

KIC 002852560

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})
002852560-01	OBS	6294.01	11.961296	131.913277	314256.7	3.000	8292.6	-1.0	0.79	5564	42.32	55.46
002852560-02	OBS	No	11.961300	140.456475	197975.6	7.872	6259.2	4345.0	0.79	5564	48.13	55.46
002852560-03	OBS	No	4.785173	134.061228	0.1	5.705	256.0	0.0	0.79	5564	0.04	188.15
002852560-04	OBS	No	23.922730	154.832497	3120.7	12.500	100.3	-1.0	0.79	5564	4.33	22.01
002852560-05	OBS	No	23.922939	132.964653	3380.9	25.834	90.9	48.8	0.79	5564	8.58	22.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002852560-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
002852560-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
002852560-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
002852560-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
002852560-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—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.

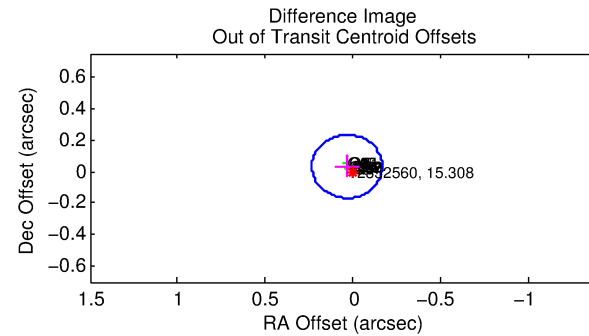
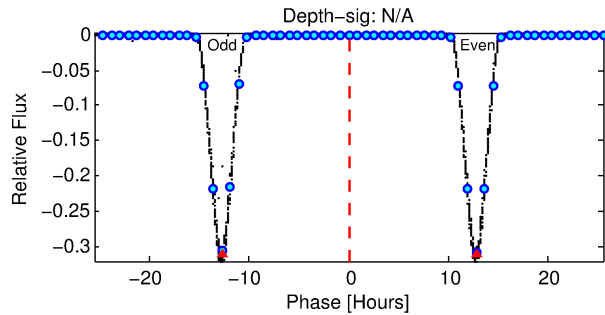
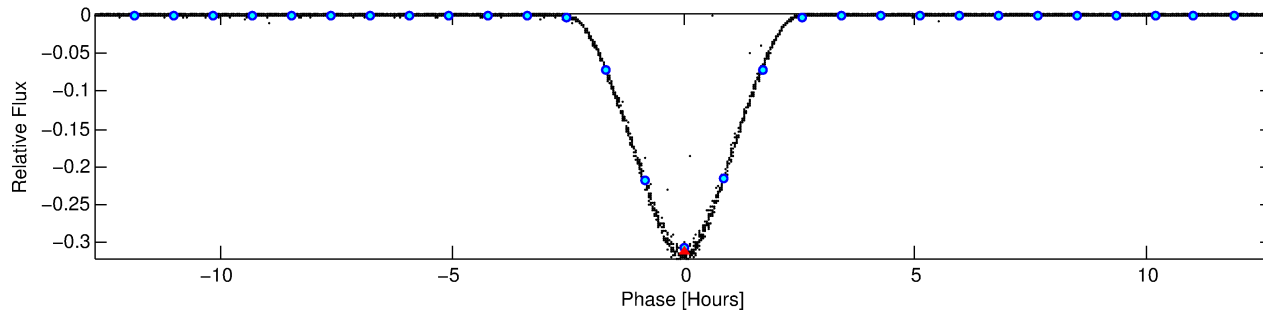
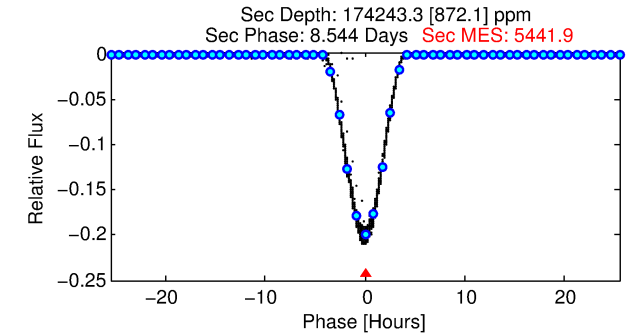
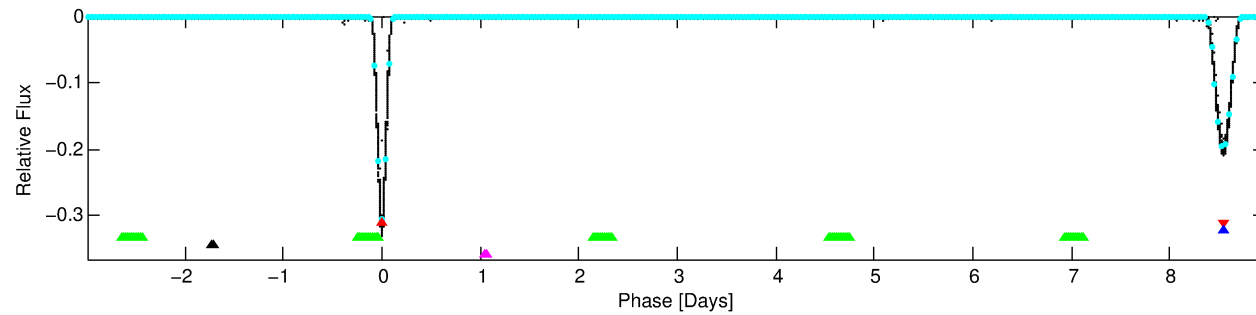
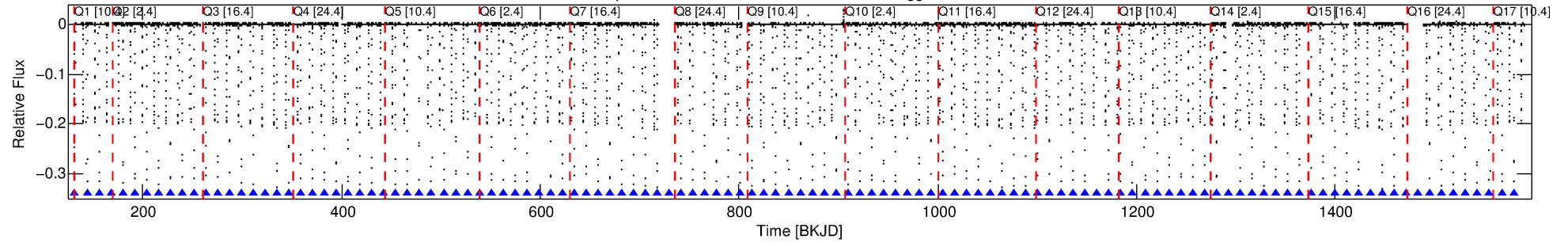
Ephemeris Match Information For 002852560-01

No Significant Match Found

DV One-Page Summary

KIC: 2852560 Candidate: 1 of 5 Period: 11.961 d
KOI: K06294.01 Corr: 0.803

Kp: 15.31 R*: 0.79 Rs Teff: 5564.0 K Logg: 4.59 Fe/H: -0.260



TPS TCE Results:

Period = 11.96130 d
Epoch = 131.9133 BKJD

DV fit results are unavailable

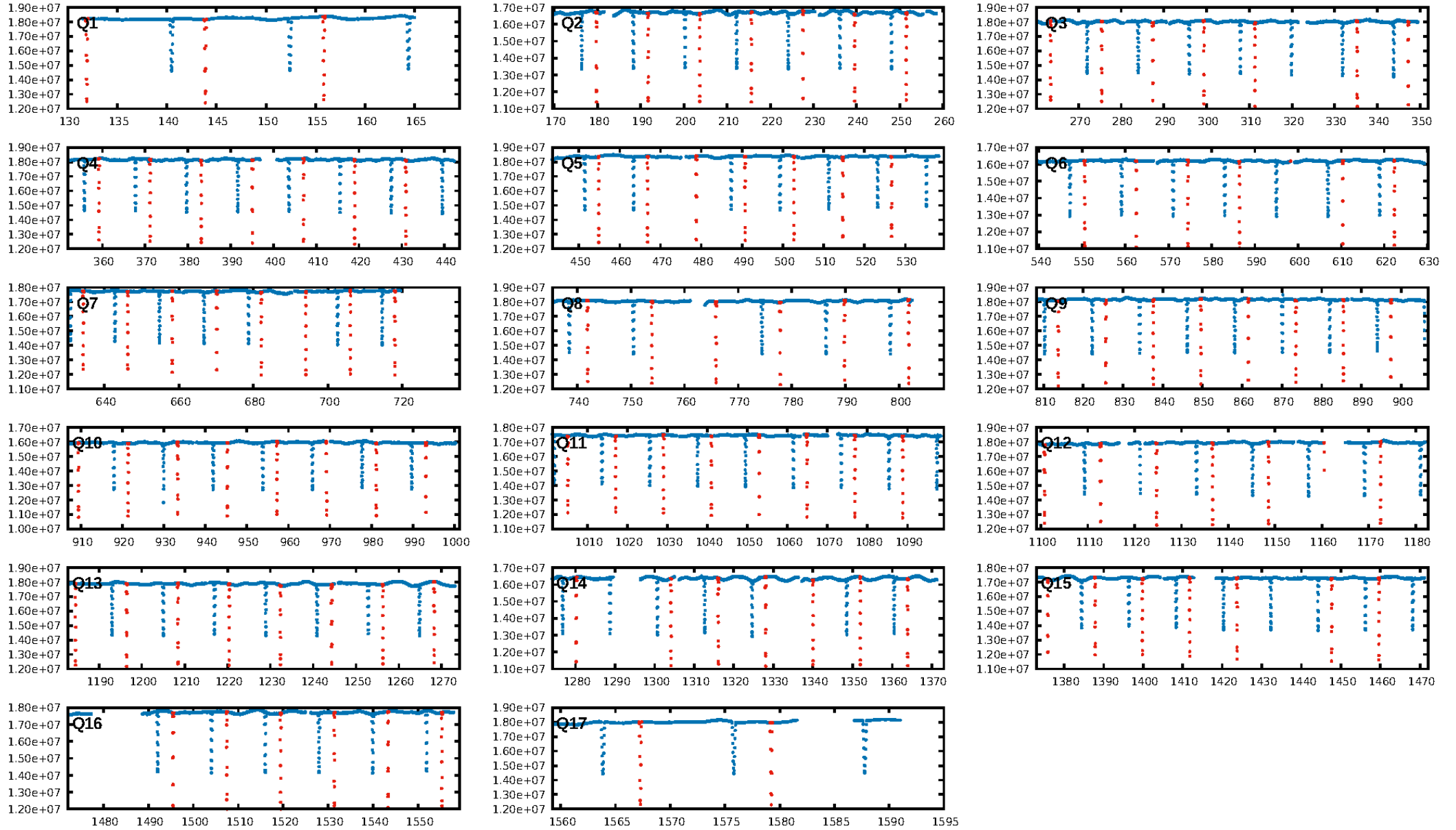
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [26.72σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [107/107]
GhostDiagnostic-chr: 1.337
Centroid-sig: 0.0%
Centroid-so: 0.571 arcsec [448.95σ]
OotOffset-rm: 0.048 arcsec [0.71σ]
KicOffset-rm: 0.004 arcsec [0.06σ]
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]

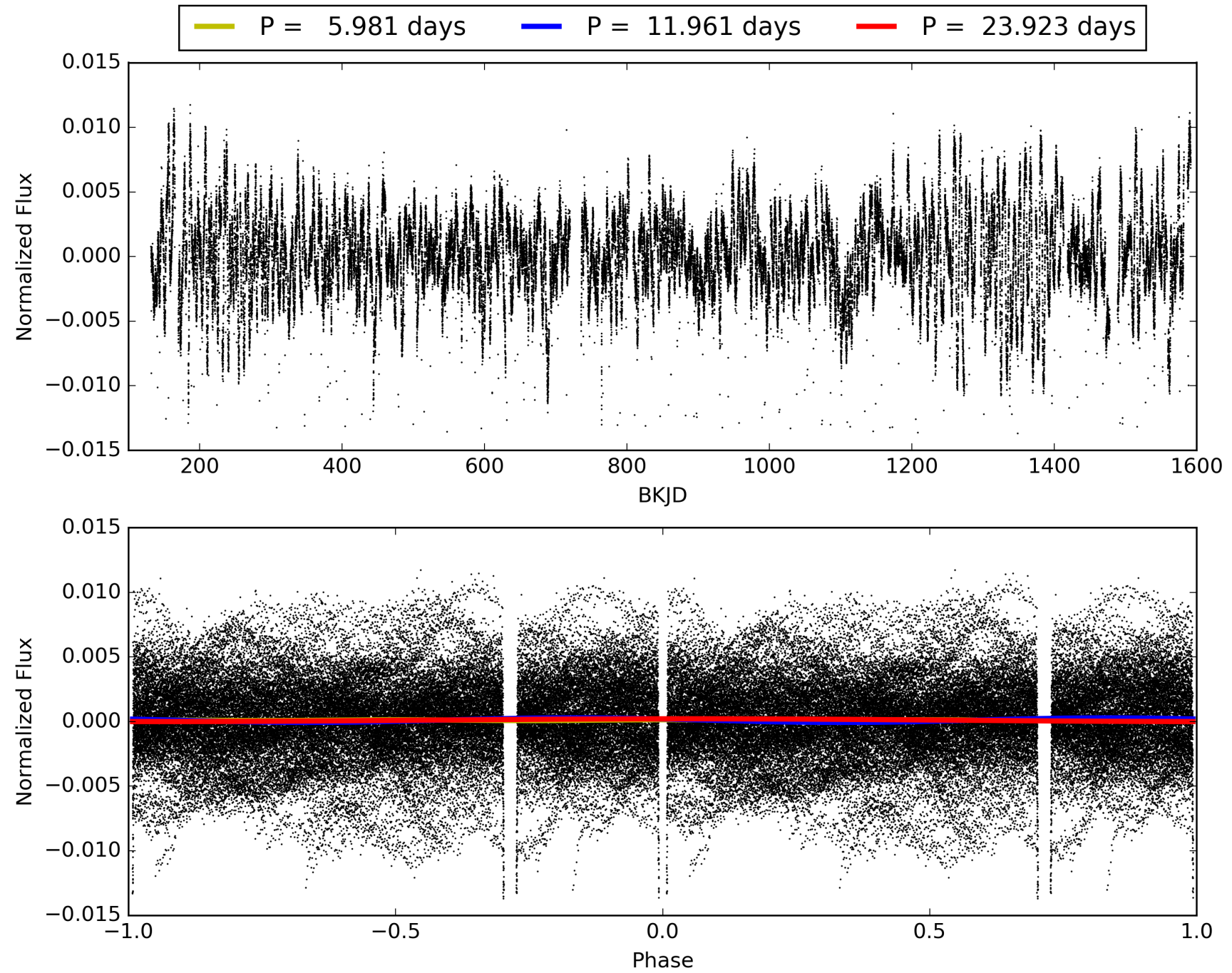
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 19:57:07 Z

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

TCE 002852560-01, PDC Light Curves

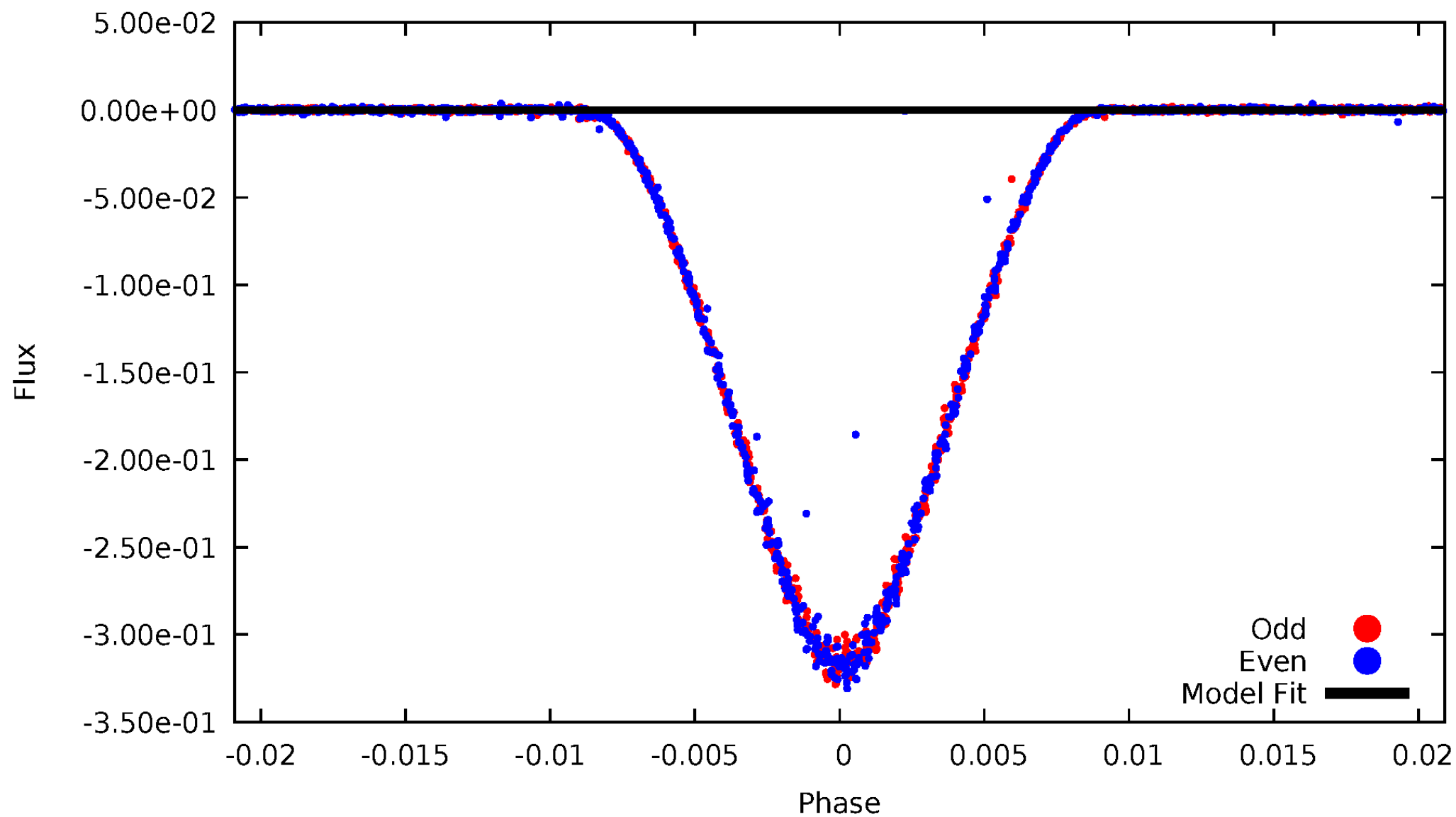


TCE 002852560-01



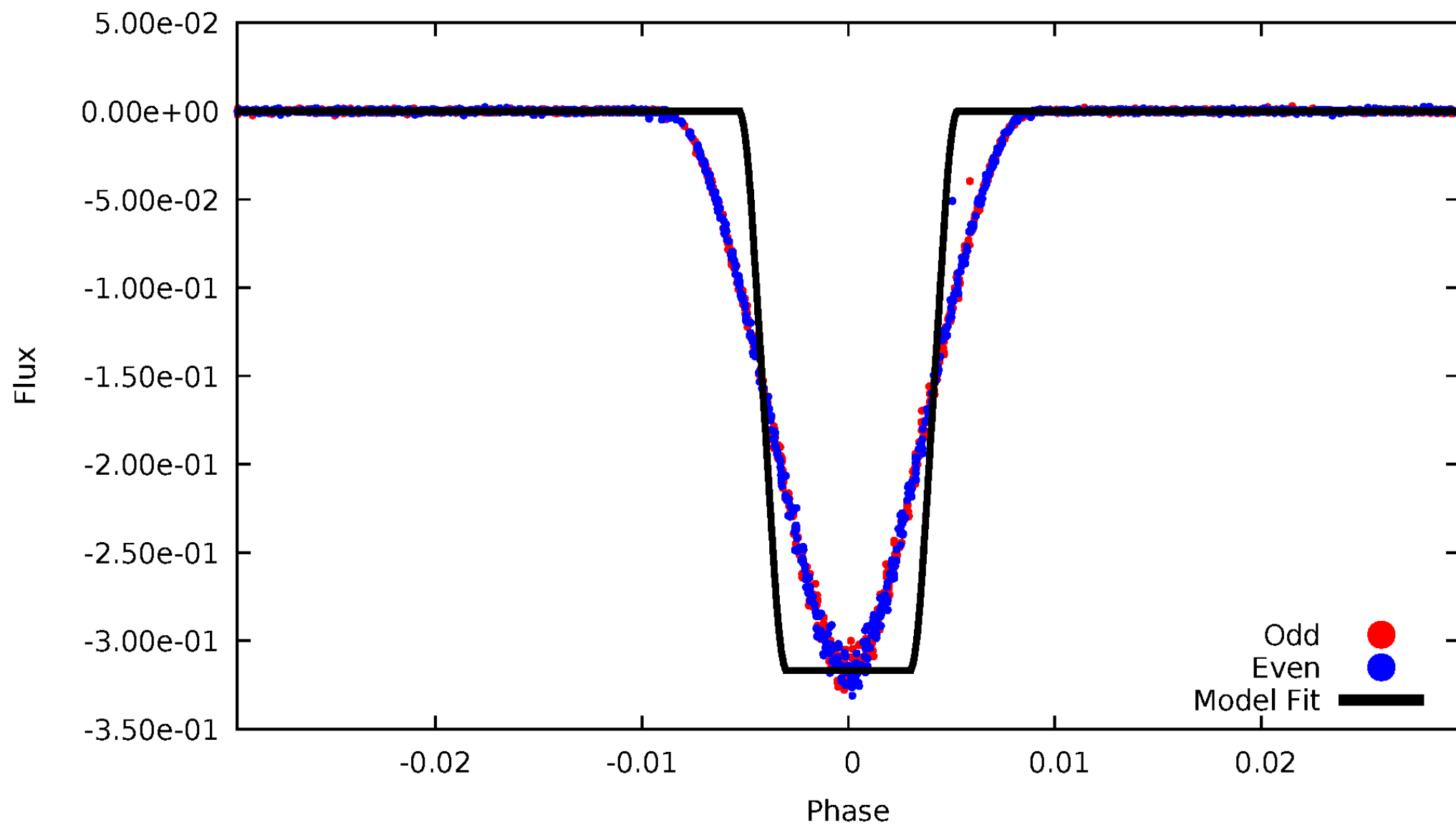
DV Odd/Even

TCE 002852560-01



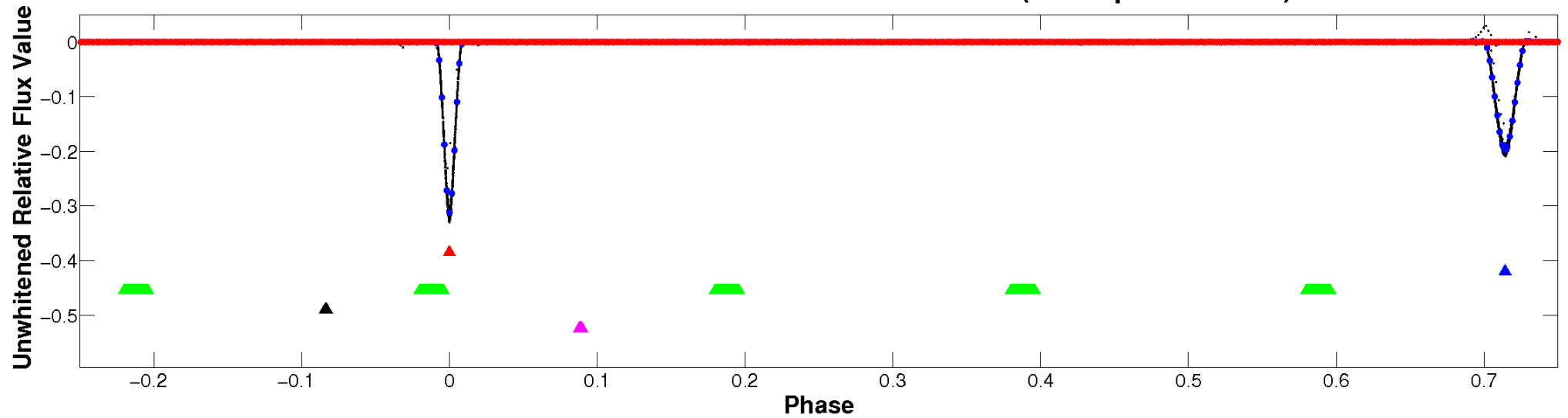
ALT Odd/Even

TCE 002852560-01



Non-Whitened Vs. Whitened Light Curve

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

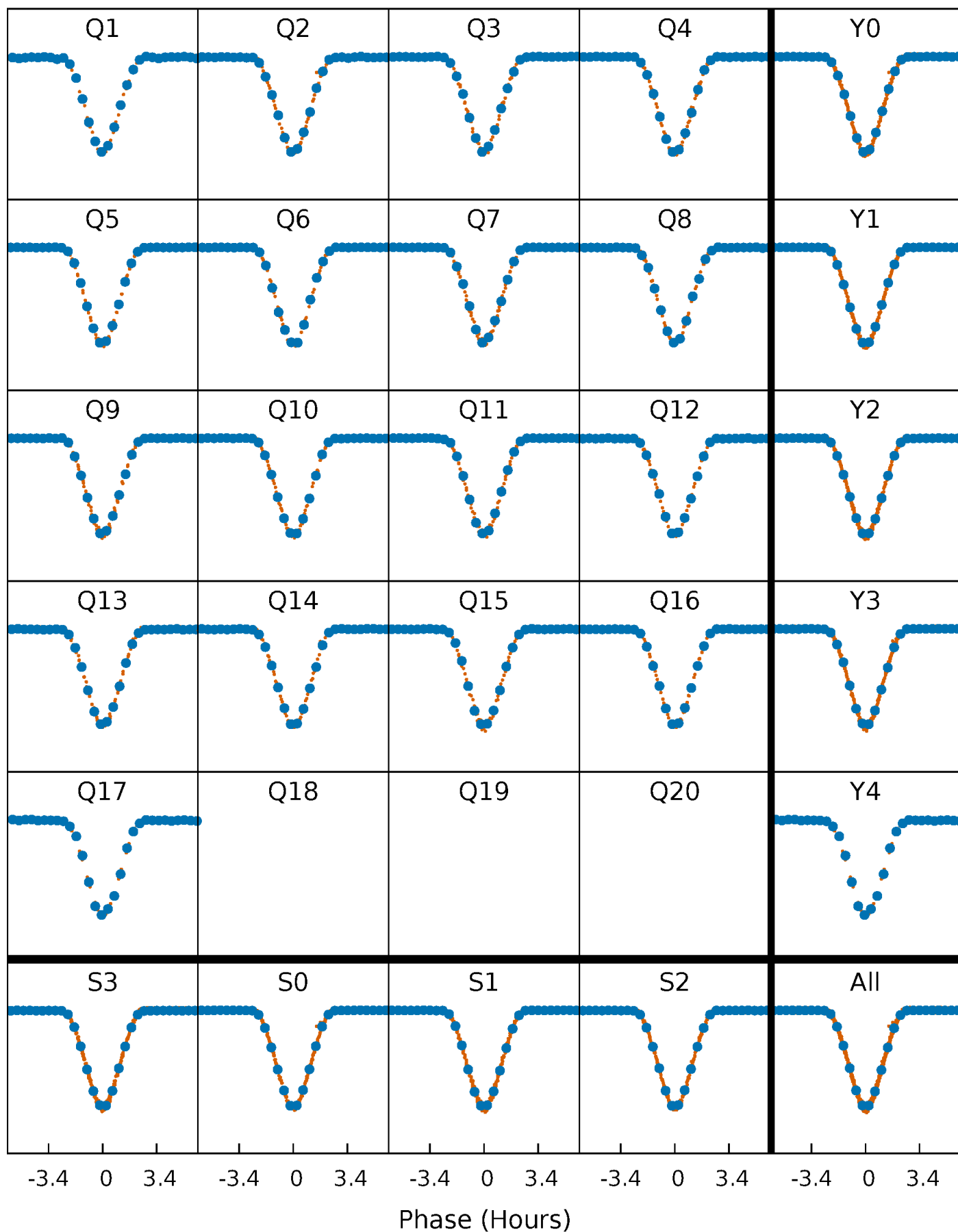


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



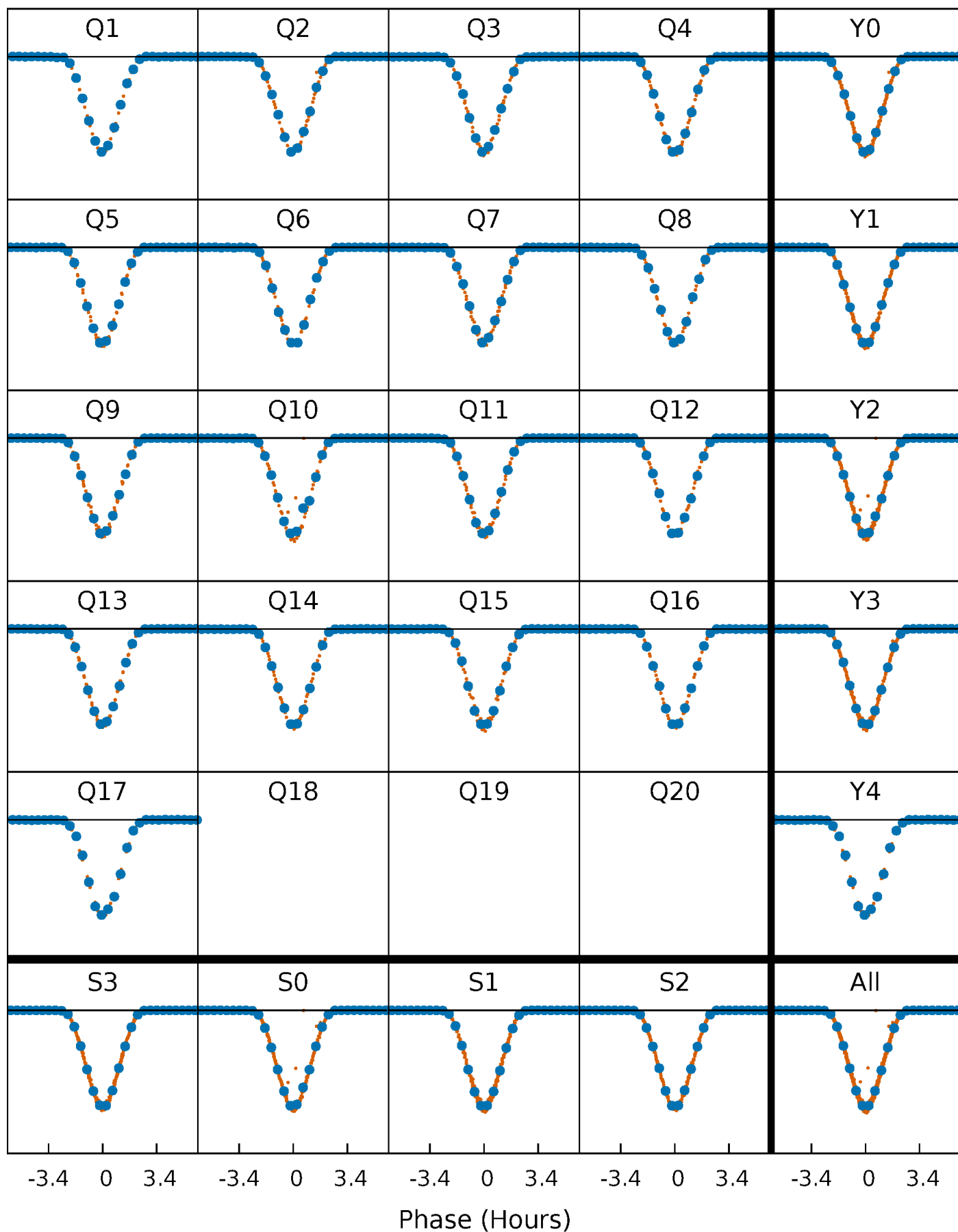
PDC Quarter-Phased Transit Curves

TCE 002852560-01 P= 11.961296 Days $T_0=131.913277$ (BKJD)



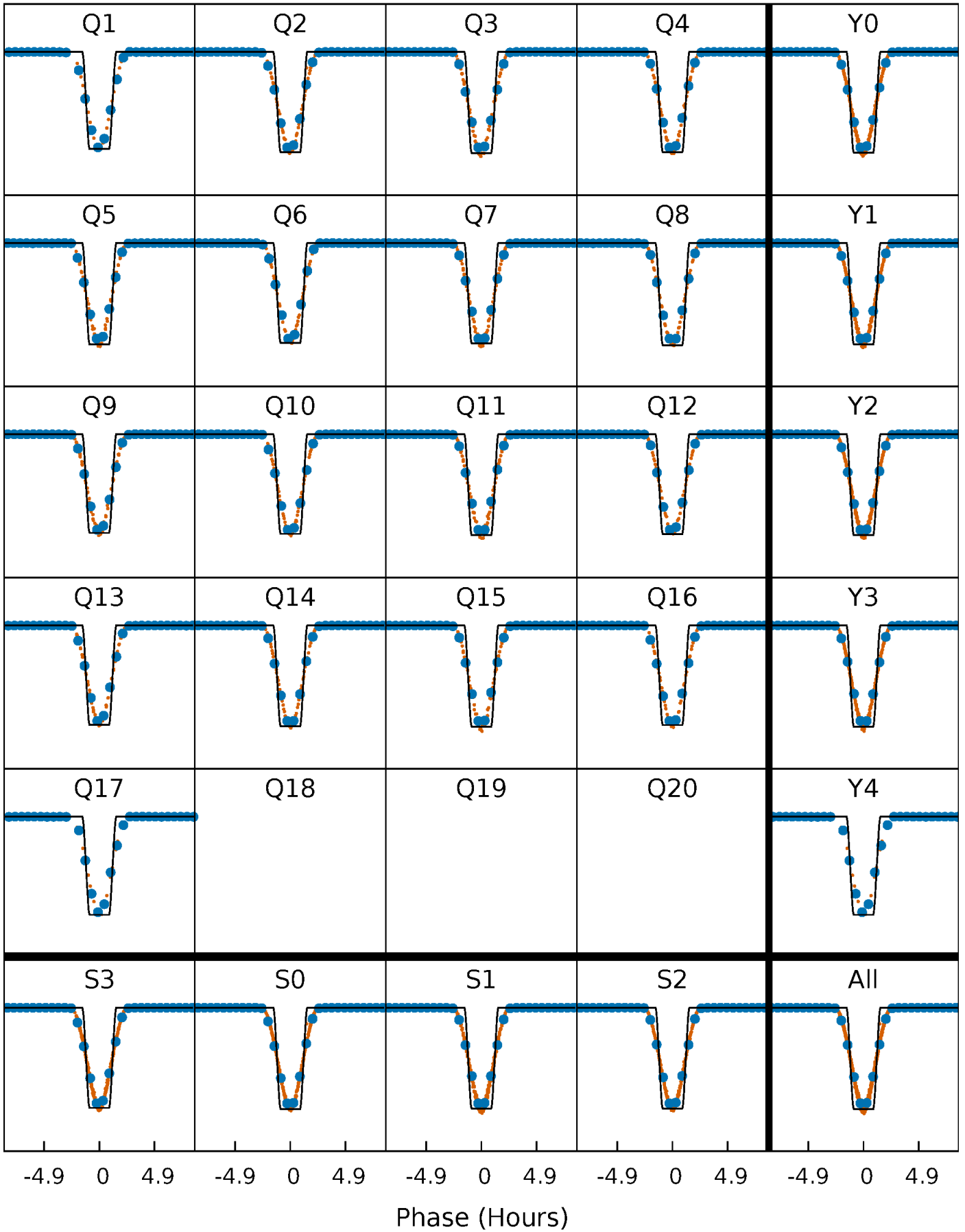
DV Quarter-Phased Transit Curves

TCE 002852560-01 P= 11.961296 Days $T_0=131.913277$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

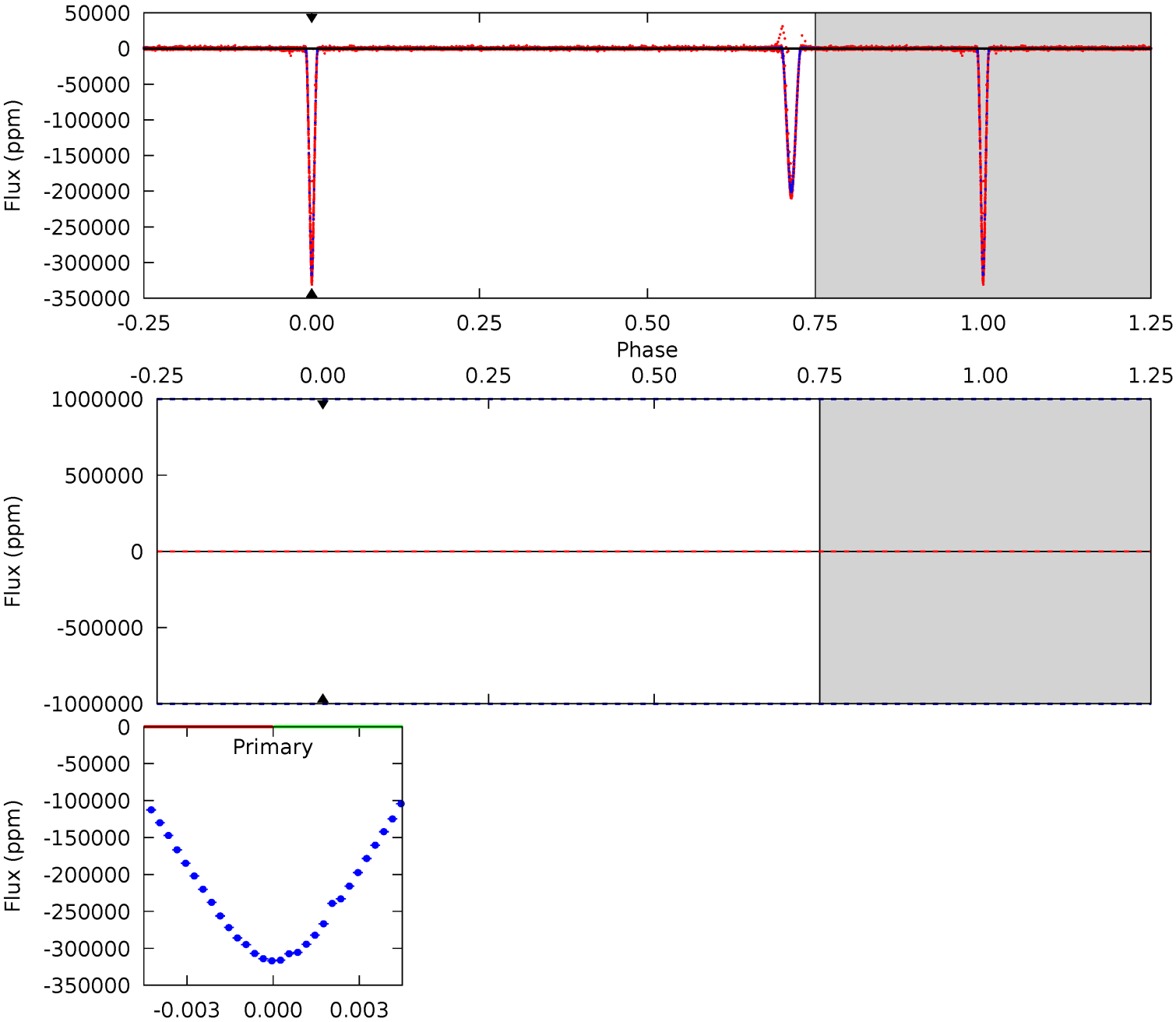
TCE 002852560-01 P= 11.961296 Days $T_0=131.914000$ (BKJD)



DV Model-Shift Uniqueness Test

002852560-01, P = 11.961296 Days, E = 119.951981 Days

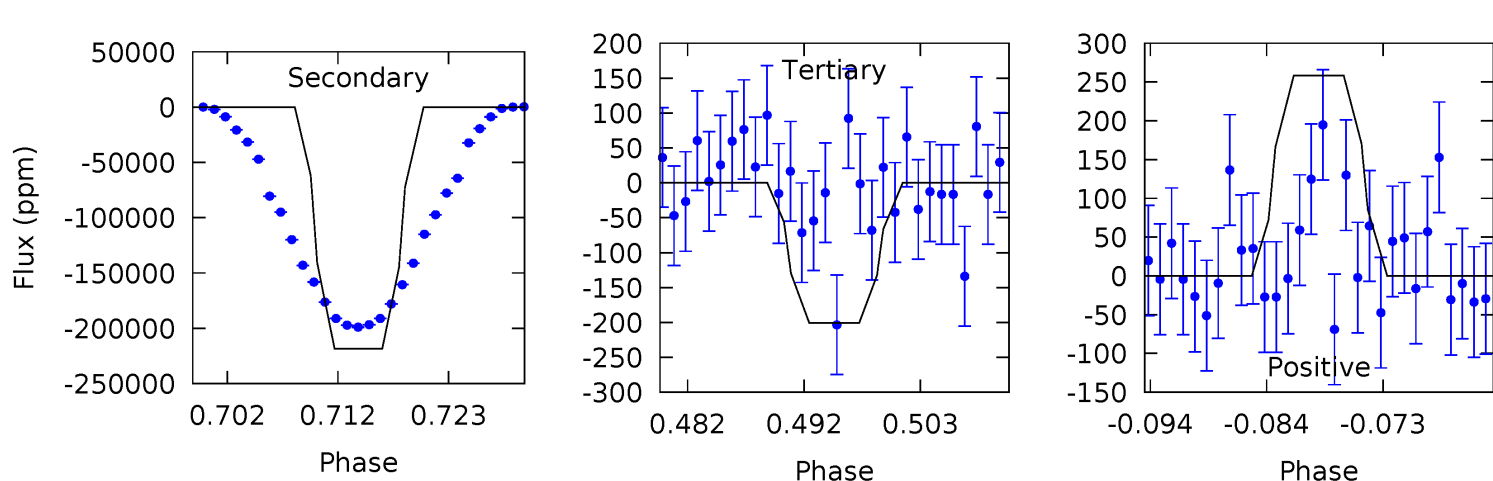
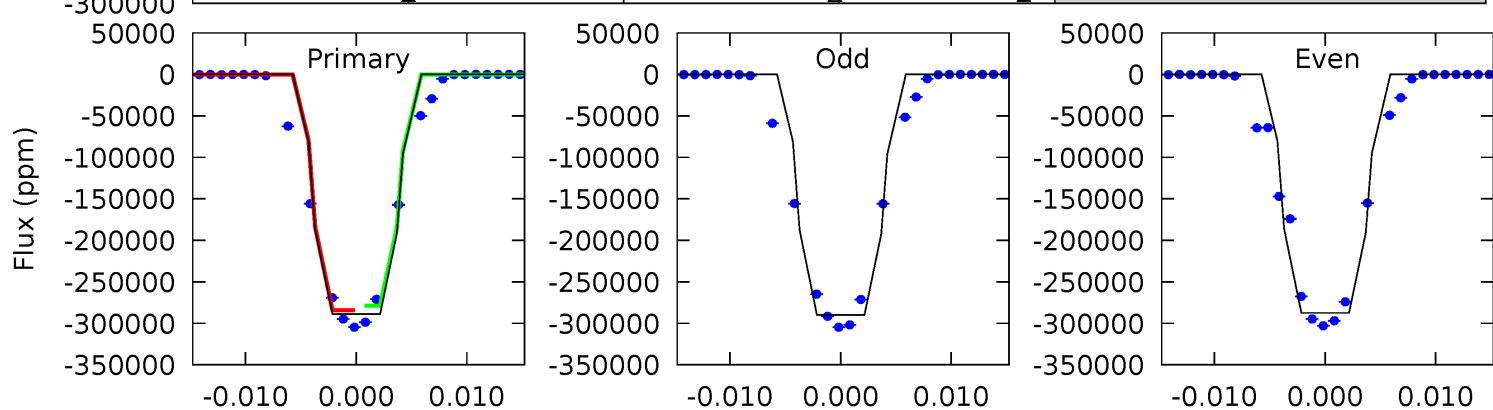
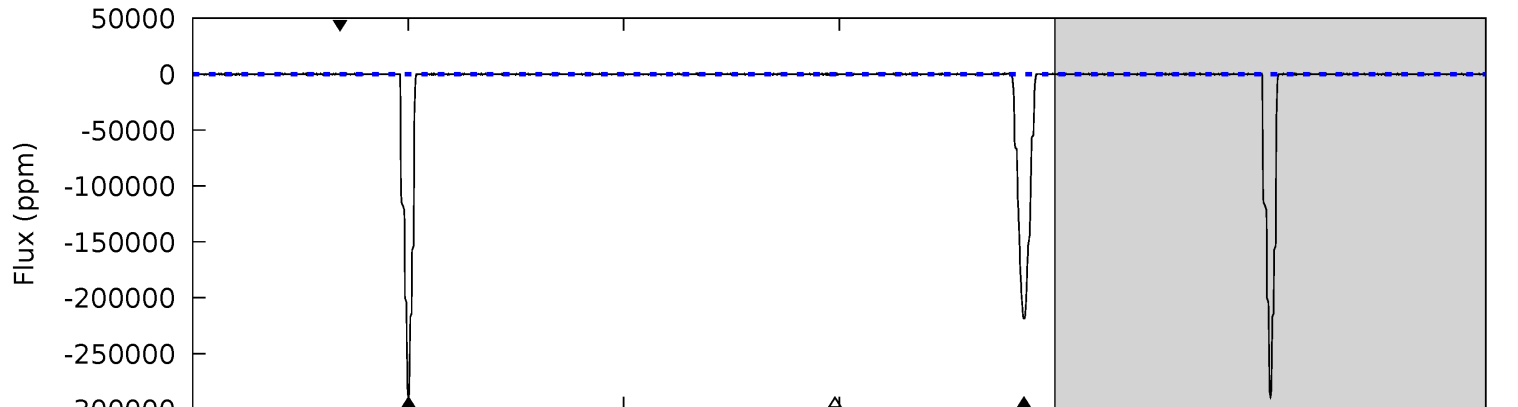
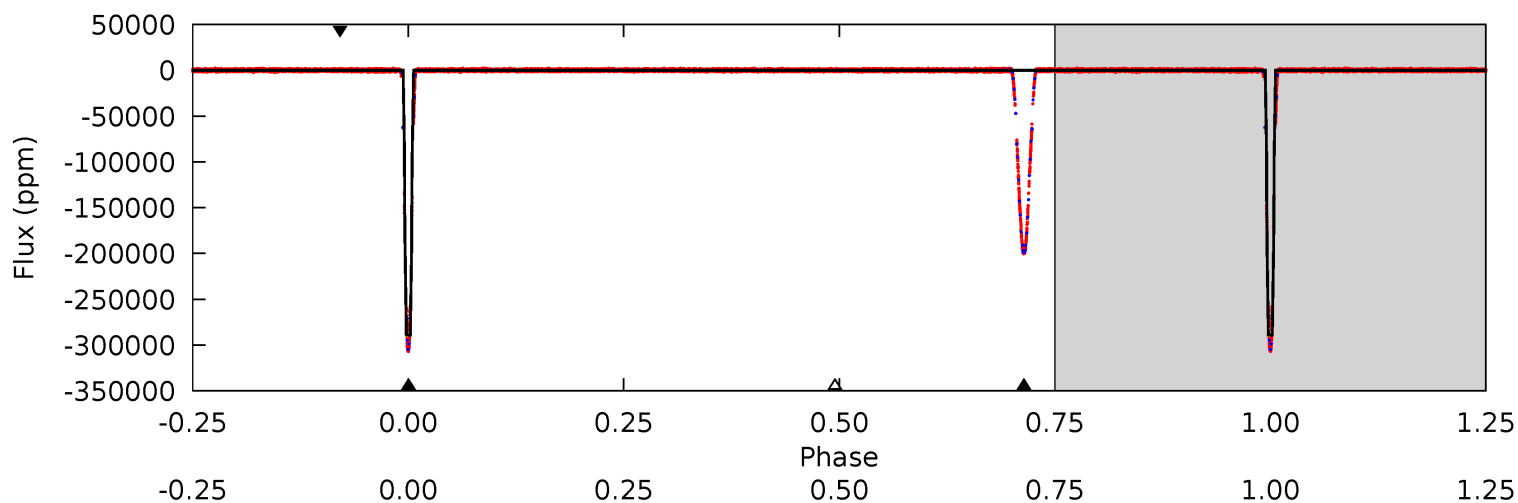
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

002852560-01, P = 11.961296 Days, E = 119.952704 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2666	2016	1.85	2.38	5.02	2.56	15.1	2664	2663	2014	2014	11.1	1.00	0.00	0



Stellar Parameters For KIC 002852560

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5564^{+150}_{-167}	$4.587^{+0.040}_{-0.120}$	$-0.260^{+0.300}_{-0.300}$	$0.785^{+0.150}_{-0.064}$	$0.878^{+0.082}_{-0.109}$	$2.558^{+0.436}_{-0.966}$
	+3%/-3%	+1%/-3%	+115%/-115%	+19%/-8%	+9%/-12%	+17%/-38%
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 002852560-01 / KOI 6294.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$43.23^{+10.25}_{-9.11}$	986^{+51}_{-41}	1997^{+2703}_{-6547}	$0.881^{+319.847}_{-261.281}$
Alt.	-218577 ± 108	$49.33^{+10.38}_{-8.75}$	986^{+48}_{-36}	5411^{+511}_{-391}	593^{+303}_{-184}

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

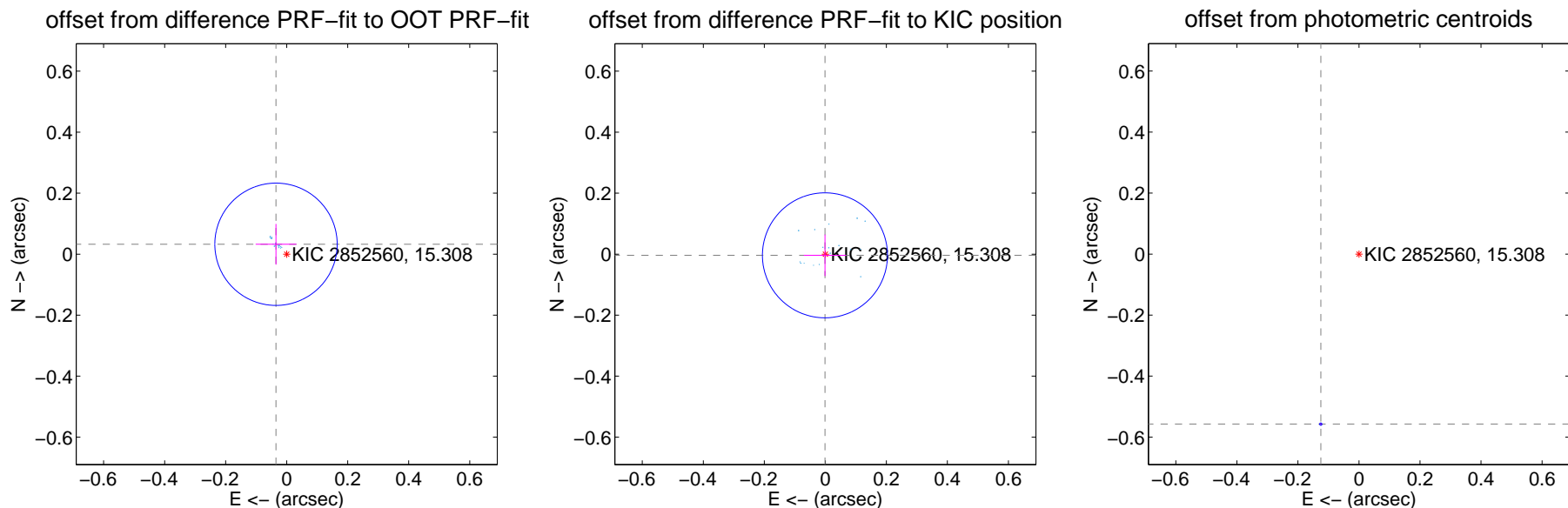
DV Centroid Data

Supplemental centroid analysis for 002852560-01. Kepler magnitude: 15.31. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

