

KIC 005823587

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})
005823587-01	OBS	No	1.766717	131.603258	53.7	6.468	10.2	8.8	1.17	6580	0.97	2501.03
005823587-02	OBS	No	1.766779	132.621190	72.4	5.396	12.7	12.0	1.17	6580	1.17	2500.91
005823587-03	OBS	No	32.977868	145.869489	478.0	8.691	7.1	7.6	1.17	6580	3.31	50.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005823587-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005823587-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
005823587-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

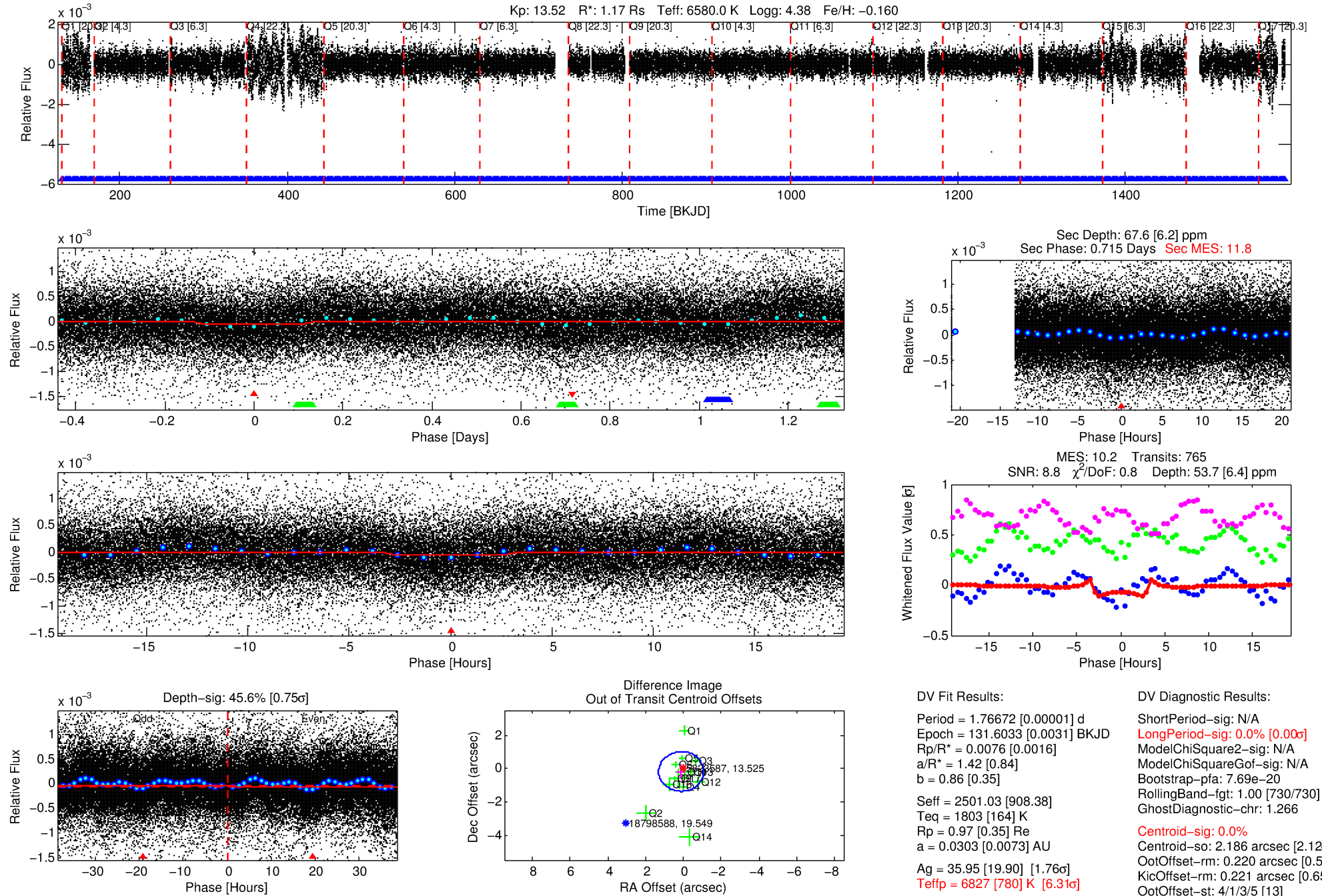
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005823587-01

No Significant Match Found

DV One-Page Summary

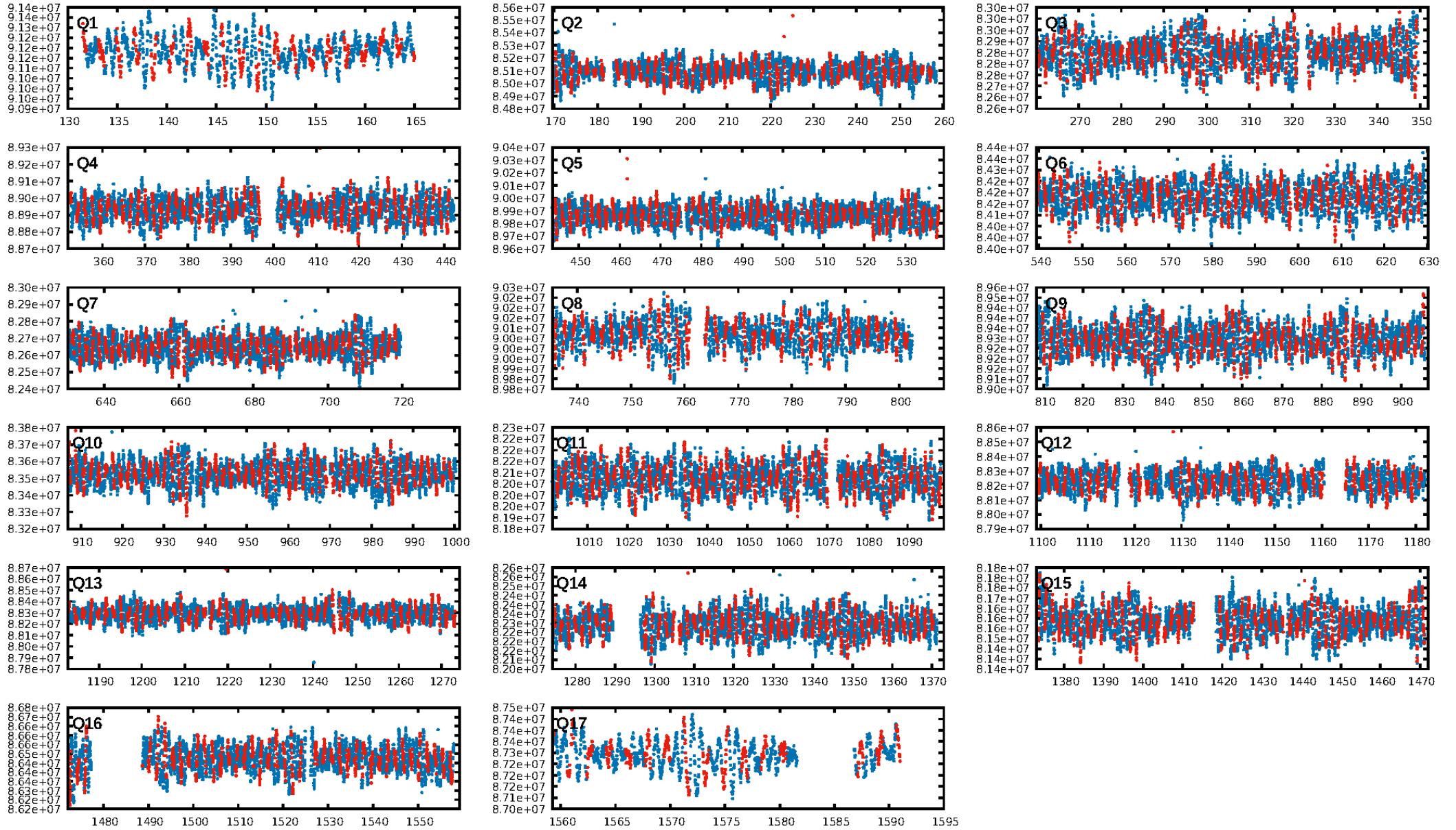
KIC: 5823587 Candidate: 1 of 3 Period: 1.767 d



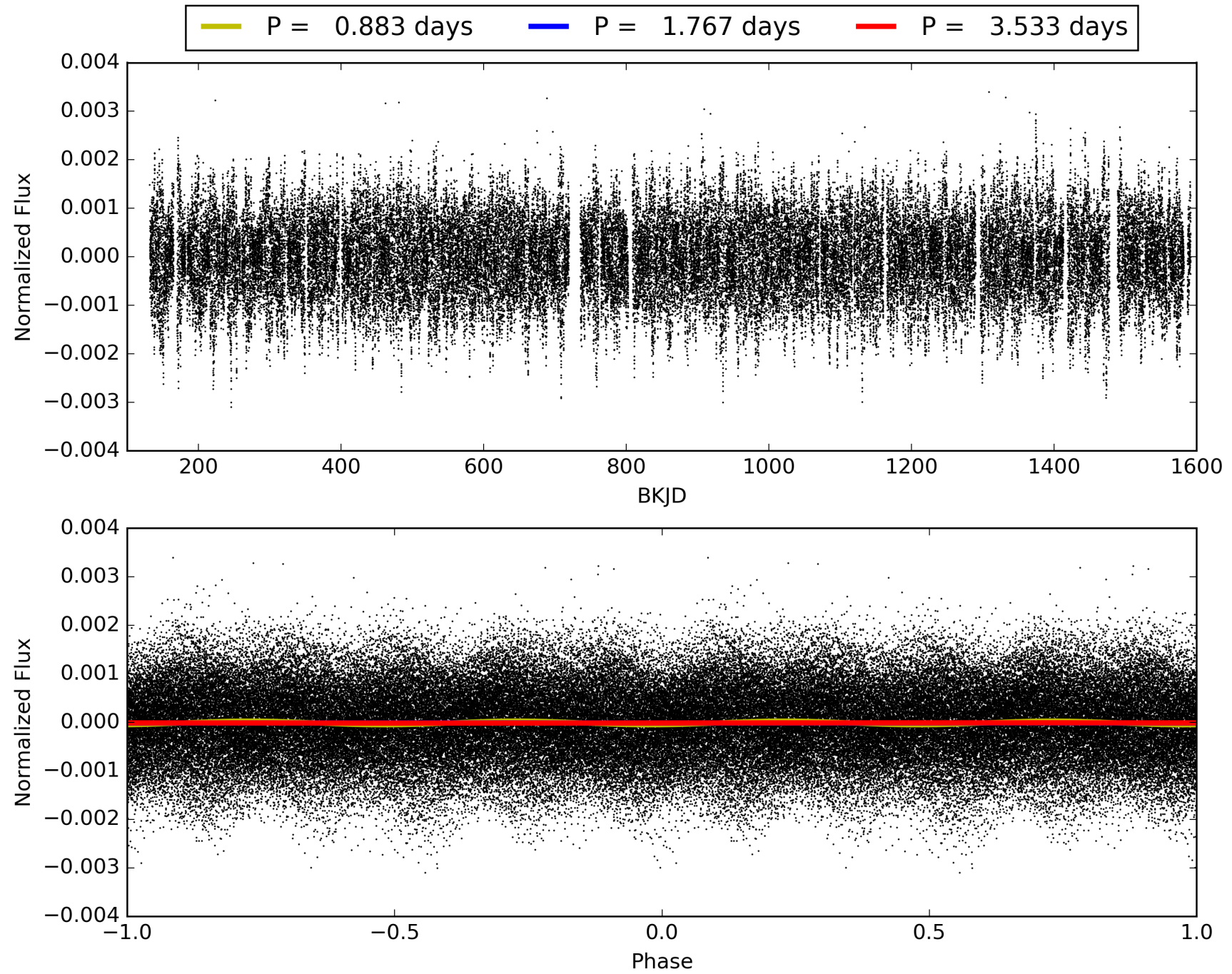
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:06:43 Z

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

TCE 005823587-01, PDC Light Curves

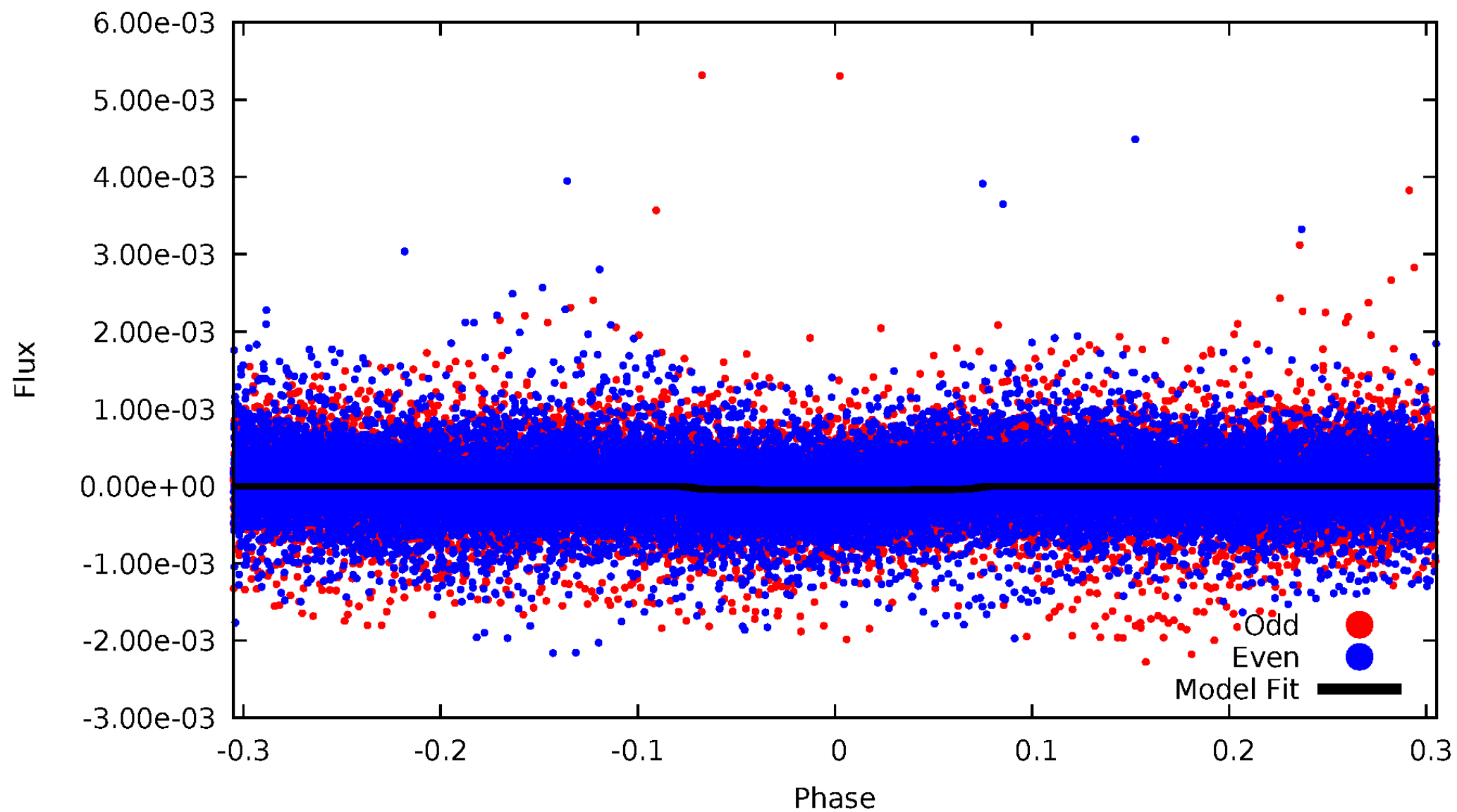


TCE 005823587-01



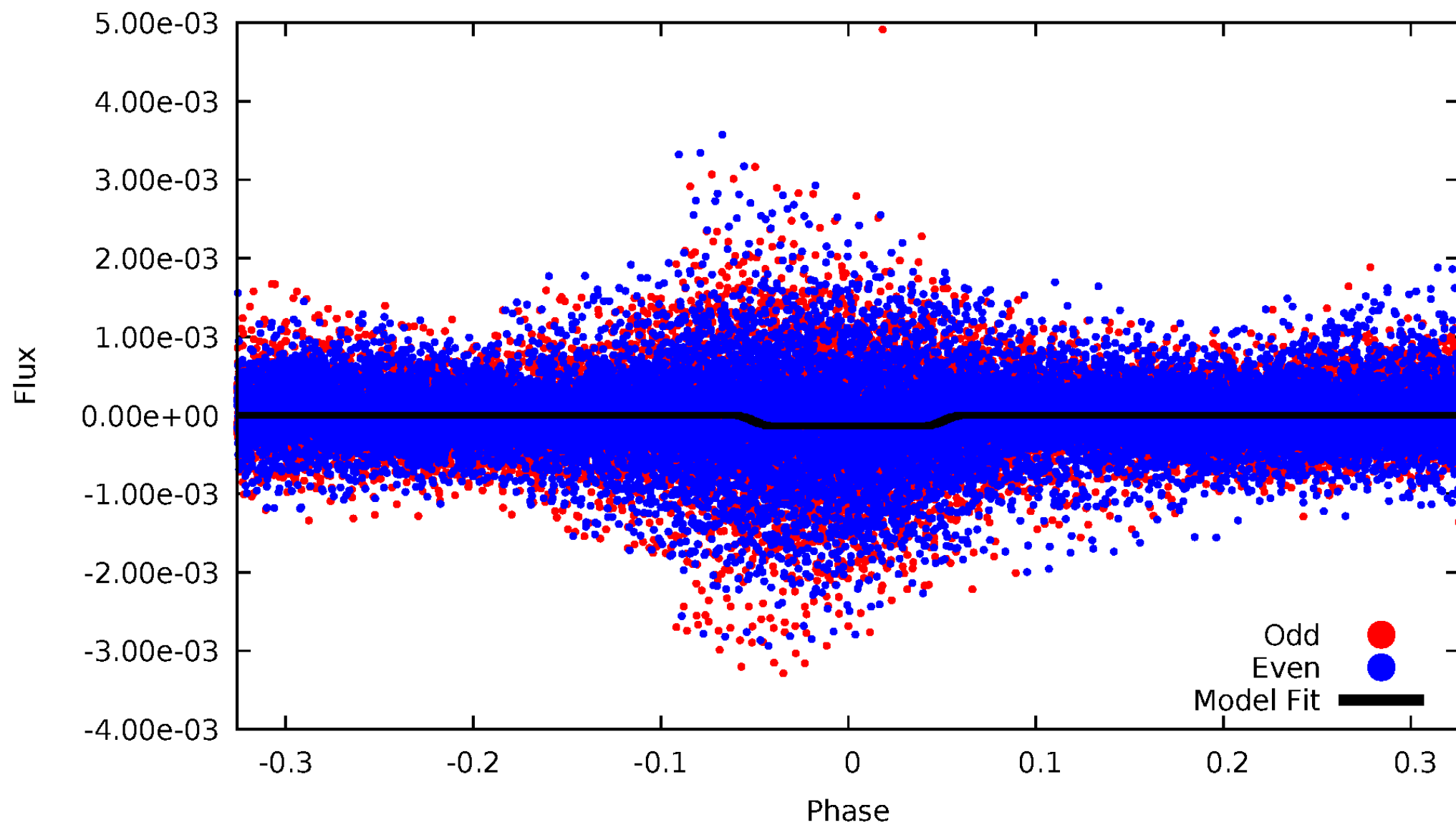
DV Odd/Even

TCE 005823587-01



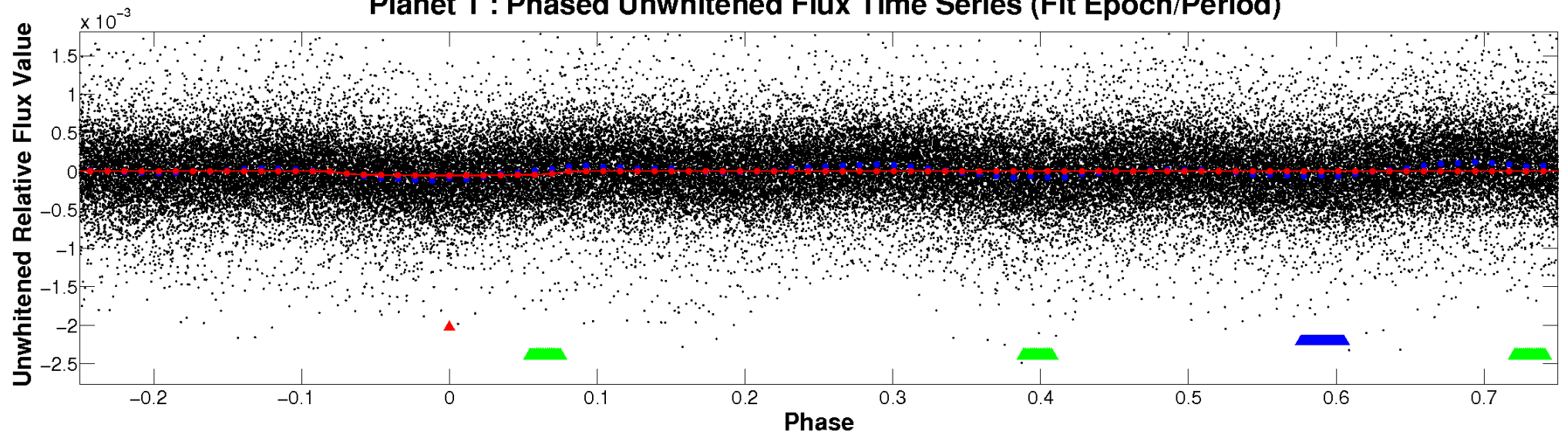
ALT Odd/Even

TCE 005823587-01

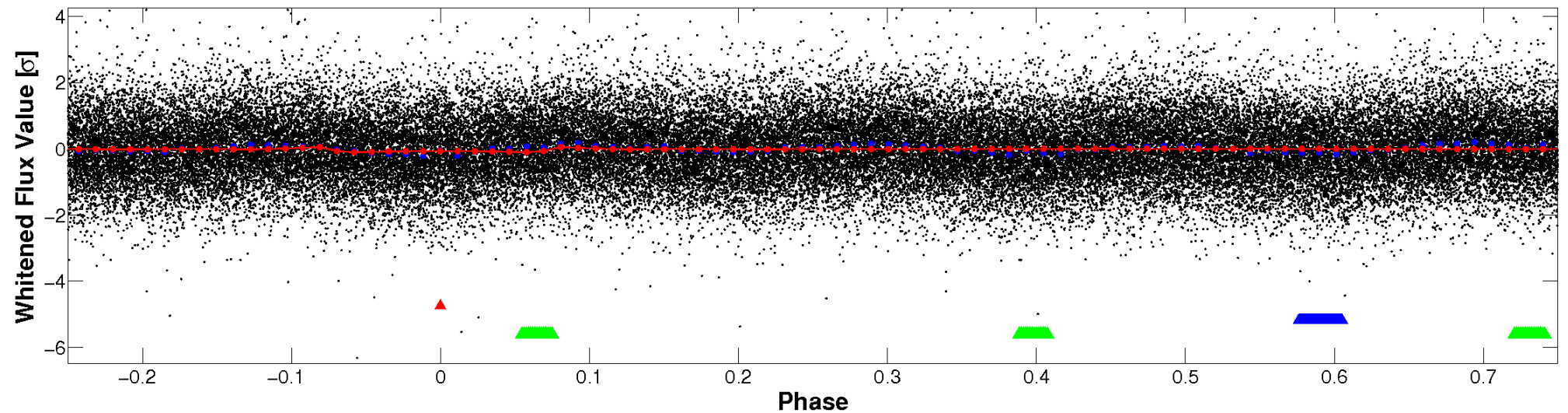


Non-Whitened Vs. Whitened Light Curve

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

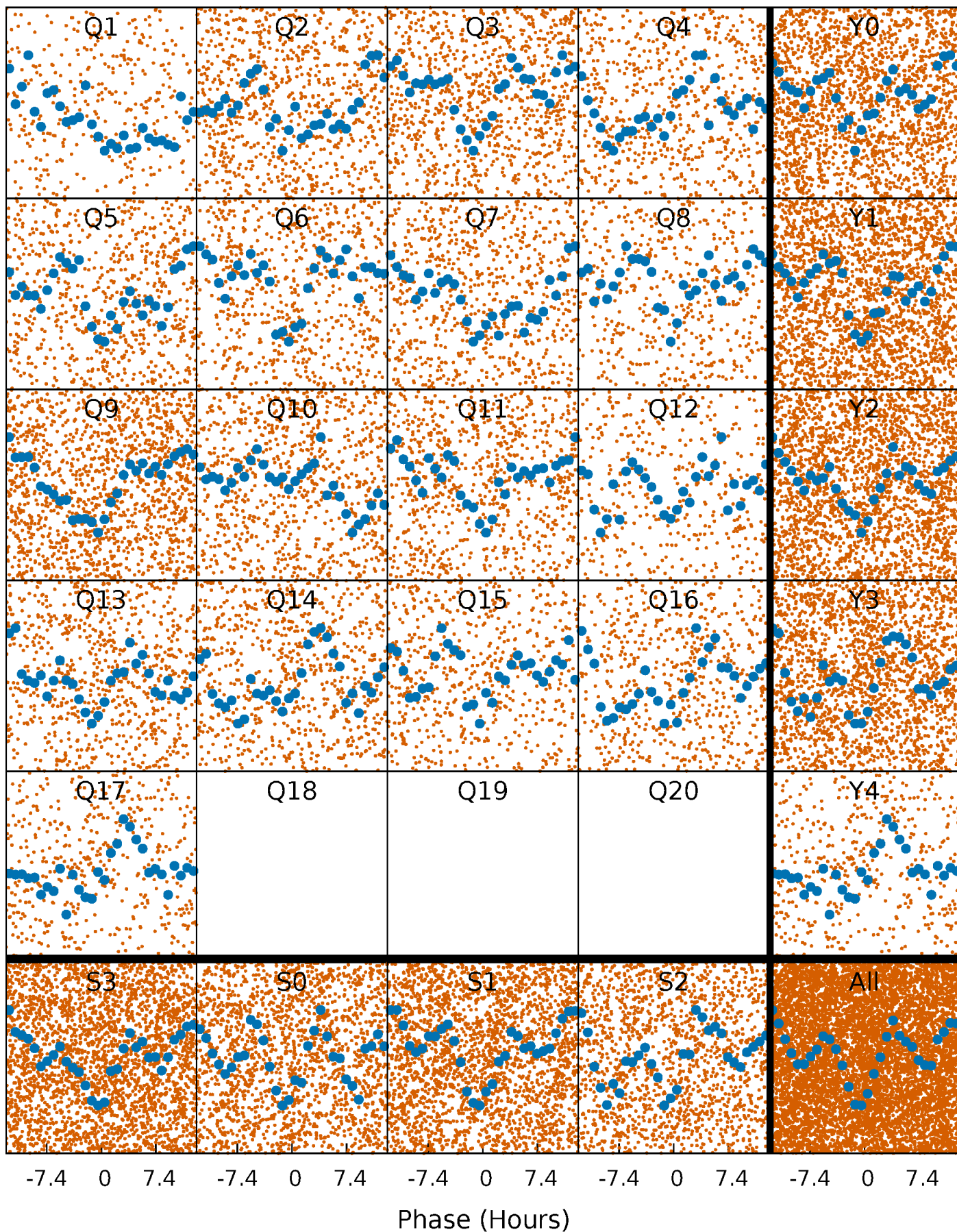


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



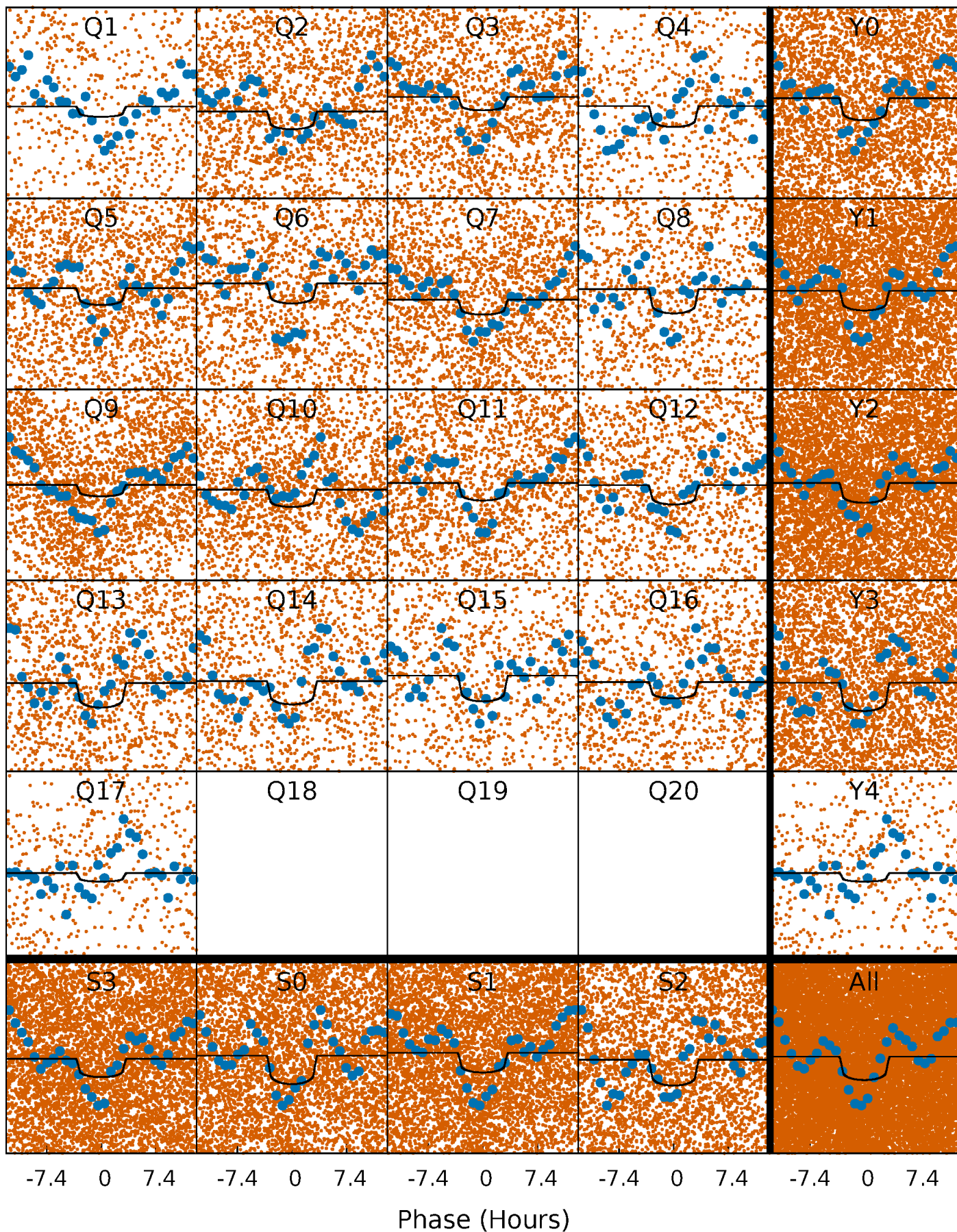
PDC Quarter-Phased Transit Curves

TCE 005823587-01 P= 1.766717 Days $T_0=131.603258$ (BKJD)



