

KIC 005198246

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})
005198246-01	OBS	No	3.573270	133.586422	19.0	18.500	9.3	3.6	1.12	6386	0.55	812.78
005198246-02	OBS	No	75.763093	180.905610	611.9	2.880	7.4	8.3	1.12	6386	3.25	13.85
005198246-03	OBS	No	151.665664	212.530862	511.2	5.483	7.2	7.3	1.12	6386	2.81	5.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005198246-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005198246-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
005198246-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

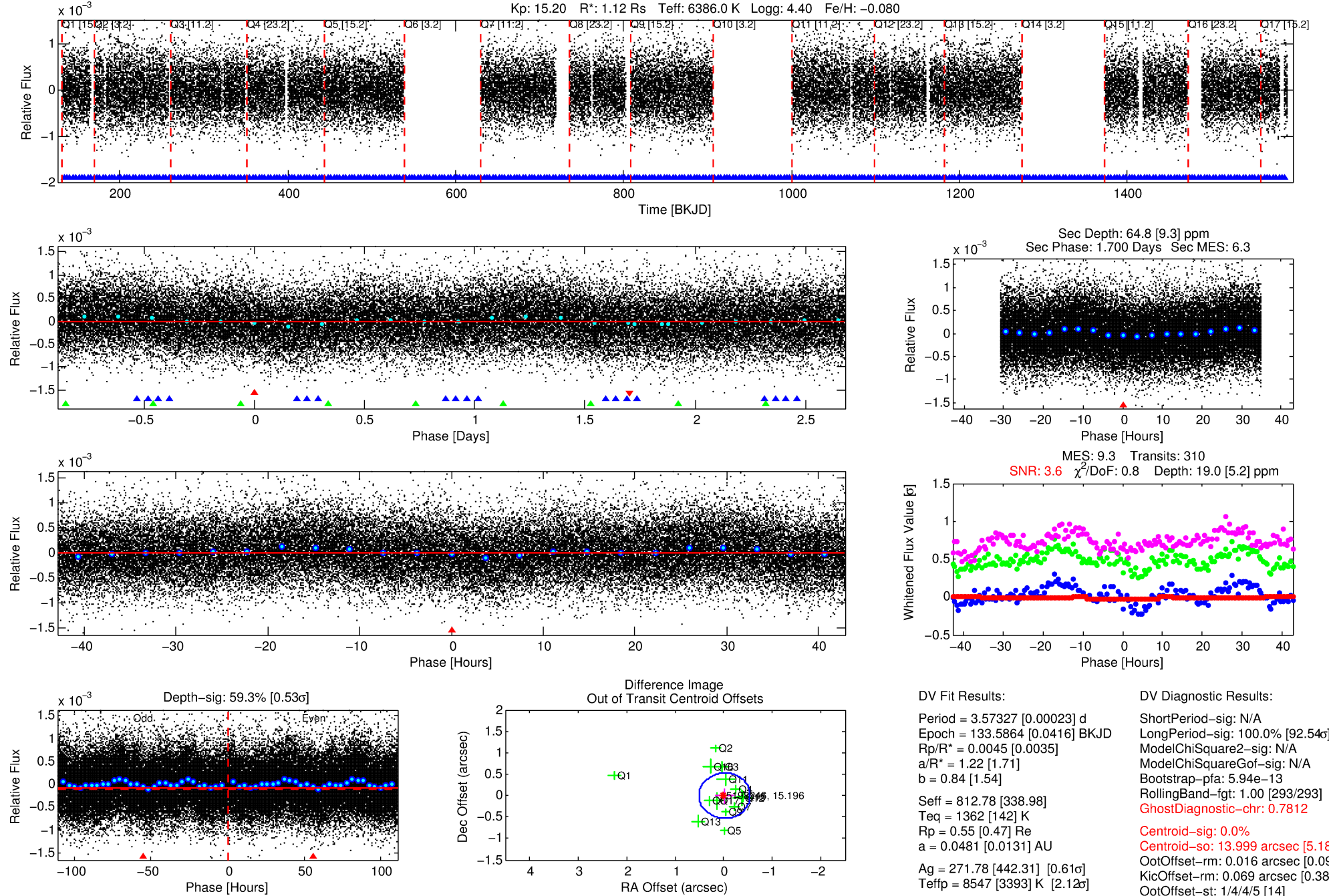
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005198246-01

No Significant Match Found

DV One-Page Summary

KIC: 5198246 Candidate: 1 of 3 Period: 3.573 d



DV Fit Results:

Period = 3.57327 [0.00023] d
Epoch = 133.5864 [0.0416] BKJD
Rp/R* = 0.0045 [0.0035]
a/R* = 1.22 [1.71]
b = 0.84 [1.54]
Seff = 812.78 [338.98]
Teq = 1362 [142] K
Rp = 0.55 [0.47] Re
a = 0.0481 [0.0131] AU
Ag = 271.78 [442.31] [0.61 σ]
Teffp = 8547 [3393] K [2.12 σ]

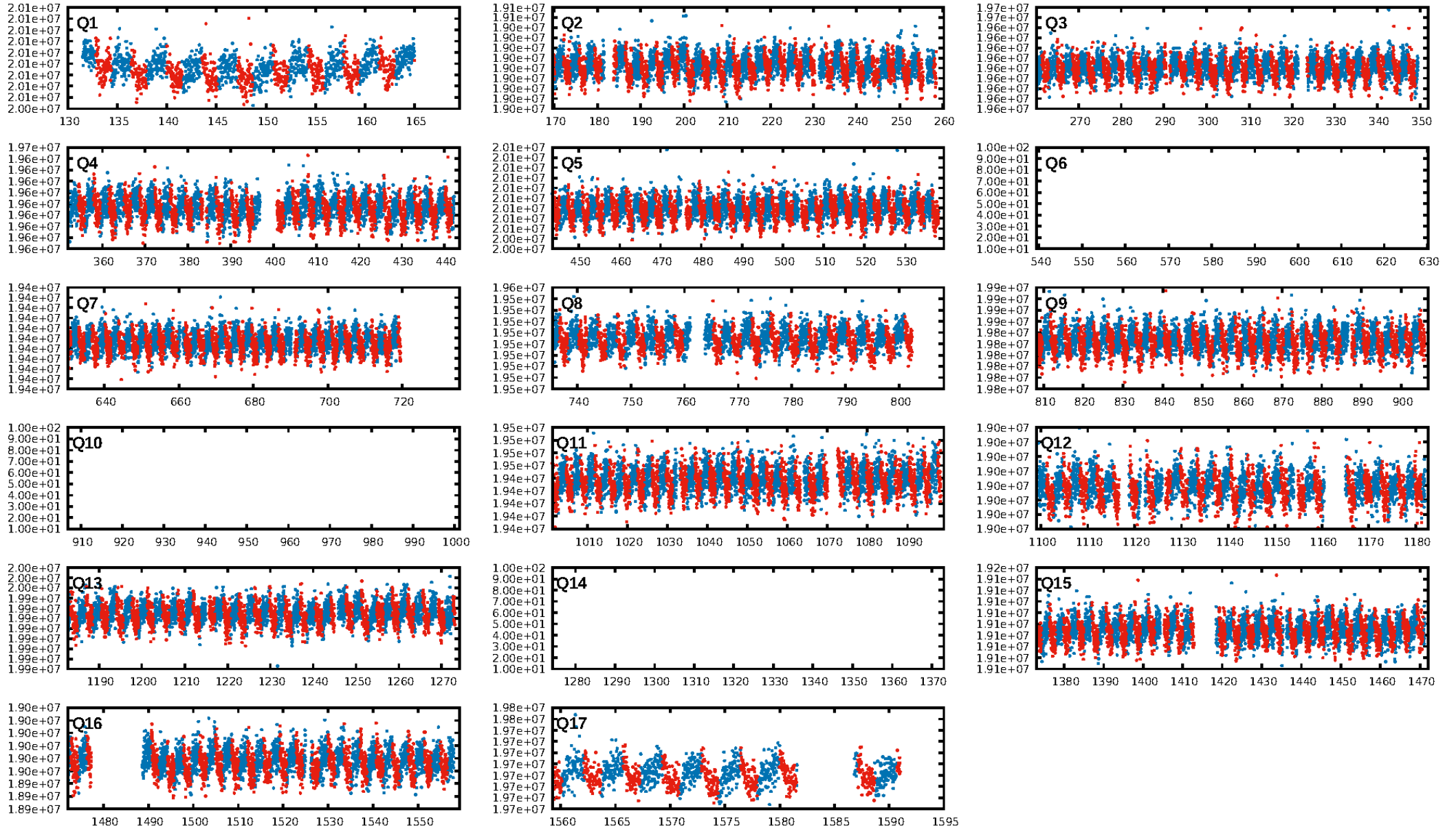
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [92.54 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.94e-13
RollingBand-fgt: 1.00 [293/293]
GhostDiagnostic-chr: 0.7812
Centroid-sig: 0.0%
Centroid-so: 13.999 arcsec [5.18 σ]
OotOffset-rm: 0.016 arcsec [0.09 σ]
KicOffset-rm: 0.069 arcsec [0.38 σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

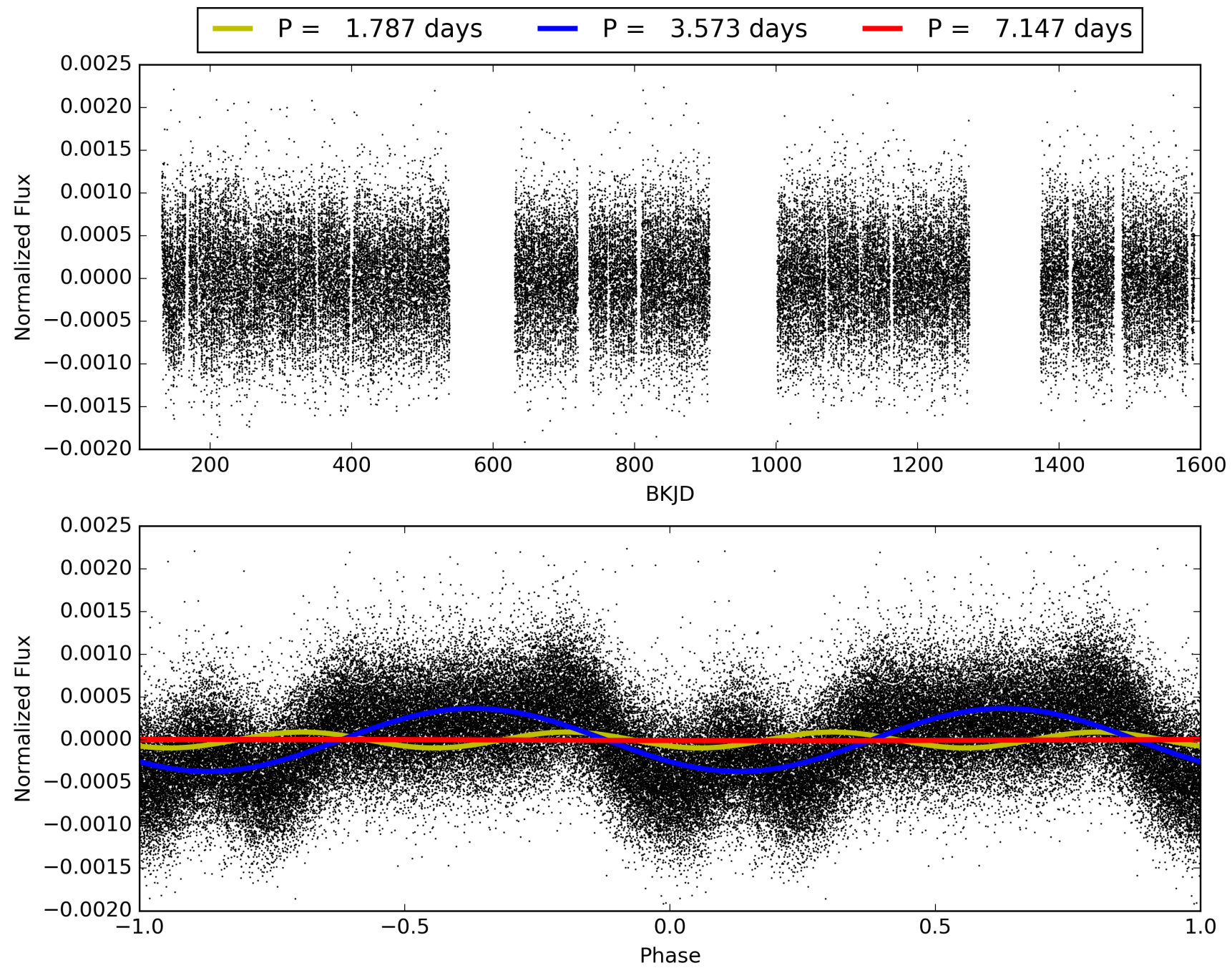
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:19:34 Z

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

TCE 005198246-01, PDC Light Curves

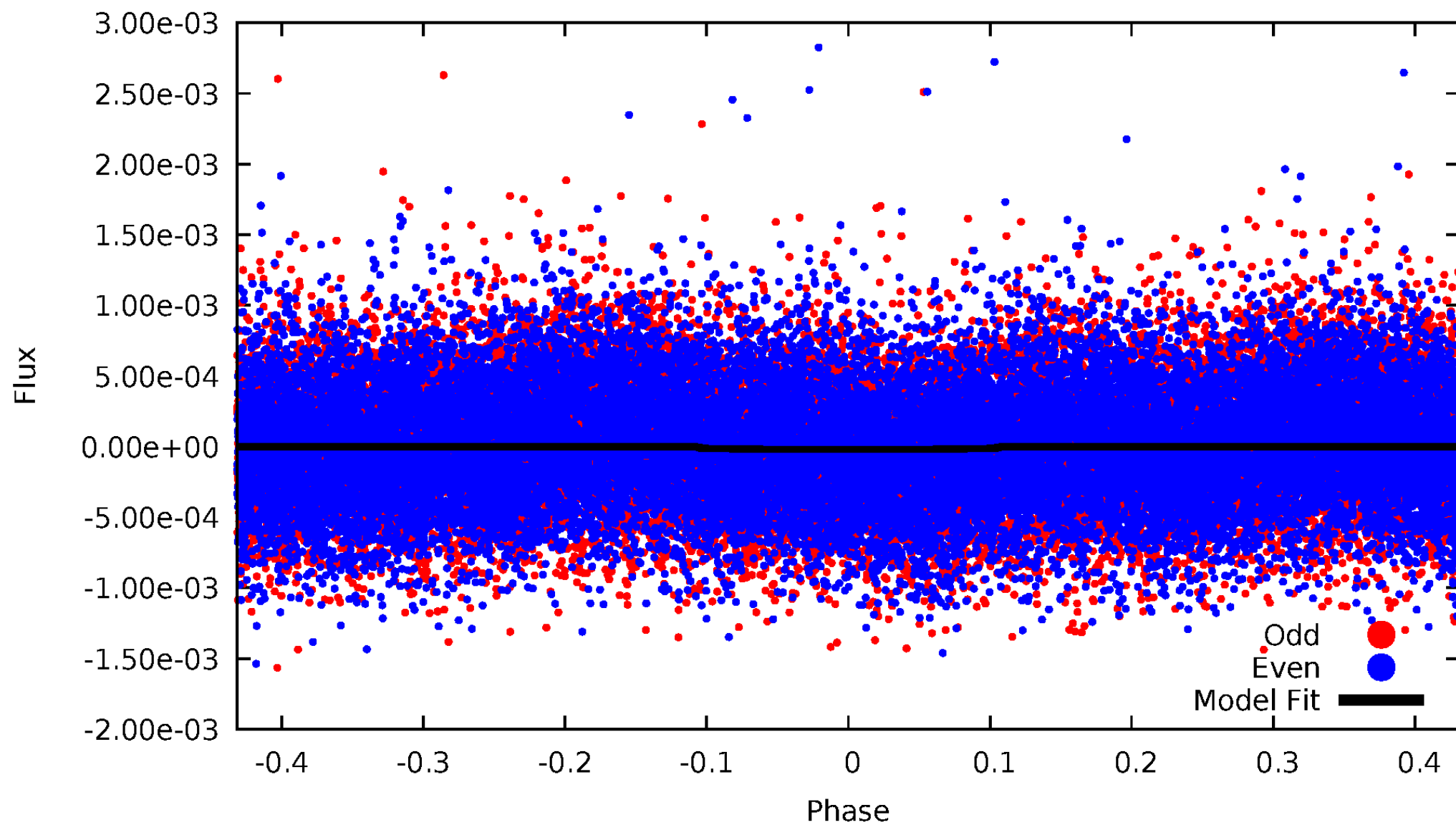


TCE 005198246-01



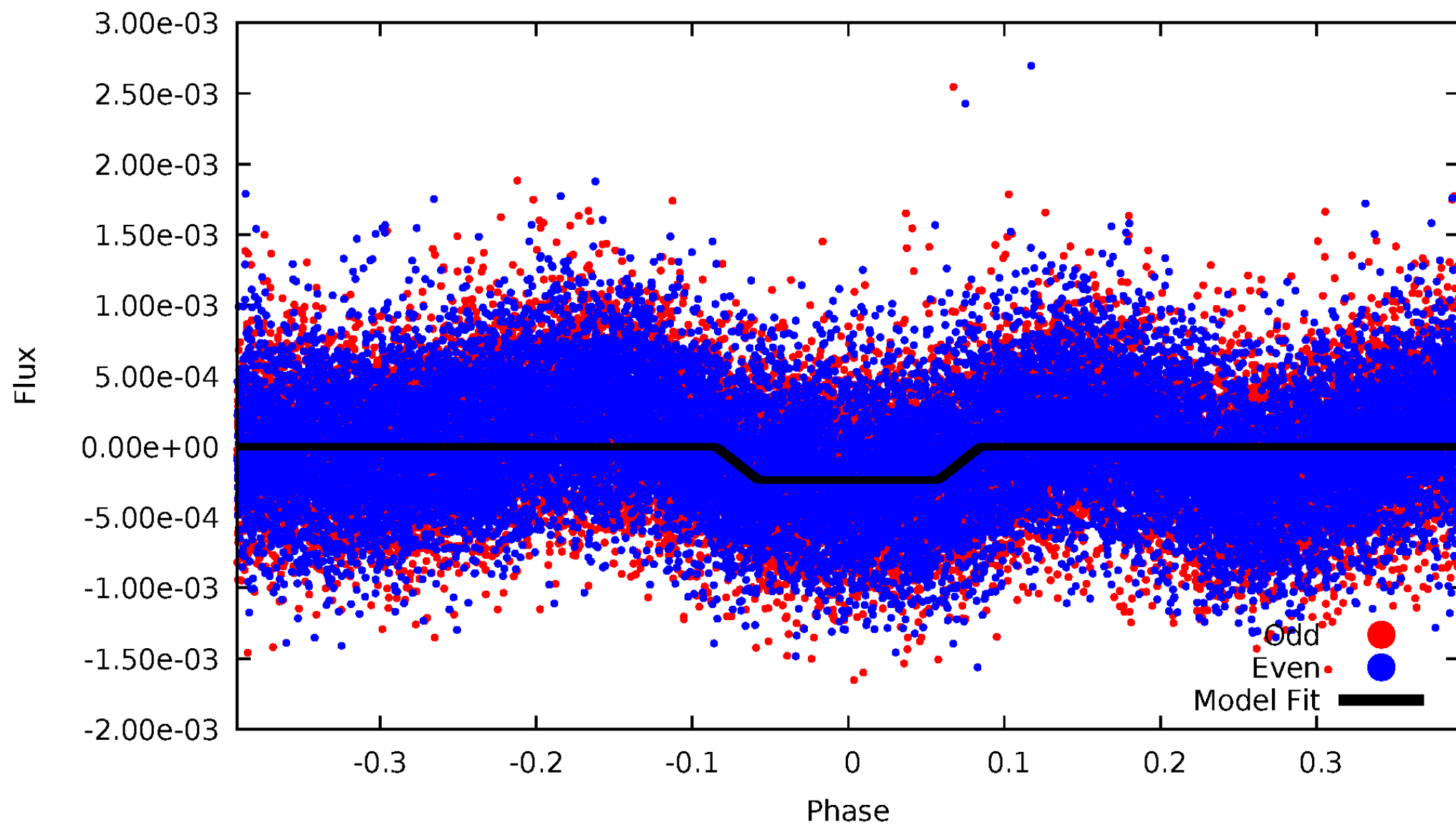
DV Odd/Even

TCE 005198246-01



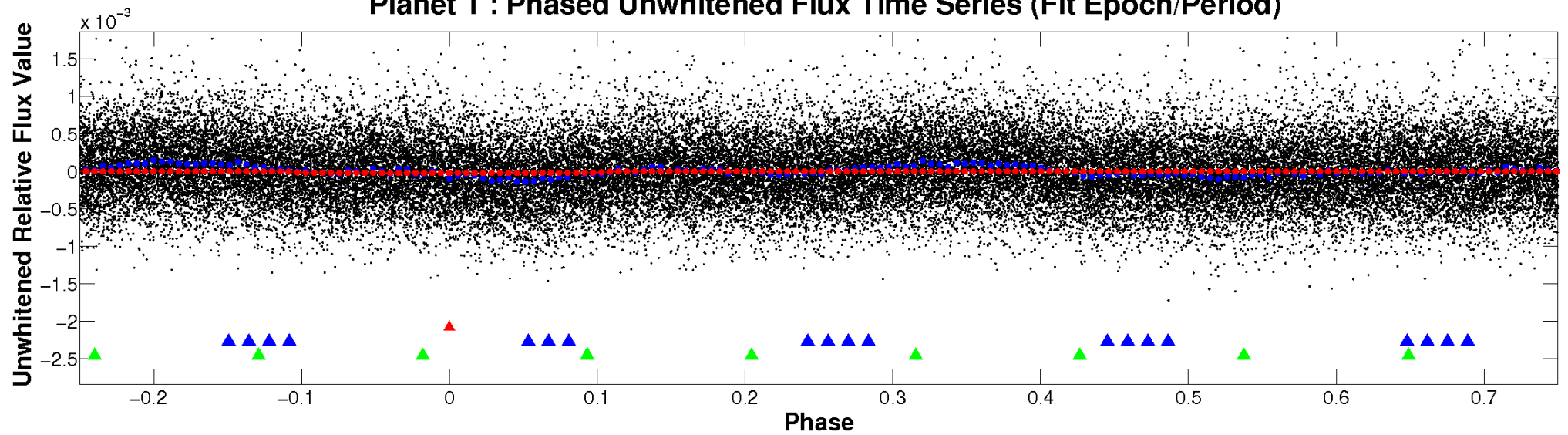
ALT Odd/Even

TCE 005198246-01

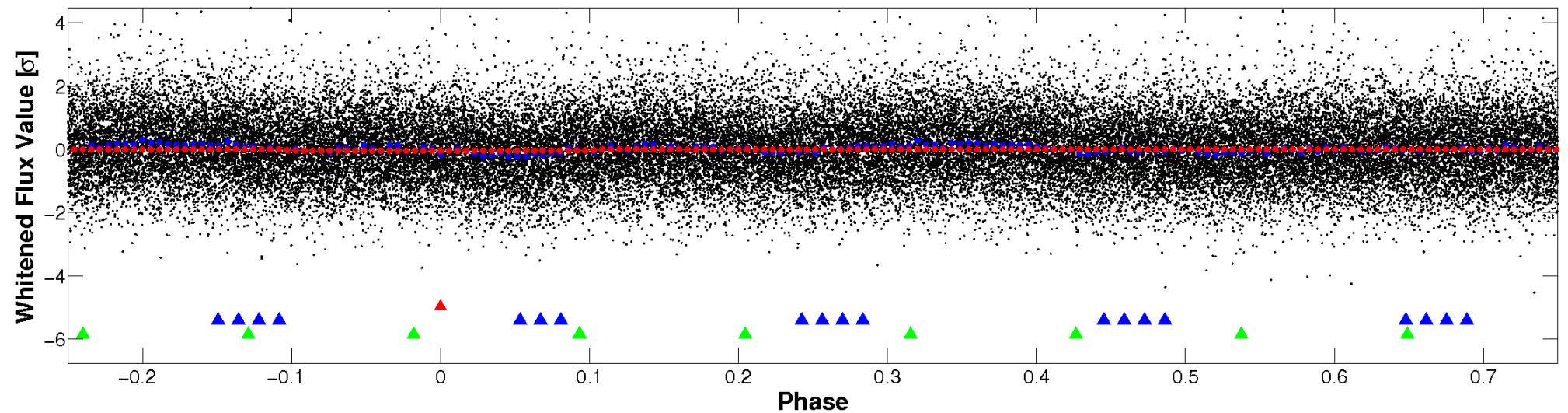


Non-Whitened Vs. Whitened Light Curve

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

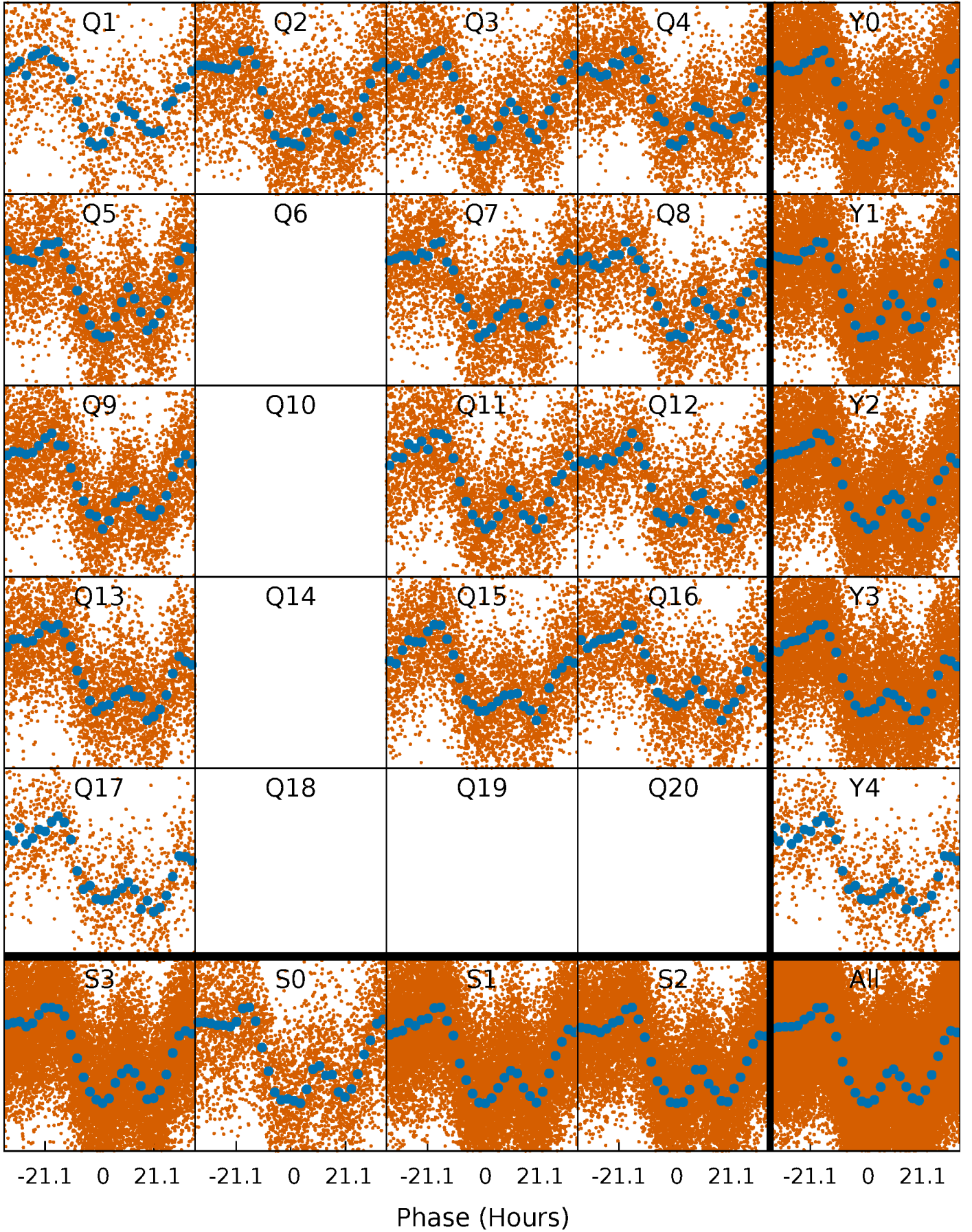


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



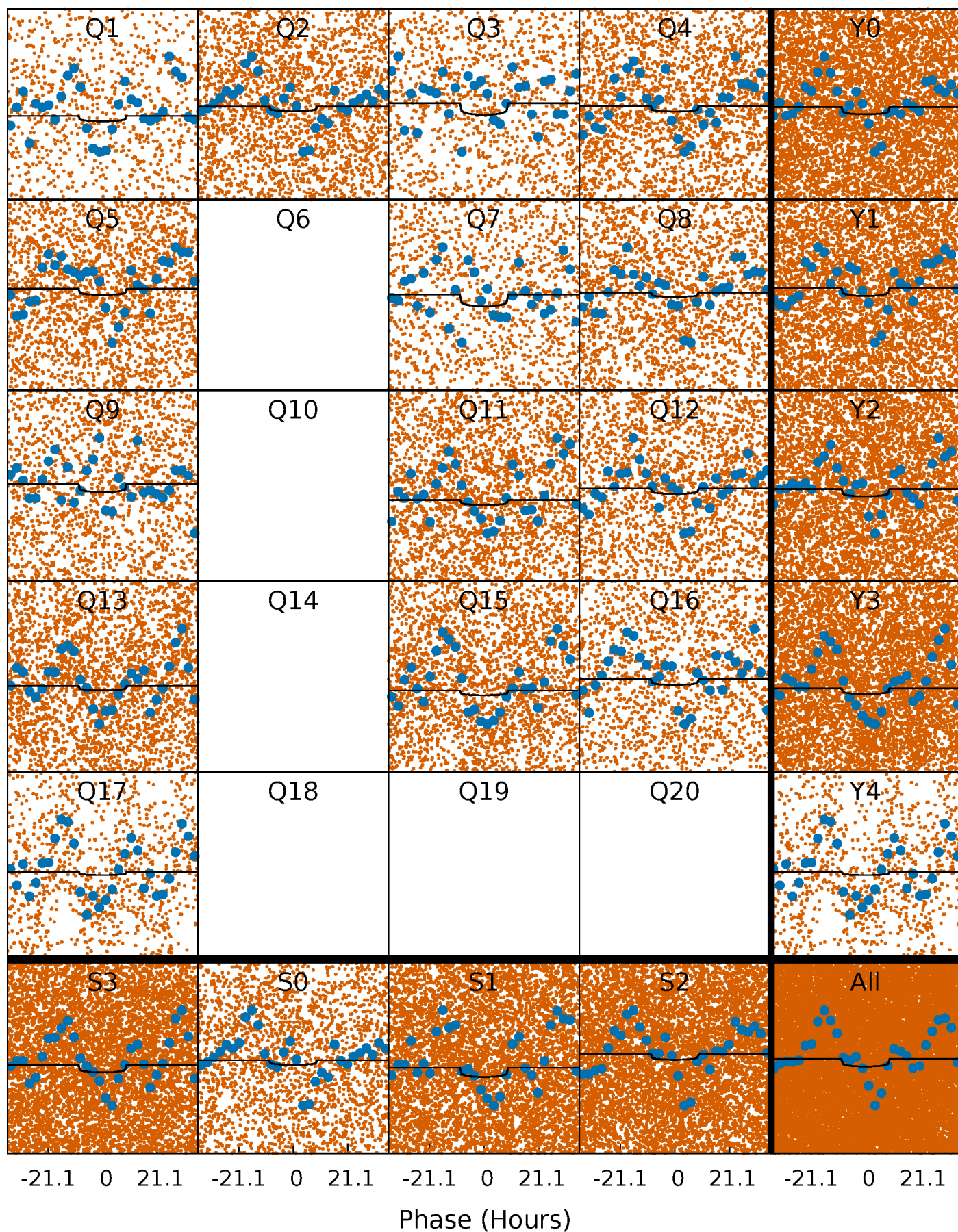
PDC Quarter-Phased Transit Curves

TCE 005198246-01 P= 3.573270 Days $T_0=133.586422$ (BKJD)



