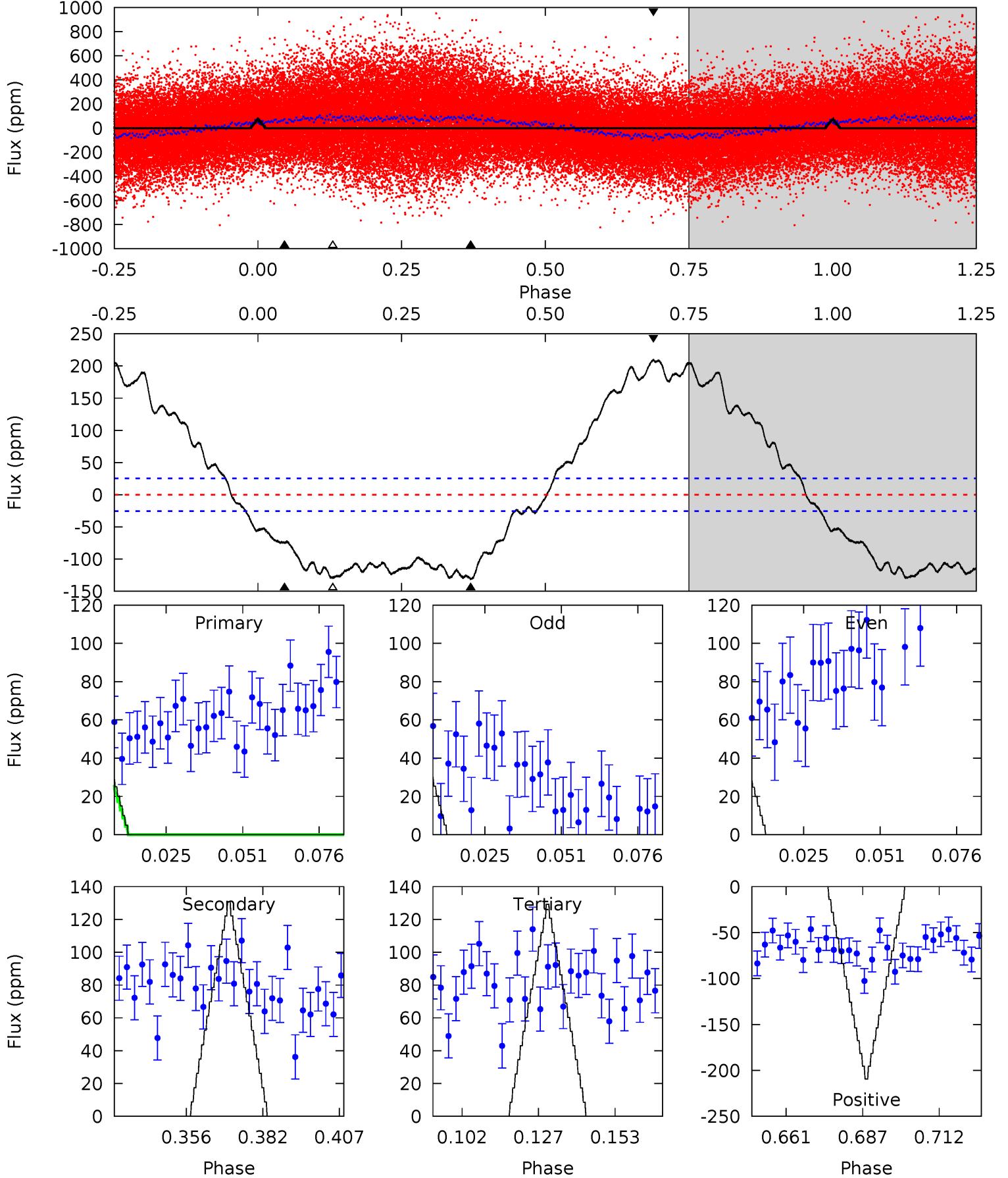
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011508874-01, P = 1.585186 Days, E = 131.239123 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	25.0	24.7	40.0	4.84	2.23	22.5	-10.3	-25.6	0.30	-15.0	0.14	1.16	0.62	2.04



Stellar Parameters For KIC 011508874

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7079^{+200}_{-275}	$4.277^{+0.067}_{-0.202}$	$-0.060^{+0.250}_{-0.350}$	$1.419^{+0.499}_{-0.200}$	$1.391^{+0.203}_{-0.203}$	$0.686^{+0.265}_{-0.367}$
	+3%/-4%	+2%/-5%	+417%/-583%	+35%/-14%	+15%/-15%	+39%/-54%
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 011508874-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$11.70^{+12.55}_{-7.93}$	3055^{+243}_{-153}	-3765^{+38906}_{-34077}	$-0.775^{+613.453}_{-637.422}$
Alt.	-131 ± 5	$10.15^{+12.02}_{-6.82}$	3052^{+228}_{-154}	3109^{+2133}_{-5996}	$0.599^{+5.359}_{-0.475}$

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

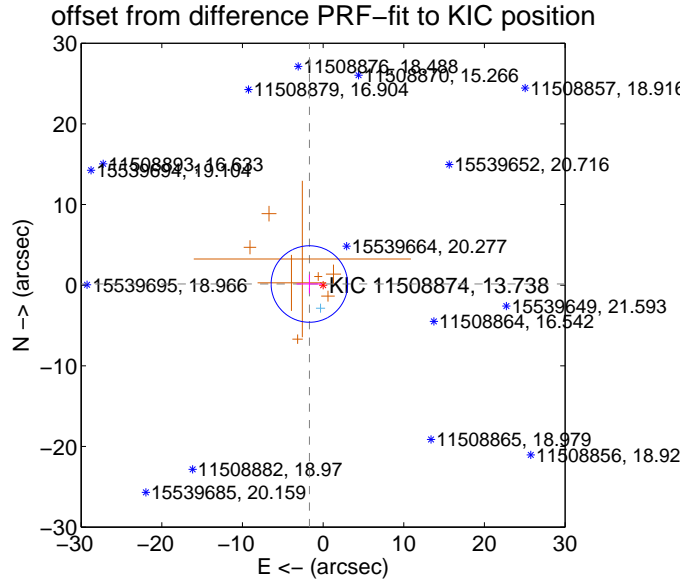
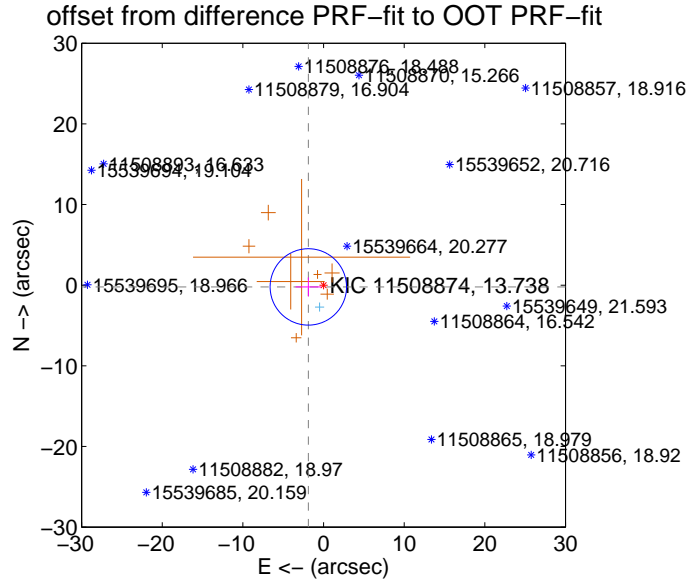
DV Centroid Data

Supplemental centroid analysis for 011508874-01. Kepler magnitude: 13.74. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

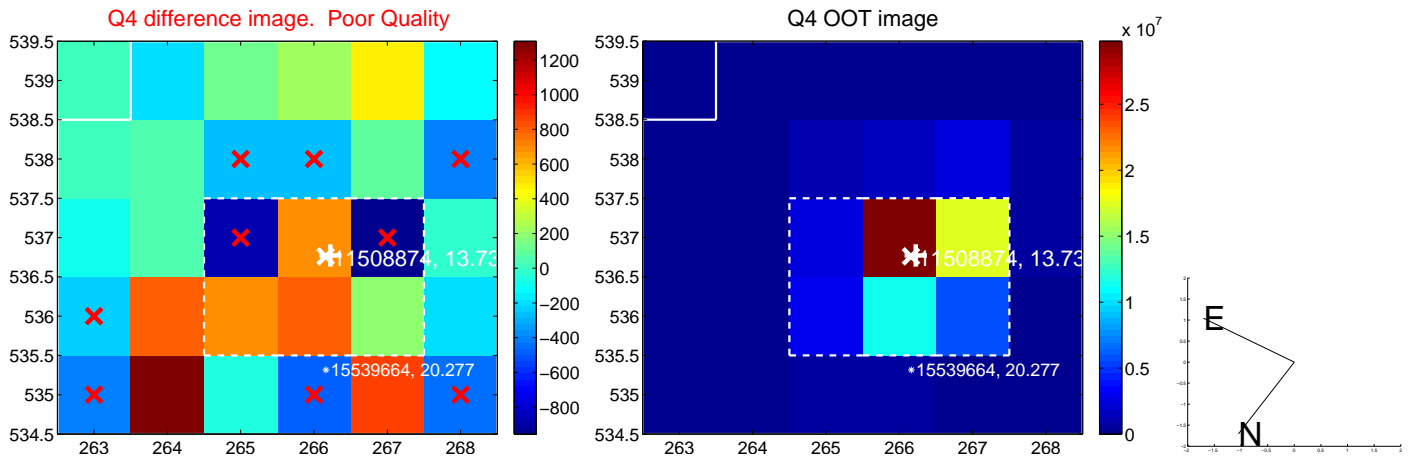
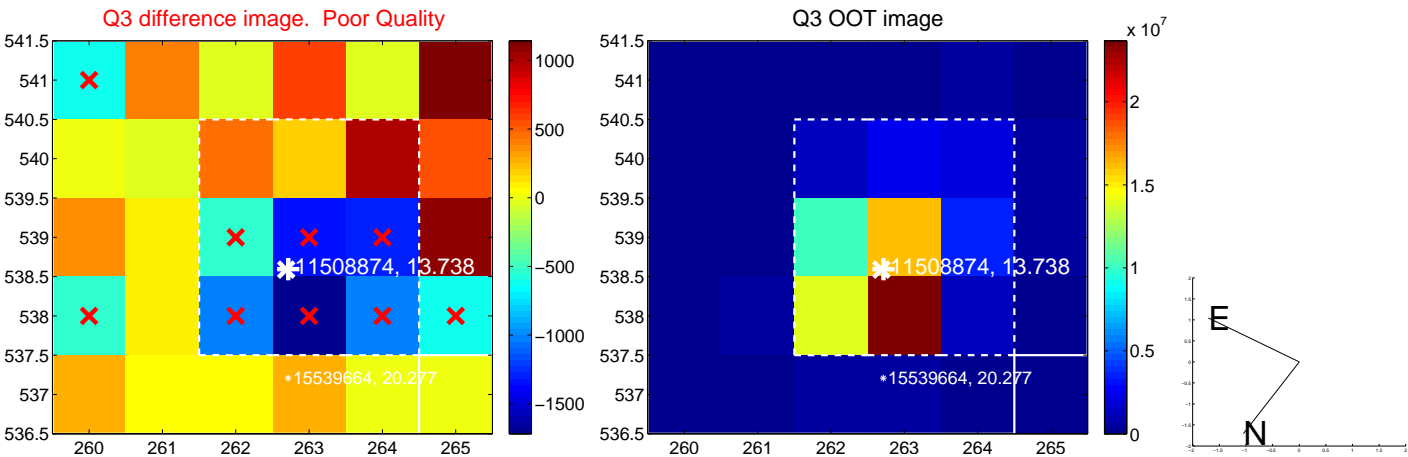
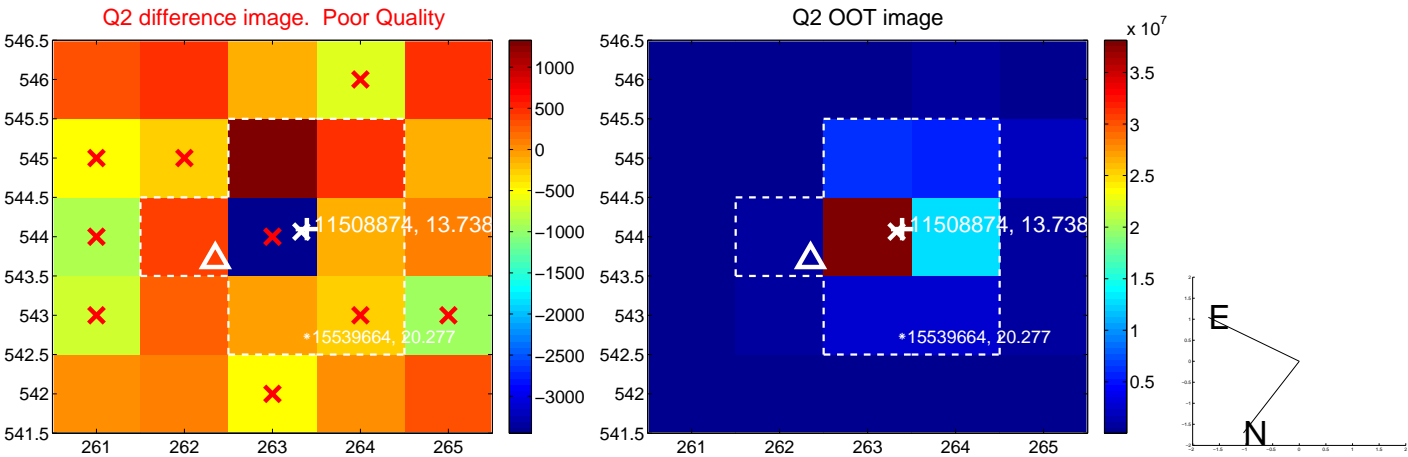
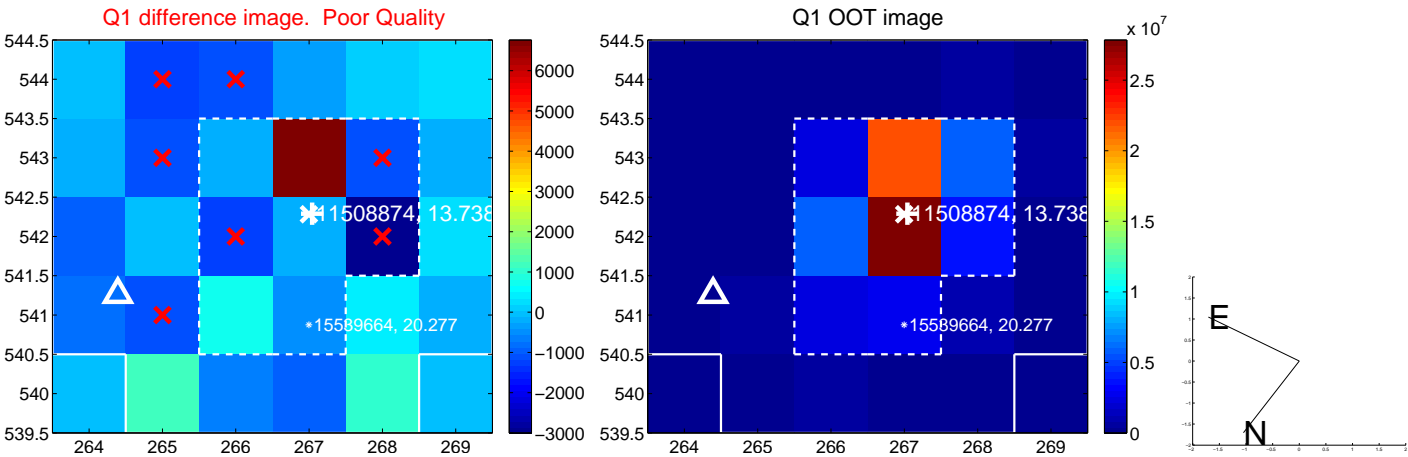
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.898 ± 1.579	1.20	1.885 ± 1.583	-0.218 ± 1.170
PRF-fit source offset from KIC position	1.709 ± 1.581	1.08	1.703 ± 1.583	0.144 ± 1.170
photometric centroid source offset	—	—	—	—



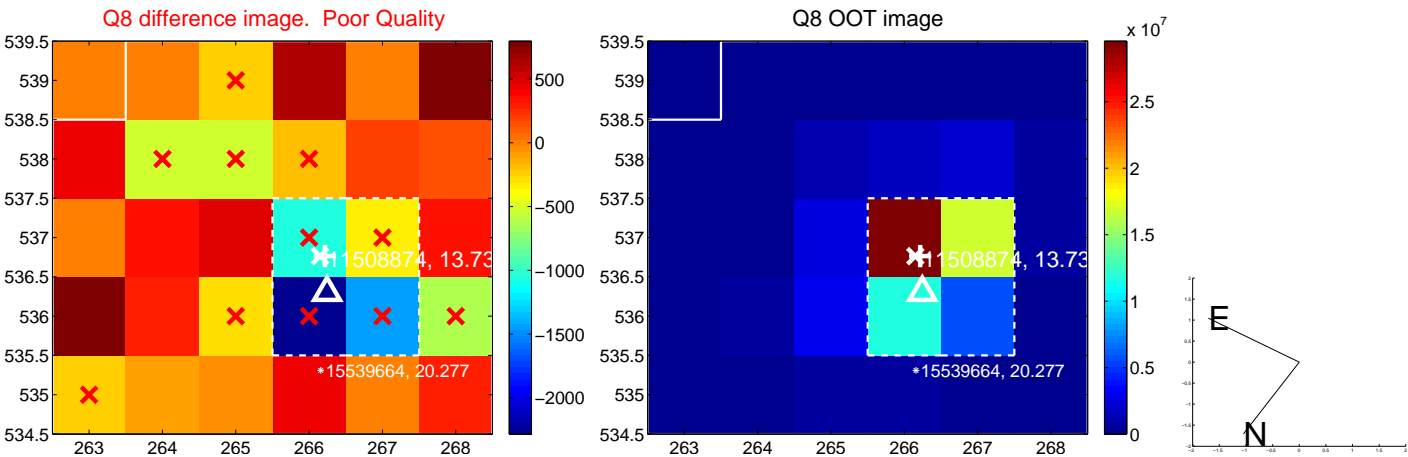
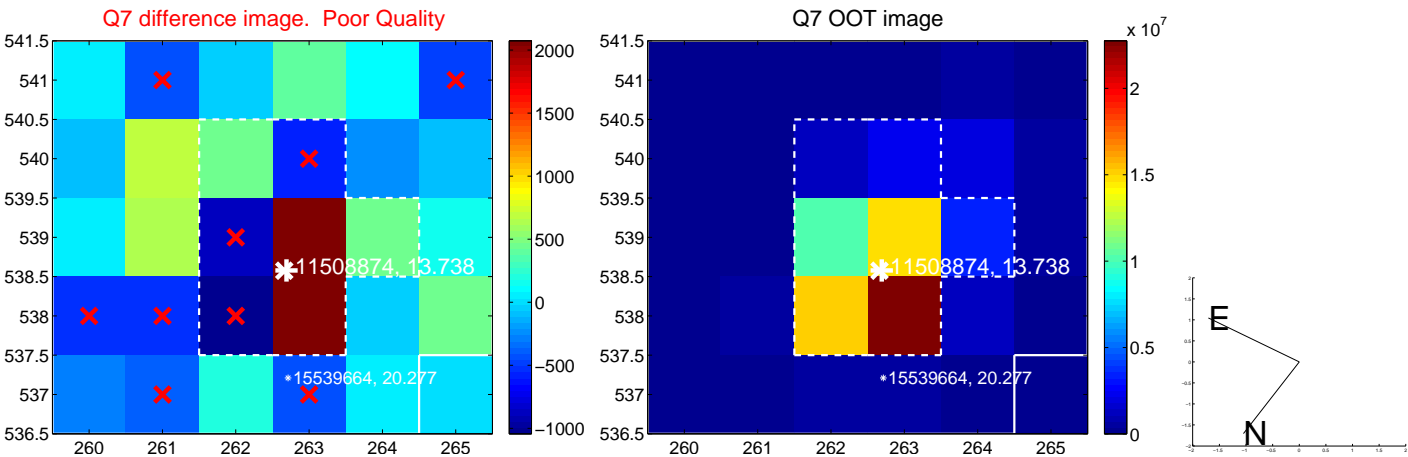
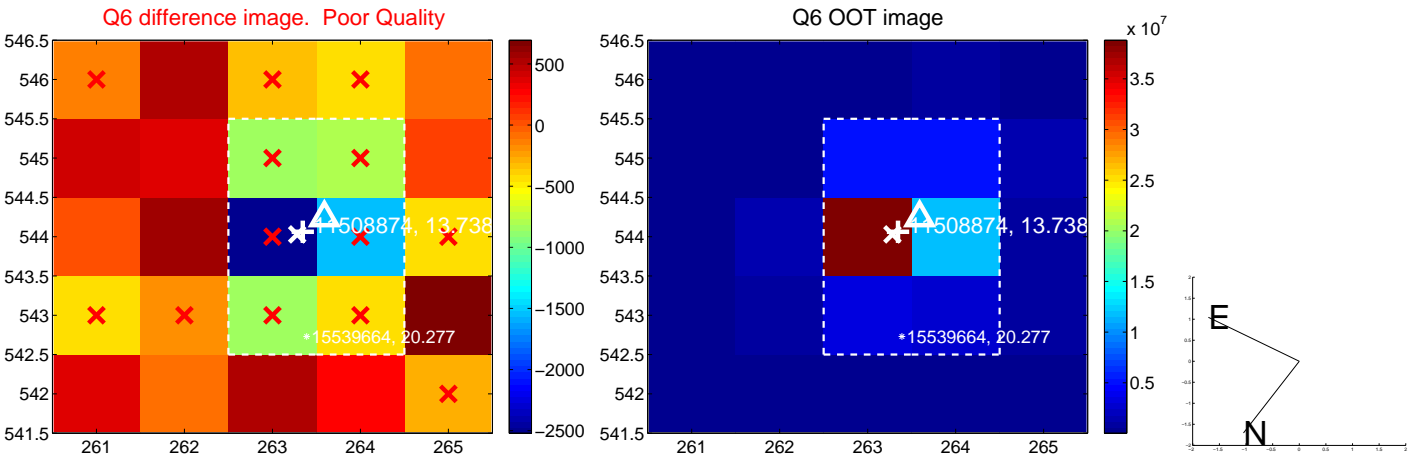
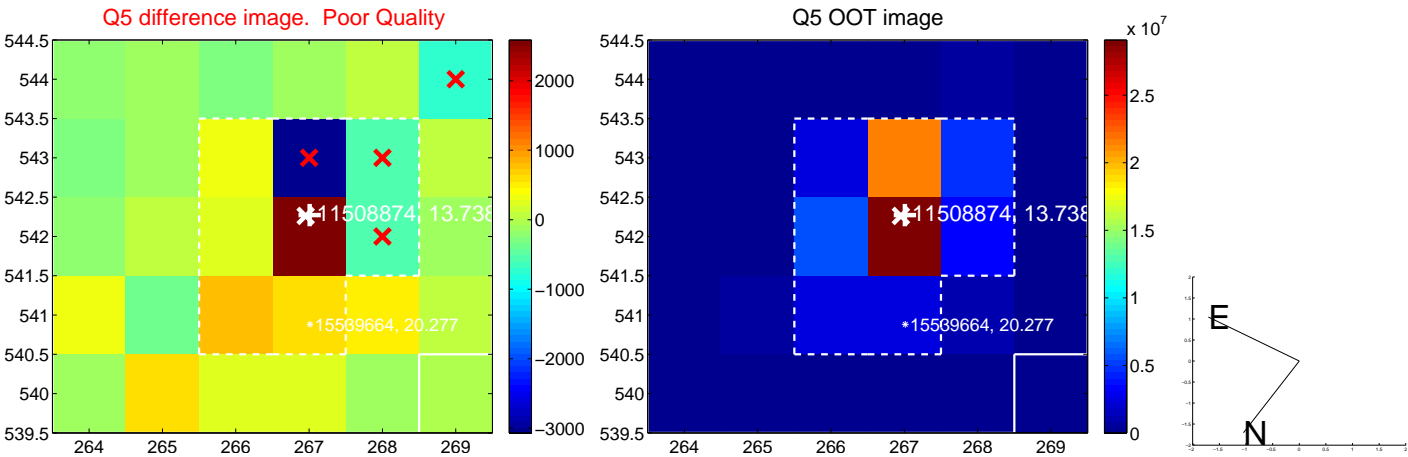
There are no photometric centroids

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.