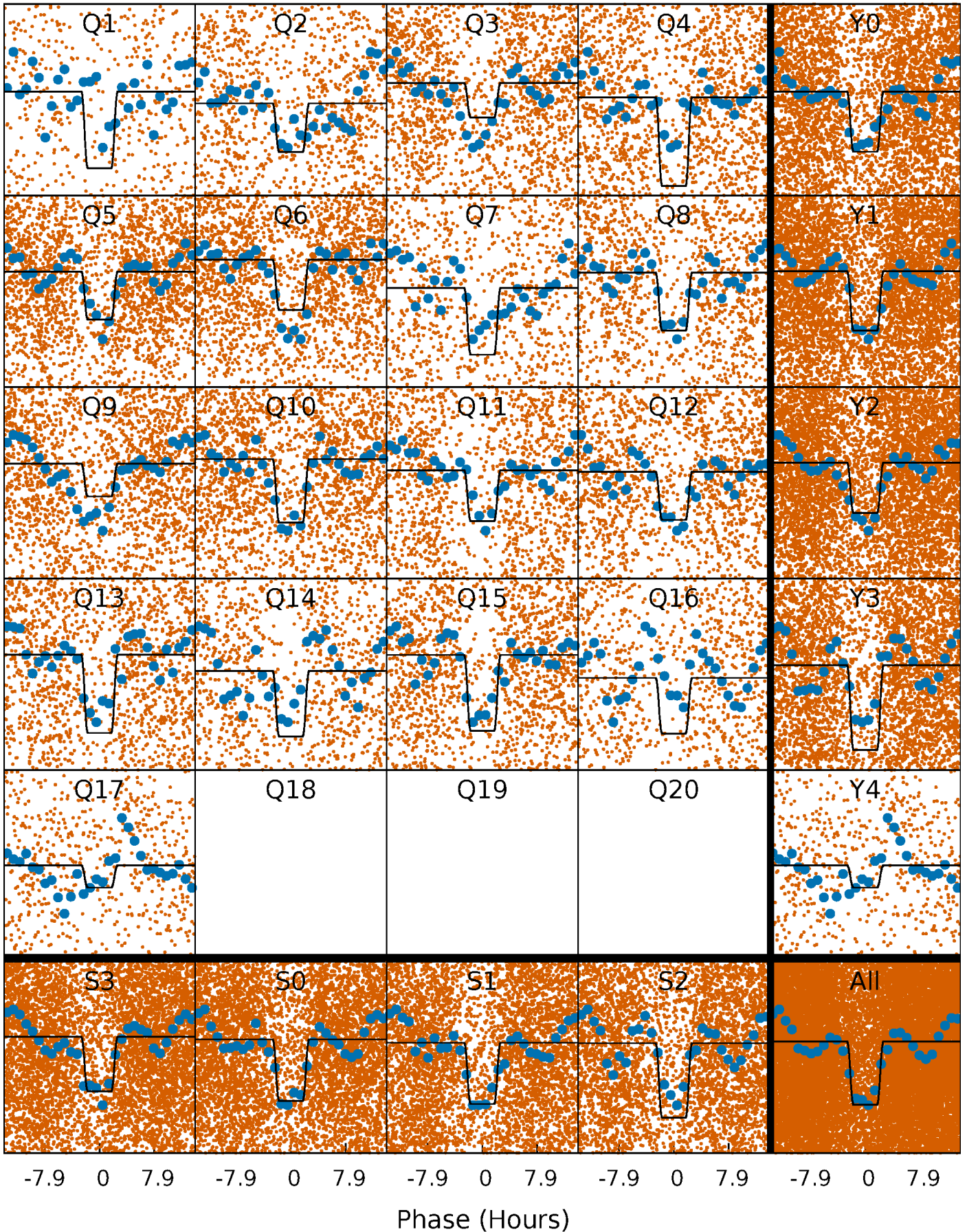
DV Quarter-Phased Transit Curves

TCE 005823587-01 P= 1.766717 Days $T_0=131.603258$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

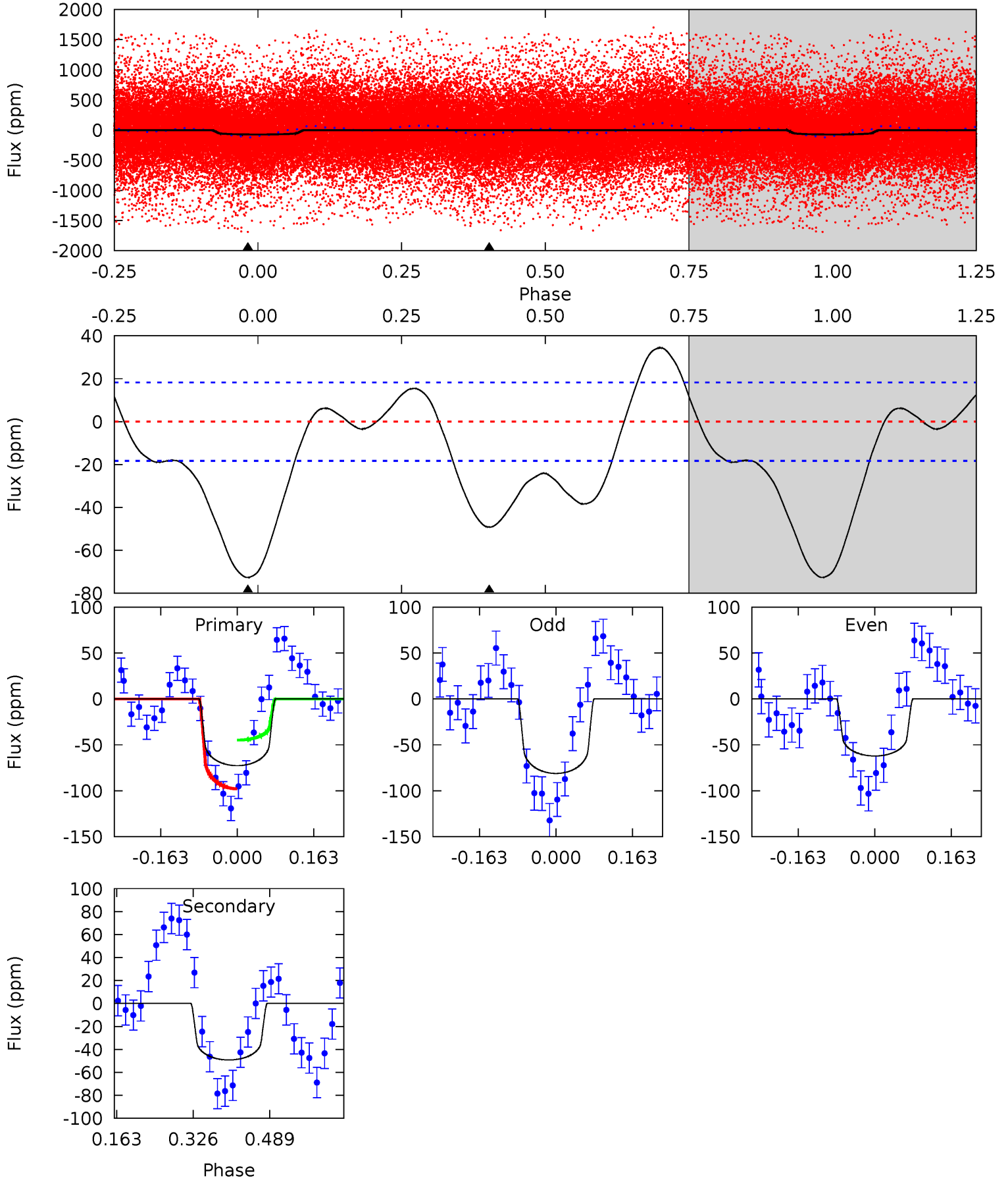
TCE 005823587-01 P= 1.766736 Days $T_0=131.574261$ (BKJD)



DV Model-Shift Uniqueness Test

005823587-01, P = 1.766717 Days, E = 129.836541 Days

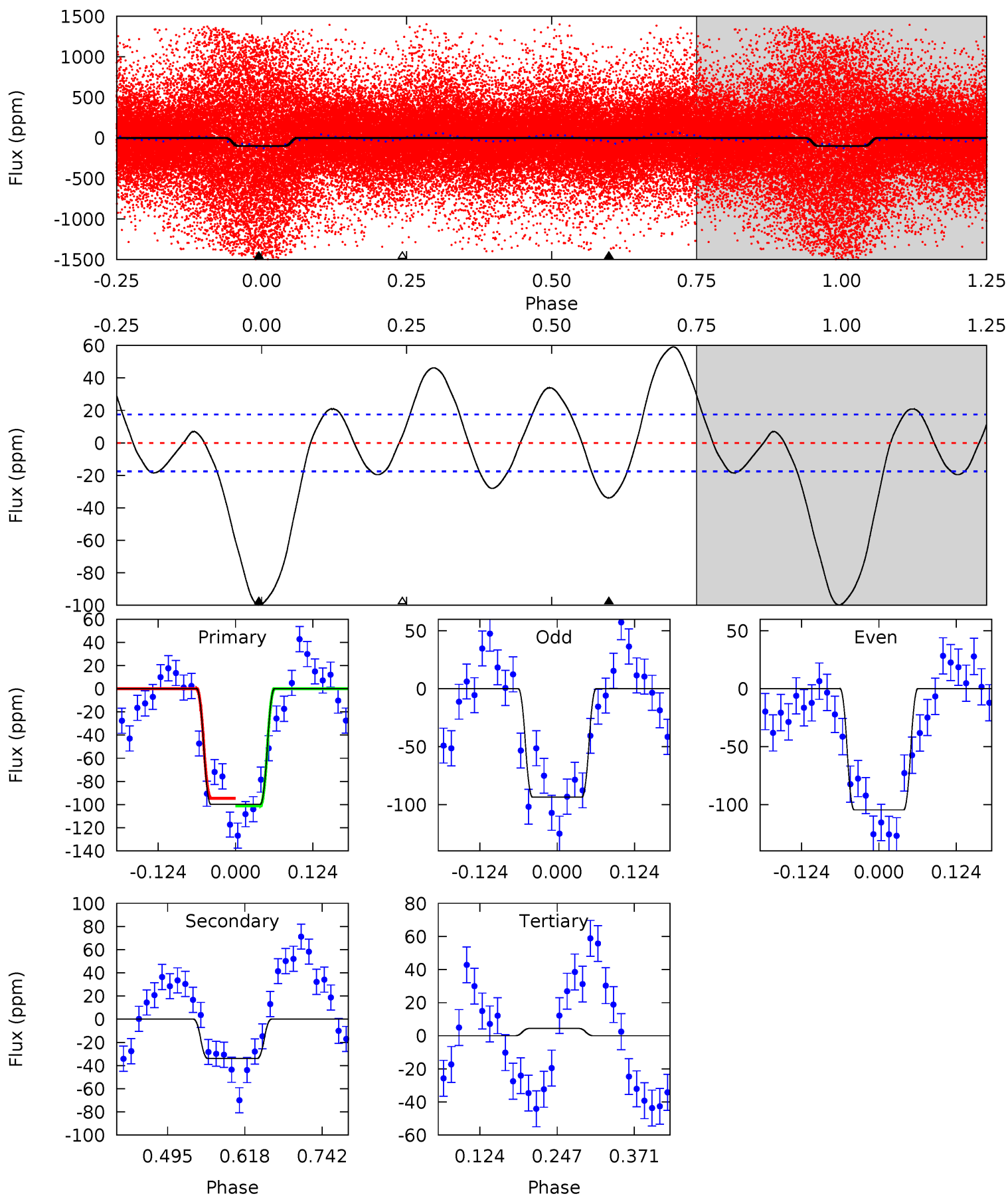
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.7	12.0	0	0	4.46	1.39	4.93	17.7	17.7	12.0	12.0	2.33	1.19	0.32	6.57



Alt Model-Shift Uniqueness Test

005823587-01, P = 1.766736 Days, E = 129.807525 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.8	8.77	-1.14	0	4.52	1.54	5.71	26.9	25.8	9.90	8.77	1.41	1.21	0.37	0.83



Stellar Parameters For KIC 005823587

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6580^{+149}_{-215}	$4.377^{+0.060}_{-0.180}$	$-0.160^{+0.250}_{-0.300}$	$1.169^{+0.344}_{-0.138}$	$1.191^{+0.164}_{-0.147}$	$1.050^{+0.336}_{-0.527}$
	+2%/-3%	+1%/-4%	+156%/-188%	+29%/-12%	+14%/-12%	+32%/-50%
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 005823587-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-49 ± 4	$1.02^{+0.26}_{-0.24}$	2564^{+144}_{-120}	6239^{+906}_{-597}	24^{+16}_{-9}
Alt.	-34 ± 4	$1.55^{+0.33}_{-0.24}$	2550^{+176}_{-113}	4686^{+330}_{-273}	$6.976^{+2.905}_{-2.116}$

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

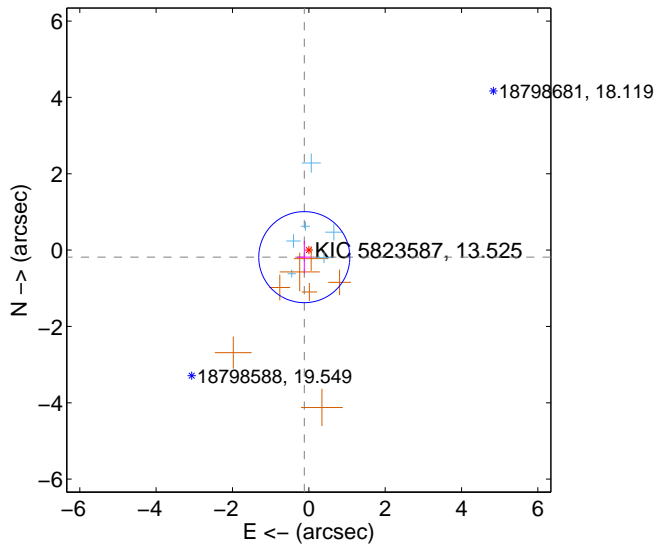
Supplemental centroid analysis for 005823587-01. Kepler magnitude: 13.53. Transit SNR 8.79

There are 6 quarters with good PRF difference image offsets

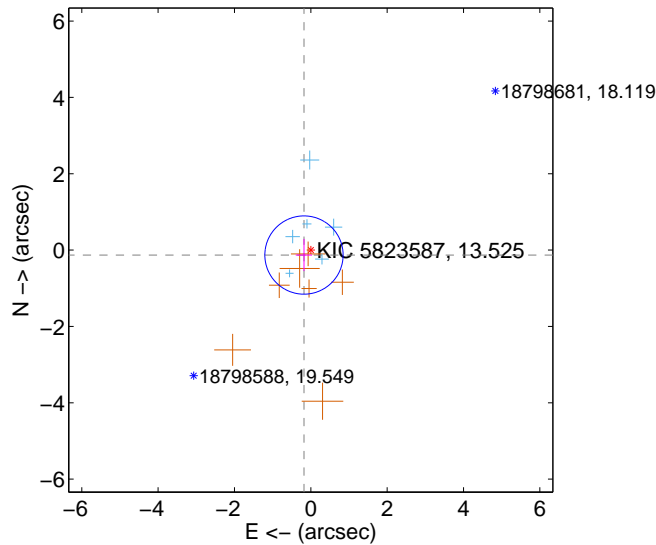
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.220 ± 0.398	0.55	0.119 ± 0.188	-0.185 ± 0.428
PRF-fit source offset from KIC position	0.221 ± 0.342	0.65	0.179 ± 0.215	-0.129 ± 0.421
photometric centroid source offset	2.19 ± 1.03	2.12	0.71 ± 0.89	-2.07 ± 1.05

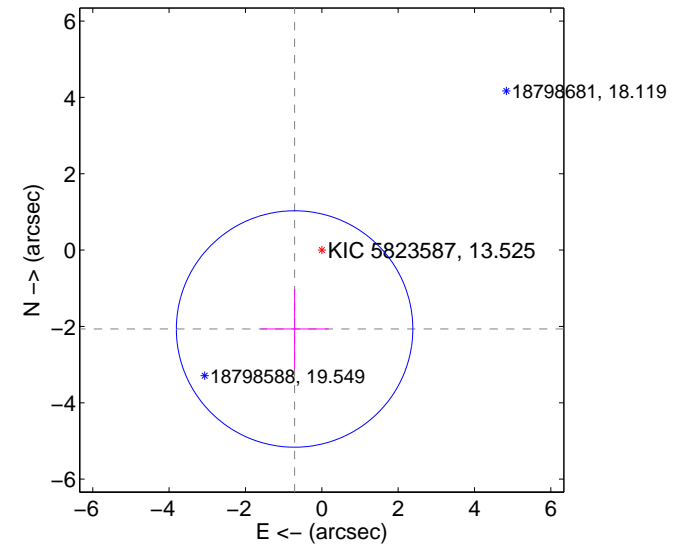
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

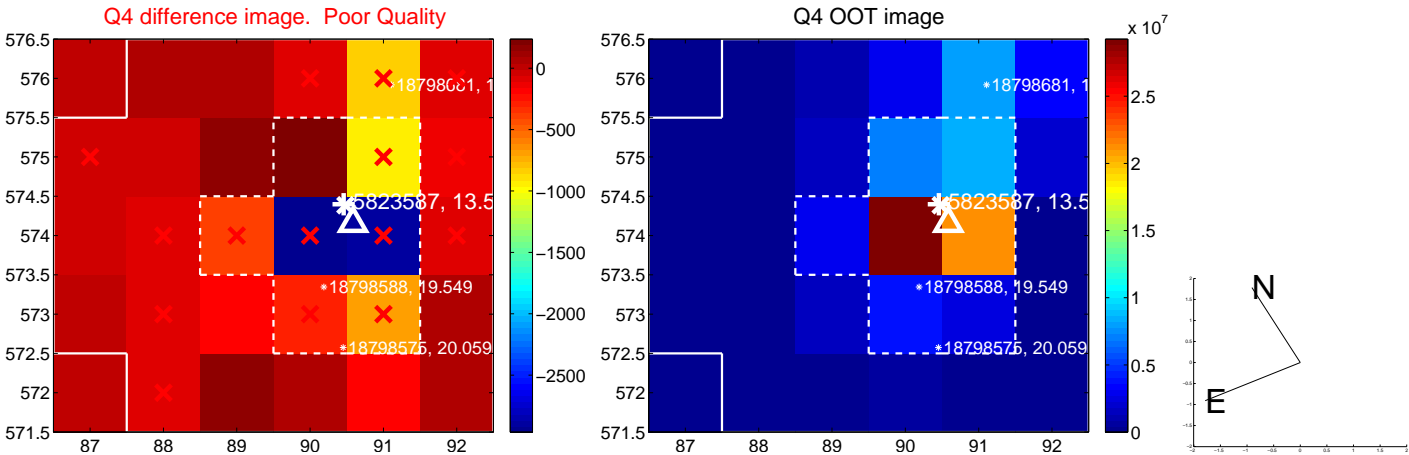
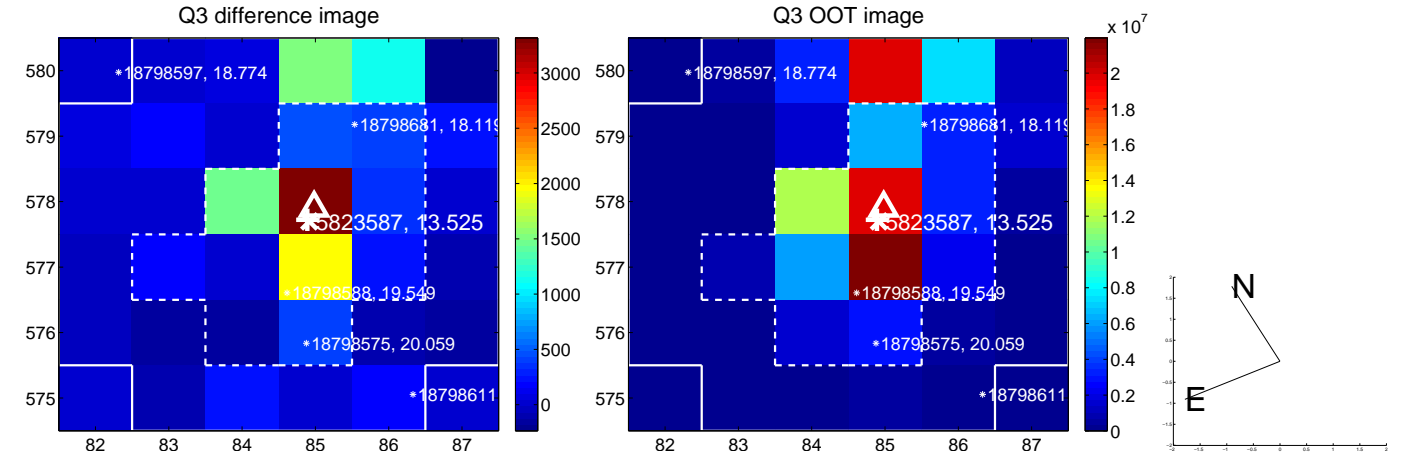
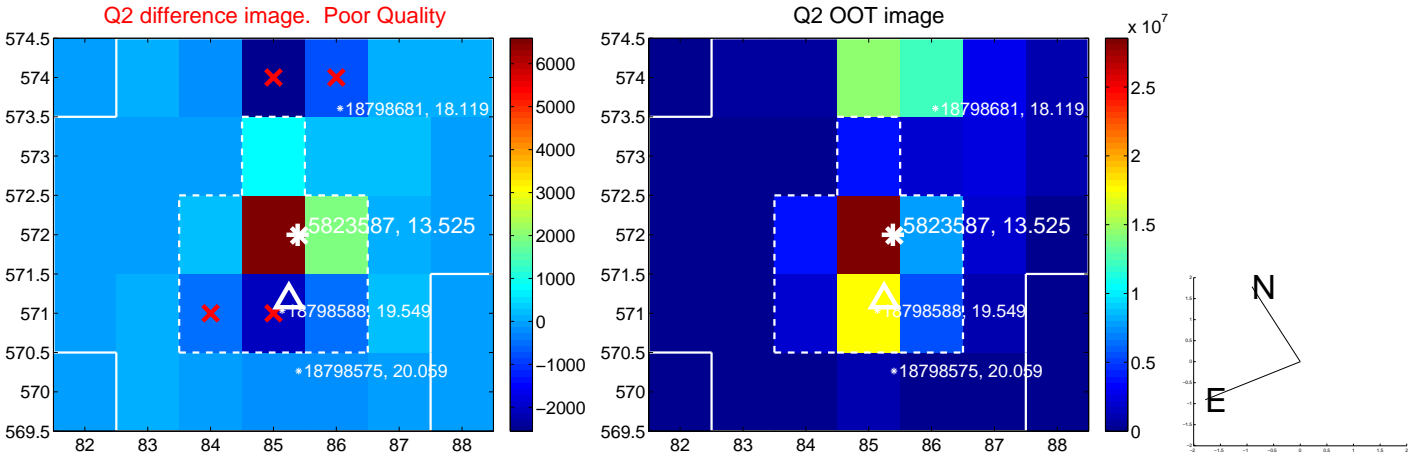
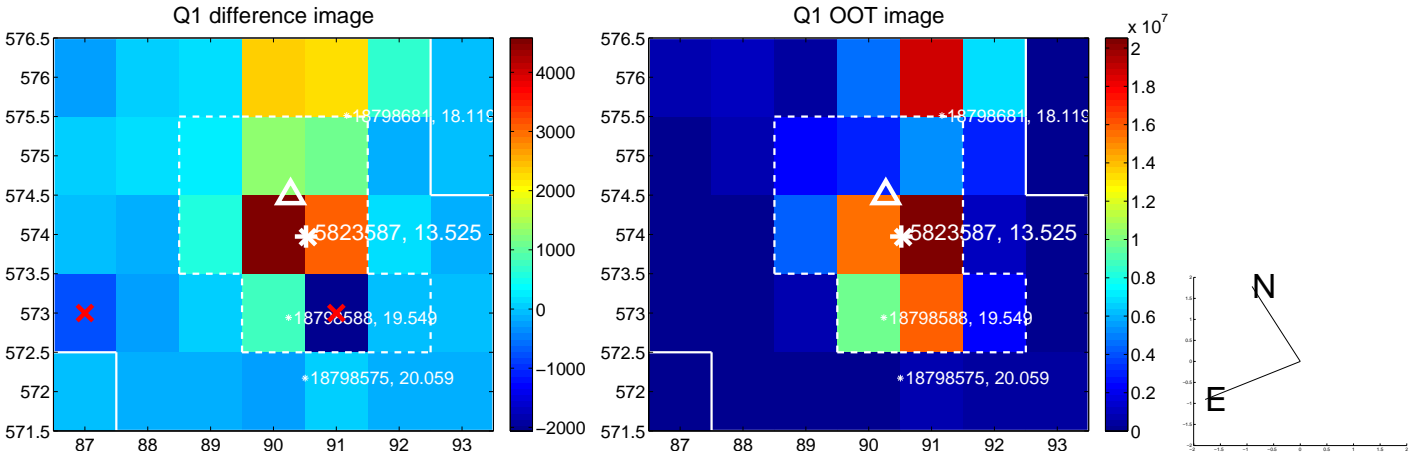


offset from photometric centroids

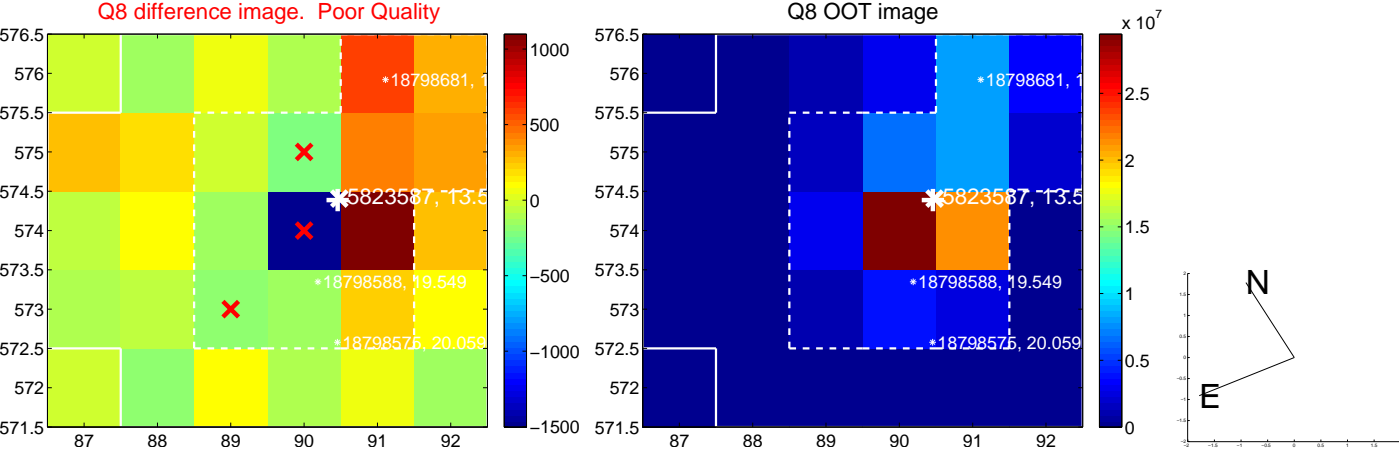
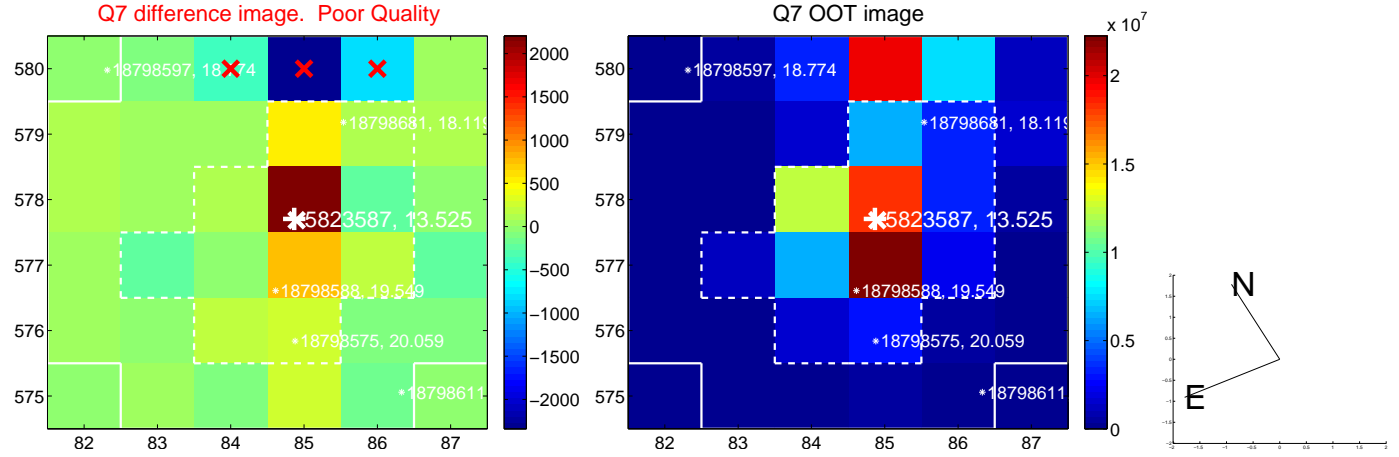
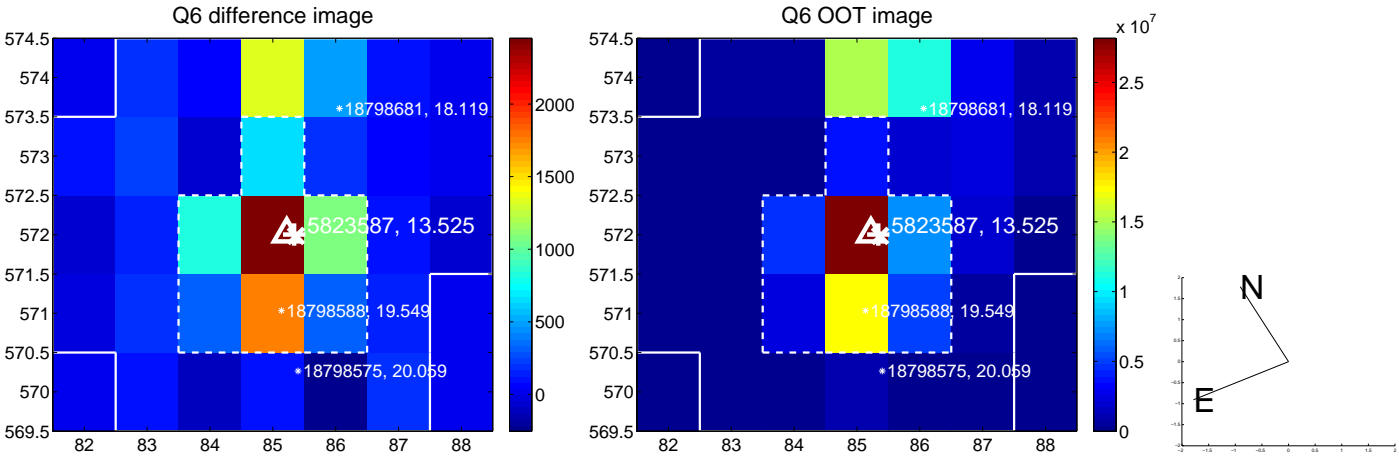
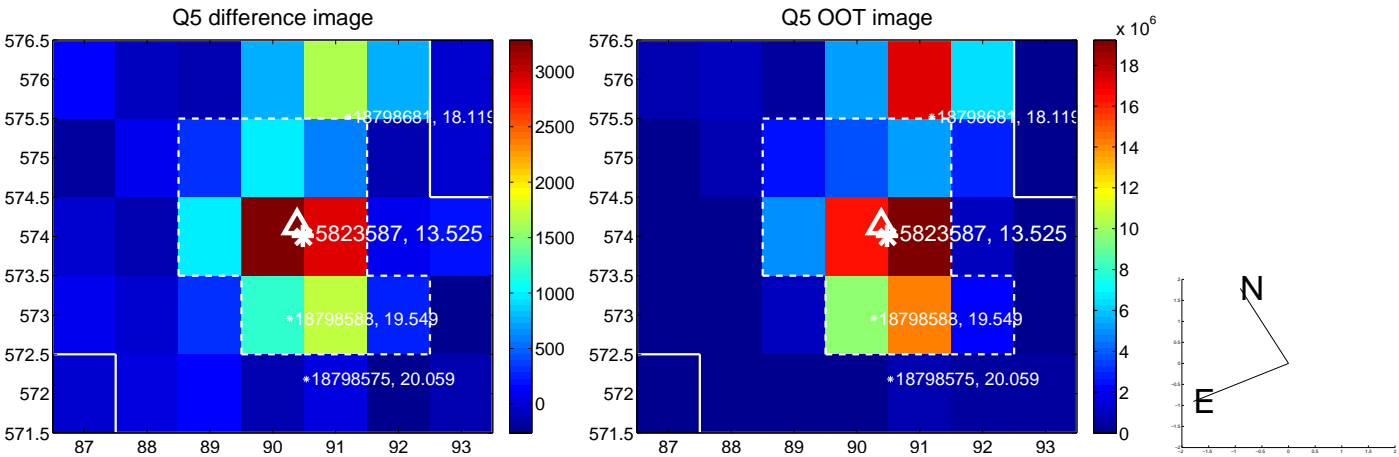