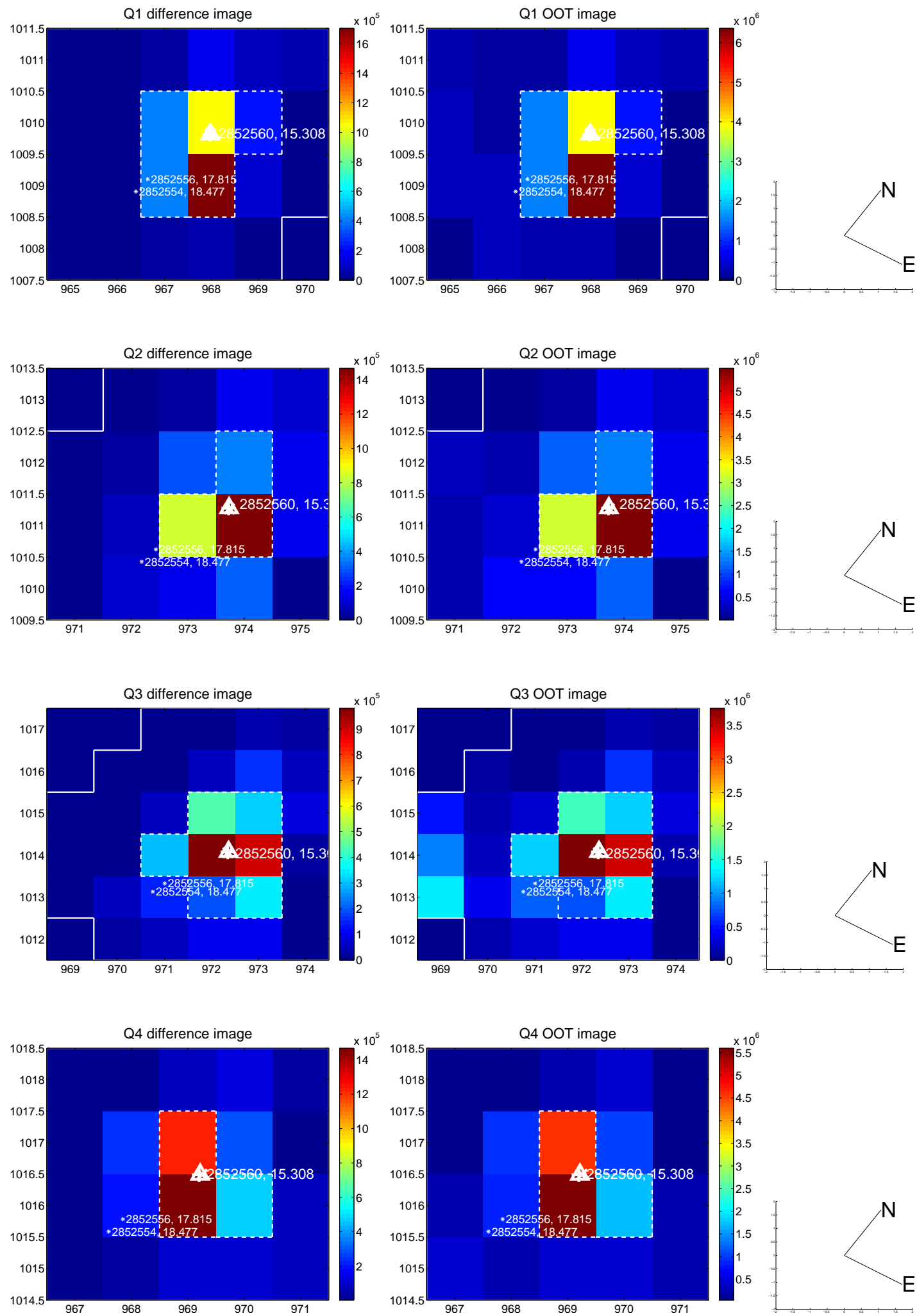
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.048 ± 0.067	0.71	0.035 ± 0.067	0.032 ± 0.067
PRF-fit source offset from KIC position	0.004 ± 0.068	0.06	0.001 ± 0.069	-0.004 ± 0.068
photometric centroid source offset	0.57 ± 0.00	448.95	0.13 ± 0.00	-0.56 ± 0.00

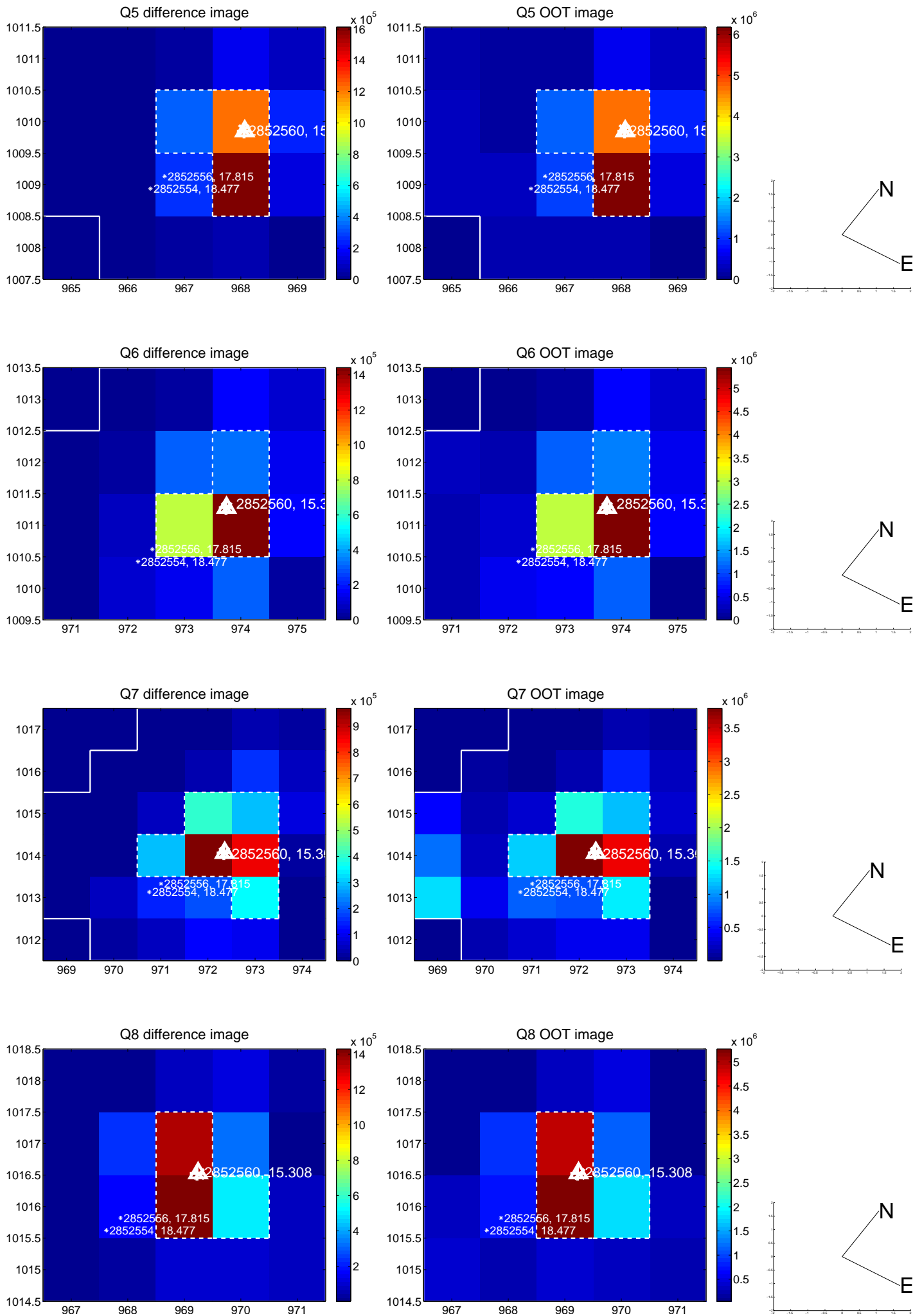


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

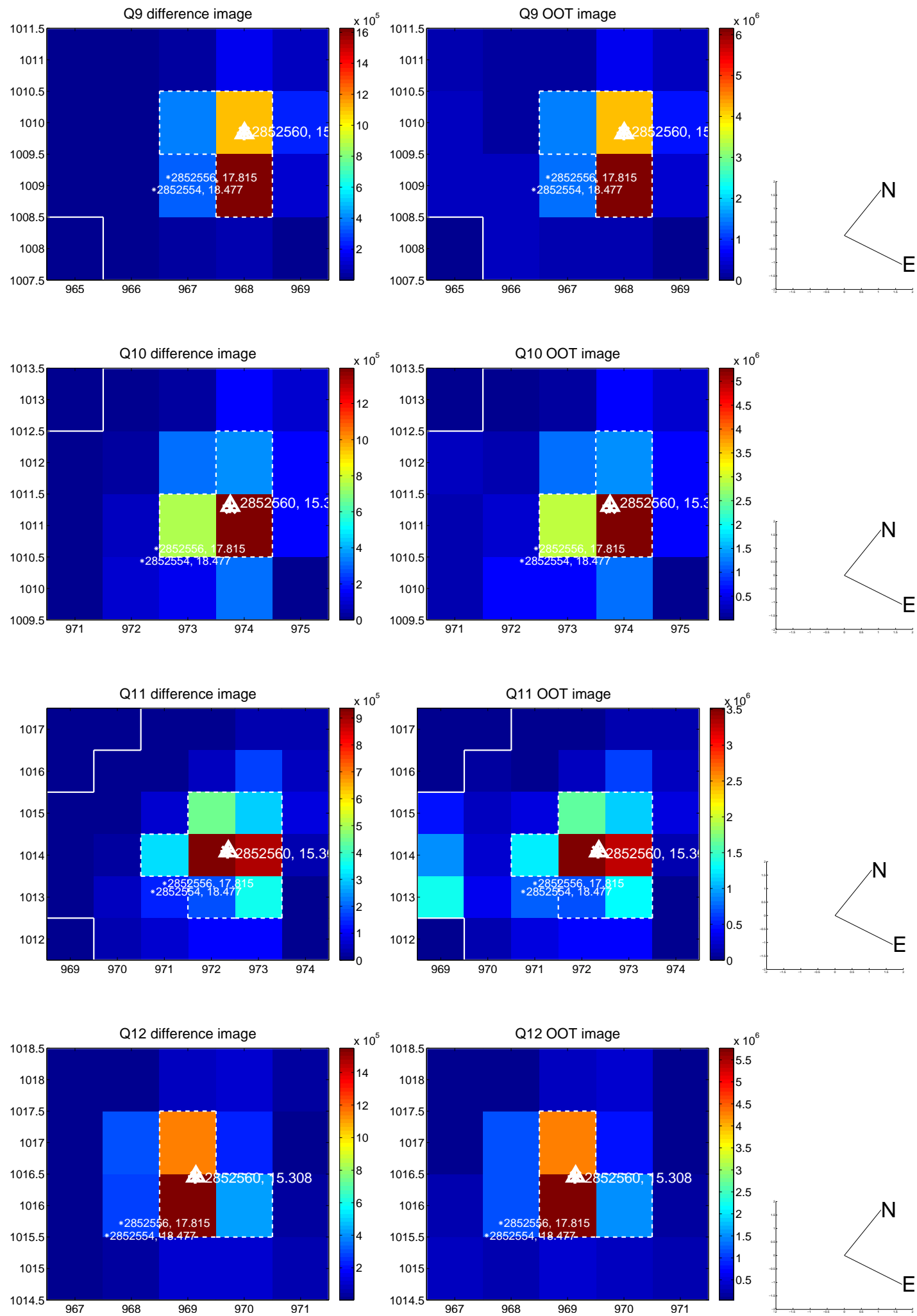
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



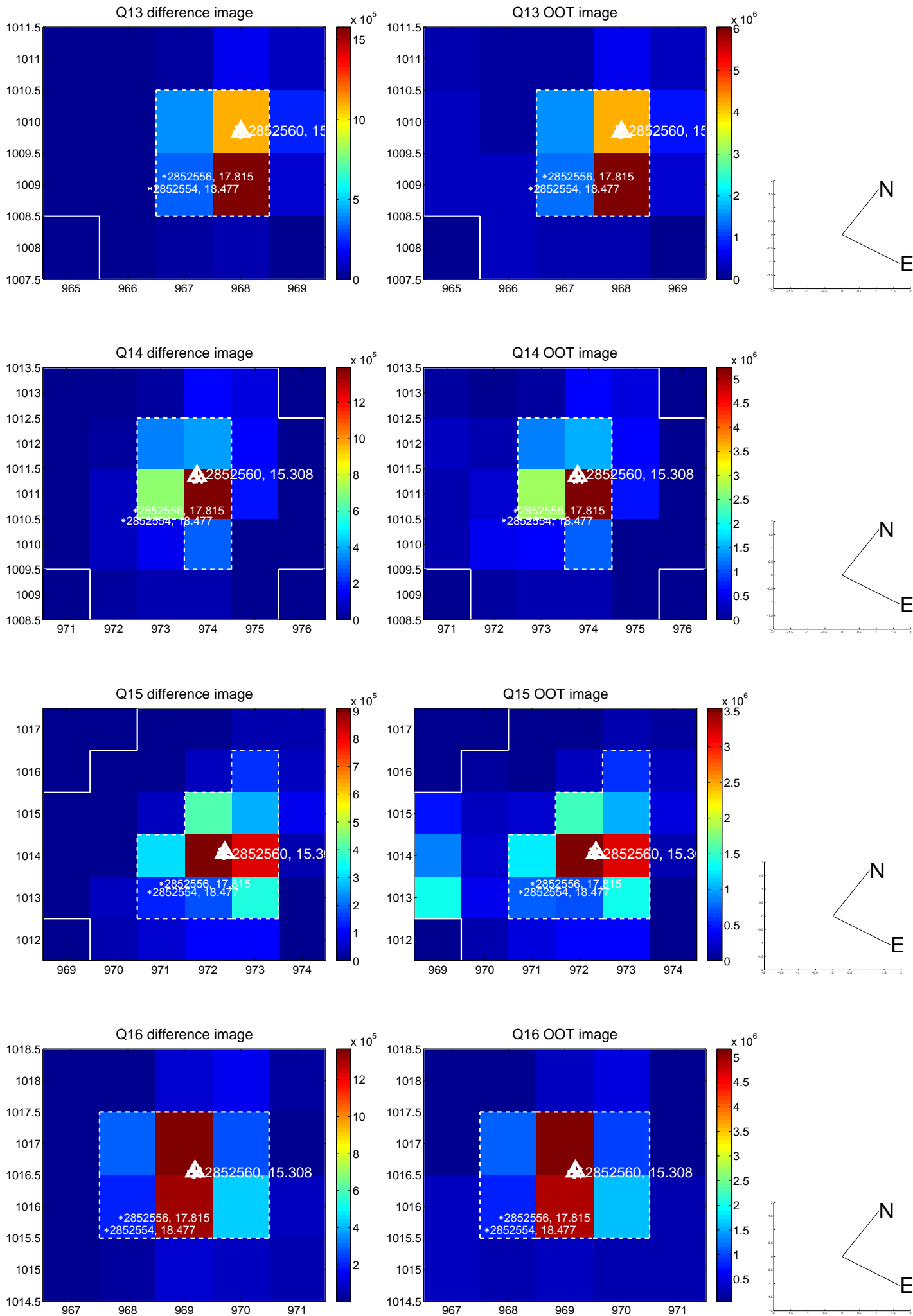
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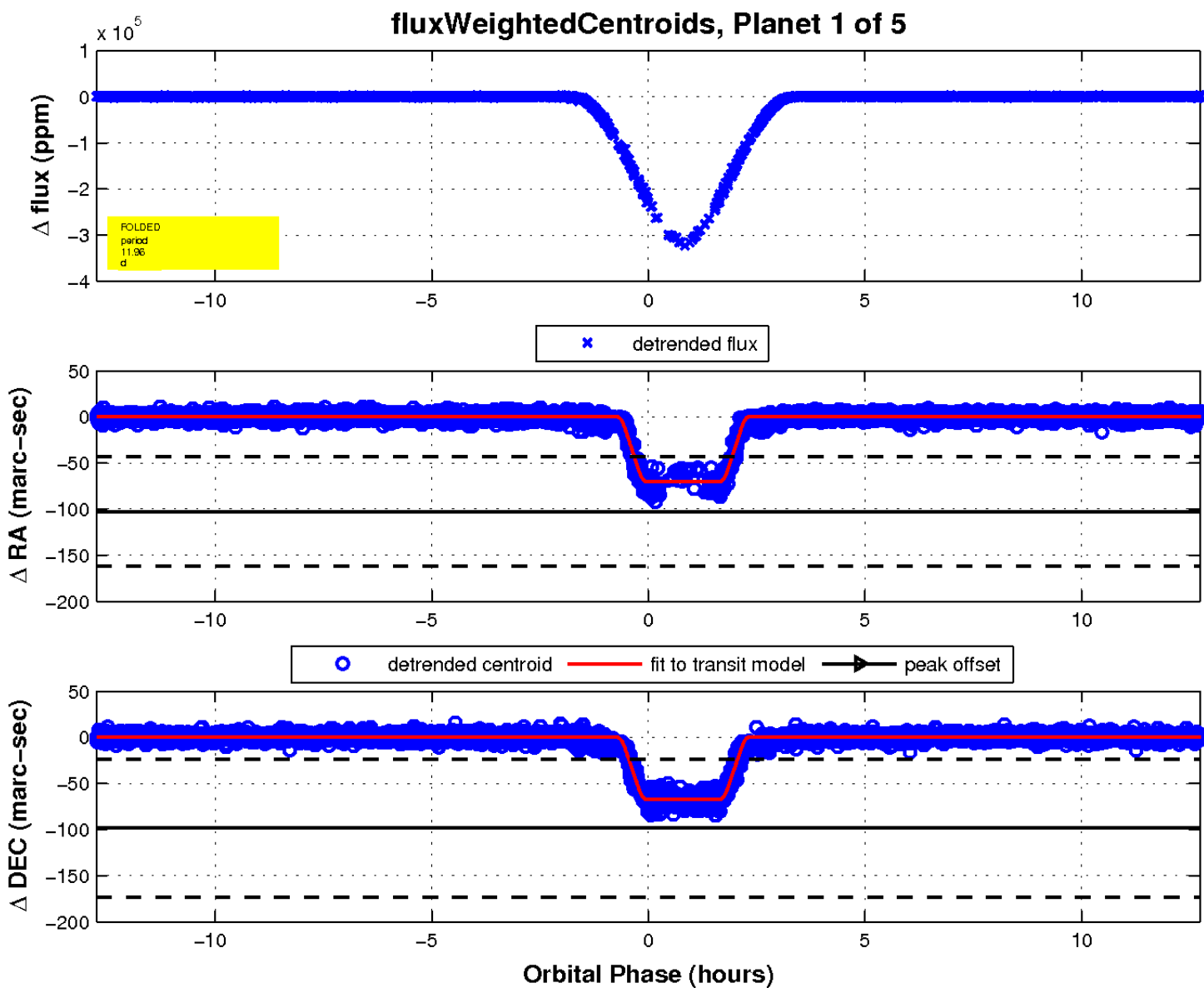
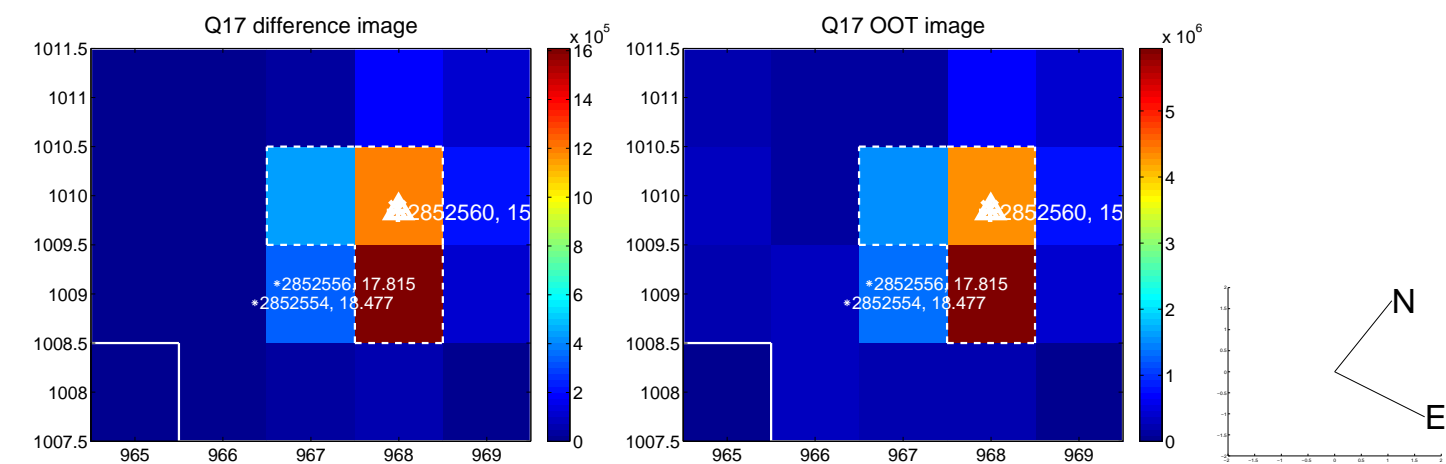
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white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

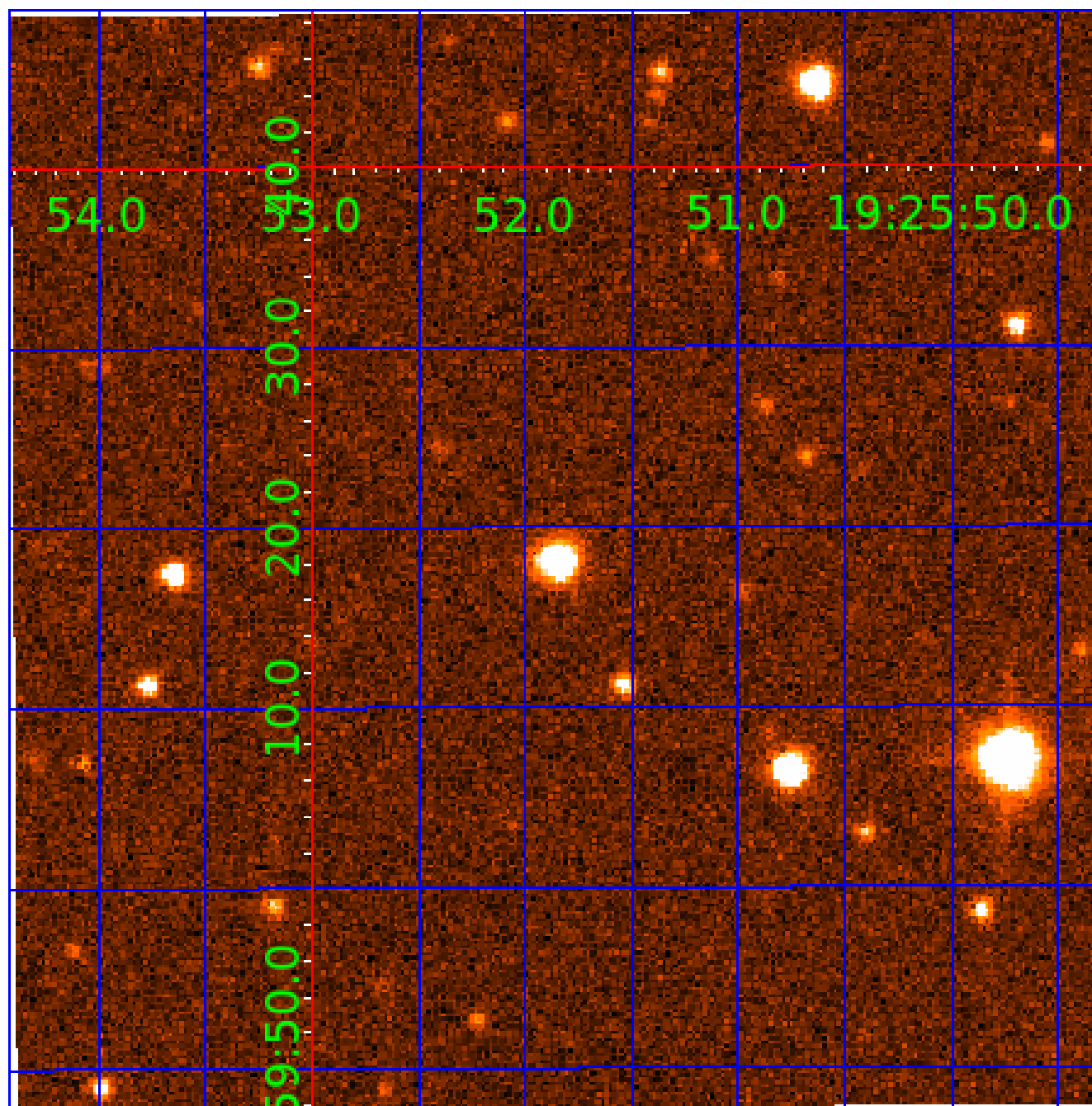


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 002852560

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})
002852560-01	OBS	6294.01	11.961296	131.913277	314256.7	3.000	8292.6	-1.0	0.79	5564	42.32	55.46
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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002852560-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
002852560-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
002852560-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
002852560-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—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.

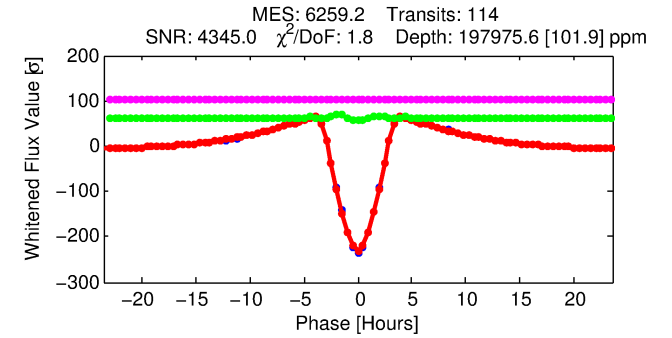
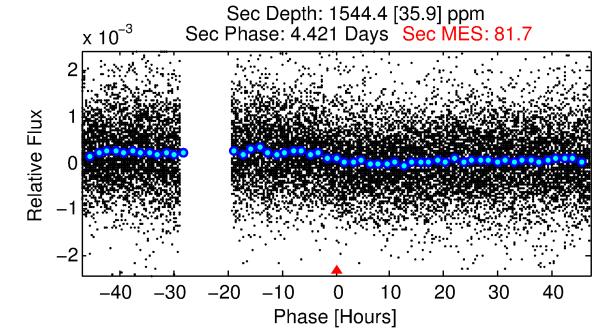
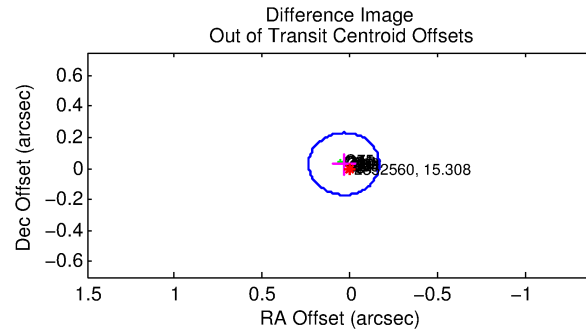
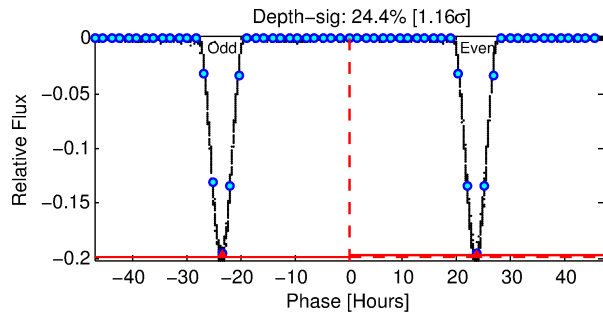
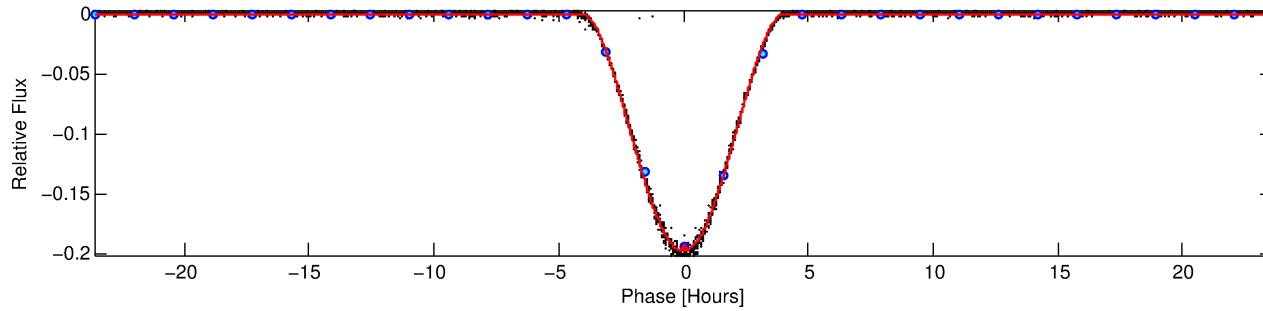
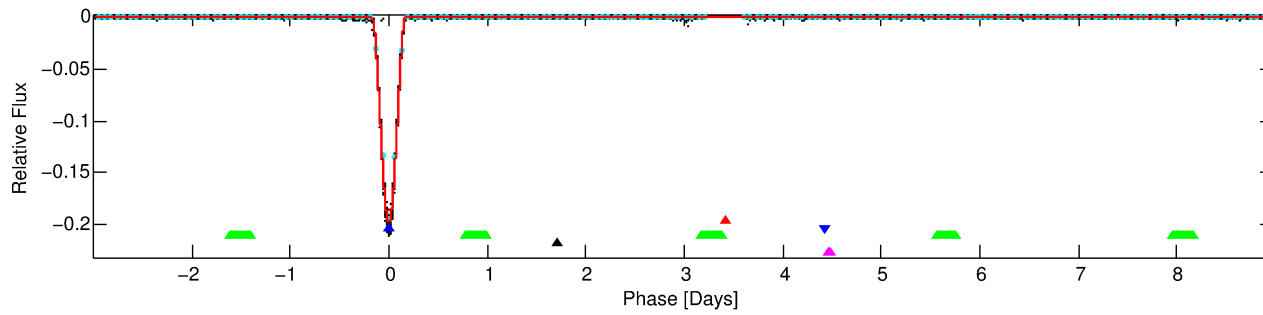
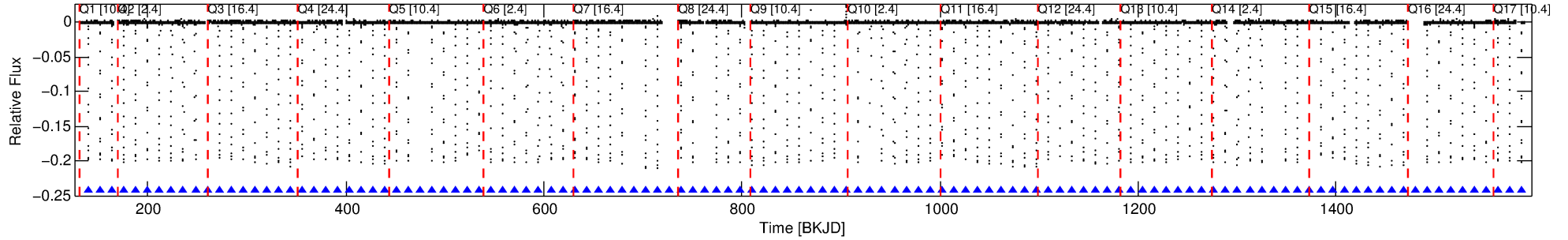
Ephemeris Match Information For 002852560-02

No Significant Match Found

DV One-Page Summary

KIC: 2852560 Candidate: 2 of 5 Period: 11.961 d
KOI: K06294 Corr: No Ephemeris Match

Kp: 15.31 R*: 0.79 Rs Teff: 5564.0 K Logg: 4.59 Fe/H: -0.260



DV Fit Results:

Period = 11.96130 [0.00000] d
Epoch = 140.4565 [0.0000] BKJD
Rp/R* = 0.5618 [0.0235]
a/R* = 15.44 [0.08]
b = 0.82 [0.03]
Seff = 55.46 [14.09]
Teq = 696 [44] K
Rp = 48.13 [9.41] Re
a = 0.0977 [0.0154] AU
Ag = 3.50 [0.84] [2.97σ]
Teffp = 1472 [55] K [11.05σ]

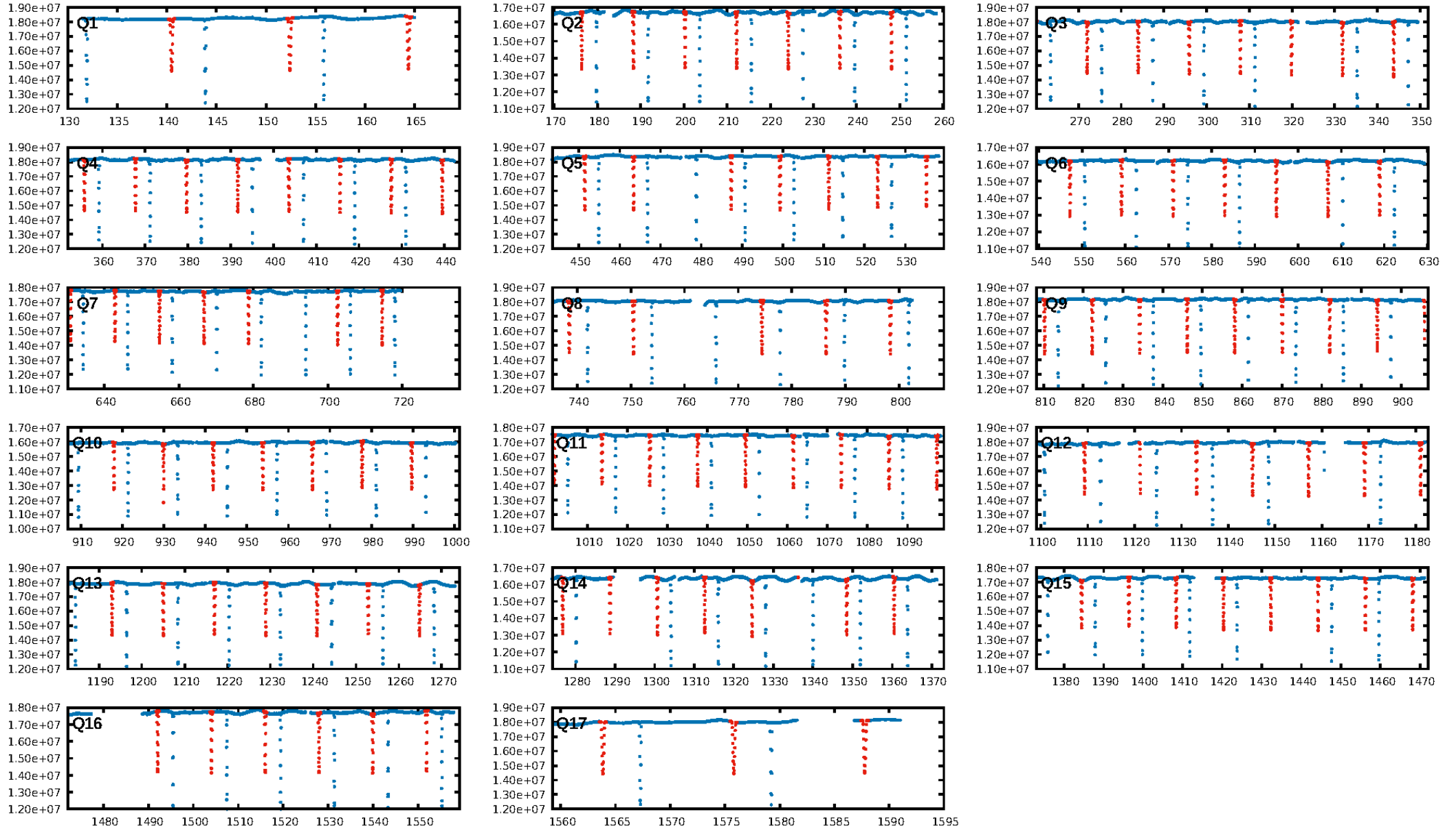
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [19.43σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [108/108]
GhostDiagnostic-chr: 2.962
Centroid-sig: 0.0%
Centroid-so: 0.578 arcsec [330.14σ]
OotOffset-rm: 0.046 arcsec [0.69σ]
KicOffset-rm: 0.011 arcsec [0.17σ]
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]

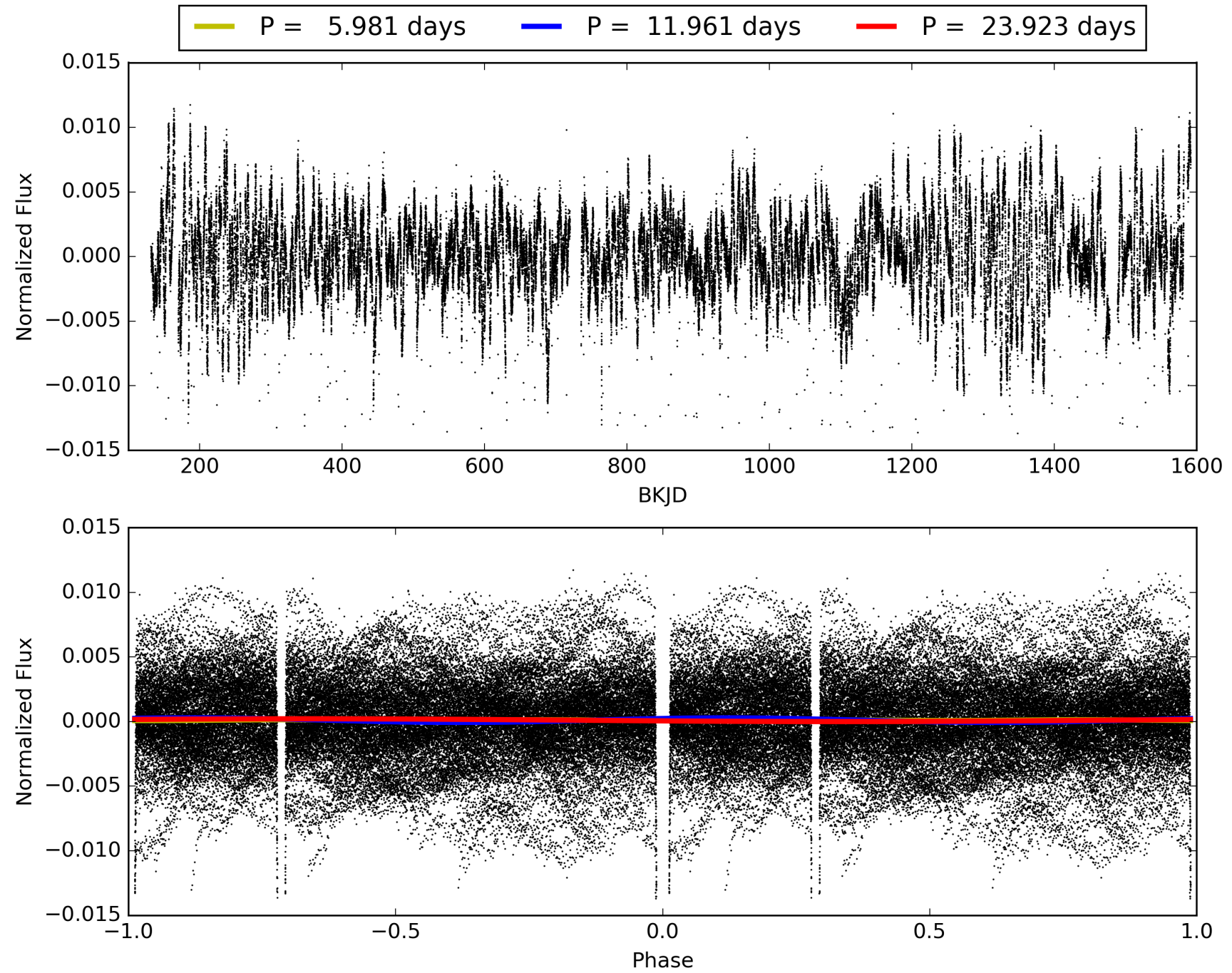
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TCE 002852560-02, PDC Light Curves

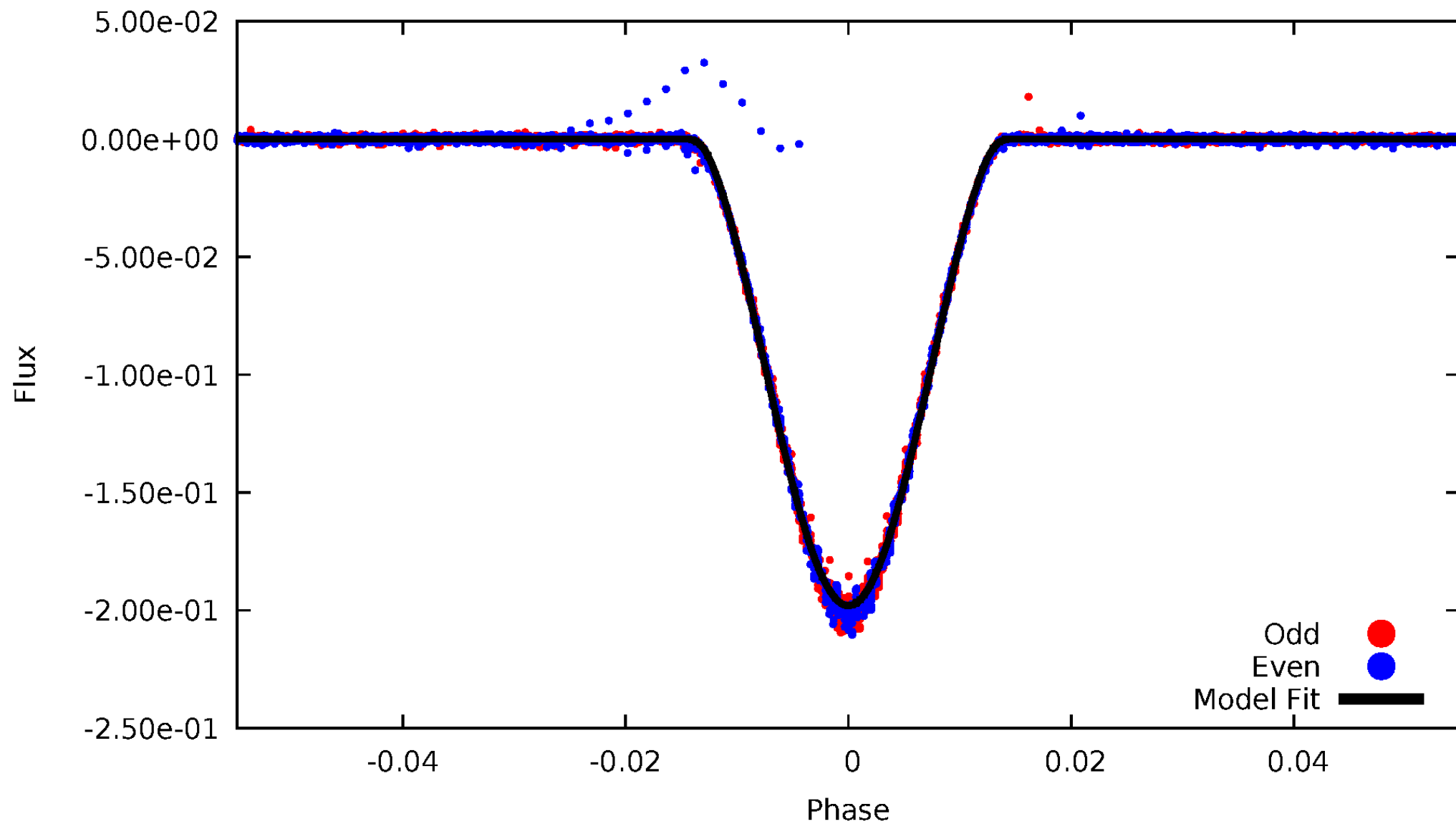


TCE 002852560-02



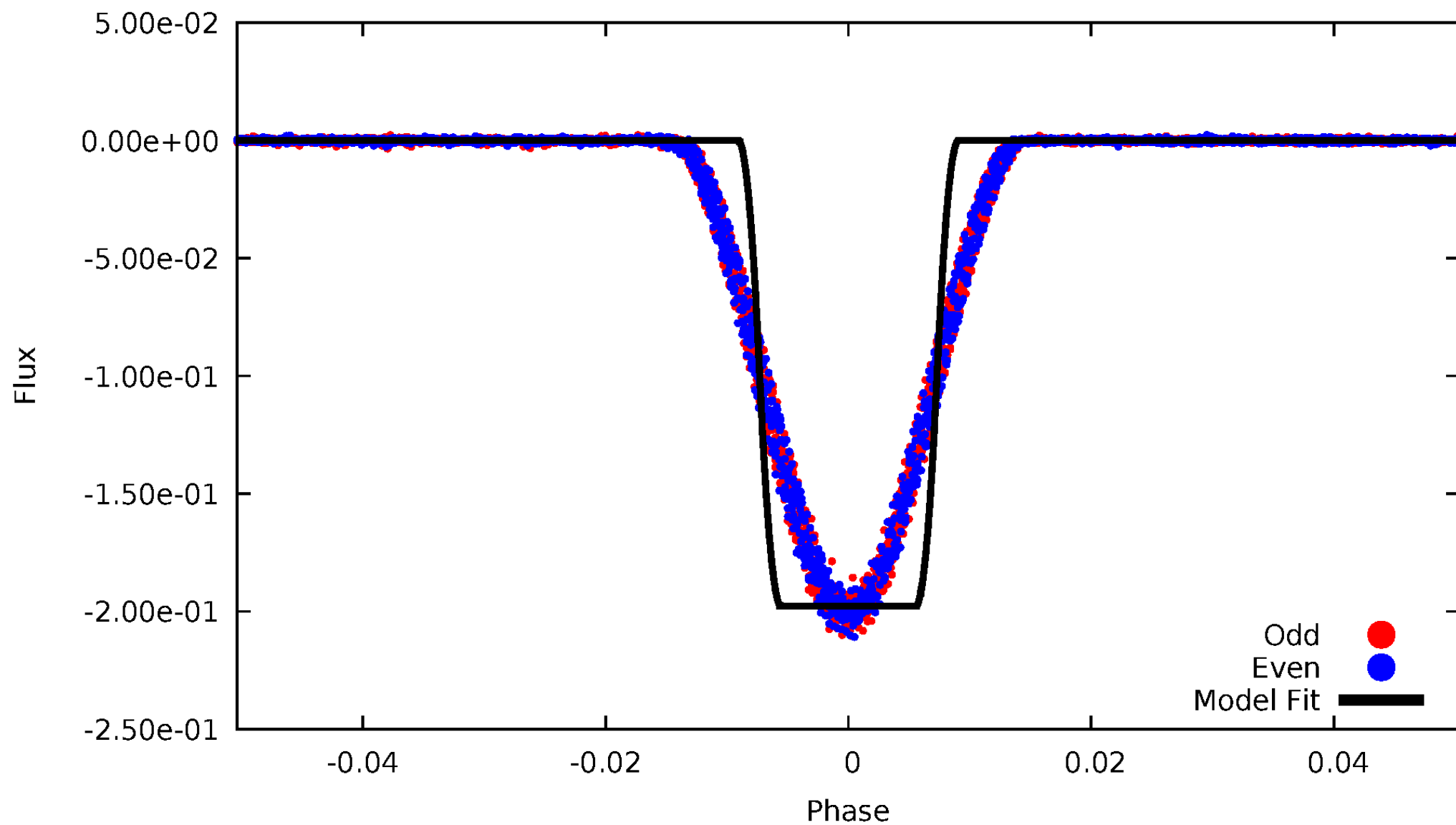
DV Odd/Even

TCE 002852560-02



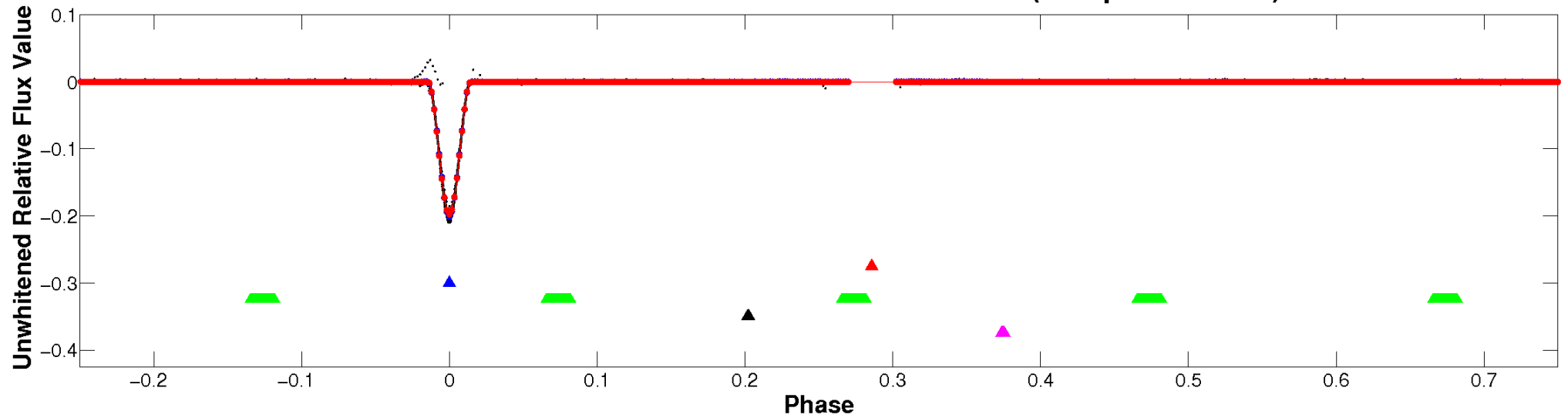
ALT Odd/Even

TCE 002852560-02

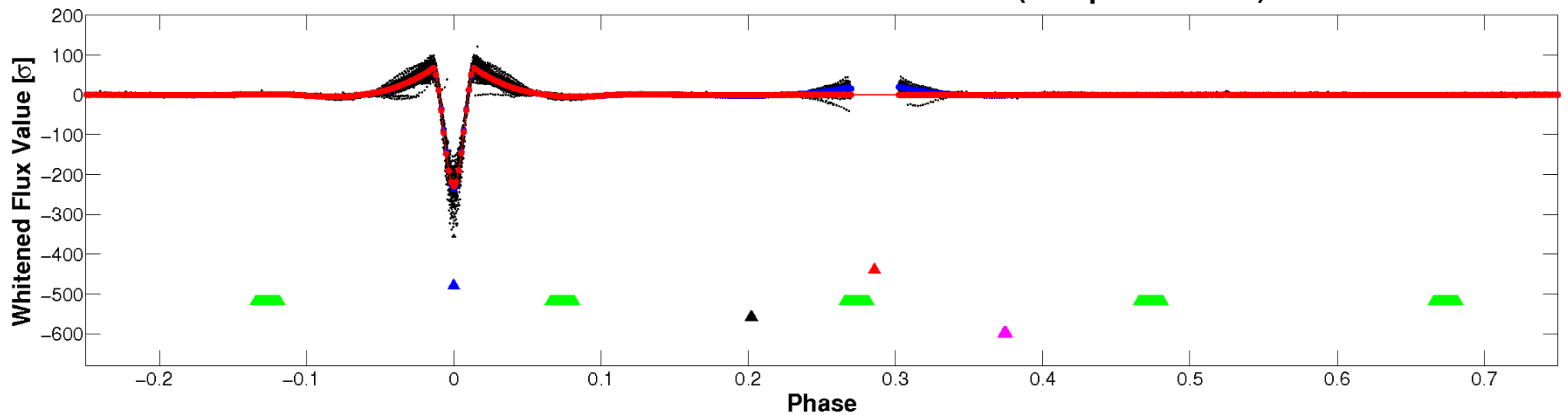


Non-Whitened Vs. Whitened Light Curve

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

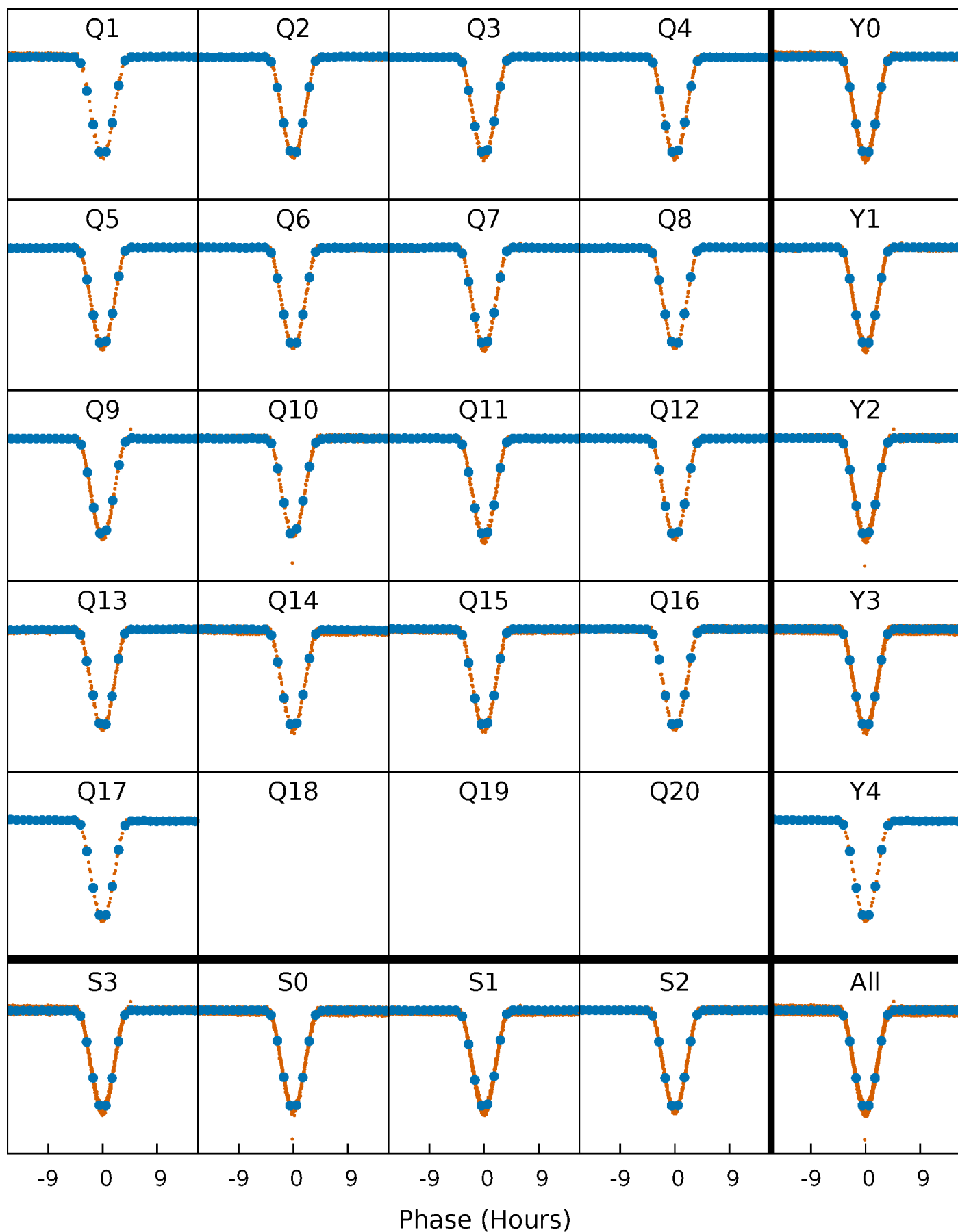


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



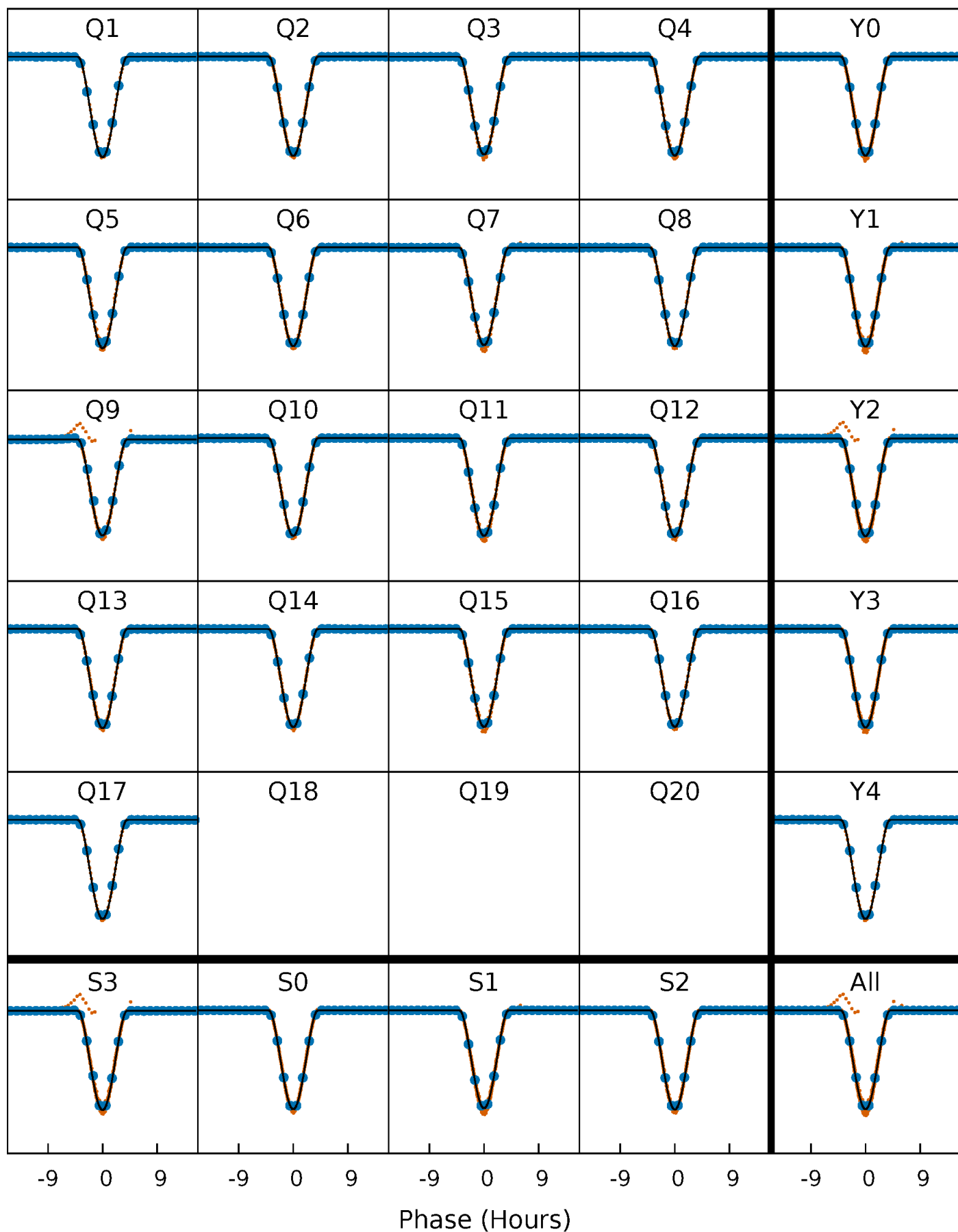
PDC Quarter-Phased Transit Curves

TCE 002852560-02 P= 11.961300 Days $T_0=140.456475$ (BKJD)