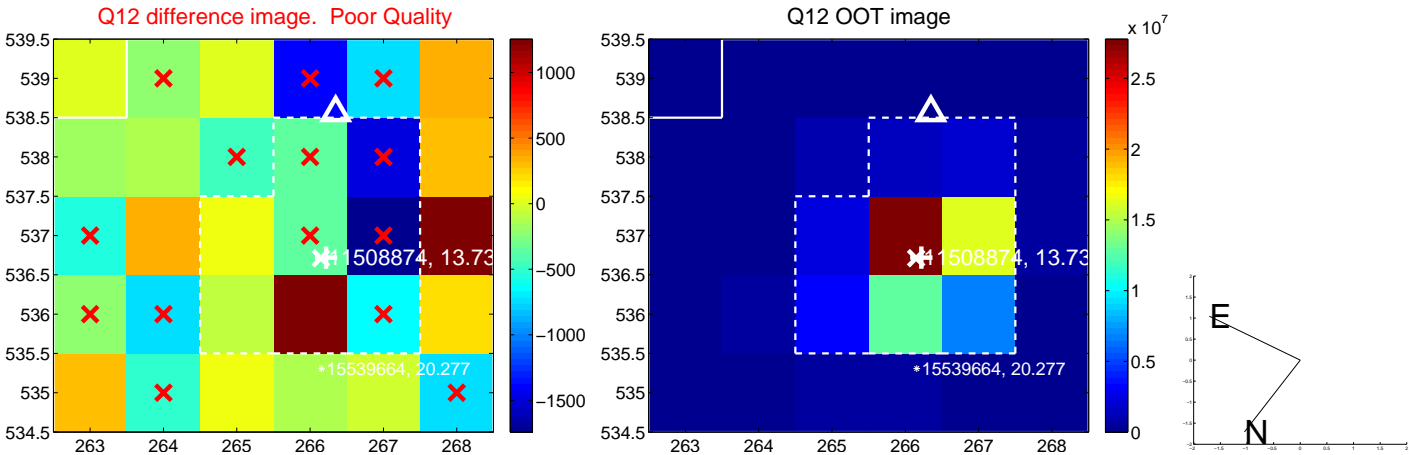
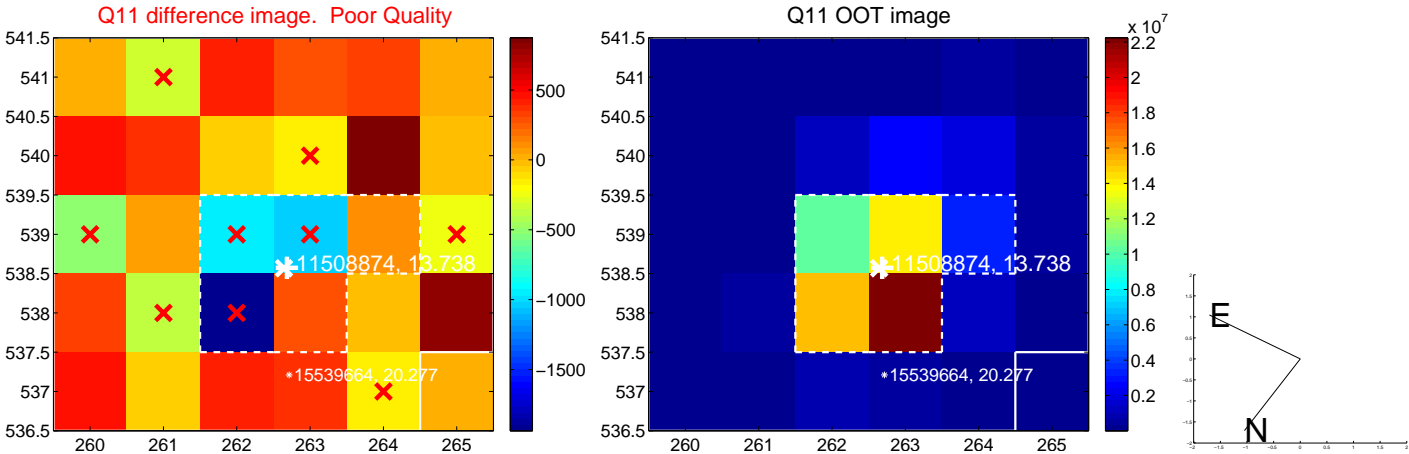
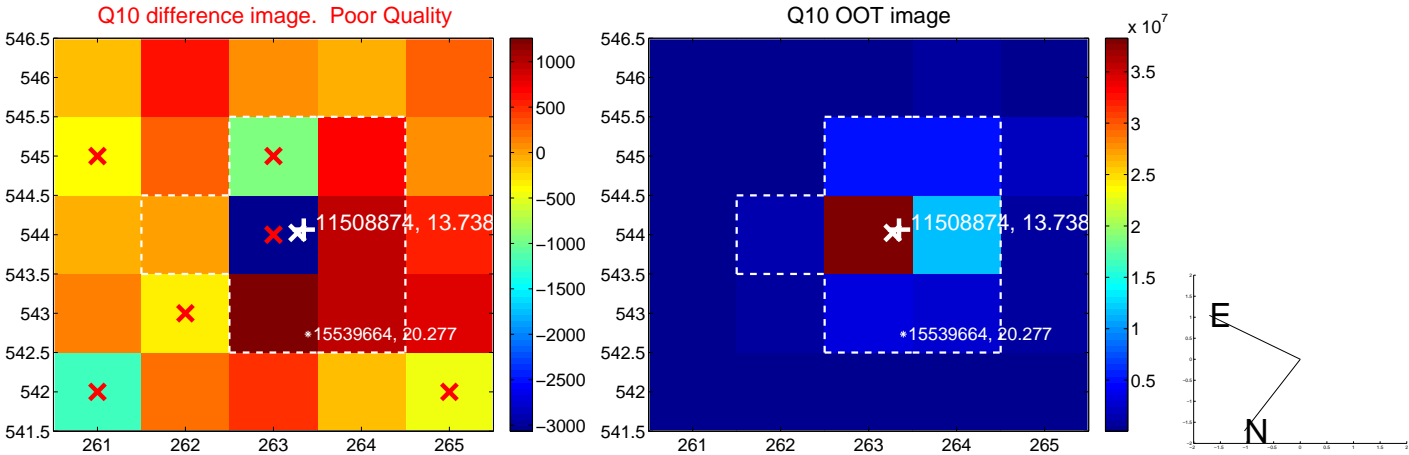
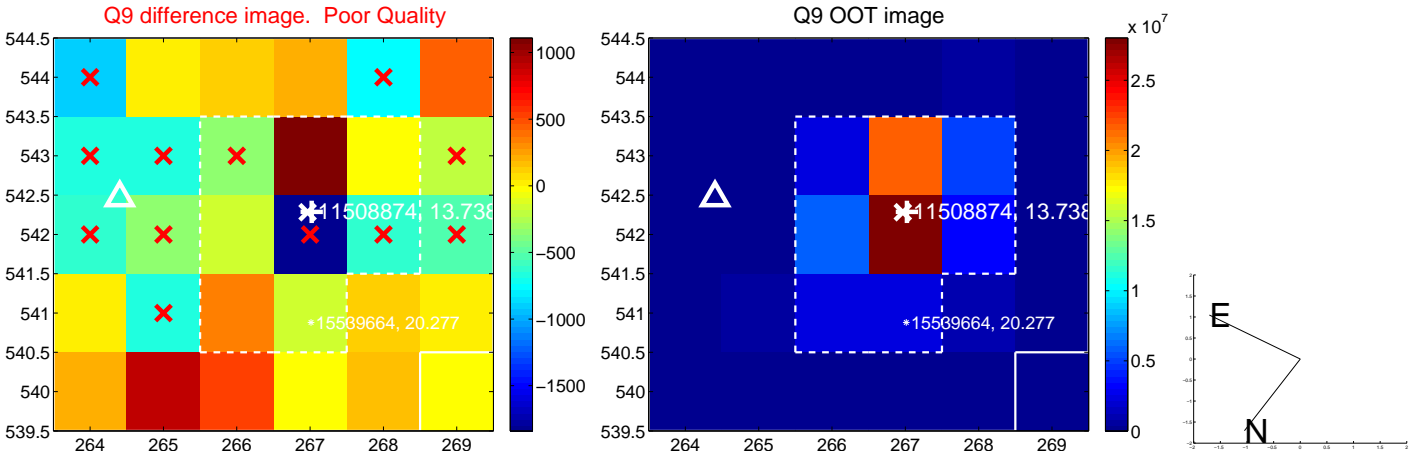
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



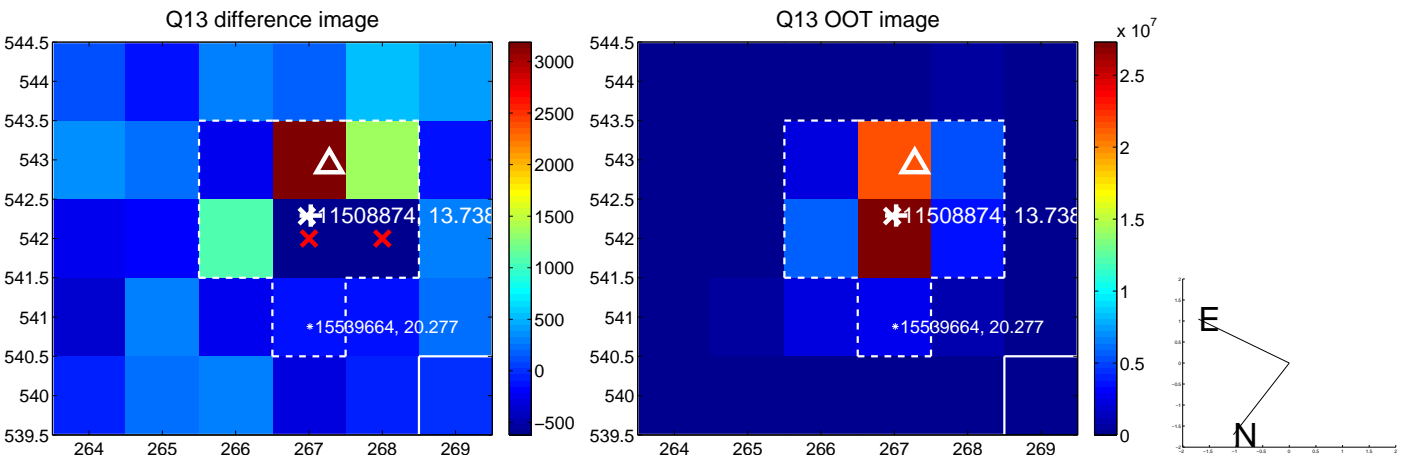
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



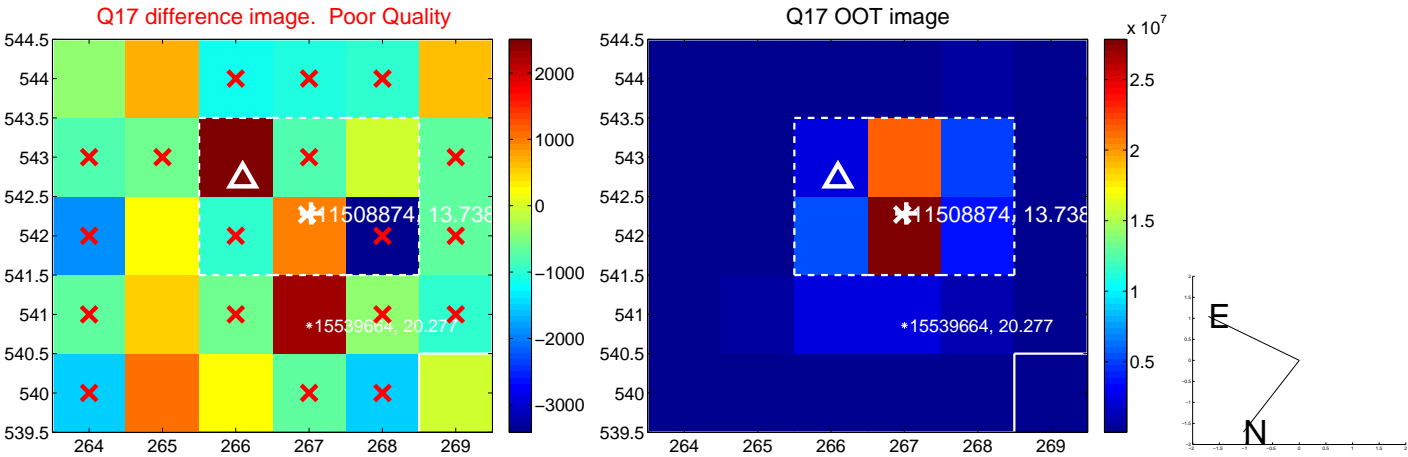
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



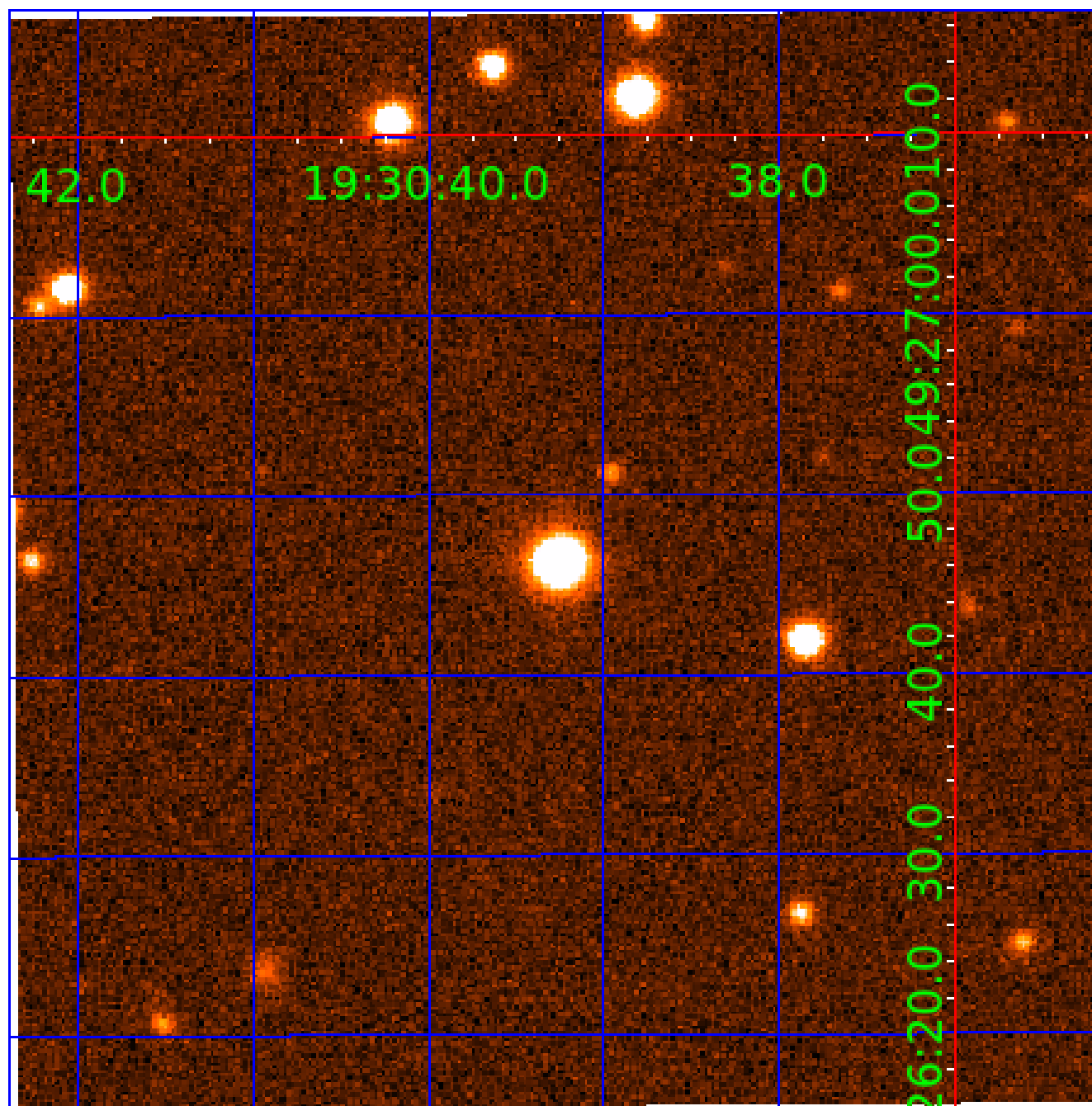
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 011508874

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})
011508874-01	OBS	No	1.585186	131.616567	158.0	6.000	8.4	-1.0	1.42	7079	1.80	5136.45
011508874-02	OBS	No	3.172045	131.821069	39.4	8.468	9.6	9.0	1.42	7079	1.28	2036.97
011508874-03	OBS	No	156.194916	259.441263	280.2	1.679	8.6	3.3	1.42	7079	2.41	11.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011508874-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
011508874-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
011508874-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

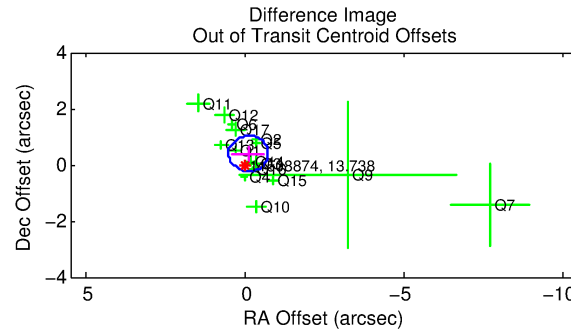
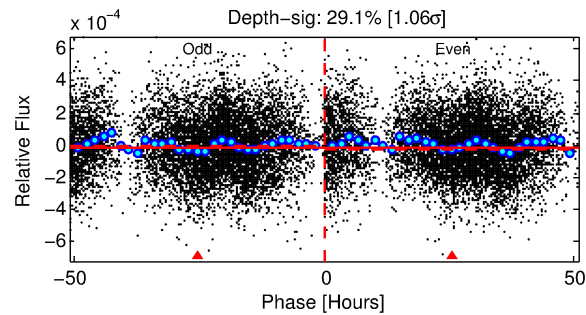
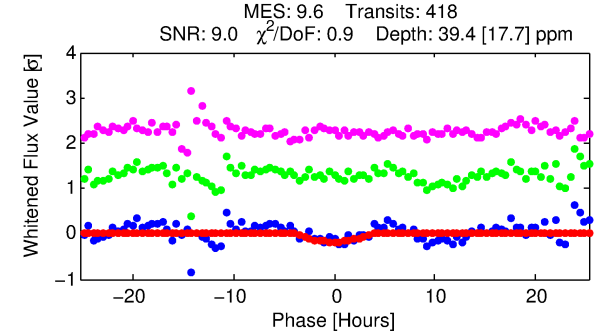
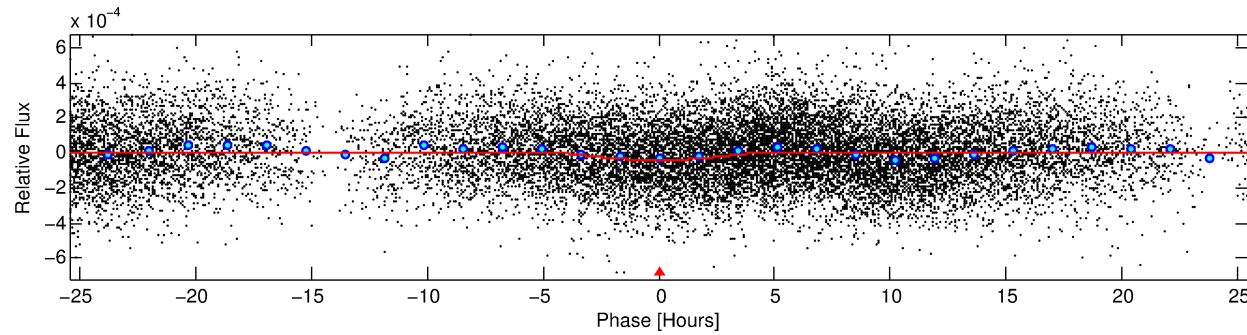
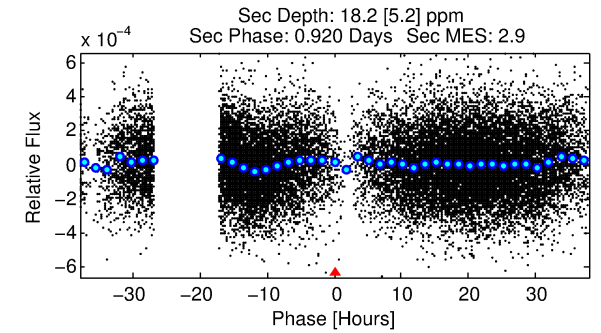
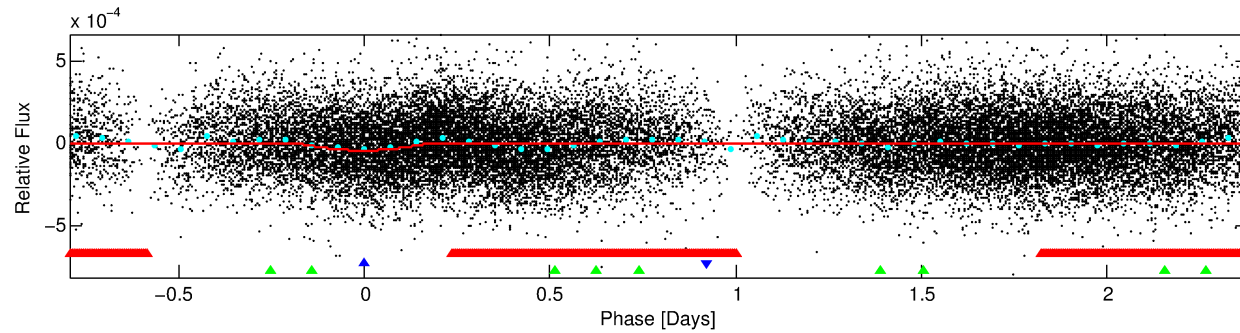
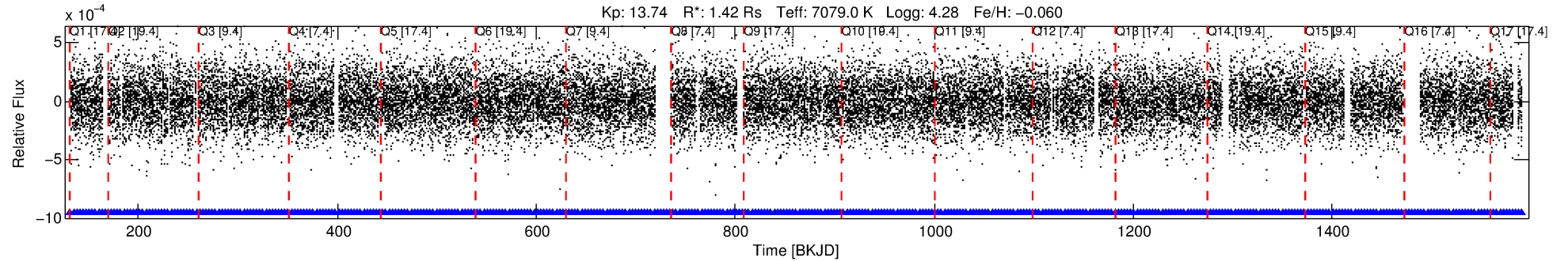
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011508874-02

No Significant Match Found

DV One-Page Summary

KIC: 11508874 Candidate: 2 of 3 Period: 3.172 d



DV Fit Results:

Period = 3.17205 [0.00009] d
Epoch = 131.8211 [0.0244] BKJD
Rp/R* = 0.0083 [0.0029]
a/R* = 1.11 [0.06]
b = 0.99 [0.01]
Seff = 2036.97 [852.75]
Teff = 1713 [179] K
Rp = 1.28 [0.64] Re
a = 0.0472 [0.0133] AU
Ag = 13.50 [11.59] [1.08σ]
Teffp = 5077 [992] K [3.34σ]

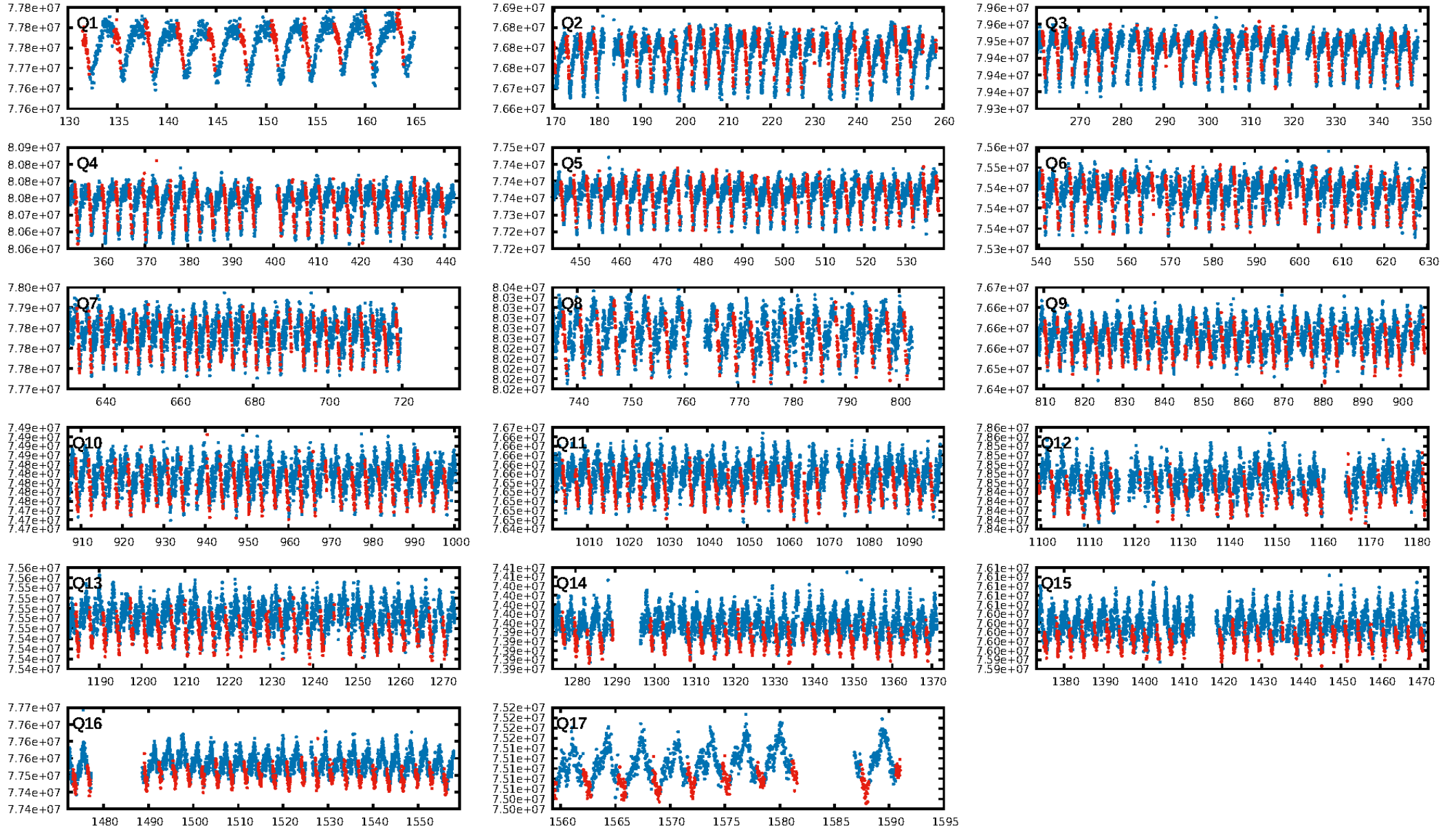
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [3.67σ]
LongPeriod-sig: 100.0% [425.41σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.03e-13
RollingBand-fgt: 1.00 [401/401]
GhostDiagnostic-chr: 1.914
Centroid-sig: 6.4%
Centroid-so: 1.801 arcsec [1.99σ]
OotOffset-rm: 0.410 arcsec [1.96σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-rm: 0.346 arcsec [1.16σ]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.50 [8/16]
DiffImageOverlap-fno: 0.29 [5/17]