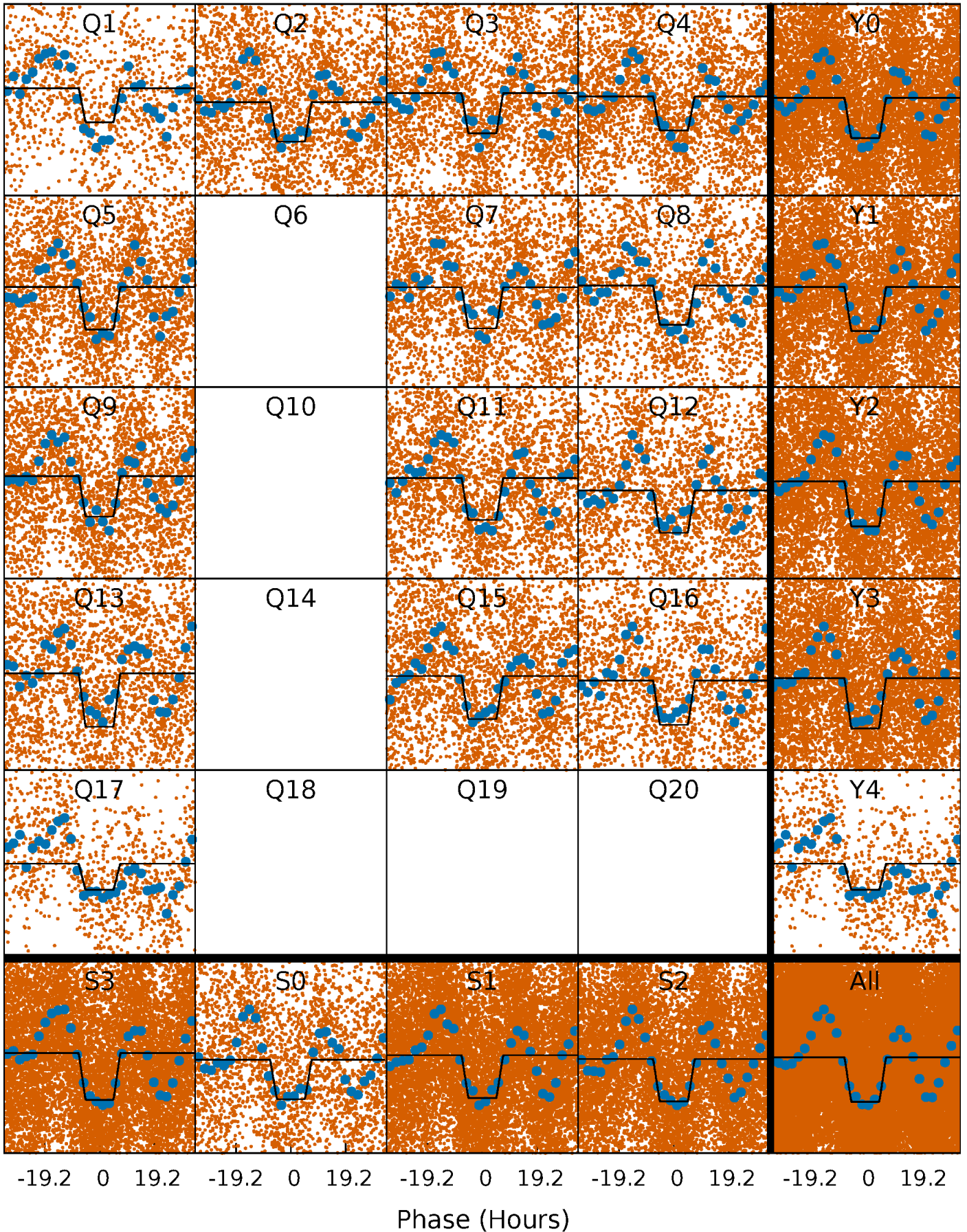
DV Quarter-Phased Transit Curves

TCE 005198246-01 P= 3.573270 Days $T_0=133.586422$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

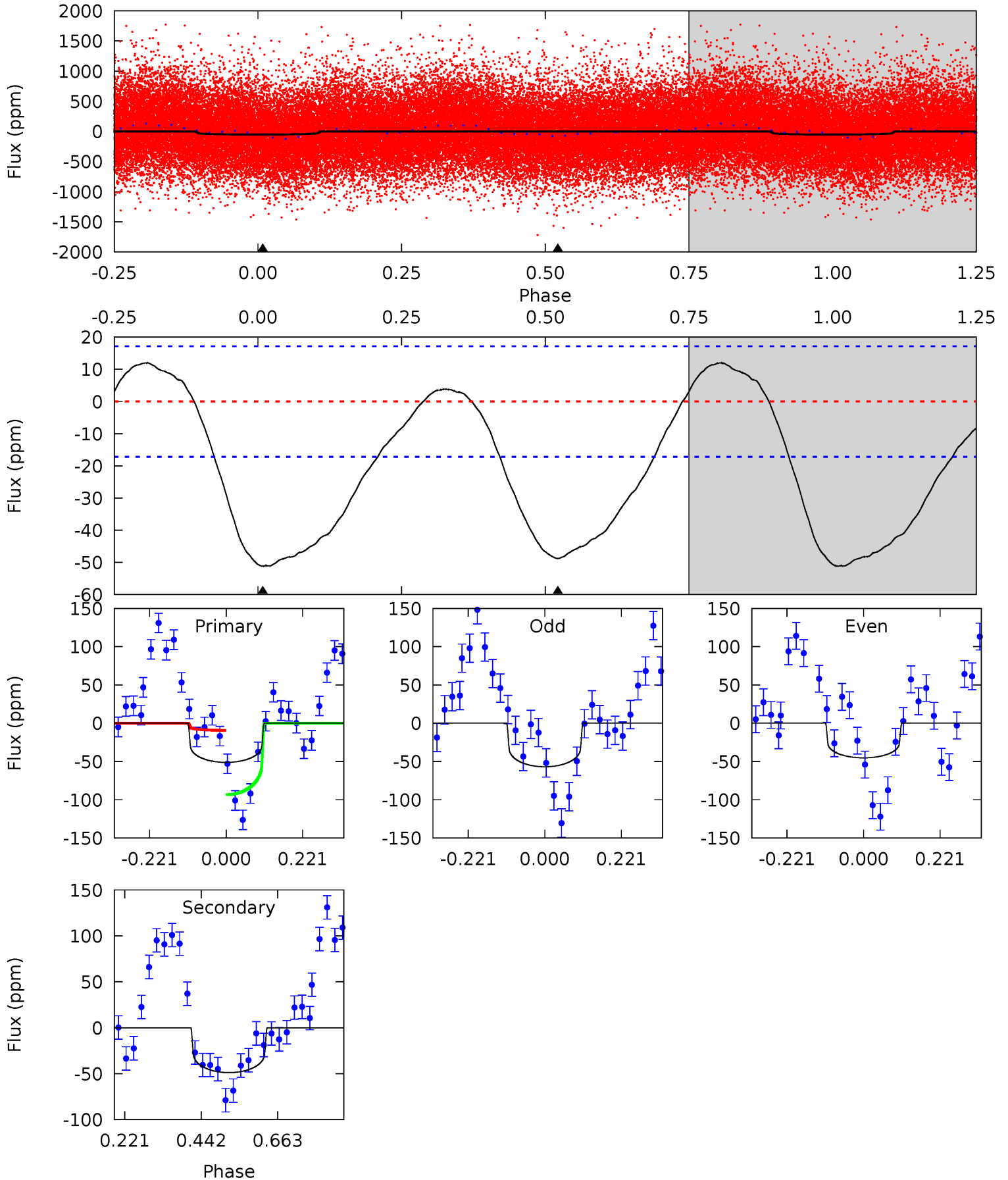
TCE 005198246-01 P= 3.573217 Days $T_0=133.536625$ (BKJD)



DV Model-Shift Uniqueness Test

005198246-01, P = 3.573270 Days, E = 130.013152 Days

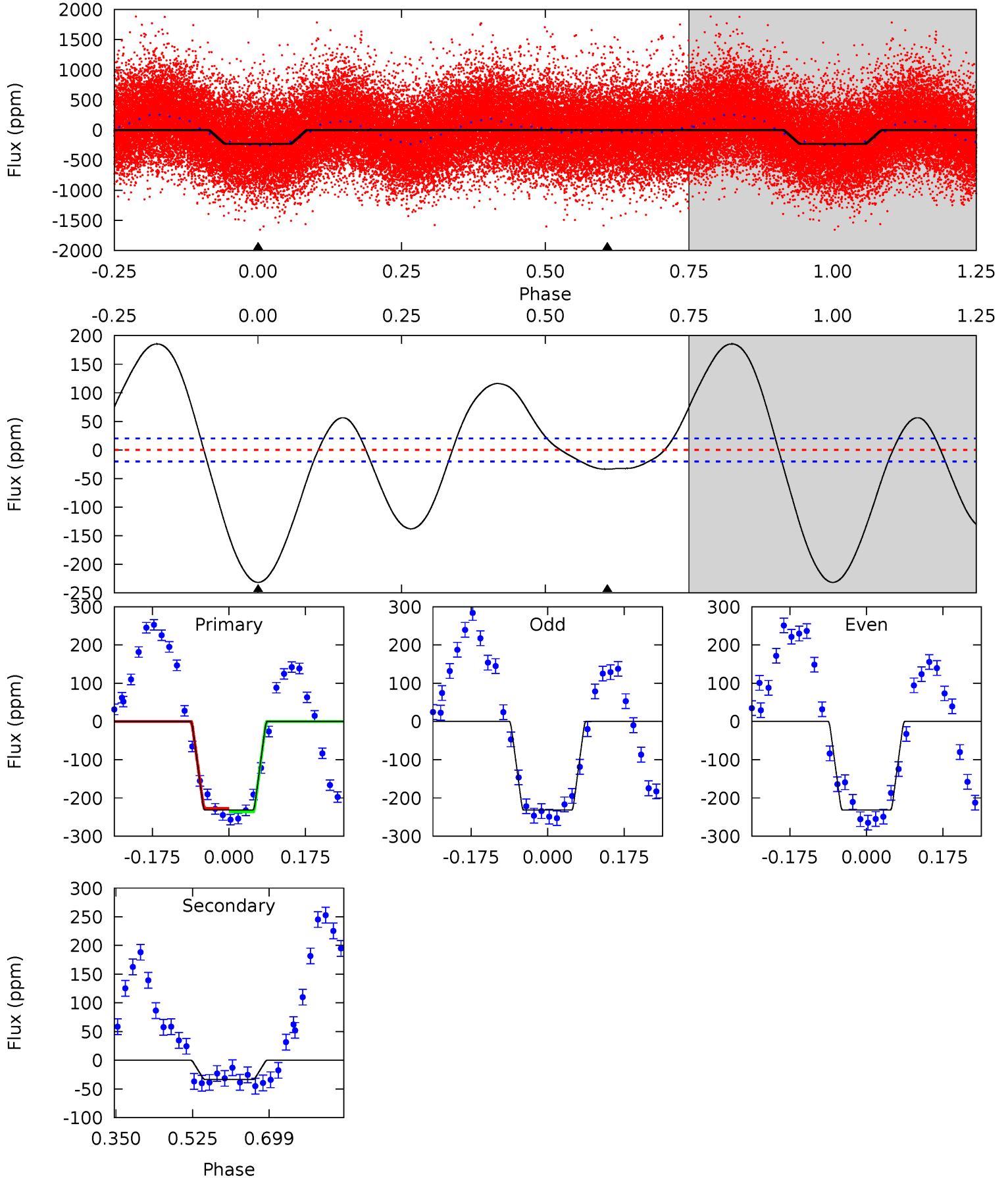
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	12.5	0	0	4.40	1.22	1.78	13.1	13.1	12.5	12.5	1.50	1.00	0.19	10.9



Alt Model-Shift Uniqueness Test

005198246-01, P = 3.573217 Days, E = 129.963408 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
50.9	7.38	0	0	4.45	1.36	23.5	50.9	50.9	7.38	7.38	0.05	0.99	0.44	1.02



Stellar Parameters For KIC 005198246

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6386^{+179}_{-246}	$4.402^{+0.065}_{-0.208}$	$-0.080^{+0.250}_{-0.300}$	$1.123^{+0.370}_{-0.123}$	$1.161^{+0.169}_{-0.152}$	$1.154^{+0.333}_{-0.615}$
	+3%/-4%	+1%/-5%	+312%/-375%	+33%/-11%	+15%/-13%	+29%/-53%
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 005198246-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-49 ± 4	$0.60^{+0.46}_{-0.35}$	1938^{+155}_{-108}	7905^{+8547}_{-2026}	170^{+860}_{-116}
Alt.	-34 ± 5	$1.97^{+0.56}_{-0.48}$	1934^{+141}_{-104}	4149^{+411}_{-361}	11^{+8}_{-4}

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

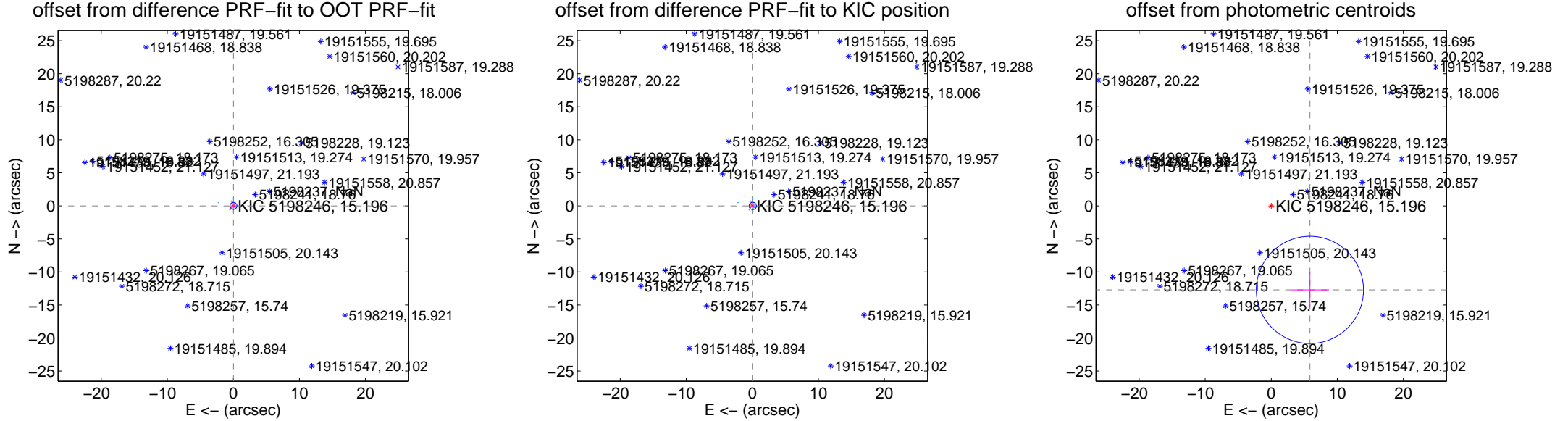
DV Centroid Data

Supplemental centroid analysis for 005198246-01. Kepler magnitude: 15.20. Transit SNR 3.57

There are 14 quarters with good PRF difference image offsets

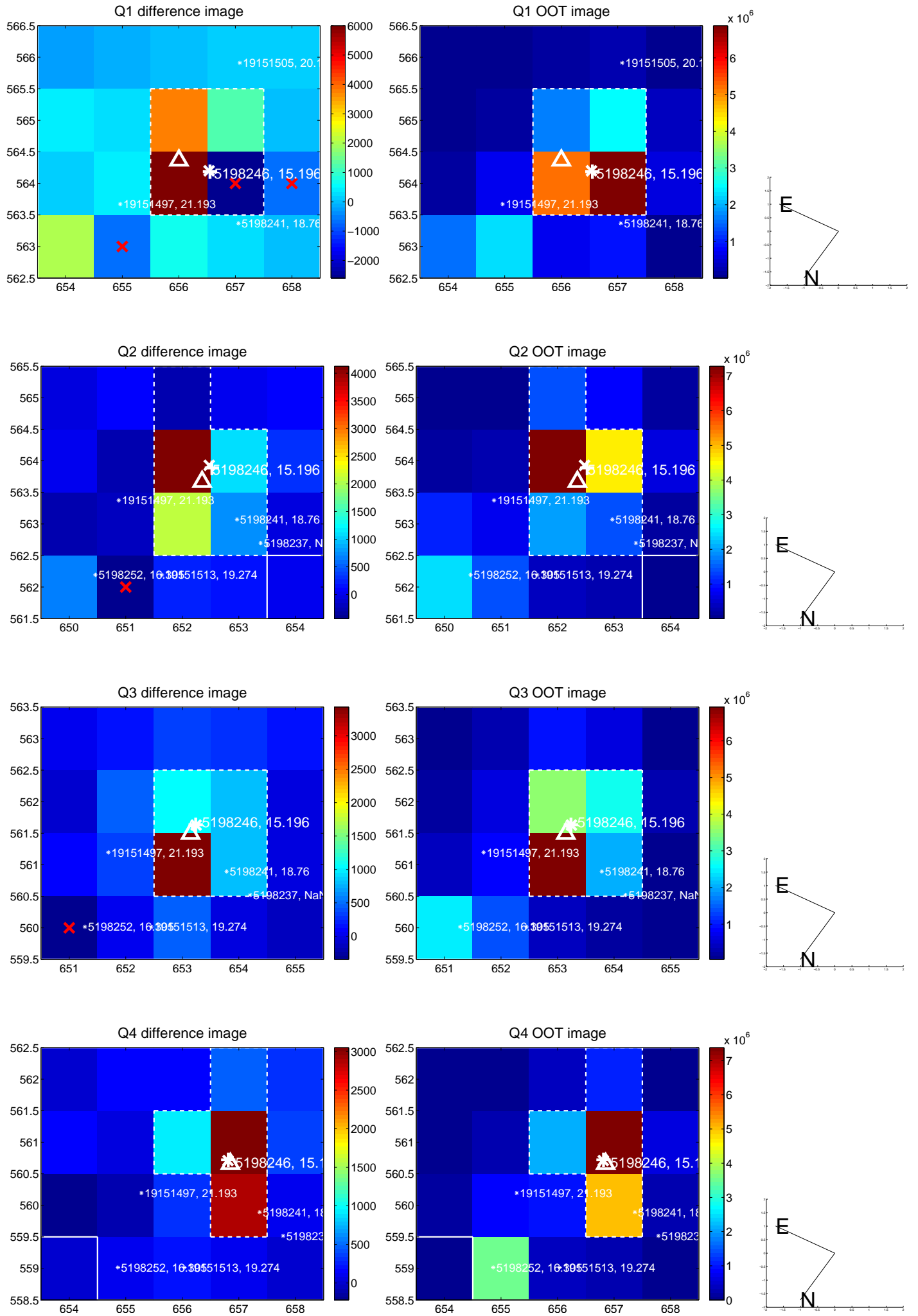
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.016 ± 0.176	0.09	-0.016 ± 0.174	-0.001 ± 0.160
PRF-fit source offset from KIC position	0.069 ± 0.184	0.38	-0.068 ± 0.181	-0.012 ± 0.160
photometric centroid source offset	14.00 ± 2.70	5.18	-5.85 ± 2.91	-12.72 ± 2.66

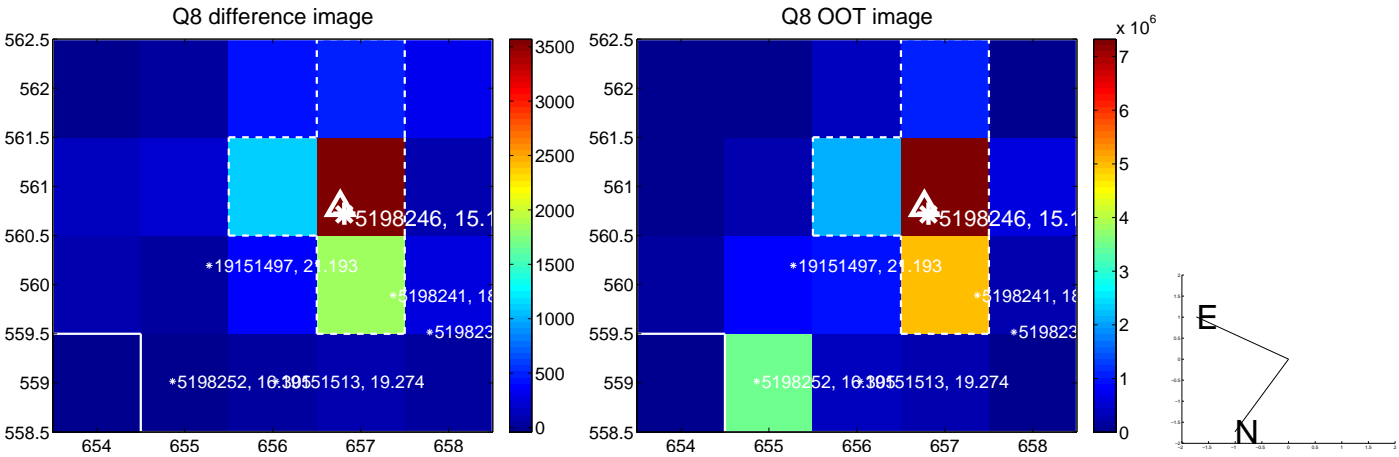
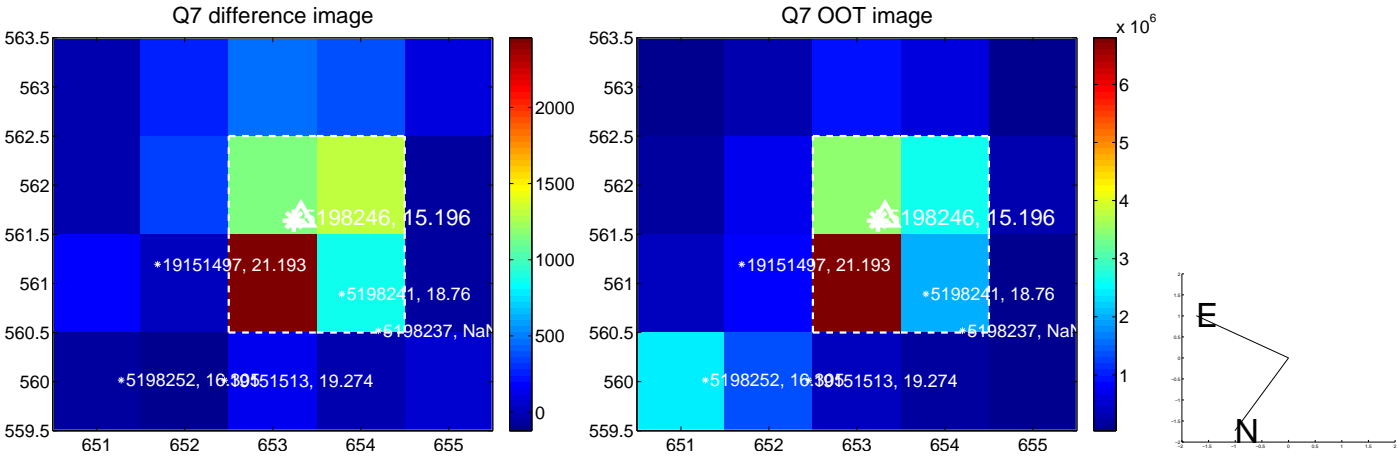
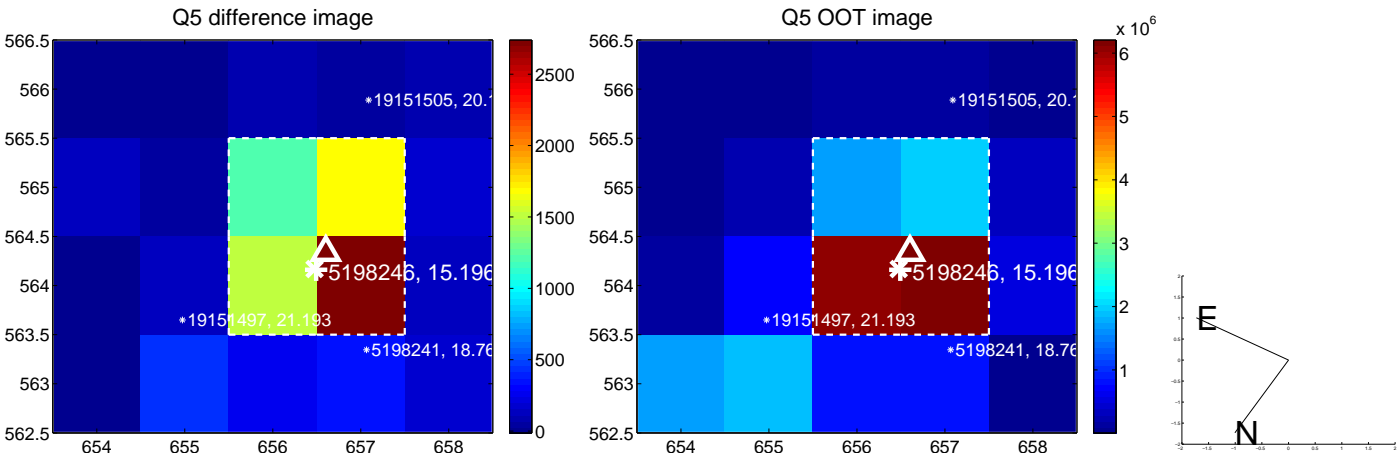