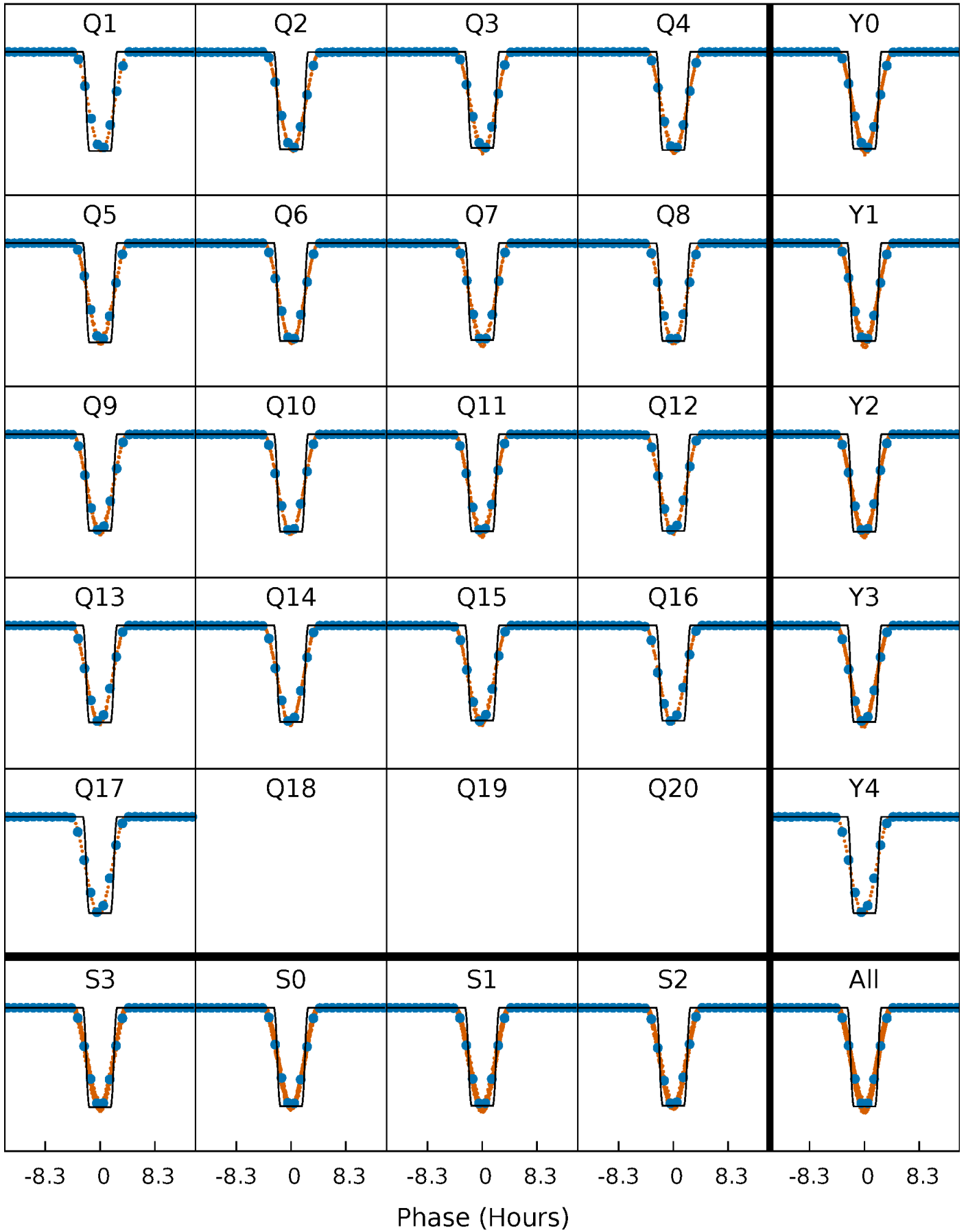
DV Quarter-Phased Transit Curves

TCE 002852560-02 P= 11.961300 Days $T_0=140.456475$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

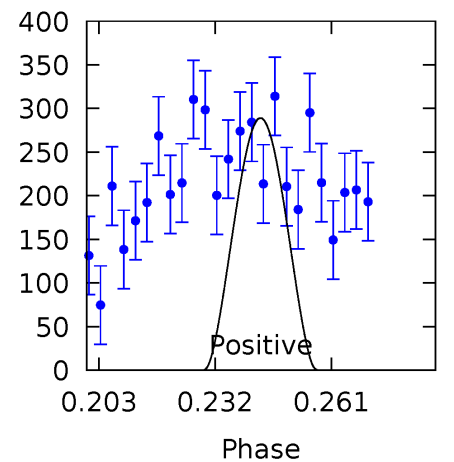
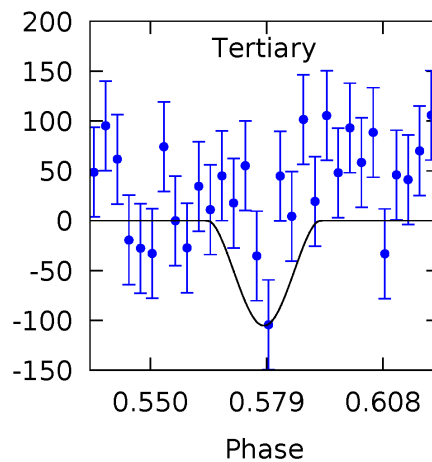
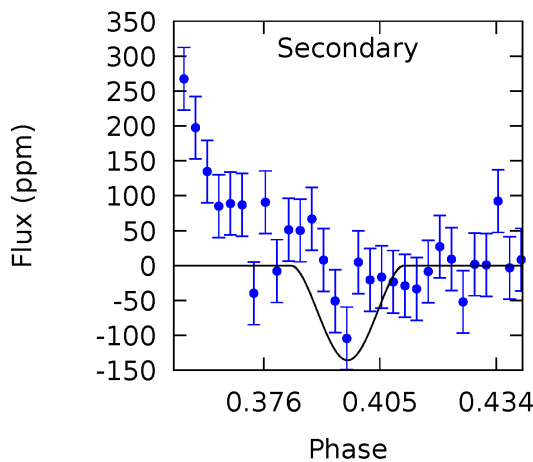
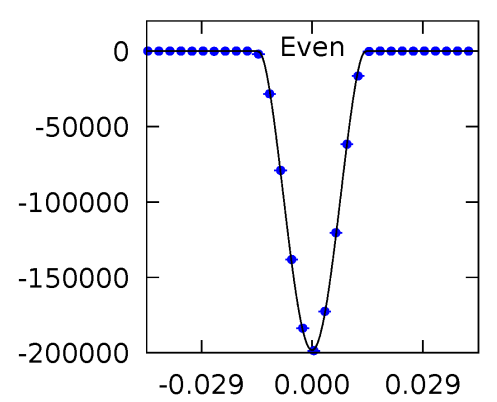
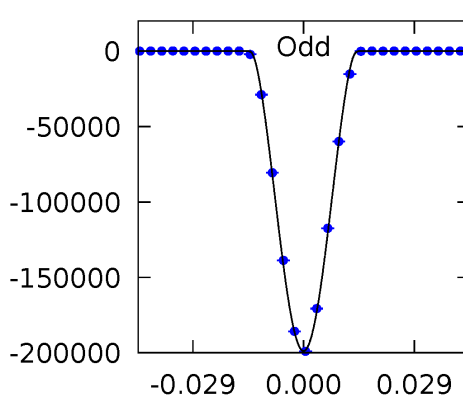
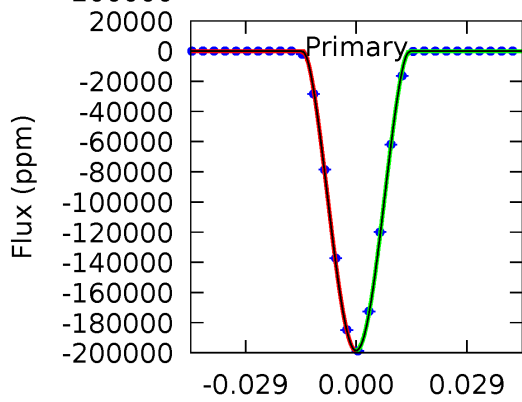
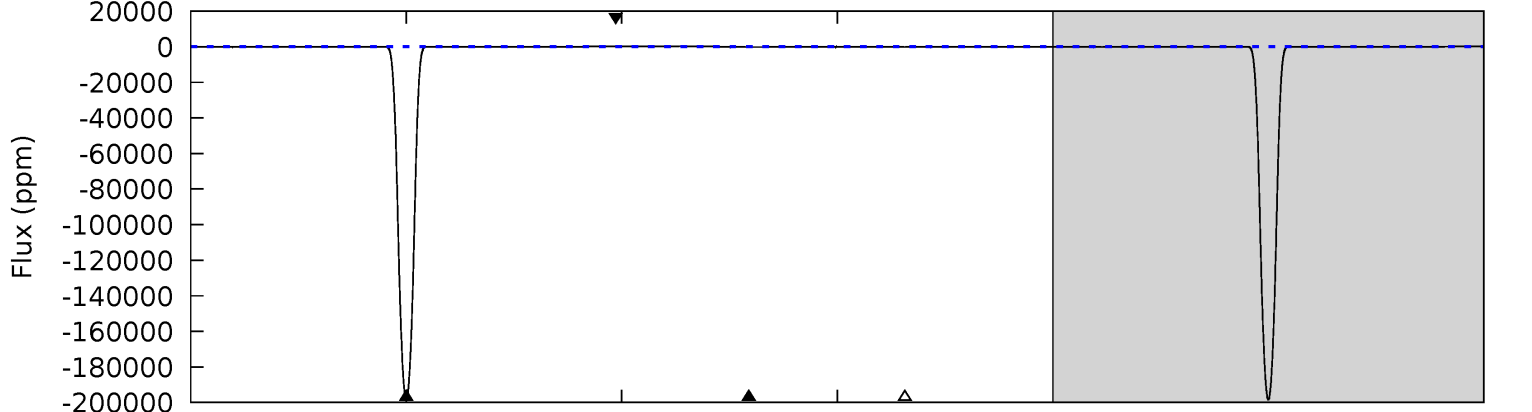
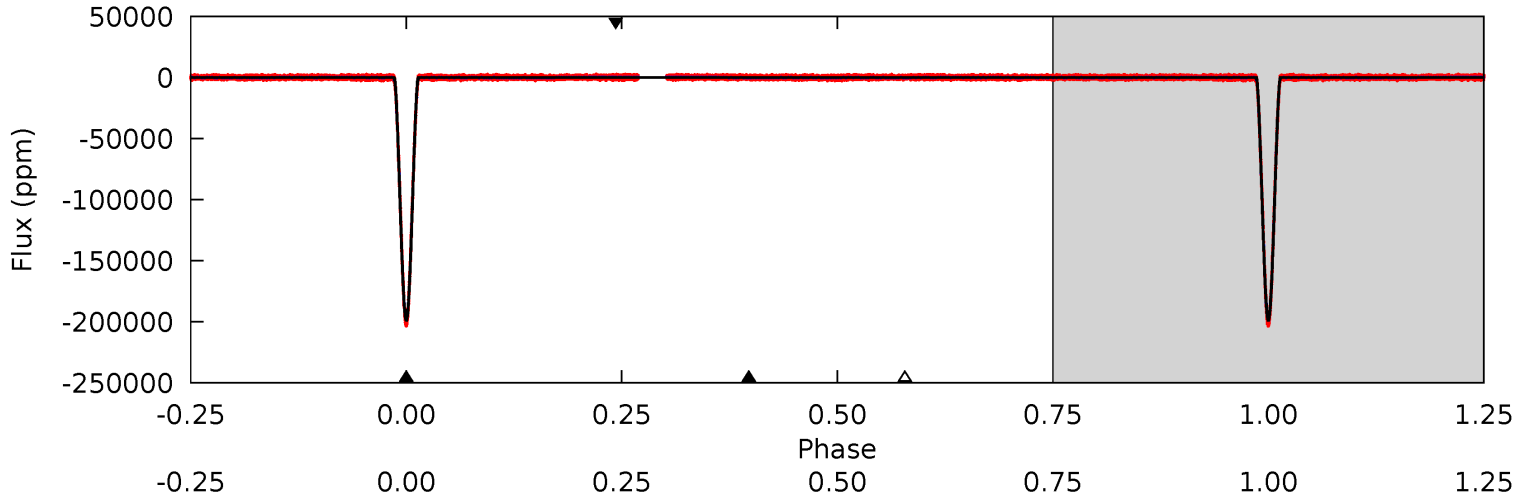
TCE 002852560-02 P= 11.961441 Days $T_0=140.447873$ (BKJD)



DV Model-Shift Uniqueness Test

002852560-02, P = 11.961300 Days, E = 128.495175 Days

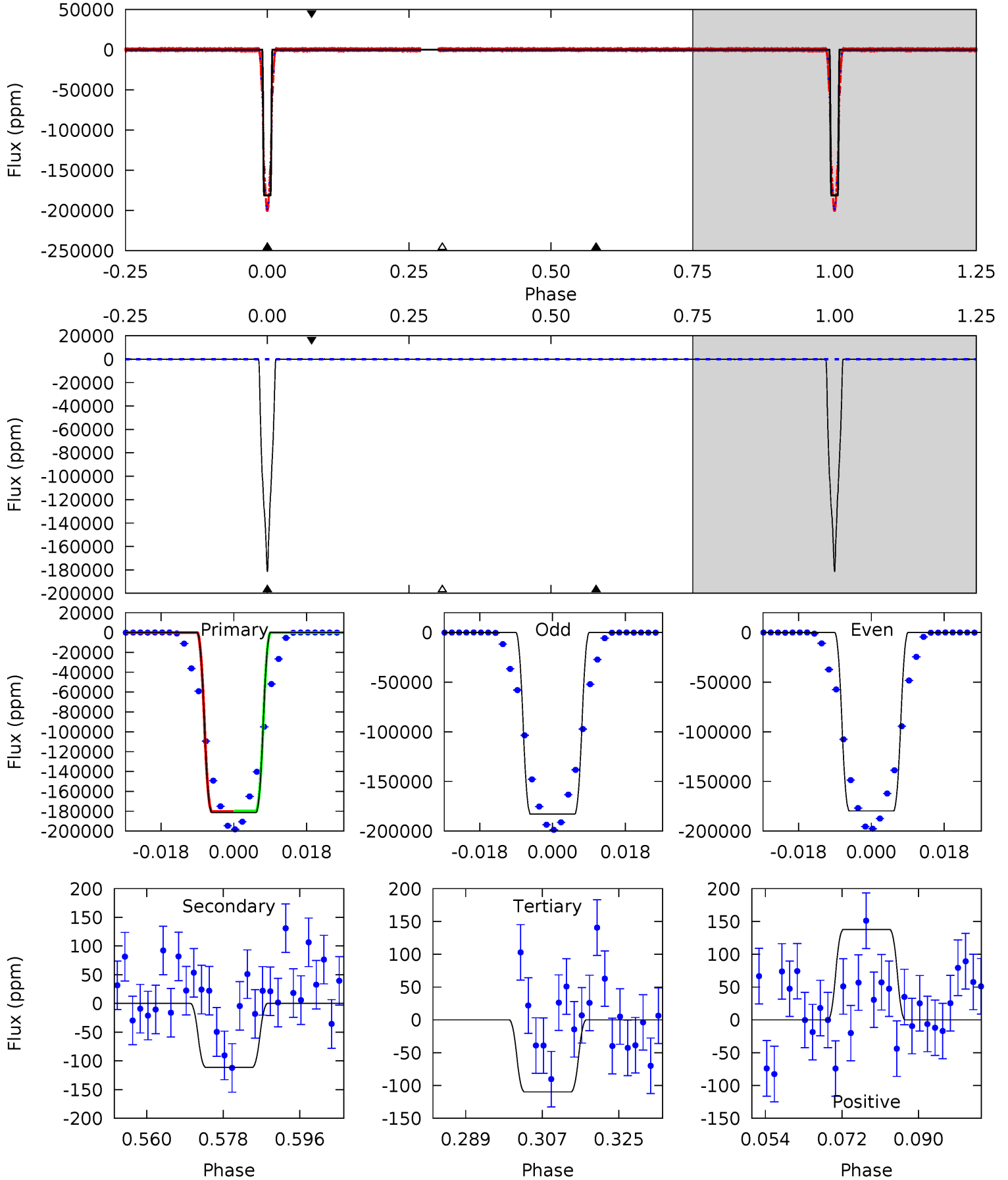
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11778	8.05	6.25	17.1	4.82	2.18	5.97	11771	11761	1.80	-9.10	15.3	0.99	0.00	4.45



Alt Model-Shift Uniqueness Test

002852560-02, P = 11.961441 Days, E = 128.486432 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5082	3.12	3.08	3.86	4.91	2.36	1.11	5078	5078	0.04	-0.74	46.6	1.00	0.00	6.90



Stellar Parameters For KIC 002852560

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5564^{+150}_{-167}	$4.587^{+0.040}_{-0.120}$	$-0.260^{+0.300}_{-0.300}$	$0.785^{+0.150}_{-0.064}$	$0.878^{+0.082}_{-0.109}$	$2.558^{+0.436}_{-0.966}$
	+3%/-3%	+1%/-3%	+115%/-115%	+19%/-8%	+9%/-12%	+17%/-38%
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 002852560-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-136 ± 17	$49.08^{+5.17}_{-3.76}$	985^{+45}_{-38}	-1345^{+2907}_{-274}	$0.293^{+0.057}_{-0.061}$
Alt.	-111 ± 36	$39.03^{+4.47}_{-3.29}$	987^{+47}_{-39}	1593^{+172}_{-3194}	$0.361^{+0.144}_{-0.120}$

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

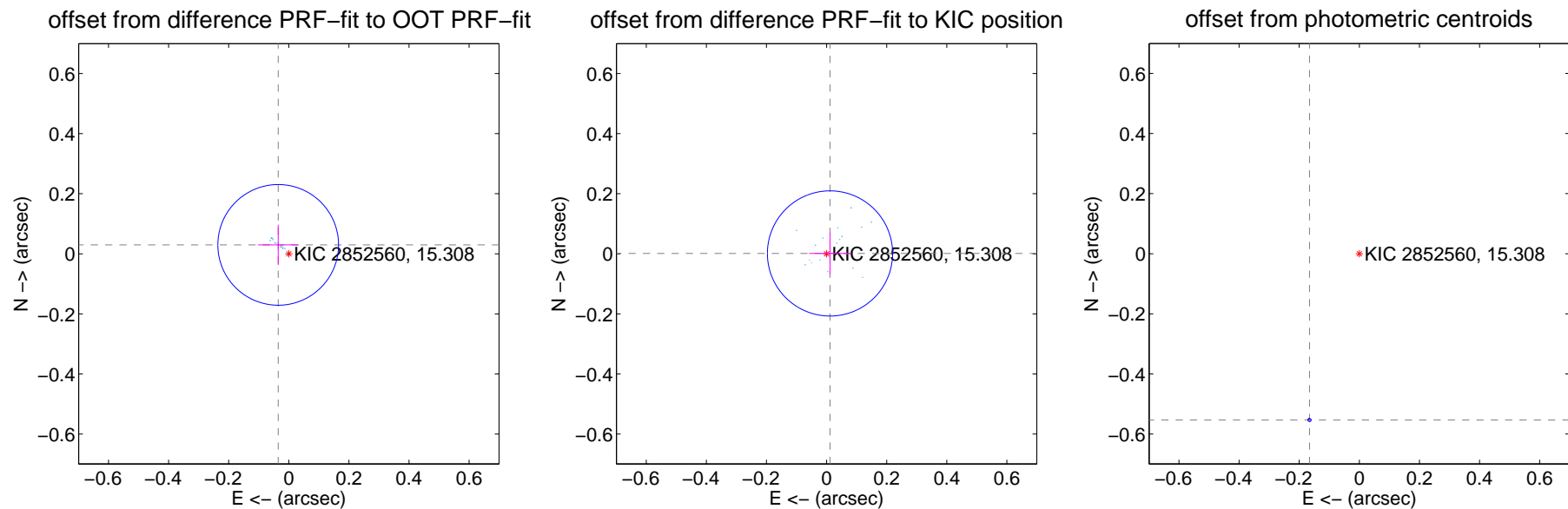
DV Centroid Data

Supplemental centroid analysis for 002852560-02. Kepler magnitude: 15.31. Transit SNR 4344.95

There are 17 quarters with good PRF difference image offsets

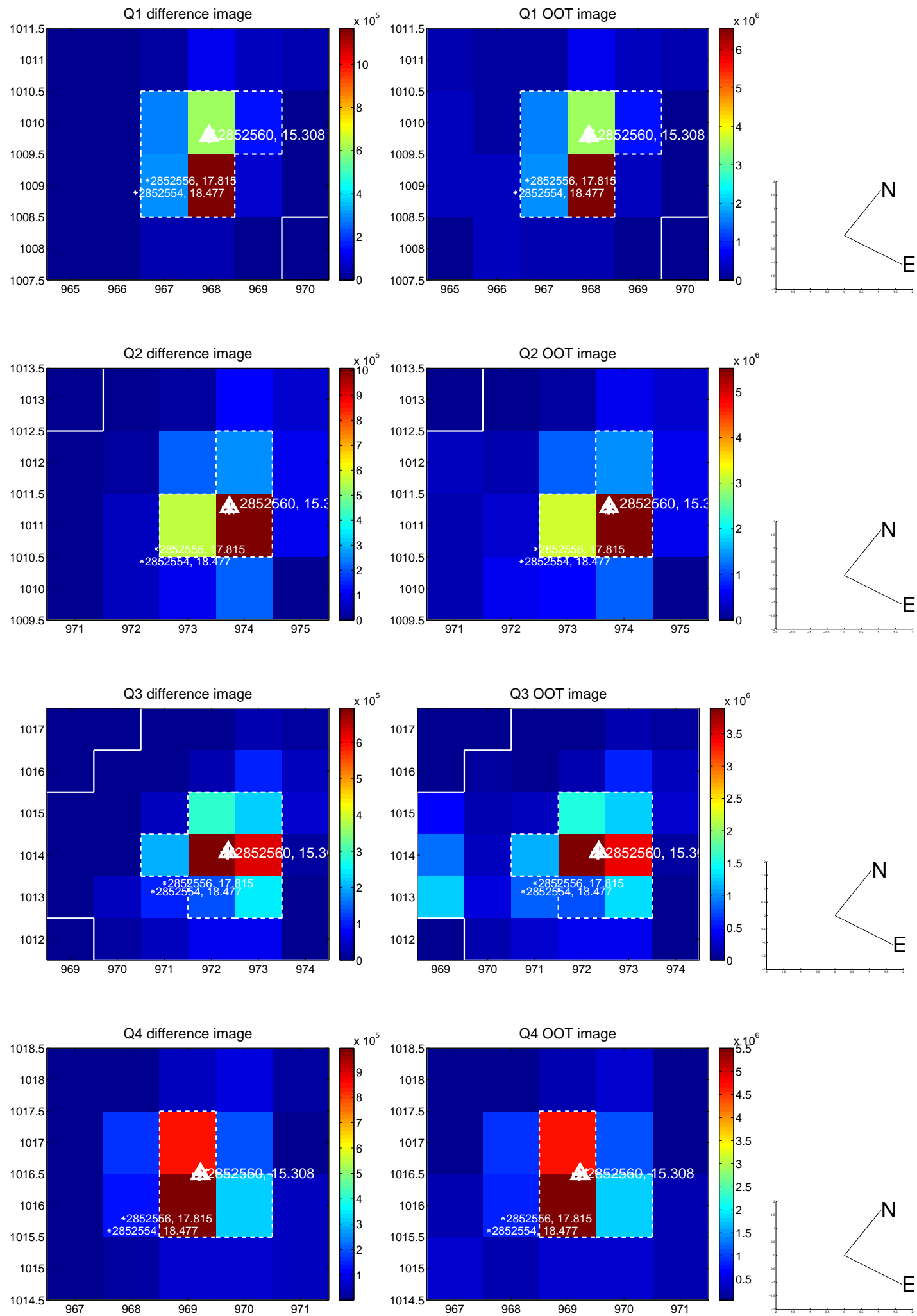
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.046 ± 0.067	0.69	0.035 ± 0.067	0.030 ± 0.067
PRF-fit source offset from KIC position	0.011 ± 0.069	0.17	-0.011 ± 0.069	0.001 ± 0.069
photometric centroid source offset	0.58 ± 0.00	330.14	0.17 ± 0.00	-0.55 ± 0.00

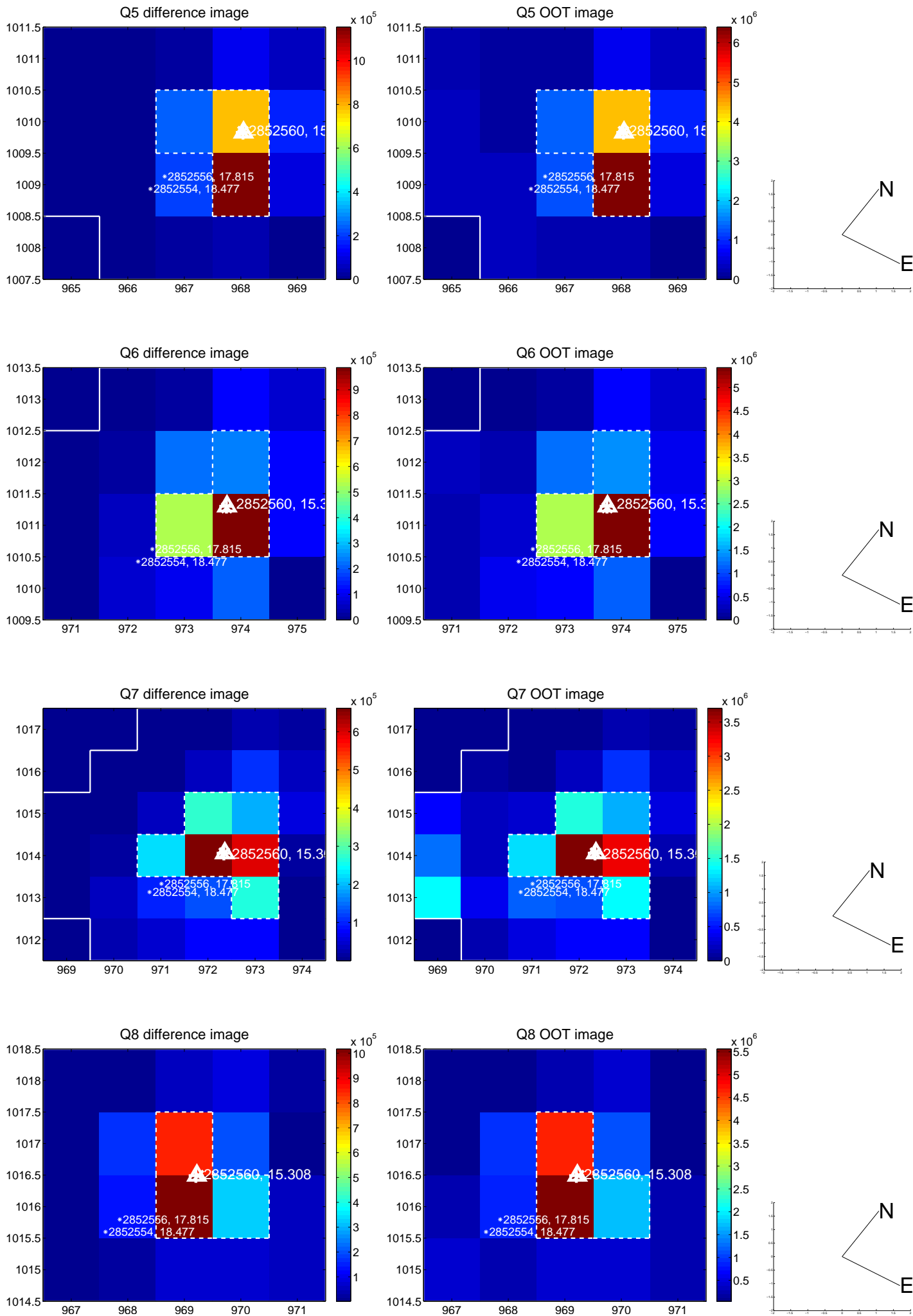


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

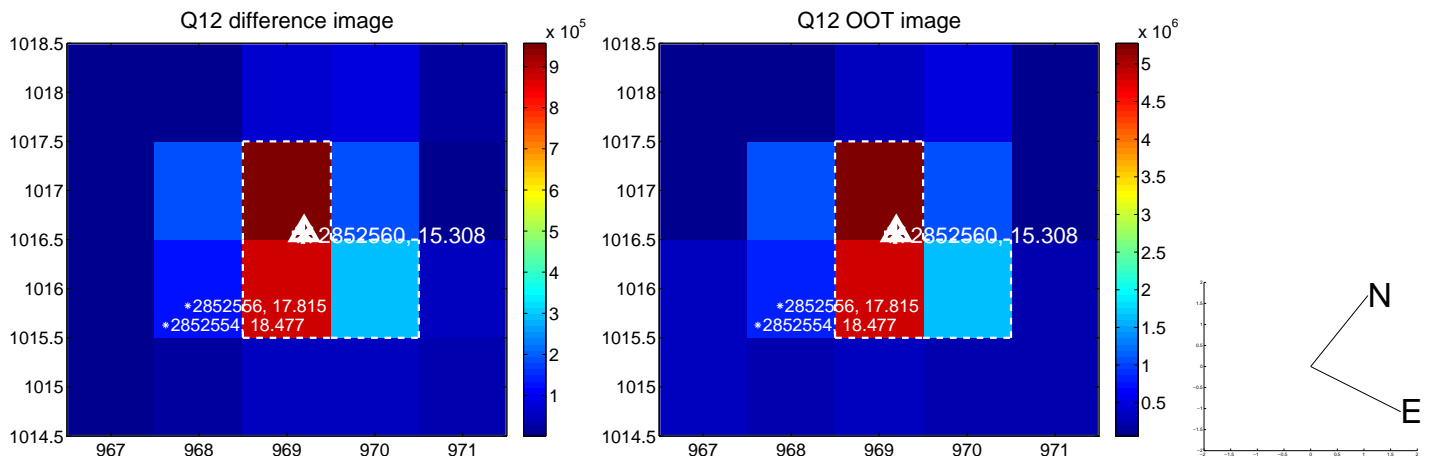
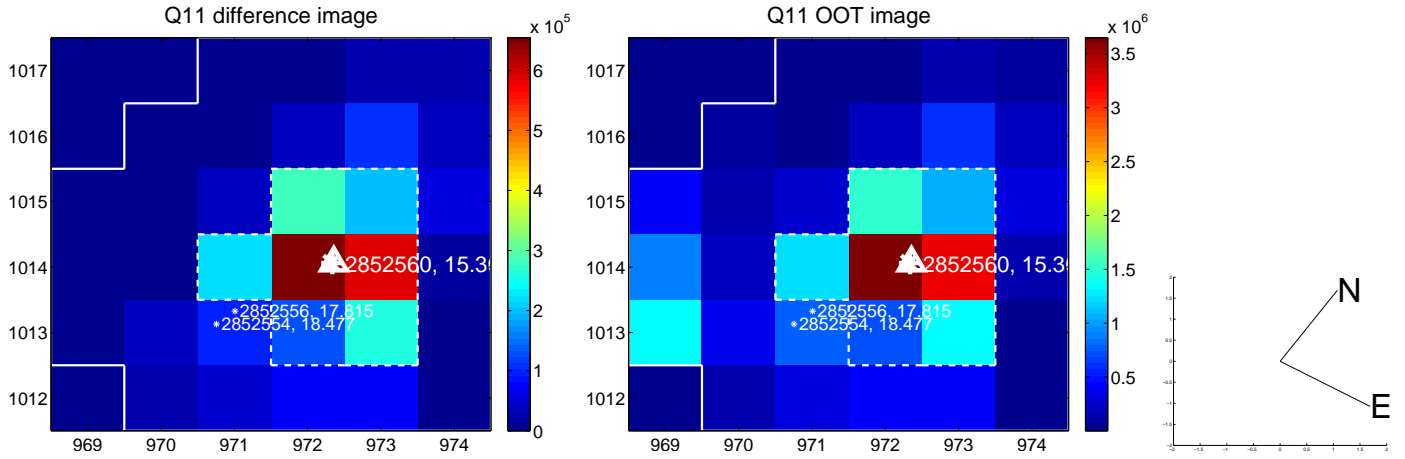
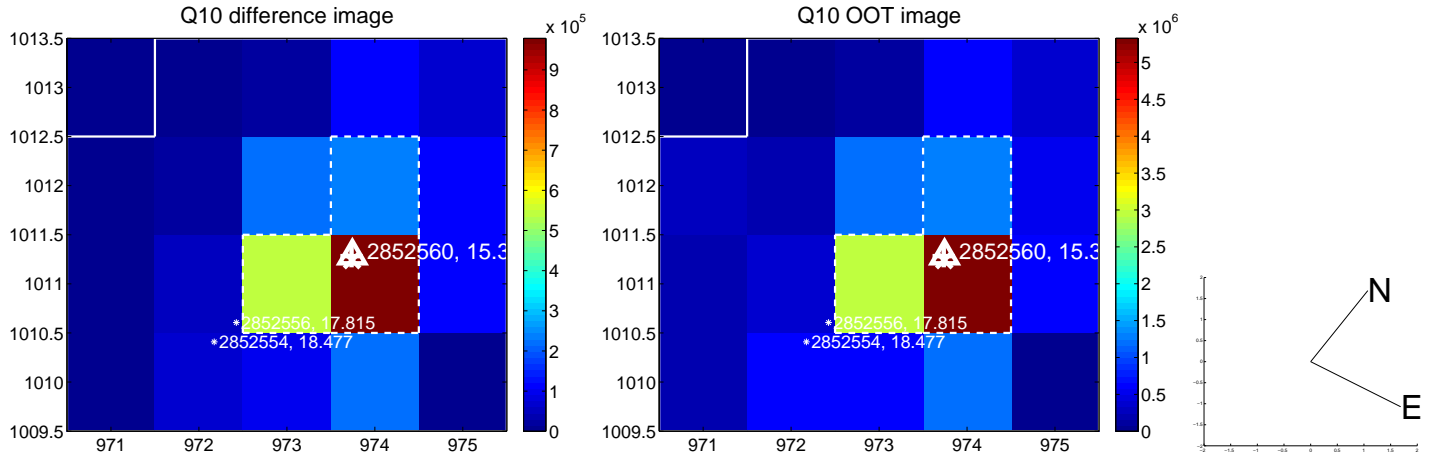
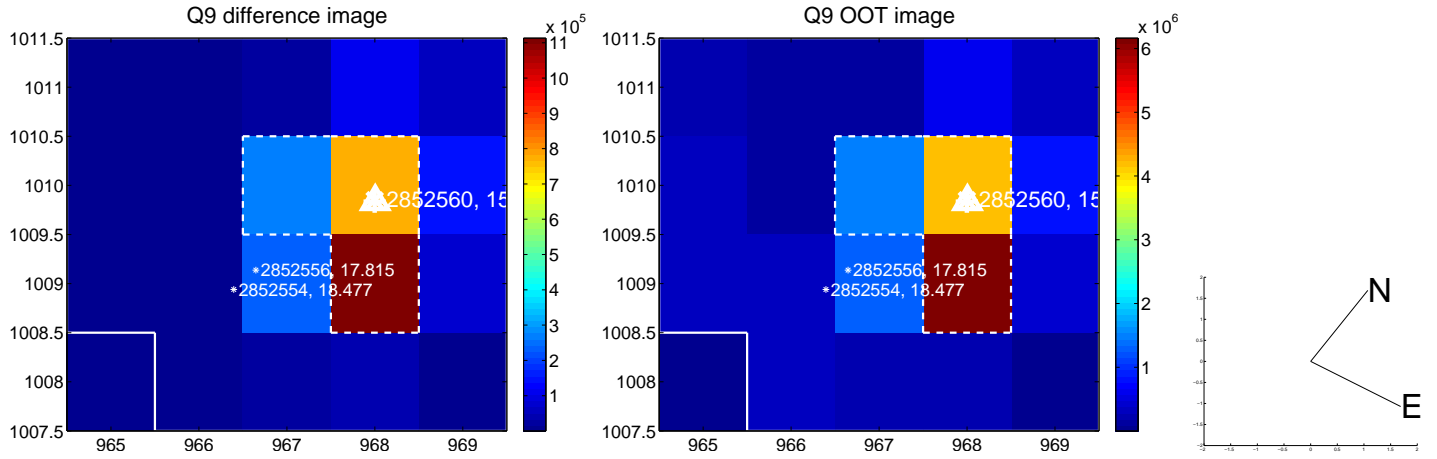
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



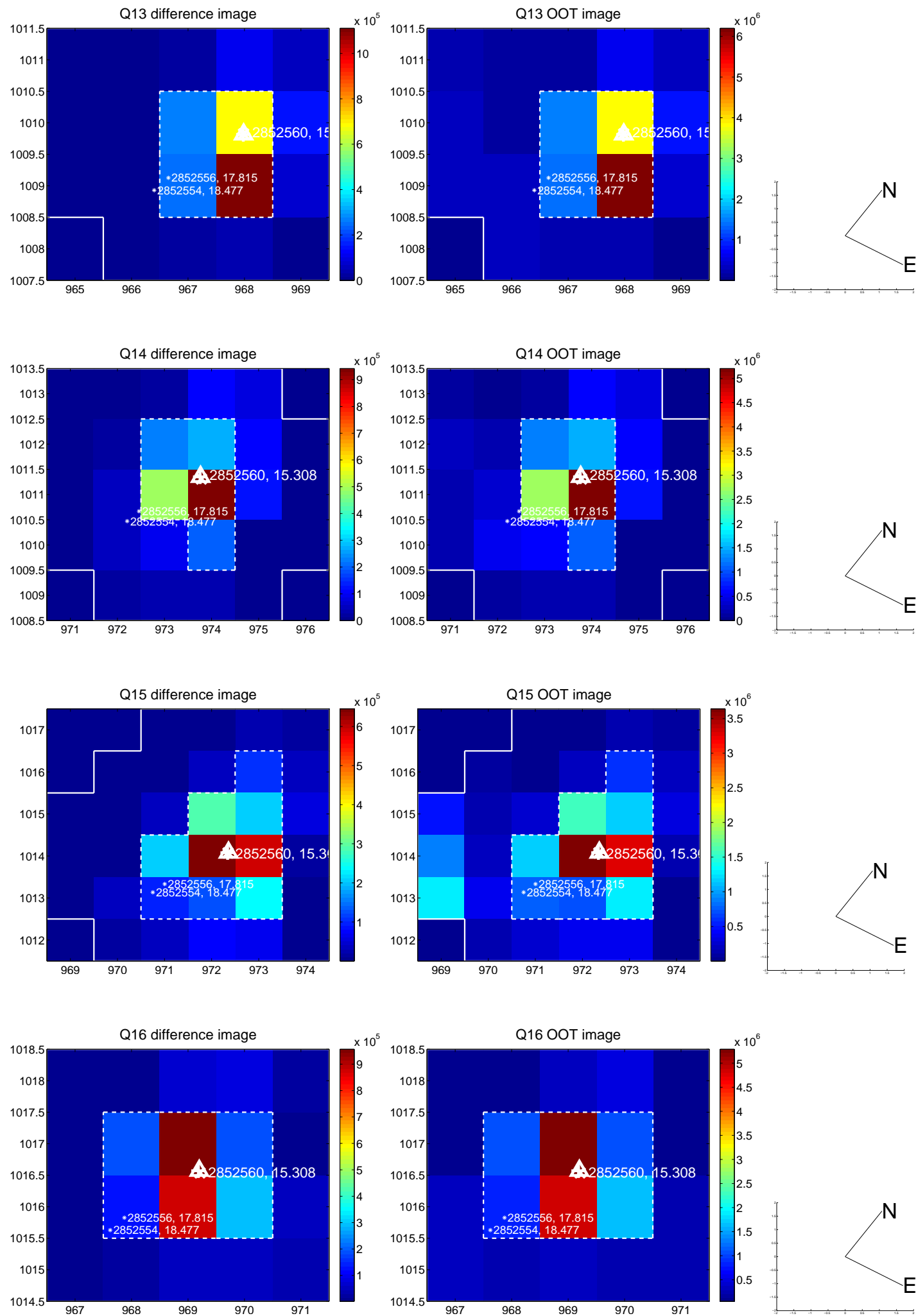
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



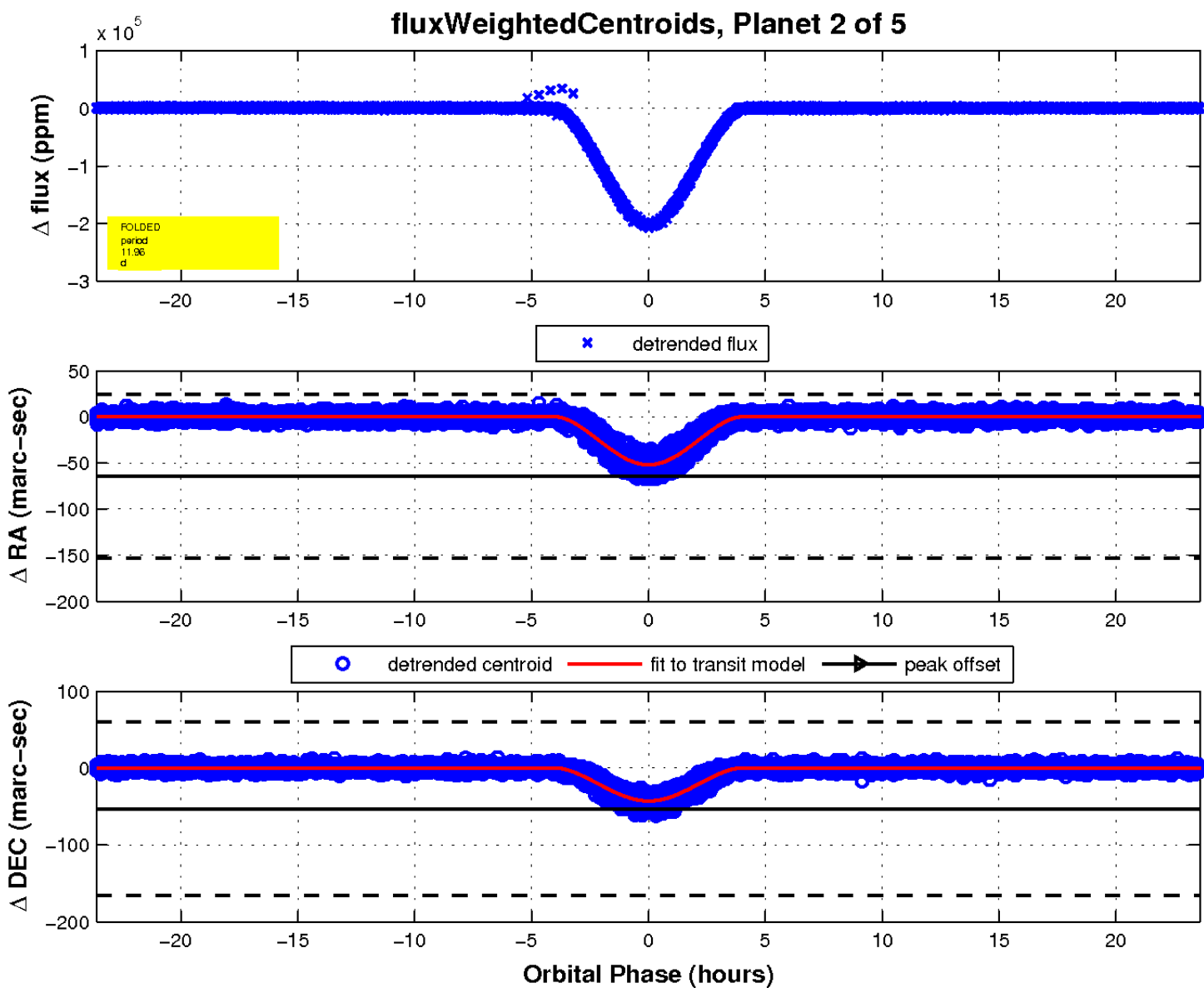
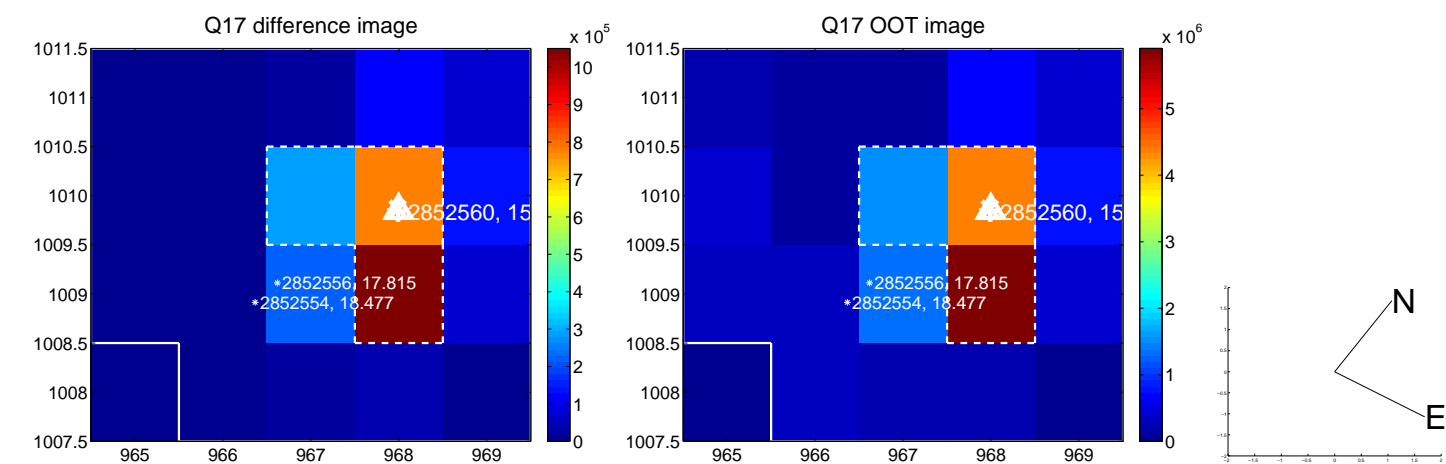
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

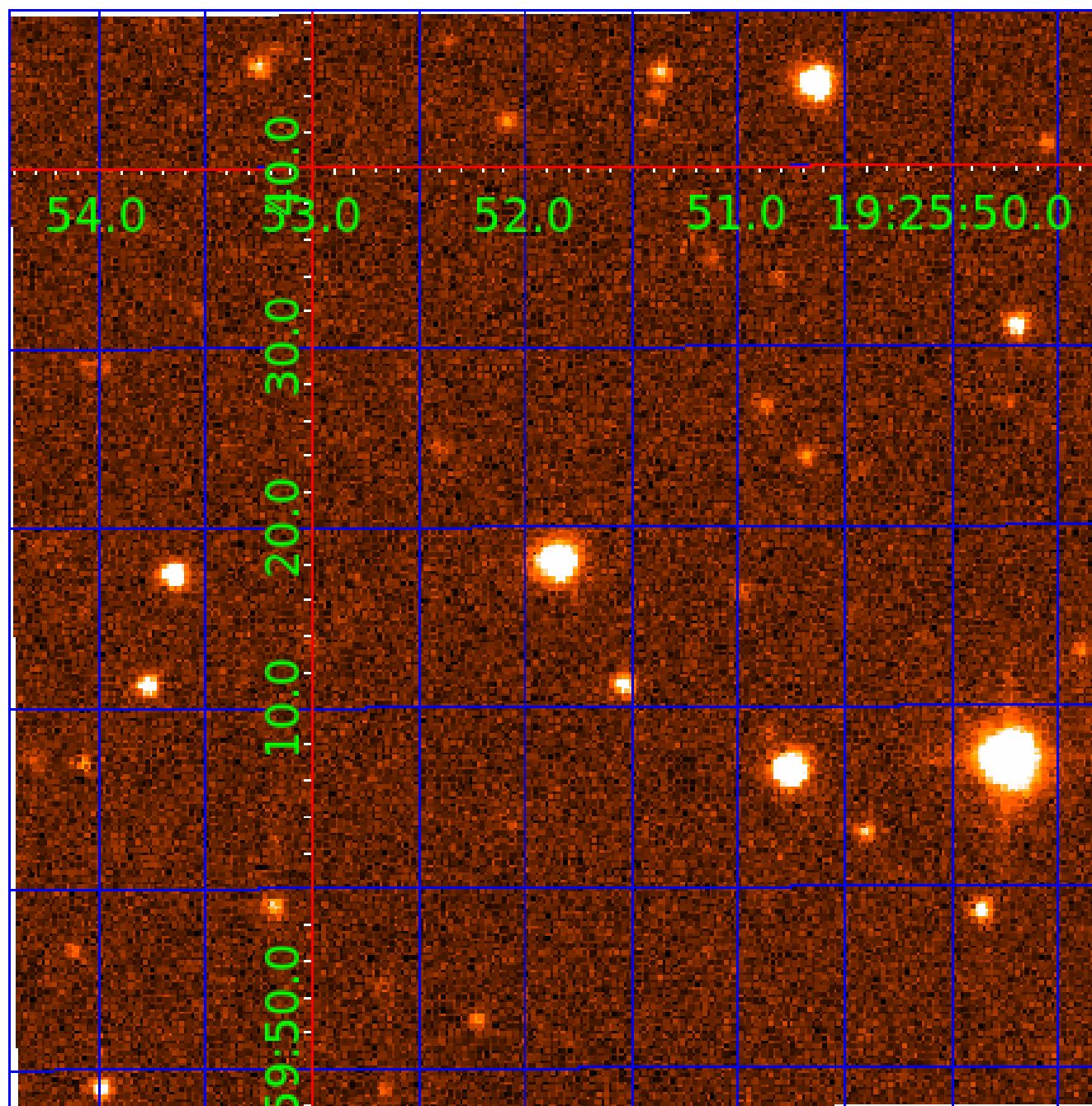


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 002852560

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})
002852560-01	OBS	6294.01	11.961296	131.913277	314256.7	3.000	8292.6	-1.0	0.79	5564	42.32	55.46
002852560-02	OBS	No	11.961300	140.456475	197975.6	7.872	6259.2	4345.0	0.79	5564	48.13	55.46
002852560-03	OBS	No	4.785173	134.061228	0.1	5.705	256.0	0.0	0.79	5564	0.04	188.15
002852560-04	OBS	No	23.922730	154.832497	3120.7	12.500	100.3	-1.0	0.79	5564	4.33	22.01
002852560-05	OBS	No	23.922939	132.964653	3380.9	25.834	90.9	48.8	0.79	5564	8.58	22.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002852560-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
002852560-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
002852560-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
002852560-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
002852560-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—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.