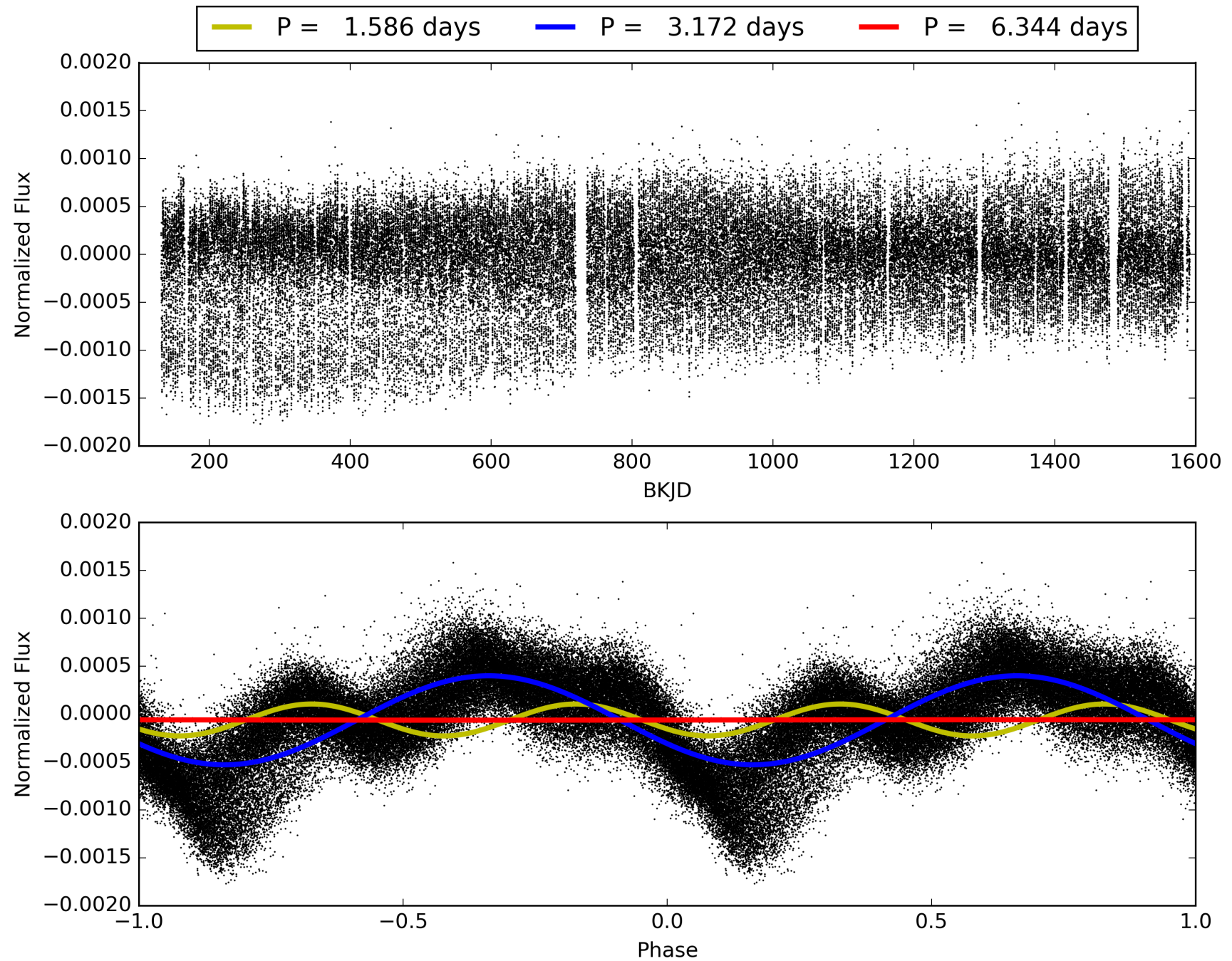
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:20:56 Z

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

TCE 011508874-02, PDC Light Curves

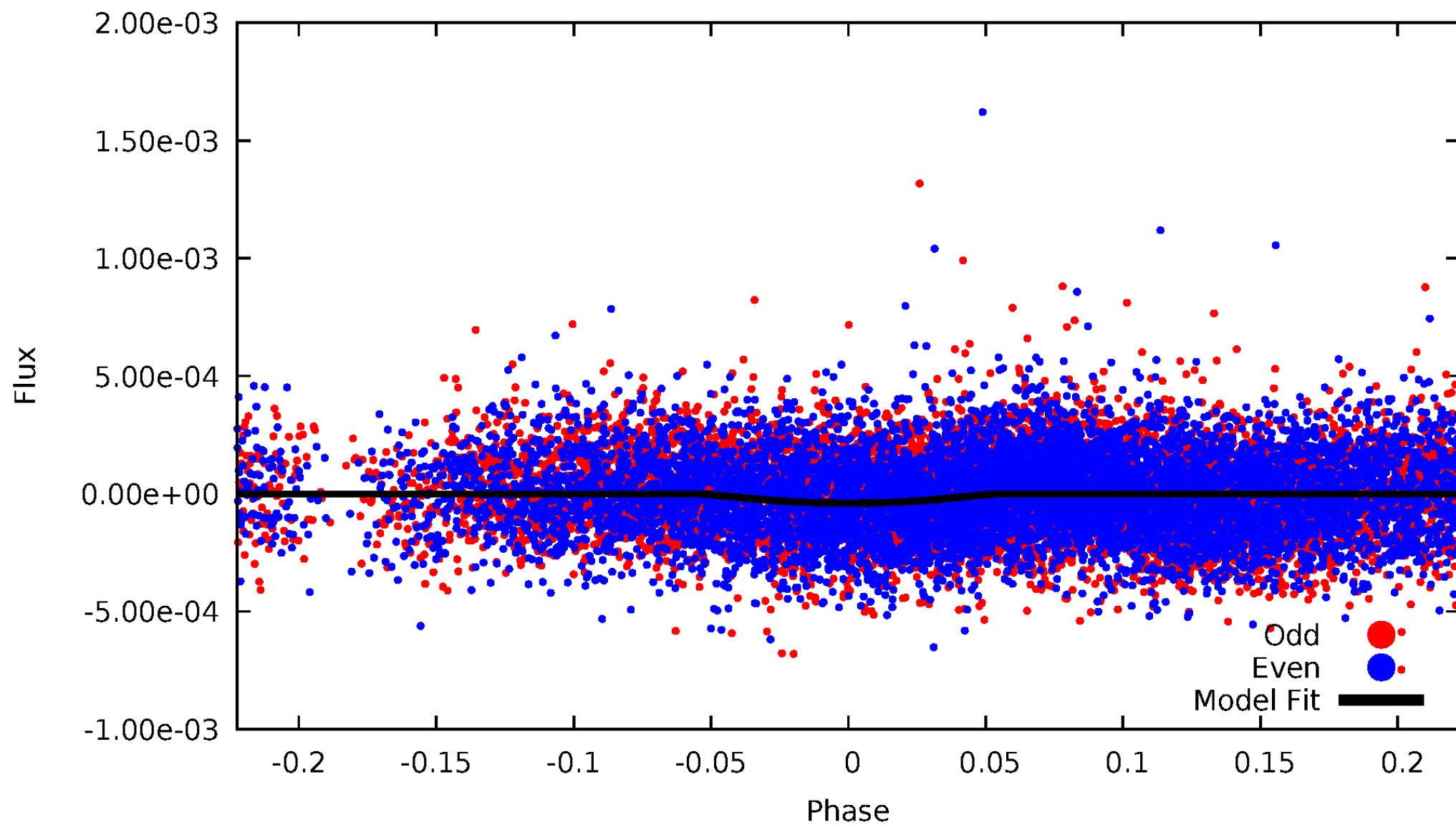


TCE 011508874-02



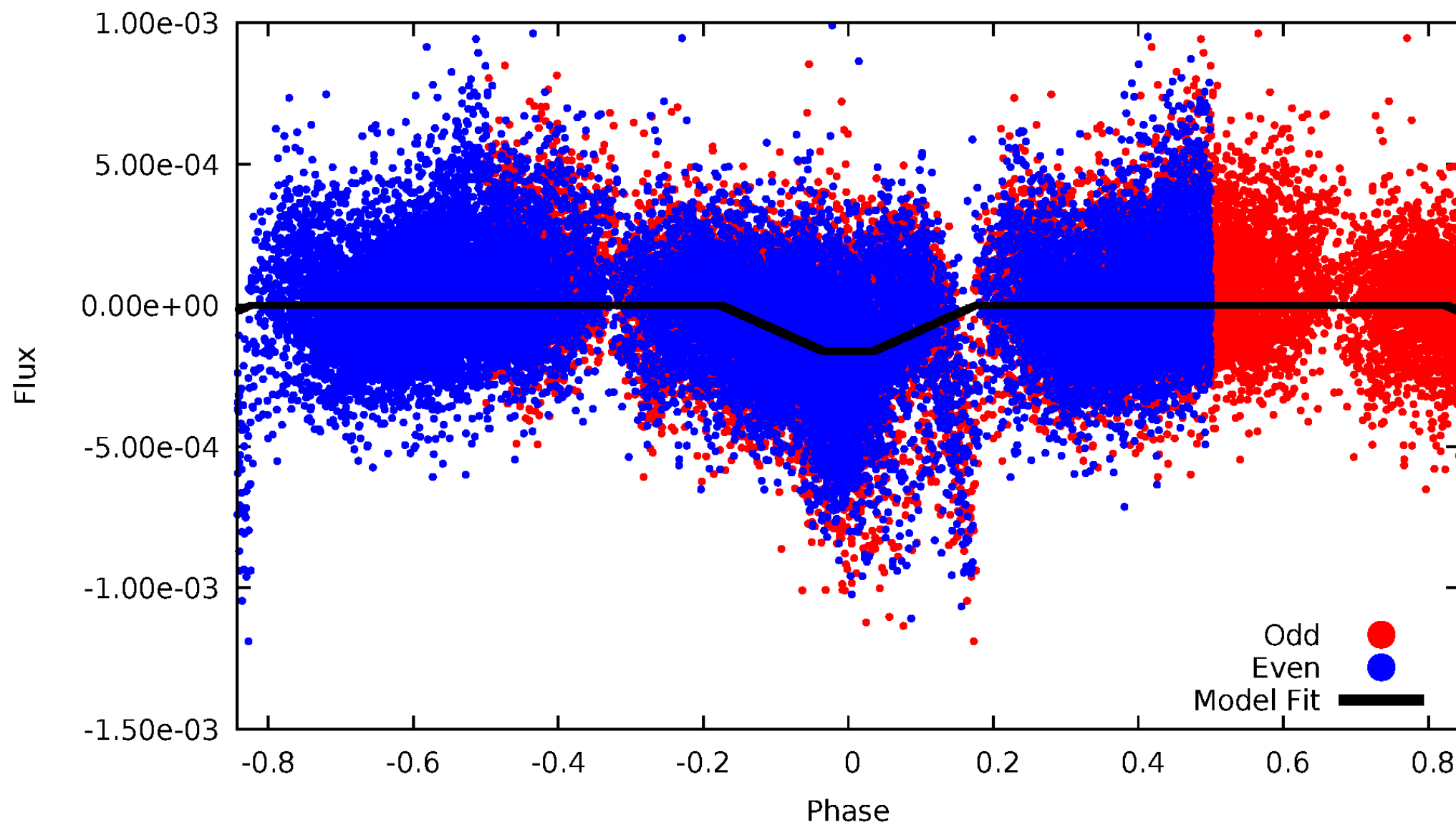
DV Odd/Even

TCE 011508874-02



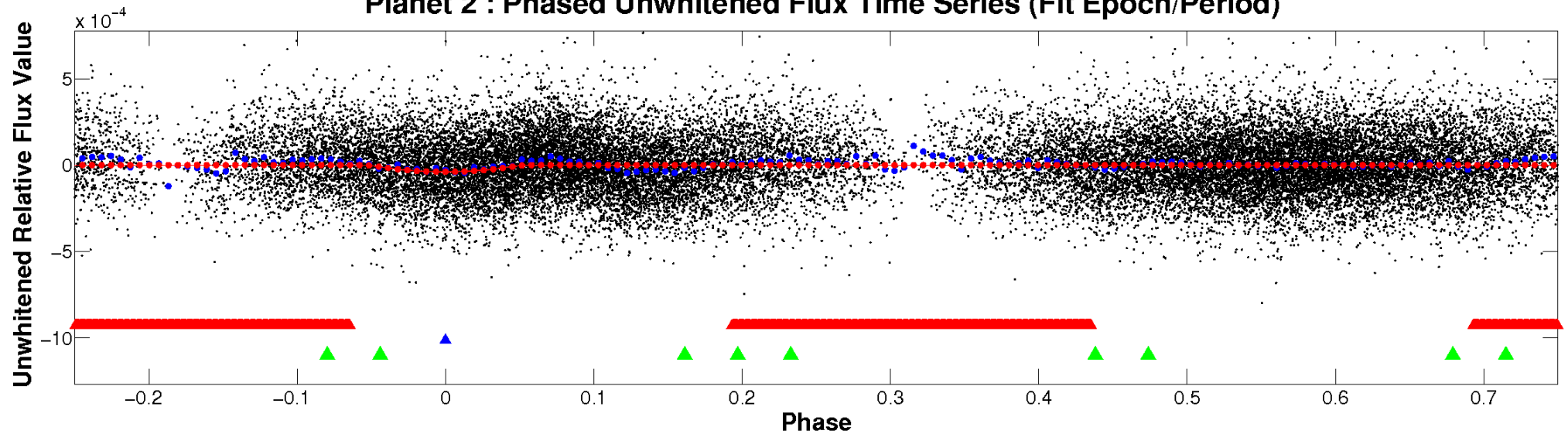
ALT Odd/Even

TCE 011508874-02

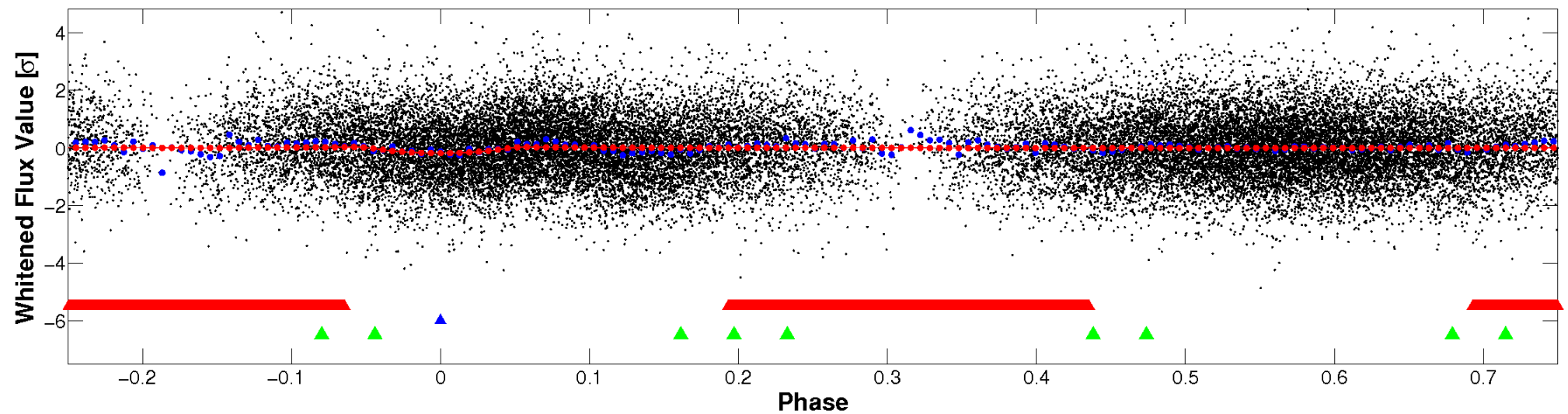


Non-Whitened Vs. Whitened Light Curve

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

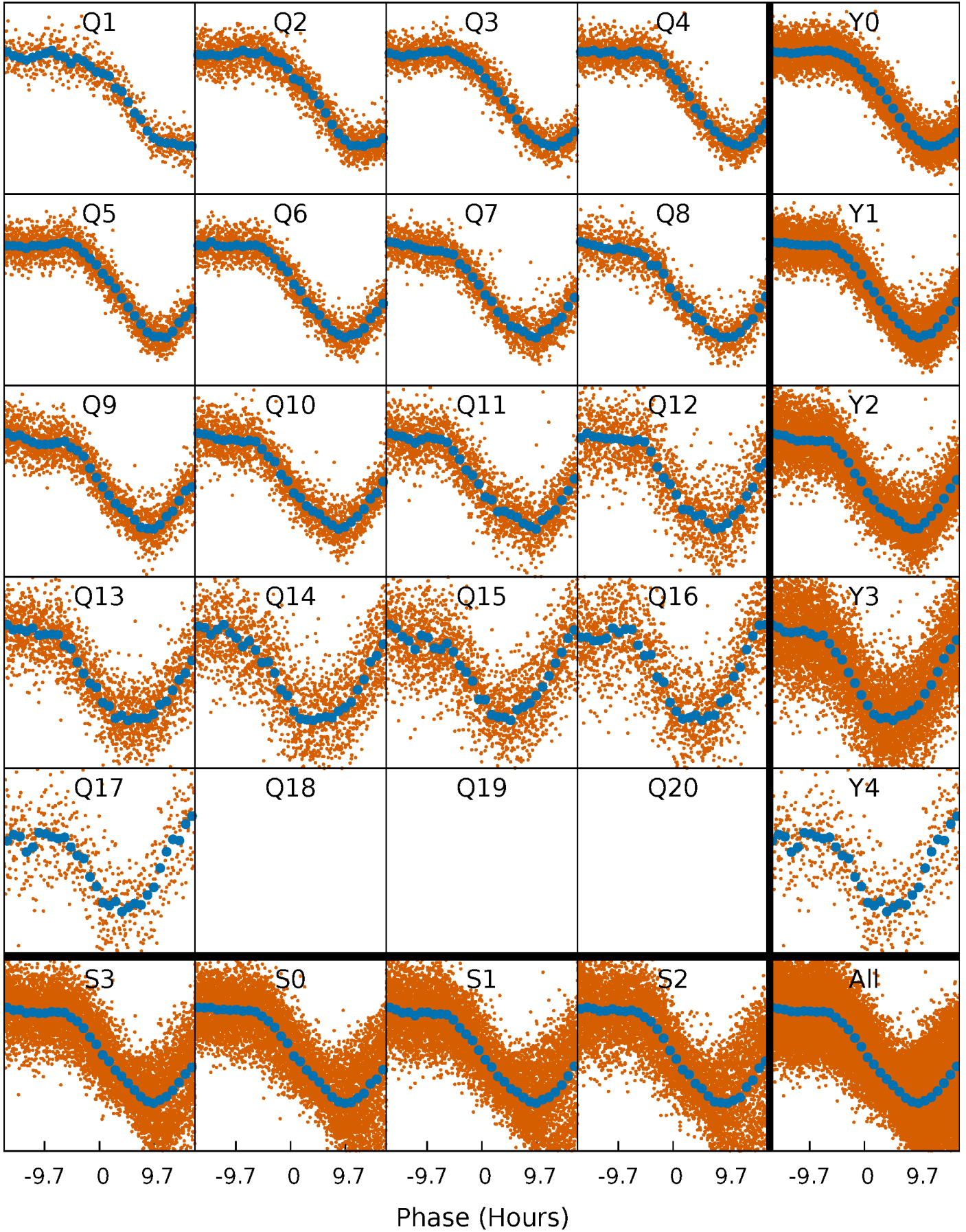


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



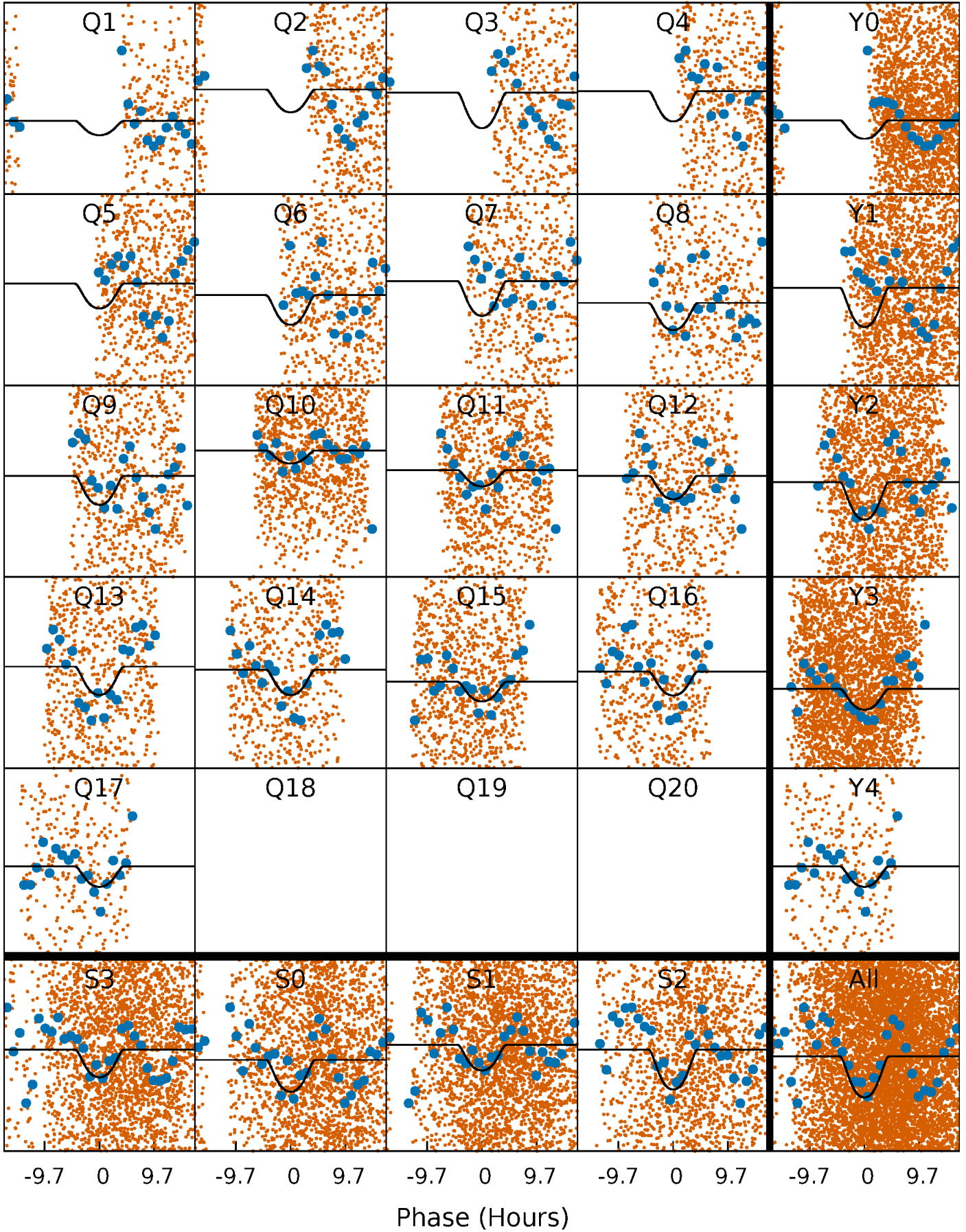
PDC Quarter-Phased Transit Curves

TCE 011508874-02 P= 3.172045 Days $T_0=131.821069$ (BKJD)



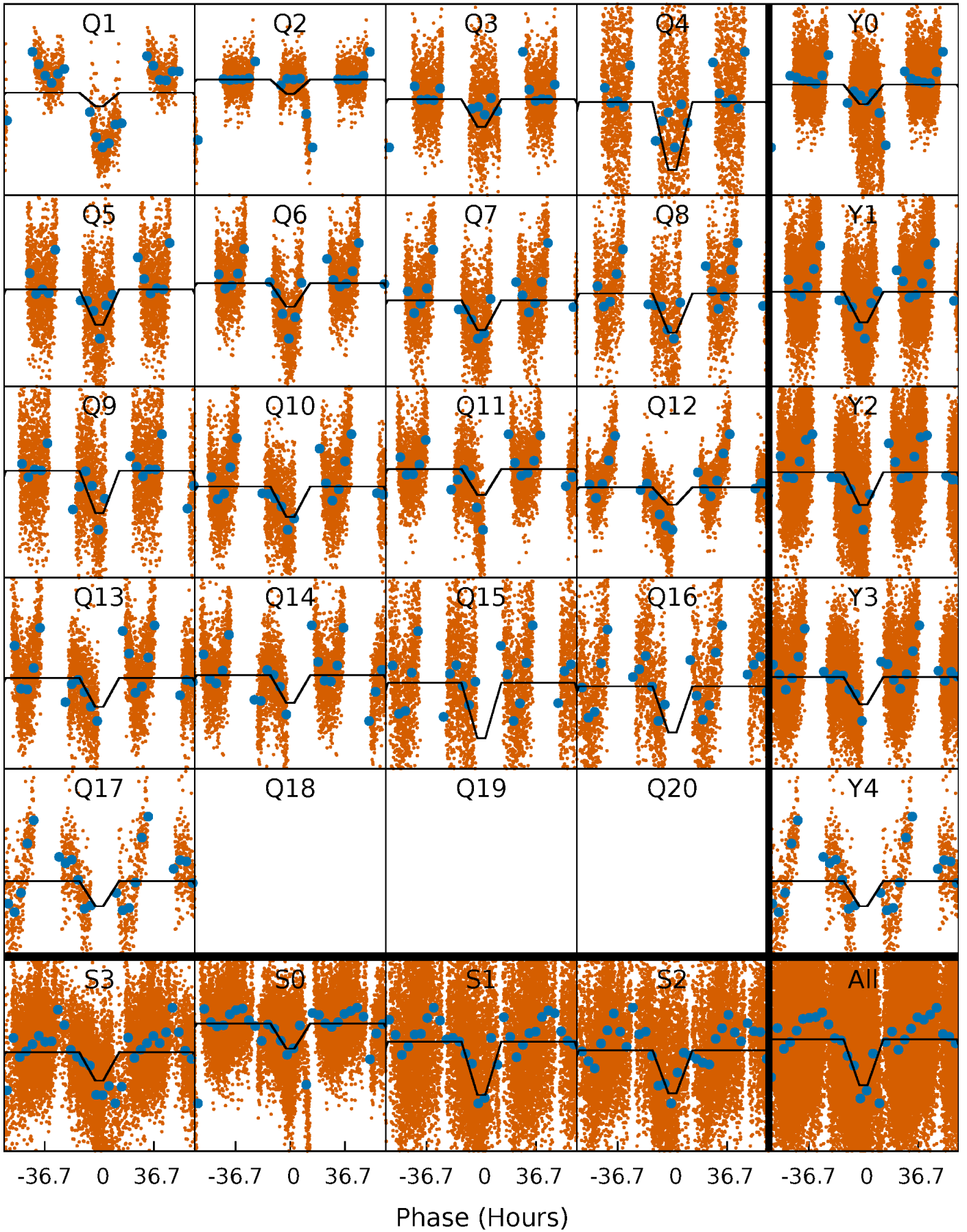
DV Quarter-Phased Transit Curves

TCE 011508874-02 P= 3.172045 Days $T_0=131.821069$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