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

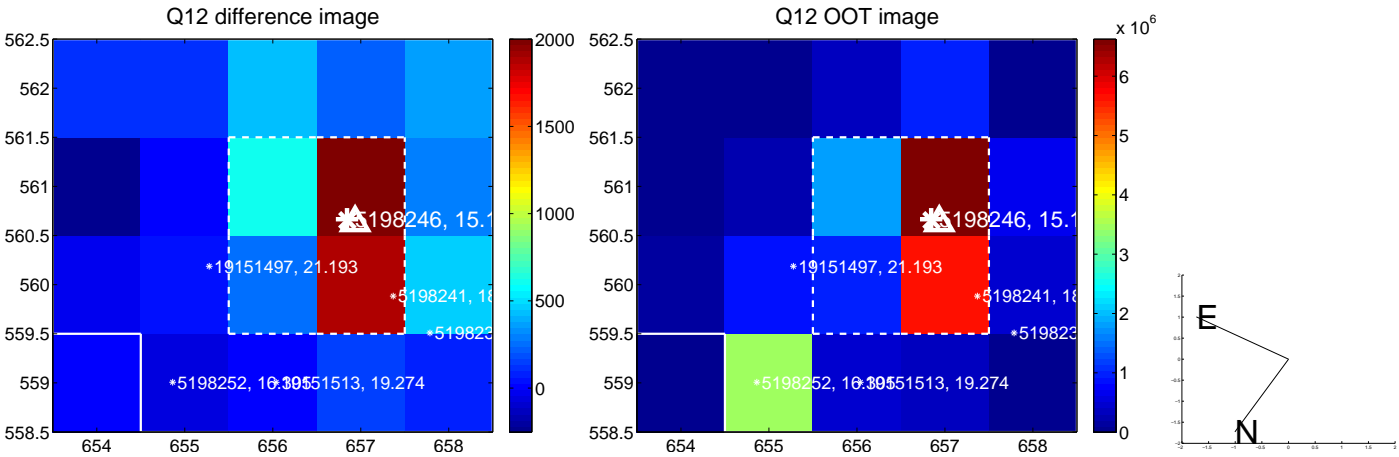
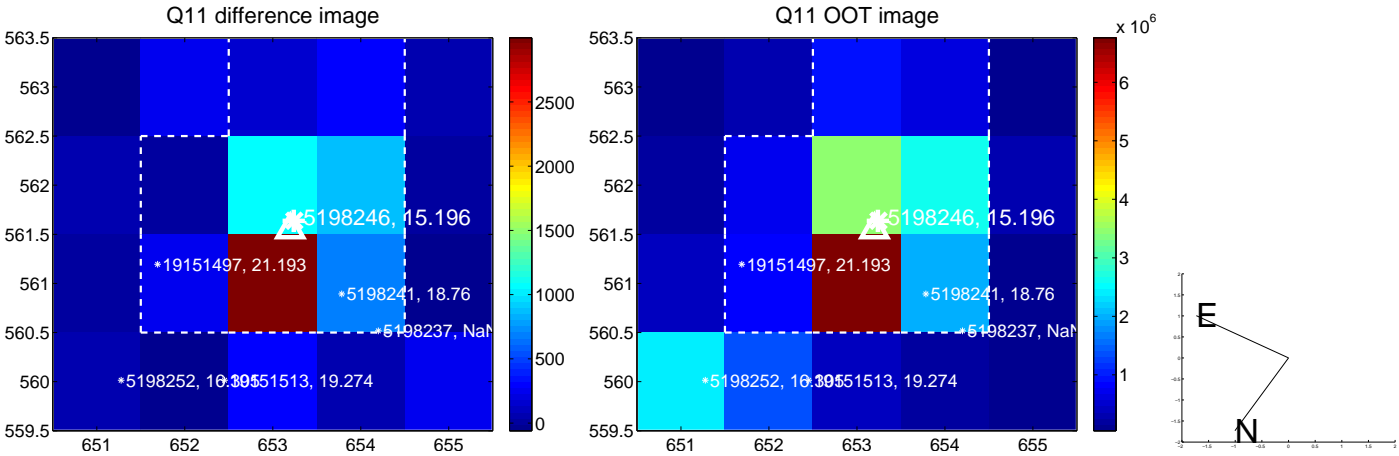
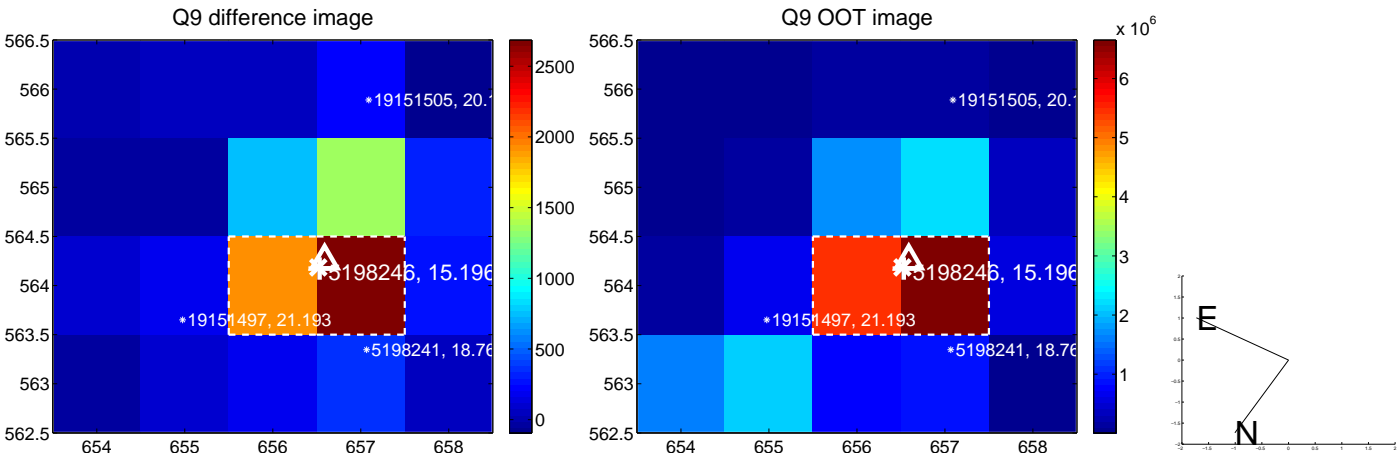
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



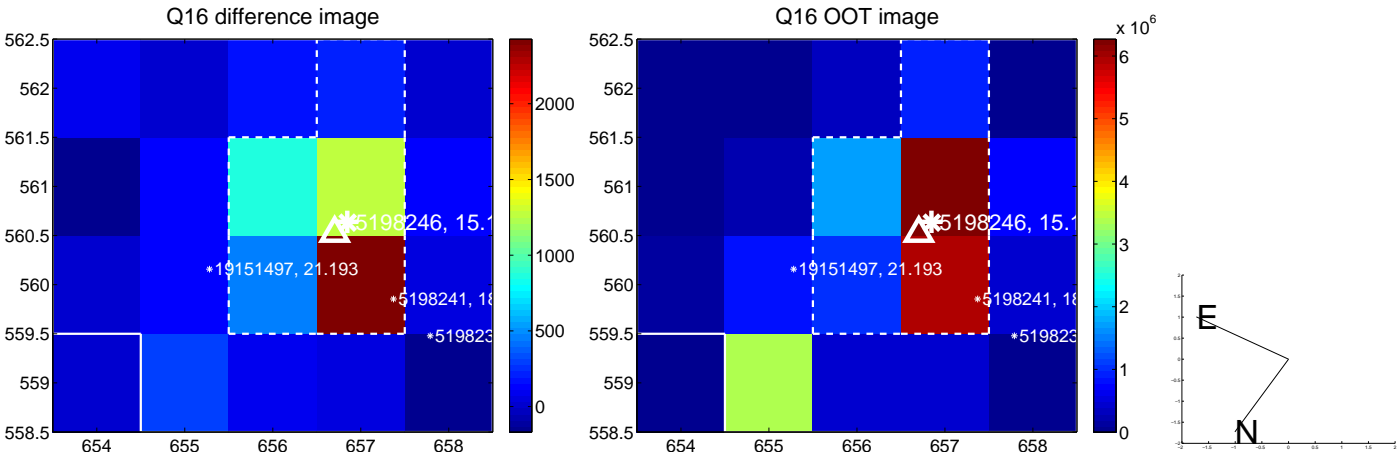
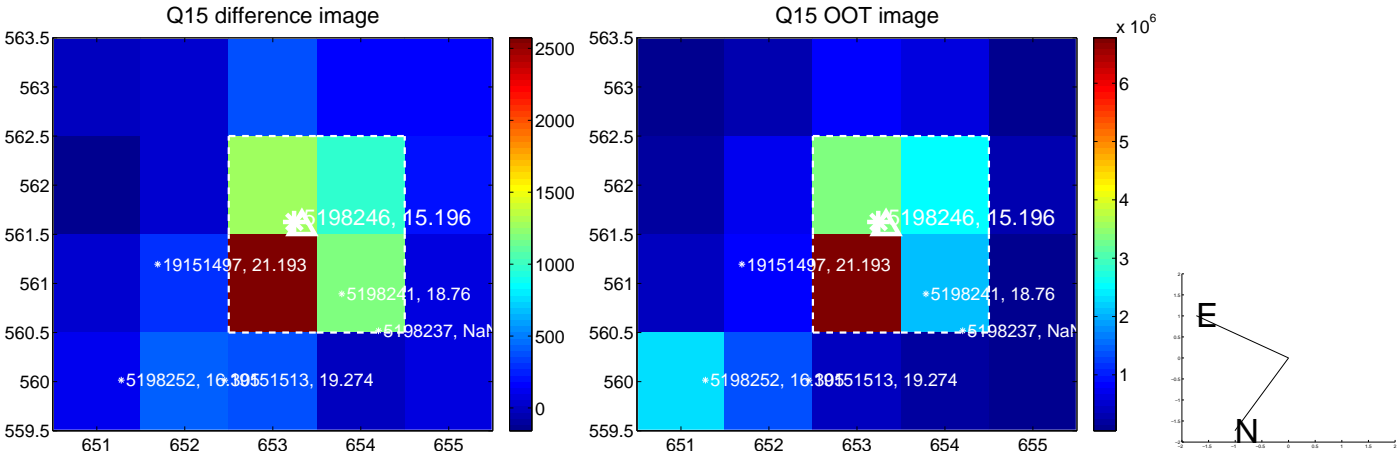
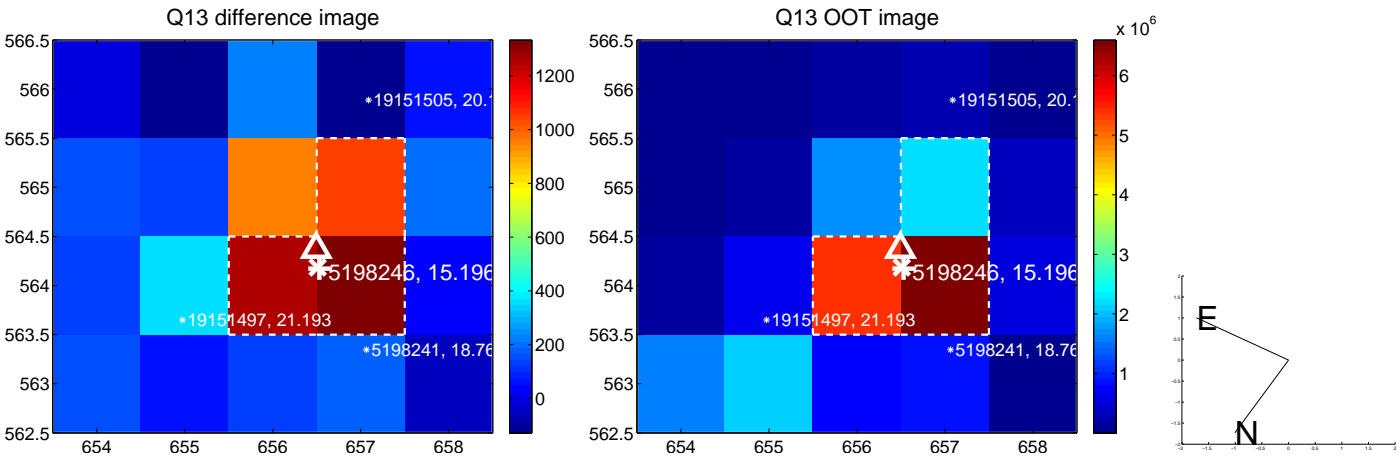
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



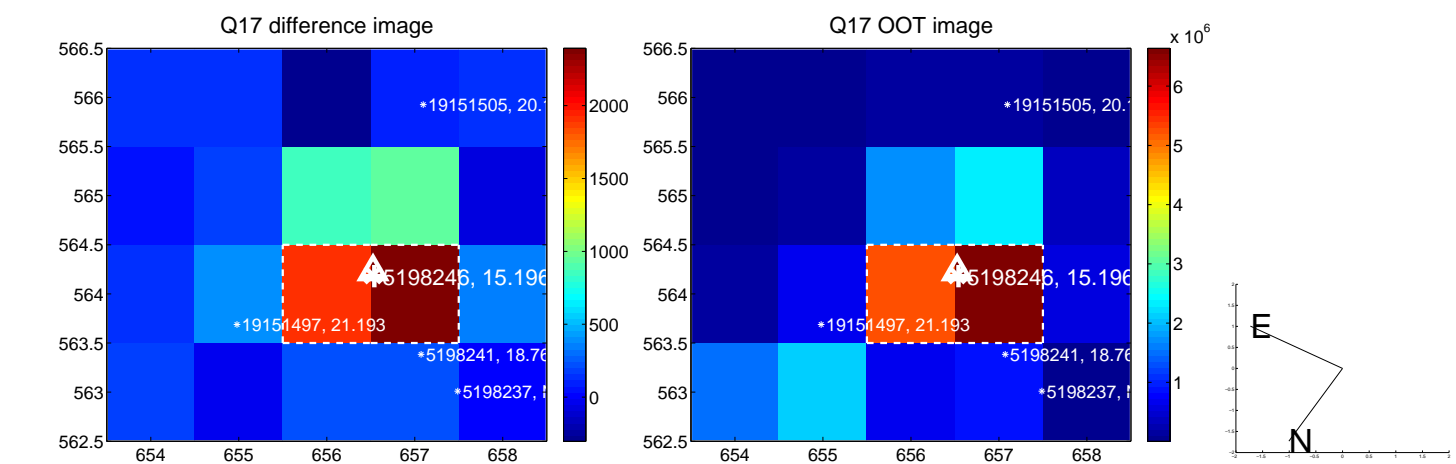
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



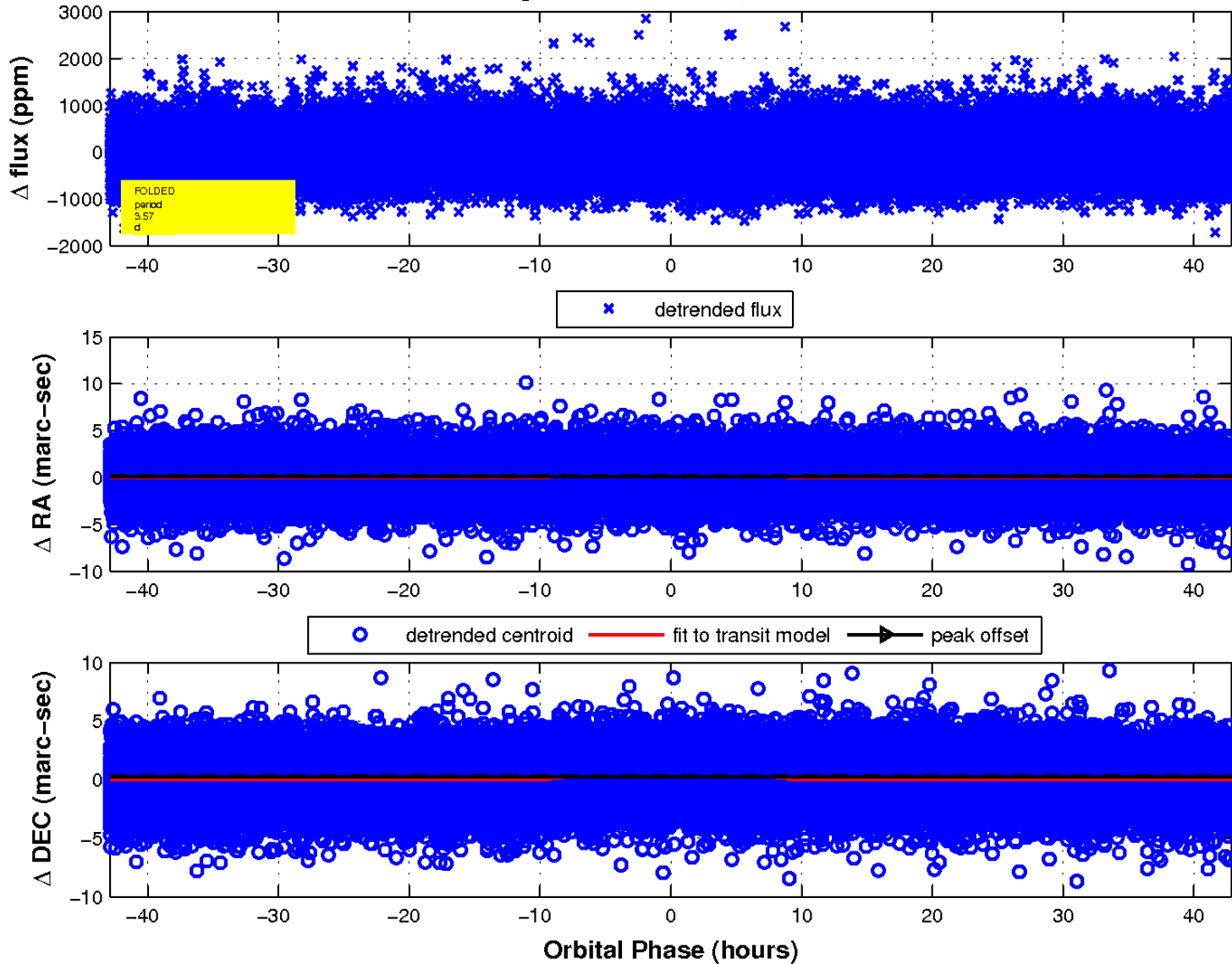
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



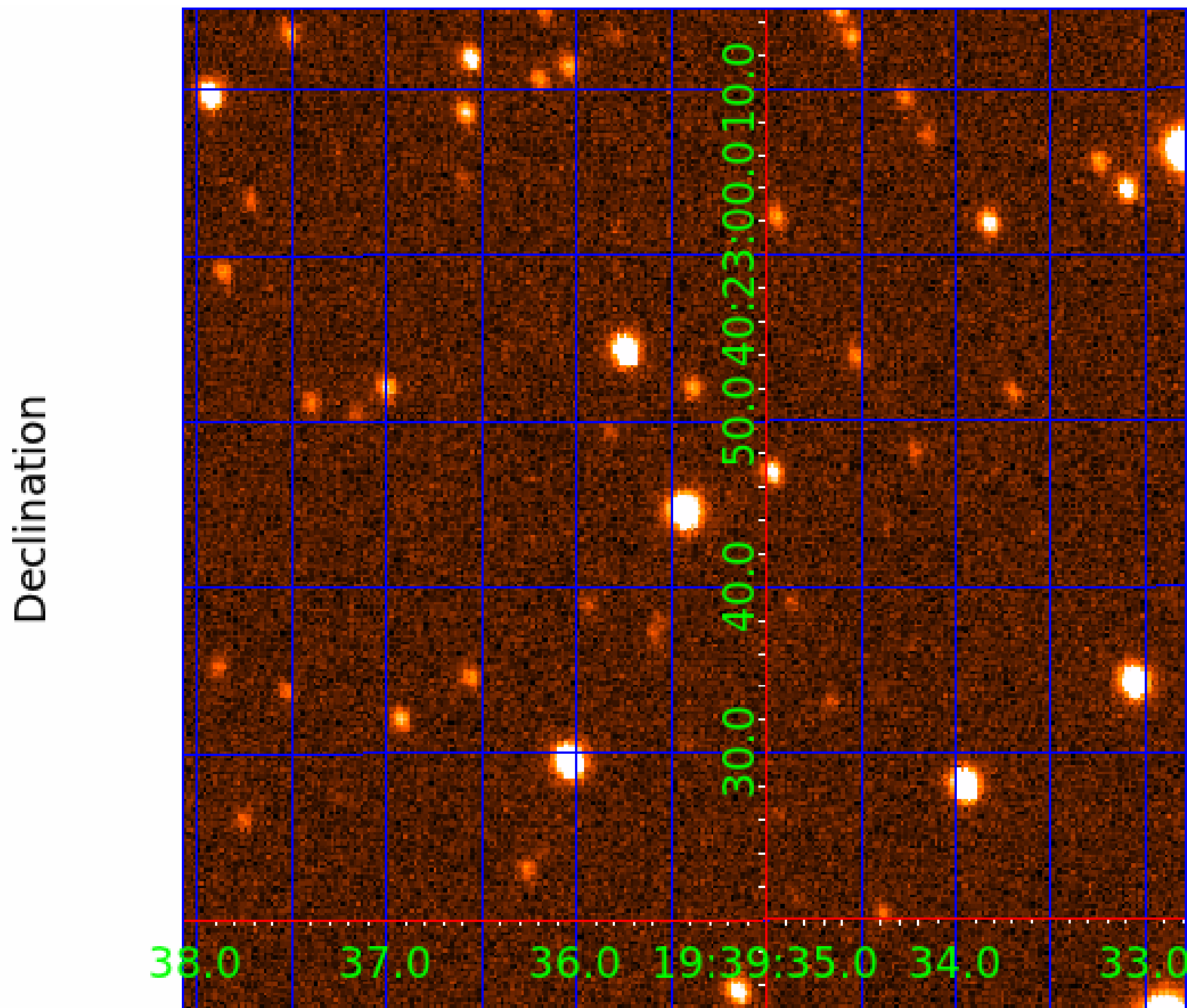
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 3



UKIRT Image



KIC 005198246

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})
005198246-01	OBS	No	3.573270	133.586422	19.0	18.500	9.3	3.6	1.12	6386	0.55	812.78
005198246-02	OBS	No	75.763093	180.905610	611.9	2.880	7.4	8.3	1.12	6386	3.25	13.85
005198246-03	OBS	No	151.665664	212.530862	511.2	5.483	7.2	7.3	1.12	6386	2.81	5.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005198246-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005198246-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
005198246-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

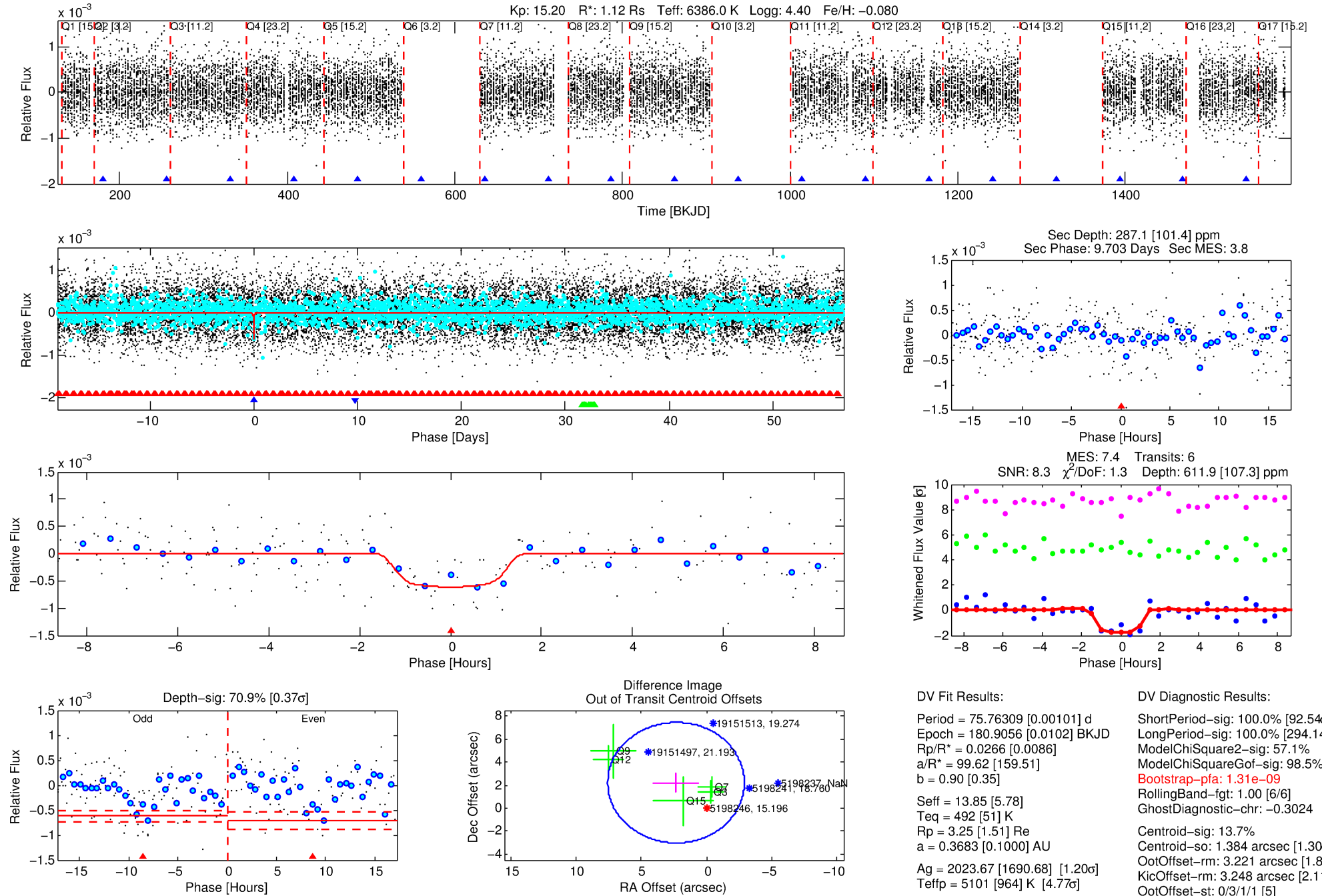
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005198246-02

No Significant Match Found

DV One-Page Summary

KIC: 5198246 Candidate: 2 of 3 Period: 75.763 d



DV Fit Results:

Period = 75.76309 [0.00101] d
Epoch = 180.9056 [0.0102] BKJD
Rp/R* = 0.0266 [0.0086]
a/R* = 99.62 [159.51]
b = 0.90 [0.35]
Seff = 13.85 [5.78]
Teq = 492 [51] K
Rp = 3.25 [1.51] Re
a = 0.3683 [0.1000] AU
Ag = 2023.67 [1690.68] [1.20 σ]
Teffp = 5101 [964] K [4.77 σ]