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

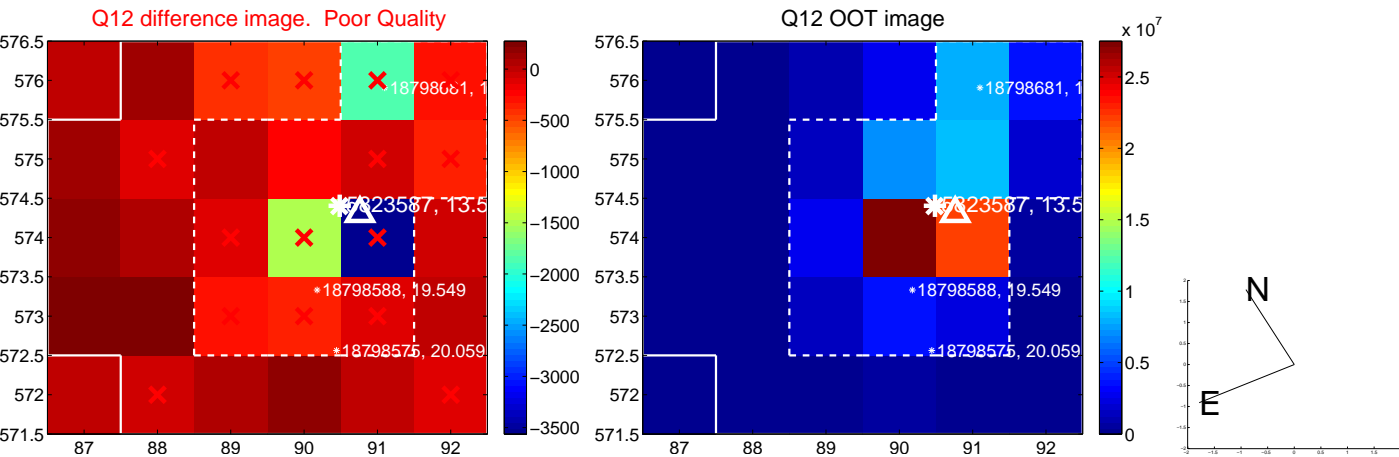
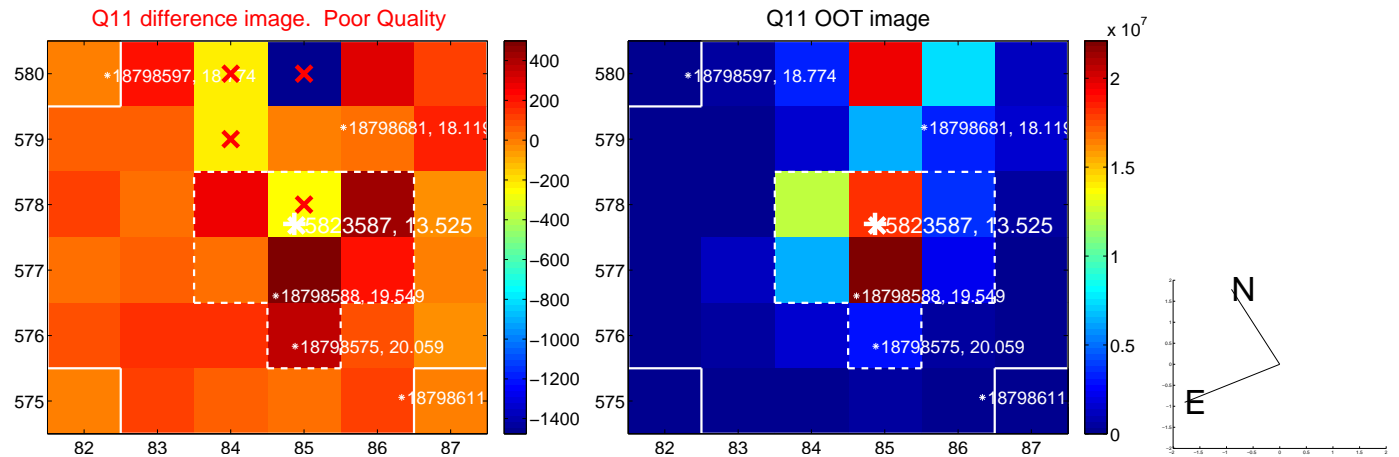
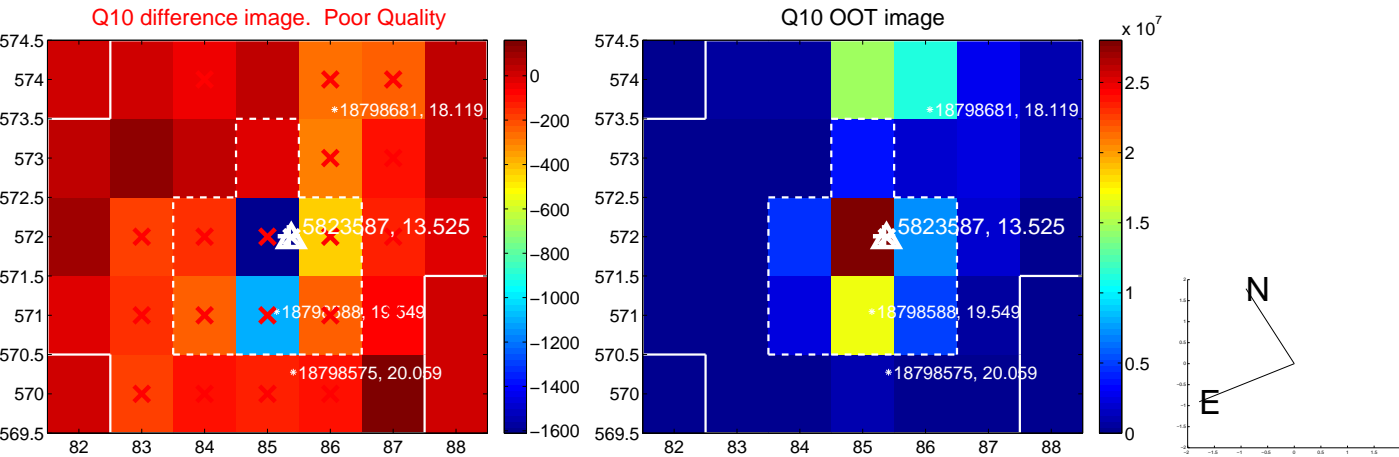
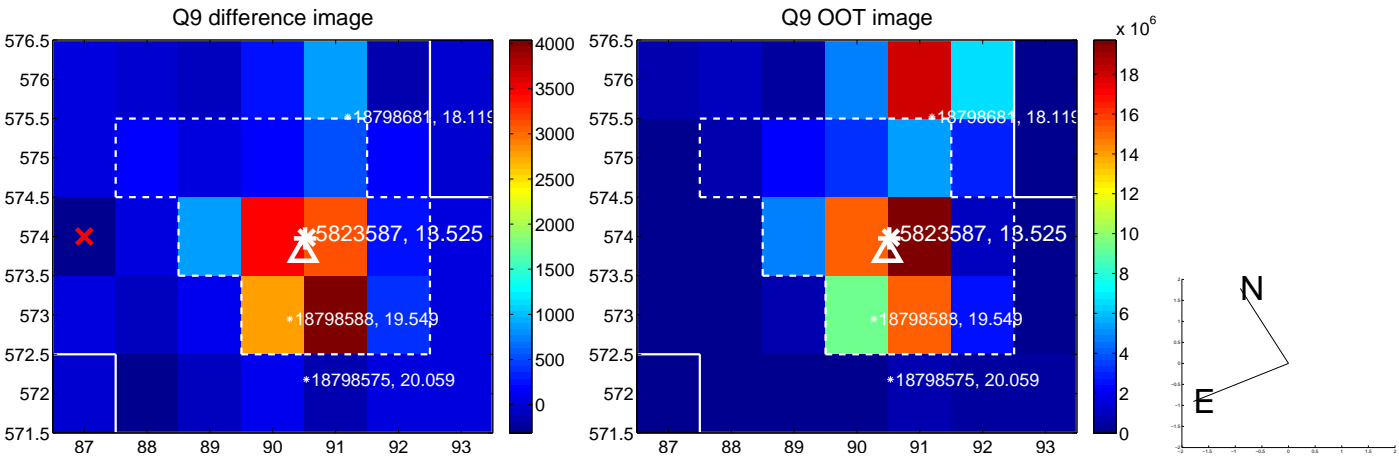
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



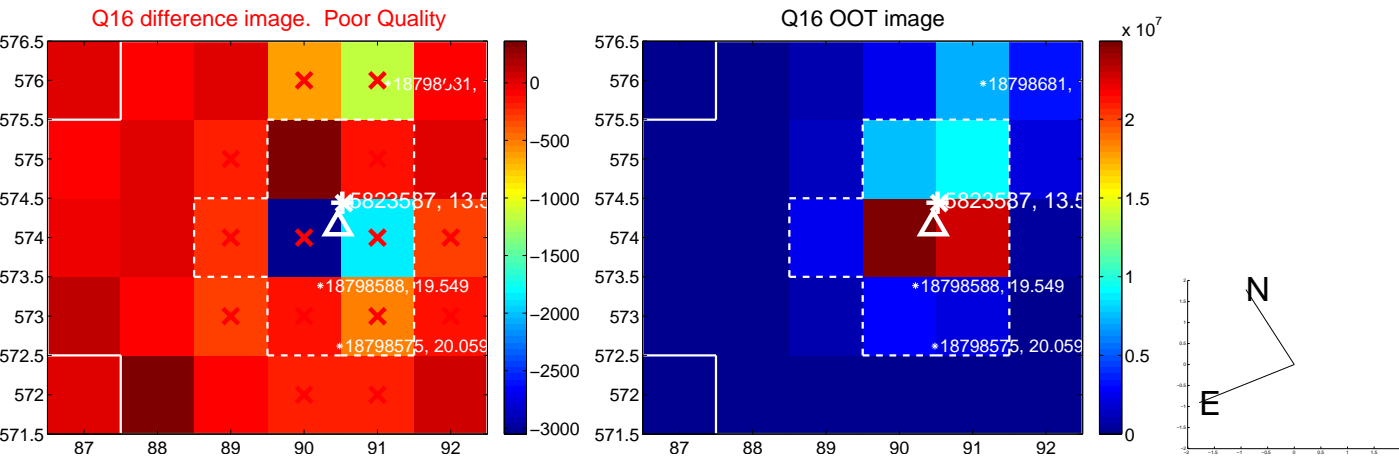
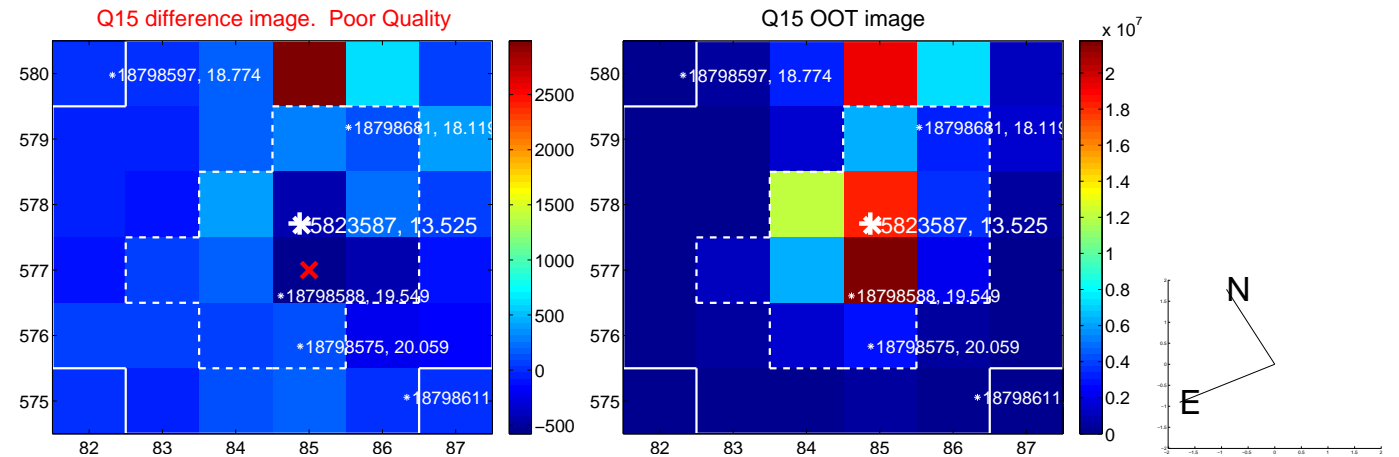
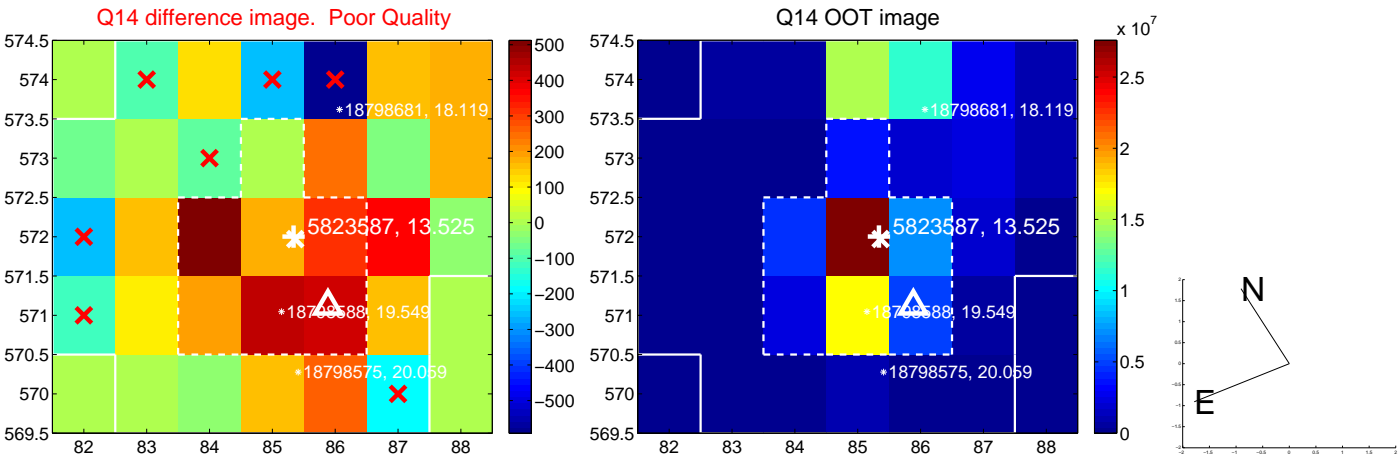
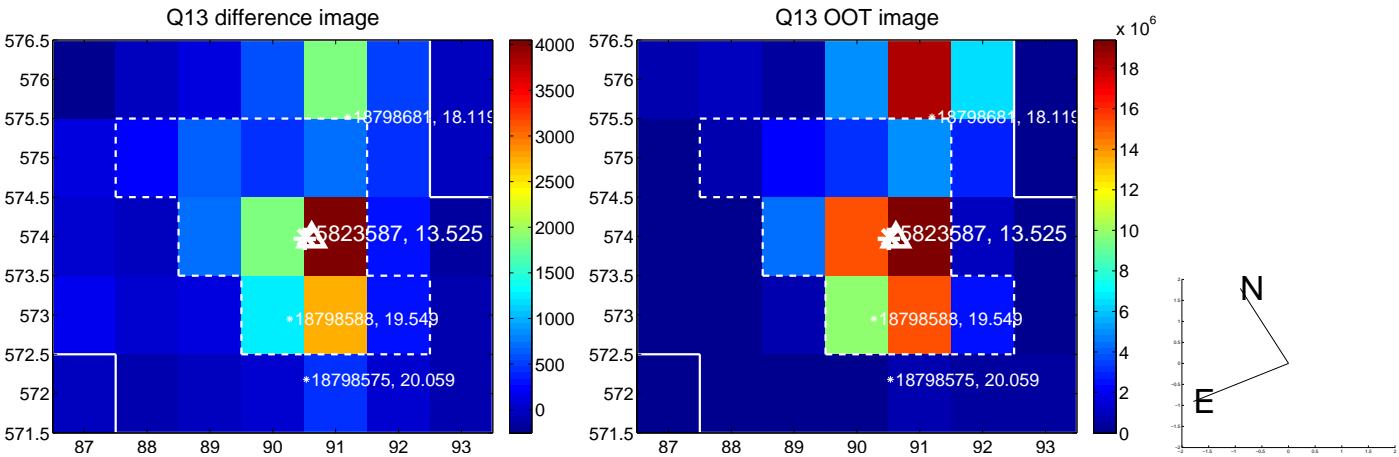
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



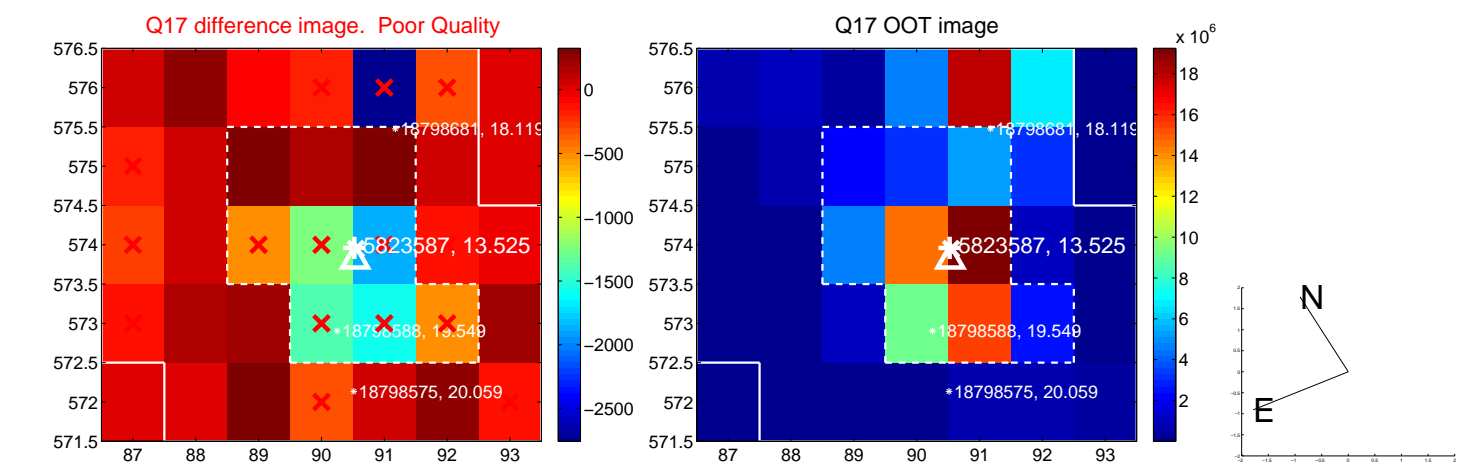
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



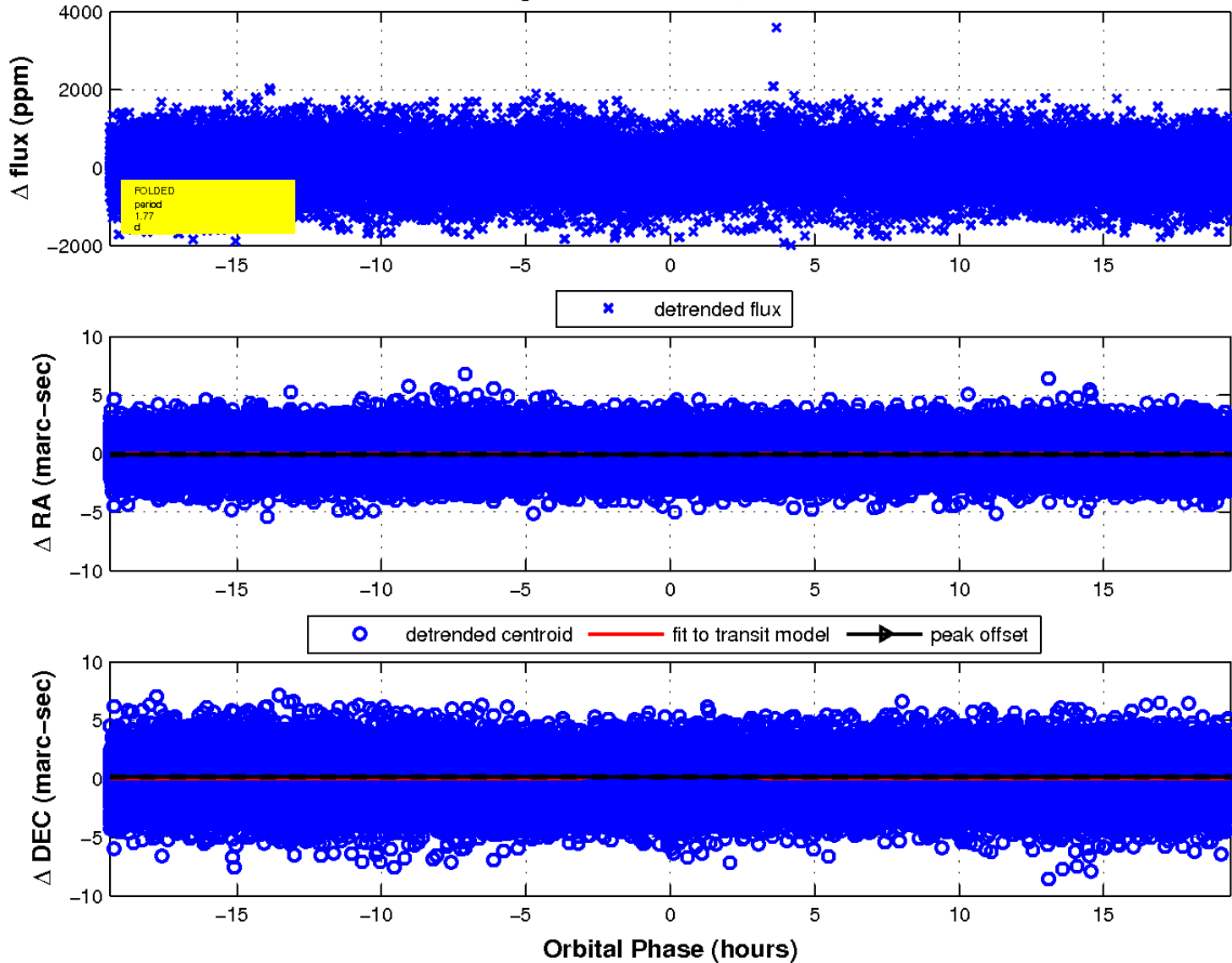
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

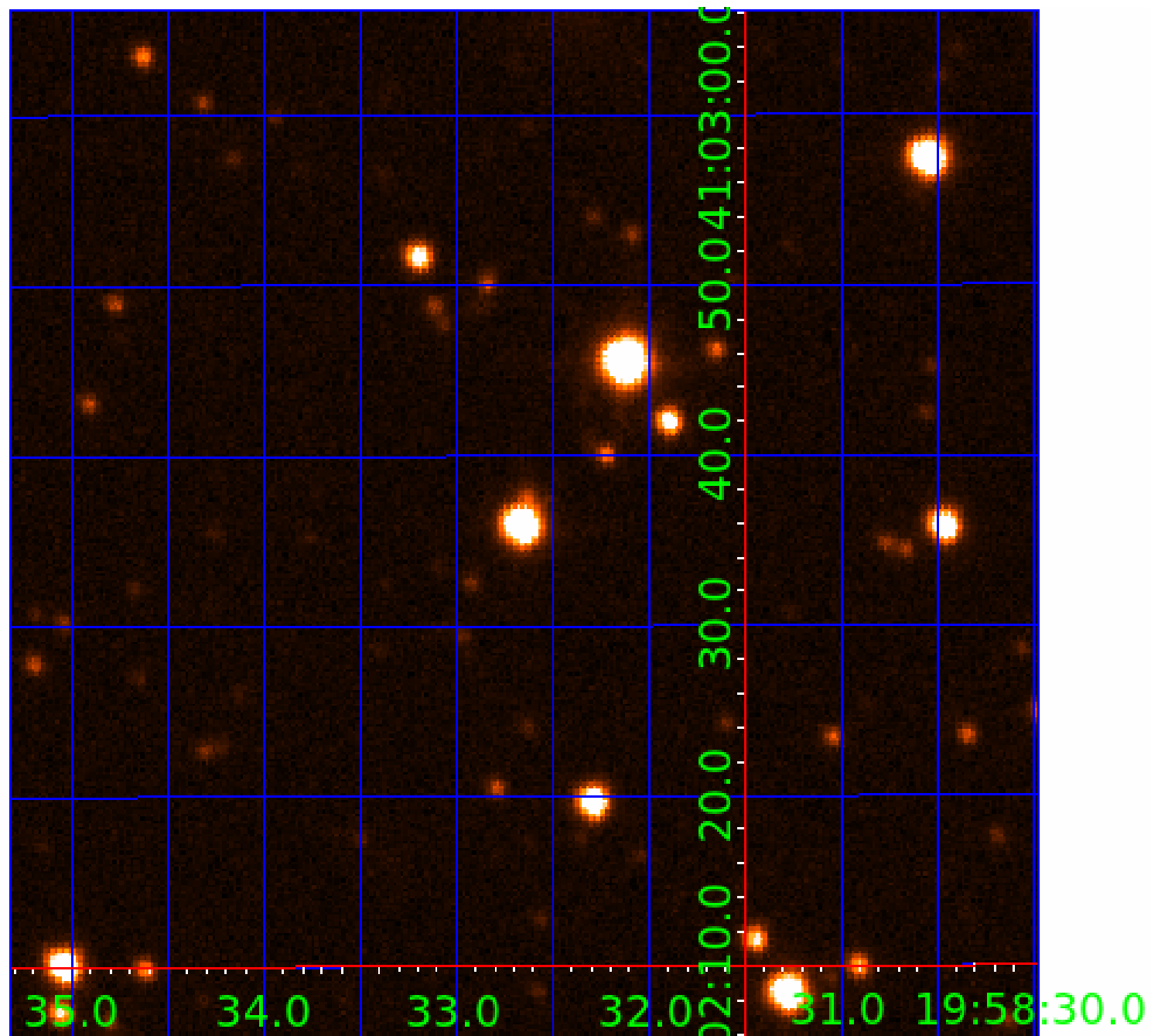


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 005823587

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})
005823587-01	OBS	No	1.766717	131.603258	53.7	6.468	10.2	8.8	1.17	6580	0.97	2501.03
005823587-02	OBS	No	1.766779	132.621190	72.4	5.396	12.7	12.0	1.17	6580	1.17	2500.91
005823587-03	OBS	No	32.977868	145.869489	478.0	8.691	7.1	7.6	1.17	6580	3.31	50.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005823587-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005823587-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
005823587-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

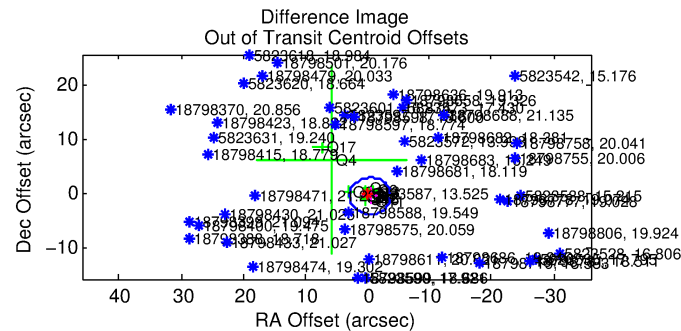
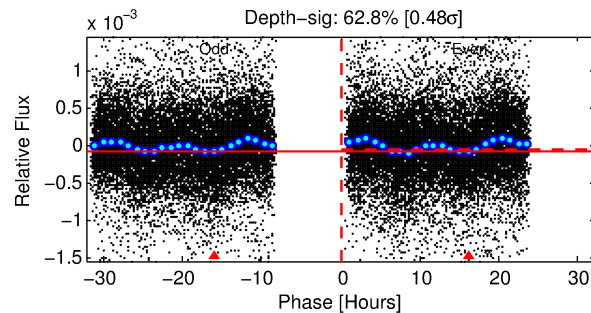
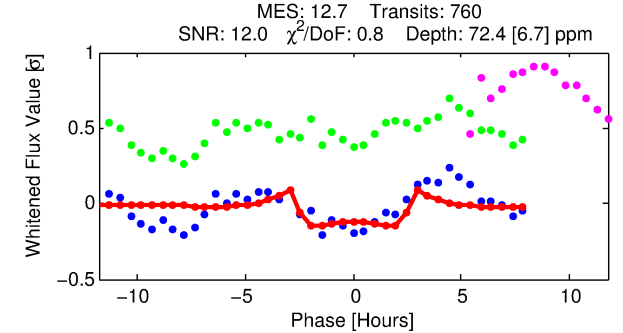
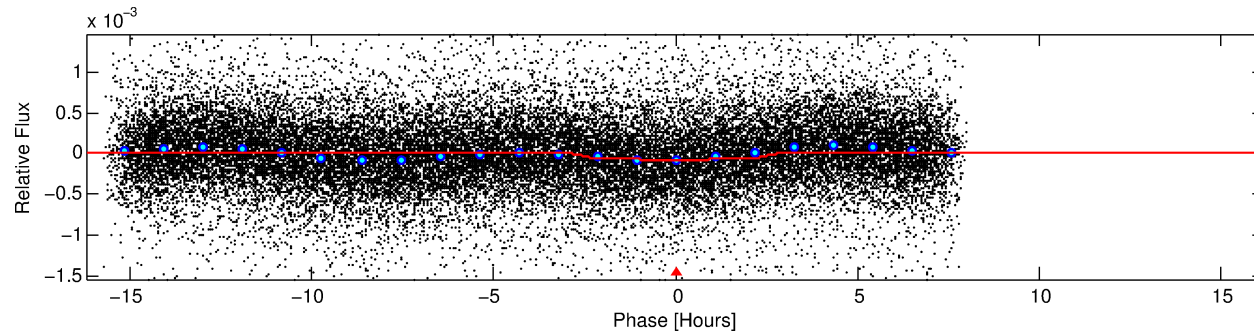
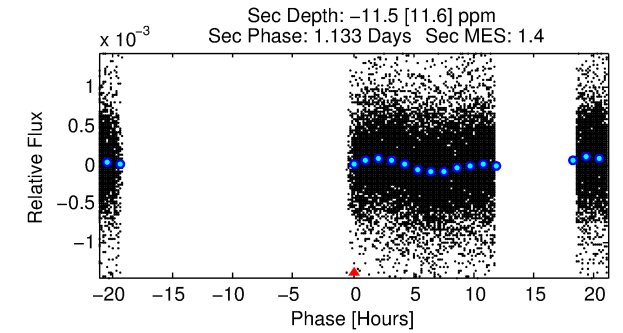
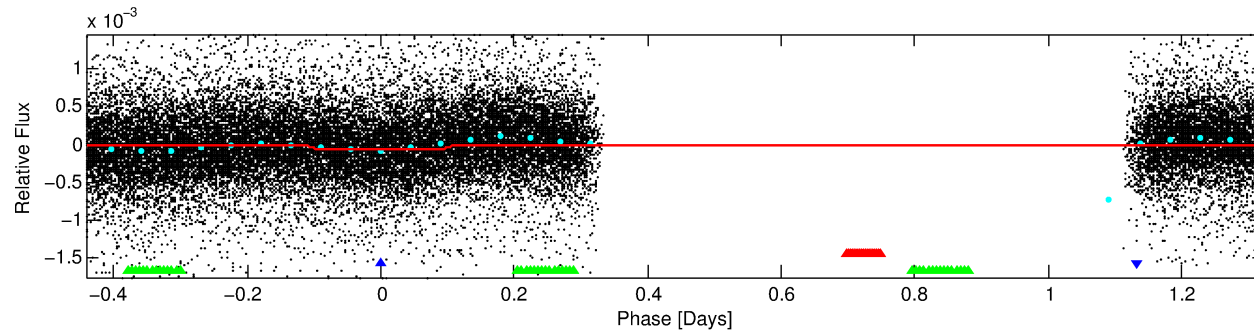
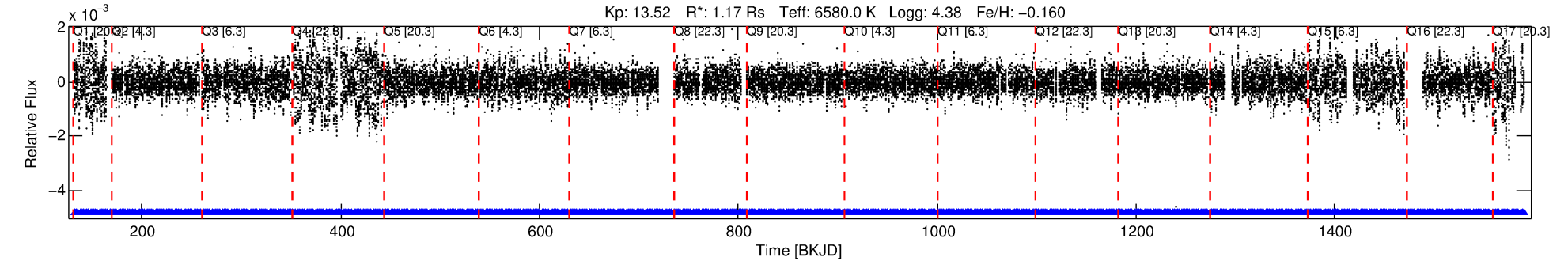
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005823587-02