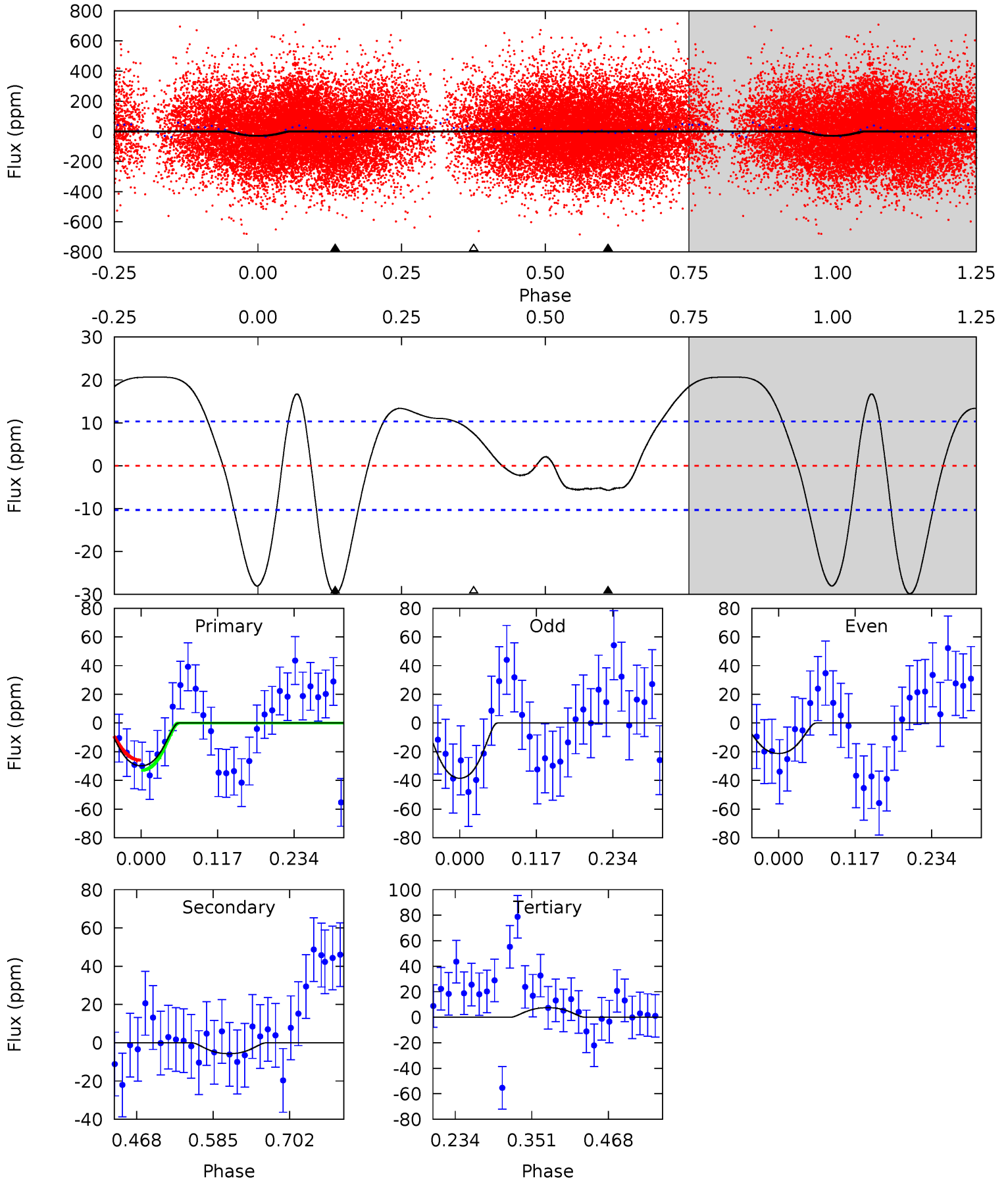
TCE 011508874-02 P= 3.172188 Days $T_0=132.228602$ (BKJD)



DV Model-Shift Uniqueness Test

011508874-02, P = 3.172045 Days, E = 131.821069 Days

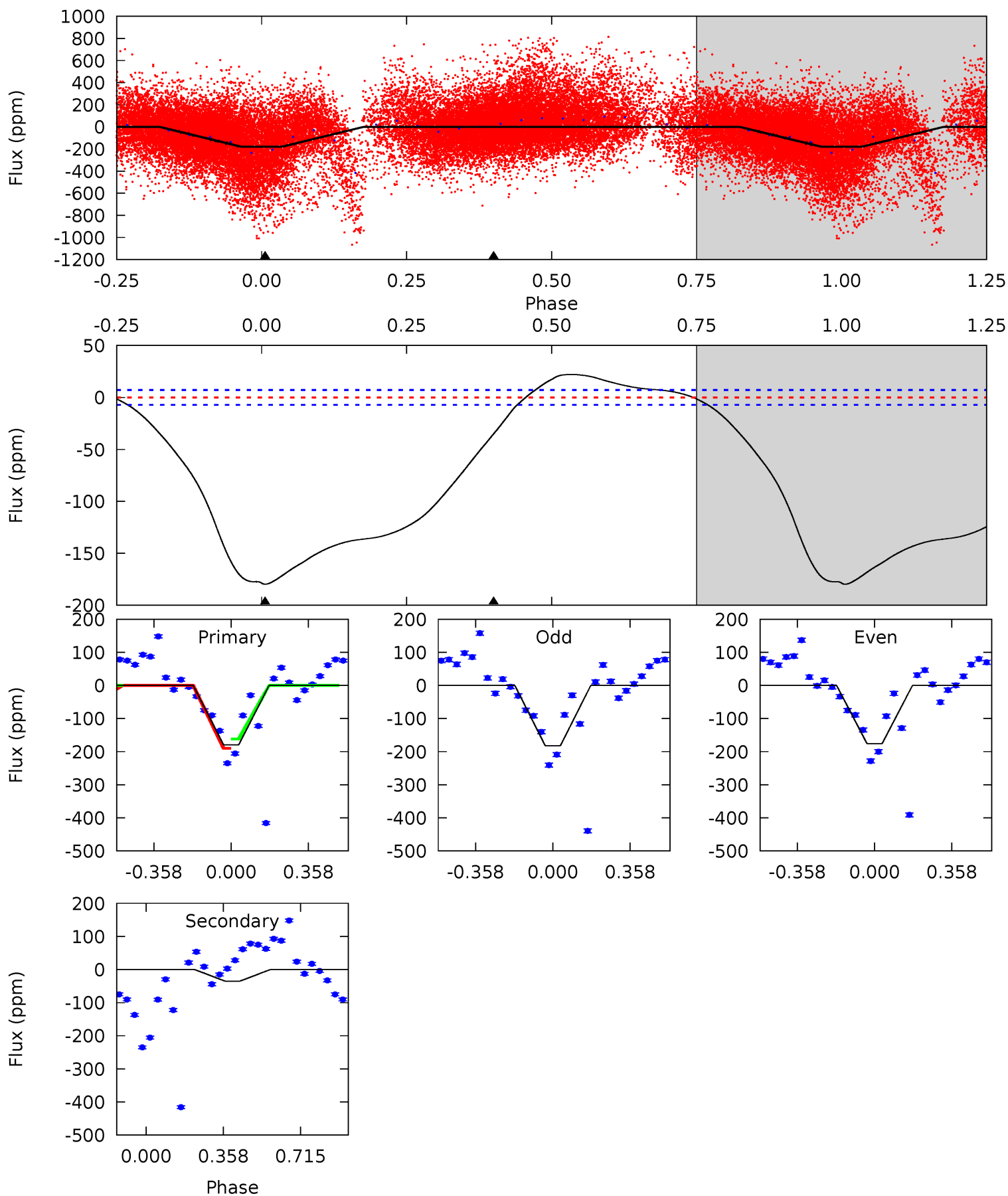
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	2.51	-3.30	0	4.53	1.57	6.50	16.4	13.1	5.80	2.51	3.78	-0.85	0.41	1.51



Alt Model-Shift Uniqueness Test

011508874-02, P = 3.172188 Days, E = 129.056414 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
108.5	21.1	0	0	4.29	0.92	7.05	108.5	108.5	21.1	21.1	1.95	1.19	0.11	7.69



Stellar Parameters For KIC 011508874

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7079^{+200}_{-275}	$4.277^{+0.067}_{-0.202}$	$-0.060^{+0.250}_{-0.350}$	$1.419^{+0.499}_{-0.200}$	$1.391^{+0.203}_{-0.203}$	$0.686^{+0.265}_{-0.367}$
	+3%/-4%	+2%/-5%	+417%/-583%	+35%/-14%	+15%/-15%	+39%/-54%
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 011508874-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 2	$1.34^{+0.53}_{-0.47}$	2437^{+188}_{-135}	3976^{+744}_{-561}	$3.771^{+5.087}_{-2.198}$
Alt.	-35 ± 2	$2.05^{+0.55}_{-0.53}$	2434^{+160}_{-134}	4834^{+639}_{-389}	$9.955^{+8.189}_{-3.579}$

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

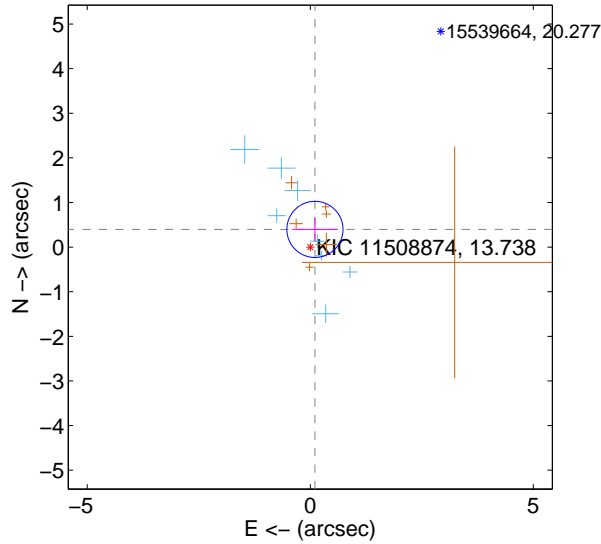
Supplemental centroid analysis for 011508874-02. Kepler magnitude: 13.74. Transit SNR 8.96

There are 8 quarters with good PRF difference image offsets

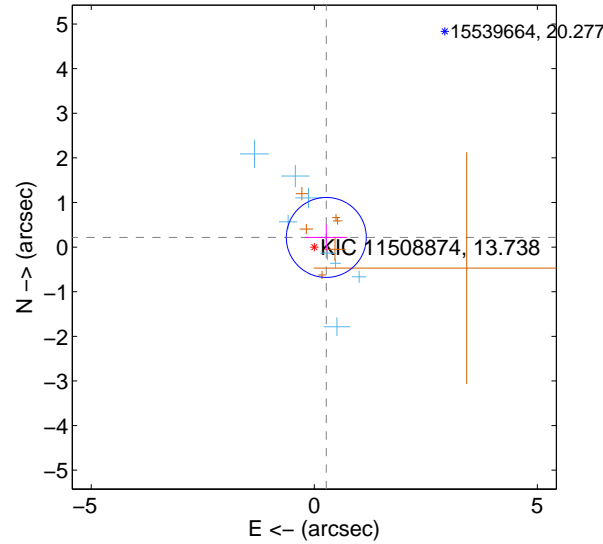
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.410 ± 0.210	1.96	-0.104 ± 0.510	0.397 ± 0.264
PRF-fit source offset from KIC position	0.346 ± 0.299	1.16	-0.269 ± 0.473	0.217 ± 0.284
photometric centroid source offset	1.80 ± 0.91	1.99	-1.79 ± 0.91	0.20 ± 0.93

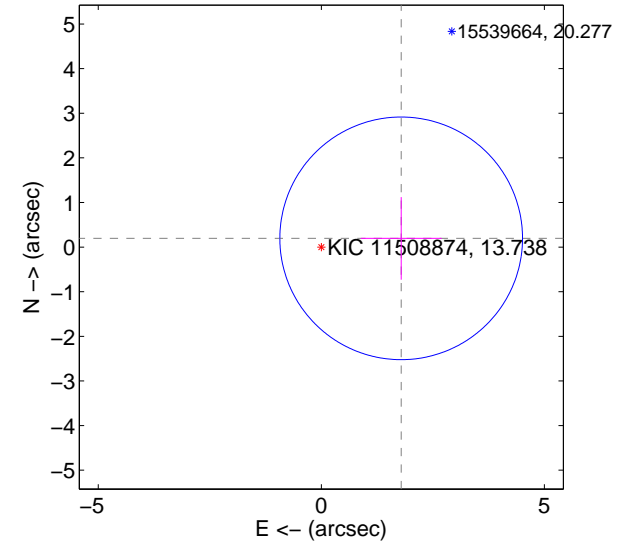
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

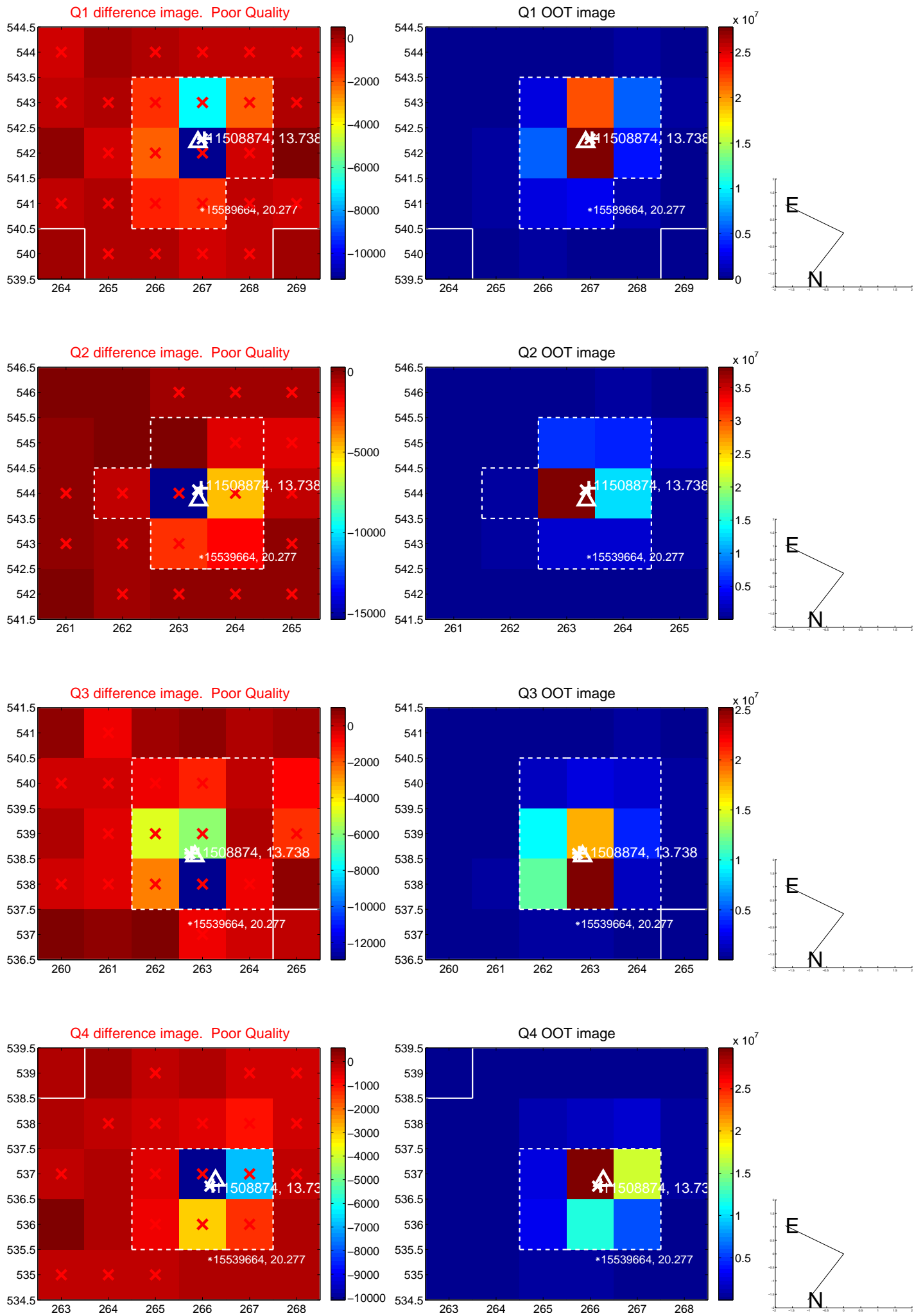


offset from photometric centroids

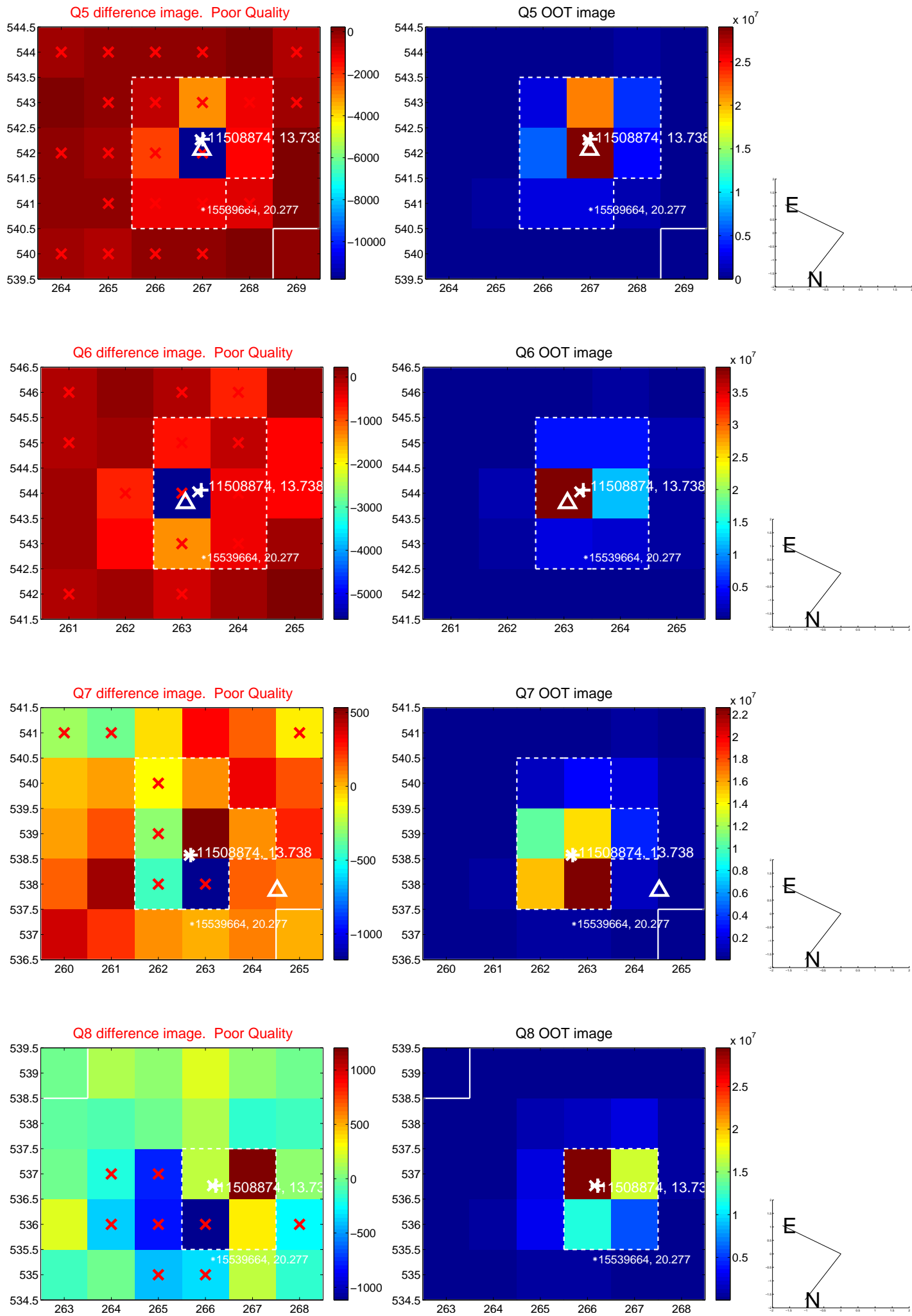


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

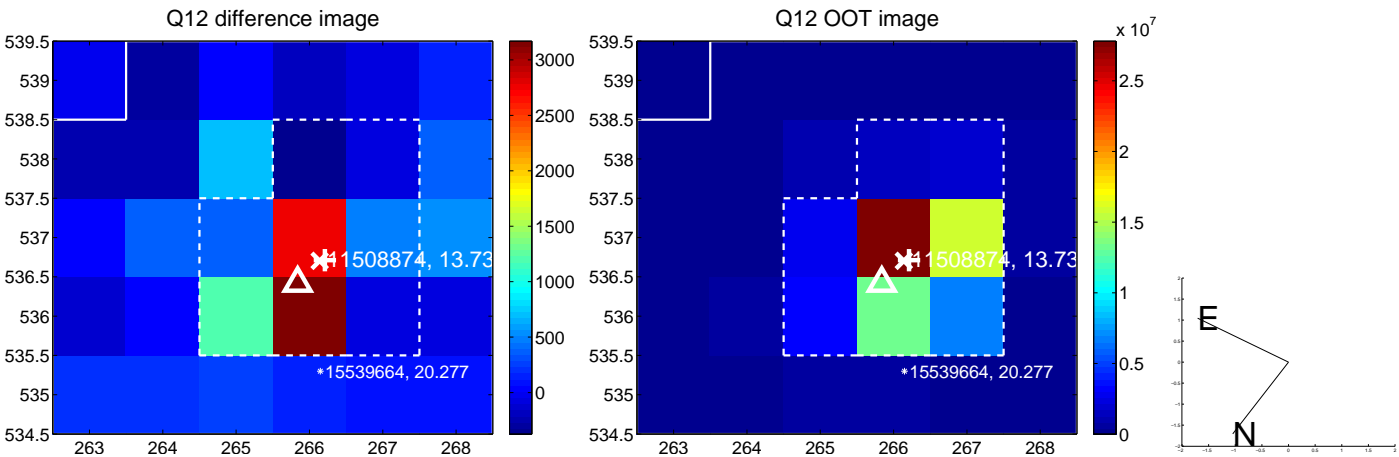
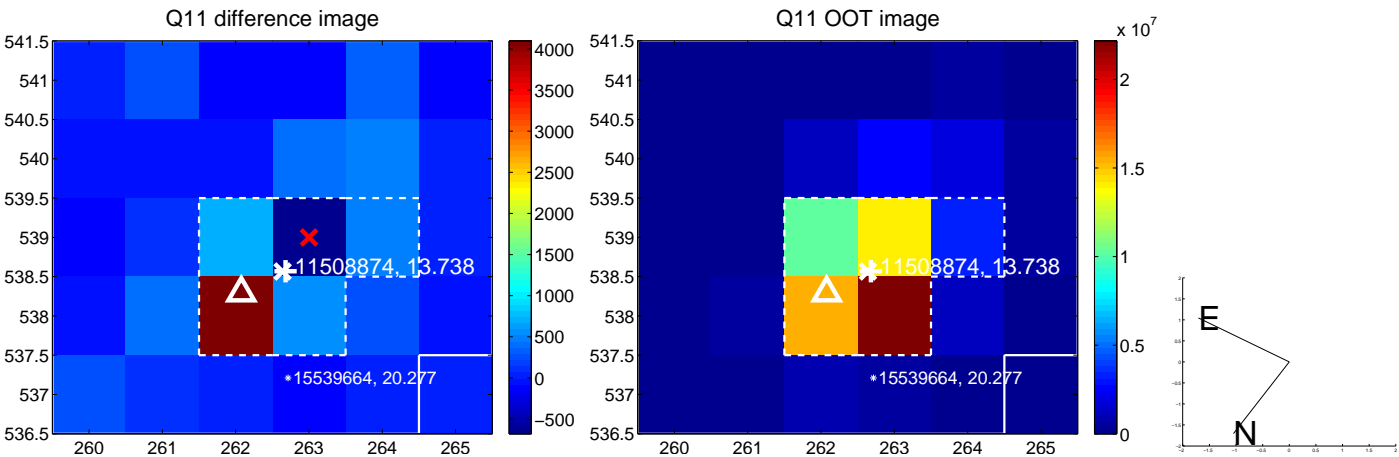
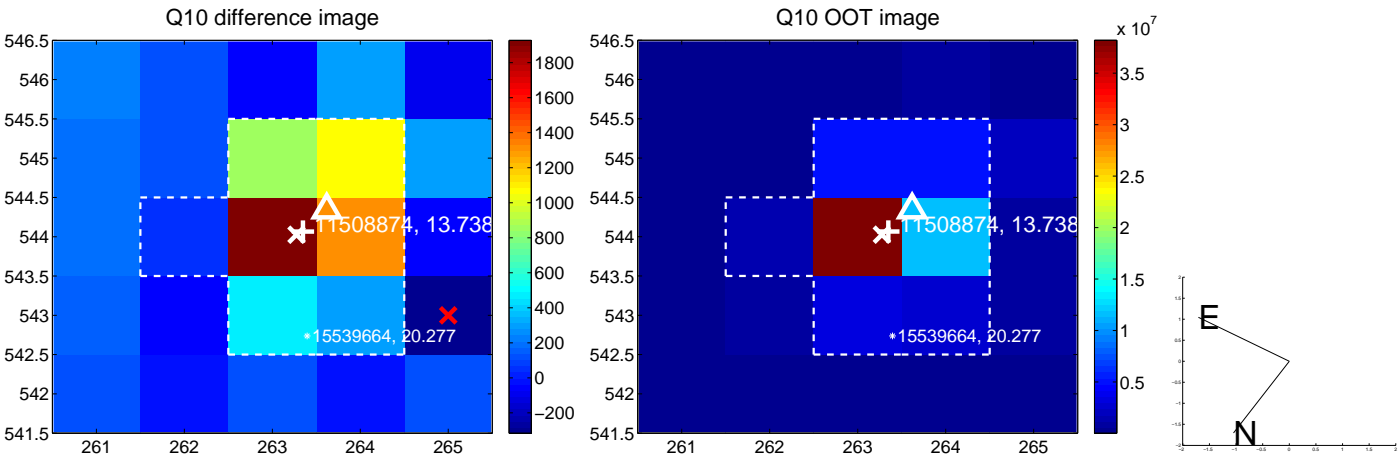
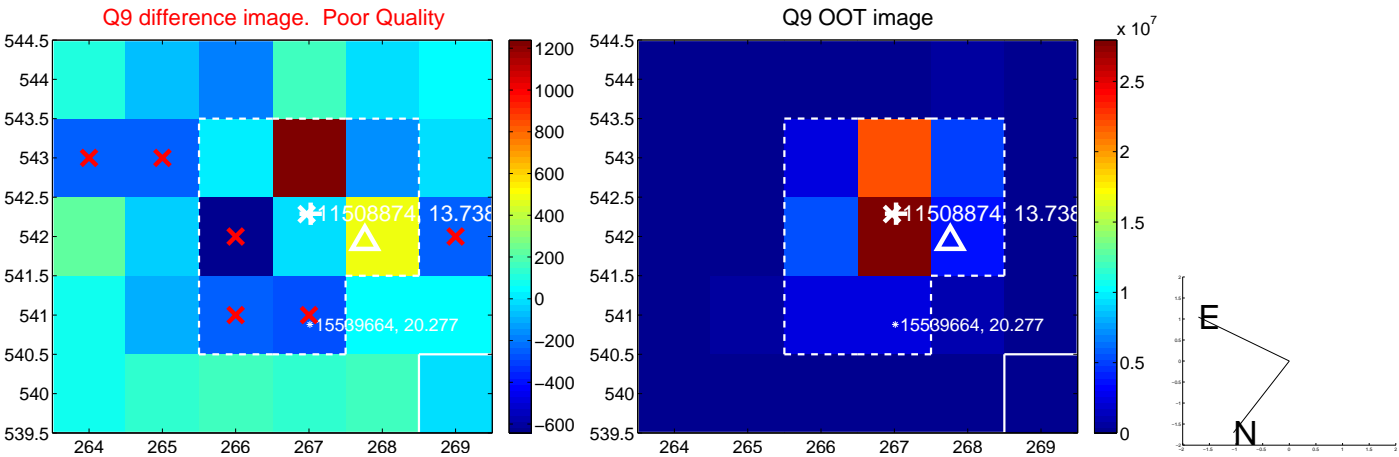
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