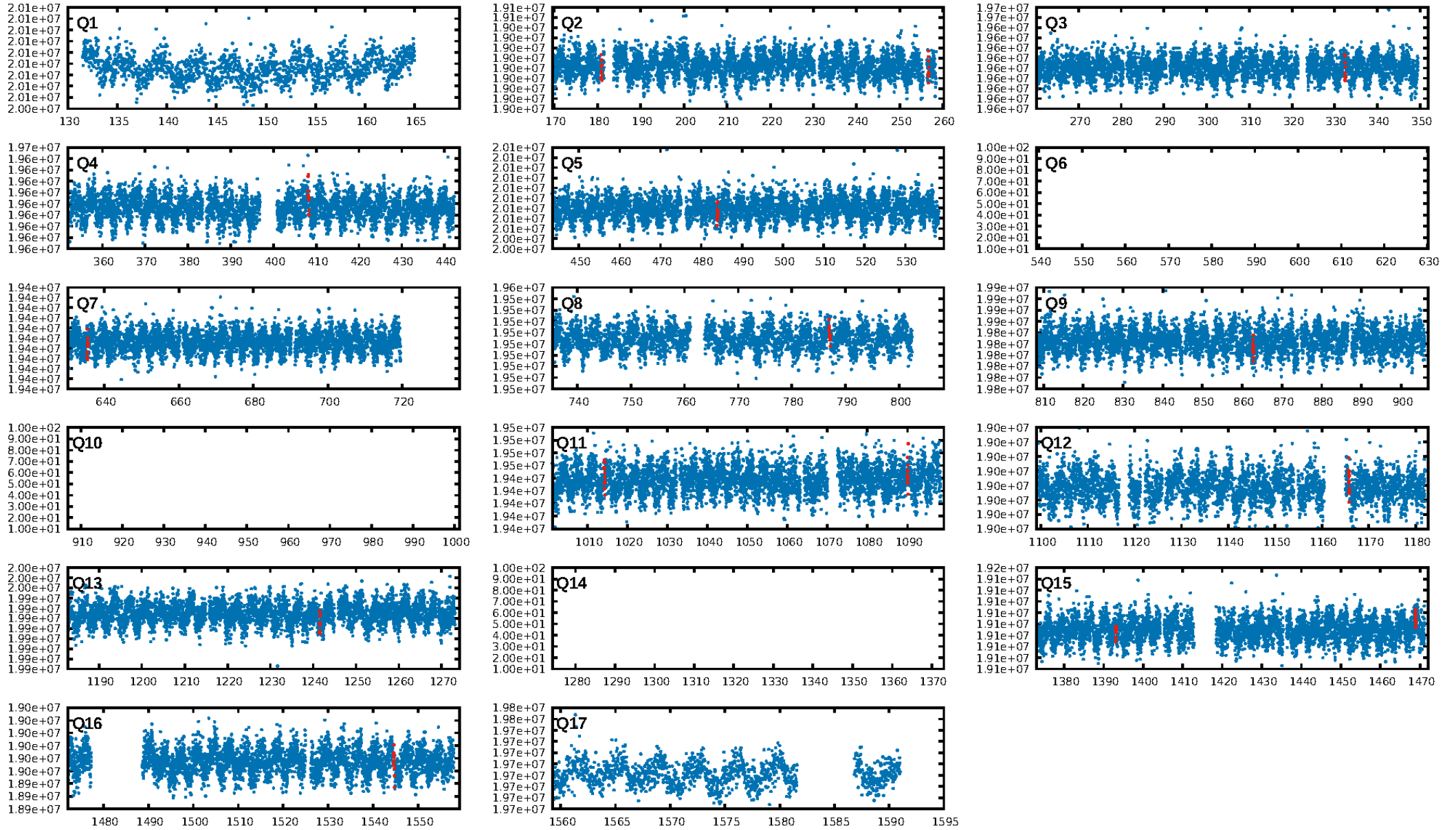
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [92.54 σ]
LongPeriod-sig: 100.0% [294.14 σ]
ModelChiSquare2-sig: 57.1%
ModelChiSquareGof-sig: 98.5%
Bootstrap-pfa: 1.31e-09
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -0.3024
Centroid-sig: 13.7%
Centroid-so: 1.384 arcsec [1.30 σ]
OotOffset-rm: 3.221 arcsec [1.85 σ]
KicOffset-rm: 3.248 arcsec [2.11 σ]
OotOffset-st: 0/3/1/1 [5]
KicOffset-st: 0/3/1/1 [5]
DiffImageQuality-fgm: 0.20 [1/5]
DiffImageOverlap-fno: 0.45 [5/11]

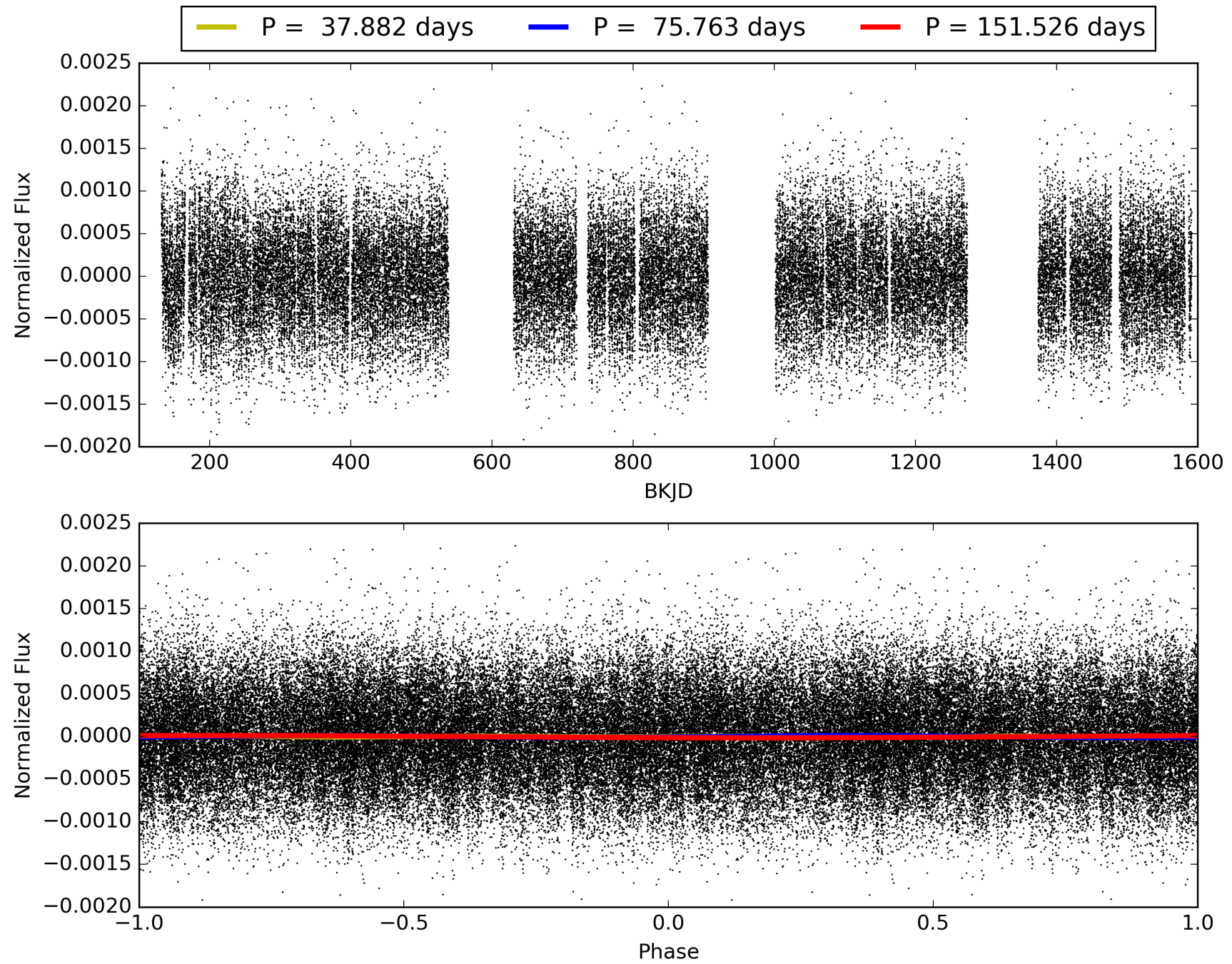
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:19:44 Z

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

TCE 005198246-02, PDC Light Curves

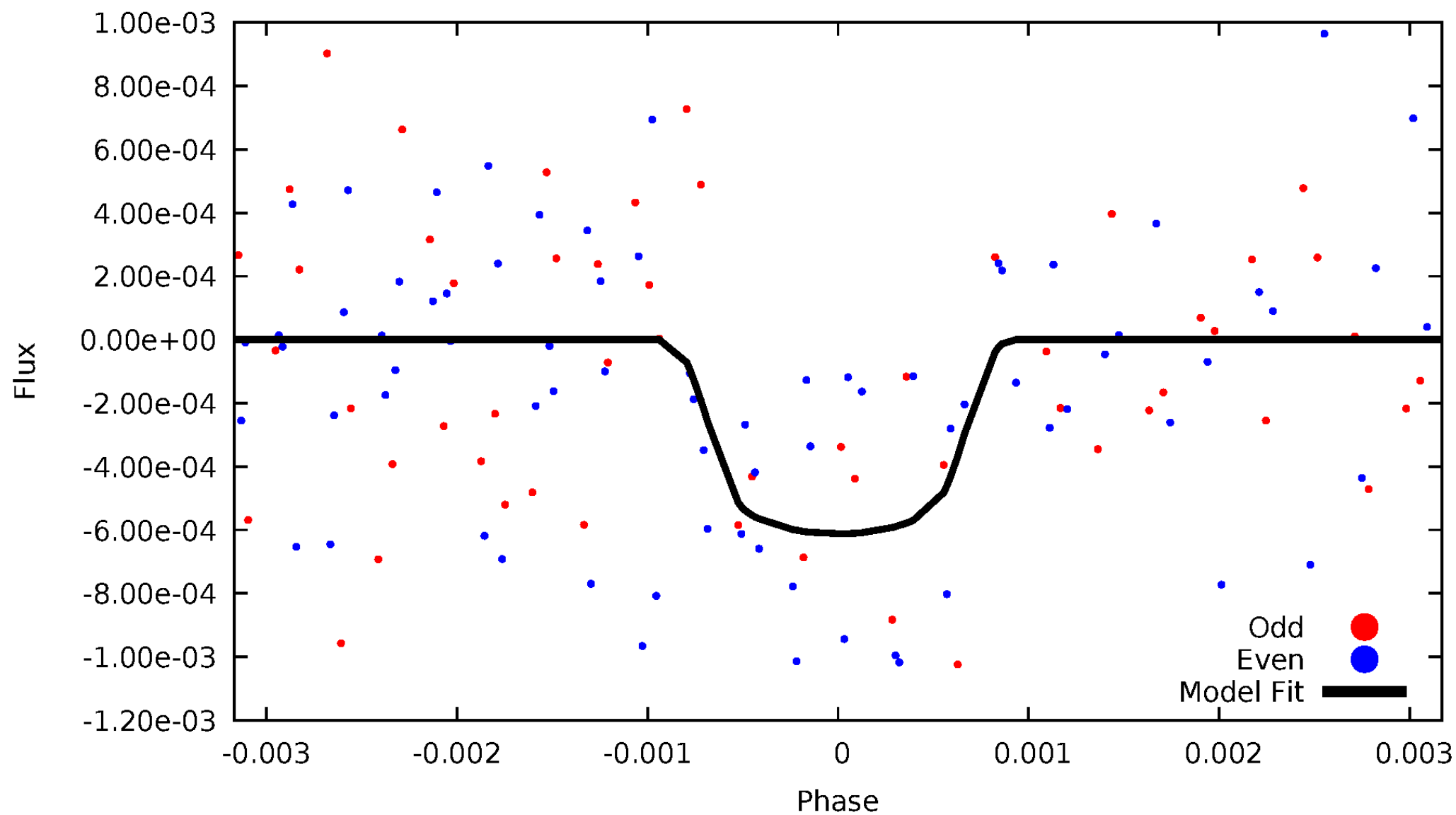


TCE 005198246-02



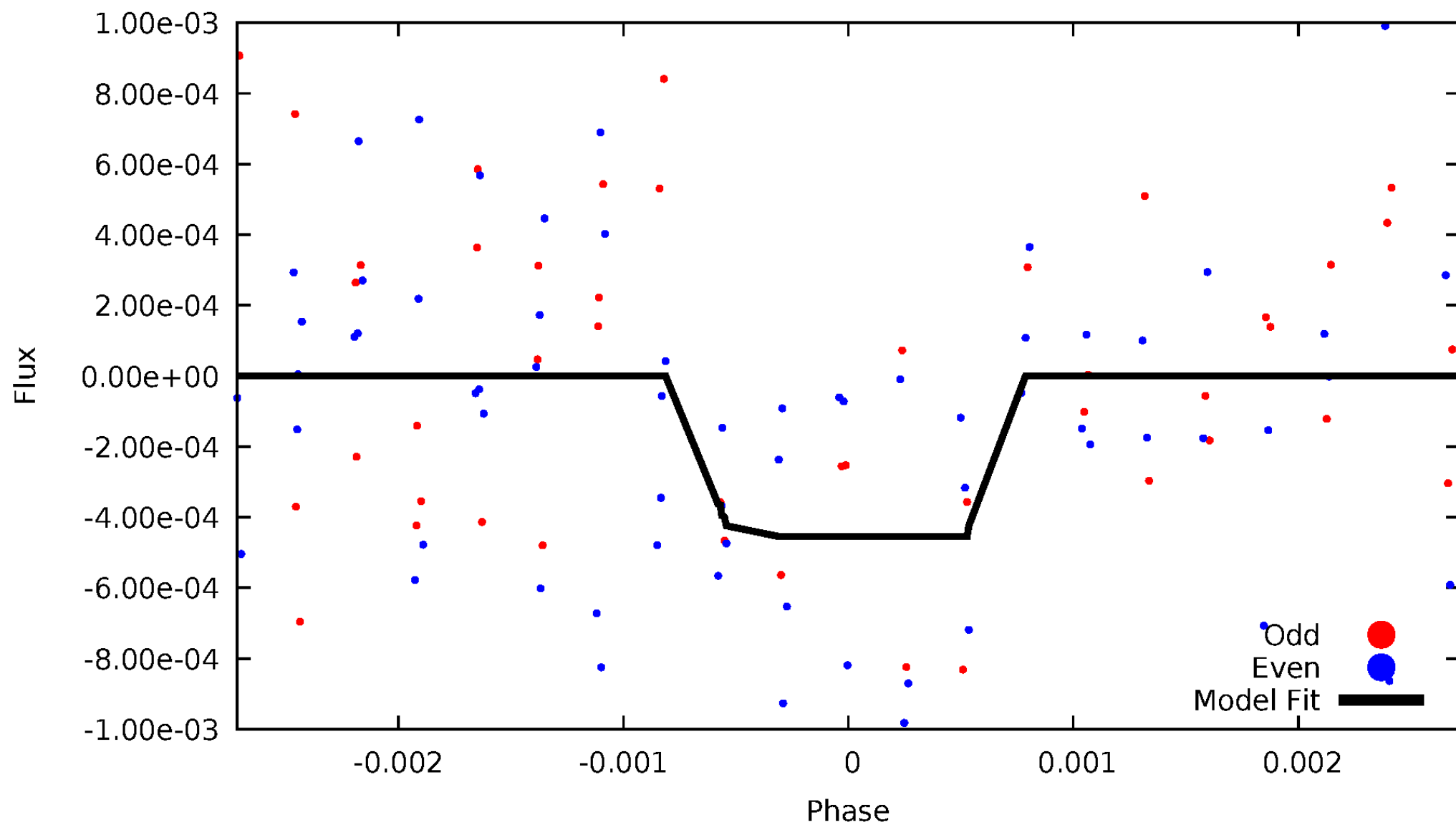
DV Odd/Even

TCE 005198246-02



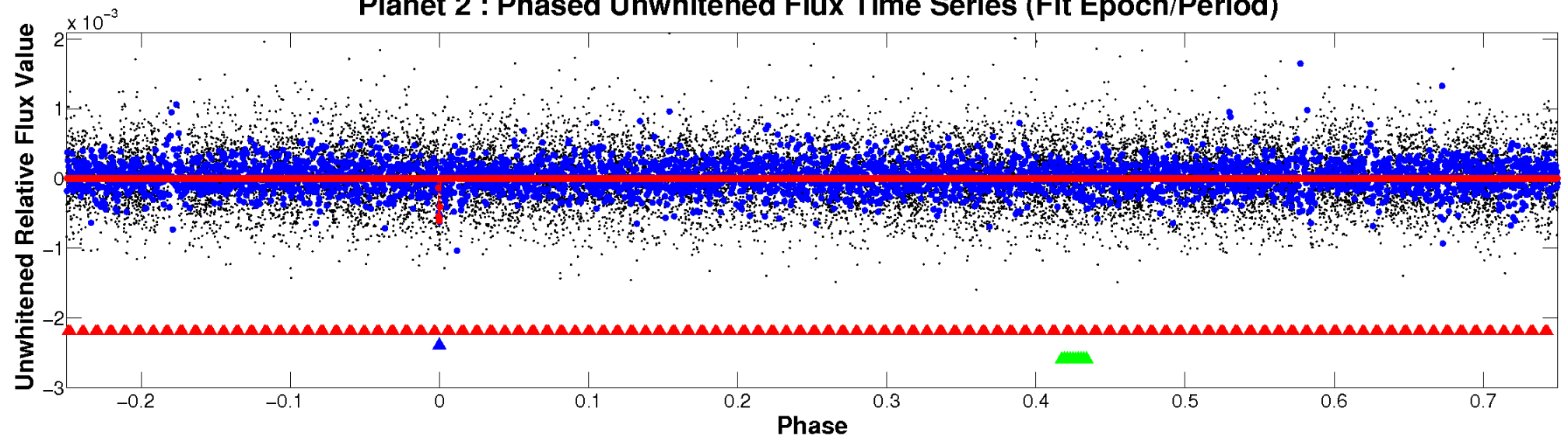
ALT Odd/Even

TCE 005198246-02

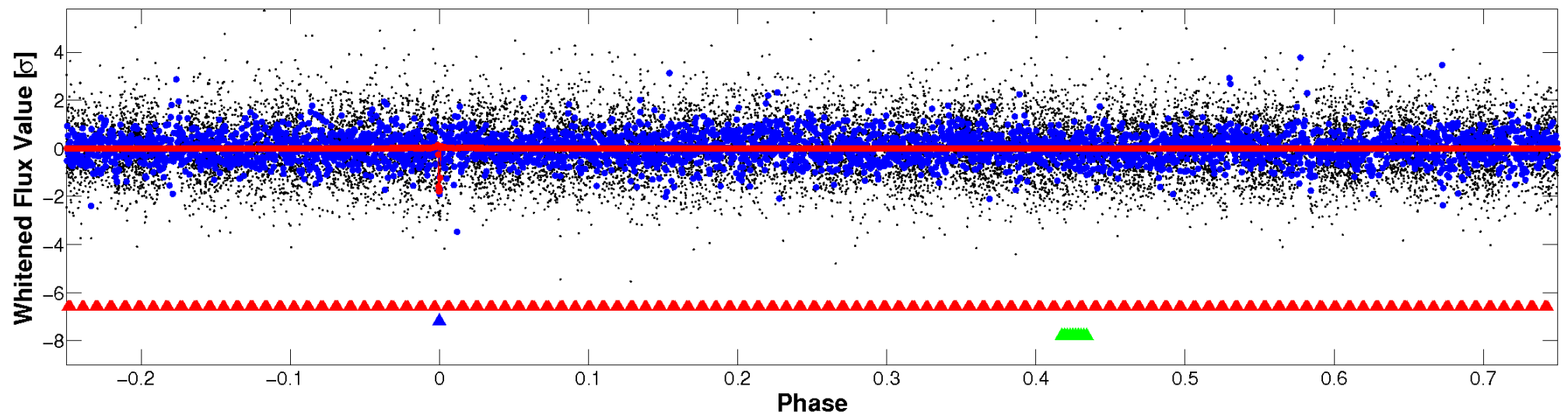


Non-Whitened Vs. Whitened Light Curve

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

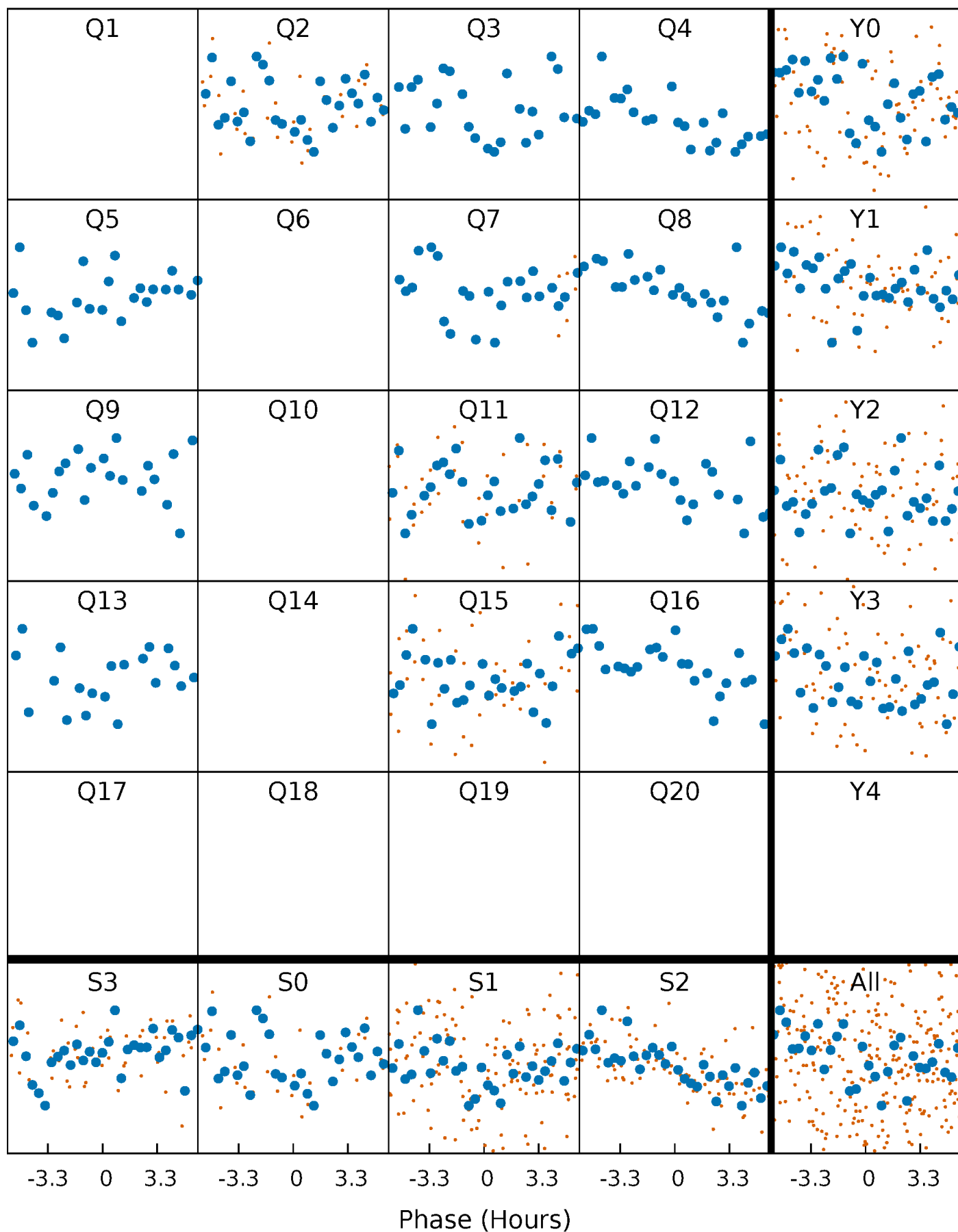


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



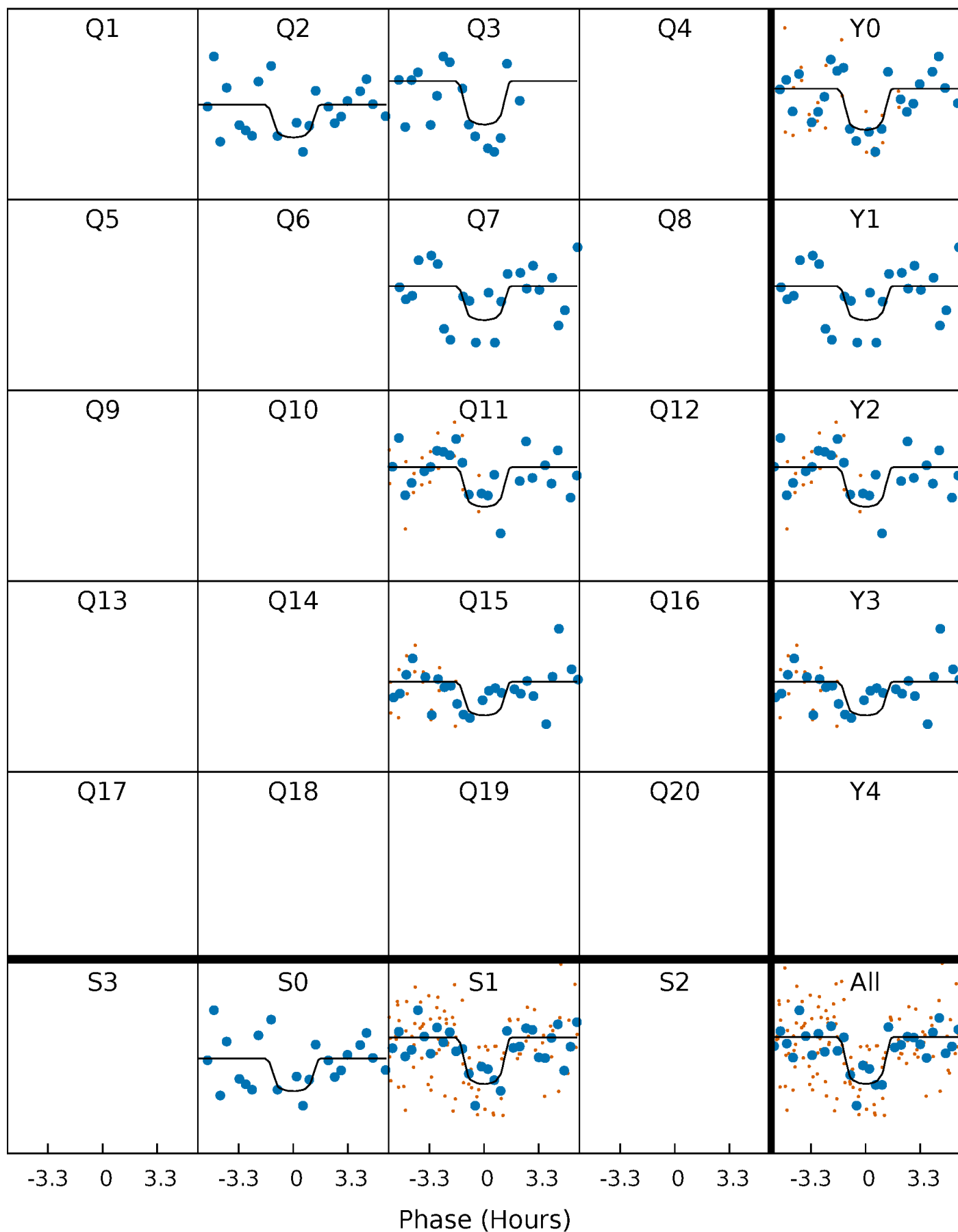
PDC Quarter-Phased Transit Curves

TCE 005198246-02 P= 75.763093 Days $T_0=180.905610$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005198246-02 P= 75.763093 Days $T_0=180.905610$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