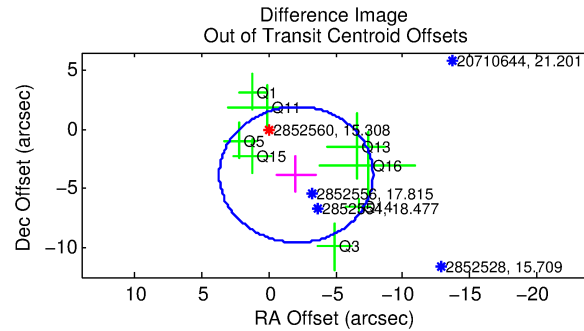
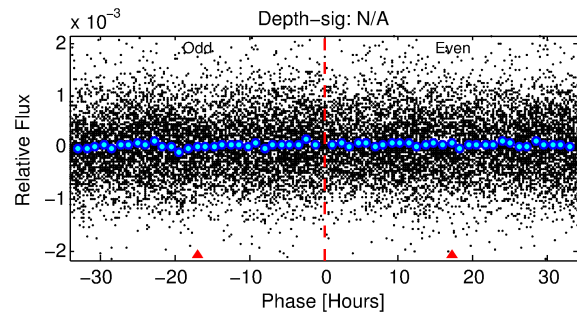
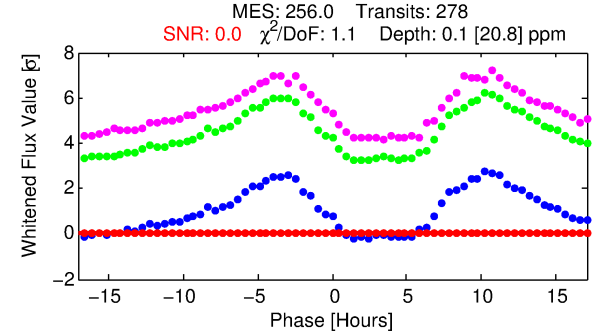
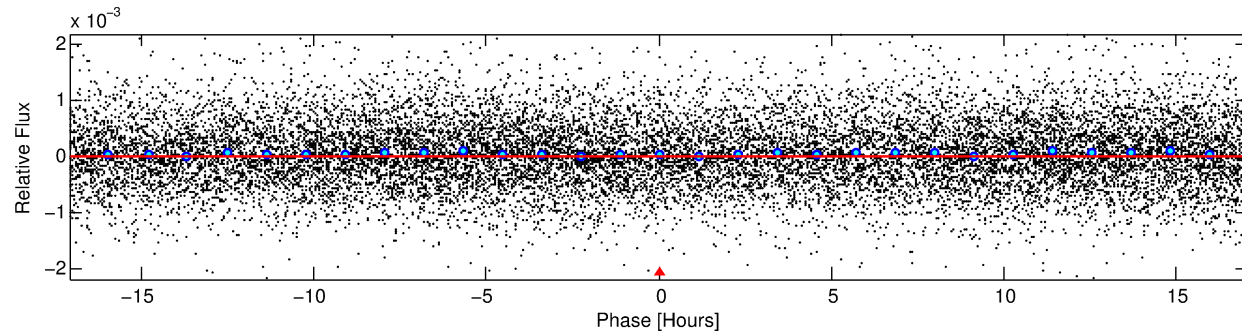
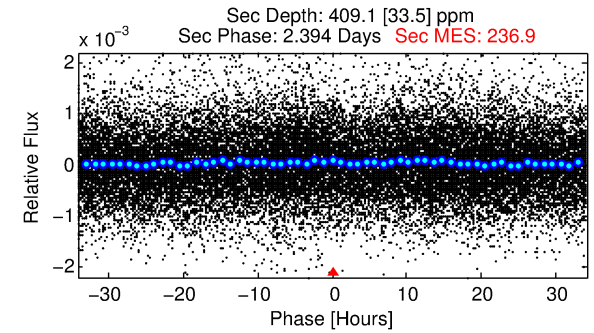
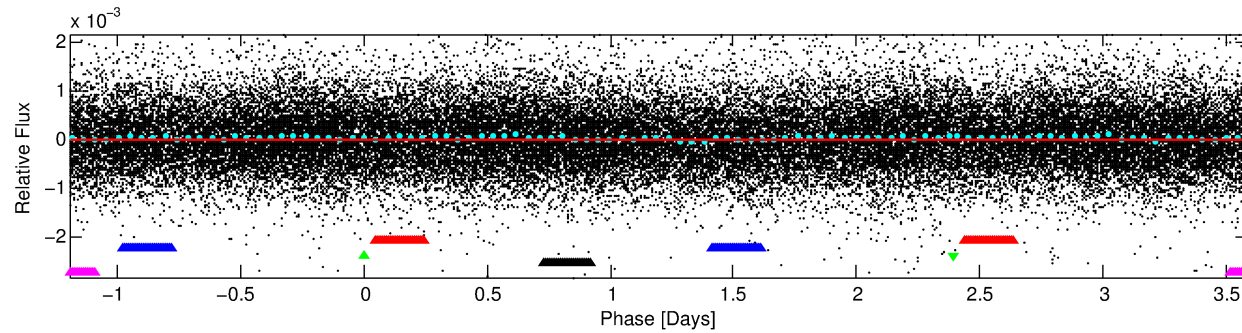
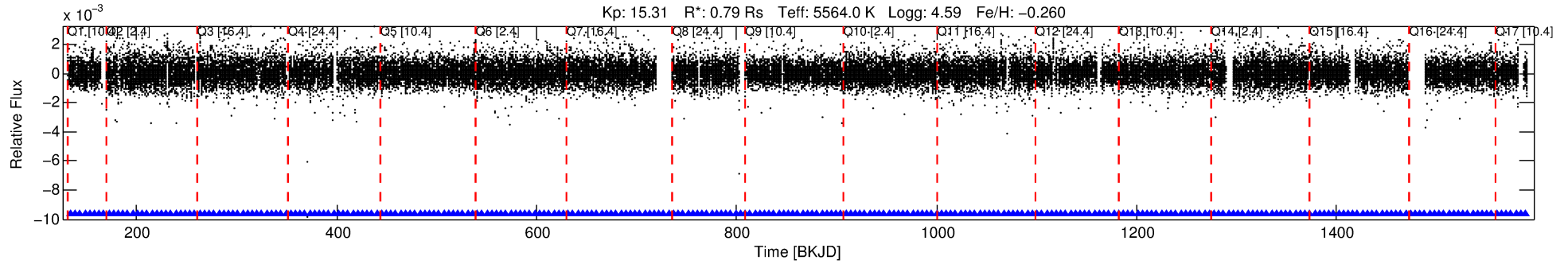
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002852560-03

No Significant Match Found

DV One-Page Summary

KIC: 2852560 Candidate: 3 of 5 Period: 4.785 d
KOI: K06294 Corr: No Ephemeris Match



DV Fit Results:

Period = 4.78517 [0.06025] d
Epoch = 134.0612 [8.6909] BKJD
Rp/R* = 0.0004 [0.0320]
a/R* = 2.75 [177.30]
b = 0.92 [13.57]
Seff = 188.14 [47.91]
Teq = 944 [60] K
Rp = 0.04 [2.74] Re
a = 0.0530 [0.0083] AU
Ag = 506268.40 [78398653.69] [0.016]
Teffp = 38948 [1507865] K [0.03]

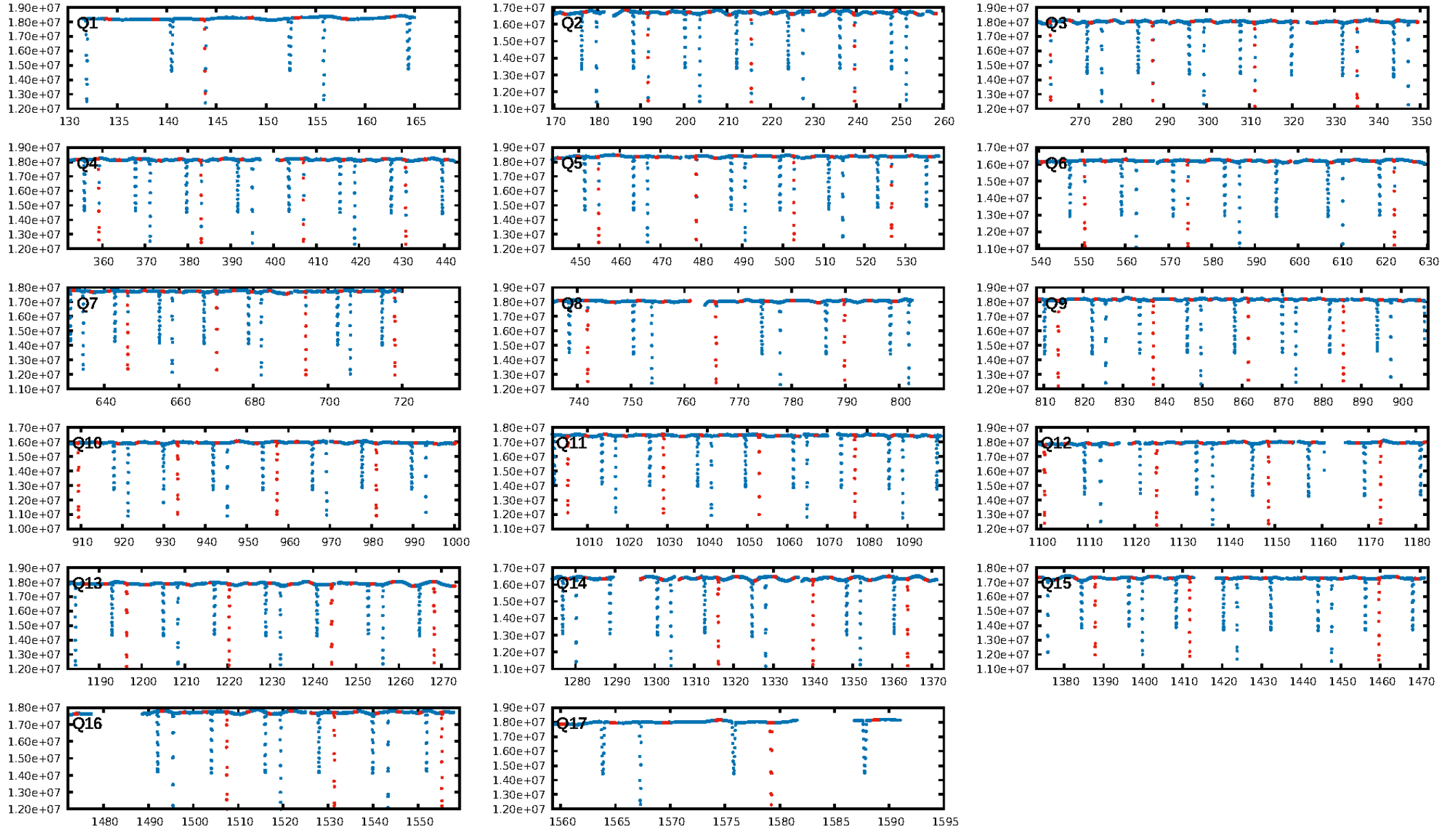
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [26.72σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [266/266]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 4.365 arcsec [2.28σ]
KicOffset-rm: 4.371 arcsec [2.36σ]
OotOffset-st: 1/3/1/3 [8]
KicOffset-st: 1/3/1/3 [8]
DiffImageQuality-fgm: 0.00 [0/8]
DiffImageOverlap-fno: 1.00 [17/17]

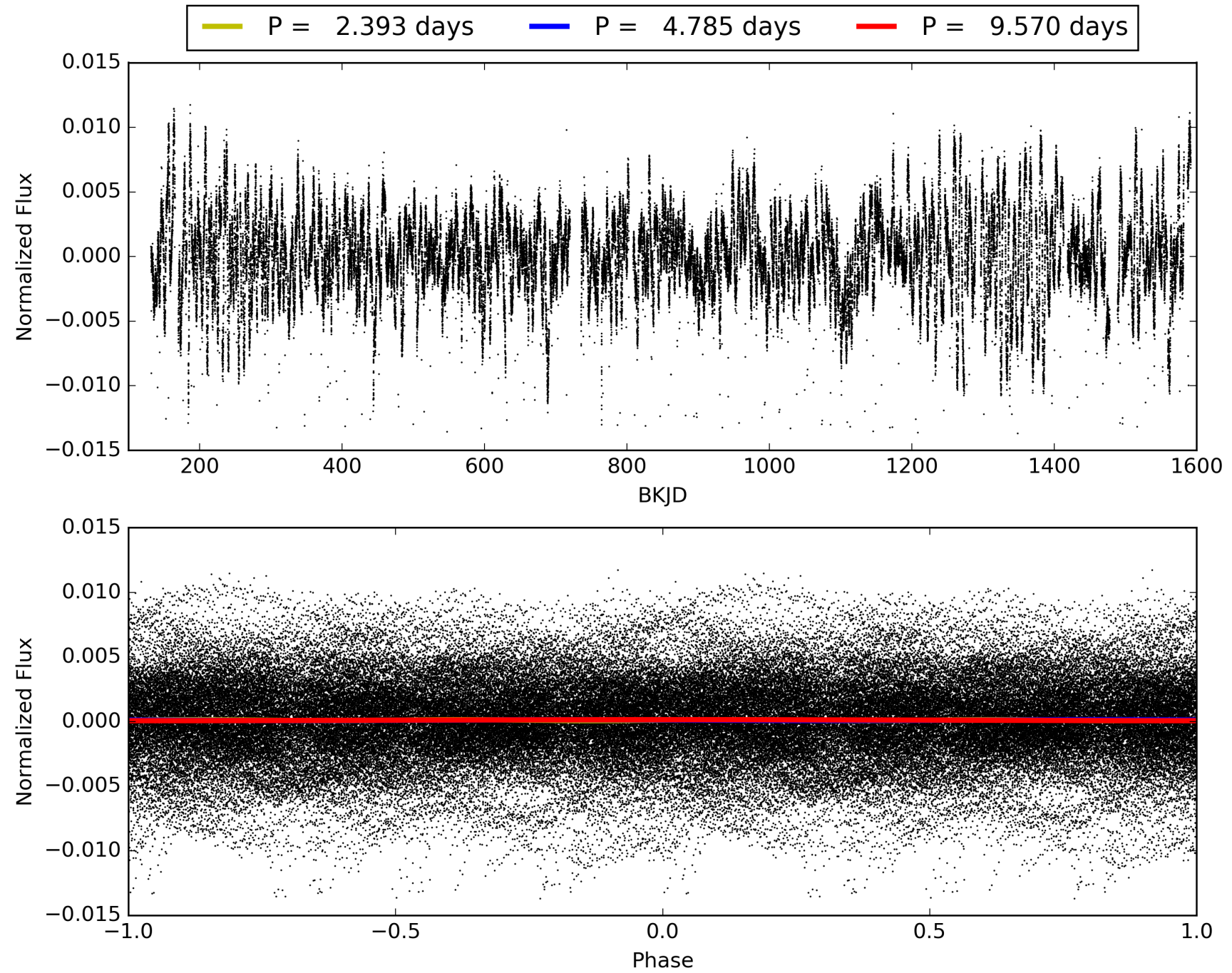
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 19:57:17 Z

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

TCE 002852560-03, PDC Light Curves

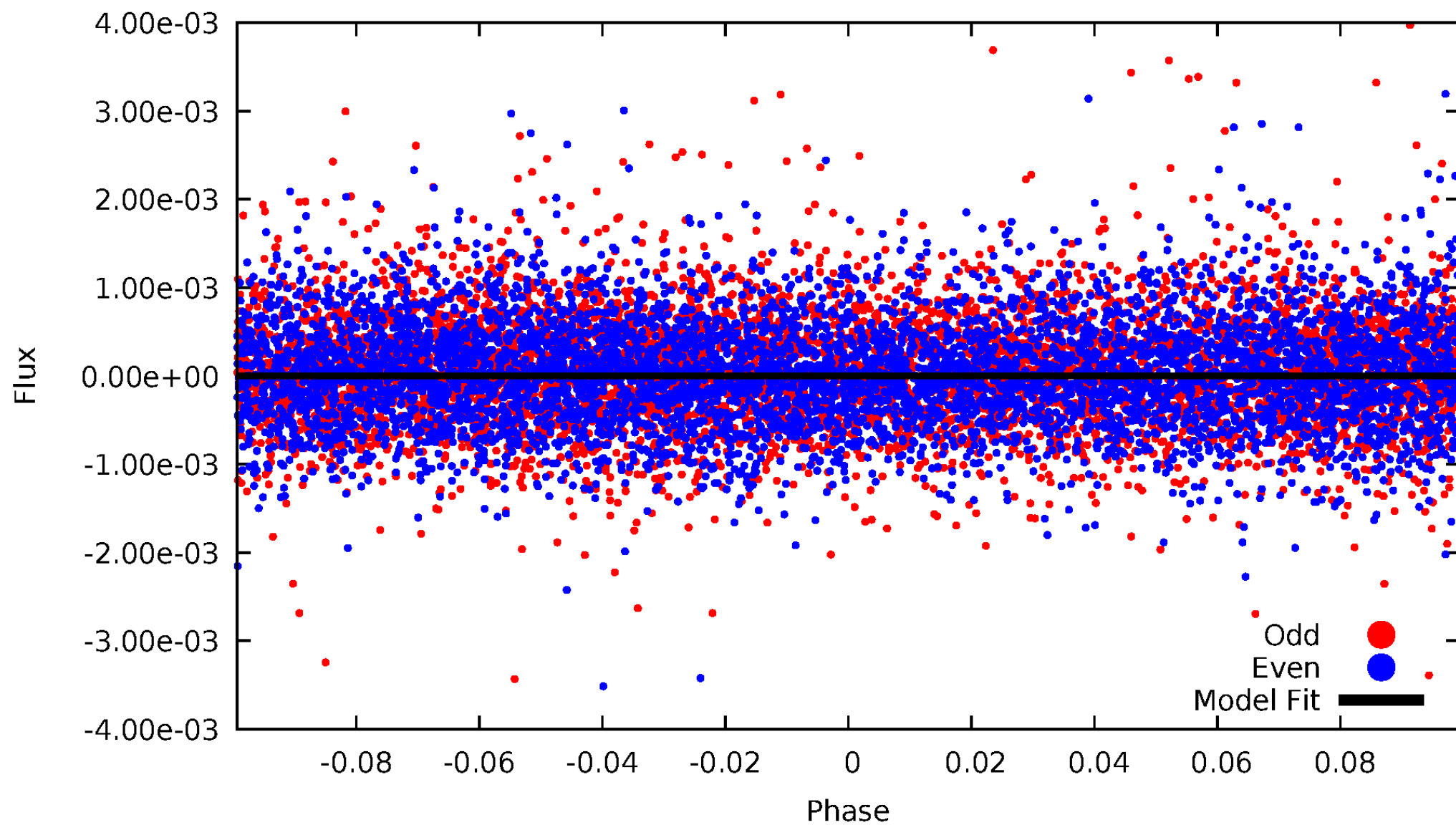


TCE 002852560-03



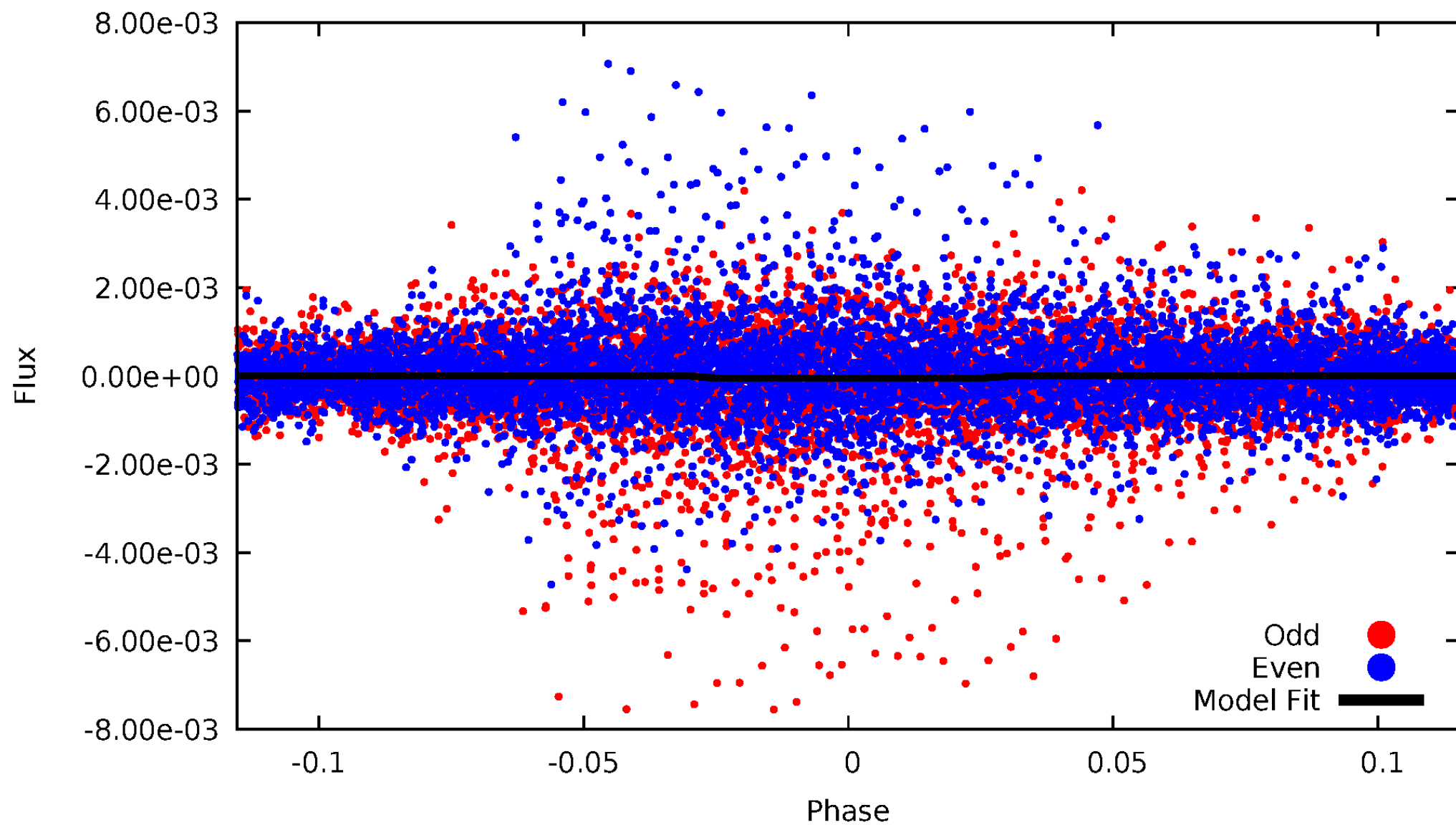
DV Odd/Even

TCE 002852560-03



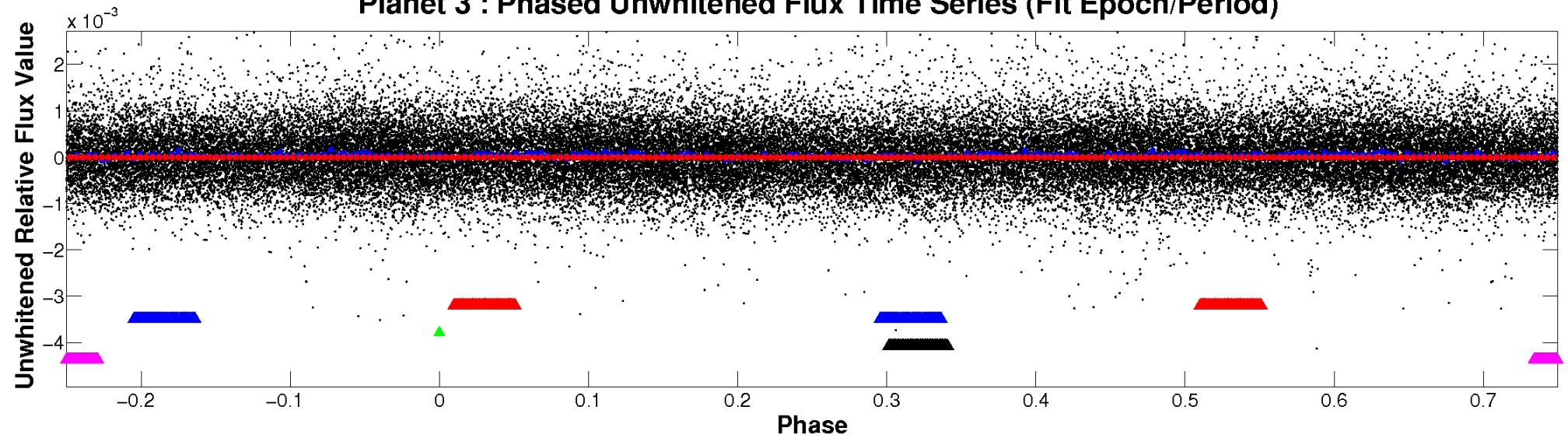
ALT Odd/Even

TCE 002852560-03

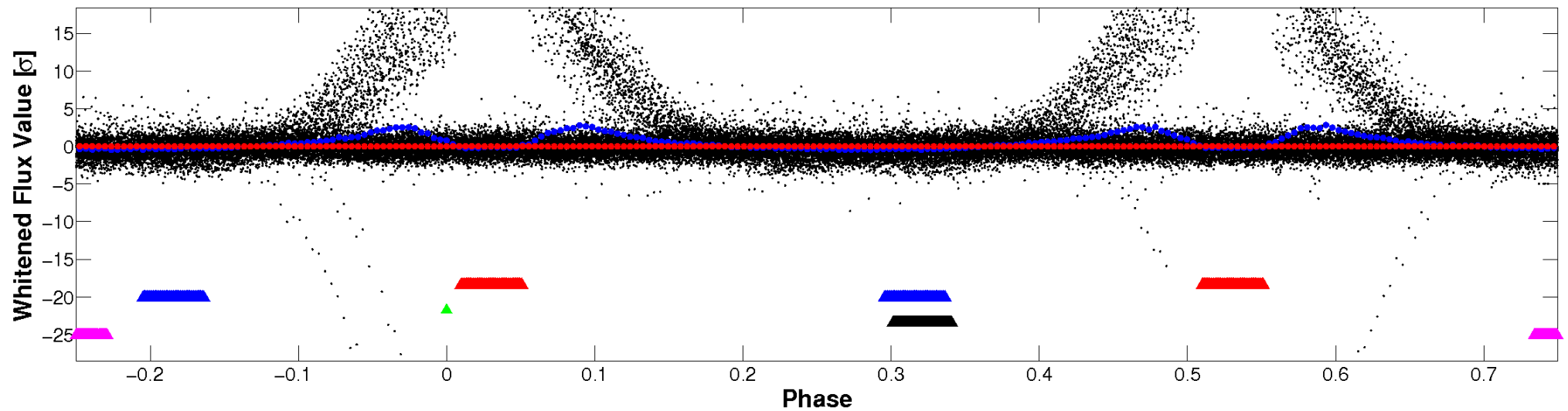


Non-Whitened Vs. Whitened Light Curve

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

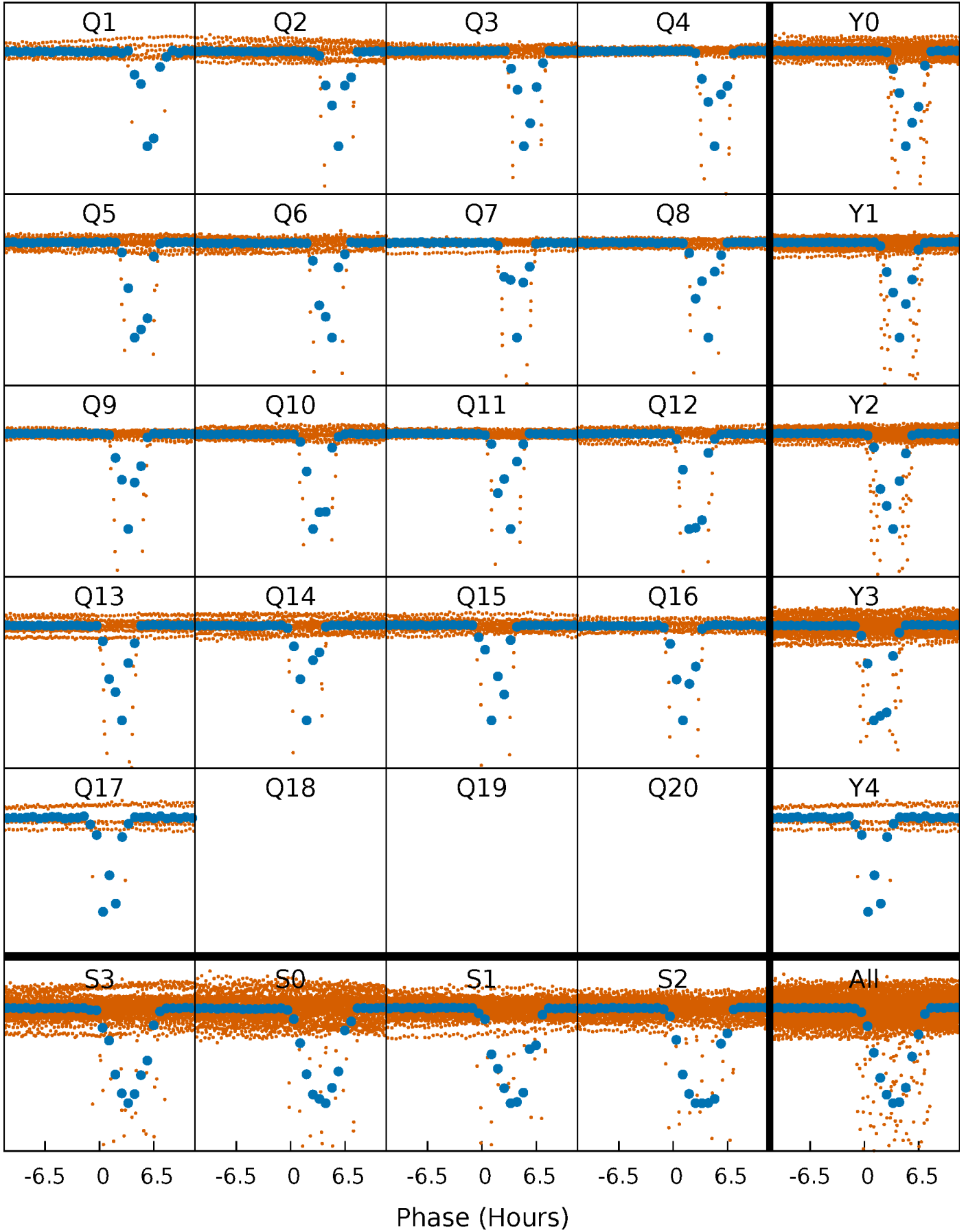


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



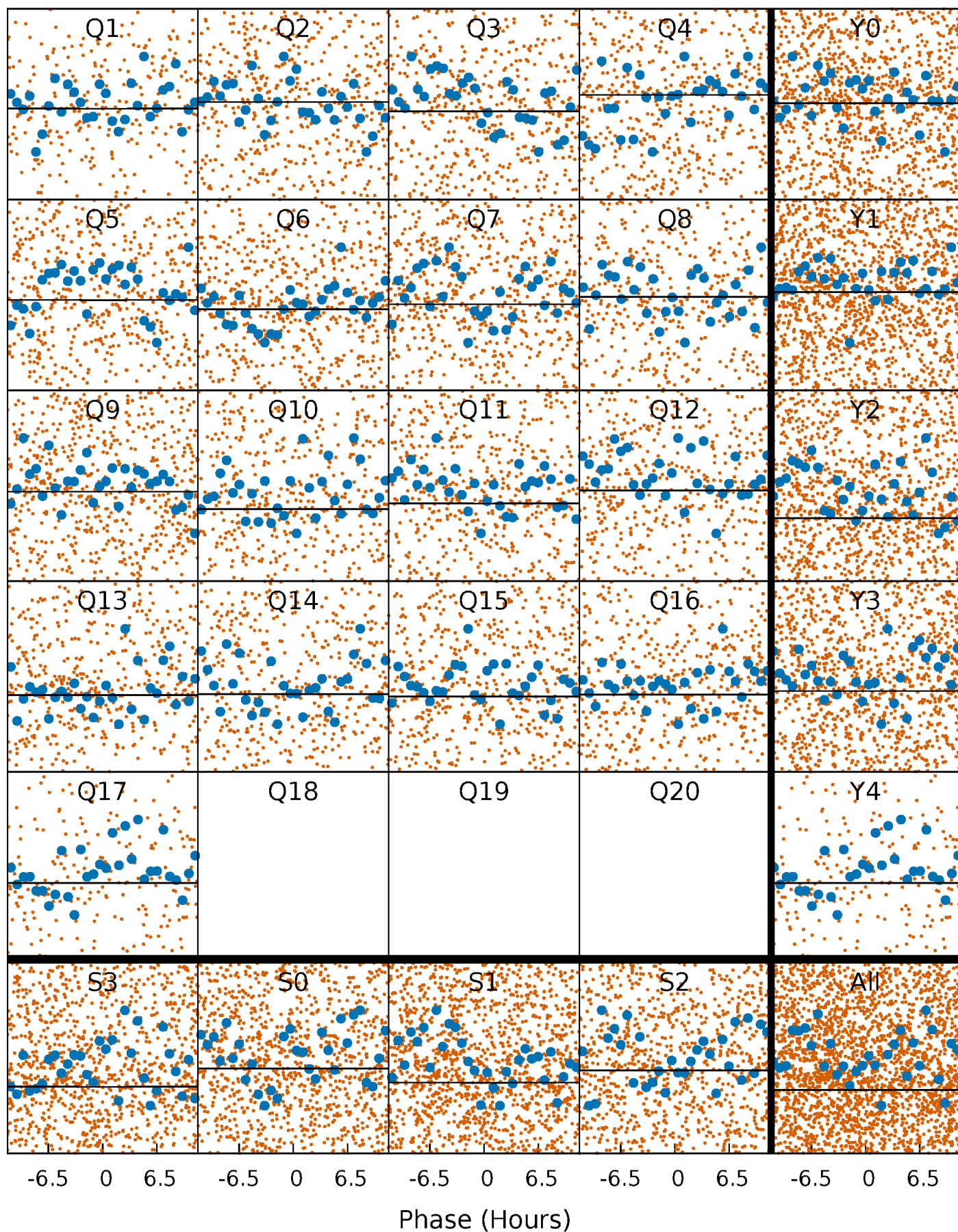
PDC Quarter-Phased Transit Curves

TCE 002852560-03 P= 4.785173 Days $T_0=134.061228$ (BKJD)



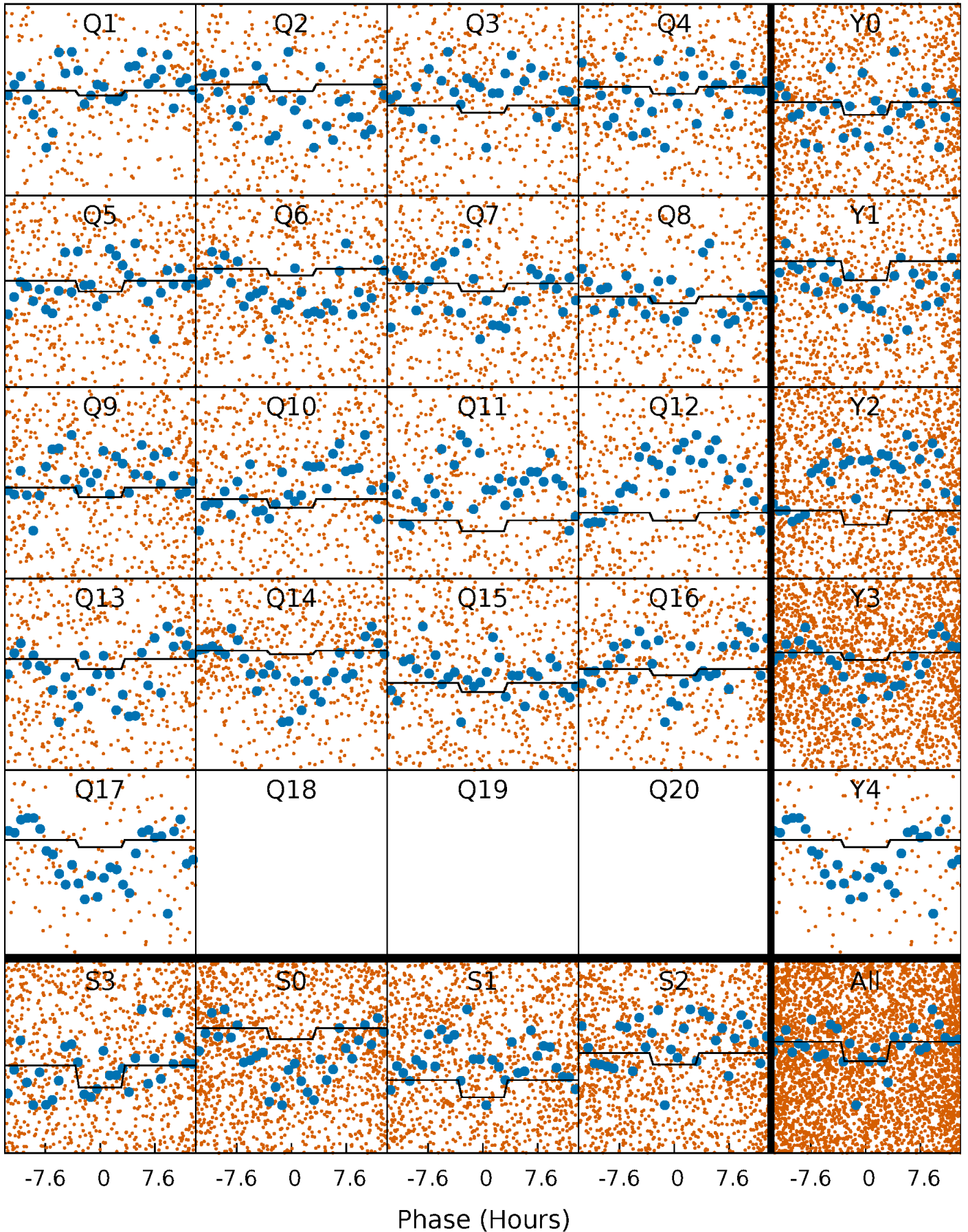
DV Quarter-Phased Transit Curves

TCE 002852560-03 P= 4.785173 Days $T_0=134.061228$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

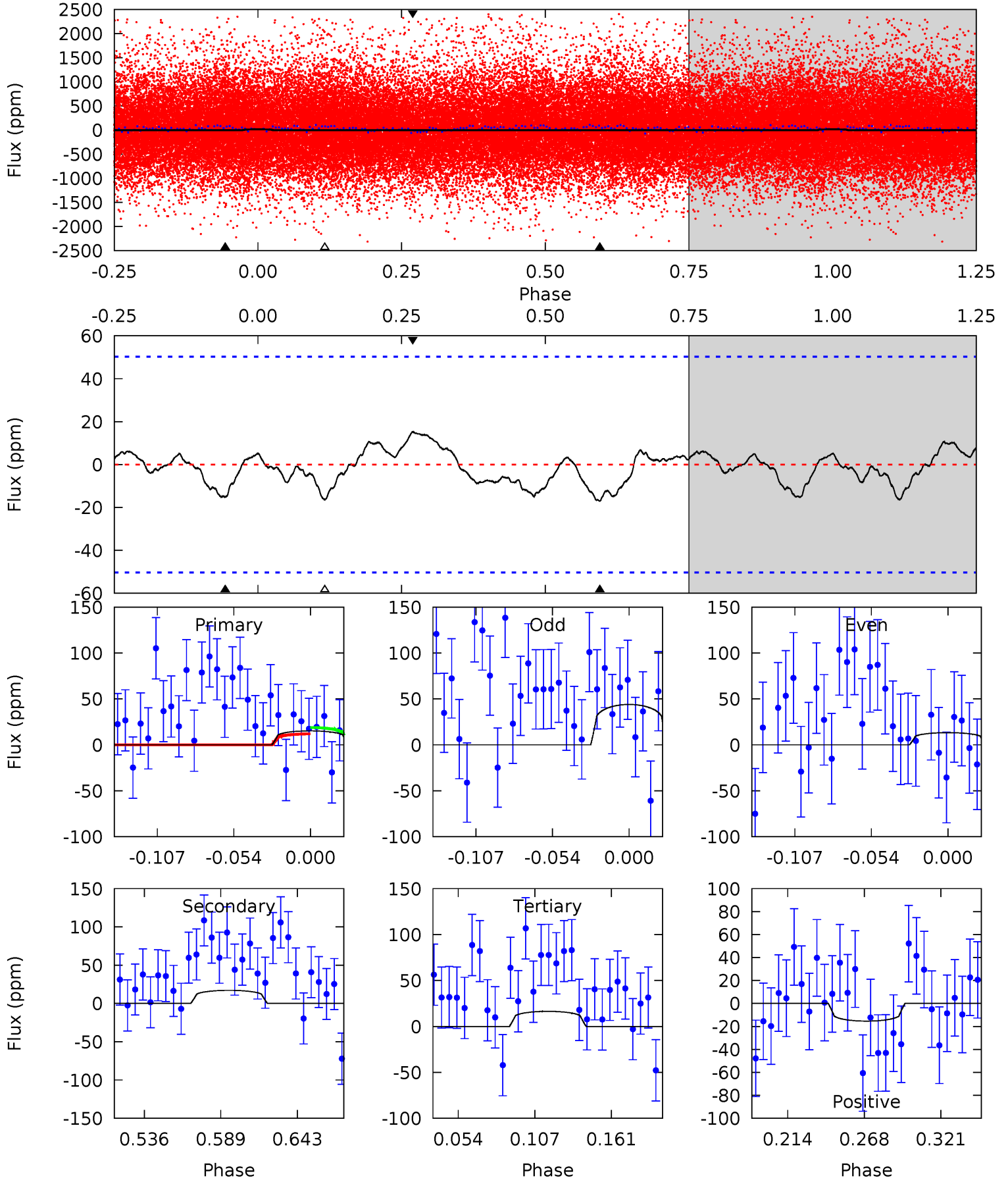
TCE 002852560-03 P= 4.784670 Days $T_0=134.044994$ (BKJD)



DV Model-Shift Uniqueness Test

002852560-03, P = 4.785173 Days, E = 129.276055 Days

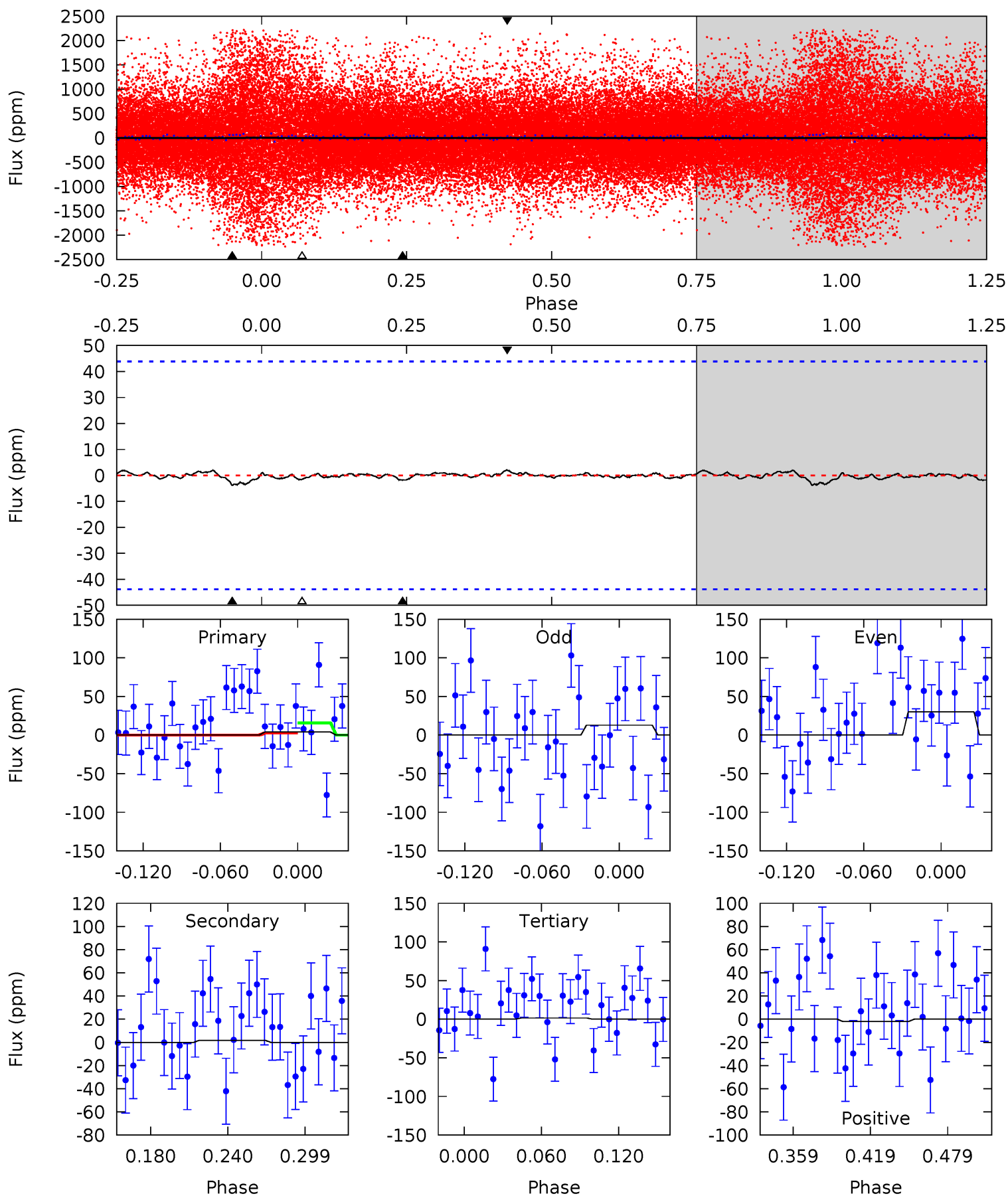
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.42	1.60	1.53	1.44	4.69	1.93	0.67	-0.11	-0.02	0.06	0.16	1.44	1.51	0.47	0.33



Alt Model-Shift Uniqueness Test

002852560-03, P = 4.784670 Days, E = 129.260324 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.41	0.19	0.16	0.21	4.67	1.88	0.07	0.25	0.20	0.03	-0.02	0.91	-1.08	0.34	0.73



Stellar Parameters For KIC 002852560

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5564^{+150}_{-167}	$4.587^{+0.040}_{-0.120}$	$-0.260^{+0.300}_{-0.300}$	$0.785^{+0.150}_{-0.064}$	$0.878^{+0.082}_{-0.109}$	$2.558^{+0.436}_{-0.966}$
	+3%/-3%	+1%/-3%	+115%/-115%	+19%/-8%	+9%/-12%	+17%/-38%
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 002852560-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-17 ± 11	$1.89^{+2.00}_{-1.30}$	1334^{+65}_{-50}	2969^{+1518}_{-664}	$6.062^{+62.043}_{-4.941}$
Alt.	-2 ± 9	$2.12^{+2.21}_{-1.50}$	1338^{+64}_{-51}	-1684^{+4831}_{-1124}	$0.265^{+8.844}_{-3.702}$

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

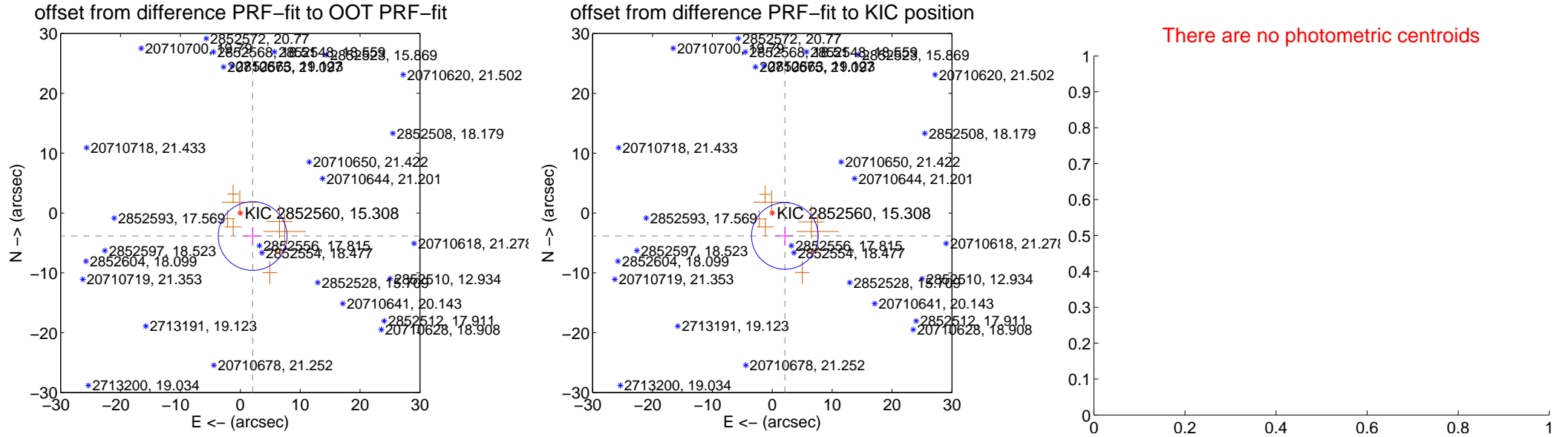
DV Centroid Data

Supplemental centroid analysis for 002852560-03. Kepler magnitude: 15.31. Transit SNR 0.01