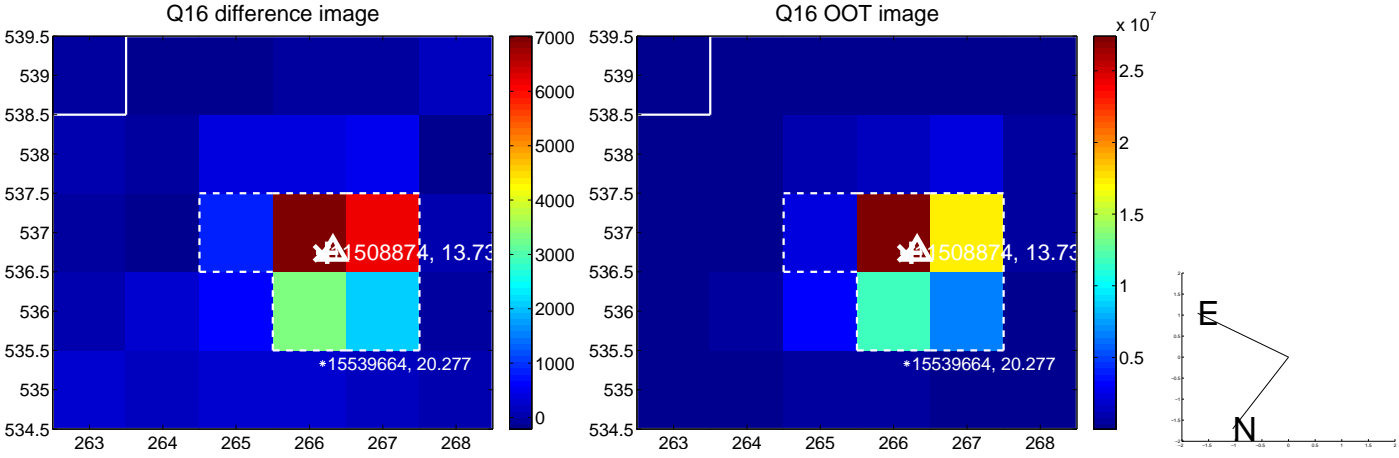
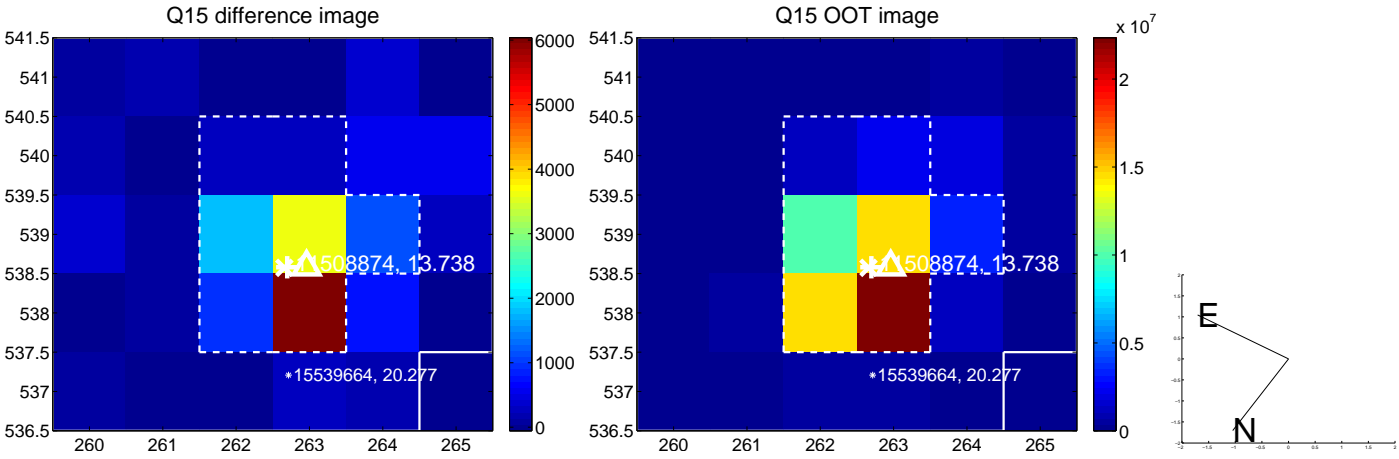
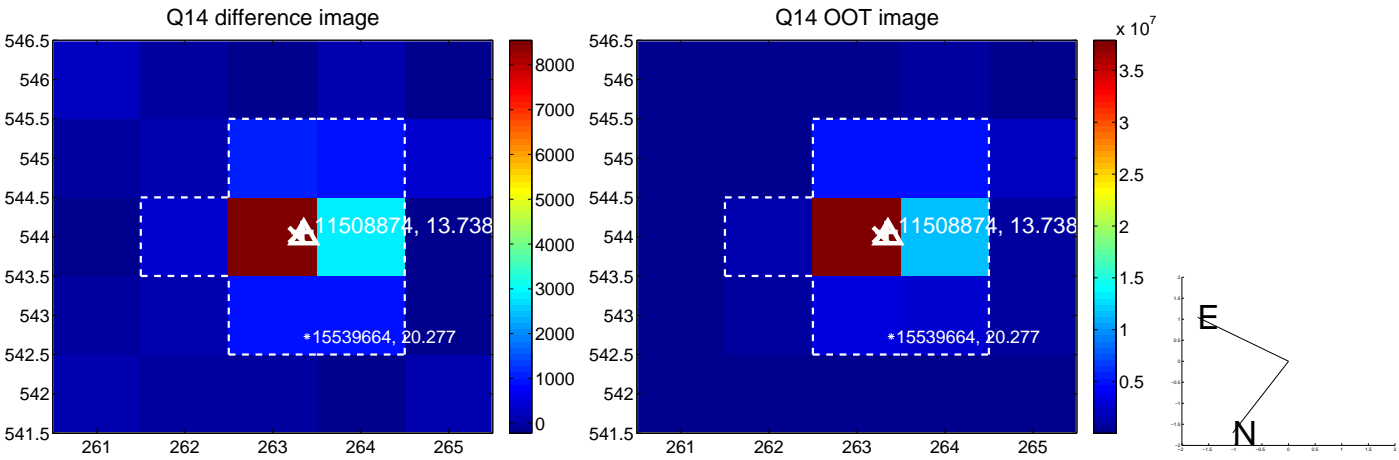
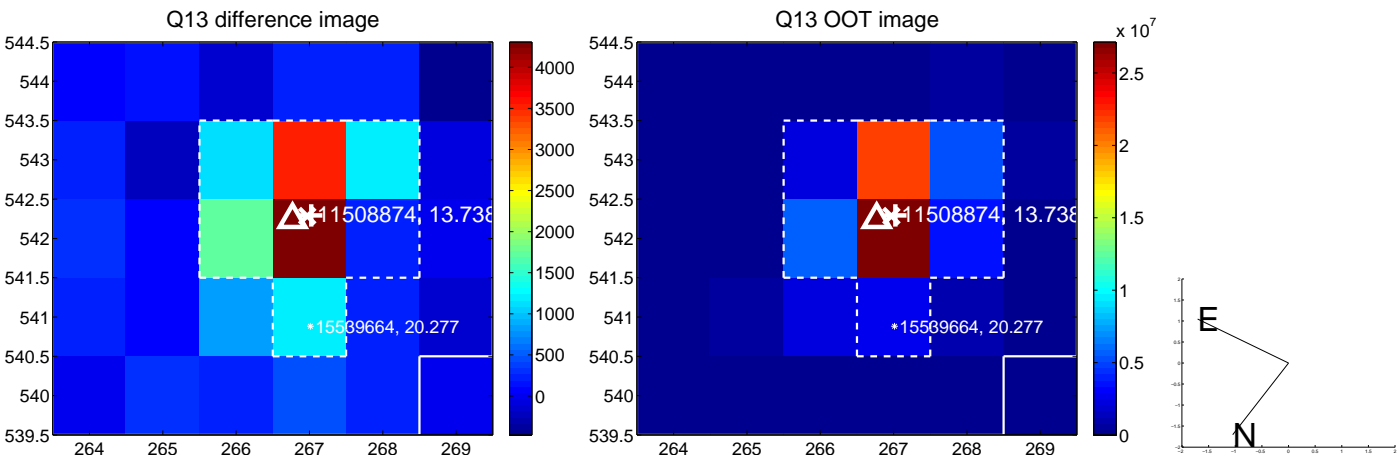
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



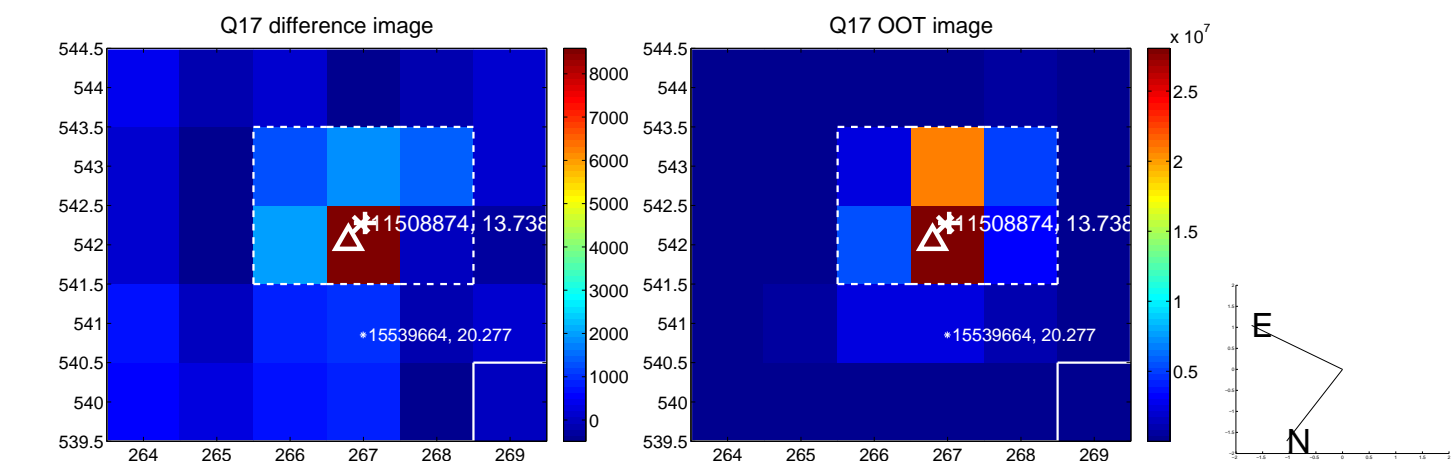
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



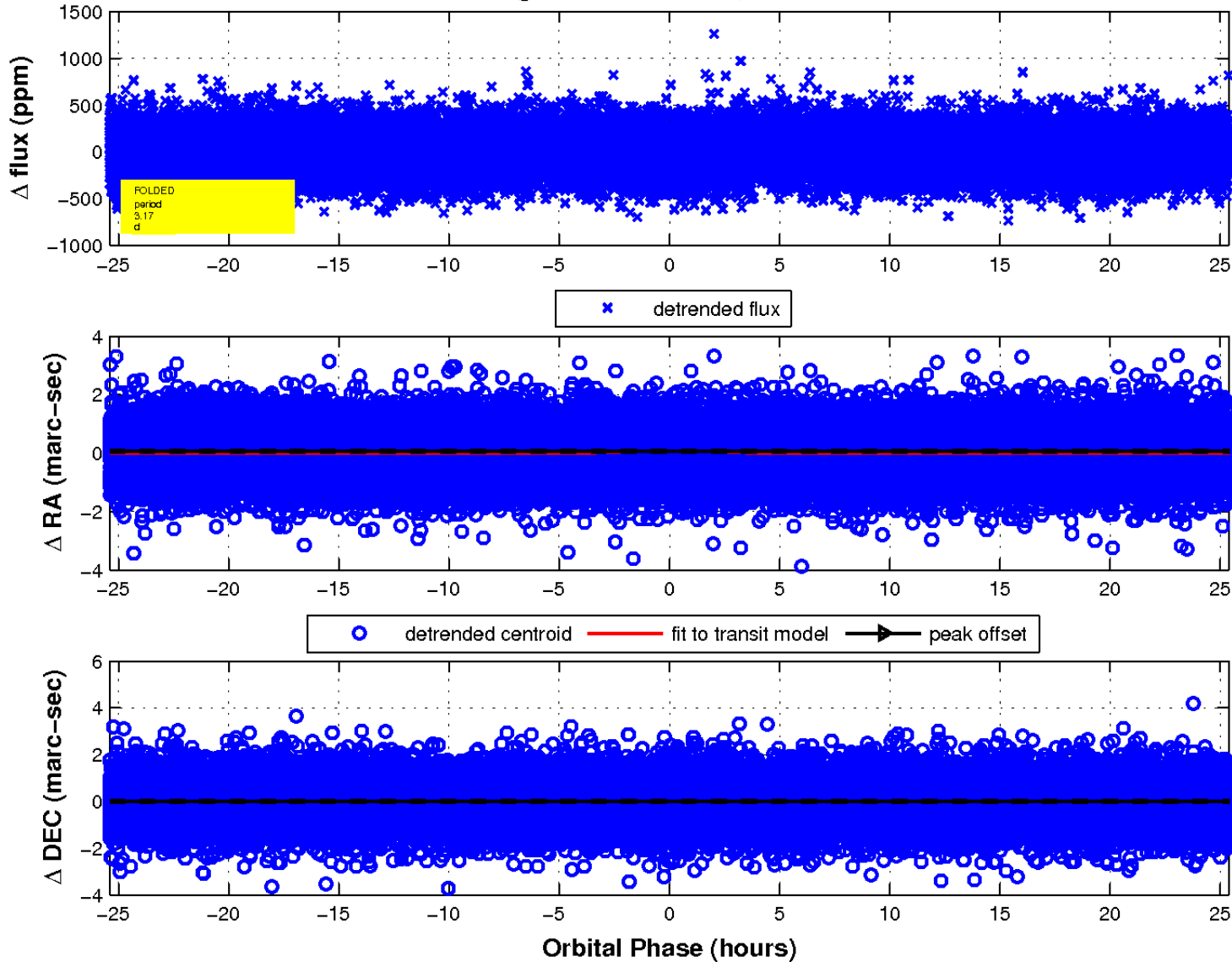
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

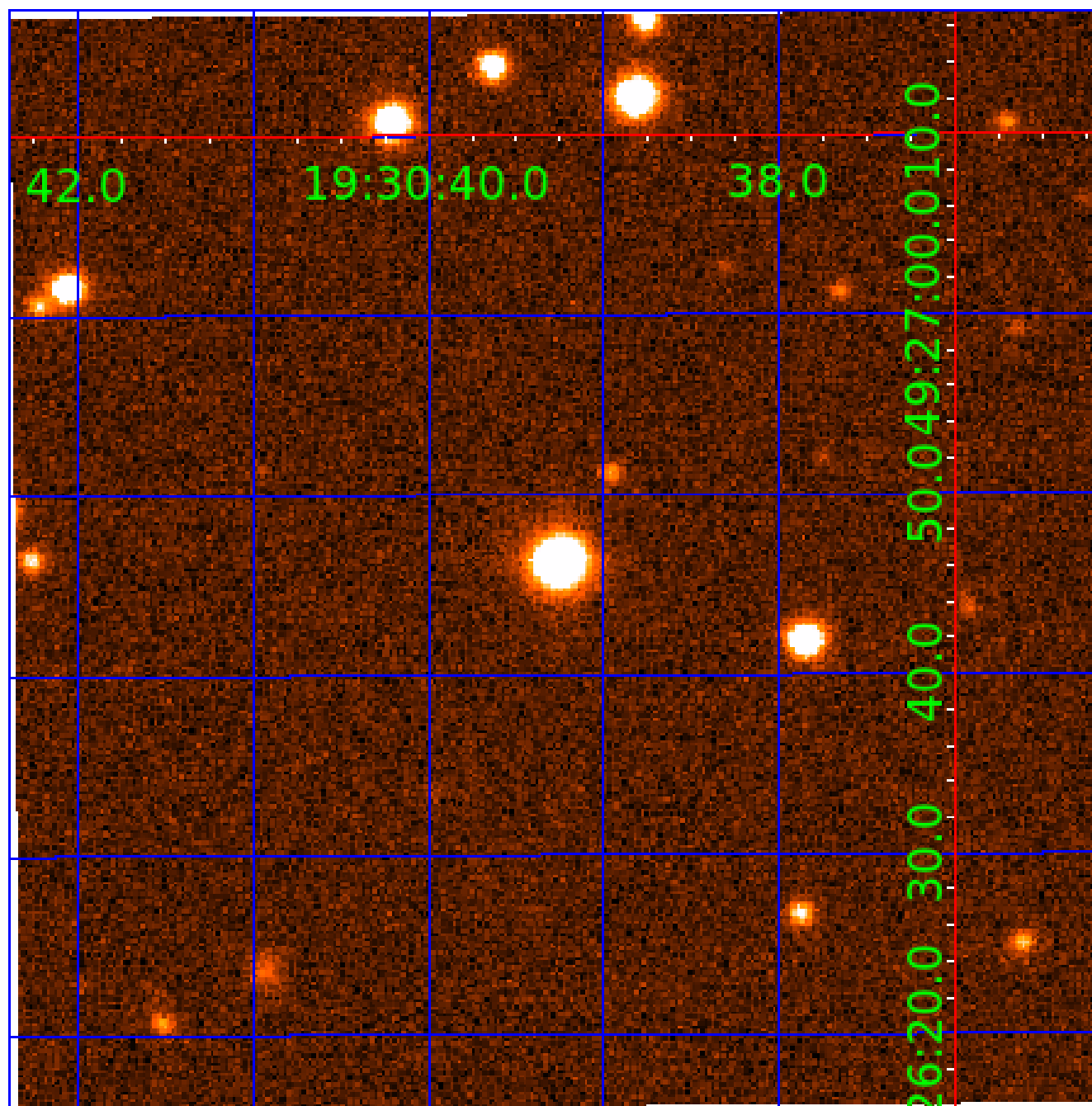


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 011508874

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})
011508874-01	OBS	No	1.585186	131.616567	158.0	6.000	8.4	-1.0	1.42	7079	1.80	5136.45
011508874-02	OBS	No	3.172045	131.821069	39.4	8.468	9.6	9.0	1.42	7079	1.28	2036.97
011508874-03	OBS	No	156.194916	259.441263	280.2	1.679	8.6	3.3	1.42	7079	2.41	11.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011508874-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
011508874-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
011508874-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

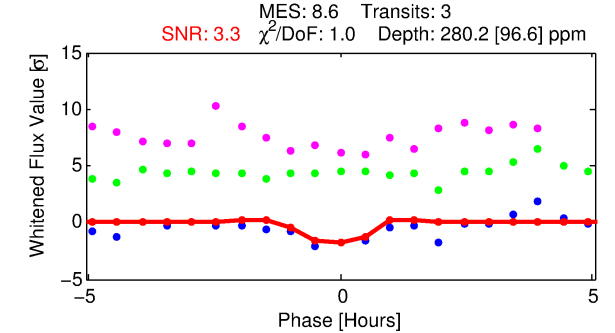
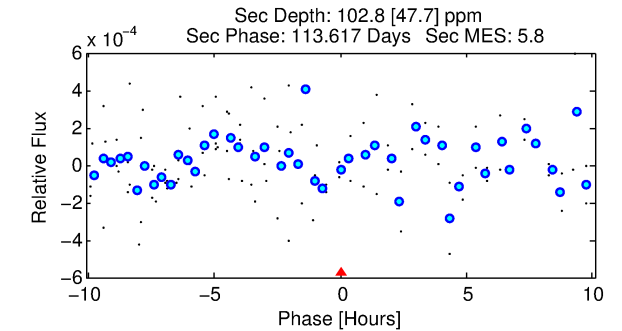
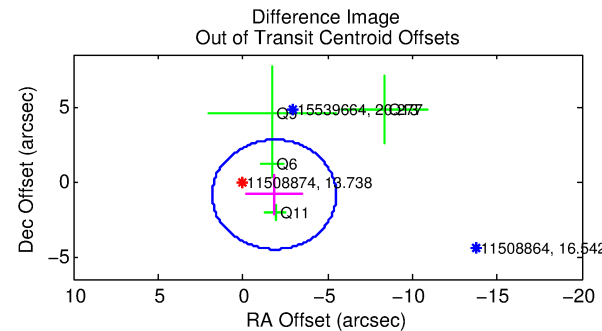
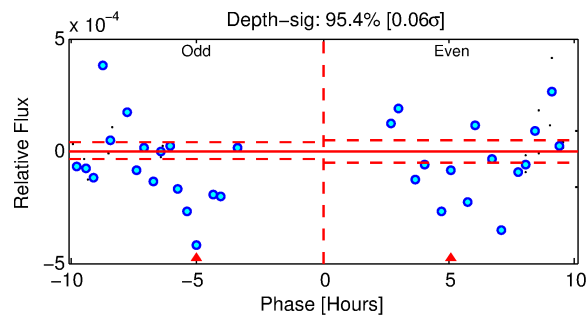
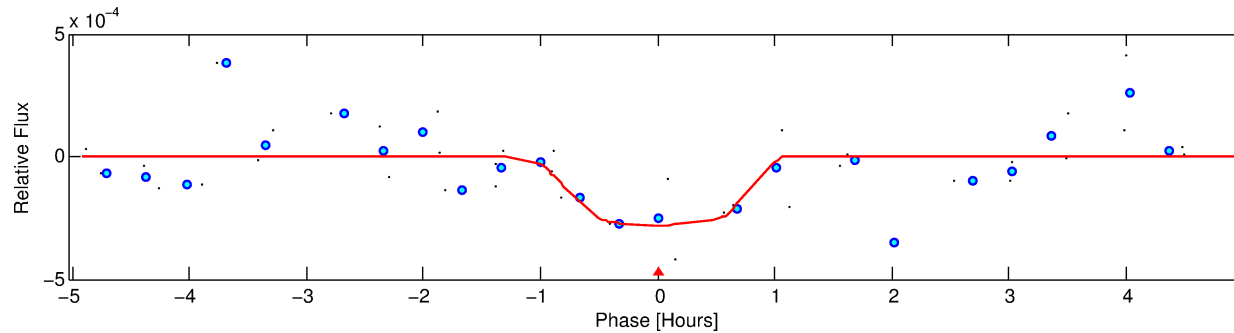
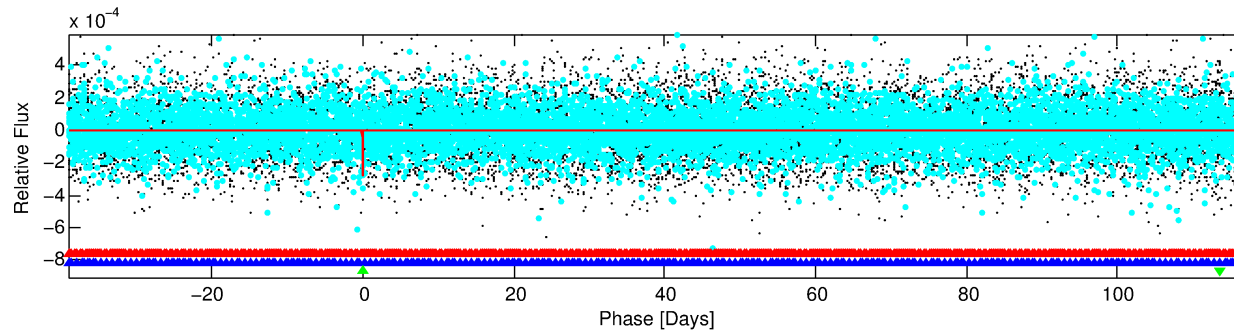
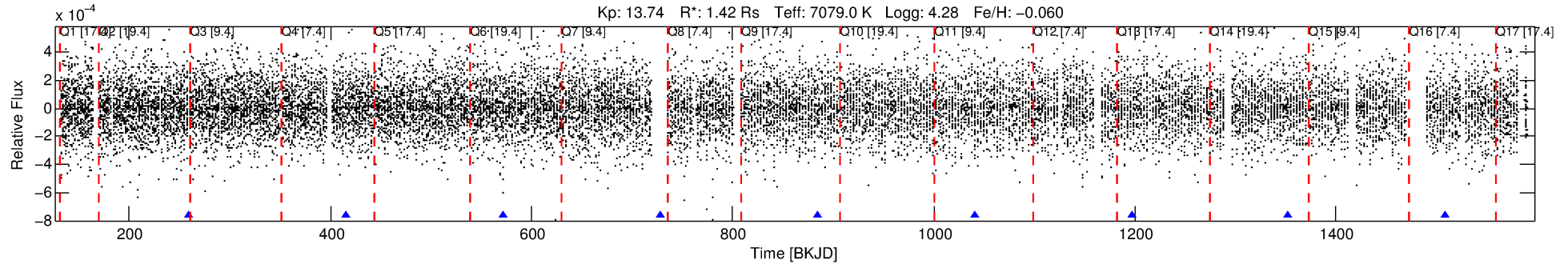
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011508874-03