No Significant Match Found

DV One-Page Summary

KIC: 5823587 Candidate: 2 of 3 Period: 1.767 d



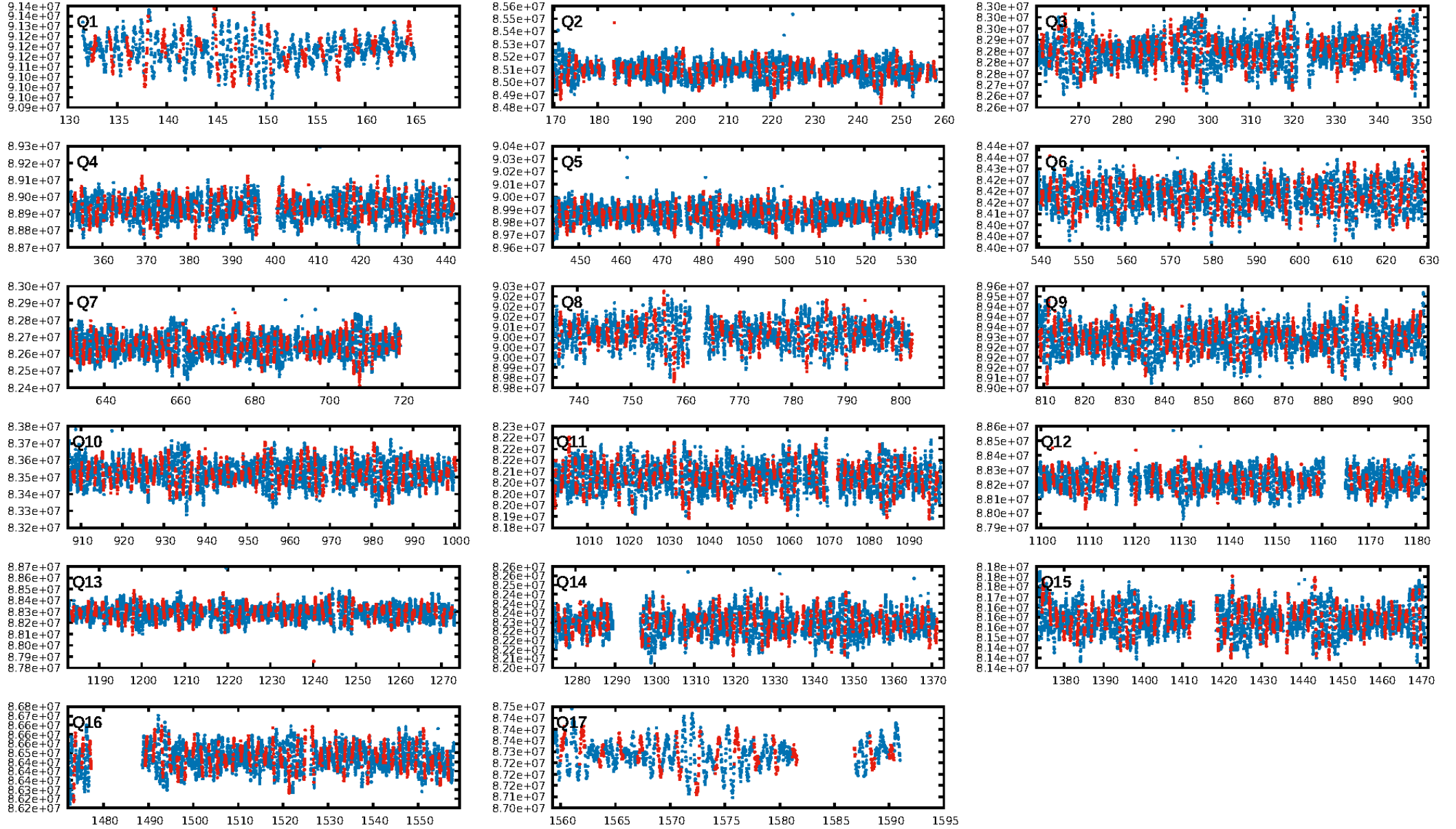
DV Fit Results:

Period = 1.76678 [0.00001] d
Epoch = 132.6212 [0.0024] BKJD
Rp/R* = 0.0092 [0.0013]
a/R* = 1.45 [0.59]
b = 0.91 [0.15]
Seff = 2500.91 [908.34]
Teff = 1803 [164] K
Rp = 1.17 [0.38] Re
a = 0.0303 [0.0073] AU
Ag = N/A
Teffp = N/A

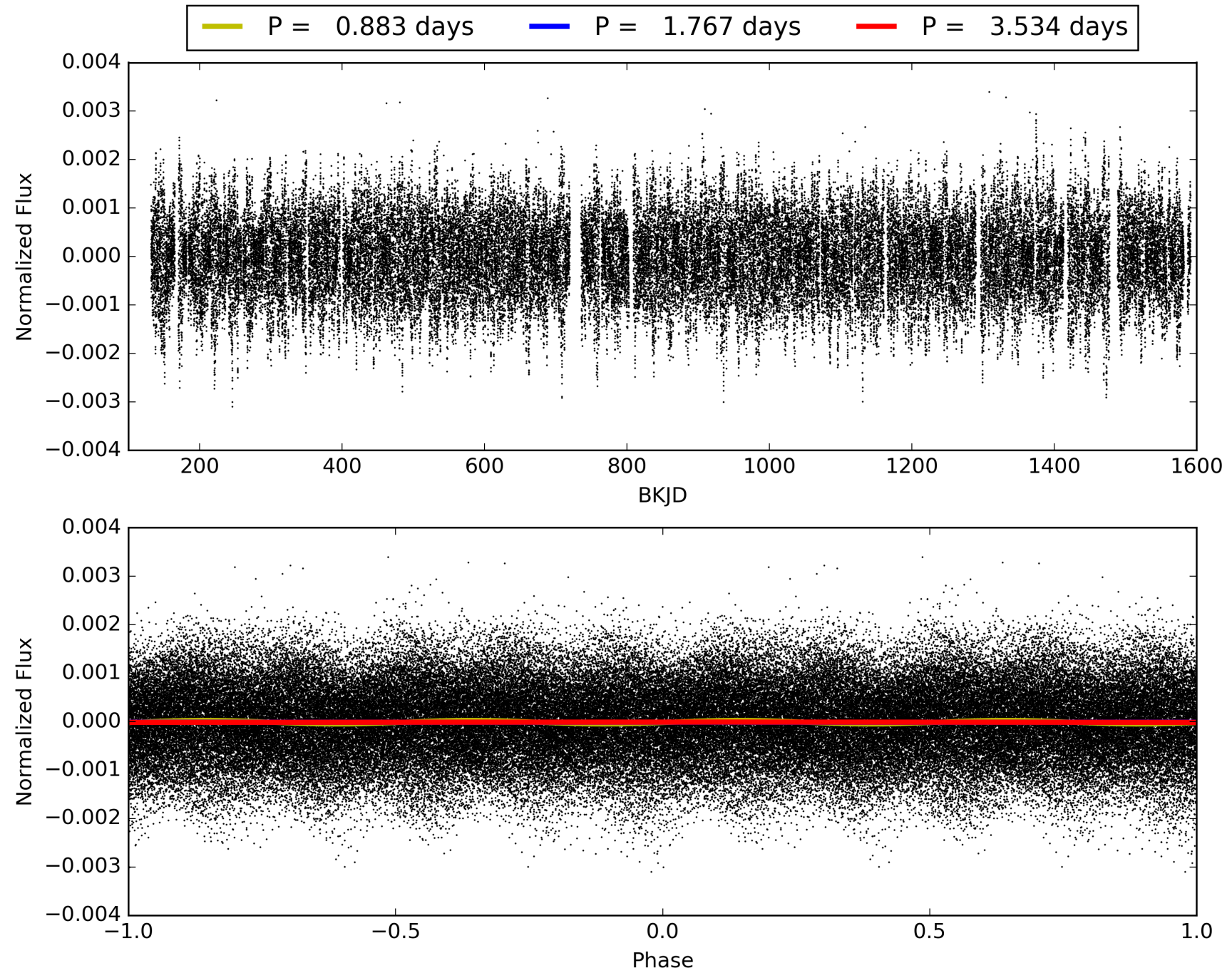
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [73.23σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.03e-29
RollingBand-fgt: 1.00 [726/726]
GhostDiagnostic-chr: 3.835
Centroid-sig: 1.3%
Centroid-so: 1.864 arcsec [2.68σ]
OotOffset-rm: 0.550 arcsec [0.50σ]
KicOffset-rm: 0.442 arcsec [0.39σ]
OotOffset-st: 1/3/4/5 [13]
KicOffset-st: 1/3/4/5 [13]
DiffImageQuality-fgm: 0.62 [8/13]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005823587-02, PDC Light Curves

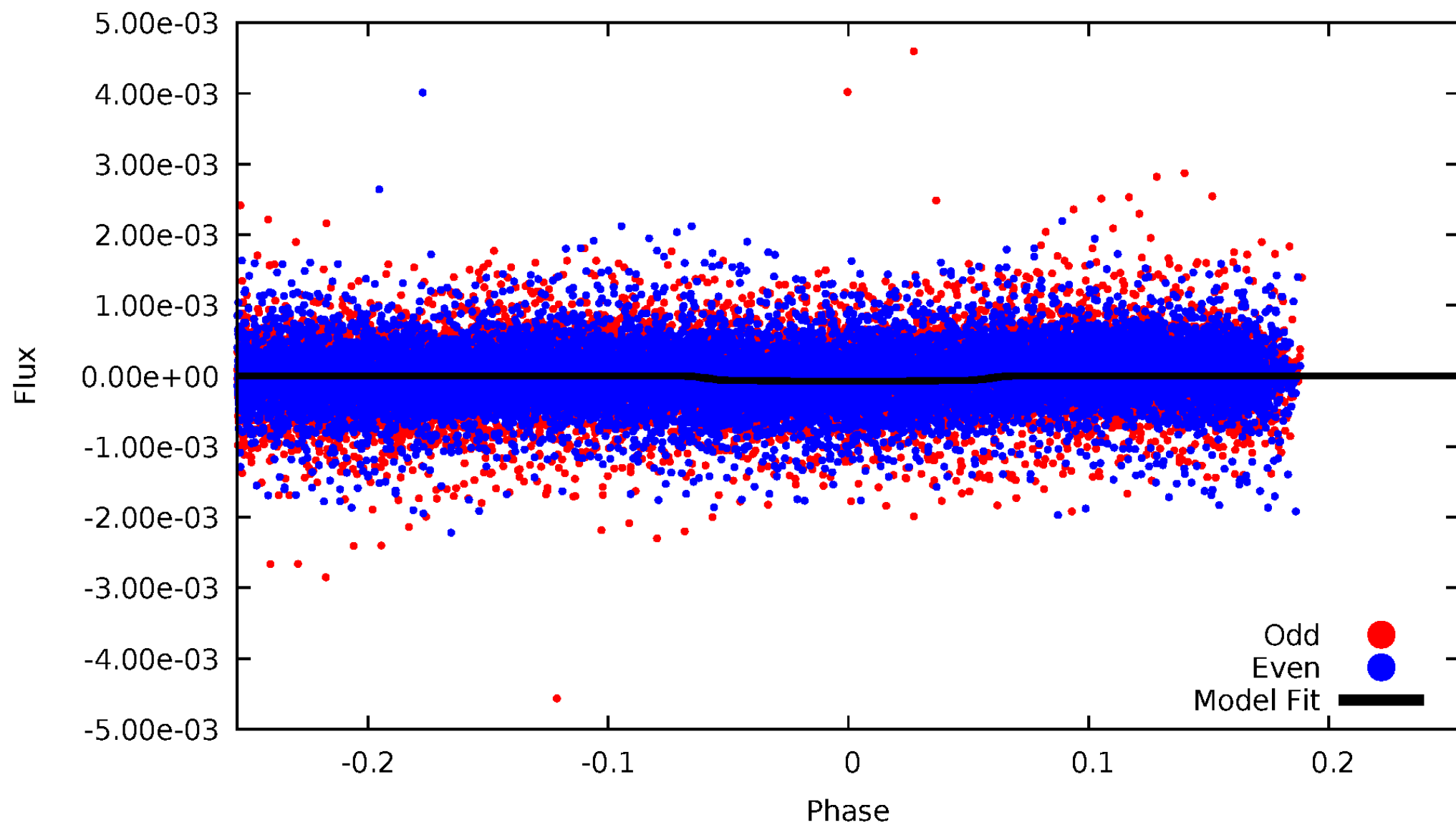


TCE 005823587-02



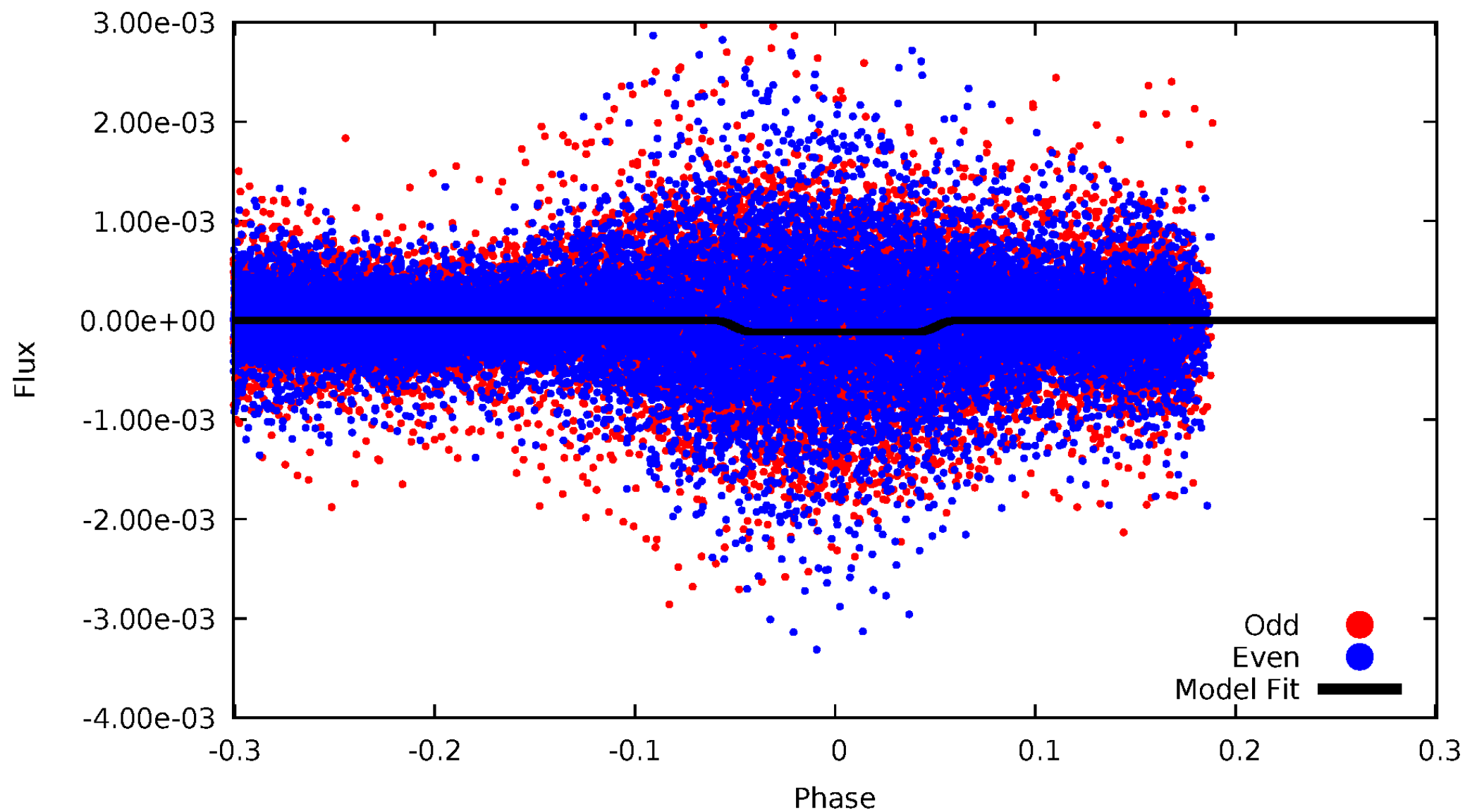
DV Odd/Even

TCE 005823587-02



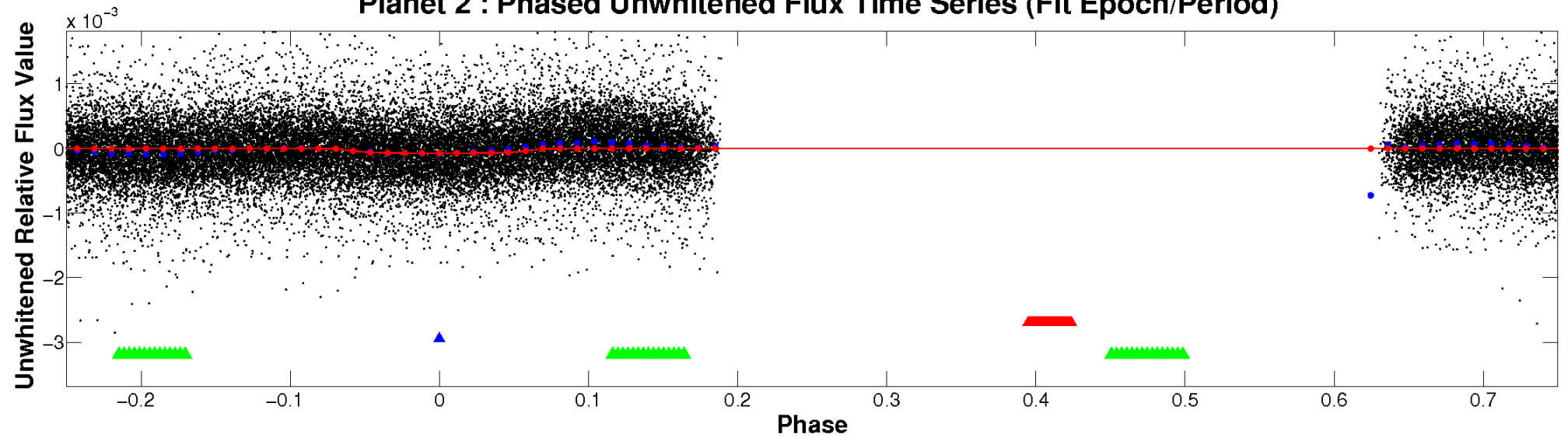
ALT Odd/Even

TCE 005823587-02

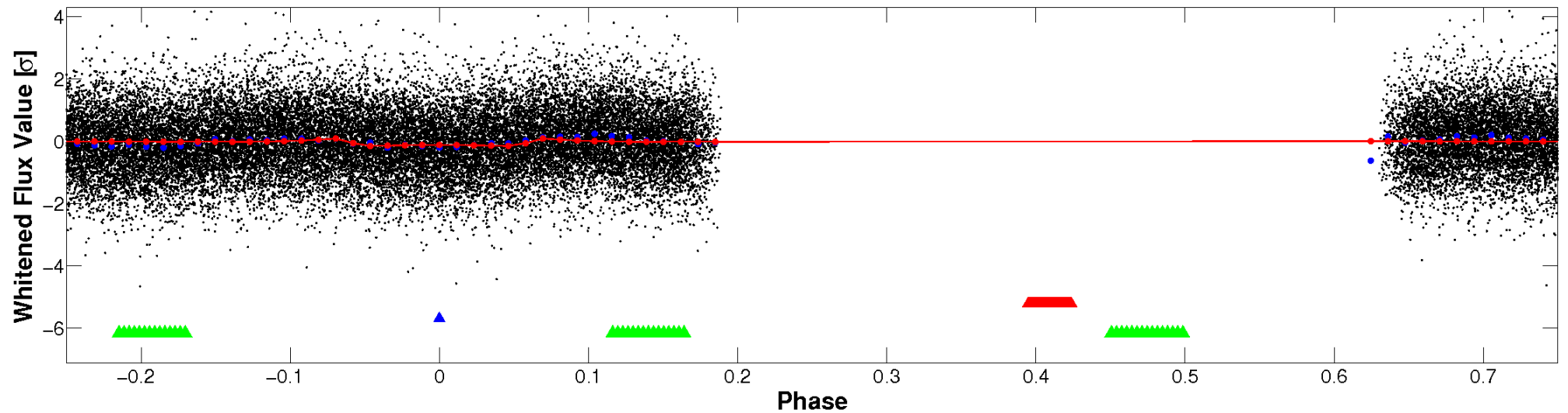


Non-Whitened Vs. Whitened Light Curve

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

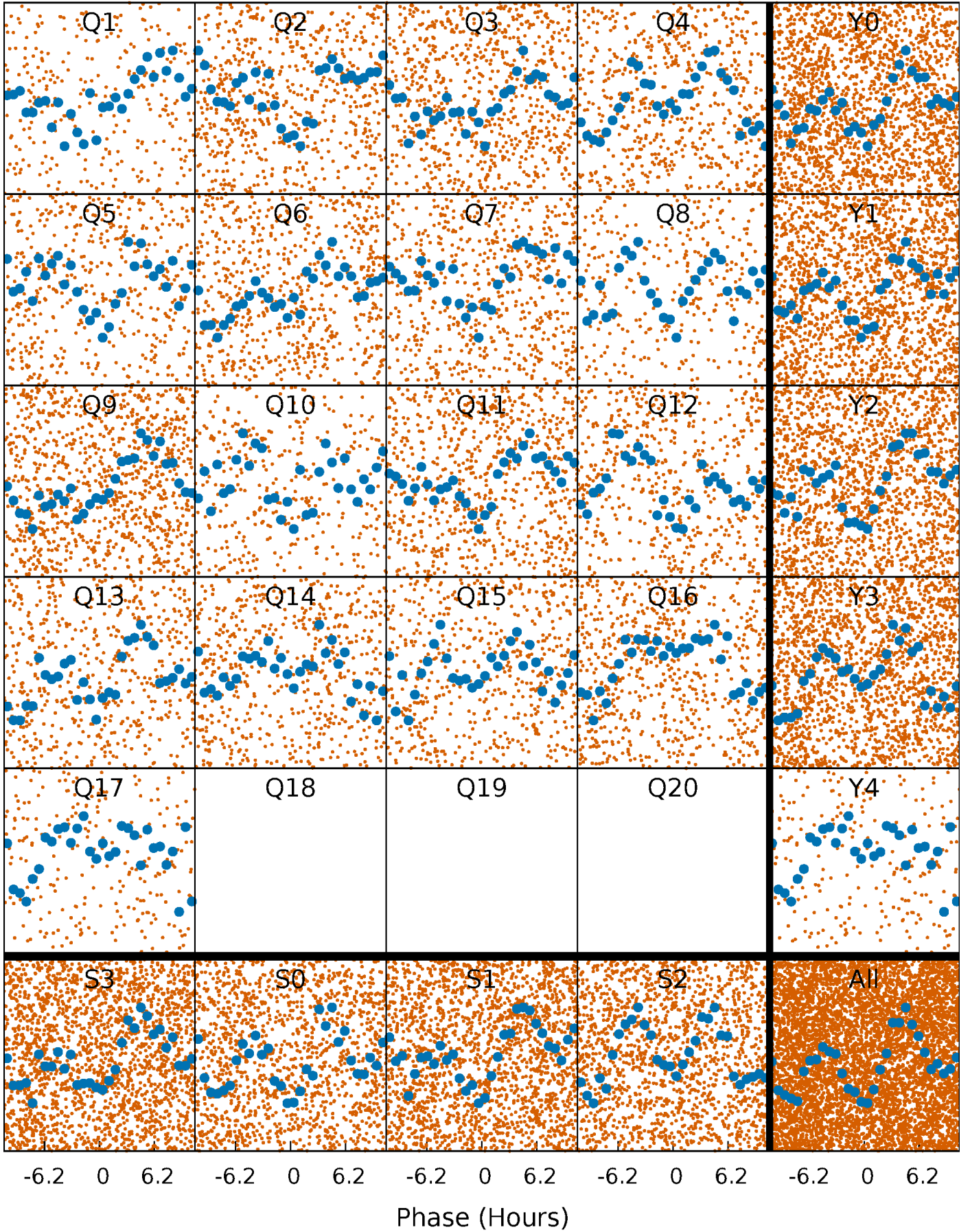


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



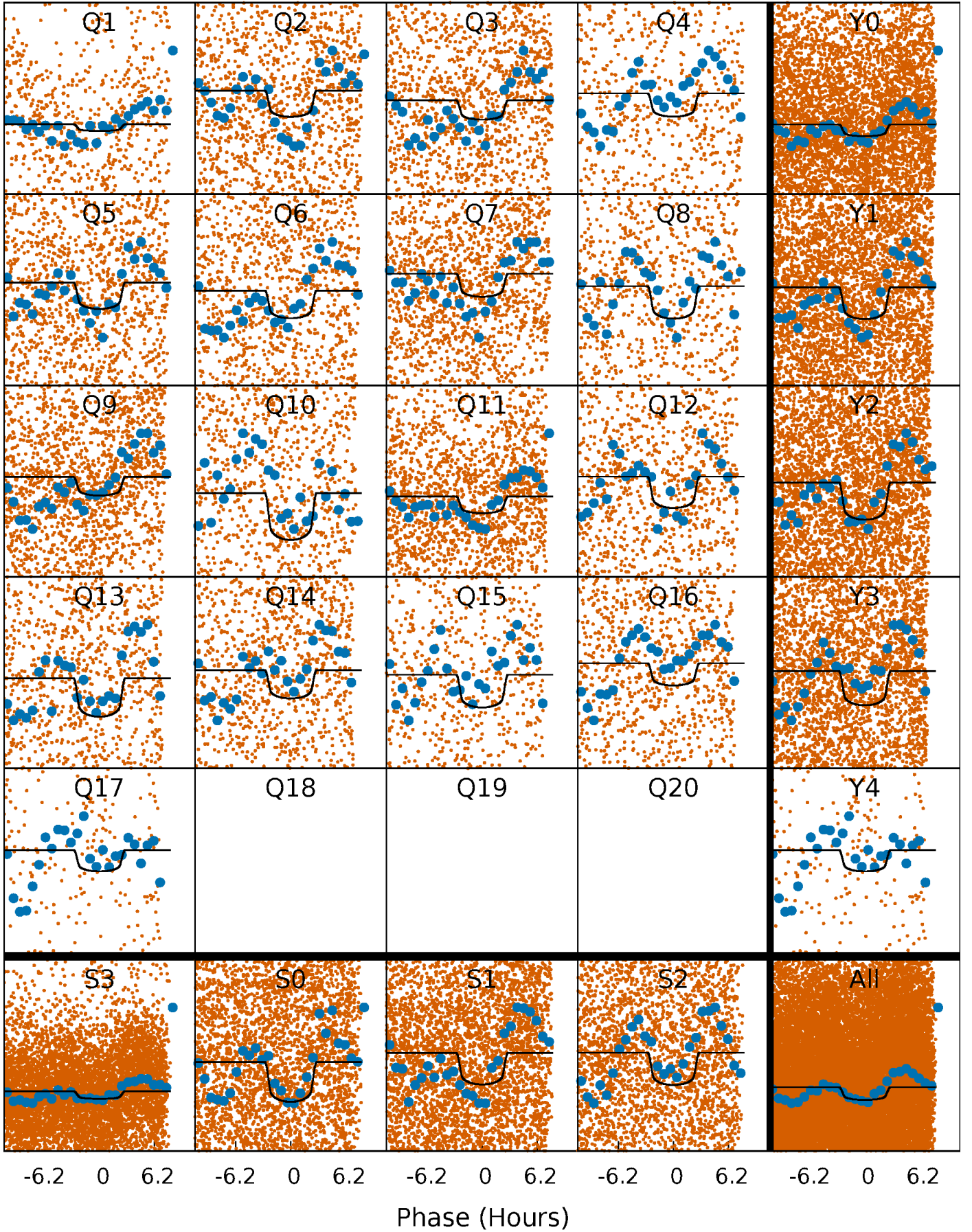
PDC Quarter-Phased Transit Curves

TCE 005823587-02 P= 1.766779 Days $T_0=132.621191$ (BKJD)



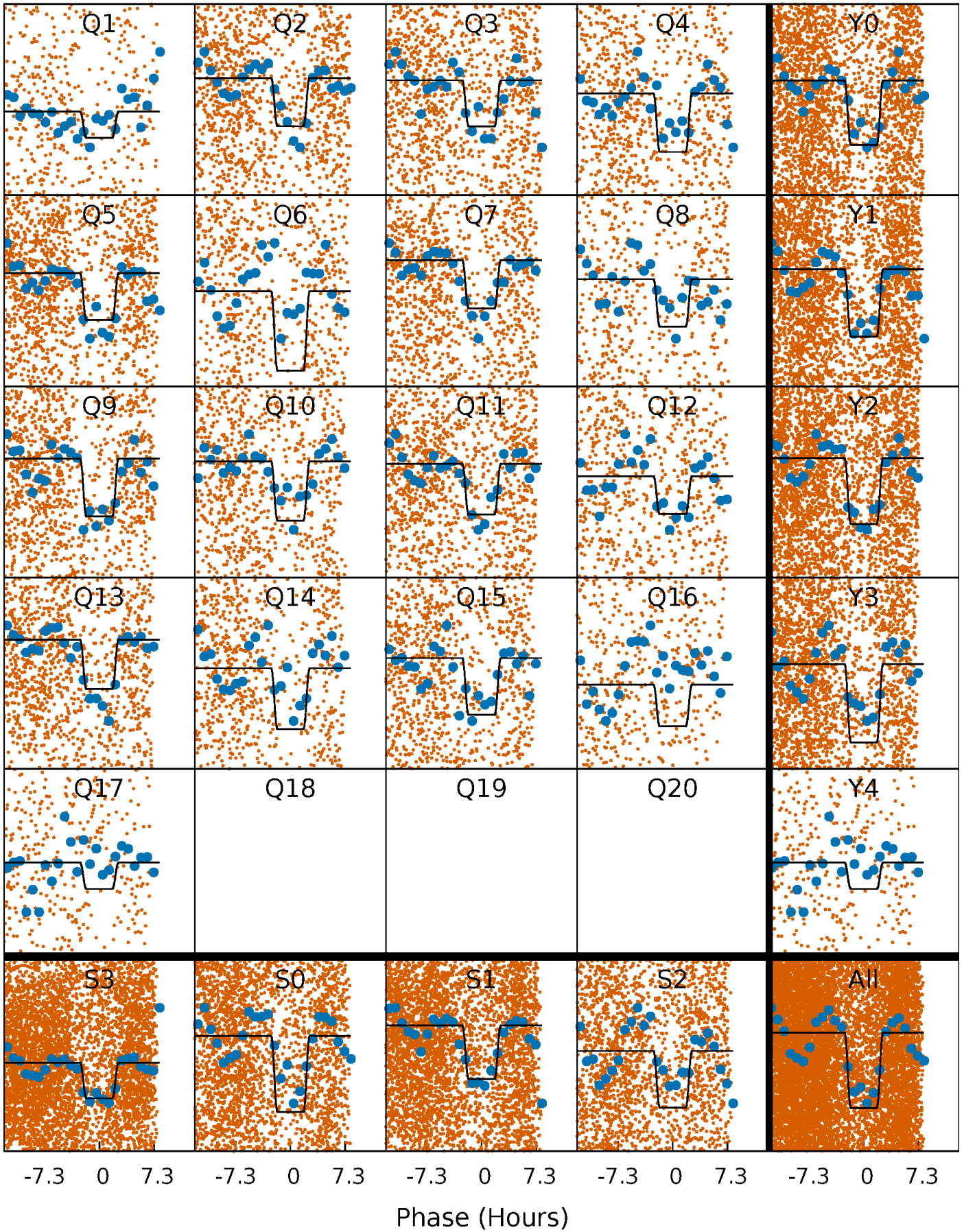
DV Quarter-Phased Transit Curves

TCE 005823587-02 P= 1.766779 Days $T_0=132.621191$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