There are 0 quarters with good PRF difference image offsets

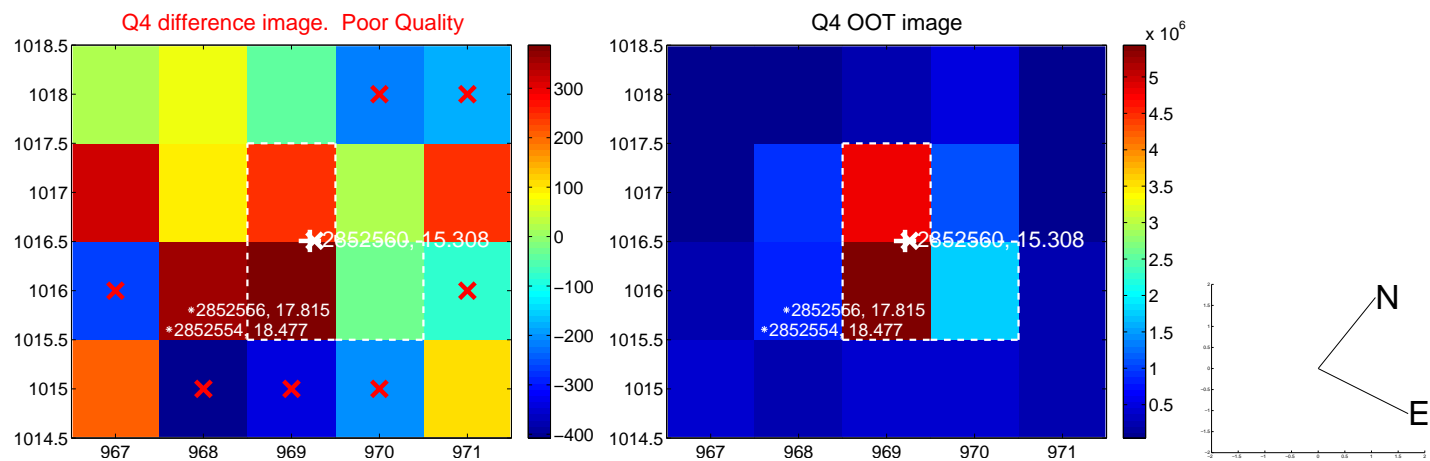
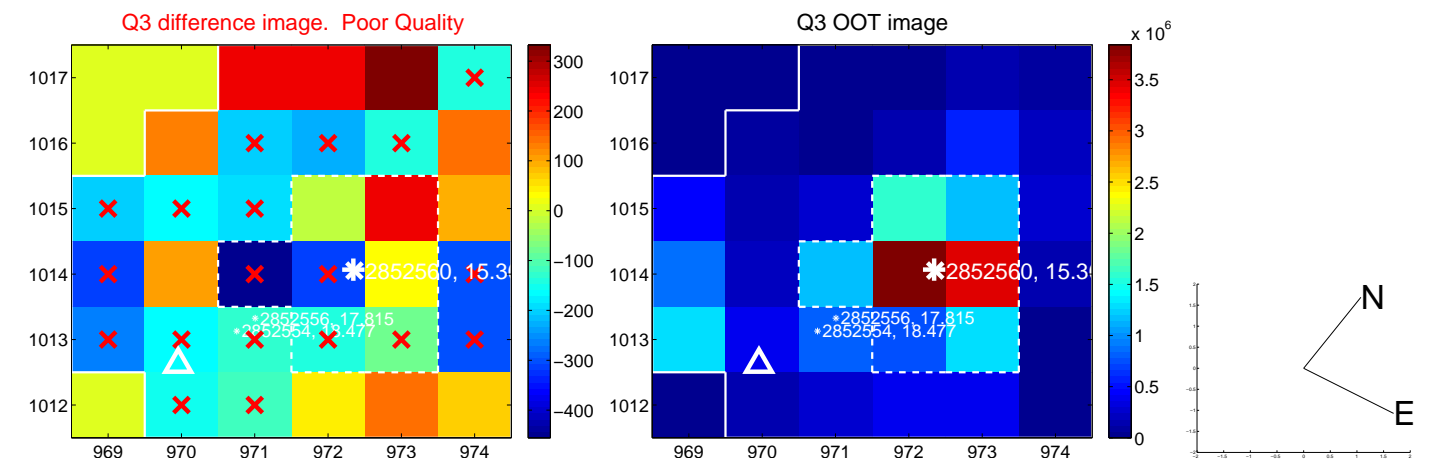
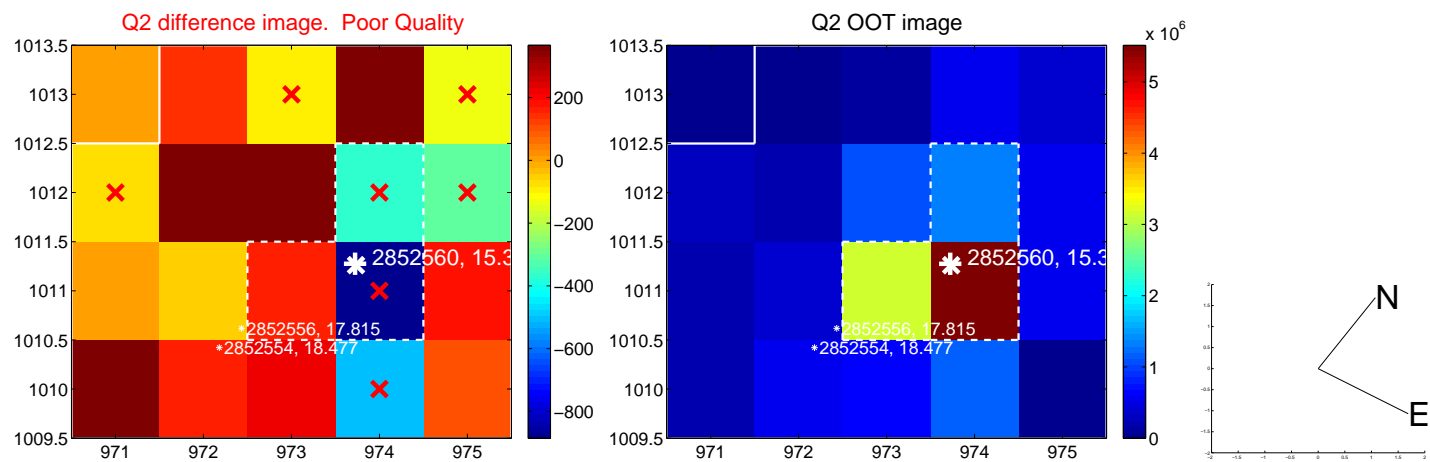
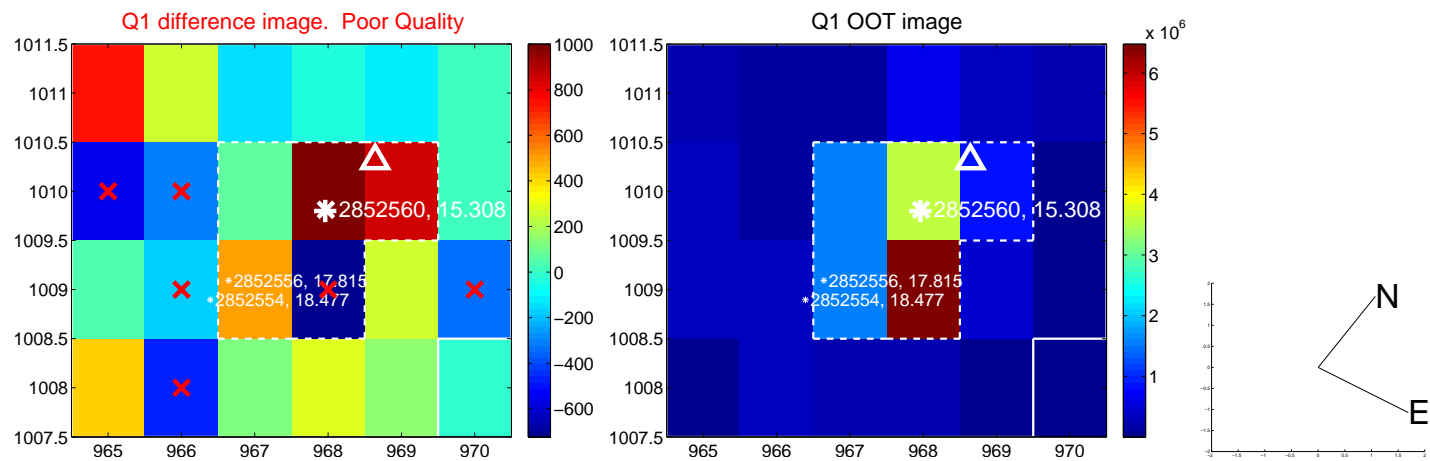
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.365 ± 1.914	2.28	-2.064 ± 1.518	-3.847 ± 1.526
PRF-fit source offset from KIC position	4.371 ± 1.855	2.36	-2.104 ± 1.492	-3.831 ± 1.549
photometric centroid source offset	—	—	—	—

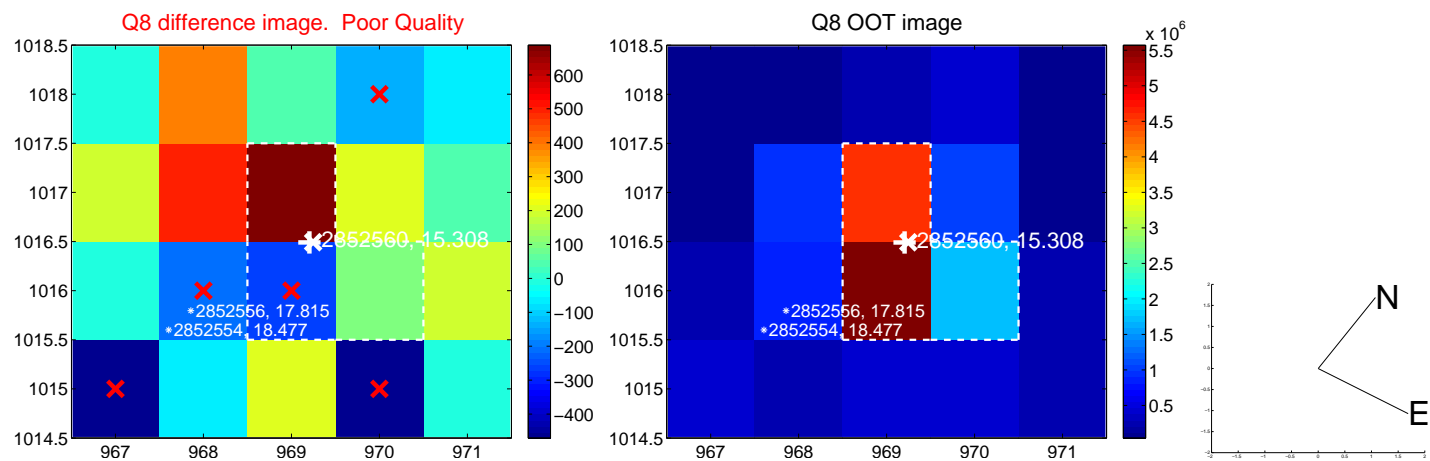
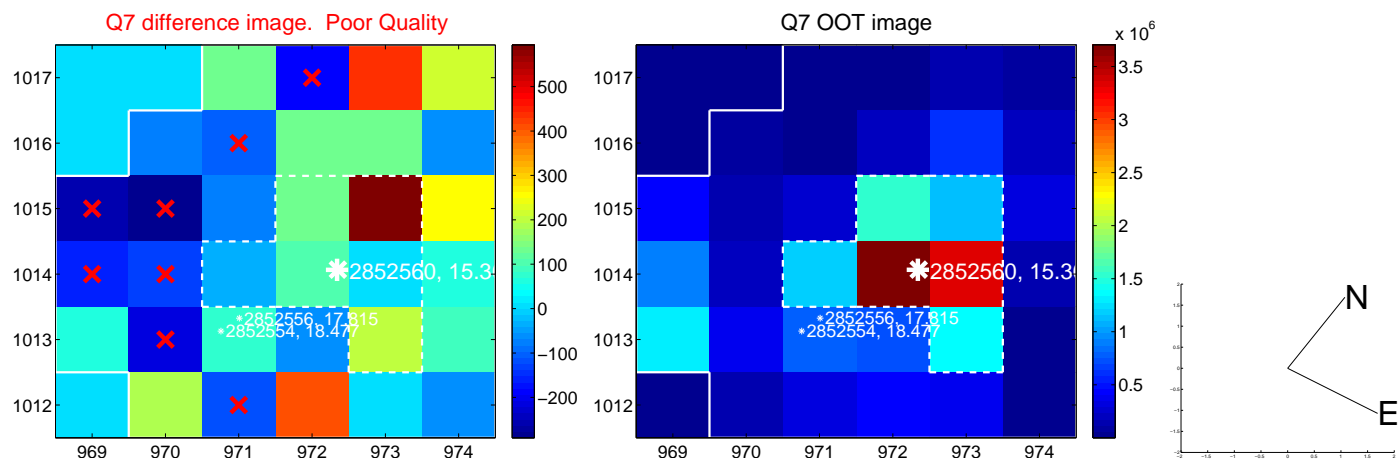
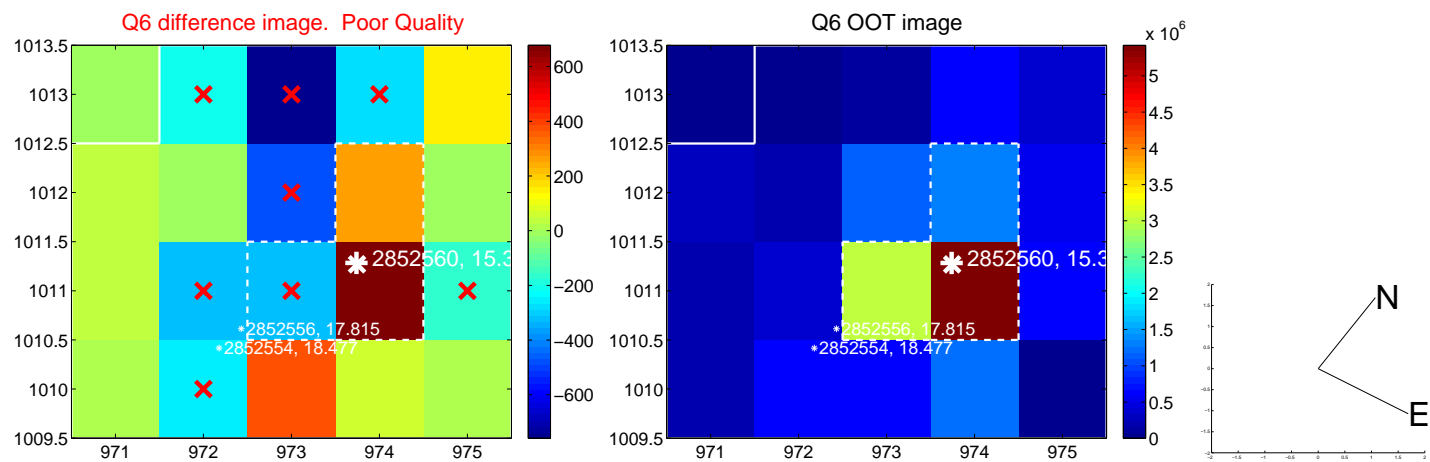
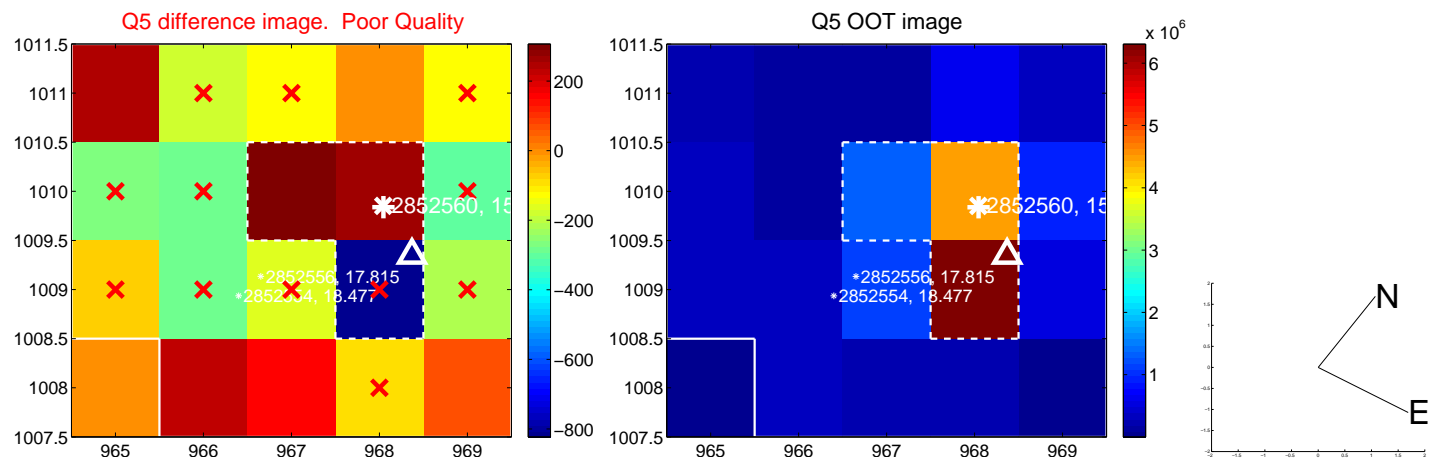


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

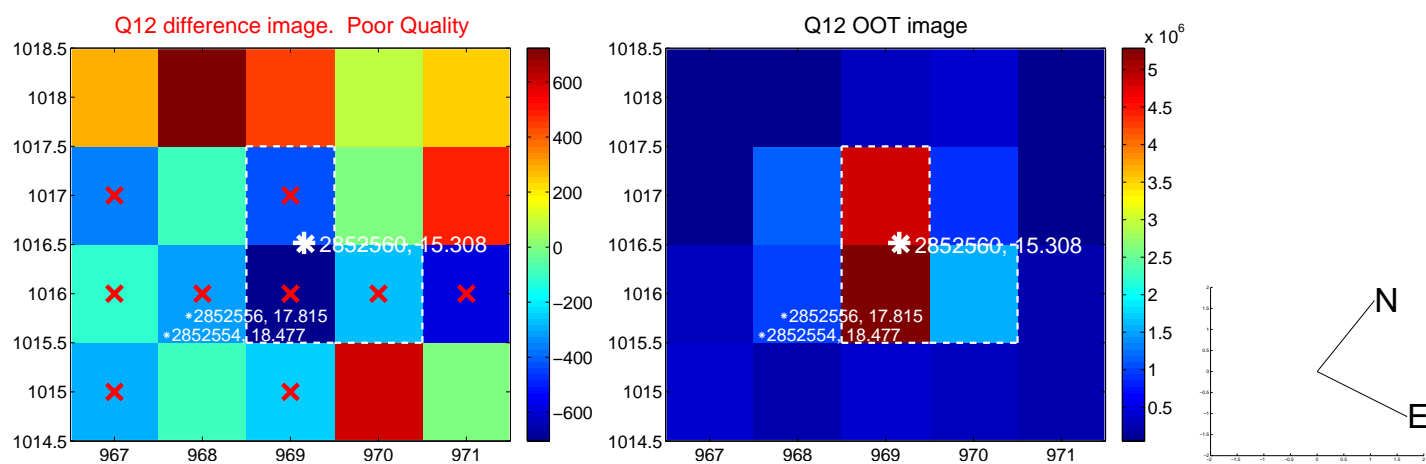
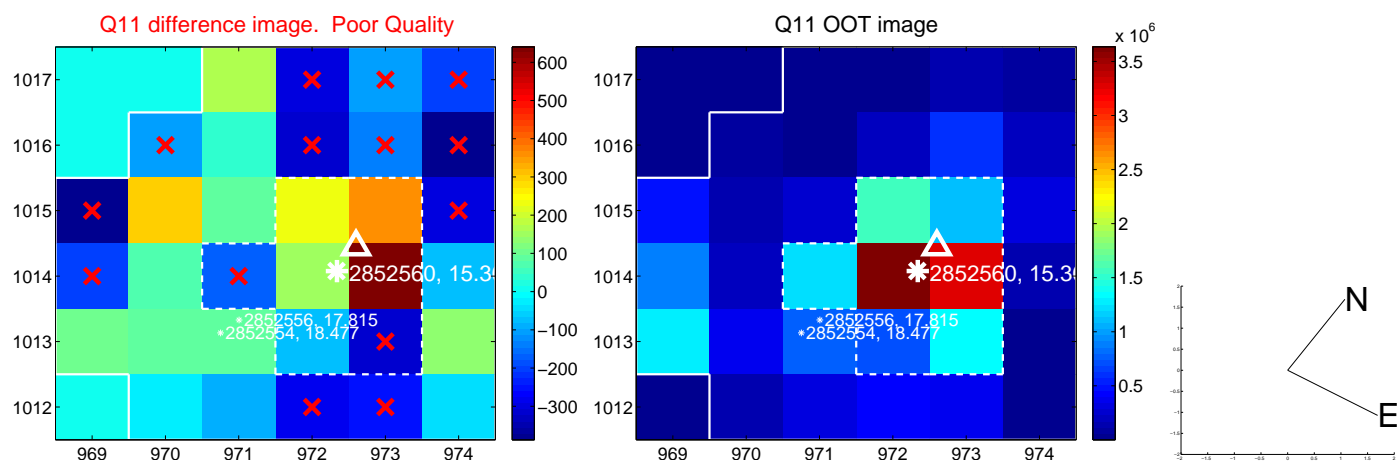
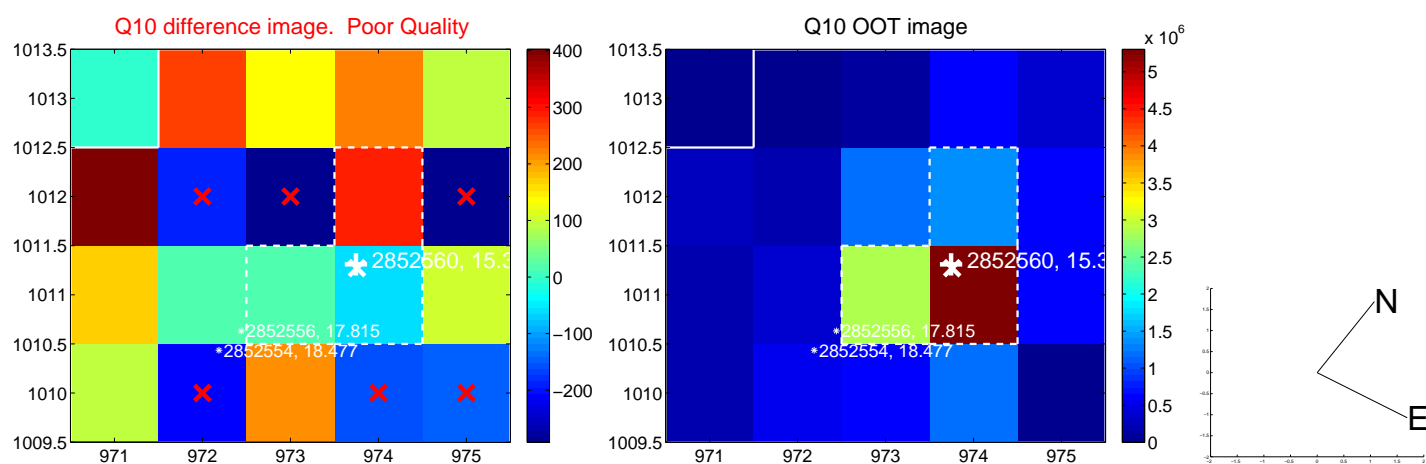
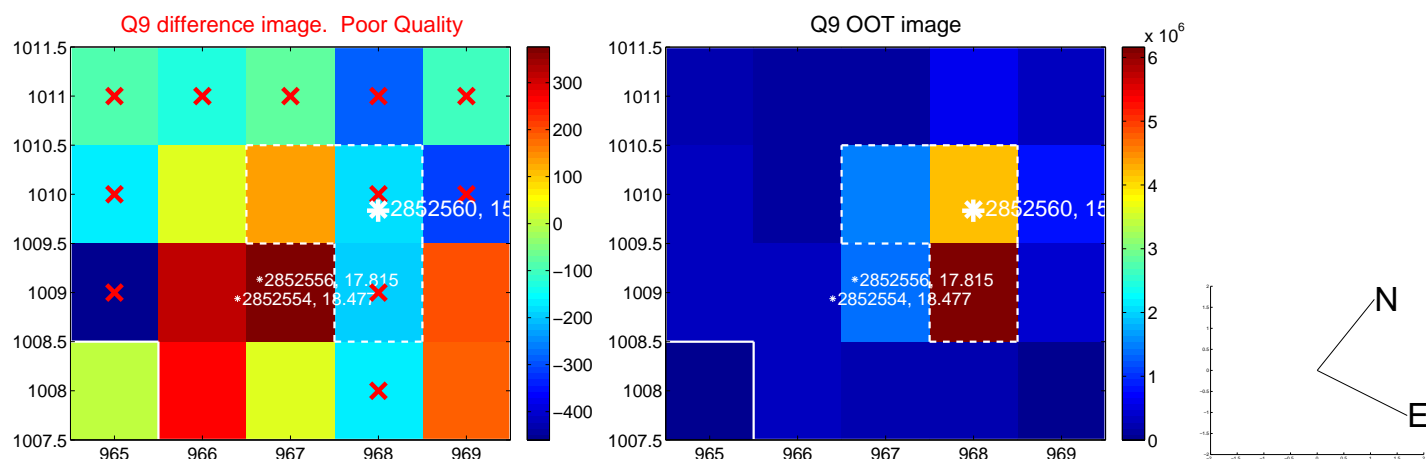
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



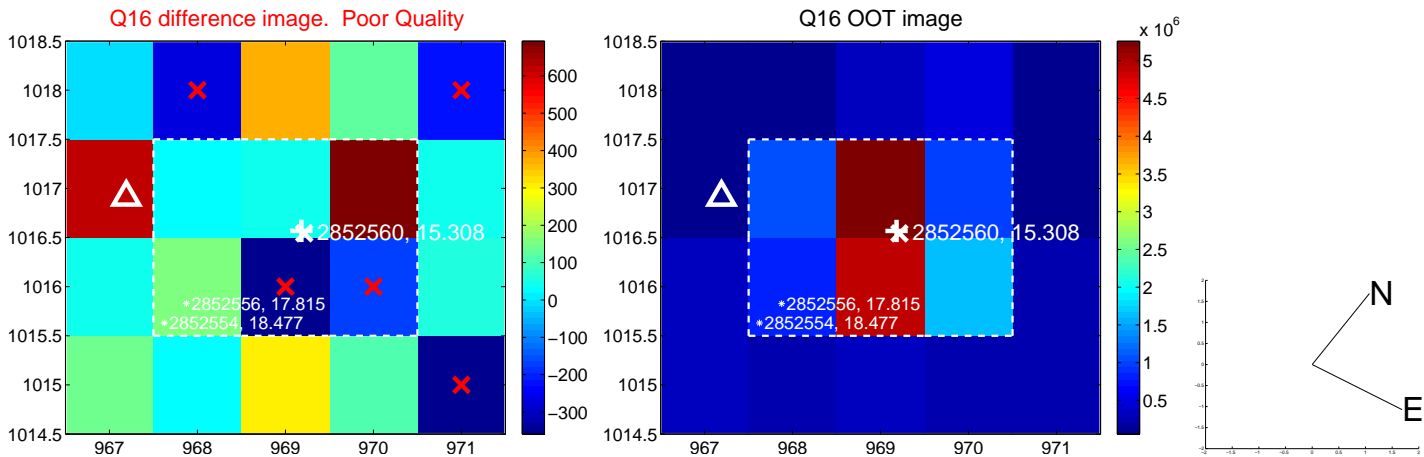
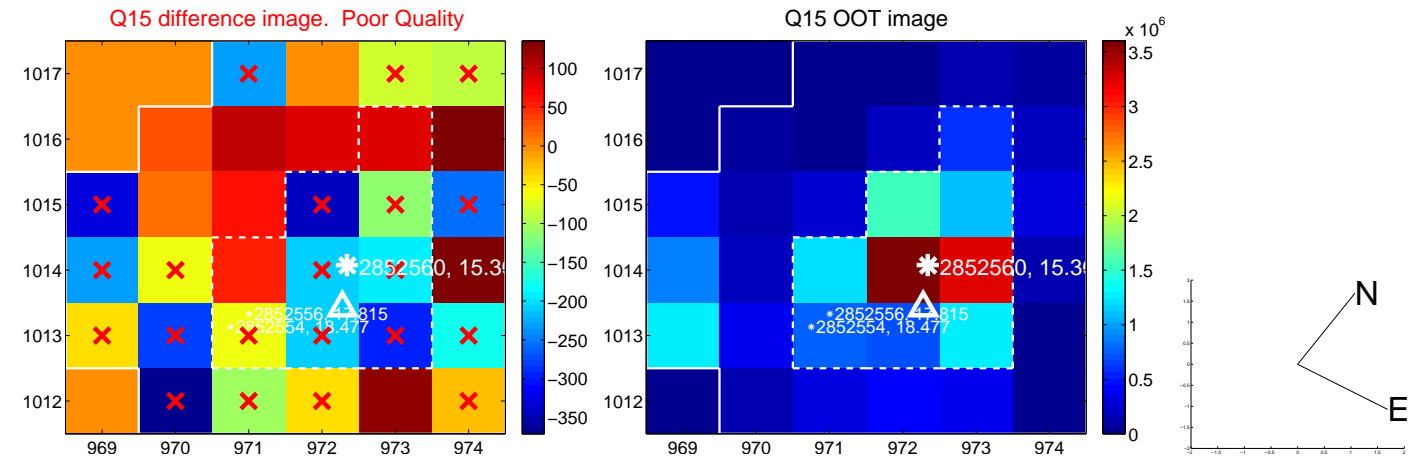
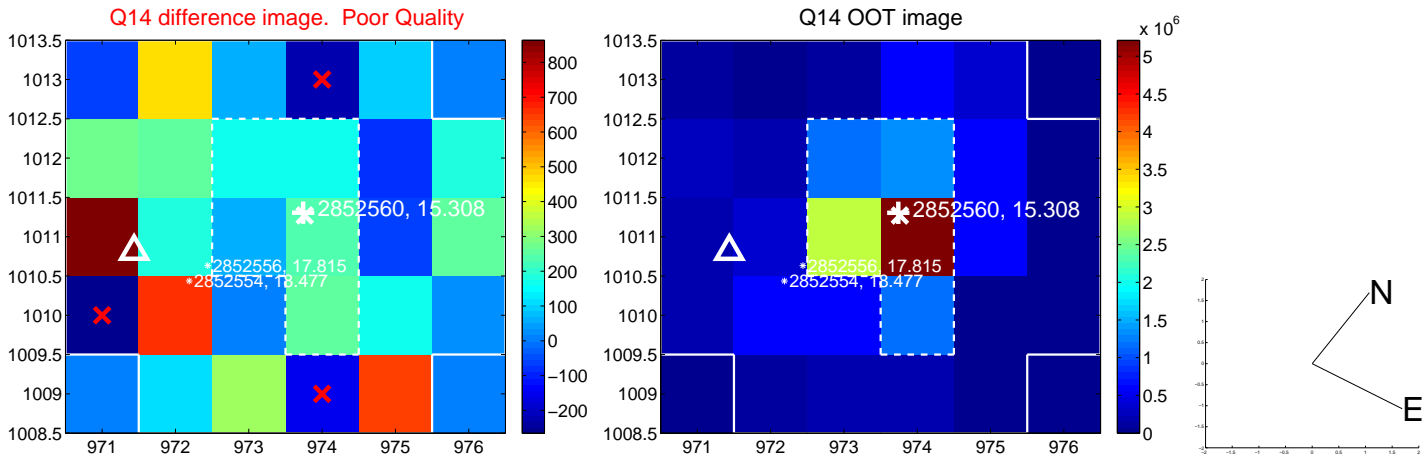
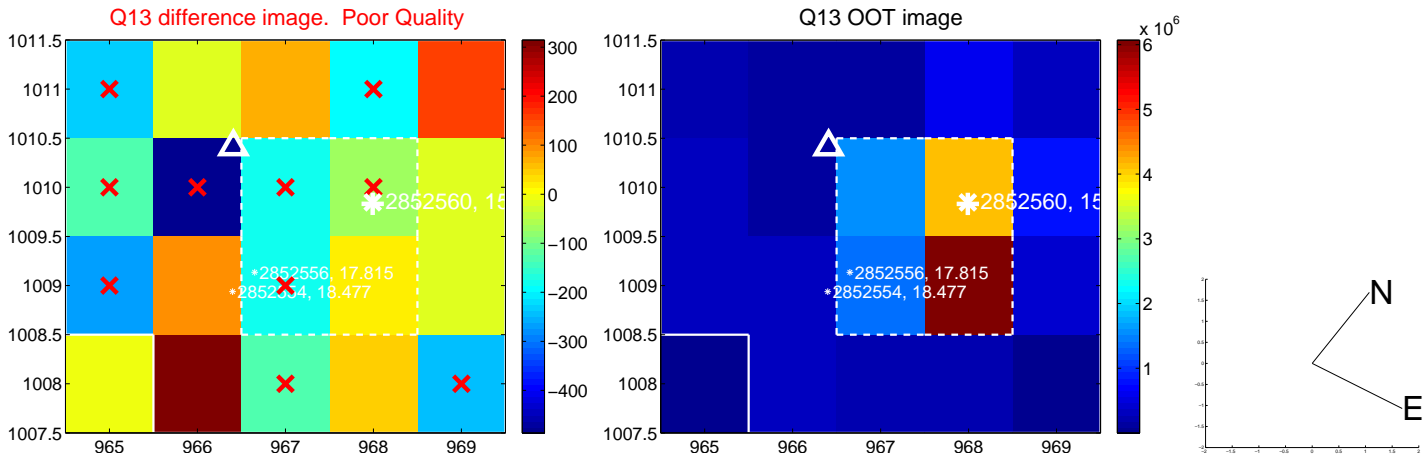
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



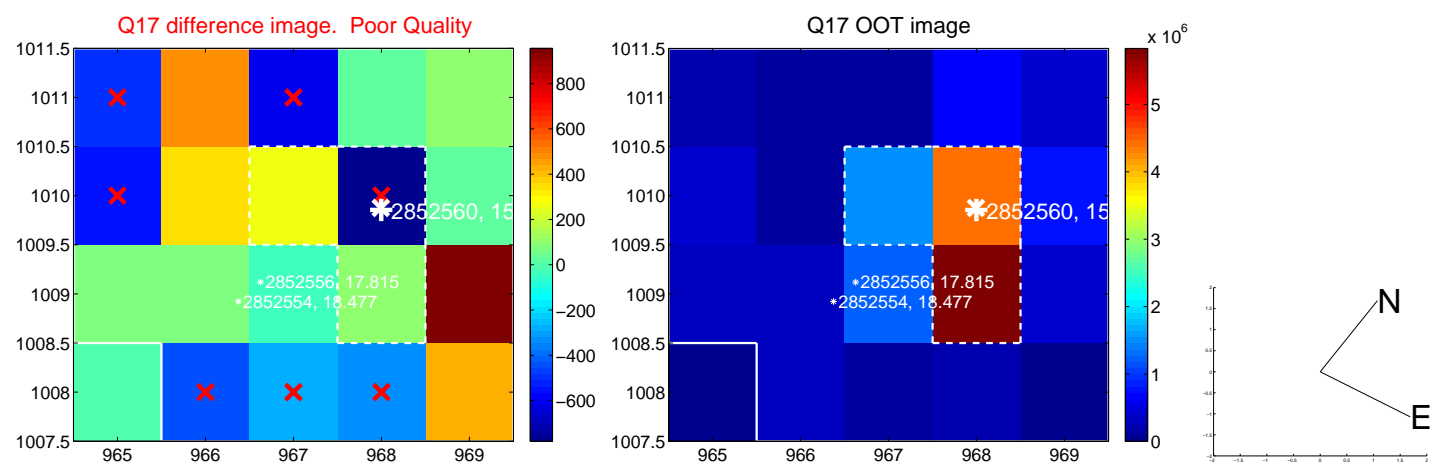
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



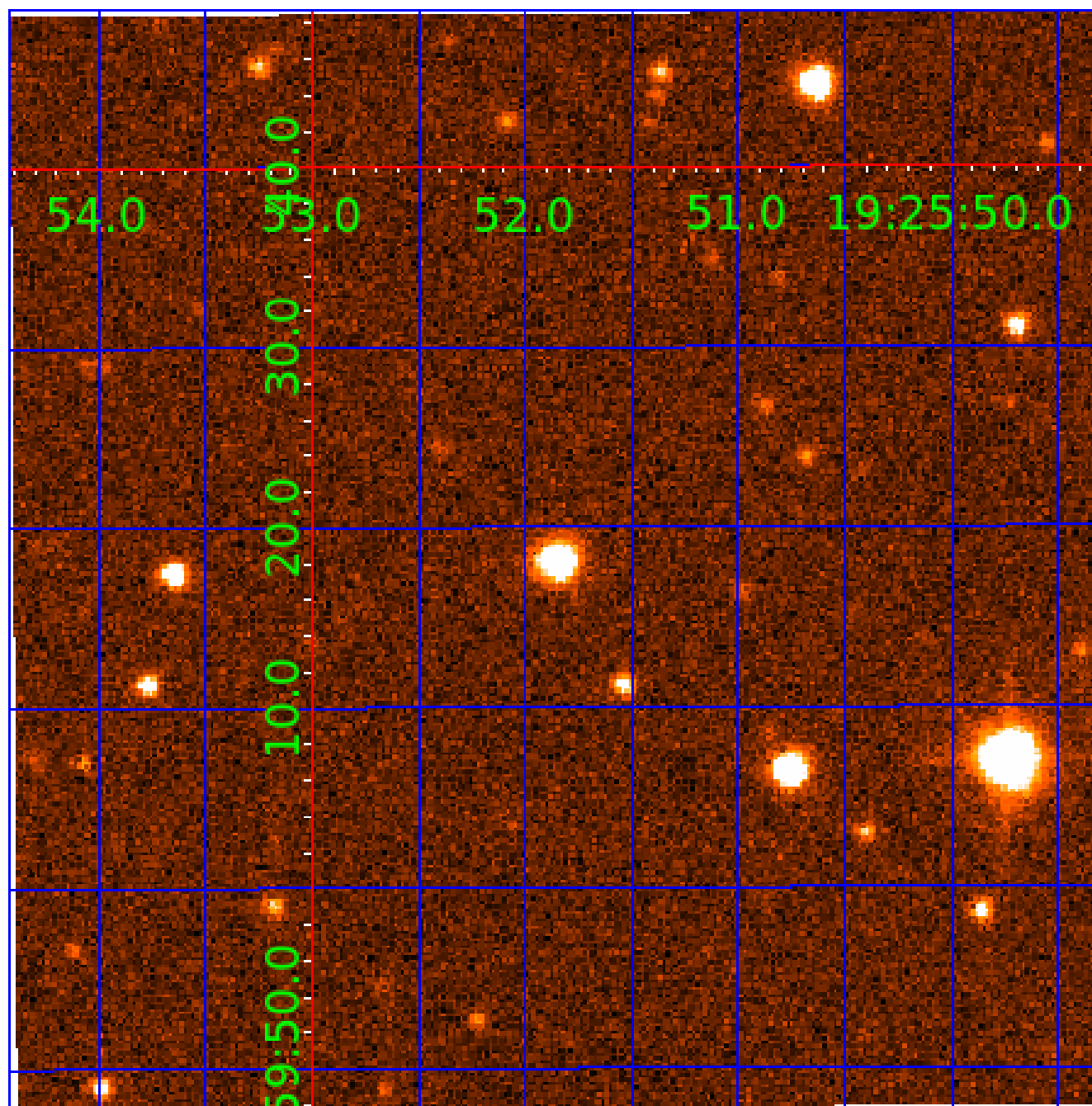
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 002852560

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})
002852560-01	OBS	6294.01	11.961296	131.913277	314256.7	3.000	8292.6	-1.0	0.79	5564	42.32	55.46
002852560-02	OBS	No	11.961300	140.456475	197975.6	7.872	6259.2	4345.0	0.79	5564	48.13	55.46
002852560-03	OBS	No	4.785173	134.061228	0.1	5.705	256.0	0.0	0.79	5564	0.04	188.15
002852560-04	OBS	No	23.922730	154.832497	3120.7	12.500	100.3	-1.0	0.79	5564	4.33	22.01
002852560-05	OBS	No	23.922939	132.964653	3380.9	25.834	90.9	48.8	0.79	5564	8.58	22.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002852560-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
002852560-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
002852560-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
002852560-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
002852560-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—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 002852560-04

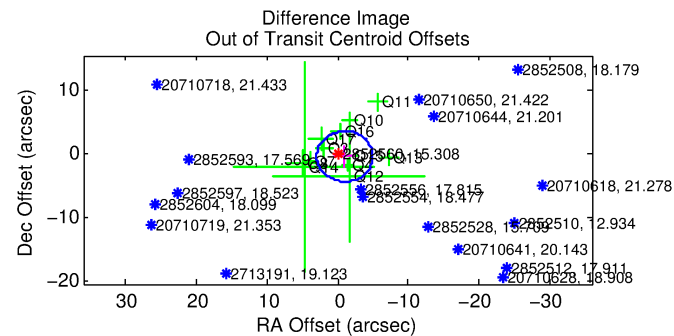
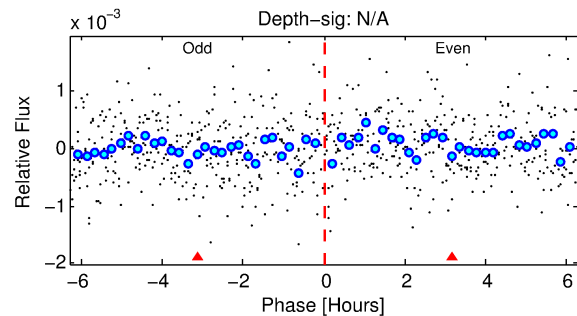
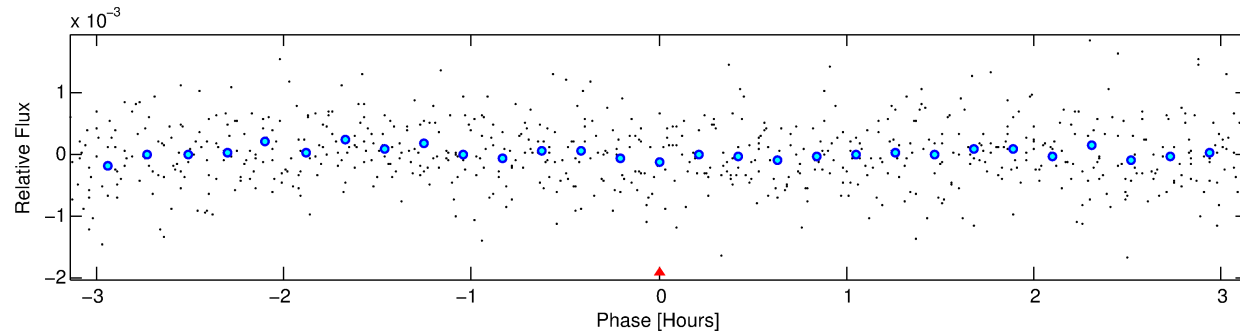
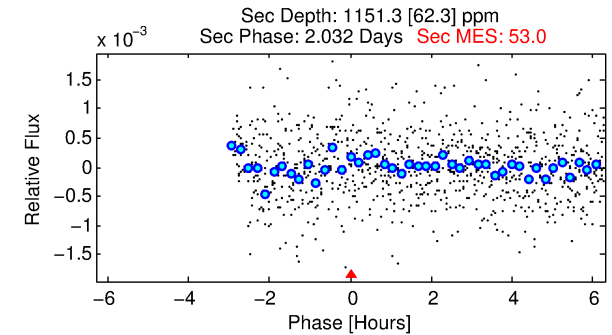
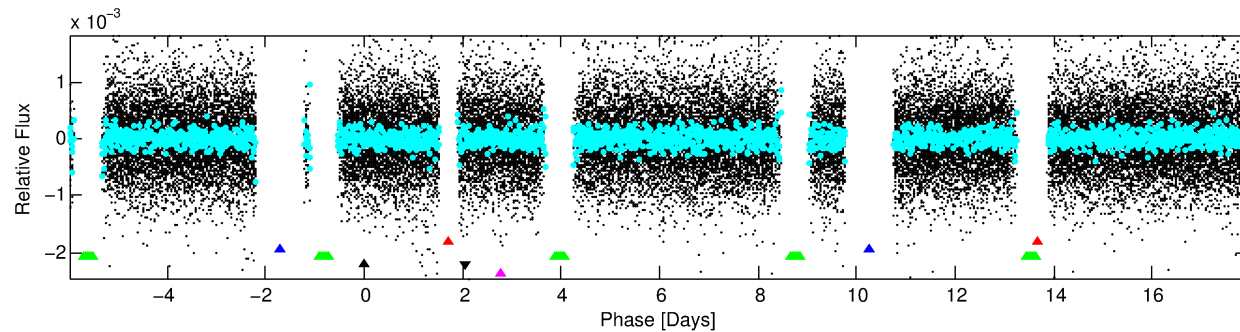
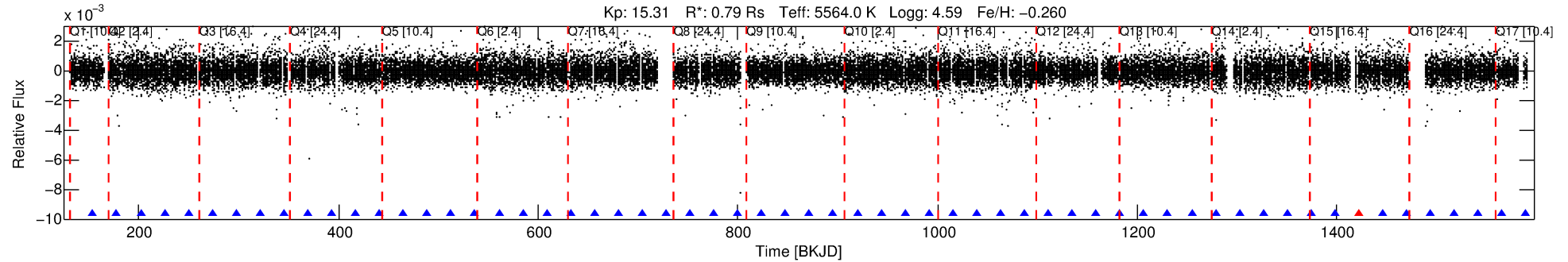
No Significant Match Found

DV One-Page Summary

KIC: 2852560 Candidate: 4 of 5 Period: 23.923 d

KOI: K06294 Corr: No Ephemeris Match

Kp: 15.31 R*: 0.79 Rs Teff: 5564.0 K Logg: 4.59 Fe/H: -0.260



TPS TCE Results:

Period = 23.92273 d

Epoch = 154.8325 BKJD

DV fit results are unavailable

DV Diagnostic Results:

ShortPeriod-sig: 100.0% [19.43σ]

LongPeriod-sig: 0.0% [0.00σ]

ModelChiSquare2-sig: N/A

ModelChiSquareGof-sig: N/A

Bootstrap-pfa: 0.00e+00

RollingBand-fgt: 0.98 [55/56]

GhostDiagnostic-chr: -1.298

Centroid-sig: 36.0%

Centroid-so: 21.099 arcsec [0.82σ]

OotOffset-rm: 1.054 arcsec [0.80σ]

KicOffset-rm: 1.148 arcsec [0.87σ]

OotOffset-st: 2/4/4/2 [12]

KicOffset-st: 2/4/4/2 [12]

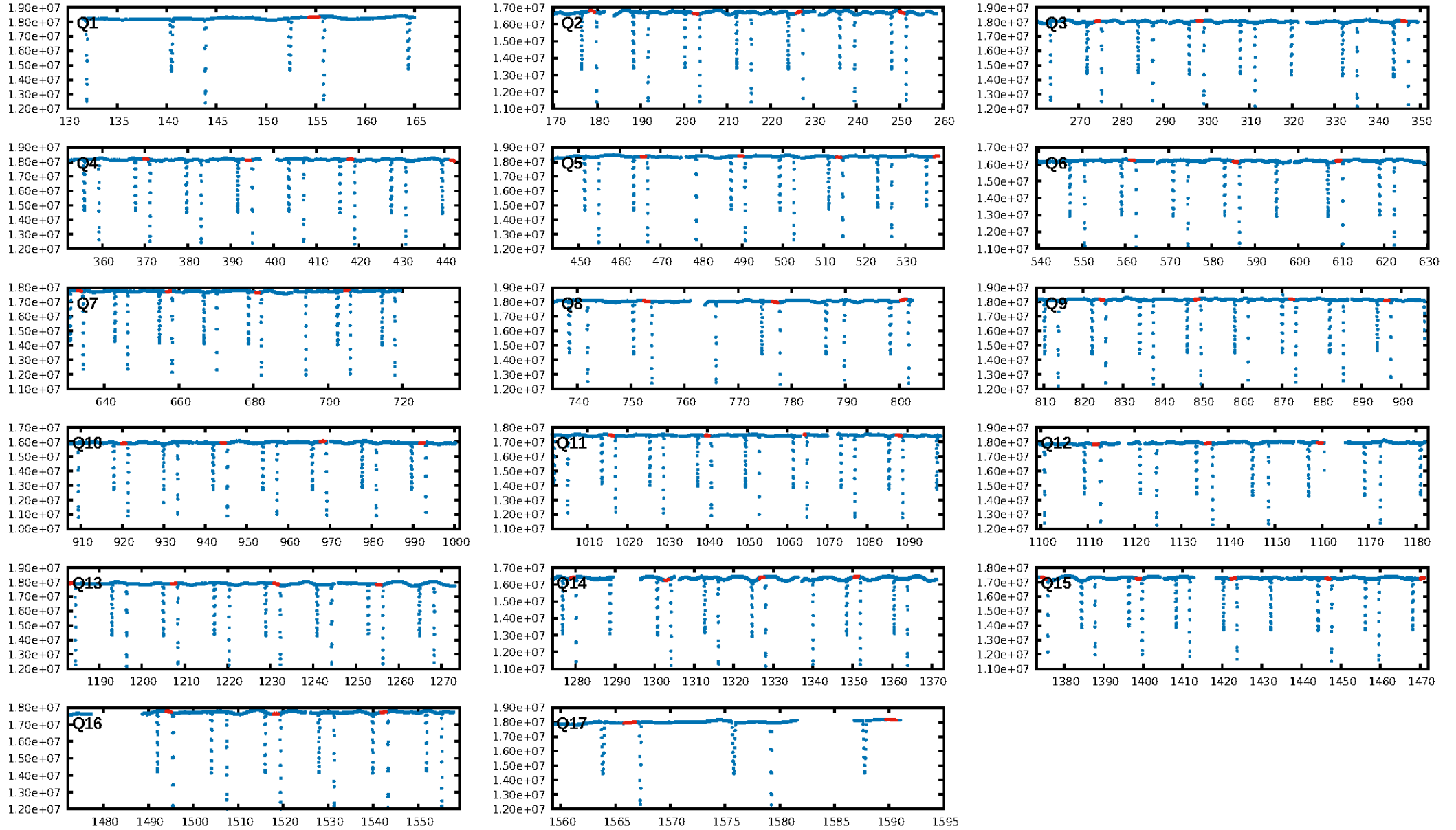
DiffImageQuality-fgm: 0.00 [0/12]

DiffImageOverlap-fno: 1.00 [17/17]

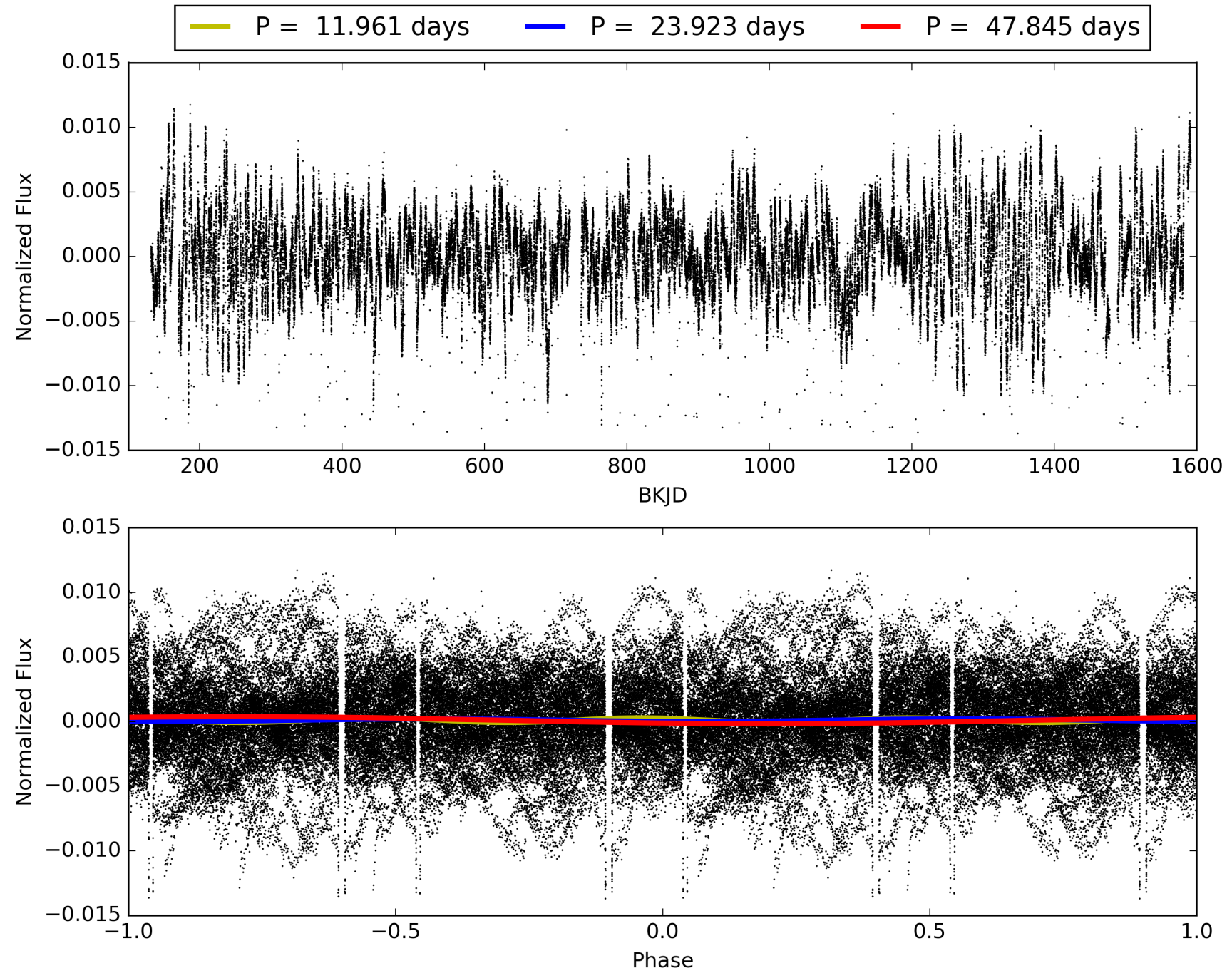
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 19:57:26 Z