No Significant Match Found

DV One-Page Summary

KIC: 11508874 Candidate: 3 of 3 Period: 156.195 d



DV Fit Results:

Period = 156.19492 [0.00483] d
Epoch = 259.4413 [0.0224] BKJD
Rp/R* = 0.0155 [0.0702]
a/R* = 720.73 [18381.24]
b = 0.05 [500.37]
Seff = 11.29 [4.72]
Teq = 467 [49] K
Rp = 2.41 [10.91] Re
a = 0.6336 [0.1781] AU
Ag = 3917.14 [35466.77] [0.11 σ]
Teffp = 5717 [12930] K [0.4 σ]

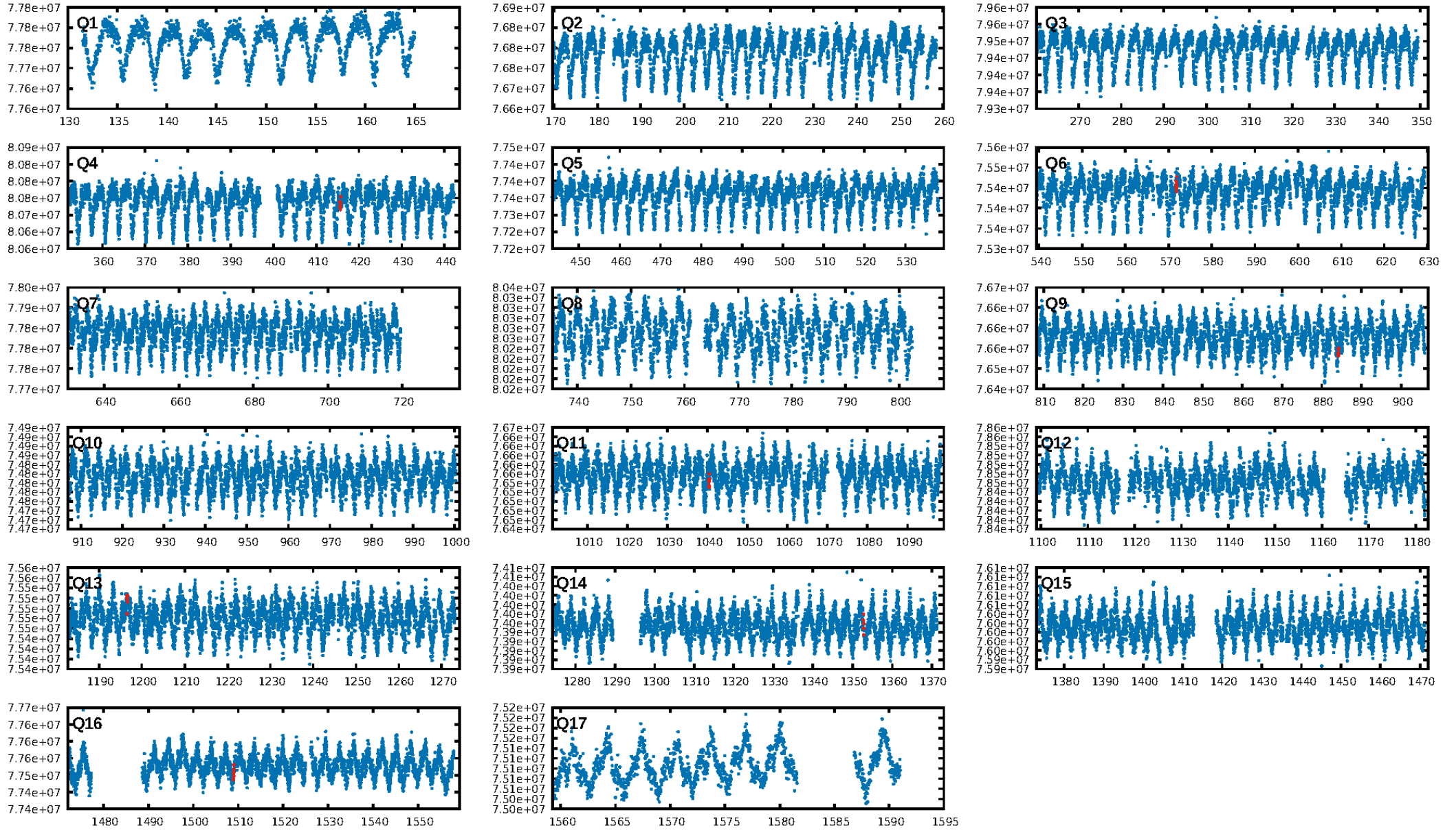
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [425.41 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 7.9%
ModelChiSquareGof-sig: 93.6%
Bootstrap-pfa: 1.64e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 3.02
Centroid-sig: 60.5%
Centroid-so: 0.543 arcsec [0.33 σ]
OotOffset-rm: 2.051 arcsec [1.68 σ]
KicOffset-rm: 2.240 arcsec [1.59 σ]
OotOffset-st: 1/1/0/2 [4]
KicOffset-st: 1/1/0/2 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 0.29 [2/7]

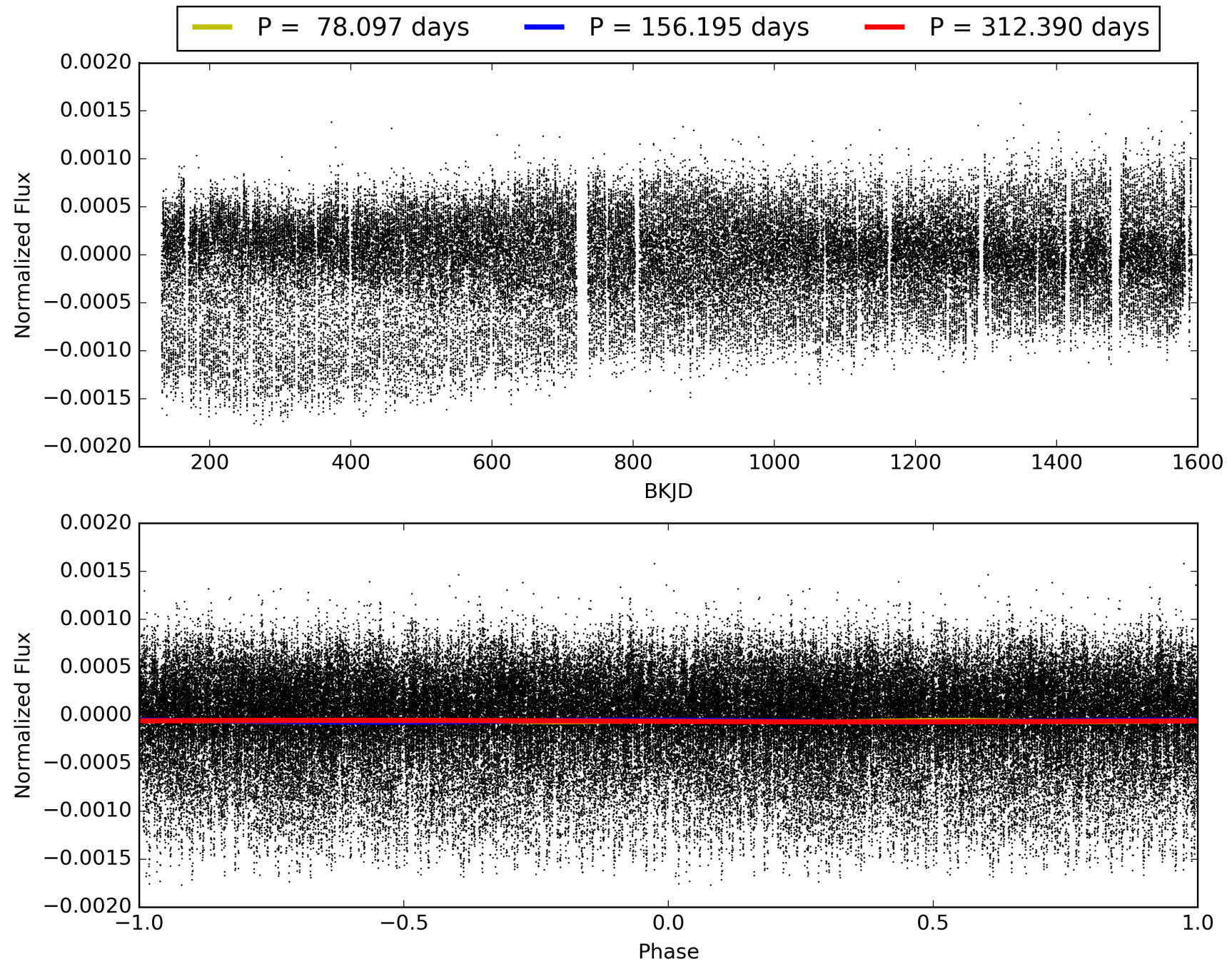
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:21:05 Z

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

TCE 011508874-03, PDC Light Curves

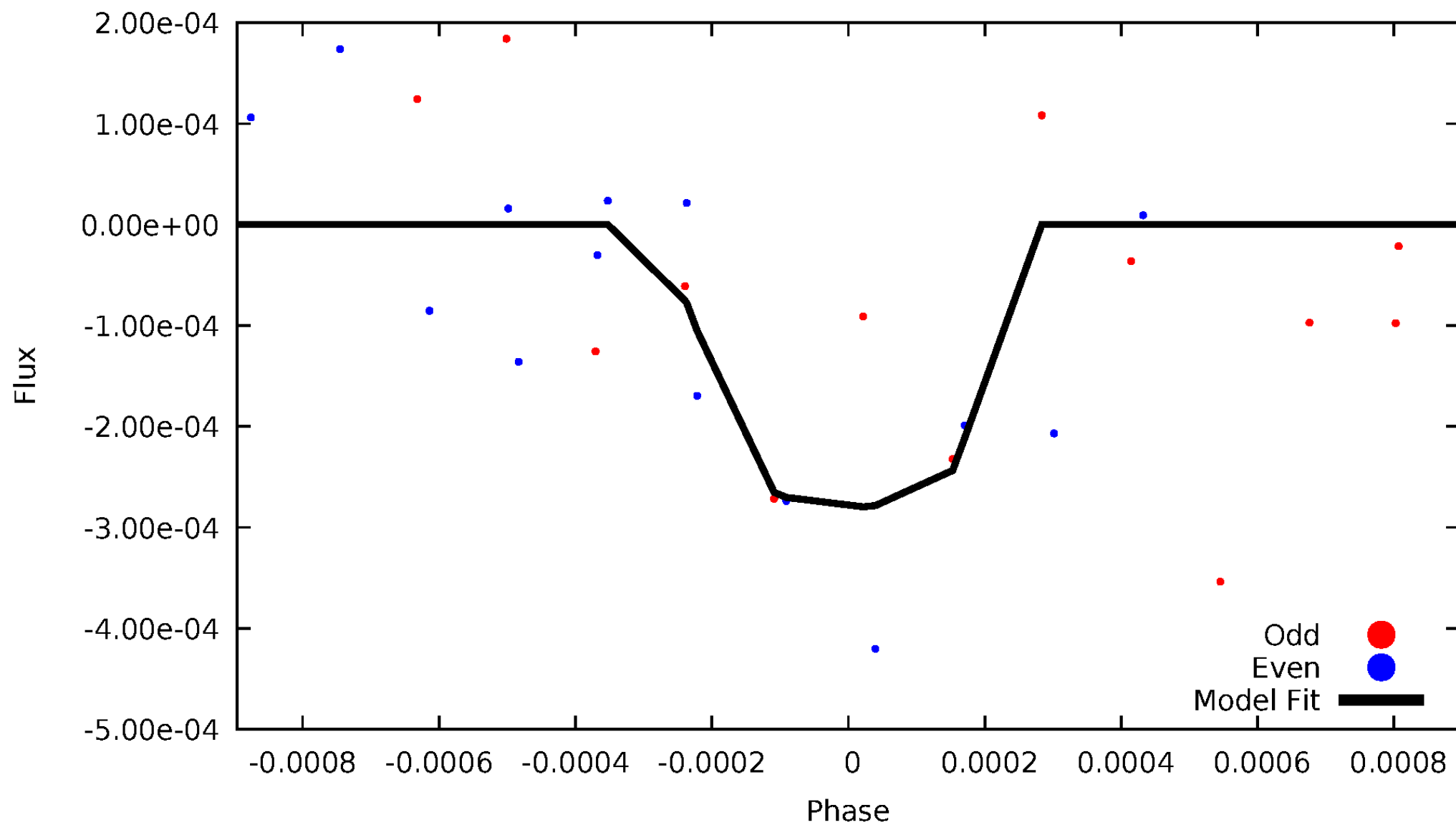


TCE 011508874-03



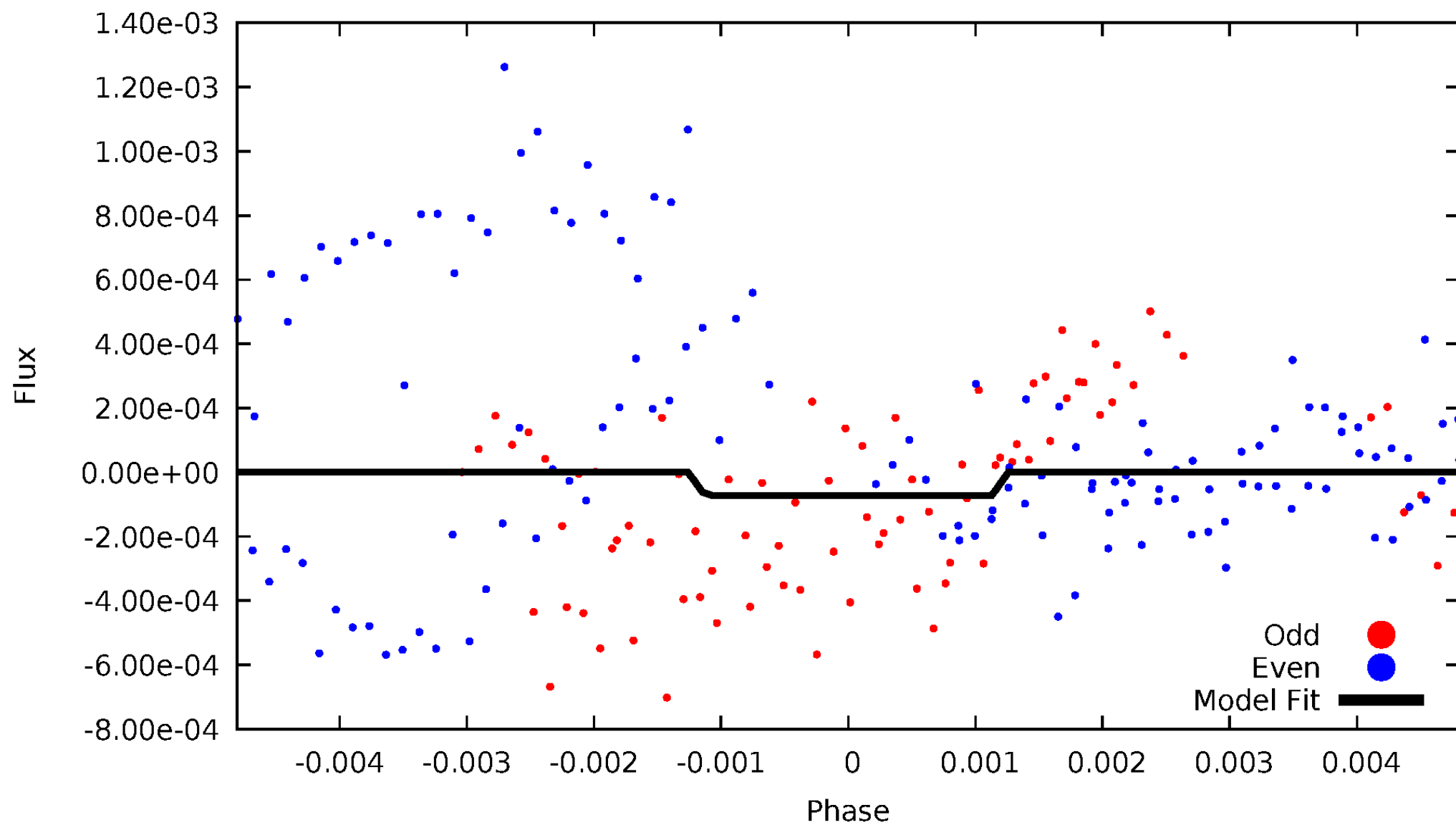
DV Odd/Even

TCE 011508874-03

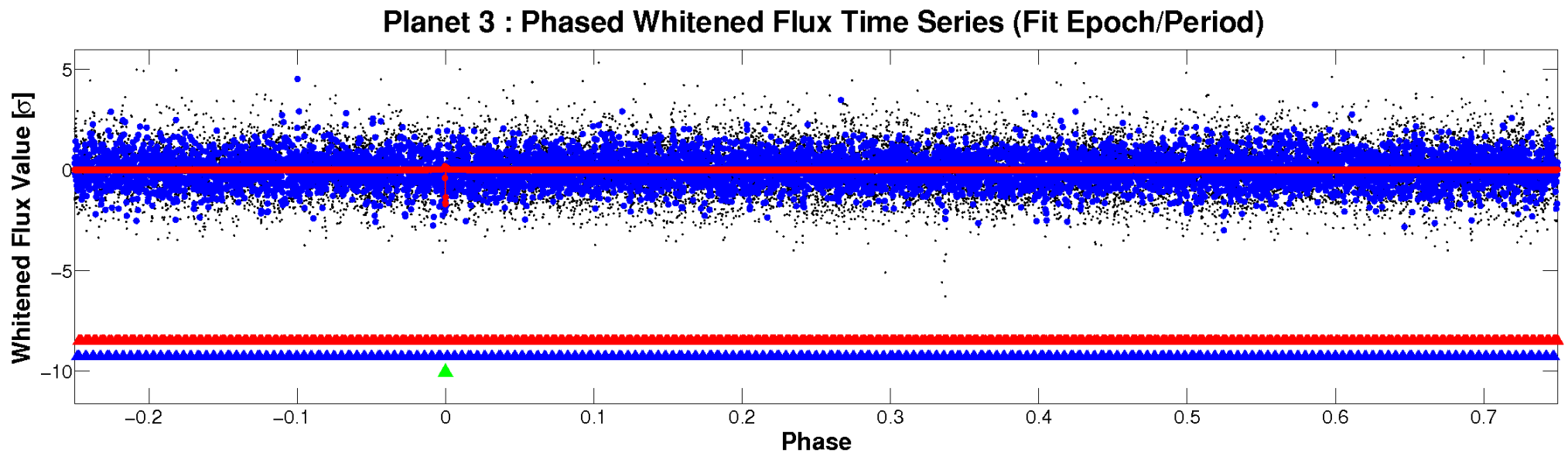
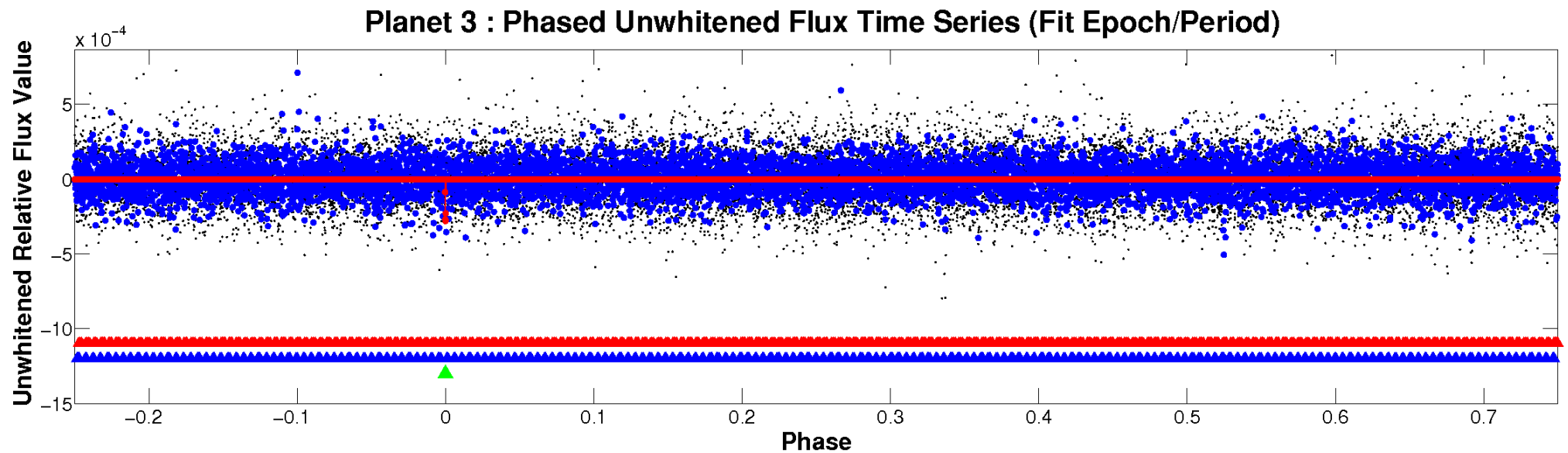