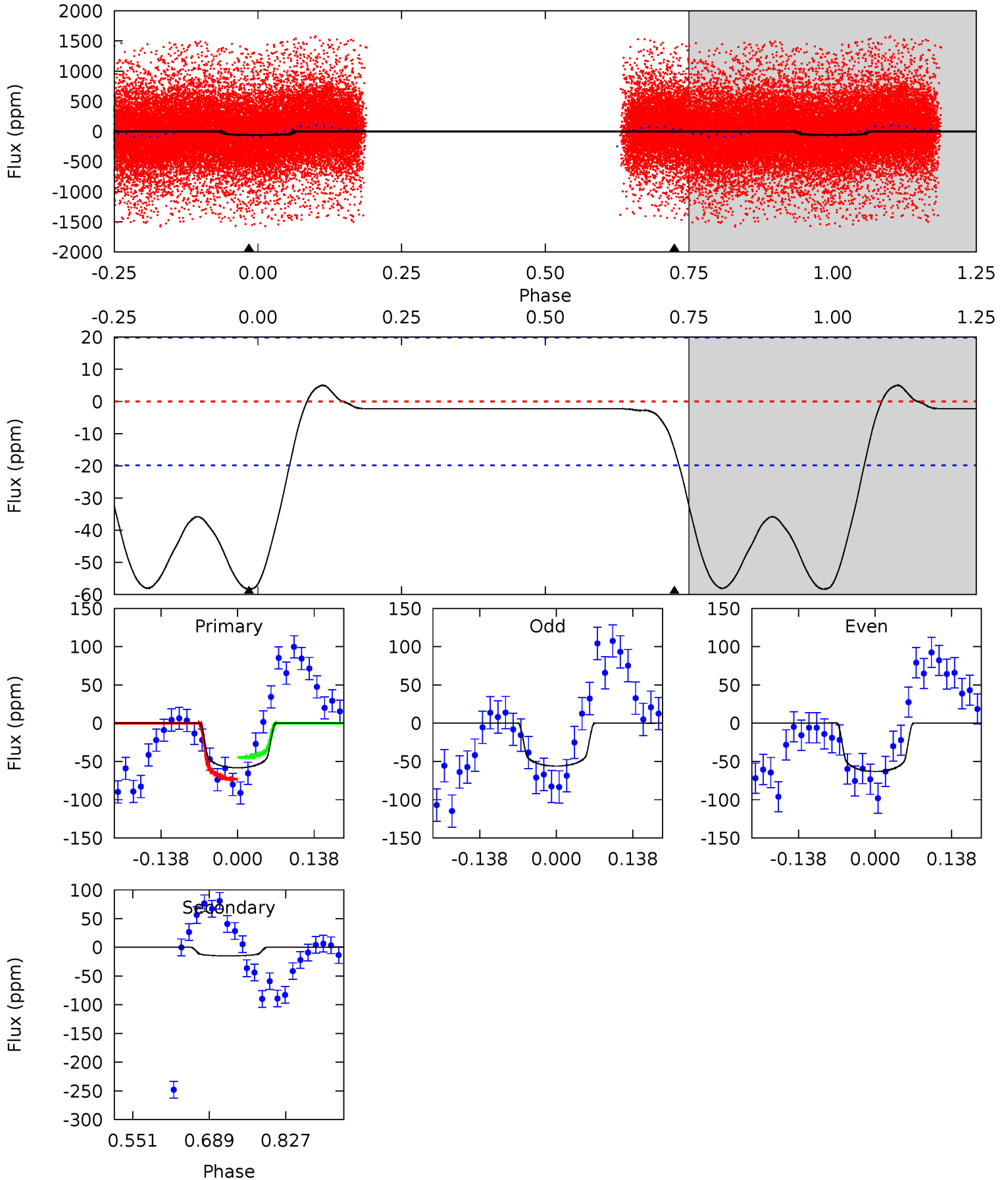
TCE 005823587-02 P= 1.766775 Days $T_0=132.621855$ (BKJD)



DV Model-Shift Uniqueness Test

005823587-02, P = 1.766779 Days, E = 130.854412 Days

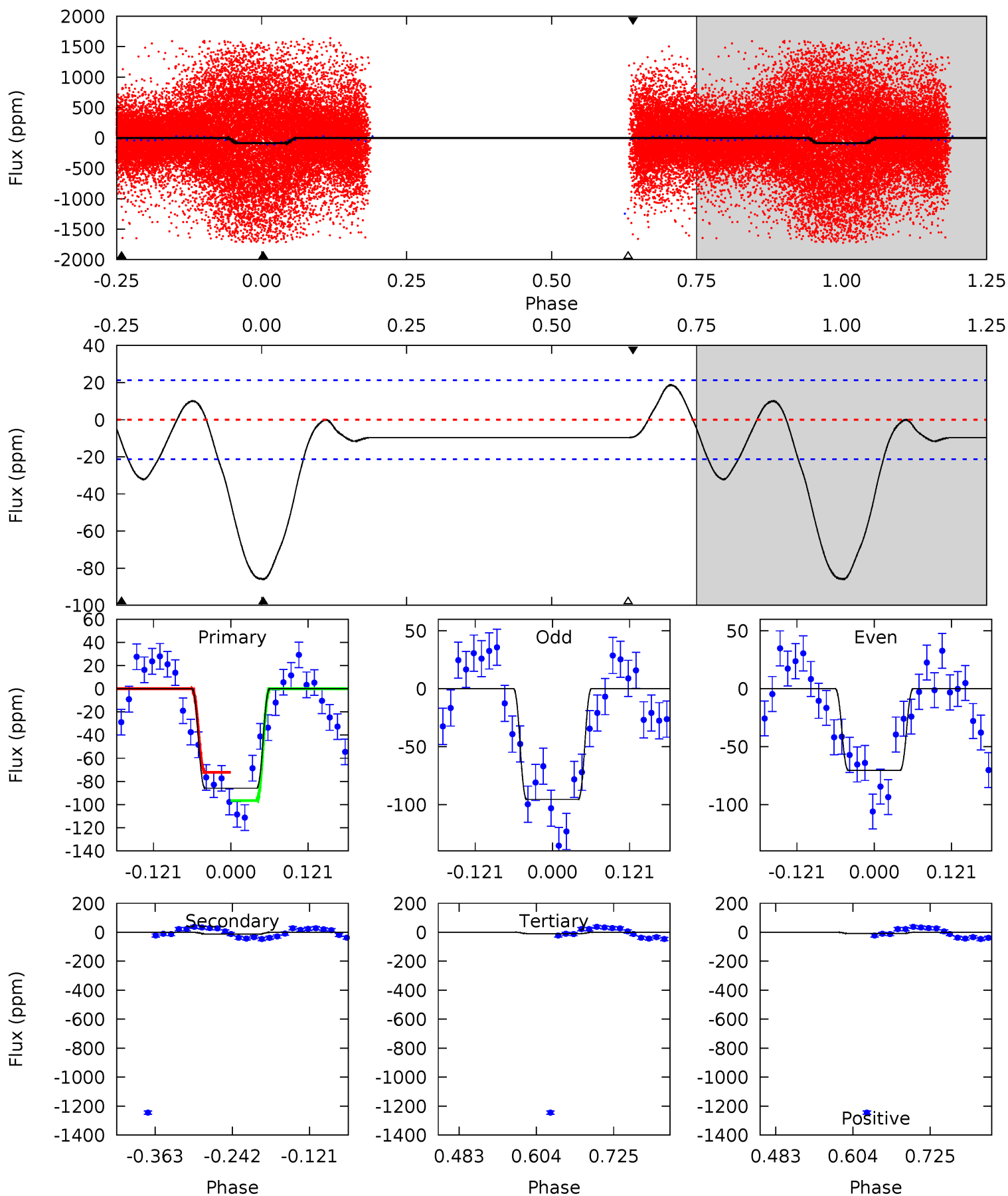
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	3.37	0	0	4.50	1.48	0.41	13.2	13.2	3.37	3.37	0.80	1.00	0.08	3.17



Alt Model-Shift Uniqueness Test

005823587-02, P = 1.766775 Days, E = 130.855080 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.2	2.59	2.05	-1.97	4.52	1.55	2.24	16.2	20.2	0.53	4.56	2.82	1.31	0.18	1.98



Stellar Parameters For KIC 005823587

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6580^{+149}_{-215}	$4.377^{+0.060}_{-0.180}$	$-0.160^{+0.250}_{-0.300}$	$1.169^{+0.344}_{-0.138}$	$1.191^{+0.164}_{-0.147}$	$1.050^{+0.336}_{-0.527}$
	+2%/-3%	+1%/-4%	+156%/-188%	+29%/-12%	+14%/-12%	+32%/-50%
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 005823587-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-15 ± 4	$1.21^{+0.24}_{-0.20}$	2557^{+161}_{-125}	4396^{+369}_{-397}	$4.945^{+2.812}_{-1.915}$
Alt.	-12 ± 5	$1.44^{+0.25}_{-0.22}$	2557^{+169}_{-123}	3938^{+366}_{-417}	$2.849^{+1.893}_{-1.327}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

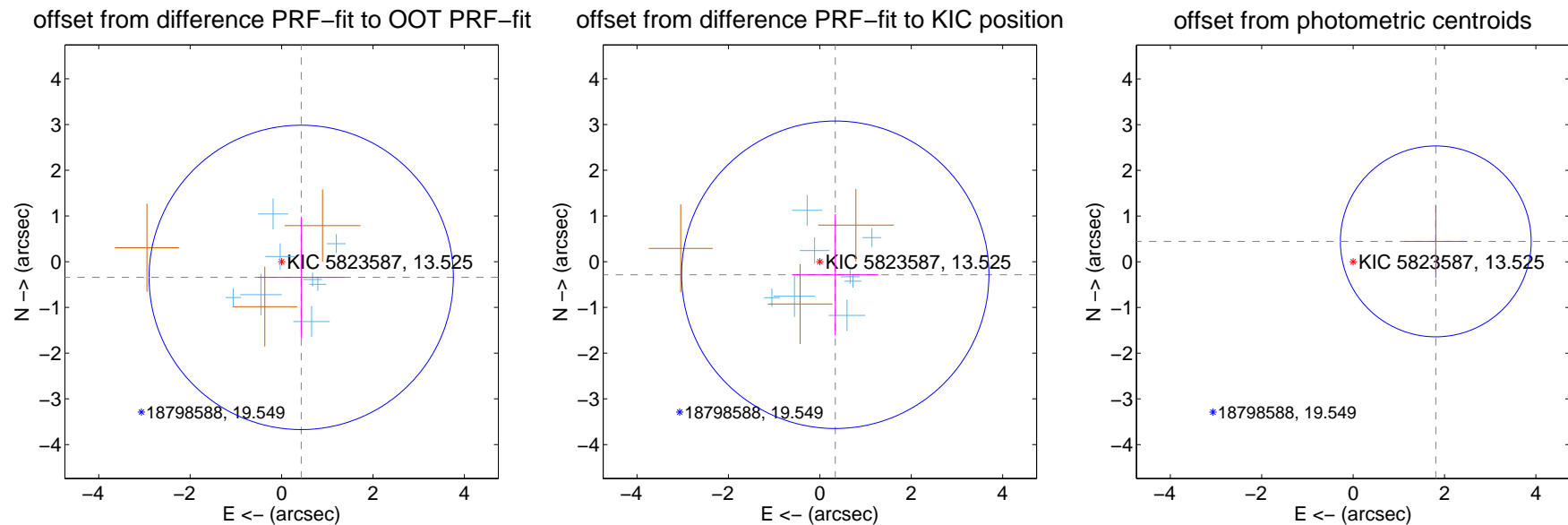
DV Centroid Data

Supplemental centroid analysis for 005823587-02. Kepler magnitude: 13.53. Transit SNR 11.98

There are 8 quarters with good PRF difference image offsets

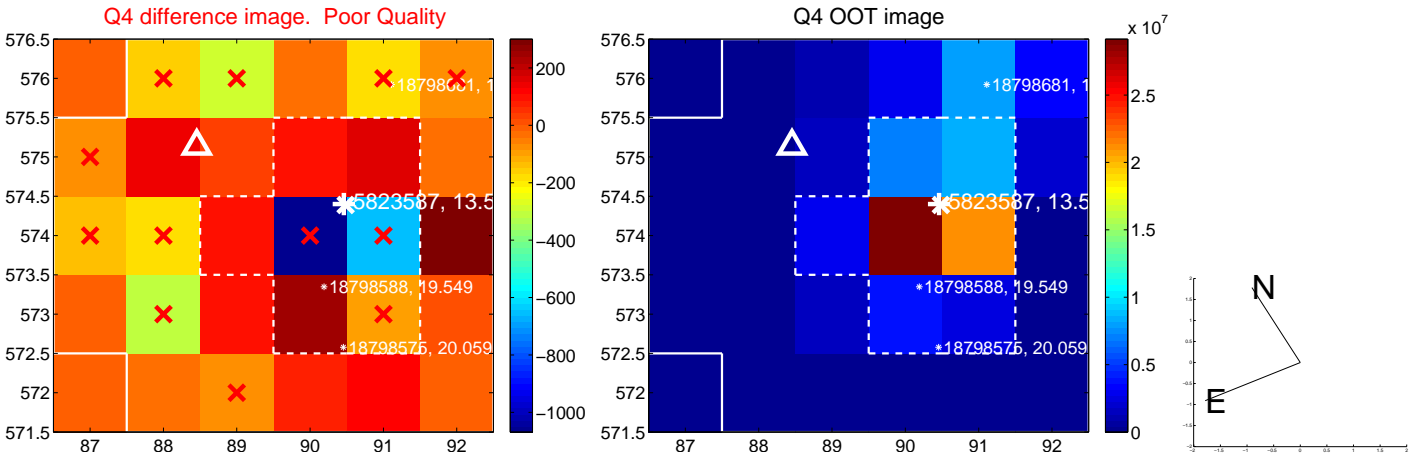
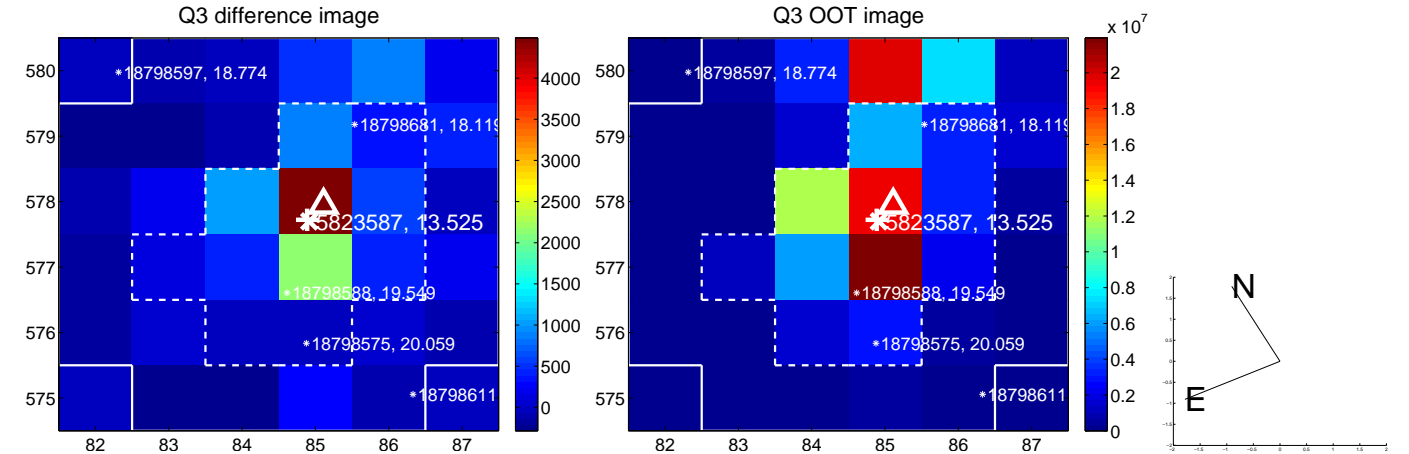
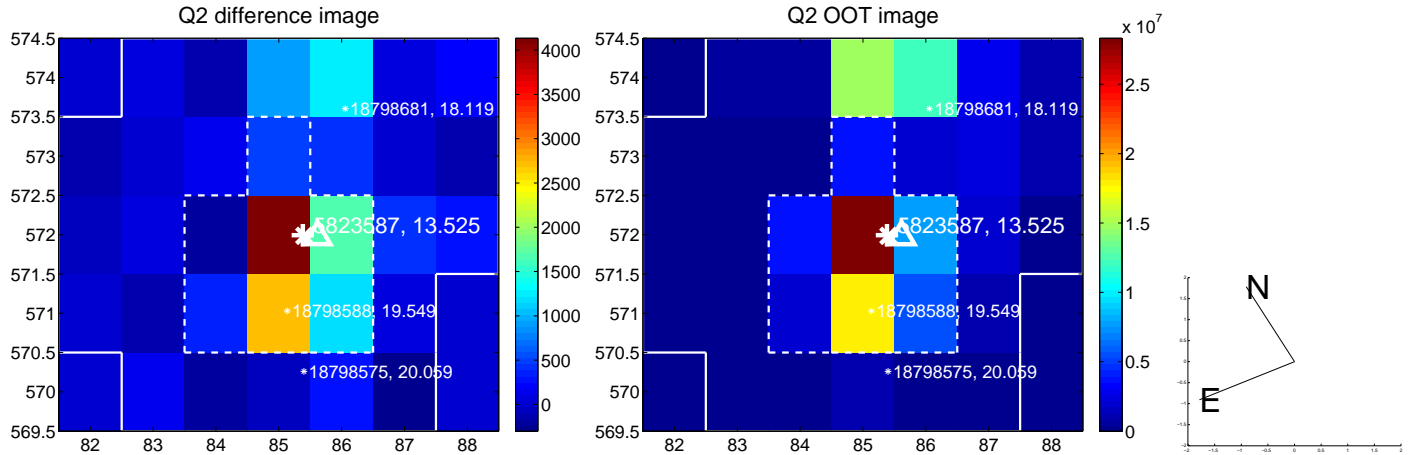
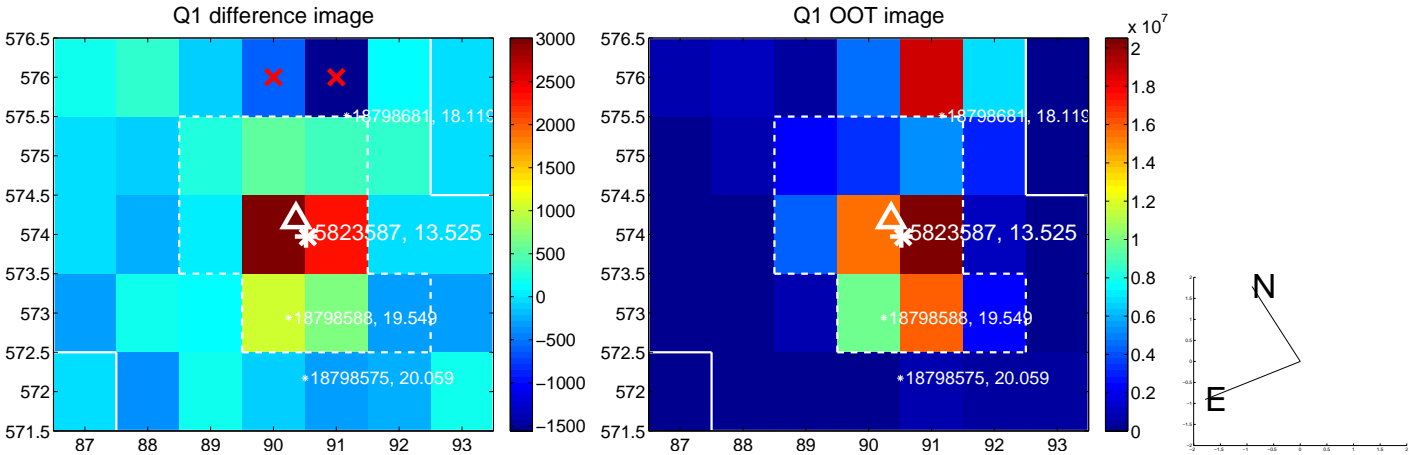
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.550 ± 1.110	0.50	-0.429 ± 0.944	-0.343 ± 1.328
PRF-fit source offset from KIC position	0.442 ± 1.121	0.39	-0.337 ± 0.944	-0.286 ± 1.328
photometric centroid source offset	1.86 ± 0.70	2.68	-1.81 ± 0.69	0.45 ± 0.80

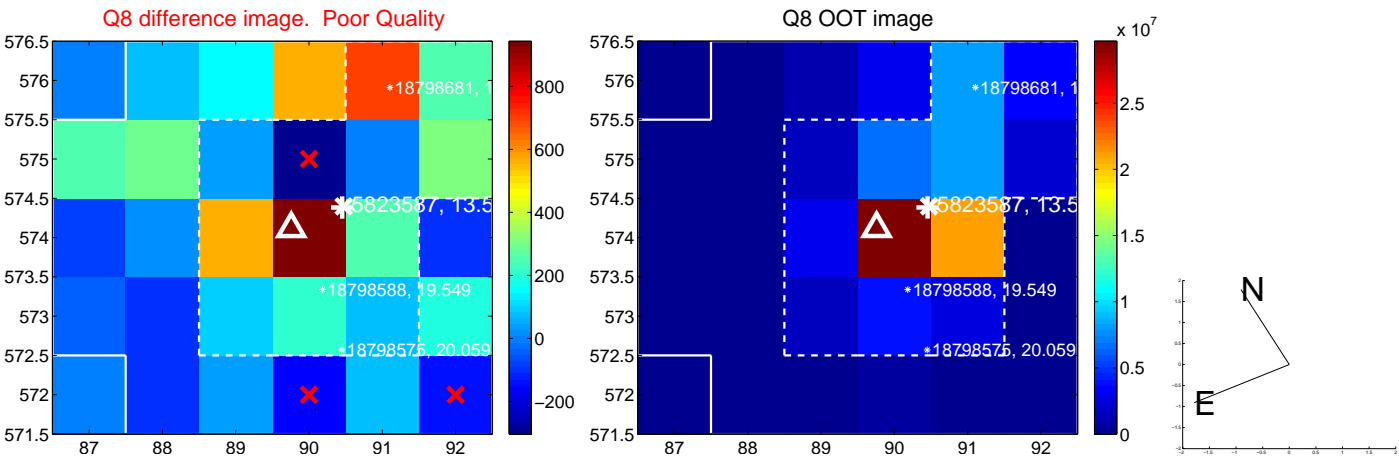
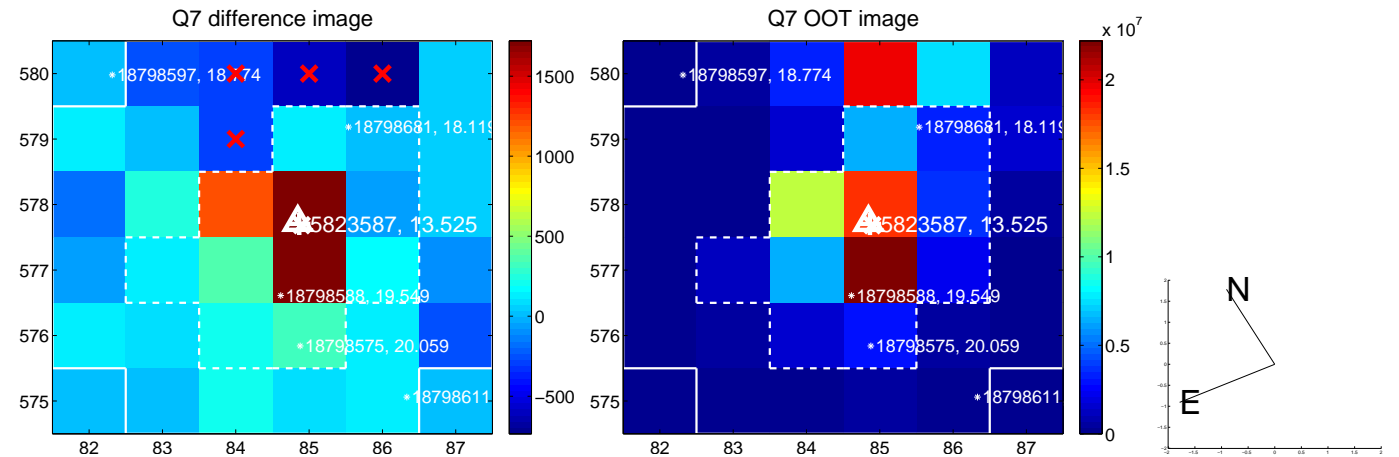
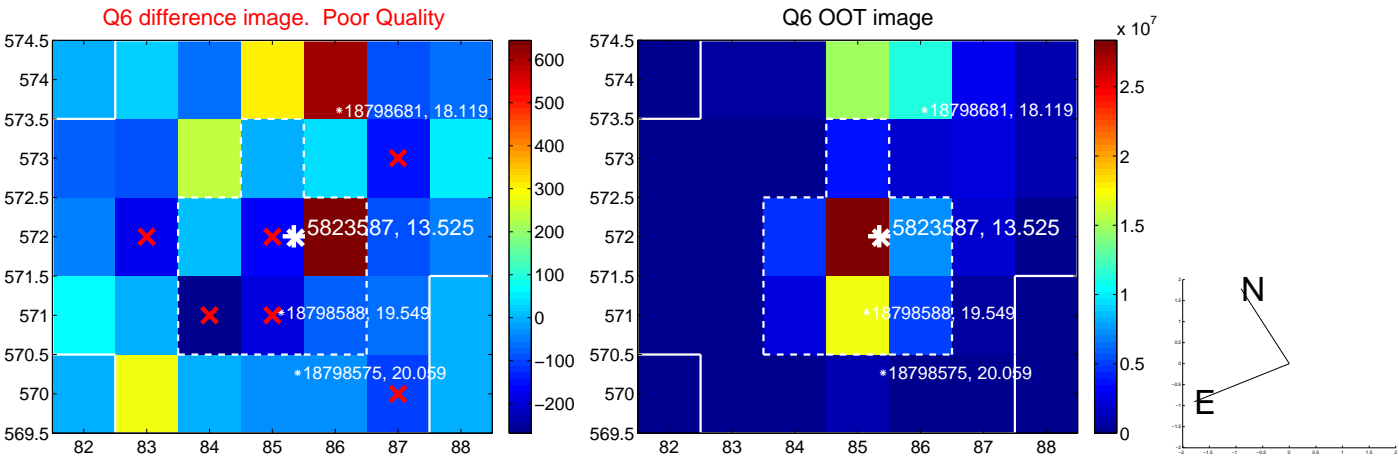
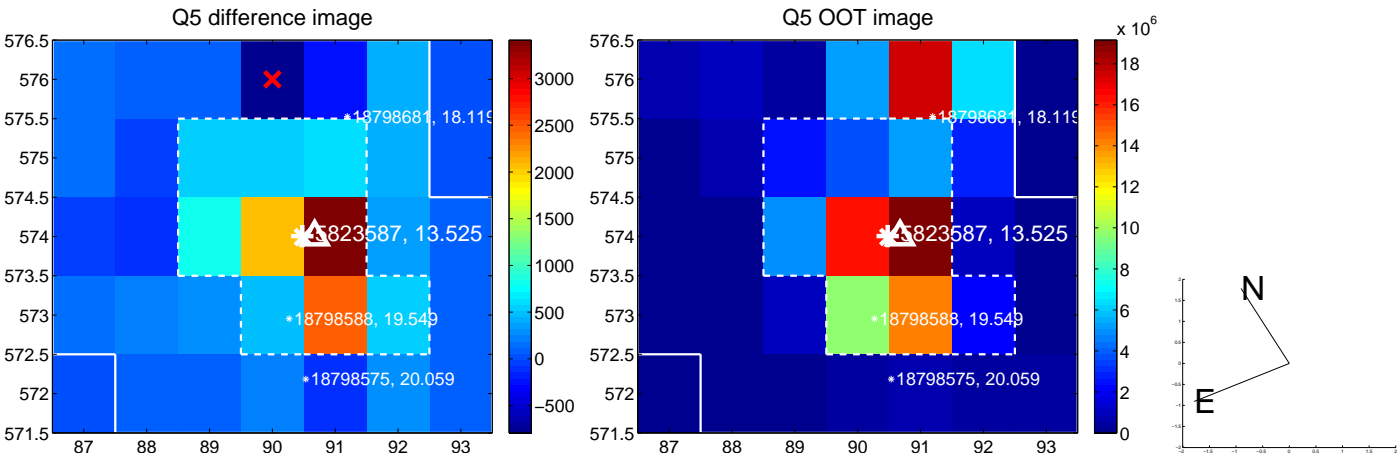