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

TCE 002852560-04, PDC Light Curves

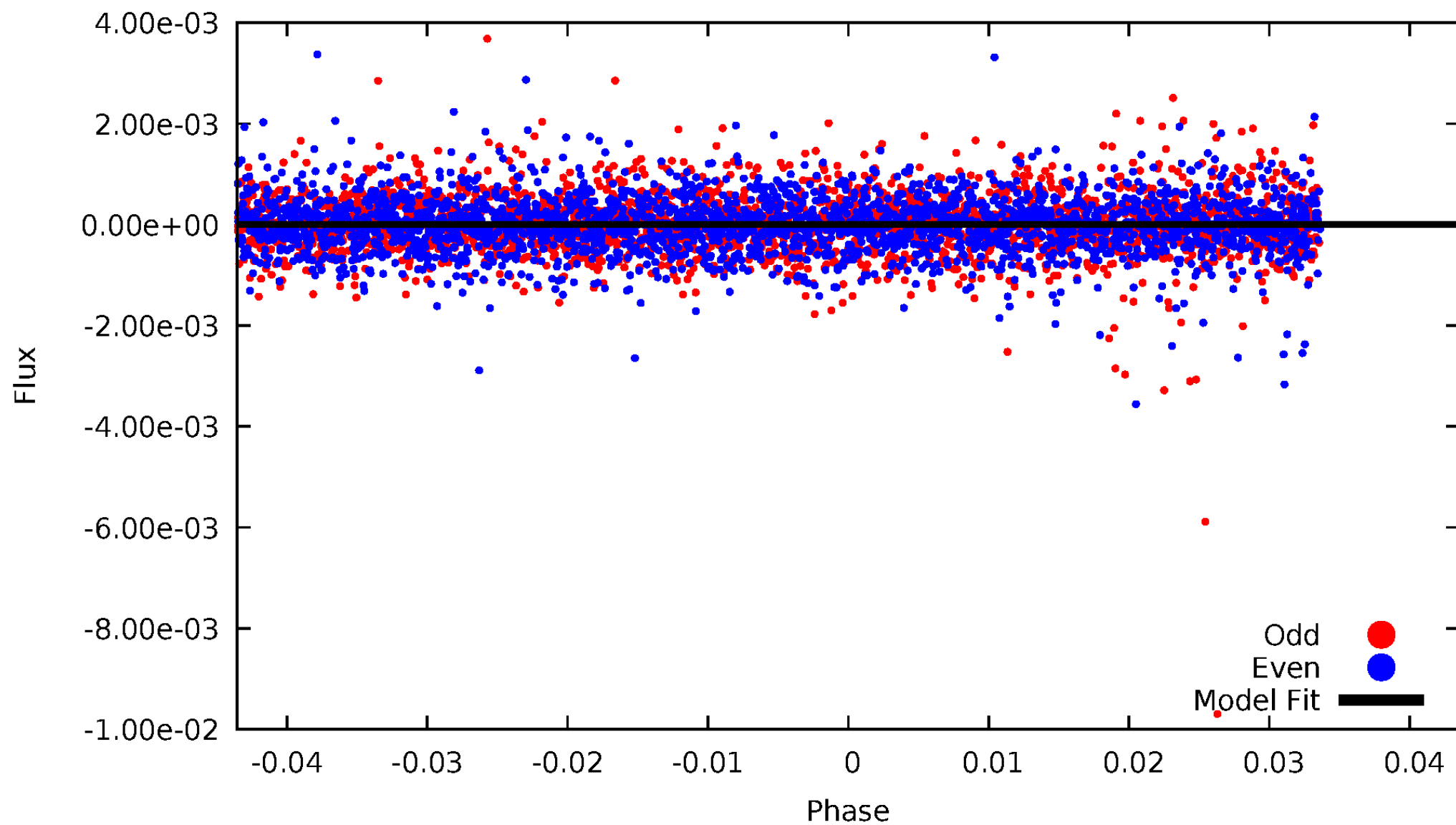


TCE 002852560-04



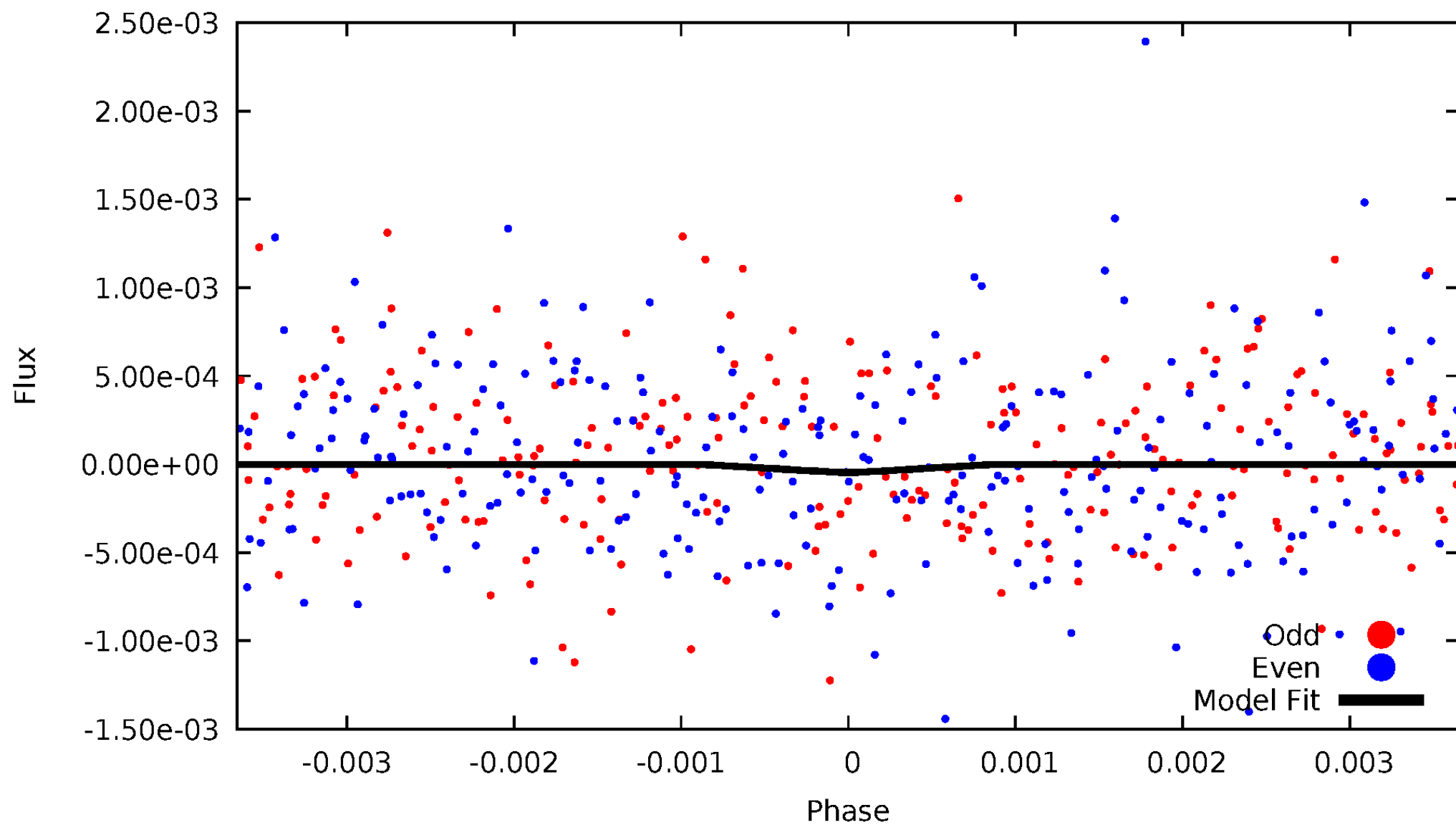
DV Odd/Even

TCE 002852560-04



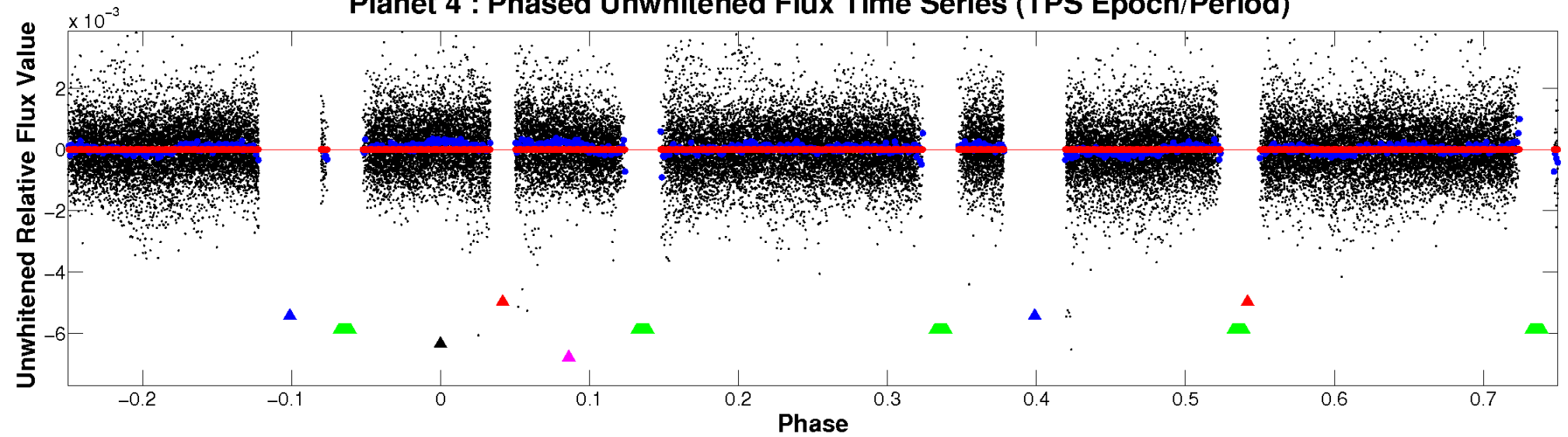
ALT Odd/Even

TCE 002852560-04



Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

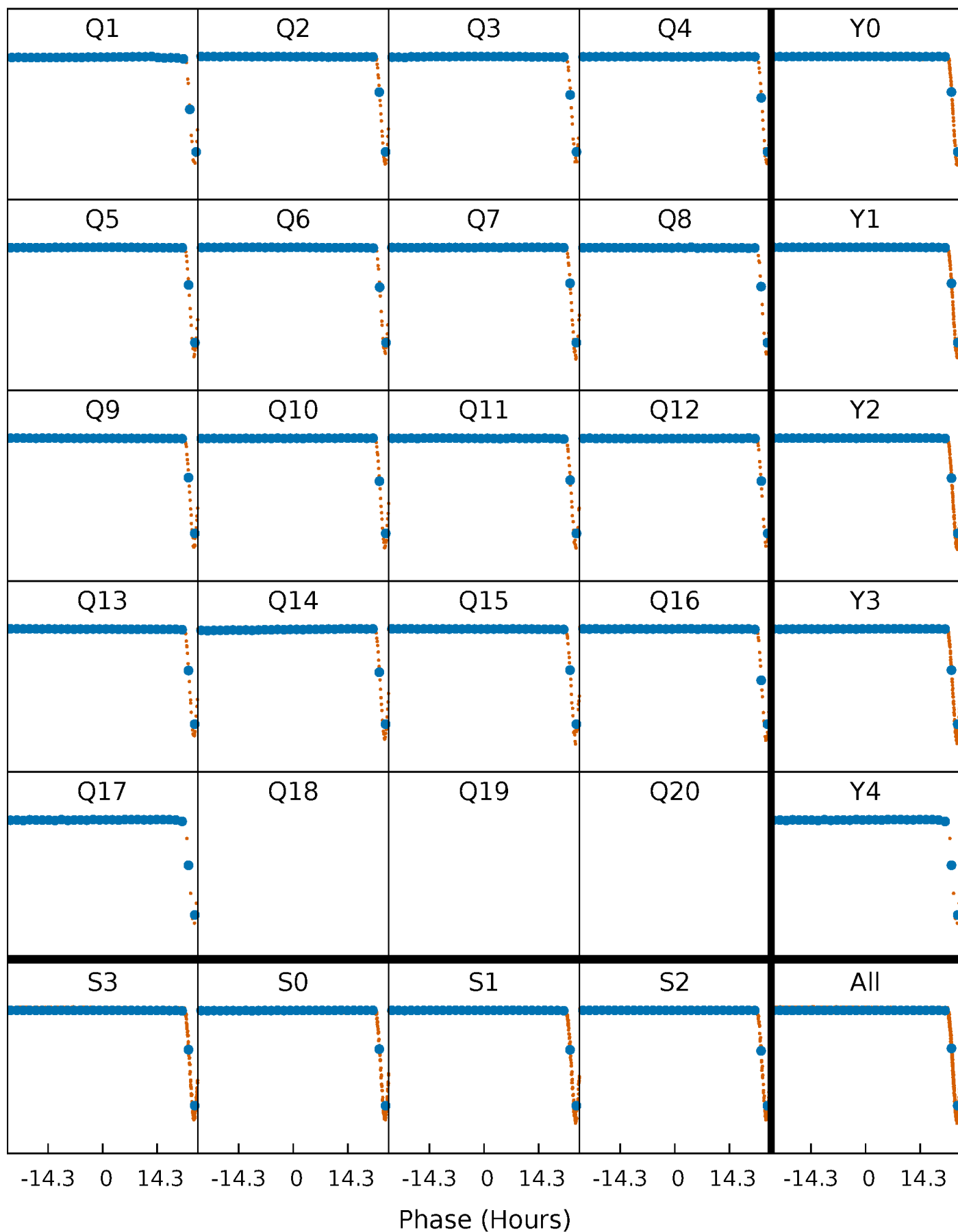


Planet 4 : Phased Whitened Flux Time Series (TPS Epoch/Period)



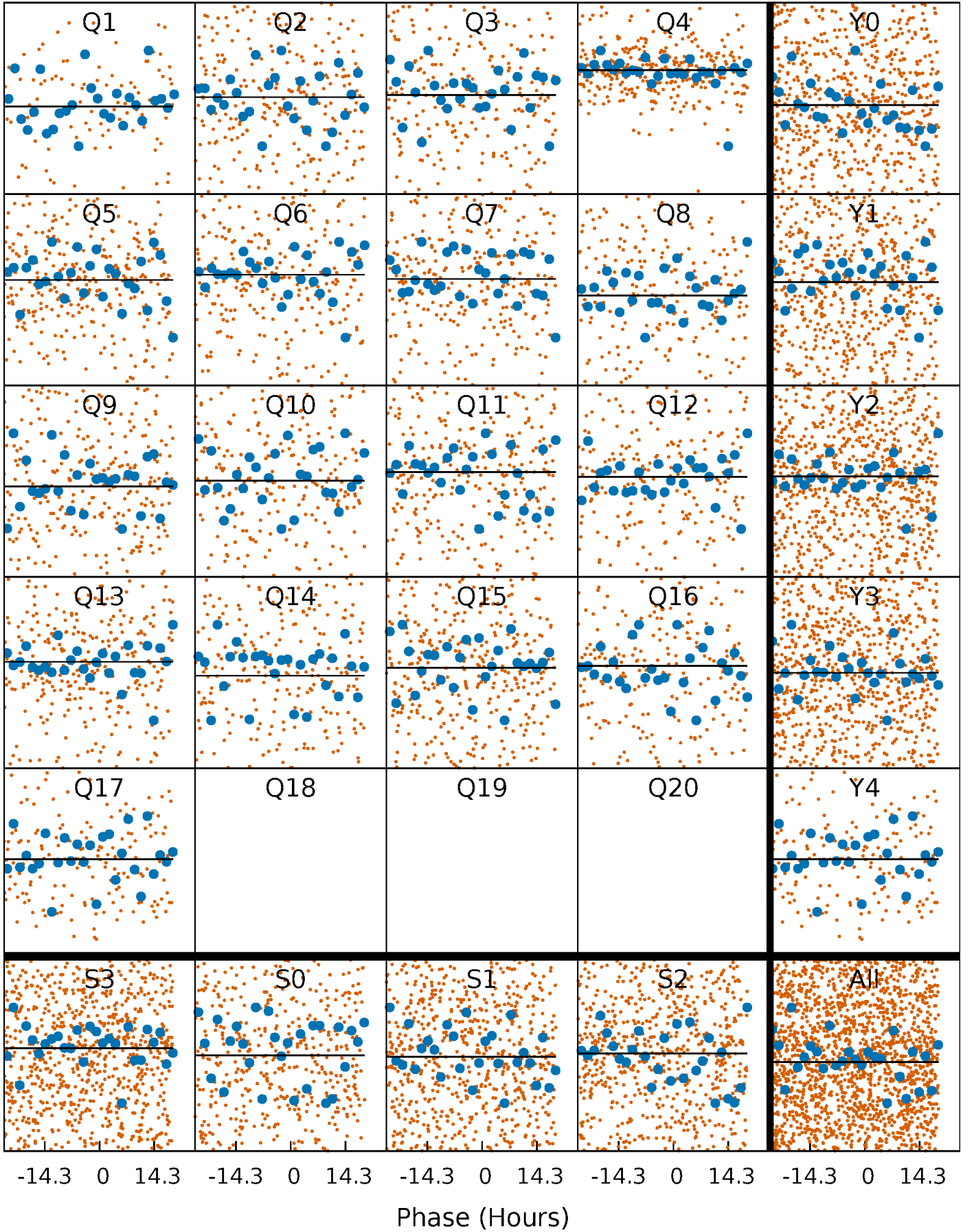
PDC Quarter-Phased Transit Curves

TCE 002852560-04 $P = 23.922730$ Days $T_0 = 154.832497$ (BKJD)



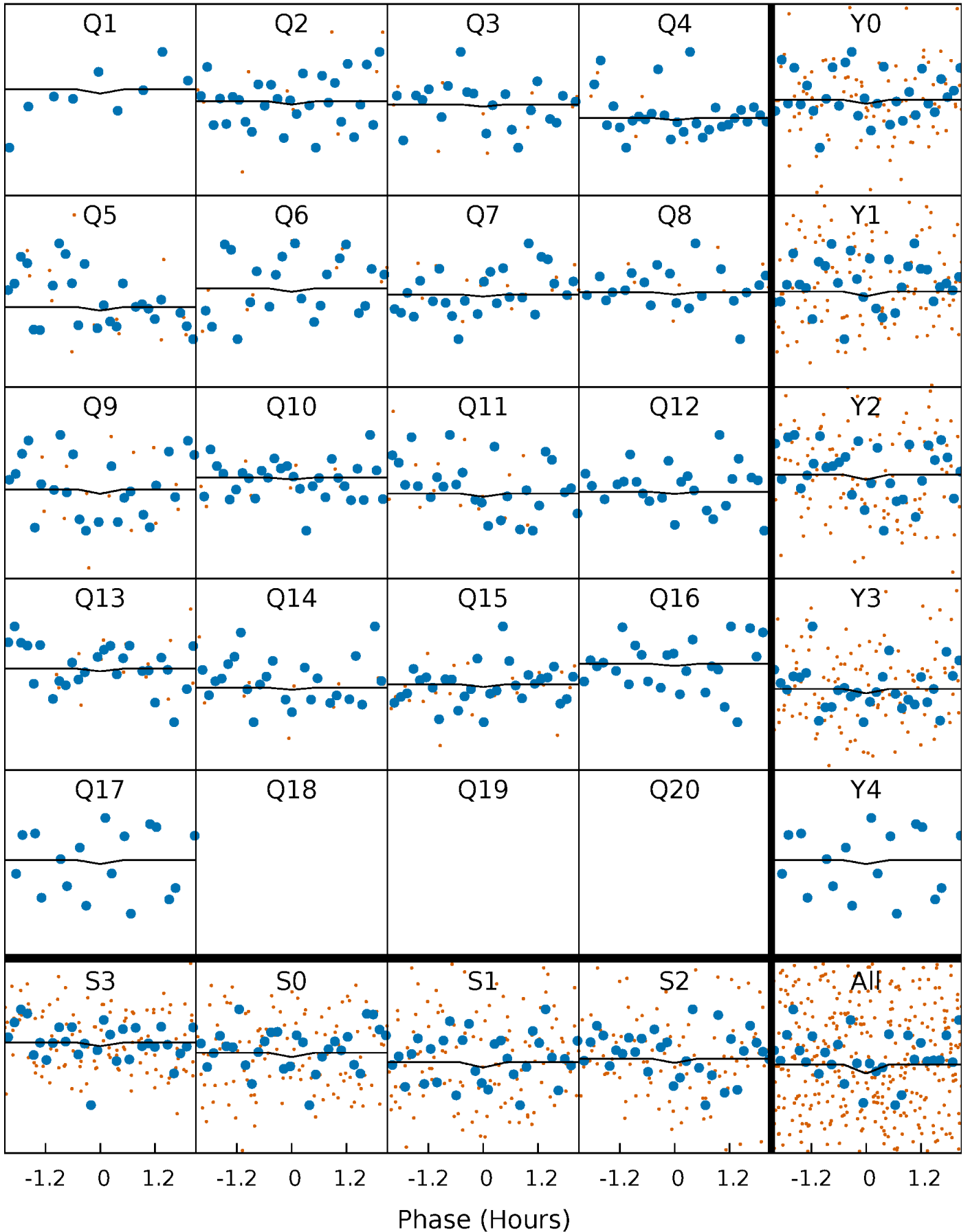
DV Quarter-Phased Transit Curves

TCE 002852560-04 P= 23.922730 Days $T_0=154.832497$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

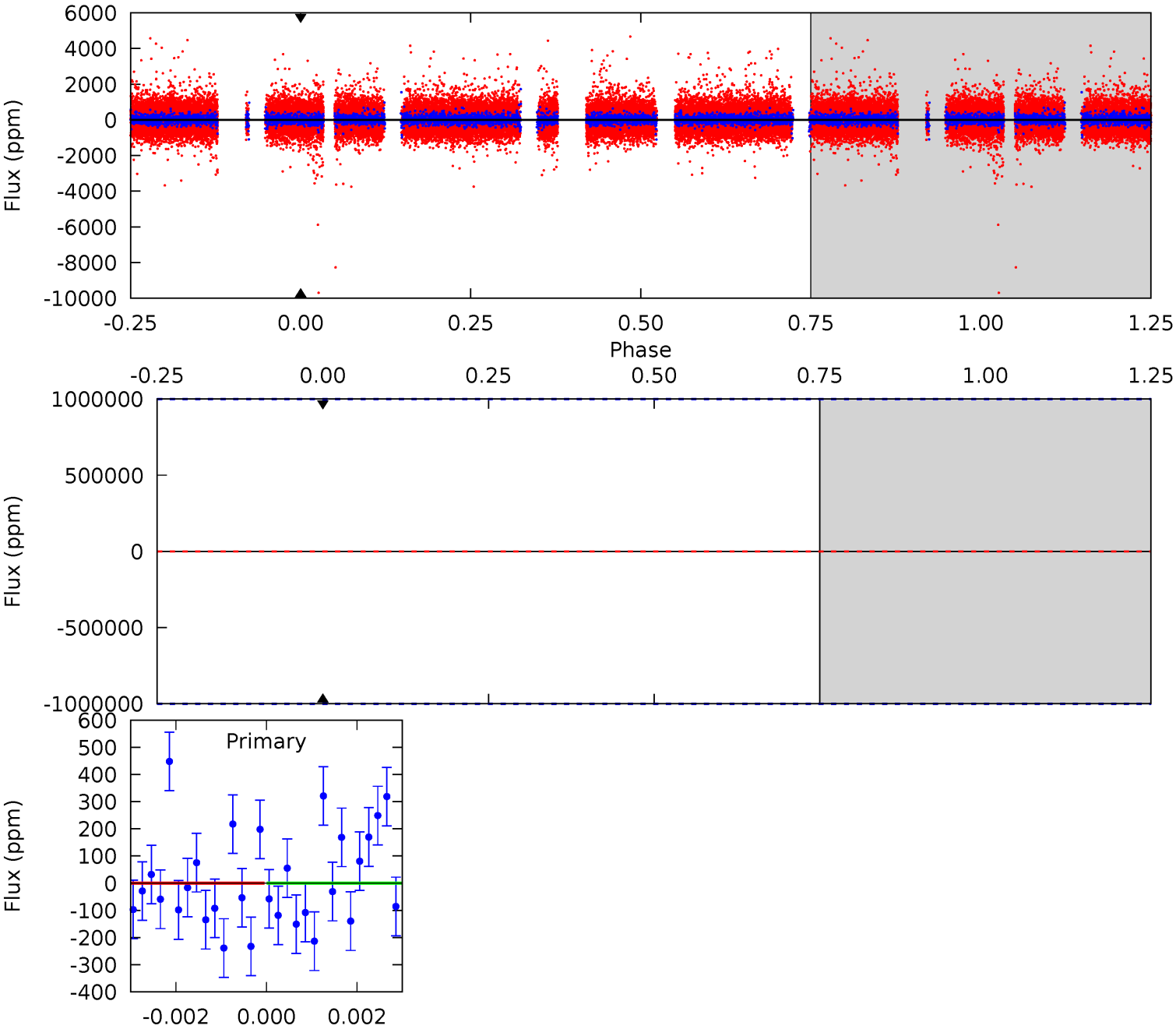
TCE 002852560-04 $P = 23.922730$ Days $T_0 = 154.117511$ (BKJD)



DV Model-Shift Uniqueness Test

002852560-04, P = 23.922730 Days, E = 130.909767 Days

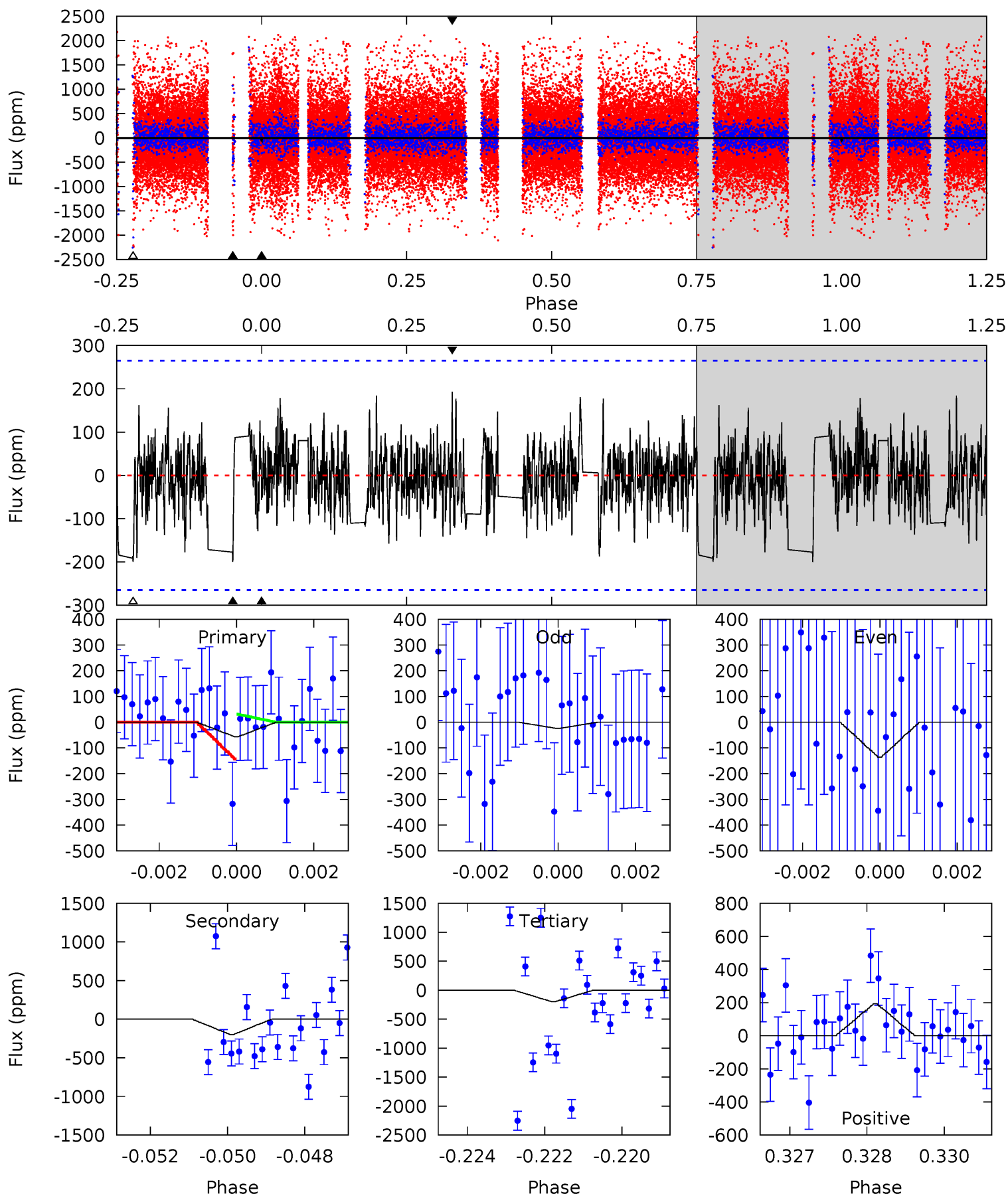
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

002852560-04, P = 23.922730 Days, E = 130.194781 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.15	4.04	4.03	3.91	5.35	3.13	1.17	-2.88	-2.76	0.01	0.13	1.13	-13.9	0.49	1.14



Stellar Parameters For KIC 002852560

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5564^{+150}_{-167}	$4.587^{+0.040}_{-0.120}$	$-0.260^{+0.300}_{-0.300}$	$0.785^{+0.150}_{-0.064}$	$0.878^{+0.082}_{-0.109}$	$2.558^{+0.436}_{-0.966}$
	+3%/-3%	+1%/-3%	+115%/-115%	+19%/-8%	+9%/-12%	+17%/-38%
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 002852560-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$7.75^{+7.74}_{-5.17}$	785^{+35}_{-33}	-3659^{+19936}_{-11325}	$-185.549^{+39449.083}_{-35474.472}$
Alt.	-200 ± 49	$6.06^{+6.33}_{-4.31}$	784^{+41}_{-31}	3124^{+1576}_{-558}	71^{+710}_{-55}

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

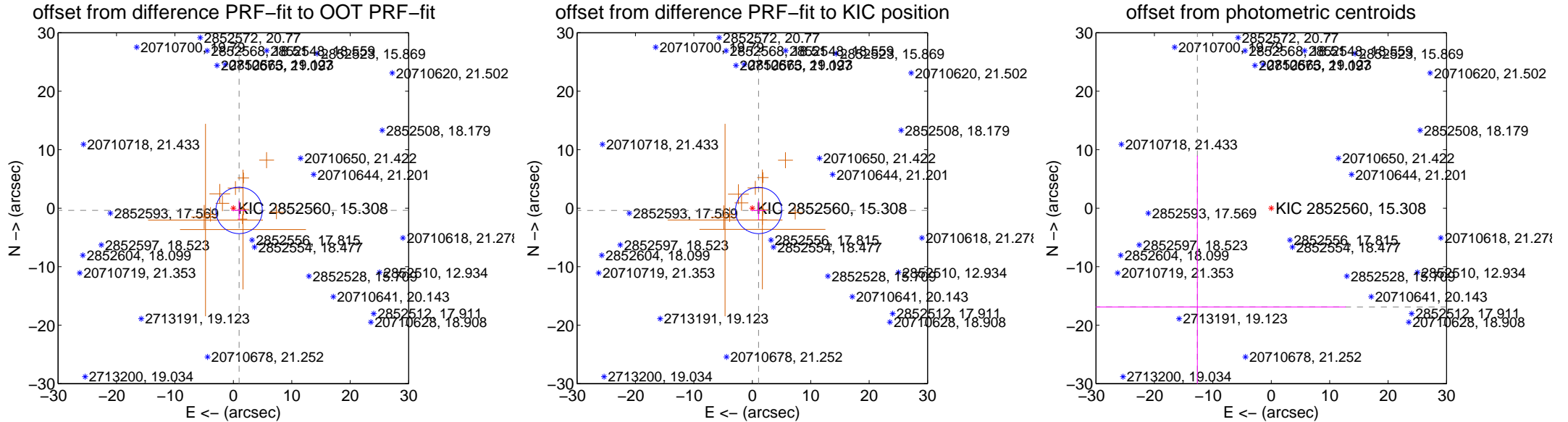
DV Centroid Data

Supplemental centroid analysis for 002852560-04. Kepler magnitude: 15.31. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

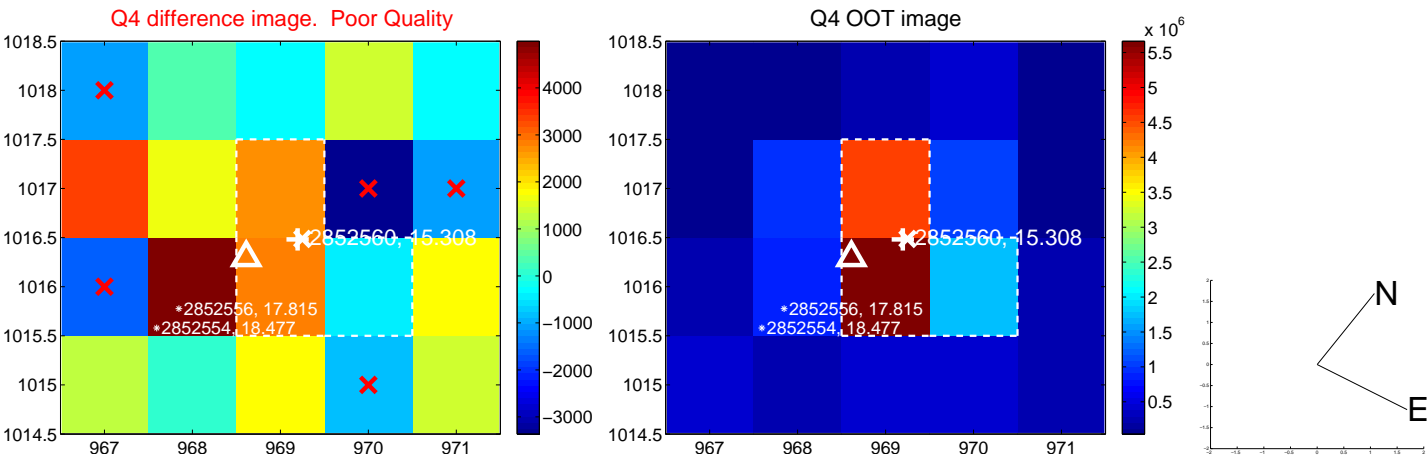
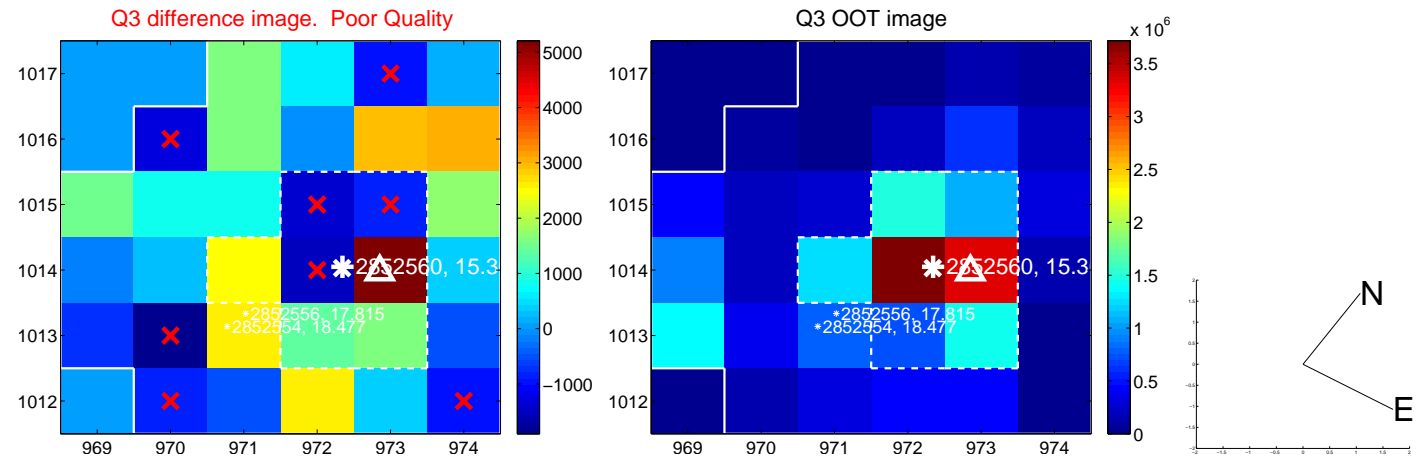
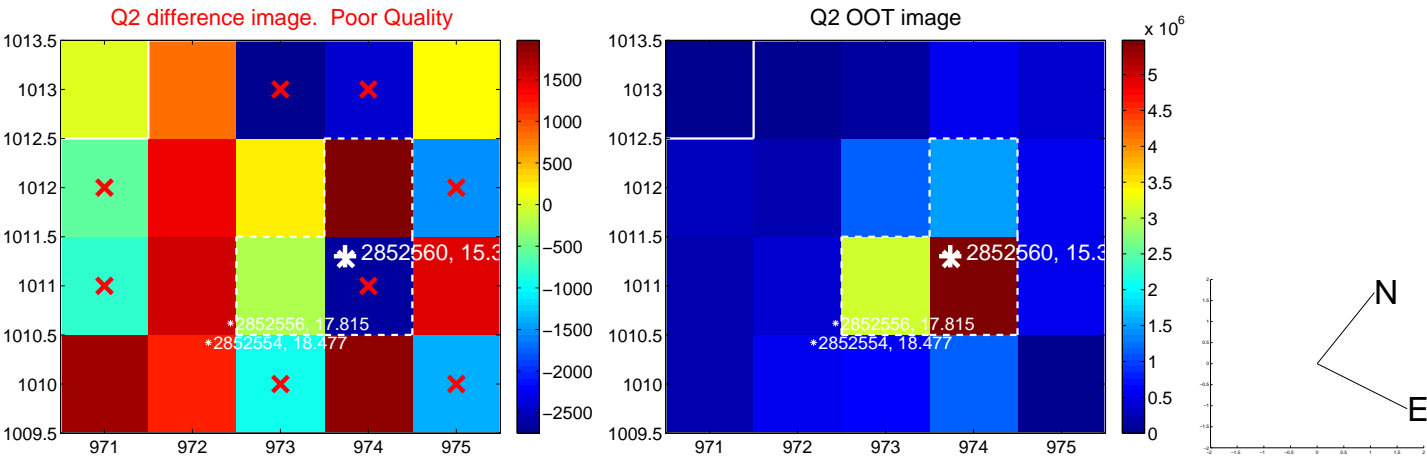
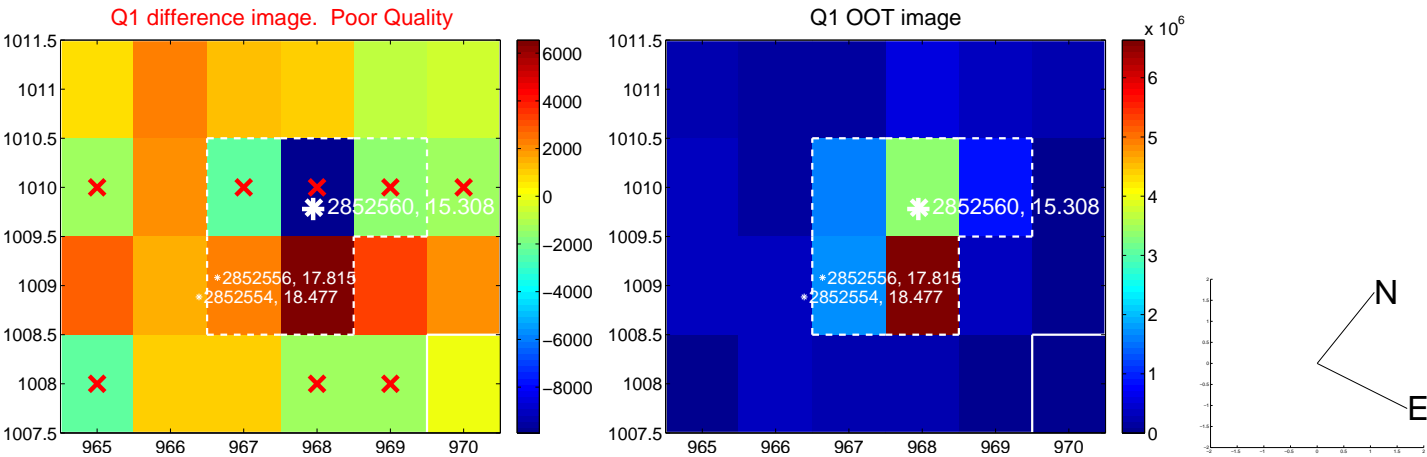
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.054 ± 1.323	0.80	-0.983 ± 1.267	-0.380 ± 1.653
PRF-fit source offset from KIC position	1.148 ± 1.319	0.87	-1.078 ± 1.267	-0.396 ± 1.653
photometric centroid source offset	21.10 ± 25.70	0.82	12.64 ± 25.39	-16.90 ± 25.87

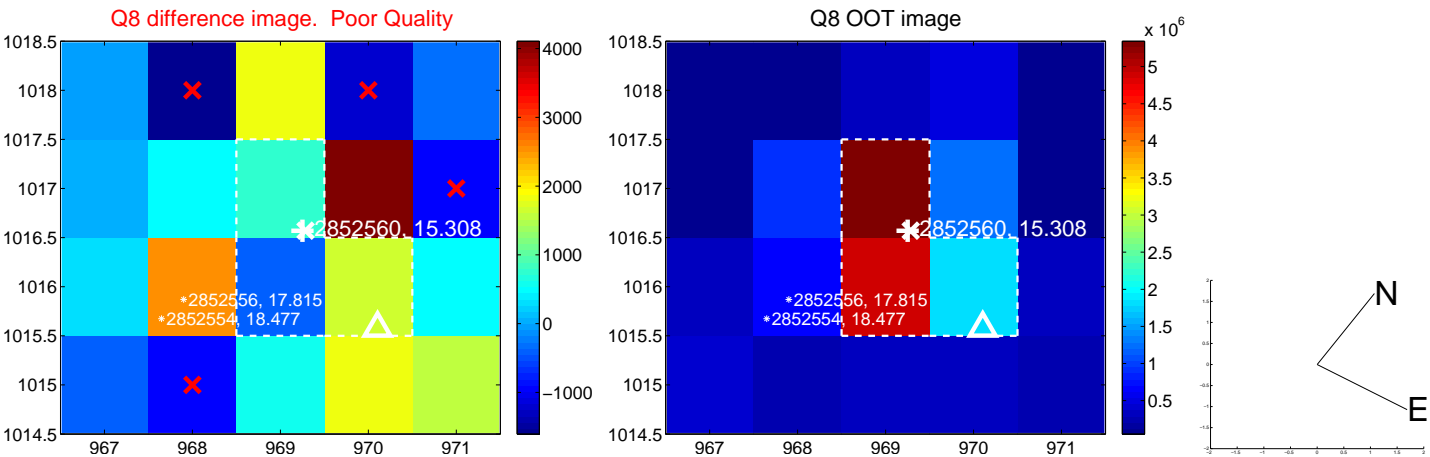
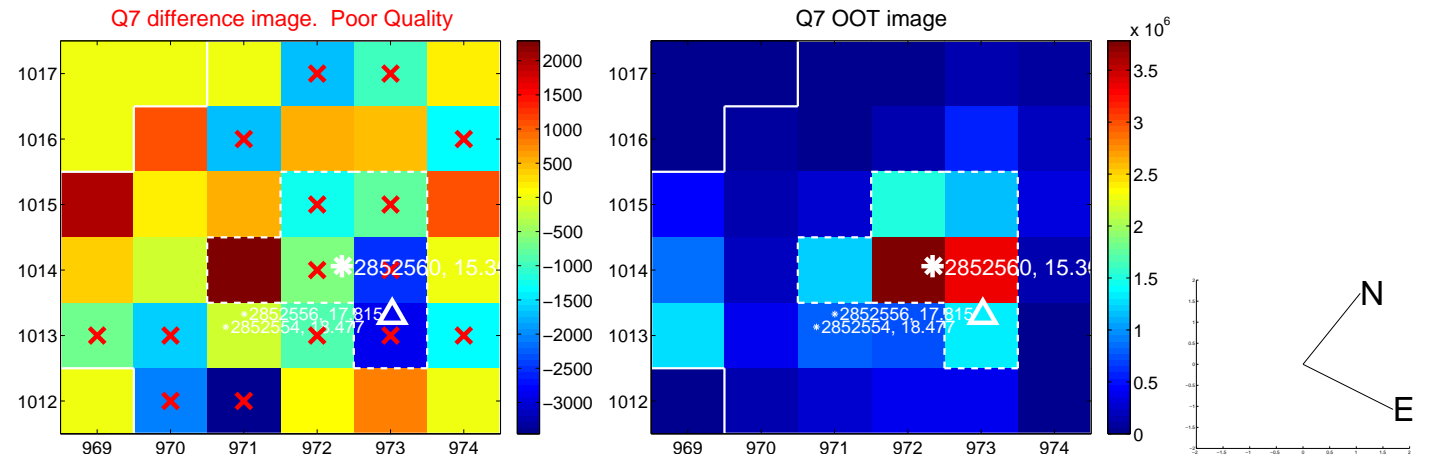
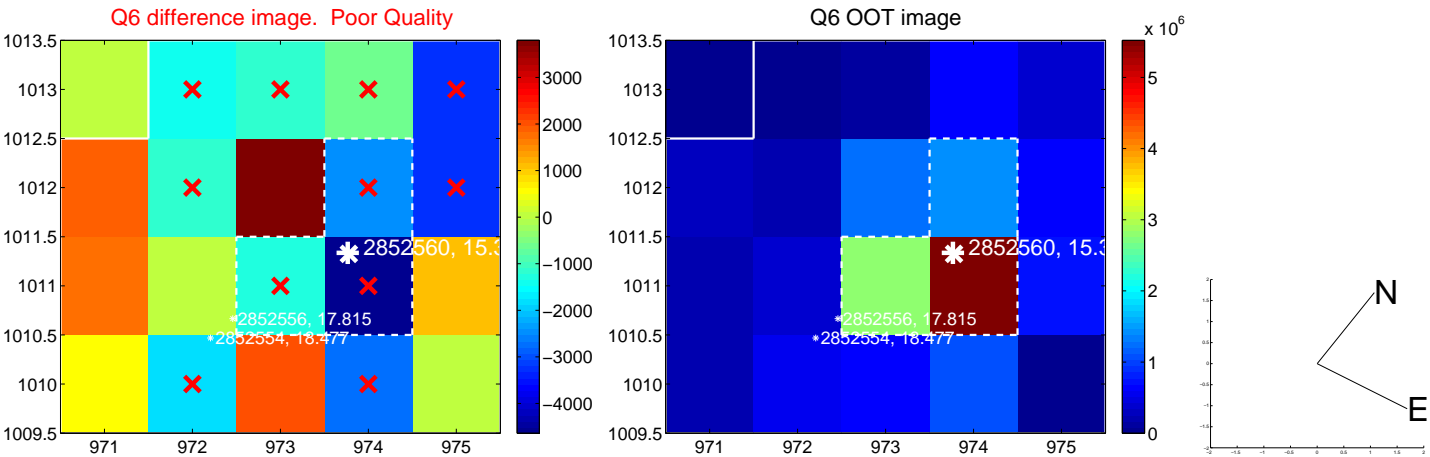
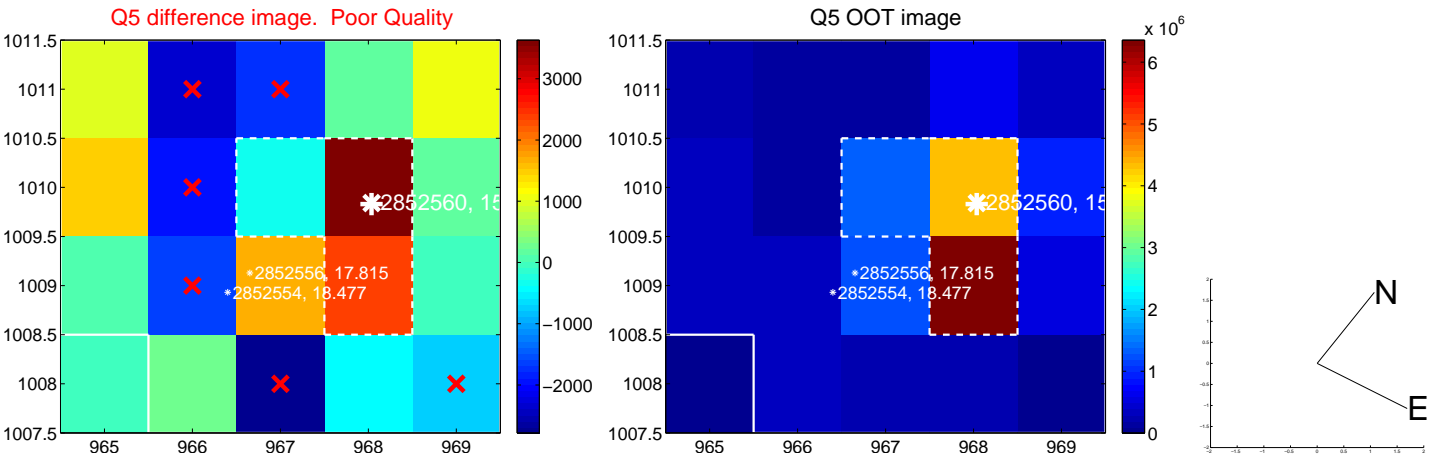