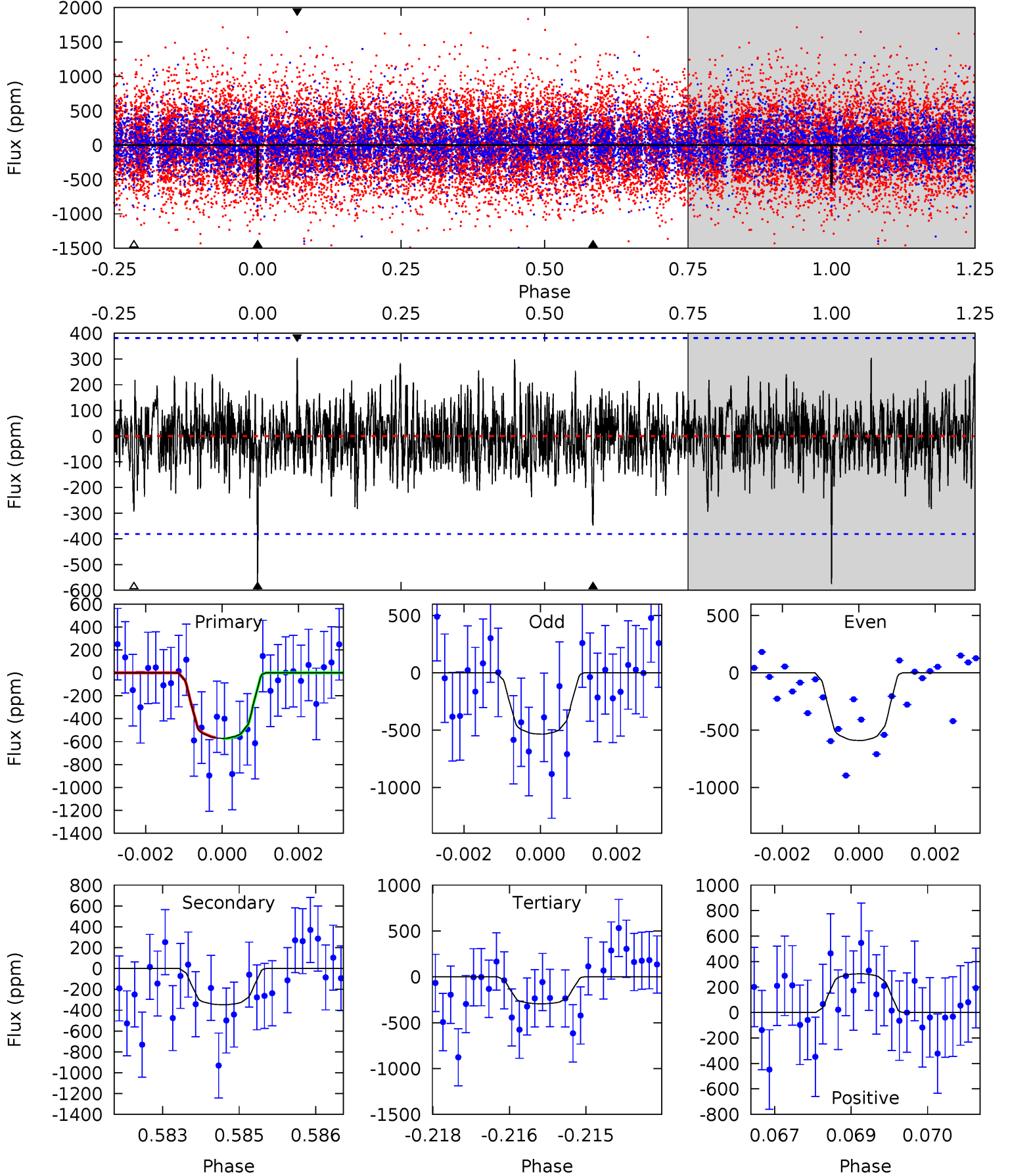
TCE 005198246-02 P= 75.763792 Days $T_0=180.906906$ (BKJD)



DV Model-Shift Uniqueness Test

005198246-02, $P = 75.763093$ Days, $E = 105.142517$ Days

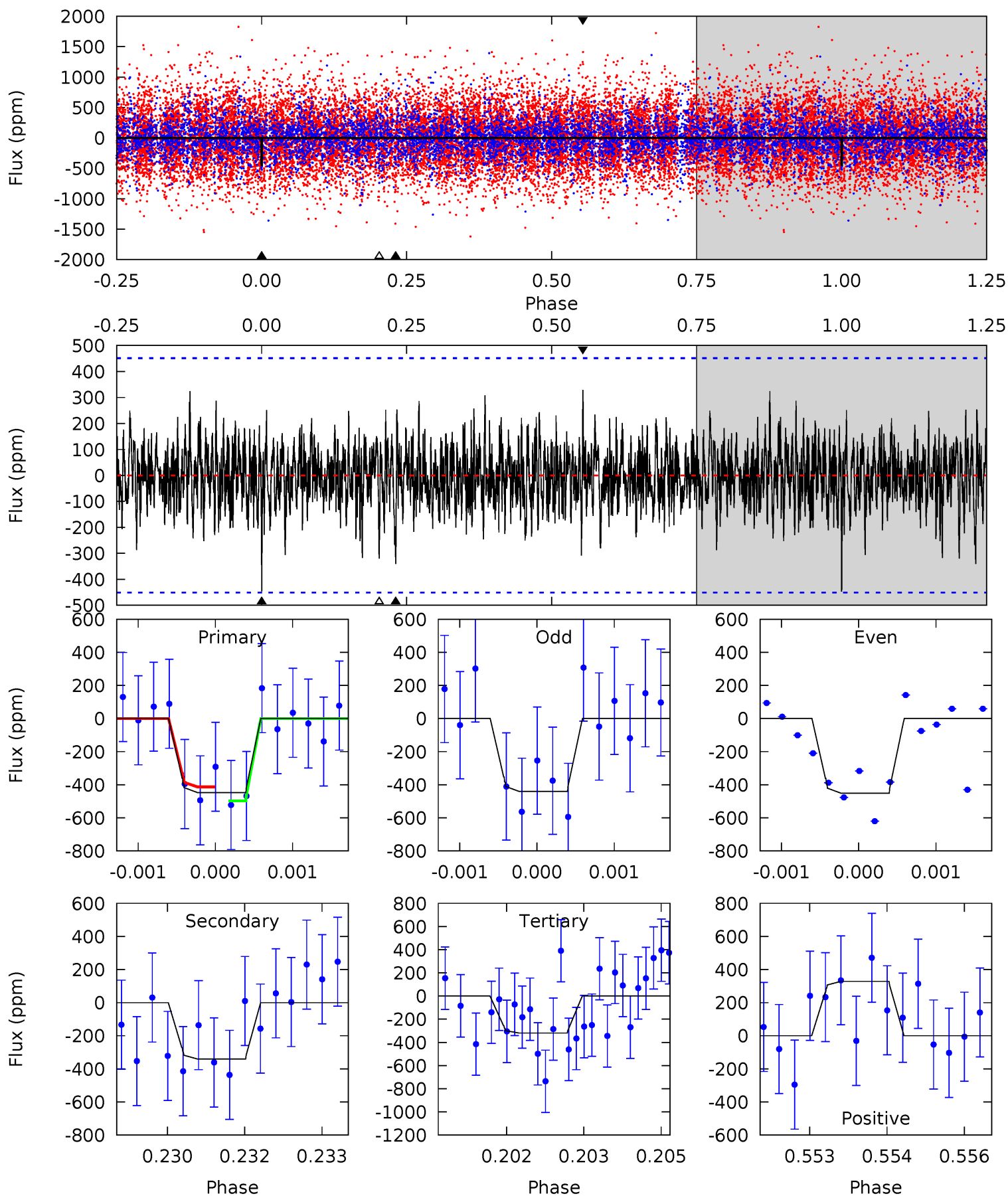
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.06	4.90	4.14	4.28	5.36	3.15	1.21	3.91	3.78	0.76	0.62	0.38	1.02	0.35	0.08



Alt Model-Shift Uniqueness Test

005198246-02, $P = 75.763792$ Days, $E = 105.143114$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.35	4.07	3.83	3.93	5.40	3.21	1.10	1.53	1.43	0.25	0.14	0.06	0.96	0.42	0.50



Stellar Parameters For KIC 005198246

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6386^{+179}_{-246}	$4.402^{+0.065}_{-0.208}$	$-0.080^{+0.250}_{-0.300}$	$1.123^{+0.370}_{-0.123}$	$1.161^{+0.169}_{-0.152}$	$1.154^{+0.333}_{-0.615}$
	+3%/-4%	+1%/-5%	+312%/-375%	+33%/-11%	+15%/-13%	+29%/-53%
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 005198246-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-348 ± 71	$3.47^{+1.22}_{-1.16}$	704^{+53}_{-39}	5321^{+1168}_{-625}	2132^{+2798}_{-1004}
Alt.	-340 ± 84	$2.79^{+1.10}_{-1.08}$	701^{+54}_{-41}	5884^{+1684}_{-858}	3259^{+5719}_{-1692}

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

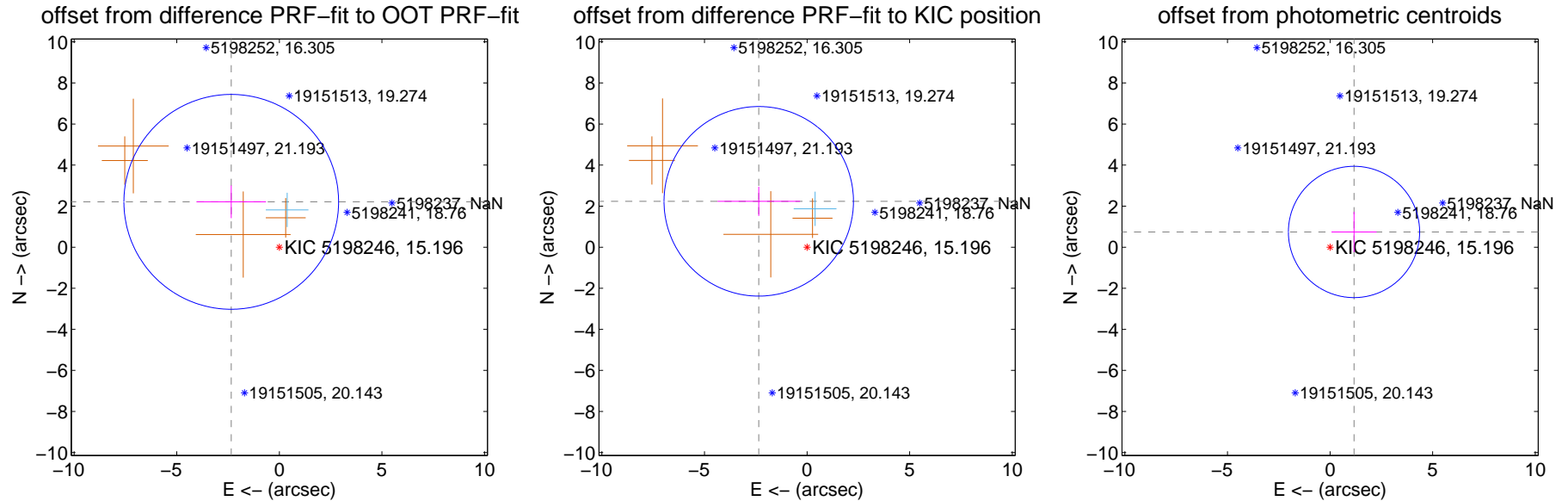
DV Centroid Data

Supplemental centroid analysis for 005198246-02. Kepler magnitude: 15.20. Transit SNR 8.31

There are 1 quarters with good PRF difference image offsets

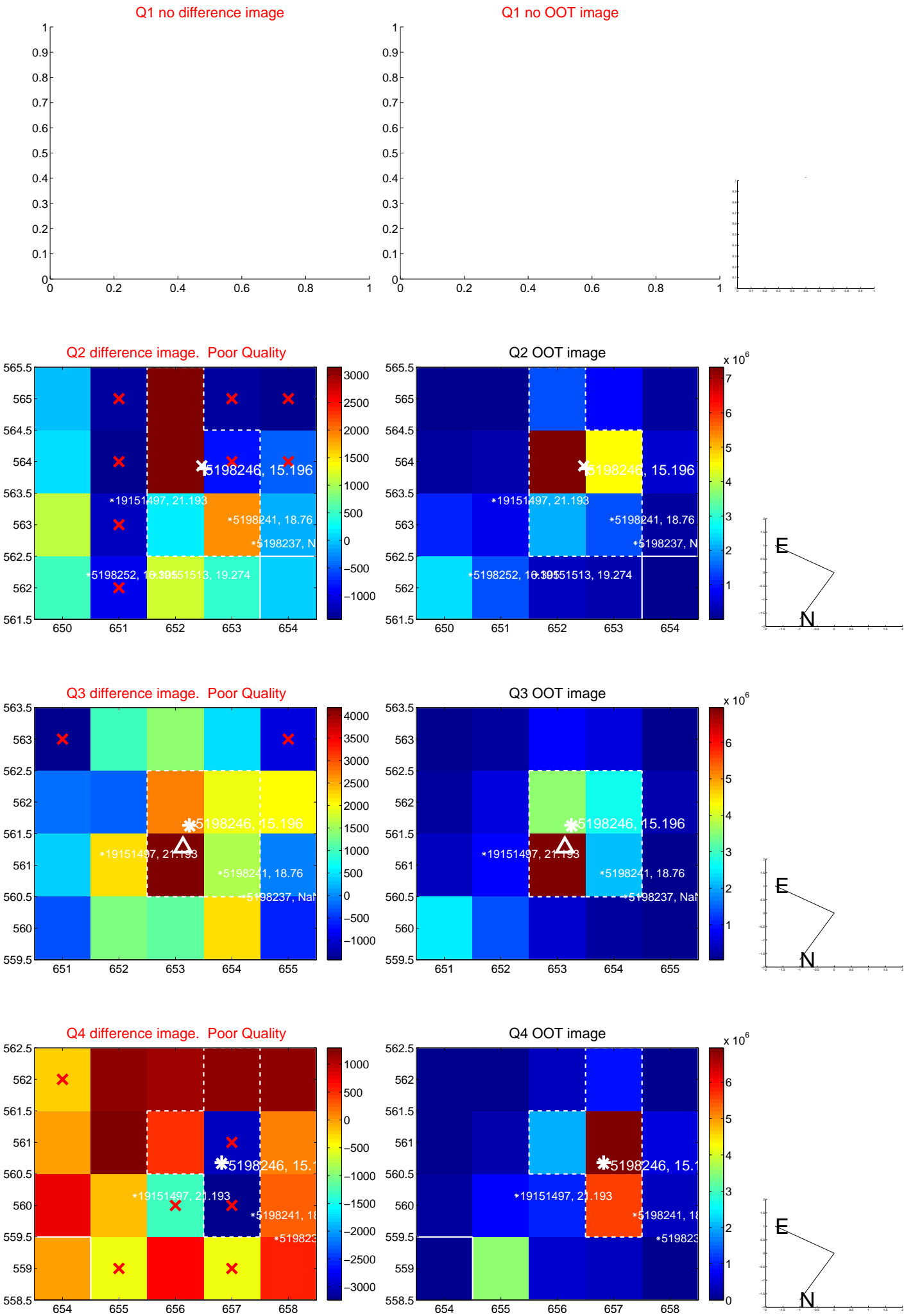
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.221 ± 1.744	1.85	2.344 ± 1.693	2.210 ± 0.797
PRF-fit source offset from KIC position	3.248 ± 1.539	2.11	2.356 ± 2.011	2.235 ± 0.712
photometric centroid source offset	1.38 ± 1.07	1.30	-1.17 ± 1.10	0.74 ± 0.98

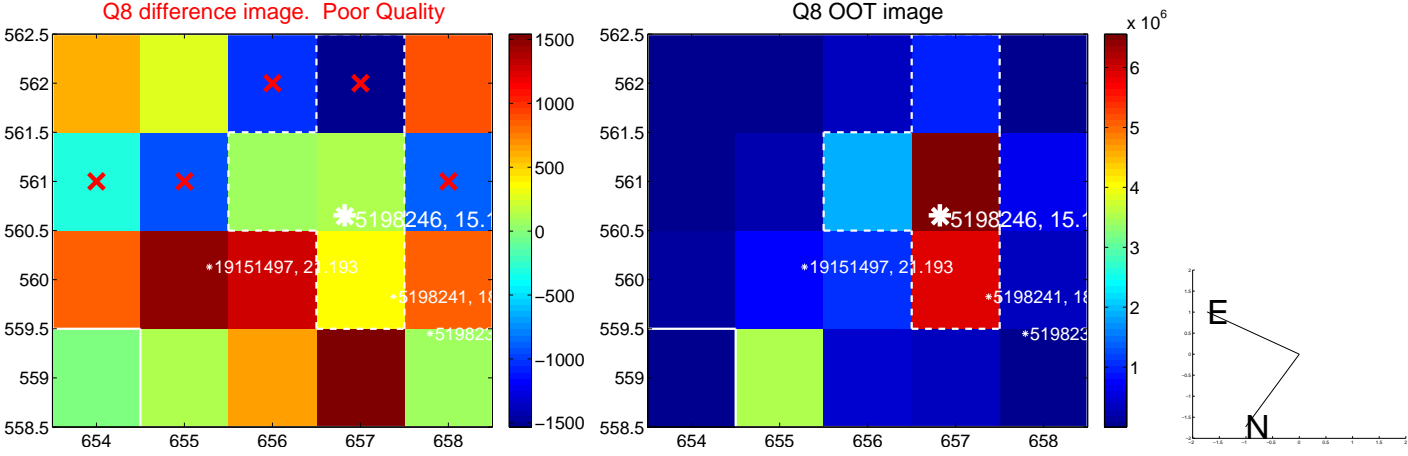
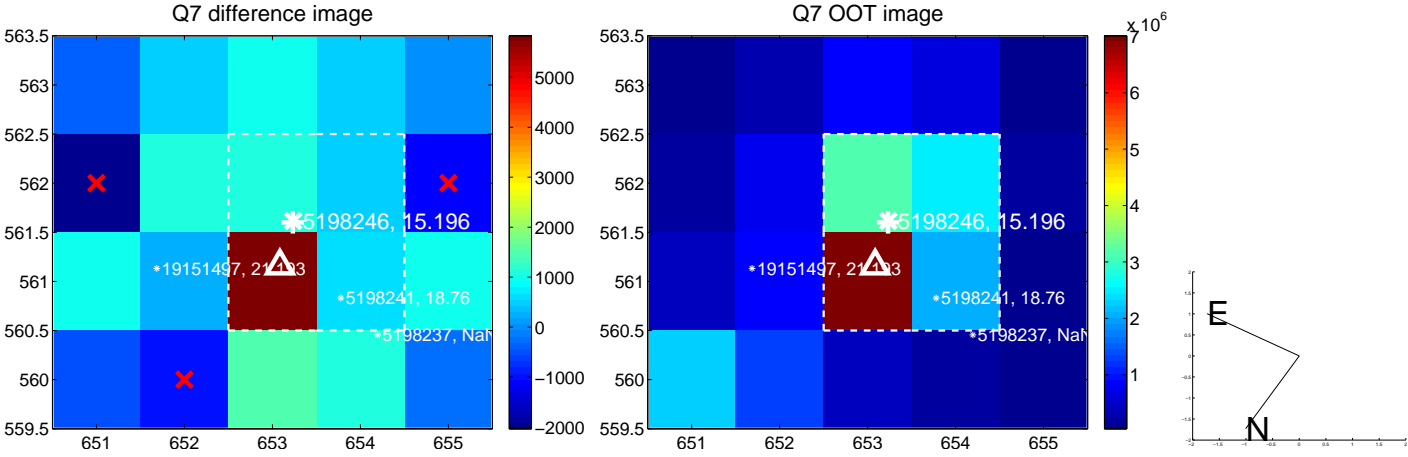
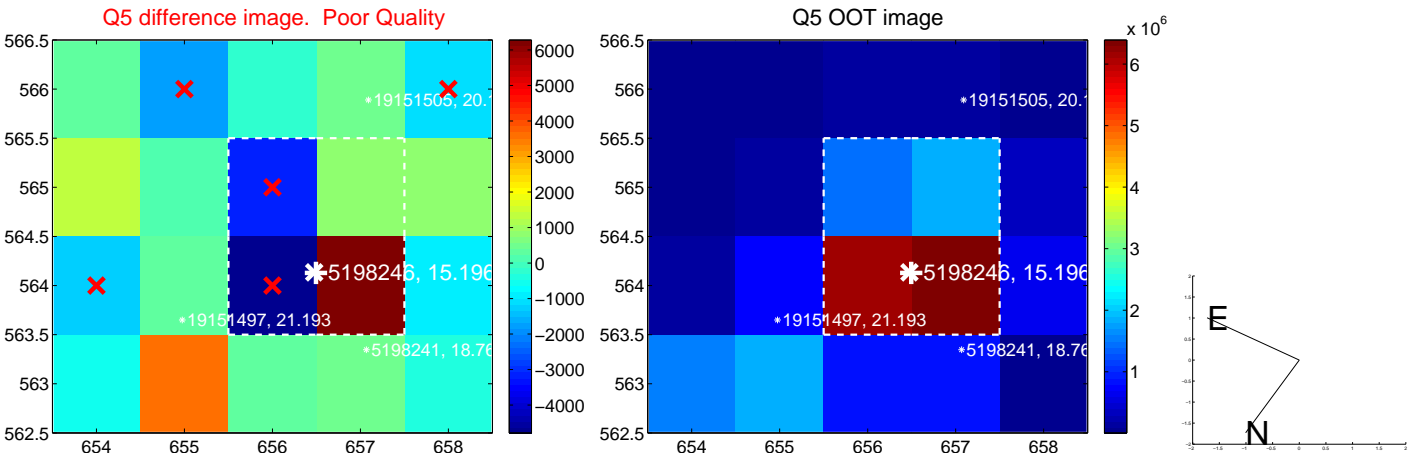


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

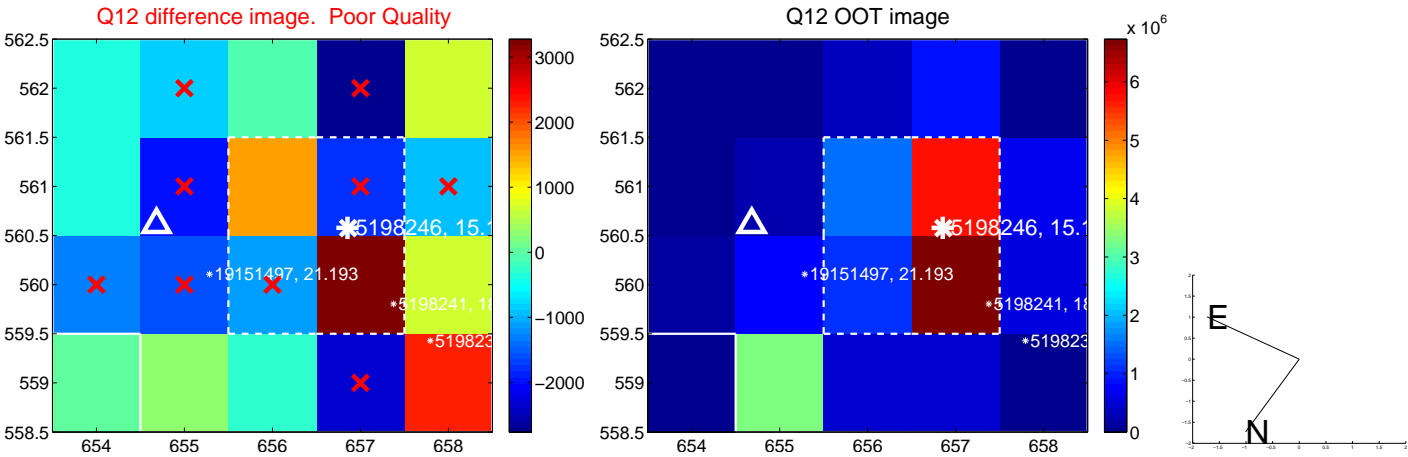
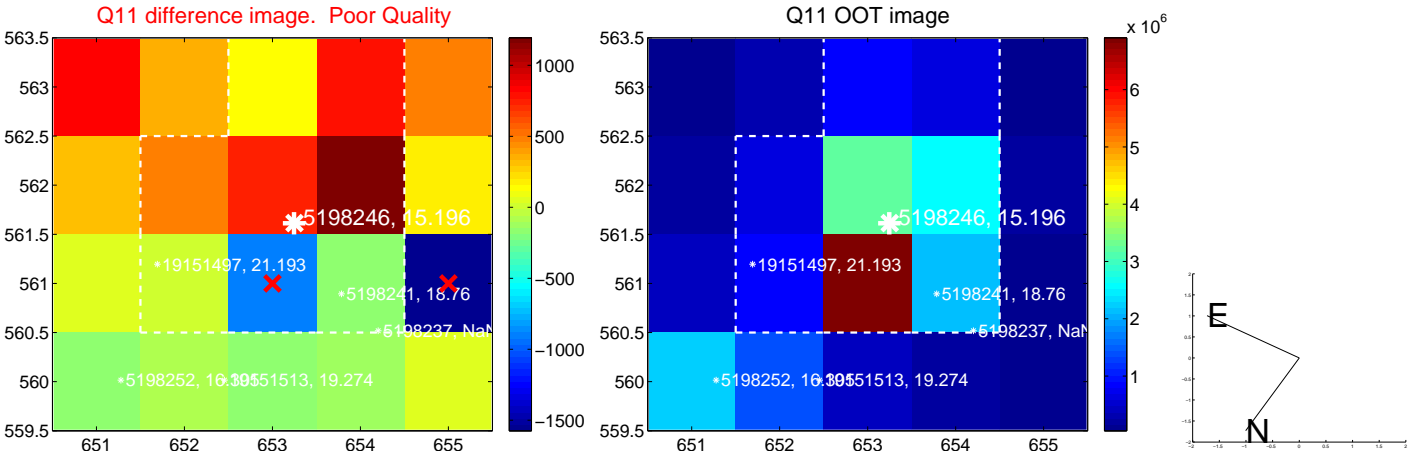
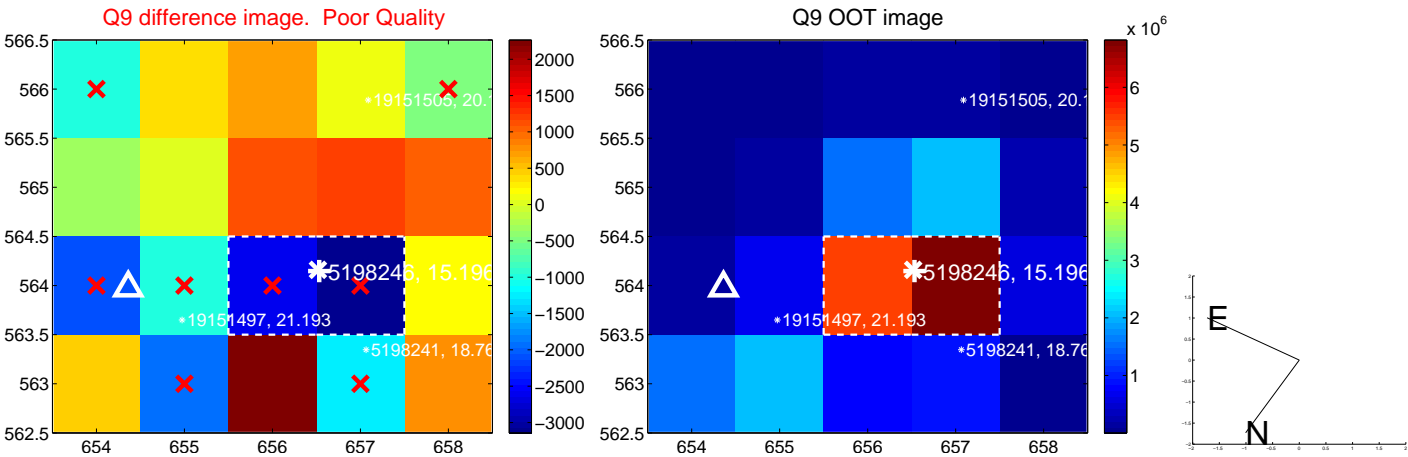
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