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

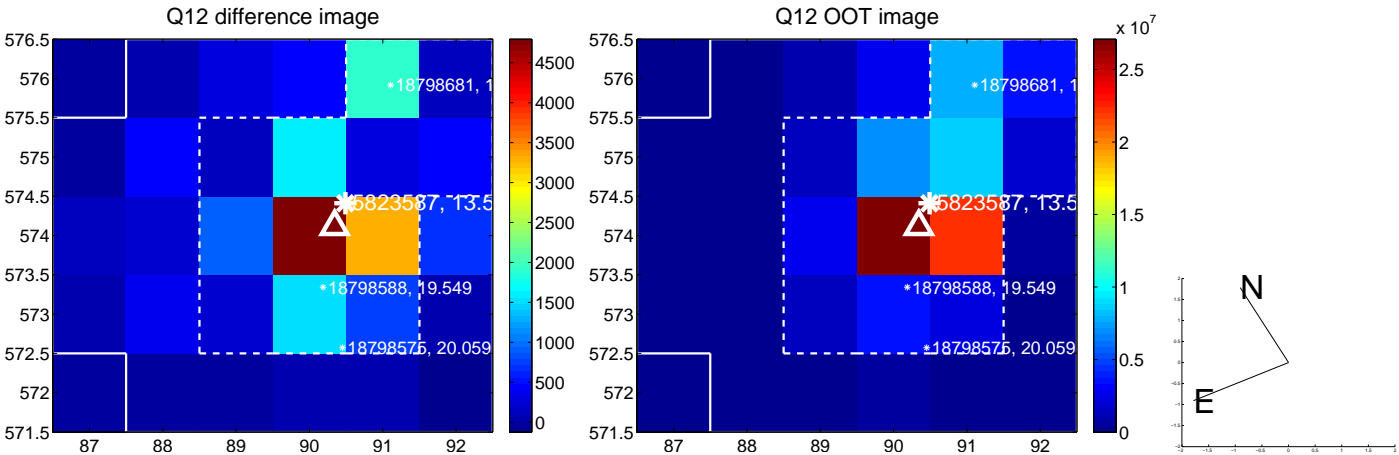
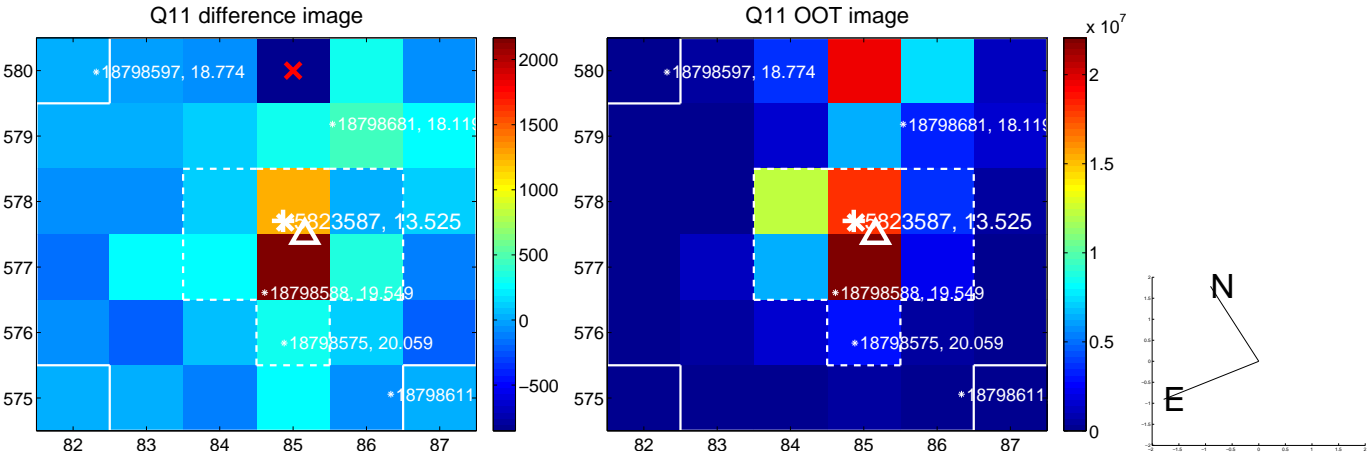
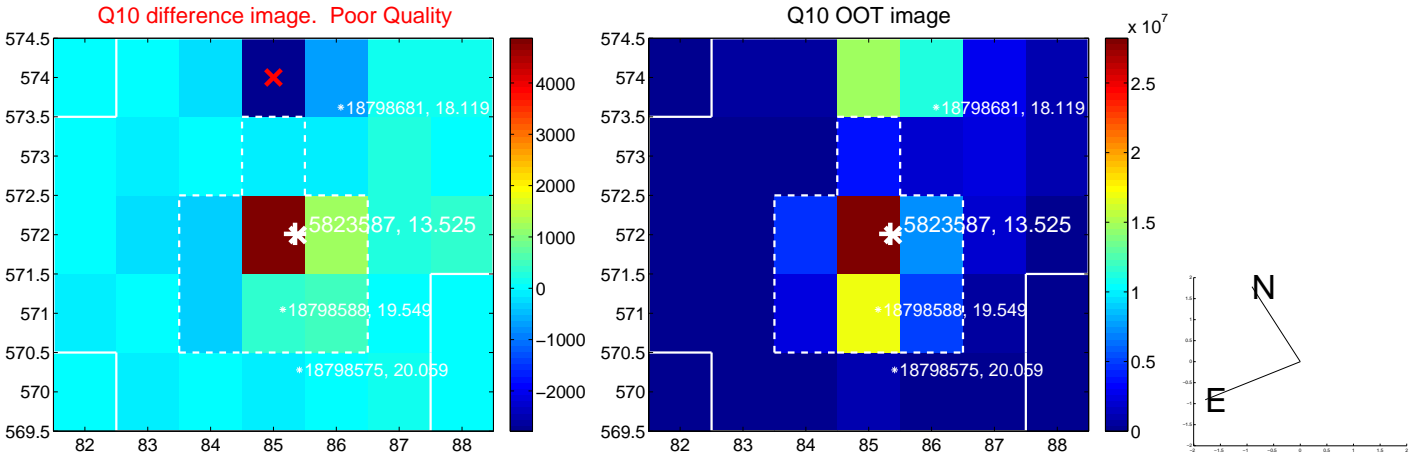
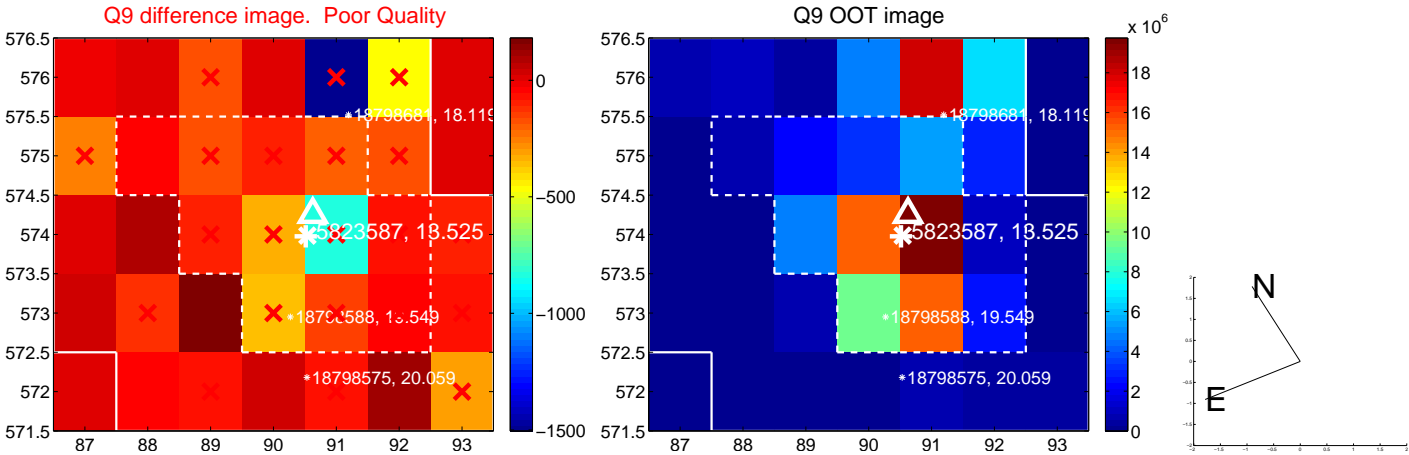
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



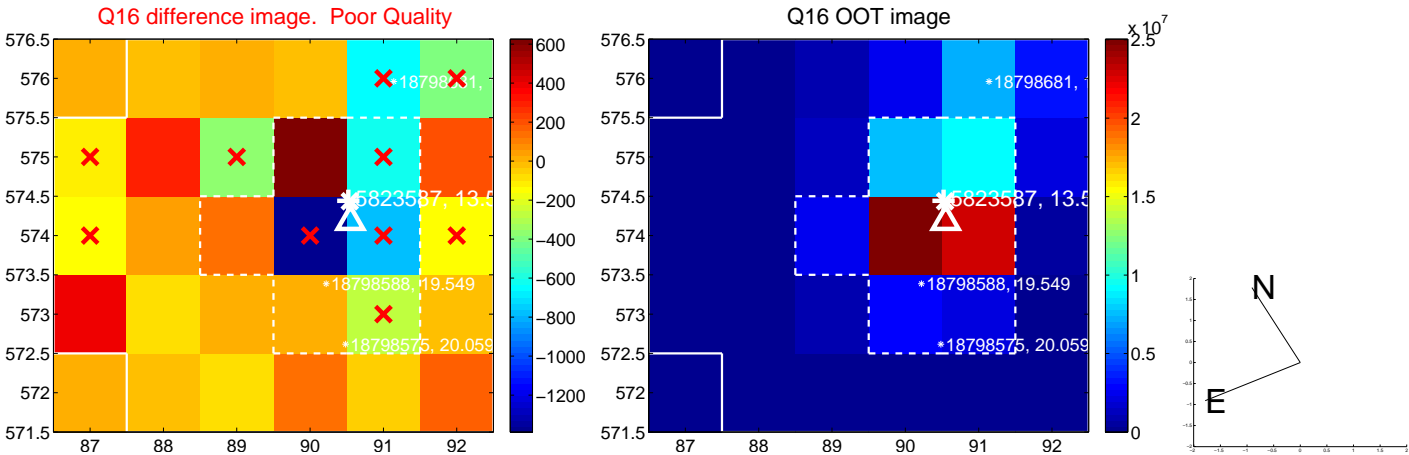
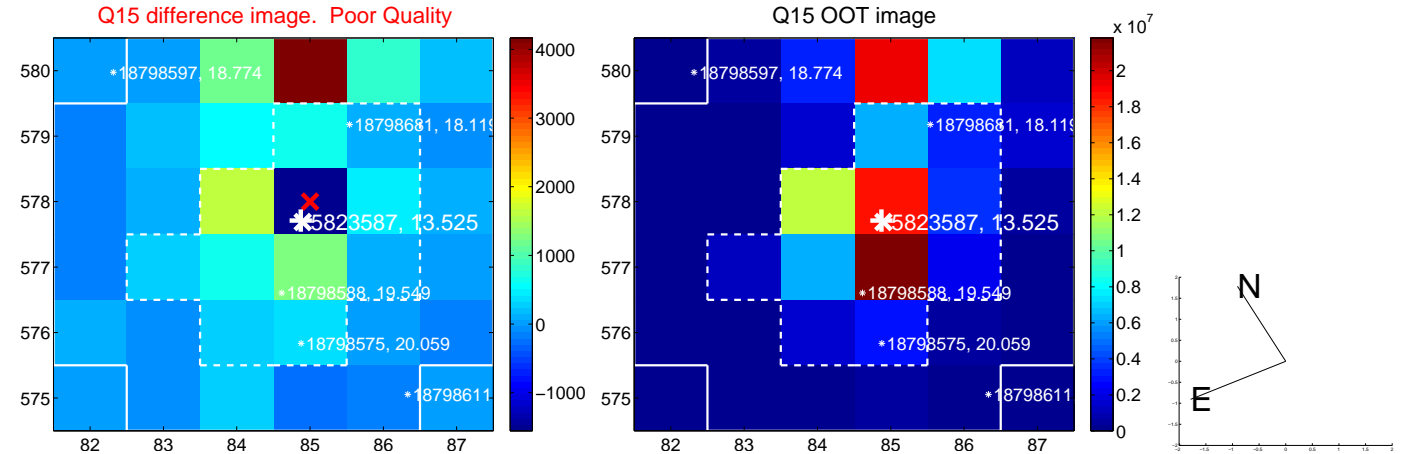
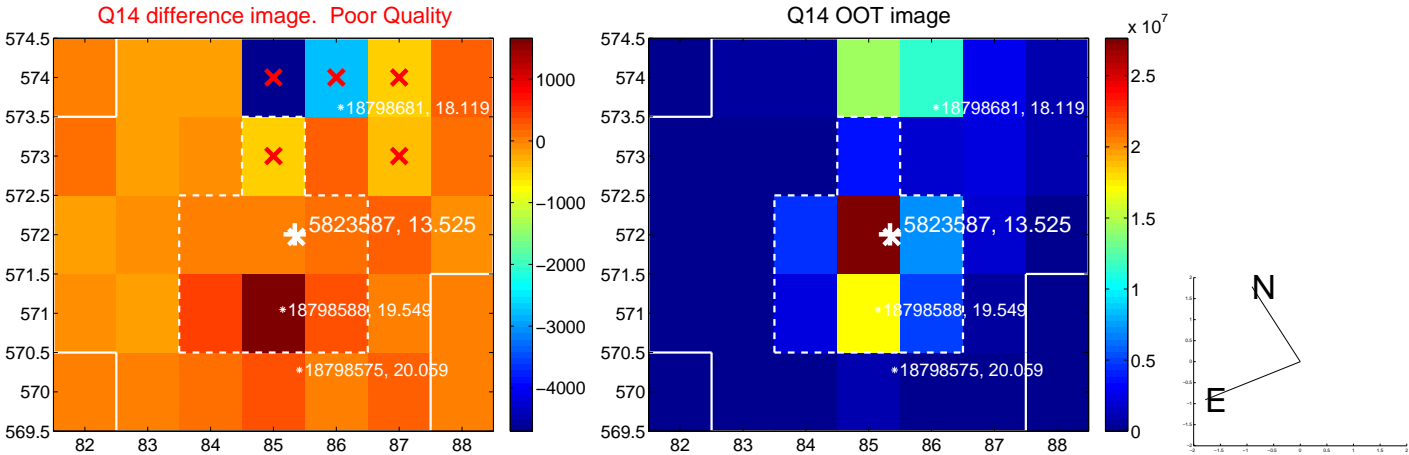
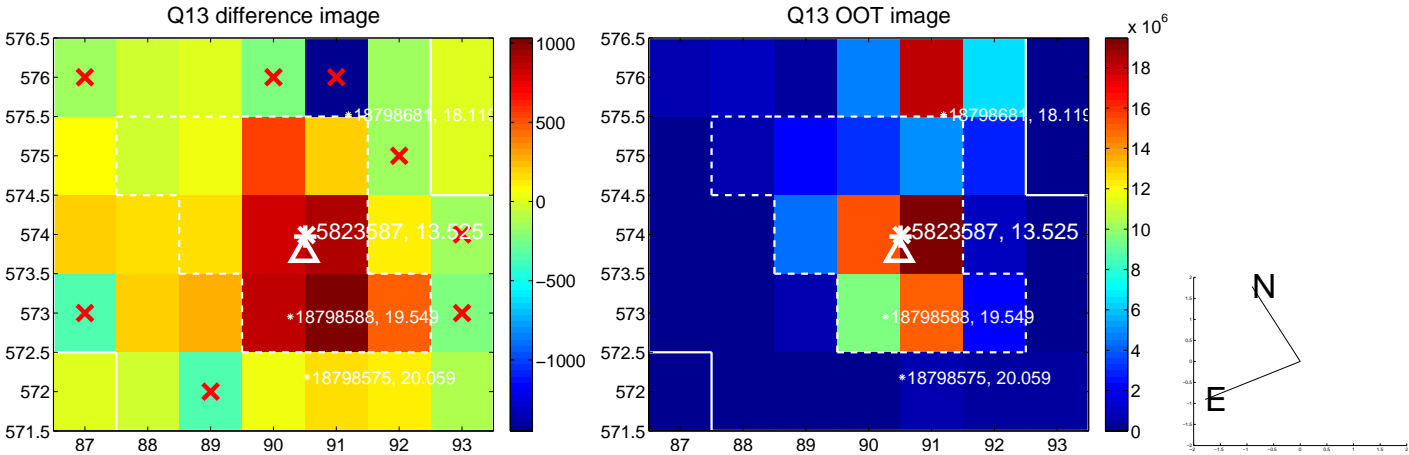
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

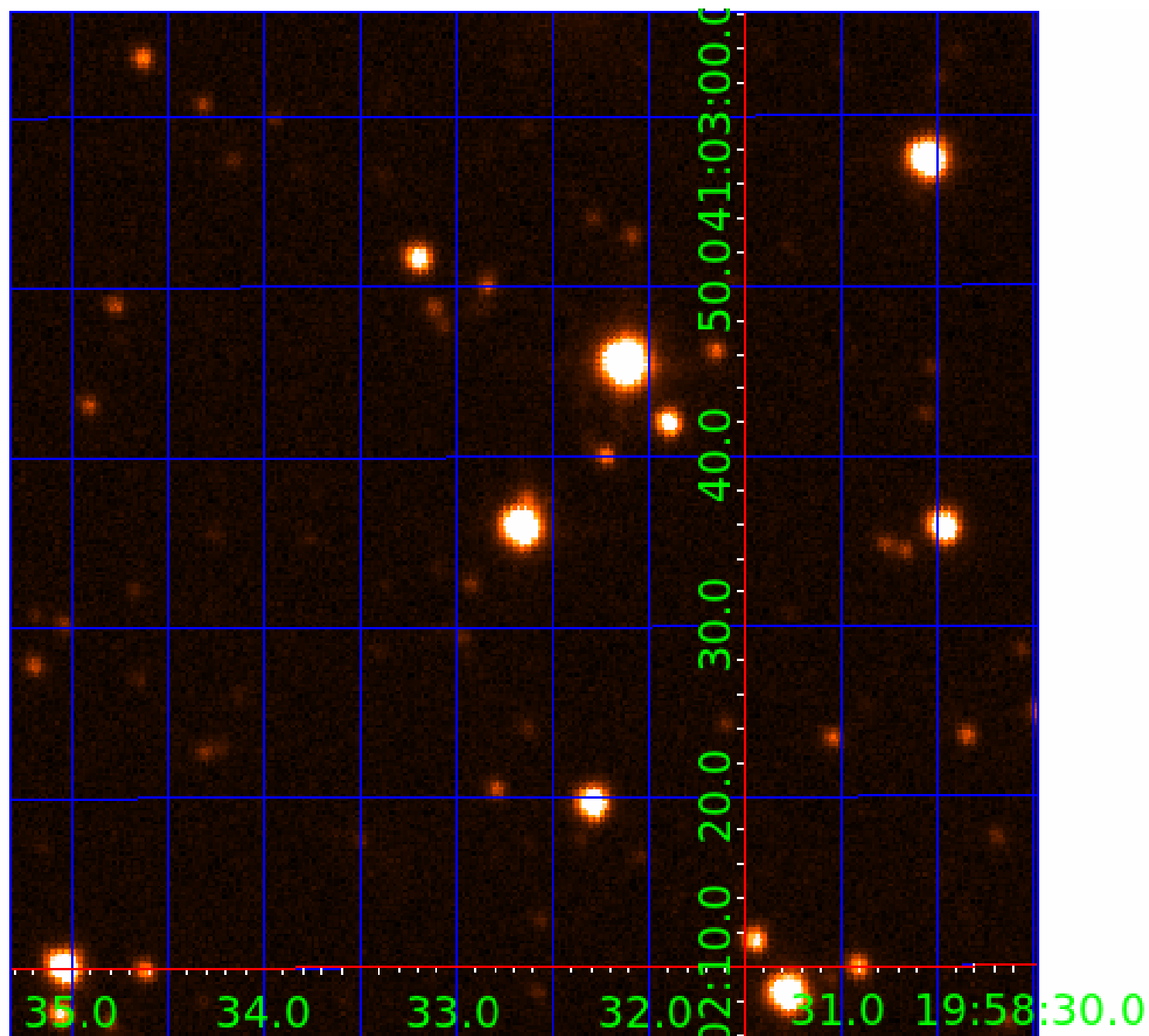


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005823587

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})
005823587-01	OBS	No	1.766717	131.603258	53.7	6.468	10.2	8.8	1.17	6580	0.97	2501.03
005823587-02	OBS	No	1.766779	132.621190	72.4	5.396	12.7	12.0	1.17	6580	1.17	2500.91
005823587-03	OBS	No	32.977868	145.869489	478.0	8.691	7.1	7.6	1.17	6580	3.31	50.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005823587-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005823587-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
005823587-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

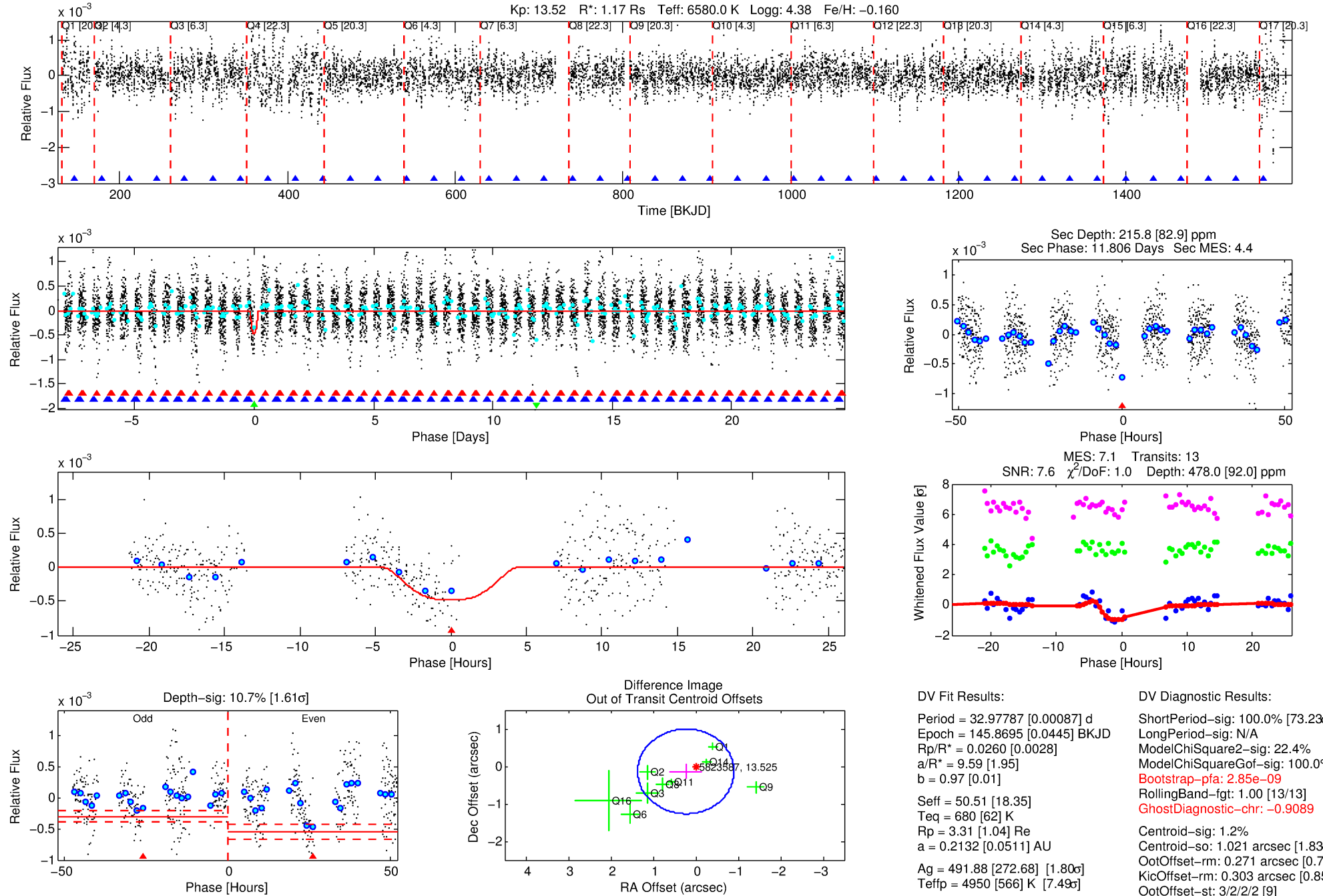
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005823587-03

No Significant Match Found

DV One-Page Summary

KIC: 5823587 Candidate: 3 of 3 Period: 32.978 d



DV Fit Results:

Period = 32.97787 [0.00087] d
Epoch = 145.8695 [0.0445] BKJD
Rp/R* = 0.0260 [0.0028]
a/R* = 9.59 [1.95]
b = 0.97 [0.01]
Seff = 50.51 [18.35]
Teff = 680 [62] K
Rp = 3.31 [1.04] Re
a = 0.2132 [0.0511] AU
Ag = 491.88 [272.68] [1.80 σ]
Teffp = 4950 [566] K [7.49 σ]

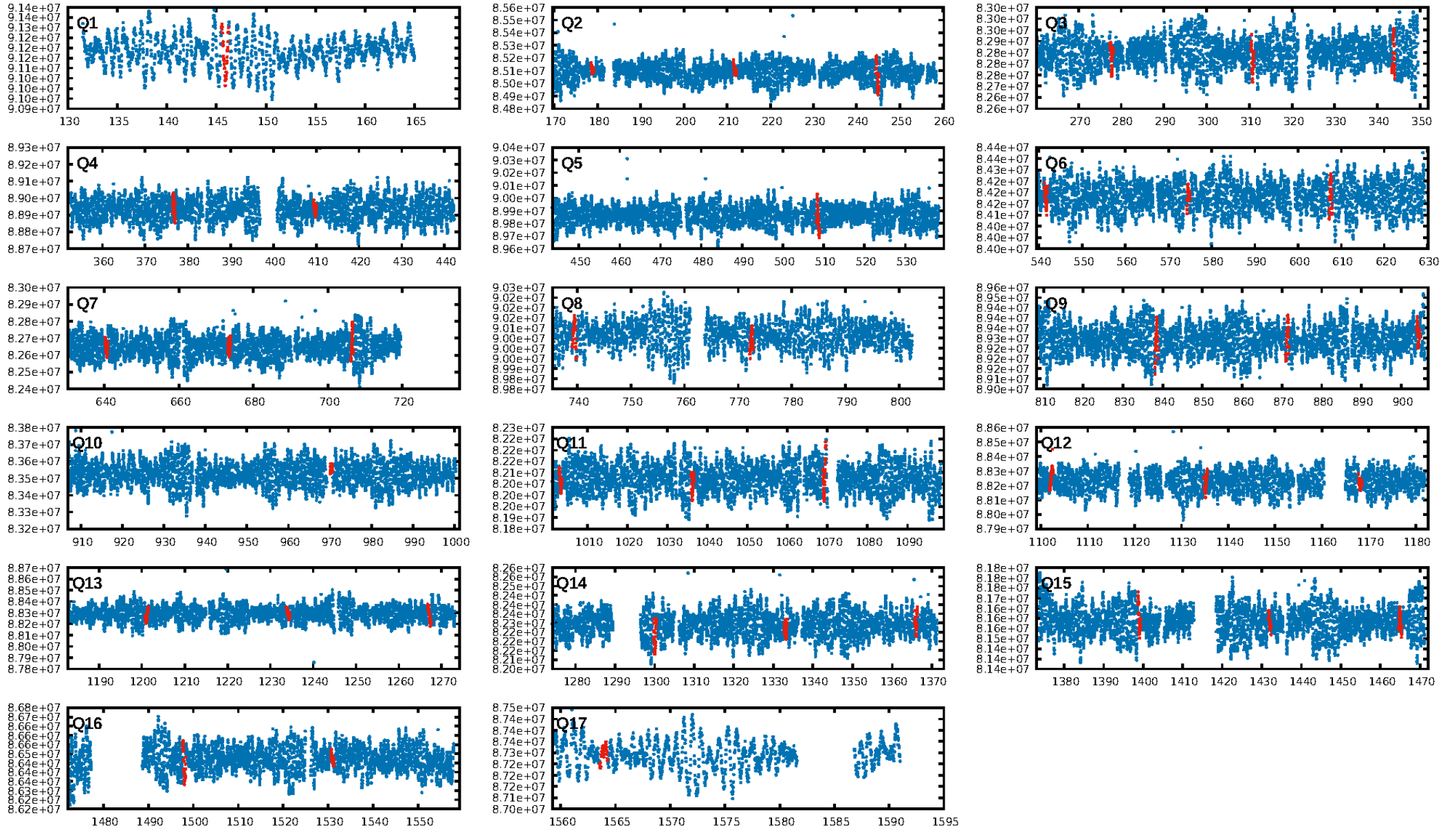
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [73.23 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 22.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.85e-09
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: -0.9089
Centroid-sig: 1.2%
Centroid-so: 1.021 arcsec [1.83 σ]
OotOffset-rm: 0.271 arcsec [0.72 σ]
KicOffset-rm: 0.303 arcsec [0.85 σ]
OotOffset-st: 3/2/2/2 [9]
KicOffset-st: 3/2/2/2 [9]
DiffImageQuality-fgm: 0.56 [5/9]
DiffImageOverlap-fno: 0.00 [0/16]

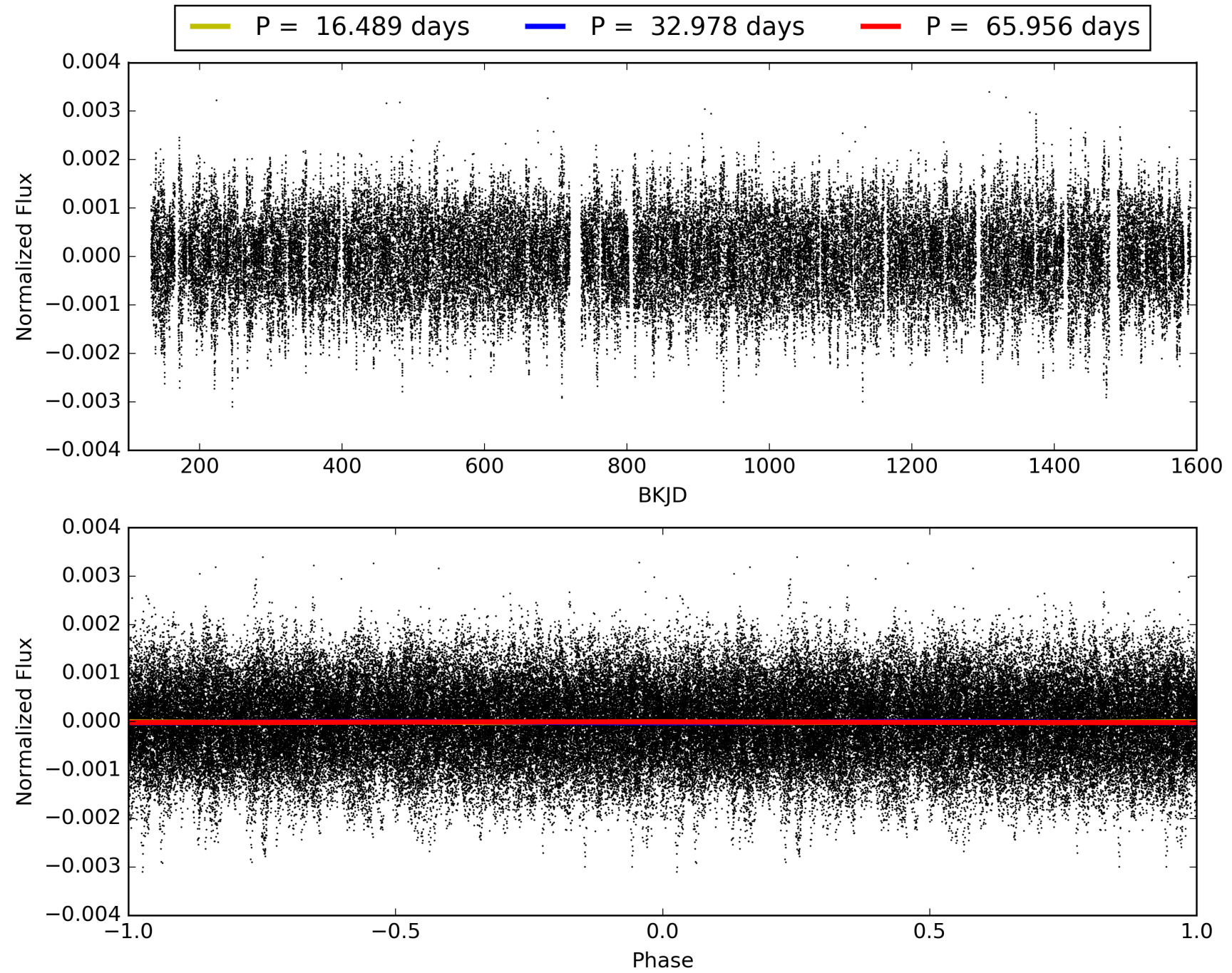
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:07:01 Z