ALT Odd/Even

TCE 011508874-03

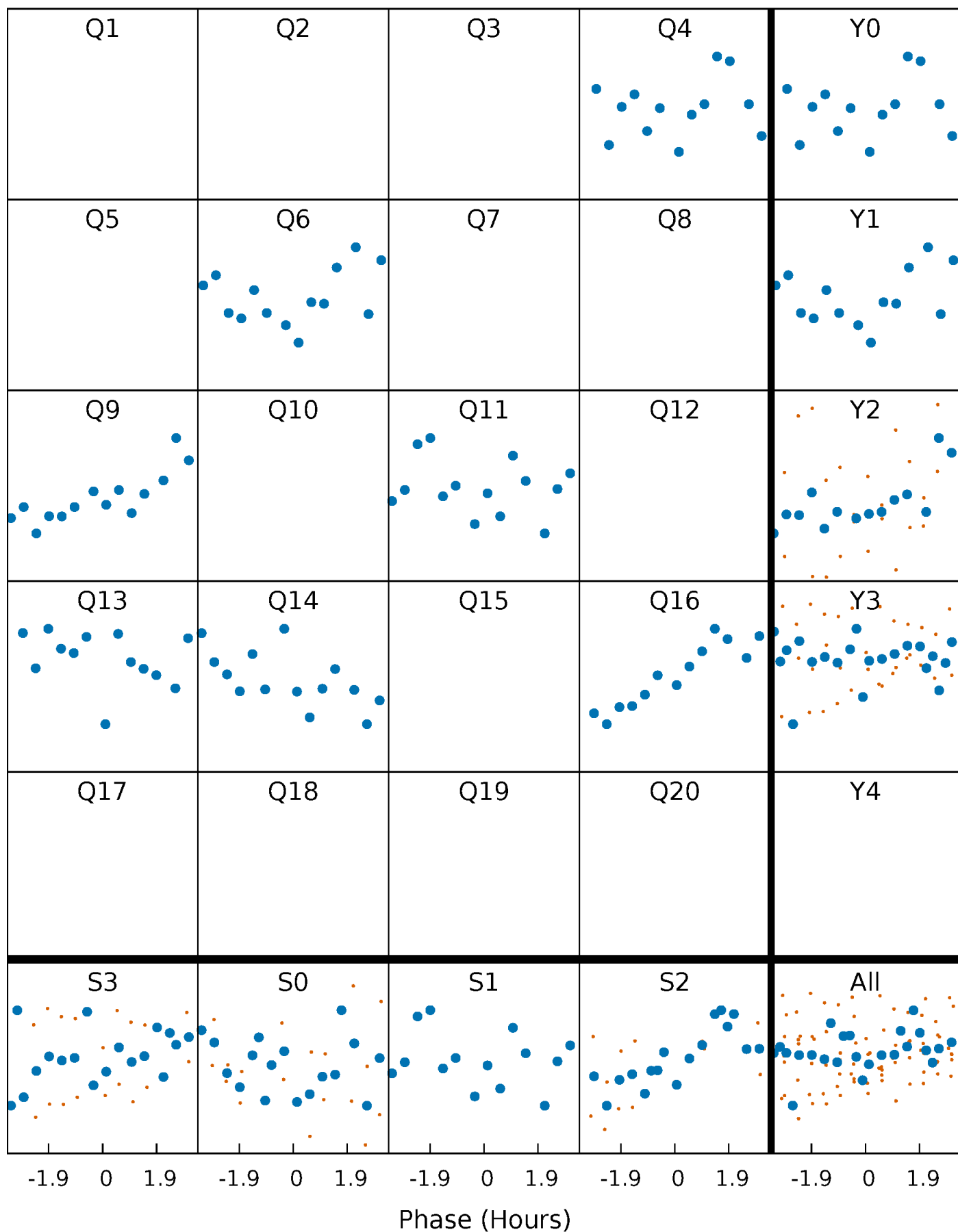


Non-Whitened Vs. Whitened Light Curve



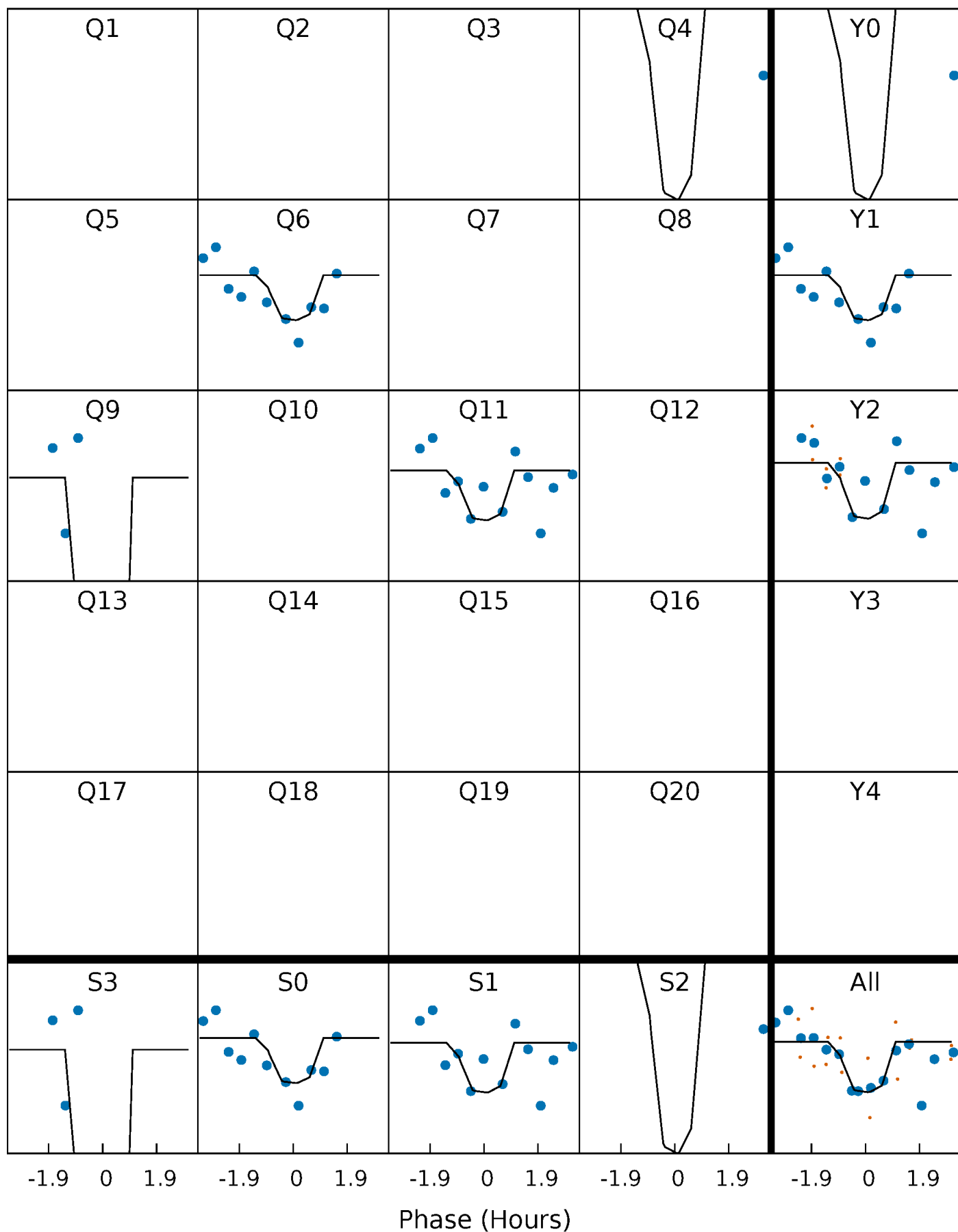
PDC Quarter-Phased Transit Curves

TCE 011508874-03 P=156.194916 Days $T_0=259.441262$ (BKJD)



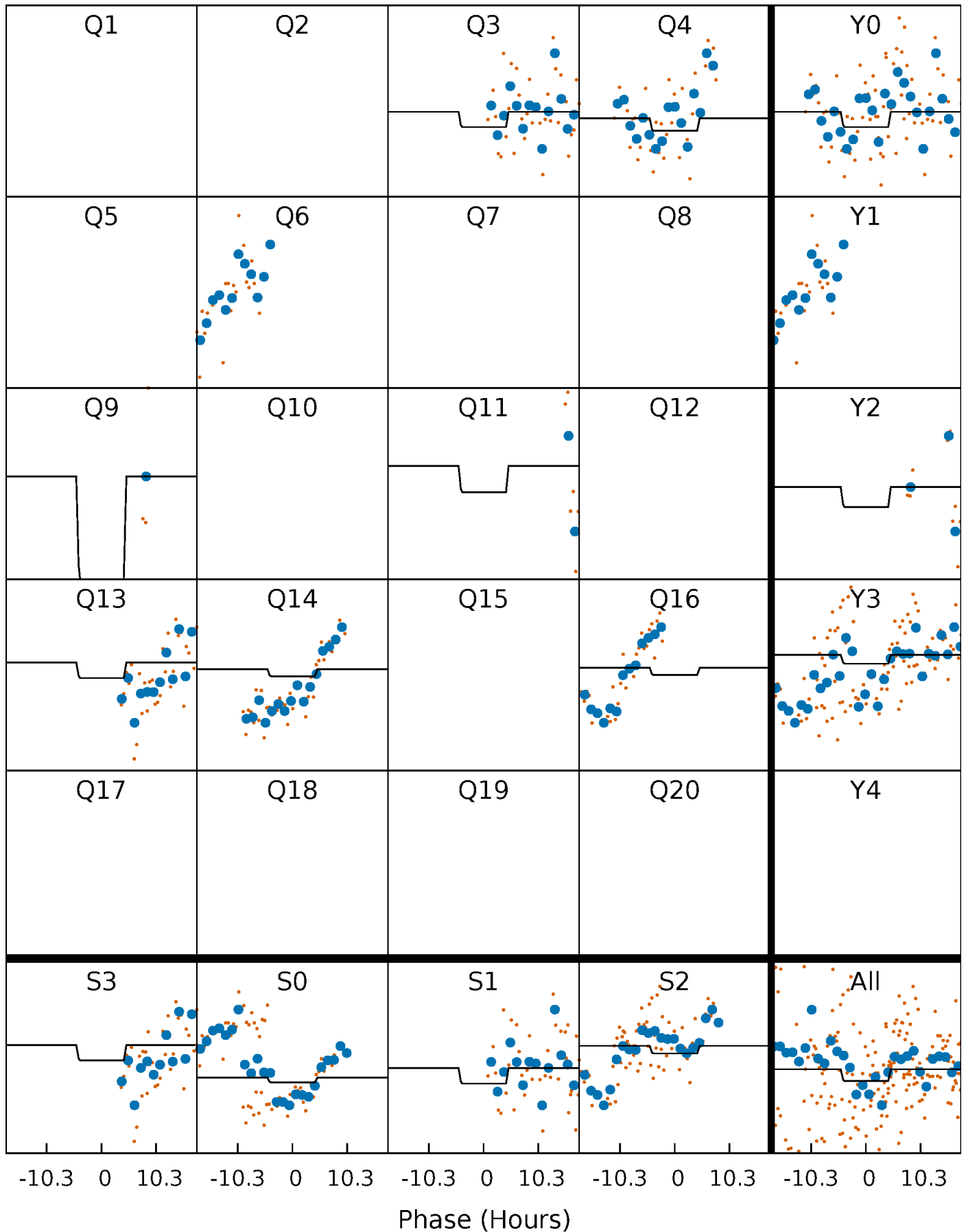
DV Quarter-Phased Transit Curves

TCE 011508874-03 P=156.194916 Days $T_0=259.441262$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

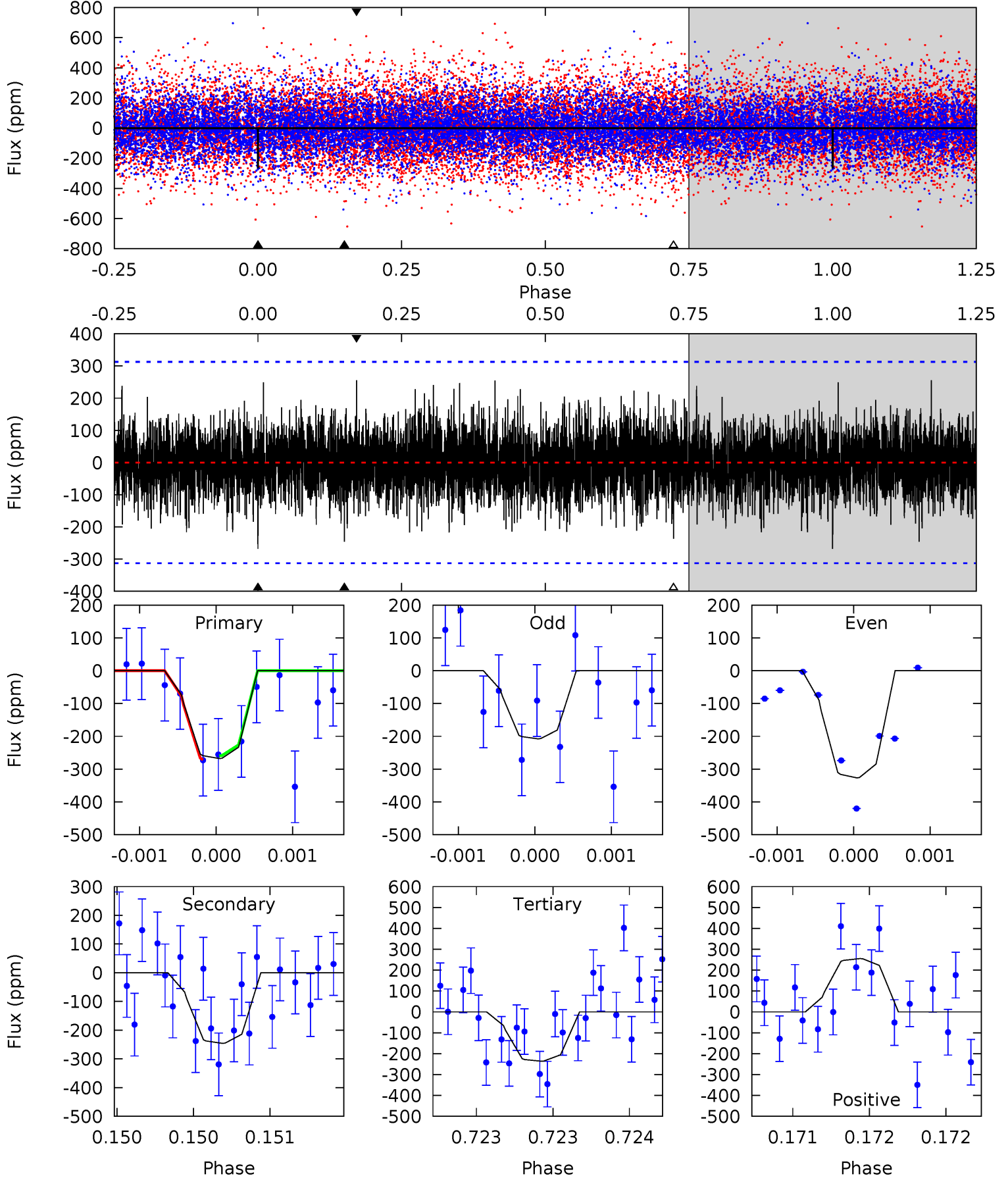
TCE 011508874-03 P=155.860385 Days $T_0=260.374665$ (BKJD)



DV Model-Shift Uniqueness Test

011508874-03, P = 156.194916 Days, E = 103.246346 Days

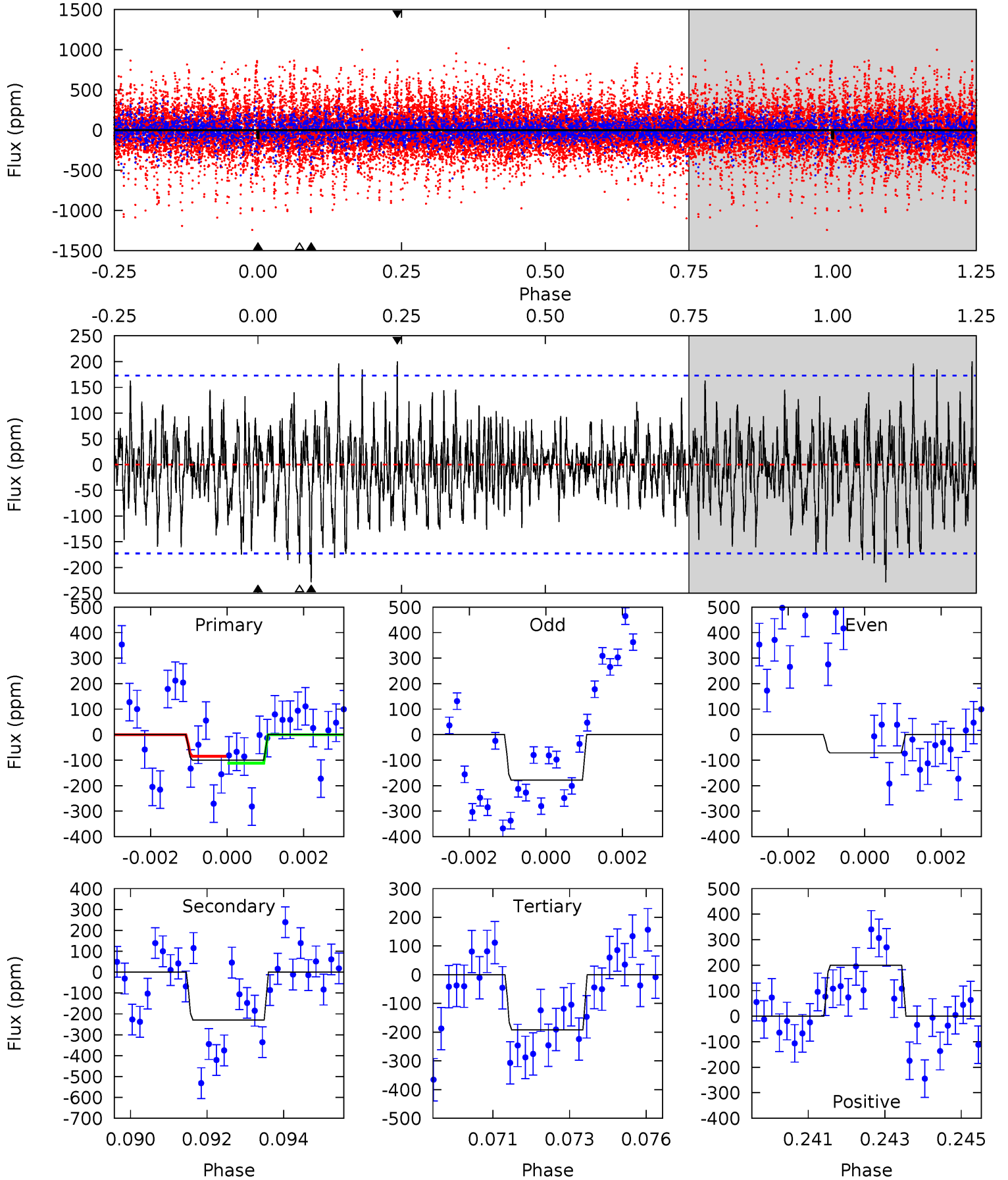
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.77	4.38	4.20	4.55	5.57	3.47	1.21	0.56	0.22	0.17	-0.17	1.03	1.00	0.49	0.10



Alt Model-Shift Uniqueness Test

011508874-03, P = 155.860385 Days, E = 104.514280 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.07	7.01	5.87	6.13	5.30	3.04	1.71	-2.80	-3.06	1.14	0.88	1.51	0.80	0.47	0.41



Stellar Parameters For KIC 011508874

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7079^{+200}_{-275}	$4.277^{+0.067}_{-0.202}$	$-0.060^{+0.250}_{-0.350}$	$1.419^{+0.499}_{-0.200}$	$1.391^{+0.203}_{-0.203}$	$0.686^{+0.265}_{-0.367}$
	+3%/-4%	+2%/-5%	+417%/-583%	+35%/-14%	+15%/-15%	+39%/-54%
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 011508874-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-246 ± 56	$8.96^{+9.22}_{-6.58}$	664^{+53}_{-38}	4043^{+3166}_{-831}	689^{+8187}_{-527}
Alt.	-229 ± 33	$8.44^{+8.61}_{-5.77}$	664^{+48}_{-34}	4073^{+2646}_{-855}	691^{+6565}_{-521}

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 $A_{obs} \gg 1.0$

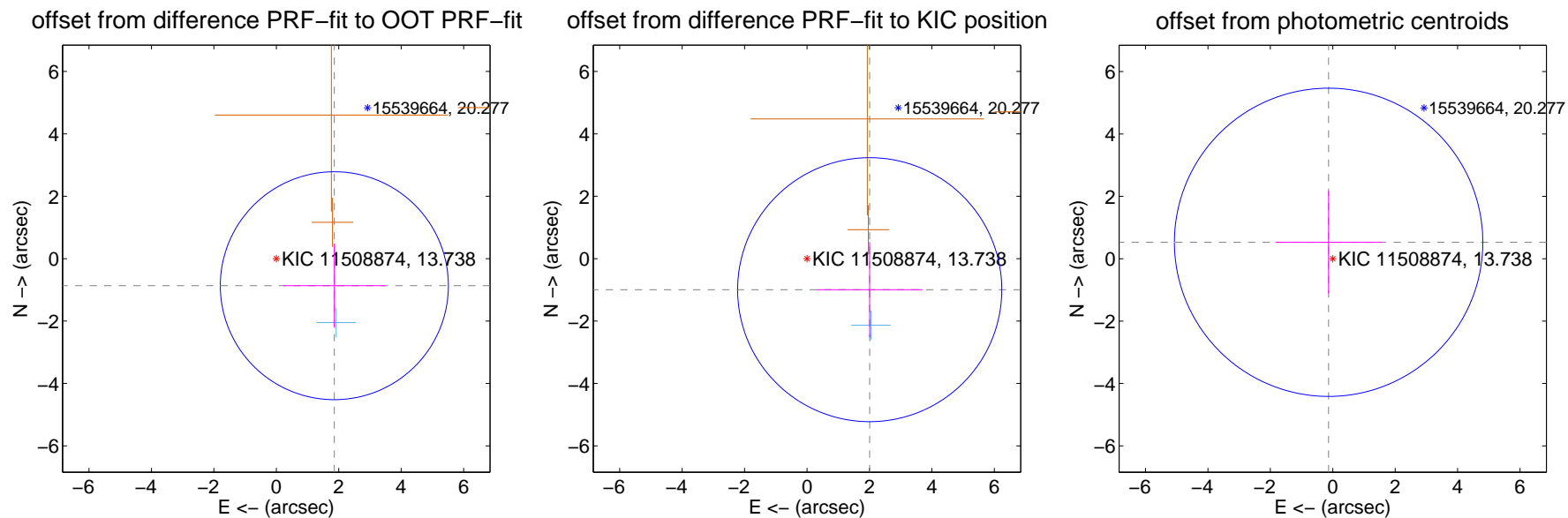
DV Centroid Data

Supplemental centroid analysis for 011508874-03. Kepler magnitude: 13.74. Transit SNR 3.34

There are 1 quarters with good PRF difference image offsets

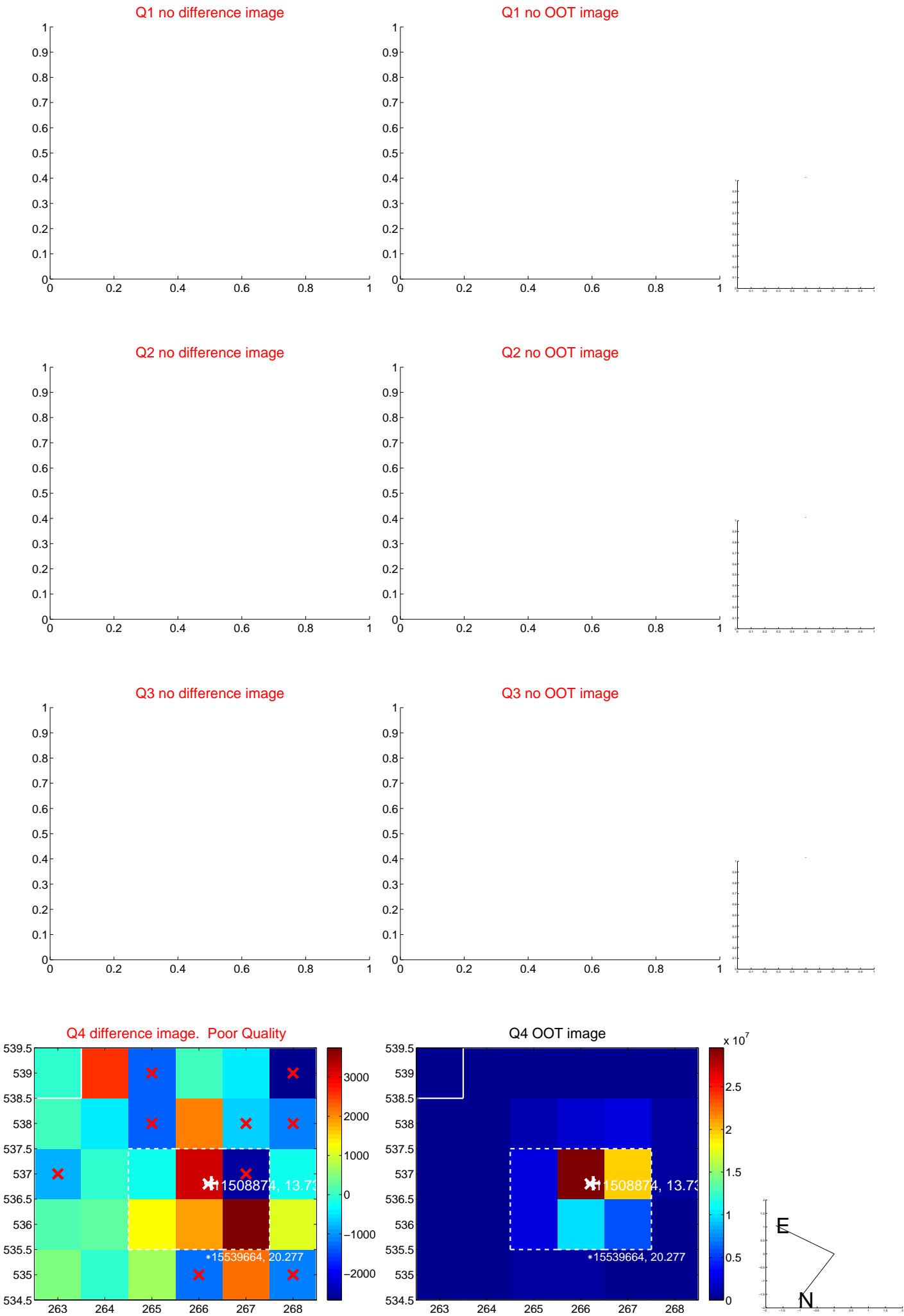
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.051 ± 1.217	1.68	-1.859 ± 1.633	-0.867 ± 1.348
PRF-fit source offset from KIC position	2.240 ± 1.410	1.59	-2.008 ± 1.696	-0.994 ± 1.526
photometric centroid source offset	0.54 ± 1.65	0.33	0.13 ± 1.70	0.53 ± 1.64