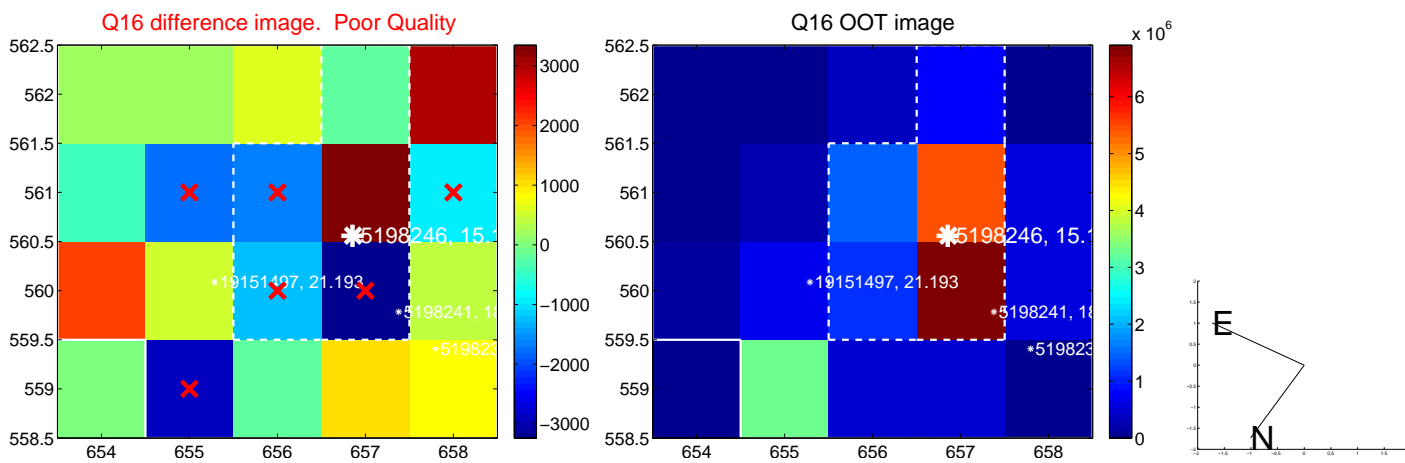
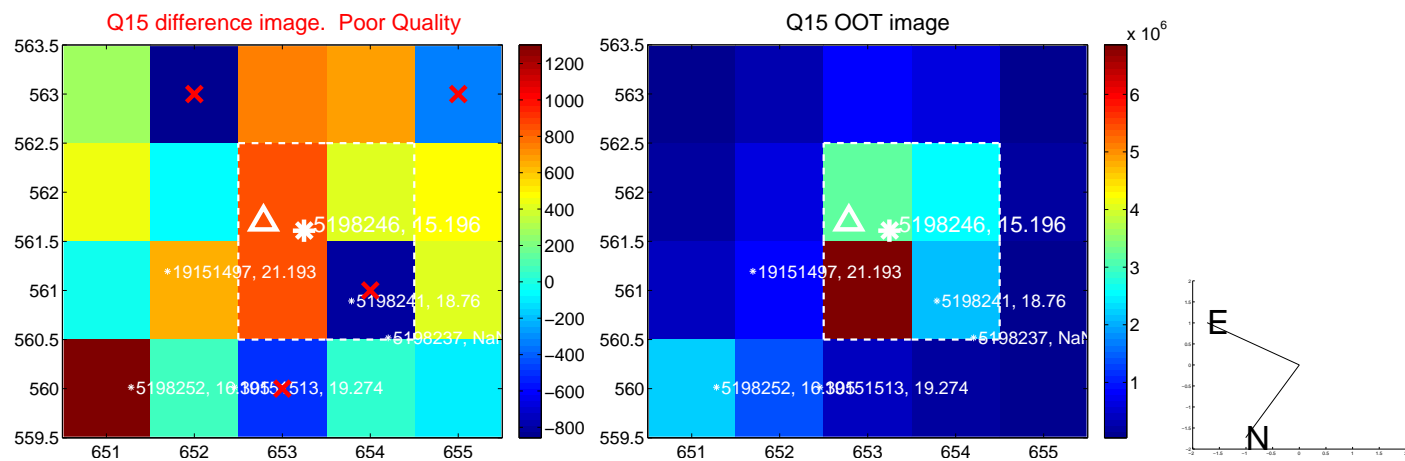
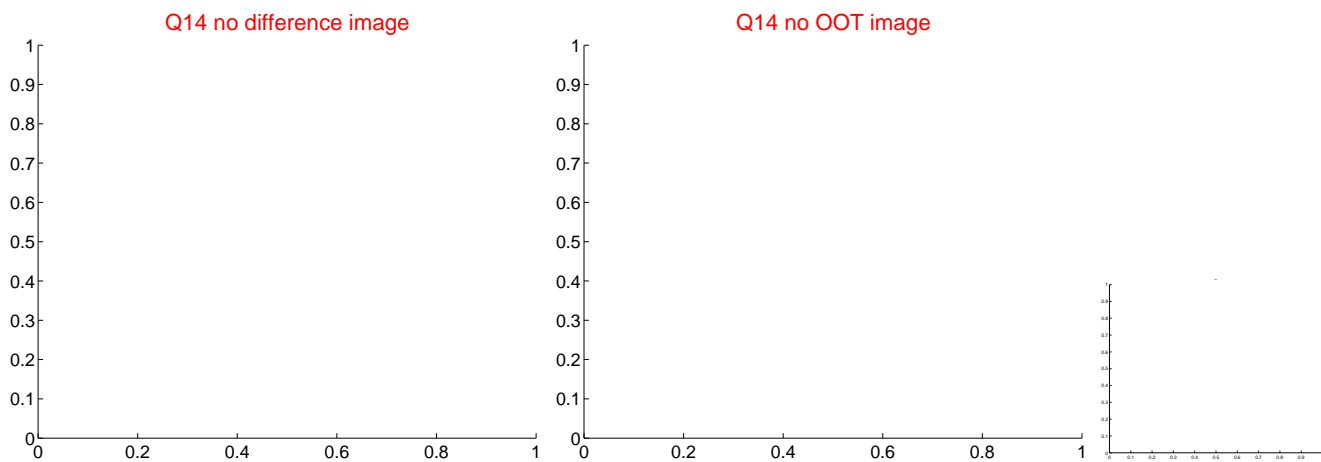
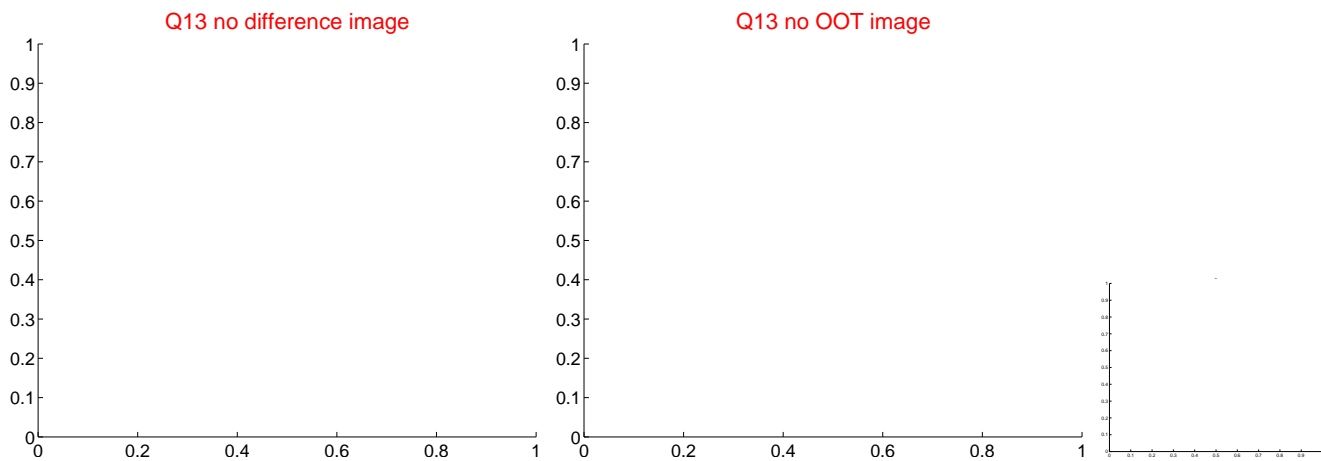
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



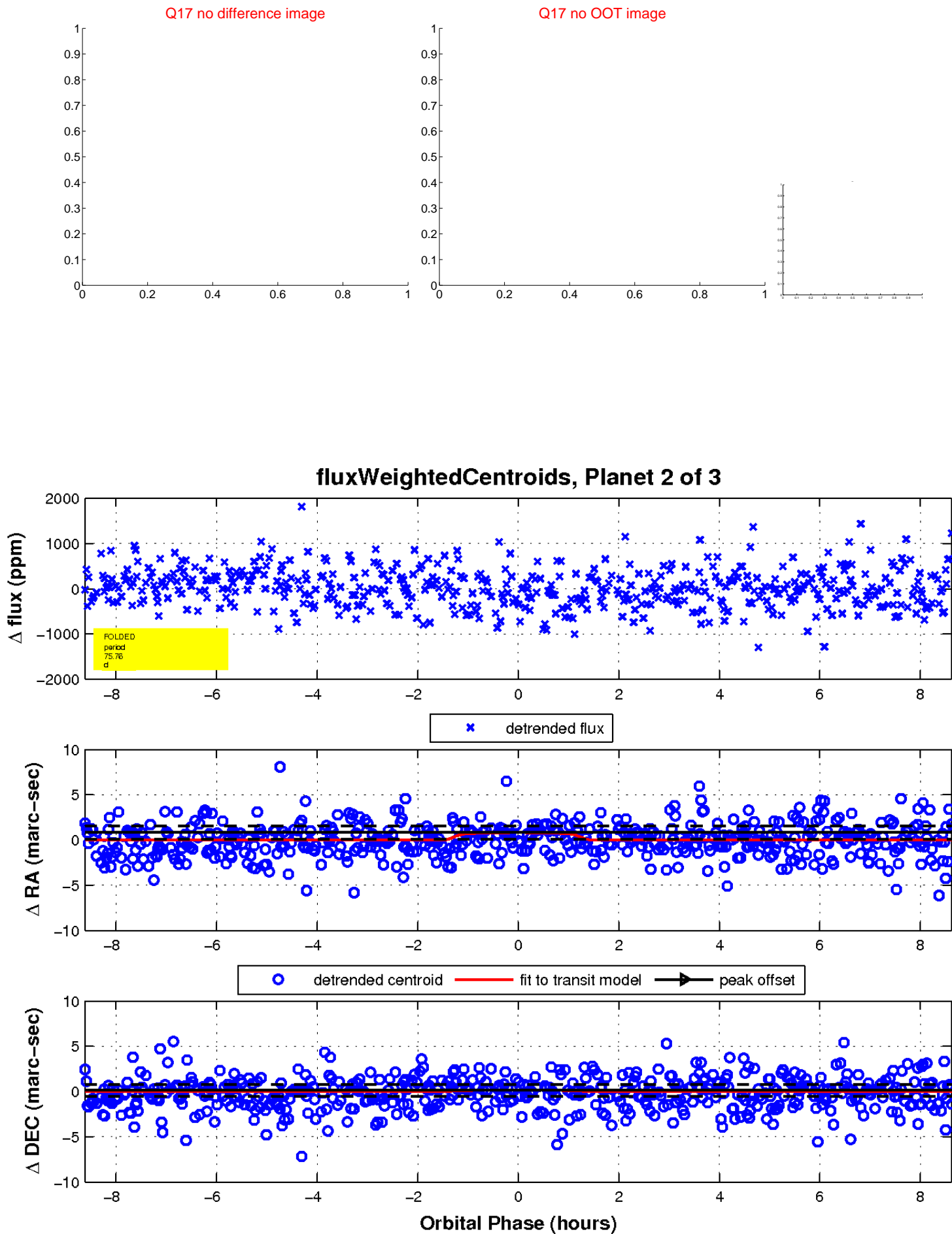
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



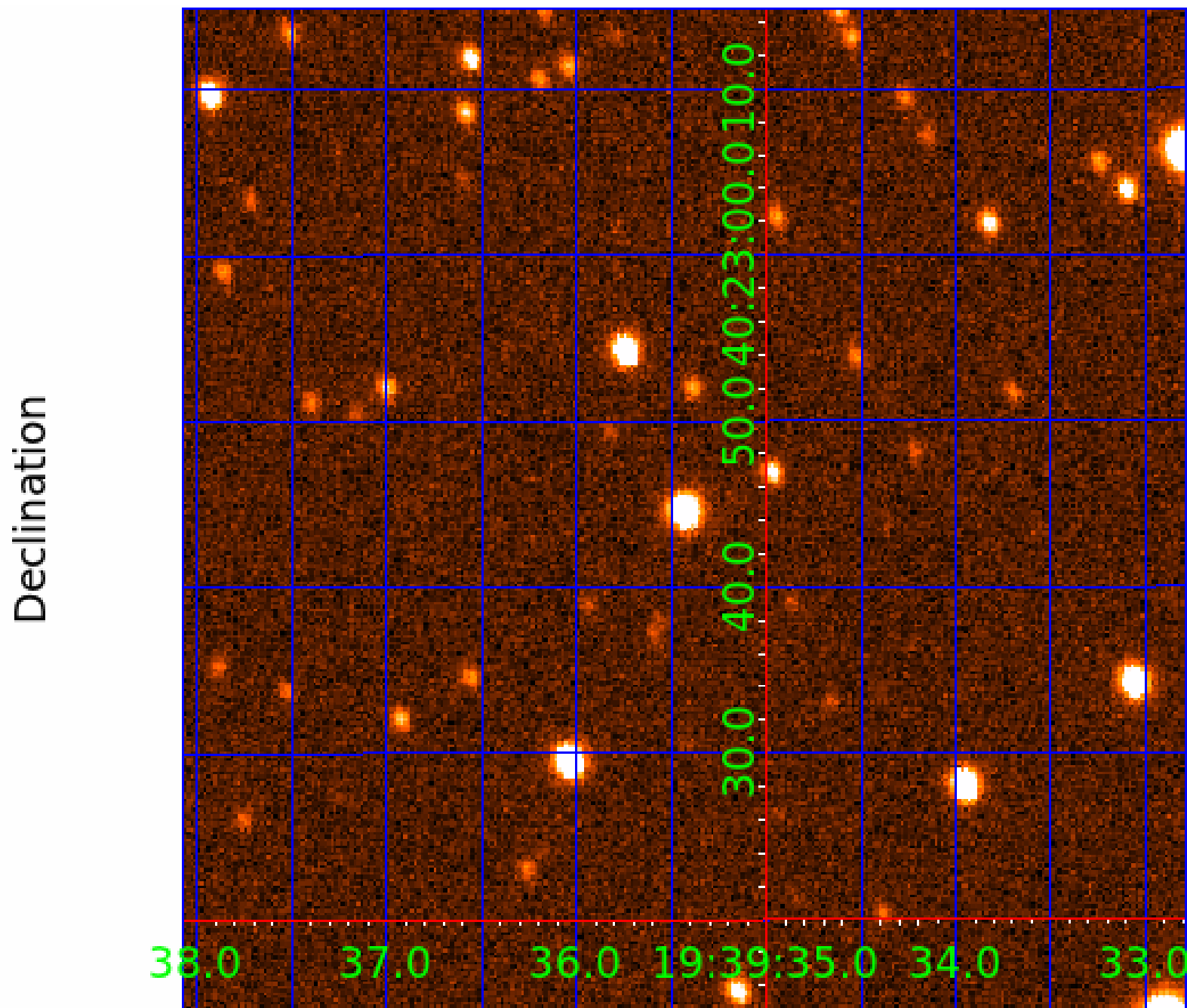
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 005198246

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})
005198246-01	OBS	No	3.573270	133.586422	19.0	18.500	9.3	3.6	1.12	6386	0.55	812.78
005198246-02	OBS	No	75.763093	180.905610	611.9	2.880	7.4	8.3	1.12	6386	3.25	13.85
005198246-03	OBS	No	151.665664	212.530862	511.2	5.483	7.2	7.3	1.12	6386	2.81	5.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005198246-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005198246-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
005198246-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

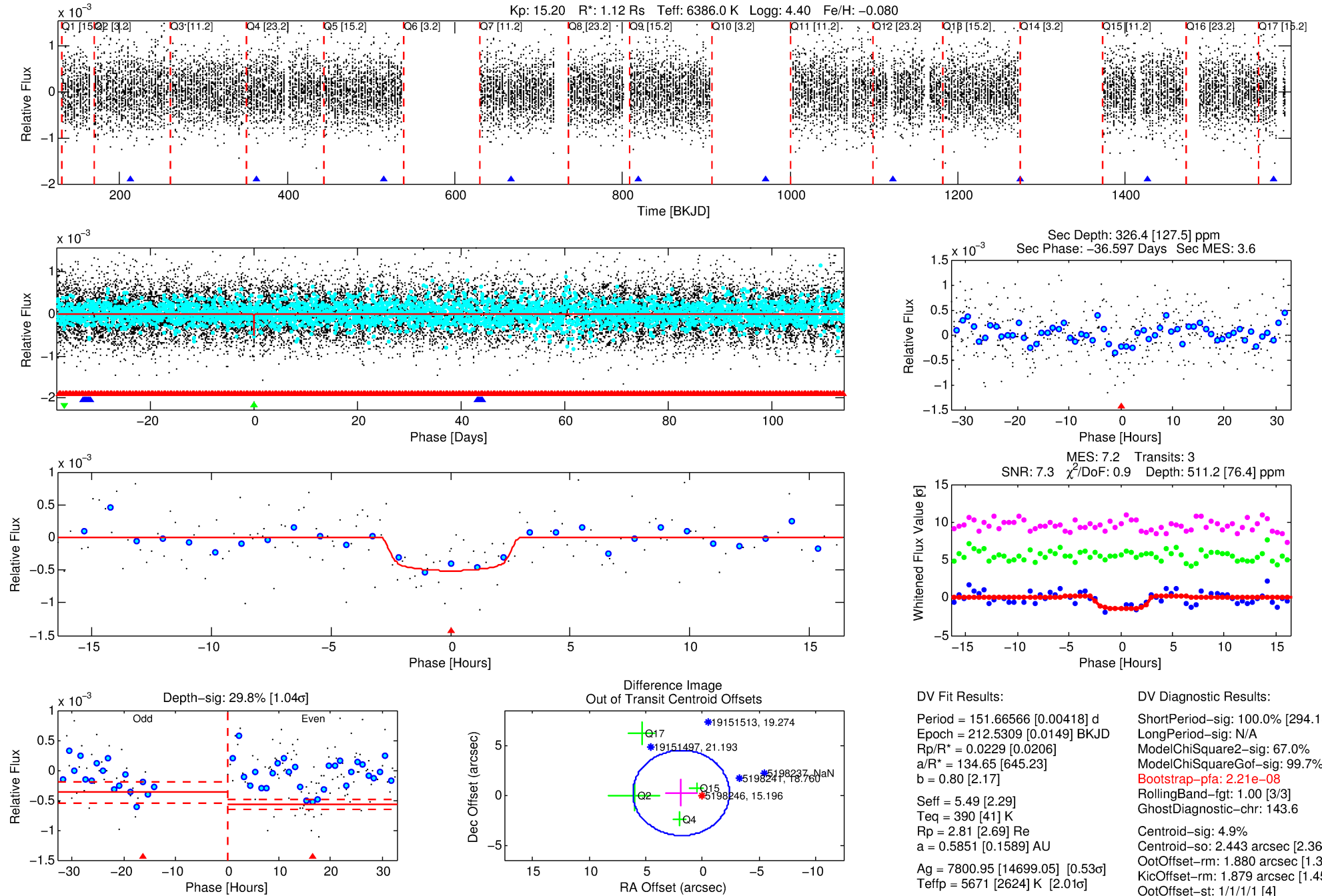
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005198246-03

No Significant Match Found

DV One-Page Summary

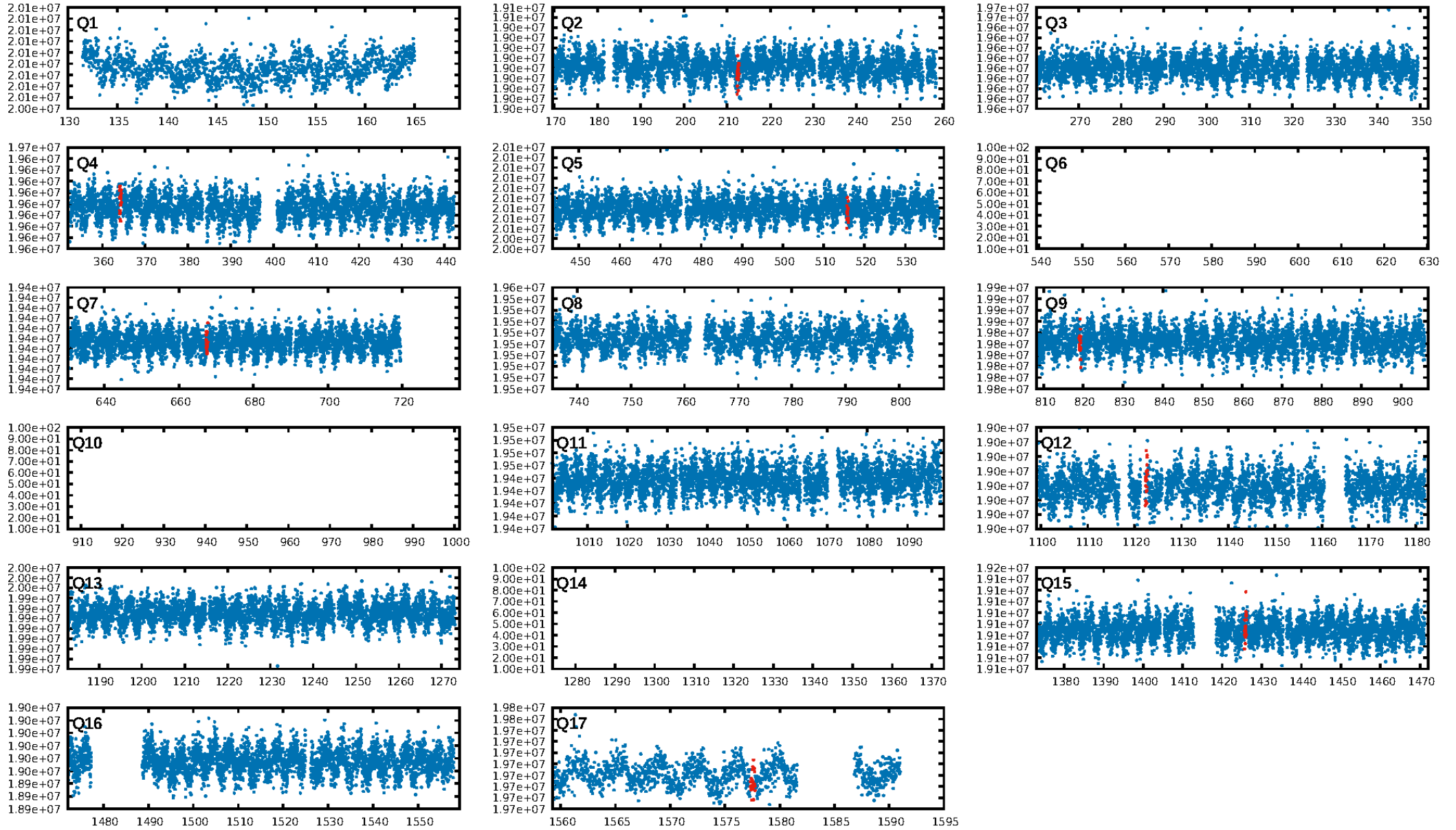
KIC: 5198246 Candidate: 3 of 3 Period: 151.666 d



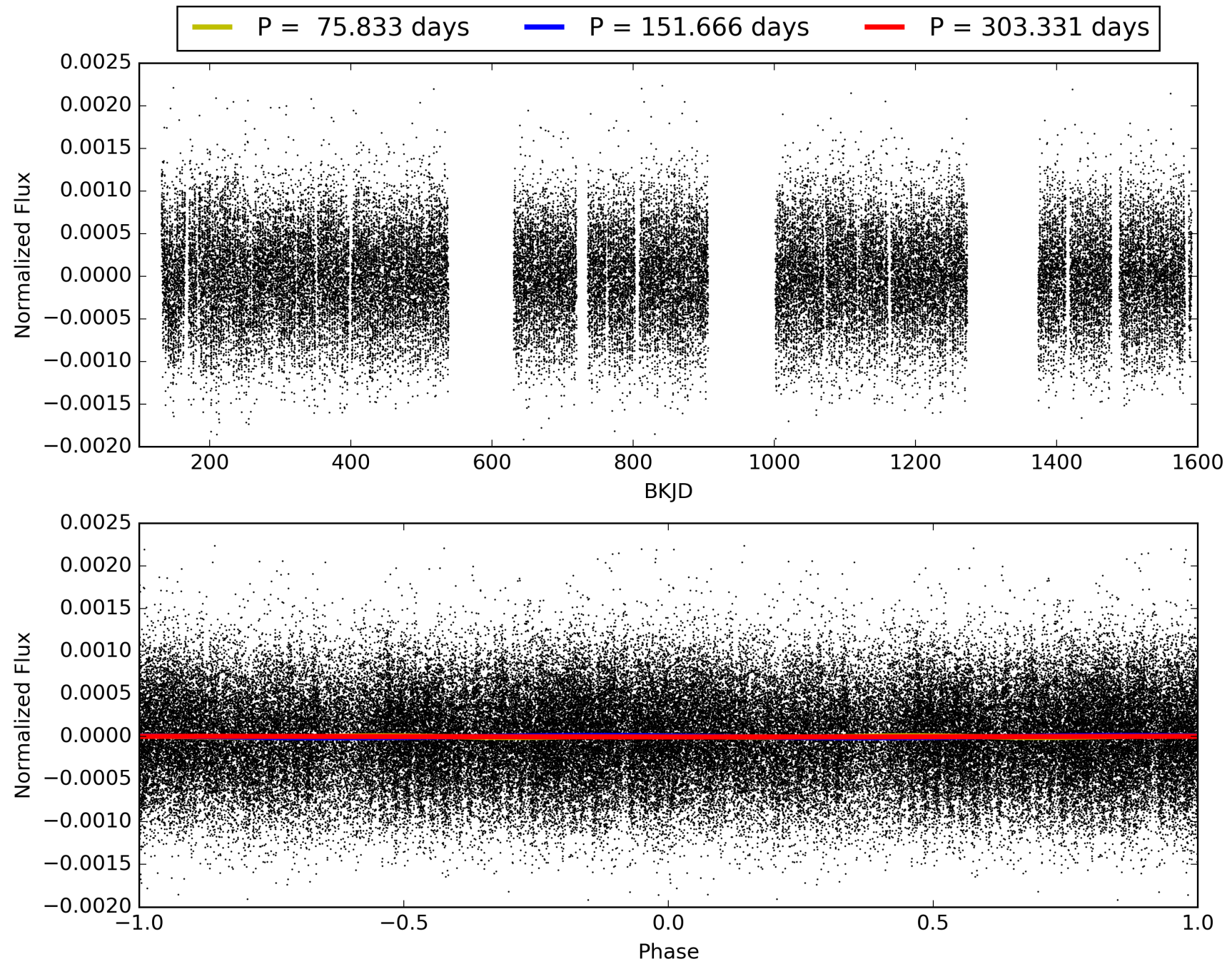
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:19:49 Z