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

TCE 005823587-03, PDC Light Curves

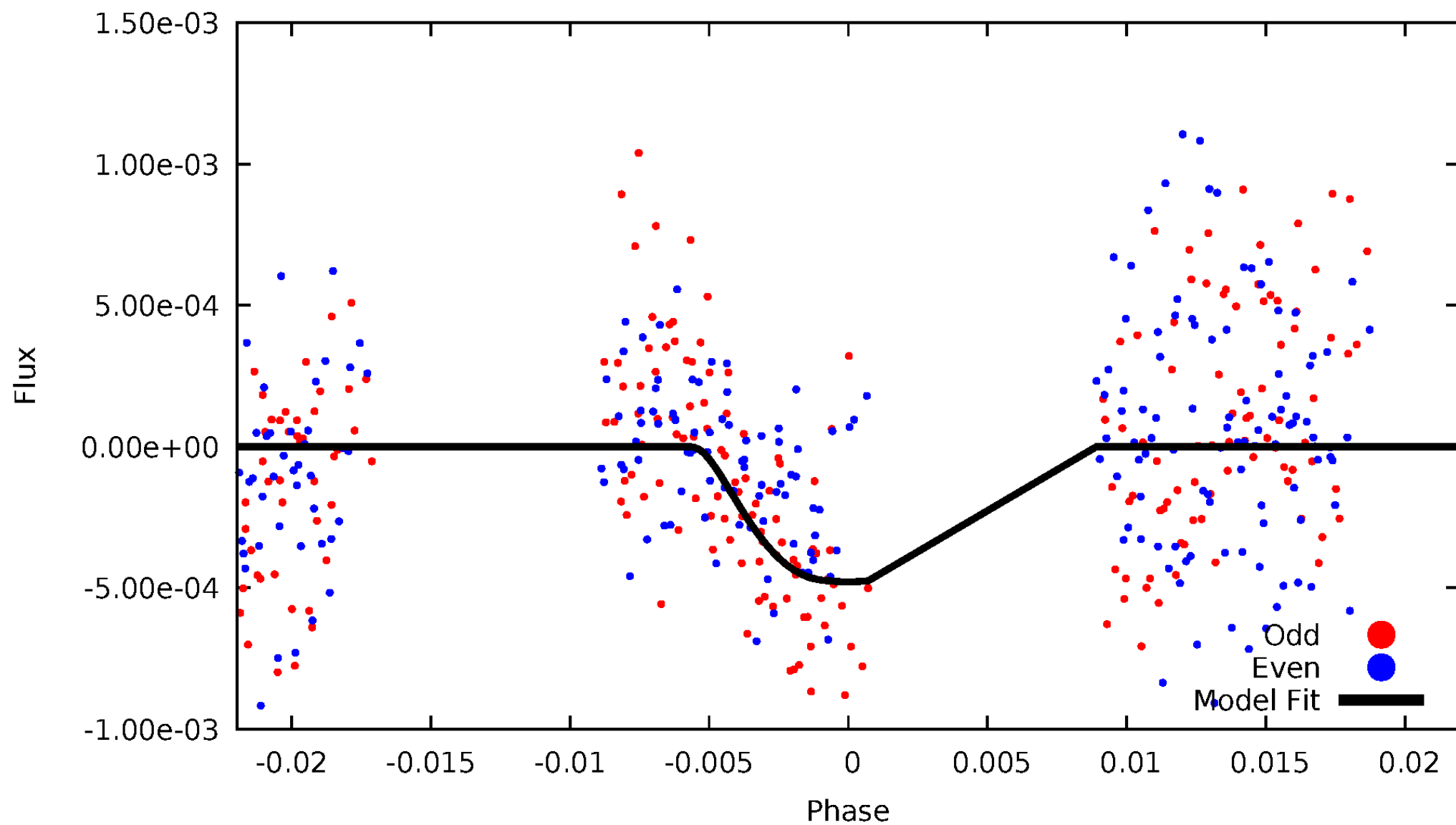


TCE 005823587-03



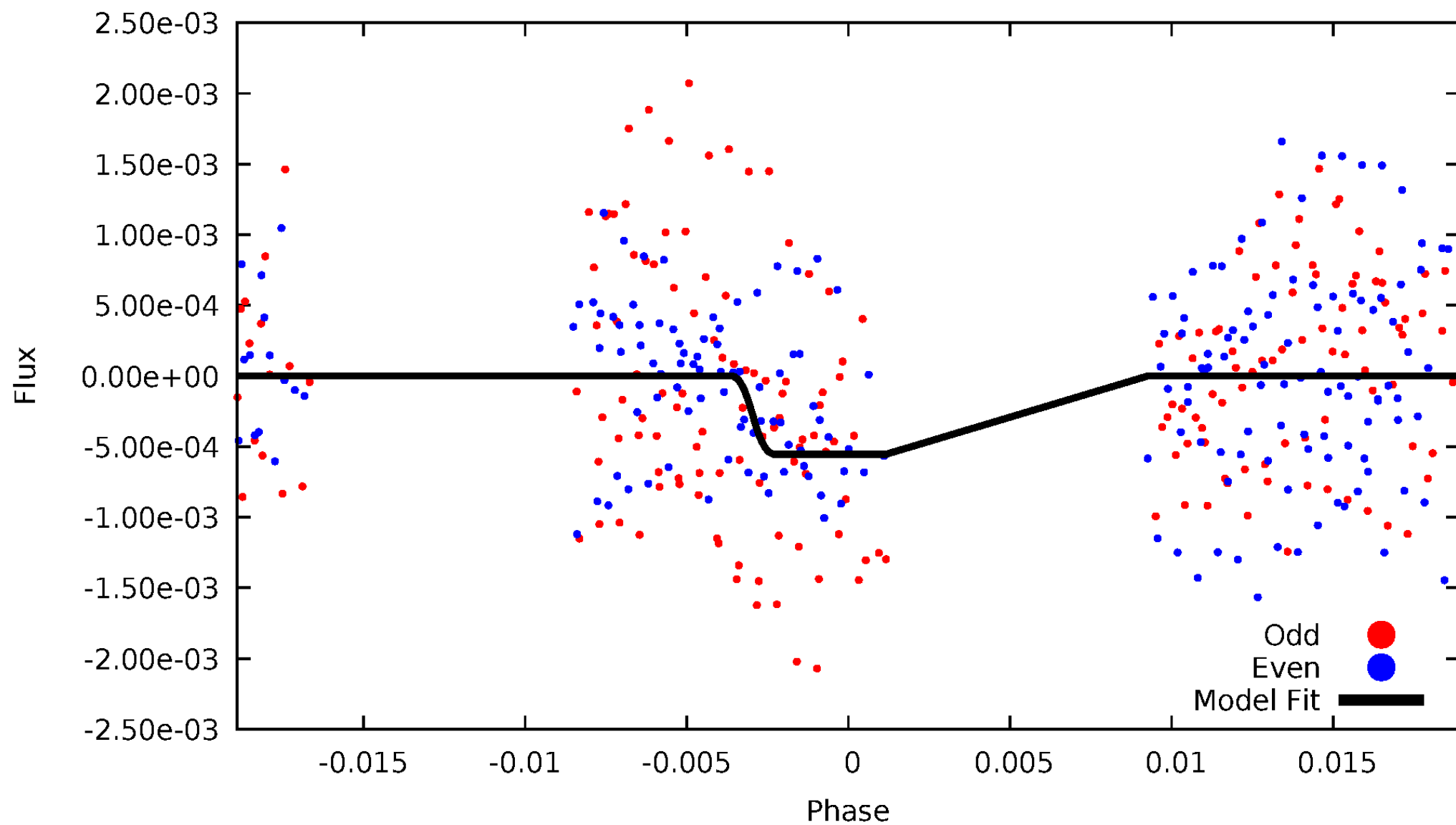
DV Odd/Even

TCE 005823587-03



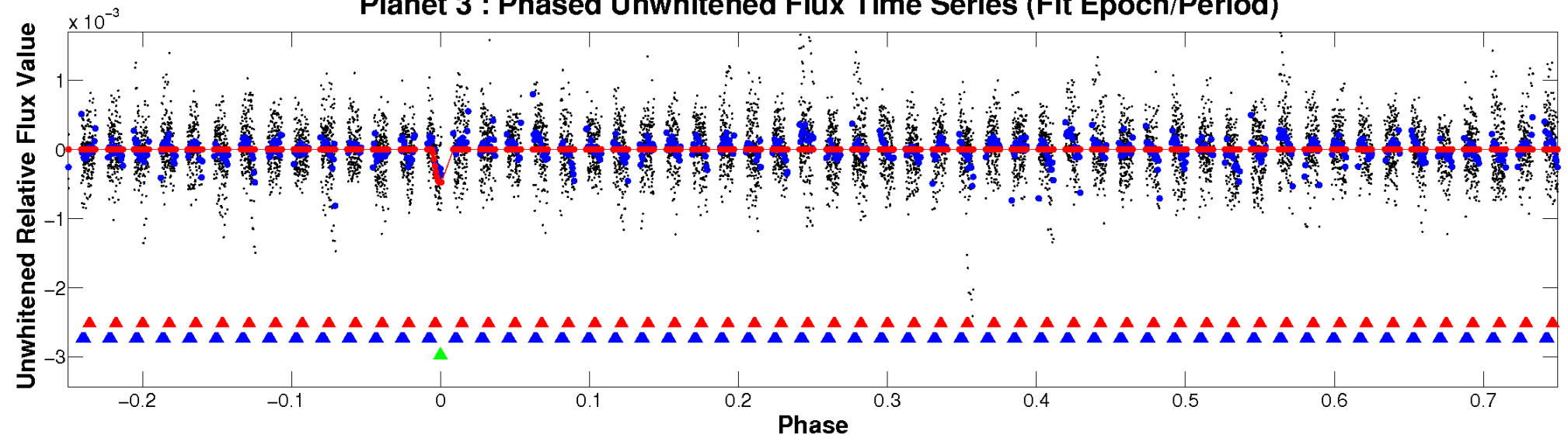
ALT Odd/Even

TCE 005823587-03

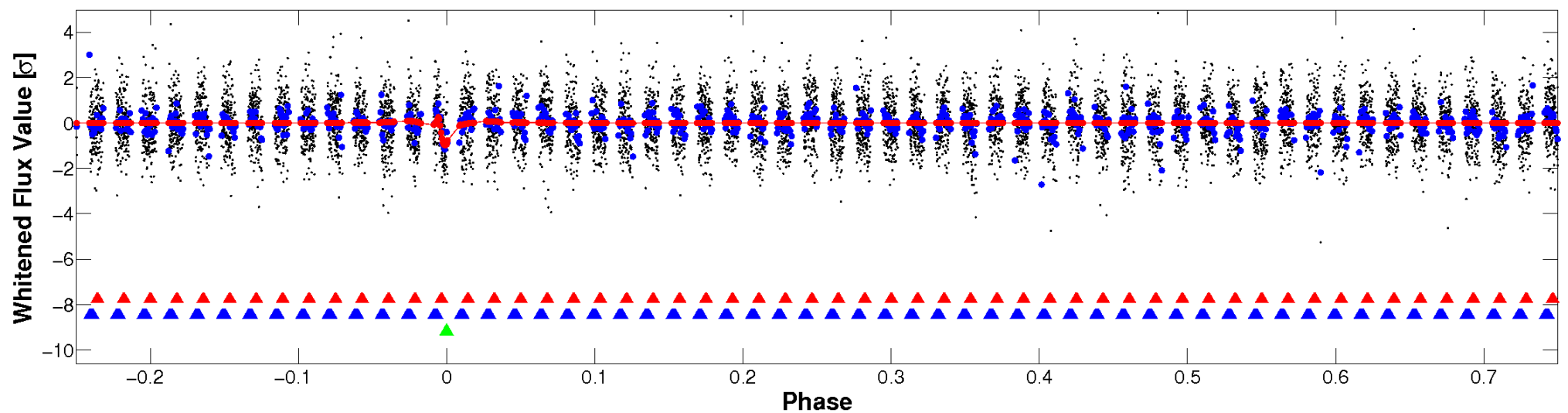


Non-Whitened Vs. Whitened Light Curve

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

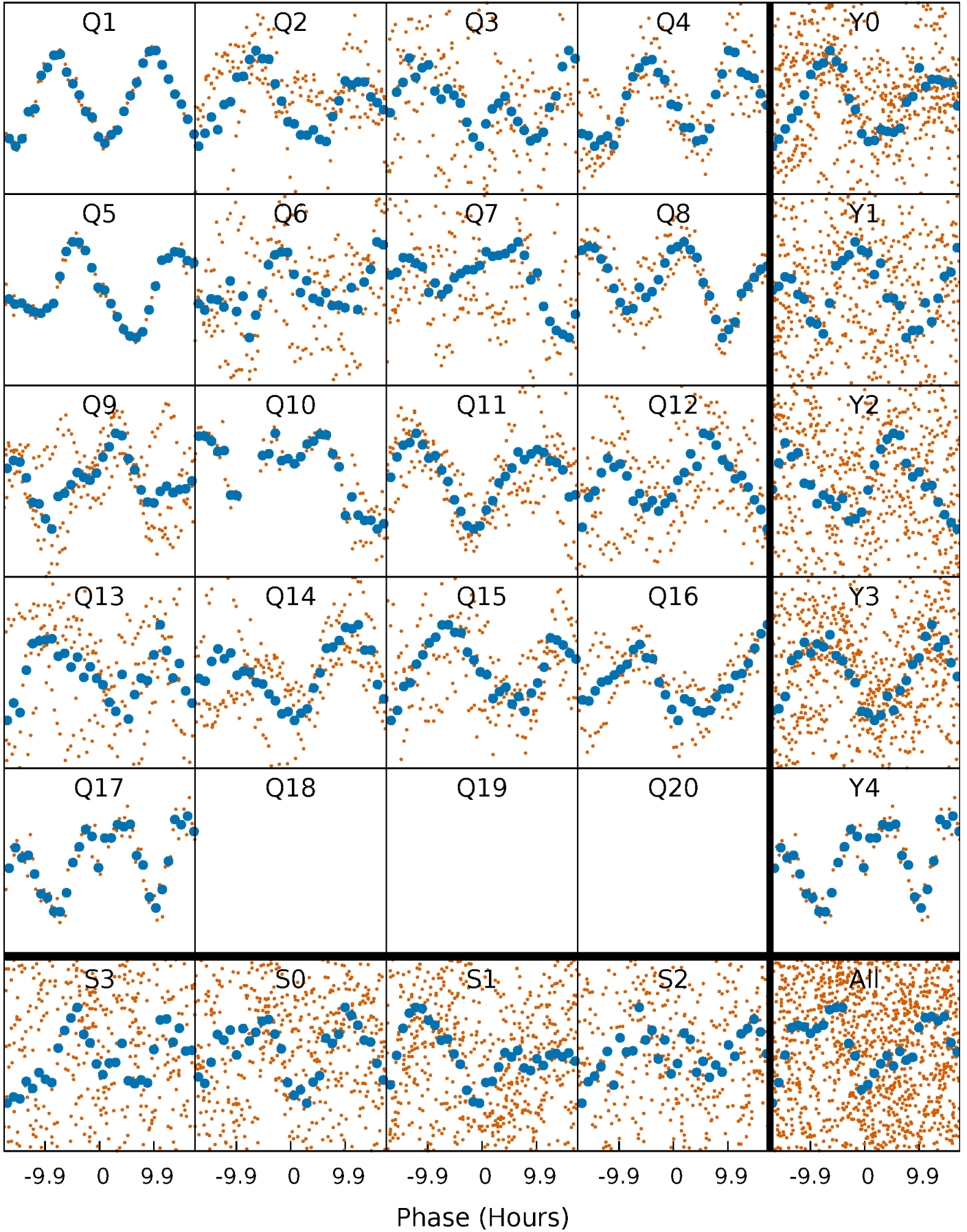


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



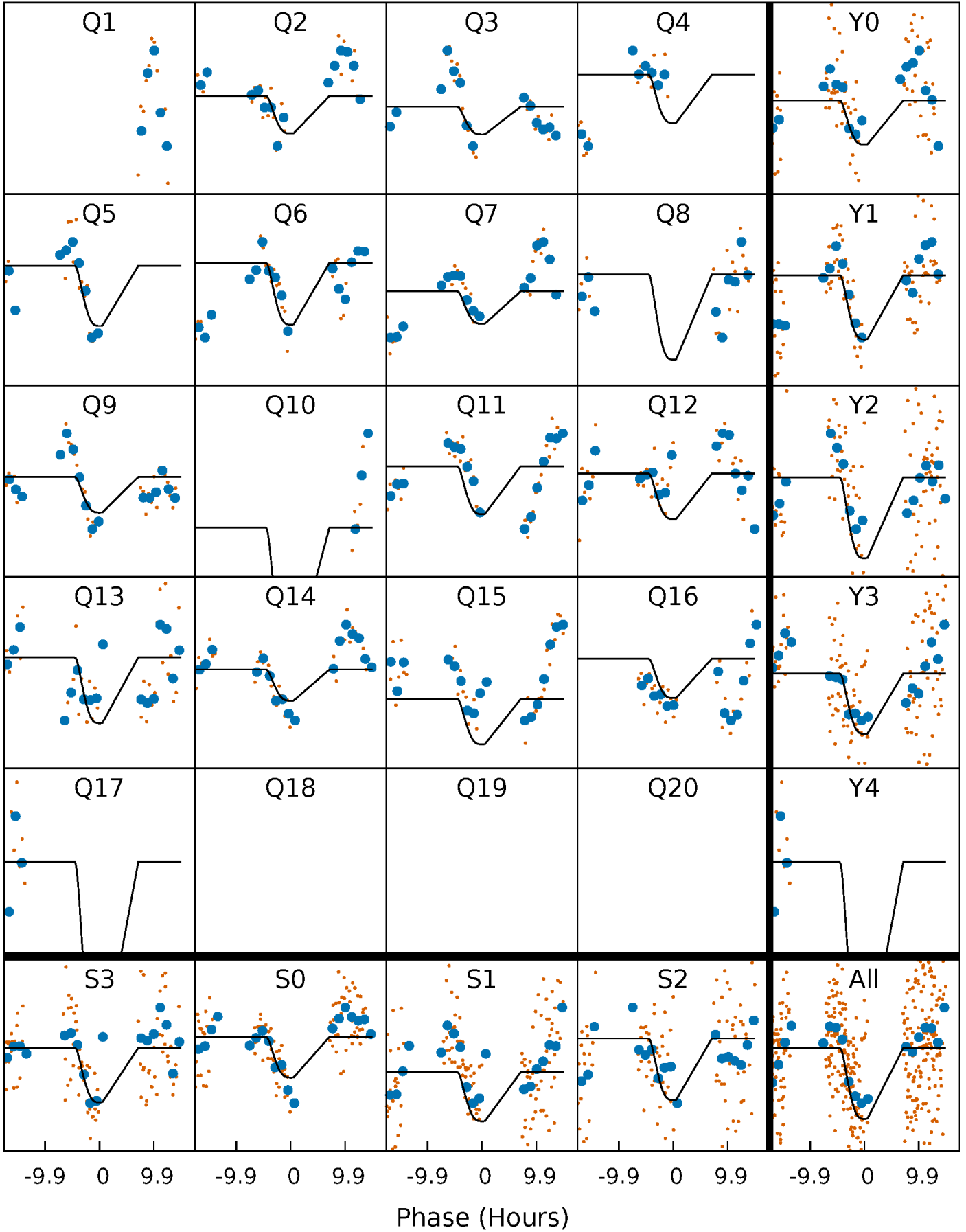
PDC Quarter-Phased Transit Curves

TCE 005823587-03 P= 32.977868 Days $T_0=145.869489$ (BKJD)



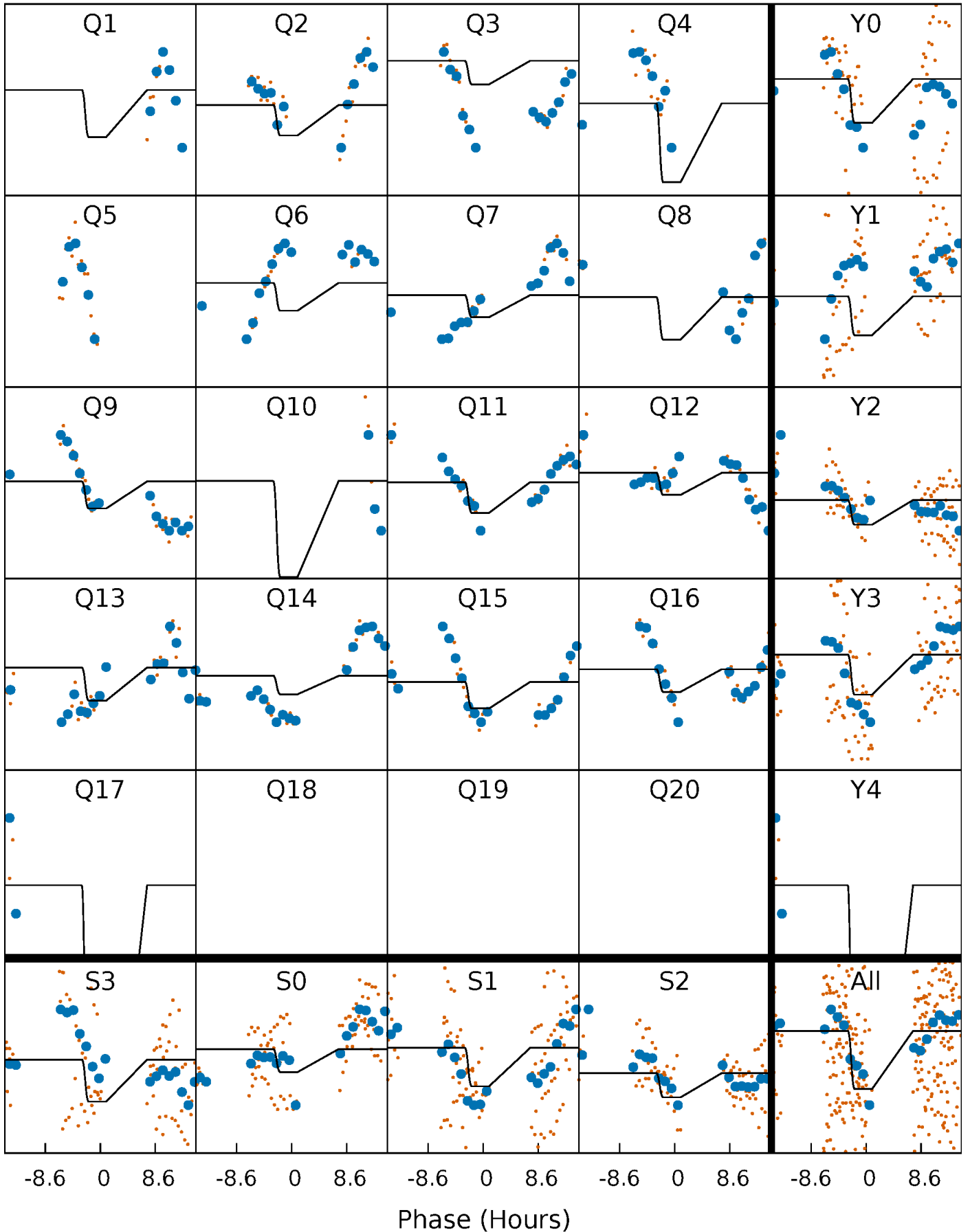
DV Quarter-Phased Transit Curves

TCE 005823587-03 $P = 32.977868$ Days $T_0 = 145.869489$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

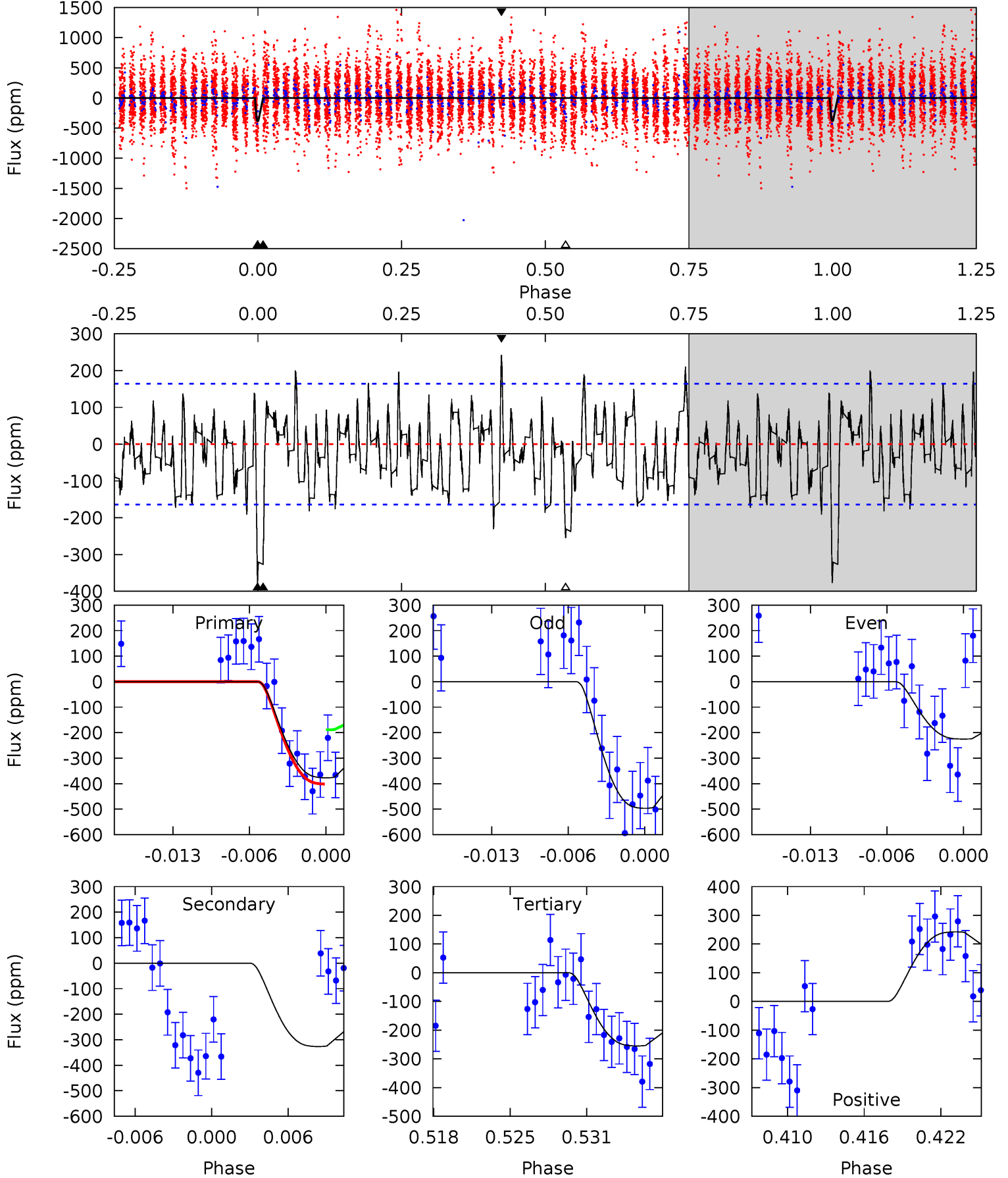
TCE 005823587-03 $P = 32.977790$ Days $T_0 = 145.857832$ (BKJD)



DV Model-Shift Uniqueness Test

005823587-03, P = 32.977868 Days, E = 112.891621 Days

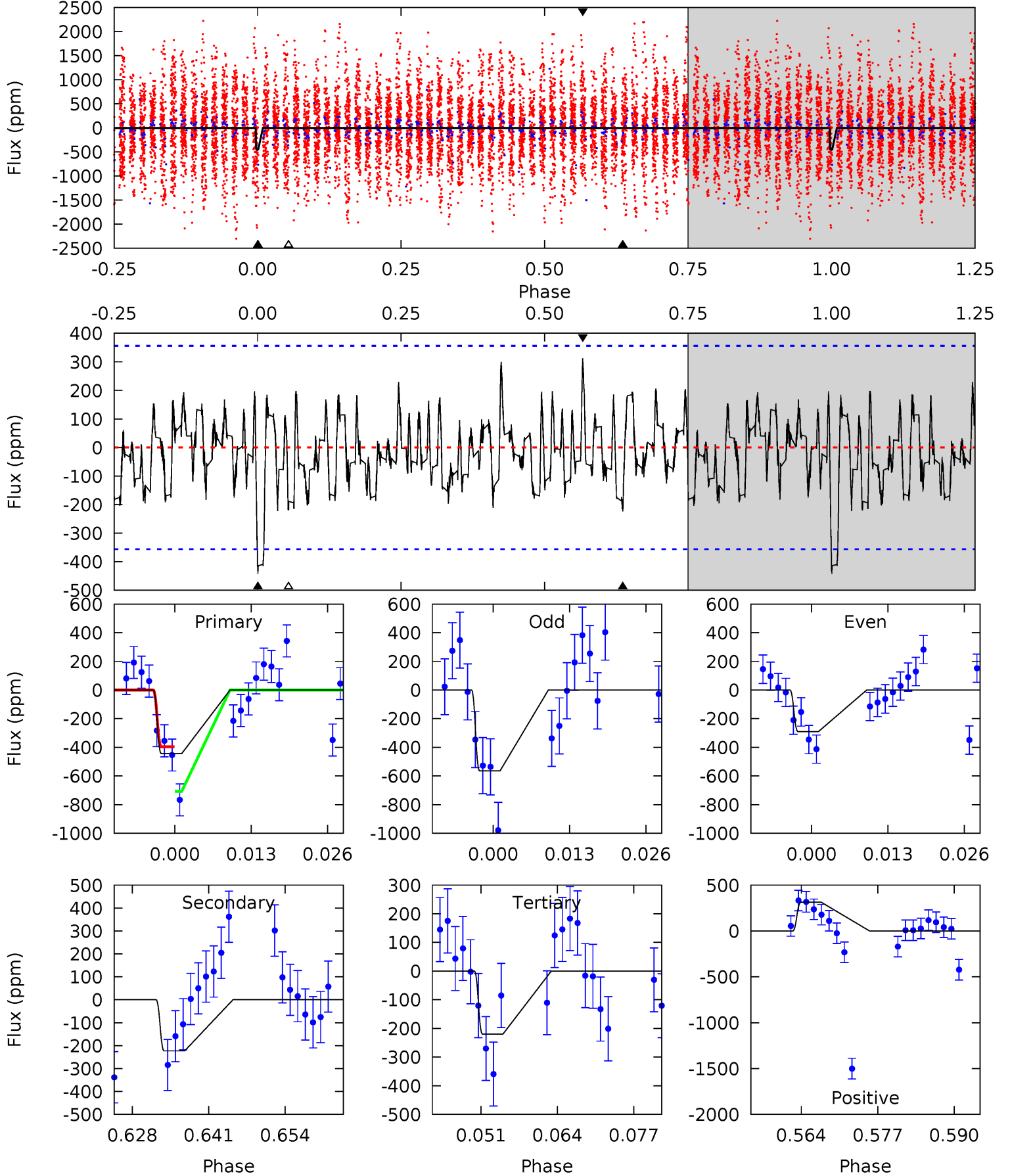
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	10.2	7.92	7.53	5.11	2.73	2.45	3.80	4.19	2.23	2.62	4.23	0.95	0.39	1.45



Alt Model-Shift Uniqueness Test

005823587-03, $P = 32.977790$ Days, $E = 112.880042$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.20	3.12	3.08	4.37	4.98	2.49	1.35	3.13	1.83	0.05	-1.25	1.93	0.94	0.41	1.46



Stellar Parameters For KIC 005823587

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6580^{+149}_{-215}	$4.377^{+0.060}_{-0.180}$	$-0.160^{+0.250}_{-0.300}$	$1.169^{+0.344}_{-0.138}$	$1.191^{+0.164}_{-0.147}$	$1.050^{+0.336}_{-0.527}$
	+2%/-3%	+1%/-4%	+156%/-188%	+29%/-12%	+14%/-12%	+32%/-50%
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 005823587-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-327 ± 32	$3.40^{+0.58}_{-0.46}$	964^{+61}_{-45}	5490^{+347}_{-290}	688^{+227}_{-184}
Alt.	-223 ± 71	$3.10^{+0.54}_{-0.48}$	964^{+64}_{-46}	5268^{+465}_{-488}	558^{+285}_{-222}