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

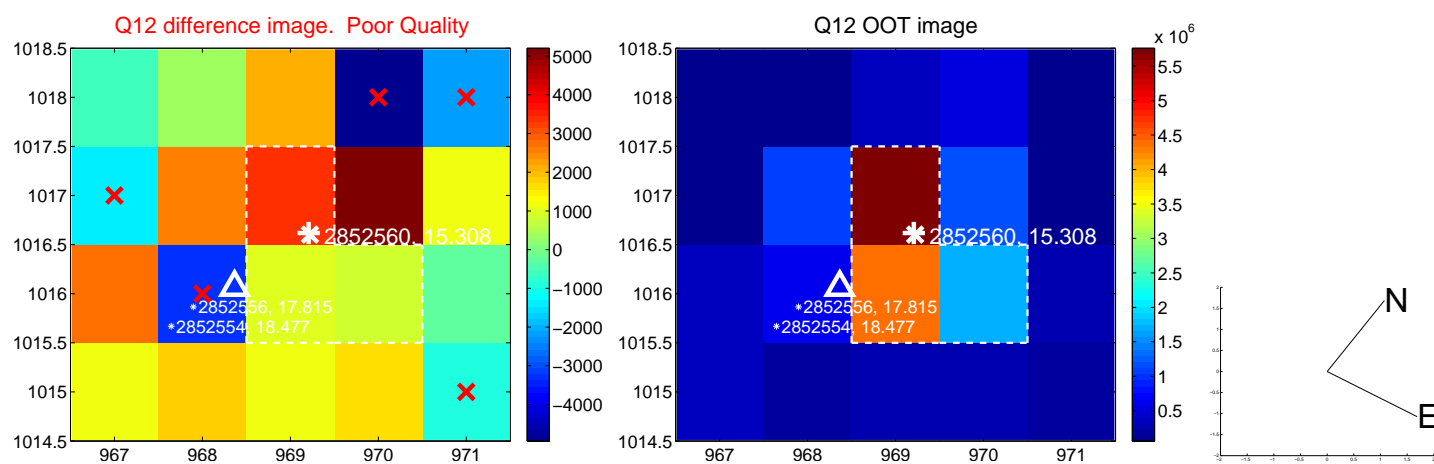
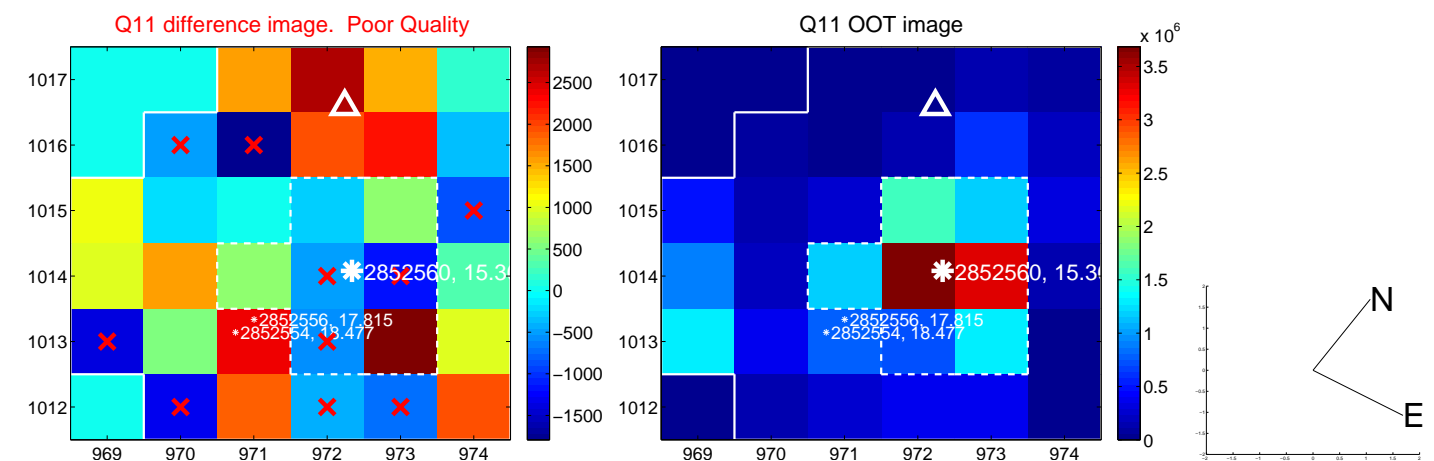
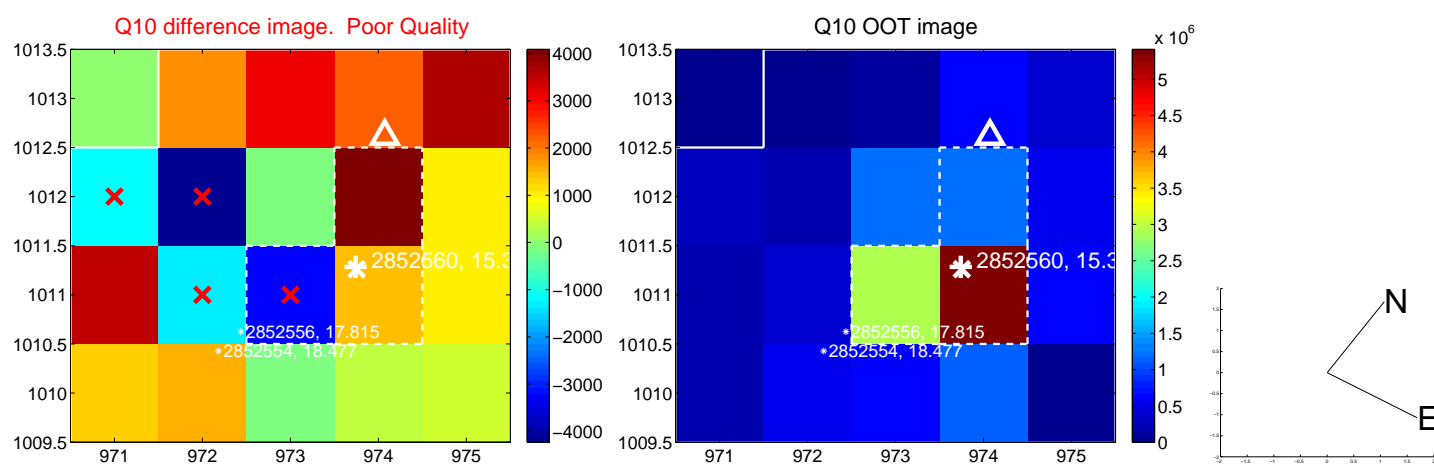
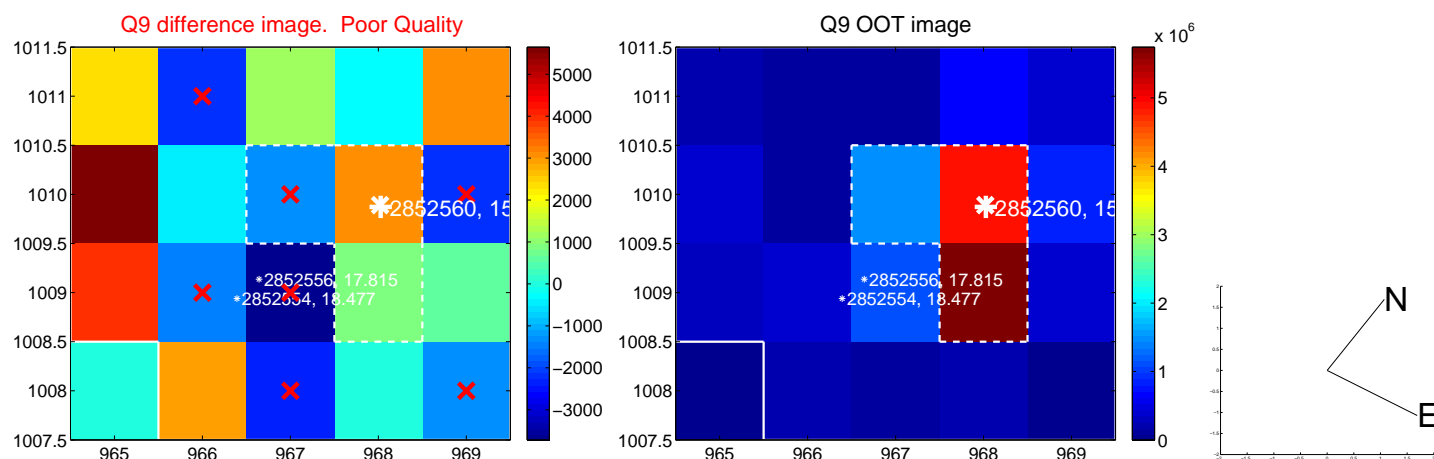
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



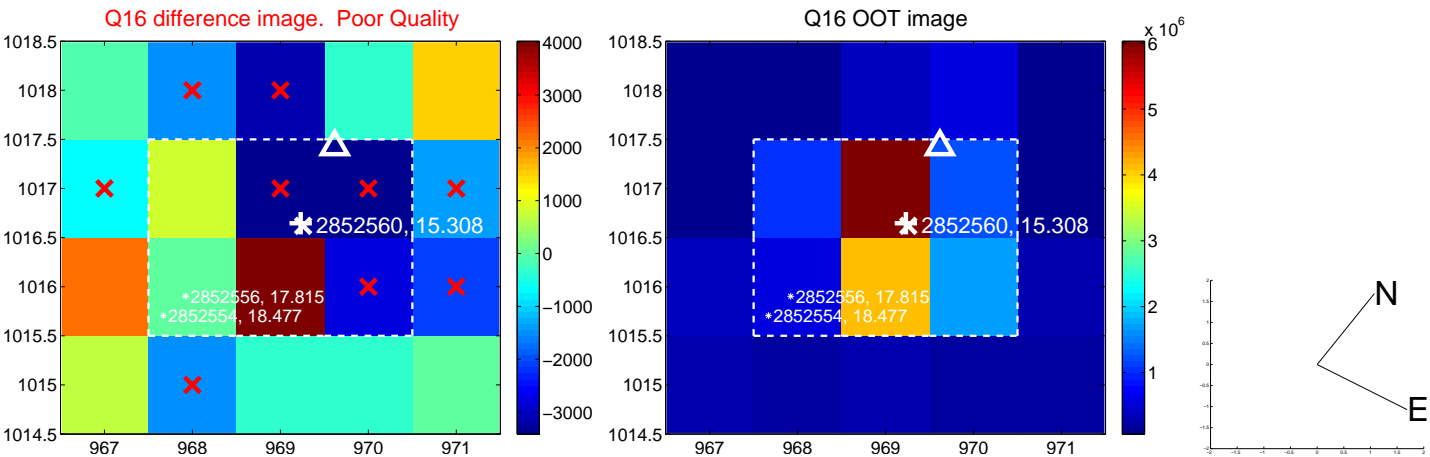
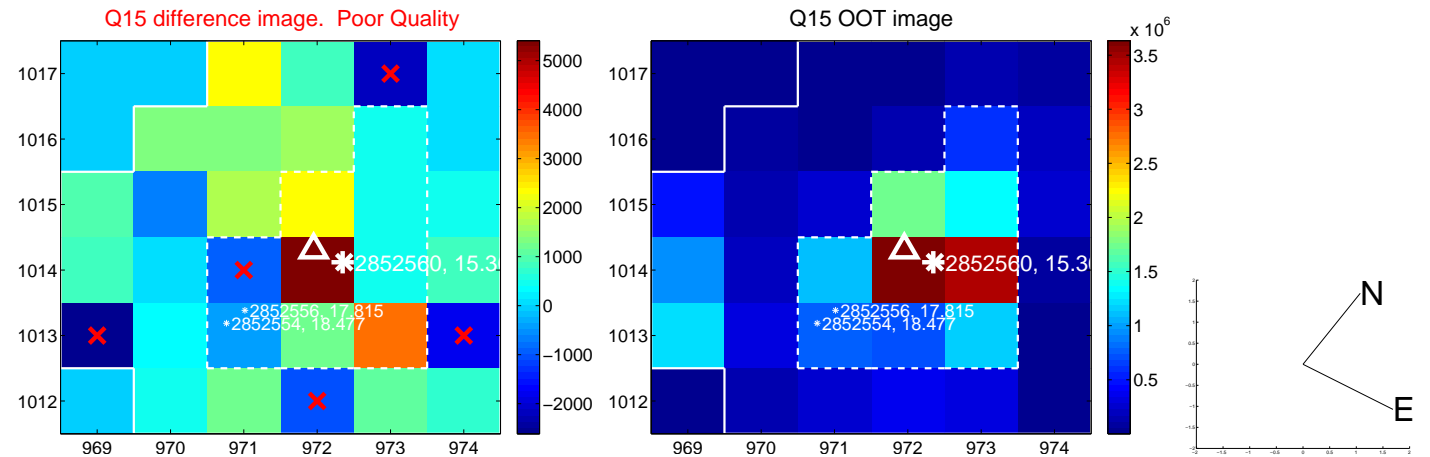
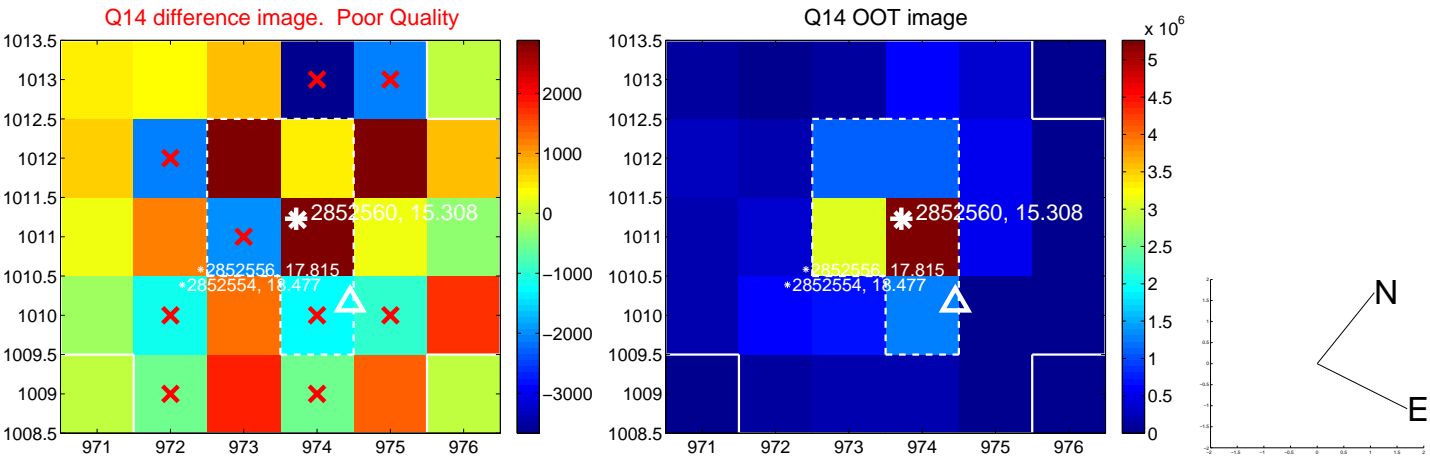
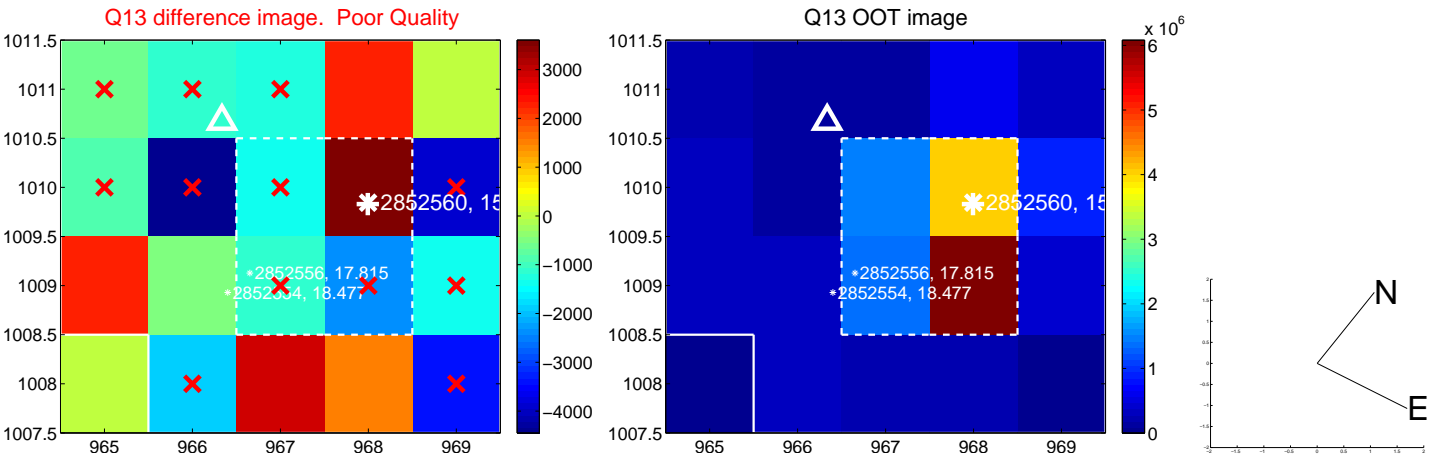
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



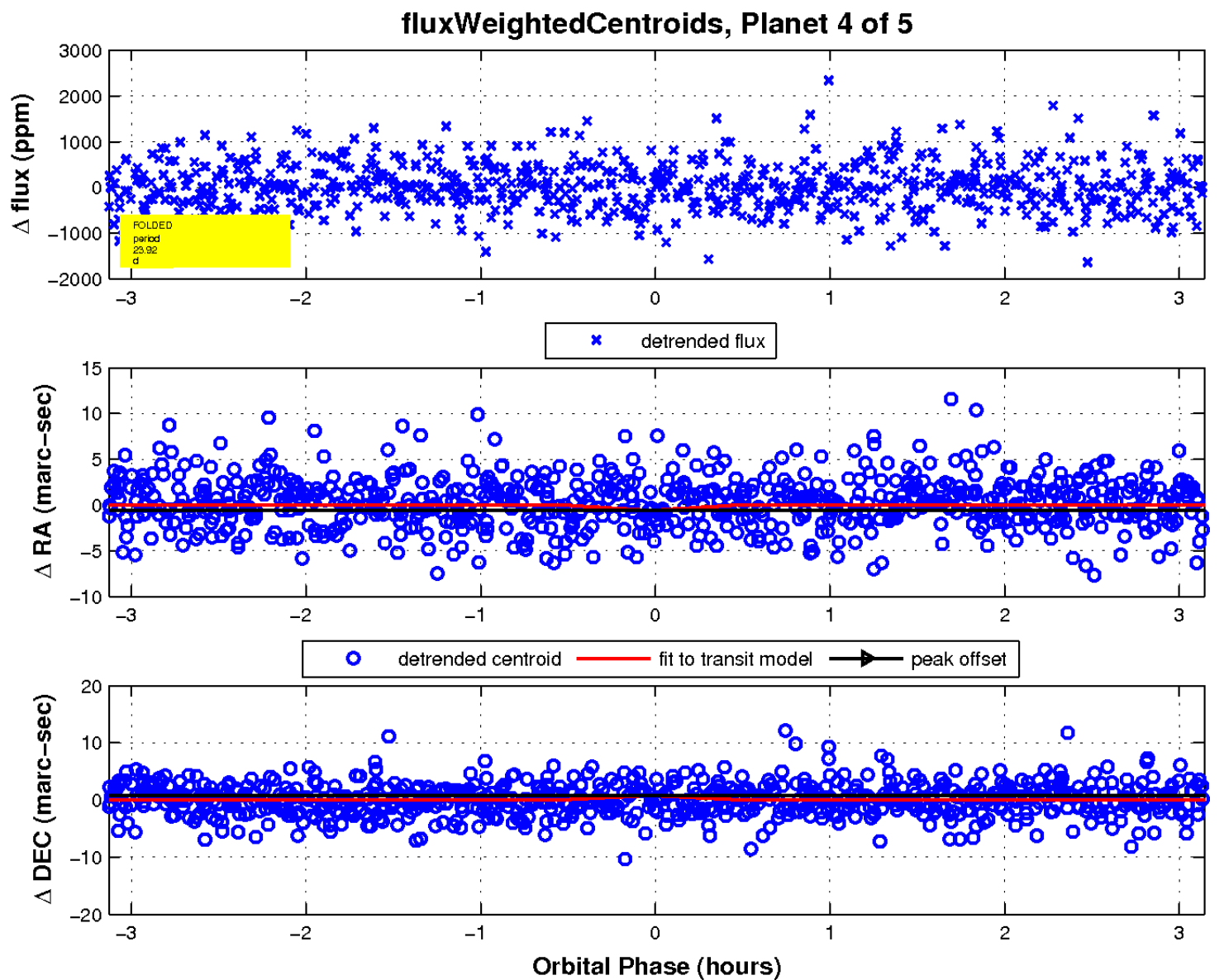
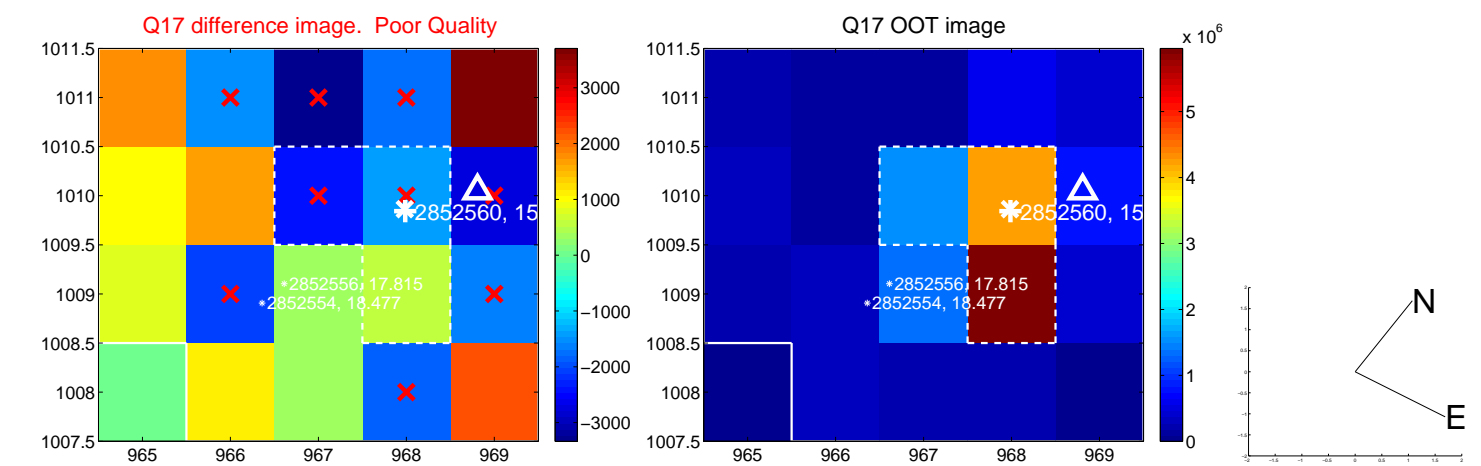
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

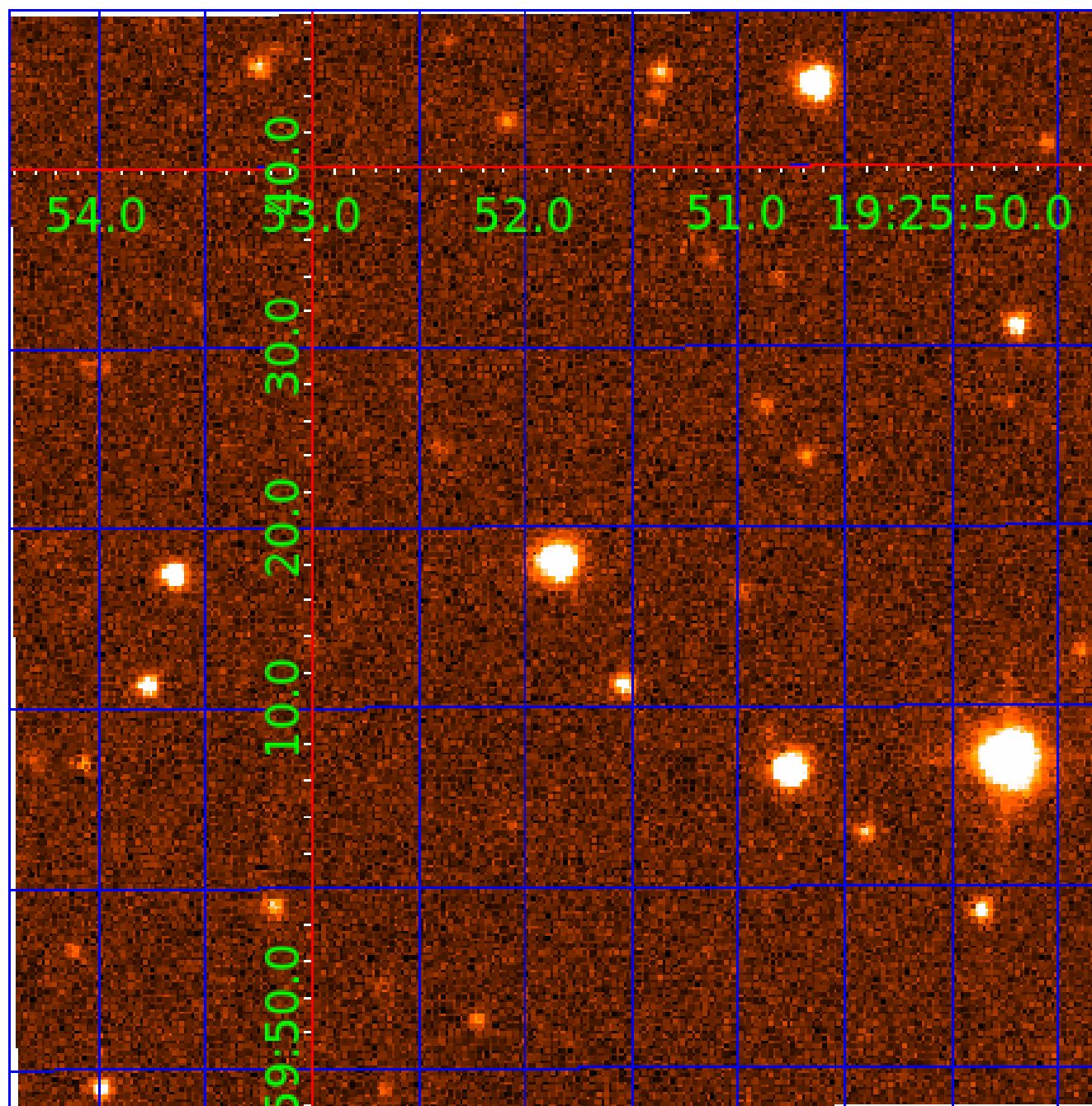


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 002852560

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})
002852560-01	OBS	6294.01	11.961296	131.913277	314256.7	3.000	8292.6	-1.0	0.79	5564	42.32	55.46
002852560-02	OBS	No	11.961300	140.456475	197975.6	7.872	6259.2	4345.0	0.79	5564	48.13	55.46
002852560-03	OBS	No	4.785173	134.061228	0.1	5.705	256.0	0.0	0.79	5564	0.04	188.15
002852560-04	OBS	No	23.922730	154.832497	3120.7	12.500	100.3	-1.0	0.79	5564	4.33	22.01
002852560-05	OBS	No	23.922939	132.964653	3380.9	25.834	90.9	48.8	0.79	5564	8.58	22.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002852560-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
002852560-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
002852560-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
002852560-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
002852560-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—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 002852560-05

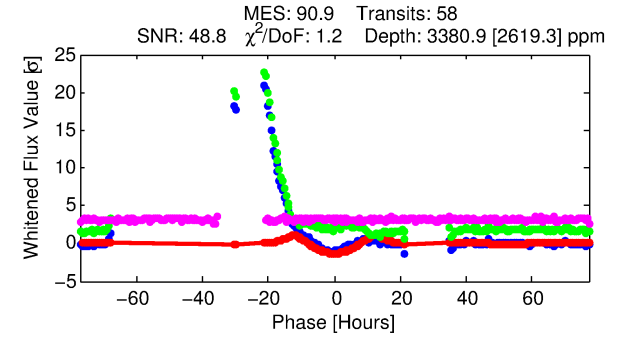
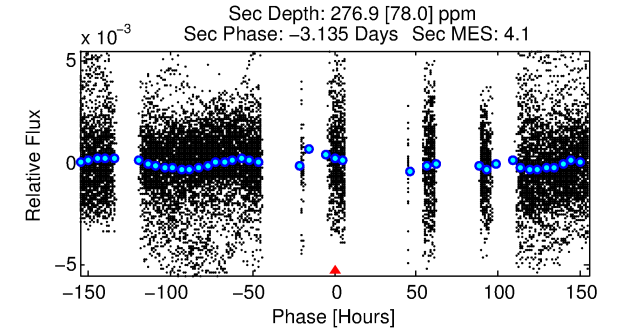
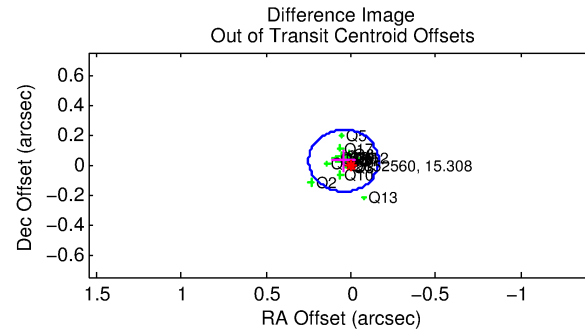
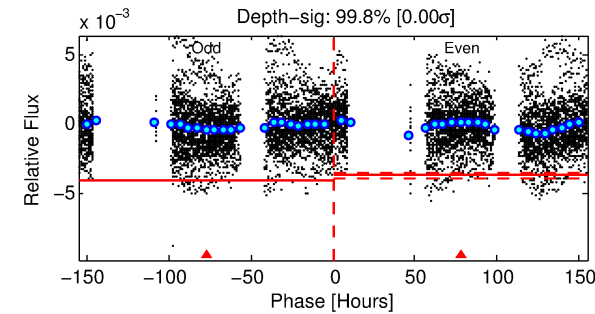
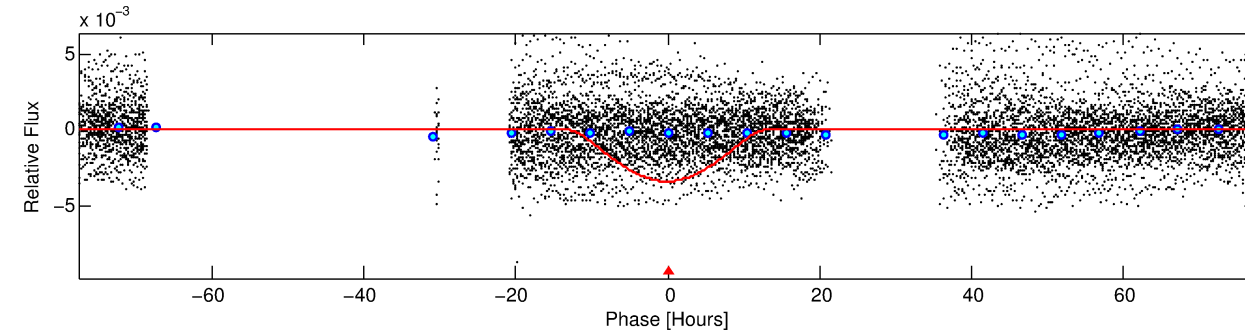
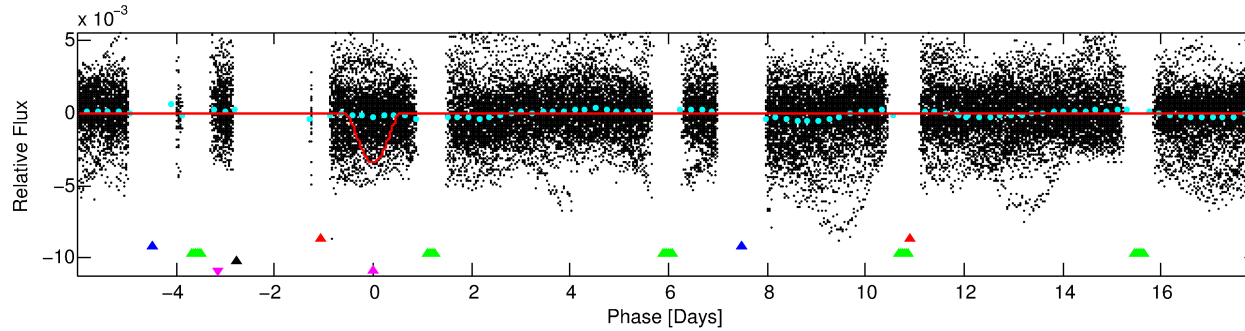
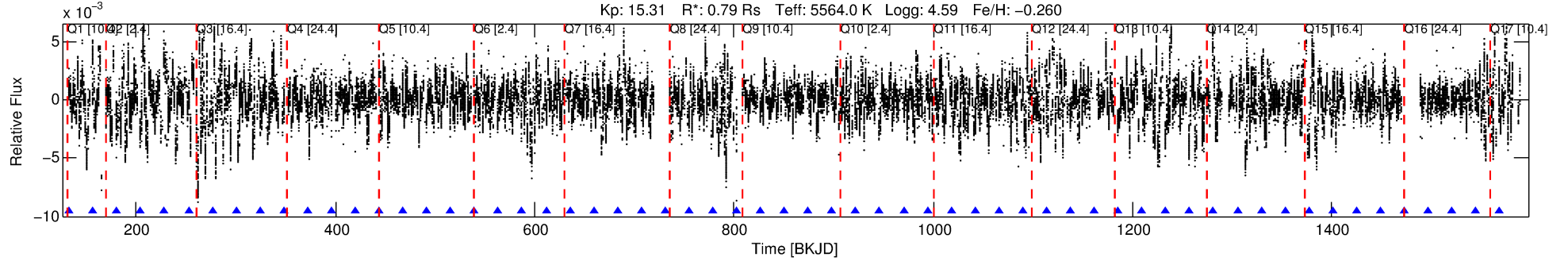
No Significant Match Found

DV One-Page Summary

KIC: 2852560 Candidate: 5 of 5 Period: 23.923 d

KOI: K06294 Corr: No Ephemeris Match

Kp: 15.31 R*: 0.79 Rs Teff: 5564.0 K Logg: 4.59 Fe/H: -0.260



DV Fit Results:

Period = 23.92294 [0.00023] d
Epoch = 132.9647 [0.0080] BKJD
Rp/R* = 0.1002 [0.0323]
a/R* = 3.41 [0.18]
b = 1.00 [0.01]
Seff = 22.01 [5.59]
Teq = 552 [35] K
Rp = 8.58 [3.21] Re
a = 0.1551 [0.0244] AU
Ag = 49.73 [36.70] [1.33σ]
Teffp = 2268 [404] K [4.23σ]

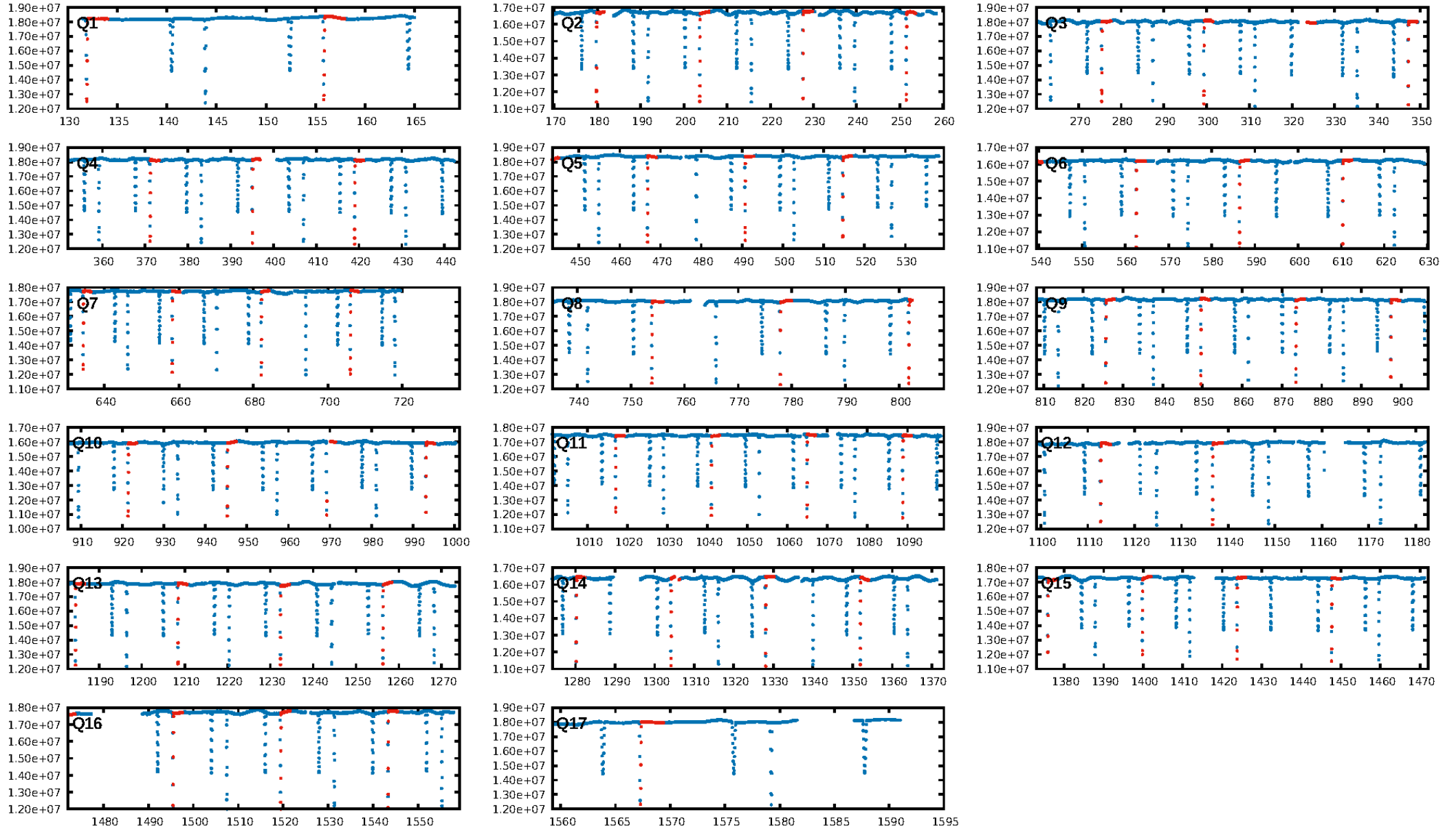
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [55/55]
GhostDiagnostic-chr: 3.779
Centroid-sig: 8.6%
Centroid-so: 0.673 arcsec [7.51σ]
OotOffset-rm: 0.052 arcsec [0.76σ]
KicOffset-rm: 0.021 arcsec [0.30σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 0.00 [0/17]

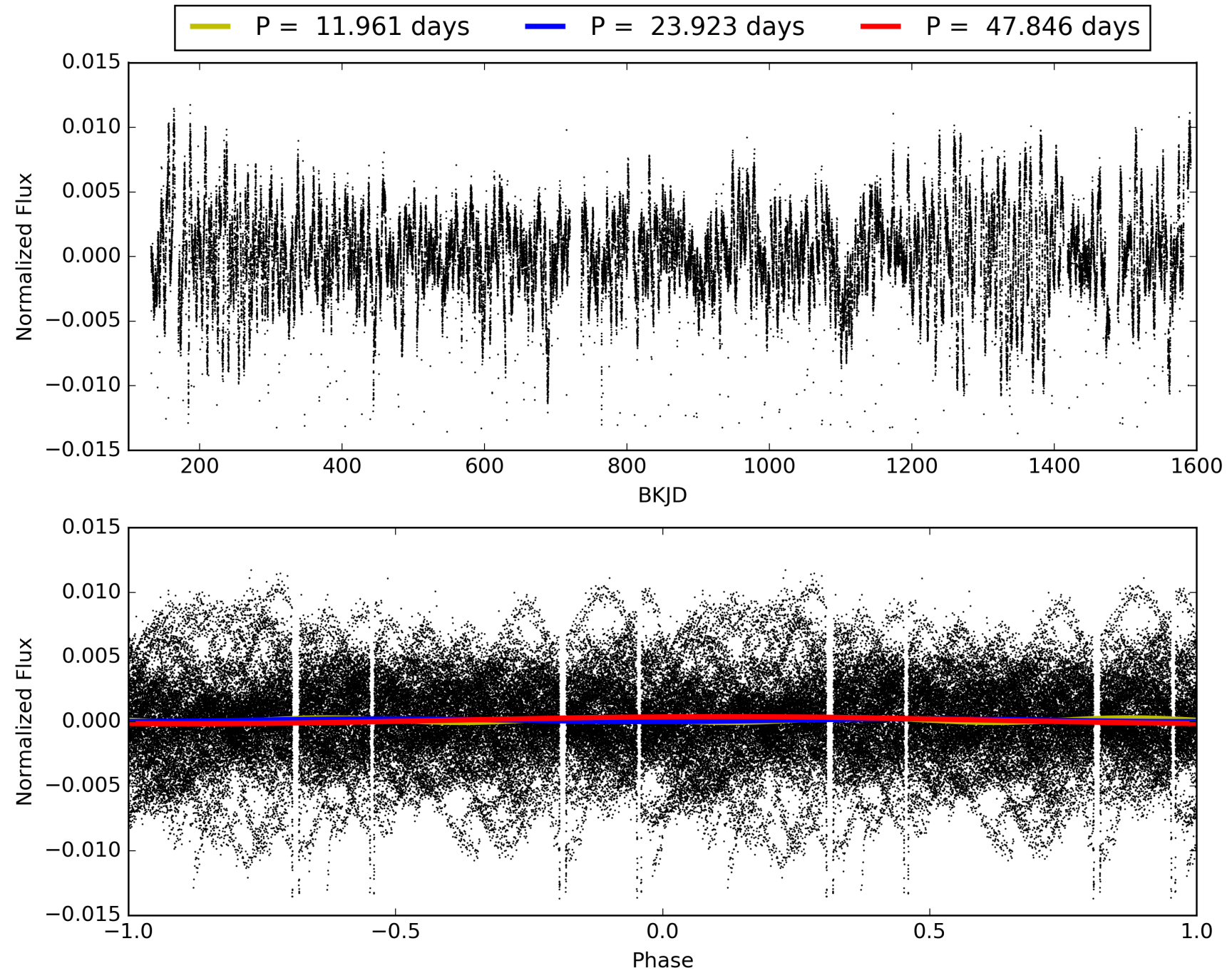
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 19:57:33 Z

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

TCE 002852560-05, PDC Light Curves

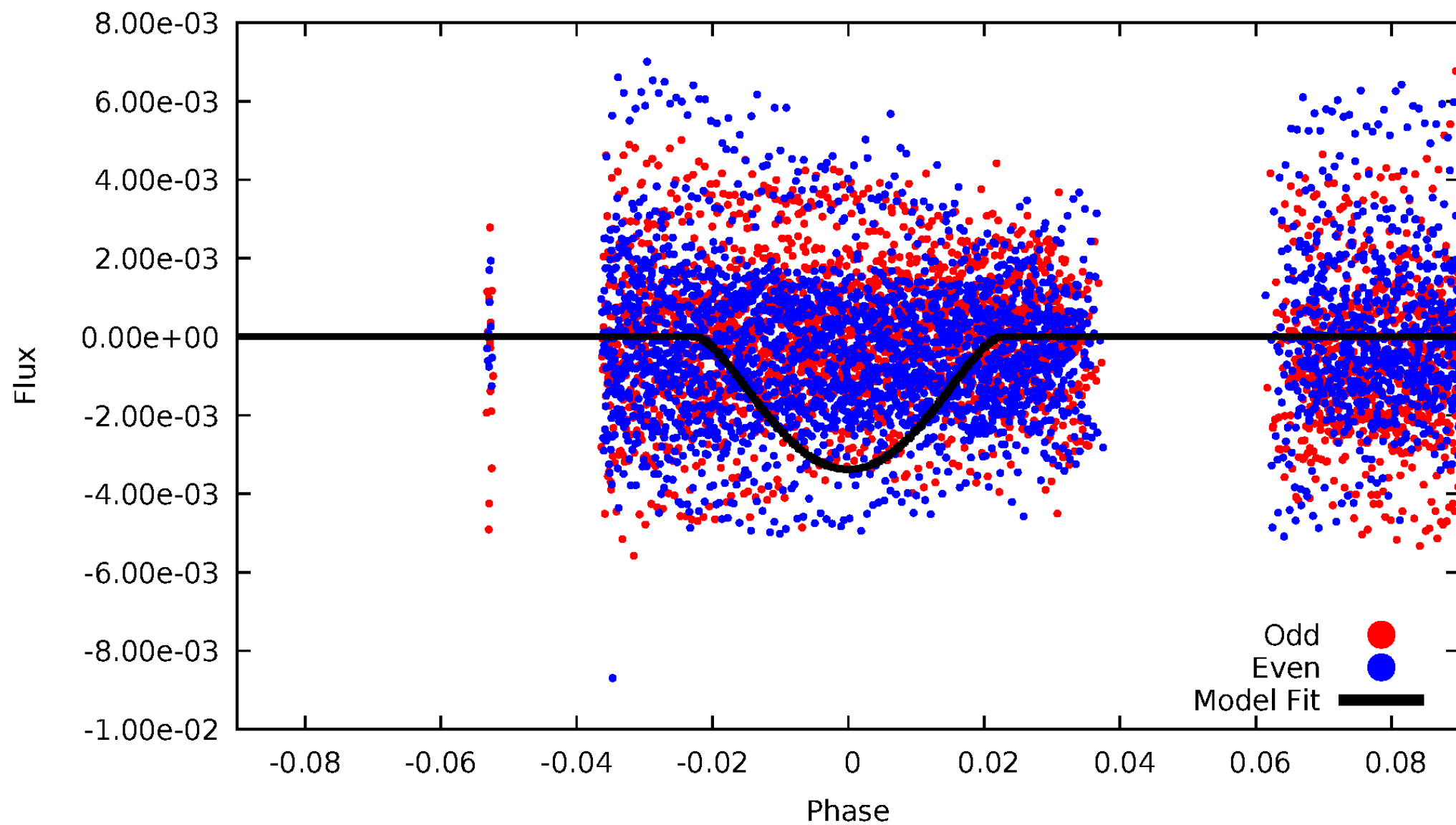


TCE 002852560-05



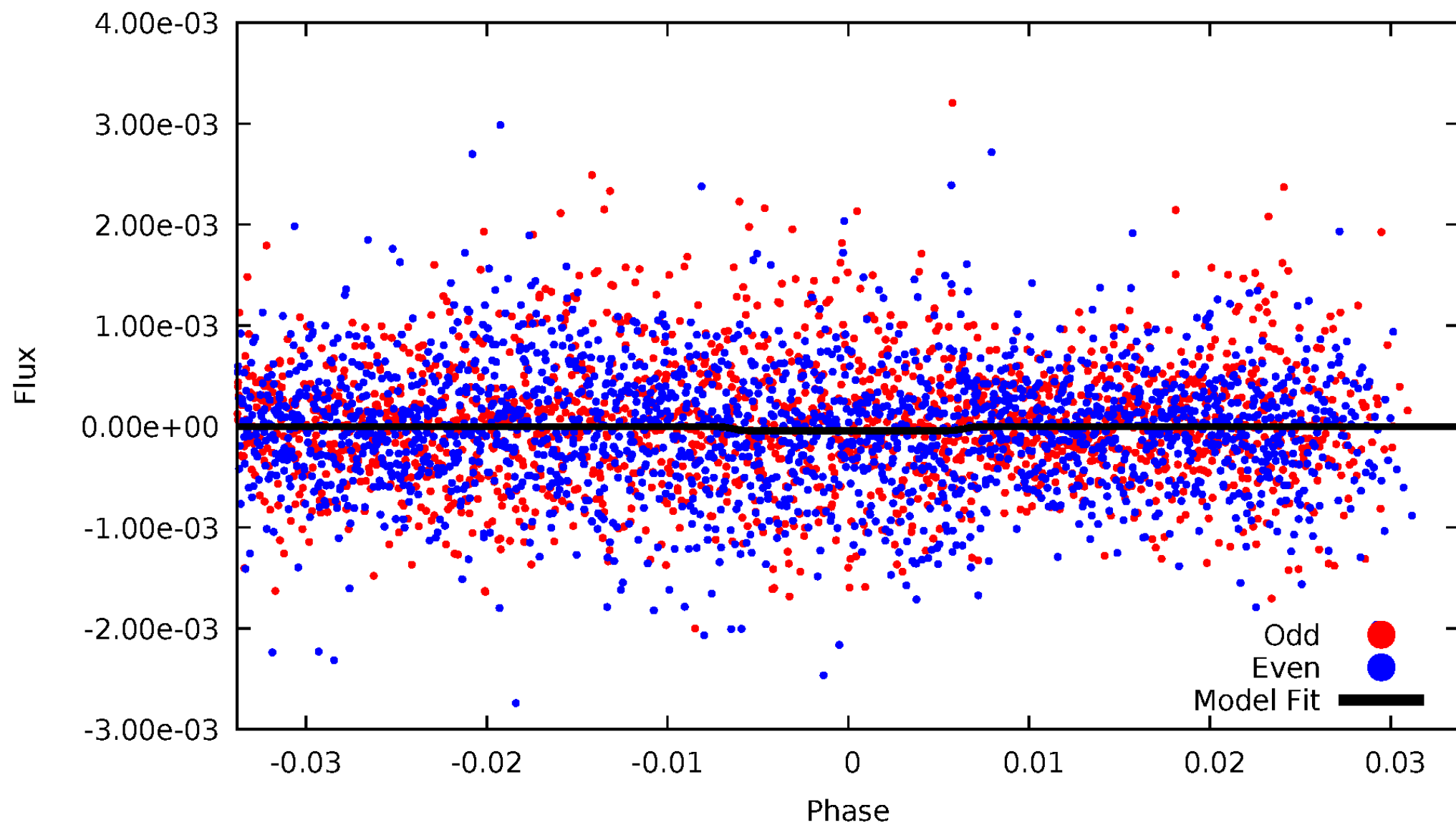
DV Odd/Even

TCE 002852560-05



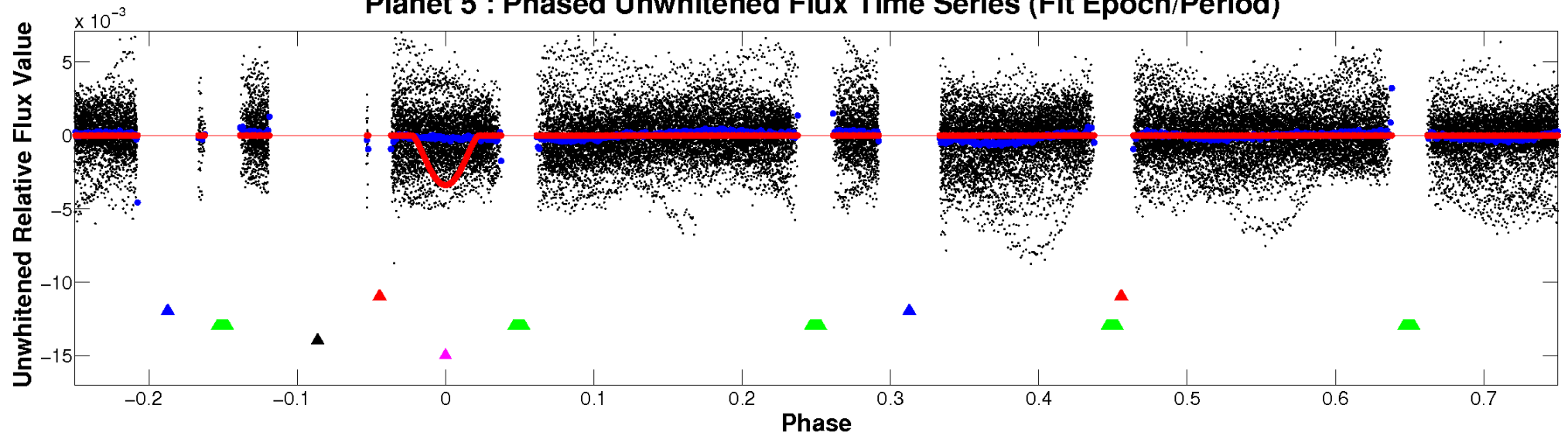
ALT Odd/Even

TCE 002852560-05

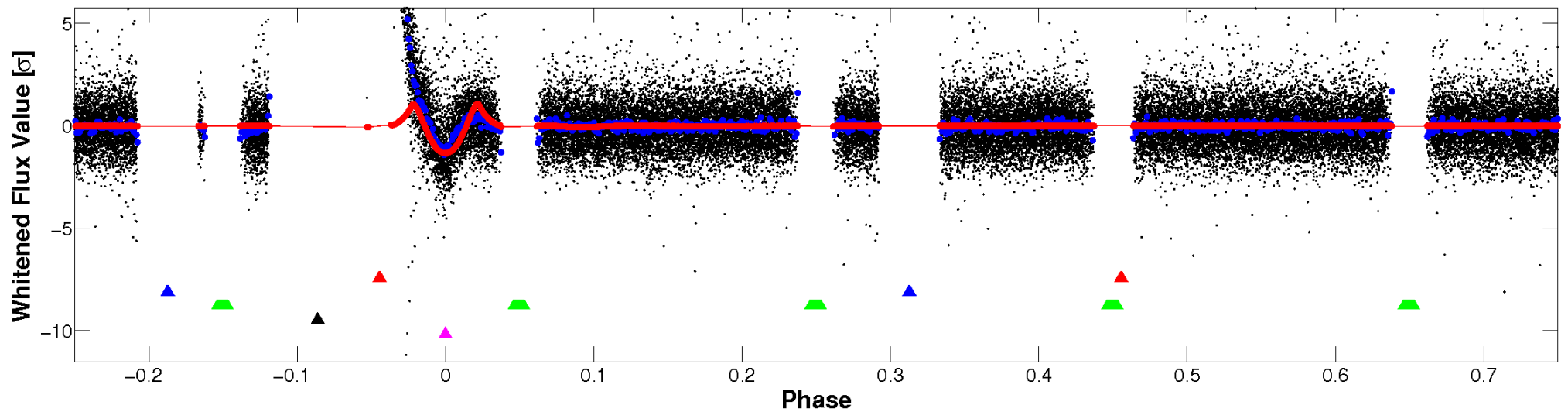


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

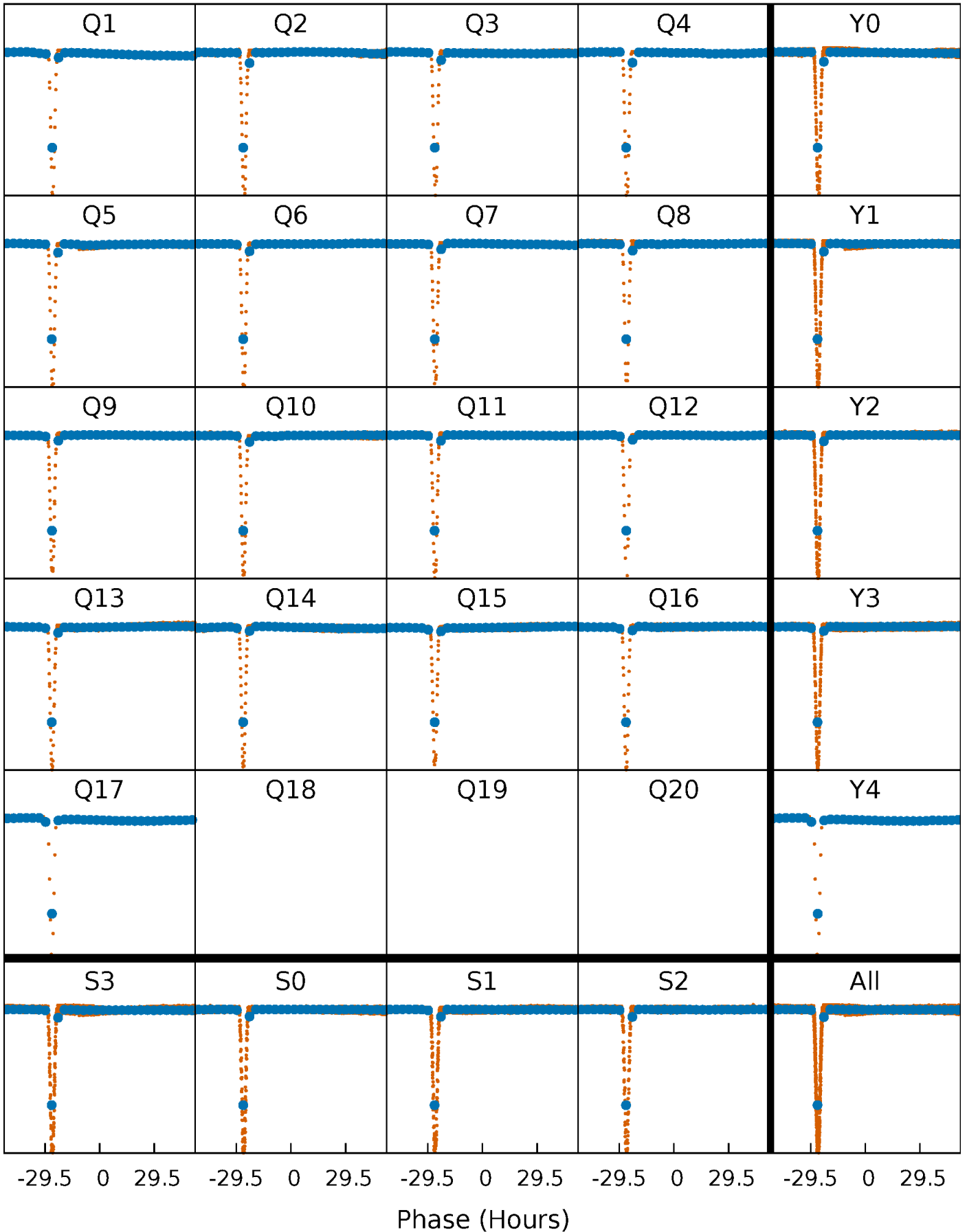


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



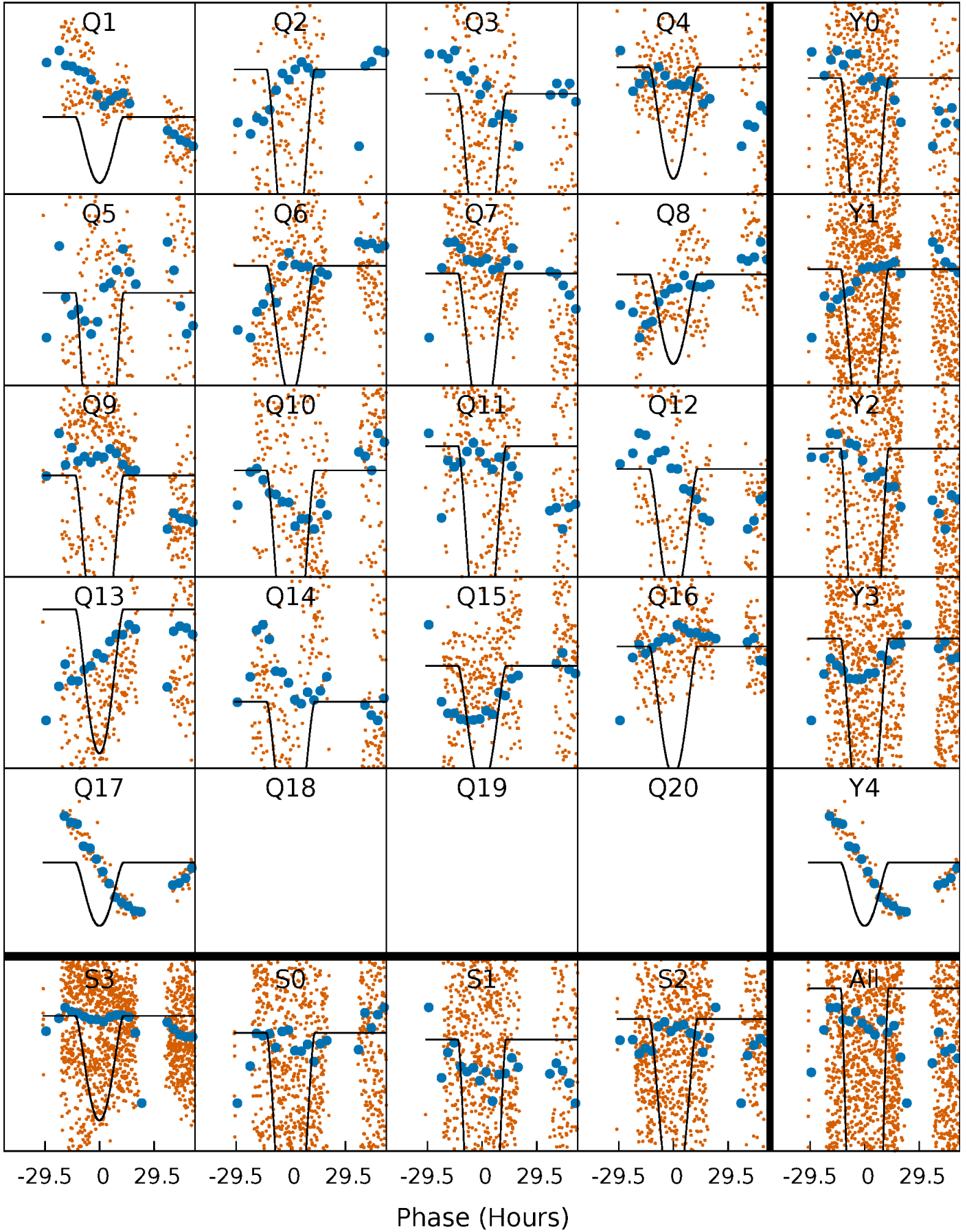
PDC Quarter-Phased Transit Curves

TCE 002852560-05 P= 23.922939 Days $T_0=132.964653$ (BKJD)