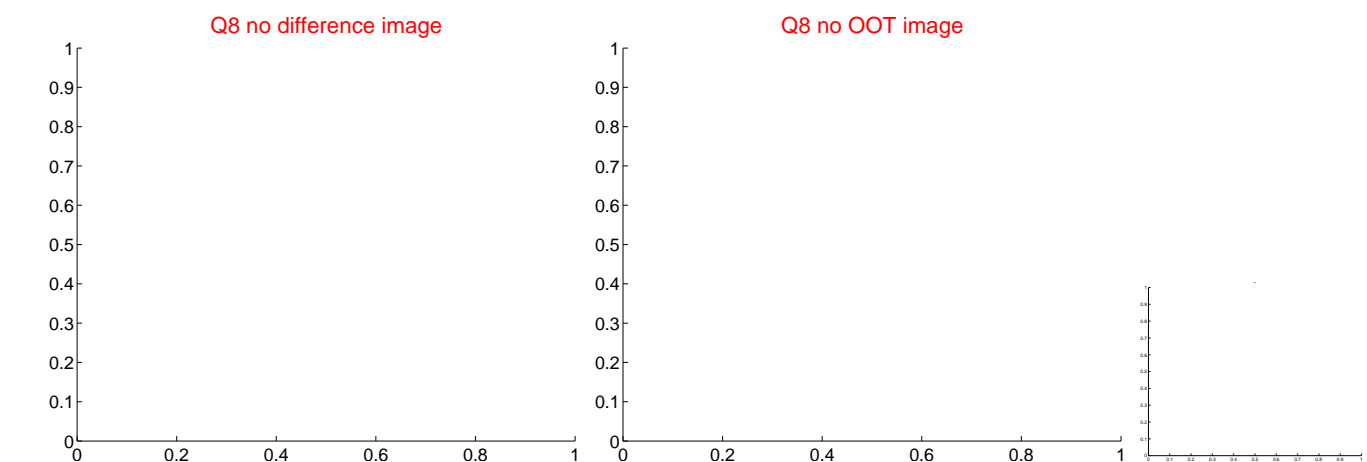
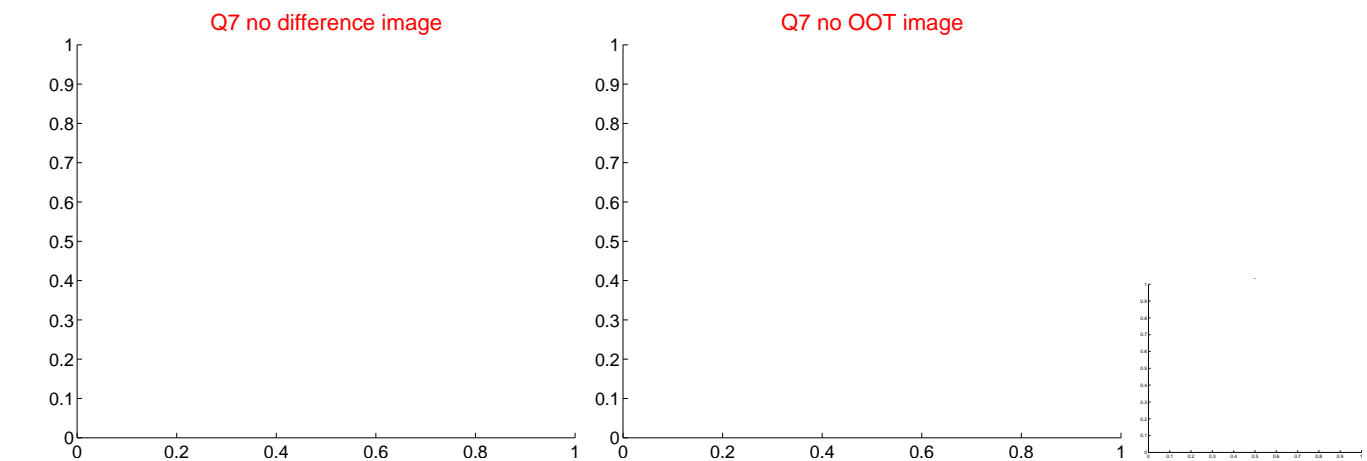
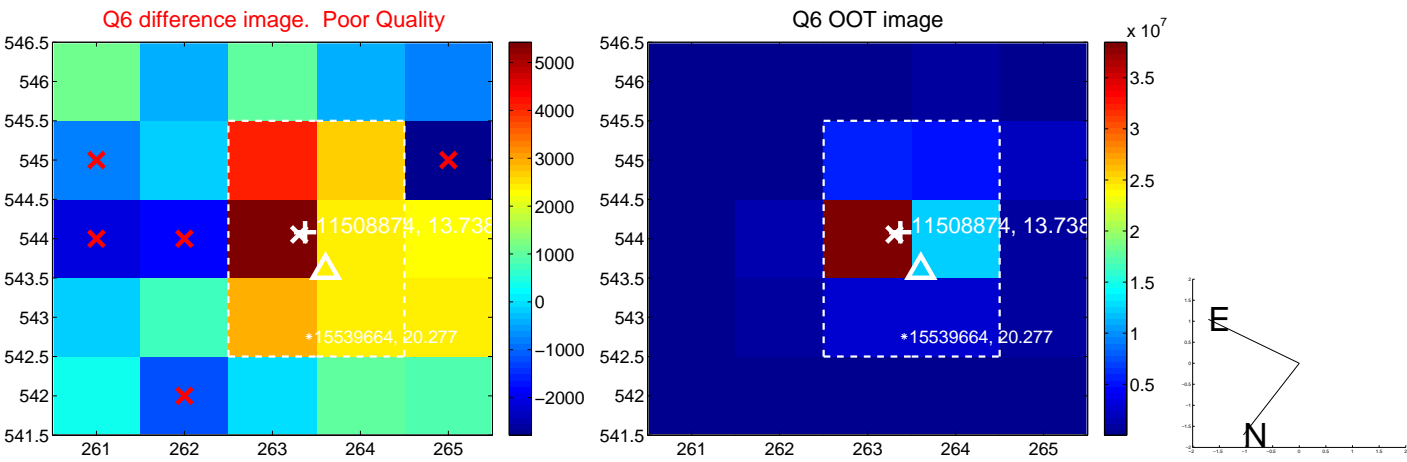
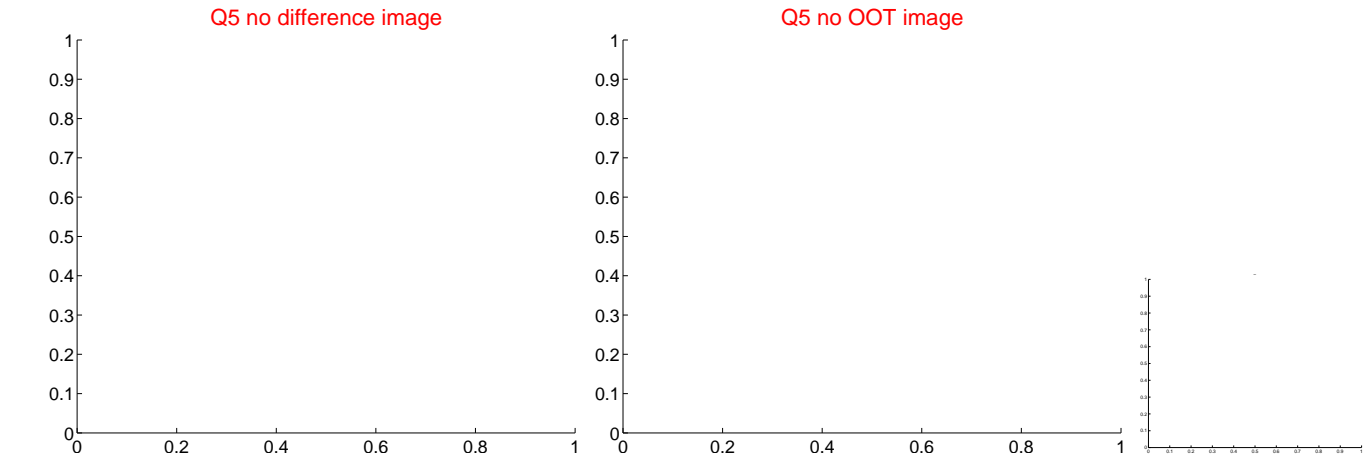


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

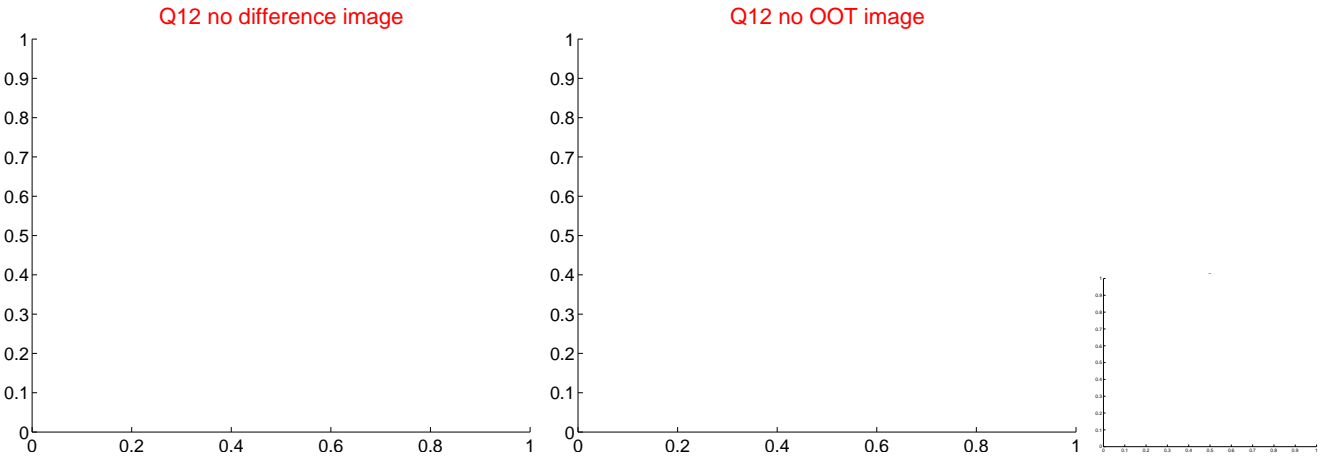
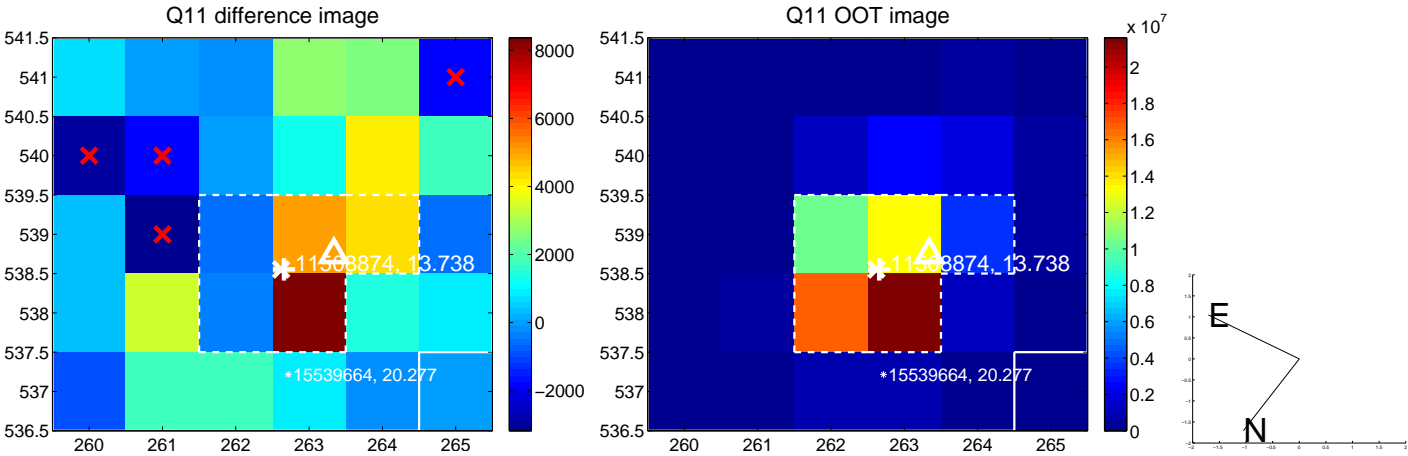
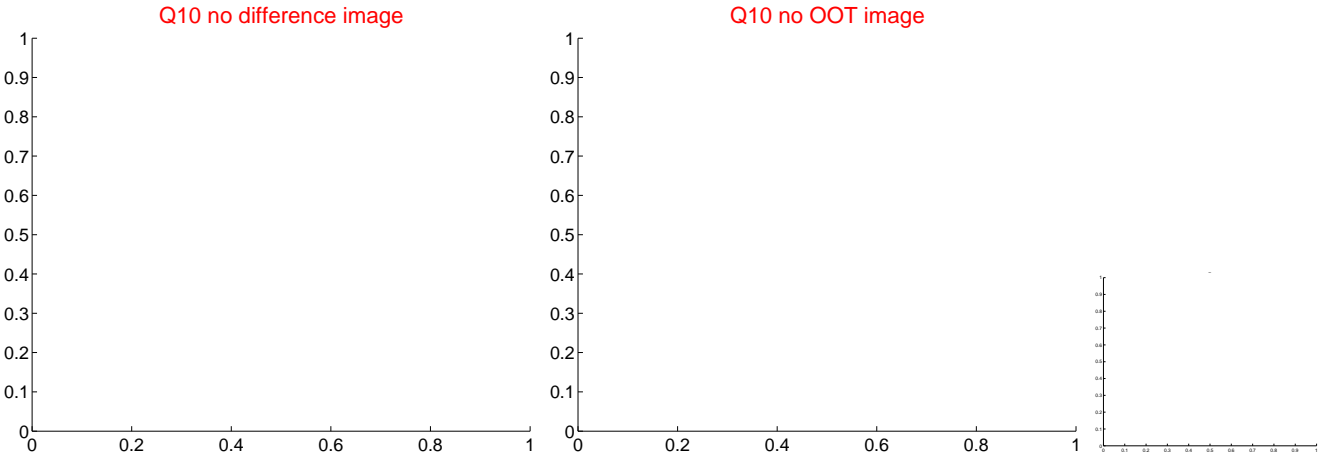
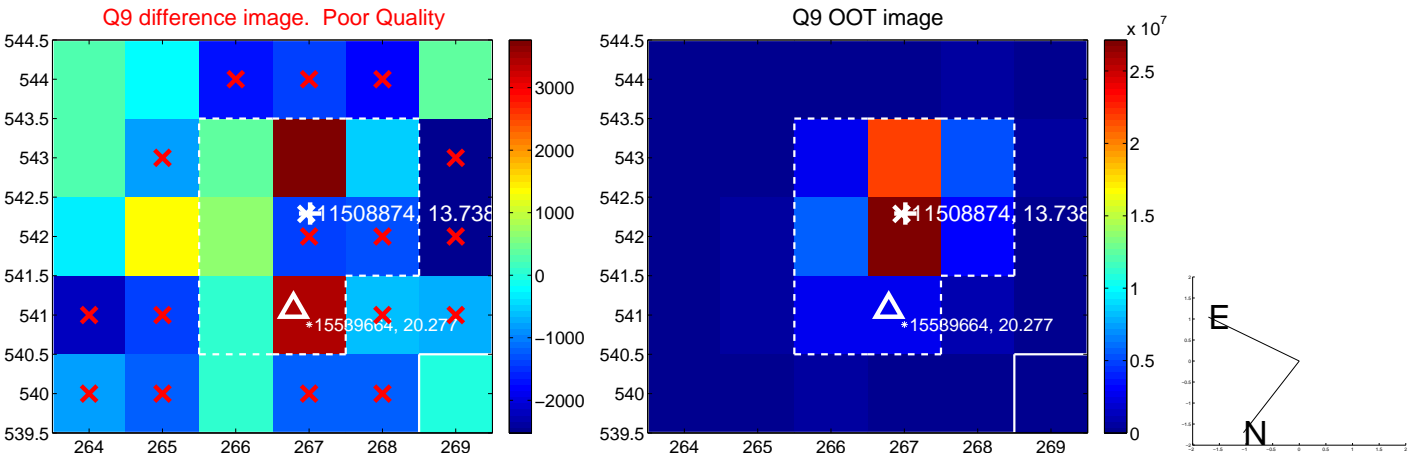
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



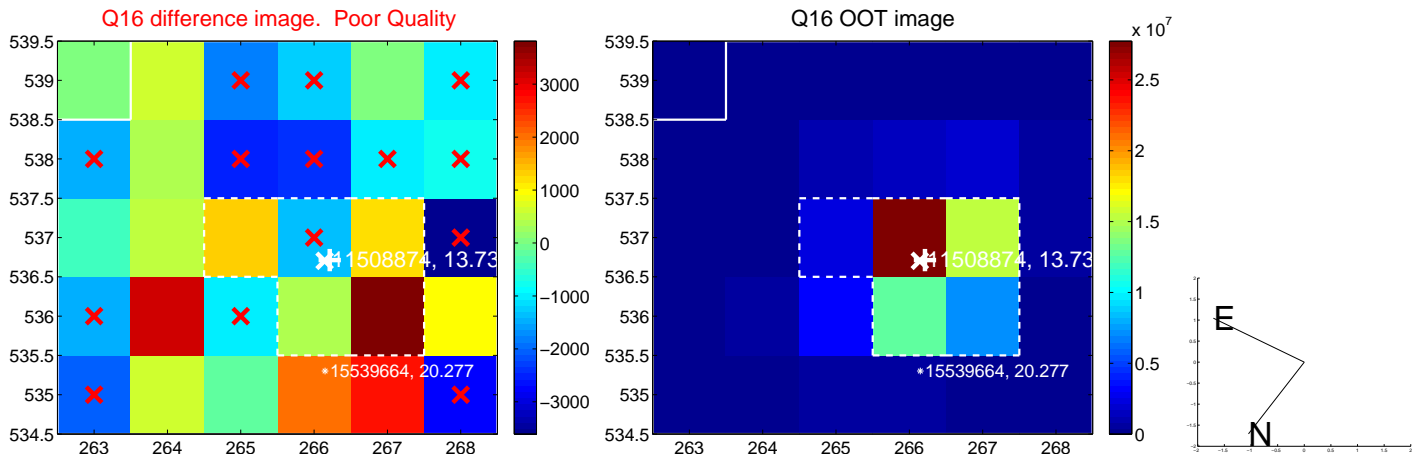
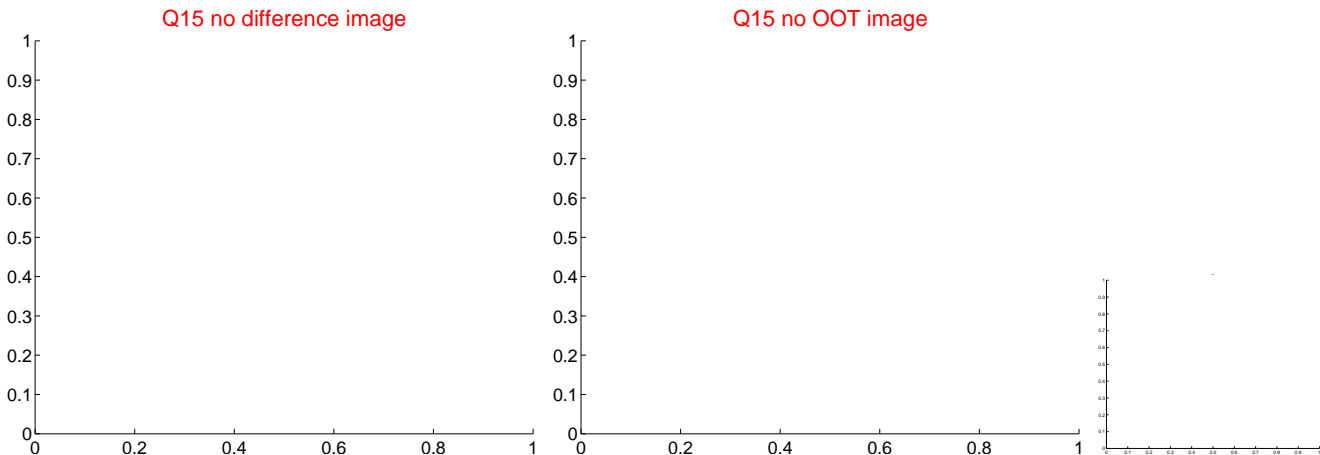
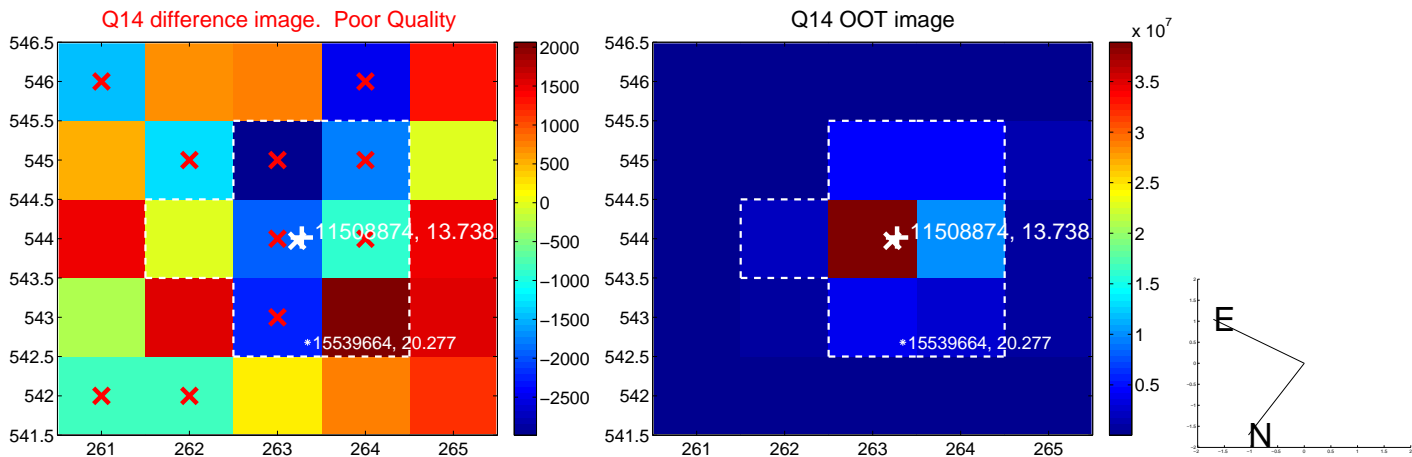
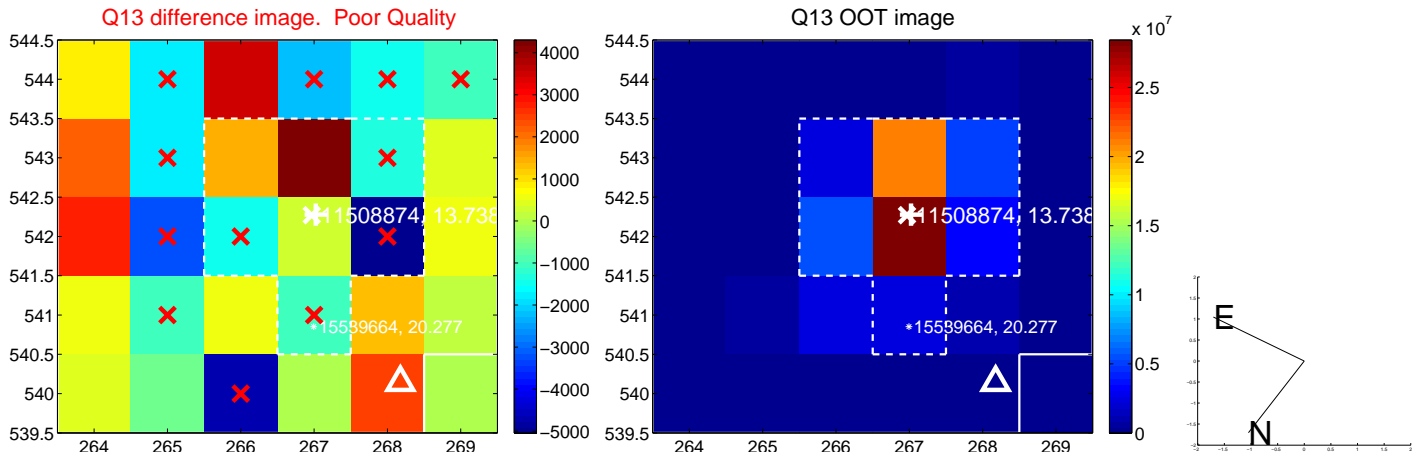
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



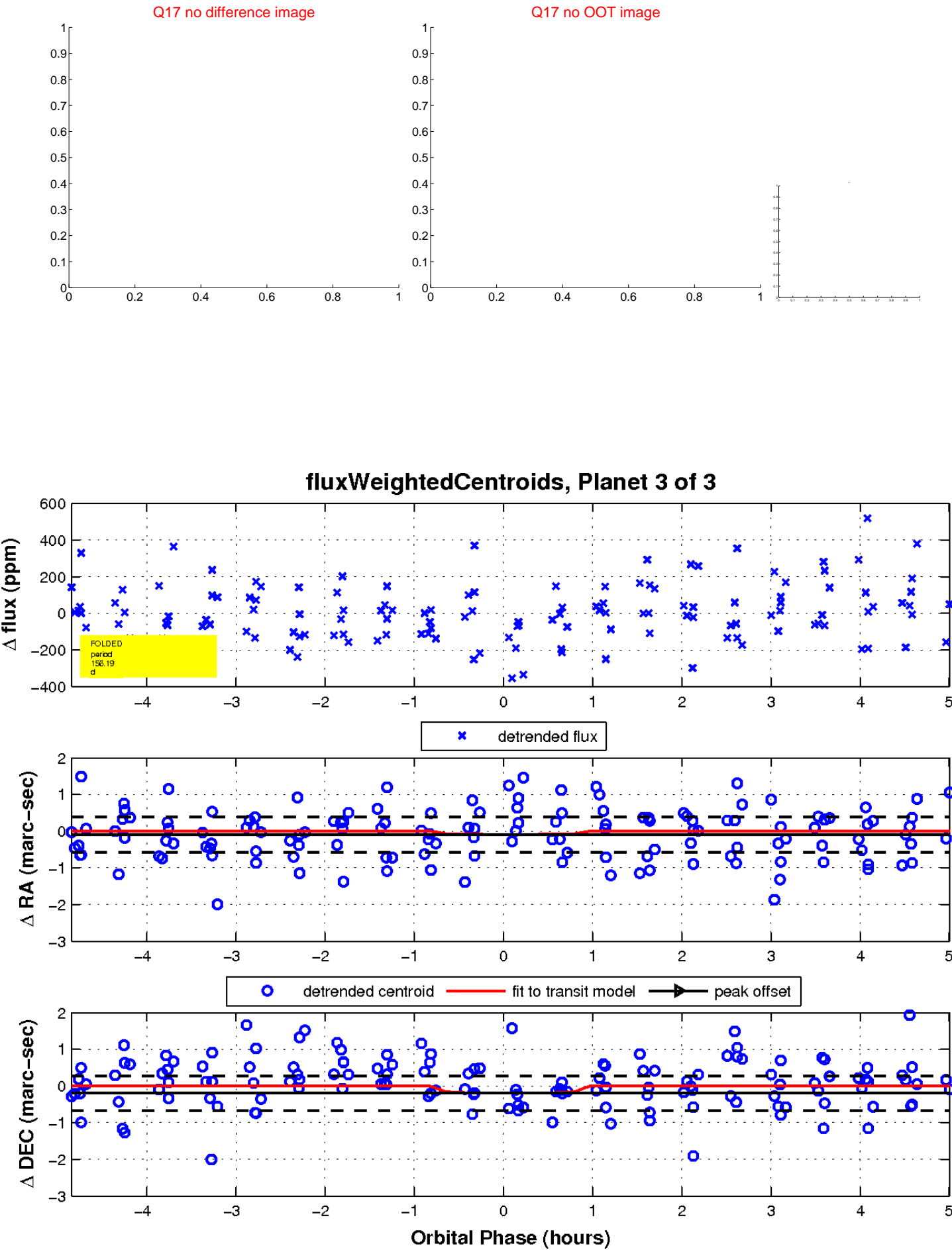
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