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 $A_{obs} \gg 1.0$

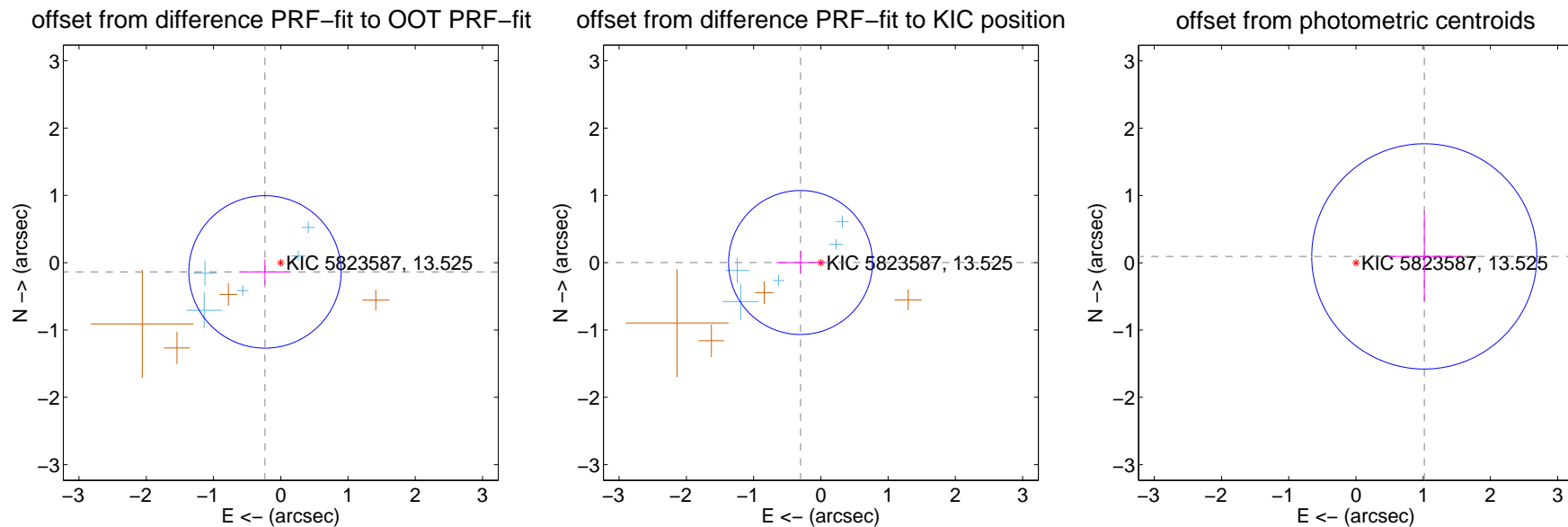
DV Centroid Data

Supplemental centroid analysis for 005823587-03. Kepler magnitude: 13.53. Transit SNR 7.65

There are 5 quarters with good PRF difference image offsets

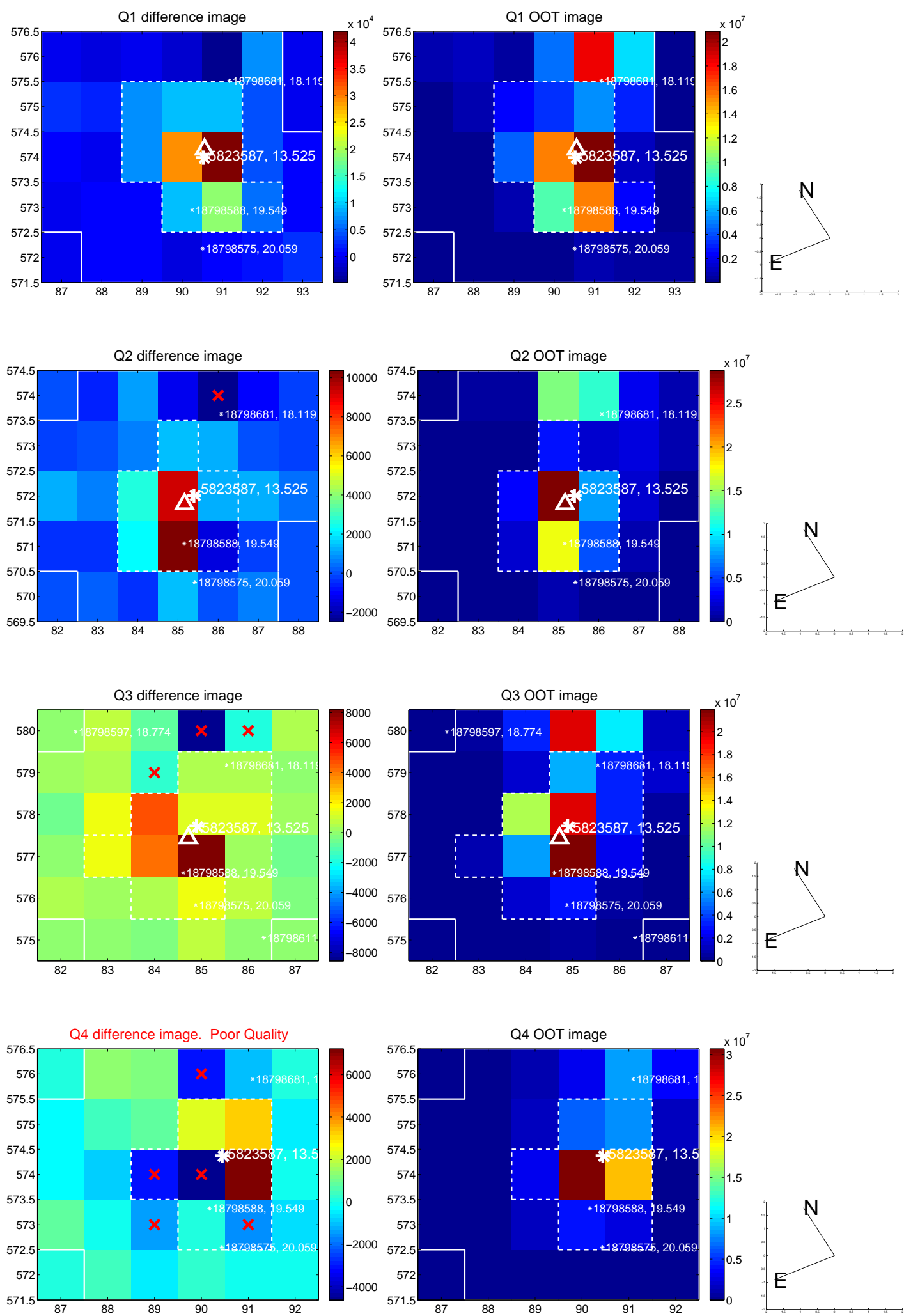
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.271 ± 0.377	0.72	0.234 ± 0.371	-0.137 ± 0.184
PRF-fit source offset from KIC position	0.303 ± 0.357	0.85	0.303 ± 0.357	0.003 ± 0.171
photometric centroid source offset	1.02 ± 0.56	1.83	-1.02 ± 0.56	0.09 ± 0.67

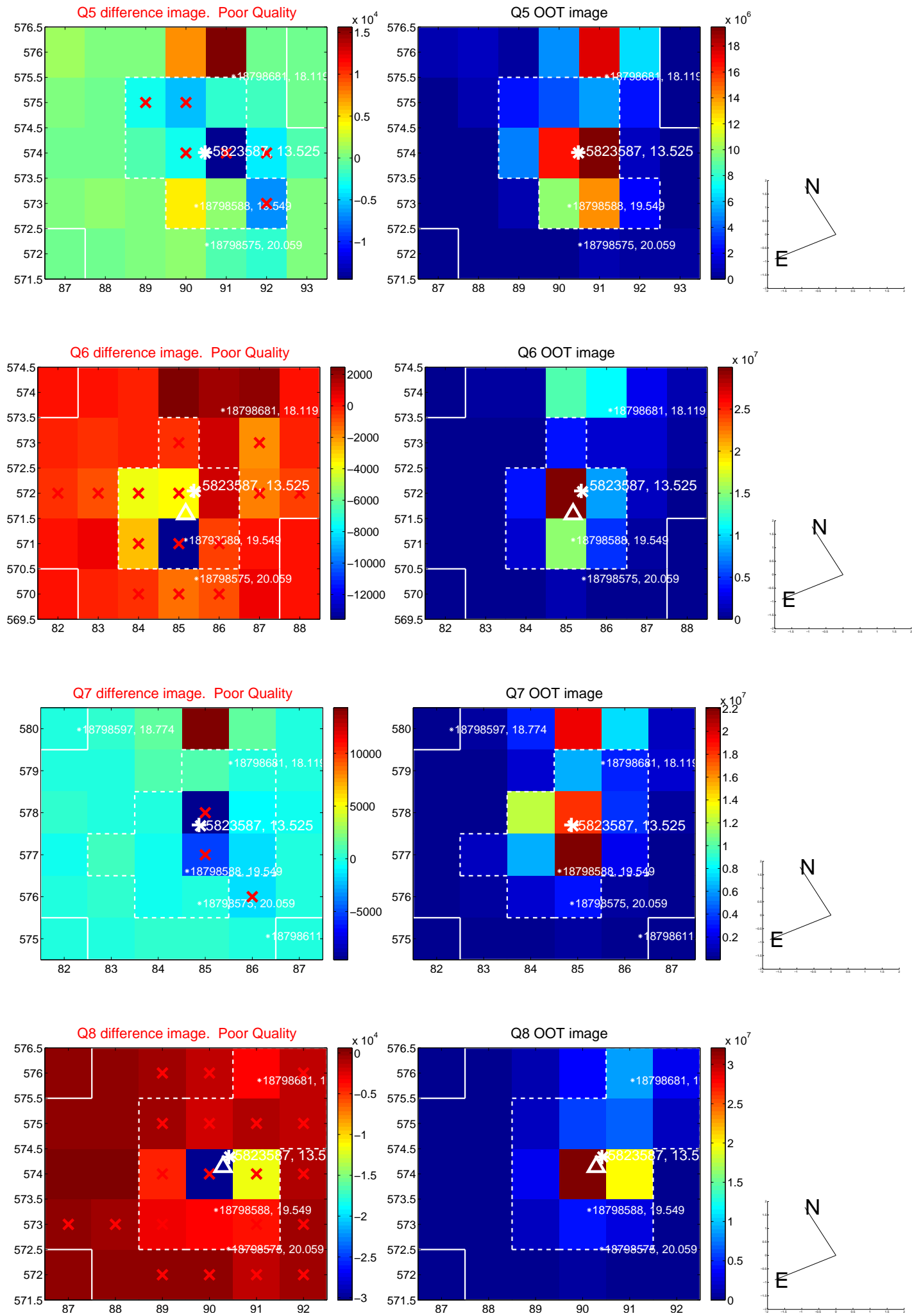


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

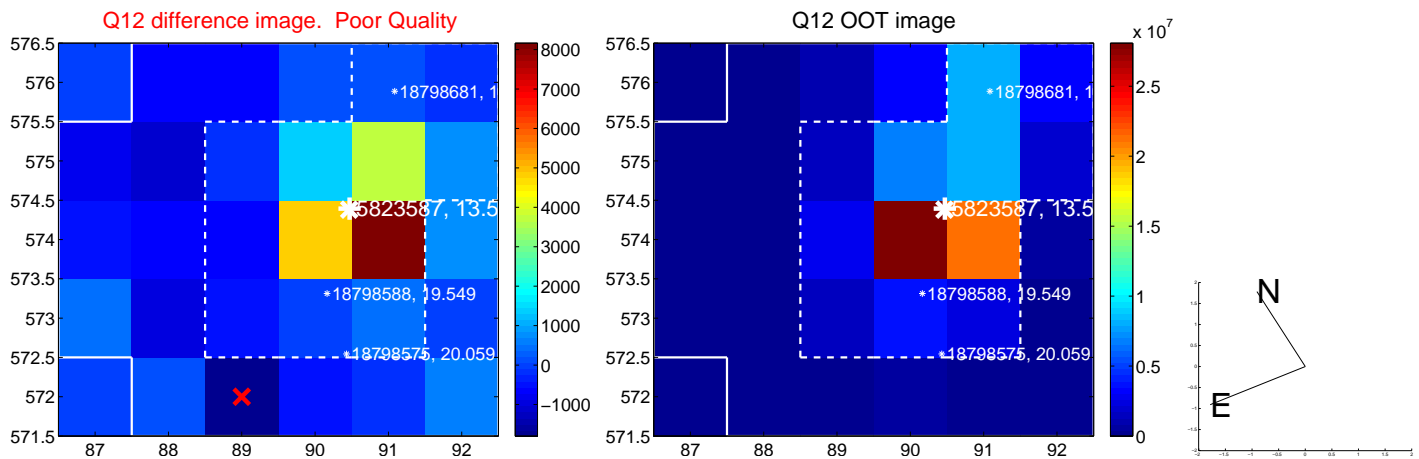
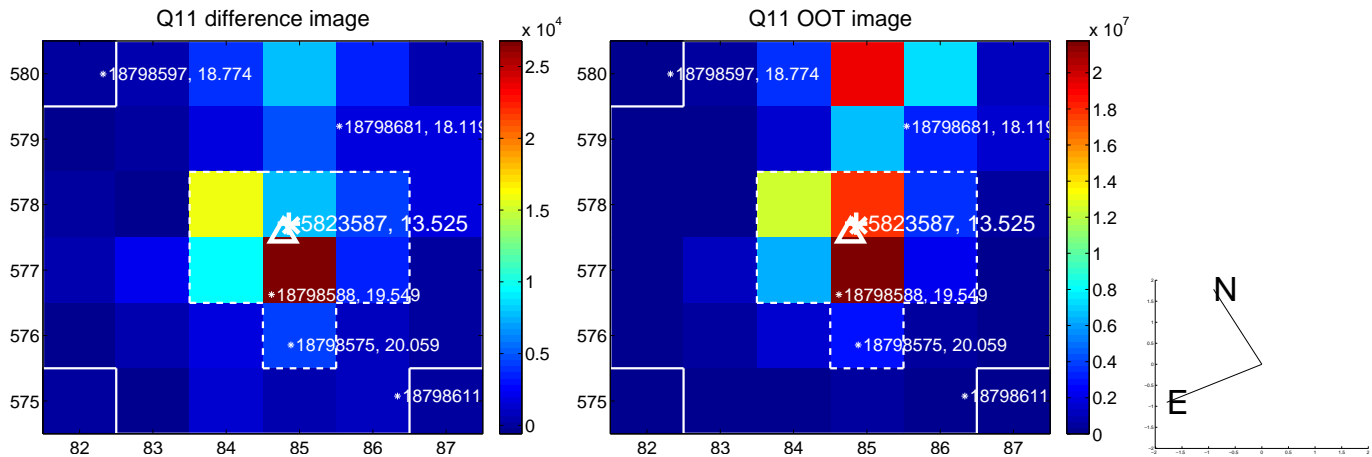
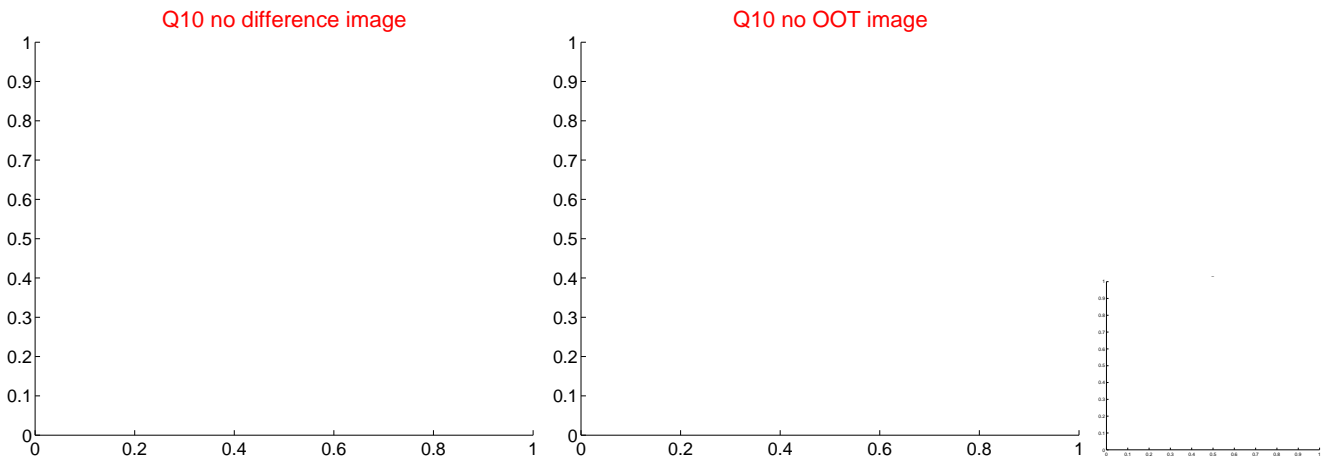
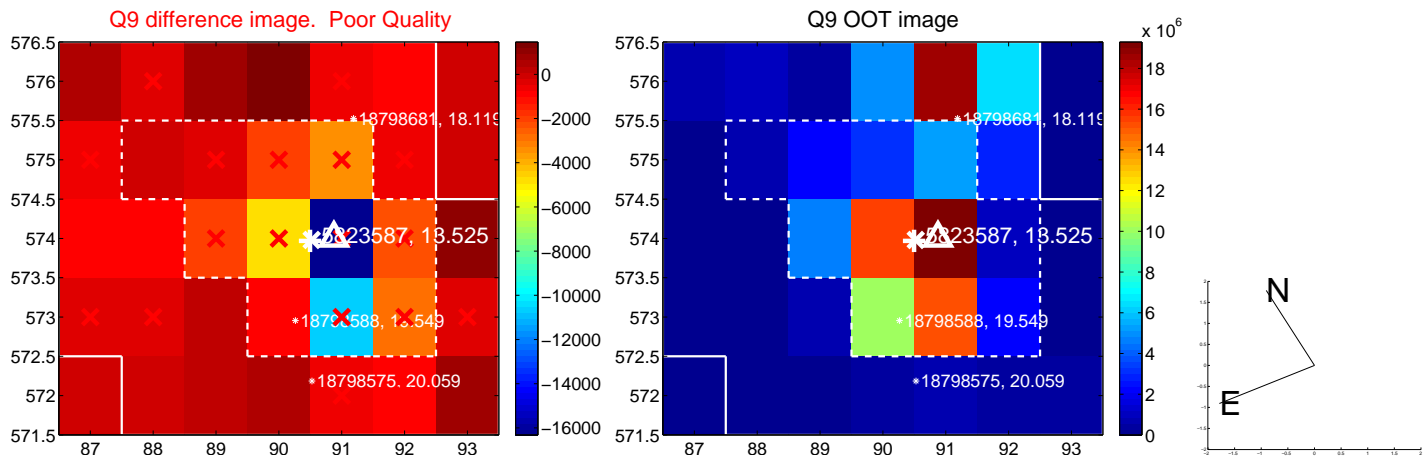
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



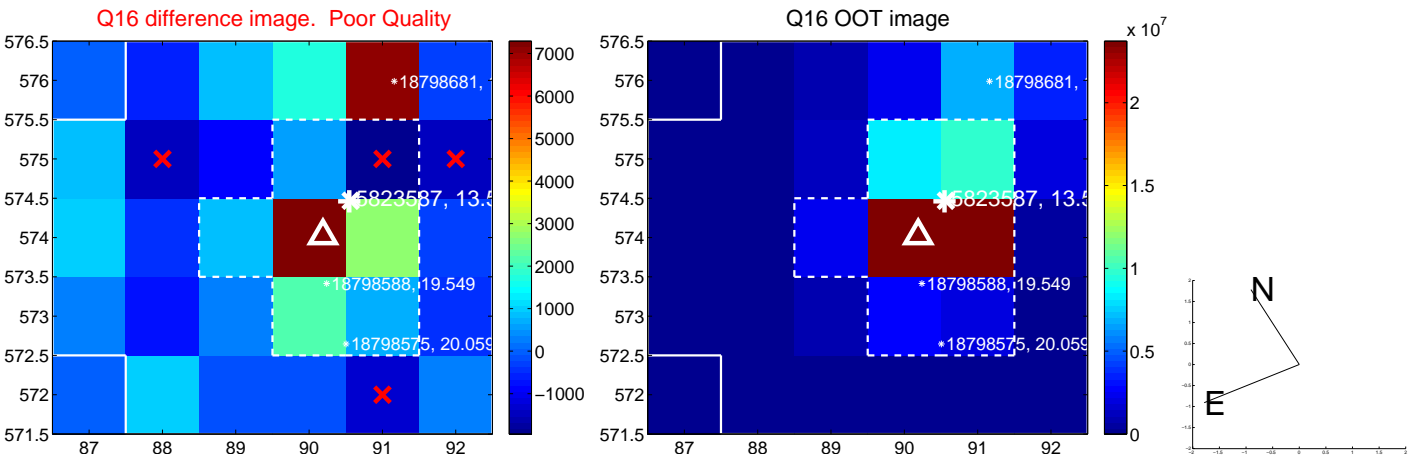
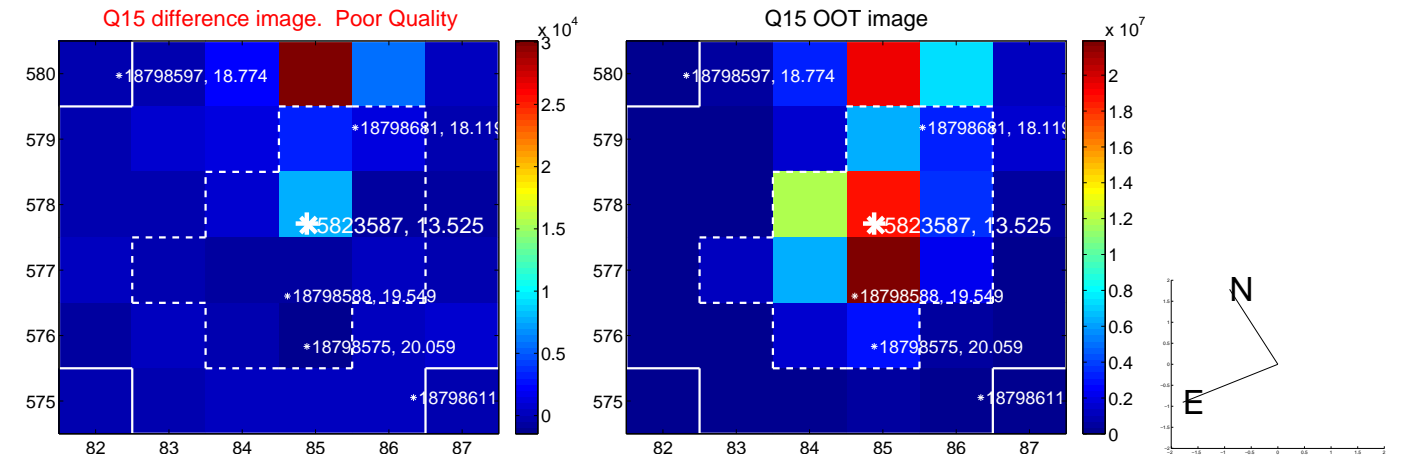
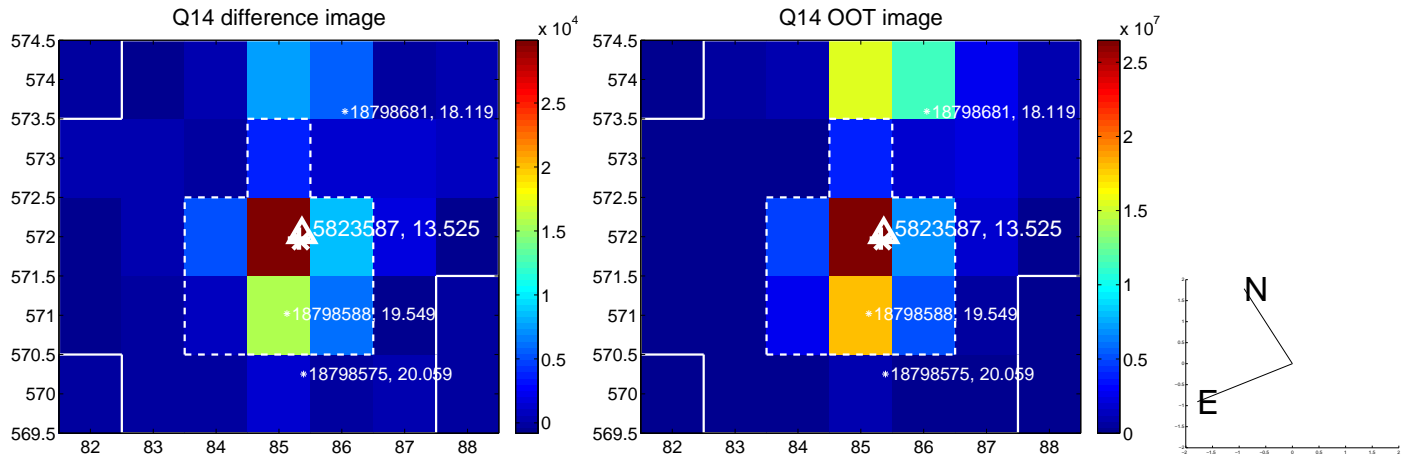
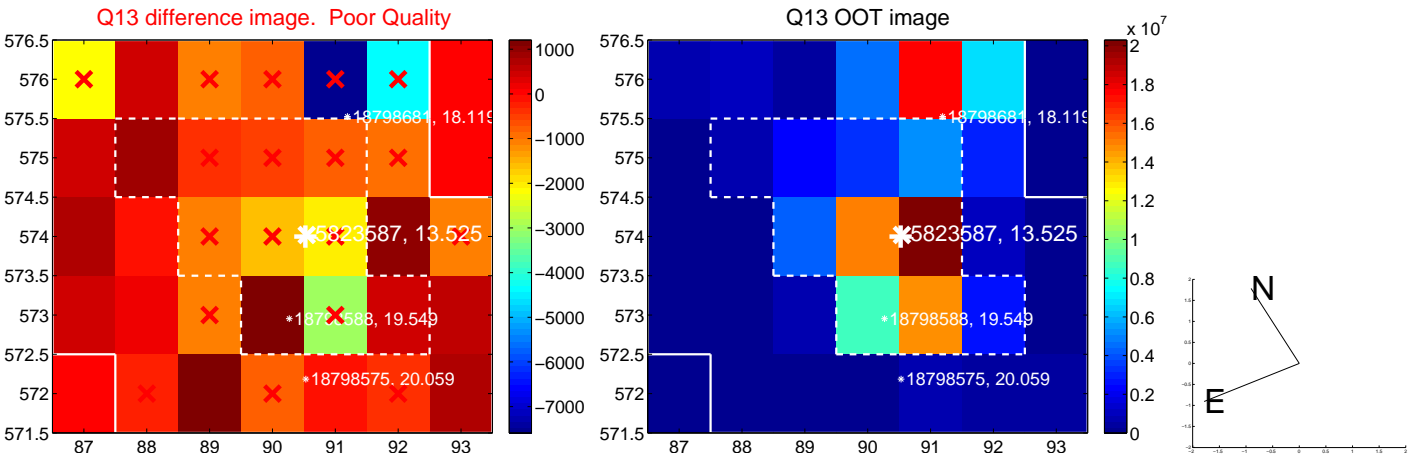
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



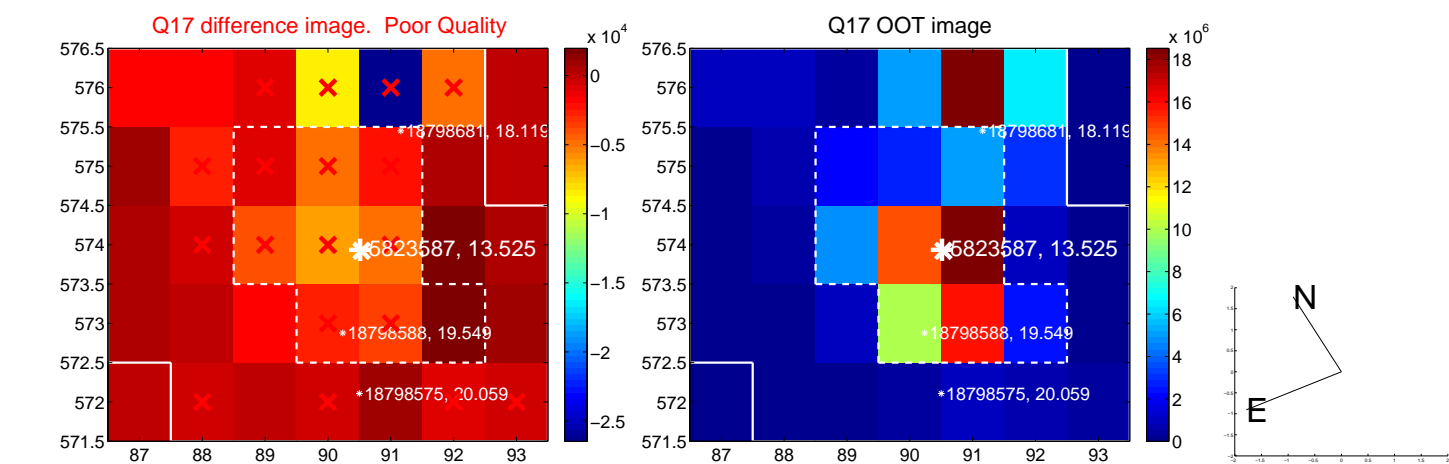
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



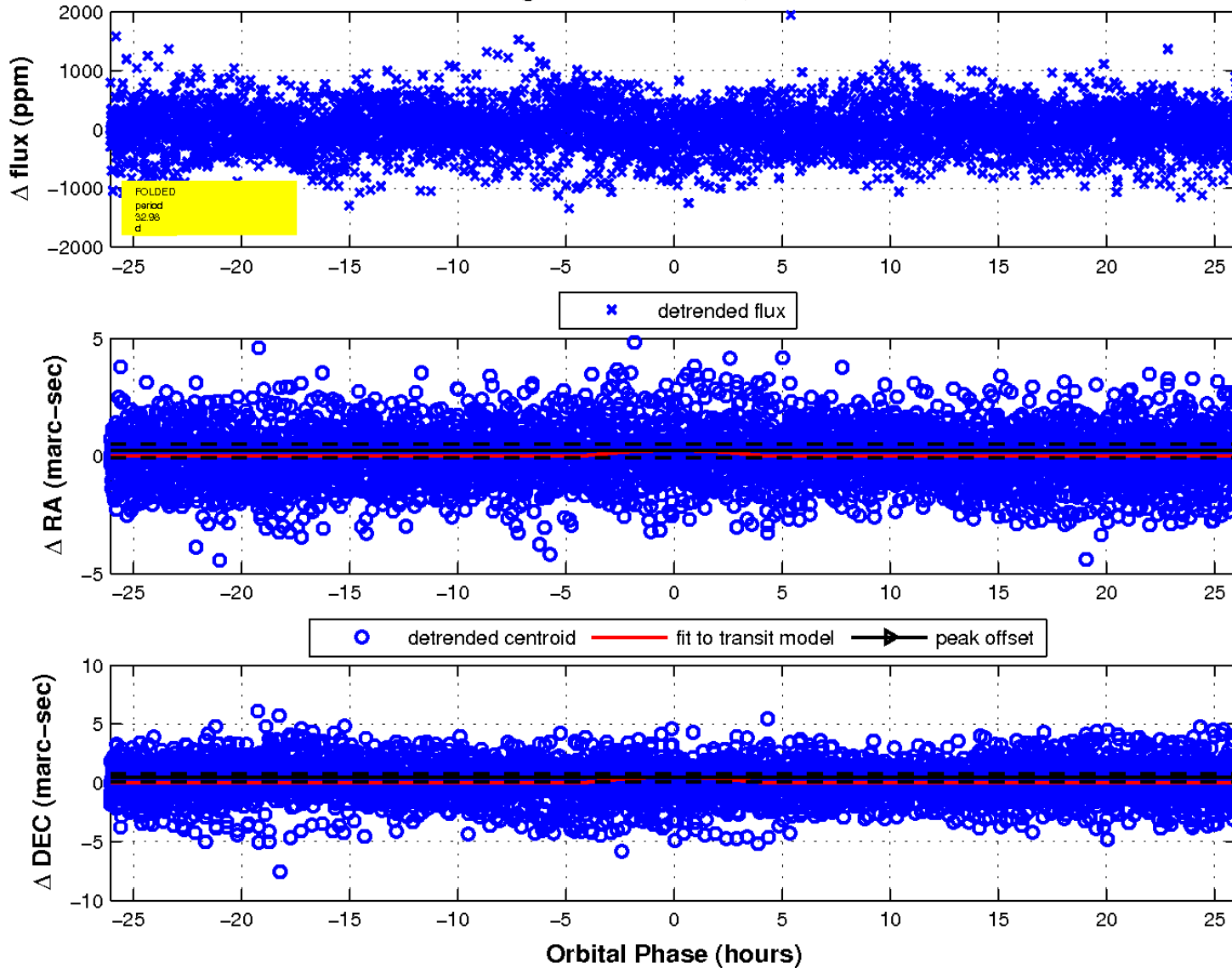
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