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

TCE 005198246-03, PDC Light Curves

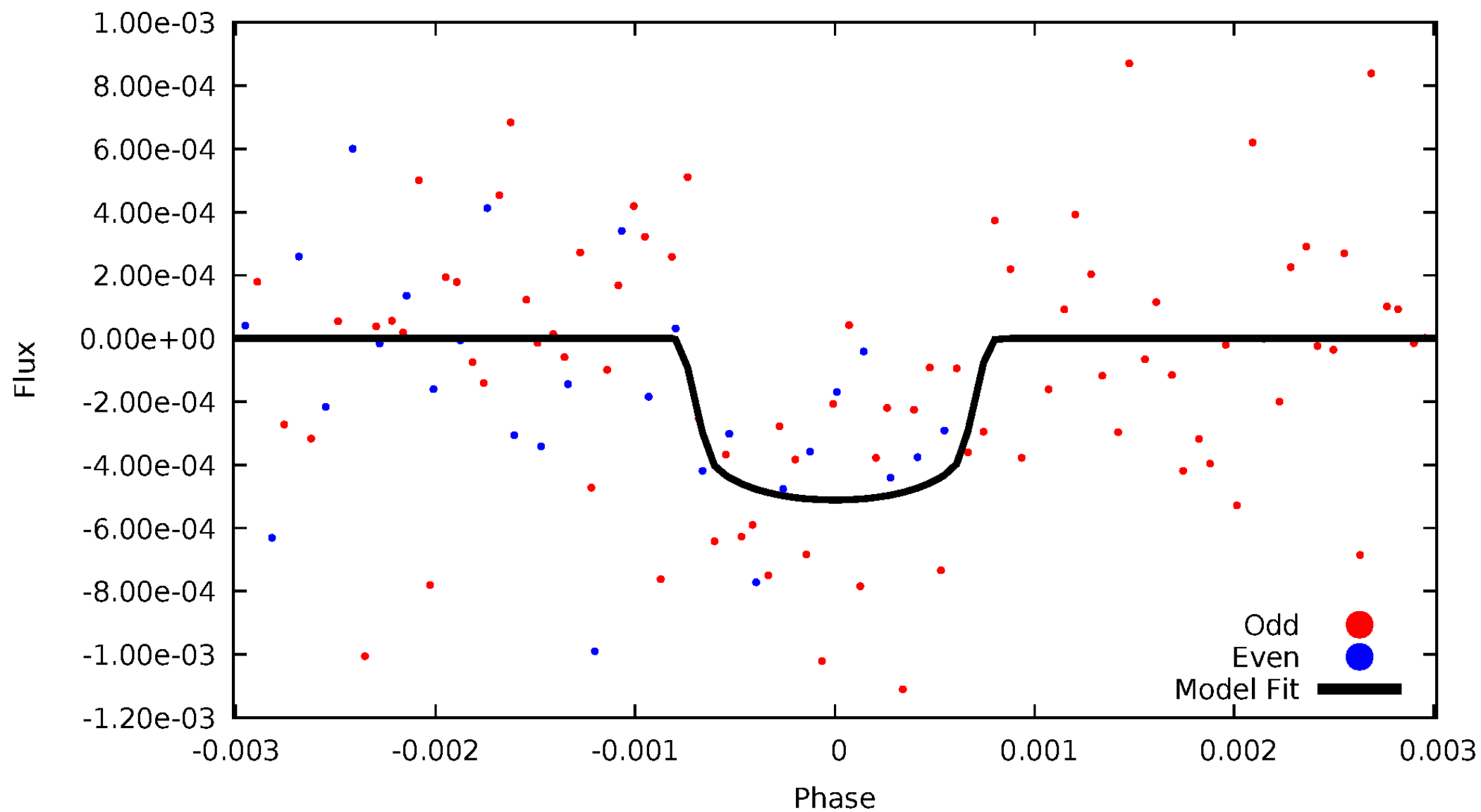


TCE 005198246-03



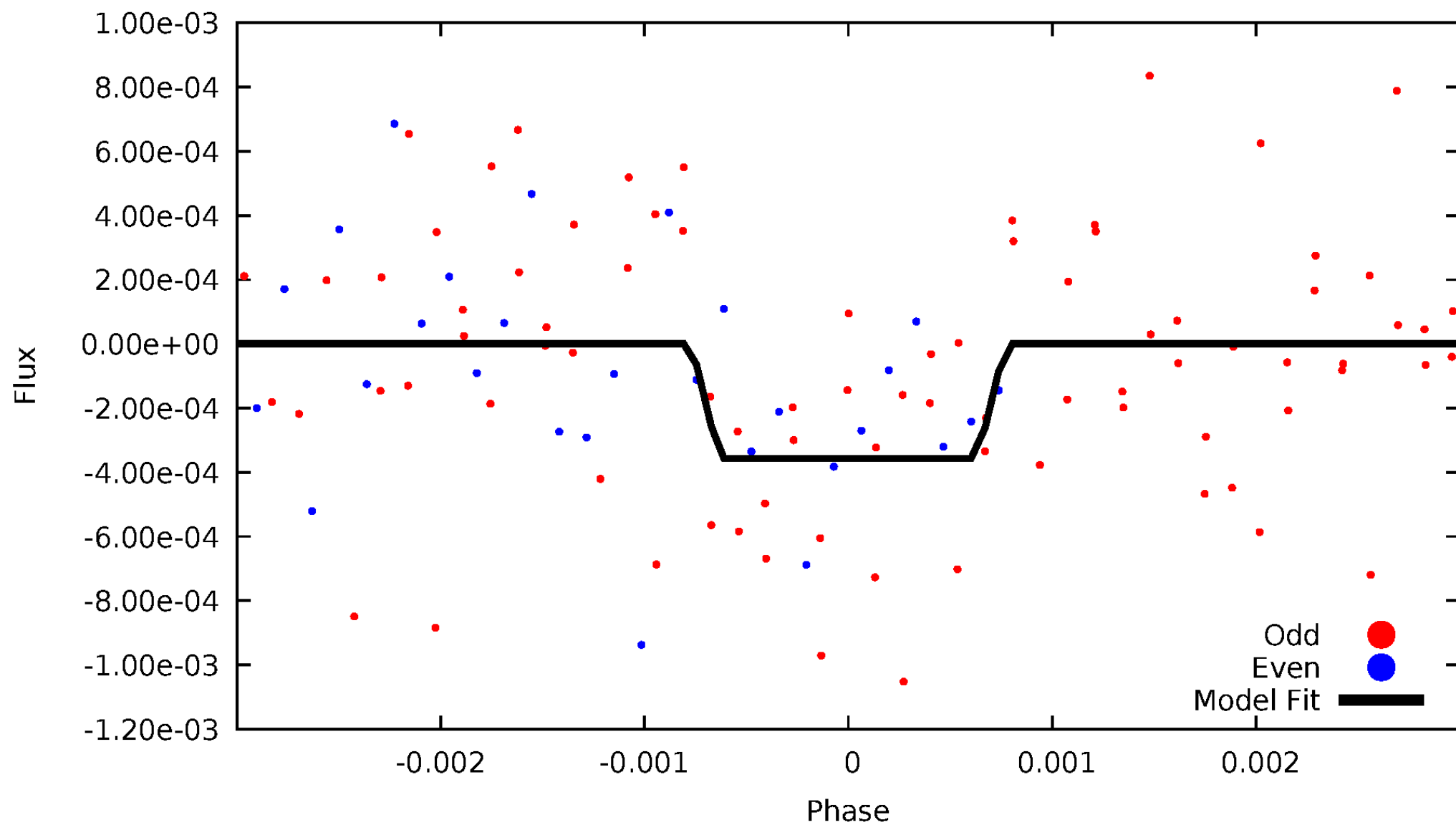
DV Odd/Even

TCE 005198246-03



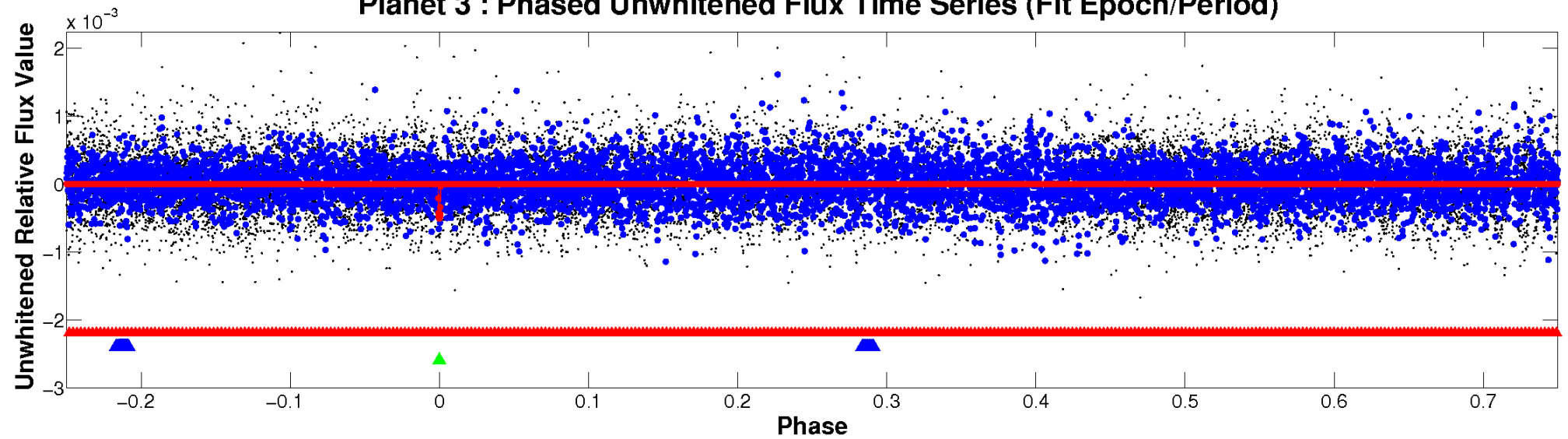
ALT Odd/Even

TCE 005198246-03

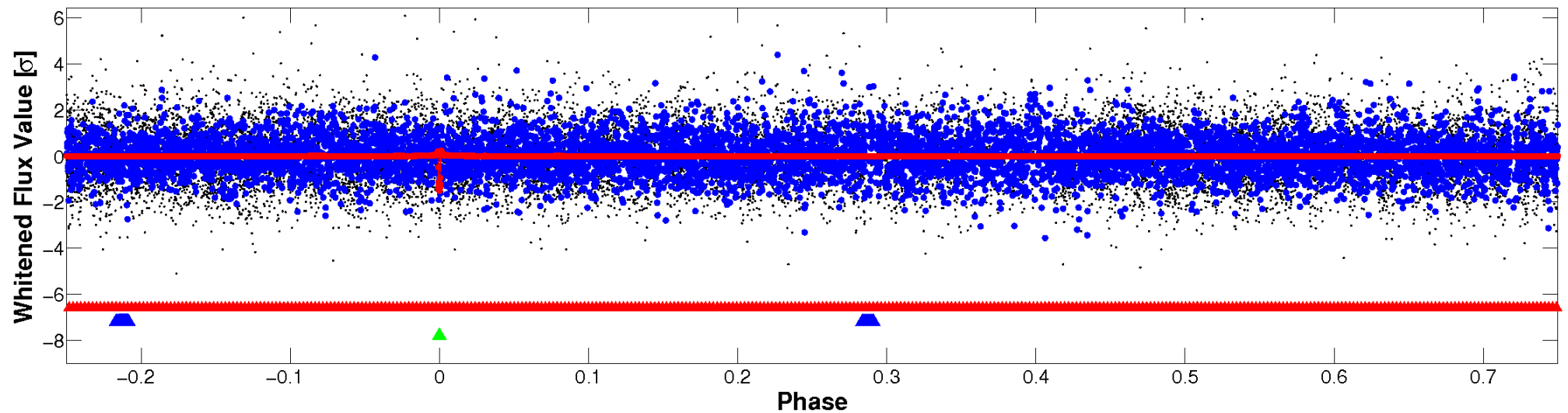


Non-Whitened Vs. Whitened Light Curve

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

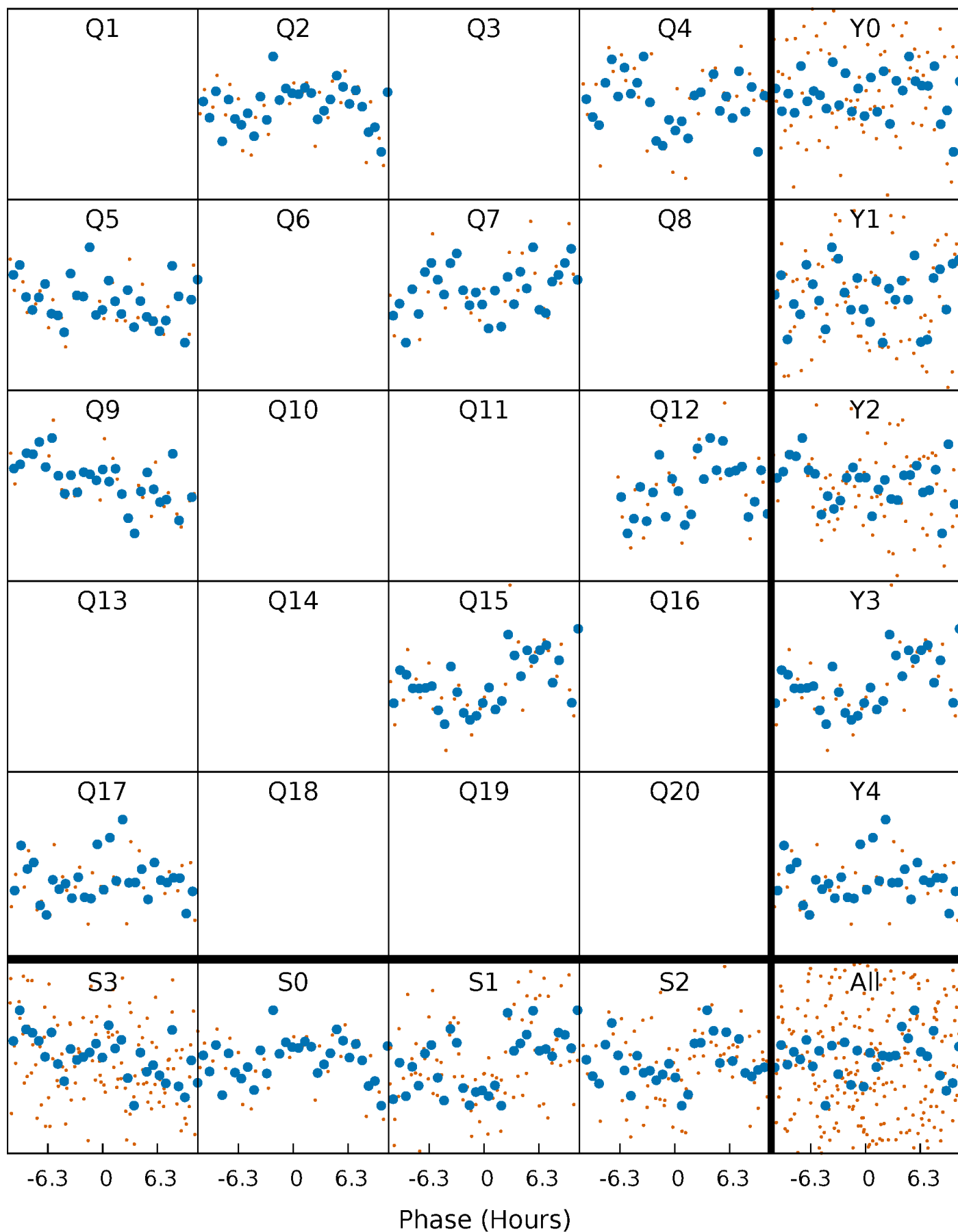


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 005198246-03 P=151.665664 Days $T_0=212.530862$ (BKJD)



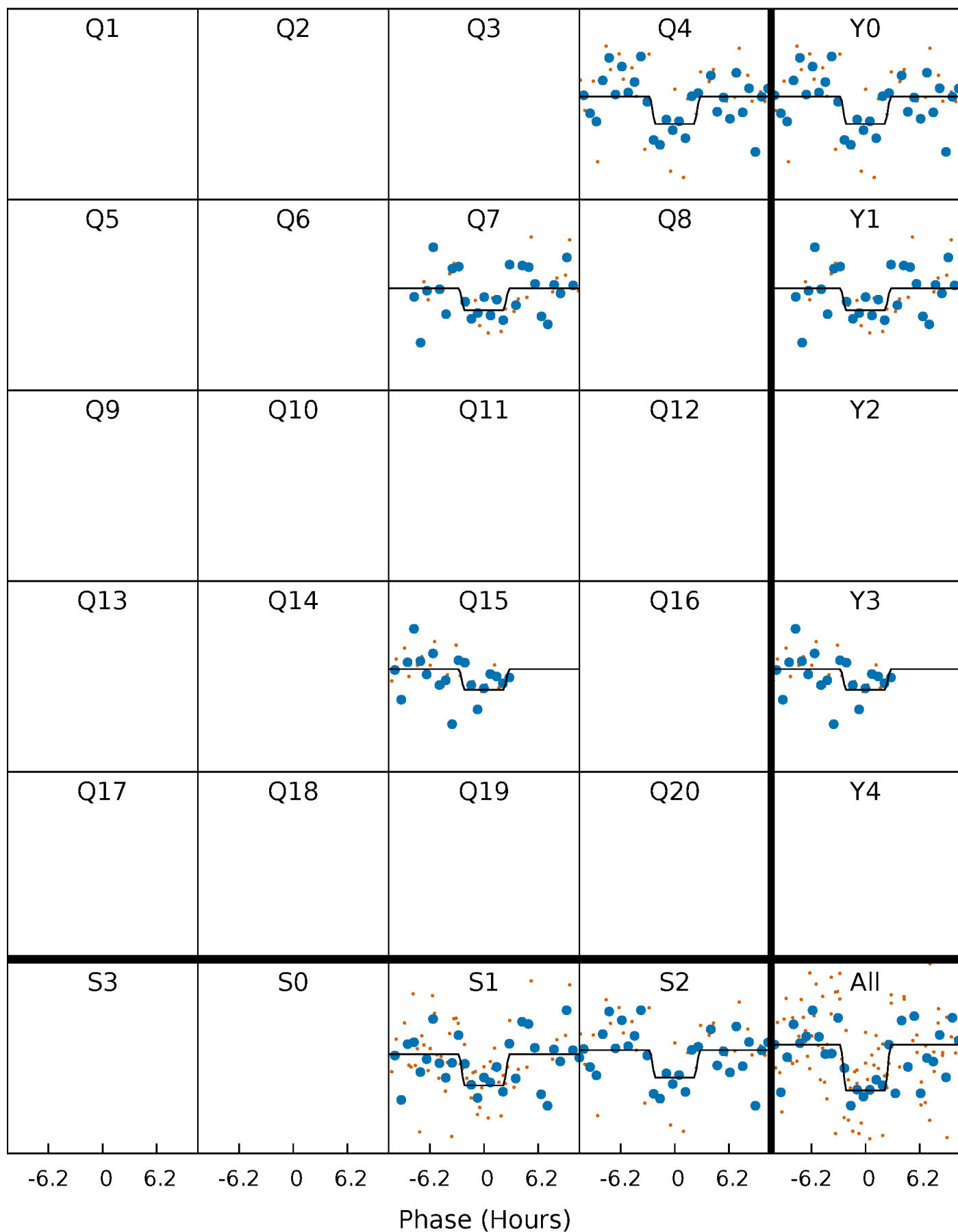
DV Quarter-Phased Transit Curves

TCE 005198246-03 P=151.665664 Days $T_0=212.530862$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

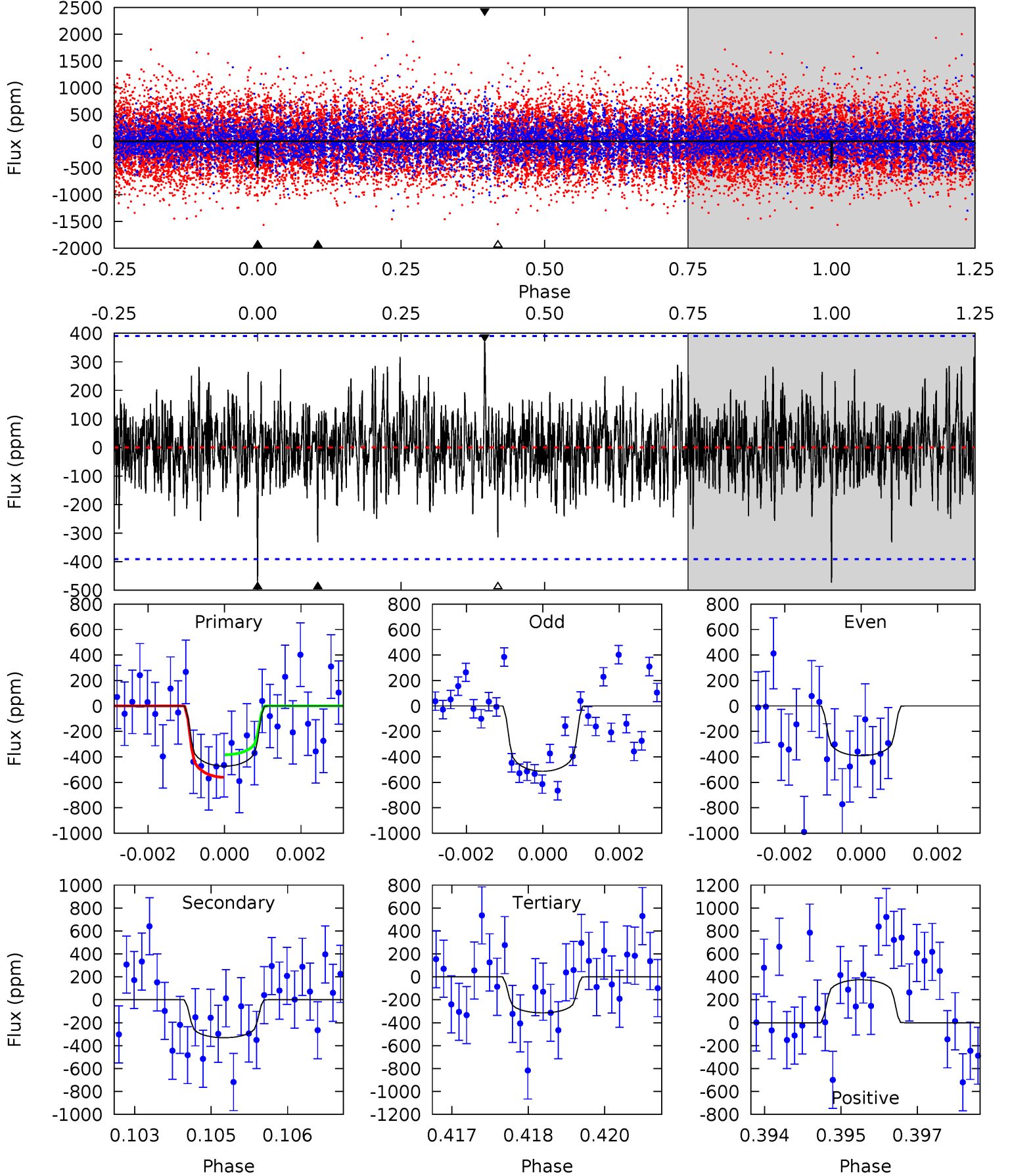
TCE 005198246-03 P=151.660077 Days $T_0=212.546964$ (BKJD)



DV Model-Shift Uniqueness Test

005198246-03, P = 151.665664 Days, E = 60.865198 Days

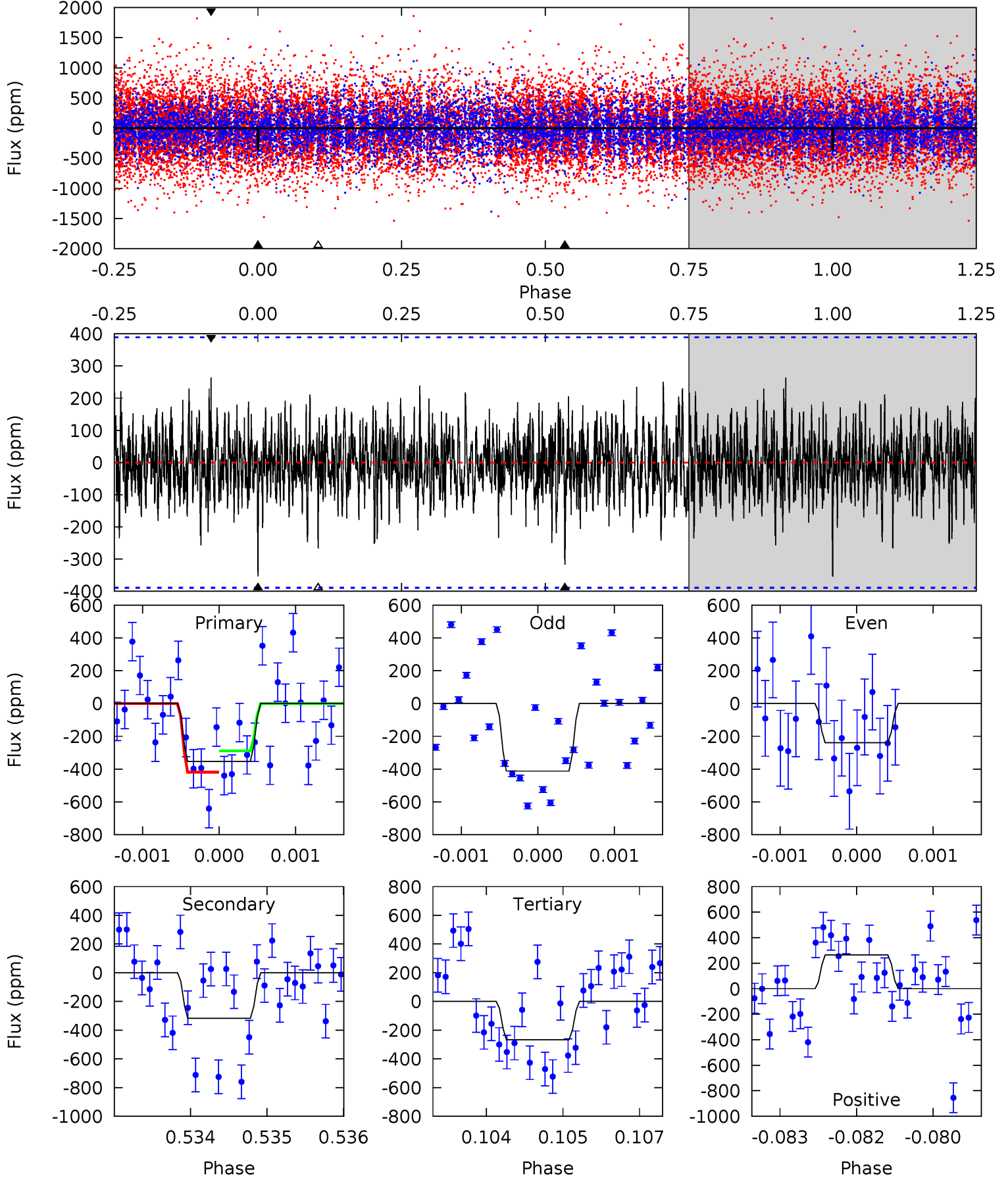
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.51	4.56	4.32	5.15	5.37	3.17	1.25	2.18	1.36	0.23	-0.59	0.78	0.97	0.44	1.22



Alt Model-Shift Uniqueness Test

005198246-03, $P = 151.660077$ Days, $E = 60.886887$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.89	4.38	3.68	3.65	5.38	3.18	1.11	1.21	1.24	0.70	0.73	1.14	0.92	0.43	0.89



Stellar Parameters For KIC 005198246

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6386^{+179}_{-246}	$4.402^{+0.065}_{-0.208}$	$-0.080^{+0.250}_{-0.300}$	$1.123^{+0.370}_{-0.123}$	$1.161^{+0.169}_{-0.152}$	$1.154^{+0.333}_{-0.615}$
	+3%/-4%	+1%/-5%	+312%/-375%	+33%/-11%	+15%/-13%	+29%/-53%
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 005198246-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-331 ± 73	$3.65^{+2.41}_{-2.12}$	555^{+42}_{-28}	5144^{+3125}_{-1004}	4518^{+21709}_{-2964}
Alt.	-317 ± 72	$3.02^{+2.47}_{-1.91}$	554^{+43}_{-30}	5495^{+4244}_{-1224}	6423^{+40525}_{-4587}

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 $A_{obs} \gg 1.0$

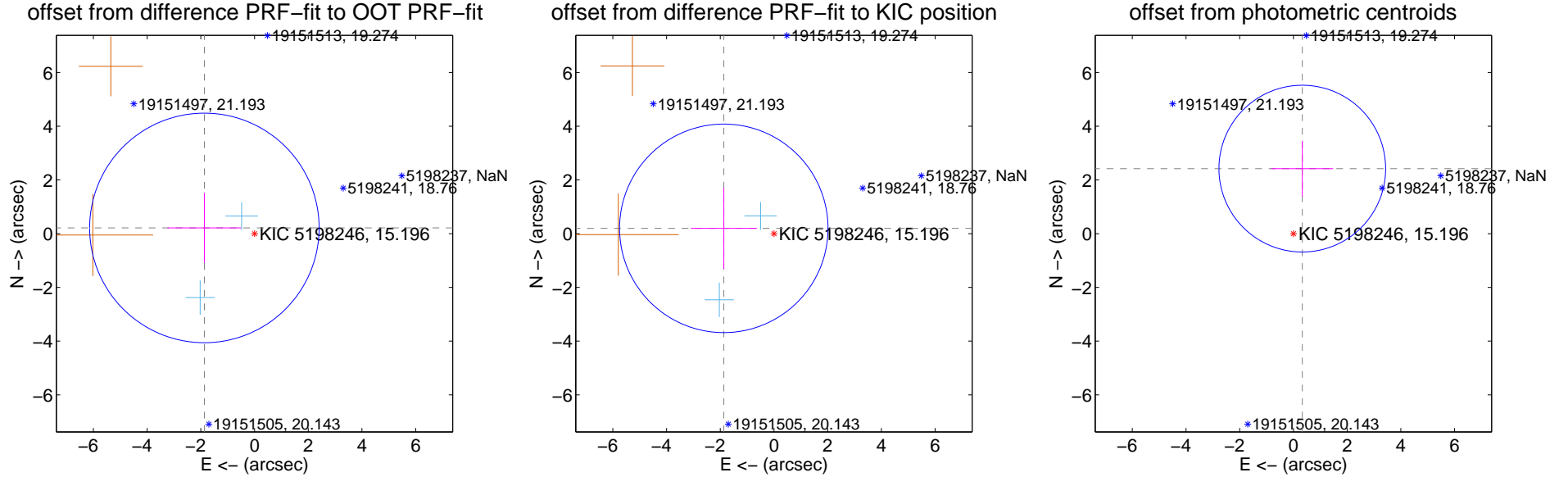
DV Centroid Data

Supplemental centroid analysis for 005198246-03. Kepler magnitude: 15.20. Transit SNR 7.28