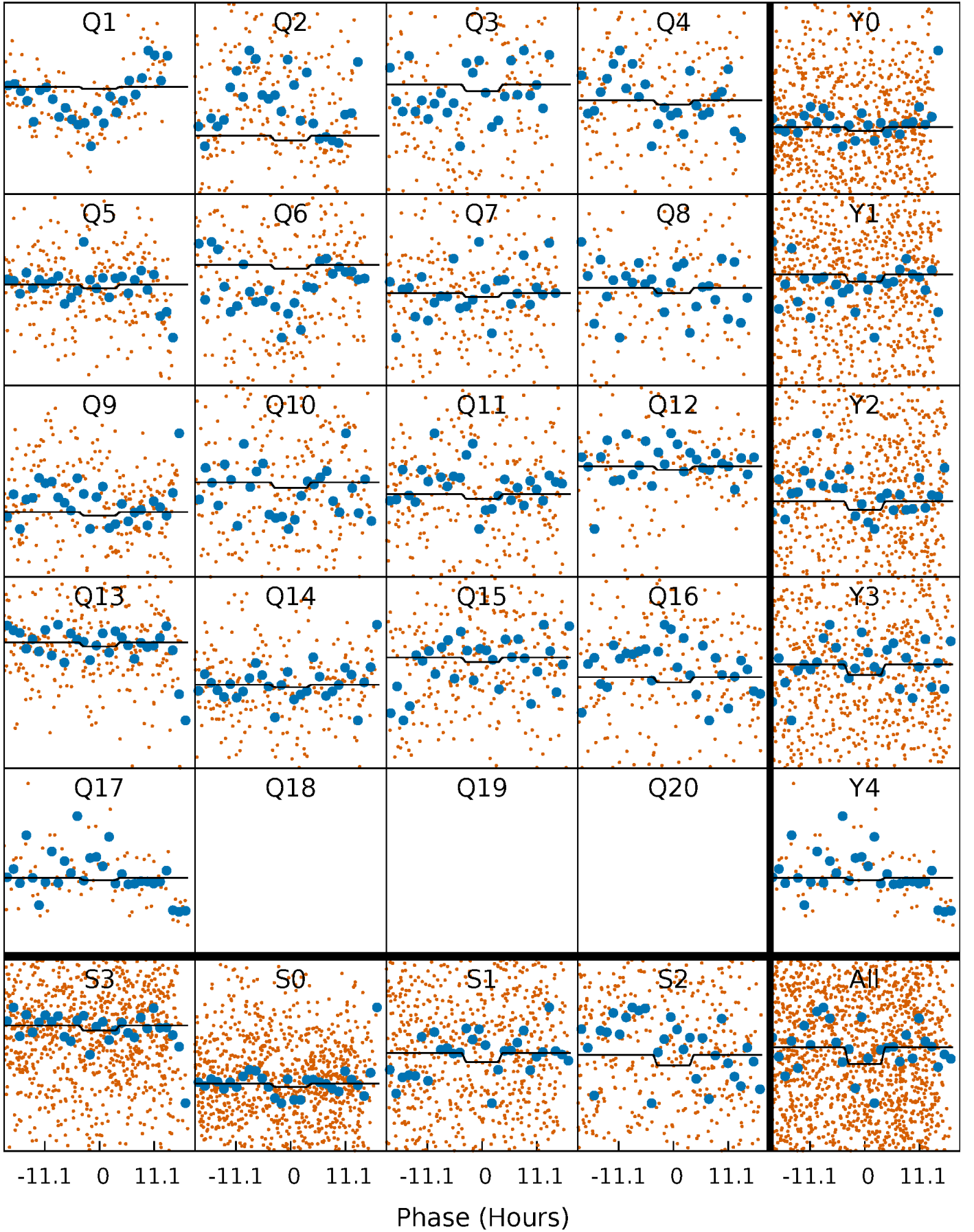
DV Quarter-Phased Transit Curves

TCE 002852560-05 $P = 23.922939$ Days $T_0 = 132.964653$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

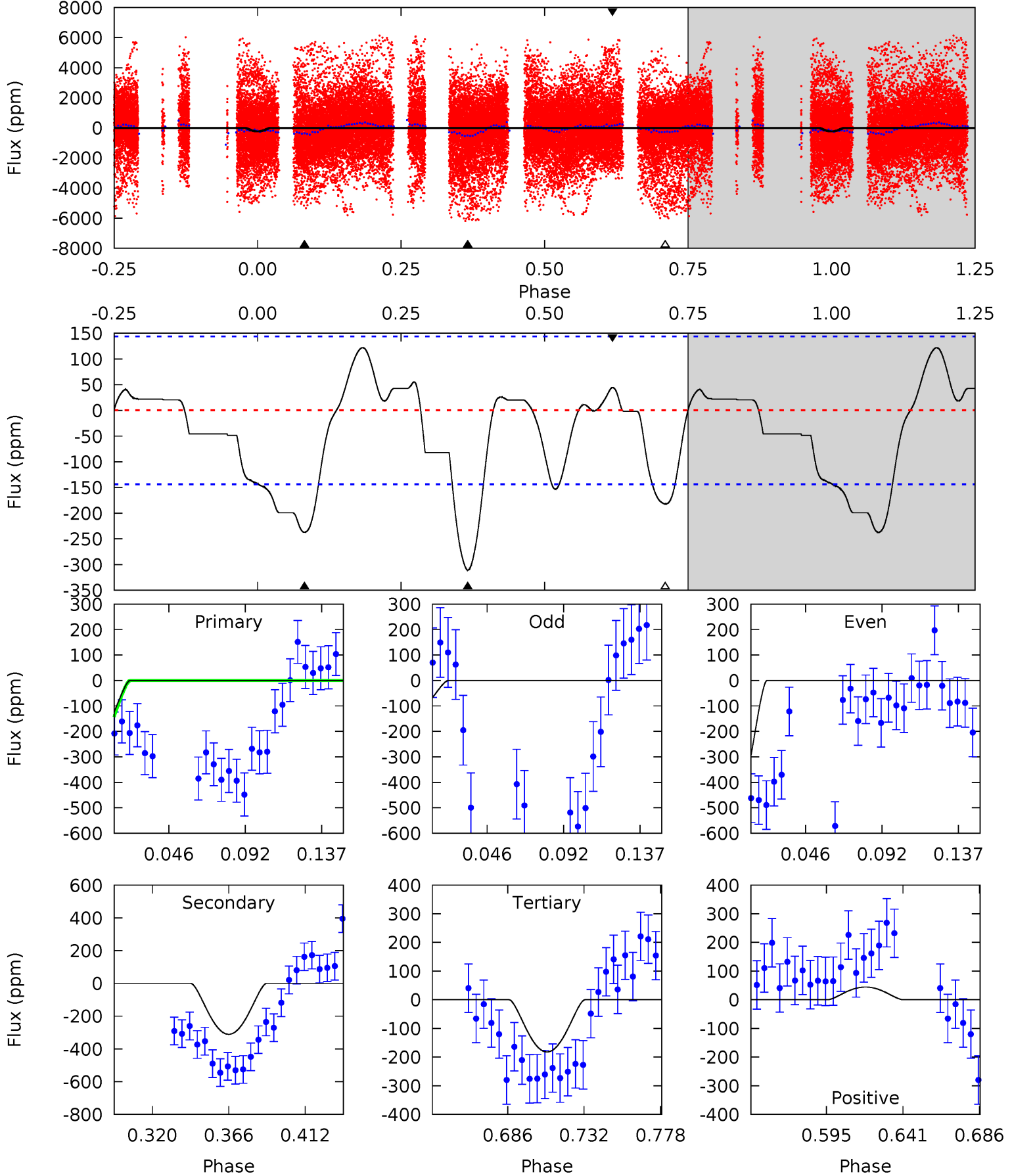
TCE 002852560-05 $P = 23.922730$ Days $T_0 = 133.129041$ (BKJD)



DV Model-Shift Uniqueness Test

002852560-05, P = 23.922939 Days, E = 109.041714 Days

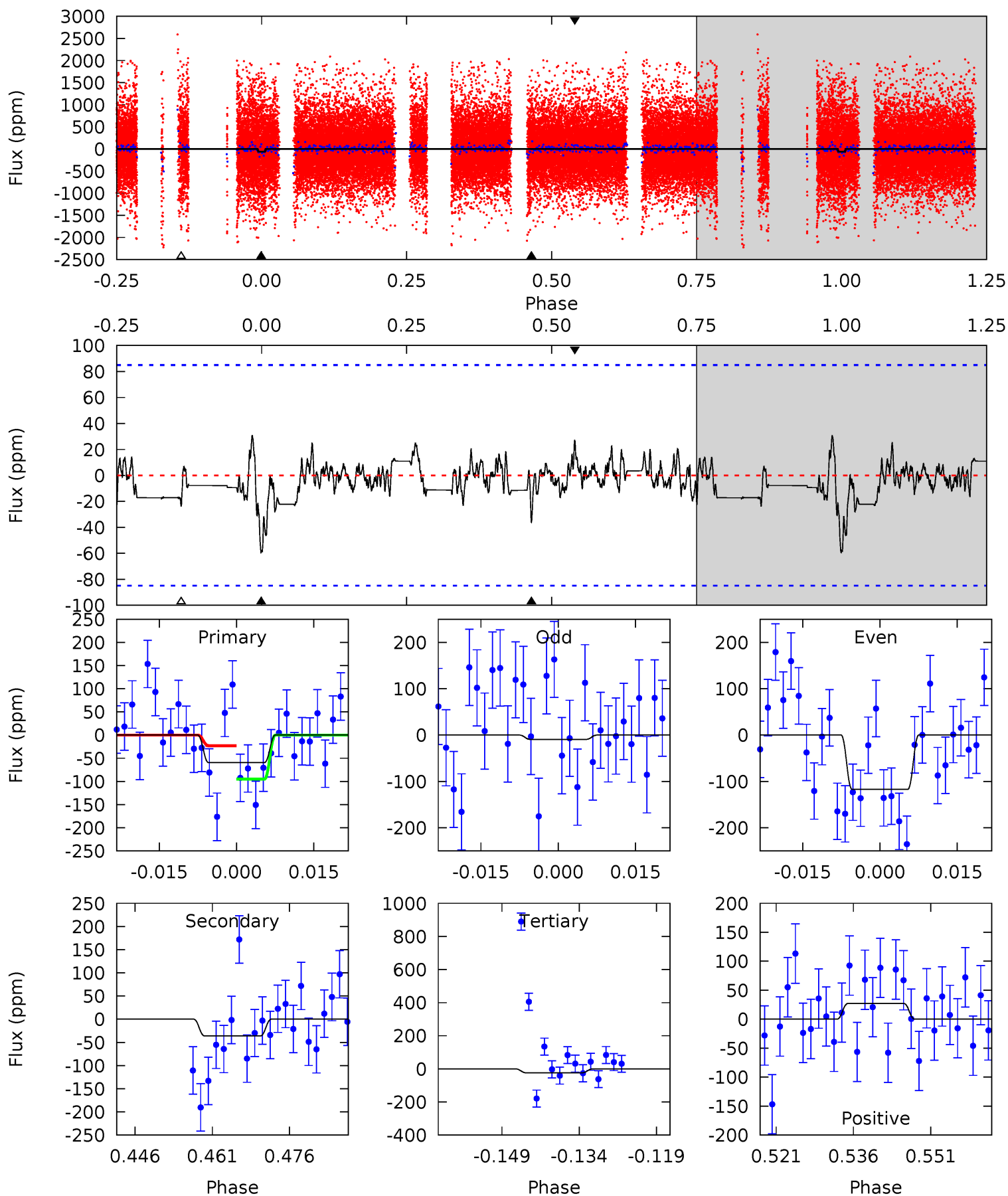
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.80	10.2	5.99	1.46	4.73	2.00	2.75	1.81	6.34	4.24	8.76	7.15	2.70	0.28	1.09



Alt Model-Shift Uniqueness Test

002852560-05, P = 23.922730 Days, E = 109.206311 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.47	2.10	1.39	1.58	4.95	2.44	0.55	2.08	1.89	0.71	0.52	3.17	3.01	0.34	2.10



Stellar Parameters For KIC 002852560

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5564^{+150}_{-167}	$4.587^{+0.040}_{-0.120}$	$-0.260^{+0.300}_{-0.300}$	$0.785^{+0.150}_{-0.064}$	$0.878^{+0.082}_{-0.109}$	$2.558^{+0.436}_{-0.966}$
	+3%/-3%	+1%/-3%	+115%/-115%	+19%/-8%	+9%/-12%	+17%/-38%
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 002852560-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-311 ± 30	$8.77^{+2.82}_{-3.06}$	782^{+36}_{-31}	3013^{+403}_{-238}	53^{+76}_{-23}
Alt.	-36 ± 17	$2.17^{+2.35}_{-1.48}$	782^{+36}_{-31}	3241^{+1600}_{-625}	88^{+826}_{-68}

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

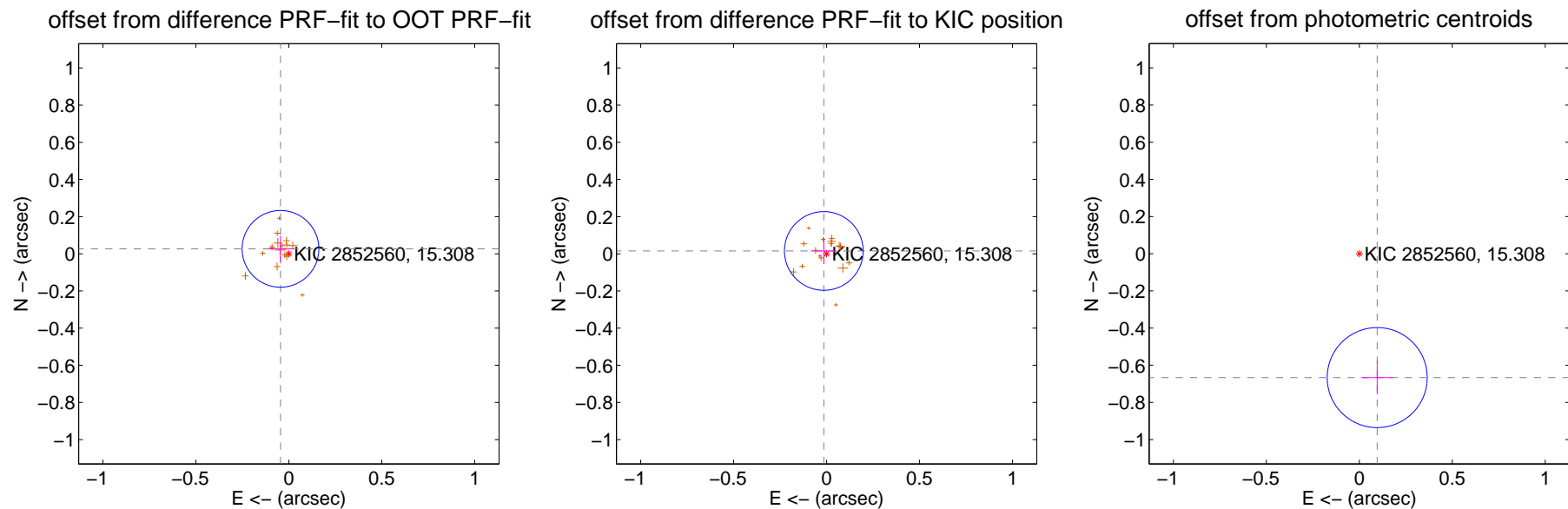
DV Centroid Data

Supplemental centroid analysis for 002852560-05. Kepler magnitude: 15.31. Transit SNR 48.81

There are 0 quarters with good PRF difference image offsets

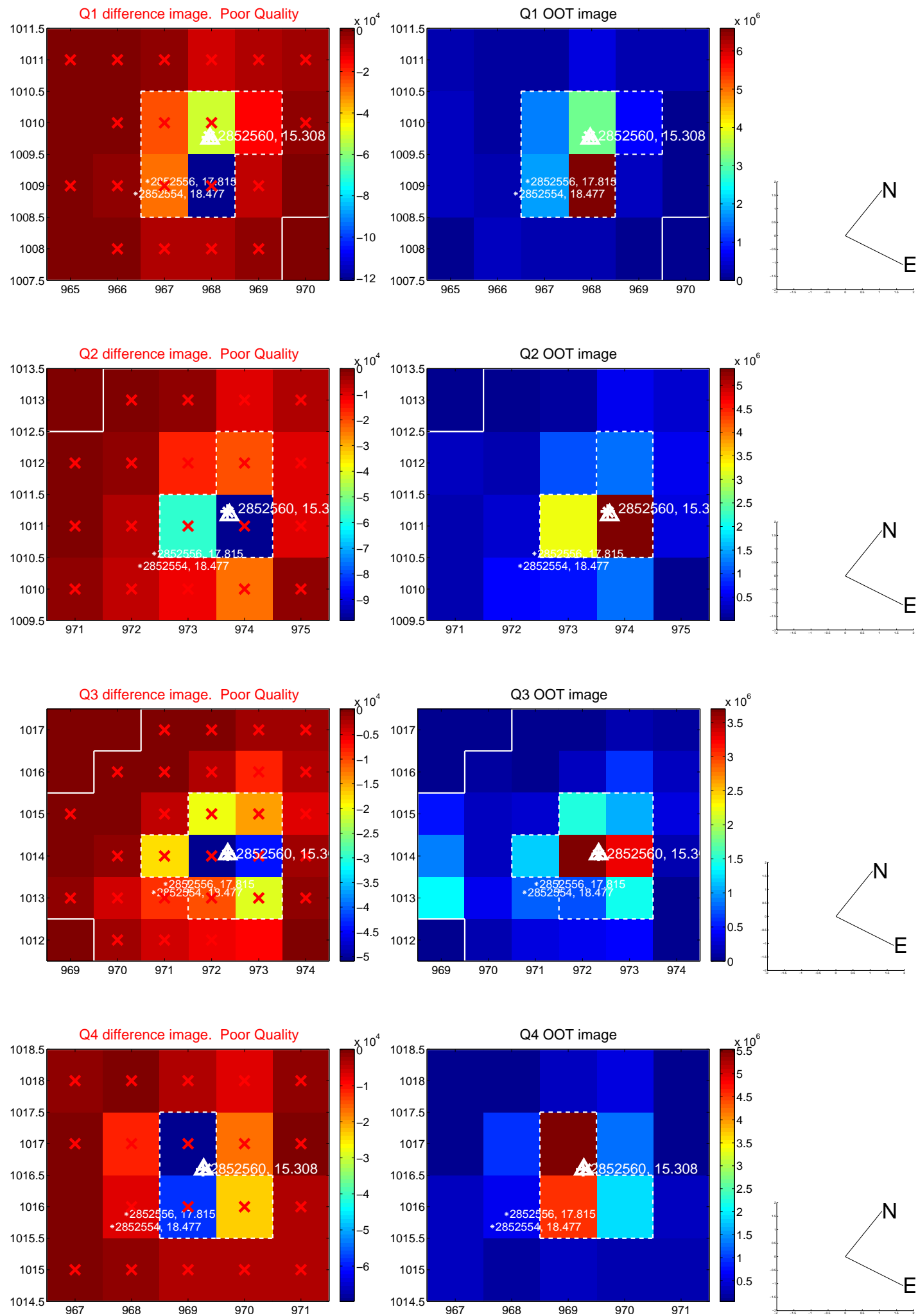
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.052 ± 0.069	0.76	0.045 ± 0.068	0.027 ± 0.070
PRF-fit source offset from KIC position	0.021 ± 0.071	0.30	0.015 ± 0.070	0.015 ± 0.071
photometric centroid source offset	0.67 ± 0.09	7.51	-0.10 ± 0.08	-0.67 ± 0.09

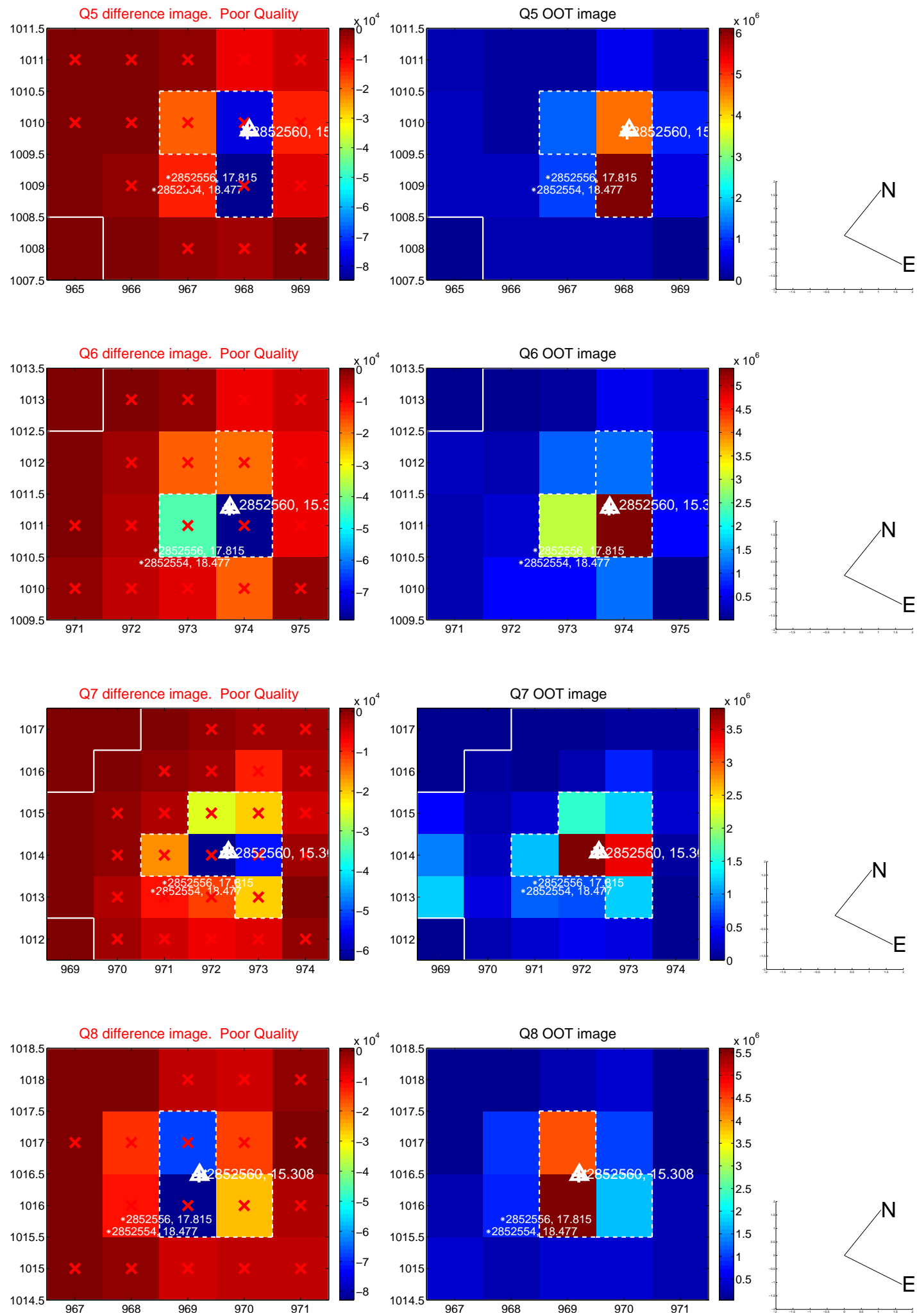


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

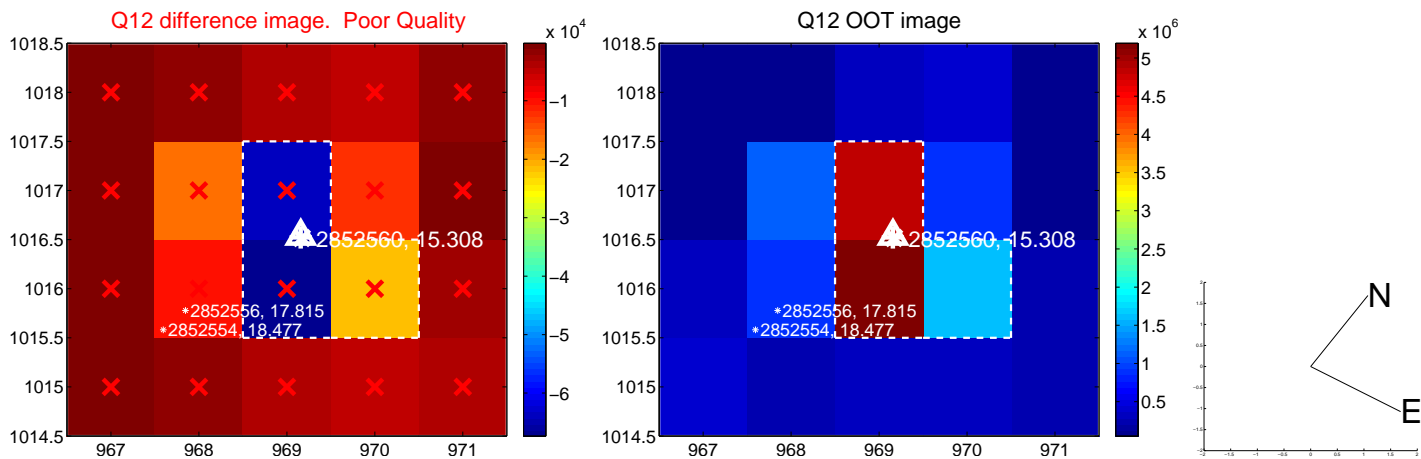
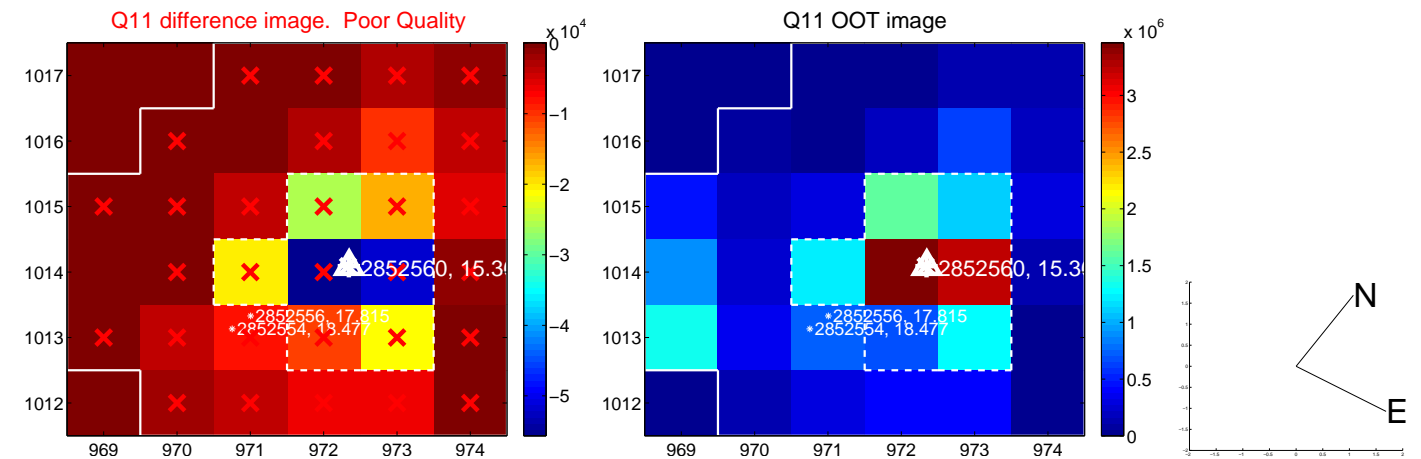
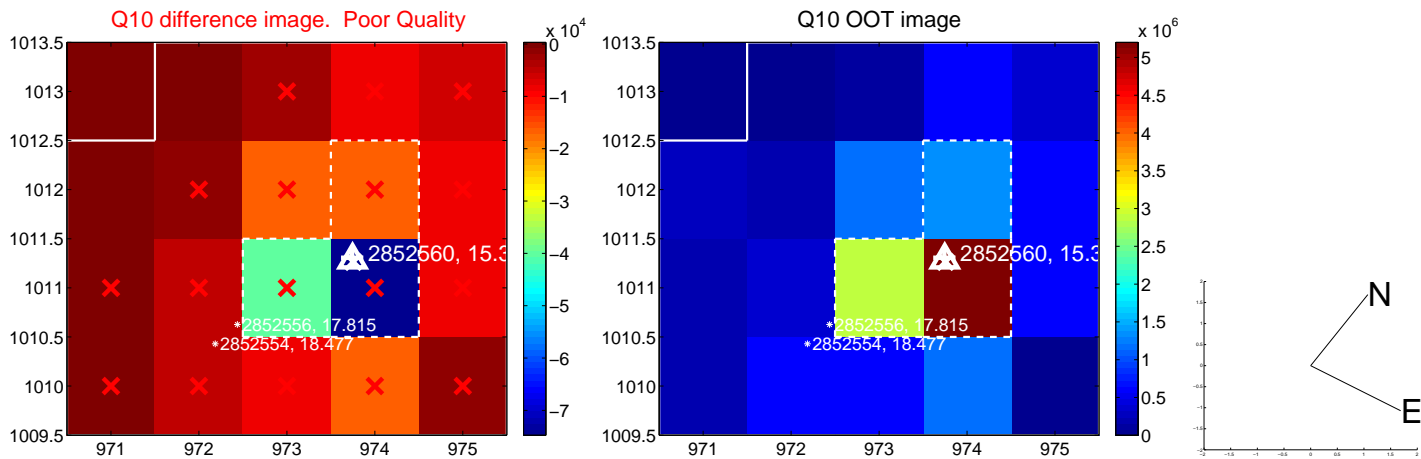
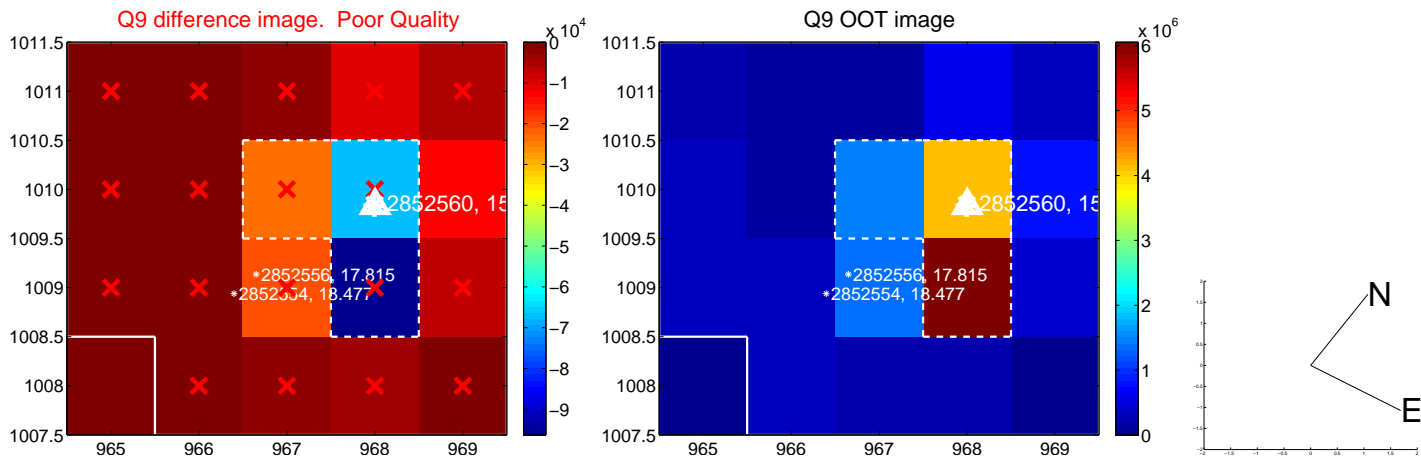
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



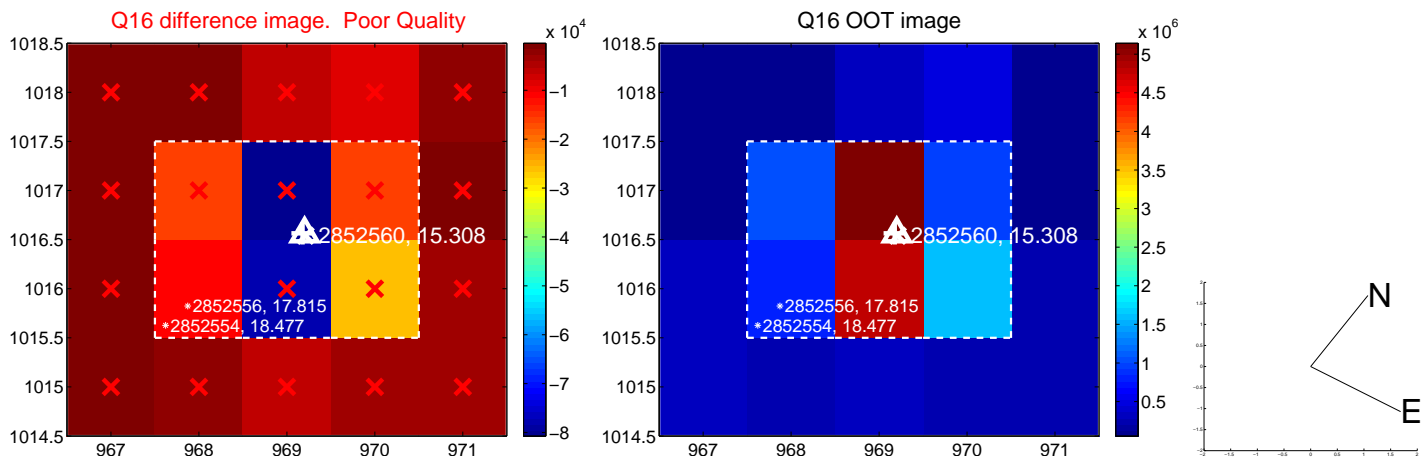
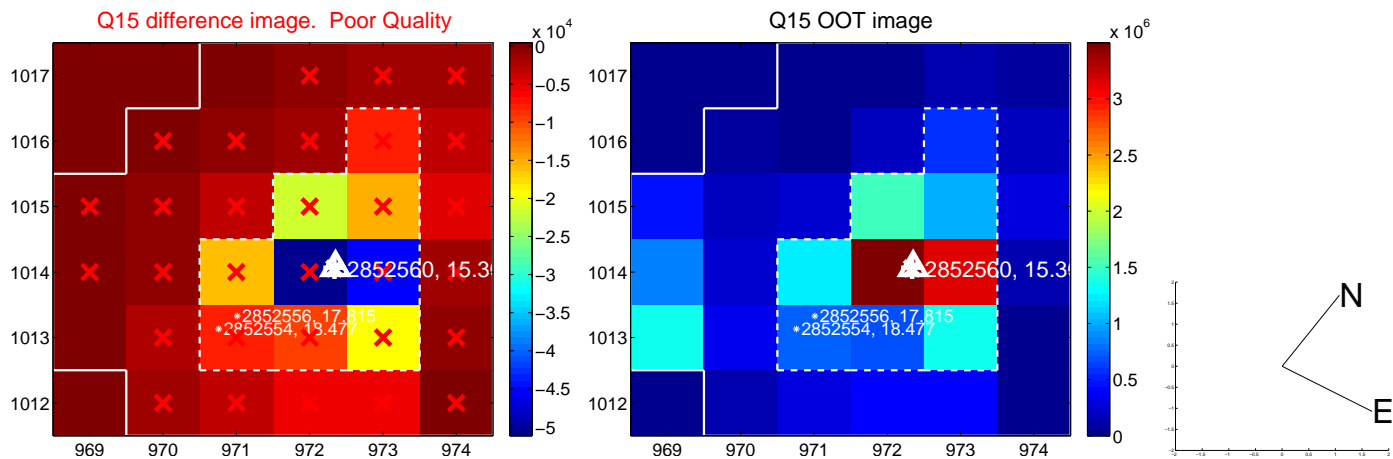
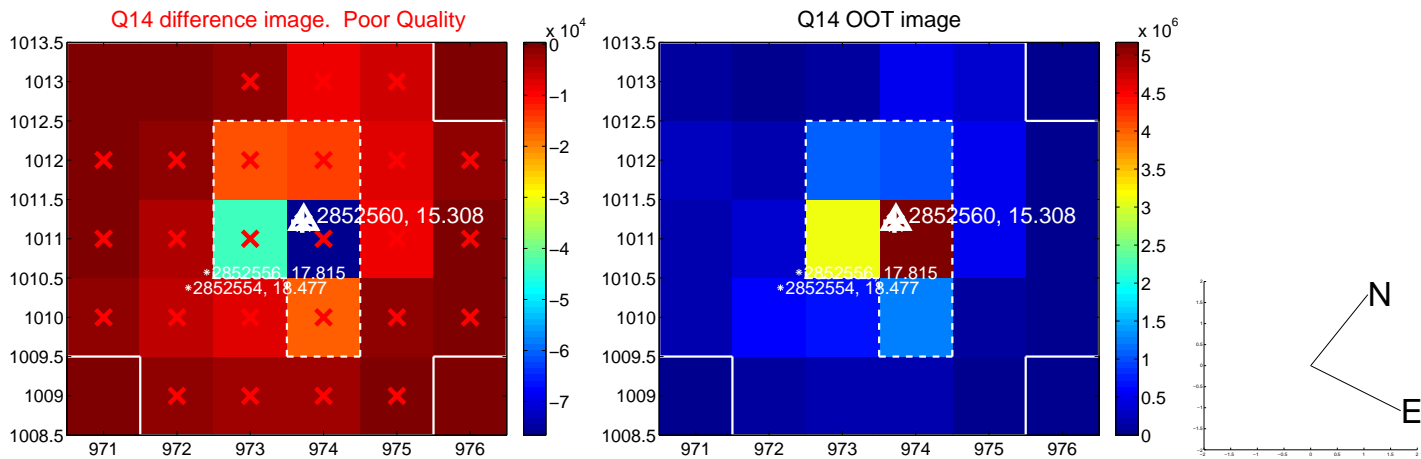
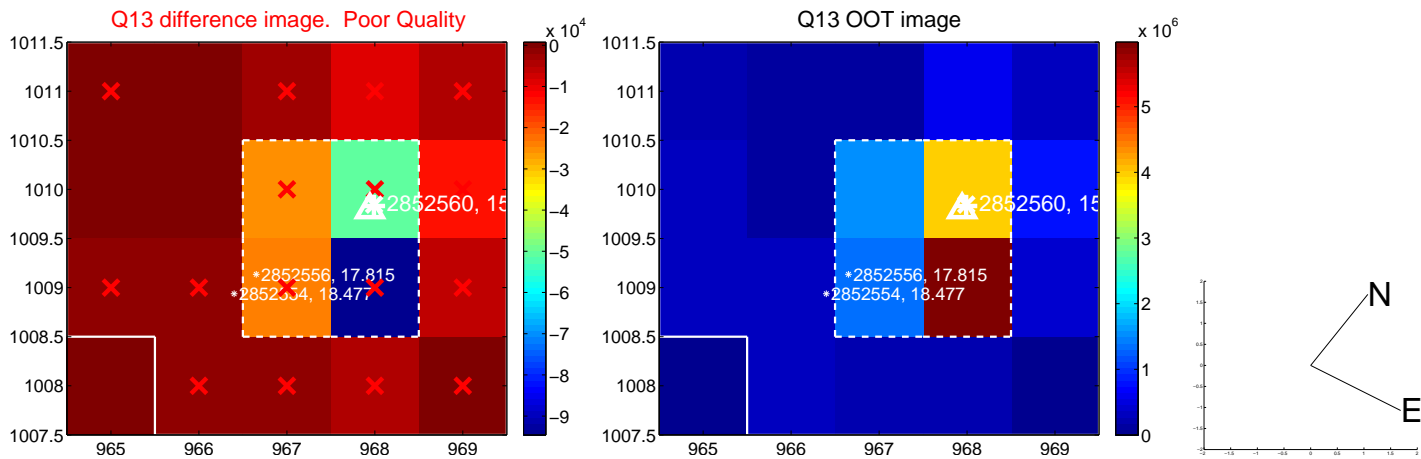
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



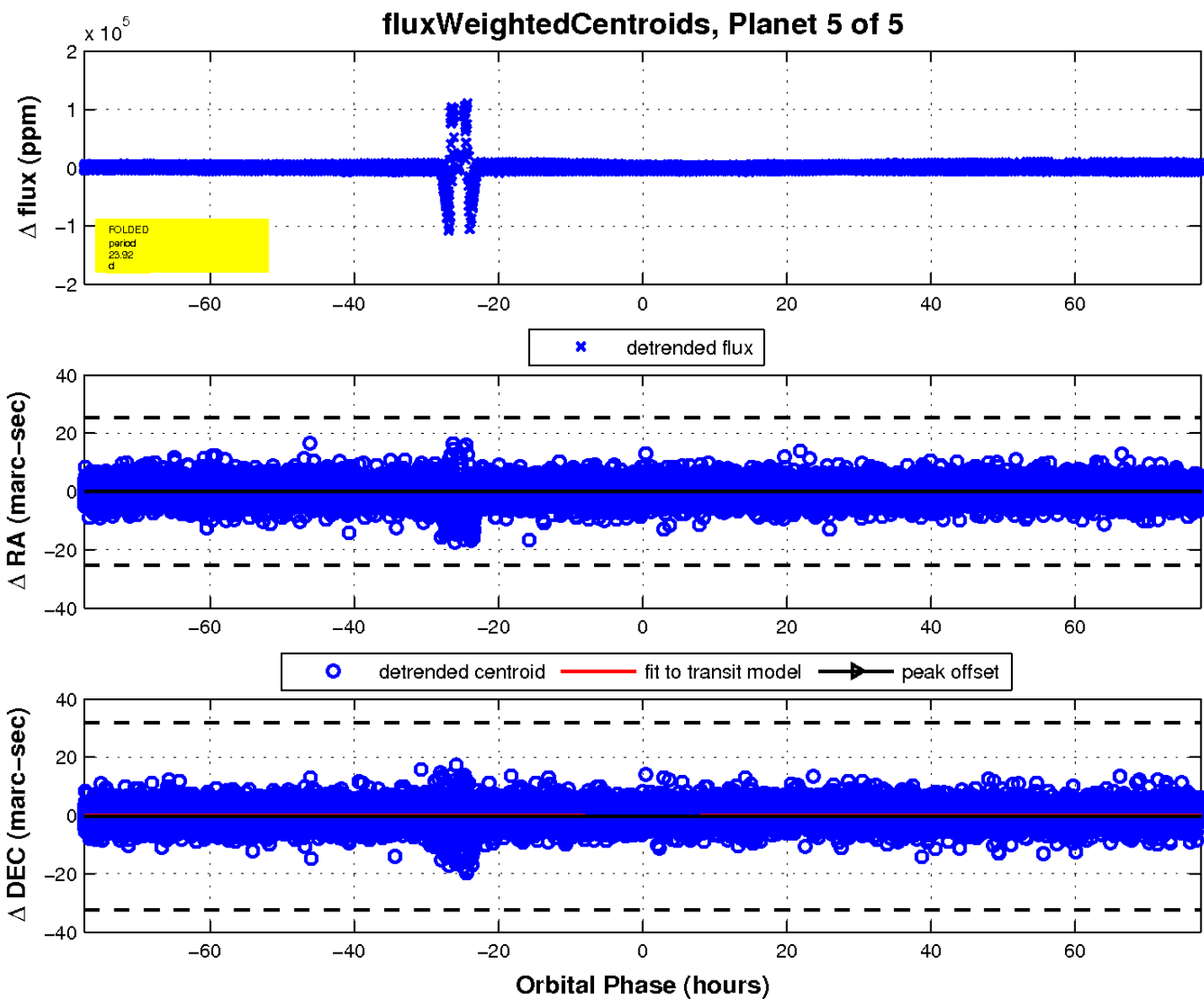
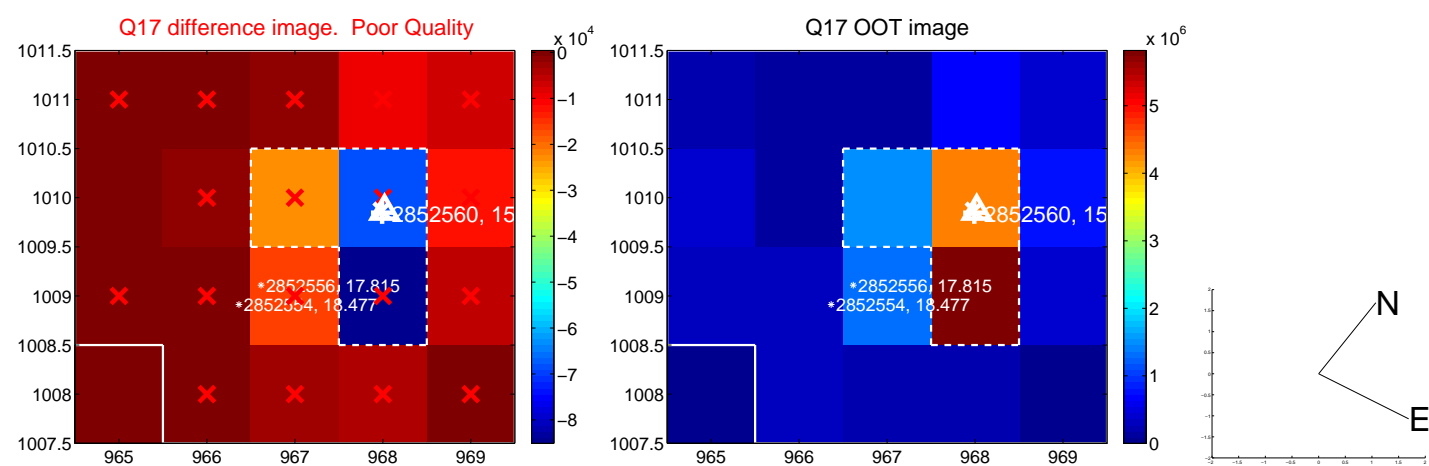
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