There are 2 quarters with good PRF difference image offsets

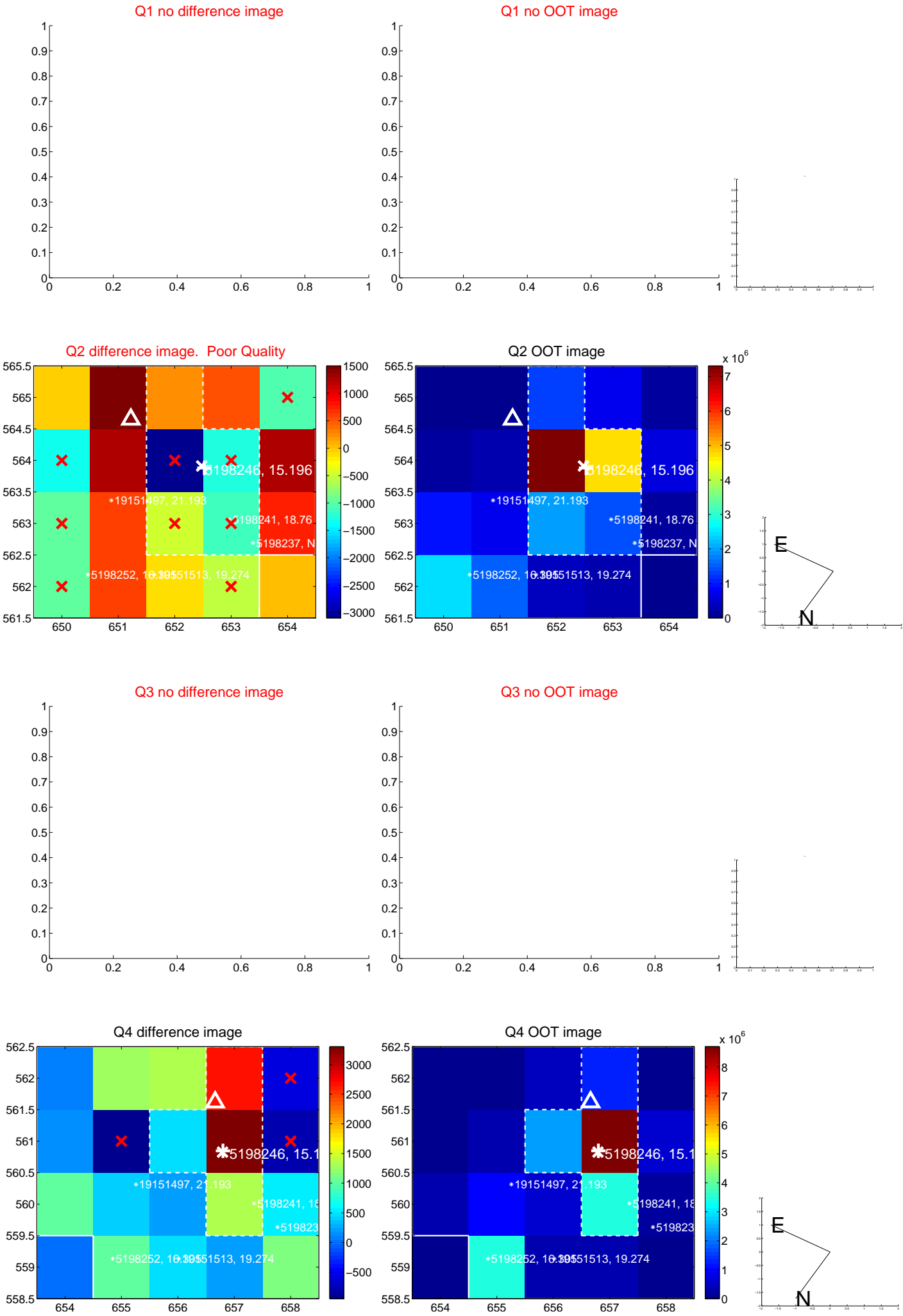
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.880 ± 1.424	1.32	1.868 ± 1.371	0.213 ± 1.303
PRF-fit source offset from KIC position	1.879 ± 1.294	1.45	1.869 ± 1.230	0.198 ± 1.514
photometric centroid source offset	2.44 ± 1.03	2.36	-0.33 ± 1.15	2.42 ± 1.03

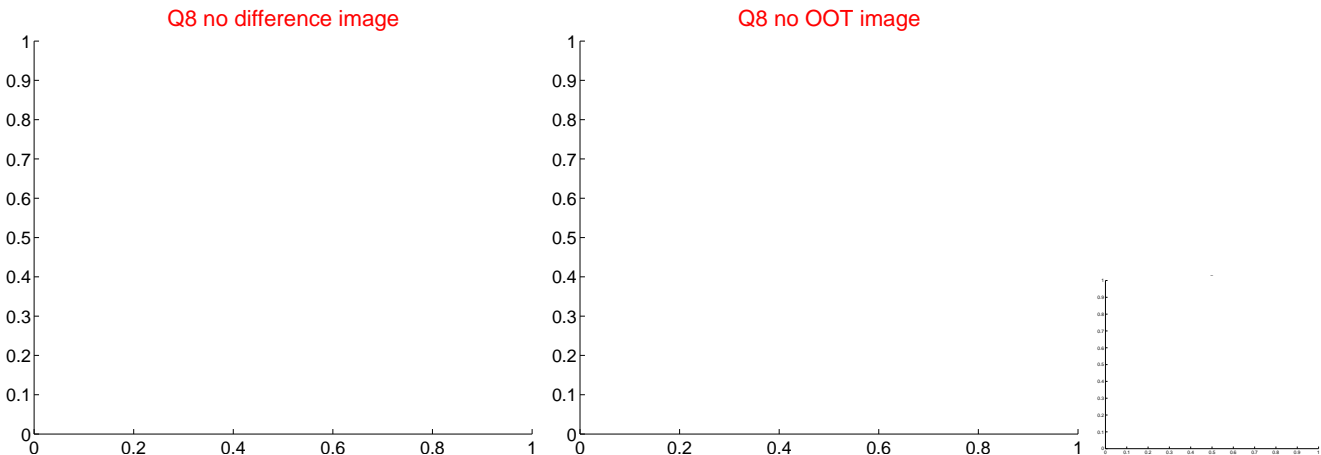
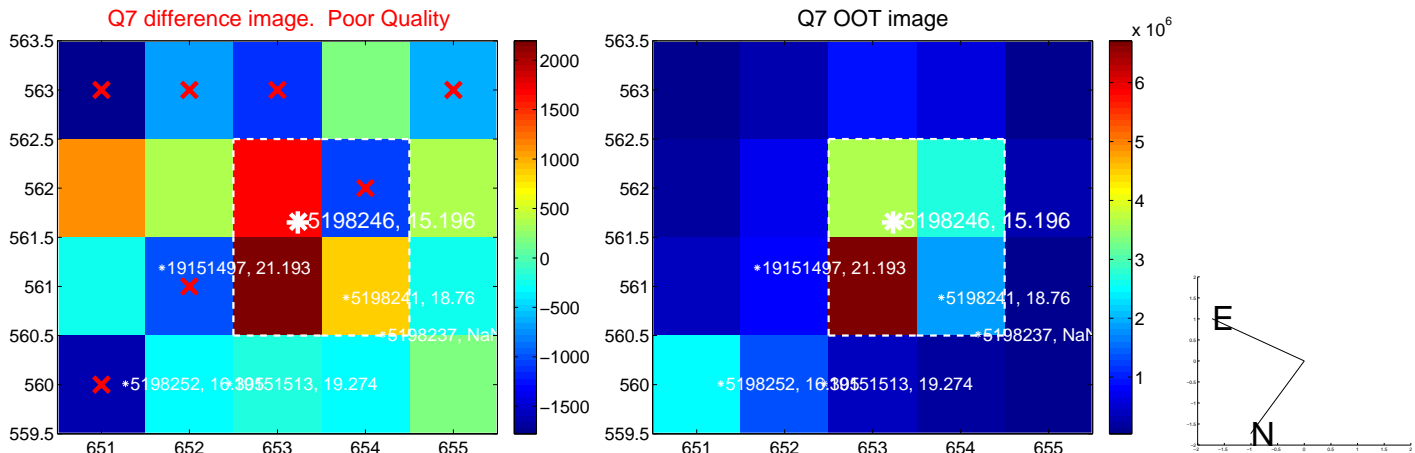
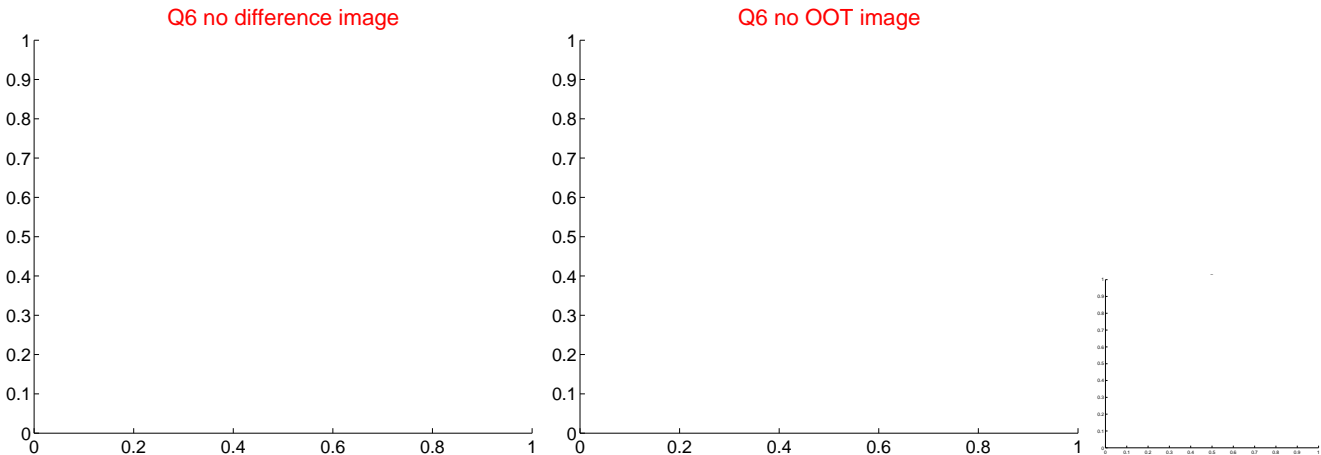
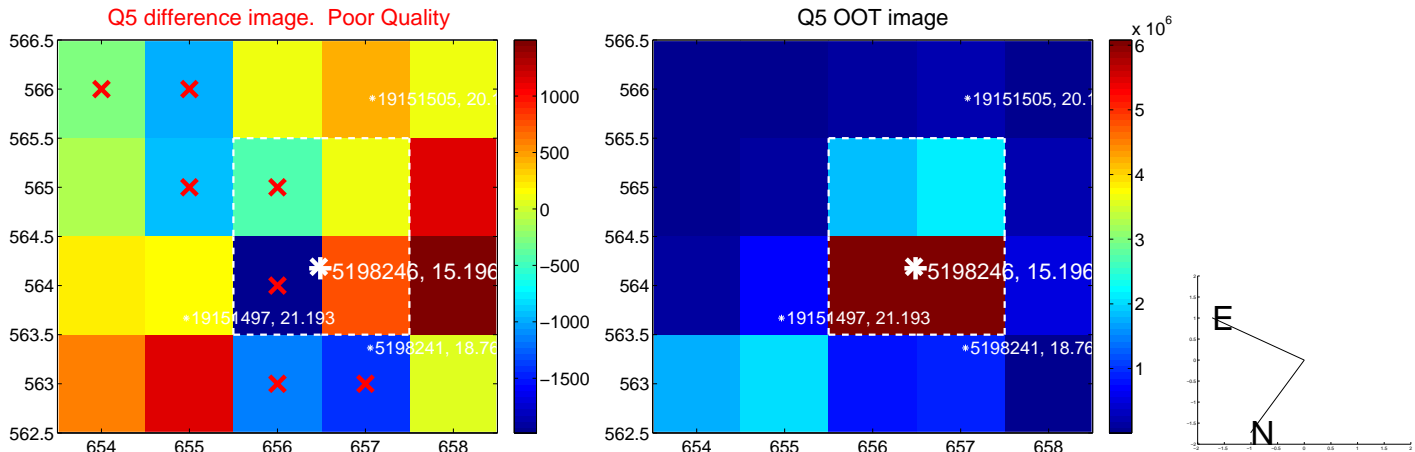


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

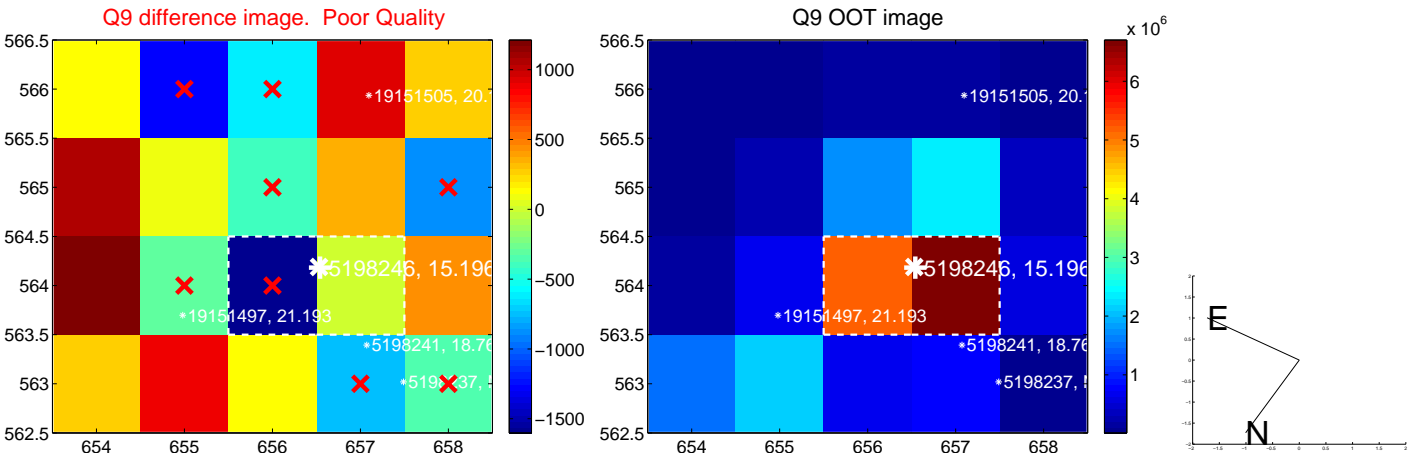
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



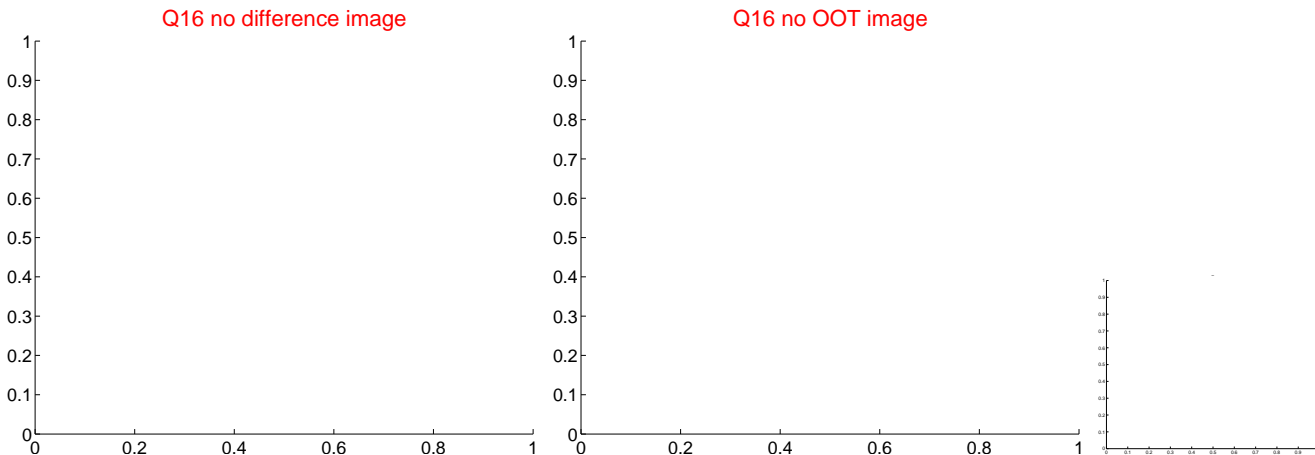
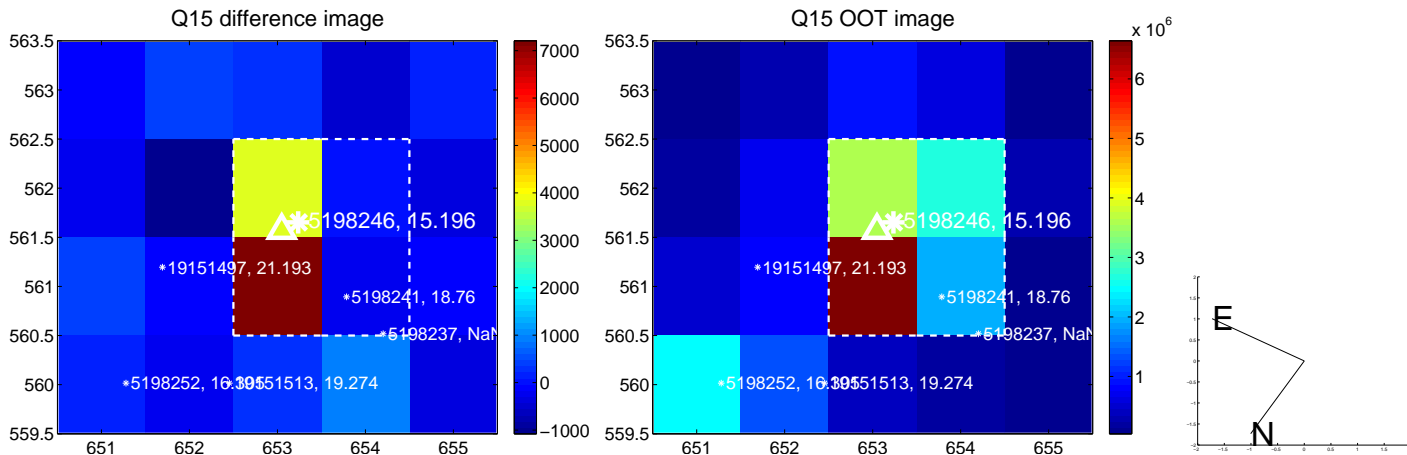
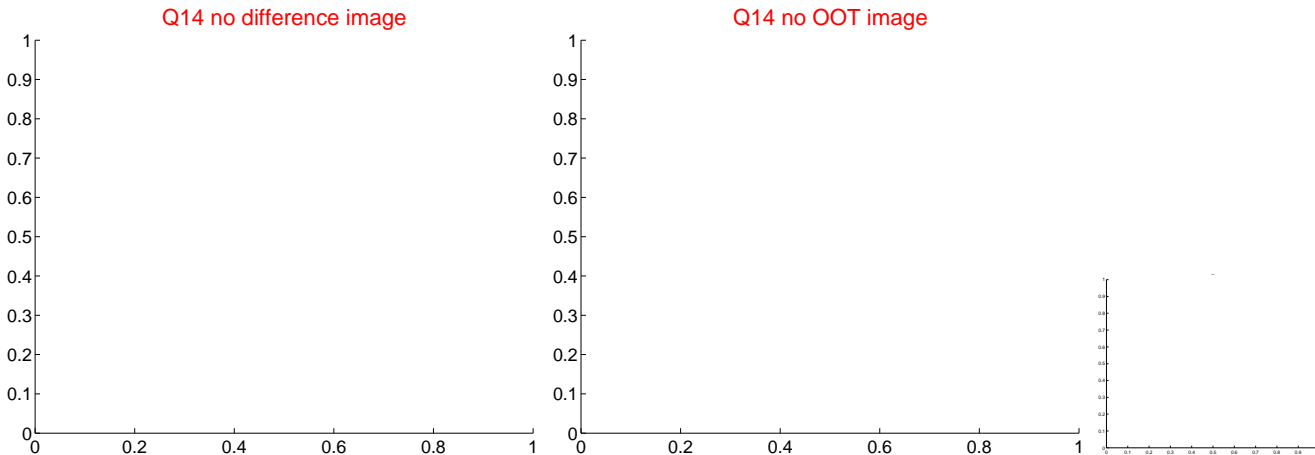
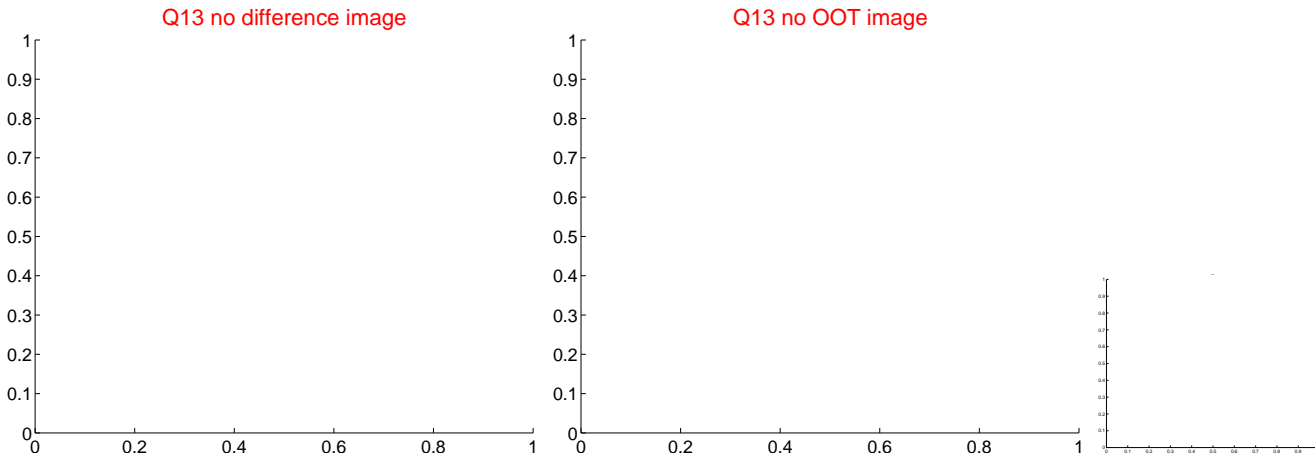
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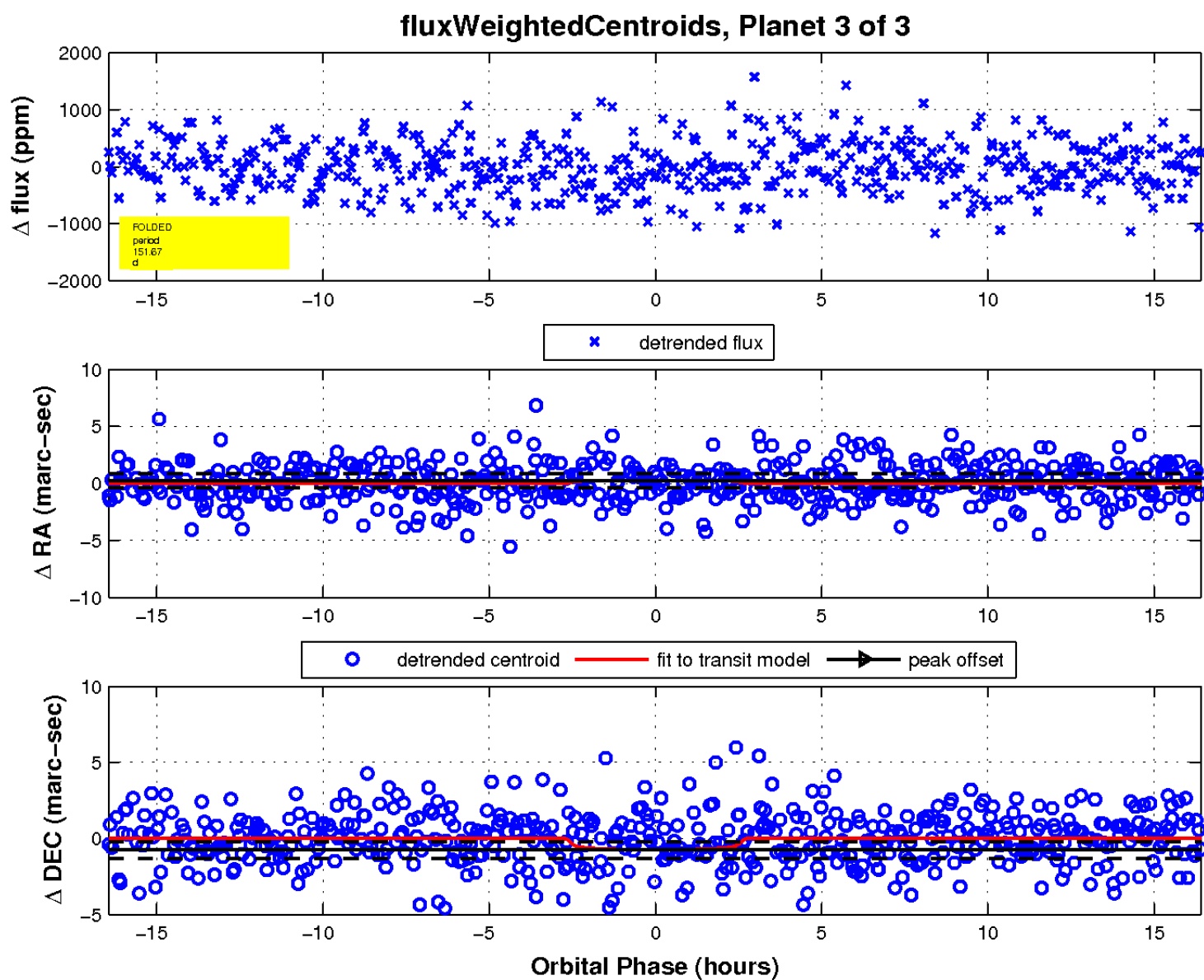
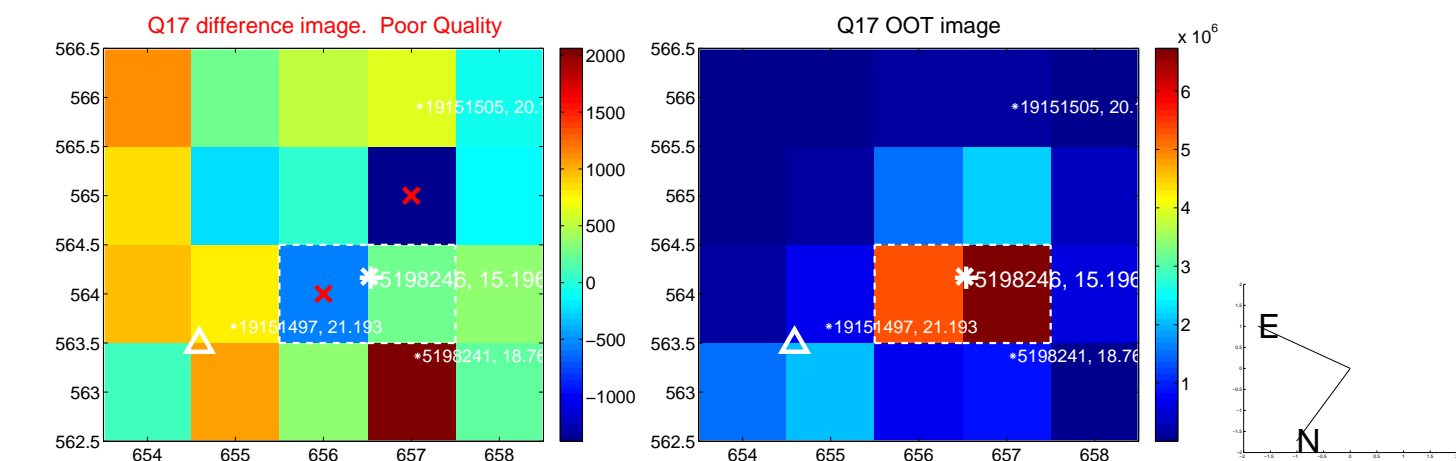
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